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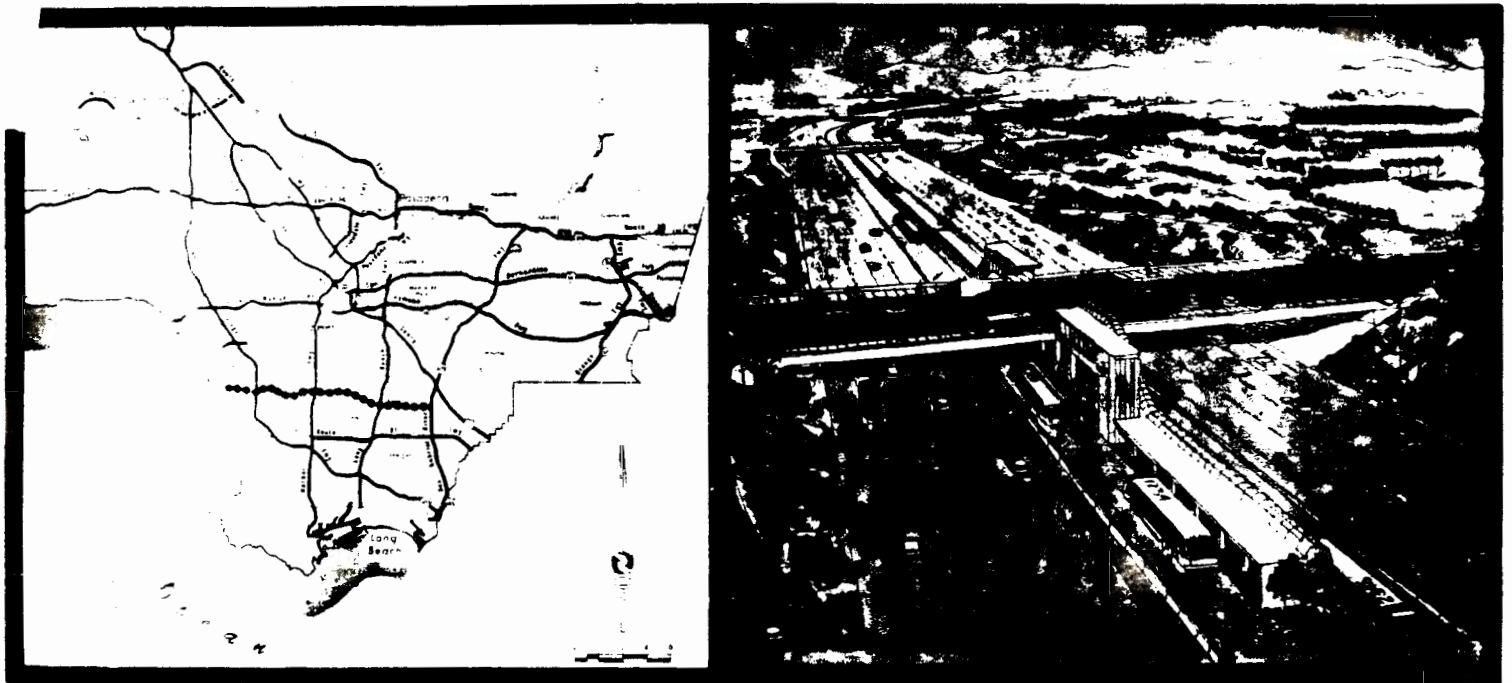
**ENVIRONMENTAL IMPACT STATEMENT**

for

**THE PROPOSED ROUTES 1 & I-105**

**(EL SEGUNDO-NORWALK)**

**FREEWAY - TRANSITWAY**



**VOL. I Environmental Assessment & Sec. 4(f) Statement**

U.S. Department of Transportation  
Federal Highway Administration  
and  
California Business & Transportation Agency  
Department of Transportation

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Report Number: FHWA-CA-EIS-74-14-F  
Federal Highway Administration  
Region 9

SCH Number 74123062

FREEWAY-TRANSITWAY DEVELOPMENT ON ROUTE 07-LA-1/105  
25.9 to 26.9; R1.80 to R19.02  
IN THE COUNTY OF LOS ANGELES BETWEEN  
0.8 MILE WEST OF SEPULVEDA BOULEVARD AND INTERSTATE ROUTE 605

ADMINISTRATIVE ACTION  
FINAL  
ENVIRONMENTAL IMPACT STATEMENT

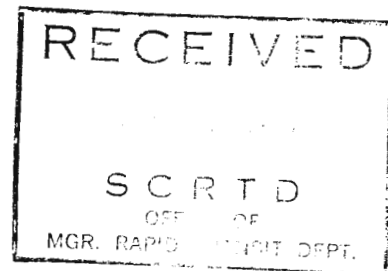
U. S. DEPARTMENT OF TRANSPORTATION  
Federal Highway Administration  
and  
THE STATE OF CALIFORNIA  
Department of Transportation

Submitted pursuant to:

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42 U.S.C. 4332(2)(C)  
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49 U.S.C. 1653(f)  
16 U.S.C. 470(f)

and

(State)  
Division 13 Public Resources Code



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7/21/77

Date

James R. Gordon  
JAMES R. GORDON  
Chief, Environmental Planning

Date

F. E. HAWLEY  
Regional Federal Highway Administrator



## PREFACE

This document is one of two volumes which together constitute the Final Environmental Impact Statement (FEIS) for the El Segundo-Norwalk (Interstate 105) Transportation Corridor.

An EIS is required by the National Environmental Policy Act of 1969 (NEPA) and by the California Environmental Quality Act of 1970 (CEQA) on proposed projects or actions which could have significant effect on man's environment.

This Final EIS is the culmination of a recent environmental reassessment and a transportation study which began in 1972. The preliminary results of this study, which considered a number of conceptual, locational and design alternatives, are contained in a Draft Environmental Impact Statement (DEIS) which was released for public review and comment on December 19, 1974. In addition to the Draft Statement, ten public hearings were conducted in 1975 to further acquaint the public with the studies, and to elicit further public comment.

As a result of the studies, written and oral comment received on the Draft or at the public hearings, this Final Statement has been prepared. While the Draft EIS is a single volume, this Final EIS consists of two volumes. Volume I is to a considerable extent a modification of the Draft. Changes have been marked with a line in the outside margin, for the benefit of a reader already familiar with the Draft who merely desires to review these changes.

Also, in the DEIS, the description and discussion of the Freeway-Transitway was for the location as originally adopted by the California Highway Commission. A major alternative location then under study, for a portion of the route in and near the City of Hawthorne, was discussed under a subheading entitled, "Hawthorne Variation". In this Final EIS, the discussion of the proposed project is for the original adopted location, except in the Hawthorne area where a modification of the alternative location discussed in the DEIS is proposed.

Included at the back of Volume I is a Section 4(f) Statement. Section 4(f) of the Department of Transportation Act of 1968 requires that special attention be given to the preservation of parks, recreation lands, and historical sites. The Section 4(f) Statement includes the analysis, consideration and documentation given to these facilities. A Draft Section 4(f) Statement was circulated for comment on May 14, 1976.

Volume II of the Final EIS consists of the verbatim text of written or oral comments received in response to the Draft EIS and at public hearings. These comments are separated into two categories. The first Category consists of those comments requiring a response. These comments are handled in one of two ways. Either they are addressed completely in Volume II itself, or by revisions in the text of Volume I. In this latter case, an appropriate reference is noted in Volume II for the benefit of the reader.

The second Category of comments are those which do not require a response. These comments have been included in the Final EIS to complete the record.

At the back of Volume II is an Appendix. It includes supplemental data of importance to a full understanding of the proposed Project and its impacts.

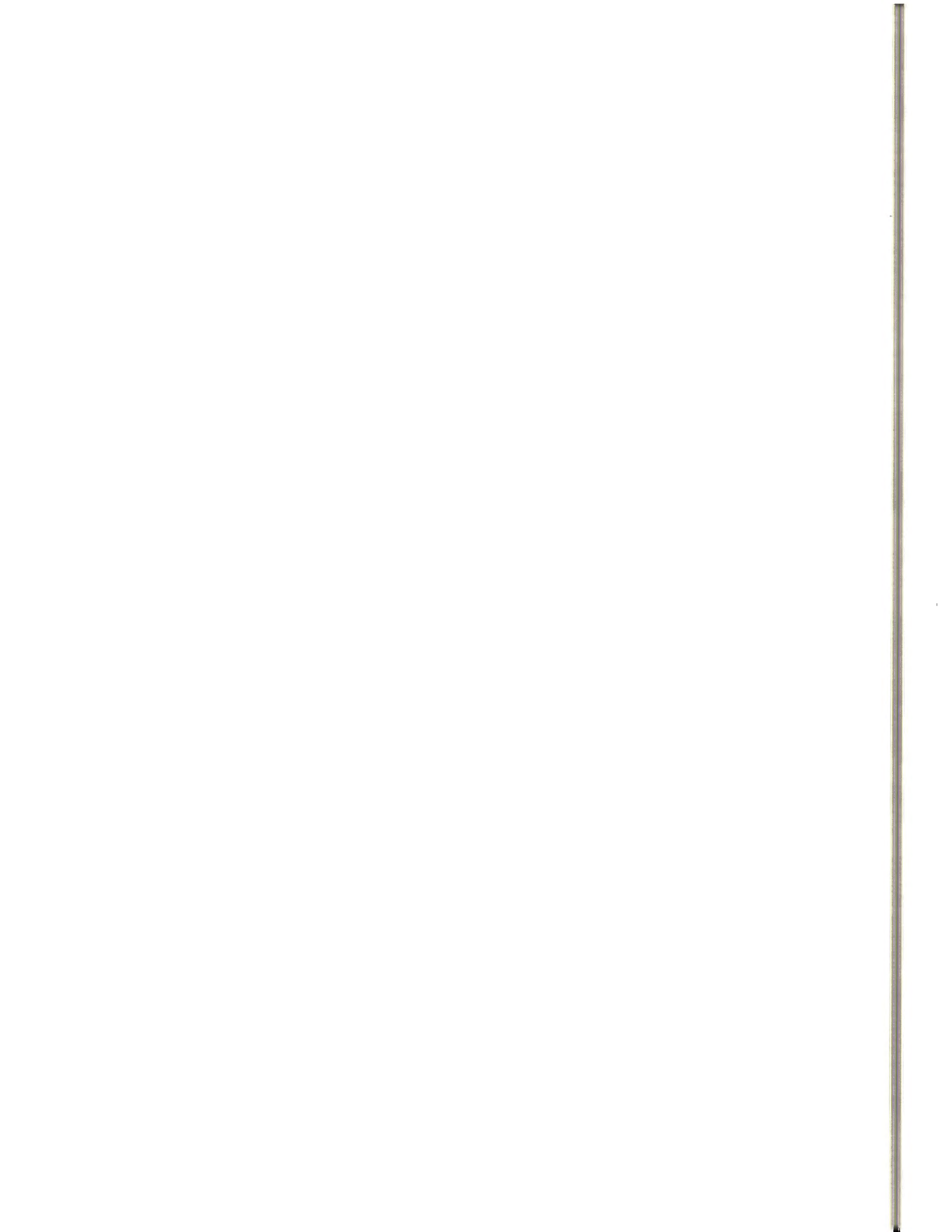


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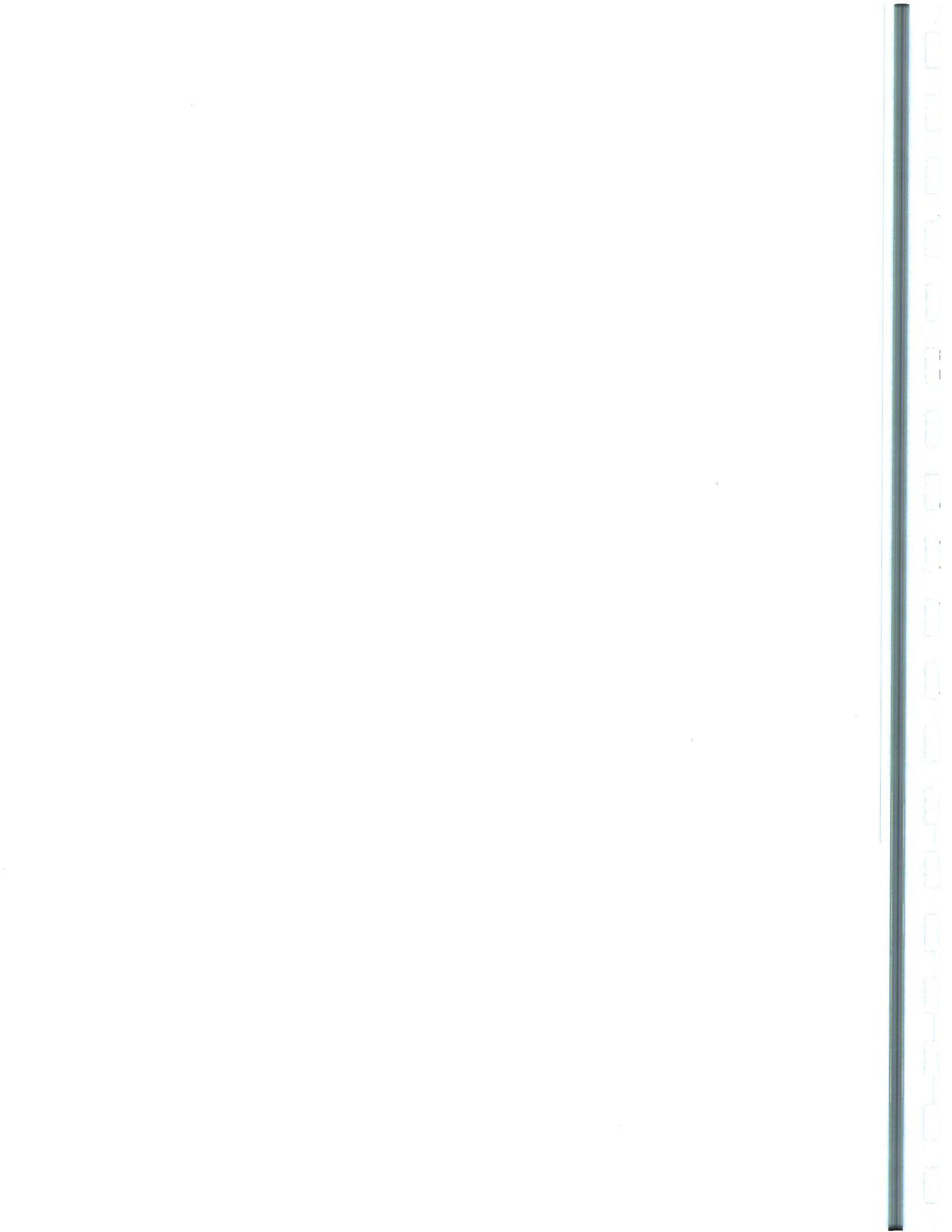
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S - SUMMARY



SUMMARY OF  
FINAL ENVIRONMENTAL IMPACT STATEMENT  
FOR  
FEDERAL HIGHWAY ADMINISTRATIVE ACTION

A. ADMINISTRATIVE ACTION

- ( ) Draft ( x ) Final  
( x ) Section 4(f) Statement Attached

The following people may be contacted for additional information:

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Sacramento, CA 95809  
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1. BRIEF DESCRIPTION OF TRANSPORTATION IMPROVEMENT

The proposed improvement is the construction of the Route 105 Interstate Freeway-Transitway, as an 8-lane fully access-controlled highway, between Sepulveda Boulevard near Los Angeles International Airport (LAX) and the Route 605 Interstate Freeway in the City of Norwalk; and construction on State Route 1 of a multi-lane end of freeway transition west of Sepulveda Boulevard just south of Los Angeles International Airport.

The basic right-of-way width is 320 feet, which includes provisions for public transit facilities in the median area of the project.

Southern California Rapid Transit District (SCRTD), the agency responsible for public transit development in the Los Angeles area, has designated the I-105 Transportation Corridor as one element (a busway) in its Regional System of Transit Corridors, adopted in July 1974.

Basic facilities for a busway, including pavement for exclusive lanes, passenger loading platforms and parking lots, would be constructed and financed by Caltrans and the Federal Highway Administration, conditioned on the timely commitment of the Regional Transit District to implement other necessary facilities and equipment to ensure a viable operating transitway.

Although the transitway is conceived as a busway, it could be implemented as a rail facility if broad public support develops. In this event, however, financing would probably involve sources other than State and Federal Highway Funds.

The Project will be operated consistent with prevailing State and Regional Transportation Plans. At present, these plans stress the need for an improvement in air quality and energy conservation. Were the Project to be placed in operation today, it would probably entail designation of a high-occupancy lane adjacent to the median for buses and carpools; a buffer lane; three lanes each way for trucks and the remainder of personal vehicles; and ramp metering for preferential treatment of buses and carpools, as well as to ensure free-flow conditions on the facility. The actual method of operation will be determined on the basis of an environmental assessment, made immediately prior to opening the entire facility to traffic.

The transportation corridor traversed by this project consists largely of flat urban landscape, fully developed and predominantly residential in nature although some commercial and manufacturing areas exist at various locations.

The project length is 17.2 miles on Route 105 and 0.4 mile on Route 1. Varying lengths of work occur on the four existing freeways which intersect Route 105.

The proposed project is on new location for the most part and is designed, where feasible, to be depressed through residential areas and elevated in commercial or manufacturing areas. The location proposed is as shown on Figure 1-2.

No other proposed Federal actions are included in this Statement.

## 2. BACKGROUND

Both the Route 105 Freeway and the Coastal Freeway (State Route 1) were formally included by the Legislature in the California Freeway and Expressway System in 1959. After extensive hearings, the California Highway Commission adopted by segments, the location of this freeway between 1965 and 1970. In 1968 the entire route was made part of the National System of Interstate and Defense Highways.

On the basis of 1969 and 1970 Design Hearings, the Federal Highway Administration (FHWA) gave approval to the location and major design features, authorized acquisition of whole parcels of property for the entire length of the Route 105 project and approved the location of this section of State Route 1. All required freeway agreements between the State and affected Cities and the County have been executed (a total of 25), with the exception of Hawthorne and an agreement pending with the City of Los Angeles for a small portion of the project near LAX.

The project has progressed to the point where its impact is very evident, physically, in the corridor. Over 70% of the right-of-way has been acquired; substantial tracts of vacant land exist where buildings have been cleared, 45% of the property in all. A number of community facilities, including one park and three elementary schools, have been acquired, and their relocations or replacements are in progress. About 1,600 dwelling units remain standing, but are vacant and boarded-up.

In response to the enactment in 1970 of the National Environmental Policy Act (NEPA) the Federal Department of Transportation reviewed ongoing projects such as the I-105. It was determined that the I-105 Project had been developed in such a manner as to give detailed consideration to the impact upon the human environment. However, it was subsequently concluded by the FHWA in 1972 that a detailed Environmental Impact Statement (EIS) should be prepared.

A suit (Keith, et al vs. Volpe, et al) was filed (February 16, 1972) in Federal District Court, Los Angeles, which resulted in a preliminary injunction, enjoining State and Federal officials from further development of the project, pending preparation of a formal Environmental Impact Statement. This injunction is presently in force until completion of the EIS processes.

An environmental reassessment of the project, in conformance with NEPA and the California Environmental Quality Act (CEQA), resulted in the preparation of a Draft EIS which was released for public comment on December 19, 1974.

During 1975, a series of public hearings were conducted within the I-105 Corridor to receive public comment on the conceptual alternatives considered in the Draft EIS. However, during the months following release of the DEIS, and immediately preceding the hearings, significant changes at the regional planning level (a greatly reduced population prediction and proposed constraints on auto traffic travel for air quality improvements) resulted in a reduction of traffic forecasts for the I-105 Transportation Corridor. The reduced forecasts, proposed designs, and their relative effect on the socioeconomic and environmental impacts of the DEIS conceptual alternatives were presented at these public hearings. It was at this time the scope of the Project was revised from 10 to 8 lanes.

The City of Hawthorne, although stating that a freeway was needed in the corridor, objected to the freeway's adopted location in the Western portion of the City. As a result of a continuing effort to resolve this issue, the California Highway Commission held location public hearings on April 23, 1975 and August 27, 1975 to consider two alternate locations suggested by Hawthorne for the Freeway-Transitway.



The Project as discussed in this EIS is on the location proposed at the August 27th hearing (see Exhibit 6a).

### 3. SUMMARY OF ENVIRONMENTAL IMPACTS

Beneficial impacts are:

- a. Improves the efficiency and service of the Interstate System of freeways by providing an intra-urban connection between existing Interstate Routes.
- b. Improves the regional freeway system by providing a needed link which redistributes and balances freeway traffic volumes, thereby relieving congestion on adjacent freeway routes.
- c. Provides needed additional access to Los Angeles International Airport.
- d. Provides a relatively efficient and safe high-speed facility for the movement of people and goods through this fully developed urban area.
- e. Provides an additional traffic arterial which will reduce traffic and congestion on local streets.
- f. Provides improved access to regional, commercial, business and public facilities such as parks and recreational areas.
- g. Provides improved accessibility to areas of employment opportunities.
- h. Provides right-of-way for public transit facilities. (Median busway/fixed guideway facility.)
- i. Provides a basis for improved long-range regional and community land use planning and development, and permits past and present regional and community planning and development, which has been predicated on the service of this facility, to proceed.
- j. Removes the impacts associated with the partially acquired and cleared right-of-way, and the vacant buildings existing in the right-of-way.
- k. Provides opportunity for increased local tax base over long-term due to opportunity for recycling older and blighted areas into better use.
- l. Provides opportunities for desirable and beneficial railroad relocations and improvements.
- m. Provides opportunities for school relocations and improvements.
- n. Provides a substantial improvement in air quality in the corridor with respect to carbon monoxide (CO).
- o. Provides reduced noise levels on corridor arterials due to diversion of traffic to the facility.
- p. Provides opportunities for joint use of project rights-of-way by private developers or public agencies.
- q. Provides opportunities for communities to develop additional parks or recreation areas on excess project lands.

Adverse impacts are:

- a. Acquisition of developed property resulting in inconvenience due to initial displacement of people and businesses.
- b. A reduction of living units (0.25%) in Los Angeles region due to removal of housing from the project right-of-way.
- c. Initial loss of local tax base due to removal of tax producing property in right-of-way.

- d. Concentration of air pollution (CO) immediately adjacent to the facility. (However, CO air quality standards to protect public health will still be met.)
- e. Increased noise levels in many locations along facility. (At most locations, mitigation to standards will be accomplished.)
- f. Temporary inconvenience to public traffic due to detours and potential air and noise pollution increase during construction.
- g. Acquisition of park, recreation and historic land. (Acquisition will be mitigated with replacement or to satisfaction of affected agencies.)
- h. A slight (0.9%) increase in total regional transportation-related energy requirements.
- i. Possibility of damage to project facility from seismic activity.
- j. Loss of community cohesion at some locations due to division of established neighborhoods.
- k. Temporary disruption of some public and community facilities until replacement or relocation is accomplished.
- l. Commitment of the land to a transportation use for the foreseeable future.

#### 4. SUMMARY OF ALTERNATIVES CONSIDERED

##### No Project

This means halting all further project activity, ("wind down" the Project), settle current commitments and initiate a program to dispose of property acquired for the Project. Existing and future traffic needs would be left unsolved for both the region and the corridor.

##### Select a Totally Different or Partially Different Freeway Route Location

This would require new designs for the freeway on new location, new freeway agreements and new performance agreements with local jurisdictions. Current and future development planning by local jurisdictions would be affected.

Due to the Project's advanced state, for most of its length, a totally different route location would significantly increase social and economic impacts and result in no significant differences in environmental impacts.

A partially different route location proposed by Hawthorne and commonly known as the "Imperial Line," mitigates loss of community cohesion by enhancing identification of community boundaries, but with some increase in impacts associated with property acquisition. A slight variation of this location, known as the "Bell Line," was considered in detail in the DEIS. The Imperial Line is not significantly different in transportation, socioeconomic or environmental terms from the Bell Line included in the DEIS.

##### Different Freeway Design on Adopted Location

This alternative was not included in the DEIS because the project design had originally been developed in close cooperation with affected jurisdictions as well as presented at many early public hearings and meetings; and there had been, at that time, no proposals or justification for a revised design.

As a result of the regional planning decisions noted earlier, which influenced future traffic projections, a new design is proposed. This design and related transportation, socioeconomic and environmental factors were subsequently covered in the location/design public hearings of March and April 1975.

### Exclusive Busway

This means transit only in the corridor and would probably be implemented by local or regional transit authorities.

An Exclusive Busway is considered as the most realistic, initial transit mode for this corridor, based on population densities and transit ridership projections.

(It should be noted, however, that a rail transit facility could be implemented. This would probably only occur as part of an interconnected regionwide system of rail transit. Such a system is not presently under consideration by regional transit planners.)

### Location Street Improvement Alternatives

#### a. Arterial Widening

Widening and operational improvements of existing State highways and local major or other city streets in the corridor would be done at selected locations in order to relieve corridor congestion under this alternative. This would involve coordinated State and local jurisdiction projects.

#### b. Grade Separated Intersections (Mini-Freeway Concept)

This involves separating selected intersecting major streets by taking east-west major streets over or under north-south major streets and prohibiting all but right turns to and from the east-west major streets during peak hours. This would approach freeway operating characteristics on the selected east-west major streets. This alternative, like the Arterial Widening, would involve coordinated State and local jurisdiction projects.

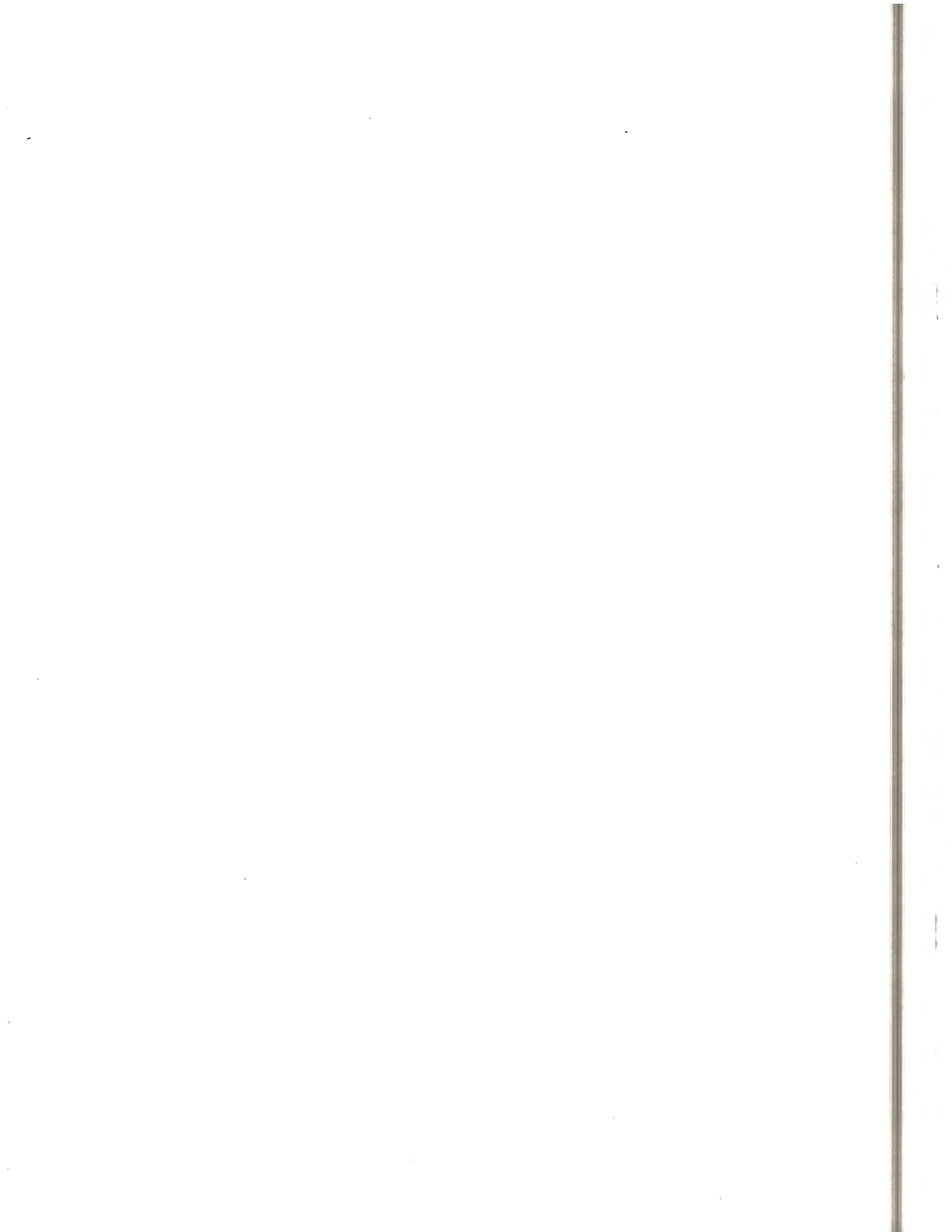
### Combination Busway and Local Street Improvement Alternatives

These alternatives would combine the Exclusive Busway with either the Arterial Widening or the Grade Separated Intersection proposals. This would involve coordination between the Transit Authority, and State and local jurisdiction projects.

## 5. DRAFT ENVIRONMENTAL IMPACT STATEMENT DISTRIBUTION

The Draft Environmental Impact Statement (DEIS) was made available to the Council on Environmental Quality on December 20, 1974. The DEIS was distributed to Federal, State, and local agencies and officials, interested organizations, civic groups, and individuals as listed in Appendix A.

Comments and recommendations received in response to the DEIS or at the public hearings are compiled in Volume II of this Final EIS. Those comments which were substantive are addressed, and where appropriate, references to applicable sections of Volume I are noted.







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FINAL ENVIRONMENTAL IMPACT STATEMENT  
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The City of Hawthorne, although stating that a freeway was needed in the corridor, objected to the freeway's adopted location in the Western portion of the City. As a result of a continuing effort to resolve this issue, the California Highway Commission held location public hearings on April 23, 1975 and August 27, 1975 to consider two alternate locations suggested by Hawthorne for the Freeway-Transitway.



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- a. Improves the efficiency and service of the Interstate System of freeways by providing an intra-urban connection between existing Interstate Routes.
- b. Improves the regional freeway system by providing a needed link which redistributes and balances freeway traffic volumes, thereby relieving congestion on adjacent freeway routes.
- c. Provides needed additional access to Los Angeles International Airport.
- d. Provides a relatively efficient and safe high-speed facility for the movement of people and goods through this fully developed urban area.
- e. Provides an additional traffic arterial which will reduce traffic and congestion on local streets.
- f. Provides improved access to regional, commercial, business and public facilities such as parks and recreational areas.
- g. Provides improved accessibility to areas of employment opportunities.
- h. Provides right-of-way for public transit facilities. (Median busway/fixed guideway facility.)
- i. Provides a basis for improved long-range regional and community land use planning and development, and permits past and present regional and community planning and development, which has been predicated on the service of this facility, to proceed.
- j. Removes the impacts associated with the partially acquired and cleared right-of-way, and the vacant buildings existing in the right-of-way.
- k. Provides opportunity for increased local tax base over long-term due to opportunity for recycling older and blighted areas into better use.
- l. Provides opportunities for desirable and beneficial railroad relocations and improvements.
- m. Provides opportunities for school relocations and improvements.
- n. Provides a substantial improvement in air quality in the corridor with respect to carbon monoxide (CO).
- o. Provides reduced noise levels on corridor arterials due to diversion of traffic to the facility.
- p. Provides opportunities for joint use of project rights-of-way by private developers or public agencies.
- q. Provides opportunities for communities to develop additional parks or recreation areas on excess project lands.

Adverse impacts are:

- a. Acquisition of developed property resulting in inconvenience due to initial displacement of people and businesses.
- b. A reduction of living units (0.25%) in Los Angeles region due to removal of housing from the project right-of-way.
- c. Initial loss of local tax base due to removal of tax producing property in right-of-way.

- d. Concentration of air pollution (CO) immediately adjacent to the facility. (However, CO air quality standards to protect public health will still be met.)
- e. Increased noise levels in many locations along facility. (At most locations, mitigation to standards will be accomplished.)
- f. Temporary inconvenience to public traffic due to detours and potential air and noise pollution increase during construction.
- g. Acquisition of park, recreation and historic land. (Acquisition will be mitigated with replacement or to satisfaction of affected agencies.)
- h. A slight (0.9%) increase in total regional transportation-related energy requirements.
- i. Possibility of damage to project facility from seismic activity.
- j. Loss of community cohesion at some locations due to division of established neighborhoods.
- k. Temporary disruption of some public and community facilities until replacement or relocation is accomplished.
- l. Commitment of the land to a transportation use for the foreseeable future.

#### 4. SUMMARY OF ALTERNATIVES CONSIDERED

##### No Project

This means halting all further project activity, ("wind down" the Project), settle current commitments and initiate a program to dispose of property acquired for the Project. Existing and future traffic needs would be left unsolved for both the region and the corridor.

##### Select a Totally Different or Partially Different Freeway Route Location

This would require new designs for the freeway on new location, new freeway agreements and new performance agreements with local jurisdictions. Current and future development planning by local jurisdictions would be affected.

Due to the Project's advanced state, for most of its length, a totally different route location would significantly increase social and economic impacts and result in no significant differences in environmental impacts.

A partially different route location proposed by Hawthorne and commonly known as the "Imperial Line," mitigates loss of community cohesion by enhancing identification of community boundaries, but with some increase in impacts associated with property acquisition. A slight variation of this location, known as the "Bell Line," was considered in detail in the DEIS. The Imperial Line is not significantly different in transportation, socioeconomic or environmental terms from the Bell Line included in the DEIS.

##### Different Freeway Design on Adopted Location

This alternative was not included in the DEIS because the project design had originally been developed in close cooperation with affected jurisdictions as well as presented at many early public hearings and meetings; and there had been, at that time, no proposals or justification for a revised design.

As a result of the regional planning decisions noted earlier, which influenced future traffic projections, a new design is proposed. This design and related transportation, socioeconomic and environmental factors were subsequently covered in the location/design public hearings of March and April 1975.

### Exclusive Busway

This means transit only in the corridor and would probably be implemented by local or regional transit authorities.

An Exclusive Busway is considered as the most realistic, initial transit mode for this corridor, based on population densities and transit ridership projections.

(It should be noted, however, that a rail transit facility could be implemented. This would probably only occur as part of an interconnected regionwide system of rail transit. Such a system is not presently under consideration by regional transit planners.)

### Location Street Improvement Alternatives

#### a. Arterial Widening

Widening and operational improvements of existing State highways and local major or other city streets in the corridor would be done at selected locations in order to relieve corridor congestion under this alternative. This would involve coordinated State and local jurisdiction projects.

#### b. Grade Separated Intersections (Mini-Freeway Concept)

This involves separating selected intersecting major streets by taking east-west major streets over or under north-south major streets and prohibiting all but right turns to and from the east-west major streets during peak hours. This would approach freeway operating characteristics on the selected east-west major streets. This alternative, like the Arterial Widening, would involve coordinated State and local jurisdiction projects.

### Combination Busway and Local Street Improvement Alternatives

These alternatives would combine the Exclusive Busway with either the Arterial Widening or the Grade Separated Intersection proposals. This would involve coordination between the Transit Authority, and State and local jurisdiction projects.

## 5. DRAFT ENVIRONMENTAL IMPACT STATEMENT DISTRIBUTION

The Draft Environmental Impact Statement (DEIS) was made available to the Council on Environmental Quality on December 20, 1974. The DEIS was distributed to Federal, State, and local agencies and officials, interested organizations, civic groups, and individuals as listed in Appendix A.

Comments and recommendations received in response to the DEIS or at the public hearings are compiled in Volume II of this Final EIS. Those comments which were substantive are addressed, and where appropriate, references to applicable sections of Volume I are noted.



CHAPTER 1  
INTRODUCTION



## CHAPTER 1 - INTRODUCTION

The objective of this chapter is to present an overview and summarize the Environmental Impact Statement (EIS) in a thorough manner so that the complex issues involved can be clarified and the Interstate Route 105 (I-105) Project decision-making process assisted. Accordingly, the Project, its need and objective and current status are briefly covered. This is followed by a summary of the anticipated implications of the Project as well as each of the conceptual alternatives which were considered. These are presented in the form of scenarios of anticipated future conditions. Major issues related to the Project are identified and referenced to the body of the EIS for in-depth coverage. Finally, an evaluation summary is included for a quick comparison of the various impacts of the Project and the alternatives.

### 1.1 PROJECT DESCRIPTION

Interstate 105 (I-105) is proposed as a multimodal transportation facility. It would provide an eight-lane, 17.2-mile access-controlled highway with a public transitway in the median. I-105 would extend through the southern portion of Los Angeles County from the City of El Segundo on the west to the City of Norwalk on the east. Also traversed would be the Cities of Hawthorne, Inglewood, Los Angeles, Lynwood, South Gate, Paramount, Downey, and unincorporated areas of Los Angeles County.

At its western end, I-105 would be connected to the Los Angeles International Airport (LAX) and the local street system via a 0.4 mile segment of California State Route 1. Connectors from the freeway may eventually join a vehicular tunnel to the LAX passenger terminal area which is proposed by the LAX Plan element of the City of Los Angeles General Plan.

A minimum of 40 feet of right of way in the freeway median has been included for public transit use. It was assumed for the DEIS evaluation that this median area would be developed as an exclusive busway. For this Final EIS, an exclusive busway is still the most likely public transit mode which would initially be developed in the median. In this case it would subsequently be converted, if desired, to rail transit or any other advanced fixed guideway transit mode. Although the funding and implementation commitments necessary to develop such a transitway as part of I-105 have not been made by the responsible transit agencies, there is general support for the proposal.

In addition to the freeway and public transitway components of the Project, other related major features include interchanges with and widenings of the four north-south freeways which intersect the I-105 (Routes 405, 11, 7 and 605), interchanges with many local city streets, and relocation of the Southern Pacific Transportation Company rail lines in the central portion of the corridor.

Figures 1-1 and 1-2, which show the I-105 Project in the Los Angeles region and the corridor, illustrate the proposed alignment, and the associated widenings of the intersecting north-south freeways. Where the expressions "the Project," "I-105," or "I-105 Project" are subsequently used in this EIS, they shall mean the I-105 proposed alignment and related intersecting freeway work as delineated on Figures 1-1 and 1-2.

### 1.2 NEED FOR PROJECT (AND OBJECTIVE)

The I-105 Corridor and most of the Los Angeles region consists of a low-density heterogeneous distribution of residential, commercial and industrial development. This development generates a multitude of diverse trip purposes destined for widely scattered locations.

Current travel demand in the I-105 corridor is high. Congestion and delays are experienced during peak periods on east-west major streets, especially near LAX and along Florence Avenue, Manchester Boulevard and Imperial Highway. Current average daily traffic (ADT) on major arterial highways in the corridor is shown on Figure 4-2. The data is for 1974, the most recent year for which complete records were available. Many streets are handling 35,000 or more vehicles daily. For most of these streets, already constructed to their Master Plan widths, 35,000 vehicles represents the design limit. Some of these streets are discontinuous and there are restrictions at railroad crossings and at the Los Angeles, Rio Hondo and San Gabriel Rivers.

East-west freeway service is not presently available within a 12-mile wide area between the Santa Monica Freeway on the north and the Artesia Freeway on the south. As a result, mobility for the three-quarter-million residents of the I-105 corridor is limited by the 23 to 28 mph speeds of major east-west surface streets through the 17 mile long corridor. Other measures of the quality of travel service in the I-105 corridor also reflect the lower travel service available from surface streets only. These include additional stop-and-go traffic, increased travel friction and traffic conflicts, and the increased hazards associated with surface street travel (accident rate more than three times that of freeways, while the fatality rate is two to three times that of freeways).

During the past five years, daily corridor traffic volumes have typically been increasing at the rate of one to two percent per year. Continuing regional growth, commercial and industrial development, and increasing car ownership will produce greater travel demand within the corridor, and in the absence of any constraints, aggravate and extend peak period congestion problems. On the other hand, there are transportation control programs aimed at air quality improvement and energy conservation, which would be accomplished by reducing overall mileage travelled by vehicles in the region. These programs which should reduce traffic and congestion may include preferential lanes for high occupancy vehicles such as carpools and buses, freeway on-ramp metering with bypass lanes for carpools and buses, more buses, and support for carpooling programs such as Commuter Computer. The long range effects of these two factors--traditional or controlled growth--on corridor streets are discussed in Chapter 4 and Appendix D. A successful traffic control program might improve arterial street speeds up to 5 miles per hour, however, without freeway service in this corridor, the longer distance trips would not be effectively served by these streets.

From a regional standpoint, Freeways and Expressways were developed as a system to provide safer and more efficient transportation for people, services and goods. The nearest parallel freeways, Santa Monica and Artesia, were built on the basis that additional facilities such as I-105 would be part of the system, and balance transportation movements in the region. In the meantime, these existing freeways are subject to increased traffic which was originally intended to be served by I-105.

The LAX area, although involving but 2.5% of the total trips in the region, is a major trip generator, being second only to the CBD which involved 5%. Ground access at LAX is now limited and a major constraint to the effective handling of air passengers and cargo even today. For the future passenger capacity will be double that of today, while a planned air cargo facility is expected to handle several times today's air freight tonnage of specialized high-cost, technological products and perishable consumer goods.

Thus, need for an improvement is evidenced by the inability of existing transportation facilities to handle present or projected traffic efficiently and safely. This need is more fully documented in Chapter 4 (Transportation Service Evaluation).

The overall objective of the transportation improvement is to provide for the safe, orderly, efficient, integrated and systematic movement of all persons, goods and services, regionally and within the corridor--with due regard for regional and local social, economic and environmental goals and policies.

The Project and the alternatives which were evaluated in this EIS process are considered to represent the full range of practical approaches which address present and future transportation conditions associated with the I-105 corridor.

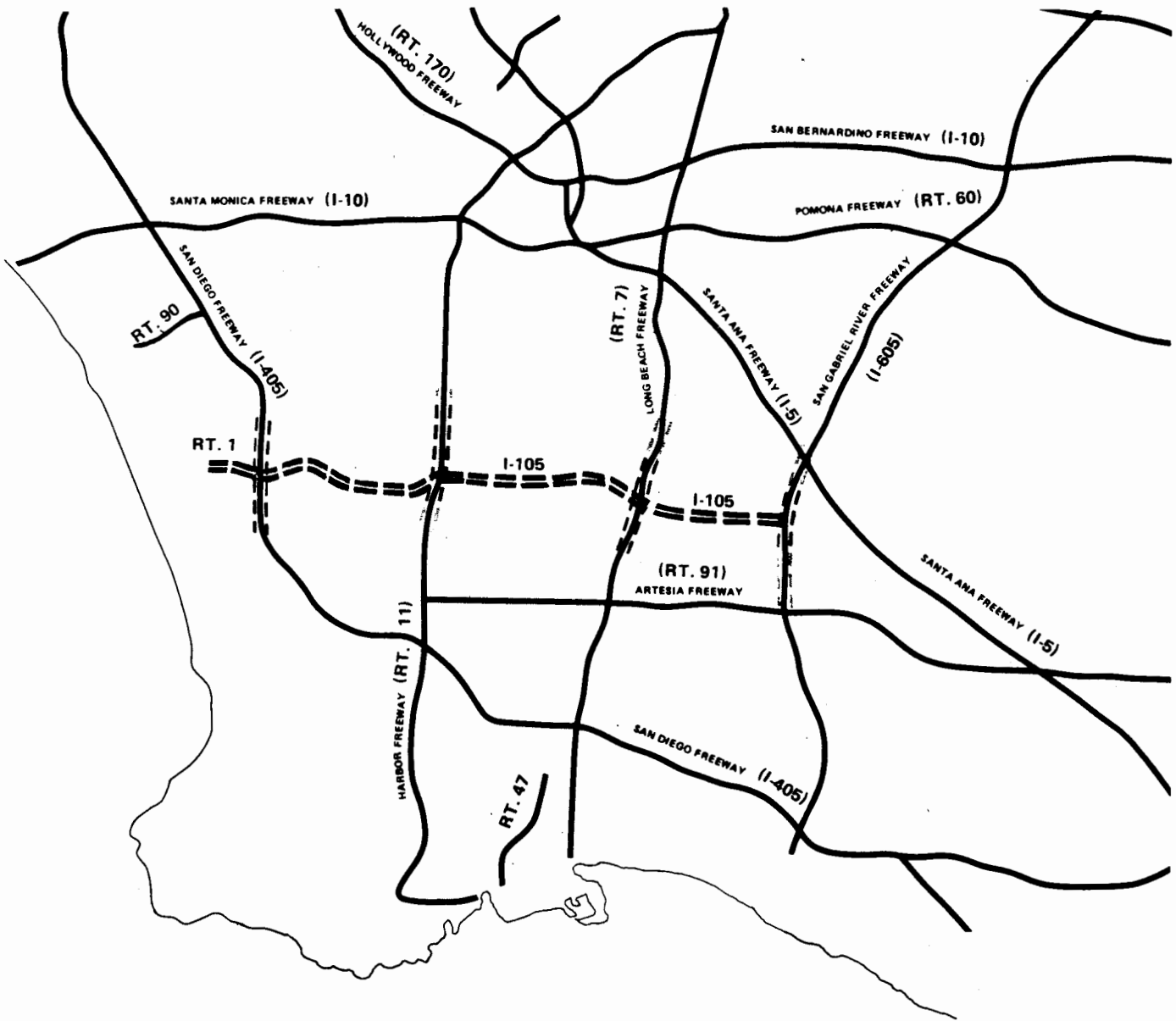
### Proposed Project

The proposed Project, an eight-lane freeway with a median transitway, is a multi-modal facility which provides the most comprehensive solution to the transportation needs identified. It will provide for the movement of people, goods and services by automobile, truck and public transit.

Up to 180,000 vehicles per day will use the freeway, about one-half of which would be diverted from existing parallel freeways, and the remainder from east-west streets in the corridor.

Regionally, this facility will interconnect two north-south (circumferential) Interstate routes (Routes 405 and 605), establish links with two additional north-south freeways (Routes 7 and 11), and provide additional access to Los Angeles International Airport (LAX). The facility would connect with LAX through a proposed new south tunnel and, further, complement the peripheral parking concept now being implemented.



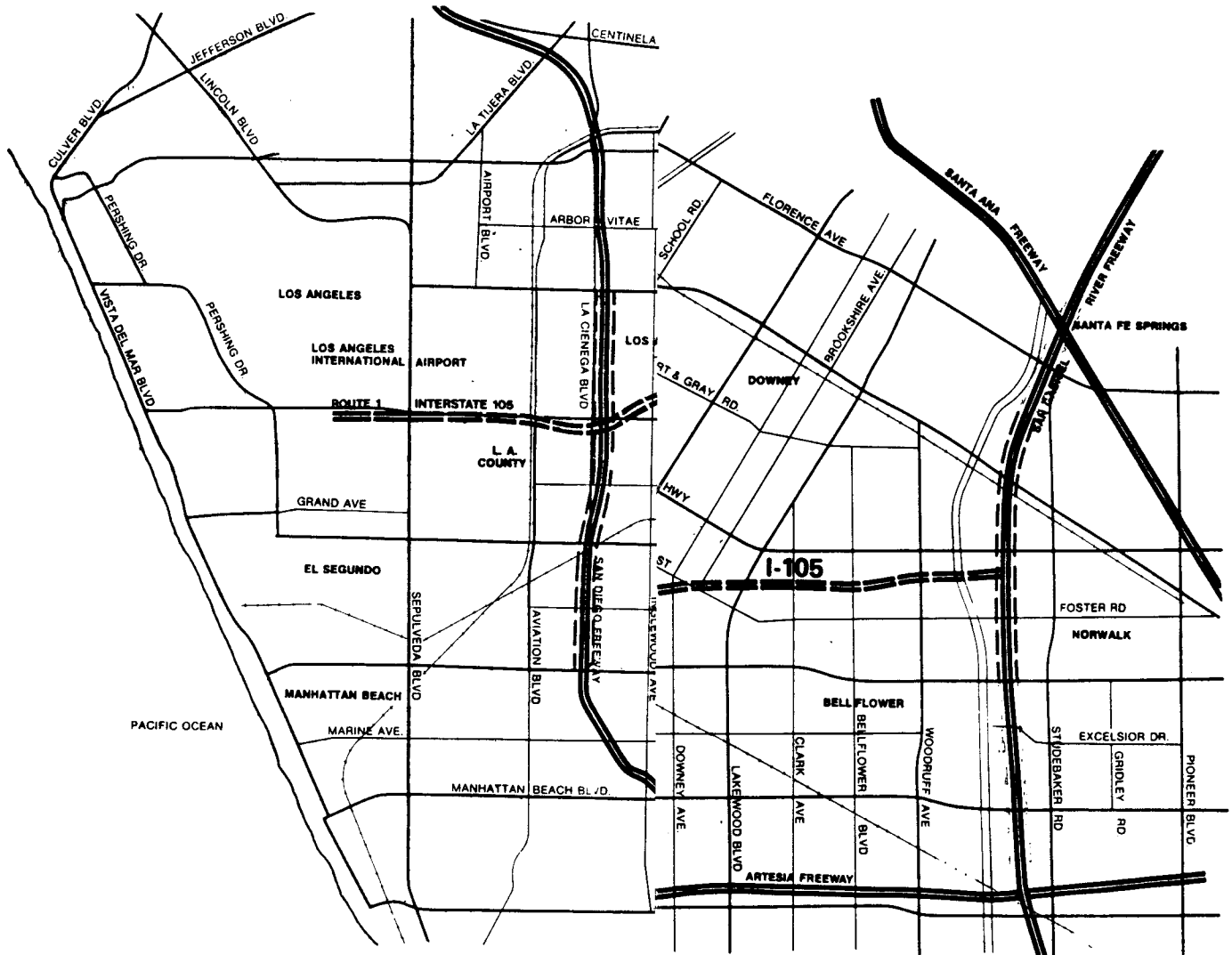


== == I-105 AND ROUTE 1 (PROPOSED ALIGNMENT)

==== I-105 RELATED FREEWAY IMPROVEMENT PROJECTS

INTERSTATE 105 IN THE LOS ANGELES REGION



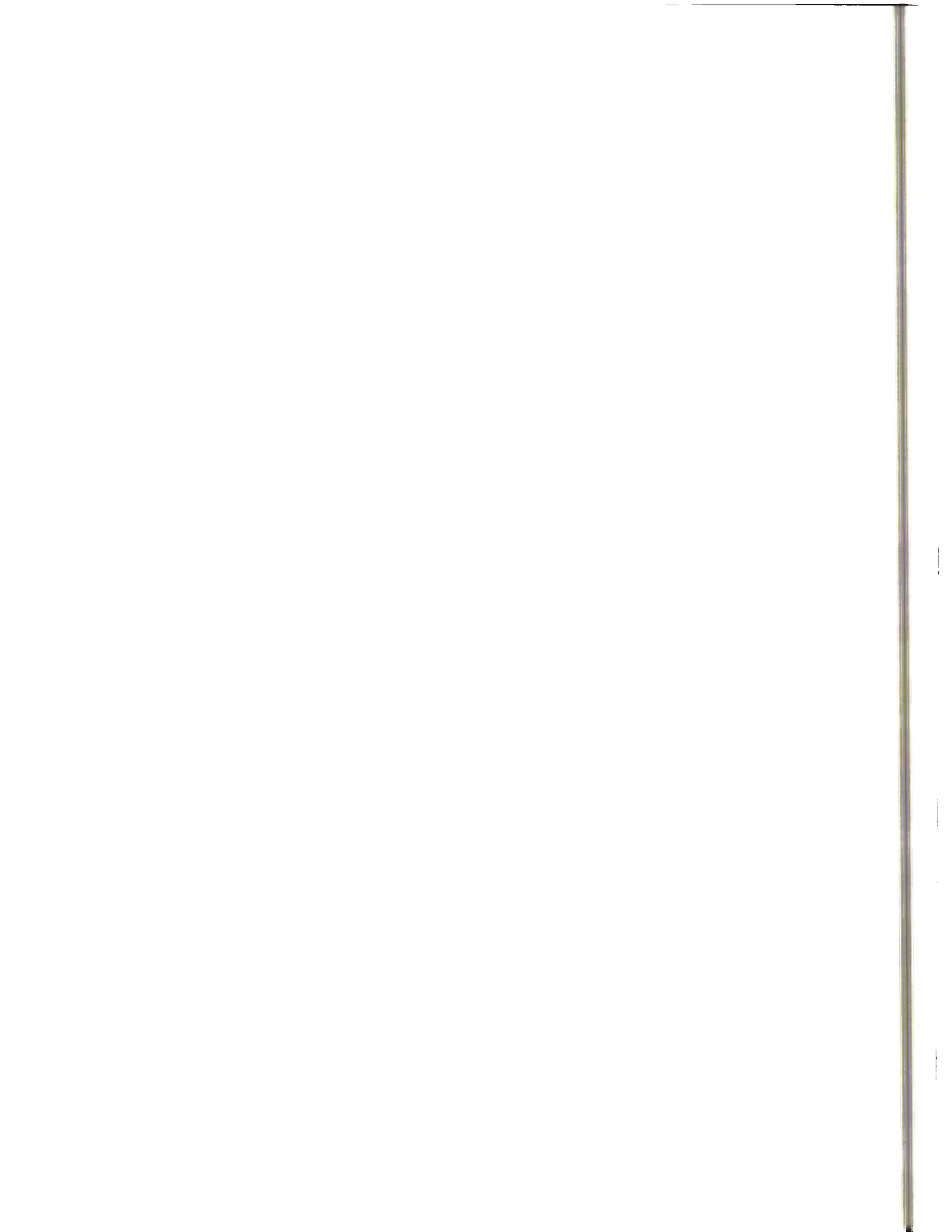


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**INTERSTATE 105 CORRIDOR  
AND SURROUNDING AREA**

**FIGURE 1-2**



Traffic redistribution and balancing would occur so that the region's Freeway system would more nearly operate as originally planned. A substantial reduction of traffic, 15-30%, is expected on the Artesia Freeway, while other east-west freeways would have reductions of 3-10%.

Automobile and truck traffic would be reduced on local streets by as much as 50%, and 20% on the average, resulting in 50% fewer areas of congestion. The benefits of these reductions are increased travel speeds, reduced travel times and an improvement in safety as traffic accidents, injuries and fatalities are reduced.

A significant improvement in public transportation is added to the corridor and region. The median busway will carry from 30,000 to 60,000 patrons daily depending upon whether it functions alone or is integrated with an extensive regionwide transit system. Buses on local streets will be able to travel easier and faster as congestion is reduced. As with any major improvement in the transportation system, this Project will result in a reduction in the distribution cost of all goods and services. In so doing, it will improve the relative competitive advantage of commercial and industrial establishments located within the corridor which could, in turn, generate more jobs, produce greater tax revenue and lower consumer prices for the economic well being of local residents. Further, it will enhance the accessibility of corridor residents to a greater number and range of employment, cultural and recreational opportunities.

The decision to implement this Project must weigh the environmental, social, and economic aspects along with transportation benefits. These factors were considered in the decision to propose the Project. The results of the evaluations are discussed on pages 1-9 through 1-13, tabulated in Table 1-1a through 1-1d, and can be summarized by saying that many of the impacts are negligible; some are positive and some are negative, but relatively insignificant. There are some adverse impacts which can be effectively mitigated; and there are a few which cannot be completely mitigated. On balance, the impacts are not so adverse that they would dictate against proceeding with the project.

Although the proposed Project involves the use of "4(f)" (Park, recreation or historical) lands, it was determined that the alternatives which would avoid such use were not feasible nor prudent. Where such lands would be taken by the Project, appropriate replacement and mitigation will be provided. A discussion of the factors which led to this determination is included in the attached Section 4(f) Statement. It is also important in the decision-making process to recognize the results of public participation and involvement. First, the public agencies involved have pursued the ultimate completion of the project proposed. Innumerable planning decisions, commitments to municipal improvements, and other developments proceeded on the basis of the project. These local agencies have been virtually unanimous in their support and desire for the project. Secondly, there has been broad support from the general public, both from private groups and individual citizens.

#### Alternatives to the Project

When considering the alternatives to the Project, none were determined to provide a reasonably full and complete solution to the observed and projected transportation needs, even though some of the environmental, social, or economic impacts may have been reduced or mitigated.

#### Other Freeway-Transitway Alignments:

The alignment now proposed for the Project, is different than that originally adopted at the westerly end. The decision to consider a different alignment than originally adopted was made recognizing that greater impacts might be involved. However, it was evident the original alignment was neither a prudent nor a viable alternative, it having been rejected and opposed consistently by the City of Hawthorne since adoption in 1965. Over the years many alternatives were proposed, evaluated, and considered in an effort to identify a location satisfactory to all agencies affected, as well as the general public. During the DEIS/Public Hearing process, mutual efforts of the involved agencies resulted in the identification of two specific alternative locations which had the potential for resolving the long standing controversy. These became commonly known as the 'Bell' and 'Imperial' lines. Both were evaluated as well as presented and discussed at a series of corridor/design public hearings held in March and April 1975. Each was also the subject of a separate California Highway Commission public hearing under provisions of Section 211.5 of the California Streets and Highways Code. A hearing on the Bell line was held April 23, 1975. A hearing on the Imperial line (now the proposed location), was held August 27, 1975. Locations of the three alignments, the original adopted line, the Bell Line, and the Imperial line are shown on Figure 3-21.

Hawthorne has objected to the original adopted routing since adoption in 1965 on the stated basis of its disruptive effect, severing the business district and the possible isolation of the northwesterly portion of the City. Although this location involves somewhat less impacts in terms of people and living units displaced than the Imperial line, it is not compatible with community goals and objectives nor with neighborhood patterns.

Moreover, in the unlikely event the original adopted routing were to be implemented over Hawthorne's objections; that is, without a freeway agreement, it would have to be constructed in accordance with Section 100.2 of the Streets and Highways Code. This would mean that no city streets could be closed, and no ramp connections could be made. The only way to avoid closing city streets, which run parallel to as well as crossways with the Freeway-Transitway would be to put the Freeway-Transitway on an overhead bridge structure (viaduct) throughout the entire portion in Hawthorne.

It is estimated that this type of construction would cost approximately \$50 million more than if it were constructed in the conventional manner. This would result in a significant incremental increase in cost of \$39 million over the Imperial line and \$40 million over the Bell line. In addition, there would not be any traffic service to the City of Hawthorne because there would be no ramp connections with Hawthorne Boulevard or Prairie Avenue. In addition, it is not considered in the best public interest to implement a project without the agreement and cooperation of the affected agency.

For these reasons, the original alignment is not considered a viable alternative.

In most other categories of impact, notably air quality, there is no significant difference in effects between the Bell or Imperial lines with respect to the original adopted line. In that these alignments will border relatively more commercial and industrial and less residential property, the effects of noise would be less apparent.

Both the Bell and Imperial alignments are similar in location. They were developed somewhat concurrently, although development of the Bell line preceeded the Imperial alignment.

By early April 1975, development of the Imperial line had proceeded far enough to gain the support of the City of Hawthorne. Consequently, at the April 23 Highway Commission Hearing held under Section 211.5 of the Streets and Highways Code to consider the Bell line, Hawthorne expressed its desire to pursue the Imperial line.

Subsequently in May 1975, Hawthorne, by resolution, requested that the Highway Commission consider the Imperial line. Also in May, Los Angeles City took action in support of the Imperial line.

Hawthorne's action in effect eliminated the Bell line from further consideration and re-initiated the Section 211.5 process. This subsequently led to the August 27, 1975 Highway Commission hearing on the Imperial line.

The Imperial line offers engineering, and community advantages over the Bell line. The Imperial line is less circuitous and therefore reduces out of direction travel. The Imperial line also reduces the severance of land-use patterns and is in keeping with the planning principle that transportation facilities follow city boundaries wherever possible. In addition, the Imperial line has continued to hold the acceptability of the affected jurisdictions.

For the above reasons and because the Imperial line is the only alignment other than the original adopted alignment which can legally be considered by the Highway Commission under provision of Section 211.5, the Bell line is not considered a viable alternative.

A more detailed discussion of the impacts of the Bell and the original adopted lines are discussed under the subheading of the Hawthorne Location Alternatives, in various sections of the EIS. The reader can refer to these sections to more readily compare their impact to the proposed project.

#### No Project Alternative:

Because of prior project activities and the length of time a freeway project has been under consideration, there is no "do nothing" alternative in the usual sense. Significant impacts have already occurred in the corridor due to the acquisition of property and its clearance, relocation of people, loss of jobs, and reduction in the tax base.

Additional impacts would occur if a "do nothing" alternative were to be selected. A substantial amount of Federal Interstate funds could be lost; long range plans by the involved communities that are predicated to some degree on a project would have to be revised; the adverse impacts of the acquisition and clearance would continue for several years; and traffic congestion could continue to increase.

For these reasons, the no project alternate is not considered to be a reasonable course of action and also has considerable local opposition. The closest action to "no project" that should be considered to be reasonable is a "no interstate freeway" alternative.

Under the "substitution" provisions of Federal law, Federal funds presently programmed for the I-105 Freeway-Transitway could be utilized for public mass transit projects or other Federal-aid highway projects,<sup>1</sup> or both, provided the substituted projects serve the urbanized area from which the Interstate route was withdrawn. Substitution requires Federal approval and the concurrence of the local governments concerned.

A number of options might be available under this procedure. These include a busway or rail transit facility in the I-105 corridor itself, or similar improvements elsewhere in the urbanized area of transit improvements combined with street improvement alternatives. Several alternatives to the Freeway-Transitway project are described in subsequent sections.

#### Exclusive Busway Alternative:

This alternative will not satisfy the full scope of the corridor's transportation needs. Since it handles public transit needs exclusively, it would not serve to improve the efficient movement of goods and services and would offer limited relief to LAX's problems. Moreover, since about one-half of the already acquired right-of-way would be excess for this plan, it would involve many of the right-of-way disposal associated with the No Project alternative; although to a lesser ramification of degree.

In that little would be done to alleviate current or projected congestion on arterial streets, it would intensify air, noise and safety problems.

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<sup>1</sup>Prior to enactment of the Federal-aid Highway Act of 1976, substitute projects could consist only of mass transit projects. The 1976 Act redefined substitute projects to include highway projects on the Federal-aid System.

This alternative was conceived as a busway on the basis of the projected patronage. However, some people who favored the idea of a transitway only, envisioned it as a rail type facility. The cost effectiveness of a rail type solution is less than for a busway since the prospects for integration with other elements of a regionwide rail system are poor.

While the Busway Only alternative could be implemented rather quickly using State/Federal highway funds, the rail solution would involve a diversion of limited local matching funds from other critical regional public transit needs. In that there is no substantive support for a transitway only alternative, whether it be a busway or rail transit, this is not an effective solution.

#### Street Improvements (Arterial Widening) Alternative:

Although this alternative would meet a major objective of the Project; i.e., alleviation of traffic congestion, it would not provide for the effective separation of through versus local traffic. To this extent it would not offer as high a level of service. The concentration of increasing conventional traffic along arterials would aggravate problems of noise, safety, and air quality. Since this alternative involves acquiring considerably more property than the balance needed to complete the project, it would compound the social impacts even more. For local cities, the loss of commercial and industrial development along these arterials would mean that the local tax base would be even more disproportionately reduced.

This alternative also involves all the adverse problems attendant to the disposal of the acquired Project right-of-way.

Adequate funding is not apparent. The local agencies would likely use only gas tax subventions for their matching shares. These improvements might qualify for a maximum of 83% Federal participation as part of the FAU program. The amount of FAU Funds normally available to the agencies involved falls far short of funding a comprehensive program of improvements like these. Additional FAU Funds could be made available to these agencies under the "substitute" provisions of Federal law. Public support for this alternative was minimal. The social and economic implications are too great for acceptance. Indeed, the City of Los Angeles feels that these implications have been underestimated.

Finally, there has been no official support since about 17 different municipalities would be directly affected, and it would require unanimous approval, cooperation and participation for effective implementation, this alternative is not, as a practical matter, feasible.

#### Street Improvements (Grade Separation) Alternative:

From the transportation point of view, this alternative might offer a degree of congestion relief and a level of service commensurate with the Project. Moreover, vehicles would operate at optimum conditions for fuel economy and also for air emissions. Noise could be worse, however. On the other hand, this alternative is heavily oriented to east-west traffic. Because of its operational features, it could aggravate north-south flow to such an extent that some of the expected improvements in air and energy are offset.

Although this concept does not involve the direct acquisition of very much property, the agencies responsible for implementing it would need to use their police powers to restrict access to the adjacent properties, in the interest of traffic flow. Successful resistance to the imposition of controls by property owners (restricted access may be detrimental to property values) would nullify the effectiveness of this alternative. It is a cycle that has been repeated many times in the past and led to the idea of the full access-controlled highway (Freeway) in the first place.

The funding for this alternative would be similar to the funding for the Street Improvements (arterial widening) alternative. Further, it too would require unanimous approval and cooperation from all of the agencies directly affected--a total of 17.

There is no local support for this alternative. Without the desire or ability to obtain funds, it would not be implemented.



## Combination Exclusive Busway and Street Improvements Alternative:

The premise of the Combination Alternative has been that by combining local street improvements with an exclusive busway, most of the major transportation objectives could be met. This is essentially true, except that the lack of separation of local and through traffic would not provide the highest possible level of service.

But the principal objection to the Combination Alternative is that the social, economic and environmental consequences of this solution are equal or greater than the proposed Project.

This combination contains the worst aspects of its separate elements (exclusive busway and arterial widening or grade separation). There has been no general or official public support for this alternative. To pursue it in the face of equal or greater impact would not be prudent.

### 1.3 CURRENT PROJECT STATUS

The I-105 Project has been in the planning and development stages for 18 years. Many direct actions related to the Project have taken place, including much of the property acquisition and clearance, and associated relocation of people, businesses, and community facilities. These actions are currently at the following stages of completion.

#### Right-of-Way Acquisition and Clearance

Of the nearly 5,700 parcels required for the I-105 Freeway-Transitway right-of-way, approximately 4,000 (or 71 percent of total required) have been acquired as of August 1976. Over 44%, or more than 2,500 parcels, of the total required parcels have been cleared.

In addition to the above parcels there are approximately 800 parcels which have been acquired, but which would become excess due to the alignment change in Hawthorne and the reduction in scope of the Project from 10 to 8 lanes. Most of these parcels, 400 (about half), have been cleared of improvements. The remainder of parcels include about 450 dwelling units. All of these parcels will be disposed of by the State, either to the local agencies for public use; or to the highest bidder so they can be returned to productive use, and to the tax rolls.

#### Residential Relocation

Of the estimated total of 25,500 people to be relocated as a result of the Project, approximately 18,200 (or 70 percent of the total) have been relocated. At the current time, about 1,600 dwelling units are vacant within the I-105 right-of-way. Also, approximately 770 State-owned units are currently being rented to families (representing approximately 2,400 persons) who were not residing within the right-of-way prior to initiation of the property acquisition program.

#### Business Relocation

Of the 295 businesses which were located within the I-105 right-of-way at the commencement of property acquisition, 52, or 18% of the total businesses have been relocated.

#### Community Facilities

If the I-105 Project is completed as proposed, a total of 38 community facilities (schools, parks and recreation, churches, and others) would either be fully or partially acquired. At the present time, 18 of the required facilities (4 schools, 1 park, 11 churches, and 2 others) have been acquired. In addition, it is estimated that the negotiations related to a major relocation of railroad lines of the Southern Pacific Transportation Company are 80 percent complete.

#### Total Project Expenditures

As of August 1976, more than \$154 million has been expended for right-of-way acquisition, relocation assistance, and clearance. An additional \$32 million has been expended for environmental and planning studies, and overhead over the past 18 years. The total estimated remaining Project cost is \$457 million, exclusive of maintenance and operating expenses, transit rolling stock, and overhead.

## 1.4 EIS APPROACH

The basic approach of this EIS is to assess the potential environmental, socioeconomic, land use development, transportation service, and cost-implementation effects of the Project, as well as possible mitigation of adverse effects. These are compared to effects of alternatives to the Project. The impacts of the Project, its location variations in the Hawthorne area, and conceptual alternatives are summarized in Section 1.7 as well as in the body of the EIS.

### Evaluation Criteria and Report Organization

Volume I of this EIS contains a comprehensive assessment, evaluation, and documentation of the Project and its conceptual alternatives. The organization of the EIS is intended to clearly present this analysis, evaluation, and documentation. The major categories of analysis and the criteria used in evaluating these issues are as follows:

- CHAPTER 4 - TRANSPORTATION SERVICE EVALUATION  
(Demand, Congestion Relief, Travel Choice, Speed and Safety)
- CHAPTER 5 - ENVIRONMENTAL EVALUATION  
(Air Quality, Noise, Vibration, Water Quality and Solid Waste, Seismic, Energy Use, Parks and Open Space, Archaeological and Historical Preservation, Aesthetics and Construction)
- CHAPTER 6 - SOCIAL AND ECONOMIC EVALUATION  
(Residential and Business Displacement, Public Services and Community Facilities, Local Fiscal Effects, Community Cohesion, Proximity Effects)
- CHAPTER 7 - LAND USE AND DEVELOPMENT EVALUATION  
(Growth Inducement, Public and Private Developments, Right of Way Reuse)
- CHAPTER 8 - COST AND IMPLEMENTATION EVALUATION  
(Cost, Funding, Implementation)
- CHAPTER 9 - RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY
- CHAPTER 10- IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES AND PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

Included in Volume I, is a Section 4(f) Statement which addresses the Project's impact on park, recreation and historic lands.

Section 1.5 is an integrated summary in the form of scenarios of the Project and each of the conceptual alternatives which were considered in depth. At the end of Chapter 1, Table 1-1 provides as a matrix, a concise overall summary of the quantitative and qualitative evaluation results detailed in Chapters 4 through 8. This matrix format affords the reader the opportunity to either go directly to an impact category and see the anticipated range of effects produced by an alternative or consider the overall effect of an alternative and compare them with the effects of other alternatives.

### Environmental Review Process

The purpose of this EIS is to provide decision makers with the social, economic and environmental implications of the Project and the alternatives.

Overall, it is estimated that a Final I-105 Project decision will be rendered by early 1978, subject to resolution of the injunction pending in the Federal Court.

## 1.5 SUMMARY OF PROJECT AND ALTERNATIVE SCENARIOS

To summarize and present the relevant information which has been prepared along with the environmental studies, scenarios have been prepared for the project and each major alternative<sup>1</sup> considered. These scenarios attempt to provide a "glimpse of the future," between now and the year 2000, by providing an integrated view of the implementation, transportation service, environmental, socioeconomic, and land use development implications of the Project, and of each alternative had they been proposed. The tabulation and discussion of detailed impacts is contained in later chapters. Major alternatives were developed "conceptually" in order to assess their socioeconomic and environmental effects for comparison with the Project. Although the degree of engineering detail is not comparable to the Project--the Project has had the benefit of a decade of engineering development beyond the initial planning studies--the assessment was adequate for planning purposes and the decision making.

Every attempt has been made to bring out the positive and negative aspects of each alternative as objectively and comprehensively as possible. The major conclusions of each scenario are given in-depth treatment in the appropriate section of the EIS. In addition, as previously noted, Table 1-1, which appears at the end of this chapter gives a concise overall summary organized by alternative and impact category.

The five scenarios presented conform to the major Project alternatives, as follows:

- Scenario 1 - THE I-105 FREEWAY-TRANSITWAY PROJECT
- Scenario 2 - THE NO PROJECT ALTERNATIVE
- Scenario 3 - THE EXCLUSIVE BUSWAY ALTERNATIVE
- Scenario 4 - LOCAL STREET IMPROVEMENTS ALTERNATIVES
- Scenario 5 - "COMBINED BUSWAY AND LOCAL IMPROVEMENTS ALTERNATIVES"

### Scenario 1 - THE I-105 FREEWAY-TRANSITWAY PROJECT

Assuming the "go" decision for the I-105 Project, completion of the environmental process and lifting of the court injunction were reached in 1978, completion of the remaining property acquisition and relocation of families, community facilities, and businesses, as well as construction, could be accomplished during the 1978-1985 period.

#### Remaining Property Acquisition, Relocation, and Construction: 1978-1985

##### Relocation Impact:

To complete the I-105 Project, an estimated 3,125 families remain to be relocated. Of these approximately 770 are temporary renters of State-owned housing.

Based on information regarding families who have relocated to date, it is estimated that approximately one-half of the relocatees will select residential locations in the general vicinity of I-105. In addition, approximately 20 percent of the renters who are eligible for monetary benefits under the "Uniform Act" will probably become owners as a result of the relocation assistance financial package, available as an option.

The housing units vacated by these residents, including those units currently vacant, would be cleared or sold to be moved, resulting in an additional reduction of approximately 4,350 single-family and multiple-family units from the corridor housing stock. Many could be relocated in or near the corridor, especially in the central portion of the corridor where there are many vacant lots.

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<sup>1</sup>Many alternatives were identified and evaluated in this EIS process. It was determined that some alternatives were either not prudent nor feasible solutions, and were not reported in scenario fashion, nor was the detailed information presented in the various chapters of this EIS. These alternatives are discussed in Section 3-6.

#### Community Facility Impact:

In terms of effect on community facilities, a total of 11 schools, 1 park, 20 churches, and 6 other facilities will be either fully or partially acquired. Of these, 18 have been acquired and 15 cleared. Twenty are yet to be acquired and cleared. Relocation assistance of fully acquired schools and parks include the actual development of comparable facilities at an acceptable relocation site, where necessary, while the assistance to displaced churches and other facilities involves financial and relocation advisory assistance. The relocation of one school is complete and two more are in progress--all will result in improved facilities and locations. The only park required by the Project is acquired and its relocation is in process. It will be relocated adjacent to an elementary school enhancing the use and service of both facilities.

#### Business and Employment Impact:

Additional business displacement would total 240 establishments affecting 1,140 employees. If historical relocation trends continue, the net impact would be approximately one-half of these amounts, since roughly 50 percent of businesses have relocated within the same community.

#### Acquisition and Relocation Cost:

The I-105 Project property acquisition, relocation and clearance program could be completed by 1979 or 1980, at an additional expenditure of approximately \$85 million in State and Federal highway funds. This is in addition to the more than \$154 million already expended for this purpose.

#### Disposal of Excess Property:

The decision to propose implementation of the Freeway-Transitway on new alignment through Hawthorne, as well as the reduction in basic lanes from 10 to 8 will involve the disposal of 1,130 previously acquired properties which are now excess.

The bulk of this excess property is located in two areas: along the Route 605 Freeway in Norwalk, and along the original adopted line in the Community of Del Aire (Los Angeles County). Disposal of these properties will be handled in a manner similar to that described in detail under the 'No Project' alternative. That is, properties would probably be sold at public auction in the manner most advantageous to the State, but subject to local zoning restrictions, requirements and marketability. Unlike some areas of the corridor, market conditions in these two areas appear to be quite favorable to the early and satisfactory redevelopment and absorption of these areas into their respective communities.

#### Construction Cost and Schedule:

Actual project construction, which could begin in 1978 and could be completed by about 1983, would require an additional investment of approximately \$372 million in State and Federal Highway Funds. This includes about \$36 million for construction of the median busway. Funds for the busway would probably come from local, State and Federal funds.

Ideally, the construction of the Project would begin on the west and progress easterly. However, there are delays implicit in the Hawthorne realignment, and consideration to be given to funding availability. It may become necessary to implement the Project in stages--segmentally along the route, a reduced number of lanes initially, deferment of some interchanges, or various combinations of these. The actual construction schedule for sequencing and staging will be determined as the environmental process is completed, and will be based on the then current conditions.

#### Project Operation and Impacts: 1980-2000

##### Transportation Effects:

Current travel demand in the I-105 corridor is high, with daily average traffic volumes of 25,000 to 35,000 vehicles found on many of the major streets. Congestion and delays are experienced during peak periods on major east-west streets, especially near LAX and along Florence Avenue and Manchester Boulevard. Typical speeds in the corridor are currently in the 23-28 mile-per-hour range.

Daily corridor traffic volumes have typically been increasing at a rate of one to two percent per year.

Ordinarily, future transportation predictions would be based upon historical growth trends and traditional travel habits. In recent years, there has been a significant decline in growth rate. In addition, SCAG's recently adopted Transportation Control Plan (TCP) includes a number of programs for improving air quality and conserving energy. To the extent that these programs are successful, traditional travel behavior will be altered. The details and implications of how the TCP affects future travel are discussed in Chapter 4 and Appendix D. By 1980, a fully effective Transportation Control Plan should result in about a 10 percent reduction in traffic volumes in the corridor. In essence, the TCP seeks to increase average vehicle occupancy. In this way, the region can accommodate the projected increase in person trips with relatively less vehicular travel.

The Transportation Control Plan also will influence operation of the Project. Under the region's current programs to reduce air pollution and promote energy conservation, operation of the facility could entail:

- . A high-occupancy vehicle (HOV) lane designated adjacent to the median each way. This would accommodate buses and carpools of 3 or more persons.
- . A buffer area strip adjacent to the HOV lanes.
- . The remaining pavement would be striped for 3 lanes each way to accommodate trucks and the remainder of personal vehicles.
- . Ramps would be metered to give preferential treatment to buses and carpools, and to ensure free-flow conditions on the freeway.

As conditions change, reevaluation in the form of an environmental assessment might lead to modification of the operation. For example, bus operations could be moved to the median as usage increased, and as the transit agency is able to provide the necessary station facilities, equipment, etc.

Upon completion of the Project (mid-1980s), the following short-term transportation effects would occur. Traffic on the freeway portion would vary, depending on location along the route, from about 70,000 to 140,000 vehicles per day under controlled conditions. Traffic on the surface would be made up of vehicular traffic diverted about equally from the corridor surface streets and from the regional freeway network. The freeway would include on-ramp metering, allowing regulated traffic to flow freely throughout the day (typically, 50 mph during peak travel periods).

Traffic volumes on adjacent, parallel east-west arterials would be reduced by up to 50 percent, compared to "No Project" conditions. This traffic relief, due to the Project, would gradually diminish both north and south of the freeway, so that arterials approximately three miles away would experience no significant relief. Traffic along north-south arterials would redistribute, as vehicles converge on the freeway access points. Overall, in the east-west travel direction, typical corridor surface street speeds would be in the 25-30 mile-per-hour range, compared to the 20-25 miles per hour anticipated under "no project" conditions.

By the year 2000, corridor traffic volumes will have increased by about 60 percent, compared to today's conditions. Traffic volumes on the freeway would be expected to be about 80,000 to 180,000, again depending on location along the route.

With respect to public transportation, it is anticipated that the existing SCRTD bus services will be augmented in the near term. When the I-105 Project is completed, the busway (transitway) portion would function as a major element of the emerging regional transit system. The system at that time would encompass express buses on preferential lanes of the freeway system, the exclusive lanes of the El Monte Busway, and possibly a rail line serving the Wilshire Corridor.

Busway patronage in the corridor by 1980 is estimated up to 20,000 person trips per day. By 2000, the regional transportation system could be augmented by an extensive mass rapid transit (MRT) system. Corridor public transit patronage could then range up to 60,000 person trips daily. The frequency of buses during the peak travel hours would be approximately 2 per minute (total for both directions). At some point in this 1980-2000 time-frame, patronage may have expanded sufficiently so that consideration can be given to converting the busway to a rail type facility.

Even with the maximum level of long-term growth in corridor traffic, in the year 2000 the Project would provide surface street congestion relief throughout the corridor, except at the northernmost limit where congestion would remain. The Project will redistribute and balance traffic volumes on the regional freeway network, generally relieving adjacent freeways in the east-west direction. The combined effect of the freeway-busway operation would also result in significant reduction in travel-related accidents as a result of the greater relative travel safety of freeway versus surface street travel, combined with the safety aspects of bus transit.

In addition, the Project will provide vitally needed accessibility to LAX, as well as more economical movement of goods and services and improved mobility for the more than 750,000 residents of the corridor, many of whom are transit-dependent. For example, the Project could provide access to as many as 150,000 more job opportunities to the highway user and 225,000 more job opportunities to the transit user within the typical 22 minute home-to-work trip.

#### Environmental Impacts:

**Air Quality** - The application of current automotive emission controls is expected to improve air quality through the early 1990s; thereafter, it would decline due to long-term growth in population, if no new technology is developed. The relative effects of I-105 upon air quality are as follows:

- . The production of carbon monoxide (CO) would decrease significantly in the corridor and slightly in the region, as a result of increased travel speeds on the surface streets and the regional freeway network.  
  
CO concentrations would be higher adjacent to the Project; however, the national ambient air quality standards would not be exceeded at any of the sensitive receptors (such as residences, schools and hospitals) along the right-of-way. In addition, some decreases in CO concentrations along corridor arterials would be expected due to decreased travel volumes and increased travel speeds.
- . It is estimated there would be little or no change in the production of hydrocarbons (HC).
- . The production of nitrogen oxides (NO<sub>x</sub>) would increase slightly, since these pollutants increase with automobile travel speed.
- . The combined effect of these changes are projected to produce a slight decrease in the photochemical oxidant, ozone (O<sub>3</sub>), and a slight increase in nitrous dioxide (NO<sub>2</sub>) within the Los Angeles Air Basin. All regional changes would be extremely small.

**Noise Impact** - Upon opening of the freeway, the traffic volumes attracted to the freeway from local streets and other freeways would produce a "new noise source" within the corridor. While the most advanced noise attenuation measures (such as sound walls), consistent with prescribed State and Federal standards and community aesthetic considerations, would be utilized to reduce noise impact, increased noise levels would still occur along the facility. While this residual noise impact following mitigation occurs along the freeway, a counterbalancing decrease of traffic-generated noise would occur along the east-west arterials relieved by the freeway. Affected schools would be structurally modified (sound-proofing, air conditioning, etc.) so that applicable school noise impact standards are met.

The net short-term effect of the Project would be a shifting of noise levels as traffic is diverted from the corridor east-west surface streets to the freeway facility with its noise mitigation measures. The relative gains near corridor arterials resulting from introduction of the Project would decline by the year 2000, as a result of long-term traffic growth, unless technological breakthroughs related to automobile noise production are achieved and implemented. The noise impact of the Project would increase slightly also, as traffic volumes increase; however, noise standards would not be exceeded. These slight increases over time would not be annoying to the affected communities, in contrast to the "opening day" impact when the "new noise source" would be introduced.

Exhibit 7 in the Appendix (Volume II) identifies the approximate location and dimensional requirements of barriers that would be necessary to meet current noise standards. The comment section of the exhibit notes areas where it may be practical to reduce noise to levels even below standards and other areas where it is either infeasible or uneconomical to meet standards. Exceptions to standards will be requested in the latter case. Exceptions usually apply to the upper levels of adjacent buildings and at locations where a break in a barrier is unavoidable (at ramps, for example). Full mitigation is not possible in these cases.

Energy Use - Following opening of the freeway, additional vehicle miles of travel (VMT) would occur within the region as people utilize the freeway to save travel time, while traveling the same or longer distances. While the free-flow characteristics of the I-105 would be conducive to improved automobile energy-use efficiency, the net effect of the VMT increase could result in a slight increase in the daily regional gasoline consumption over that anticipated with "no project" conditions. The relative long-range effects of the Project are the same as the short-range effects; i.e., a slight increase in daily regional fuel consumption. However, with the legislative direction toward more efficient automobiles, the relative effect of the Project on fuel consumption would be further reduced.

For this EIS, the "energy demand" associated with the operation as well as the construction and annual maintenance of the Project was estimated for a fifty-year period. The accuracy of the results is limited due to the broad assumptions which are involved. However, within the limitations, the Project involves a 0.9 percent increase in regional transportation related energy demand. As expected, this relates directly to the marginal increase in regional VMT which will occur. It does not consider, however, the very significant reduction in energy demand to be obtained through use of more efficient engines. Thus, it does not appear to represent an inefficient, wasteful or unnecessary use of energy when compared to the improved mobility and safety achieved.

#### Other Project-Related Effects:

Development - Public and private development would occur in response to new opportunities caused by increased regional accessibility. The economic potential for commercial and industrial development activity near LAX would be realized sooner, as would industrial development potential near the eastern half of the freeway where a substantial amount of vacant, industrially-zoned land is available. These potential commercial and industrial development effects are in keeping with the goals and objectives of the affected local governments. The result would be greater tax revenues accruing to the corridor communities, partially compensating them for the tax losses incurred during the Project acquisition and construction phase (1969-1985). Locating new commercial and industrial development in this area would provide more jobs near the population center and hence counteract urban sprawl and long commute distances.

If increased residential redevelopment occurs in the corridor, it probably would be in the form of apartment construction near freeway interchanges and other access points. Most likely this would occur by recycling older or blighted areas since very little vacant residential land remains in the corridor. Again, this would tend to counteract urban sprawl.

Intensification of commercial and industrial activity would lead to more jobs within the corridor. These employment gains, coupled with the increased regional accessibility offered by the Project, would provide some limited potential demand for new single-family residential construction at the urban fringe--thus potentially leading to further "urban sprawl". However, due to the unique nature of the I-105 corridor (99 percent developed in 1970), any "urban sprawl" effects will be minimal and will most likely occur, if at all, in the Puente Hills near Pomona and in southern Orange County which are already under active development.

In terms of other Project-related effects, the community severance (affecting eight localized areas) caused by the freeway would be partly mitigated through provision of pedestrian overcrossings and vehicular overcrossings and undercrossings.

A major railroad relocation planned with the Project would significantly benefit the communities of Watts, Willowbrook, and Compton. This would benefit the communities through removal from residential areas of train operations with their attendant noise, fumes, safety hazards, and constraints to ongoing redevelopment activities.

## Scenario 2 - THE NO PROJECT ALTERNATIVE

If a "no go" decision for the I-105 Project or selection of one of the "no freeway" alternatives had been proposed, it would have been necessary to initiate efforts to reverse the Project-related effects that have already occurred in the corridor communities. These efforts would have primarily involved the disposition of the State-owned property and its subsequent redevelopment to appropriate urban uses. It also would have been necessary for the affected communities to re-examine and possibly change their land use planning and future goals.

### Disposition and Redevelopment of the Route I-105 Right-of-Way

Before any actual redevelopment activities could commence, the State would first have to dispose of over 4,800 residential, commercial, industrial, and other properties which had been acquired as of August 1976.

This property disposition process would entail the following major steps:

- . Right-of-way inventory
- . Development of sales plan
- . Disposal of right-of-way property

This effort, which would require on the order of two to four years to complete would be designed so that any adverse impact upon property values in the corridor would be minimized to the greatest extent possible.

Most of the acquired properties (over 3,800 out of about 4,800 parcels) in the I-105 right-of-way were single-family residential use. Approximately 1,600 of the remaining dwelling units (single family and multi-family) have been vacant for an extended period of time. The resulting deterioration may mean that over 60 of these units could not be rehabilitated and would have to be demolished. Of the remaining 1,540 units, most would have to be rehabilitated. During the EIS preparation period, most communities strongly indicated a preference that under the "No Project" alternative, the majority of the right-of-way should be returned to its original use--single family residential. Rehabilitation costs vary from \$5,000 to \$10,000 per dwelling unit. Total rehabilitation cost (\$12.7 million) is reflected in the \$105 million of non-recoverable costs associated with this alternative.

Overall, except in the central portion of the right-of-way, it is estimated that the two-to-four-year disposal program would be followed by minimum redevelopment and reuse periods of two to six years. Thus, by 1980 or 1982, the bulk of the right-of-way property could be released for redevelopment if, in the absence of substantive transportation improvements, strong demand for residential, commercial, and industrial development exists in the corridor. It is likely, however, the entire redevelopment program may take as long as ten years. In the case of Los Angeles City and County areas in the central portion of the right-of-way a redevelopment program may not be possible in the foreseeable future. It is probable that, without specific and very positive incentives, it will be difficult to attract investor capital for redevelopment in this area.

The conclusions above were based on a higher population than now projected. Lower population will reduce demand to some degree and may have adverse implications for recycling in this corridor.

In terms of personal impact upon the original 2,350 owners and renters still living within the right-of-way, and the 770 temporary re-renters of State-owned housing, the following pertains:

- . Owners and occupants of properties not yet acquired by the State are ineligible for relocation payments or assistance. If these properties are sold during the period of the State's disposal program, owners may suffer financial loss if the program has a price-depressing effect.
- . Renters still in occupancy who were original right-of-way owners remain eligible for all relocation benefits. Their eligibility will continue until 90 days after title to the property passes from the State to a third party. If they have not moved to or made a firm commitment for a replacement property before expiration of the 90-day period, they lose eligibility to all previously offered relocation benefits.



Renters who were original right-of-way tenants to whom previous offers of relocation assistance or payments have been made remain eligible for all relocation benefits until they are advised by notice of changed eligibility. This notice changes their eligibility status and provides that they are ineligible except that if they are forced to move as a direct result of the sale of the property by the State, and not as a result of any action on their part, they will continue to be eligible for all applicable relocation assistance benefits for a period of 90 days following transfer of title from the State to a third party.

Exhibit 11 in Appendix E, Volume II, identified as File: RPF 76-8 dated June 2, 1976 sets forth in detail the Relocation Assistance Procedures which apply on rescinded routes.

The temporary rerenters<sup>1</sup> of State-owned property who were not original residents are not eligible for relocation assistance and may experience increased rental payments or be required to move as the property shifts from public to private ownership.

#### Transportation, Environmental and Other Effects: 1980-2000

##### Transportation Effects:

By 1980, a successful Transportation Control Plan (TCP) would result in a reduction of travel and congestion in the corridor with peak hour speeds expected to increase slightly.

By the year 2000, traffic conditions would be similar to today's; i.e., congestion and delays during peak hours over about 1/3 of the corridor, traffic volumes of 25,000 to 35,000 on the arterial streets, and speeds in the 20-25 mile per hour range. In other words, the increase in traffic expected from population growth alone is offset by measures to reduce travel.

##### Environmental Effects:

**Air Quality** - Air quality would improve through about 1987 as a result of the phasing-in of motor vehicles which all meet Federal emission standards. Following that, air quality would deteriorate slightly as a result of long-term growth, unless more stringent emission standards can be implemented. These short- and long-term air quality changes will occur regardless of any transportation improvements in the I-105 corridor.

**Noise Impact** - In the short-term, noise impact would increase somewhat in the corridor, especially along the major arterials. By the year 2000, assuming no technological breakthrough, travel-related noise impacts would be significantly greater than today along major arterials. In addition, due to the diversion of traffic from arterials, noise impact would increase significantly along secondary and residential streets, from 1980 to the year 2000.

**Energy Use** - Energy use would continue to increase in the corridor; however, the increase may be slower than the population and travel growth rates due to use of more efficient vehicles.

**Other Effects** - The short term development of the corridor would be constrained in the absence of major transportation improvements, particularly potential commercial developments near LAX and potential industrial developments in the eastern portion of the corridor. The effect of constrained development, coupled with the nine to ten years of tax losses absorbed while the right-of-way was in State ownership, would make it increasingly difficult for the corridor communities to maintain and/or improve their level of public services.

The No Project alternative would require local communities to reconsider both short and long range goals to the extent they were predicated upon the Project. Current public works programs, private and public, redevelopment projects predicated on I-105 would also require reassessment. Similar questions must be addressed at the regional level.

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<sup>1</sup>Persons not in occupancy at the time of acquisition.

From a broader regional, State and Federal perspective, an estimated \$105 million of the \$186 million presently expended would not be recoverable. These losses result from the Project planning and design costs and the right-of-way acquisition and relocation and clearance activities. The right-of-way acquisition program is the major generator of non-recoverable costs as a result of lost value through structure clearance and reduced market value of vacant deteriorated structures.

Also, the no project alternative means that the Federal Highway Funds returning to the State might be reduced by over \$700 million. Since a minimum percentage of the State highway fund must be spent in each of the eleven Transportation Districts of the State, the highway program in the whole State would be reduced, affecting employment and related economics Statewide. Further amplification on Statewide program funding is included in Chapter 8.

In summary, the "no project" alternative, which assumes no significant corridor transportation improvements through the year 2000, has the following major direct consequences:

- . Need to sell 4,800 acquired parcels, most of which would require either structural rehabilitation or total redevelopment; central portion of the right-of-way likely to remain vacant for the foreseeable future.
- . Would result in traffic conditions similar to today's; i.e., congestion over about 1/3 of the corridor.
- . Constrained residential, commercial, and industrial development throughout the corridor, including ground access limitations upon LAX operations.
- . Noise impacts which increase in magnitude near corridor arterials, and along corridor secondary streets as future traffic diverts to these streets from the arterials.

In general, the local losses are primarily the short-term effects of the route location process and the nine to ten years of diminished tax base associated with the acquisition and relocation and clearance activities. This would include the approximately four to ten years or more required to redevelop most, but not all, of the right-of-way. Also, many local officials feel that the extended period of right-of-way acquisition, many vacant structures, and uncertainty surrounding the Project have produced neighborhood deterioration adjacent to the I-105 right-of-way. The regional losses are related to diminished regional accessibility, particularly improved ground access to LAX. The State and Federal losses would be primarily financial (\$105 million nonrecoverable). Unspent and recoverable State funds could be used for highway construction in other parts of the region or State; however, Federal funds would revert to the Federal Highway Trust Fund. Additionally, the loss of Federal Interstate funds to California would adversely effect the entire State.

### Scenario 3 - THE EXCLUSIVE BUSWAY PROJECT

The most probable transit alternative to the "Project" would be an exclusive busway constructed within the I-105 right-of-way. This busway would operate much like it would if it had been constructed as part of the I-105 Project. That is, it could function as one of the links in the SCRTD proposed rapid transit system, which would interface with the Orange County Transit District's proposed transit system. Ultimately, according to SCRTD's latest long-range plans, the busway could be converted to rail transit or other advanced fixed-guideway transit systems.

#### Relocation, Redevelopment and Construction: 1978-1985

In order to implement the busway project, the following major actions would be necessary:

- . Apply for Federal assistance under the 1973 Federal-Aid Highway Act which allows construction of exclusive busways.
- . Generate necessary local matching funds.
- . Purchase additional right-of-way required and complete necessary residential, commercial, industrial, and institutional relocation.
- . Disposal of excess I-105 right-of-way not utilized.
- . Construct busway.

To complete the busway project would cost an estimated total of \$235 million, including \$54 million of previously acquired I-105 right-of-way. This includes additional right-of-way and relocation, plus necessary roadway, stations, parking lot construction and some direct connections to intersecting freeways. Federal participation in this alternative would come from highway funds, while local participation would come from the Transportation Development Act of 1971 (SB 325) which extended the sales tax to gasoline purchase and established a transportation fund which can be used for local public transit or highway improvements. Local funds might also be available from State highway funds diverted for transit use, per provisions of Proposition 5 on the June 1974 ballot, assuming an exclusive busway would qualify as a fixed guideway required by Proposition 5.

In order to implement this alternative, an additional 4,000 persons would have to be relocated, 1,980 housing units would be removed, 11 community facilities<sup>1</sup> would be displaced (4 of which have been acquired), and 75 businesses replaced, affecting up to 440 jobs. It is estimated that these additional acquisitions, relocation activities and construction would require \$181 million of the total \$235 million required to implement the busway.

Since the busway project right-of-way width would be approximately one-half of that of the I-105 Project, the excess right-of-way would probably be sold and redeveloped in the same manner as discussed under the "No Project" alternative. The estimated nonrecoverable costs would be approximately \$84 million for the busway. It is estimated that the time required to dispose of the excess property and to reach full reuse would still be approximately four to ten years although portions of the right-of-way (primarily Watts-Willowbrook) could require a longer time period for redevelopment. The busway would probably stimulate more development than the "No Project" alternative.

Impact upon the people who would be in the I-105 right-of-way, but not required for the busway, would be similar to "No Project". About 770 original owners and 800 renters of State-owned housing would be affected.

About 1,000 dwelling units are vacant in the right-of-way outside that needed for the busway. Of those, some 30 have deteriorated to the point where they cannot be rehabilitated and would have to be demolished. Of the remaining units, most would have to be rehabilitated.

The actual construction of the busway, which could possibly occur in the 1980-1985 time period, would include the following components: (1) roadway, bridges, drainage, landscaping, etc.; (2) six stations; and (3) four parking lots.

#### Busway Operation and Impacts: 1980-2000

##### Transportation Effects:

Completion of the busway would bring an improved level of public transit mobility to the more than 750,000 residents of the corridor through interface of the busway operations with the rest of the proposed regional transit system. As part of that system, total daily patronage on the exclusive busway could be up to 58,000, or 16 percent greater than the anticipated patronage on the I-105 median busway. This level of public patronage would result in corridor vehicular traffic reductions of up to 2 percent, compared to "No Project" conditions. Thus, by the year 2000, public transit travel speeds in the corridor would be significantly faster than today, while surface street automobile travel speeds would be only slightly better than "No Project" conditions.

##### Environmental Impacts:

In terms of environmental considerations, the air quality and noise impacts would generally be the same as the "No Project" alternative; however, the "busway" would be similar to the I-105 Project in that it would result in a "new noise source" in the corridor (although at a lower level than that of the Project). Regional energy use will be approximately one percent less as compared to "No Project," to the extent that trips are diverted from automobiles to public transit.

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<sup>1</sup>Two schools, one park, four churches, and four miscellaneous facilities.

#### Development Effects:

Future development in the corridor under this alternative is uncertain. While evidence of probable I-105 induced development exists, (such as industrial joint use, commercial intensification near LAX, etc.), it is not clear if the busway alone would influence future development. While improved access to the regional labor force would exist, the reduced accessibility in terms of goods and service movement may tend to constrain commercial and industrial developments, particularly the latter. Overall, from a corridor perspective, the "exclusive busway" alternative would have approximately the same pre-construction impacts of the I-105 Project and roughly 70 percent (3,020 parcels) of the right-of-way redevelopment problems associated with the "No Project" alternative. In terms of operational impacts, the exclusive busway noise impact would be similar but less than the I-105 Project, while potential community fragmentation and severance would be similar to the I-105 Project. In terms of transportation service, the exclusive busway would offer transit benefits similar to the busway with the Project, but would not provide significant traffic congestion relief to the corridor surface streets and regional freeway system.

#### Scenario 4 - LOCAL STREET IMPROVEMENT ALTERNATIVES

If the corridor communities had desired a "local street improvement" program, two possible alternatives were either: (1) an arterial widening program, or (2) grade separations at major intersections, within existing arterial rights-of-way (commonly referred to as a mini-freeway or junior freeway). For comparison purposes, street improvement alternatives were formulated to provide an amount of congestion relief similar to that which would be provided by the I-105 Project. While it is possible to formulate either greater or lesser improvement programs, the "similar congestion relief" assumption provided a basis for comparison with the Project.

#### Acquisition, Relocation, Redevelopment, and Construction: 1980-1985

In order to implement the "local street improvement" alternative on a corridor-wide basis, the following major actions would be necessary:

- . Dispose of I-105 right-of-way.
- . Reach agreement among the 15 or 17 affected jurisdictions regarding details for either the widening of the grade-separation program.
- . Apply for Federal assistance per Federal-Aid Urban System (FAU) provisions of 1973 Highway Act.
- . Generate local matching funds.
- . Purchase required right-of-way and complete necessary relocations.
- . Construct required widening project or grade-separated intersections.

#### I-105 Right-of-Way:

Under this alternative, the redevelopment of the acquired I-105 right-of-way must be accomplished as in the "No Project" alternative case (see Scenario 2 for details).

#### Jurisdictional Agreement:

In order to implement either of the two "local street improvement" alternatives on a corridor-wide basis, it would be necessary for all jurisdictions involved to reach agreement upon the desired course of action. For the arterial widening program, this would involve agreement on up to 60 miles of two-lane widening (one for each travel direction). The grade separation alternative involves up to 55 miles of arterial street reconstruction and 69 intersection separations. Los Angeles County, with the concurrence of the Southern California Association of Governments (SCAG), would probably have to take the lead in either of these programs, perhaps utilizing the Highway Through Cities Program, while Caltrans would implement any improvements to Manchester/Firestone Boulevard, the only State highway in the east-west direction within the corridor.

## Cost and Funding:

The total project costs for the widening and grade-separation projects are estimated to be \$177 million and \$284 million, respectively. These estimates include right-of-way acquisition and relocation, utility relocation, and actual project construction.

Under provision of the 1973 Federal-Aid Highway Act, it is possible that either of these improvement projects would be eligible for Federal urban program funding. State and local highway funds would be required to match the Federal funds. There is no assurance at this time that funds would be made available for full Federal participation. This program is presently funded through the 1978 fiscal year and would provide a total of approximately \$20 million for corridor jurisdictions. Clearly, this or a similar Federal program would have to be extended or expanded to provide adequate funding to completion.

## Relocation:

For the arterial widening project, it is estimated that 8,700 persons, 3050 residential units, and 1,440 businesses (affecting 6,500 employees) would be displaced. It is estimated that these acquisition and relocation activities would require \$107 million of the total \$177 million required to complete the arterial widening project by 1985. The affected families and businesses would qualify for relocation assistance under provisions of the Federal Uniform Relocation Assistance and Real Property Act of 1970, the same legislation which applies to the I-105 Project.

While the grade-separation project would not directly take significant amounts of property, the diminished visibility and access to the adjoining property and particularly businesses at each of the affected 69 intersections could result in significant proximity impacts. Approximately 600 persons, 192 housing units and 21 business establishments would be displaced.

## Construction:

In terms of construction impacts, the widening project could be implemented with moderate disruption of traffic flow, while the grade-separation project will require traffic detours lasting several months at each affected intersection.

## Operation and Impacts: 1980-2000

### Transportation Effects:

Following completion of either of the two, the following effects are anticipated.

**Arterial Widening** - The increased capacity associated with the arterial widening program would result in vehicular travel speeds of 25-30 mph in the east-west direction, compared with speeds of 20-25 mph on the unimproved arterials. For comparison, today's travel speeds on east-west arterials are in the 23-28 mph range. By the year 2000, anticipated travel speeds along the improved arterials would drop to 20-25 mph; however, the increased travel volumes can be carried on the improved arterials so that the unimproved arterials would maintain travel speeds in the 20-25 mph range.

**Grade Separation** - The increased capacity and reduced conflicts at grade-separated intersections would allow east-west travel speeds of 35-40 mph. Again, as the arterial widening project, travel speeds of unimproved arterials will be in the 20-25 mph range.

Under either of these alternatives, the benefit to public transit riders would be limited to the slight increase in surface street bus travel speeds. Greater transit benefits could be gained through provision of priority-lane treatment for public transit on improved streets; however, this would be at the expense of other motor vehicle traffic.

Neither of the local street improvement alternatives would yield significant gains in regional accessibility, either to automobile, truck or transit users. In terms of travel safety, these alternatives could be slightly better than the "No Project" alternative.

### Environmental Impacts:

The air quality and noise impacts of these alternatives would be similar to the "No Project" alternative. However, the air quality impact (except for NO<sub>x</sub>) would be slightly improved over the "No Project" alternative due to reduced congestion and increased travel speeds. For the same reason, the noise impact of these alternatives will be slightly greater than the "No Project" alternative. Energy use with the local street improvement alternatives will be reduced slightly when compared to the "No Project"; however, the difference regionally is insignificant.

## Development Effects:

Future development in the corridor under either of these local improvement alternatives would approximate the "No Project" condition. That is, the short-term development of the corridor would be constrained in the absence of major transportation improvements. In addition, the business activity near grade-separated intersections could be depressed due to decreased access and visibility. The net effect may be gradual attrition of businesses at these intersections, with the financially stronger establishments seeking new locations.

From a corridor perspective, the local street improvement alternatives would primarily result in maintaining the "status quo" traffic conditions, although the grade-separation alternative would result in increased east-west travel speeds of approximately 35 mph, as compared to about 20 mph for the "no project" alternative. Public transit service improvements would be nominal under either of these alternatives.

In summary, the 15 to 17 affected jurisdictions would have to reach a consensus regarding these alternatives, including assignment and coordination of implementation responsibilities. The communities would then have to apply for Federal Urban System funding and make provisions for local matching funds.

Either of these local improvement projects would also include the I-105 right-of-way redevelopment aspects of the "No Project" alternative. That is, more than 4,000 parcels must be sold, deteriorated structures cleared or rehabilitated, and cleared properties returned to productive use over approximately a four to ten year time period.

The corridor communities would have experienced the major share of pre-construction impacts associated with the I-105 Project and the full range of right-of-way redevelopment effects associated with "No Project" alternative. Additional community impacts would be experienced in order to implement either the arterial widening or grade-separation alternative. The net effect of the preceding would be a situation which maintains, or slightly improves, the "status quo" transportation service within the corridor.

## Scenario 5 - COMBINED BUSWAY AND LOCAL IMPROVEMENT ALTERNATIVES

If the corridor communities had desired a non-freeway transportation improvement program which could provide similar transportation service as the I-105 Freeway-Transitway project, combining a busway (see Scenario 3) with either of the local street improvement concepts (see Scenario 4) would be the alternatives. Presented here is a summary of the composite cost-implementation, transportation-service, environmental, socioeconomic and land use development implications of the following two combination alternatives: Combined Alternative 1 - Exclusive Busway plus arterial widening program. Combined Alternative 2 - Exclusive Busway plus grade-separation program.

## Acquisition, Relocation, Redevelopment and Construction: 1978-1985

In order to implement the "combined alternatives," the following major actions are necessary:

- . Reach agreement among the 15 or 17 affected local jurisdictions regarding the busway and the selection of either the widening or grade-separation program.
- . Apply for Federal assistance per provisions of the 1973 Federal-Aid Highway Act which allows Federal participation in the construction of exclusive busways as well as local highway improvements (Federal-Aid Urban System Funds).
- . Generate matching local transit and highway funds.
- . Purchase additional right-of-way required for the busway, arterial widening or grade-separated intersections and complete necessary residential, commercial, industrial and institutional relocation.
- . Dispose of excess I-105 right-of-way.
- . Construct busway and either the widening or grade-separation program.

#### Cost and Funding:

Combined Alternative 1 (Busway plus Widening) would cost an estimated \$412 million. Combined Alternative 2 (Busway plus Grade Separation) would cost an estimated \$519 million. Funding could come from Federal and local transit and highway sources. The State would be involved if improvements were required to the single State highway (Manchester-Firestone) within the corridor.

#### Relocation:

In terms of right-of-way acquisition and related relocation, Combined Alternative 1 would displace approximately 12,700 people, remove 5,000 housing units, effect 76 community facilities (4 of which are already acquired), and displace roughly 1,500 businesses with more than 7,000 employees. Combined Alternative 2 would, on the other hand, have direct displacement effects only slightly more than the busway alone, that is, it would displace approximately 4,600 people, 2,140 housing units, affect 11 community facilities (4 of which are already acquired) and displace 96 businesses representing almost 560 employees.

#### I-105 Excess Right-of-Way:

As previously noted Scenario 3, the busway project would require that roughly 70 percent (or 3,020 parcels) of the acquired I-105 right-of-way properties be returned to the private sector. This disposal program and subsequent redevelopment activity would require approximately four to ten years.

#### Operation and Impacts: 1980-2000

##### Transportation Effects:

Upon completion of either of the combined alternatives an improved level of transit mobility would be realized by the residents of the corridor (see Scenario 3 for details). In addition, local surface street congestion relief comparable to that which would have been provided by the I-105 Project would be realized (see Scenario 4 for details). The combined effect of the busway and local improvements would not, however, provide significant relief for the regional freeway system as compared to the "with I-105" condition. While public transit speeds in the east-west travel direction would be identical to the "with I-105" condition, vehicular travel (autos, trucks and local buses) would be significantly less under this alternative, with the exception of the improved arterials with grade-separated intersections which would have travel speeds within approximately 10-15 miles per hour of the I-105 Freeway.

##### Environmental Impacts:

The combined alternatives would have air quality effects similar to the I-105 Project, although the magnitude of the effect would be much smaller. Noise impacts along the busway would initially be viewed by the communities as a "new noise source," while either of the local street improvement concepts would tend to keep traffic on the arterial streets rather than forcing traffic to divert to the secondary streets. Thus, between 1980 and the year 2000, noise levels would increase along arterials and would remain similar to today's along the secondaries. Energy use reductions with these alternatives would likely be somewhere between the exclusive busway alternative and the local improvement alternatives and would again be insignificant to the region.

In summary, these combined alternatives provide similar transportation service benefits (in terms of local street congestion relief and regional transit accessibility) to the corridor communities as the I-105 Freeway-Transitway Project.

Combined Alternative 1 (Busway plus Widening) would cost approximately \$412 million. Combined Alternative 2 (Busway plus Grade Separation) would cost approximately \$519 million. Neither of these alternatives have assured Federal and local funding sources.

Socioeconomic impacts of Combined Alternative 1 (Busway plus Widening) would be significantly more than those associated with completing I-105, based on residential, business, and institutional displacement. On the same basis, Combined Alternative 2, and (Busway plus Grade Separation) would have somewhat less direct impact than I-105, although significant impact upon businesses adjacent to the improved intersections would be experienced.

Environmentally, the combined alternatives would have an insignificant effect upon air quality. The noise impact of the combined alternatives would be spread throughout the corridor rather than primarily concentrated along the I-105 right-of-way. Long-term regional energy use for these combined alternatives would be relatively insignificant.

The combined alternatives would also include a State disposal of the roughly 3,020 excess I-105 parcels which would not be needed and would probably be returned to the private sector. The State and Federal non-recoverable cost would be \$84 million and the State Highway Program would be adversely affected throughout the State.

## 1.6 PUBLIC ISSUES

During the DEIS process, the following questions or issues were raised as particularly relevant in rendering a decision on proceeding with the project. Comprehensive information was included in the DEIS so these questions could also be addressed and considered in the decision-making process. These questions have been retained and are presented along with references to the sections of the EIS which address them in some depth.

"In light of the energy crisis, increased gasoline costs, and the 55-mile-per-hour speed limit on our highways, can we justify this 8-lane freeway project when we must curtail our personal travel?" (See Section 2.1, Regional and Corridor Setting; Section 5.6, Energy Use; and Chapter 4 - Transportation Service Evaluation--for coverage of issues raised in this question.)

"Since we don't have enough money for an extensive mass rapid transit system, shouldn't we abandon this freeway and use the money to help pay for a regional transit system, utilizing the interstate deletion-transit substitution provisions of the 1973 Federal-Aid Highway Act?" (See Chapter 3, Section 3.6, which addresses this possibility.)

"Since the freeway generates additional vehicle miles of auto travel, how can we justify building it when the Environmental Protection Agency (EPA) has said we must decrease travel substantially in order to meet Federal air quality standards?" (See Section 5.1, Air Quality Impact, for coverage of this question.)

"What if we don't build this freeway, what happens in terms of effects on other freeways, surface streets, and regional transit plans?" (See Chapter 4 - Transportation Service Evaluation, for discussion of the "no project" travel effects.)

"What happens to the nearby neighborhoods and communities if this freeway is abandoned? What are the obligations of the State and Federal governments to these communities?" (See discussion for "no project" in Chapter 6 - Social and Economic Evaluation, in Chapter 7 - Land Use and Development Evaluation, and in Chapter 8 - Cost and Implementation Evaluation.)

"Have all feasible alternatives have been studied? Have they been analyzed in a comprehensive, objective manner and in a comparable level of detail?" (See discussion of alternatives in Chapter 3, and results of analyses in Chapters 4 through 8.)

"How will an adequate residential relocation program be developed and carried out for those people yet to be relocated by the Project? Are there any anticipated relocation problems to be faced which cannot be solved?" (See Section 6.1, Residential Displacement, for a discussion of this issue.)

"What can be done to mitigate highway noise impact? What are the criteria by which to decide where and when noise attenuation measures are appropriate?" (See Section 5.2, Noise Impact.)

"How many community facilities of major significance will be displaced? What are the remedial programs?" (See Section 5.7, Services and Community Facilities.)

"Would the Project further promote or encourage urban sprawl in the region, and if so, to what extent?" (See Section 7.1, Growth Inducement.)



"Have the affected local communities and the region been involved in the planning process? Has public participation been achieved throughout the Project?" (See Section 2.3, Citizen and Agency Participation.)

"Do the travel demand projections take into account the potential effects of a mass rapid transit system? Should this freeway proceed if a mass rapid transit alternative could reduce the need for the freeway?" (See Chapter 4 - Transportation Service Evaluation.)

## 1.7 EVALUATION SUMMARY

As previously indicated, Table 1-1 presents a summary of evaluation results for the Project and each of the major alternatives. This Table, which appears on the next page, shows the significant findings from the environmental, transportation service, socioeconomic, land use-development, and cost-implementation evaluations; as well as the public review and involvement process.



TRANSPORTATION SERVICE EVALUATION

THE PROPOSED PROJECT *	DEMAND & CONGESTION	SPEED & ACCESSIBILITY	TRAVEL CHOICE	SAFETY
<p><b>I-105 FREEWAY TRANSITWAY **</b>  <b>* IMPERIAL LOCATION</b>  <b>** BUSWAY</b></p>	<p>FREWAY WOULD SERVE 70,000 TO 140,000 VEHICLES PER DAY FOLLOWING COMPLETION, AND 80,000 TO 180,000 BY THE YEAR 2000.</p> <p>MEDIAN BUSWAY WOULD SERVE 60,000 DAILY PASSENGERS AS PART OF REGIONAL TRANSIT SYSTEM.</p> <p>LOCAL STREET CONGESTION WOULD BE REDUCED, ON THE AVERAGE, BY MORE THAN 20 PERCENT COMPARED TO "NO PROJECT." RELIEF OF UP TO 50 PERCENT WOULD OCCUR ON PARALLEL ARTERIALS IMMEDIATELY ADJACENT TO I-105.</p> <p>WOULD REDISTRIBUTE TRAFFIC TO IMPROVE OPERATIONAL EFFICIENCY OF REGIONAL FREEWAY NETWORK.</p>	<p>FREWAY PEAK-PERIOD TRAVEL SPEEDS WOULD BE 45 TO 55 MPH AND OVERALL TRANSIT SPEEDS WOULD AVERAGE 35 TO 45 MPH ON THE MEDIAN-BUSWAY.</p> <p>BENEFITS OF IMPROVED ACCESS TO REGIONAL OPPORTUNITIES WOULD BE SIGNIFICANTLY ENHANCED FOR BOTH HIGHWAY AND TRANSIT USERS.</p>	<p>PROVIDES A CHOICE OF HIGH-SPEED HIGHWAY OR TRANSIT MODES, AS WELL AS IMPROVED SURFACE STREET VEHICULAR OPERATION FOR AUTOMOBILES, TRUCKS AND BUSES.</p>	<p>WOULD EVENTUALLY (2000) RESULT IN APPROXIMATELY 560 FEWER ANNUAL ACCIDENTS (FATAL, PERSONAL INJURY AND PROPERTY DAMAGE) COMPARED TO "NO PROJECT."</p>
<b>LOCATIONAL ALTERNATIVES</b>				
<p><b>"BELL LINE"</b></p>	<p>FREWAY WOULD SERVE 70,000 TO 140,000 VEHICLES PER DAY FOLLOWING COMPLETION, AND 80,000 TO 180,000 BY THE YEAR 2000.</p> <p>MEDIAN BUSWAY WOULD SERVE 60,000 DAILY PASSENGERS AS PART OF REGIONAL TRANSIT SYSTEM.</p> <p>LOCAL STREET CONGESTION WOULD BE REDUCED, ON THE AVERAGE, BY MORE THAN 20 PERCENT COMPARED TO "NO PROJECT." RELIEF OF UP TO 50 PERCENT WOULD OCCUR ON PARALLEL ARTERIALS IMMEDIATELY ADJACENT TO I-105.</p> <p>WOULD REDISTRIBUTE TRAFFIC TO IMPROVE OPERATIONAL EFFICIENCY OF REGIONAL FREEWAY NETWORK.</p>	<p>FREWAY PEAK-PERIOD TRAVEL SPEEDS WOULD BE 45 TO 55 MPH AND OVERALL TRANSIT SPEEDS WOULD AVERAGE 35 TO 45 MPH ON THE MEDIAN-BUSWAY.</p> <p>BENEFITS OF IMPROVED ACCESS TO REGIONAL OPPORTUNITIES WOULD BE SIGNIFICANTLY ENHANCED FOR BOTH HIGHWAY AND TRANSIT USERS.</p>	<p>PROVIDES A CHOICE OF HIGH-SPEED HIGHWAY OR TRANSIT MODES, AS WELL AS IMPROVED SURFACE STREET VEHICULAR OPERATION FOR AUTOMOBILES, TRUCKS AND BUSES.</p>	<p>WOULD EVENTUALLY (2000) RESULT IN APPROXIMATELY 560 FEWER ANNUAL ACCIDENTS (FATAL, PERSONAL INJURY AND PROPERTY DAMAGE) COMPARED TO "NO PROJECT."</p>
<p><b>ORIGINAL ADOPTED LINE</b></p>	<p>FREWAY WOULD SERVE 70,000 TO 140,000 VEHICLES PER DAY FOLLOWING COMPLETION, AND 80,000 TO 180,000 BY THE YEAR 2000.</p> <p>MEDIAN BUSWAY WOULD SERVE 60,000 DAILY PASSENGERS AS PART OF REGIONAL TRANSIT SYSTEM.</p> <p>LOCAL STREET CONGESTION WOULD BE REDUCED, ON THE AVERAGE, BY MORE THAN 20 PERCENT COMPARED TO "NO PROJECT." RELIEF OF UP TO 50 PERCENT WOULD OCCUR ON PARALLEL ARTERIALS IMMEDIATELY ADJACENT TO I-105.</p> <p>WOULD REDISTRIBUTE TRAFFIC TO IMPROVE OPERATIONAL EFFICIENCY OF REGIONAL FREEWAY NETWORK.</p>	<p>FREWAY PEAK-PERIOD TRAVEL SPEEDS WOULD BE 45 TO 55 MPH AND OVERALL TRANSIT SPEEDS WOULD AVERAGE 35 TO 45 MPH ON THE MEDIAN-BUSWAY.</p> <p>BENEFITS OF IMPROVED ACCESS TO REGIONAL OPPORTUNITIES WOULD BE SIGNIFICANTLY ENHANCED FOR BOTH HIGHWAY AND TRANSIT USERS.</p>	<p>PROVIDES A CHOICE OF HIGH-SPEED HIGHWAY OR TRANSIT MODES, AS WELL AS IMPROVED SURFACE STREET VEHICULAR OPERATION FOR AUTOMOBILES, TRUCKS AND BUSES.</p>	<p>WOULD EVENTUALLY (2000) RESULT IN APPROXIMATELY 560 FEWER ANNUAL ACCIDENTS (FATAL, PERSONAL INJURY AND PROPERTY DAMAGE) COMPARED TO "NO PROJECT."</p>
<b>CONCEPTUAL ALTERNATIVES</b>				
<p><b>EXCLUSIVE BUSWAY</b></p>	<p>BUSWAY WOULD SERVE 58,000 PASSENGERS DAILY AS PART OF REGIONAL TRANSIT SYSTEM.</p> <p>LOCAL STREET CONGESTION COULD BE REDUCED BY UP TO TWO PERCENT COMPARED TO "NO PROJECT."</p>	<p>WOULD RESULT IN SUBSTANTIAL INCREASES IN AVERAGE TRANSIT TRAVEL SPEEDS AND ATTENDANT REGIONAL ACCESSIBILITY BENEFITS FOR TRANSIT USERS.</p> <p>NET, LONG-TERM DECREASES IN REGIONAL ACCESSIBILITY FOR HIGHWAY USERS WOULD OCCUR.</p>	<p>PROVIDES A HIGH-SPEED TRANSIT MODE CHOICE AND SURFACE STREET CONDITIONS SLIGHTLY BETTER THAN "NO PROJECT."</p>	<p>WOULD RESULT IN APPROXIMATELY 280 FEWER ANNUAL ACCIDENTS COMPARED TO "NO PROJECT."</p>
<p><b>LOCAL IMPROVEMENTS</b>  <b>- ARTERIAL WIDENING</b>  <b>OR</b>  <b>- GRADE SEPARATION</b></p>	<p>WOULD PRODUCE LOCAL CONGESTION RELIEF SIMILAR TO THE I-105 PROJECT.</p>	<p>WOULD ENABLE LONG-TERM REGIONAL ACCESS TO REMAIN AT CURRENT LEVELS FOR BOTH HIGHWAY AND TRANSIT USERS.</p>	<p>WOULD PROVIDE MODE CHOICE SIMILAR TO CURRENT SITUATION IN CORRIDOR.</p>	<p>GRADE SEPARATION ALTERNATIVE WOULD RESULT IN 45 FEWER ANNUAL ACCIDENTS COMPARED TO "NO PROJECT," WHILE THE ARTERIAL WIDENING ALTERNATIVE WOULD RESULT IN NO ACCIDENT REDUCTIONS COMPARED TO "NO PROJECT."</p>
<p><b>COMBINED ALTERNATIVES:</b>  <b>- BUSWAY &amp; WIDENING</b>  <b>OR</b>  <b>- BUSWAY &amp; GRADE - SEPARATION</b></p>	<p>BUSWAY WOULD SERVE 58,000 PASSENGERS DAILY AS PART OF REGIONAL TRANSIT SYSTEM.</p> <p>LOCAL CONGESTION RELIEF WOULD BE SIMILAR TO THAT EXPERIENCED UNDER I-105 PROJECT CONDITIONS.</p>	<p>WOULD RESULT IN SUBSTANTIAL INCREASES IN AVERAGE TRANSIT TRAVEL SPEEDS AND ATTENDANT REGIONAL ACCESSIBILITY BENEFITS FOR TRANSIT USERS.</p> <p>WOULD ENABLE LONG-TERM REGIONAL ACCESS TO REMAIN AT CURRENT LEVELS FOR HIGHWAY USERS.</p>	<p>PROVIDES A CHOICE OF HIGH-SPEED TRANSIT OR IMPROVED SURFACE STREET VEHICULAR OPERATION FOR AUTOMOBILES, TRUCKS, AND BUSES.</p>	<p>WOULD HAVE EFFECTS BETWEEN THOSE OF THE EXCLUSIVE BUSWAY AND THE "LOCAL IMPROVEMENTS" CONSIDERED SEPARATELY.</p>
<p><b>"NO PROJECT" ALTERNATIVE</b></p>	<p>LOCAL STREET CONGESTION IN THE CORRIDOR, BOTH SHORT-TERM (1980) AND LONG-TERM (YEAR 2000) WOULD INCREASE ON THE AVERAGE BY 25 PERCENT COMPARED TO I-105 PROJECT CONDITIONS.</p> <p>MOTORISTS WOULD TEND TO SEEK ALTERNATIVE ROUTES, WHICH WOULD TEND TO GREATLY INCREASE TRAVEL ALONG CURRENTLY UNCONGESTED CORRIDOR SECONDARY STREETS.</p>	<p>WOULD RESULT IN LONG-TERM DECREASES IN TRAVEL SPEEDS AND REGIONAL ACCESSIBILITY--FOR BOTH HIGHWAY AND TRANSIT USERS.</p>	<p>WOULD PROVIDE MODE CHOICE SIMILAR TO CURRENT SITUATION IN CORRIDOR.</p>	<p>WOULD RESULT IN APPROXIMATELY 560 MORE ANNUAL ACCIDENTS COMPARED TO I-105 FREEWAY-BUSWAY.</p>

EVALUATION SUMMARY OF I05 ALTERNATIVES  
 TABLE I-1a

**SOCIAL & ECONOMIC EVALUATION**

THE PROPOSED PROJECT *	RESIDENTIAL & BUSINESS DISPLACEMENT	COMMUNITY FACILITIES	LOCAL TAXES	GROWTH - INDUCEMENT	PUBLIC & PRIVATE SECTOR PLANS
<b>I-105 FREEWAY TRANSITWAY * *</b> <b>* IMPERIAL LOCATION</b> <b>** BUSWAY</b>	<p>WOULD RESULT IN ADDITIONAL (POST-1977) RELOCATION OF 7,300 PERSONS AND 4,350 LIVING UNITS. AN ADDITIONAL 2,400 PEOPLE IN 770 LIVING UNITS WHO ARE TEMPORARY RE-RENTERS WOULD BE DISPLACED. ALSO ABOUT 1,460 LIVING UNITS WHICH ARE VACANT WOULD BE REMOVED.</p> <p>WOULD RESULT IN ADDITIONAL (POST-1977) DISPLACEMENT OF 240 BUSINESSES AFFECTING 1,140 EMPLOYEES.</p> <p>COMPENSATION WOULD BE PROVIDED THROUGH CONTINUED APPLICATION OF THE UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION ACT OF 1970.</p>	<p>WOULD AFFECT (THROUGH EITHER FULL OR PARTIAL ACQUISITION) 38 COMMUNITY FACILITIES (SCHOOLS, A PARK, CHURCHES, AND OTHERS), 18 OF WHICH HAVE ALREADY BEEN ACQUIRED.</p> <p>MITIGATION MEASURES INCLUDE PAYMENTS AND RELOCATION ASSISTANCE, INCLUDING ACTUAL PARTICIPATION (BY CALTRANS) OF REPLACEMENT SCHOOLS AND A PARK.</p>	<p>WOULD PRODUCE FOLLOWING ADDITIONAL (POST-1977) ANNUAL SHORT-TERM TAX LOSSES:</p> <p>--PROPERTY TAX \$760,000</p> <p>--SALES TAX \$314,000</p> <p>--SCHOOL DISTRICTS \$628,000</p> <p>SCHOOL DISTRICT REVENUE LOSSES WOULD BE MITIGATED THROUGH PROVISIONS OF THE LANTERMAN ACT.</p> <p>IT IS ANTICIPATED THAT LONG-TERM INCREASES IN LOCAL TAX REVENUE WOULD OCCUR; HOWEVER, THESE EFFECTS HAVE NOT BEEN ESTIMATED.</p>	<p>THE CORRIDOR IS ESSENTIALLY DEVELOPED. HOWEVER, THE I-105 PROJECT MAY CONTRIBUTE TO INTENSIFICATION OF DEVELOPMENT WITHIN THE CORRIDOR.</p> <p>COULD PROVIDE IMPETUS FOR GROWTH IN THE FOOT-HILLS NEAR POMONA AND AT THE EDGE OF DEVELOPMENT IN SOUTHERN ORANGE COUNTY, ALREADY UNDER INTENSIVE DEVELOPMENT.</p> <p>MAY ACCELERATE COMMERCIAL AND INDUSTRIAL DEVELOPMENTS IN EL SEGUNDO (NEAR LAX), AND INDUSTRIAL DEVELOPMENTS IN LYNWOOD, SOUTH GATE AND PARAMOUNT.</p>	<p>THE PROJECT WOULD FUND AND IMPLEMENT THE LONG SOUGHT AFTER ABANDONMENT AND RELOCATION OF SOUTHERN PACIFIC RAIL LINES IN MATTS, HILLOWBROOK, COMPTON AND LYNWOOD.</p> <p>SEVERAL JOINT-USE DEVELOPMENT OPPORTUNITIES WOULD BE CREATED.</p> <p>MOST RECENT COMMERCIAL, INDUSTRIAL AND PLANNED DEVELOPMENTS BY PRIVATE SECTOR WOULD BE ECONOMICALLY VIABLE IF PROJECT IS COMPLETED.</p> <p>IS A MAJOR ELEMENT OF THE TRANSPORTATION PLAN FOR LAX.</p>
<b>LOCATIONAL ALTERNATIVES</b>					
<b>"BELL LINE"</b>	<p>WOULD RESULT IN ADDITIONAL (POST-1977) RELOCATION OF 8,200 PERSONS AND 4,700 LIVING UNITS. AN ADDITIONAL 2,400 PEOPLE IN 770 LIVING UNITS WHO ARE TEMPORARY RE-RENTERS WOULD BE DISPLACED. ALSO ABOUT 1,460 LIVING UNITS WHICH ARE VACANT WOULD BE REMOVED.</p> <p>WOULD RESULT IN ADDITIONAL (POST-1977) DISPLACEMENT OF 259 BUSINESSES AFFECTING 1,170 EMPLOYEES.</p> <p>COMPENSATION WOULD BE PROVIDED THROUGH CONTINUED APPLICATION OF THE UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION ACT OF 1970.</p>	<p>WOULD AFFECT (THROUGH EITHER FULL OR PARTIAL ACQUISITION) 38 COMMUNITY FACILITIES (SCHOOLS, A PARK, CHURCHES, AND OTHERS), 18 OF WHICH HAVE ALREADY BEEN ACQUIRED.</p> <p>MITIGATION MEASURES INCLUDE PAYMENTS AND RELOCATION ASSISTANCE, INCLUDING ACTUAL PARTICIPATION (BY CALTRANS) OF REPLACEMENT SCHOOLS AND A PARK.</p>	<p>WOULD PRODUCE FOLLOWING ADDITIONAL (POST-1977) ANNUAL SHORT-TERM TAX LOSSES:</p> <p>--PROPERTY TAX \$740,000</p> <p>--SALES TAX \$325,000</p> <p>--SCHOOL DISTRICTS \$610,000</p> <p>SCHOOL DISTRICT REVENUE LOSSES WOULD BE MITIGATED THROUGH PROVISIONS OF THE LANTERMAN ACT.</p> <p>IT IS ANTICIPATED THAT LONG-TERM INCREASES IN LOCAL TAX REVENUE WOULD OCCUR; HOWEVER, THESE EFFECTS HAVE NOT BEEN ESTIMATED.</p>	<p>THE CORRIDOR IS ESSENTIALLY DEVELOPED. HOWEVER, THE I-105 PROJECT MAY CONTRIBUTE TO INTENSIFICATION OF DEVELOPMENT WITHIN THE CORRIDOR.</p> <p>COULD PROVIDE IMPETUS FOR GROWTH IN THE FOOT-HILLS NEAR POMONA AND AT THE EDGE OF DEVELOPMENT IN SOUTHERN ORANGE COUNTY, ALREADY UNDER INTENSIVE DEVELOPMENT.</p> <p>MAY ACCELERATE COMMERCIAL AND INDUSTRIAL DEVELOPMENTS IN EL SEGUNDO (NEAR LAX), AND INDUSTRIAL DEVELOPMENTS IN LYNWOOD, SOUTH GATE AND PARAMOUNT.</p>	<p>THE PROJECT WOULD FUND AND IMPLEMENT THE LONG SOUGHT AFTER ABANDONMENT AND RELOCATION OF SOUTHERN PACIFIC RAIL LINES IN MATTS, HILLOWBROOK, COMPTON AND LYNWOOD.</p> <p>SEVERAL JOINT-USE DEVELOPMENT OPPORTUNITIES WOULD BE CREATED.</p> <p>MOST RECENT COMMERCIAL, INDUSTRIAL AND PLANNED DEVELOPMENTS BY PRIVATE SECTOR WOULD BE ECONOMICALLY VIABLE IF PROJECT IS COMPLETED.</p> <p>IS A MAJOR ELEMENT OF THE TRANSPORTATION PLAN FOR LAX.</p>
<b>ORIGINAL ADOPTED LINE</b>	<p>WOULD RESULT IN ADDITIONAL (POST-1977) RELOCATION OF 6,500 PERSONS AND 4,360 LIVING UNITS. AN ADDITIONAL 2,400 PEOPLE IN 770 LIVING UNITS WHO ARE TEMPORARY RE-RENTERS WOULD BE DISPLACED. ALSO ABOUT 1,460 LIVING UNITS WHICH ARE VACANT WOULD BE REMOVED.</p> <p>WOULD RESULT IN ADDITIONAL (POST-1977) DISPLACEMENT OF 290 BUSINESSES AFFECTING 840 EMPLOYEES.</p> <p>COMPENSATION WOULD BE PROVIDED THROUGH CONTINUED APPLICATION OF THE UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION ACT OF 1970.</p>	<p>WOULD AFFECT (THROUGH EITHER FULL OR PARTIAL ACQUISITION) 36 COMMUNITY FACILITIES (SCHOOLS, A PARK, CHURCHES, AND OTHERS), 18 OF WHICH HAVE ALREADY BEEN ACQUIRED.</p> <p>MITIGATION MEASURES INCLUDE PAYMENTS AND RELOCATION ASSISTANCE, INCLUDING ACTUAL PARTICIPATION (BY CALTRANS) OF REPLACEMENT SCHOOLS AND A PARK.</p>	<p>WOULD PRODUCE FOLLOWING ADDITIONAL (POST-1977) ANNUAL SHORT-TERM TAX LOSSES:</p> <p>--PROPERTY TAX \$660,000</p> <p>--SALES TAX \$250,000</p> <p>--SCHOOL DISTRICTS \$536,000</p> <p>SCHOOL DISTRICT REVENUE LOSSES WOULD BE MITIGATED THROUGH PROVISIONS OF THE LANTERMAN ACT.</p> <p>IT IS ANTICIPATED THAT LONG-TERM INCREASES IN LOCAL TAX REVENUE WOULD OCCUR; HOWEVER, THESE EFFECTS HAVE NOT BEEN ESTIMATED.</p>	<p>THE CORRIDOR IS ESSENTIALLY DEVELOPED. HOWEVER, THE I-105 PROJECT MAY CONTRIBUTE TO INTENSIFICATION OF DEVELOPMENT WITHIN THE CORRIDOR.</p> <p>COULD PROVIDE IMPETUS FOR GROWTH IN THE FOOT-HILLS NEAR POMONA AND AT THE EDGE OF DEVELOPMENT IN SOUTHERN ORANGE COUNTY, ALREADY UNDER INTENSIVE DEVELOPMENT.</p> <p>MAY ACCELERATE COMMERCIAL AND INDUSTRIAL DEVELOPMENTS IN EL SEGUNDO (NEAR LAX), AND INDUSTRIAL DEVELOPMENTS IN LYNWOOD, SOUTH GATE AND PARAMOUNT.</p>	<p>THE PROJECT WOULD FUND AND IMPLEMENT THE LONG SOUGHT AFTER ABANDONMENT AND RELOCATION OF SOUTHERN PACIFIC RAIL LINES IN MATTS, HILLOWBROOK, COMPTON AND LYNWOOD.</p> <p>SEVERAL JOINT-USE DEVELOPMENT OPPORTUNITIES WOULD BE CREATED.</p> <p>MOST RECENT COMMERCIAL, INDUSTRIAL AND PLANNED DEVELOPMENTS BY PRIVATE SECTOR WOULD BE ECONOMICALLY VIABLE IF PROJECT IS COMPLETED.</p> <p>IS A MAJOR ELEMENT OF THE TRANSPORTATION PLAN FOR LAX.</p>
<b>CONCEPTUAL ALTERNATIVES</b>					
<b>EXCLUSIVE BUSWAY</b>	<p>WOULD RESULT IN ADDITIONAL (POST-1977) RELOCATION OF 4,770 PERSONS AND REMOVAL OF 1,980 LIVING UNITS.</p> <p>AN ADDITIONAL 800 PEOPLE IN 260 LIVING UNITS WHO ARE TEMPORARY RENTERS WOULD BE DISPLACED AND ABOUT 30 NON-REHABILITATABLE LIVING UNIT REMOVED.</p> <p>WOULD RESULT IN ADDITIONAL DISPLACEMENT OF 75 BUSINESSES AFFECTING 440 EMPLOYEES.</p> <p>COMPENSATION APPROACH SIMILAR TO I-105.</p>	<p>WOULD AFFECT 23 COMMUNITY FACILITIES, 18 OF WHICH HAVE ALREADY BEEN ACQUIRED.</p> <p>MITIGATION APPROACH SIMILAR TO I-105.</p>	<p>WOULD PRODUCE ADDITIONAL (POST-1977) ANNUAL PROPERTY TAX LOSS OF \$355,000, SALES TAX LOSS OF \$92,000, AND SCHOOL TAX LOSS OF \$290,000.</p> <p>SCHOOL DISTRICT IMPACT LESS THAN I-105; SIMILAR MITIGATION APPROACH.</p>	<p>WOULD HAVE INSIGNIFICANT EFFECT ON FUTURE URBAN SPRAWL.</p> <p>MAY ACCELERATE COMMERCIAL DEVELOPMENTS, BUT PROBABLY WOULD HAVE NO EFFECT ON INDUSTRIAL DEVELOPMENTS SINCE MOVEMENT OF GOODS WOULD NOT BE IMPROVED.</p>	<p>RAILROAD RELOCATION AND CERTAIN JOINT-USE PROJECTS MAY STILL BE FEASIBLE WITH EXCLUSIVE BUSWAY USING I-105 RIGHT-OF-WAY.</p> <p>PRIVATE SECTOR COMMERCIAL DEVELOPMENTS WOULD BE SOMEWHAT ENHANCED IN TERMS OF ECONOMIC VIABILITY, ALTHOUGH NOT TO THE EXTENT POSSIBLE WITH I-105.</p> <p>AIRPORT ACCESSIBILITY WOULD HAVE TO BE RE-PLANNED.</p>
<b>LOCAL IMPROVEMENTS</b> <b>- ARTERIAL WIDENING</b> <b>OR</b> <b>- GRADE SEPARATION</b>	<p>GRADE-SEPARATION ALTERNATIVE WOULD REQUIRE DISPLACEMENT OF 1,370 PERSONS AND 250 LIVING UNITS, WHILE ARTERIAL WIDENING WOULD DISPLACE 9,470 PERSONS AND 3,110 LIVING UNITS.</p> <p>GRADE-SEPARATION ALTERNATIVE WOULD DIRECTLY AFFECT 21 BUSINESSES AND 95 EMPLOYEES AND INDIRECTLY AFFECT MANY MORE AS A RESULT OF PROXIMITY IMPACTS. ARTERIAL-WIDENING ALTERNATIVE WOULD DISPLACE 1,400 BUSINESSES, WITH 6,500 EMPLOYEES.</p>	<p>GRADE-SEPARATION ALTERNATIVE WOULD NOT DIRECTLY AFFECT ANY COMMUNITY FACILITIES, ASIDE FROM THE 18 ALREADY ACQUIRED FOR THE I-105 PROJECT. THE ARTERIAL-WIDENING ALTERNATIVE WOULD AFFECT A TOTAL OF 83 INCLUDING THE 18 ALREADY ACQUIRED FOR THE I-105 PROJECT.</p> <p>MITIGATION APPROACH SIMILAR TO I-105.</p>	<p>GRADE-SEPARATION ALTERNATIVE WOULD RESULT IN AN ANNUAL PROPERTY TAX LOSS OF \$811,000, SALES TAX LOSS OF \$160,000, AND SCHOOL TAX LOSS OF \$1,015,000.</p> <p>ARTERIAL WIDENING ALTERNATIVE WOULD RESULT IN AN ANNUAL PROPERTY TAX LOSS OF \$1,628,000, SALES TAX LOSS OF \$2,000,000, AND SCHOOL TAX LOSS OF \$1,853,000.</p>	<p>WOULD HAVE INSIGNIFICANT EFFECT ON FUTURE URBAN SPRAWL.</p> <p>WOULD TEND TO REDISTRIBUTE COMMERCIAL ACTIVITIES WITHIN THE CORRIDOR AS A RESULT OF DISPLACEMENT AND PROXIMITY IMPACTS.</p>	<p>RAILROAD RELOCATION AND JOINT-USE PROJECTS WOULD NOT OCCUR UNDER EITHER OF THESE ALTERNATIVES.</p> <p>PRIVATE SECTOR INDUSTRIAL DEVELOPMENTS WOULD BE ENHANCED SOMEWHAT IN TERMS OF ECONOMIC VIABILITY, ALTHOUGH NOT TO THE EXTENT POSSIBLE WITH I-105.</p> <p>AIRPORT ACCESSIBILITY WOULD HAVE TO BE RE-PLANNED.</p>
<b>COMBINED ALTERNATIVES:</b> <b>- BUSWAY &amp; WIDENING</b> <b>OR</b> <b>- BUSWAY &amp; GRADE - SEPARATION</b>	<p>"BUSWAY AND GRADE-SEPARATION" ALTERNATIVE WOULD RESULT IN DISPLACEMENT OF 5,370 PERSONS AND 2,170 LIVING UNITS; DISPLACEMENT OF 96 BUSINESSES AFFECTING 535 EMPLOYEES; AND, PRODUCE INDIRECT ECONOMIC "PROXIMITY IMPACTS" ALONG IMPROVED ARTERIALS.</p> <p>AN ADDITIONAL 800 PEOPLE IN 260 LIVING UNITS WHO ARE TEMPORARY RENTERS WOULD BE DISPLACED AND ABOUT 30 LIVING UNITS REMOVED.</p> <p>"BUSWAY AND ARTERIAL-WIDENING" ALTERNATIVE WOULD RESULT IN DISPLACEMENT OF 13,470 PERSONS AND 5,030 LIVING UNITS, AND DISPLACEMENT OF 1,515 BUSINESSES AFFECTING 6,960 EMPLOYEES.</p>	<p>"BUSWAY AND GRADE-SEPARATION" ALTERNATIVE WOULD AFFECT A TOTAL OF 23 COMMUNITY FACILITIES, 18 OF WHICH HAVE ALREADY BEEN ACQUIRED.</p> <p>"BUSWAY AND ARTERIAL-WIDENING" ALTERNATIVE WOULD AFFECT A TOTAL OF 90 COMMUNITY FACILITIES, 18 OF WHICH HAVE ALREADY BEEN ACQUIRED.</p>	<p>"BUSWAY AND GRADE-SEPARATION" WOULD PRODUCE ADDITIONAL ANNUAL PROPERTY TAX LOSS OF \$1,166,000, SALES TAX LOSS OF \$252,000, AND SCHOOL TAX LOSS OF \$1,305,000.</p> <p>"BUSWAY AND ARTERIAL WIDENING" WOULD PRODUCE ADDITIONAL ANNUAL PROPERTY TAX LOSS OF \$1,983,000, SALES TAX LOSS OF \$2,092,000, AND SCHOOL TAX LOSS OF \$2,143,000.</p>	<p>WOULD HAVE URBAN SPRAWL AND DEVELOPMENT (INTENSIFICATION EFFECTS MOST SIMILAR TO I-105 PROJECT; HOWEVER, MAGNITUDE OF EFFECT WOULD BE SMALLER.</p>	<p>WOULD BE LEAST DISRUPTIVE OF ALTERNATIVES TO I-105 IN TERMS OF IMPACT UPON CURRENT PUBLIC AND PRIVATE SECTOR PLANNING AND DEVELOPMENT ACTIVITIES IN THE CORRIDOR WHICH WERE INITIATED ASSUMING I-105 IMPROVEMENTS.</p> <p>AIRPORT ACCESSIBILITY WOULD HAVE TO BE RE-PLANNED.</p>
<b>"NO PROJECT" ALTERNATIVE</b>	<p>WOULD NOT PRODUCE ANY SIGNIFICANT ADDITIONAL RESIDENTIAL OR BUSINESS DISPLACEMENT.</p> <p>DISPLACEMENT IMPACTS PREVIOUSLY INCURRED (PRE-1977) WOULD APPLY HERE, AS WELL AS ALL OF THE ABOVE ALTERNATIVES.</p>	<p>WOULD NOT PRODUCE ANY SIGNIFICANT ADDITIONAL (POST-1977) DISPLACEMENT OF COMMUNITY FACILITIES.</p>	<p>WOULD NOT PRODUCE ADDITIONAL LOCAL TAX IMPACTS; HOWEVER, THE \$3.1 MILLION IN LOSSES ASSOCIATED WITH ACQUIRED I-105 RIGHT-OF-WAY WOULD CONTINUE UNTIL THE RIGHT-OF-WAY IS FULLY RETURNED TO PRODUCTIVE USES.</p>	<p>WOULD HAVE INSIGNIFICANT EFFECT ON FUTURE URBAN SPRAWL.</p> <p>WOULD LIKELY HAVE NO SIGNIFICANT EFFECT ON CORRIDOR DEVELOPMENT INTENSIFICATION, ALTHOUGH MORE INTENSIVE USE OF PROJECT RIGHT-OF-WAY WOULD BE POSSIBLE WHEN AND IF AFFECTED LOCAL GOVERNMENTS ADOPT A CHANGE IN LAND USE POLICY.</p>	<p>WOULD HAVE GREATEST DISRUPTIVE IMPACT UPON CURRENT PUBLIC AND PRIVATE SECTOR ACTIVITIES IN THE CORRIDOR WHICH WERE INITIATED ASSUMING I-105 IMPROVEMENTS; RAILROAD RELOCATION AND JOINT-USE PROJECTS WOULD NOT BE POSSIBLE; AND, CERTAIN PRIVATE SECTOR COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHICH WERE COMPLETED WITH THE I-105 PROJECT IN MIND WOULD BE LESS VIABLE.</p> <p>AIRPORT ACCESSIBILITY WOULD HAVE TO BE RE-PLANNED.</p>

**EVALUATION SUMMARY OF 105 ALTERNATIVES**

**TABLE I-1b**

**COST & IMPLEMENTATION EVALUATION**

THE PROPOSED PROJECT *	COST	FUTURE USE OF PROJECT R / W	IMPLEMENTATION
<p><b>I-105 FREEWAY TRANSITWAY **</b>                      * IMPERIAL LOCATION                      ** BUSWAY</p>	<p>WHEN FREEWAY-BUSWAY IS COMPLETED, TOTAL ADDITIONAL (POST-1977) COSTS OF \$457 MILLION WOULD BE INCURRED BY FEDERAL, STATE, AND LOCAL GOVERNMENTS (INCLUDING SCRTP) WITH RESPECT TO MEDIAN BUSWAY EXPENDITURES. THIS IS IN ADDITION TO THE \$154 MILLION WHICH HAS ALREADY BEEN SPENT.</p>	<p>APPROXIMATELY 1,130 EXCESS PARCELS WOULD BE SOLD. ABOUT 810 HAVE BEEN CLEARED OF IMPROVEMENTS. MOST OF THE REMAINDER ARE BOARDED AND WOULD REQUIRE REHABILITATION.</p> <p>THIS EXCESS PROPERTY IS PRESENTLY WORTH ABOUT \$19 MILLION. WHEN FULLY RE-DEVELOPED THE VALUE OF THIS PROPERTY WOULD BE SUBSTANTIALLY GREATER.</p>	<p>THE I-105 PROJECT COULD BE FULLY OPERATIONAL WITHIN FIVE TO SIX YEARS FOLLOWING FINAL DECISION TO PROCEED WITH PROJECT.</p>
<b>LOCATIONAL ALTERNATIVES</b>			
<p align="center"><b>"BELL LINE"</b></p>	<p>WHEN FREEWAY-BUSWAY IS COMPLETED, TOTAL ADDITIONAL (POST-1977) COSTS OF \$456 MILLION WOULD BE INCURRED BY FEDERAL, STATE, AND LOCAL GOVERNMENTS (INCLUDING SCRTP) WITH RESPECT TO MEDIAN BUSWAY EXPENDITURES. THIS IS IN ADDITION TO THE \$154 MILLION WHICH HAS ALREADY BEEN SPENT.</p>	<p>APPROXIMATELY 585 EXCESS PARCELS WOULD BE SOLD. ABOUT 340 HAVE BEEN CLEARED OF IMPROVEMENTS. MOST OF THE REMAINDER ARE BOARDED AND WOULD REQUIRE REHABILITATION.</p> <p>THIS EXCESS PROPERTY IS PRESENTLY WORTH ABOUT \$14 MILLION. WHEN FULLY RE-DEVELOPED THE VALUE OF THIS PROPERTY WOULD BE SUBSTANTIALLY GREATER.</p>	<p>THE I-105 PROJECT COULD BE FULLY OPERATIONAL WITHIN FIVE TO SIX YEARS FOLLOWING FINAL DECISION TO PROCEED WITH PROJECT.</p>
<p align="center"><b>ORIGINAL ADOPTED LINE</b></p>	<p>WHEN FREEWAY-BUSWAY IS COMPLETED, TOTAL ADDITIONAL (POST-1977) COSTS OF \$446 MILLION WOULD BE INCURRED BY FEDERAL, STATE, AND LOCAL GOVERNMENTS (INCLUDING SCRTP) WITH RESPECT TO MEDIAN BUSWAY EXPENDITURES. THIS IS IN ADDITION TO THE \$154 MILLION WHICH HAS ALREADY BEEN SPENT.</p>	<p>APPROXIMATELY 480 EXCESS PARCELS WOULD BE SOLD. ABOUT 340 HAVE BEEN CLEARED OF IMPROVEMENTS. MOST OF THE REMAINDER ARE BOARDED AND WOULD REQUIRE REHABILITATION.</p> <p>THIS EXCESS PROPERTY IS PRESENTLY WORTH ABOUT \$8 MILLION. WHEN FULLY RE-DEVELOPED THE VALUE OF THIS PROPERTY WOULD BE SUBSTANTIALLY GREATER.</p>	<p>THE I-105 PROJECT COULD BE FULLY OPERATIONAL WITHIN FIVE TO SIX YEARS FOLLOWING FINAL DECISION TO PROCEED WITH PROJECT.</p>
<b>CONCEPTUAL ALTERNATIVES</b>			
<p align="center"><b>EXCLUSIVE BUSWAY</b></p>	<p>TOTAL PROJECT COSTS OF ALMOST \$235 MILLION WOULD BE INCURRED; SINCE \$55 MILLION OF ACQUIRED I-105 RIGHT-OF-WAY COULD BE UTILIZED, NET PROJECT COSTS OF \$181 MILLION WOULD RESULT.</p> <p>IN ADDITION, \$84 MILLION OF NON-RECOVERABLE COSTS ASSOCIATED WITH THE I-105 PROJECT WOULD BE INCURRED.</p>	<p>APPROXIMATELY 3,000 EXCESS PARCELS WOULD BE SOLD. ABOUT 1,760 HAVE BEEN CLEARED OF IMPROVEMENTS. MOST OF THE REMAINDER ARE BOARDED AND WOULD REQUIRE REHABILITATION.</p> <p>THIS EXCESS PROPERTY IS PRESENTLY WORTH ABOUT \$49 MILLION. WHEN FULLY RE-DEVELOPED THE VALUE OF THIS PROPERTY WOULD BE SUBSTANTIALLY GREATER.</p>	<p>THE EXCLUSIVE BUSWAY COULD BECOME OPERATIONAL WITHIN FIVE TO SIX YEARS FOLLOWING A DECISION BY SCRTP TO BUILD A BUSWAY, WHICH WOULD MOST LIKELY FOLLOW THE FINAL I-105 DECISION.</p> <p>WOULD REQUIRE FOUR TO TEN YEARS TO RETURN EXCESS I-105 RIGHT-OF-WAY TO PRODUCTIVE USE.</p>
<p align="center"><b>LOCAL IMPROVEMENTS - ARTERIAL WIDENING OR - GRADE SEPARATION</b></p>	<p>TOTAL PROJECTS COSTS OF \$177 MILLION FOR ARTERIAL WIDENING, AND \$284 MILLION FOR GRADE-SEPARATION ALTERNATIVE WOULD BE INCURRED BY FEDERAL, STATE, AND LOCAL GOVERNMENTS.</p> <p>\$105 MILLION IN NON-RECOVERABLE I-105 COSTS WOULD ALSO BE INCURRED.</p>	<p>APPROXIMATELY 4,800 EXCESS PARCELS WOULD BE SOLD. ABOUT 1,900 HAVE BEEN CLEARED OF IMPROVEMENTS. MOST OF THE REMAINDER ARE BOARDED AND WOULD REQUIRE REHABILITATION.</p> <p>THIS EXCESS PROPERTY IS PRESENTLY WORTH ABOUT \$82 MILLION. WHEN FULLY RE-DEVELOPED THE VALUE OF THIS PROPERTY WOULD BE SUBSTANTIALLY GREATER.</p>	<p>WOULD REQUIRE CONSENSUS AMONG 15 AFFECTED LOCAL JURISDICTIONS AS TO FINAL DESIGN AND FUNDING PARTICIPATION--NUMBER OF YEARS TO IMPLEMENT EITHER ALTERNATIVE NOT POSSIBLE TO ASCERTAIN AT PRESENT TIME.</p> <p>WOULD REQUIRE FOUR TO TEN YEARS TO RETURN EXCESS I-105 RIGHT-OF-WAY TO PRODUCTIVE USE.</p>
<p align="center"><b>COMBINED ALTERNATIVES: - BUSWAY &amp; WIDENING OR - BUSWAY &amp; GRADE - SEPARATION</b></p>	<p>TOTAL PROJECT COSTS OF "COMBINED BUSWAY AND GRADE-SEPARATION" WOULD BE \$519 MILLION, WHILE THE "BUSWAY AND WIDENING" ALTERNATIVE WOULD COST \$412 MILLION.</p> <p>I-105 "NON-RECOVERABLE COSTS" OF \$84 MILLION WOULD BE INCURRED.</p>	<p>APPROXIMATELY 3,000 EXCESS PARCELS WOULD BE SOLD. ABOUT 1,760 HAVE BEEN CLEARED OF IMPROVEMENTS. MOST OF THE REMAINDER ARE BOARDED AND WOULD REQUIRE REHABILITATION.</p> <p>THIS EXCESS PROPERTY IS PRESENTLY WORTH ABOUT \$49 MILLION. WHEN FULLY RE-DEVELOPED THE VALUE OF THIS PROPERTY WOULD BE SUBSTANTIALLY GREATER.</p>	<p>WOULD REQUIRE CONSENSUS AMONG THE 15 AFFECTED LOCAL JURISDICTIONS AS TO FINAL DESIGN AND FUNDING PARTICIPATION--NUMBER OF YEARS TO IMPLEMENT EITHER COMBINED ALTERNATIVE NOT POSSIBLE TO ASCERTAIN AT PRESENT TIME; HOWEVER, WOULD PROBABLY BE GREATER THAN ANY OF THE OTHER ALTERNATIVES CONSIDERED.</p> <p>WOULD REQUIRE FOUR TO TEN YEARS TO RETURN EXCESS I-105 RIGHT-OF-WAY TO PRODUCTIVE USE.</p>
<p align="center"><b>"NO PROJECT" ALTERNATIVE</b></p>	<p>I-105 PROJECT RELATED "NON-RECOVERABLE" COSTS OF \$105 MILLION WOULD BE INCURRED.</p>	<p>APPROXIMATELY 4,800 EXCESS PARCELS WOULD BE SOLD. ABOUT 1,900 HAVE BEEN CLEARED OF IMPROVEMENTS. MOST OF THE REMAINDER ARE BOARDED AND WOULD REQUIRE REHABILITATION.</p> <p>THIS EXCESS PROPERTY IS PRESENTLY WORTH ABOUT \$82 MILLION. WHEN FULLY RE-DEVELOPED THE VALUE OF THIS PROPERTY WOULD BE SUBSTANTIALLY GREATER.</p>	<p>WOULD REQUIRE A MINIMUM OF TWO TO FOUR YEARS FOR STATE TO DISPOSE OF RIGHT-OF-WAY PROPERTIES, FOLLOWED BY A MINIMUM TWO- TO SIX-YEAR REHABILITATION REDEVELOPMENT, OR REUSE PERIOD PRIOR TO RETURN OF LAND TO PRODUCTIVE USES.</p>

**EVALUATION SUMMARY OF I05 ALTERNATIVES  
TABLE I-1c**

**ENVIRONMENTAL EVALUATION**

THE PROPOSED PROJECT *	AIR QUALITY	NOISE	ENERGY USE	AESTHETICS (VISUAL)	OTHER ENVIRONMENTAL EFFECTS
<p><b>I-105 FREEWAY TRANSITWAY * *</b>  <b>* IMPERIAL LOCATION</b>  <b>** BUSWAY</b></p>	<p>SIGNIFICANT SHORT- AND LONG-TERM AIR QUALITY IMPROVEMENTS WILL OCCUR, AS A RESULT OF THE SUCCESSFUL IMPLEMENTATION OF AUTOMOTIVE EMISSION CONTROLS, AS UNDER "NO PROJECT" CONDITIONS.</p> <p>COMPARED TO "NO PROJECT," I-105 RESULTS IN ADDITIONAL SHORT-TERM (1980) AND LONG-TERM (YEAR 2000) DECREASES IN DAILY REGIONAL PRODUCTION OF CO (0.3% AND 0.14%), NO CHANGE IN HC, AND AN INCREASE IN THE PRODUCTION OF NO<sub>x</sub> (0.3% AND +2.5%); PHOTOCHEMICAL POLLUTANT OZONE (O<sub>3</sub>) WOULD BE SLIGHTLY REDUCED, WHILE NITROGEN DIOXIDE (NO<sub>2</sub>) WOULD BE SLIGHTLY INCREASED.</p>	<p>RESULTS IN A NEW COMMUNITY NOISE SOURCE WHICH WOULD PRODUCE SIGNIFICANT SHORT-TERM IMPACT IN SOME AREAS ADJACENT TO I-105 EVEN WITH PROPOSED MITIGATION MEASURES.</p> <p>WOULD RESULT IN SIGNIFICANT SHORT-TERM NOISE LEVEL DECREASES ALONG PARALLEL ARTERIALS IMMEDIATELY ADJACENT TO I-105.</p>	<p>GIVEN CURRENT VEHICULAR FUEL CONSUMPTION CHARACTERISTICS AND THE ANTICIPATED LONG-TERM GROWTH IN VMT, DAILY REGIONAL FUEL CONSUMPTION WOULD INCREASE BY APPROXIMATELY 50 PERCENT FROM 1977 TO THE YEAR 2000 UNDER "NO PROJECT" CONDITIONS.</p> <p>COMPARED TO "NO PROJECT," I-105 WOULD RESULT IN A LONG-TERM (YEAR 2000) INCREASE IN TOTAL REGIONAL DAILY ENERGY DEMAND OF 0.9%.</p>	<p>RESULTS IN THREE MILES OF ELEVATED VIADUCT STRUCTURE, EIGHT MILES OF ELEVATED EMBANKMENT, AND SEVEN MILES DEPRESSED. THESE VARIOUS SECTION CONFIGURATIONS WOULD BE LANDSCAPED IN A MANNER COMPATIBLE WITH SURROUNDING AREAS.</p>	<p>NO SIGNIFICANT ADVERSE EFFECTS RELATED TO VIBRATION, WATER QUALITY AND SOLID WASTE, OR GEOLOGY AND SEISMIC PHENOMENA ARE ANTICIPATED.</p> <p>SEVERAL PARK AND RECREATIONAL FACILITIES WOULD GAIN IMPROVED ACCESSIBILITY, AND NEW RECREATIONAL FACILITY DEVELOPMENT OPPORTUNITIES WOULD BE CREATED.</p>
<b>LOCATIONAL ALTERNATIVES</b>					
<p><b>"BELL LINE"</b></p>	<p>SIGNIFICANT SHORT- AND LONG-TERM AIR QUALITY IMPROVEMENTS WILL OCCUR, AS A RESULT OF THE SUCCESSFUL IMPLEMENTATION OF AUTOMOTIVE EMISSION CONTROLS, AS UNDER "NO PROJECT" CONDITIONS.</p> <p>COMPARED TO "NO PROJECT," I-105 RESULTS IN ADDITIONAL SHORT-TERM (1980) AND LONG-TERM (YEAR 2000) DECREASES IN DAILY REGIONAL PRODUCTION OF CO (0.3% AND 0.14%), NO CHANGE IN HC, AND AN INCREASE IN THE PRODUCTION OF NO<sub>x</sub> (0.3% AND +2.5%); PHOTOCHEMICAL POLLUTANT OZONE (O<sub>3</sub>) WOULD BE SLIGHTLY REDUCED, WHILE NITROGEN DIOXIDE (NO<sub>2</sub>) WOULD BE SLIGHTLY INCREASED.</p>	<p>RESULTS IN A NEW COMMUNITY NOISE SOURCE WHICH WOULD PRODUCE SIGNIFICANT SHORT-TERM IMPACT IN SOME AREAS ADJACENT TO I-105 EVEN WITH PROPOSED MITIGATION MEASURES.</p> <p>WOULD RESULT IN SIGNIFICANT SHORT-TERM NOISE LEVEL DECREASES ALONG PARALLEL ARTERIALS IMMEDIATELY ADJACENT TO I-105.</p>	<p>GIVEN CURRENT VEHICULAR FUEL CONSUMPTION CHARACTERISTICS AND THE ANTICIPATED LONG-TERM GROWTH IN VMT, DAILY REGIONAL FUEL CONSUMPTION WOULD INCREASE BY APPROXIMATELY 50 PERCENT FROM 1977 TO THE YEAR 2000 UNDER "NO PROJECT" CONDITIONS.</p> <p>COMPARED TO "NO PROJECT," I-105 WOULD RESULT IN A LONG-TERM (YEAR 2000) INCREASE IN TOTAL REGIONAL DAILY ENERGY DEMAND OF 0.9%.</p>	<p>RESULTS IN THREE MILES OF ELEVATED VIADUCT STRUCTURE, EIGHT MILES OF ELEVATED EMBANKMENT, AND SEVEN MILES DEPRESSED. THESE VARIOUS SECTION CONFIGURATIONS WOULD BE LANDSCAPED IN A MANNER COMPATIBLE WITH SURROUNDING AREAS.</p>	<p>NO SIGNIFICANT ADVERSE EFFECTS RELATED TO VIBRATION, WATER QUALITY AND SOLID WASTE, OR GEOLOGY AND SEISMIC PHENOMENA ARE ANTICIPATED.</p> <p>SEVERAL PARK AND RECREATIONAL FACILITIES WOULD GAIN IMPROVED ACCESSIBILITY, AND NEW RECREATIONAL FACILITY DEVELOPMENT OPPORTUNITIES WOULD BE CREATED.</p>
<p><b>ORIGINAL ADOPTED LINE</b></p>	<p>SIGNIFICANT SHORT- AND LONG-TERM AIR QUALITY IMPROVEMENTS WILL OCCUR, AS A RESULT OF THE SUCCESSFUL IMPLEMENTATION OF AUTOMOTIVE EMISSION CONTROLS, AS UNDER "NO PROJECT" CONDITIONS.</p> <p>COMPARED TO "NO PROJECT," I-105 RESULTS IN ADDITIONAL SHORT-TERM (1980) AND LONG-TERM (YEAR 2000) DECREASES IN DAILY REGIONAL PRODUCTION OF CO (0.3% AND 0.14%), NO CHANGE IN HC, AND AN INCREASE IN THE PRODUCTION OF NO<sub>x</sub> (0.3% AND +2.5%); PHOTOCHEMICAL POLLUTANT OZONE (O<sub>3</sub>) WOULD BE SLIGHTLY REDUCED, WHILE NITROGEN DIOXIDE (NO<sub>2</sub>) WOULD BE SLIGHTLY INCREASED.</p>	<p>RESULTS IN A NEW COMMUNITY NOISE SOURCE WHICH WOULD PRODUCE SIGNIFICANT SHORT-TERM IMPACT IN SOME AREAS ADJACENT TO I-105 EVEN WITH PROPOSED MITIGATION MEASURES.</p> <p>WOULD RESULT IN SIGNIFICANT SHORT-TERM NOISE LEVEL DECREASES ALONG PARALLEL ARTERIALS IMMEDIATELY ADJACENT TO I-105.</p>	<p>GIVEN CURRENT VEHICULAR FUEL CONSUMPTION CHARACTERISTICS AND THE ANTICIPATED LONG-TERM GROWTH IN VMT, DAILY REGIONAL FUEL CONSUMPTION WOULD INCREASE BY APPROXIMATELY 50 PERCENT FROM 1977 TO THE YEAR 2000 UNDER "NO PROJECT" CONDITIONS.</p> <p>COMPARED TO "NO PROJECT," I-105 WOULD RESULT IN A LONG-TERM (YEAR 2000) INCREASE IN TOTAL REGIONAL DAILY ENERGY DEMAND OF 0.9%.</p>	<p>RESULTS IN THREE MILES OF ELEVATED VIADUCT STRUCTURE, EIGHT MILES OF ELEVATED EMBANKMENT, AND SEVEN MILES DEPRESSED. THESE VARIOUS SECTION CONFIGURATIONS WOULD BE LANDSCAPED IN A MANNER COMPATIBLE WITH SURROUNDING AREAS.</p>	<p>NO SIGNIFICANT ADVERSE EFFECTS RELATED TO VIBRATION, WATER QUALITY AND SOLID WASTE, OR GEOLOGY AND SEISMIC PHENOMENA ARE ANTICIPATED.</p> <p>SEVERAL PARK AND RECREATIONAL FACILITIES WOULD GAIN IMPROVED ACCESSIBILITY, AND NEW RECREATIONAL FACILITY DEVELOPMENT OPPORTUNITIES WOULD BE CREATED.</p>
<b>CONCEPTUAL ALTERNATIVES</b>					
<p><b>EXCLUSIVE BUSWAY</b></p>	<p>SIGNIFICANT SHORT- AND LONG-TERM AIR QUALITY IMPROVEMENTS WILL OCCUR, AS A RESULT OF THE IMPLEMENTATION OF EMISSION CONTROLS, AS UNDER "NO PROJECT" CONDITIONS.</p> <p>COMPARED TO "NO PROJECT," THE "EXCLUSIVE BUSWAY" WOULD HAVE AN INSIGNIFICANT EFFECT UPON AIR QUALITY BASED UPON THE ANTICIPATED NUMBER OF AUTOMOBILE TRIPS WHICH WOULD SWITCH TO TRANSIT.</p> <p>PHOTOCHEMICAL POLLUTANTS WOULD BE AFFECTED SIMILAR TO THE PROJECT, BUT SMALLER IN MAGNITUDE.</p>	<p>RESULTS IN A NEW COMMUNITY NOISE SOURCE; HOWEVER, IMPACT WOULD BE SIGNIFICANTLY LESS THAN I-105 SINCE ABOUT TWO BUSES PER MINUTE ARE ANTICIPATED DURING THE PEAK HOUR.</p>	<p>COMPARED TO "NO PROJECT," THE "EXCLUSIVE BUSWAY" WOULD RESULT IN A LONG-TERM (YEAR 2000) DECREASE IN TOTAL REGIONAL DAILY ENERGY DEMAND OF 0.1%.</p>	<p>ALTHOUGH RIGHT-OF-WAY WIDTH REQUIREMENTS ARE APPROXIMATELY ONE-HALF THOSE OF I-105, VISUAL EFFECT FROM ADJACENT COMMUNITIES WOULD BE SIMILAR SINCE PROPOSED SECTION CONFIGURATIONS ARE THE SAME.</p>	<p>SAME GENERAL CONCLUSIONS AS FOR I-105 ABOVE WOULD APPLY FOR THIS ALTERNATIVE.</p>
<p><b>LOCAL IMPROVEMENTS</b>  <b>- ARTERIAL WIDENING</b>  <b>OR</b>  <b>- GRADE SEPARATION</b></p>	<p>SIGNIFICANT SHORT- AND LONG-TERM AIR QUALITY IMPROVEMENTS WILL OCCUR, AS A RESULT OF THE IMPLEMENTATION OF EMISSION CONTROLS, AS UNDER "NO PROJECT" CONDITIONS.</p> <p>COMPARED TO "NO PROJECT," THE "LOCAL IMPROVEMENTS" WOULD RESULT IN ADDITIONAL DECREASES IN PRODUCTION OF CO AND AN INCREASE IN THE PRODUCTION OF NO<sub>x</sub>. THE MAGNITUDE OF THESE EFFECTS WOULD BE MUCH SMALLER THAN THOSE INDICATED FOR THE I-105 PROJECT. THERE WOULD BE NO CHANGE IN HC.</p> <p>PHOTOCHEMICAL POLLUTANTS WOULD BE AFFECTED SIMILAR TO THE PROJECT, BUT SMALL IN MAGNITUDE.</p>	<p>WOULD RESULT IN SIGNIFICANT NOISE LEVEL INCREASES ALONG IMPROVED ARTERIALS. HOWEVER, SINCE THESE INCREASES WOULD OCCUR GRADUALLY OVER MANY YEARS, THE EFFECTS WOULD NOT BE READILY PERCEIVED BY AFFECTED PERSONS.</p>	<p>COMPARED TO "NO PROJECT," THESE ALTERNATIVES WOULD RESULT IN A LONG-TERM (YEAR 2000) INCREASE IN TOTAL REGIONAL DAILY ENERGY DEMAND OF 0.1% AND 0.2% RESPECTIVELY.</p>	<p>GRADE-SEPARATION ALTERNATIVE RESULTS IN 69 ELEVATED GRADE-SEPARATION STRUCTURES AT MAJOR ARTERIAL INTERSECTIONS; ARTERIAL WIDENING WOULD ALTER VISUAL EXPERIENCE ALONG THE 60 MILES OF AFFECTED ROADWAYS.</p>	<p>NO SIGNIFICANT EFFECTS ARE ANTICIPATED.</p>
<p><b>COMBINED ALTERNATIVES:</b>  <b>- BUSWAY &amp; WIDENING</b>  <b>OR</b>  <b>- BUSWAY &amp; GRADE - SEPARATION</b></p>	<p>SIGNIFICANT SHORT- AND LONG-TERM AIR QUALITY IMPROVEMENTS WILL OCCUR, AS A RESULT OF THE SUCCESSFUL IMPLEMENTATION OF AUTOMOTIVE EMISSION CONTROLS, AS UNDER "NO PROJECT" CONDITIONS.</p> <p>COMPARED TO "NO PROJECT," THE "COMBINED ALTERNATIVES" WOULD RESULT IN ADDITIONAL DECREASES IN DAILY PRODUCTION OF CO AND AN INCREASE IN THE PRODUCTION OF NO<sub>x</sub>. THE MAGNITUDE OF THESE EFFECTS WOULD BE SMALLER THAN THOSE INDICATED ABOVE FOR THE I-105 PROJECT. THERE WOULD BE NO CHANGE IN HC.</p>	<p>RESULTS IN A NEW COMMUNITY NOISE SOURCE; HOWEVER, IMPACT WOULD BE SIGNIFICANTLY LESS THAN I-105 SINCE ABOUT TWO BUSES PER MINUTE ARE ANTICIPATED DURING THE PEAK HOUR.</p> <p>WOULD RESULT IN SIGNIFICANT NOISE LEVEL INCREASES ALONG IMPROVED ARTERIALS; HOWEVER, AS INDICATED ABOVE FOR "LOCAL IMPROVEMENTS," THE INCREASES WOULD BE GRADUAL AND NOT READILY PERCEIVED BY AFFECTED PERSONS.</p>	<p>COMPARED TO "NO PROJECT," THE "COMBINED ALTERNATIVES" WOULD RESULT IN DAILY FUEL CONSUMPTION REDUCTIONS WHICH WOULD BE SLIGHTLY GREATER THAN THOSE ANTICIPATED FOR THE LOCAL IMPROVEMENTS.</p>	<p>THE "COMBINED ALTERNATIVES" WOULD RESULT IN A VISUAL EFFECT SIMILAR TO I-105 PLUS THE EFFECT OF EITHER (1) THE 69 GRADE-SEPARATION ELEVATED STRUCTURES, OR (2) THE ALTERED VISUAL EXPERIENCE ALONG THE 60 MILES OF WIDENED ARTERIALS.</p>	<p>SAME GENERAL CONCLUSIONS AS FOR I-105 ABOVE WOULD APPLY FOR THESE ALTERNATIVES.</p>
<p><b>"NO PROJECT" ALTERNATIVE</b></p>	<p>SIGNIFICANT SHORT- AND LONG-TERM AIR QUALITY IMPROVEMENTS WILL OCCUR, AS A RESULT OF THE SUCCESSFUL IMPLEMENTATION OF AUTOMOTIVE EMISSION CONTROLS, REGARDLESS OF WHETHER TRANSPORTATION IMPROVEMENTS ARE MADE IN THE I-105 CORRIDOR.</p> <p>COMPARED TO THE OTHER ALTERNATIVES, "NO PROJECT" RESULTS IN SLIGHTLY INCREASED PRODUCTIONS OF CO, SLIGHTLY DECREASED PRODUCTION OF NO<sub>x</sub>, AND NO CHANGE IN HC.</p>	<p>WOULD RESULT IN SIGNIFICANT NOISE LEVEL INCREASES ALONG CORRIDOR ARTERIALS DUE TO INCREASED CONGESTION.</p> <p>AS A RESULT OF TRAFFIC DIVERSION, WOULD ALSO LEAD TO INCREASED NOISE LEVELS ALONG CORRIDOR SECONDARY STREETS. SINCE THESE CHANGES WOULD OCCUR GRADUALLY OVER SEVERAL YEARS, THE EFFECTS WOULD NOT BE READILY PERCEIVED BY THE AFFECTED PERSONS.</p>	<p>RESULTS IN YEAR 2000 REGIONAL DAILY TOTAL ENERGY DEMAND OF ABOUT 0.9% LESS THAN THE I-105 PROJECT.</p>	<p>NO SIGNIFICANT EFFECTS ANTICIPATED, ASSUMES RECONSTRUCTING RIGHT-OF-WAY TO ESSENTIALLY THE SAME ORIGINAL USES.</p>	<p>NO SIGNIFICANT EFFECTS ANTICIPATED.</p>

**EVALUATION SUMMARY OF I05 ALTERNATIVES  
TABLE 1-1d**

CHAPTER 2  
BACKGROUND





## CHAPTER 2 - BACKGROUND

This chapter presents information necessary and useful to the full understanding of the analysis in subsequent chapters. Because of the size of the study area and the long study period covered in this EIS, it has been necessary to treat this background in a rather extensive manner.

The structure of this chapter includes three main subtopics:

- . Region and Corridor Setting
- . Historical Perspective
- . Citizen and Agency Participation

The Regional and Corridor Setting Section begins with a brief description of various National, State and Regional plans and their relationships to the I-105 Project. The section continues by focusing on pertinent physical, socioeconomic and natural characteristics and/or features within the study area.

The Historical Perspective section highlights events and decisions that have occurred during the 19-year period that the I-105 Project has been under way.

The Citizen and Agency Participation section enumerates the many meetings held in connection with the study, including a summary listing of major meetings at which public contact and input were received and presentations of information were made to the public. Most were evening meetings scheduled for maximum public exposure and input.

### 2.1 REGIONAL PLANNING

The I-105 Project analysis considers the proposed transportation facility not as a single entity, but as a facility which relates in various degrees and circumstances to other facilities, both existing and proposed.

#### National System of Interstate and Defense Highways

The I-105 Freeway in its entirety was made part of the National System of Interstate and Defense Highways in 1968. Its designated function is one of providing improved interstate highway service through the Los Angeles urban area, connecting Interstate Route 605 in the easterly portion of the urban area with Interstate 405 to the west and with the Los Angeles International Airport (LAX), via California Route 1.

#### California Freeway and Expressway System

The California Freeway and Expressway (F&E) System includes about 12,000 miles of urban and rural highways. It represents about 11 percent of all public roads in the State and carries over 50 percent of the traffic. The route now designated Interstate 105 was, and is, an integral part of the F&E System. The Route 1 segment functions as a connector to the surface street system and LAX, and is the only portion of Route 1 within Los Angeles County that remains in the California Freeway and Expressway System (Figure 2-1).

A Senate Concurrent Resolution, co-authored by all the Legislators in the corridor, was adopted by the California Legislature on August 17, 1976. This Resolution supports construction of the project as now proposed.

#### County of Los Angeles

In August, 1968, the Los Angeles County Regional Planning Commission initiated a three-phased County General Plan Program.

Phase One culminated with a report entitled, "Environmental Development Guide", which was approved by the Regional Planning Commission in September, 1970, and adopted by the Board of Supervisors in October, 1970, as a preliminary general plan for Los Angeles County.

The Guide includes, in its transportation element, a map (Figure 2-2) entitled, "The Major Transportation Network 1970-1990 Plan", which identifies recommended transit, freeway, airport, rail, harbor and multipurpose terminal systems. This plan recommends a freeway mode with essentially the same location as the adopted I-105 Freeway.

The Board of Supervisors adopted a resolution on June 29, 1976 specifically supporting construction of the Project as an 8-lane freeway transitway.

#### City of Los Angeles

In the summer of 1972, the Los Angeles City Planning Commission approved the "Citywide Plan" as part of the General Plan for the City of Los Angeles. The Plan indicates a freeway as the transportation mode appropriate for this corridor and shows the location to be essentially that of the adopted I-105 Freeway. The freeway is retained in the Circulation Plan (Figure 2-3) adopted by the City on March 19, 1975.

On July 31, 1975, and again on October 7, 1976 the City Council adopted reports of its State, County and Federal Affairs Committee which expressly supported a freeway-transitway in the corridor.

#### Southern California Association of Governments (SCAG)

The Southern California Association of Governments (SCAG) was formed by local elected officials in 1965 to deal with issues of regional concern. SCAG is a partnership of local governments joined together in voluntary agreements under the Joint Exercise of Powers Sections of the California Government Code. The Association is composed of six county governments of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura, and over one hundred cities within these counties. SCAG has been designated by the State of California as the Regional Transportation Planning Agency with responsibility for preparing a comprehensive Regional Transportation Plan by April, 1975 and pursuant to the Federal Intergovernmental Cooperation Act of 1968, is designated as the "Area-wide Clearinghouse" for this area, responsible for review of proposed projects for consistency with area-wide development plans. In addition, Federal statutes require that regional development be based upon a "continuous, cooperative and comprehensive" planning process. As a result, regional development is usually reviewed by SCAG annually as to goals, policies and implementation.

There have been several significant actions taken by SCAG with respect to I-105:

- . A resolution, adopted in September, 1968, declared that the I-105 Freeway project was in conformance with the approved transportation plan for the region.
- . In April, 1971, SCAG certified that the I-105 Freeway had been reviewed for conformance with the Regional Development Guide Information Policy Plan as adopted by SCAG Executive Committee on August 13, 1970, and that the Project had been found consistent with the statement of planning and coordination goals and objectives of the plan. SCAG also certified that notice of the Project had been circulated through the Clearinghouse Information Service (Which is the authorized clearinghouse agency for six counties and 148 cities in the region). No adverse comments were received.
- . In January, 1972, SCAG adopted the Southern California Regional Development Guide Report. At that time, the regional plan was based on a forecasted population of 12.9 million in 1990. This population forecast has twice been reduced and is now set at 12.3 million in 1990.

On April 17, 1977 the Executive Committee included the I-105 Project in the Highway Element of the Regional Transportation Plan.



STATE OF CALIFORNIA  
 BUSINESS & TRANSPORTATION AGENCY  
 DEPARTMENT OF TRANSPORTATION

# DISTRICT 7

## HIGHWAY SYSTEM

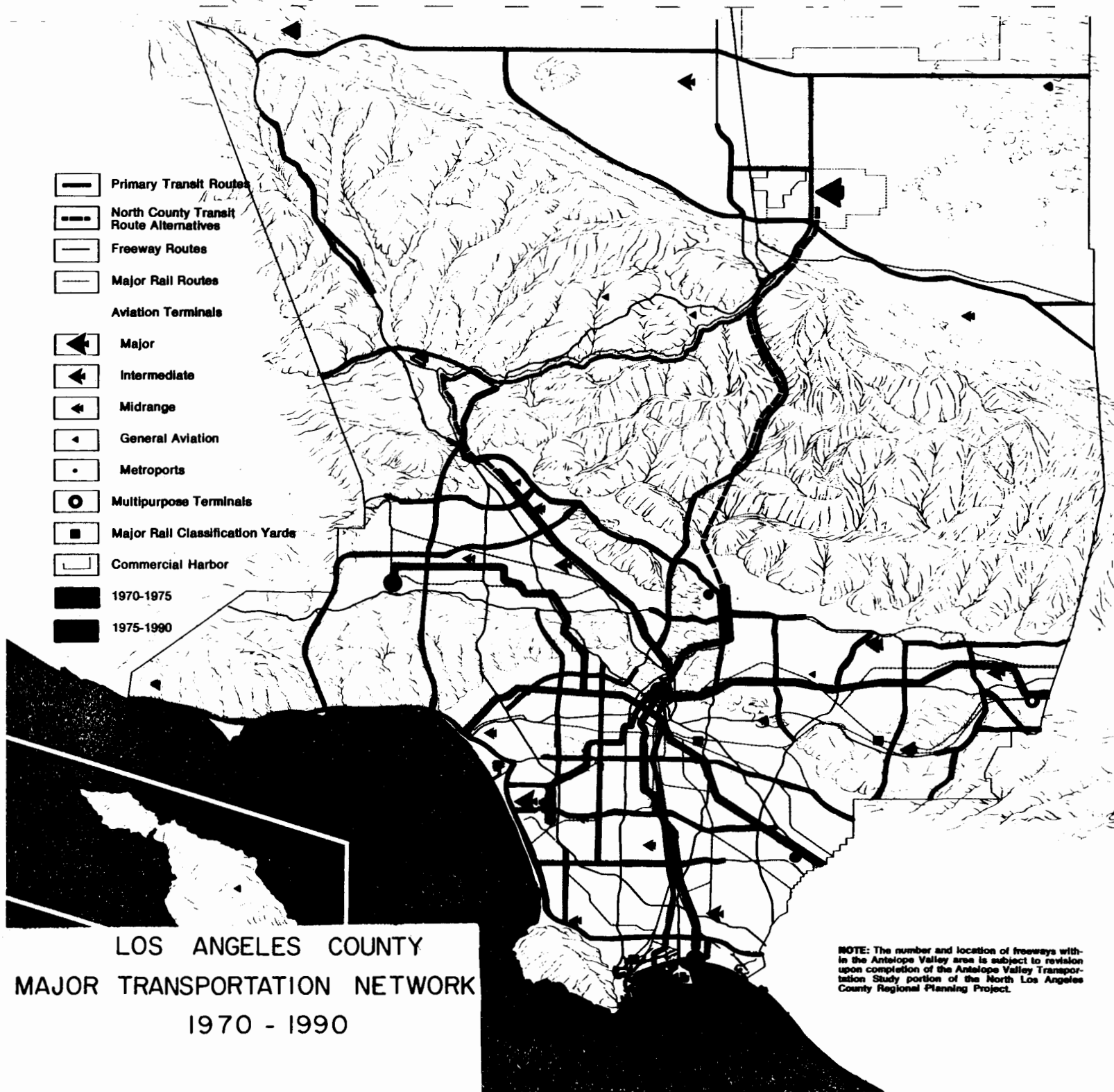
### September, 1976

#### Legend

- |                                    |                  |                    |                   |                |
|------------------------------------|------------------|--------------------|-------------------|----------------|
| LEGISLATIVE AND SIGN ROUTE NUMBERS | INTERSTATE ROUTE | COMPLETED          | ROUTE UNDER STUDY | Exact location |
|                                    | US SIGN ROUTE    | UNDER CONSTRUCTION | ROUTE ADOPTED     | Not Determined |
|                                    | STATE SIGN ROUTE | BUDGETED           | ROUTE NOT ADOPTED |                |
| <b>FREEWAYS</b>                    |                  |                    |                   |                |
| <b>EXPRESSWAY</b>                  |                  |                    |                   |                |
| <b>CONVENTIONAL HIGHWAYS</b>       |                  |                    |                   |                |

FIGURE 2-1

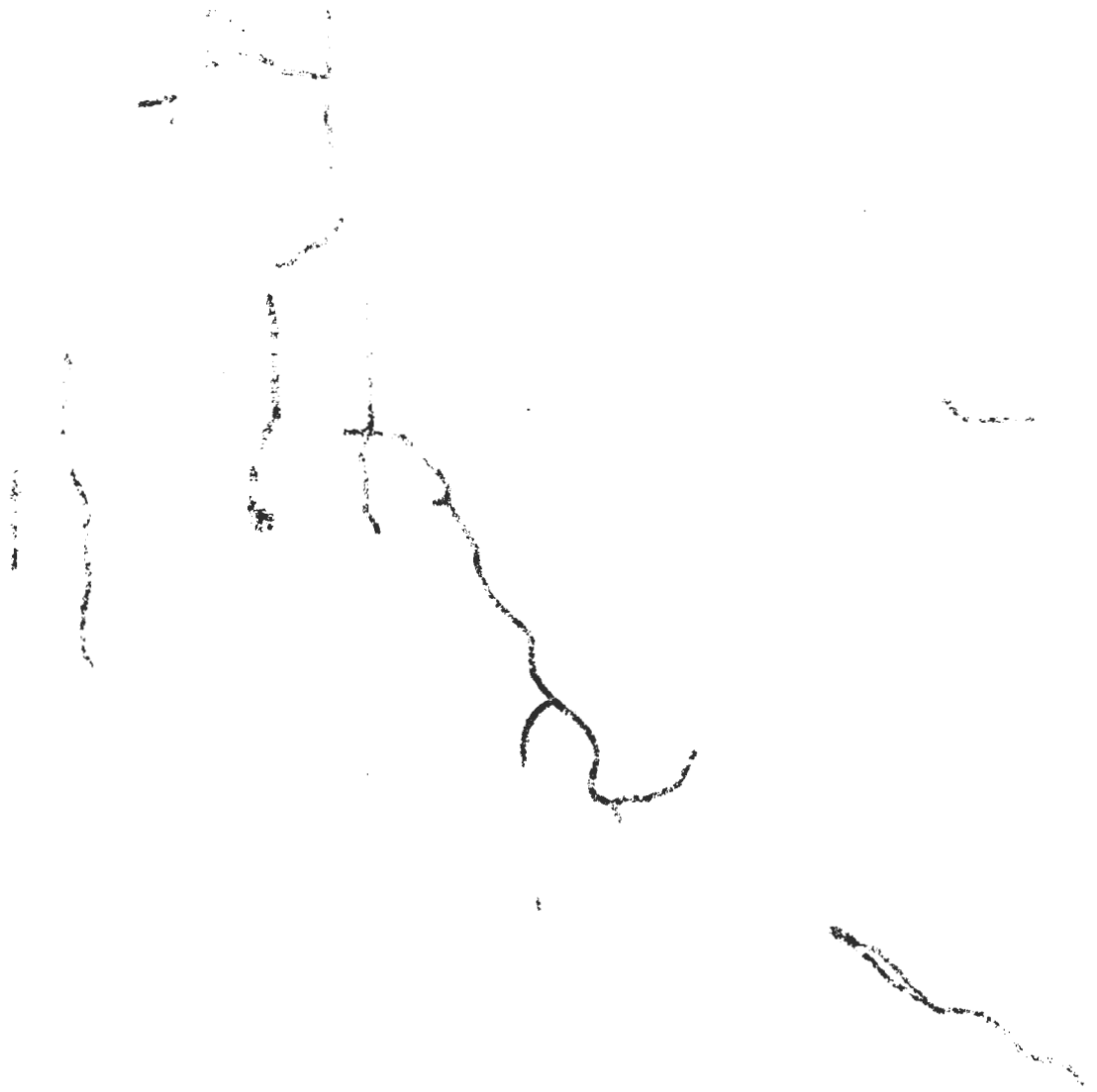


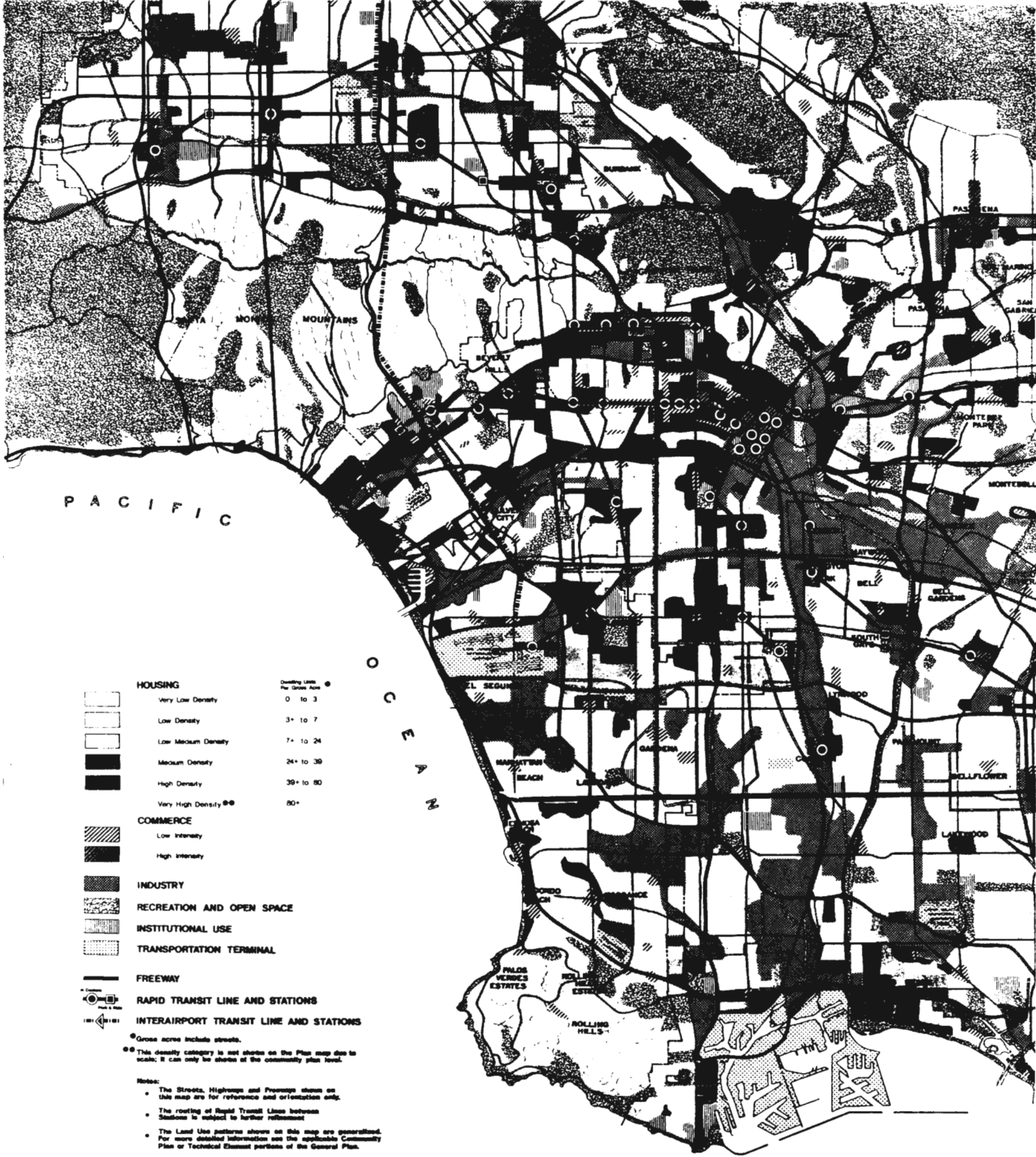


LOS ANGELES COUNTY  
 MAJOR TRANSPORTATION NETWORK  
 1970 - 1990

NOTE: The number and location of freeways within the Antelope Valley area is subject to revision upon completion of the Antelope Valley Transportation Study portion of the North Los Angeles County Regional Planning Project.

FIGURE 2-2





# PROPOSED CITYWIDE PLAN • LOS ANGELES

FIGURE 2-3





The Southern California Association of Governments has analyzed population, housing and employment data for the six-county SCAG region, and has made regional projections for these factors for the years 1980, 1990 and 2000. Allocations were then made of expected housing, population and employment to different cities and counties. These allocations are determined on the basis of a continuous, ongoing cooperative study, including input from all SCAG cities and counties, the State Department of Water Resources, the State Department of Finance, and others.

Allocations have been based partly on the SCAG growth forecast policy which expects more extensive development of existing urban areas and a higher percentage of people employed closer to home, and partly on input by each community concerning its own expectations for growth.

I-105 traffic desire volume projections were produced by the Los Angeles Regional Transportation Study (LARTS). The projections are based on the SCAG population, housing and employment allocations to Regional Statistical Areas (RSA's), subdivided by LARTS into smaller traffic analysis zones (AZ's). Thus traffic projections are consistent with SCAG's Regional Development Guide.

### Southern California Rapid Transit District (SCRTD)

As of August 1976, the Southern California Rapid Transit District (SCRTD) bus system served an area of over 2,280 square miles in Los Angeles, Orange, Riverside and San Bernardino Counties. Service is provided on 150 bus lines along 2,700 one-way route miles. Approximately 750,000 passengers are served each weekday by the system. The Norwalk-El Segundo corridor between Manchester Avenue/Firestone Boulevard and Alondra Boulevard includes approximately 50 SCRTD bus lines, the majority of which provide north-south service oriented to the Los Angeles Central Business District (CBD). Most arterial streets within the corridor are served by SCRTD bus lines. Lines with direct service to the CBD generally provide greater frequency of service during peak periods, while other lines maintain approximately the same frequency throughout the day (Figure 2-4).

In 1968, SCRTD issued a Final Report on a proposed rapid transit rail-bus system. This report proposed an ultimate system of some 300 miles of high-capacity rapid transit service to every sector of the District, combined with expanded feeder and local bus service. As a first stage, the report recommended construction of an 89-mile, five-corridor network, augmented by 850 additional buses operating over 300 miles of new bus routes and providing local and express feeder bus service. The SCRTD's second stage plan identified the I-105 Freeway corridor and noted that such future freeways can make provision for fast express bus service pending development of future stages of rail rapid transit in freeway medians. This 1968 proposal was subsequently rejected by the voters of Los Angeles County in November 1968.

In December 1971, the SCRTD proposed that the City and County of Los Angeles join with the SCRTD in financing a first stage of rapid transit which consisted of a line from the Central City through the south central areas, crossing the I-105 Freeway. It was intended that this line would interface with high-speed buses utilizing the median of the I-105 Freeway to give transit service west to Los Angeles International Airport and east to Downey and Norwalk. The City and County of Los Angeles, and the SCRTD ultimately decided, however, that prior to proceeding with such a proposal, they should enter into a joint effort to determine the extent of the ultimate rapid transit system, the priorities in planning and construction, and the best means of financing the system.

The Summary Report for the study precipitated by this joint effort, was completed and the conclusions presented to the SCRTD Board of Directors in March of 1974. On July 1, 1974, Board of Directors adopted a 240-mile master plan of transit corridors for the District's area, which includes the El Segundo-Norwalk corridor (see Figure 2-5). On July 11, 1974, the SCAG Executive Committee approved this plan. Approval was conditional upon defining corridor priorities, modal technology selection and justification of funding and required resolving alignment conflicts with Orange County Transit District (OCTD). Subsequently (August 1, 1974), SCRTD adopted minor revisions to their plan to conform with the OCTD system corridors.

To finance the development of the transit system, a two-cent sales tax increase was proposed and submitted to the voters at the November 1974 General Election. Although this measure was defeated, it was felt that the public was not rejecting a regional mass transit system, but additional taxes. As a consequence, transit planners proposed development of the system on an incremental basis, beginning with a "starter line", and utilizing available funding sources. New links would be considered as needs were defined and funding obtained. Figure 4-6 (Chapter 4) indicates the locations proposed for the starter line

Were the starter line to have been implemented as denoted in Figure 4-6, the I-105 Project transitway would have offered an opportunity to extend it, and thus provide direct transit access between the Los Angeles Central Business District (CBD) and Los Angeles International Airport (LAX). Later as shown in the figure, an additional extension could have been provided to Orange County. This would have connected Orange County directly to the CBD and LAX via the I-105 Transitway.

However, in the latter part of 1975, before action could be taken on a starter line, another region-wide transit proposal was being developed which received much publicity and prominence. It was known as the "Sunset Coast Line". This system was to have included a 232-mile network and was to be constructed and operated by a one-cent increase in the local sales tax. This proposal was included on the ballot in the June, 1976 Primary Election. However, it failed to gain the support of the electorate.

With the defeat of the "Sunset Coast Line" proposal, planners re-directed their efforts towards seeking agreement on a comprehensive plan for long-term public transit improvements in the Los Angeles region. At a State sponsored meeting on September 8, 1976, top officials from the State, Southern California Association of Governments, the City of Los Angeles, the County of Los Angeles, and City of Long Beach, Southern California Rapid Transit District reached agreement on the first step toward implementation of an entirely new concept of transportation improvements. The program includes region-wide bus and carpool facilities, a people mover project in the Los Angeles CBD and a segment of rail rapid transit in the high travel volume corridor between the San Fernando Valley and the downtown area.

This program is the result of an extensive analysis of numerous transit alternatives performed by SCRTPD in which all of the involved parties participated. It includes a short-range element of transit improvements which can begin almost immediately and the first phase of a longer range element for the development of an integrated regional transportation system. The program is designed to make maximum use of existing facilities and the various available funding sources. It will require additional funding commitments from all of the agencies involved as the program is implemented and becomes operational. To be effective, the proposed transit and highway improvements and their funding must be integrated and firm commitments made by each agency involved.

The concept is basically comprised of an improved regional bus system and an element of rapid rail transit in the Wilshire corridor. The improved bus system would feature express bus service on existing and future freeways, operating under congestion free (usually termed 'free-flow') conditions.

Because there will be some sections of the freeway system where free-flow cannot be assured, it is recommended that exclusive facilities for buses and carpools be provided in some areas. The system is shown in Figure 2-6 and would consist of about 370 miles of the freeway system to be used for regional bus service. Of this total, about 300 miles would have mixed flow of buses, carpools, and other vehicles. Ramp metering would be used where needed to provide free-flow conditions, and preferential treatment for access to the freeways by buses and carpools would be provided where feasible. Exclusive ways for buses and carpools in the form of reserved lanes or separate facilities would be required in congested areas and would comprise the balance of the system. The operation of line haul buses has been suggested to approximate rail transit service. That is, line haul buses on freeway would not distribute passengers locally but would operate only on the freeway lanes, either in shuttle (back and forth) or loop configurations, stopping only at stations. At stations, patrons would transfer to cars (park-ride) or buses for distribution locally.

Action on this proposal is now pending.

#### Los Angeles International Airport (LAX)

The present passenger volume served by LAX is approximately 23 million per year. In the Los Angeles International Airport Plan (Figure 2-7), adopted by the Los Angeles City Council on June 13, 1974, the Department of Airports concludes that the practical limit of the facility is 40 million passengers and 12 million tons of freight annually. This limiting volume is expected to be achieved before the year 1990.

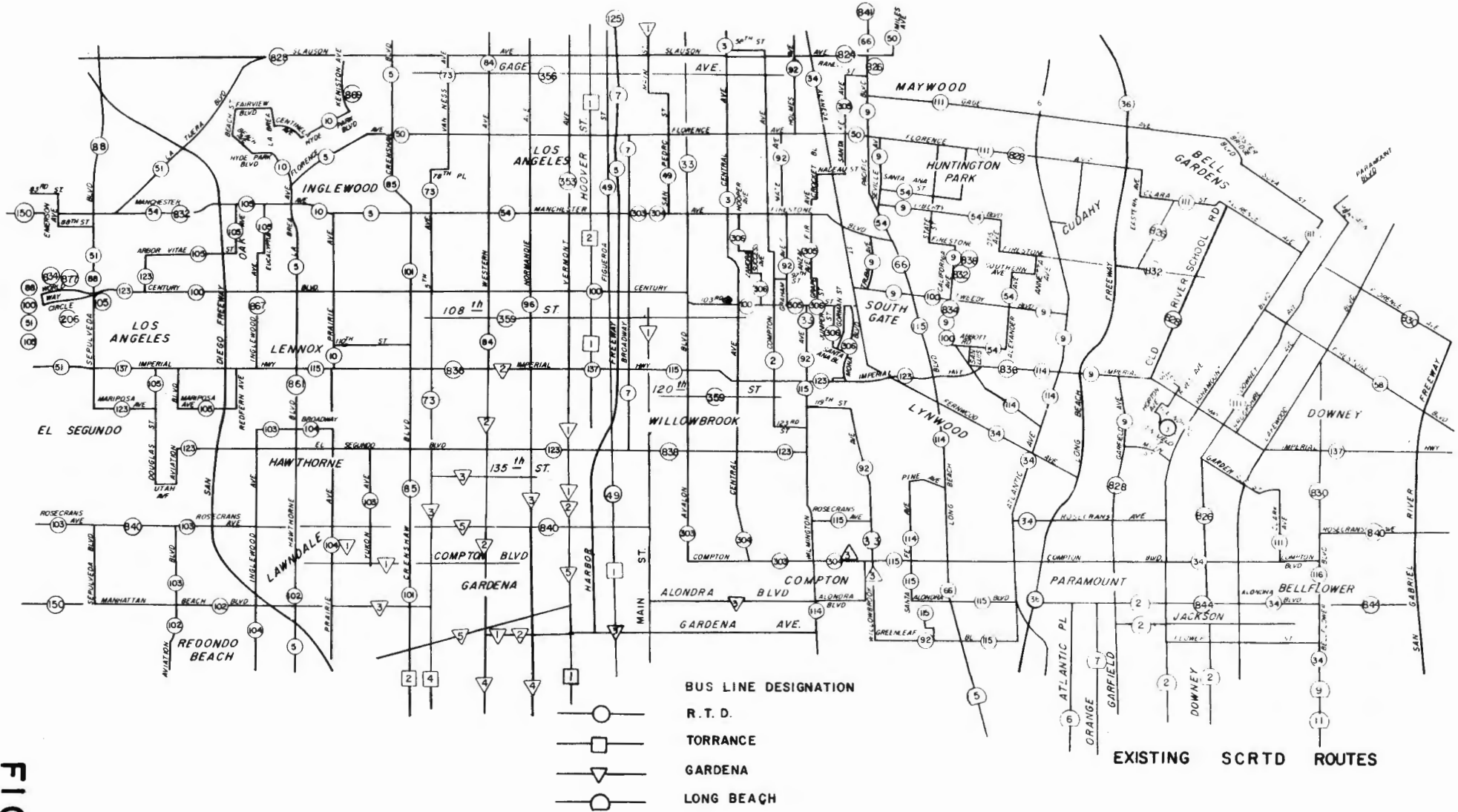
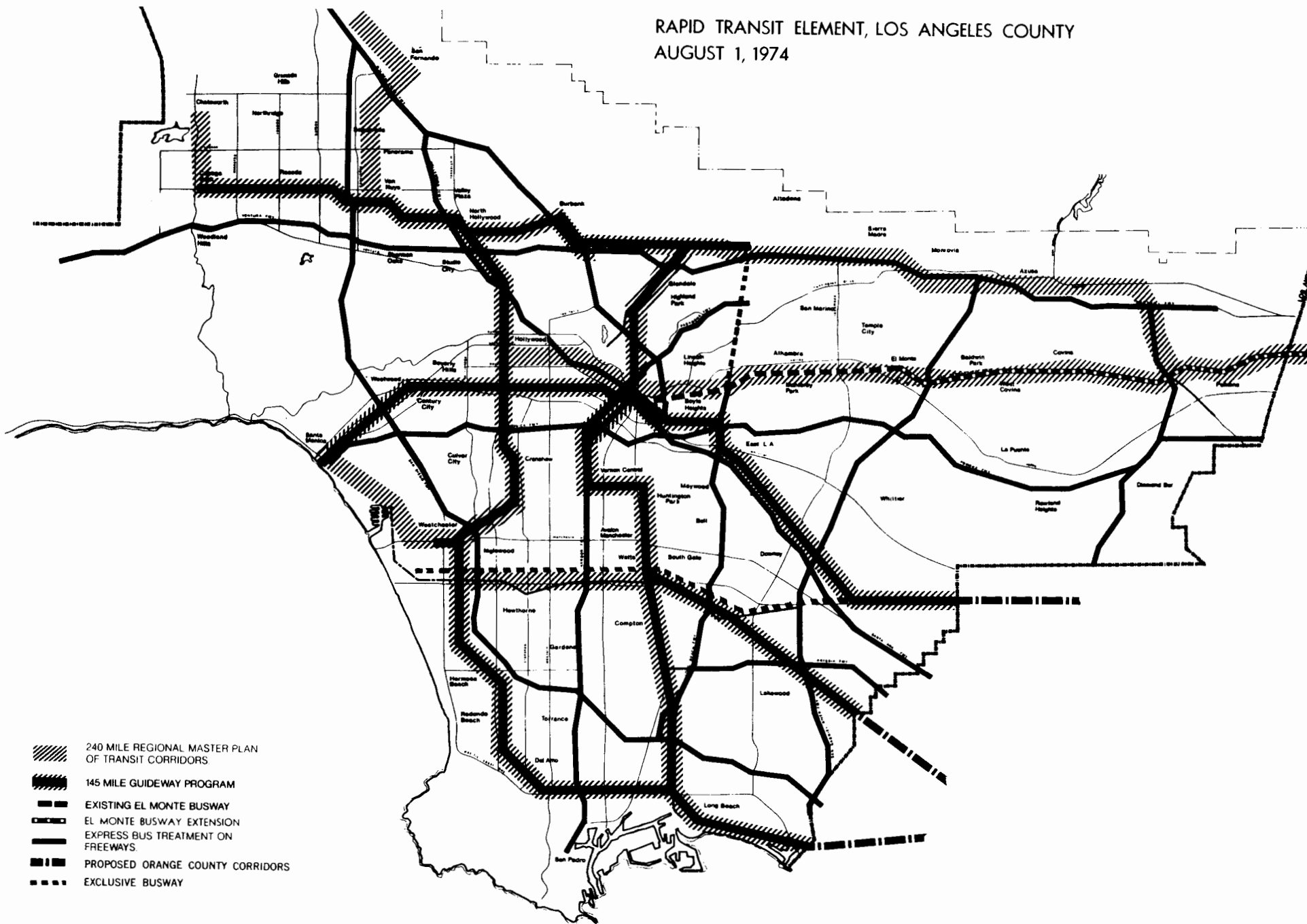









FIGURE 2-4



RAPID TRANSIT ELEMENT, LOS ANGELES COUNTY  
AUGUST 1, 1974



-  240 MILE REGIONAL MASTER PLAN OF TRANSIT CORRIDORS
-  145 MILE GUIDEWAY PROGRAM
-  EXISTING EL MONTE BUSWAY
-  EL MONTE BUSWAY EXTENSION
-  EXPRESS BUS TREATMENT ON FREEWAYS
-  PROPOSED ORANGE COUNTY CORRIDORS
-  EXCLUSIVE BUSWAY

RAPID TRANSIT ELEMENT, LOS ANGELES COUNTY  
AUGUST 1, 1974

FIGURE 2-5



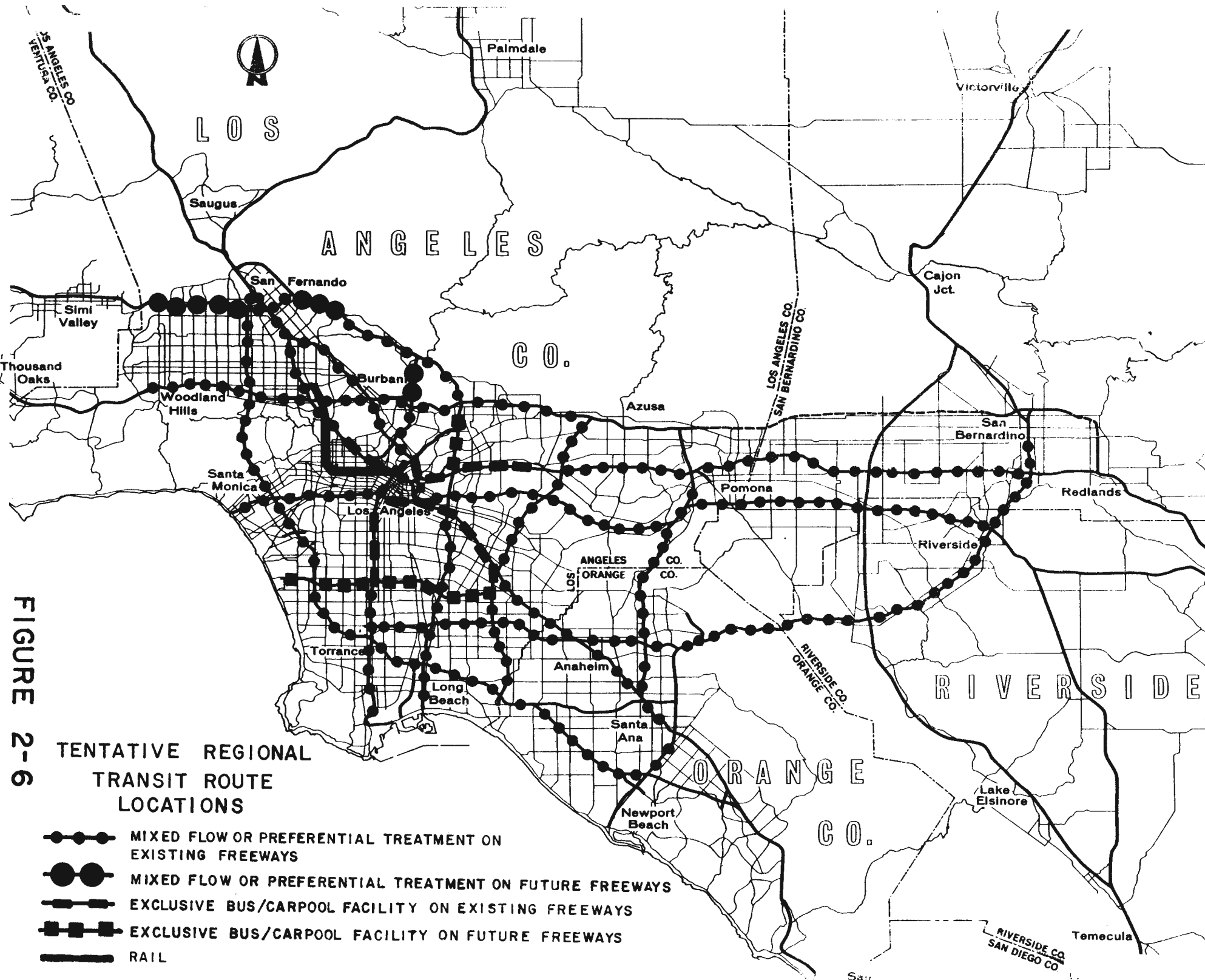


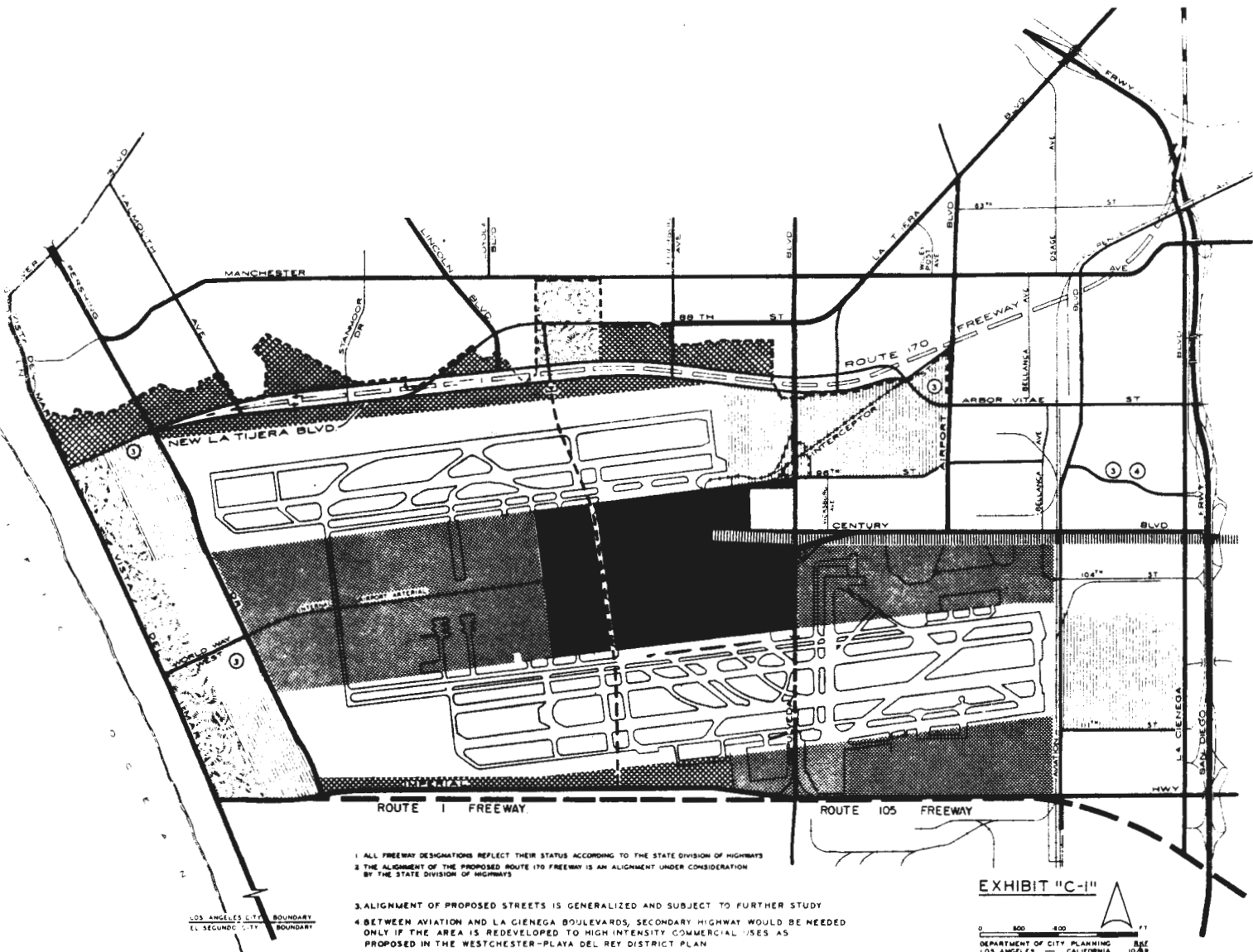
FIGURE 2-6

TENTATIVE REGIONAL TRANSIT ROUTE LOCATIONS

- MIXED FLOW OR PREFERENTIAL TREATMENT ON EXISTING FREEWAYS
- MIXED FLOW OR PREFERENTIAL TREATMENT ON FUTURE FREEWAYS
- EXCLUSIVE BUS/CARPOOL FACILITY ON EXISTING FREEWAYS
- EXCLUSIVE BUS/CARPOOL FACILITY ON FUTURE FREEWAYS
- RAIL







1. ALL FREEWAY DESIGNATIONS REFLECT THEIR STATUS ACCORDING TO THE STATE DIVISION OF HIGHWAYS  
 2. THE ALIGNMENT OF THE PROPOSED ROUTE 170 FREEWAY IS AN ALIGNMENT UNDER CONSIDERATION BY THE STATE DIVISION OF HIGHWAYS  
 3. ALIGNMENT OF PROPOSED STREETS IS GENERALIZED AND SUBJECT TO FURTHER STUDY  
 4. BETWEEN AVIATION AND LA CIENEGA BOULEVARDS, SECONDARY HIGHWAY WOULD BE NEEDED ONLY IF THE AREA IS REDEVELOPED TO HIGH INTENSITY COMMERCIAL USES AS PROPOSED IN THE WESTCHESTER-PLAYA DEL REY DISTRICT PLAN

EXHIBIT "C-1"

0	200	400	FT
DEPARTMENT OF CITY PLANNING			
LOS ANGELES			
REVISED	5/70	8/68	8/68
"	1/70	5/70	5/70
"	5/72	5/72	5/72
"	5/72	5/72	5/72
"	5/19/72	5/19/72	5/19/72
"	9/29/72	9/29/72	9/29/72
"	6/12/73	6/12/73	6/12/73
"	8/23/73	8/23/73	8/23/73

**LEGEND**

MAJOR HIGHWAY	COLLECTOR STREET	EXISTING FREEWAY
SECONDARY HIGHWAY	INTERNAL AIRPORT ARTERIAL	ADOPTED FREEWAY
RUNWAY AREA AIRCRAFT MANEUVERING, LANDING AND TAKEOFF.	TUNNEL	PROPOSED FREEWAY
PARKING & RECREATION AREA RECREATION, CARGO, PARKING AND AIRPORT RELATED USES	TUNNEL APPROACH	RAPID TRANSIT ROUTE
APPROACH AREA SURFACE PARKING, CARGO OR STORAGE USAGE, LANDSIDE PASSENGER TERMINALS AND AIRPORT RELATED USES. NO AIRCRAFT PERMITTED UNDER POWER.	AIRPORT PLANNED AREA BOUNDARY	AIRPORT BUFFER AREA PARKING, STORAGE, TERMINALS, CARGO AND OFFICE USES BY SEPARATE CONDITIONAL USE ONLY. NO COMMERCIAL, MILITARY OR JET AIRCRAFT UNDER POWER AND NO ENGINE RUN-UPS ON THE NORTH SIDE. NO COMMERCIAL OR MILITARY AIRCRAFT UNDER POWER AND NO ENGINE RUN-UPS ON THE SOUTH SIDE.
	PASSENGER TERMINAL AREA TICKETING, RESTAURANTS, CONTROL, TOWER, PARKING AND AIRPORT ADMINISTRATION. AIRCRAFT PERMITTED UNDER POWER.	SERVICE AREA MAINTENANCE SHOPS, FUELING FACILITIES, NAVIGATION AIDS, CARGO, PASSENGER TERMINALS, STORAGE, MANUFACTURING AND PARKING USES. AIRCRAFT PERMITTED UNDER POWER.
	OPEN SPACE RECREATION, BEACH USES AND RELATED PARKING	

LOS ANGELES INTERNATIONAL AIRPORT PLAN  
 AN ELEMENT OF THE GENERAL PLAN OF THE CITY OF LOS ANGELES  
 FIGURE 2-7



The Southern California Regional Airport System Plan, adopted by the Southern California Association of Governments (SCAG) Executive Committee in December of 1973, stated the following with respect to future ground access to LAX:

"The capacity of LAX is limited primarily by its ground access system. Heavy dependence upon the auto for airport access is expected to continue and congestion within the immediate vicinity of the airport will increase. A link of a regional fixed-guideway, rapid transit system directly serving the airport is highly unlikely by 1980. With the heavy region-wide reliance on LAX in the short term, improved highway access is needed in an east-west direction across the region in order to adequately serve northern Orange County area passengers.

"Los Angeles International Airport will continue to be the primary airline airport in the region through 1990, although by that year only half of the regional air travel demand will be served there. The airport will reach its apparent ultimate capacity of 40 million passengers by 1990.

"Los Angeles International should be developed to its maximum potential air passenger capacity by 1990. Unless new access systems are provided, Los Angeles International Airport may become almost inaccessible during peak travel hours as passenger volumes exceed 40 million per year."

Concerning additional access improvement, the Los Angeles International Airport Plan is predicated on development of both the Route 170 and I-105 Freeways to the airport, with connections to a proposed tunnel system under the runways. The plan also anticipates a future mass transit system serving the airport from major activity centers of the region. The current SCRTD plan fulfills this need with two lines serving LAX: the Airport Southwest Line with a station in the vicinity of Aviation and Century Boulevards, and the El Segundo-Norwalk Line, proposed initially as a busway within the I-105 median.

A Draft Environmental Impact Report, which was prepared (July 1975) by the Planning Department of the City of Los Angeles for the LAX Development Plan, concluded that both the Route 170 Freeway and the I-105 Freeway are needed to assist the surface streets and the mass rapid transit system in the accommodation of the projected traffic volumes. Hearings on this DEIR were held on March 9, 10 and 11, 1976. The Final EIR is being prepared.

On August 1974, by resolution, the Board of Airport Commissioners for Los Angeles reaffirmed the need for the I-105 Project, stating that every effort should be made to assure its early completion.

#### Corridor Planning

In addition to the regional planning discussed above, there is a parallel coordinated effort for the corridor, at the local level. As noted earlier, Los Angeles County and Los Angeles City have included the project in their general plans. All but one of the other directly affected cities have similarly included the project in their plans. The one exception, Hawthorne, has not done so because of the City's objection to the originally adopted location.

A brief synopsis of planning on the local community by community basis follows.

#### County of Los Angeles:

In the unincorporated areas of Lennox and Willowbrook, the County General Plan does not propose substantial land use change as a result of the Project. However, the Martin Luther King, Jr. Memorial Hospital and the King Triangle Redevelopment project were planned and are being implemented with knowledge of the I-105 Project. These developments are intended to form a focal point for the Willowbrook community.

#### City of Los Angeles:

The Westchester-Playa Del Rey District Plan has been adopted and provides that the area affected by the I-105 will be replanned following project construction. As of November, 1975, the Planning Department expects no significant change in land use or zoning as a result of the project.

In South Central and Southeast Los Angeles, the Planning Department does not expect any changes in zoning as a result of I-105, based on a properly buffered freeway through this area.

City of El Segundo:

The General Plan's transportation and circulation elements include I-105 as a part of their plan. Two commercial developments--Continental Park, in initial stages of implementation, and International Center, in the planning phase--depend on I-105 for economic viability and potential expansion.

City of Inglewood:

The Planning Department does not expect I-105 to cause changes in zoning. The City Plan shows that the area surrounding the Project would maintain its current usage. The City Planning staff is currently studying the possibility of rezoning the area from Prairie to Yukon Avenue, south of Century Boulevard to 104th Street. However, this would probably occur regardless of the Project.

City of Hawthorne:

The City is not presently contemplating any zoning or land use changes as a consequence of the Project. However, a regional shopping center, Hawthorne Plaza, is presently under development at Hawthorne Boulevard and 120th Street, adjacent to the original adopted alignment for the Project.

It is anticipated the City would eventually review land use in the vicinity of this development because of changes in accessibility which might result if the Project location is shifted as proposed.

City of Lynwood:

Lynwood has planned new commercial and industrial parks to take advantage of I-105. The success of these developments depend largely on the Project, as included in their General Plan.

City of South Gate:

The Planning Department does not expect any major change in land use as a result of implementation of the Project, since only a small southern corner of the city is affected. A proposal to redevelop a deteriorated single-family area into an industrial park is somewhat dependent upon the Project.

City of Paramount:

While no substantial change in land use planning is contemplated as a result of the Project, an industrial park is being developed based on the Project.

City of Downey:

Downey has not changed zoning as a result of I-105; however, a more intensive study is scheduled for the I-105 corridor.

City of Norwalk:

The Norwalk Planning staff does not expect to change land use planning as a result of the project.

All of the above cities, with the exception of Hawthorne have adopted Resolutions similar to those adopted by Los Angeles City, County and the Legislature; i.e., calling for expeditious completion of the 8-lane freeway-transitway.

## 2.2 CORRIDOR AND ENVIRONMENTAL SETTING

The following provides a brief description of the physical and environmental characteristics of the study corridor. It is not intended as an all-encompassing description, but as a generalized picture against which implications of the Project (and the alternatives) can be assessed.

### Location

The transportation corridor to be served is generally bounded by Manchester Avenue/Firestone Boulevard on the north and Alondra Boulevard on the south and extends from the Los Angeles International Airport on the west to the Route 605 Freeway on the east (Figure 2-8).

The Cities of Los Angeles, El Segundo, Inglewood, Hawthorne, Gardena, South Gate, Lynwood, Compton, Paramount, Downey, Bellflower, Santa Fe Springs, and Norwalk, and the County of Los Angeles are partly within the corridor.

### Land Use

The Project corridor was more than 99 percent developed by 1970. The corridor presently contains about 260,000 living units; two-thirds of these are single-family units, and the remaining one-third are multiples. Approximately 750,000 people reside within the corridor. Both these residents and the motorists that daily pass through the corridor are served by strip commercial establishments located on both the north-south and east-west arterial streets. In addition to residential and commercial land uses, the I-105 corridor contains several major industrial concentrations. These are located in Los Angeles (LAX area), El Segundo, Hawthorne, Lynwood, South Gate, Paramount, and Downey. The generalized land use pattern of the corridor is shown in Figure 2-8.

Many of the communities within the I-105 corridor--notably El Segundo, Hawthorne, Lynwood, Paramount, and South Gate--have taken positive steps toward increasing their attractiveness to commerce and industry. These steps have included the formation of redevelopment projects, official support of private development projects, and the investigation of joint-use development potential within the I-105 right-of-way. Given a continuation of the vigorous promotion that has characterized these cities in the past, they are likely to achieve some success in their goal of commercial/industrial expansion. Other communities within the corridor have not made strong efforts to alter their land use distribution. Consequently, it is expected that these areas will tend to retain present land use and development characteristics. From an overall corridor standpoint, it is expected that long-term land use will retain its present low-density character.

### Major Travel Generators

There are several significant activity centers within the corridor that attract travel to the corridor area. These include such established facilities as Los Angeles International Airport and related industrial development, Rockwell International (Downey), and Chevron Properties (El Segundo), the Forum and Hollywood Park Race Track, in addition to emerging trip generators like International Center and Continental Park (El Segundo), Hawthorne Plaza (Hawthorne), Martin Luther King, Jr. Hospital (Willowbrook), Watts Industrial Park (Lynwood), Los Angeles Industrial Center (Compton), Lynwood Central City redevelopment area, and Montgomery Ward's Department Store (Lynwood).

### Environmental Features

The corridor, with one exception (a range of low hills near Western Avenue), consists of flat, urban landscape. The Los Angeles and San Gabriel Rivers cross the corridor at central and eastern locations, respectively. There are no other significant natural environmental features remaining within this fully developed corridor. The only known archaeological site is located in the vicinity of Alameda Street between 109th Street and 111th Street. This site has been largely destroyed by existing urban development and the Chief Archaeologist for the Archaeological Survey (UCLA) reports that it no longer has archaeological value.

There are several historical sites within the corridor. Those noted by the Cultural Heritage Board of the City of Los Angeles include the Watts Towers of Simon Rodia on 107th Street and the Watts "Red Car" Station on 103rd Street, both in the Watts district, and the Hangar No. 1 Building on Imperial Highway in the Los Angeles International Airport complex. The Centinela Adobe is just north of the corridor in the City of Inglewood and is a local landmark. The only property within the corridor listed on the National Register of Historic Places is the Lynwood Pacific Electric Railroad Depot. This depot, located at Fernwood Avenue and Long Beach Boulevard is affected by the Project. It has recently been included on the Register as an outgrowth of this Project.

Man-made environmental features such as neighborhood and regional parks, golf courses, and other recreational facilities exist at various locations throughout the corridor.

County bicycle, hiking, and equestrian trails cross the corridor within the rights-of-way of the Los Angeles and San Gabriel River flood control channels. Other county bicycle trails cross and traverse the corridor along existing city streets.

### Socioeconomic Factors

Selected data items from the 1970 Census have been utilized to develop a profile of the socioeconomic characteristics of the communities within the I-105 corridor. These data items include the 1960 and 1970 populations, the percent gain or loss between the census years, the 1970 median age, ethnic composition by percent of total population, and median family income for 1969. These are presented in Table 2-1.

#### Population:

Examination of the data reveals that between 1960 and 1970 all communities gained population during the intercensus period, except Watts, Lennox, and Willowbrook. These communities experienced more out-migration of people than the combined total from in-migration and births.

TABLE 2-1  
DEMOGRAPHIC CHARACTERISTICS OF COMMUNITIES IN THE I-105 CORRIDOR

Jurisdiction	1960 Population	1970 Population	1969 to 1970 Percent Gain or Loss	Median Age In Years	ETHNIC			Median Family Income \$ Per Year
					White %	Black %	Other %	
<b>CITIES</b>								
Compton	71,812	78,611	9.5	20.3	26.4	71.0	2.6	8,729
Dowdey	82,505	88,445	7.2	30.3	98.6	0.1	1.3	12,384
El Segundo	14,219	15,620	9.9	29.2	99.0	0.1	0.9	12,400
Hawthorne	33,035	53,304	61.4	28.7	93.2	3.2	3.6	11,285
Inglewood	63,390	89,985	42.0	33.0	85.9	11.2	2.9	10,892
Lynwood	31,316	43,353	37.1	30.9	97.7	0.4	1.9	10,088
Norwalk	88,739	92,047	3.5	23.4	97.6	0.4	2.0	10,879
Paramount	27,253	34,734	21.5	25.2	98.0	0.1	1.9	9,249
South Gate	53,831	56,909	5.7	34.5	98.2	0.1	1.7	9,788
<b>COMMUNITIES<sup>a</sup></b>								
Westchester	--	54,177 <sup>c</sup>	--	32.4	98.5	0.1	1.4	14,685
South Central	--	80,150 <sup>c</sup>	--	20.7	10.6	88.3	1.1	7,393
Watts	34,001	29,661	-13.0	17.0	7.9	91.3	1.7	5,069
<b>INCORPORATED AREAS<sup>b</sup></b>								
Florence-Graham	38,164	42,895	12.4	24.0	43.0	56.0	1.0	6,077
Lennox	17,317	16,121	-6.8	26.6	96.6	0.3	3.1	9,128
Westmont	--	29,310 <sup>d</sup>	--	22.2	17.6	80.6	1.8	7,884
Willowbrook	38,095	34,835	-9.0	20.5	16.1	82.3	1.5	7,464
<b>REGION</b>								
Los Angeles County	6,038,711	7,032,075	16.4	29.5	85.5	10.8	3.7	10,972

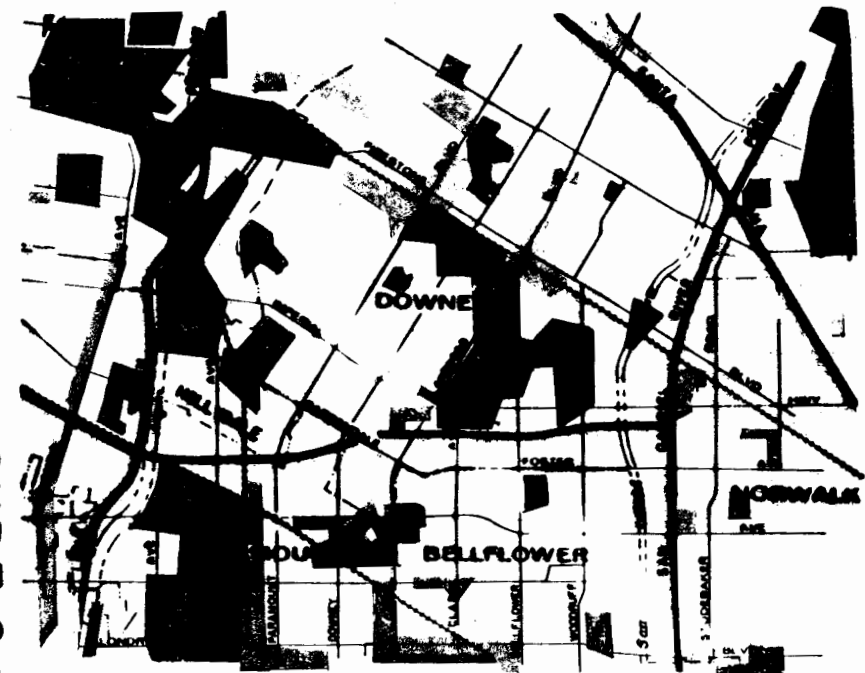
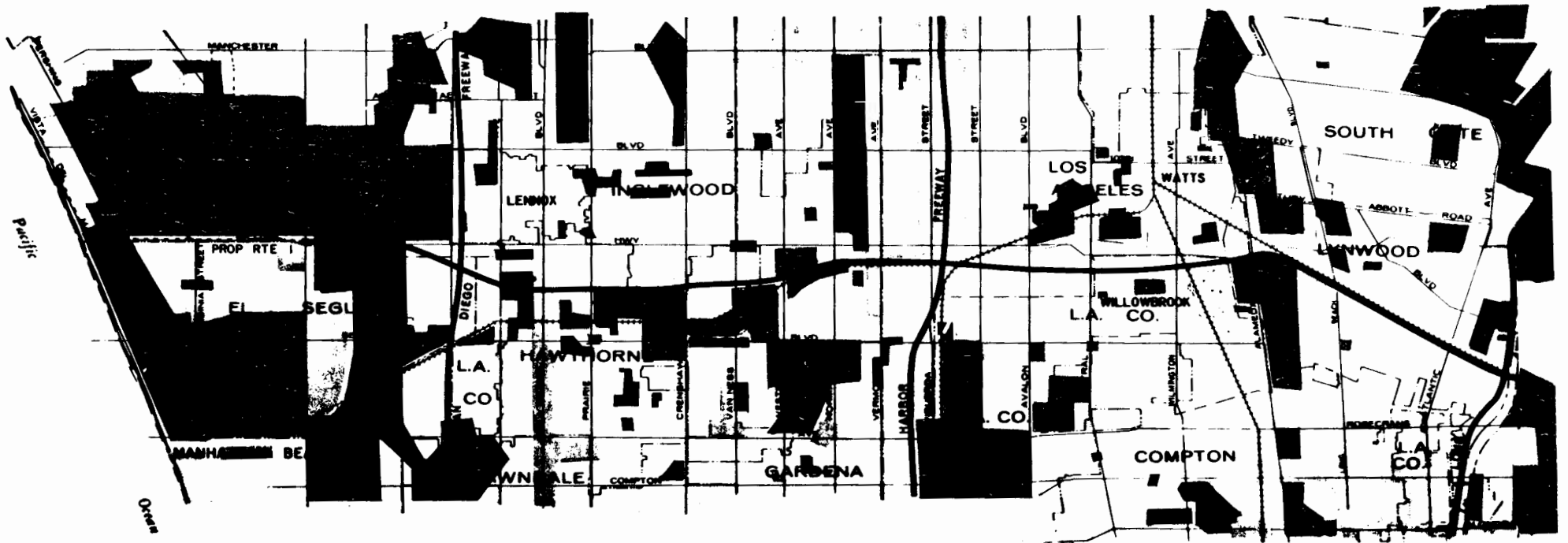
a - Part of Los Angeles City.

b - Part of Los Angeles County.

c - 1960 Census data is not comparable because community boundaries have been changed by the Los Angeles City Planning Department.

d - 1960 Census data not comparable.

Sources: 1960 Census and 1970 Census: Los Angeles City Planning Department, Los Angeles County Regional Planning Commission, El Segundo City Planning Department



**LEGEND**

- Single-Family Residential
- Multi-Family Residential
- Commercial
- Public
- Semi-Public
- Industrial

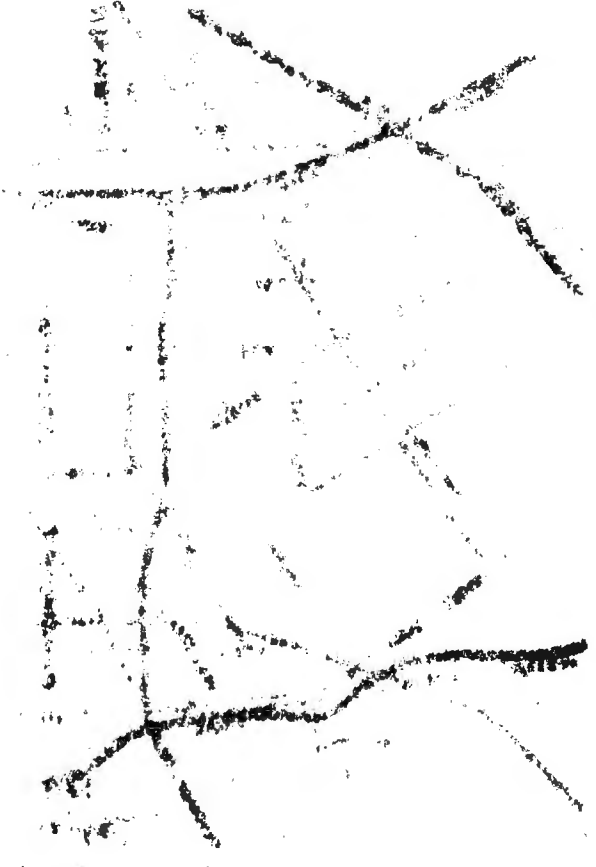
**EXISTING LAND USE-FREEWAY CORRIDOR**

**FIGURE 2-8**

1

**CRIMINAL**

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...  
...  
...  
...  
...



...



By contrast, Hawthorne, Inglewood and Lynwood, with population increases of 61.4, 42.0 and 37.1 percent, respectively, stand out as the communities in the corridor which grew most rapidly. The substantial increases in Hawthorne and Inglewood can partially be attributed to the complex of aerospace industries and other related service industries which are located in the vicinity of the Los Angeles International Airport. These industries, with their extensive employment opportunities, made these two communities attractive to employees who wanted to live in close proximity to their jobs. However, with the general downturn in the aerospace industry, it is likely that this growth has slowed down since 1970.

#### Median Age:

In terms of median age (a measure which indicates whether a population tends to be young or elderly), South Gate has the oldest population, with a median age of 34.5 years. Conversely, Watts at 17.0 years has a very youthful population, as measured against the countywide median age of 29.5 years. The importance of this measure for transportation planning is the reliance of the elderly and youth on public transit for mobility.

#### Ethnic Composition:

The ethnic breakdown of population in the corridor communities varies greatly. The geographic middle section of the corridor is represented by the communities of South Central Los Angeles, Watts, Florence-Graham, Westmont, Willowbrook, and Compton, which have black majorities; communities on the east and west have white majorities.

#### Income:

Median family income is used as an index of the relative economic well-being of the population. In brief, the corridor contains several communities that are relatively well off, compared to the county median family income figure, and it also contains some of the lowest-income communities to be found in the county.

Westchester leads all communities in the corridor in median annual family income with \$14,685, which is 33.8 percent above the county median of \$10,972. On the other extreme, Watts has a median family income of \$5,069, which is 53.8 percent below the comparable county figure.

Median family income figures are of significance in planning for highway projects because they suggest the range of problems likely to be encountered in relocating families along the right-of-way. In fact, special State and Federal legislation seeks to solve relocation problems which are unique to economically depressed communities by allowing Caltrans to develop housing in such areas. Two pieces of legislation are involved: the Replacement Housing Act of 1968 (Ralph Act) and, more recently, Paragraph 206 of the Uniform Relocation Assistance and Acquisition and Policies Act of 1970.

#### Housing:

Within the corridor, there are approximately 260,000 housing units consisting mainly of single-family units, 67 percent of the total. Approximately 167,000 units of 62.7 percent of the stock are between the ages of 11 and 29. Unless massive "recycling" or withdrawals from the stock for other uses occur, over 84 percent of the stock will be at least 30 years old by 1990.

Housing demand in most California cities is centered in multi-unit types. The relative weight however, of this type of housing in the overall structure continues to be less than half the stock. There is an abundance of "recycleable" single-family structures within the corridor.

### 2.3 HISTORICAL PERSPECTIVE

The history of the Project is long and has involved many public and private actions. The following overview presents highlights of some of the events and actions that have occurred over the past 19 years.

- 1958 Division of Highways, California Department of Public Works, in cooperation with local governmental agencies, completed a Statewide transportation study. This became the basis of the California Freeway and Expressway System, adopted by the Legislature in 1959 and included both Routes 1 and 105.
- 1958 Planning initiated for Route 105 with first written notifications and requests for general or trafficway plans and other relevant information.
- 1958 to 1965 Route Location Studies for the westerly portion of Route 105, between Sepulveda Boulevard and Central Avenue. These studies included (1) written notification to potentially affected cities of intent to start studies, (2) investigation of 16 route location alternatives, six of which were analyzed in detail, (3) community meetings and conferences, (4) public hearings in 1963 and 1965, and (5) adoption of the Route by the California Highway Commission in 1965, followed by FHWA location approval.
- 1959 to 1970 Route 1 Location Studies for the portion between Sepulveda Boulevard and the tunnel currently under development beneath Los Angeles International Airport (LAX). These studies included (1) study intent notifications, (2) investigation of alternative route locations, (3) community meetings and conferences, a public hearing in 1970, and route adoption by the California Highway Commission in 1970. (All portions of Route 1 in Los Angeles County, except the portion related to the I-105 Project, were deleted from the system.)
- 1963 to 1968 Route Location Studies for the easterly portion of Route 105, between Central Avenue and Route 605. These studies included: (1) study intent notifications, (2) investigation of nine route locations, (3) community meetings and conferences, (4) public hearings in 1967 and 1968, and (5) route adoption by California Highway Commission in 1968, followed by FHWA location approval.
- 1967 to Present Replacement Housing Program developed and implemented. In addition to the Division of Highways Relocation Assistance Program, special legislation was enacted (Replacement Housing Act of 1968, known as the Ralph Act) which allowed the Division of Highways to provide replacement housing in areas with depressed economic conditions and inadequate housing resources. A vital feature of the original concept was maximum community involvement in the program. To date 99 single-family and multi-family units have been completed.
- 1968 Route 105 added to the Interstate Highway System by the U. S. Department of Transportation. The inclusion was with the understanding that the State would: "--Apply urban design concept planning to the Project. This type of planning is carried out on multidiscipline basis, taking into consideration not only the transportation function of the highway, but also its possible benefits to the community in terms of residential economic, and broadened social goals. This includes providing for the joint development of space over, under, and alongside the highway for construction of improved community facilities and, where desirable, relocation housing."  
 "--include in its planning provisions for improved public bus transportation services within, into, and out of the affected communities, utilizing Route 105 to the extent practicable."  
 Detailed design of the Project was accelerated to meet the Federal Aid Interstate (FAI) Program's deadline of 1975. (Completion of the FAI Program has been extended a number of times, most recently to 1990.)
- 1969 to 1970 Design Concept Team Studies identified and analyzed various community and environmental impacts and opportunities that the adopted freeway alignment would create. These related to economic and fiscal structure, housing displacement, community facilities, traffic circulation, neighborhood environmental values, and joint use development. Each study (a total of 19) resulted in a printed report which became a public document. Exhibit 3 in the Appendix contains a brief summary of these reports.

- 1969 to 1970 Design Public Hearings (a total of seven) were conducted along the entire I-105 corridor, beginning with the first hearing in June 1969 in Paramount and ending with the last hearing in May 1970 in the Watts-Willowbrook area.
- 1969 to 1972 A total of 25 freeway agreements for the then proposed Project, including one concurring resolution related to the widening of the San Gabriel River Freeway, had been executed. Two agreements remained to be completed along Route 105, one each with the City of Hawthorne and the City of Los Angeles in the vicinity of Los Angeles International Airport. The City of Hawthorne had not executed this agreement because it was opposed to the adopted location. The City of Los Angeles and the State had resolved design details prior to the July 7, 1972, injunction, but execution of the agreement has been held in abeyance pending resolution of the lawsuit.
- Another agreement was required for the portion of Route 1 in El Segundo. The City had endorsed the Project and adopted location, as well as tentative agreement on design details. The freeway agreement could not be executed until a Design Public Hearing was held. This was also held in abeyance because of the injunction.
- 1969 to 1971 The Federal Highway Administration (FHWA) gave approval to major design features and authorized acquisition of whole parcels of right-of-way, for the original Project, exclusive of the Route 1 segment in El Segundo.
- 1970 to Present Special Route Location Restudies. The adopted location of the Project did not receive unanimous support. As noted above, the City of Hawthorne continued to oppose the adopted route. Consequently, special route location restudies were made.
- 1971 A Section 4(f) Clearance for the Imperial Village Park in Inglewood was secured from the U. S. Department of Transportation. (Section 4(f) of the Department of Transportation (DOT) Act--49 U.S.C. 1653(f)--required that the Secretary of DOT shall not approve any program or project which requires the use of any publicly-owned land from a public park, recreation area, wildlife or waterfowl refuge or historic site, unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such a program includes all possible planning to minimize harm to these areas.)
- 1971 Route 1 Location between Sepulveda Boulevard and the LAX access tunnel was approved by FHWA.
- 1971 Route 1 Federal-Aid Interstate funding was approved by FHWA for the portion between Sepulveda Boulevard and the LAX access tunnel.
- 1972 In early 1972, Keith, et al<sup>1</sup> filed suit in the United States District Court for the Central District of California. Plaintiffs alleged the State Department of Transportation and the Federal Highway Administration had not complied with the National Environmental Policy Act (NEPA) (effective January 1, 1970), the California Environmental Quality Act (CEQA) (effective October 1970), Section 128 of the Federal Aid Highway Act (pertaining to public hearings), the Uniform Relocation Act, and Due Process provisions of the U. S. Constitution. The suit sought a preliminary injunction halting all further work on the entire I-105 Freeway pending compliance with those laws. The case was heard before the Honorable Harry Pregerson, United States District Judge, in May of 1972, and a preliminary injunction was issued on July 7, 1972.
- 1972 to 1974 Caltrans and FHWA undertook a formal environmental study, leading to preparation of an EIS. A major part of the effort was directed at analysis of air and noise pollution, and housing availability, as required by the Court. The results of preliminary studies were summarized in a Draft EIS, circulated for public comment on December 19, 1974.

<sup>1</sup>Eight individual plaintiffs, including the Sierra Club, NAACP, Environmental Defense Fund, Inc., City of Hawthorne, and the Freeway Fighters.

- 1973 New Federal Aid Highway Act permits FHWA financial participation in the development of highway transit projects.
- July--SCRTD Consultant's Plan recommending an I-105 busway.
- 1974 March--SCRTD Consultant's Plan reaffirmed recommendation for an I-105 busway.
- Continuing cooperative design studies undertaken by SCRTD and Caltrans to establish I-105 design features which will accommodate the median busway.
- July--SCRTD Board of Directors adopted a required transit plan which included the I-105 busway.
- Spring 1975 During March and April, 1975, a series of public hearings were held to provide DEIS information, and to discuss and receive public comment on the DEIS. These were structured as corridor (location) and design hearings and were held in four locations along the corridor in order to ensure adequate time for public comment, and for the convenience of the public. Total attendance at these hearings was 1230.
- In response to two separate suggested modifications by the City of Hawthorne, the CHC held two separate public hearings--on April 23, 1975 and August 27, 1975. Total attendance at these hearings was 1150. The location of the proposed Project conforms to the modification considered at the August 27 hearing.
- 10/19/75 SCRTD's position expressed at the April 23, 1975 public hearing, and later confirmed in a letter of October 16, 1975 to the State Business and Transportation Agency, reaffirmed support for a transit facility in the median.
- 12/19/75 State Business and Transportation Agency Secretary Burns' announcement of a combined four-lane roadway-transitway proposal.
- 1/21/76 Meeting of Corridor Cities (and Los Angeles County) to consider Secretary Burns' proposal.
- 1/28/76 Meeting of Corridor Cities with Secretary Burns. (Hosted by Assemblyman Vicencia and Senators Dills and Holden)
- Spring 1976 Los Angeles County and Corridor Cities (except Hawthorne) passed resolutions supporting the proposed (8-lane) freeway-transitway project.
- 5/5/76 President signed 1976 Federal-Aid Highway Act which allowed an inflationary adjustment to fully fund the proposed project.
- 8/12/76 State Legislature adopted Senate Concurrent Resolution (SCR) 80 requesting expeditious completion of the 8-lane freeway-transitway project after the environmental process is finished.

#### 2.4 CITIZEN AND AGENCY PARTICIPATION

During the entire planning and design phases of this Project, the Division of Highways<sup>1</sup> worked extensively with staffs of Federal, State, and local agencies, county supervisors, city councilmen, school district representatives, local community leaders, local groups, and numerous concerned citizens in order to insure that full community involvement was obtained and planning well coordinated between the many agencies and communities involved.

Over 150 open meetings involving all segments of the public and its elected representatives were held, and hundred of letters from individuals expressing concern or questions were received and considered during Project development. More than 7,000 contacts were made through the Freewaymobile (a mobile information office) when it was in the Cities of Lynwood, South Gate, Paramount, and Norwalk and the County of Los Angeles. During the period from 1969 to 1971, an information and assistance office was located in the Watts area which handled over 10,000 individual inquiries. As the need for these services declined in the Watts area, this office was relocated to Downey where it remains today.

<sup>1</sup>Subsequently absorbed into the new Department of Transportation (Caltrans) created by AB 69, effective July 1, 1973

The California Highway Commission adopted the original Route 105 location in two stages: (1) in December of 1965, that portion of the line between Sepulveda Boulevard and Central Avenue was adopted; (2) in July of 1968, the remaining portion between Central Avenue and Route 605 was adopted. As part of this original route-location adoption process, four public hearings were held. At these hearings, attended by approximately 5,000 persons, officials and citizens from each of the communities traversed by the proposed Project had opportunities to voice their concerns and, in many cases, adjustments were made accordingly. A public hearing was also held for the Route 1 portion of the Project in February of 1970. This hearing was attended by approximately 200 persons.

During 1969 and 1970, the Division of Highways (Caltrans) undertook additional studies of the environmental, physical, social and economic impacts of the adopted alignment. These studies were aimed at seeking ways to blend the Project into its urban setting by pointing out ways to blend the Project into its urban setting by pointing out ways of maximizing opportunities for enhancing the neighborhood-freeway relationship and minimizing potential disruptive effects of the facility.

The studies analyzed freeway-related impacts and opportunities relative to economic and fiscal structure, housing displacement and replacement, community facilities, vehicular and pedestrian circulation, neighborhood environmental values, and potential joint use development. In addition, the studies explored the legal, financial, design, social and political implications and methods of implementing recommendations. Each of the studies was timed to coincide with the preparation for a series of design public hearings. The study results became a part of the hearing presentation. Over 5,600 persons attended the original seven design hearings.

In addition to the original route location hearings held by the Division of Highways (Caltrans), public hearings have been required by law since 1969 of City Councils and Boards of Supervisors, prior to their execution of a Freeway Agreement (Section 100.22, Streets and Highways Code). For freeway agreements executed subsequent to this law, hearings were held by the County of Los Angeles and the Cities of El Segundo, Lynwood, Norwalk, and Downey. The City of Hawthorne, which has declined to execute a freeway agreement because of its opposition to the adopted location, has also held such a hearing and has held many City Council meetings on this issue. In addition, the City of Hawthorne held a special election to determine if City residents favored the adopted route of the I-105 Freeway within the corporate limits of Hawthorne. This election, held in May 1971, produced a 38 percent turnout of eligible voters. At that time, a total of 2,281 voters favored the adopted alignment, while 5,642 did not.

During the past several years, many meetings have been held relative to specific concerns of citizens and agency staff. Also during this period and, more recently, during the preparation of a formal Environmental Impact Statement for the Project, coordination has been maintained with Federal, State and local agencies, such as EPA, State Air Resources Board, the Los Angeles County Air Pollution Control District, and the Southern California Association of Governments.

A listing of some of the more important public (and other) informational meetings held over the last ten years is shown in Figure 2-9.

An integral part of the freeway planning and development process in California are freeway agreements. By statute, these agreements relate to street closures. However, in practice, negotiations with affected cities and counties along a freeway may involve the determination of:

- . The precise horizontal alignment (some latitude is permitted within the adopted route location).
- . The vertical alignment (at-grade, elevated or depressed below grade).
- . The location and types of interchanges.
- . The placement of frontage or service roads.
- . The spacing and design of pedestrian overcrossings.
- . The landscaping concept and features.
- . The placement and design of noise attenuation and retaining walls.
- . The closure or modification of local streets.

In addition to the above, negotiations have sometimes involved questions or signalization and signing; access to affected local public facilities (including relocation and/or compensation for displacing such facilities); right-of-way acquisition, scheduling and rerental policies; the use of local information offices; procedures for clearing vacated buildings, handling of public utility and railroad facilities; etc.

Freeway agreements are developed in cooperation with local city and county agencies, often with the County or City Director of Public Works serving as local agency coordinator. Citizen concerns, recommendations and preferences are obtained through informal group meetings. Executed agreements<sup>1</sup> are listed in Table 2-2.

The Division of Highway (Caltrans), has always maintained close working relationships with local city staffs. Planning and design coordination efforts continued after execution of freeway agreements to insure that mutually agreeable and desirable design feature changes are made when conditions warrant.

The currently proposed design, depicted in Appendix E, Exhibit 6, has been reviewed favorably by all jurisdictions involved. To the extent the proposed design differs from the original design (see DEIS) freeway agreements will be modified or revised. This will occur after all required approvals are obtained and before actual construction begins.

TABLE 2-2  
I-105-RELATED FREEWAY AGREEMENTS

	<u>Agency</u>	<u>Date</u>
On Route 105	El Segundo	August 24, 1970
	Los Angeles County	November 4, 1969
	Inglewood	July 29, 1969
	Los Angeles County	November 4, 1969
	City of Los Angeles	May 5, 1969
	Los Angeles County	June 24, 1971
	Lynwood	July 9, 1970
	Paramount	November 6, 1969
	Paramount	February 8, 1972
	South Gate	October 27, 1969
	Downey	October 13, 1971
Norwalk	October 12, 1970	
On Route 405	Lawndale	June 11, 1970
	Torrance	October 30, 1970
	Los Angeles County	November 4, 1969
	City of Los Angeles	June 30, 1971
	Inglewood	November 4, 1969
On Route 11	Los Angeles County	October 28, 1969
	City of Los Angeles	January 30, 1971
On Route 7	Los Angeles County	June 3, 1970
	Paramount	May 6, 1970
	Lynwood	July 9, 1970
	Compton	April 21, 1970
On Route 605	Norwalk	October 12, 1970
	Downey*	April 13, 1970

\*A minor revision of the Project-related design on Route 605 in the Downey area was approved by the City in a "concurring resolution" rather than by renegotiating the freeway agreement to expedite development of the Downey Wilderness Park. This will eventually be followed by a revised freeway agreement.

<sup>1</sup>As noted earlier, no freeway agreements had been signed for the Route 1 segment of the Project. In addition, two portions of the original I-105 Project lacked freeway agreements. These were for the areas within the City of Hawthorne and the small portion of Los Angeles west of the San Diego Freeway.

LOS ANGELES CITY

<u>Date</u>	<u>Organization</u>	<u>Attendance</u>
5-13-65	California Highway Commission Public Hearing	*
5-26-67	Los Angeles City Schools	*
1-10-68	Los Angeles City Schools and Los Angeles Board of Education	8
1-12-68	Los Angeles City Schools and City of Los Angeles	8
1- 5-71	Los Angeles Rotary Club	*

LOS ANGELES COUNTY

<u>Date</u>	<u>Organization</u>	<u>Attendance</u>
5- 5-63	Location Public Hearing	*
7-10-67	Del Aire Mission Society	*
1-22-69	Del Aire Improvement Association	300
1-22-69	Del Aire Homeowners Association	*
1-27-69	Wiseburn School District	*
3- 7-69	Wiseburn Baptist Church	9+
4-14-69	Wiseburn Homeowners	*
5-27-69	Lennox Elementary School District	*
1-23-70	Lennox Elementary School District	*
6-22-70	Lennox Elementary School District	*
6- -70	Freewaymobile	1,800
8- -70	Freeway Information Trailer	*
9-13-70	Del Aire Elementary School District	25
9-24-70	Los Angeles Junior College District	9
2- 2-71	Junior College Board of Trustees	*
8-13-71	Lennox School District	*
8-18-71	Lennox School District	4
6-21-72	Southwest College	6
10- 5-72	Southwest College	6
11-14-72	Southwest College	7
12- 8-72	Los Angeles County Citizens Planning Council	*
3-15-73	Southwest College	8
3-29-73	Southwest College	11
5-23-73	Del Aire Improvement Association	100

WATTS-WILLOWBROOK

<u>Date</u>	<u>Organization</u>	<u>Attendance</u>
9-24-68	Willowbrook Coordinating Council	250
12- 2-68	East 117th Street Neighborhood Improvement Club	*
3- 2-69	Watts-Willowbrook Compton Improvement Association	*
3-19-69	PTA - Gompers Junior High	*
3-25-69	Welfare Planning Council	7
4-15-69	South Central Improvement Action Council	10
4-17-69	Welfare Planning Council	9
5-21-69	Concerned Citizens - Florence Firestone	*
7- 2-69	116th Street Improvement Club	6
7-14-69	Housing and Urban Renewal Conference and Workshop	18+
7-17-69	Model Neighborhood (Model City Program)	*
6-21-69	WLCAC Senior Citizens	300
6-26-69	Federal Committee on Critical Urban Problems	*
10-69	Antwerp Improvement Club	10
5-69	Council of Community Clubs	35-40
8-69	Homeowners of Blodgett Tract	35
2-28-69	Willowbrook Coordinating Council	75-100
2-12-70	Holy Chapel Baptist Church	*
2-12-70	Willowbrook Coordinating Council	20
2-24-70	Bel-Vue Community Church	*
7- 9-70	Model Neighborhood	30
10-70	Model Neighborhood	*
2-24-70	Willowbrook Coordinating Council	*
7-29-70	Unity Baptist Church	50
7- 7-70	Household of God Church	15+30 Kids
7-20-70	Model Neighborhood	*
12- 4-70	Imperial Courts Advisory Committee	15
6-71	CRA Advisory Committee	40-50
2-25-71	Willowbrook Coordinating Council	*
2-24-71	Los Angeles County Board of Supervisors Public Hearing	*
7-10-71	South Central Area Welfare Planning Council	*
12-16-71	Bel-Vue Community Church	*

SOUTH GATE

<u>Date</u>	<u>Organization</u>	<u>Attendance</u>
30-67	Location Public Hearing	1,100+
10-69	South Gate City Council	*
19-69	South Gate Planning Commission	*
1-12-69	Jehovahs Witness Holydale Congregation Church	*
5-12-69	Bethany Chapel, Assembly of God Church	*

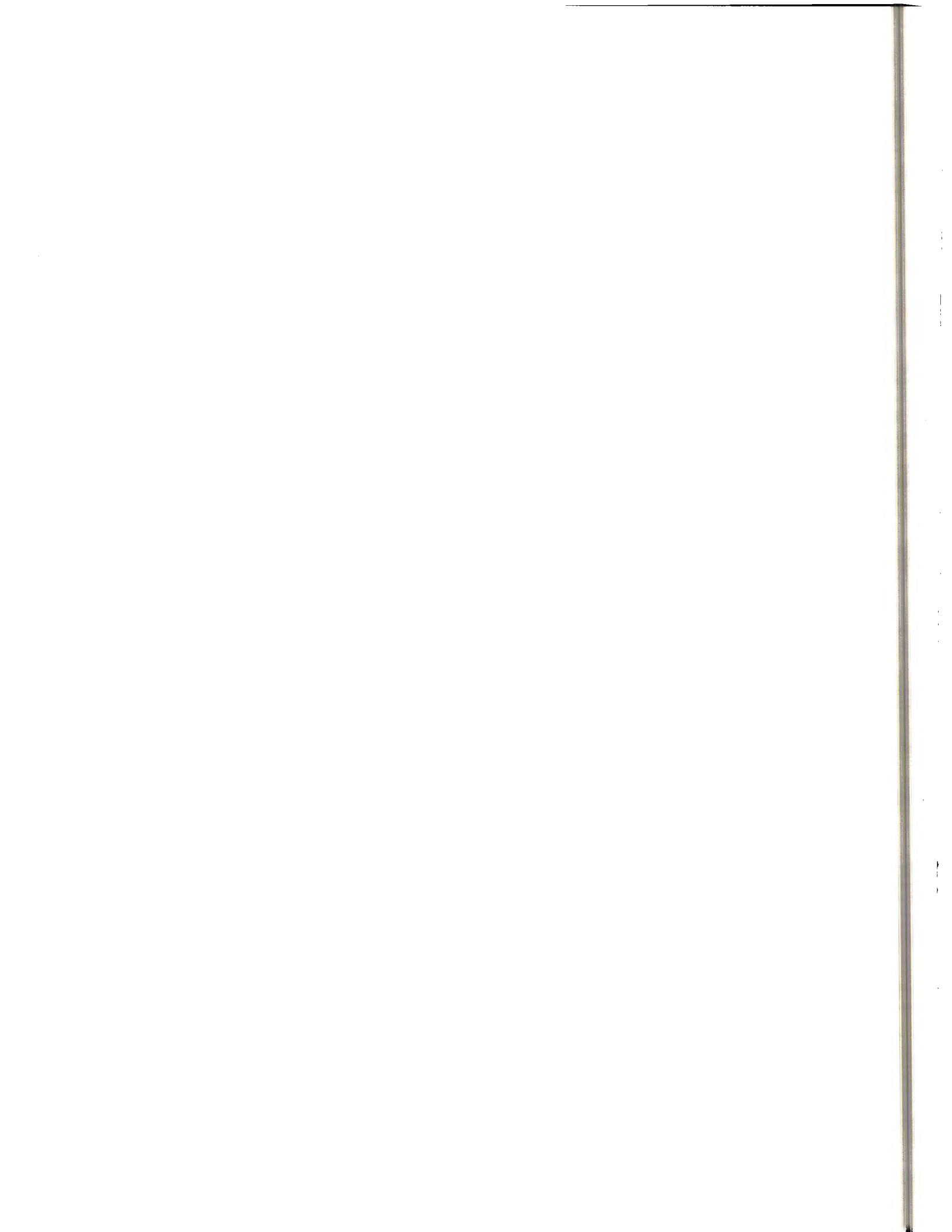
PARAMOUNT (Continued)

<u>Date</u>	<u>Organization</u>	<u>Attendance</u>
4- 1-70	Paramount Planning Commission	*
5- 6-70	Paramount City Council	*
7- 8-70	Paramount City Council	*
12-17-70	Paramount Planning Commission	*
4- 7-71	Paramount City Council	*
1-21-71 through 1-30-71	Freewaymobile - Paramount/South Gate	1,000+
10-22-71	Paramount Planning Commission	*
11- 2-71	Paramount City Council	*
12- 3-71	Paramount School Board	*
12-16-71	Paramount Planning Commission	*
12-30-71	Paramount Planning Commission	*
2- 7-72	Paramount School Board	*
2- 8-72	Paramount City Council	*

NORWALK

<u>Date</u>	<u>Organization</u>	<u>Attendance</u>
7-30-69	City of Norwalk	H. Heckeroth D. Roper Plan Advisory Committee
11-19-69	Excelsior High School	City Council 400
1-25-70	Studebaker School	100+
1-28-70	Design Public Hearing	650
2- 5-70	Hoxie School	100
2- 6-70	New River School	175
2-11-70	Glazier School	100
9-21-70	Excelsior High School - Public Hearing	300+
10- 8-70 through 10-11-70	Freewaymobile	2,000+
5-11-71	Norwalk Kiwanis Club	75
3-25-75	Excelsior High School EIS Public Hearing	172
3-27-75	Excelsior High School EIS Public Hearing	118

Note: This is a partial list of past meetings at which public contact and input was received, and presentations or information given to the public. Most were evening meetings scheduled for maximum public exposure and input.





CHAPTER 3  
THE FREEWAY - TRANSITWAY AND ITS ALTERNATIVES



## CHAPTER 3 - THE FREEWAY-TRANSITWAY AND ITS ALTERNATIVES

The purpose of this Chapter is to describe the Project and the alternatives which were identified and evaluated in this EIS process.

A considerable number of concepts were initially considered. Five of these, including the Project, were eventually selected for further analysis and evaluation. Each incorporates a common regional transportation background which assumed reorienting the existing SCRTD bus system to provide feeder-distributor service to an extensive regional mass rapid transit (MRT) system; the existing freeway plus closing links in the Foothill (210), Simi (118), Orange (57), Artesia (91), Glendale (2), and Long Beach (7) Freeways; and continued development of the arterial street system (more than \$80 million in improvements are planned by the corridor communities). Travel predictions were based on SCAG projections of regional population and the assumption that transportation control plan measures to achieve air quality standards were completely implemented.

Section 3.1 is a detailed description of the Project as now proposed. The originally adopted line, in the Hawthorne area, as well as the so-called "Bell-shaped" line which received prominence and consideration in early 1975, are discussed as location alternatives. Sections 3.2 through 3.5 describe the major conceptual alternatives which were considered.

Section 3.6 briefly discusses other concepts which were examined, but not considered realistic alternatives.

### 3.1 THE I-105 FREEWAY-TRANSITWAY PROJECT

The I-105 Project proposes construction of a transportation facility with multimodal capability. It would provide an eight-lane, 17.2-mile access-controlled east-west highway with a transitway in the median. The project would extend through the south-central portion of Los Angeles County from west of Sepulveda Boulevard in El Segundo to Interstate 605 in Norwalk. The route traverses the Cities of El Segundo, Hawthorne, Inglewood, Lynwood, Los Angeles, South Gate, Paramount, Downey, Norwalk, and unincorporated areas of Los Angeles County (Lennox and Willowbrook). At its western end, the Project would extend to Los Angeles International Airport eventually connecting to a proposed vehicular access tunnel via a 0.4-mile segment of California Route 1.

Figure 3-1 illustrates the extent of the proposed I-105 Project, including the Route 1 segment, and the associated widening of the intersecting north-south freeways.

#### Major Design Features

The proposed Project would be entirely on new location. The basic right-of-way width would be 320 feet, including a 64-foot wide median strip of which 40 feet would be utilized for the median transitway facility.

Exhibits 6a through 6e of Appendix "E" shows the proposed Major Design Features of the Project.

#### The Freeway Element

The I-105 Project is principally an 8-lane freeway. In addition, auxiliary lanes are provided at some locations on the basis of forecast traffic volumes to provide balanced and smooth operating characteristics. Freeway-to-freeway interchanges are proposed with the intersected existing north-south freeways; San Diego (Route 405), Harbor (Route 11), Long Beach (Route 7), and San Gabriel River (Route 605). The interchange of traffic requires reconstruction of these freeways, generally three-fourths of a mile to one mile in each direction from Route 105. Some additional work beyond these limits is included to make existing local interchanges compatible with I-105 construction and correct present operational deficiencies on the existing north-south freeways.

Local traffic service is proposed from the freeway to all major highways and, in some cases, to streets of secondary highway status. The interchange patterns will vary in order to provide adequate capacity to handle the peak-hour traffic volumes for through and turning movements.

"Ramp-metering" will be incorporated into the Project. This technique utilizes signals at on-ramps to regulate the flow of traffic entering the freeway such that the freeway traffic may operate without congestion; i.e., "free-flow" conditions. In addition, bypass lanes will be available at on-ramps for high-occupancy vehicles. This is one element of the regional Short-Range Transportation Plan (SRTP) intended to encourage high occupancy vehicle use as a means of improving air quality.

The ability of local traffic to circulate freely in local areas will be maintained as all major and secondary streets and some minor streets crossing the Project will remain open. In addition, some new north-south crossings of the Project will be added to improve accessibility and circulation. Frontage roads will be provided where freeway crossings are not desirable and pedestrian crossings will be provided where necessary to avoid excessive circuitry and to maintain continuity of pedestrian movements.

Through noise-sensitive areas, principally residential areas, attenuating devices will be provided to reduce noise impacts to an acceptable level. Such devices, usually earthmounds or wall barriers, are effective and can be made aesthetically compatible with the surrounding area. A general analysis of the traffic noise and its mitigation is included in Chapter 5, Environmental Evaluation. The dimensional requirements of noise attenuation devices for the Project are indicated in Exhibit 7 of Appendix "E". The actual design and architectural treatment will be determined in consultation with local agencies.

The route planning and design principals which have governed development of the Project are:

- . It should parallel existing street patterns and follow city boundaries whenever possible.
- . It should be located to buffer incompatible land uses; for example, to separate manufacturing plants, airports, etc. from residential areas.
- . It should be depressed wherever possible to minimize intrusion into residential and other environmentally sensitive areas such as parklands. Departure from this principle should be permitted only where circumstances such as major storm drains, railroads, existing freeways, etc., make the depressed design impractical.
- . The use of viaducts (long bridge structures) is considered through major extensive commercial or industrial areas to minimize right-of-way requirements and to maximize opportunities for joint use of the right-of-way.
- . It should be at grade only to provide transition from depressed to elevated sections, or vice versa.

Typical cross-sections are shown in Figure 3-2. The location of the various cross-section configurations for the I-105 Project are presented on Figure 3-3. Descriptions of the major design features are presented in the following paragraphs.

#### California Street to Aviation Boulevard:

The location of Route 1 (California Street to Sepulveda Boulevard) and I-105 in this reach is along Imperial Highway. This area is intensively developed to industrial uses. The Project is proposed as a viaduct over Imperial Highway.

#### Aviation Boulevard to Inglewood Avenue:

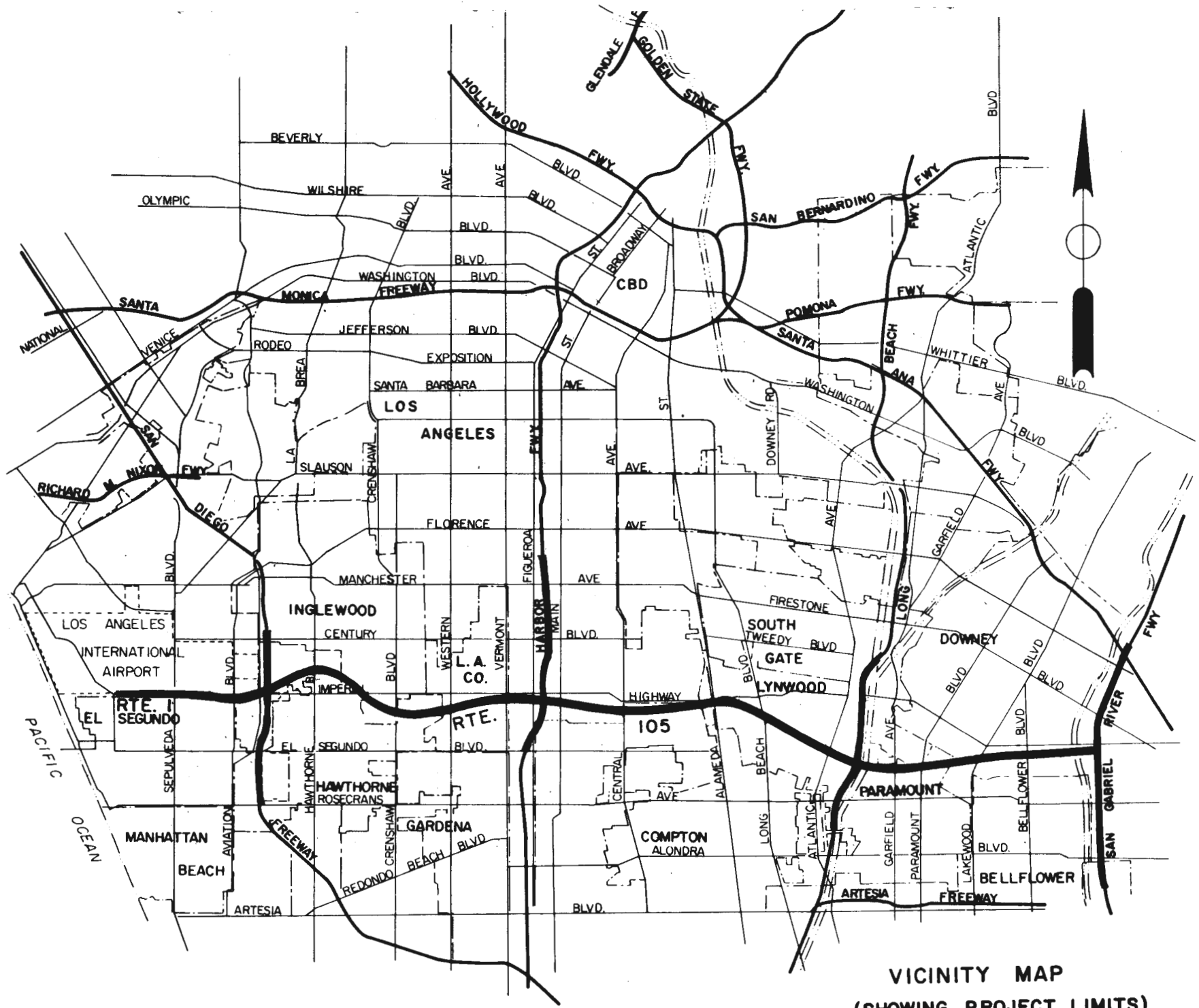
After crossing Aviation Boulevard, the route parallels Imperial Highway and begins to diverge northeasterly to pass over the Route 405 Freeway and Inglewood Avenue.

#### Inglewood Avenue to Prairie Avenue:

The route continues northeasterly to Hawthorne Boulevard, immediately south of 11th Street, then curves to a southeasterly alignment. It transitions to a depressed cross-section east of Inglewood Avenue to pass under Hawthorne Boulevard to a point beyond Prairie Avenue.

#### Prairie Avenue to Crenshaw Boulevard.

After passing beneath Prairie Avenue, the freeway rises to cross over the Dominguez Flood Control Drainage Channel, and continues elevated over Crenshaw Boulevard. The alignment

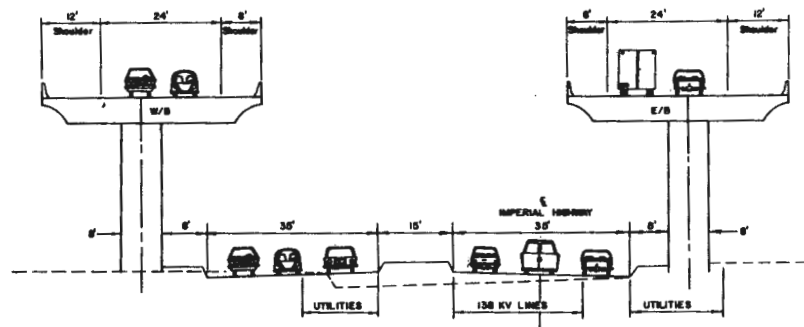


VICINITY MAP  
(SHOWING PROJECT LIMITS)

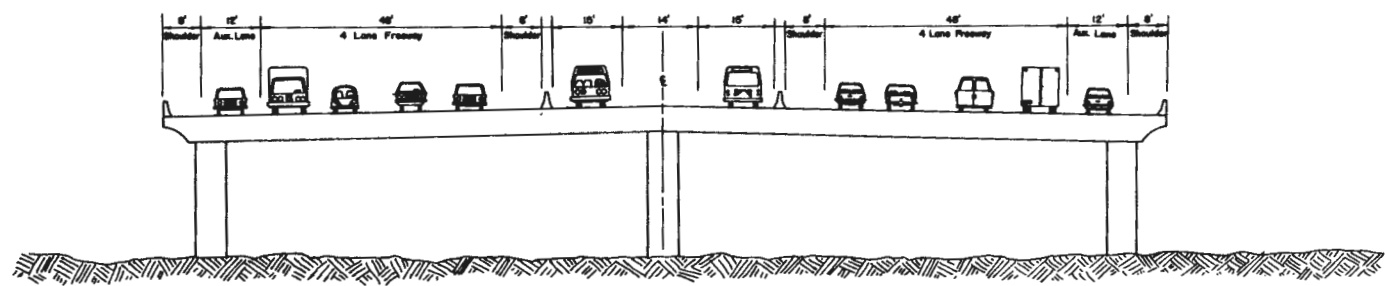
FIGURE 3-1

FIGURE 3-1

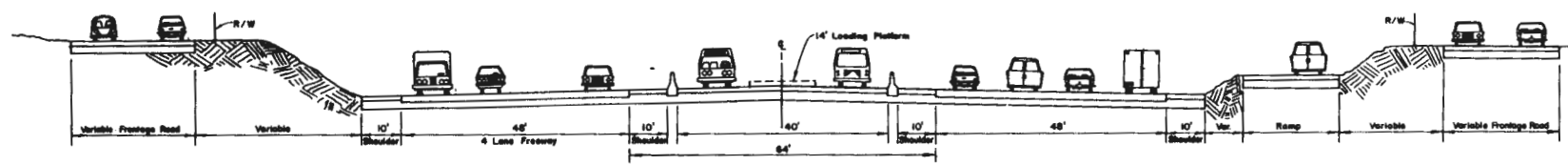




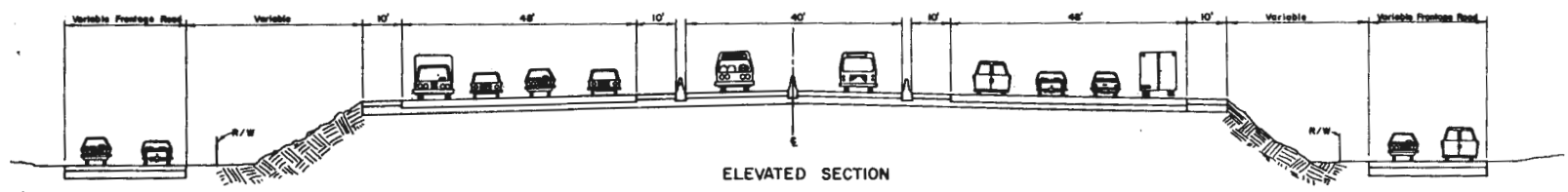
VIADUCT ALONG EXISTING HIGHWAY



VIADUCT  
MEDIAN TRANSITWAY



DEPRESSED SECTION



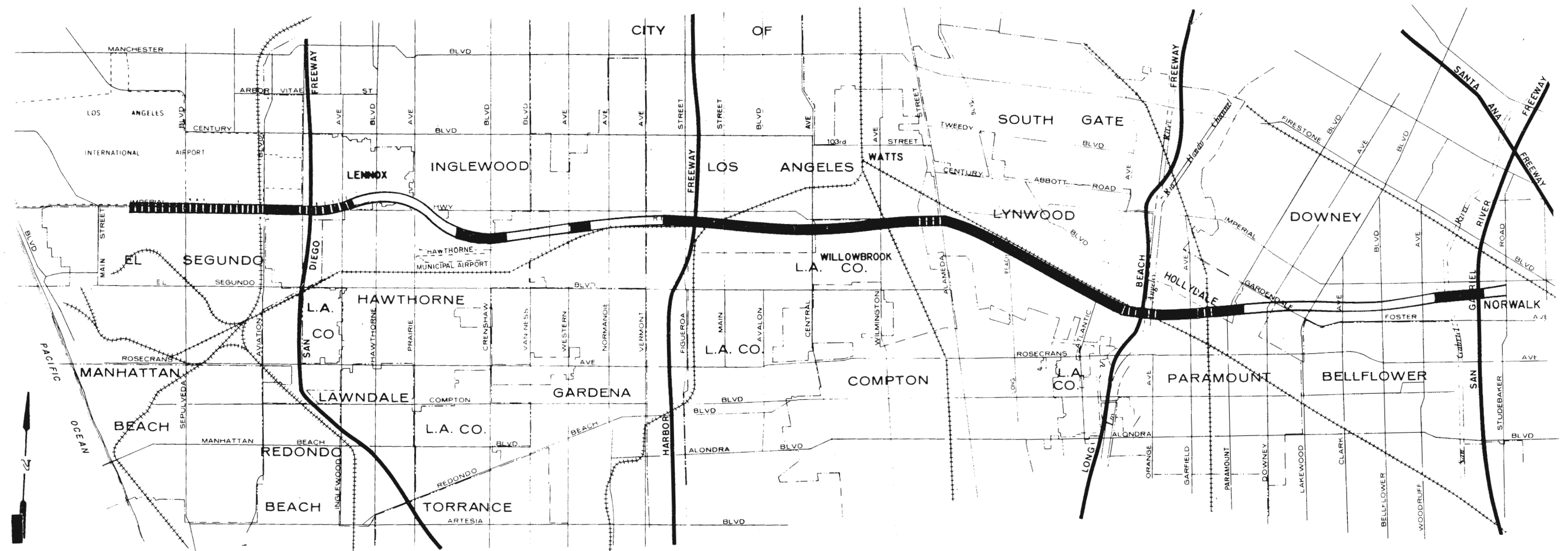
ELEVATED SECTION

TYPICAL FREEWAY SECTIONS




FIGURE 3-2



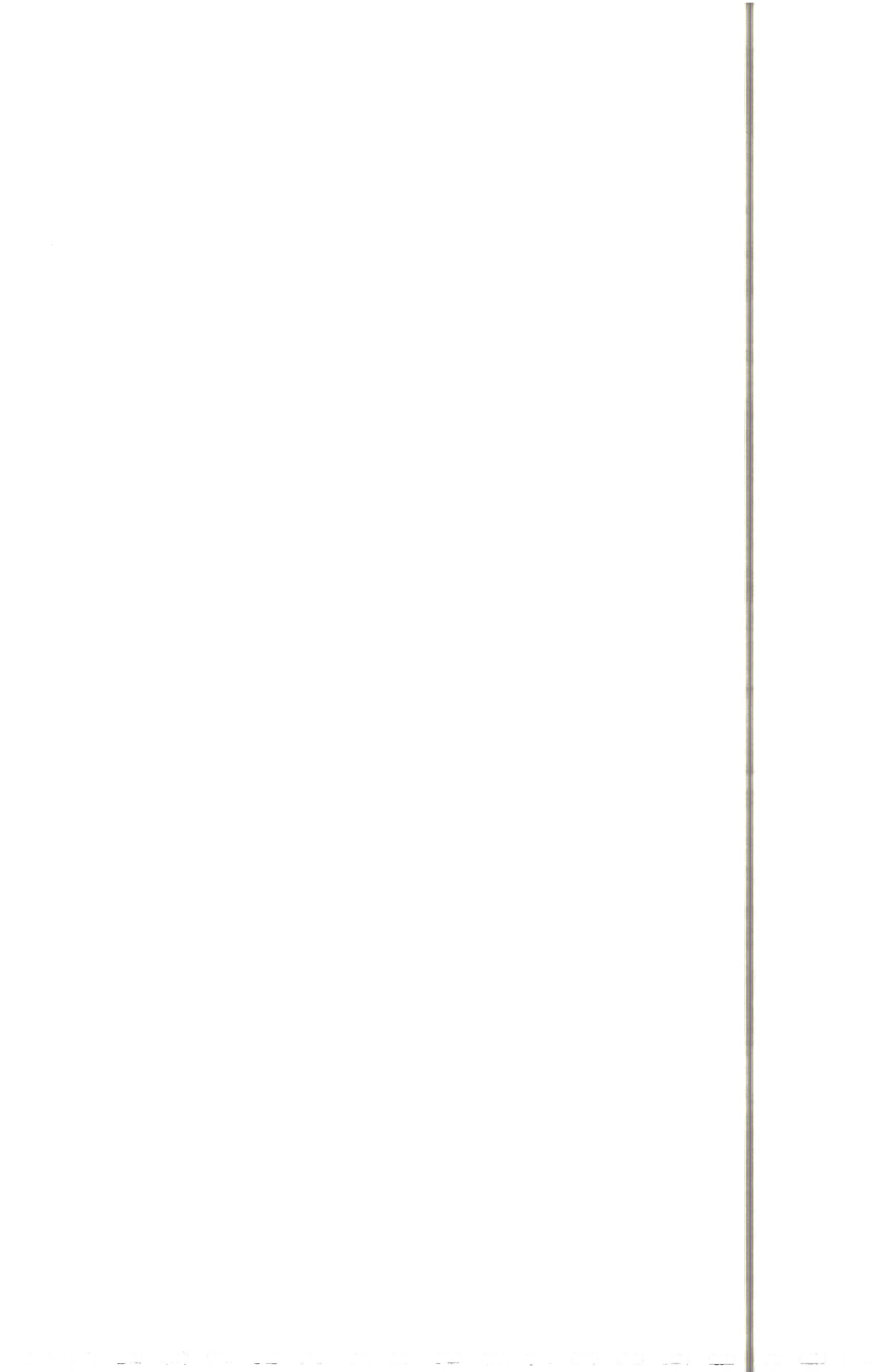




**LEGEND**

-  Elevated on Viaduct
-  Elevated on Embankment
-  Depressed

**I-105**  
**SECTION CONFIGURATIONS**  
**FIGURE 3-3**



again curves east of Prairie Avenue to be parallel and just north of 120th Street. This elevated reach of the Project is just north of the Hawthorne Municipal Airport, thereby buffering the residential community to the north from the effects of the airport.

#### Crenshaw Boulevard to Route 11:

The Project is again depressed to pass beneath Van Ness Avenue, and except for a short length of low fill just east of Western Avenue, it remains depressed to Vermont Avenue, then rises to cross over Hoover Street. It continues elevated across the Harbor Freeway, which is already depressed. In this reach, land use is a mixture of residential and commercial. From about Western Avenue to the Harbor Freeway, the Project will parallel the Southern Pacific Transportation Company's El Segundo Branch railroad line. The railroad is to be relocated south and adjacent to the freeway between Western Avenue and Normandie Avenue where the Project will occupy the existing railroad right-of-way.

#### Route 11 to Santa Fe Avenue:

The elevated section easterly of the Harbor Freeway crosses over the Southern Pacific Transportation Company's El Segundo-Torrance Branch railroad line and Compton Creek to Mona Boulevard. In this reach, development is largely residential interspersed with industrial uses along the railroad and commercial uses along arterials. The Project parallels the local street pattern, approximately between 116th Place and 118th Street to Central Avenue; and immediately south of Imperial Highway from Central Avenue to Mona Boulevard. From Mona Boulevard to Santa Fe Avenue, the elevated section becomes a viaduct, straddling Imperial Highway through the existing industrial area in order to cross over Alameda Street, Southern Pacific Transportation Company's San Pedro Branch railroad lines in Alameda Street, and a new Santa Fe Avenue. This minimizes the impact on the industrial complex in this location. Imperial Highway will be reconstructed between Mona Boulevard and Santa Fe Avenue.

#### Santa Fe Avenue to Los Angeles River:

The elevated section, now in embankment, continues from Santa Fe Avenue to Wright Road. This area is largely residential with strip commercial. The alignment parallels the existing Southern Pacific Transportation Company's West Santa Ana Branch railroad corridor, and occupies the existing railroad right-of-way. This branch is proposed to be abandoned, along with the Wilmington Branch Line (along Willowbrook Avenue), and replaced with a substitute line in the existing San Pedro Branch corridor (Alameda Street). The elevated section continues easterly on viaduct across the Long Beach (Route 7) Freeway and the Los Angeles River. Portions of the interchange with the Long Beach Freeway will be on viaduct, offering an opportunity for joint use of right-of-way in this industrial area.

#### Los Angeles River to Merkel Avenue:

The Project remains elevated, on embankment, east of the Los Angeles River to beyond Paramount Boulevard. The alignment parallels the existing street pattern as much as possible. This reach is mostly residential. A section of viaduct crosses Facade Avenue, Union Pacific Railroad Line, Arthur Avenue and Century Boulevard. Easterly of Paramount Boulevard, the grade changes to pass beneath Merkel Avenue.

From Century Boulevard, near the Union Pacific Railroad tracks, to Gardendale Avenue, frontage roads will be constructed along either side of the Project. This will improve local traffic service and circulation when a planned new Century Boulevard crossing is constructed over the Los Angeles River and Long Beach Freeway.

#### Merkel Avenue to San Gabriel River:

The grade continues depressed east of Merkel Avenue to a point beyond Woodruff Avenue, where the grade must change to cross over the San Gabriel River. The alignment again parallels the existing street pattern as much as possible, approximately centered on Rattliffe Street. The area traversed is residential, with some commercial and industrial use.

#### San Gabriel River to Route 605:

Once beyond the San Gabriel River, the freeway separates into connectors to Route 605. In addition to providing the major traffic connections to Route 605, there will be ramp service to Firestone Boulevard and Rosecrans Avenue, and ramps under Route 605 to Studebaker Road. The area is again, for the most part, residential. Some commercial use exists adjacent to the Route 605 Freeway.

## Intersecting North-South Freeways:

- Interstate Route 405. The San Diego Freeway through this area is elevated on an earth embankment. In order to provide for the connections to the I-105 Project, widening and reconstruction will be required along Route 405 from El Segundo Boulevard to Arbor Vitae Street. In addition, the reconstruction includes provisions to ease current congestion.
- State Route 11. The Harbor Freeway is elevated on earth embankment north of 108th Street and is depressed to the south. It will be reconstructed between Century Boulevard and El Segundo Boulevard to provide connections to the Project and alleviate current congestion.
- State Route 7. The Long Beach Freeway will require reconstruction and realignment from Compton Boulevard to Imperial Highway, a length of about 2.5 miles, as part of the Route 105 Project.

Route 7 presently abuts the Los Angeles River. In order to fit the Route I-105 connections, Route 7 must be realigned to the west from Rosecrans Avenue to Imperial Highway. The realignment will require replacement of the structure at Compton Boulevard and remodeling of interchanges at Rosecrans Avenue and Century Boulevard. The Century Boulevard interchange provides for the ultimate extension of Century Boulevard easterly across Los Angeles River. Existing Route 7 is and will remain essentially an at-grade freeway.

- Interstate Route 605. The San Gabriel River Freeway will require reconstruction and widening between Rosecrans Boulevard and Cecilia Street, a length of about 2 miles.

Widening will accommodate connectors with Route I-105 and reduce operational traffic congestion.

Original project design features were developed with the local communities and agencies after route adoptions. These were refined and analyzed by the Design Concept Team, utilizing a wholly new approach to design planning; the use of multi-disciplinary urban design team, one of the first in the nation. This team, known as a "Design Concept Team," was comprised of a consultant group of environmental and urban planners, architects, economists, sociologists and others familiar with urban problems and impacts, as well as highway engineers.

Nineteen separate environmental studies tailored to specific community interests and concerns were developed by the team working closely with local officials and citizen groups. A listing of these reports with a brief description of their content is included as Exhibit 8 of Appendix "E".

As a result of these studies, freeway alignment and designs were adjusted, interchange locations added, communities' master plans completed, and actual community improvements undertaken. Ultimately, this data was presented during the Design Public Hearings in 1969 and 1970.<sup>1</sup> In the public hearing process during 1975, further input was obtained covering slight location adjustments, various local street interchange locations and configurations, different frontage road and local street modifications, locations of local street crossings of the project, possible viaduct sections, elevated or depressed cross-section, etc.

### The Transitway Element

It is proposed that the transitway be implemented with the freeway element, although there are a number of factors which bear on its ultimate timing and form. These factors, in large part, relate to the structure and operation of a regional transit system. (See discussion of regional transit development in Chapter 2 under SCRTD and Figures 2-5, 2-6, and 2-7.) At the present time, the region is evaluating the structure, location, priorities and relative timing of a system. This evaluation and the selection process must be complete before actual design of the I-105 transitway can proceed.

<sup>1</sup>See Reports and Transcripts of Design Public Hearing on file with Caltrans, District 07 Office.

Two modes were considered for the median transitway--bus and rail. Either of these modes can be accommodated within the freeway median area of 40 feet included for transit purposes. Each has a unique set of factors related to station location and configuration, operation, implementation, funding, and the regional transportation system. The ensuing discussion deals with these considerations.

Station locations would probably be similar whether bus or rail is used. Stations must be selected to provide a proper balance between speed and service for the heavy or "line-haul" element, and the feeder-distributor system. Stations at too frequent an interval will result in lower average speeds, while infrequent intervals will result in longer access times for people in getting to and from stations.

A related consideration is the need for local circulation within each community. It is assumed that consideration will be given to this need in structuring the feeder-distributor system, such that both local and regional trips are serviced.

Given the above, there appears to be an initial need for six passenger stations. Suggested locations are shown on Exhibits 6a through 6e of Appendix "E". Figure 3-4 shows an artist's conception of one possible station installation. Consideration would be given to passenger loading facilities at other major north-south arterial streets as the need arises.

For the most part, these facilities will accommodate persons who will either walk to the transitway or transfer from local feeder-distributor buses operating on city streets. In addition, "park-and-ride," lots are contemplated in conjunction with passenger stations near the interchanges with the Harbor, Long Beach and San Gabriel River Freeways.

These would accommodate people who would drive to the transitway. The location at the west end of the Project near Aviation Boulevard and Imperial Highway is proposed as a major terminal facility. Transit passengers would transfer at this point to a people mover or shuttle bus system proposed for internal distribution within LAX.

Selection of the mode in the I-105 Corridor, whether bus or rail, will probably be determined based upon the consideration of patronage, system flexibility and compatibility, and convertibility. Ordinarily, buses represent a lower capital cost solution, where low patronage is involved. Such is the case in the I-105 Corridor when peak loads of about 8,000 to 10,000 persons per hour are anticipated. Beyond a certain point, generally about 12,000-15,000 persons per hour, heavy (grade-separated), rail transit (MRT) can be considered. Light rail, essentially at-grade street cars, can be considered at lower patronage. (See Figure 3-5.) In the 8,000 peak hour patronage area, the capital cost of rail is higher than for buses, but since rail is less labor intensive than bus, the lower operating cost of rail tends to offset its higher capital cost.

System flexibility is a major consideration also. Buses have great flexibility in that they could move out of the 105 median to use other freeways and local streets. Also, route structure can be readily changed in response to changing needs. Rail systems are in themselves very restricted. Trains cannot move except where tracks are placed. Part of this inflexibility is offset since fixed rail systems usually operate in conjunction with local bus feeder-distributor systems. In combination, they can provide greater flexibility.

Another consideration is compatibility. If the region (voters) decides to develop a region-wide fixed rail system, it may be more realistic to implement rail even in a low patronage corridor such as 105. This would avoid duplication since part of the 105 Corridor would be developed in the rail mode (see Figure 3-6) and could eliminate the need for transfer from rail to bus.

The final consideration is convertibility. If the bus mode were selected initially in the I-105 Corridor, based on patronage, it would still be appropriate to design the busway such that it could be converted to rail at some future date, at a minimum of expense.

This latter point bears directly upon configuration and operation of the transitway, leading to several options. To understand the considerations that are involved in these options, it is necessary first to know some of the passenger loading capabilities and operational requirements of rail transit (trains) as distinct from buses.

Rail transit vehicles usually can load passengers on either side. Rail systems also can operate on tight schedules with short headways (distance and time between succeeding trains) and thus do not ordinarily require passing capability, particularly at stations. Given these conditions, rail systems generally use a single track in each direction of

travel with, either a single station located between the tracks; or, two stations, one for each direction of travel, and located to the outside of the two tracks. See Figures 3-7 and 3-8. The selection of station configuration for a rail system is therefore dictated by considerations of cost and impact, rather than any inherent limitation in operational capability.

This situation is somewhat different with respect to buses. First, conventional buses can only load passengers on the right (curb) side. Secondly, in a bus system, there is a need for buses to pass in order to provide "express" or "skip-stop" operation. There are several ways to design stations within the 40-foot width for the transitway in the median to accomplish this. There are advantages and disadvantages with each.

One way is to adapt buses so passengers can load on either side. This entails loss of passenger seats, added bus purchase costs and may create a safety problem when operating such buses on local streets in the conventional manner. (See Figure 3-9.)

A second approach is to operate conventional, right-loading buses in the reverse (contra-flow) direction (see Figure 3-10). While this allows the use of conventional buses, there are other considerations that must be given to operations and safety. Once committed to a contra-flow pattern, buses lose the flexibility of leaving the median transitway and merging with freeway traffic to use on- or off-ramps and connections to cross freeways. Special bus-only ramps or connections would be constructed; however, motorists might inadvertently enter these and create safety hazards. Moreover, there are significant costs and impacts involved in a separate set of bus connections. These would probably be unusable should the busway be converted to rail.

Another approach involves operating buses in the conventional manner (direction) with separate loading platforms (one of each direction of travel) spaced longitudinally in the center of the median. (See Figure 3-11.) In this case, station costs may double, and "express" or "skip-stop" operation would not be possible.

There is one final approach, applicable to buses only, in which transit can effectively be accommodated in the median of the Project. This involves devoting the inner lanes of the freeway to bus operations. This method of operation retains the operational flexibility of buses and can provide satisfactory station configuration and operation within the reserved median right-of-way. There is also the added capability for other vehicles, probably high occupancy carpools, van pools, etc., to use any reserve capacity after buses are accommodated. This is commonly known as "preferential mode". (See Figure 3-12.) While station costs may double, "express" operations are possible.

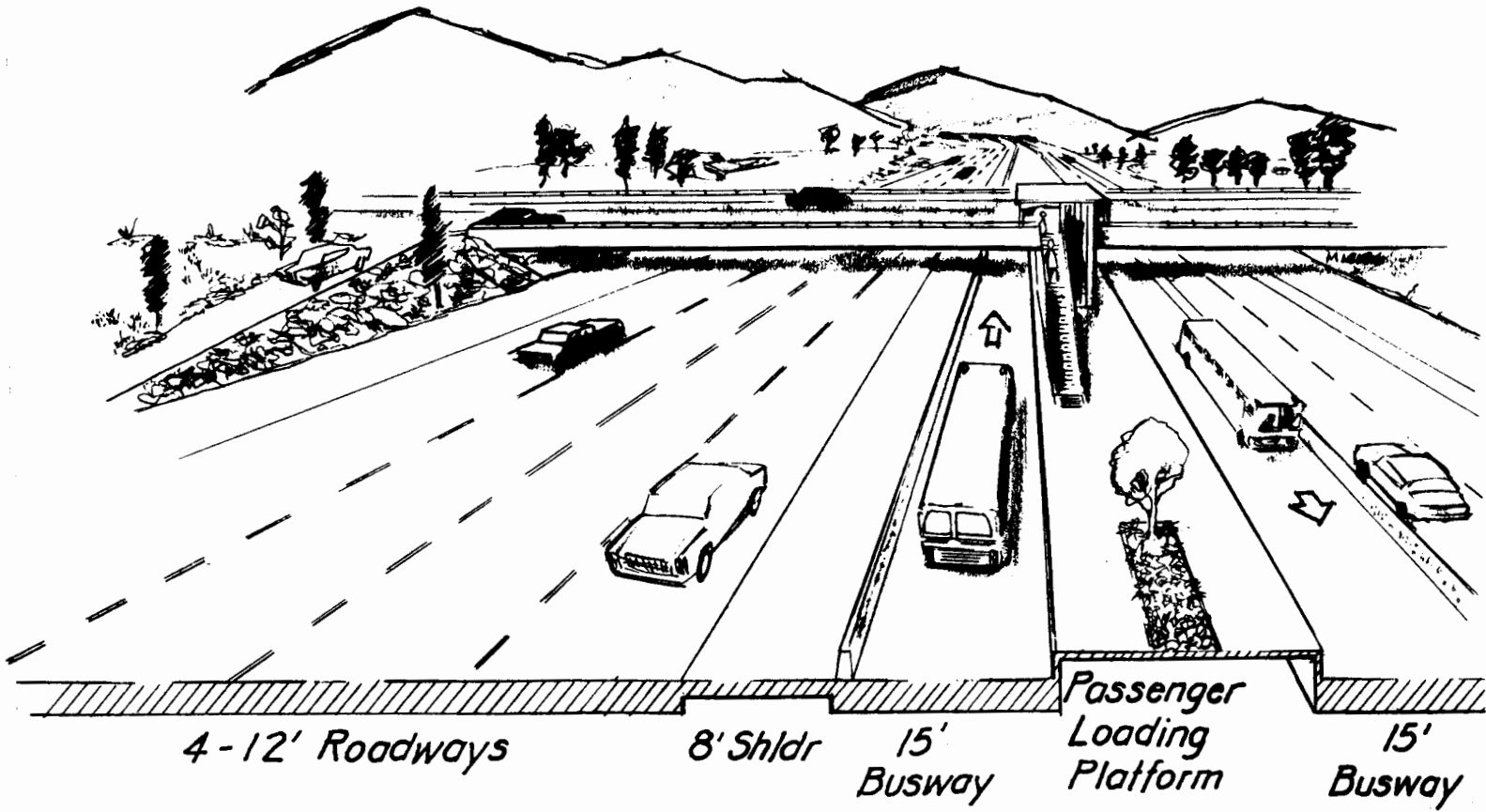
Selection of bus or rail in the I-105 Corridor will depend, to a considerable extent, on the type of transit development selected for use elsewhere in the region.

At the time of preparation of the DEIS, development of a regional MRT (rail) system did not appear favorable, particularly in view of the failure of the 1974 ballot measure for transit development. To have suggested a single rail line in the I-105 Corridor did not seem practical. The DEIS, then, proposed a busway in the corridor based upon low projected patronage, and system compatibility and flexibility.

In 1975, the situation with regard to a regional rail transit system changed. Evaluation of an MRT "starter line" led to general agreement on initial implementation within a broad corridor from San Fernando Valley through the Central Business District (CBD) to Long Beach.

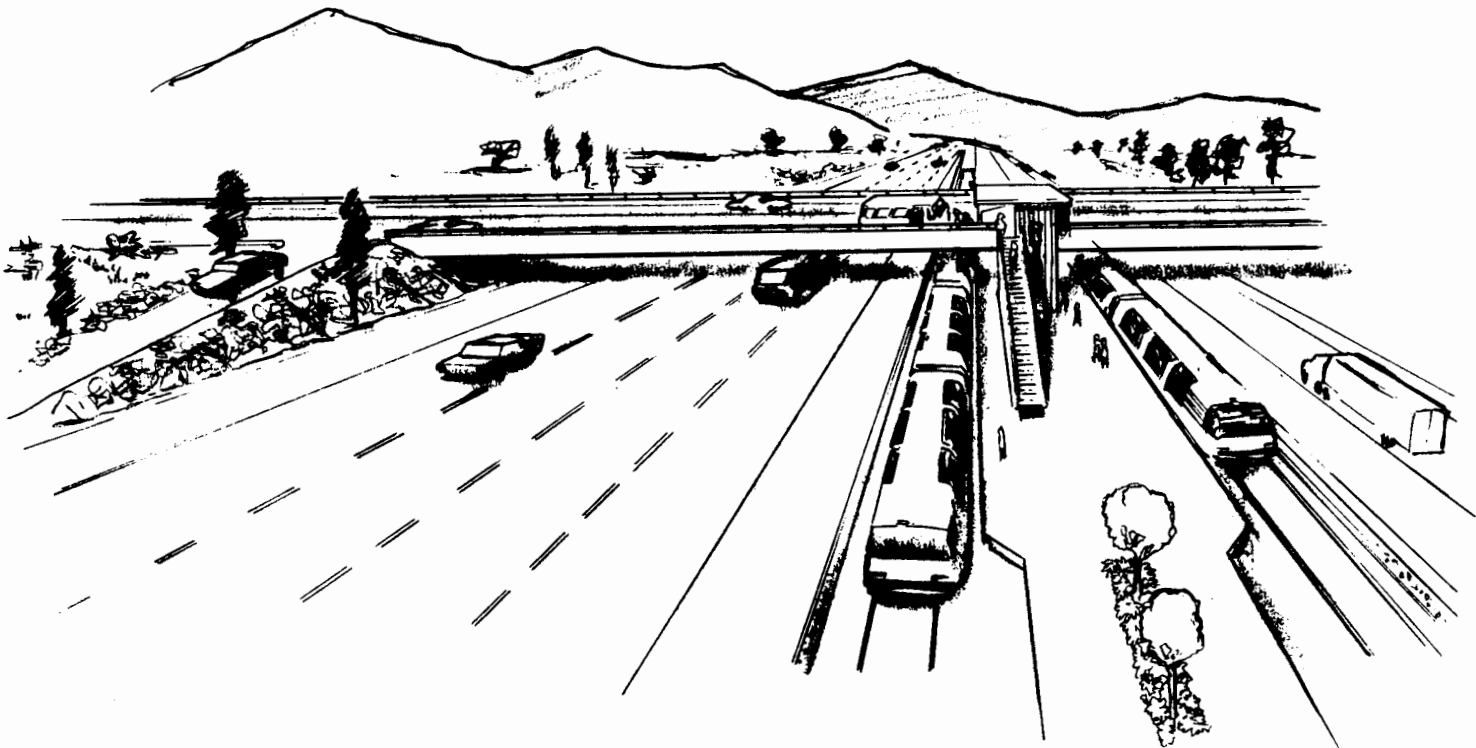
Although the precise location from the Valley to the CBD had not yet been resolved, there appeared to be a consensus at the time for a southerly section to Long Beach. Figure 3-6 shows the location considered. The southerly portion, coinciding with a portion of the I-105 Project, minimizes right-of-way costs and social impacts. Additional portions of the I-105 Corridor may be used for a possible extension of the starter line to Orange County. Were the line shown in Figure 3-6 actually to be implemented, a strong case could be made for implementing rail in the I-105 Corridor also. This would avoid duplication of system incompatibility and added costs and impacts.

However, before a decision could be made whether to proceed on this "starter line" as an incremental approach to regional transit development, a new broad-based proposal was formulated by Los Angeles County Supervisor Baxter Ward. Called the "Sunset Coast Line" system, the proposal was presented to and defeated by the electorate in the June 1976 Primary Election. Since demise of the Sunset Coast Line proposal, the "starter line" proposal has not been further pursued.

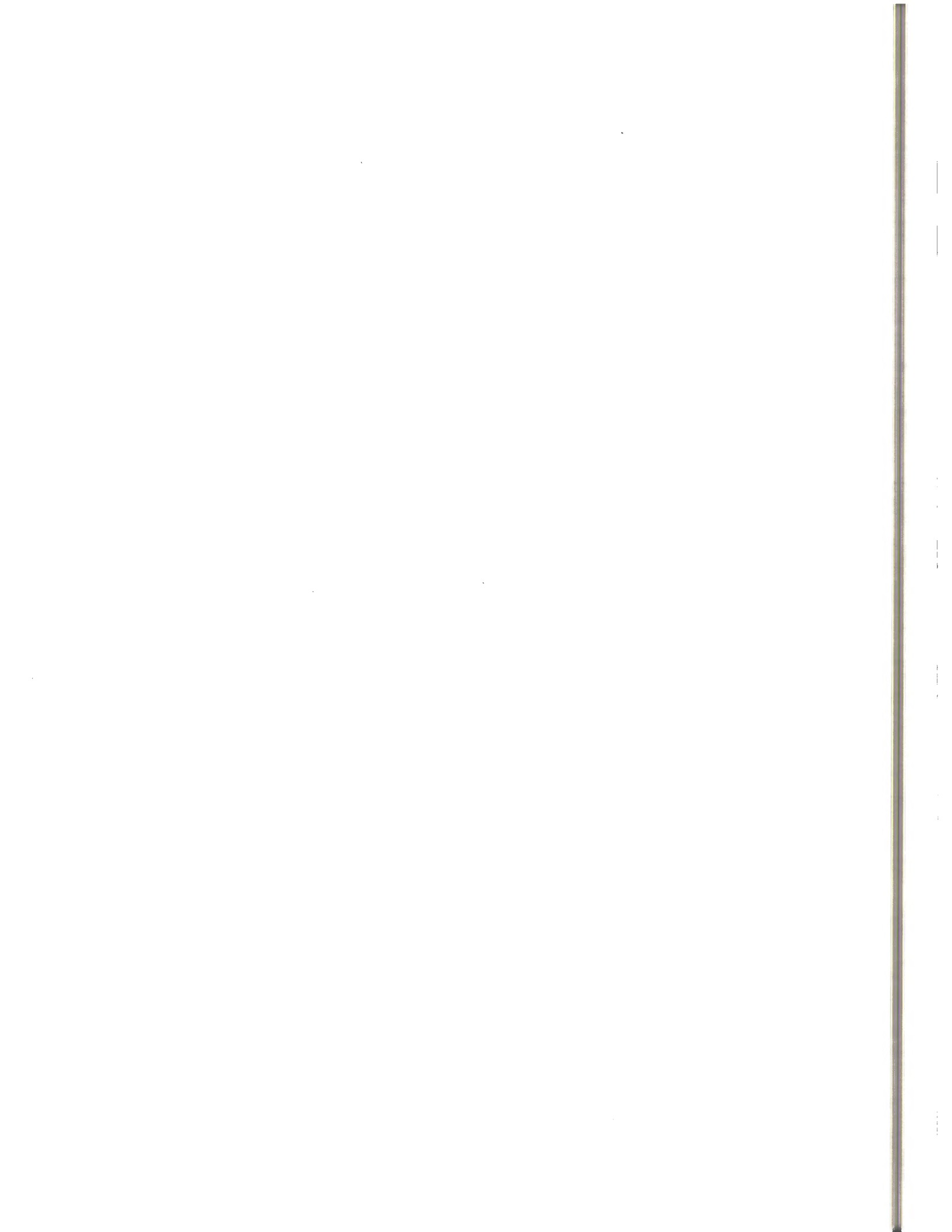


## ***FREEWAY - BUSWAY FACILITY***

*NOTE: Busway indicates contraflow operation*

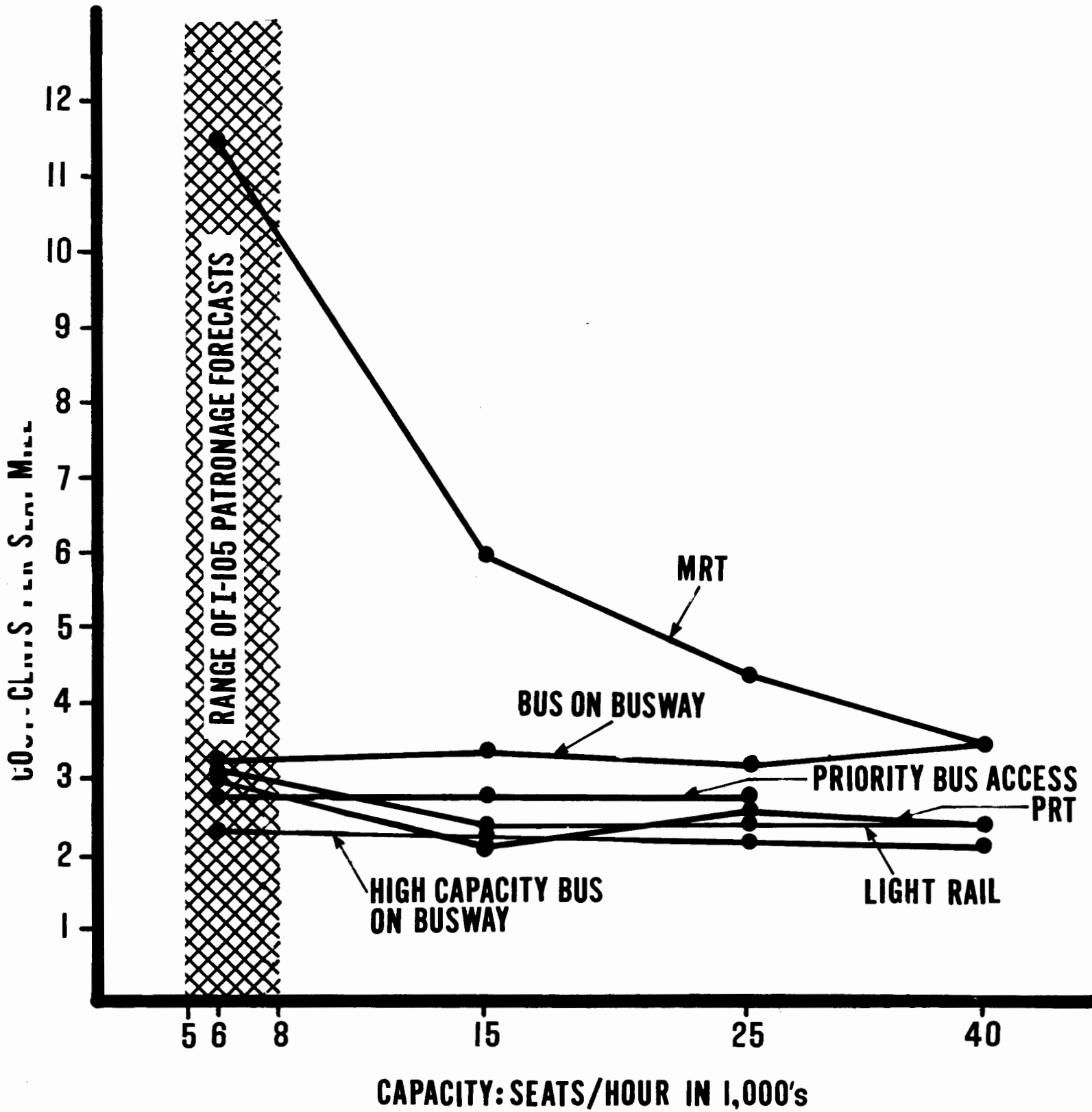


***FREEWAY-MASS TRANSIT FACILITY***      **FIGURE 3-4**



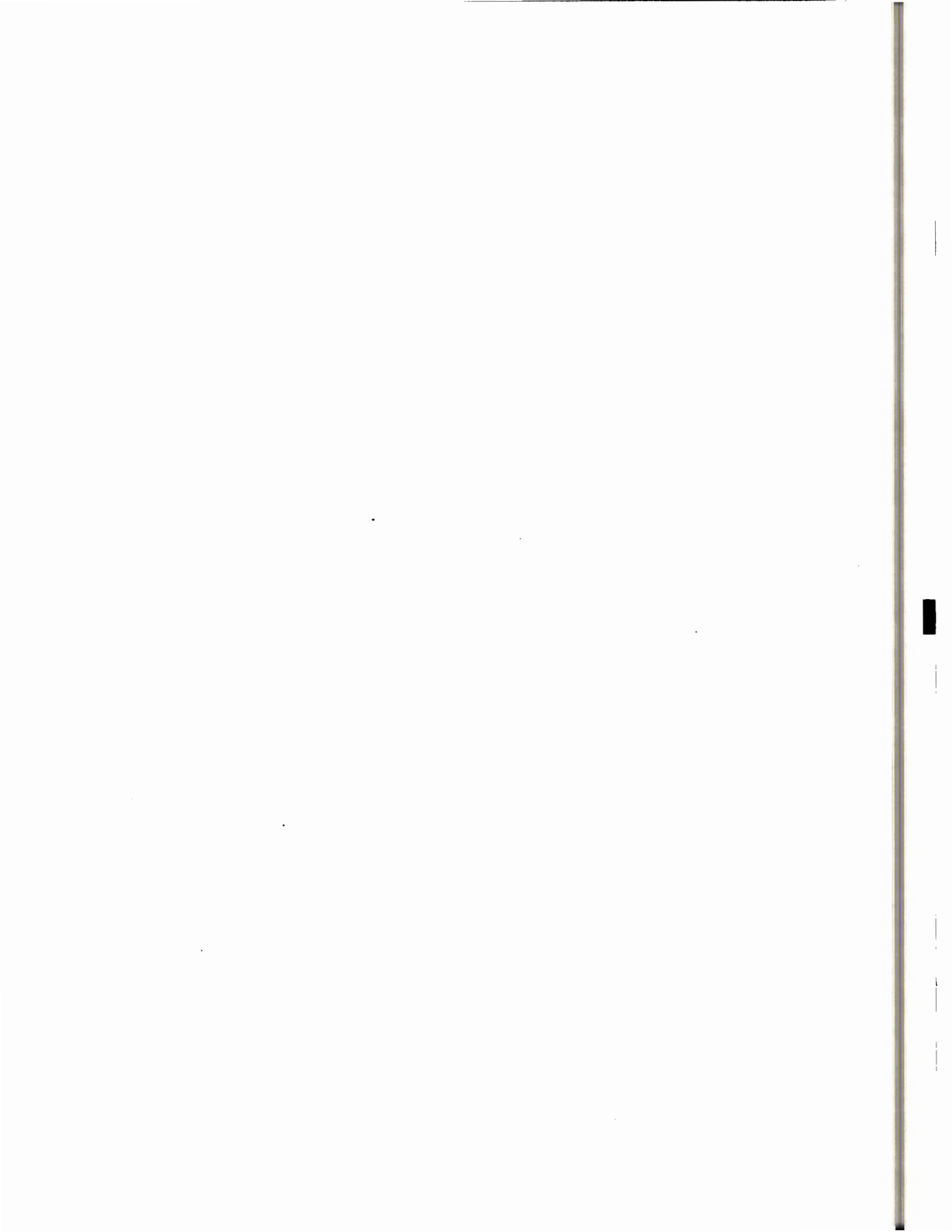


# COST COMPARISON OF SELECTED MODES AT VARYING LINE-HAUL CAPACITIES






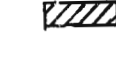


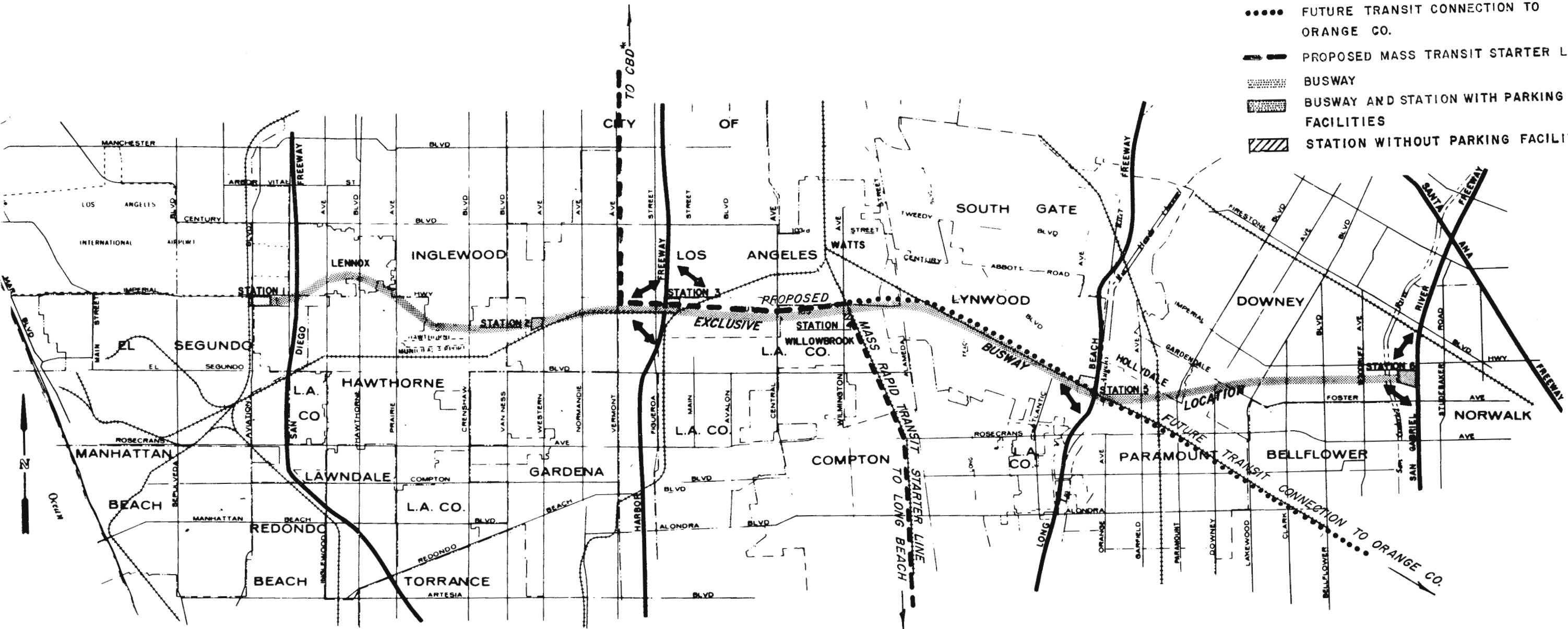
Source: SCAG

FIGURE 3-5



**LEGEND**

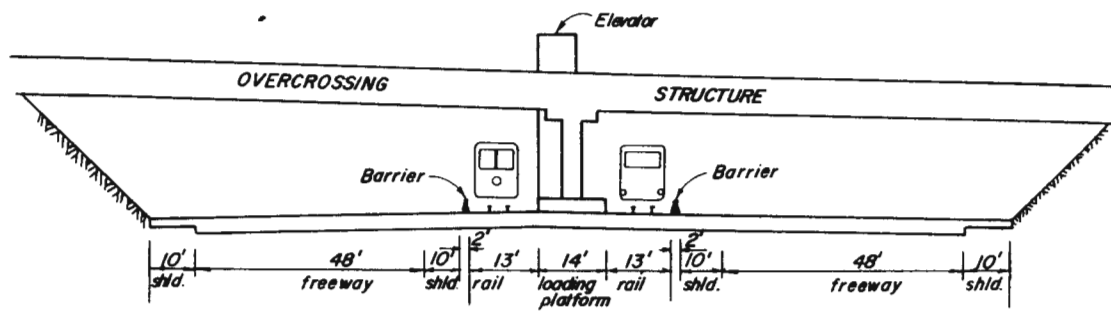
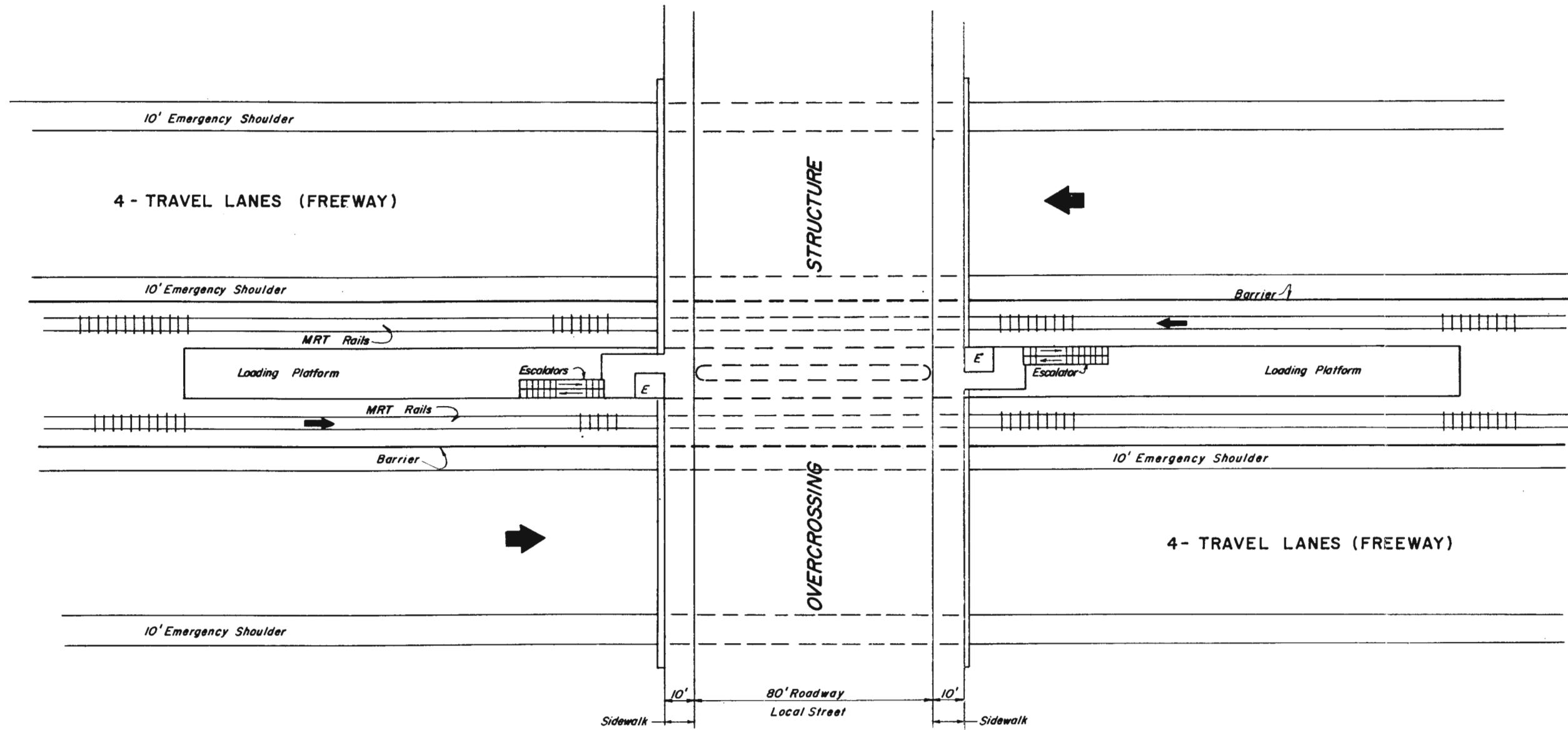
-  BUSWAY CONNECTIONS TO AND FROM CROSS FREEWAY IN DIRECTION INDICATED BY ARROW
-  FUTURE TRANSIT CONNECTION TO ORANGE CO.
-  PROPOSED MASS TRANSIT STARTER LINE
-  BUSWAY
-  BUSWAY AND STATION WITH PARKING FACILITIES
-  STATION WITHOUT PARKING FACILITIES



\* CBD = CENTRAL BUSINESS DISTRICT

07-LA-105  
**EXCLUSIVE TRANSITWAY  
 STUDY**  
 No Scale 1976

**FIGURE 3-6**



CROSS SECTION

- |  |   |
|--|---|
| <p><b>ADVANTAGES</b></p> <ul style="list-style-type: none"> <li>Single platform (two directional)</li> <li>Median sidings (emergencies)</li> <li>Exclusive rail transit</li> </ul> | <p><b>DISADVANTAGES</b></p> <ul style="list-style-type: none"> <li>High cost / effectiveness ratio</li> </ul> |
|--|---|

TYPICAL MEDIAN TRANSITWAY  
 MASS RAPID (RAIL) TRANSIT  
 OPTION I - CENTER LOADING PLATFORM

FIGURE 3-7

Currently, the idea of using express buses on freeways as the backbone of a regional transit system is under development (see Chapter 2 under discussion of Southern California Rapid Transit District). But, until such time as there is a definite regional transit plan, it will not be possible to make a considered, wise decision regarding transit within the median of the project. For the present, it should be sufficient to know that the reserved area in the median is adequate to accommodate and be compatible with any regional transit system that might be devised.

One final consideration, perhaps the most important, deals with funding. At this time, and regardless of whether a rail or bus mode is selected, there is the capacity to implement a transitway within the median of the project. The additional costs for the median area of additional rights-of-way, embankment and the lengthening of overcrossing structures, etc., are included as part of the freeway project.

Any additional project commitment beyond these basic provisions will depend on whether a busway or a rail facility is to be implemented. Busways can be considered "highway" type facilities and consequently qualify for "highway funds". This is not the case for a fixed rail facility.

Funding additional busway features, such as roadways, lengthening of undercrossing structures, and "park and ride" lots, can be included as part of the Interstate Project (with commensurate funding) provided, the regional transit agency (presumably SCRTD) will construct passenger stations, furnish buses, and maintain and operate the busway. Specific obligations and commitments would be defined following a decision on mode. This means that the regional transit agency must provide some funds in any event, but more local matching funds are required to implement a rail facility than for a busway. This will undoubtedly be an important factor in deciding whether, and what type of transit facility would be implemented in the median. An analysis of the probable costs, sources and amounts of funds is included in Chapter 8 - Funding and Implementation.

The actual decisions regarding the I-105 Transitway rest basically with the operator, Southern California Rapid Transit District (SCRTD). Once basic decisions are made on the type of mode (bus or rail) and method of operation for the regionwide transit system, the final design details for the I-105 transitway can be completed. Ideally, these decisions should be made so that the median transitway can be implemented along with the freeway. However, a delay in reaching decisions with respect to the median transitway should not be a reason for further delay in implementing the basic project. There is right-of-way reserved within the median, and, whether bus or rail, there will be no significant effect or differences in effects, in the I-105 Project's socioeconomic or environmental considerations.

### Related Project Features

In addition to its design aspects, the I-105 Project incorporates a number of other significant features.

#### Railroad Relocation Project:

A railroad relocation project, which is depicted in Figure 3-13, will affect Los Angeles County (Willowbrook area), the City of Los Angeles (Watts area), and the Cities of Compton, Huntington Park, South Gate, Lynwood, and Paramount. As part of the I-105 Project, the State and Federal governments will finance the abandonment of 9.3 miles<sup>1</sup> of Southern Pacific Transportation Company tracks, which will be replaced by 8.5 miles of new track in the existing San Pedro Branch (Alameda Street) Corridor.

In addition, 30 railroad grade crossings will be abandoned, 10 new railroad grade crossings will be constructed, and 15 existing railroad grade crossings will be improved. These improvements will relieve circulation and land use conflicts, remove a divisive element from the communities, and make available additional land for development. Two major redevelopments in Watts and Compton have been planned and are predicated to a large degree on the railroad abandonments.

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<sup>1</sup>This includes 5.3 miles of the existing Wilmington Branch (Willowbrook Street vicinity) and 4.0 miles of the existing West Santa Ana Branch (Fernwood Avenue vicinity).

In conjunction with this railroad relocation project, the City of Los Angeles has sought to have the El Segundo-Torrance Branch Line through Watts relocated within the I-105 median. The location and a typical cross-section is as shown on Figures 3-14 and 3-14A. The City of Los Angeles has taken the approach of seeking financial support from the State Grade-Separation Fund to achieve the desired relocation which is estimated to cost about \$8 million.<sup>1</sup>

#### Public Utilities:

In general, all existing utility services will be retained, relocated or replaced. Modifications will be achieved through coordination with the utility companies and the local jurisdictions involved. Utility work is generally accomplished within public rights-of-way such as street areas. In some cases it can involve the acquisition of property and displacement of people. However, any additional property or people displacement would be very small, and no significant environmental impact is anticipated.

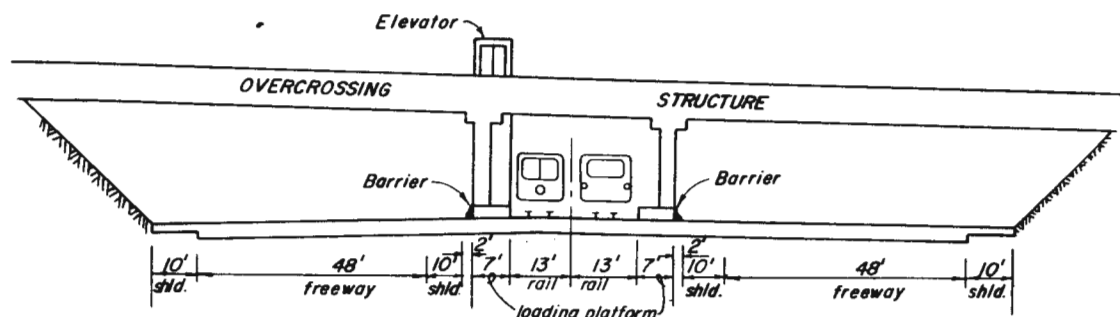
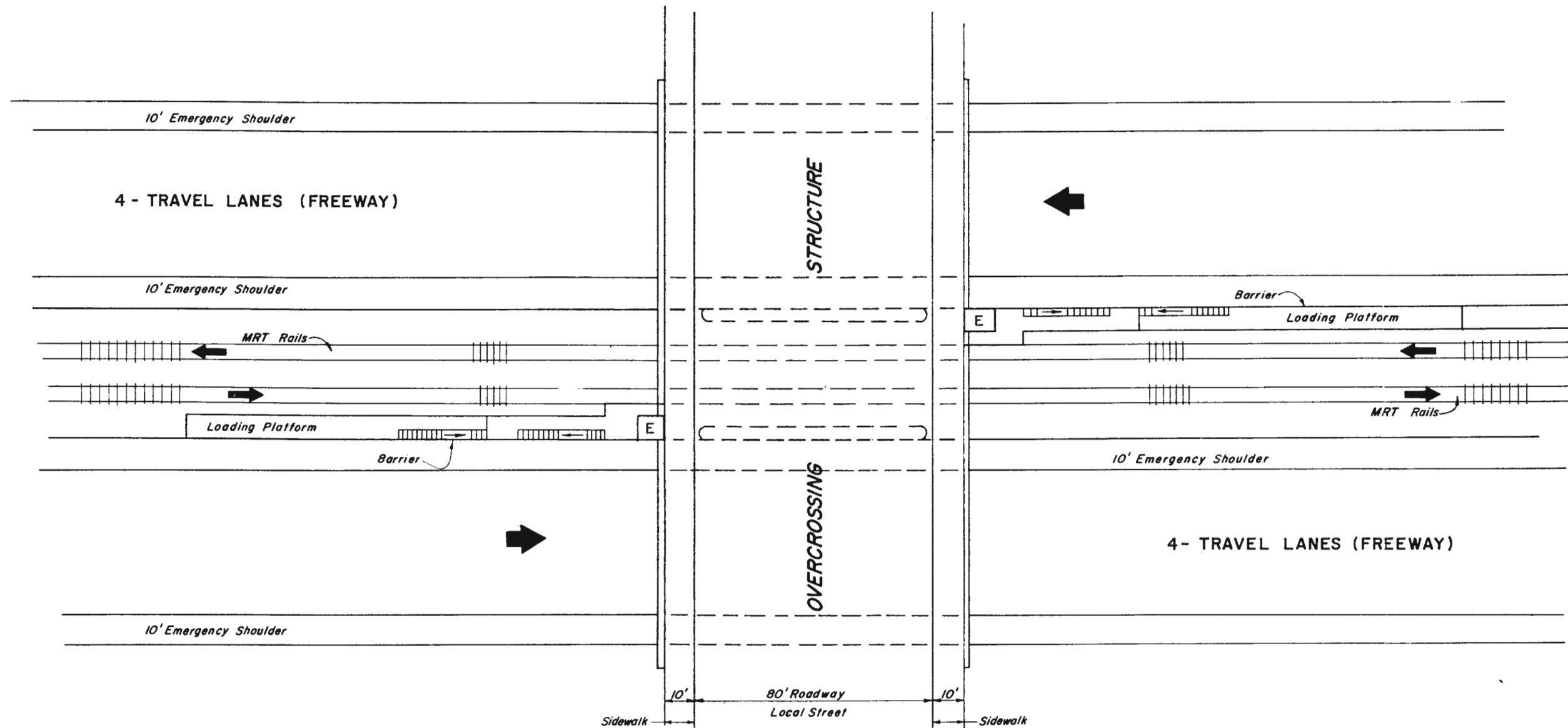
- . Los Angeles Department of Water and Power. The transmission line towers, between Avalon Boulevard and Stanford Avenue will be raised to a higher elevation.
- . Los Angeles County Flood Control District. Compton Creek, an existing concrete-lined open channel will not be disturbed and will continue to function during the freeway construction work. However, falsework will be placed to permit construction work. However, a falsework will be placed to permit construction of the freeway bridge structure to span the channel.
- . Southern California Edison Company. High voltage lines in the vicinity of the San Diego Freeway will require relocation to accommodate the new construction. Two Edison substations in Lynwood and one in Downey, will be slightly impacted. Existing 66 KV overhead transmission lines along Fernwood Avenue will be relocated along an alternate route using street or other public right-of-way.
- . Los Angeles Metropolitan Water District. The Sepulveda Feeder Line has already been relocated in Van Ness Avenue by the LAMWD at State expense to grade compatible with the Project. A 61" Feeder Line in the vicinity of Route 105/7 Interchange will remain in place through the interchange. Minimal work to accommodate bridge footings will be accomplished without interruption to the existing water service.
- . Los Angeles County Flood Control District (LACFCD), and Corps of Engineers. Dominguez Creek, Compton Creek, Los Angeles River and San Gabriel River will be crossed by the freeway. The Project will completely span Dominguez Channel and Compton Creek. Bridge supports will be needed within the Los Angeles and San Gabriel Rivers but levees will be raised to maintain adequate waterways. Service roads will be retained or relocated so continuity of access remains. All this work will be done in conformance with LACFCD and Corps of Engineers' requirements.
- . Water Wells. Within the right-of-way of the I-105 Project there are 61 recorded wells. Of this number, 11 are active at the present time. Active wells will be replaced or abandoned as required by their owners. Wells to be abandoned will be sealed as required by law for safety and to prevent any possible pollution of the underground water basin. Wells previously abandoned will be examined for proper capping and standards. Details of the present status of wells located in or near the I-105 Project are covered fully in Exhibit 10 in the Appendix.

#### Joint-Use Projects:

As a result of the Design Team Studies, a number of sites were identified for potential "joint use," whereby the State would encourage new developments by sharing rights-of-way over, under, and adjacent to the freeway. This could be with private developers or public agencies. Such projects must not interfere with the Project and must conform with local community planning objectives. One potential joint-use involves development of an industrial park with the interchange between I-105 and the Long Beach Freeway (Route 7). It has been actively pursued by the City of Lynwood and preliminary development plans had been

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<sup>1</sup>1973 Estimate.

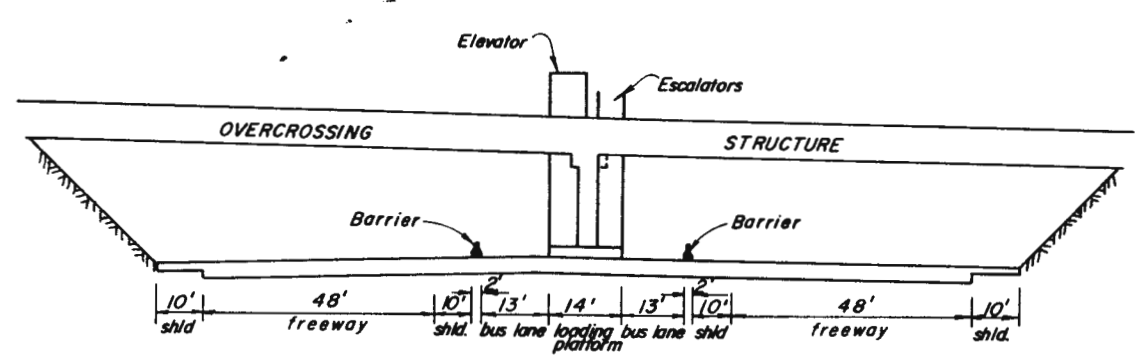
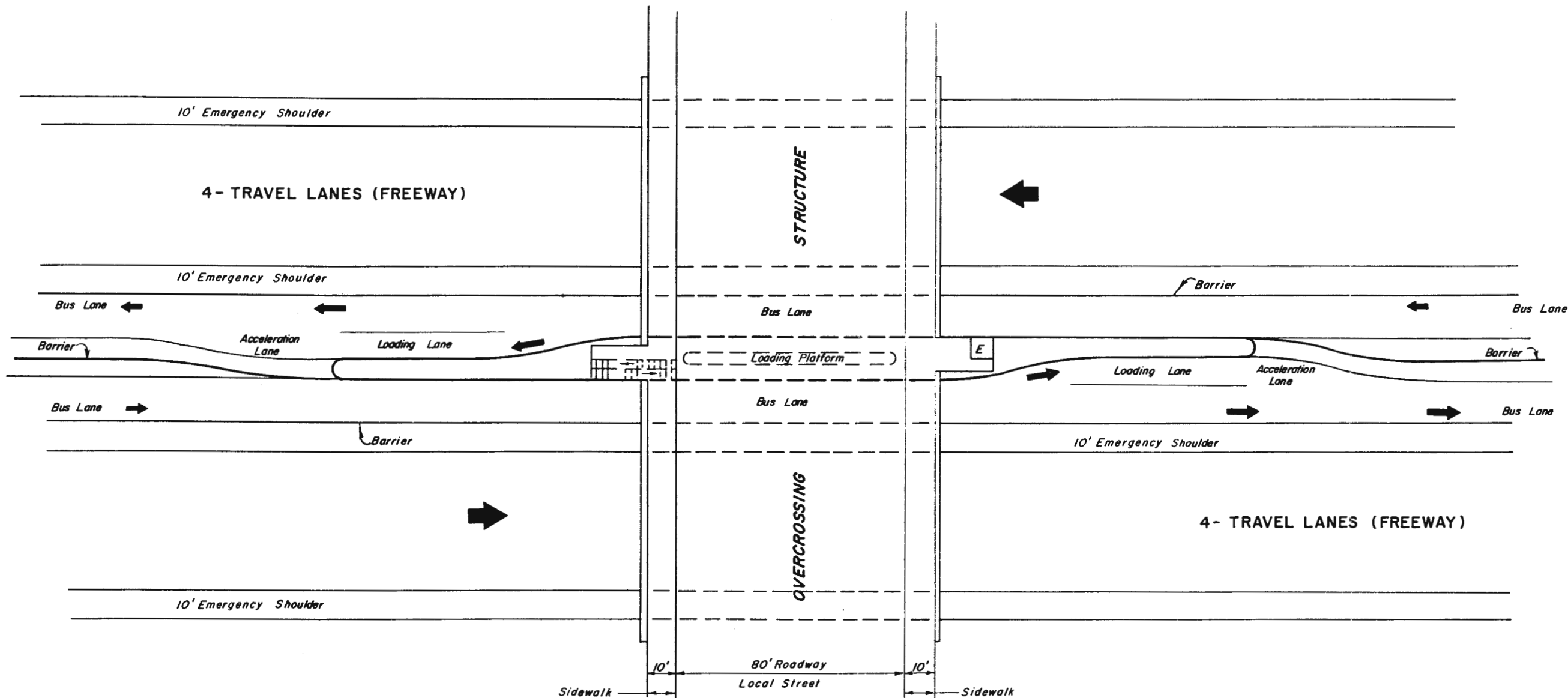


CROSS SECTION

ADVANTAGES  
Exclusive rail transit

DISADVANTAGES  
Two low capacity platforms (uni-directional)  
High cost / effectiveness ratio

TYPICAL MEDIAN TRANSITWAY  
MASS RAPID (RAIL) TRANSIT  
OPTION 2 - OUTSIDE LOADING PLATFORMS



CROSS SECTION

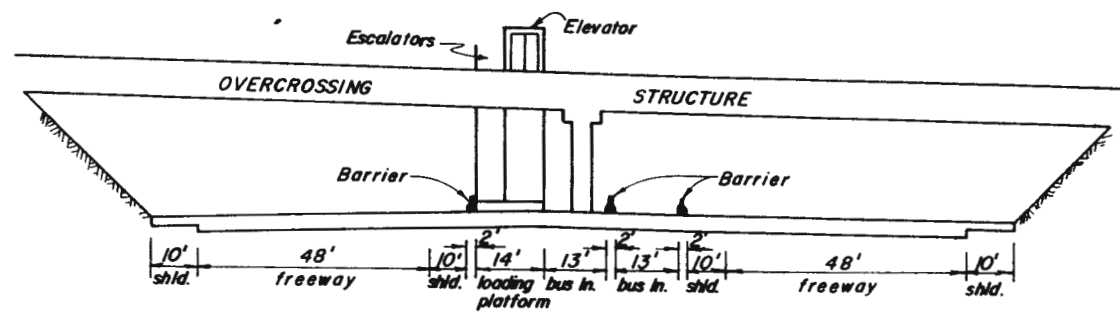
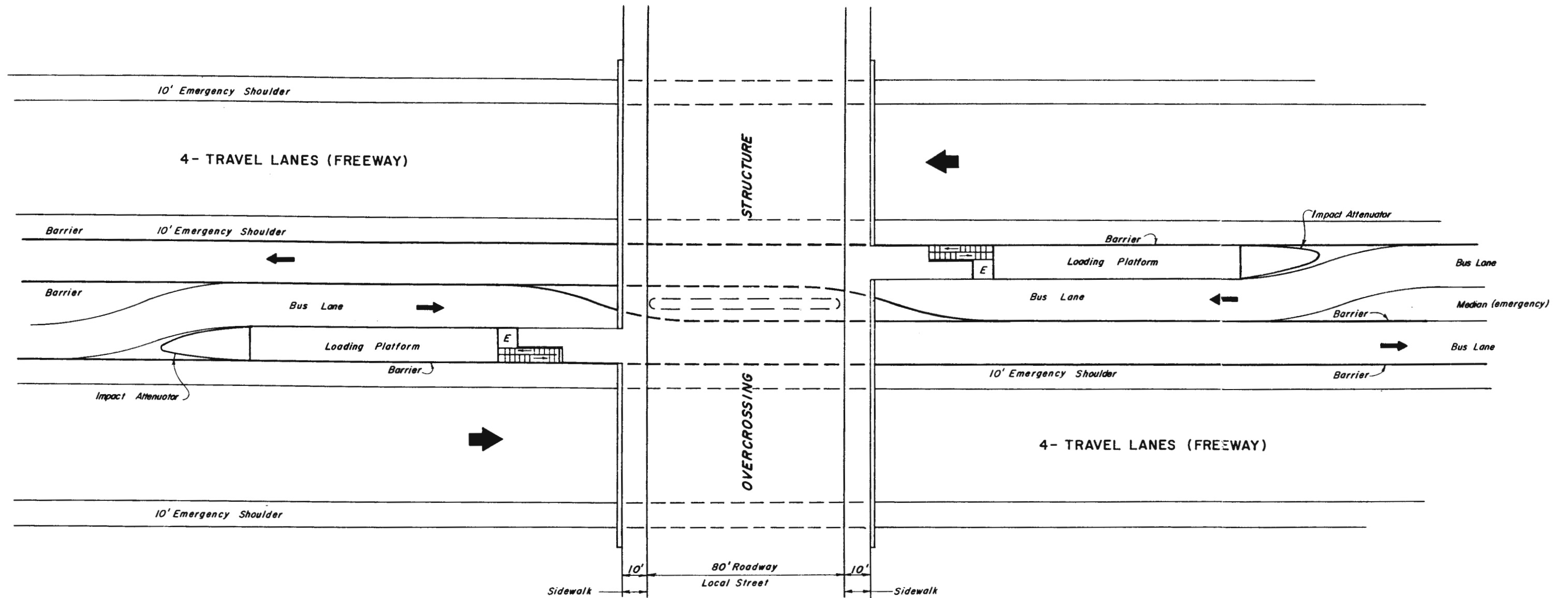
- ADVANTAGES**
- Single platform (two directional)
  - Passing capabilities
  - Exclusive busway
  - Median freeway shoulder
  - Readily converts to rail

- DISADVANTAGES**
- Left loading buses
  - Intermediate (with barrier openings) operational flexibility

TYPICAL MEDIAN TRANSITWAY  
EXCLUSIVE MEDIAN BUSWAY  
CONCURRENT FLOW







CROSS SECTION

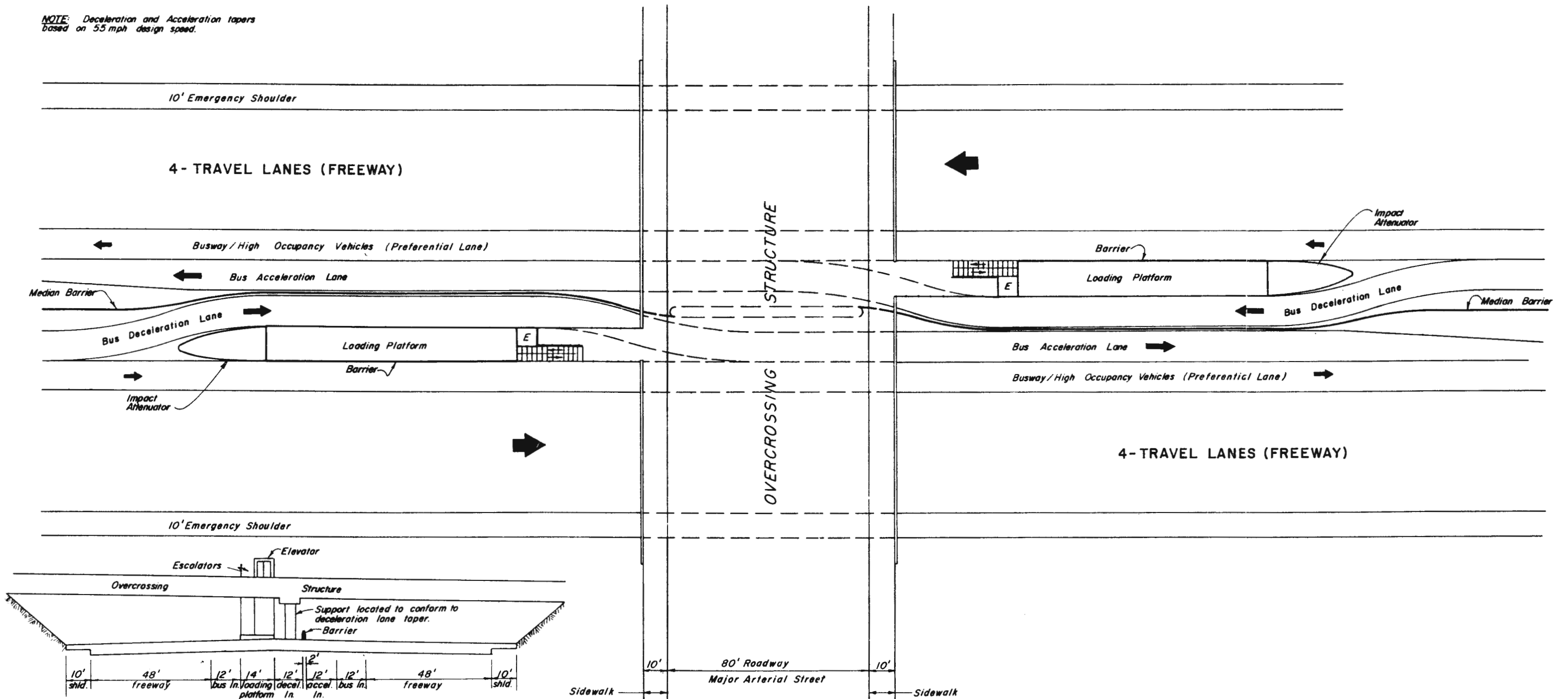
**ADVANTAGES**  
 Conventional bus  
 Freeway median shoulder  
 Exclusive busway

**DISADVANTAGES**  
 No bus passing at platforms  
 Two platforms (uni-directional)  
 May require major station reconstruction to convert to rail  
 Low or intermediate (with barrier openings) operational flexibility

*No 20' 15' for*

TYPICAL MEDIAN TRANSITWAY  
 EXCLUSIVE MEDIAN BUSWAY  
 CONCURRENT FLOW

NOTE: Deceleration and Acceleration tapers based on 55 mph design speed.



CROSS SECTION

**ADVANTAGES**

- Low overall cost
- Conventional buses
- Express (passing) capabilities
- High-occupancy vehicles
- Maximum operational flexibility
- Easily compatible with mixed mode on all freeways

**DISADVANTAGES**

- Limited median emergency refuge
- Nonexclusive busway
- Two platforms (uni-directional)
- Lower relative safety
- May require major station reconstruction to convert to rail

TYPICAL MEDIAN TRANSITWAY  
BUSWAY / HIGH-OCCUPANCY VEHICLES

CONCURRENT FLOW

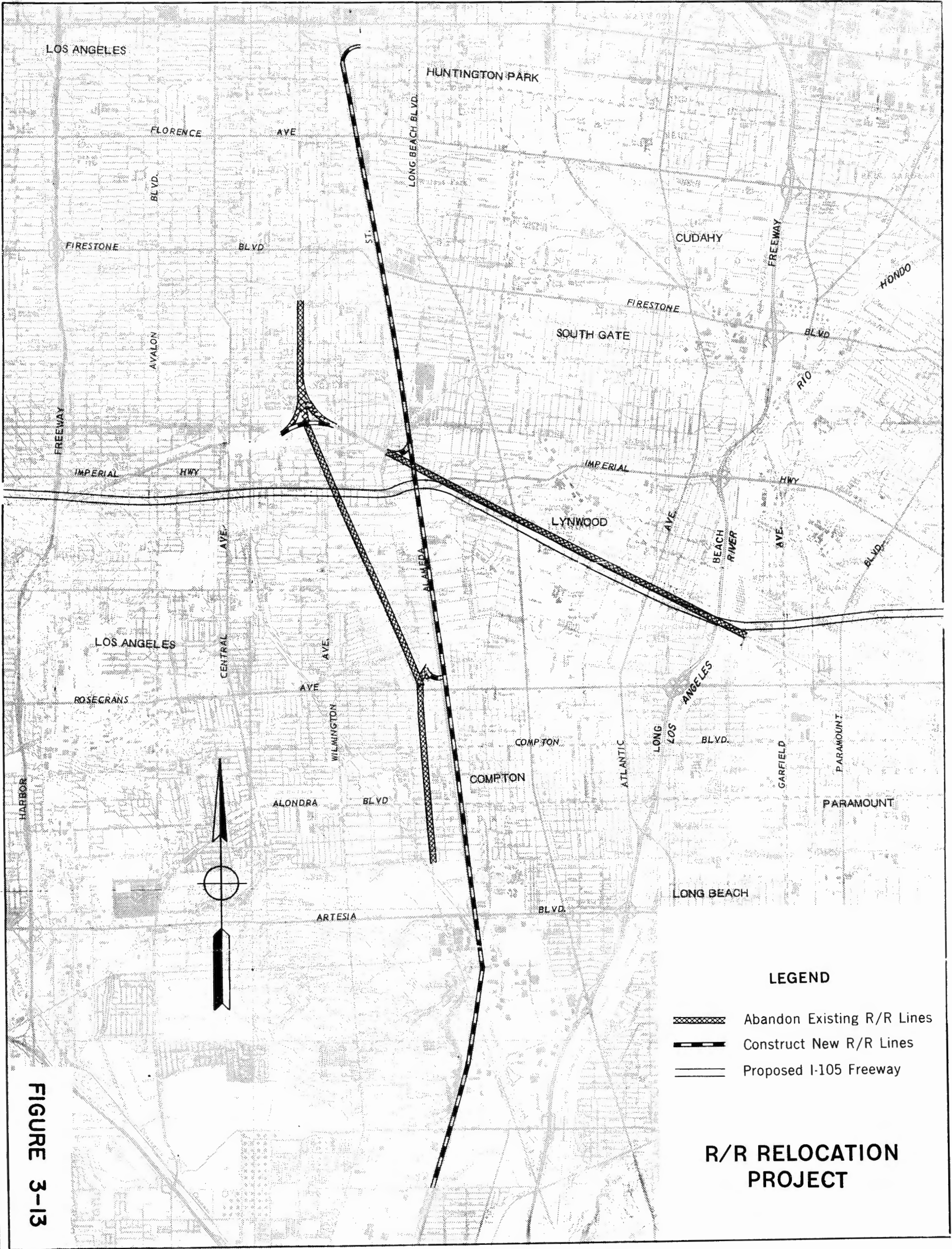
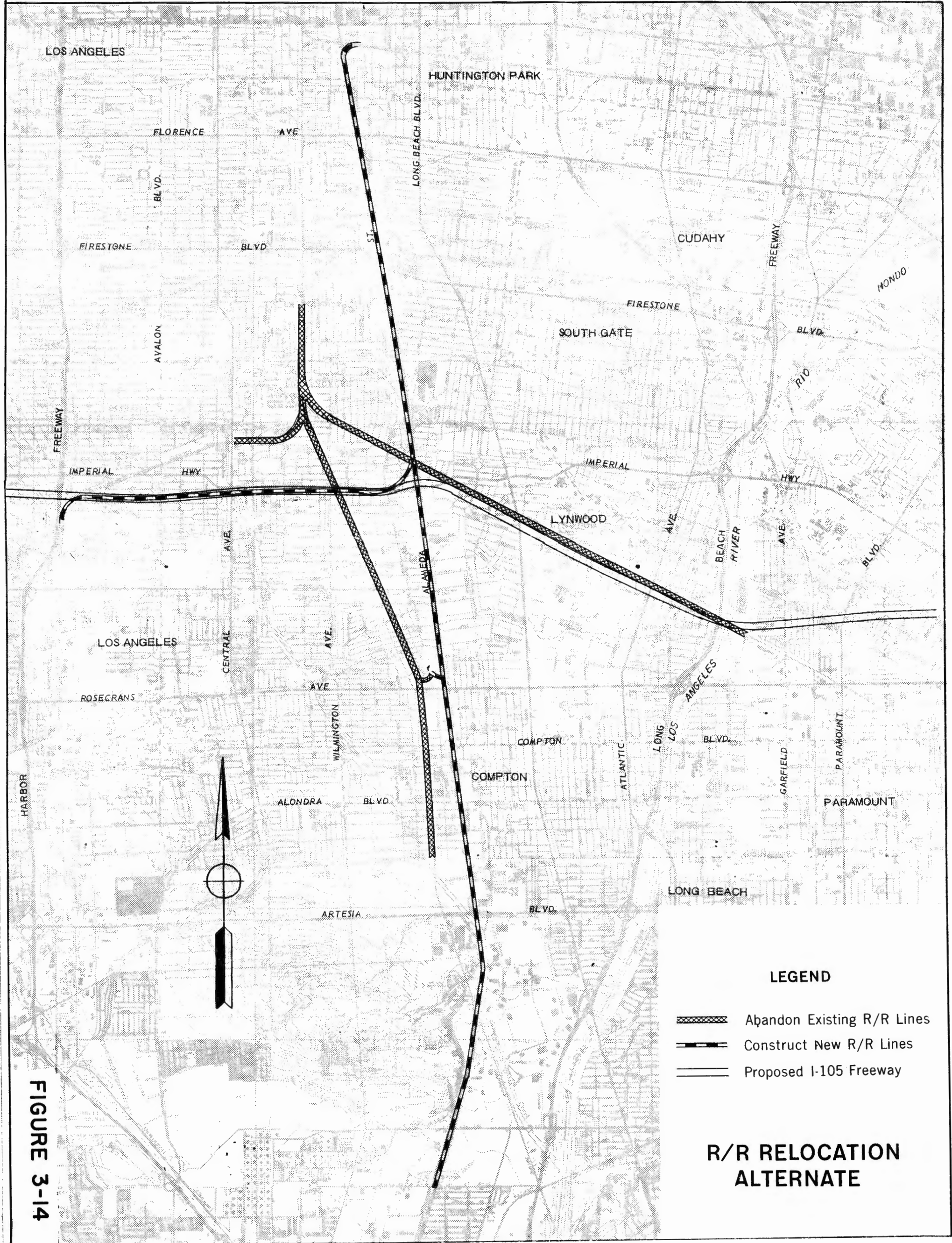


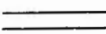


FIGURE 3-13

**R/R RELOCATION PROJECT**



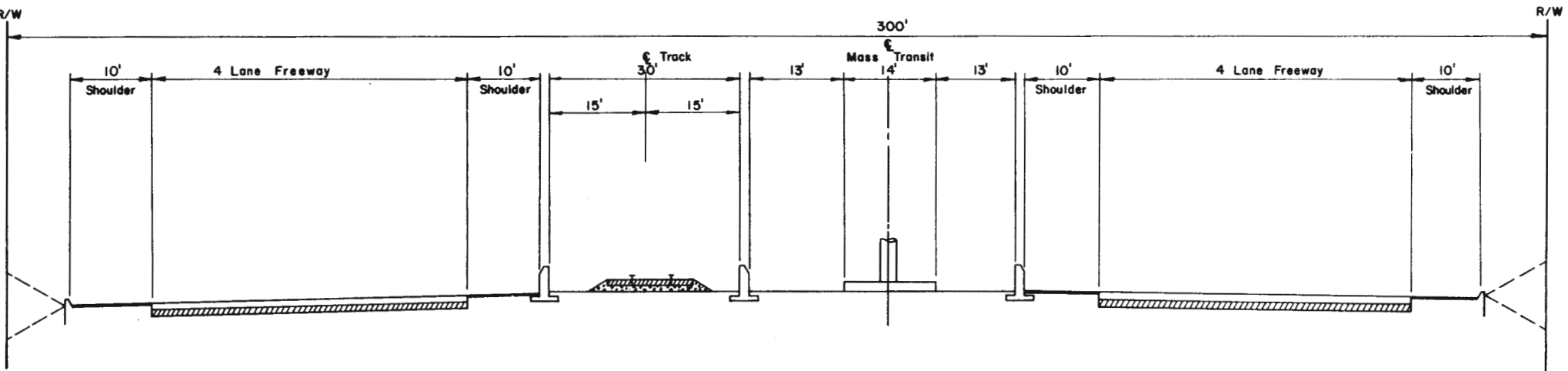
**LEGEND**

-  Abandon Existing R/R Lines
-  Construct New R/R Lines
-  Proposed I-105 Freeway

**R/R RELOCATION  
ALTERNATE**

**FIGURE 3-14**





**TYPICAL CROSS SECTION**  
**8 LANE FREEWAY-TRANSITWAY**  
**WITH R. R.**

**FIGURE 3-14A**





prepared in 1971 (Figure 3-15 shows how the joint use might have been developed). At the time of the injunction (July 7, 1972), a Request for Proposal (RFP) from developers was in the review stage. It had been jointly drafted by the State and the City of Lynwood. The I-105 Project retains the potential for joint use in this interchange, although the area will likely be smaller. The RFP will be reviewed, updated, or revised as needed, and furnished to potential developers.

In addition, other joint-use opportunities identified in the Design Team Studies:

- . As with the 7/105 Interchange, other interchange locations may provide substantial areas for joint use.
- . Viaduct in Lynwood from Mona Boulevard to Santa Fe Avenue will have various areas available.
- . Viaduct in Paramount from Arthur Avenue to Facade Avenue will create desirable joint-use areas in connection with the UPRR.
- . Various potential commercial developments which were proposed by private interests.

### 3.2 THE "NO PROJECT" ALTERNATIVE

The "No Project" alternative assumes no regional transportation improvements in the corridor through the year 2000 for highway or public transit. While no regionally significant improvements in the corridor were assumed, this alternative does include the future street improvements as planned by the corridor communities. This program, common to all the alternatives, is estimated to cost more than \$80 million through 2000, with the bulk of the investments planned for roads in unincorporated areas of the corridor. The costs would be borne by the local communities and are not included in the costs for this alternative (nor other alternatives).

In terms of public transportation, a bus system oriented to provide feeder-distributor service to a regional transit system is assumed for the "No Project" alternative. Section 2.2 provides a summary of the current bus service provided by SCRTD within the I-105 corridor.

### 3.3 THE "EXCLUSIVE BUSWAY" ALTERNATIVE

This alternative would provide an exclusive busway in the corridor. Extending approximately 16.0 miles, it would be constructed primarily within the planned Project right-of-way, except for related station and parking facilities. The typical section for this busway is shown on Figure 3-16 and the busway alignment is shown on Figure 3-17. It would include selected high volume connections with the San Diego, Harbor, Long Beach and San Gabriel River Freeways.

Development of an "Exclusive Busway" would require resolution of technical and financial considerations similar to those associated with the "median" transitway proposed as part of the Project.

These considerations were discussed previously in this Chapter.

#### Major Design Features

The "Exclusive Busway" alternative would include the following features:

The busway would be a two-way, two-lane facility. Typical right-of-way, excluding interchange areas, would be approximately 180 feet. The busway section would measure 64 feet within this right-of-way, as shown in Figure 3-16.

It would have approximately the same grade line as the proposed project, except at the east and west termini, where adjustments would be made to join existing streets.

Stations would be included at junctions with other proposed transit lines near the Long Beach Freeway, the Harbor Freeway, in the Willowbrook area, near Los Angeles International Airport, near Normandie Avenue and in Norwalk.

The assumed locations of the stations and parking lots are listed below:

Station No. 1 and Parking Lot	Aviation Boulevard, the western terminus
Station No. 2 (No Parking Lot) <sup>1</sup>	Western Avenue, near Southwest College
Station No. 3 and Parking Lot	Route 11 (Harbor) Freeway
Station No. 4 (No Parking Lot) <sup>2</sup>	Wilmington Avenue in Willowbrook
Station No. 5 and Parking Lot	Route 7 (Long Beach) Freeway
Station No. 6 and Parking Lot	Curtis and King Road, the eastern terminus

These station locations are generally as shown in the Special Rapid Transit Digest (July 1973), which contains the consultant's recommendations to SCRTD for public transit improvements in Los Angeles, except that an additional station and parking lot was also assumed near the Route 605 Freeway at the eastern terminus.

The transit patron would be able to utilize the busway through two or possibly three means. First, via buses on intersecting freeways directly through stations; and secondly, by transfer from feeder-distributor buses on local streets; or via bus ramps if this lends itself to operational characteristics of the transit system.

- . In addition to line-haul, feeder service to provide access to the stations would be implemented. This local service could be provided by various means, including regular scheduled bus lines, jitney service, or dial-a-ride.
- . All busway overcrossings, undercrossings, bridges and pedestrian crossings have been assumed at the same locations as for the Freeway-Transitway. Provisions regarding city street closures are assumed to be generally similar also.
- . The proposed railroad relocations are assumed to be the same as those planned for the I-105 Project.

### 3.4 LOCAL IMPROVEMENTS

#### "Arterial Widening" Alternative

This alternative would widen a number of east-west arterial streets in the corridor.

The widening of arterials was formulated in critical areas to provide essentially the same degree of relief from surface-street congestion as the proposed project. Two lanes would be added over and above those currently envisioned by local agencies to fully develop the planned arterial street system. The arterials and communities affected are listed in Table 3-1, along with the miles of widening required. The locations where streets would be widened are shown in Figure 3-18.

At most locations, widening would be accomplished on one side or the other. This would minimize acquisition impacts and avoid major public or community facilities. In general, this would require 24 feet of new right-of-way, but as a practical matter, may involve acquiring many whole properties.

#### "Grade Separation" Alternative

This concept, sometimes referred to as a "Mini-freeway or Junior Freeway"<sup>3</sup> seeks to achieve the same degree of congestion relief as the Project, by changing the stop-and-go

<sup>1</sup>Parking for Station No. 2 was assumed to be available at Southwest College.

<sup>2</sup>No Parking for Station No. 4 was assumed as it will only be used for transfers between Rapid Transit District lines.

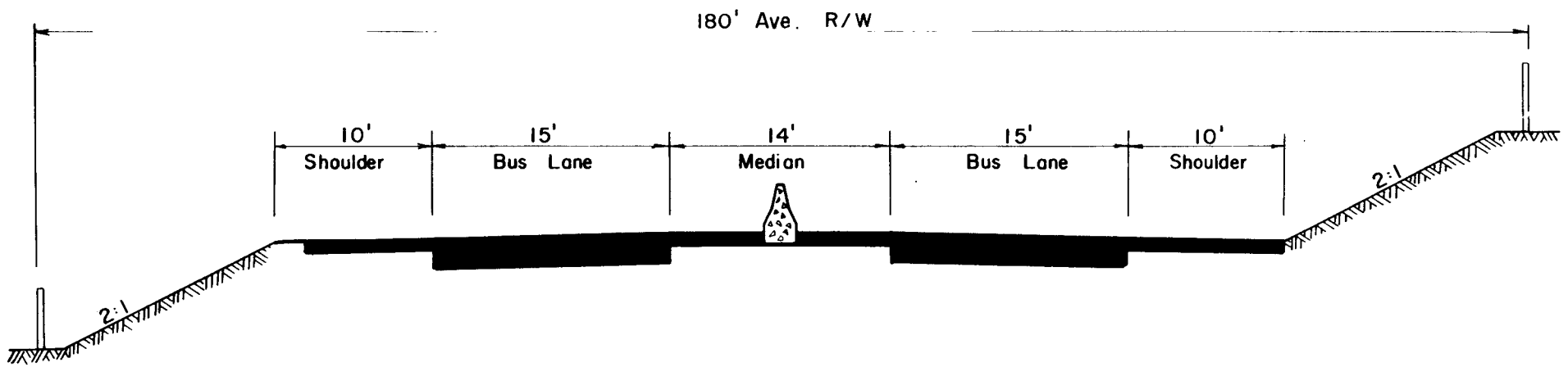
<sup>3</sup>Discussed in "Our User-Oriented Future," Dr. Slade Hulbert, paper prepared for the Institute of Traffic Engineers World Conference, Montreal, Canada, September 1971.

FIGURE 3-15

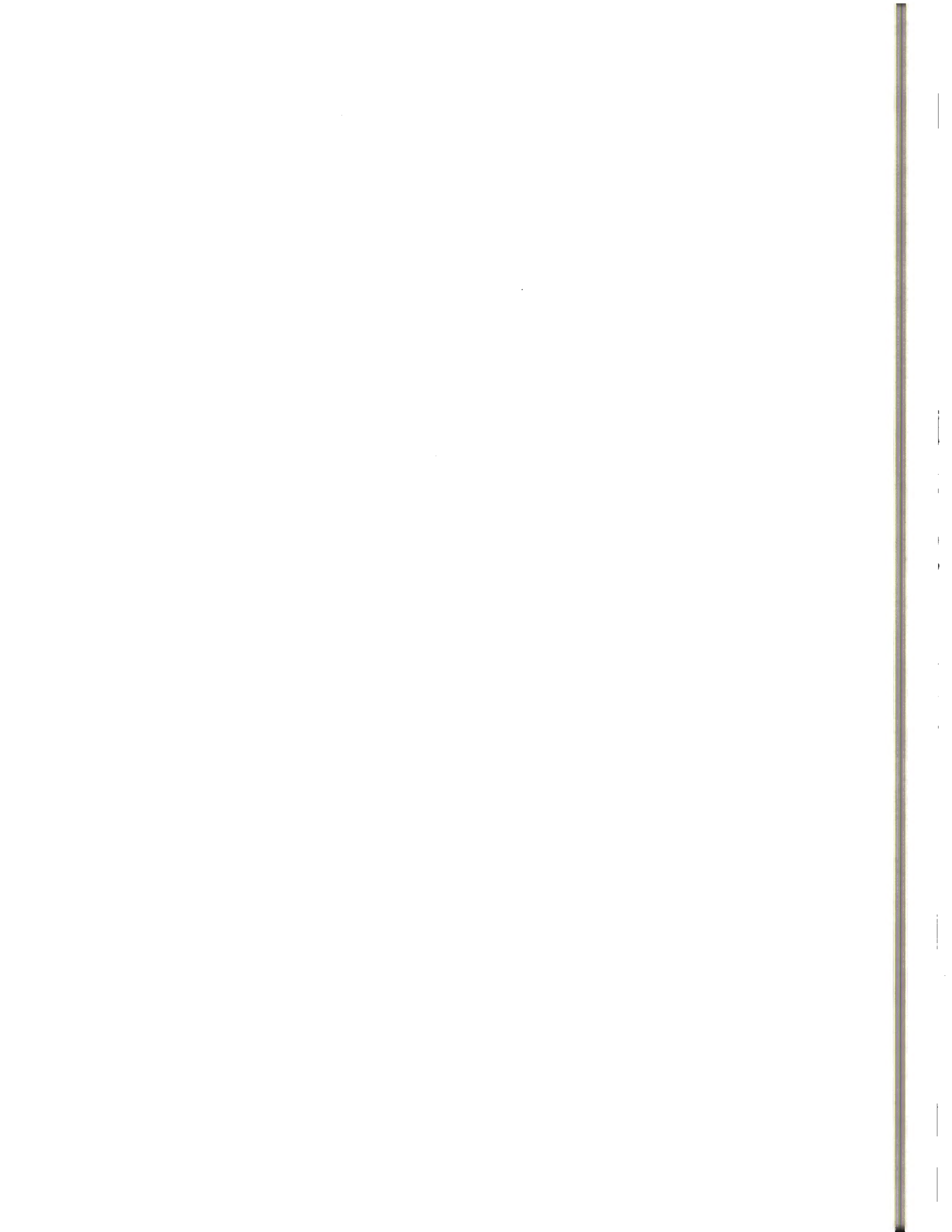
JOINT USE PROJECT



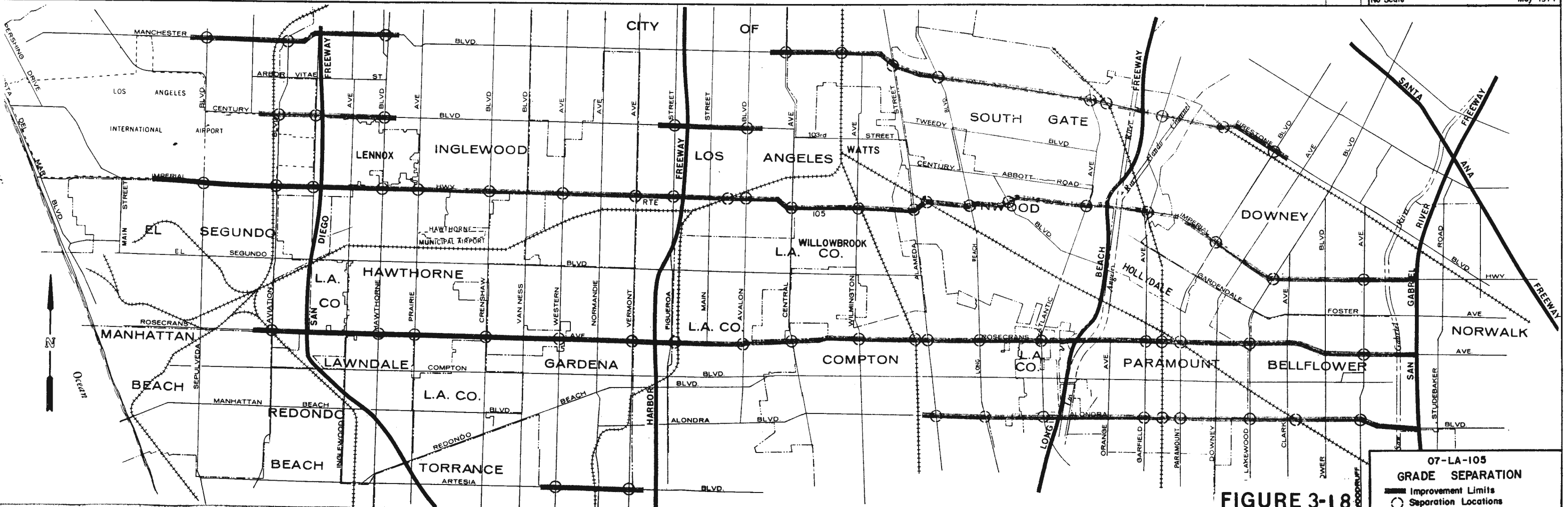
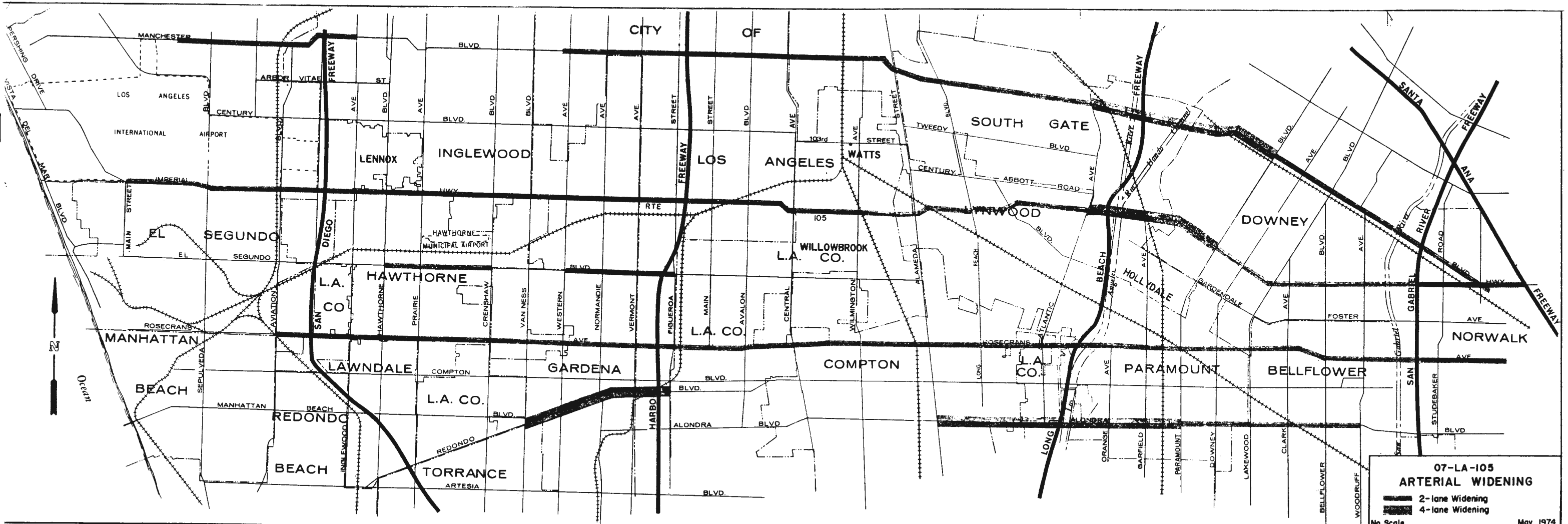




EXCLUSIVE BUSWAY STUDY  
TYPICAL SECTION







**FIGURE 3-18**



TABLE 3-1  
NUMBER OF MILES OF TWO LANE WIDENING BY JURISDICTION

Jurisdiction	Alondra Boulevard	El Segundo Boulevard	Firestone Boulevard	Imperial Highway	Manchester Boulevard	Redondo Beach Boulevard	Rosecrans Boulevard	Total Miles
Bellflower	1.5						2.0	3.5
Compton	1.3						3.5	4.8
Downey			3.3	5.1			0.1	8.5
Gardena		0.5				1.3	1.0	2.8
Hawthorne		1.5					2.0	3.5
Inglewood				1.5	1.0			2.5
Lawndale							0.8	0.8
Los Angeles City		0.5		3.2	3.0	0.5	0.5	7.7
Los Angeles County		0.4	1.5	2.3			3.1	7.3
Lynwood				3.4				3.4
Norwalk			1.3	1.8			1.5	4.6
Paramount	2.5						2.3	4.8
South Gate			4.2	0.8				5.0
Torrance	—	—	—	—	—	0.5	—	0.5
TOTAL	5.3	2.9	10.3	18.1	4.0	2.3	16.8	59.7

travel which is characteristic of conventional street operation, to one of continuous, un-interrupted flow. This alternative involves implementing a unique set of traffic control improvements on 55 miles of arterial streets. Improvements would generally be contained within planned major street rights-of-way so as to minimize property acquisition impacts.

**Design Features:**

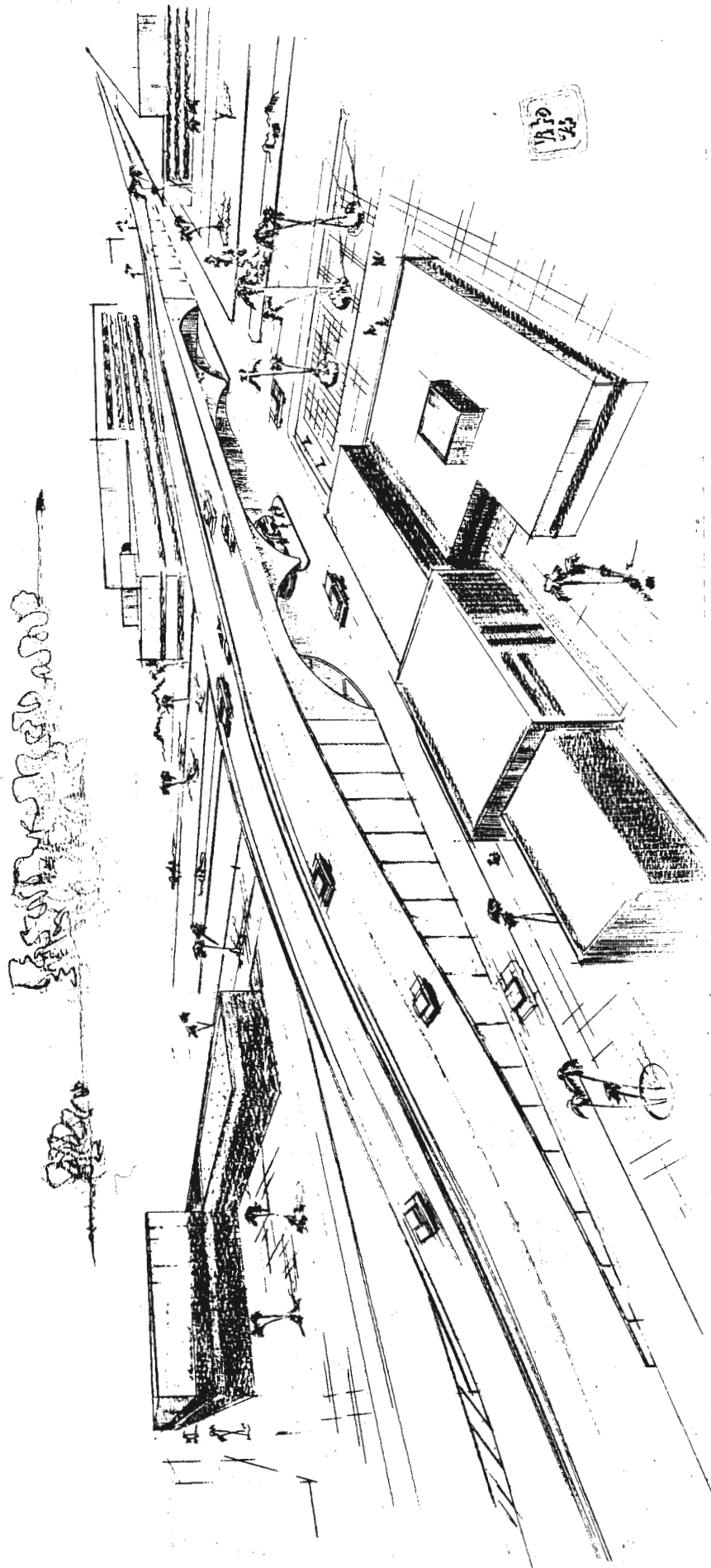
The grade-separation concept includes the following innovative features, within the limits established for improvement.

- Grade-separate intersecting primary and some secondary streets at 69 key intersections. Locations of grade-separated intersections are shown in Figure 3-18, and tabulated on Table 3-2. Figure 3-19 is a rendering of the concept, and Figure 3-20 diagrams the operational features.

**TABLE 3-2  
GRADE SEPARATED INTERSECTIONS**

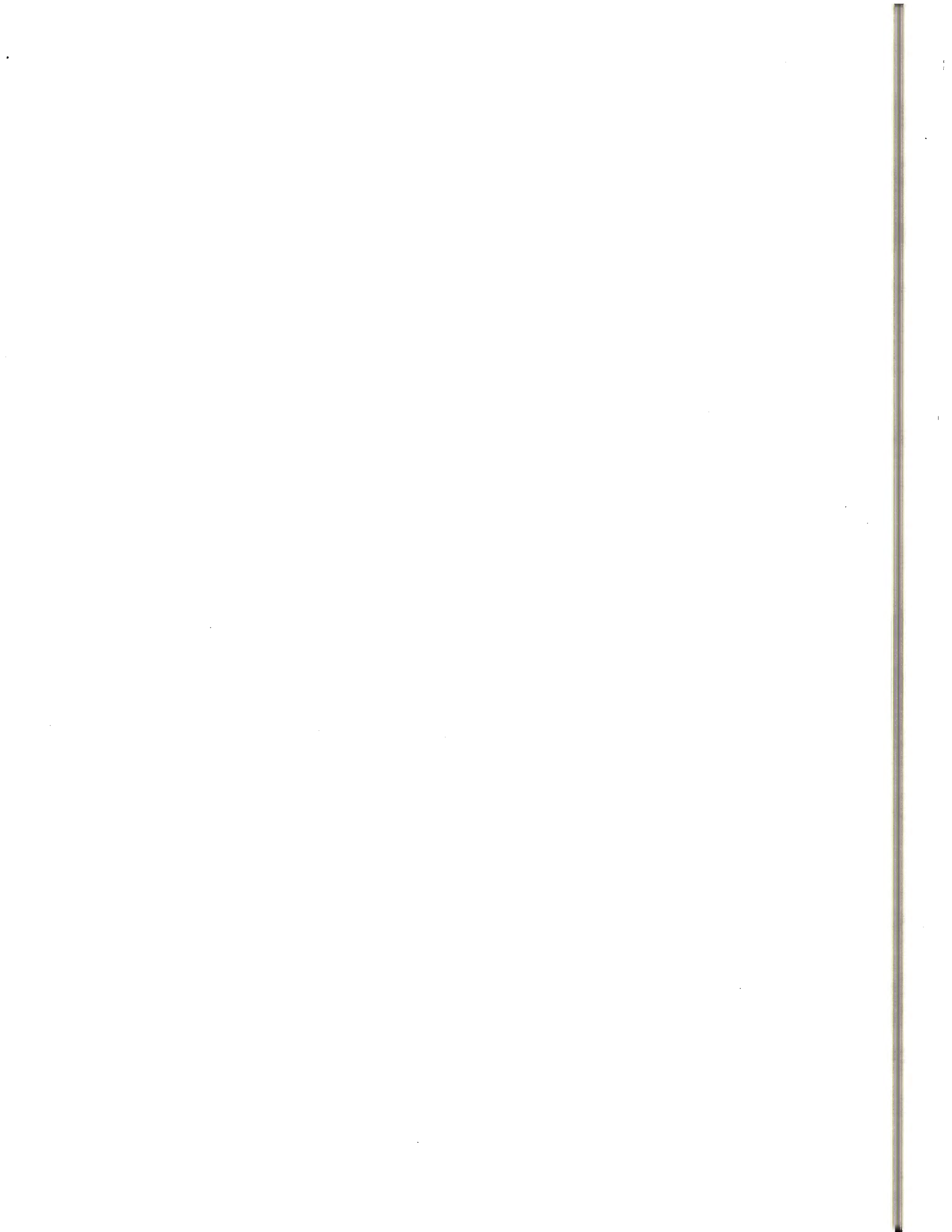
	Manchester Boulevard	Firestone Boulevard	Century Boulevard	Imperial Highway	Rosecrans Avenue	Alondra Boulevard	Artesia Boulevard	Totals
Sepulveda	x			x				2
Aviation	x		x	x	x			4
La Cienega = Underpass			x	x				2
Hawthorne	x		x	x	x			4
Prairie				x	x			2
Crenshaw				x	x			2
Western				x	x		x	3
Vermont				x	x		x	3
Figueroa			x	x	x			3
Railroad Crossing				x				1
Avalon			x	x	x			3
Central		x		x	x			3
Railroad Crossing		x						1
Wilmington				x+RR	x			2+RR
Railroad Crossing					x			1
Alameda		x		x	x	x		4
Railroad Crossing				x				1
Long Beach		x		x	x	x		4
Century				x				1
Atlantic		x		x	x	x		4
Railroad Crossing		x						1
Garfield		x		x+RR	x	x		4+RR
Railroad Crossing		x			x	x		3
Paramount		x		x	x-RR	x		4+RR
Lakewood				x	x	x		3
Railroad Crossing						x		1
Woodruff				x	x	x		3
<b>TOTALS</b>	<b>3</b>	<b>9</b>	<b>5</b>	<b>22</b>	<b>19</b>	<b>9</b>	<b>2</b>	<b>69+3RR</b>

- Construct these improvements within existing or planned arterial streets right-of-way, providing, typically, an 84-foot curb-to-curb street section within the typical 100-foot rights-of-way. (Most streets are presently 80 feet in width curb-to-curb).
- Provide four east-west through lanes at each grade-separated intersection.



**GRADE SEPARATION CONCEPT**

**FIGURE 3-19**



# OPERATIONAL FEATURES OF GRADE-SEPARATION ALTERNATIVE

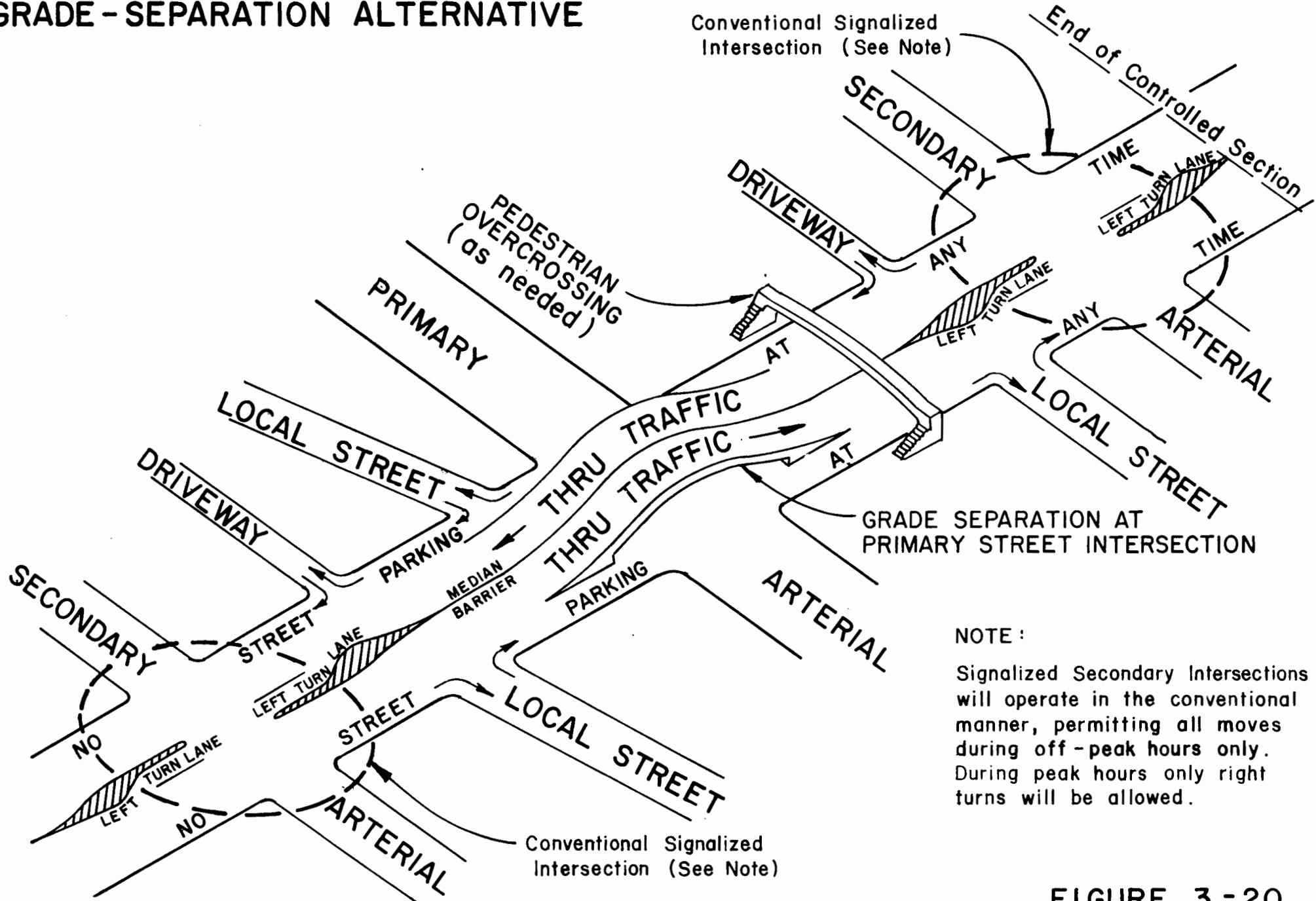


FIGURE 3-20



- . Retain arterial curb lanes at grade and accommodate right and left turns and through movements via channelized, signalized intersections under each grade-separated structure.
- . Provide bus loading areas under grade-separation structures.
- . Signalize other intersecting secondary streets and permit only right turns to or from improved arterials during peak hours. Left turns and crossings of the improved arterials would be prohibited during peak hours.
- . Provide pedestrian crossing structures at approximately one-half mile intervals.

Under this alternative, extensive sections of Imperial Highway and Rosecrans Avenue would be converted to grade-separation status. Parts of Manchester/Firestone, Century, Artesia, and Alondra Boulevards would also be converted. These improvements are assumed to provide additional capacity and relieve congestion to the same degree as the project.

With this concept, a number of existing interchanges between east-west arterials and north-south freeways would require modification to eliminate left turns associated with the existing diamond type interchange configuration. One way to accomplish this would be to convert the existing diamond-type ramp layouts to loop-type. This is the design utilized for this alternative.

Utilities would be placed under the curb lanes of the grade-separated arterials.

### 3.5 COMBINED "EXCLUSIVE BUSWAY" AND "LOCAL IMPROVEMENTS" ALTERNATIVE

This alternative is a composite transportation program which combines the "Exclusive Busway" and "local Improvements" concepts covered in Sections 3.4 and 3.5, respectively. The objective is to provide significant local street congestion relief to automobile users and regional mobility to public transit users. Tables 3-1 and 3-2 show the individual components of each street improvement approach.

### 3.6 OTHER ALTERNATIVES

In the process of evaluating the I-105 corridor, numerous transportation alternatives were considered. Five of these were defined as conceptual alternatives, as described in previous sections, and were subjected to extensive analysis which is reported in depth in this EIS.

There were also freeway-transitway location variations in the Hawthorne area which received extensive analysis and are treated in depth in this EIS. This section discusses these location alternatives.

The possibility of substituting a transit project for this Interstate project was evaluated, although not as extensively as the conceptual alternatives. This possibility and the extent of evaluation are discussed in this section.

This section also describes the other alternative considered, briefly discusses each, and includes the principal reasons for not undertaking a more rigorous examination.

#### Freeway-Transitway Location Alternatives Hawthorne Vicinity

As noted previously in this EIS, the City of Hawthorne, alone among the affected jurisdictions, opposed the adopted location for the project. Since 1971, discussions on alignment variations have continued with the City and the other affected jurisdictions, seeking a location that would be mutually satisfactory. Seven variations were considered. These are shown in Figure 3-21.

Efforts to reach an understanding on these locations were fruitless until in 1974, when, as a result of resolutions by the City of Hawthorne and the California Highway Commission (under legislatively revised route adoption procedures), gave special consideration to alignment 1-C, the commonly known "Bell-shaped" location, (public hearing of April 23, 1975); and, later to alignment 1-G, popularly known as the "Imperial" location (public hearing of August 27, 1975). The Imperial location is now proposed as the alignment for

the Project. However, because of their significance and prominence in recent events, a detailed analysis of the original adopted alignment and the Bell-shaped alignment are included at various locations in the EIS under the subheading of Hawthorne Location Alternatives for comparison with the Project.

Major design features of each of these two locations are shown in Exhibit 6f of Appendix E.

#### Transit and/or Highway Substitution

The 1973 Federal-aid Highway Act included provisions for deleting an Interstate highway segment from the Interstate System and the substitution of a non-highway public mass transit project therefor. This statute was amended by the 1976 Federal-aid Highway Act to include substitution of highway projects on the Federal-aid System. Federal funding would be available for the transit and/or highway projects based on the unused Interstate funds allocated to the Interstate project. In order to accomplish such a substitution the following actions are required:

##### Withdrawal of Interstate Segment from Interstate System:

The withdrawal process would require a joint request from the State Governor and the local agencies concerned.<sup>1</sup> The Secretary of the U. S. Department of Transportation could approve the withdrawal if he determines that the route is not essential to completion of a unified and connected Interstate System and if he received assurances that the State does not intend to construct a toll road in the traffic corridor which would be served by the route or portion thereof.

##### Substitution of Mass Transit and/or Highway Project:

The proposed substitute project or projects would be prepared by the responsible local officials of the urbanized area or area to be served and forwarded to the Governor who would then submit them to the U. S. Department of Transportation.

A substitute mass transit project may include construction of a transit facility in the I-105 corridor itself, similar improvements elsewhere in the region, purchase of rolling stock/rail cars or buses, or various combinations of the above. Funds obtained for transit through substitution cannot be used to operate the transit facility.

A substitute highway project must be on the Federal-aid System under Title 23, U. S. Code. The Federal share of substitute highway projects will be the pro rata share applicable to the system on which the project is located in accordance with Title 23.

##### I-105 and Transit and/or Highway Substitution:

The major considerations in withdrawing I-105 from the Interstate System and substituting a transit and/or highway project relate to the funding status of I-105, the status of transit system planning in the region and the views of local agencies.

##### I-105 Project

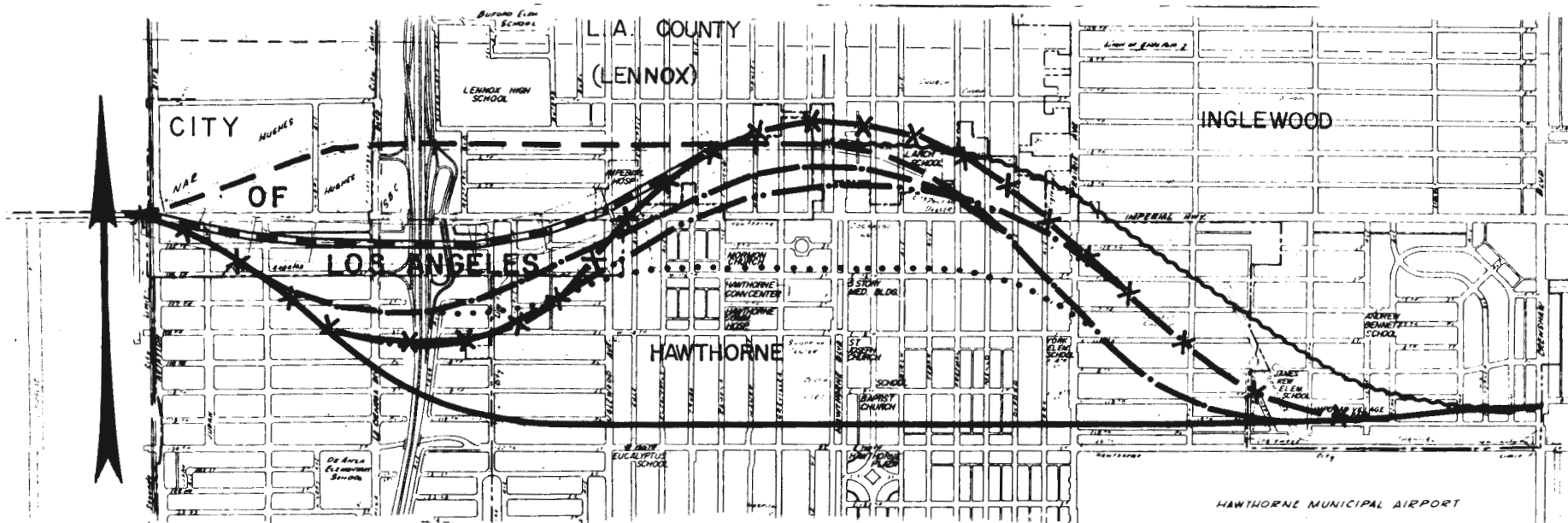
The 1975 Federal-aid Highway Act provides for funding up to \$760 million for the I-105 Project.

The segment of I-105 from the San Diego (Route 405) Freeway to LAX has been identified by the Federal Department of Transportation as a route (segment) of national significance. Since this segment forms an intermodal, spur connection from Route 405, also a route of National significance, to LAX, an airport of National and International significance, this segment is essential to completion of a unified and connected Interstate System.








If that position is not subject to amendment, the withdrawal of this segment of I-105 would not provide substitution funds for transit. Some \$130 million would be necessary to provide this connection between Route 405 and LAX.

<sup>1</sup>The "local agencies concerned" are the local units of general purpose government within whose jurisdictions an Interstate segment lies or is to be withdrawn, added, or substituted.





**LEGEND**

-  Study Line Blue I - A
-  Study Line Blue I - B
-  Study Line Blue I - C (Hawthorne suggested "Bell Shaped" Location)
-  Study Line Blue I - D
-  Study Line Blue I - E
-  Study Line Blue I - F
-  Study Line Blue I - G (Hawthorne suggested Imperial Location)

NOTE : Original adopted location of I-105 shown as solid line for reference,

**I - 105  
HAWTHORNE  
LOCATION RESTUDIES  
AVIATION BLVD.  
TO  
CRENSHAW BLVD.**

Not to Scale

**FIGURE 3-21**



## Regional Transit System

Transit planning in the region has yet to result in a system which has consensus support from local governments and the electorate. Of five proposals for a regional transit system since 1958 three have been rejected at the polls; the "starter line" from the CBD to Long Beach is now in limbo; and the recently proposed bus-on-freeway system has not been given wide public exposure. The Department, however, has lent its support to SCAG, SCRTD and others to a four point transit program in a document published in February 1976. The Federal Government has already pledged planning funds for certain elements of that program.

## Local Agency Views

The corridor cities (local governments concerned) have considered the opportunity to substitute a transit project on two specific occasions:

Mayors of all the affected cities met during November 1973, soon after becoming aware of this possibility in the 1973 Federal-Aid Highway Act.

All of the affected cities met during April 1974 to comment on an Issue Paper prepared by the Southern California Association of Governments (SCAG), which analyzed the possibility.

On each occasion, the cities were virtually unanimous in opposition to transit substitution. On the one hand they noted that the project incorporated public transit, was an effective answer to corridor transportation problems, and provided improved accessibility to LAX. On the other hand, they were being asked to contribute to an undefined regional transit system with uncertain public support with no assurance that a substitute transit project in the same urbanized area would provide their cities with effective transportation.

Additional repeated actions have been taken by all of the agencies in support of the I-105 project. These actions, in the form of official resolutions, followed the DEIS circulation, the public hearings and are as current as mid-1977. These actions have additionally resulted in the California Legislature adopting a resolution co-authored by all of the corridor legislators in support of the I-105 project.

### Alternative Freeway-Transitway Locations

Twenty alternative route alignments for the I-105 Project were developed for purposes of comparative analysis. Twenty of these represented alignments originally studied during the Route Location Study period of 1958 to 1968. These line locations are indicated on Figure 3-22. In all cases, preliminary designs were developed based upon the same traffic forecast. A comparative evaluation of the socioeconomic effects of these alignments is tabulated in Figure 3-23.<sup>1</sup>

Analysis of these environmental impacts and socioeconomic data resulted in these findings:<sup>1</sup>

Based upon the assessment of impacts on critical receptors and sensitive land use, the Red Lines, Brown lines, and variations of the Blue line would result in air quality and noise impact effects essentially similar to those of the Project.

All of the proposals contain approximately equal lengths of depressed and elevated sections along generally parallel alignments. All are therefore similarly exposed to the meteorological factors that influence air quality. The meteorology over the area was found to be homogenous as air sampling indicated the air quality of the most northerly alignment closely matched that of the most southerly route. Even the number of adjacent sensitive sites does not vary significantly from one alignment to another. As a result of this lack of difference between conditions or effects, it was concluded that the impact on air quality should not be a factor in route location selection. In the case of noise impacts,<sup>2</sup> three continuous alignments were judged better than the rest. These three, which includes the project, exhibited the shortest, and approximately equal, lengths of adjacent sensitive land use impacted. Based upon mitigation requirements calling for reductions of freeway traffic noise land-use standards, there could be very little difference in magnitude of impact between alignments. It was concluded that noise impact should not be a significant factor in route location selection.

The Red and Brown lines would result in substantial greater adverse socioeconomic impacts than the adopted line and its variations, based on a consideration of residential, business, and community facility displacement.

Other location alternatives for the entire I-105 Project result in not only those social and economic costs already incurred by the Project and unwinding costs associated with abandonment, but also those additional impacts to be created by a new freeway alignment.

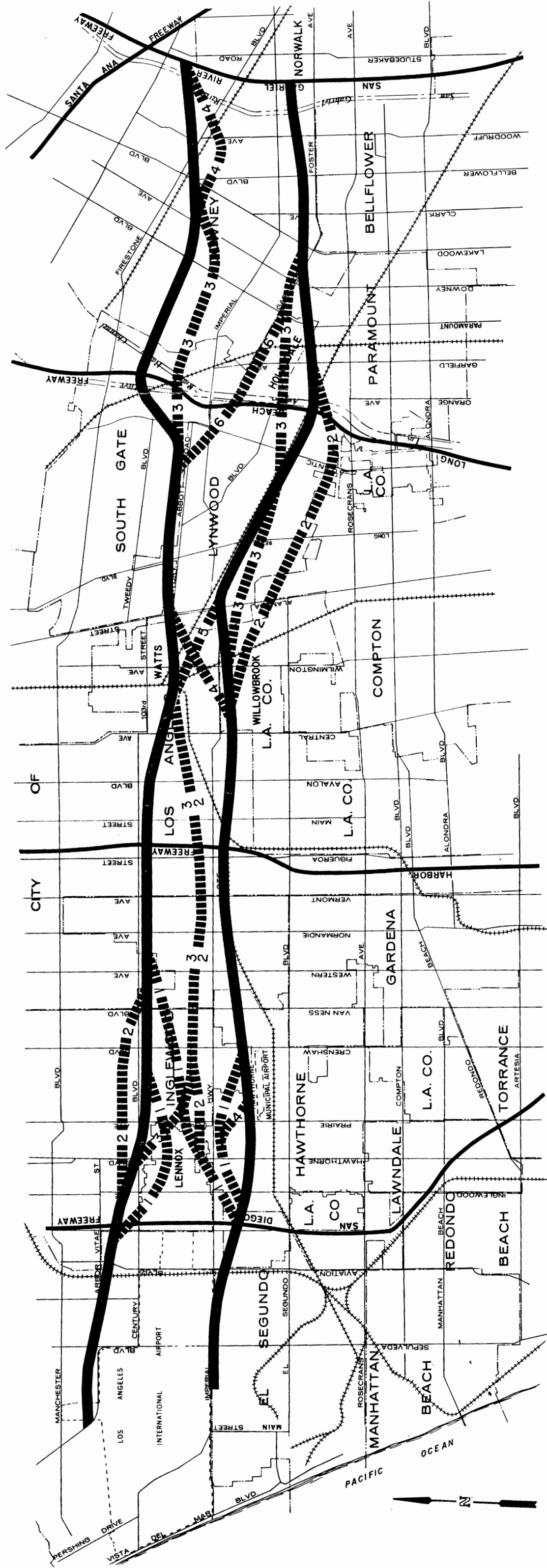
### One-Way Streets

Two variations of one-way streets were considered. The first involved establishing traffic flow in one direction on major arterial highways, with traffic on the intervening secondary highways moving in the opposite direction. (Note: Major and secondary arterials are generally equally spaced at half mile intervals.) This scheme assumed that existing major arterials were adequate, for example, to handle all eastbound traffic; for westbound traffic, then, it would be necessary to widen each secondary by two lanes to equal major arterial capacity.

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<sup>1</sup>See the following documents for additional coverage of alternate route alignments, socioeconomic impacts: Environmental Impact Assessment, El Segundo-Norwalk Freeway, July 1973 and Addendum, April 1974; and Economic Impact Report Route 105 Freeway, March 1974, both prepared by California Department of Transportation, District 7, Environmental Planning Branch

<sup>2</sup>Noise Report: El Segundo-Norwalk Freeway (7-LA-I/105), July 1973.



I-105  
 FREEWAY ROUTE ALTERNATES



**SOCIOECONOMIC IMPACTS SUMMARY OF I-105 PROJECT & ALTERNATIVE FREEWAY LOCATIONS (a)**  
 (BASED UPON A 10 LANE FREEWAY TRANSITWAY)

THE I-105 PROJECT FREEMAY LOCATION ALTERNATIVES (By Color Code)	NUMBER OF PERSONS DISPLACED	NUMBER OF LIVING UNITS DISPLACED	NUMBER OF COMMUNITY FACILITIES DIRECTLY AFFECTED						NUMBER OF STUDENTS DISPLACED	BUSINESS DISPLACED		ASSESSED VALUATION REMOVED FROM TAX ROLLS (IN THOUSANDS OF DOLLARS) <sup>e</sup>	LOCAL SALES TAX REVENUE IMPACT (IN THOUSANDS OF DOLLARS)	PROPERTY TAX REVENUE IMPACT (IN DOLLARS) <sup>d</sup>	CAPITOL COST ESTIMATES				
			SCHOOLS	PARKS AND RECREATION	CHURCHES	OTHER	TOTAL	NUMBER OF ESTABLISHMENTS		NUMBER OF EMPLOYEES	CONSTRUCTION (IN THOUSANDS OF DOLLARS)				RIGHT OF WAY (IN THOUSANDS OF DOLLARS)	TOTAL COST (IN THOUSANDS OF DOLLARS)	EXPENDED TO DATE (IN THOUSANDS OF DOLLARS)	COST TO COMPLETE (IN THOUSANDS OF DOLLARS)	
<b>Blue Line</b>	10,331	3,551	8	1	21	6	36	2,679	240	940	17,216	449.7	839,880	303,900	219,700	523,600	96,200	427,400	
<b>Blue Line with Variation</b>																			
Dash Blue 1	10,676	3,677	8	0	22	13	43	2,752	259	1,317	19,061	337.0	928,914	312,800	215,600	528,400	90,600	437,800	
Dash Blue 1B	8,798	2,986	9	2	19	6	36	2,523	303	1,253	17,670	239.0	890,040	322,500	234,500	557,000	82,100	474,900	
Dash Blue 1C-M	11,849	4,103	10	1	19	6	36	2,963	294	1,312	18,506	298.0	849,490	311,700	226,700	538,400	88,600	449,800	
Dash Blue 1C-L	11,697	4,046	10	1	19	6	36	2,934	280	1,252	18,140	298.0	849,490	318,800	224,500	543,300	88,600	454,700	
Dash Blue 1E-M	11,077	3,821	10	1	22	6	39	2,827	332	1,490	17,813	340.4	849,879	313,000	223,600	536,600	88,600	448,000	
Dash Blue 1E-L	11,013	3,797	10	1	21	6	38	2,794	318	1,426	17,407	326.4	832,764	325,200	221,500	546,700	88,600	458,100	
Dash Blue 2	12,127	4,062	8	2	16	7	33	3,137	175	669	18,936	393.3	888,806	278,100	199,200	477,300	77,800	399,500	
Dash Blue 3	12,249	4,174	6	3	18	5	32	2,928	243	918	20,737	483.6	1,016,846	269,700	203,900	473,600	72,900	400,700	
<b>Red Line with Variation</b>																			
Red	18,698	6,828	9	13	28	2	52	4,115	398	2,694	38,448	698.0	2,090,055	232,400	204,400	436,800	6,700	430,100	
Dash Red 1	18,894	7,126	7	9	32	3	51	4,280	442	2,909	40,261	686.1	2,087,907	237,100	213,900	451,000	6,700	444,300	
Dash Red 2	18,113	6,633	9	14	28	2	53	4,024	377	2,463	36,450	541.5	1,971,207	231,300	197,400	428,700	6,700	422,000	
Dash Red 3	19,234	7,039	9	13	30	2	54	4,224	386	2,602	37,736	697.1	2,050,664	230,000	204,200	434,200	6,700	427,500	
Dash Red 4	18,632	6,806	9	13	27	3	52	4,107	383	2,610	37,314	645.0	2,039,181	231,700	204,000	435,700	6,700	429,000	
<b>Blue and Red Lines with Crossover</b>																			
Brown 1	20,347	6,782	6	9	32	10	57	4,053	395	2,229	35,046	697.9	1,778,588	273,500	205,000	478,500	7,400	471,100	
Brown 2	18,492	6,448	7	7	26	10	50	4,438	352	2,010	34,389	488.3	1,715,613	271,000	197,500	468,500	7,400	461,100	
Brown 3	18,633	6,889	12	13	21	5	51	4,167	342	2,593	37,026	636.1	1,990,426	233,100	206,500	439,600	6,700	432,900	
Brown 4	14,830	5,260	8	8	11	3	30	3,778	299	1,258	27,450	580.1	1,323,098	260,600	199,800	460,400	51,700	408,700	
Brown 5	15,823	5,425	9	4	30	6	49	3,663	383	2,495	28,195	590.6	1,626,892	259,900	226,200	486,100	51,400	434,700	
Brown 6	17,645	6,381	7	6	30	8	51	3,969	375	2,346	33,182	586.8	1,921,680	250,200	218,200	468,400	28,800	439,600	

a. Estimated as of January 1973 for comparison of alternative freeway locations.  
 b. Refer to Exhibit 14a-c of this appendix for map showing line location by color code.  
 c. Alternatives to Dash Blue 1 variation in Hawthorne area. -M indicates depressed design, -L indicates elevated design.  
 d. Local assessed value and tax revenues only. Does not include county or school taxes.





Some of the concerns associated with this scheme are that secondary highways are not always continuous through the 17-mile length of the corridor and generally do not cross the two rivers in the corridor (Los Angeles and San Gabriel Rivers). This scheme would also require construction of new interchanges where secondaries cross the existing north-south freeways. Moreover, half the present investment in existing interchanges would be lost since these currently service two-way traffic.

A review of existing land use showed that a considerable portion of property abutting secondary streets was devoted to residential and industrial usage. The widening required would have a tremendous impact on people and the tax base. It was concluded this scheme would result in costs and impacts equal to or in excess of those associated with the "arterial widening" alternative and introduce an unusual and unfamiliar travel pattern for the average motorist.

The second approach "couples" the one-way operation of the major arterials (the same as described above) with the nearest adjacent local street rather than the secondary highways. Here again, it is assumed local streets would be widened so that their combined capacity would equal the major arterials. And again, there are discontinuous local streets, a lack of river crossings, and interchanges with existing freeways which must be constructed and/or modified (although a variation of the idea would allow the local streets to merge with the arterials in the vicinity of freeway interchanges).

Adjacent local streets, however, are generally residential. Whether widening occurred on one or both sides of the local street, the impact on people and property would be great.

Widening on both sides would displace more people directly than any other scheme. Widening on one side, while halving the direct impacts, would result in having residential properties fronting onto a heavily traveled highway with its attendant noise, air pollution and lower safety aspects.

It was concluded this would be even less desirable than the previous scheme associated with secondary highways.

#### Computerized Traffic Control Systems

Traffic signals are a major factor in the ability of a highway to carry traffic. In recent years, there has been a growing interest in improving traffic flow by using computers to operate a group of signals as a system. Most installations are experimental in order to develop the technology and test equipment and theory.

The major expectation is to reduce stop-start congestion by 20 percent and to improve average speed by up to 10 percent. Some test installations are approaching this and due to the more efficient flow are alleviating noise and reducing air emissions.

However, there are inherent limitations on what improvements in signal technology can accomplish. In view of the fact that north-south traffic is equal to, and in some cases greater than east-west traffic in this corridor, the "green" phase for one direction of flow can never exceed half the time. In practice, this is reduced considerably for various reasons including the need to assign some time to turning moves, nonuniform spacing between signals, lateral traffic entering or exiting the highway, nonuniform speeds of groups of vehicles, and to accommodate pedestrians.

Cost is not an important consideration, except that it would be borne by local rather than State government. Large scale installation would be about \$12,000 per intersection. Thus, a system covering corridor major arterials (90 intersections) would cost only about \$1 million. If secondary intersections were also included (250 intersections), the cost would be \$3 million.

These costs are minor compared with the estimated \$80 million that local agencies will ultimately spend for basic improvements to corridor streets and highways. It was assumed that an extensive system of computerized traffic controls will eventually be included in the local improvement program if and when the technology is perfected. However, improved signalization does not offer a singular solution for traffic problems in this corridor.

#### Expanded Bus Service, Carpooling, Staggered Work Hours and Parking Restrictions

This constitutes a group of alternatives which singularly or in consort are intended to reduce some of the attendant problems associated with vehicular travel; i.e., noise, congestion, energy consumption, air pollutants, etc.

At the time of the DEIS, these alternatives, either singular or collectively, were not considered viable since it would be both impractical and ineffective to institute them solely in the I-105 corridor. (The scope of this EIS is the I-105 Corridor, and while the EIS concerns itself with impacts of a regional nature, it does not attempt to consider regionwide transportation solutions.)

However, some or all of these alternatives are now expected to be implemented regionwide in the near future as an outgrowth of a program aimed at improving air quality. This program, called the Transportation Control Plan (TCP), is part of the Regional Transportation Plan and is discussed in detail in the following chapter.

#### Continuous Flow Boulevard (CFB)

The Continuous Flow Boulevard (CFB) was proposed as an alternate, in comments received on the DEIS and at the public hearing of April 15, 1975.<sup>1</sup>

The CFB is a "couplet" of two separate one-way streets. This couplet would be grade-separated from high-volume cross streets (usually primary and sometimes secondary arterials), and incorporate operational features that would eliminate or minimize the need for traffic control signals. The intent is to facilitate uninterrupted; i.e., continuous flow. Where minor streets would intersect either side of each of the one-way CFB streets, entering traffic would be required to turn and merge with the flow of traffic. In the general case, a CFB would evolve from two adjacent existing city streets. Land use in the intervening city block could range from low to high density development. The CFB itself might evolve through various stages of development to match the intensity of land use development and could incorporate public transit as well.

In this specific case, it was suggested that the CFB concept be applied to the adopted location for the Project and that the unneeded (for the CFB itself) right-of-way be redeveloped to, at minimum, replace the original population and employment. The suggestion is also made that the combination of CFB and redeveloped or new land-uses within the median would become a linear "activity spine"; i.e., the focal point of local growth and development.

Fully developed, it was suggested that CFB would incorporate 3 or 4 free-flow lanes (one lane would be reserved for buses and carpools), in each direction and handle 120,000 vehicular and 30,000 transit trips daily (about 160,000 person trips) operating at speeds of 45 mph maximum.

This proposal was evaluated and was not determined to be a viable transportation solution in the corridor.

It combines features of some of the alternatives considered and included in the overall DEIS reassessment, with some specific differences:

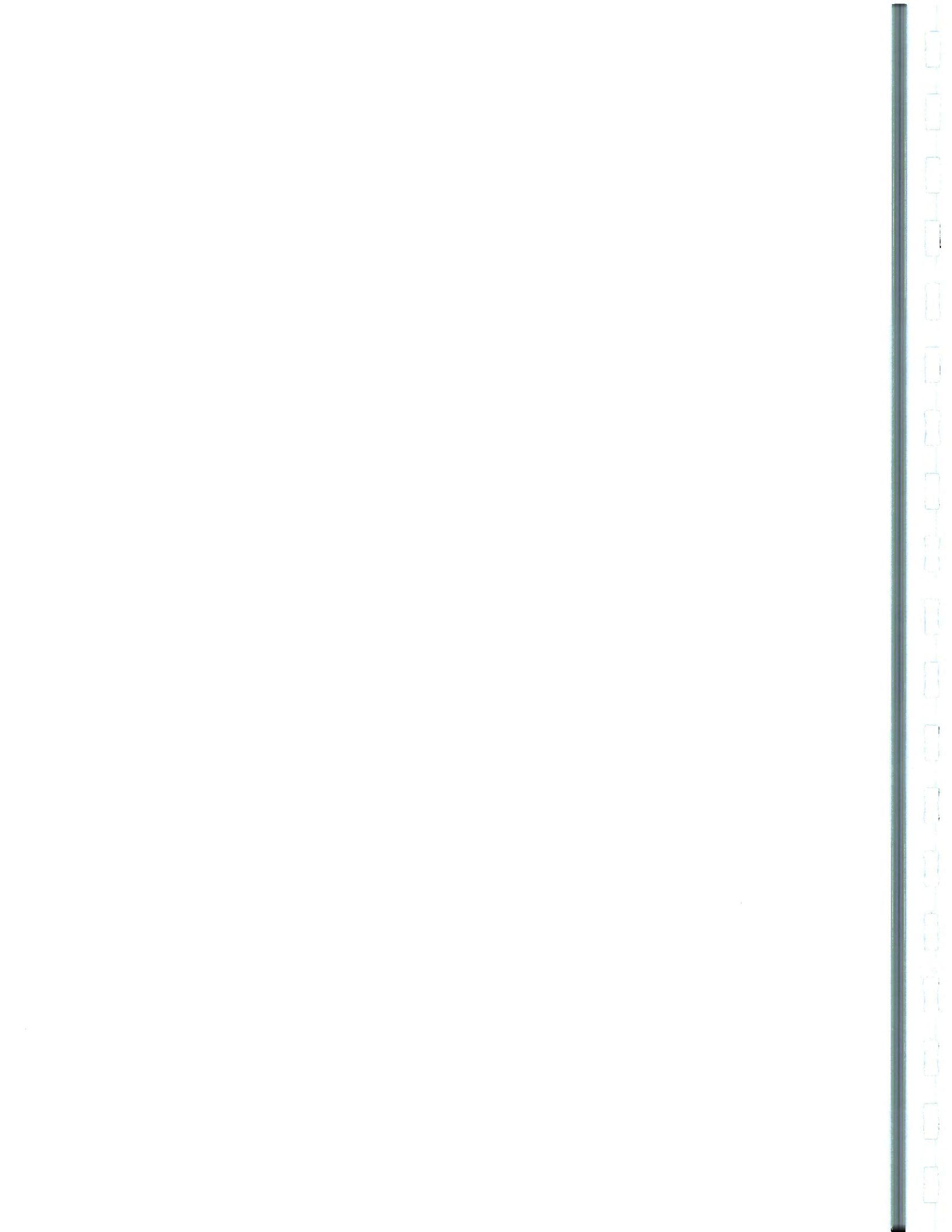
- . No Project - It suggests redevelopment somewhat like that of No Project, however, a more intensive land-use is implied.
- . Grade-Separation - It is essentially a grade-separated local street alternative, the major differences being a separation of the travel roadways by approximately one block, and using the adopted I-105 location.
- . Freeway-Transitway - The proposal is directed at providing similar transportation service to the freeway-transitway, however, would not provide comparable north-south or local street circulation and continuity associated with the freeway-transitway.

It was not determined to be viable because it would involve essentially the same impacts as the freeway-transitway, although the same degree of mitigation would not be provided; the same transportation service would not be available; and there was no degree of local support from the local agencies involved. Further major considerations are the uncertainty of local and Federal funding, as well as coordination and implementation; and how coordinated land-use redevelopment programs could be financed and implemented.

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<sup>1</sup>Details are contained in Volume II, Comments Received on DEIS, Phil Jon Brown, February 16, 1975.

CHAPTER 4  
TRANSPORTATION SERVICE EVALUATION



## CHAPTER 4 - TRANSPORTATION SERVICE EVALUATION

Evaluating transportation service is an essential first step in comparing alternatives. This assists in assuring that long-range, multi-million dollar investments are made wisely, with full knowledge of how well each alternative can satisfy the transportation needs of corridor communities and the region.

Four key criteria were selected as important yet simple measures to evaluate alternatives in terms of moving people, goods and services. These are:

- . Travel Demand
- . Congestion, Speed and Level of Service
- . Transportation Choice
- . Transportation Safety

This chapter begins with a description of the method of traffic analysis, presents a summary of anticipated traffic conditions to the year 2000, evaluates each alternative against the criteria and concludes with an overall comparison of alternatives.

### 4.1 ANALYSIS APPROACH

A transportation evaluation is directed towards predicting the effectiveness of proposed facilities to meet future travel demand. It is usually preceded with a study of the existing facilities' ability to meet current needs.

#### Level of Service Forecasting Methods

The effectiveness of a transportation facility is frequently expressed in terms of "level of service," or its "volume to capacity" (V/C) ratio.<sup>1</sup> Volume, usually expressed as vehicles per hour is traffic or travel demand. Capacity, also expressed in vehicles per hour, is related to the "level of service" expected and intended. All of the following analysis is based on a level of service "C". Although a number of factors are involved, "level of service" is related to average speed and driving conditions. For example, on most major city streets, motorists expect to drive between 25 and 35 mph, averaging about 30 mph and accepting some stops at intersections. On urban freeways, they expect to drive uninterrupted at speeds over 50 mph. When the V/C ratio is 0.8 it means the facility is operating at 80 percent of capacity and speeds are higher than normally expected. Conversely, a V/C ratio of 1.2 means that the facility is operating 20 percent over optimum capacity, with congestion and at a lower average speed than desired. When performing the evaluation of an extensive area such as the I-105 corridor, it is neither desirable nor practical to consider each individual street in the entire network and the "screenline" technique is used. Screenlines are imaginary lines placed over the corridor streets at approximately two-mile intervals, in both east-west and north-south directions. Arterial volumes and capacity crossing them are added and compared. The screenline volumes include secondary street capacities where significant through traffic is expected, based on the length, capacity, and continuity of the secondary street. From the volumes and capacities thus measured in the I-105 corridor, V/C ratios were derived and traffic service comparisons between I-105 alternatives were made. Figure 4-1 shows the screenlines used in the I-105 evaluation.

#### Traffic and Travel Forecasts

Whereas existing traffic is obtained in a straightforward manner (by actually counting vehicles at a number of locations) traffic projections or forecasts are more complex and involve consideration of future population, land use, and travel characteristics.

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<sup>1</sup>The terms "level of service" and "volume to capacity ratio" used in this analysis are defined in the "Highway Capacity Manual," Highway Research Board Special Report 87, March 1965.

The I-105 transportation evaluation is based upon the Los Angeles Regional Transportation Study (LARTS). LARTS is an element of the Southern California Association of Governments (SCAG), the regional planning agency, which is the primary source for comprehensive travel forecasts for the Los Angeles region. LARTS travel forecasts are the basis for most highway and transit system planning in the region. LARTS travel forecasts performed for this EIS assume a regional population of 12.7 million<sup>1</sup> in 1990. Present regional population is 10.5 million.

The forecasting techniques assume that the basic existing urban form will be retained in the future, together with associated travel relationships. A major fuel shortage could alter these basic travel behavior assumptions. However, the prevailing regional orientation is generally to a dispersed pattern of land development which has, in the past, encouraged a corresponding auto-oriented travel pattern, lifestyle, and extensive regional freeway system. It was assumed that a variety of accommodations would be developed to reduce fuel consumption, whereby the basic mobility characteristics and the relationships between trip-making, trip length, and urban form on which the travel forecasts are based would be retained.

A more comprehensive discussion of the Los Angeles Regional Transportation Study (LARTS); the transportation model and its related assumptions, as well as a discussion of results of the I-105 traffic analysis is included in Appendix D. This information includes a detailed analysis of Regional, Corridor and Project Travel Patterns and VMT; Air Passengers (LAX); and Goods (truck) movements. Technical staffs of other Agencies may find this detailed information useful for their planning purposes.

#### Data Sources

For existing conditions, traffic volumes and capacities were derived from available traffic count and survey sources. These are shown in Figure 4-2.<sup>1</sup> Future volumes were taken from LARTS computer modeling data,<sup>2</sup> while future street capacities were estimated from community master plans.<sup>3</sup>

The capacities estimated for arterial streets were based on improvements to those master plan arterial streets indicated as feasible by the individual local communities.<sup>4</sup> Some communities have already improved their streets to master plan levels, while other anticipate substantial major street construction programs in the future.

Once the planned system of major streets was identified, traffic capacities were estimated based on level of traffic service expected. After the basic capacity of each facility was ascertained, capacity and volume adjustments were made to bring the figures to a comparable basis with the computer model traffic volume forecasts.

## 4.2 TRAFFIC CONDITIONS

### Current Traffic

Traffic in the I-105 Corridor in the late 1960's and early 1970's had been growing at about 1-1/2 percent per year, but in the most recent years this rate of growth has slowed with the exception of the peripheral areas at Los Angeles International Airport. A traffic

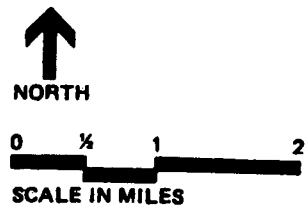
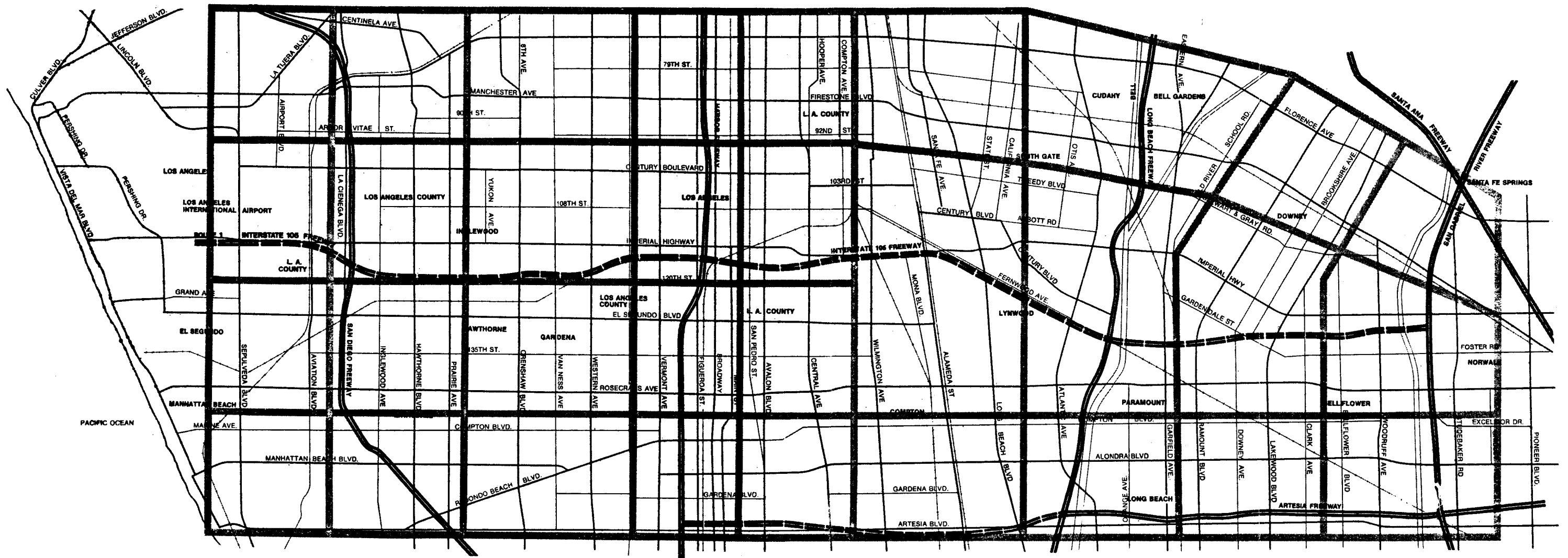
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<sup>1</sup>Traffic volumes on California State Highways, Caltrans 1974; Los Angeles County Road Department Traffic Volumes, 1974; Traffic Counts Department of Traffic City of Los Angeles, 1974; City of Inglewood Traffic Department. Gruen Associates field survey of arterial capacity. May-June 1973; "Highway Capacity Manual," HRB 1965.

<sup>2</sup>LARTS traffic forecasts from studies 940 D1 and 936 D1.

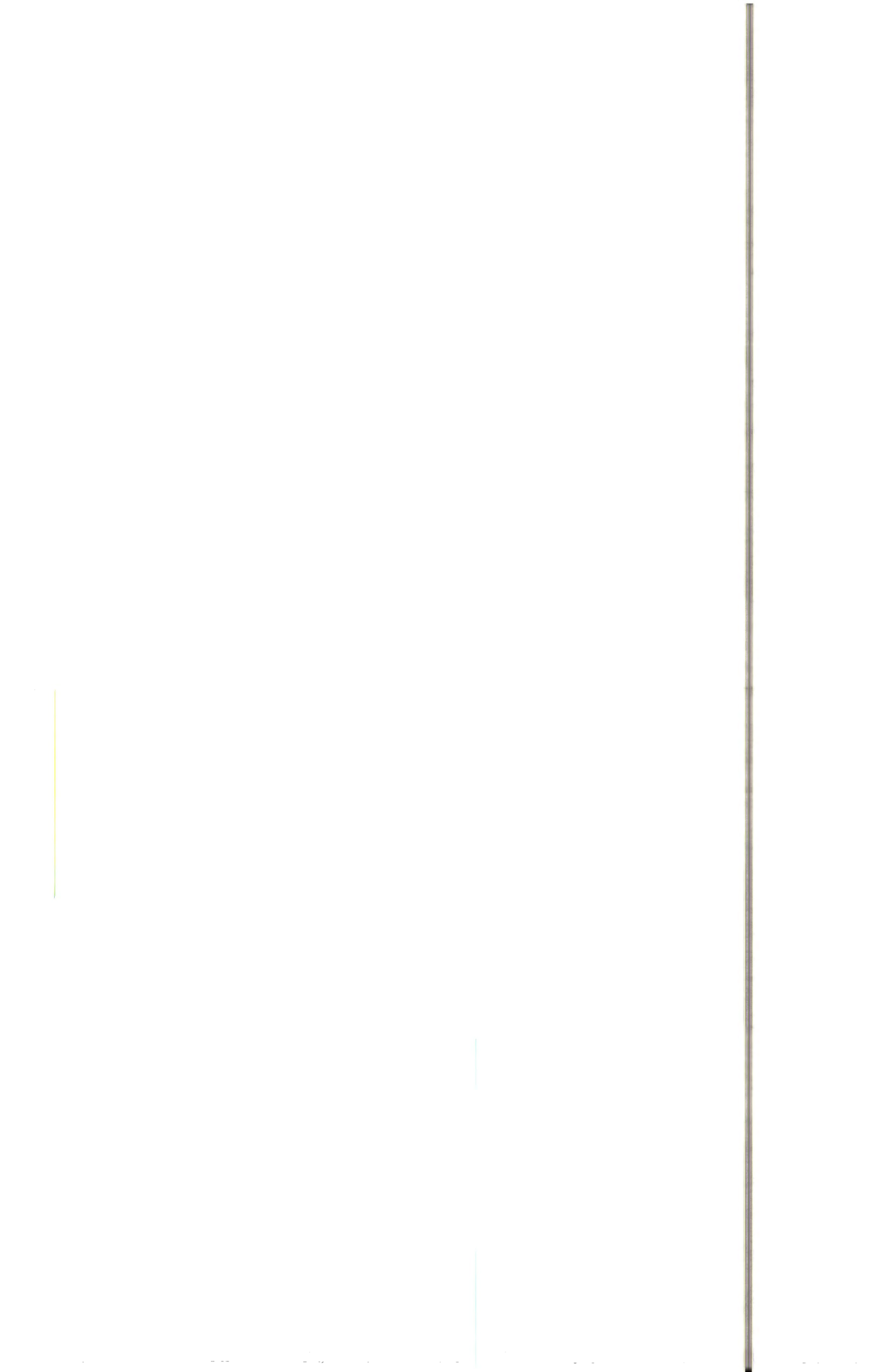
<sup>3</sup>Derived from Gruen Associates survey, March-June 1973; and "Highway Capacity Manual," HRB 1965.

<sup>4</sup>"The Master Plan, Metropolitan Area, County of Los Angeles, Highway Plan" February, 1940 and as amended through November 1975.



- |                            |                           |
|----------------------------|---------------------------|
| <b>—</b> SCREENLINES       | <b>—</b> ARTERIAL STREET  |
| <b>—</b> I-105             | <b>—</b> SECONDARY STREET |
| <b>—</b> EXISTING FREEWAYS | <b>—</b> FUTURE FREEWAYS  |

**INTERSTATE 105 STUDY AREA  
CIRCULATION SYSTEM  
WITH SCREENLINE GRID**





analysis showed that the total arterial street traffic in the corridor crossing Normandie Avenue in 1974<sup>1</sup> amounted to 300,000 vehicles per day. This corridor volume has placed heavy demand upon the combined capacity of the available east-west arterials, and produces congestion and delays for the motorist in 13 out of 36 screenline segments.

Corridor screenline segments which experienced 1974 peak period overloads and congestion are shown in Figure 4-3 and listed below. Figure 4-3 illustrates, by width of band, the degree of peak period overload and congestion on east-west arterials--the wider the band, the greater the traffic overload. Where no bands are shown, capacity was adequate to accommodate 1974 traffic.

Florence-Manchester screenline, in the vicinity of:

Prairie Avenue	3 percent overload
Normandie Avenue	17 percent overload
Main Street	20 percent overload
Compton Avenue	29 percent overload
California Avenue	23 percent overload

Century-Imperial screenline, in the vicinity of:

Sepulveda Boulevard	22 percent overload
La Cienega Boulevard	21 percent overload
Prairie Avenue	6 percent overload
Normandie Avenue	3 percent overload
Main Street	9 percent overload
Long Beach Boulevard	12 percent overload
Garfield Avenue	6 percent overload

Rosecrans screenline, in the vicinity of:

Studebaker Road	15 percent overload
-----------------	---------------------

Mobility in the corridor in the east-west direction is currently limited to that provided by the arterial street system at approximately 20-30 mph. No east-west freeway service is available within the 12-mile-wide corridor between the Santa Monica and Artesia Freeways.

A number of locations on the regional freeway system which would be affected by I-105 are also experiencing peak period overloads and congestion (see Figure 4-4).

Near-Term Traffic Changes (up to 1985)

East-west traffic is expected to increase between 1974 and 1985 by an estimated 3 to 6 percent.

With the I-105 Project in service (between 1980 and 1985), arterial street volumes would decrease substantially. This relief would be up to 50 percent for parallel arterials adjacent to the freeway, and would provide overall corridor relief of 20 percent or more. Alternatives to the project would offer a lesser relief to east-west arterial streets. Regional freeway traffic will continue to increase, the magnitude depending upon regional growth, individual freeway capacities and the effectiveness of implemented control strategies designed to reduce vehicle miles of travel.

Long-Term Traffic Changes 1985 to 2000

East-west corridor traffic will vary, depending on regional growth and upon whether the I-105 Project is in service. Without the I-105 Project, total east-west traffic by the year 2000 will have risen to levels up to 20 percent higher than 1974 levels. When the I-105 Project is implemented, east-west street volumes will be initially reduced and then build back up to levels slightly less than 1974 conditions. Similarly, regional freeway traffic will increase, depending upon regional growth and whether the I-105 or an alternative is in service. The Project would result in redistribution of traffic on the freeway system, with reductions along portions of the Santa Monica, San Diego, Santa Ana and Artesia Freeways (see Figure 4-5).

<sup>1</sup>At the time of the most recent corridor traffic analysis, 1974 data was the latest available.

#### 4.3 TRAVEL DEMAND EVALUATION

##### The I-105 Project

The project would attract and accommodate average daily vehicular traffic volumes up to 140,000 vehicles per day in 1980-85. By the year 2000 I-105 would serve forecasted vehicular traffic volumes up to 180,000 vehicles per day. This latter volume is comparable to those that are prevalent throughout the Los Angeles regional freeway system.

Arterial volumes are estimated at 290,000 vehicles per day by the year 2000 crossing the Normandie Avenue screenline. This volume which will place demands on local street systems is tabulated by screenline segment below:

<u>Screenline Segment</u>	<u>Year 2000 Daily Traffic Volume</u>
Florence/Manchester	100,000
Century/Imperial	61,000
El Segundo/Rosecrans	69,000
Redondo Beach/Artesia	<u>60,000</u>
	290,000

The proposed I-105 Busway projected patronage is shown in Table 4-1. Patronage projections in the I-105 Corridor were derived for a regional all bus system (LARTS T1E), a regional combination bus-heavy rail mass transit system (LARTS T2J) and the Southern California Rapid Transit District's proposed "starter line" between the CBD and Long Beach (Figure 4-6). The three different transit proposals whose potential patronage is presented here are compatible with the freeway element. These patronages would be less for the Busway and more for the freeway if the total transit system in the model consideration were not implemented by 1990-2000.

TABLE 4-1  
I-105 PROJECT DAILY TWO-WAY TRANSIT PATRONAGE<sup>1</sup> - YEAR 2000

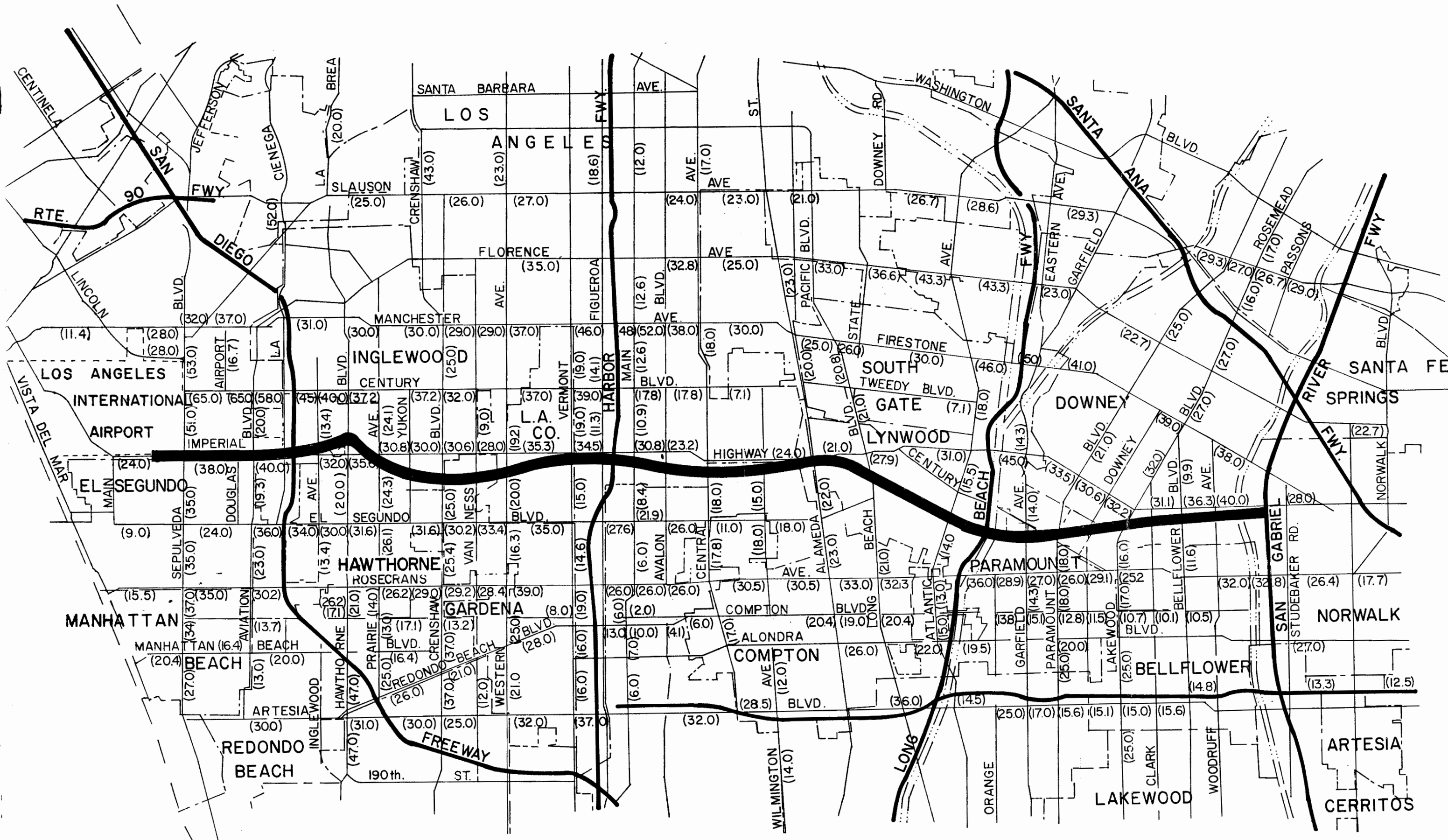
<u>System Link</u>	<u>Regional Bus-Heavy Rail Mass Transit System<sup>2</sup> LARTS T2J</u>	<u>Integrated with the SCRTD CBD to Long Beach "Starter Line" Only<sup>3</sup></u>	<u>Regional All-Bus Transit System LARTS T1E</u>
West of Sepulveda	11,000	---	11,000
Sepulveda to Route 405	33,000	15,000	41,000
Route 405 to Crenshaw	51,000	21,000	60,000
Crenshaw to Route 11	49,000	21,000	60,000
Route 11 to Wilmington	49,000	59,000 <sup>4</sup>	79,000 <sup>4</sup>
Wilmington to Route 7	96,000 <sup>4</sup>	1,000	79,000 <sup>4</sup>
Route 7 to Route 605	41,000	1,000	65,000

<sup>1</sup>In person trips. These projections differ from those in the Draft EIS because regional transit planners have since made significant changes in regards to transit access time, system speeds and headways. Current critical assumptions with respect to these factors are given in Appendix D.

<sup>2</sup>Only this, the LARTS T2J Bus-Rail system, was used in analyzing the I-105 corridor alternatives considered in this EIS.

<sup>3</sup>As proposed in November 1975 (see Figure 2-6).

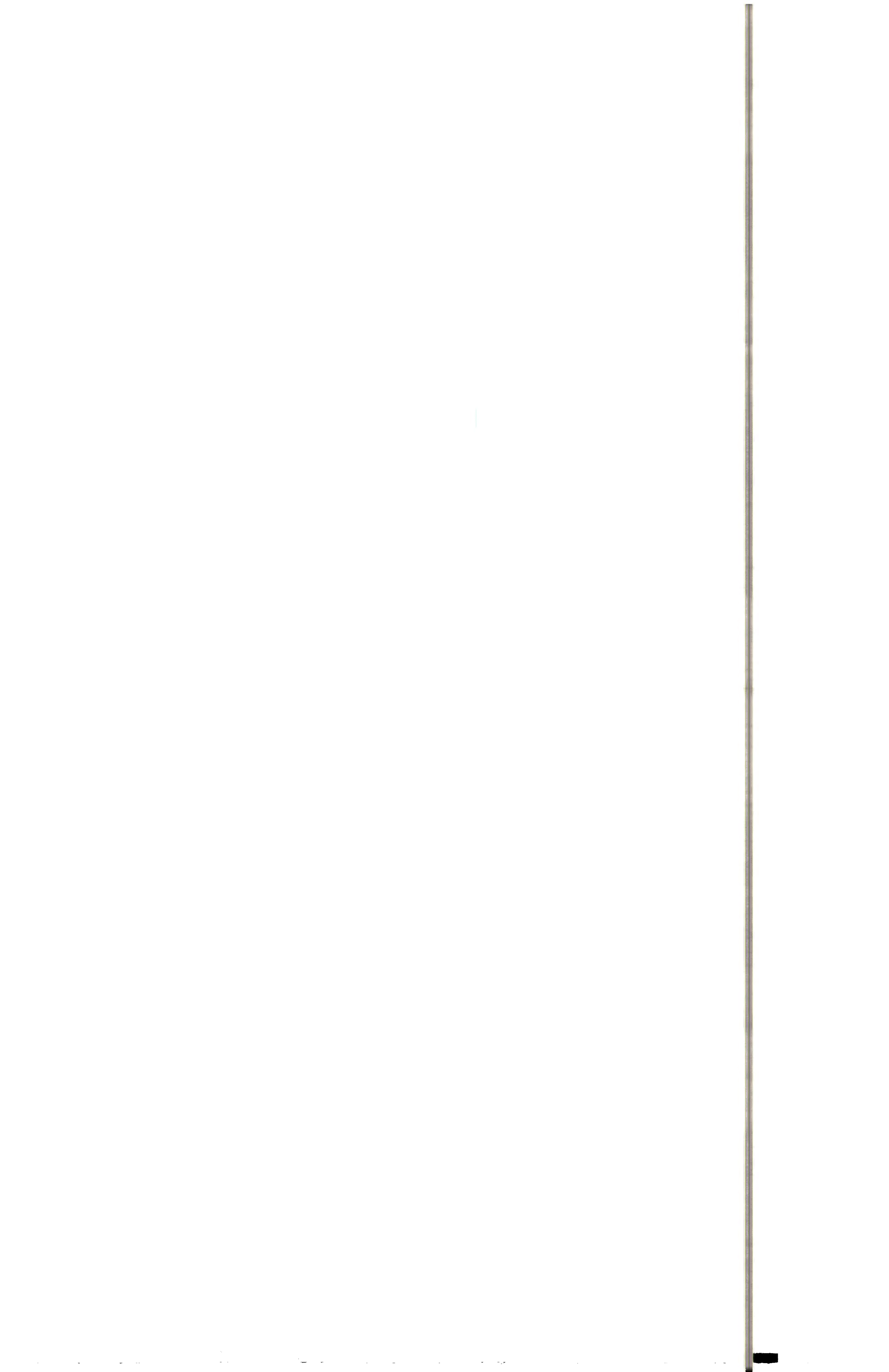
<sup>4</sup>North-south elements of the regional transit system coincide with the I-105 corridor along these links. These figures represent both east-west and north-south patronage.

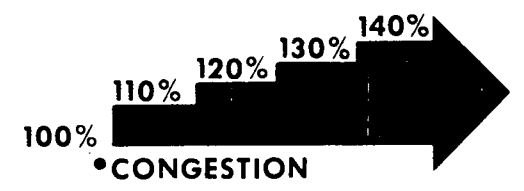
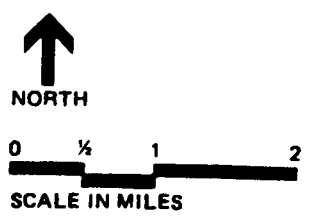
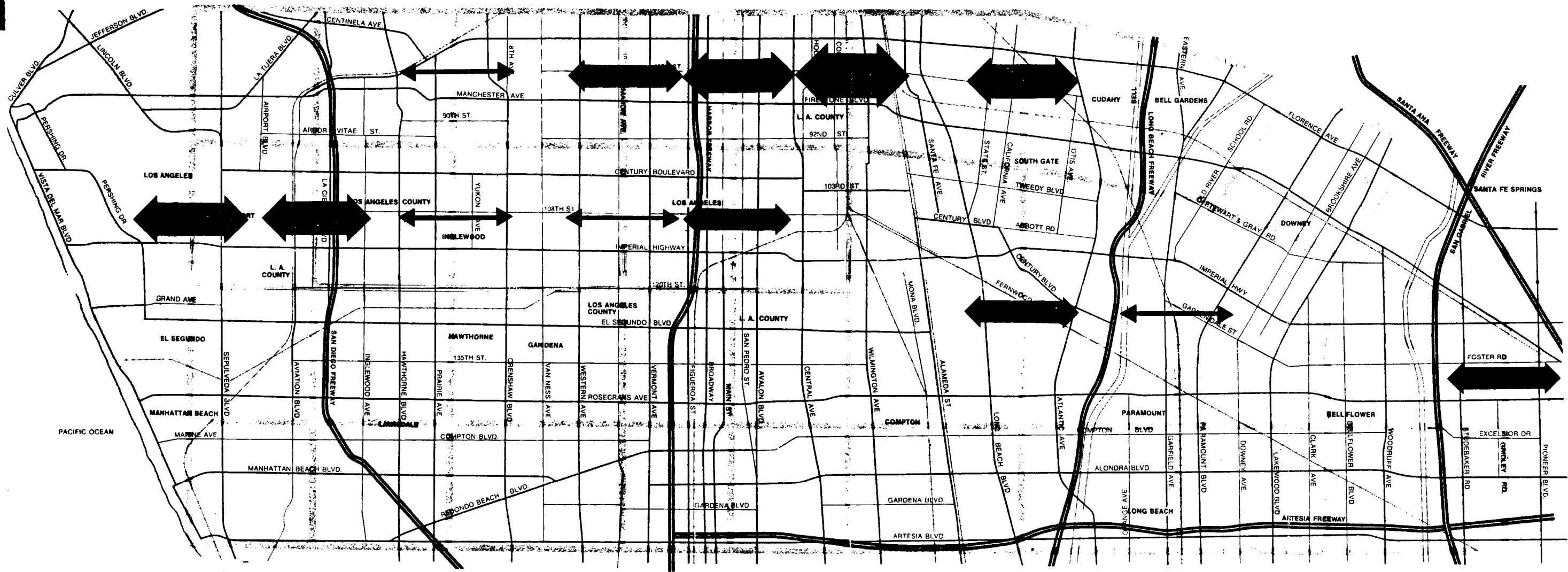


INDICATES PROPOSED I-105 PROJECT  
 (X.XX) INDICATES 1974 ADT (IN THOUSANDS)

EXISTING CORRIDOR TRAFFIC

FIGURE 4-2





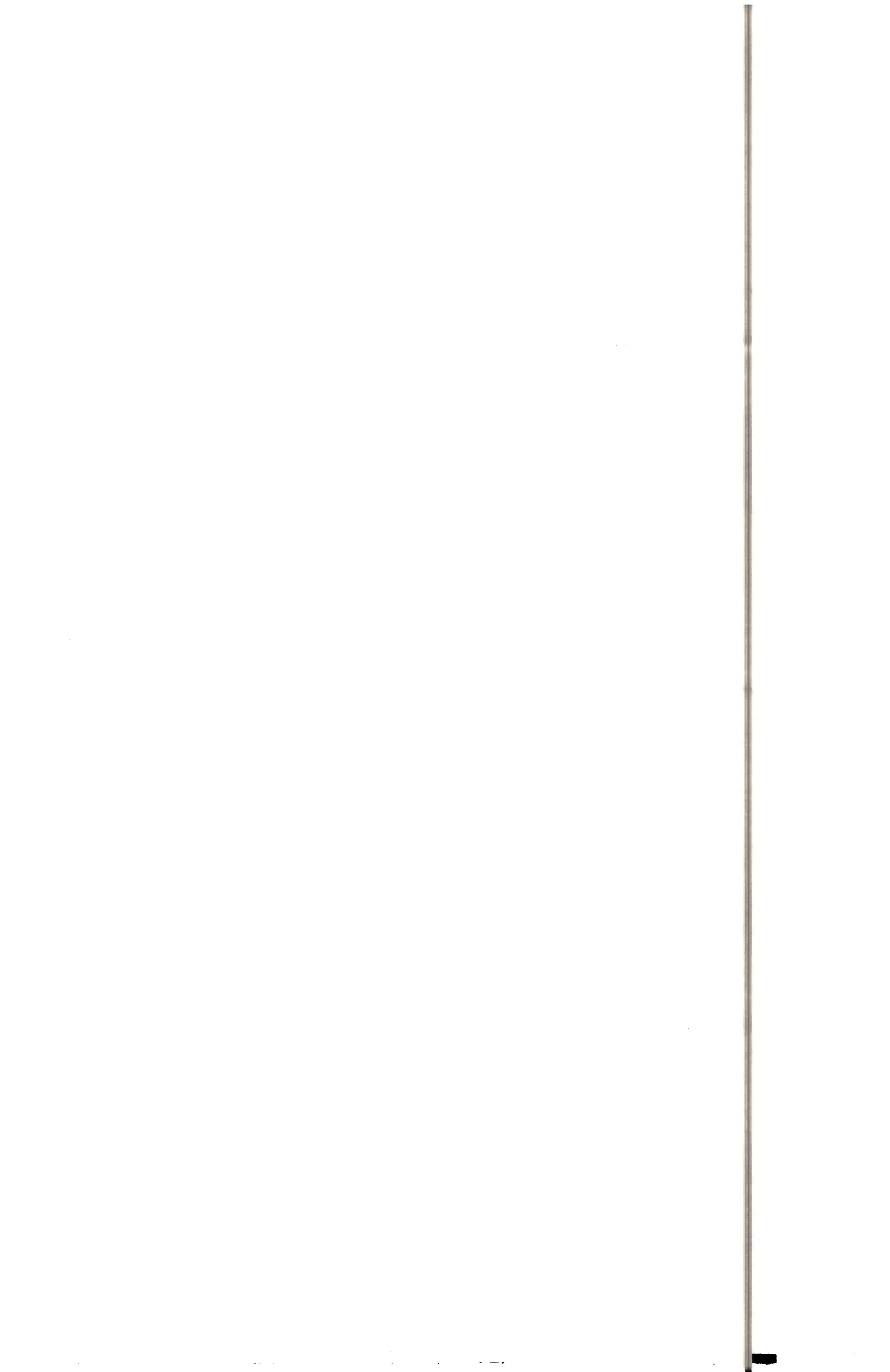
- SCREENLINES
- == I-105
- == EXISTING FREEWAYS

- ARTERIAL STREET
- SECONDARY STREET
- == FUTURE FREEWAYS

- SCREENLINE VOLUME/CAPACITY RATIO WHERE VOLUME EXCEEDS CAPACITY AT LEVEL OF SERVICE "C"

**CURRENT SURFACE STREET CONGESTION  
(EAST-WEST TRAVEL)  
1974**

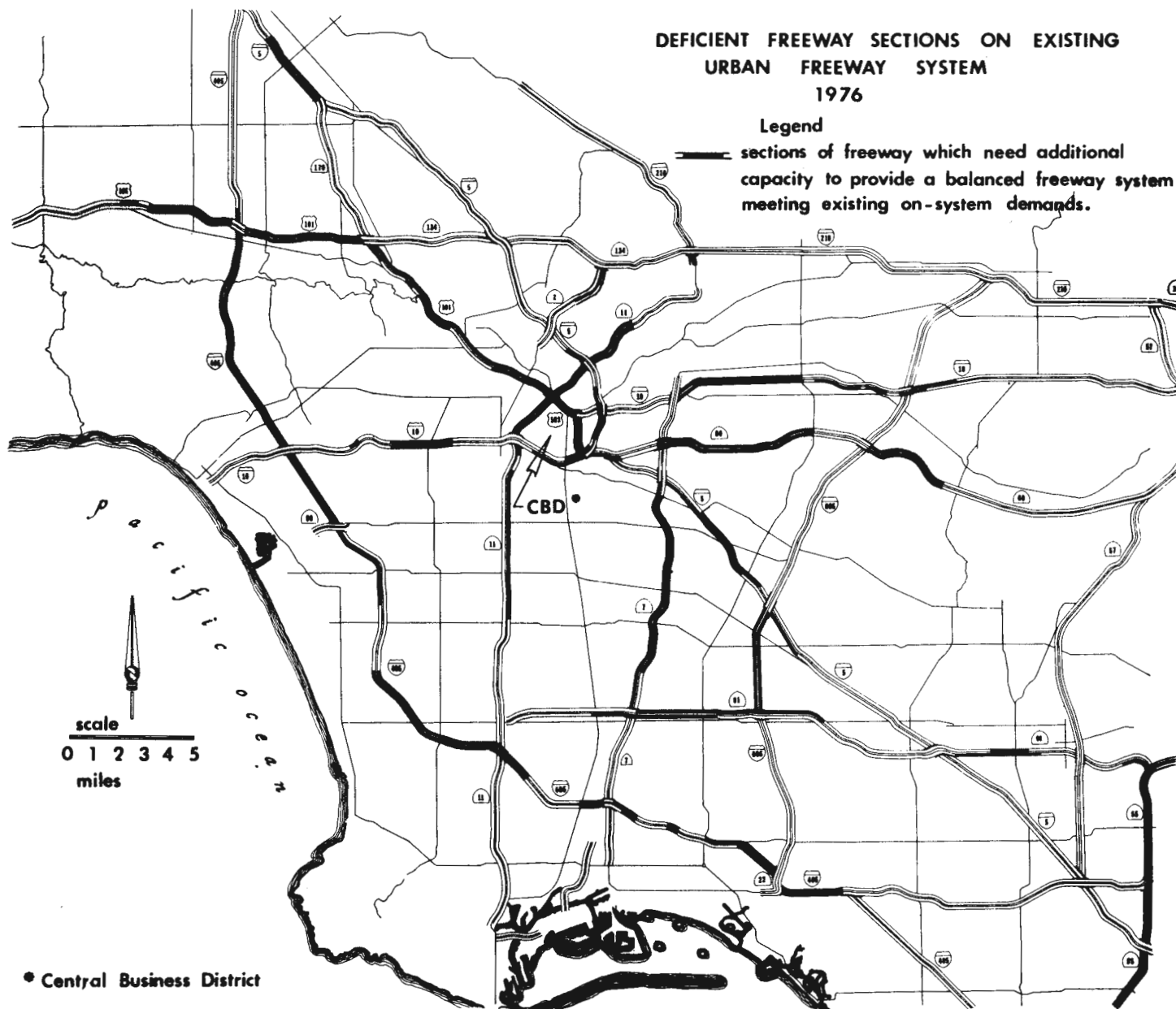
**FIGURE 4-3**



**DEFICIENT FREEWAY SECTIONS ON EXISTING  
URBAN FREEWAY SYSTEM  
1976**

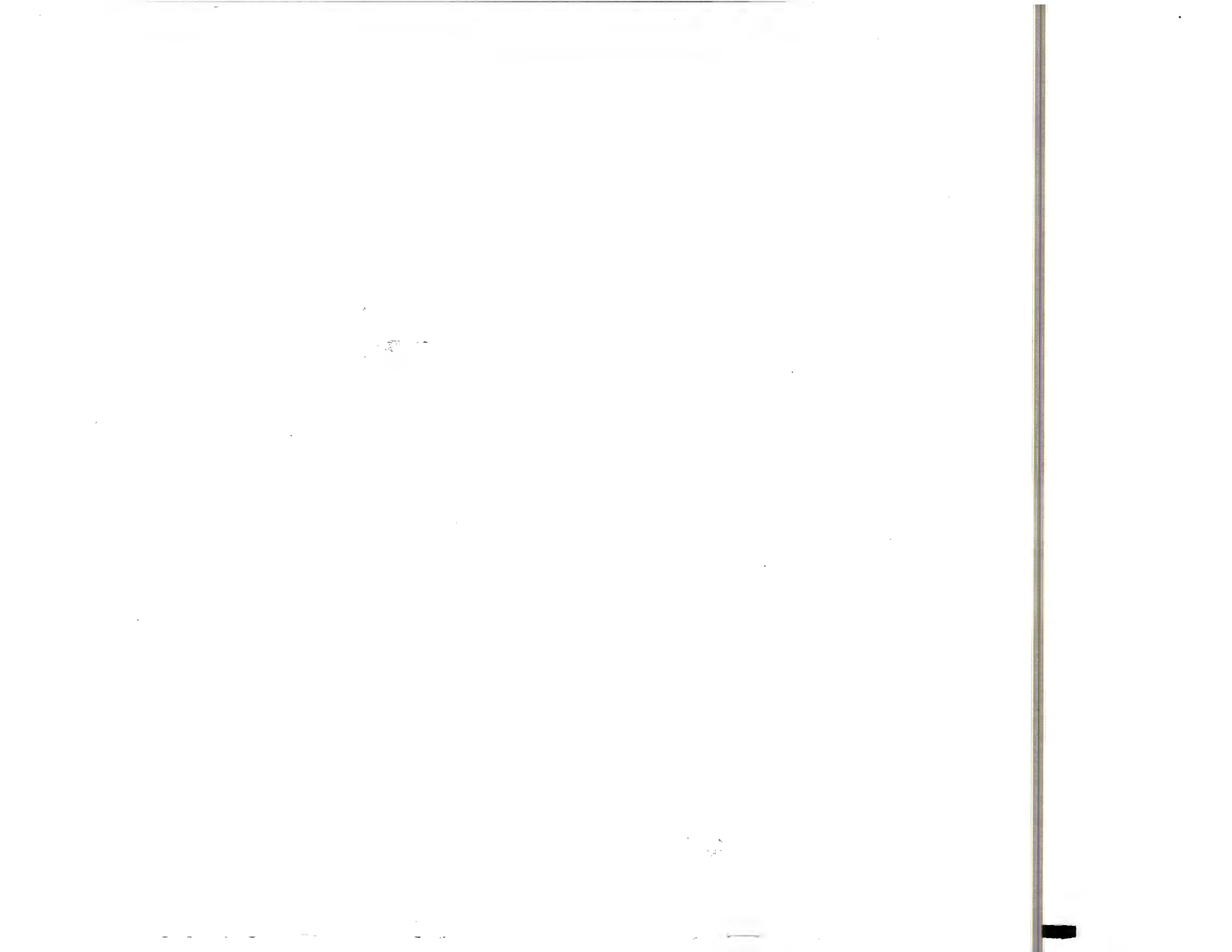
**Legend**

**—** sections of freeway which need additional capacity to provide a balanced freeway system meeting existing on-system demands.



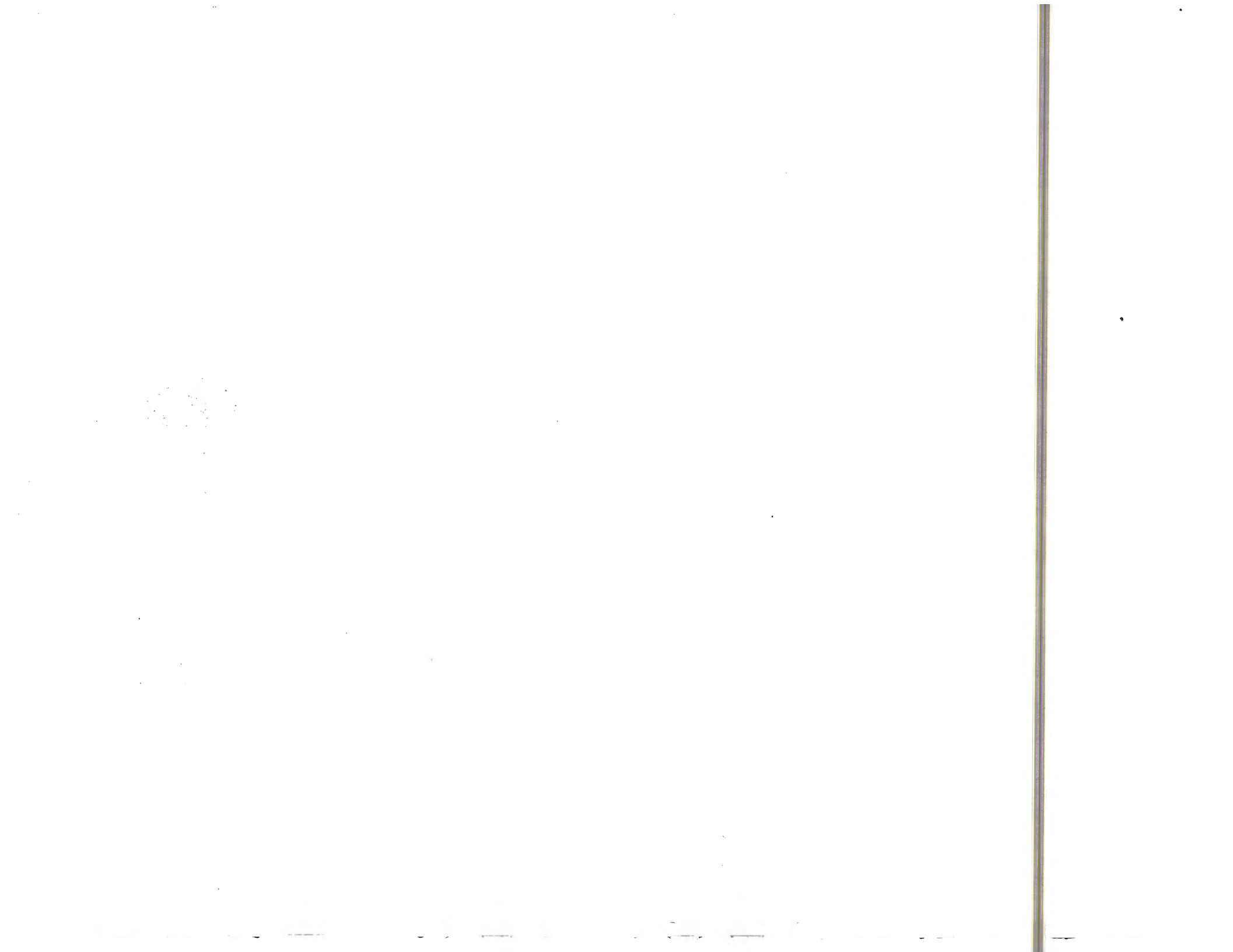
**FIGURE 4-4**

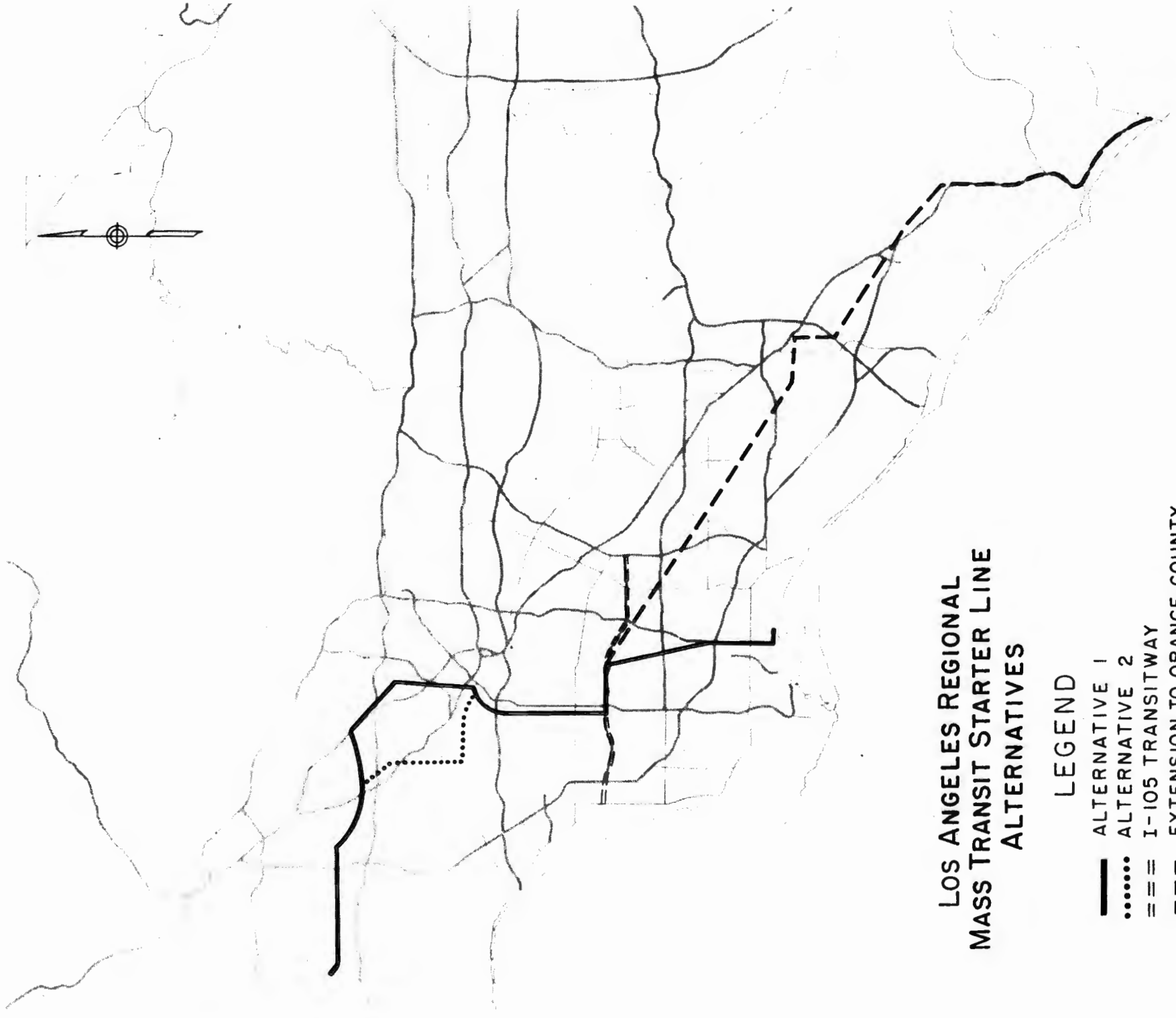
• Central Business District









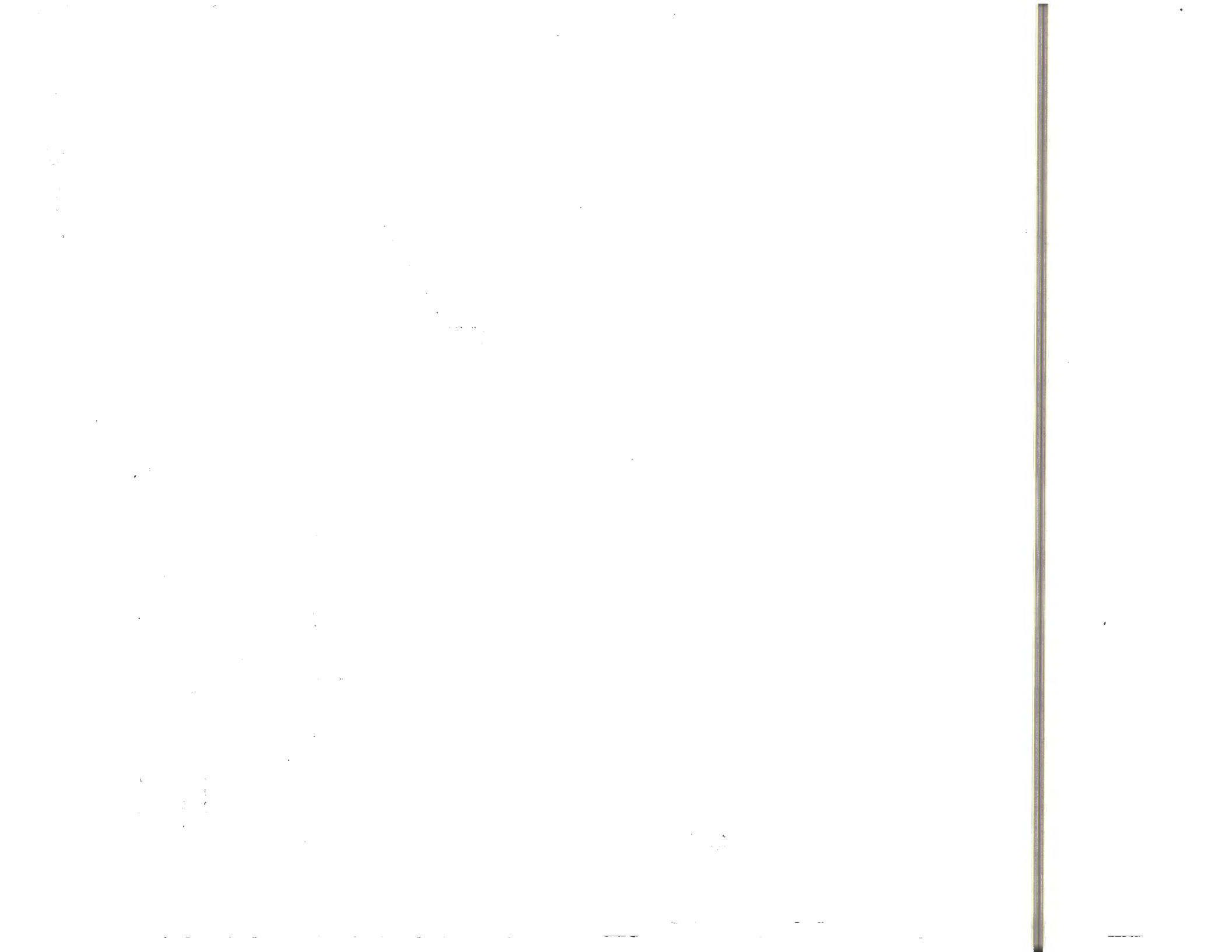


**LOS ANGELES REGIONAL  
MASS TRANSIT STARTER LINE  
ALTERNATIVES**

**LEGEND**

- ALTERNATIVE 1
- .....** ALTERNATIVE 2
- ==** I-105 TRANSITWAY
- - -** EXTENSION TO ORANGE COUNTY

**FIGURE 4-6**



## No Project

Under No Project conditions, much of the vehicular traffic otherwise served by the I-105 Freeway would travel on arterial streets and other freeways. Total arterial volume crossing the Normandie Avenue screenline would amount to 357,000 vehicles per day by the year 2000, an increase of 67,000 vehicles per day, or 23 percent, compared to the Project. East-west volumes are tabulated by screenline segment as follows:

<u>Screenline Segment</u>	<u>Year 2000 Daily Traffic Volume</u>
Florence/Manchester	102,000
Century/Imperial	116,000
El Segundo/Rosecrans	76,000
Redondo Beach/Artesia	<u>63,000</u>
	357,000

In addition to east-west corridor streets, other freeways would have to carry substantially more traffic if the I-105 Project were not constructed (Figure 4-4). Potential I-105 transitway passengers would, under the No Project condition, have to be accommodated by either the surface street bus system or the private auto, in which case arterial street volumes would be even greater than those indicated by the No Project analysis.

## Exclusive Busway

Under this alternative, the freeway would not be constructed. Total east-west traffic on major surface streets is estimated at 343,000 by the year 2000 at the Normandie screenline, or 53,000 more than if the Project were constructed. This volume would be about 14,000 vehicles per day less than the 357,000 estimated for the No Project condition.

Without the freeway in the corridor local streets would become more congested, thus making public transit more attractive. As a result, up to 10 percent of daily vehicular work trips, and 5 percent of non-work trips, might be diverted to transit. This would involve about 30,000 daily person trips. Of these, 8,000 might utilize the Exclusive Busway, and the balance of 22,000 person trips would be served by buses on arterial streets. Consequently, the total Exclusive Busway patronage would be 58,000 persons daily.

## Street Improvement Alternative (Arterial Widening)

This alternative would provide approximately the same degree of congestion relief as the Project. Total auto and truck traffic on major east-west streets under this alternative would be similar to that of the "No Project" condition, that is, 357,000 vehicles per day by the year 2000. Each widened arterial would have the capacity to carry approximately 48,000 vehicles on 8 traffic lanes.

## Surface Street Improvement (Grade Separations)

This alternative would provide approximately the same degree of congestion relief as the Project. Total auto and truck volume on major east-west streets including those with Grade Separation improvements would approximate the traffic volumes anticipated under No Project (357,000 vehicles daily by the year 2000). Each grade separated street would have the capacity to carry 50,000 or more vehicles per day, an increase of approximately 15,000 vehicles per day over the typical 6-lane major street.

## Combination Improvements

Combining the Busway and either Grade Separation or Arterial Widening would produce east-west street volumes of approximately 343,000 vehicles per day by the year 2000, a level similar to that experienced under the exclusive busway condition. The Busway patronage would be about 58,000 persons daily.

## Summary

By the year 2000, the freeway element of the Project would serve daily auto and truck traffic comparable in magnitude to current volumes on the busiest freeways in the region. Arterial street volumes through the corridor would also be high with the I-105 Project. With other I-105 alternatives, even higher arterial street volumes would be experienced.

As part of a regional transit system, the median busway would reduce motor vehicle traffic on both corridor streets and the freeway itself.

Table 4-2 indicates the motor vehicle traffic and transit patronage anticipated for the Project in comparison to the alternatives.

TABLE 4-2  
SUMMARY OF PROJECTED CORRIDOR TRAFFIC DEMAND - YEAR 2000

<u>Alternative</u>	<u>Corridor Streets<sup>1</sup> (Average Daily Motor Vehicle-ADT)</u>	<u>Freeway Element (Average Daily Motor Vehicle-ADT)</u>	<u>Transit Element (Patronage In Person Trips)</u>
I-105 Frgeaway-Transitway Project <sup>2</sup>	290,000	180,000	50,000
No Project <sup>3</sup>	357,000 <sup>4</sup>	Not Applicable	Not Applicable
Exclusive Busway <sup>2</sup>	343,000	Not Applicable	58,000
Local Improvements <sup>3</sup>	357,000	Not Applicable	Not Applicable
Combination of Improvements <sup>2</sup>	343,000	Not Applicable	58,000

<sup>1</sup>Total east-west screenline volume for all arterial streets in corridor. Actual volumes on individual streets will vary widely from location to location.

<sup>2</sup>Assumes a fully-implemented regionwide transit system is in operation.

<sup>3</sup>Assumes no regionwide transit system has been implemented.

<sup>4</sup>Theoretical demand only. Does not reflect capability of street system to handle this demand at the appropriate level of service. In practice, severe congestion will occur at many locations.

#### 4.4 CONGESTION, SPEED AND LEVEL OF SERVICE

Travel demand, mode of travel and paths by which travel is made depend directly on level of service. The concept of level of service is also interrelated with accessibility.

According to SCAG:

"Accessibility is a characteristic of the transportation system itself and not of users of that system. It relates to the geographic coverage of the transportation system, time of operation, the way various transit (and highway) links connect, and the travel time required to reach any area served by the system."<sup>1</sup>

The I-105 corridor was analyzed for the effects of travel times and congestion on the various alternatives.

#### I-105 Project

The Project would provide high-capacity traffic service for vehicular travel, with essentially congestion-free operation on the freeway during both peak and off-peak travel periods. On-ramp traffic will be metered which will permit regulating entering flow to levels that would avoid any extended overloads or volume-caused congestion.

<sup>1</sup>Southern California Association of Governments "1976 Regional Transportation Plan," April 1976.

By the year 2000, 12 of 36 east-west screenline segments would be congested during peak periods, primarily at the northern extremity of the corridor (Figure 4-7). This reflects substantially less east-west congestion as compared to the No Project condition. Congestion on north-south streets will decrease at some locations and increase at others, particularly streets leading to or from freeway access ramps (Figures 4-8).

The Project would provide auto and truck travel speeds in the 45-55 mph range with peak period street speeds generally in the 25-30 mph range. The Project busway would provide average transit speeds of 35 to 45 mph.

Highway and public transportation accessibility for a wide area would improve with the project. Figures 4-9 and 4-10 indicate the area accessible by auto within 22 minutes of a central location within the corridor with and without the Project for both the peak and off-peak travel periods. Twenty-two minutes represents the average home-to-work vehicle trip for this region.<sup>1</sup>

Within the peak travel period 22-minute isochron projections, there would be 588,000 employment/opportunities for the freeway user with the project and 435,000 employment opportunities with No Project. This is a difference of 153,000 employment opportunities within the average home-to-work travel period. Although the employment opportunities that the Project's travel time savings affords the worker is heavily dependent on job market skills, and competition, it does represent a significant benefit.

Figure 4-11 indicates the extended area beyond the present day transit system that would be available to the transit user if the Project busway was part of an extensive regional mass transit system or integrated with the mass transit "starter line" shown on Figure 4-6. The isochron representing the 1974 transit system projected to 1990-2000 would include 11,000 employment opportunities, while the isochron (not shown) representing the current or 1975-76 regional transit system would include 20,000 employment opportunities. The Busway is part of a regional mass transit system represents an extended area of 225,000 job opportunities over the 1974 transit system and 216,000 job opportunities over the current transit system. The busway as part of the regional mass transit "starter line" represents an extended area of 57,000 job opportunities over the 1974 system and 48,000 job opportunities more than are accessible within the 22-minute isochron for the current transit system. There are similar accessibility benefits for other trips such as shopping and recreation.

Figure 4-12 represents the difference in job opportunities for trip lengths other than the twenty-two minute average for both freeway and transit.

#### No Project

Under No Project conditions, existing streets would continue to serve all east-west traffic in the corridor, both local and through travel. By the year 2000, 18 of 36 east-west screenline segments would be congested during peak periods (Figure 4-13), a 50 percent increase as compared to the Project. Effects on north-south screenlines are shown in Figure 4-14.

East-west travel would be significantly affected, with widespread stop and go driving and traffic delays during peak periods. This would add to transportation delays during peak periods. This would add to transportation costs for motorists and transit users, as well as for goods and services handled by trucks and other commercial vehicles.

Area-wide accessibility would be significantly reduced, compared to the Project. Street speeds through the corridor would range between 20 and 25 mph during peak periods; congestion would tend to reduce average speeds about 5 mph as compared with the Project. North-south streets at three screenline segments would experience speeds 1 to 2 mph greater than under Project conditions. Public transportation speeds would average 15 to 20 mph for conventional bus service.

#### Exclusive Busway Alternative

Under this alternative, east-west street volumes in the year 2000 would be about 343,000 vehicles per day, or 14,000 fewer than the "No Project" level. This would reduce peak period congestion slightly, although the overall level of traffic service would remain

<sup>1</sup>"LARTS Base Year Report," 1967 origin-destination survey. Los Angeles Regional Transportation Study. December 1971.

generally similar to that of No Project. Congested east-west screenline segments would remain at approximately 18 of 36 locations, 50 percent more than experienced with the Project. Travel by automobiles and bus transit, as well as the movement of goods and services by highway, would be slowed correspondingly. The Busway would serve the transit user at overall speeds of approximately 35 to 45 mph. Street speeds through the corridor would generally range between 20 to 25 mph in peak periods.

If the transitway were part of a total regional transit system, transit accessibility would be similar to that of the Project, as shown in Figures 4-11 and 4-12. The Exclusive Busway in conjunction with a regional transit system would provide area-wide accessibility to 225,000 additional job opportunities, for an average work trip length of twenty-two minutes. The Busway in conjunction with the "starter line" only would increase accessibility to 57,000 more job opportunities. Vehicular accessibility would be similar to that shown in Figures 4-9 and 4-10 for the No Project condition.

#### Street Improvement Alternative (Arterial Widening)

The arterial widening alternative would provide congestion relief similar to that produced by the Project. Congestion would be experienced at 12 of 36 east-west screenline segments by the year 2000.

Surface street travel times and speeds would be similar to those for streets under Project conditions, with speeds generally in the 20 to 25 mph range. Area-wide accessibility would be significantly reduced from that provided by the Project.

#### Street Improvement Alternative (Grade Separations)

This alternative would also provide congestion relief similar to that produced by the Project, with 12 of 36 east-west screenline segments congested by the year 2000. North-south mobility would be more limited than with the Project, since (except for freeways) crossing of the Grade separated segments would be restricted to major and secondary streets only. This would be further restricted to major streets only during peak periods.

Street speeds and travel times would be somewhere between that of the Project and No Project. Average peak hour travel speeds of up to 40 mph are estimated for streets with extensive Grade Separation improvements, while the remaining street segments would continue to operate in the 20 to 25 mph speed range. Travel by conventional bus operation would average 15 to 20 mph. If express bus service on exclusive lanes were implemented, transit travel might average 20 to 30 mph.

Area-wide accessibility would range between that of the Project and No Project alternatives.

#### Combination Improvements

The combination alternative, incorporating the Exclusive Busway either the Grade Separation or Arterial Widening improvements, would provide a level of congestion relief similar to that produced by the Project. By the year 2000, 12 of 36 screenline segments would be congested.

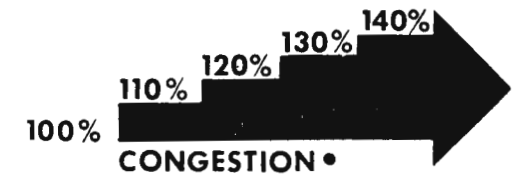
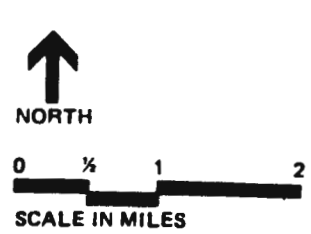
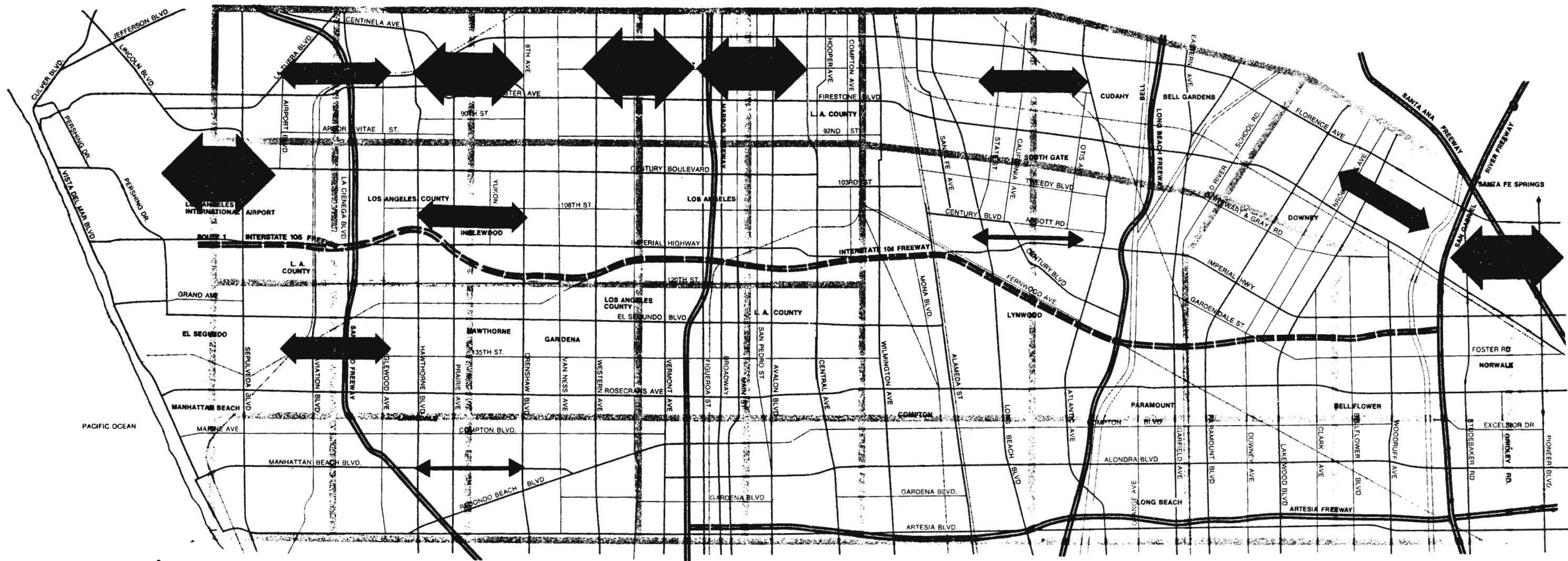
The Arterial Widening and Exclusive Busway combination would provide public transportation service similar to that of the Project, with 35 to 45 mph transit speeds. Surface streets would slightly improve over that of No Project.

Combining an Exclusive Busway and Grade Separation improvements would provide public transit accessibility similar to that of the Project. For surface streets, accessibility would be between that of the Project and No Project. The Busway would operate at 35 to 45 mph, while the Grade Separated streets would operate at up to 40 mph.

#### Summary

Under Project conditions, motorists would experience congestion-free operation on the freeway, while on major east-west streets, peak period congestion would be experienced at 12 of 36 screenline segments, primarily at the northern portion of the corridor. Under No Project conditions, 18 of 36 east-west screenline segments would be congested, 50 percent more than with the Project. The Exclusive Busway alternative would also result in congestion at approximately 50 percent more screenline segments than would the Project. The



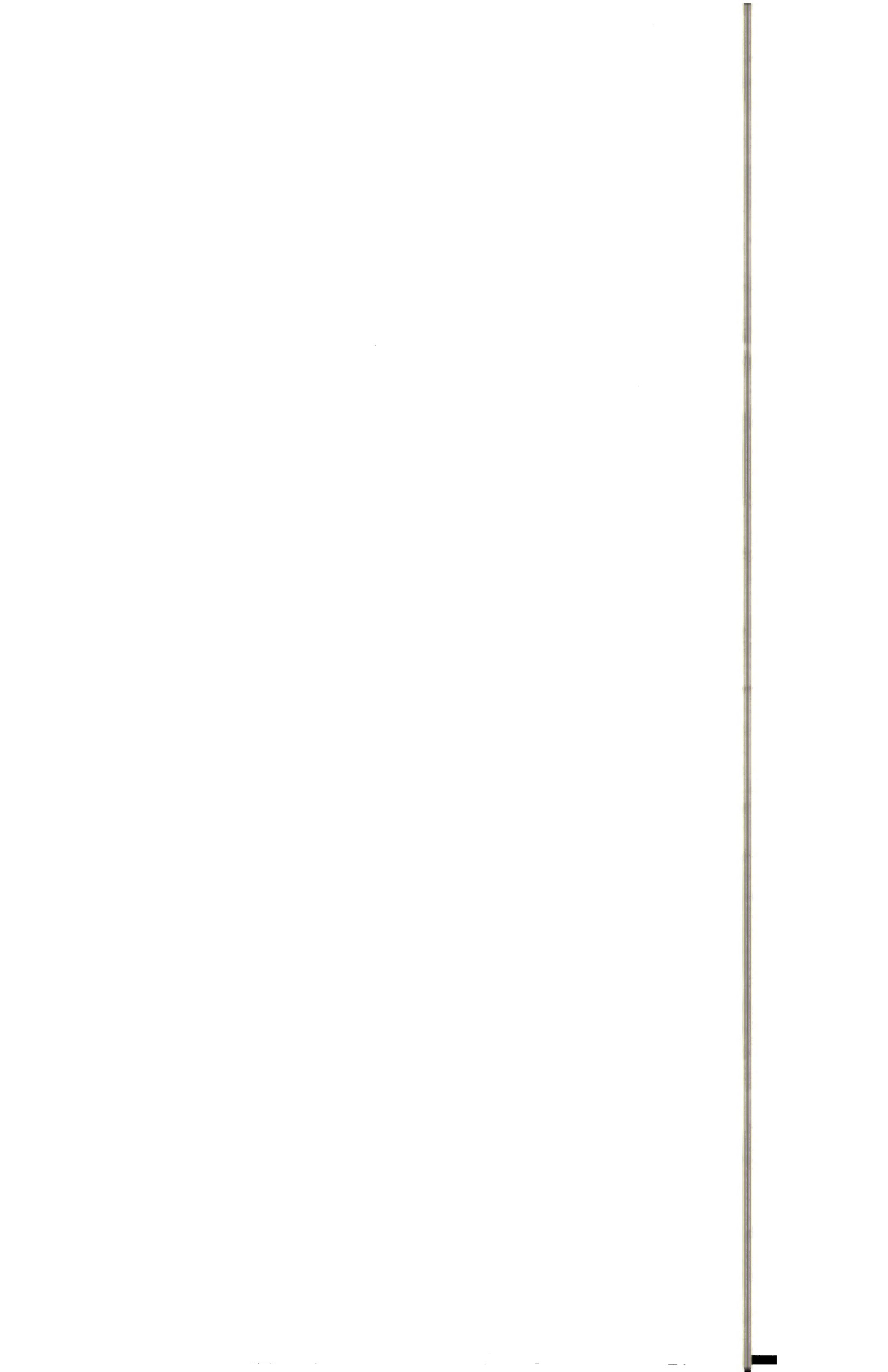


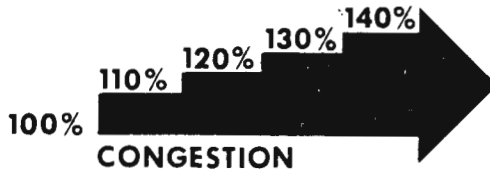
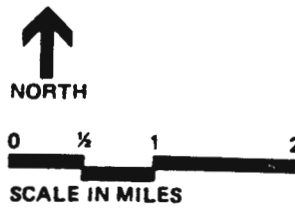
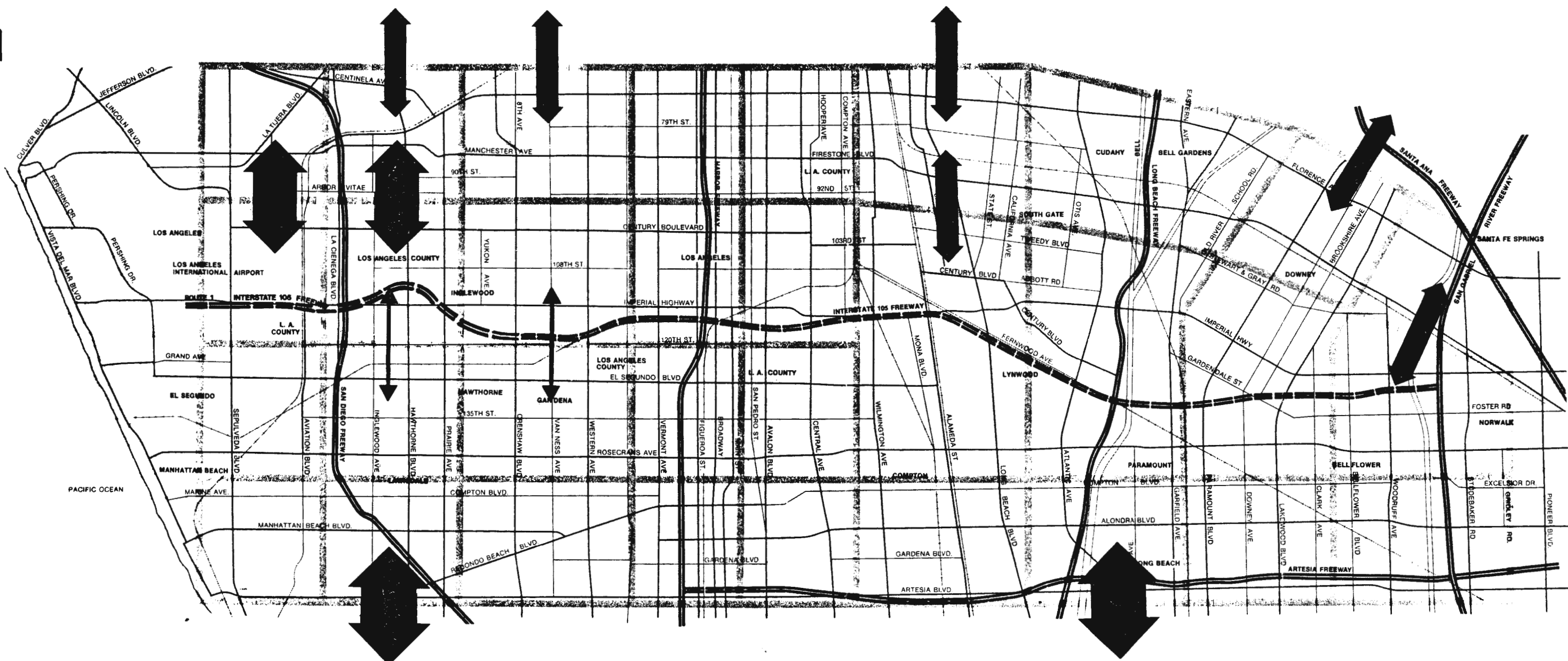
**FUTURE SURFACE STREET CONGESTION  
WITH I-105 (EAST-WEST TRAVEL)  
YEAR 2000**

- SCREENLINES
- I-105
- EXISTING FREEWAYS
- ARTERIAL STREET
- SECONDARY STREET
- FUTURE FREEWAYS

• SCREENLINE VOLUME/CAPACITY RATIO  
WHERE VOLUME EXCEEDS CAPACITY  
AT LEVEL OF SERVICE "C"

**FIGURE 4-7**





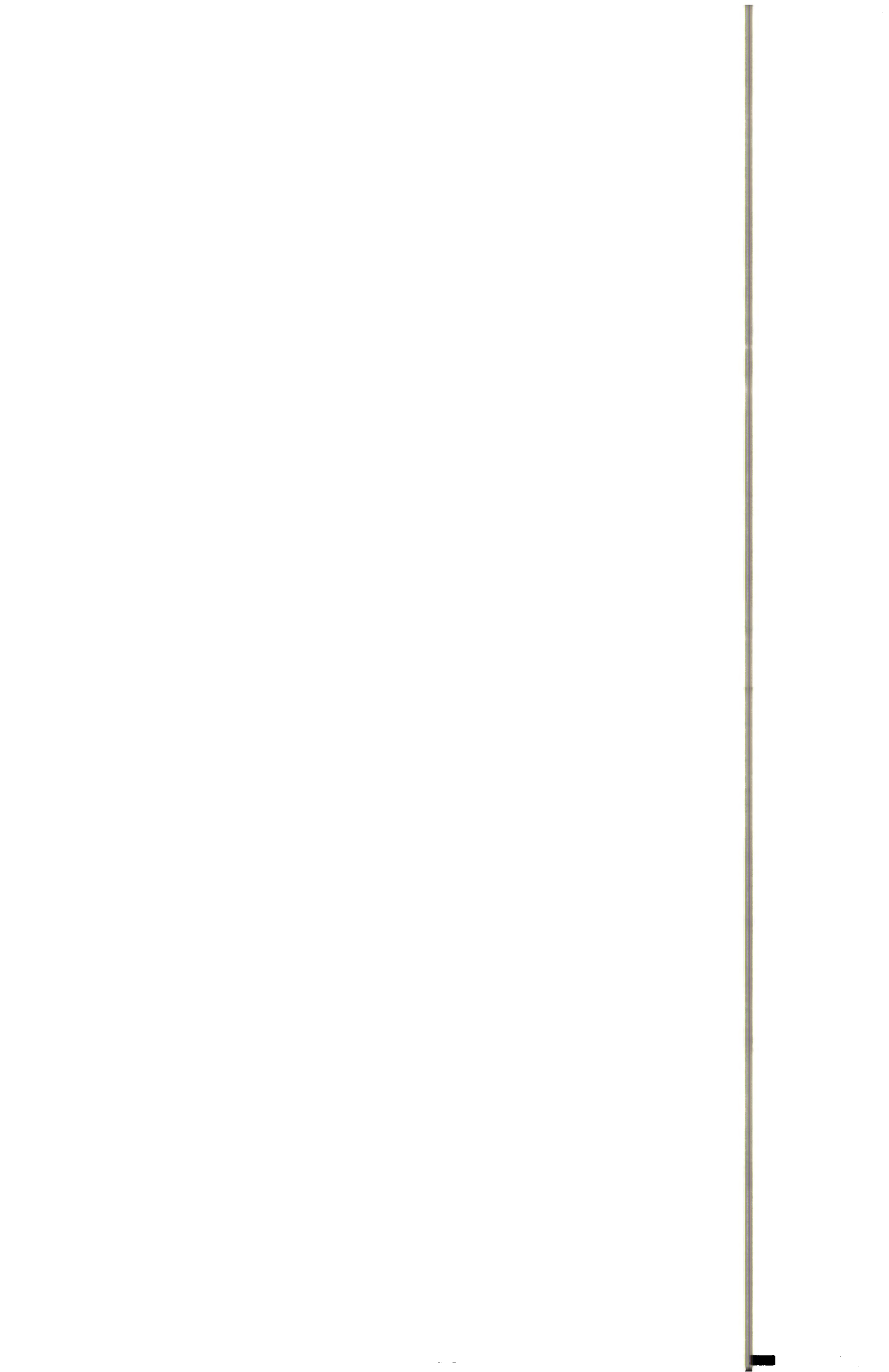
**FUTURE SURFACE STREET CONGESTION  
WITH I-105 (NORTH-SOUTH TRAVEL)  
YEAR 2000**

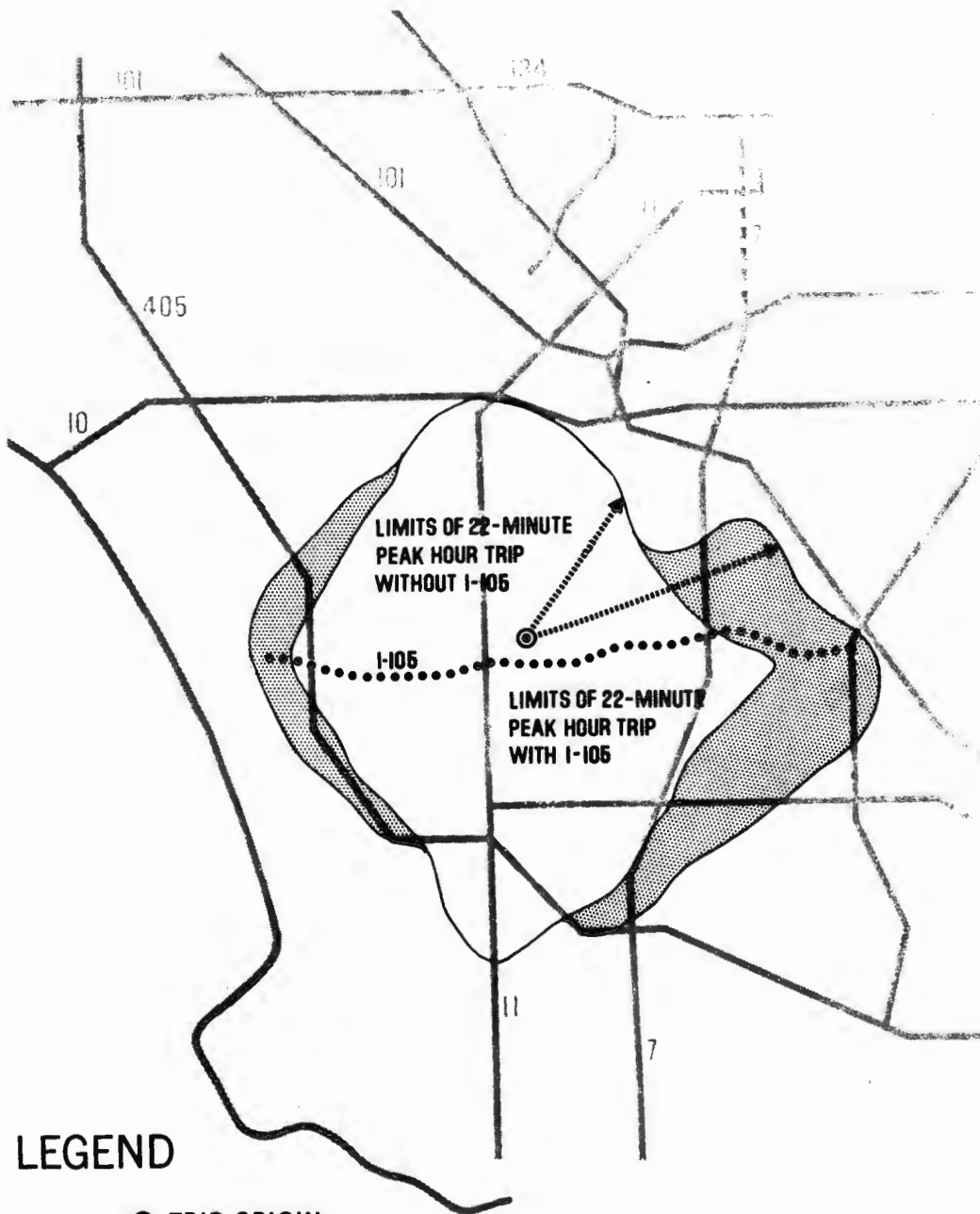
— SCREENLINES  
 - - - I-105  
 = = = EXISTING FREEWAYS

— ARTERIAL STREET  
 — SECONDARY STREET  
 = = = FUTURE FREEWAYS

SCREENLINE VOLUME/CAPACITY RATIO  
 WHERE VOLUME EXCEEDS CAPACITY  
 AT LEVEL OF SERVICE "C"

**FIGURE 4-8**





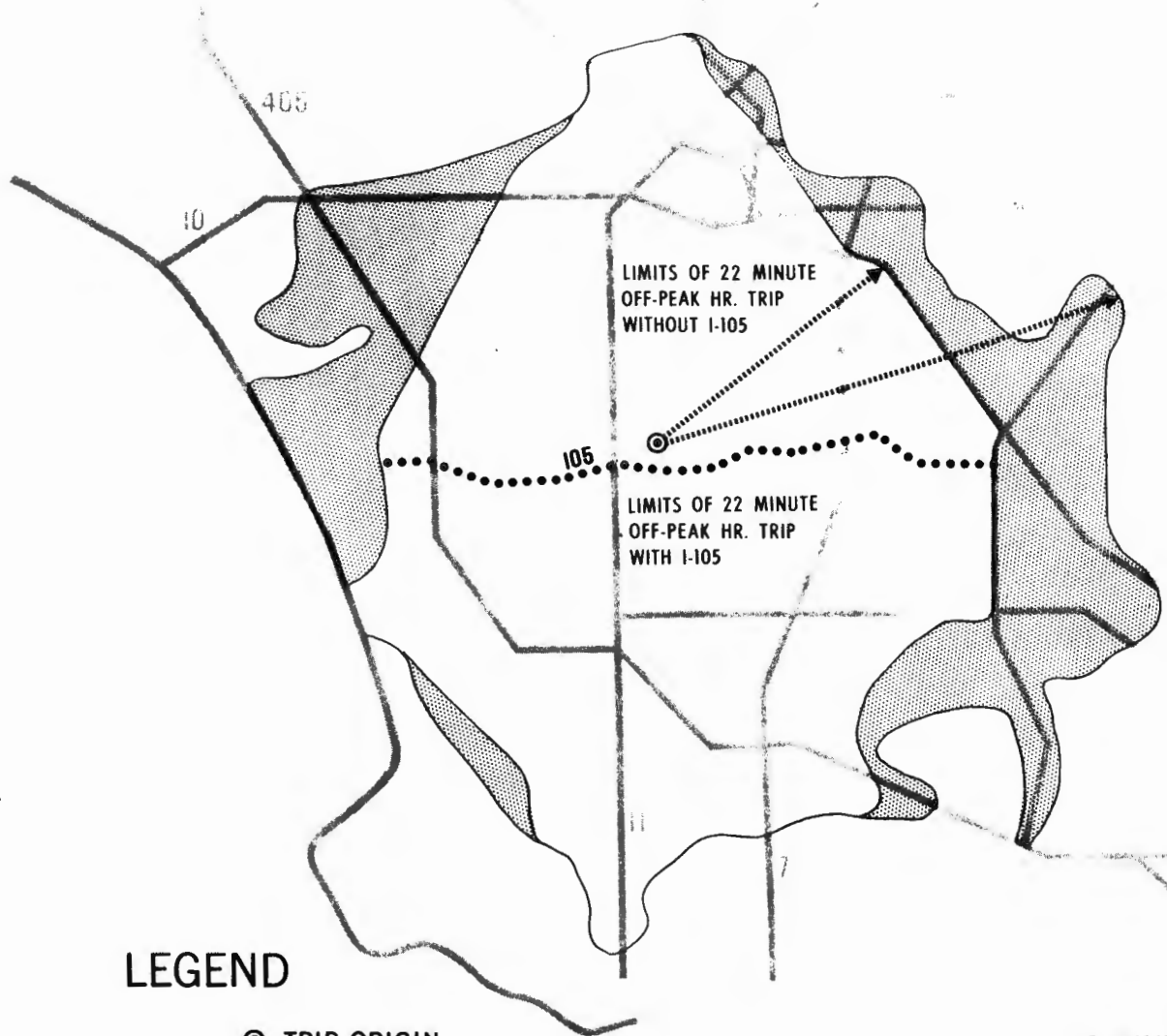
**LEGEND**

- ⊙ TRIP ORIGIN
- ▭ 22-MINUTE TRAVEL LIMITS WITHOUT-105
- ▨ 22-MINUTE TRAVEL LIMITS WITH-105
- REGIONAL FREEWAY SYSTEM
- ..... I-105

22-MINUTE TRAVEL LIMITS  
FOR A TRIP ORIGINATING  
FROM CENTRAL PORTION  
OF I-105 CORRIDOR

**FIGURE 4-9**



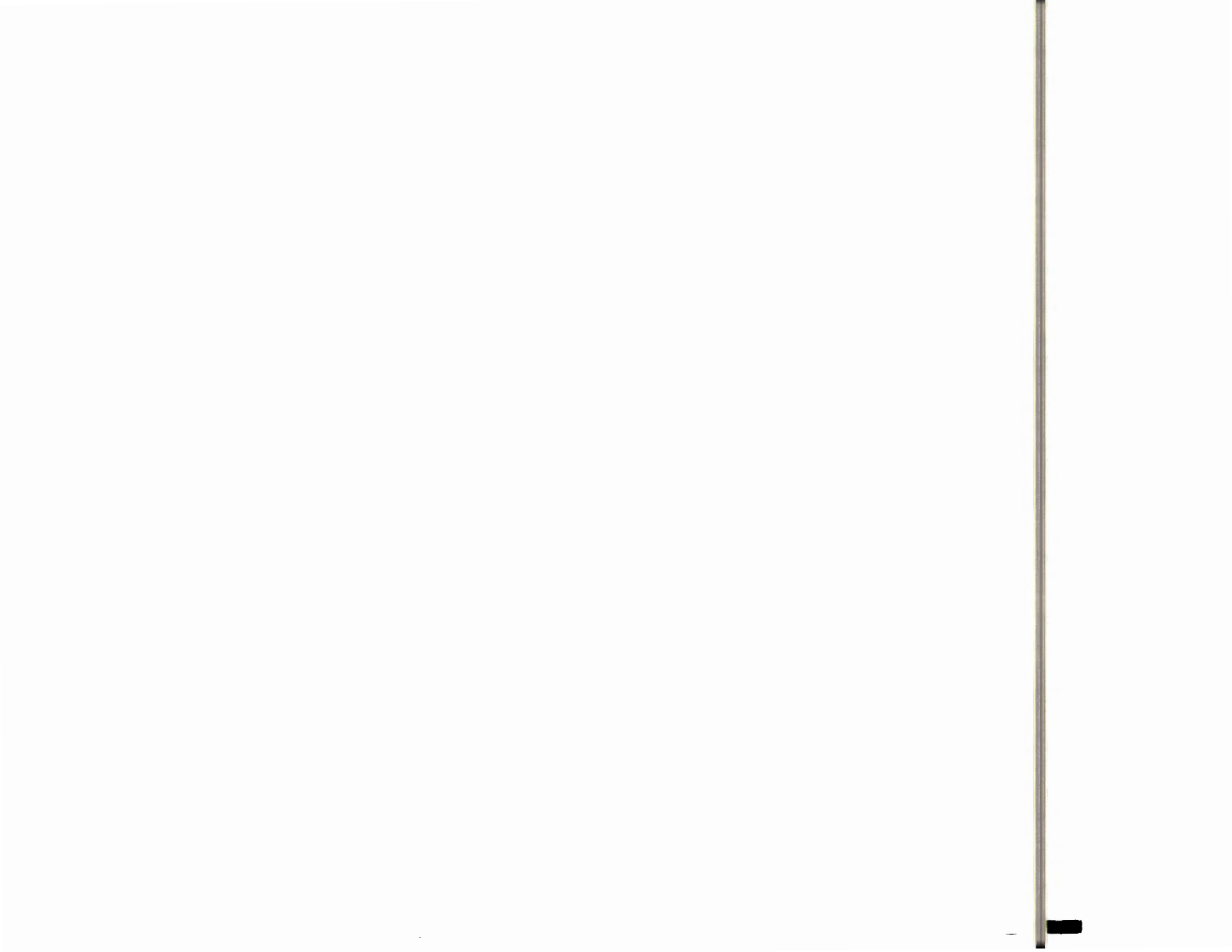


**LEGEND**

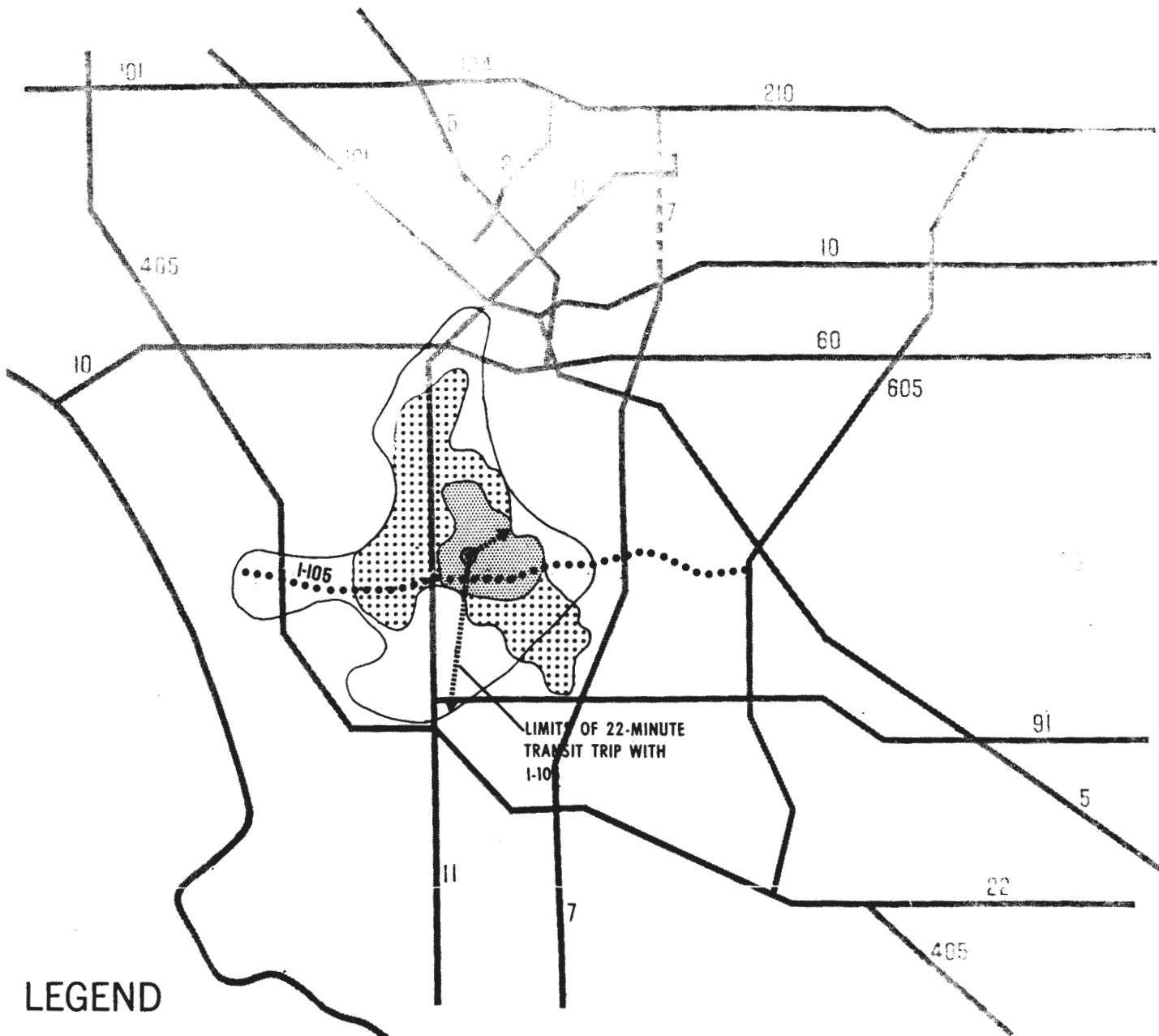
- ⊙ TRIP ORIGIN
- 22-MINUTE TRAVEL LIMITS WITHOUT-105
- 22-MINUTE TRAVEL LIMITS WITH-105
- REGIONAL FREEWAY SYSTEM
- ..... I-105

22-MINUTE TRAVEL LIMITS  
FOR A TRIP ORIGINATING  
FROM CENTRAL PORTION  
OF I-105 CORRIDOR

**FIGURE 4-10**





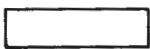


**LEGEND**

⊙ TRIP ORIGIN



22-MINUTE TRAVEL LIMIT  
1974 TRANSIT SYSTEM



22-MINUTE TRAVEL LIMIT  
I-105 TRANSITWAY AS PART OF  
LARTS T2J REGIONAL MASS TRANSIT SYSTEM



22-MINUTE TRAVEL LIMIT  
I-105 TRANSITWAY AS PART  
OF 'STARTER LINE'



REGIONAL FREEWAY SYSTEM



I-105

22-MINUTE TRAVEL LIMITS  
FOR A TRANSIT TRIP ORIGINATING  
FROM CENTRAL PORTION  
OF I-105 CORRIDOR

\*INCLUDES ACCESS AND WAITING TIME

**FIGURE 4-11**



# Regional Employment vs. Travel Time From Central Location Within I-105 Corridor

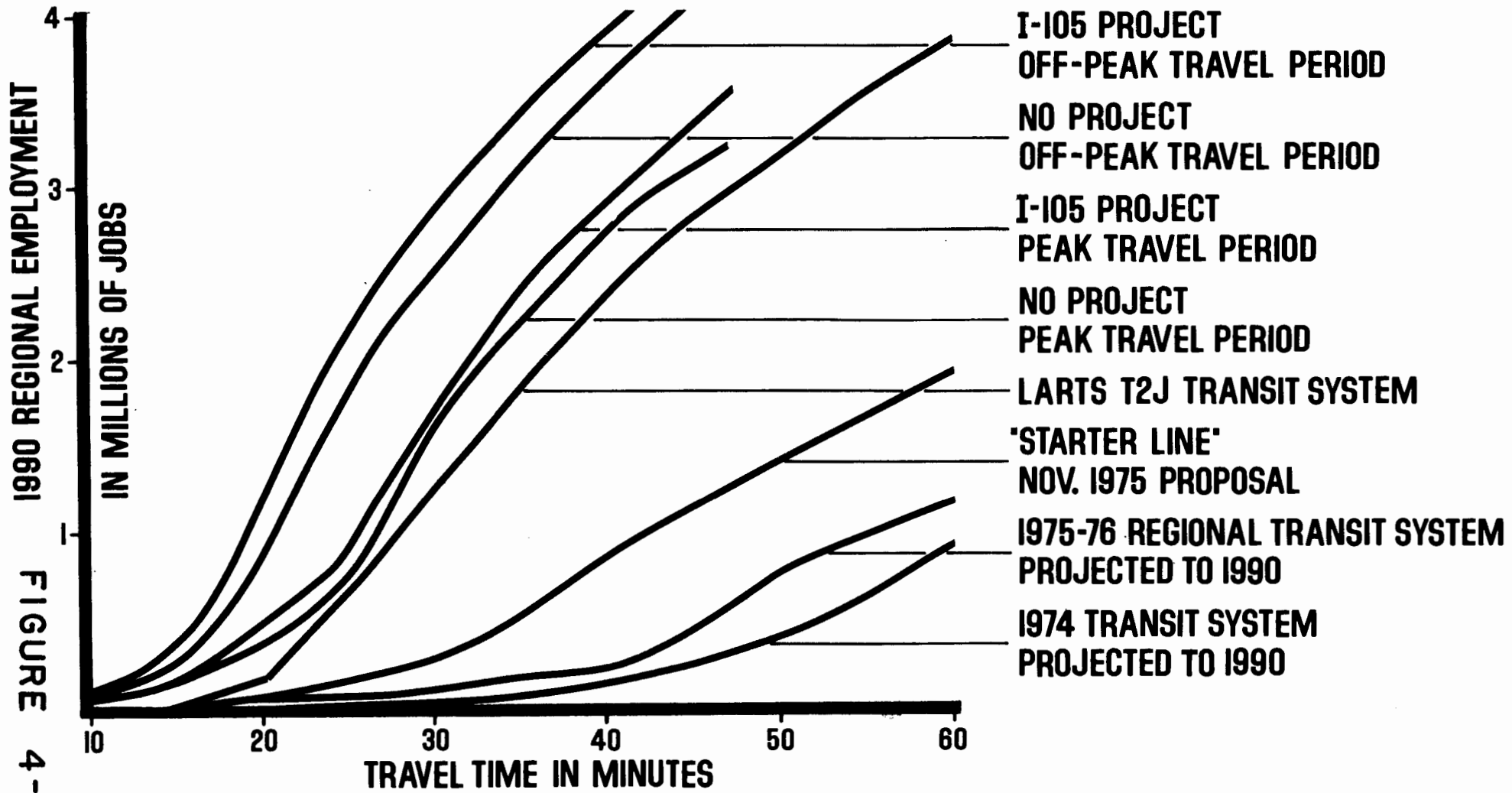
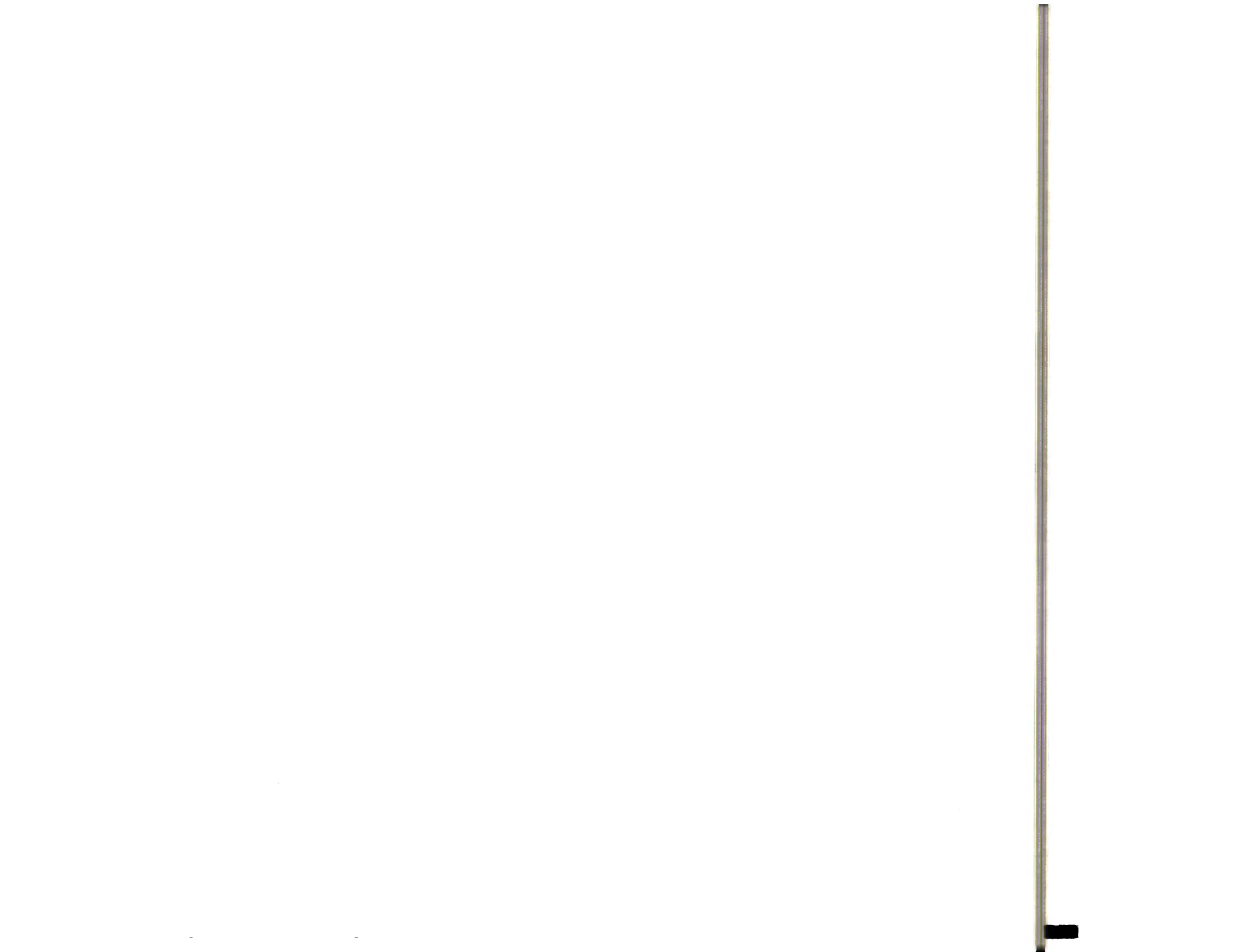
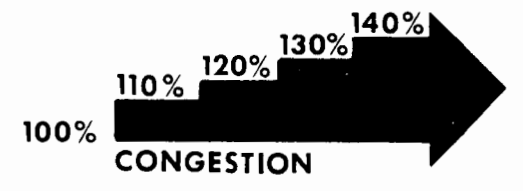
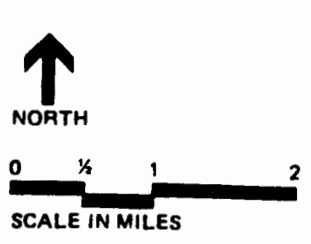
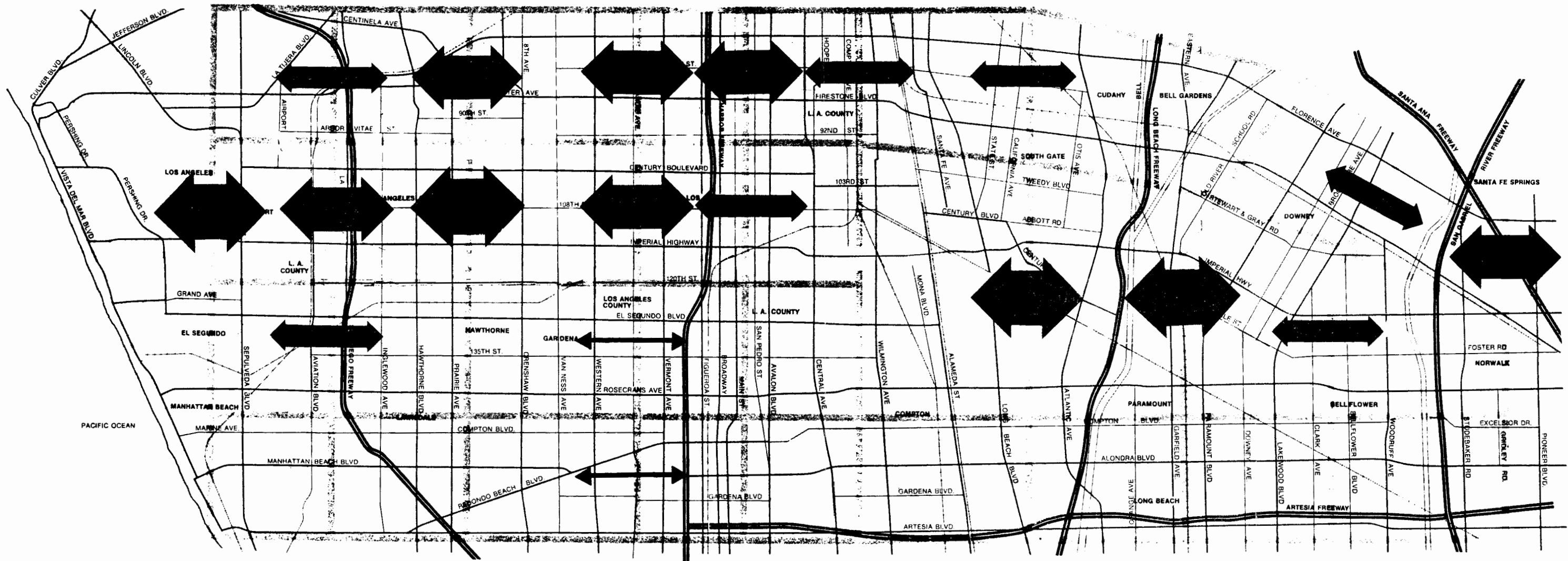


FIGURE 4-12





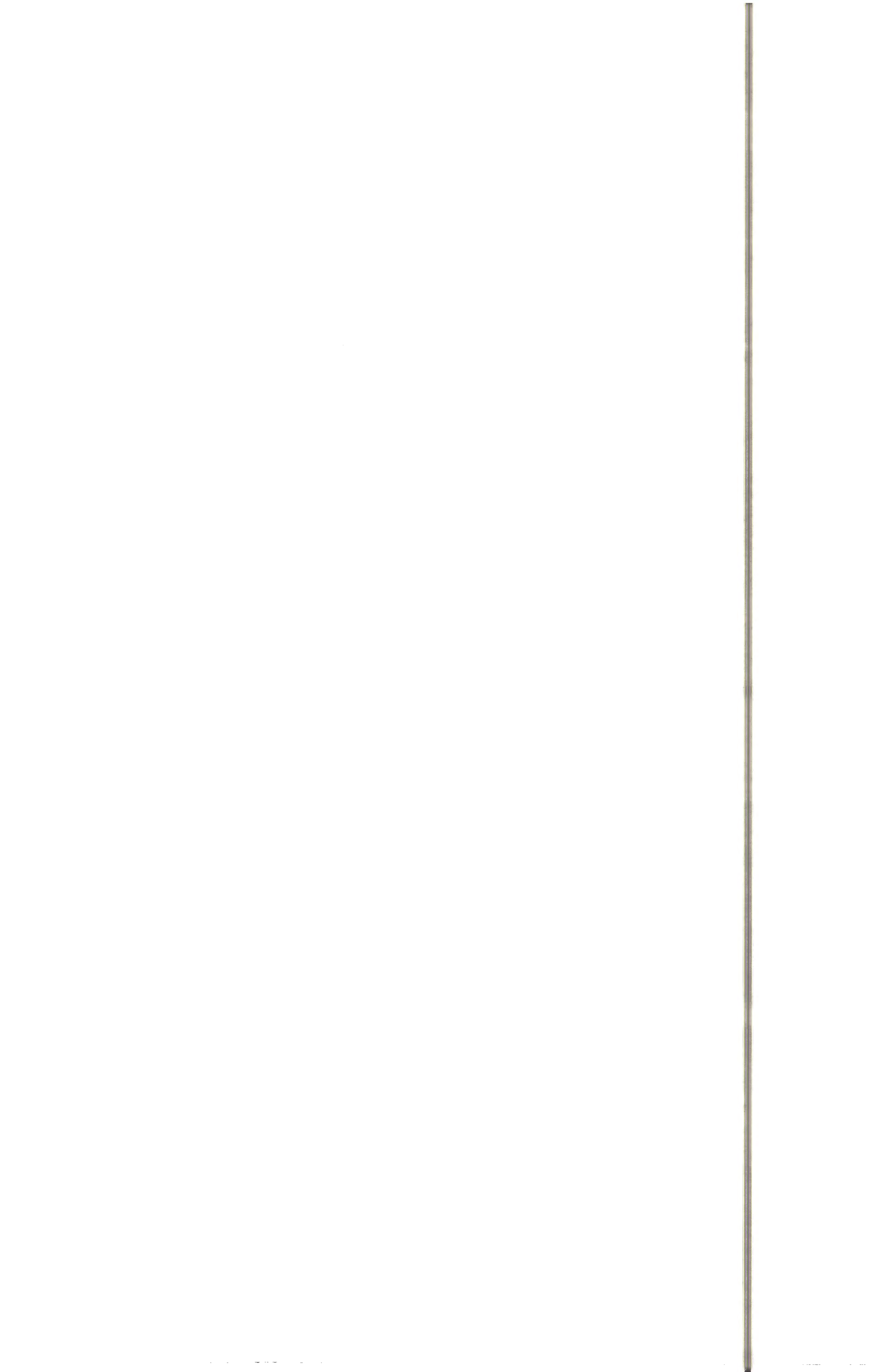
**FUTURE SURFACE STREET CONGESTION  
WITHOUT I-105 (EAST-WEST TRAVEL)  
YEAR 2000**

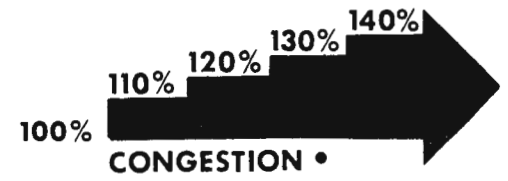
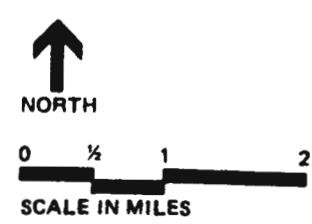
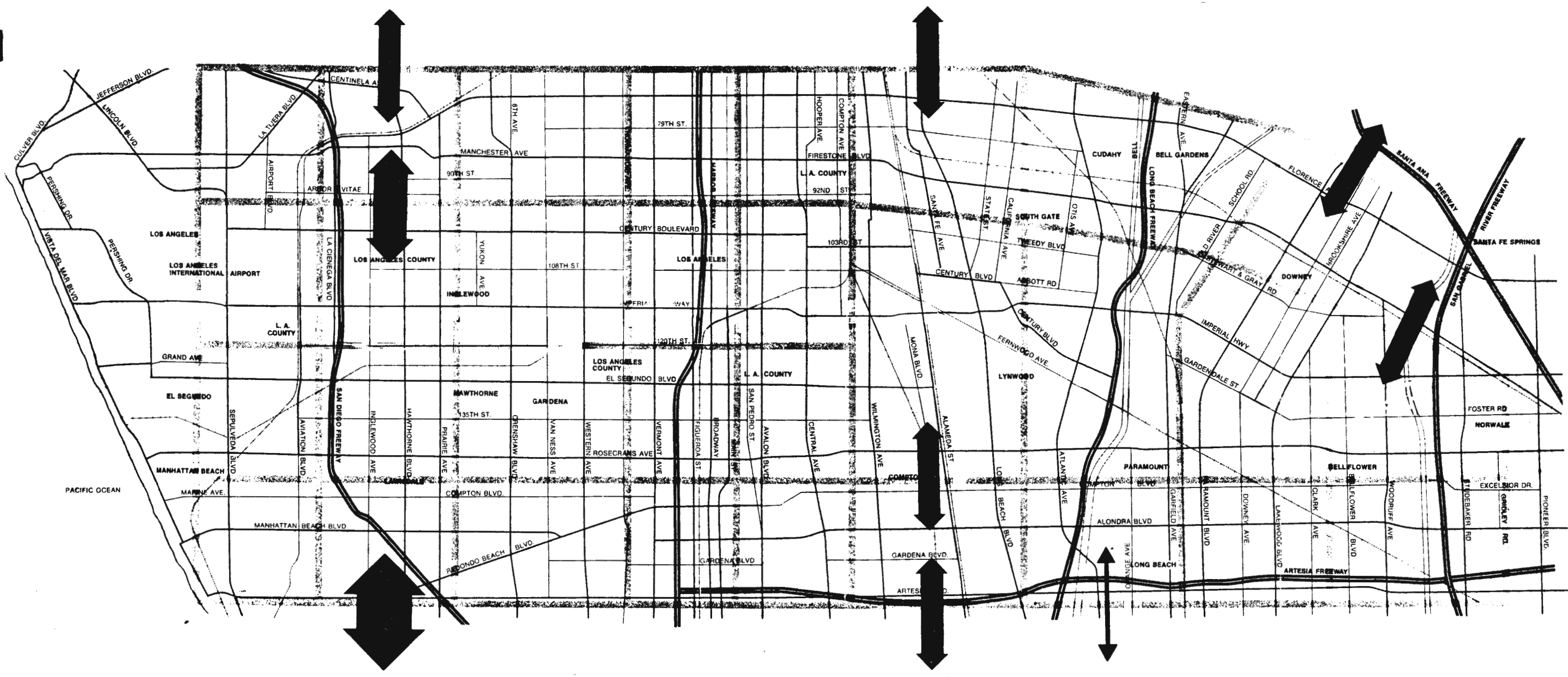
--- SCREENLINES  
 == I-105  
 == EXISTING FREEWAYS

— ARTERIAL STREET  
 — SECONDARY STREET  
 == FUTURE FREEWAYS

SCREENLINE VOLUME/CAPACITY RATIO  
 WHERE VOLUME EXCEEDS CAPACITY  
 AT LEVEL OF SERVICE "C"

**FIGURE 4-13**



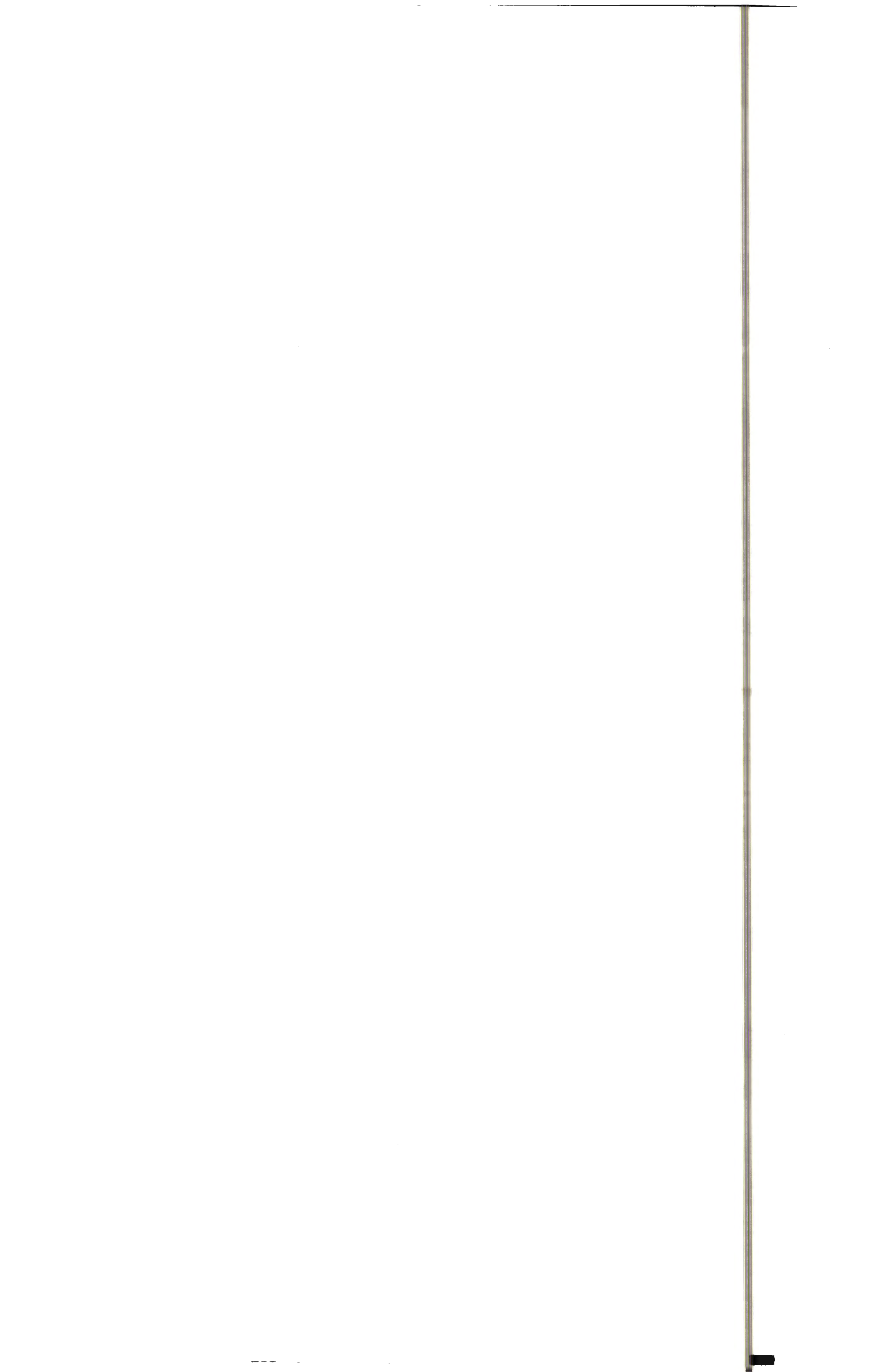


SCREENLINES  
 I-105  
 EXISTING FREEWAYS

ARTERIAL STREET  
 SECONDARY STREET  
 FUTURE FREEWAYS

• SCREENLINE VOLUME/CAPACITY RATIO WHERE VOLUME EXCEEDS CAPACITY AT LEVEL OF SERVICE "C"

FUTURE SURFACE STREET CONGESTION WITHOUT I-105 (NORTH-SOUTH TRAVEL) YEAR 2000





Street Improvement and Combination alternatives would achieve a degree of street congestion relief similar to that produced by the Project. Table 4-3 summarizes the number of congested screenline segments for each alternative.

TABLE 4-3  
ESTIMATED SCREENLINE CONGESTION LOCATIONS, YEAR 2000

	<u>I-105 Project</u>	<u>No Project</u>	<u>Exclusive Busway</u>	<u>Street Improvements</u>	<u>Combination</u>
Number of congested east-west screenline Segments	12	18	18	12	12

With reductions in congestion and decreases in travel times, the mobility of 760,000 people in the corridor would be considerably enhanced. This means easier, quicker, access to jobs, more shopping opportunities, better movement of goods and services, and improved public transportation for people in the corridor, many of whom are transit dependent. Considering the typical work-related trip, residents in the center of the corridor would gain accessibility to approximately 150,000 more job opportunities by highway, and up to 225,000 more by transit.

Under No Project, accessibility would be significantly diminished to, from, and within the corridor. The Busway alternative would match the Project in transit accessibility, but highway accessibility would be similar to No Project. The Street Improvement alternatives would provide accessibility between that of the Project and No Project, while the Combination alternative would match the Project in transit accessibility and offer highway accessibility between that of the Project and No Project.

#### 4.5 TRANSPORTATION MODE CHOICE

##### The I-105 Project

The Project provides a wide choice of travel mode. In addition to improved street and highway travel for autos and trucks, the Project Busway would aid in the enhancement of regional travel by public transit mode. Improved conditions on local streets would facilitate better conventional local bus service.

##### No Project Alternative

Conventional bus service on surface streets would be the only alternative to street travel by auto through the corridor.

##### Exclusive Busway Alternative

This alternative provides several public transportation choices as alternatives to auto travel. These choices could include the Busway, as part of a regional all bus system, as part of a combination regional bus and heavy-rail mass transit, or as part of the regional "starter line" proposal with expanded local feeder distributor bus service.

##### Street Improvement Alternative (Arterial Widening)

Conventional local bus service would be the only alternative to major street auto travel.

##### Street Improvement Alternative (Grade Separation)

Under this alternative, mode choices could include conventional bus service on major streets and express service on grade-separated streets.

Combination Improvements

The Combination alternatives incorporating the Exclusive Busway and Grade Separation Improvements would provide a degree of public transportation choice comparable to or greater than that provided by the Project. In addition to conventional service, express or semi-express buses could be provided on Grade Separated streets, while the Busway, as part of a regional transit network, would provide a high speed connection to other regional areas.

If the Arterial Widening improvement were combined with the Exclusive Busway, public transit mode choice would be similar to that provided by the Project, incorporating high-speed Busway operation supported by local feeder distributor services.

Summary

The I-105 Project, the Exclusive Busway and the Combination alternatives would provide the maximum degree of choice between private and public travel modes. The No Project and Street Widening alternatives would provide the least degree of choice; while the Grade Separation alternative would provide an additional option for express bus service. The Exclusive Busway alternative would match the Project in terms of public transit choice, while the Combination alternative would provide express or semi-express transit service on Grade Separated streets.

4.6 SAFETY

I-105 Project

By the year 2000 under Project conditions, an estimated 35.7 billion annual vehicle miles of freeway travel and 37.9 billion vehicle miles of major street travel are projected in the region. In addition, up to 340 million person-miles of travel on the Project Busway would be realized if it were part of a regional mass transit system. A yearly total of approximately 234,000 accidents of all types would be expected in the region as a result of this travel, based on historical rates. Freeways would account for about 17 percent of the total regional accidents, while serving approximately 49 percent of the vehicle travel. This differential would exist because accident rates on freeways are much lower than the rates experienced on surface streets. Streets and freeways in the I-105 corridor would account for approximately 6 percent of the regional travel and accident totals.

No Project

When compared to the Project, the No Project condition would result in an increase of approximately 562 accidents per year by the year 2000.

TABLE 4-4  
ESTIMATED ANNUAL INCREASE OR DECREASE OF TRAVEL  
AND ACCIDENTS COMPARED TO THE PROJECT

	PMT/VMT* (millions)	Accident Rate (per million PMT/VMT*)		Number of Accidents	
		Total	Fatal	Total	Fatal
Freeways	-606	1.26	.010	- 763	-6
Major Streets	+295	5.00	.030	+1475	+9
Busway	-340	0.44	.005	- 150	-2
				+ 562	+1

\*PMT - Passenger Miles Traveled  
VMT - Vehicle Miles Traveled

Source: LARTS travel forecasts, City of Los Angeles, County of Los Angeles and Caltrans accident rate experience. Estimated busway fatal accidents rate is based on the relationship between Busway and Freeway rates for total accidents.

Exclusive Busway

Accident projections are somewhat higher than the Project, based on greater major street travel.

TABLE 4-5  
ESTIMATED ANNUAL INCREASE OR DECREASE OF TRAVEL  
AND ACCIDENTS COMPARED TO THE PROJECT

	PMT/VMT* (millions)	Accident Rate (per million PMT/VMT*)		Number of Accidents	
		Total	Fatal	Total	Fatal
Freeways	-606	1.26	0.01	- 764	-6
Major Streets	+206	5.00	0.03	+1030	+7
Busway	+ 40	0.44	.005	+ 17	0
				+ 283	+1

\*PMT - Passenger Miles Traveled  
VMT - Vehicle Miles Traveled

Source: LARTS travel forecasts, City of Los Angeles, County of Los Angeles, Caltrans accident rate experience. Estimated busway fatal accident rate is based on the relationship between busway and freeway rates for total accidents.

Street Improvement Alternatives

Accident projections for the Arterial Widening alternative would be similar to, although not quite as great as that of No Project, due to the congestion relief which would be provided. Safety under the Grade Separation alternative as summarized below would approximate the No Project alternative, except there would likely be more fatalities due to the additional obstructions in the roadway.

TABLE 4-6  
ESTIMATED ANNUAL INCREASE OR DECREASE OF TRAVEL  
AND ACCIDENTS COMPARED TO THE PROJECT

	PMT/VMT* (millions)	Accident Rate (per million PMT/VMT*)		Number of Accidents	
		Total	Fatal	Total	Fatal
Freeways	- 454	1.26	.010	- 572	- 5
Major Streets	- 397	5.00	.030	-1980	-12
Busway	- 340	0.44	.005	- 150	- 2
Grade Separation Streets	+1000	3.22	.030	+3220	+30
				+ 518	+11

\*PMT - Passenger Miles Traveled  
VMT - Vehicle Miles Traveled

Source: LARTS travel forecasts, City of Los Angeles, County of Los Angeles and Caltrans accident rate experience. Estimated busway fatal accident rate is based on the relationship between busway and freeway rates for total accidents.

## Combination Improvements

Safety under these alternatives would be expected to be between that of the Project and No Project.

## Summary

The Project would rank highest in terms of safety, while No Project would rank lowest. The Exclusive Busway alternative would rank second to the Project, while the Street Improvement and Combination alternatives would be lower.

### 4.7 SUMMARY OF TRANSPORTATION SERVICE

Transportation service was analyzed and compared using four key factors: travel demand, level of service and congestion, mode choice, and safety. Future travel forecasts were developed by LARTS, based on future corridor and regional growth patterns consistent with the local land use plans. Forecasted volumes within the corridor are estimated to be about 20 percent higher than under present conditions. Projections of travel assume that, while vehicle occupancy will be modified by the regional Transportation Control Plan, trips themselves will continue to be generated based upon historical socioeconomic characteristics.

Transportation service that would be provided by each of the alternatives are summarized below:

#### I-105 Project

The Project would serve a high volume of freeway traffic by the year 2000, comparable with volumes on the busiest freeways in the region. With the Project in operation, east-west street volumes through the corridor would initially drop reflecting a shift to the freeway, then gradually increase to levels approximating current street volumes. The Project Busway would serve an estimated 50,000 daily riders as part of a regional expanded and improved transit system.

Traffic on parallel east-west freeways would be reduced significantly (up to 30%) after the introduction of I-105, while traffic for some portions of the north-south freeways would be increased by up to 20 percent.

The Project would provide congestion-free operation for autos, buses, and trucks on the freeway. Traffic volumes on east-west streets would be reduced as a result of opening of the freeway and corridor vehicular operating conditions would be improved. These volumes would then gradually increase until by the year 2000 congestion would be experienced at 12 of 36 corridor east-west screenline segments, primarily along the northern edge of the corridor. The Project would improve highway and public transit mobility and accessibility to jobs, shopping and recreation over a wide geographical area. The Project, which includes a Busway, would provide an improved degree of choice between street, freeway and public transit travel modes. In terms of travel safety, the Project would rank highest of the alternatives evaluated.

#### The No Project Alternative

With the No Project alternative, future traffic volumes on east-west streets would be approximately 23 percent higher than the future street volumes associated with the Project. Under No Project conditions, 18 of 36 east-west street screenline segments would be congested, 50 percent more than with the Project and the degree of congestion would be greater.

Area-wide highway accessibility for autos and trucks would be significantly reduced from that of the Project. The No Project alternative would provide the least choice of travel mode of any of the alternatives evaluated. In terms of safety, the No Project alternative would rank lowest due to traffic accident experience being higher than with the Project.

#### Exclusive Busway Alternative

This alternative would service approximately 58,000 passengers daily, about 8,000 more than would be served by the Project transitway. Street traffic volumes would be 15 to 20 percent higher than the volumes associated with the Project. East-west street congestion would be experienced at 50 percent more screenline segments than with the Project.

The Exclusive Busway would match the Project in transit accessibility, but would lack freeway accessibility for autos and trucks. In terms of public transit mode choice, this alternative would provide a degree of choice equivalent to the Project. It would be between the Project and No Project in terms of safety.

Street Improvement Alternatives

East-west street traffic volumes would be approximately 23 percent higher than with the Project. Congestion relief would be similar to that produced by the Project, although other measures of traffic service such as speed and safety would not match that of the Project.

These alternatives would provide highway accessibility between that of the Project and No Project. The Widening alternative would provide a limited choice of public transportation modes, while the Grade Separation alternative could provide for additional express bus service on improved arterials. These alternatives would be similar to No Project in terms of safety.

Combination Alternatives

These alternatives would serve up to 58,000 passengers daily on an Exclusive Busway if part of an expanded and improved regional transit system. East-west street traffic volumes would be approximately 15 to 20 percent higher than those of the Project.

Congestion would be experienced at 12 of 36 screenline segments, approximately the same number as with the Project.

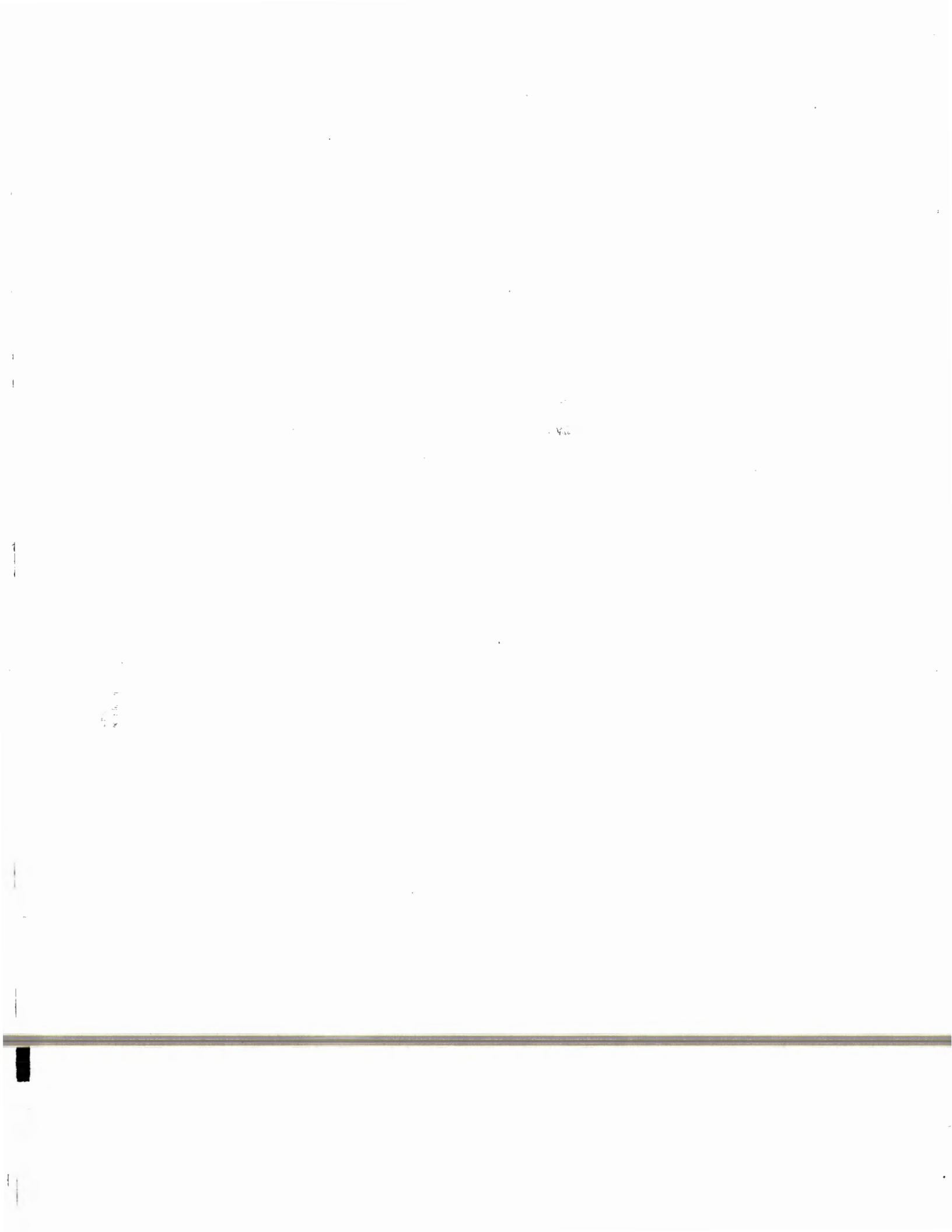
Transit and highway accessibility would be between that of the Project and No Project. These alternatives would be between the Project and No Project in terms of safety.

Comparison of I-105 Alternatives

Based on the evaluation above, the Project would provide overall transportation service superior to the other alternatives analyzed. The Combination alternative incorporating Grade Separation improvements would rank second to the Project in most categories, providing less service in the specific areas of travel demand, accessibility and safety. If the Combination alternative included Arterial Widening improvements, service would be somewhat reduced in the areas of accessibility and safety. The Exclusive Busway and Street Improvement alternatives would rank lower in transportation service, while the No Project alternative would rank lowest of all alternatives studied.

The relative ranking of the alternatives is summarized below.

<u>Transportation Service Criteria</u>	<u>I-105 Project</u>	<u>No Project</u>	<u>Exclusive Busway Only</u>	<u>Street Improvement</u>	<u>Combination</u>
Travel Demand	First	Fifth	Third	Fourth	Second
Congestion Relief	First	Fifth	Fourth	Third	Second
Speeds and Accessibility	First	Fifth	Fourth	Third	Second
Choice	First	Fifth	Third	Fourth	Second
Safety	First	Fifth	Second	Fourth	Third



**CHAPTER 5**  
**ENVIRONMENTAL EVALUATION**





CHAPTER 5 - ENVIRONMENTAL EVALUATION

This chapter presents the results of the environmental studies performed for the I-105 Project and alternatives to the Project. The following environmental criteria were considered and form the basis of the major sections in this chapter.

- . Air Quality
- . Noise
- . Vibration
- . Water Quality and Solid Waste
- . Geology and Seismic
- . Energy Use
- . Park, Recreational and Open Space
- . Archaeological and Historical Preservation
- . Aesthetics and Amenity Values
- . Construction Impacts

In the presentation of the results of these evaluations, where appropriate, the short-term and long-term effects of each alternative are covered, followed by recommended mitigation measures and the adverse effects which cannot be avoided. At the conclusion of each discussion (e.g., Air Quality), an evaluation is presented which summarizes and compares the anticipated effect of each alternative.

5.1 AIR QUALITY IMPACTS

Introduction

Of all the environmental concerns associated with urbanized areas, air quality is perhaps the most crucial. Because of an incomplete understanding of the physical nature of the phenomena involved, air quality continues to be the subject which is most complex and therefore difficult to either assess or predict. Moreover, in attempting to achieve established standards (see Table 5-1), satisfactory solutions which do not have serious adverse social and economic effects have not been identified.

TABLE 5-1  
 AMBIENT AIR QUALITY STANDARDS APPLICABLE IN CALIFORNIA

<u>Pollutant</u>	<u>Averaging Time</u>	<u>California Standards</u>	<u>Federal Standards</u>
Oxidant (Ozone)	1 hour	0.10 ppm*	0.08 ppm
Carbon Monoxide	12 hour	10 ppm	
	8 hour		9 ppm
	1 hour	40 ppm	35 ppm
Nitrogen Dioxide	Annual Average		0.05 ppm
	1 hour	0.25 ppm	
Hydrocarbons (Corrected for Methane)	3 hour (6-9 a.m.)		0.24 ppm
Sulfur Dioxide	Annual Average		0.03 ppm
	24 hour	0.04 ppm	0.14 ppm
	1 hour	0.5 ppm	
Suspended Particulate Matter	Annual Geometric Mean	60 ug/m <sup>3**</sup>	75 ug/m <sup>3</sup>
	24 hour	100 ug/m <sup>3</sup>	260 ug/m <sup>3</sup>
Lead (Particulate)	30-day Average	1.5 ug/m <sup>3</sup>	

Note: National Standards, other than those based on annual averages or annual geometric means, are not to be exceeded more than once per year.

\*Parts per million; e.g., 10 parts pollutant per 1,000,000 parts air.  
 \*\*Micrograms per cubic meter.

For example, the State and Environmental Protection Agency (EPA) have experienced great difficulty in developing or implementing transportation control plans for metropolitan areas. The initial EPA approach was rejected due to lack of support for using gasoline rationing to achieve reductions in vehicle miles traveled (VMT), while a subsequent approach has been widely opposed for its parking surcharge provisions. Equally difficult problems can be expected in developing and implementing air quality maintenance programs, particularly regular universal vehicle inspection.

While the complexity of the air quality problem remains, the magnitude as it pertains to transportation sources may be out of perspective. There is growing evidence to indicate the declining importance of motor vehicles to air pollution. Therefore, the purpose of this section is to present results and conclusions and to affirm the analytical approach taken in performance of the air quality studies for the Project and the alternatives. Thus, while intuition may suggest that construction of the I-105 Project may have significant adverse effect upon air quality because of expected generation of VMT, a systematic analysis indicates otherwise.

### Analytical Approach

#### Primary Pollutants:

Three primary automotive pollutants are considered. These are (1) carbon monoxide (CO), (2) hydrocarbons (HC), and (3) oxides of nitrogen (NO<sub>x</sub>). The remaining pollutants of concern are oxides of sulfur (SO<sub>x</sub>), particulates and lead (Pb). These latter were omitted because of the following:

While there are emission factors for SO<sub>x</sub> and particulates, the state-of-the-art does not permit reliable prediction or conversions of the emission quantities to equivalent concentrations for comparison with air quality standards. Motor vehicles produce only about 6% of the total sulfur dioxide (SO<sub>2</sub>), the principal pollutant form of SO<sub>x</sub>, emissions with the South Coast Air Basin. Thus, although these motor source emissions are not insignificant, they are not the major problem. The principle concern here is with stationary sources (power plants and industrial furnaces), which may be forced to operate on high sulfur fuels because of the difficulty in obtaining reliable supplies of the preferred fuel, natural gas. Because of this concern, the ARB has been prompted to tighten air quality standards for sulfates. This is where the focus of attention is today.

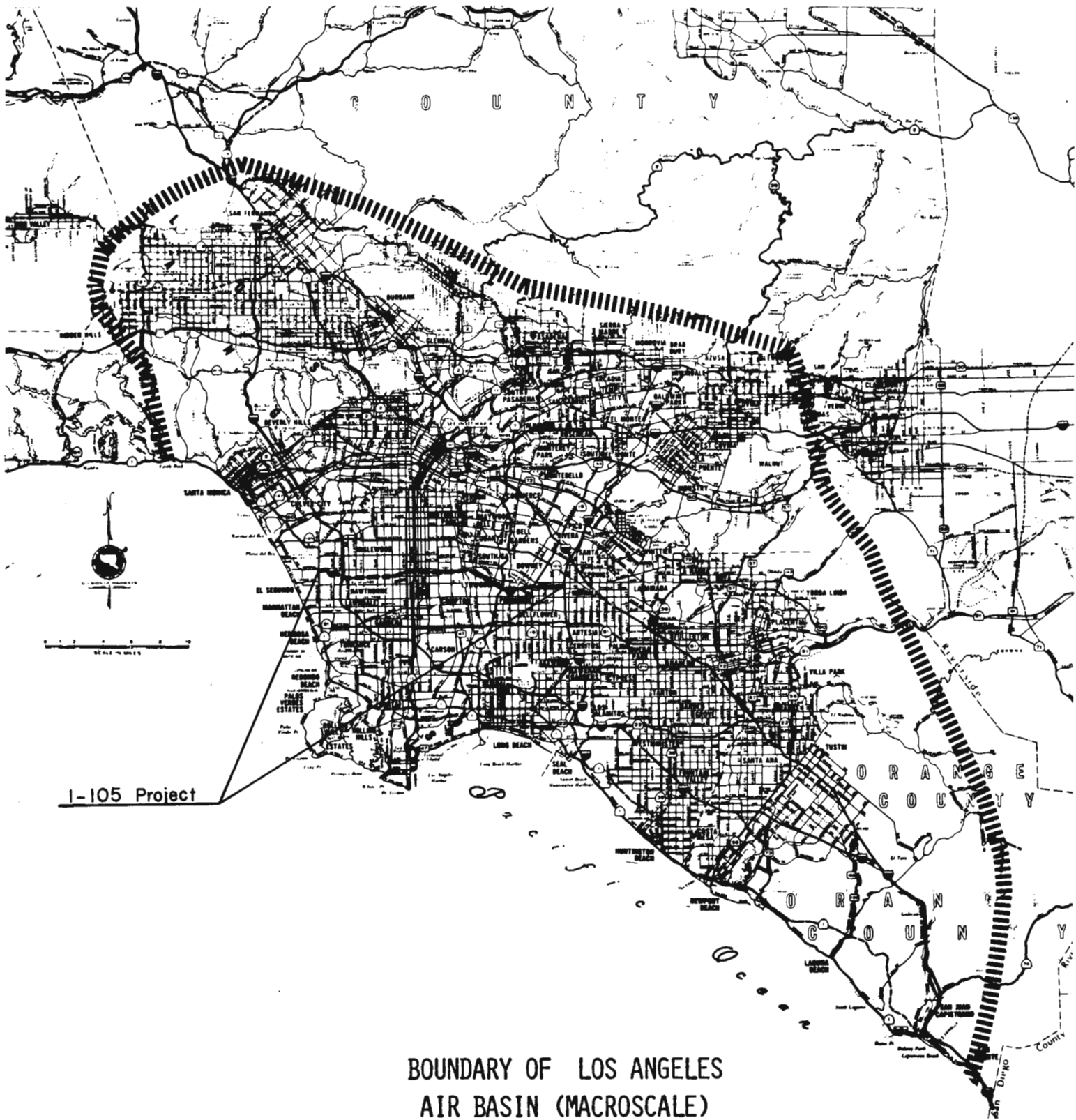
Currently, motor vehicles are estimated to produce something less than 30% of the total amount of particulates. This is a significant contribution of a pollutant which frequently exceeds air quality standards. However, the lack of reliable prediction methods and accurate measurement techniques preclude providing either a valid environmental setting or a meaningful future impact analysis. Photochemistry, meteorology, traffic density and land use are all variable and influential factors that have delayed the development of analysis methodologies. Lead, for which there is no Federal standard is an unpredictable variable component of particulate matter. Because of a detrimental effect of lead on the proper functioning of automotive emission control devices, lead additives are being phased out of gasoline. The Air Resources Board (ARB) is leading the way with regulations reducing the current level of 1.85 grams of lead per gallon of gasoline sold in California to 0.4 grams per gallon by 1980. This is a level considered to remove lead as a threat to health.

The primary pollutants, based upon state-of-the-art methods, are analyzed in two impact scales: (1) macroscale or regional size area; and (2) microscale, the area within 1,000 feet of the freeway facility. A mesoscale analysis which covers the corridor communities whose traffic would be accommodated by the project was also performed but only to determine the background pollutant levels to be used in the microscale analysis.

#### (1) Macroscale (Regional) Analysis

Figure 5-1 outlines the area considered in the analysis. This area, referred to as the Los Angeles Air Basin,<sup>1</sup> is physically bounded by the Santa Ana and San Gabriel Mountains in the south and northeast, and in the northwest by the complex of mountains running from the western Santa Monica Mountains to Simi Hills,

<sup>1</sup>Defined by Professor L. O. Myrup, Vice Chairperson, Atmospheric Science Section, Department of Land, Air, and Water Resources, University of California at Davis, and consultant to Caltrans on meteorology.



BOUNDARY OF LOS ANGELES  
AIR BASIN (MACROSCALE)

AS DEFINED BY L. O. MYRUP

FIGURE 5-1



to the Santa Susana Mountains. The basin includes the area within which the changes in traffic patterns resulting from the I-105 Project would occur and over which most atmospheric mixing of air pollutants, generated in the micro-scale region, takes place.<sup>1</sup>

Using the macroscale analysis flow chart illustrated in Figure 5-2, the future production or burden (tons per day) for each pollutant is calculated using the following inputs. (1) LARTS data which classify daily VMT by facility (freeway or surface street) and speed, and (2) emission factors<sup>2</sup> which consider vehicle age, emission control deterioration, percent of heavy-duty vehicles and speed effects.

## (2) Microscale (Near Facility) Analysis

Concentrations of CO are used as the indicators of impact for the microscale analysis. The relative inertness of the gas makes it possible to reliably predict diffusion and transport to sensitive receptors adjacent to the Project and alternatives, and permits comparison with Ambient Air Quality Standards.

Concentrations of NO<sub>x</sub> and HC emissions cannot be reliably predicted in the microscale because of their instability. Most of the NO<sub>x</sub> emissions are initially emitted as nitrogen oxide (NO) which in the presence of ambient ozone (O<sub>3</sub>) quickly changes to nitrogen dioxide (NO<sub>2</sub>). However, sunlight reverses this reaction in varying degrees yielding unpredictable concentrations of NO<sub>2</sub> with which to compare with its standard. A similar phenomenon applies to much of the HC emissions which react in the presence of sunlight to become secondary pollutants (discussed later in this section). It should be understood that HC levels formed in the urban atmosphere are not, in themselves, considered a health hazard. There is no State standard and the Federal Standard is more of a tool for Air Pollution Control District's (APCD) smog alert programs than for future control programs. An exceedance of the standard provides a warning of a probable downwind oxidant episode.

The microscale analysis procedure, charted in Figure 5-3, results in future concentrations of CO near alternative transportation facilities. The predicted concentrations from an alternative are added to background or ambient levels<sup>3</sup> to determine total CO concentrations along that alternative.

Ambient levels are determined in a manner similar to the macroscale analysis, but scaled down in size and the results applied to a proportional analysis. The ambient area is the transportation corridor,<sup>4</sup> the primary region served by or diverting traffic to the proposed freeway. Base year (1972) ambient CO concentrations and meteorology, validated by a corridor sampling program, are projected proportionately on the basis of future changes in the local CO burden. The burden, as indicated in Figure 5-2, is the product of projected traffic mileage data (LARTS predictions for the corridor in this case) applied to CO emission factors for the study years.

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<sup>1</sup>The Los Angeles Air Basin is smaller than the South Coast Air Basin as established by the California Air Resources Board. The South Coast Air Basin is made up of all of Ventura and Orange Counties and portions of Los Angeles, Santa Barbara, San Bernardino and Riverside Counties. The Los Angeles Air Basin has been estimated to contain 83 percent of the population in the South Coast Air Basin and 65 percent of daily vehicle mileage. Source: Caltrans Transportation Planning Branch.

<sup>2</sup>EPA AP 42 Supplement 2, April 1973, with modifications pertinent to California by the California Air Resources Board.

<sup>3</sup>Ambient levels are defined as the concentration of pollutants at any location within a homogeneous area that is not influenced by a single source.

<sup>4</sup>The corridor boundaries are Carmenita Avenue to the east, LAX on the west, Slauson Avenue to the north and Artesia Boulevard to the south.

The technique used to predict concentrations from alternatives is the "California Line Source Dispersion Model,"<sup>1</sup> which is based on Gaussian diffusion equations and incorporates traffic volumes, emissions factors, meteorological (atmospheric) data, and physical features (elevated, depressed or at grade) of the alternate under study (freeway, highway, busway, etc.). The meteorological inputs require: (1) surface wind characteristics along the highway facility; (2) typical atmospheric inversion characteristics and their effect on air quality; and (3) atmospheric stability associated with typical and episodic conditions.

#### Secondary Pollutants:

As noted earlier, the primary pollutants NO<sub>x</sub> and nonmethane hydrocarbons (RHC) are unstable. These react in the presence of sunlight to form a group of secondary pollutants. This group is more frequently referred to as photochemical pollutants or "smog". Two of the pollutants are known to produce adverse health effects. These are ozone (O<sub>3</sub>) and Nitrogen Dioxide (NO<sub>2</sub>). At the present time, there are no validated methods for reliably quantifying these secondary pollutants.

A method currently acceptable to EPA for quantifying secondary pollutants is the "linear rollback" formula. It assumes that photochemical pollutants vary linearly with emissions, which is highly questionable since these pollutants are products of chemical processes which are nonlinear.

There are several photochemical modeling approaches under evaluation by EPA. One which has been developed by General Research Corporation (GRC), known as DIFKIN, has been calibrated for Los Angeles conditions and was used for this analysis (see Figure 5-4).

The DIFKIN model mathematically simulates atmospheric diffusion and chemistry to compute concentrations. The simulation follows an air mass as it moves through the basin; pollutants are introduced at or near the ground from mobile and stationary sources and their vertical diffusion is calculated along with any chemical changes that occur; meteorological inputs indicate where the air parcel moves, how efficient the upward spread (diffusion) is, and how intense the sunlight is, with the result that moving levels of secondary pollutant concentrations are produced. It should be added here that isolation of sources and contributing factors for high oxidant levels elsewhere is highly complex and remains somewhat unclear. Any attempt to identify oxidant levels in distant locations such as Riverside as a product of pollutants generated in the Metropolitan Los Angeles area is not yet possible. While Los Angeles pollutants conveyed by regional meteorology are surely occasional-to-frequent contributors, there is insufficient evidence of the degree of contribution.

#### Study Results<sup>2</sup>

The air quality "models" analyze many variables, and depending upon conditions, will produce a wide range of results. From a health standpoint, it is not a range, but the most adverse result which is of interest. Consequently, the study results which follow predict air quality effects based upon the most unfavorable set of conditions which might occur.

<sup>1</sup>California Line Source Diffusion Model (CALINE 2). This model is acceptable to the EPA for use in highway impact studies. See Mathematical Approach to Estimating Highway Impact on Air Quality State of California. Department of Public Works. Materials and Research Department, Air Quality Manual Number CA-HWY-MR657082S-4-72-12, May 1972, and Air Quality Manual Modification Number 6, dated March 28, 1975.

<sup>2</sup>Based on results in Air Quality Report: El Segundo-Norwalk Freeway, 7 LA I/105, California Department of Transportation, District 7, Environmental Investigations Section, June 1974, Supplemental Air Quality Report (Photochemical): El Segundo-Norwalk Freeway, 7 LA I/105, California Department of Transportation, District 7, Environmental Investigations Section, August 1974, and Addendum to Air Quality Report: El Segundo-Norwalk Freeway, 7 LA I/105, California Department of Transportation, District 7, Environmental Investigations Section, April 1976.

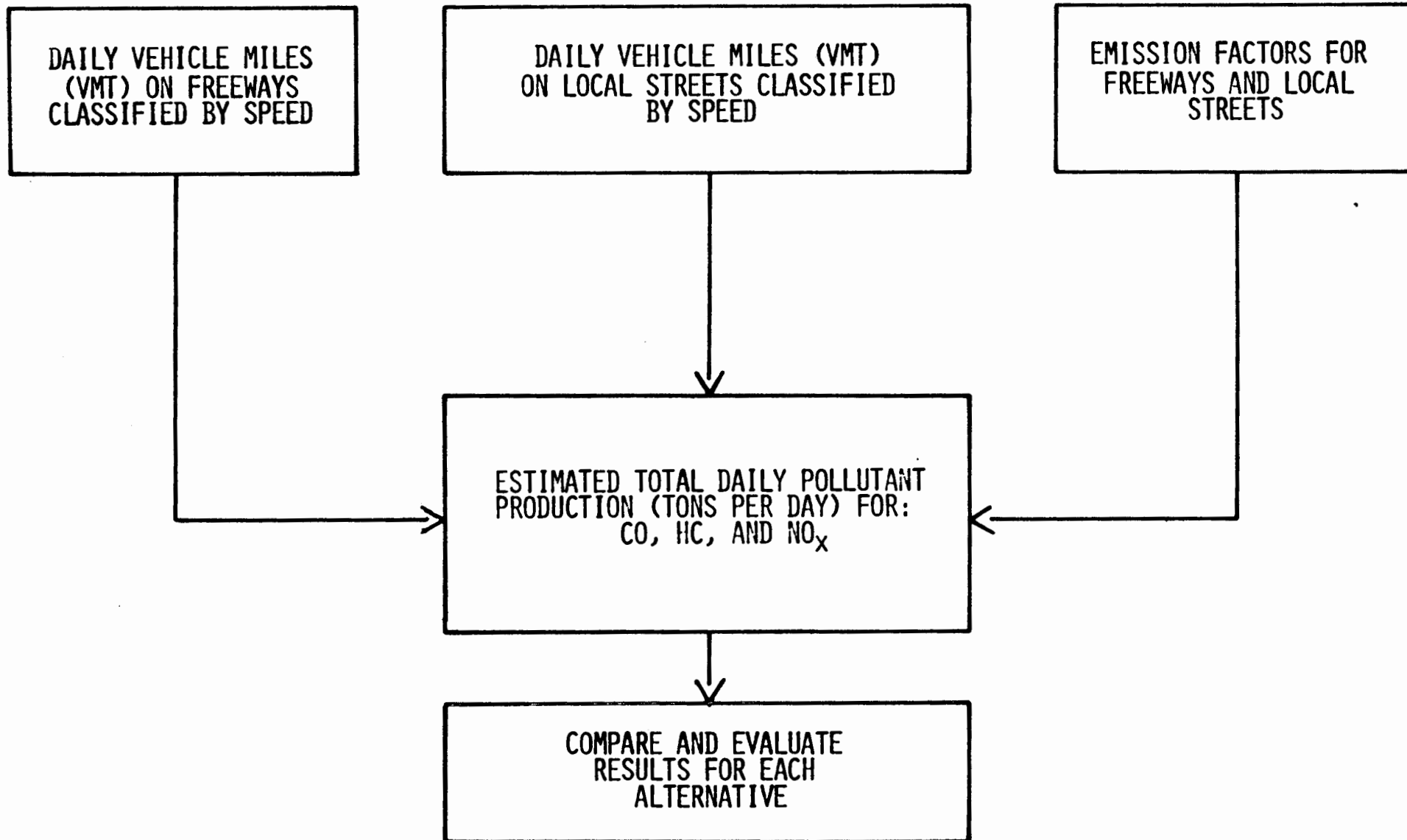
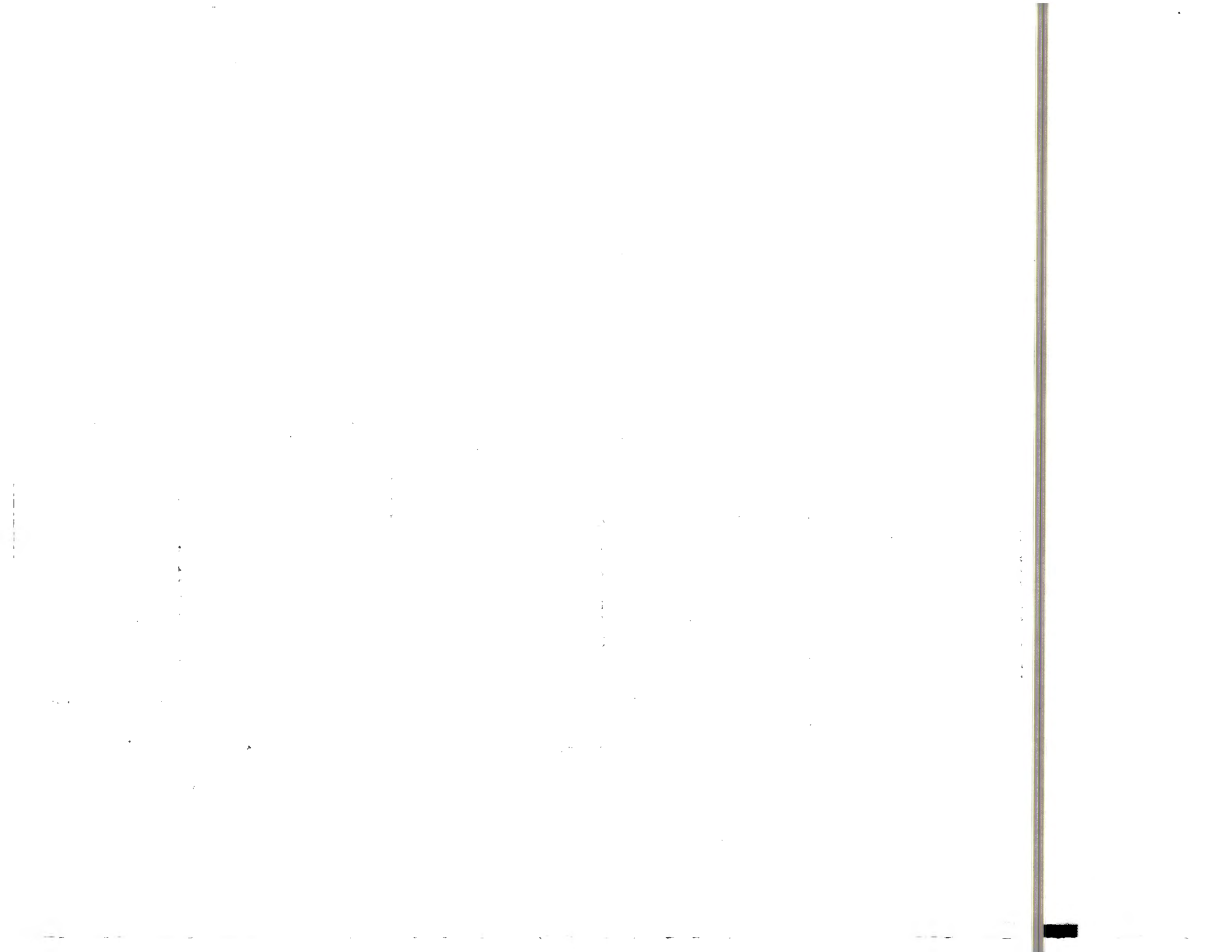


FIGURE 5-2

FLOW CHART FOR MACROSCALE ANALYSIS





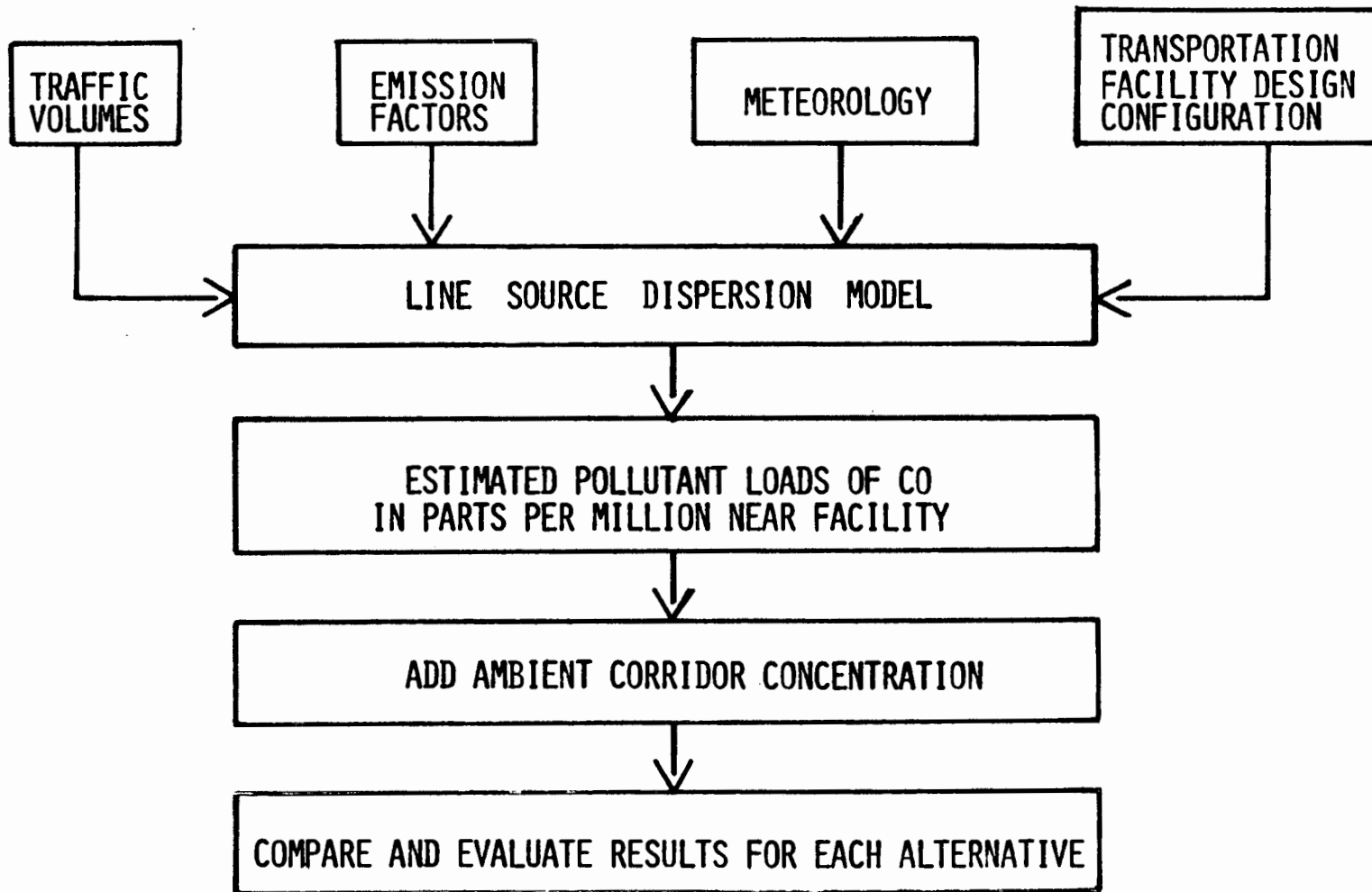
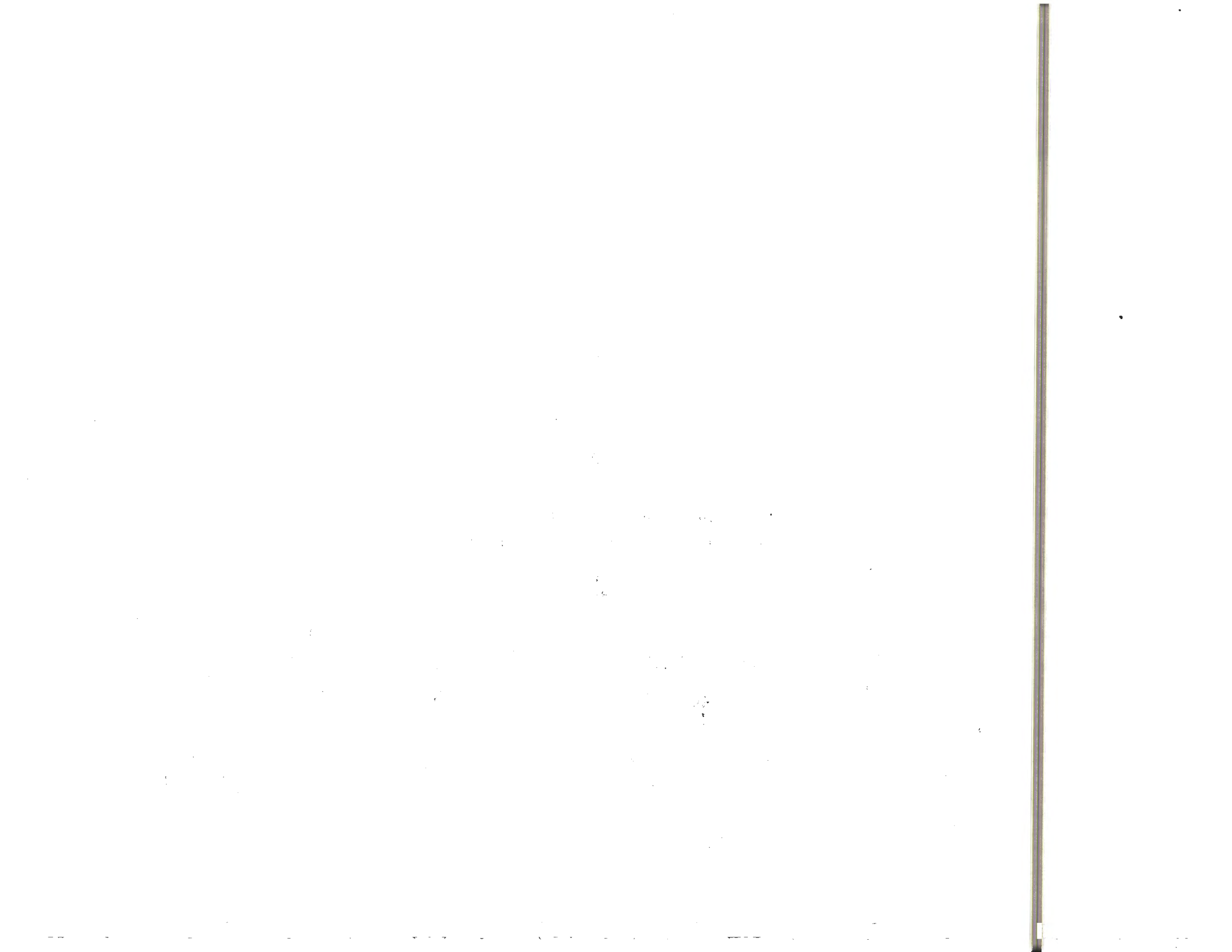


FIGURE 5-3

FLOW CHART FOR MICROSCALE ANALYSIS



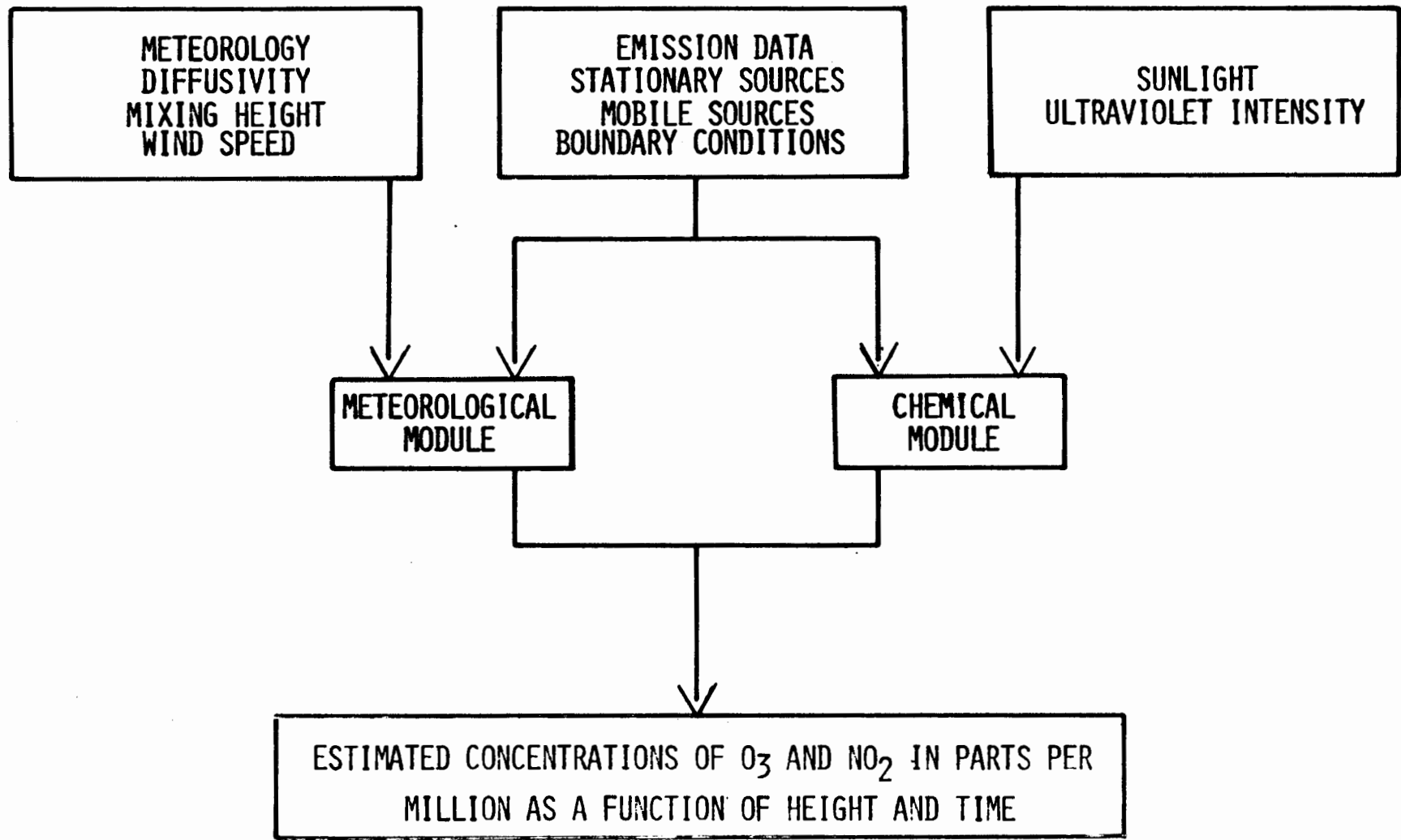
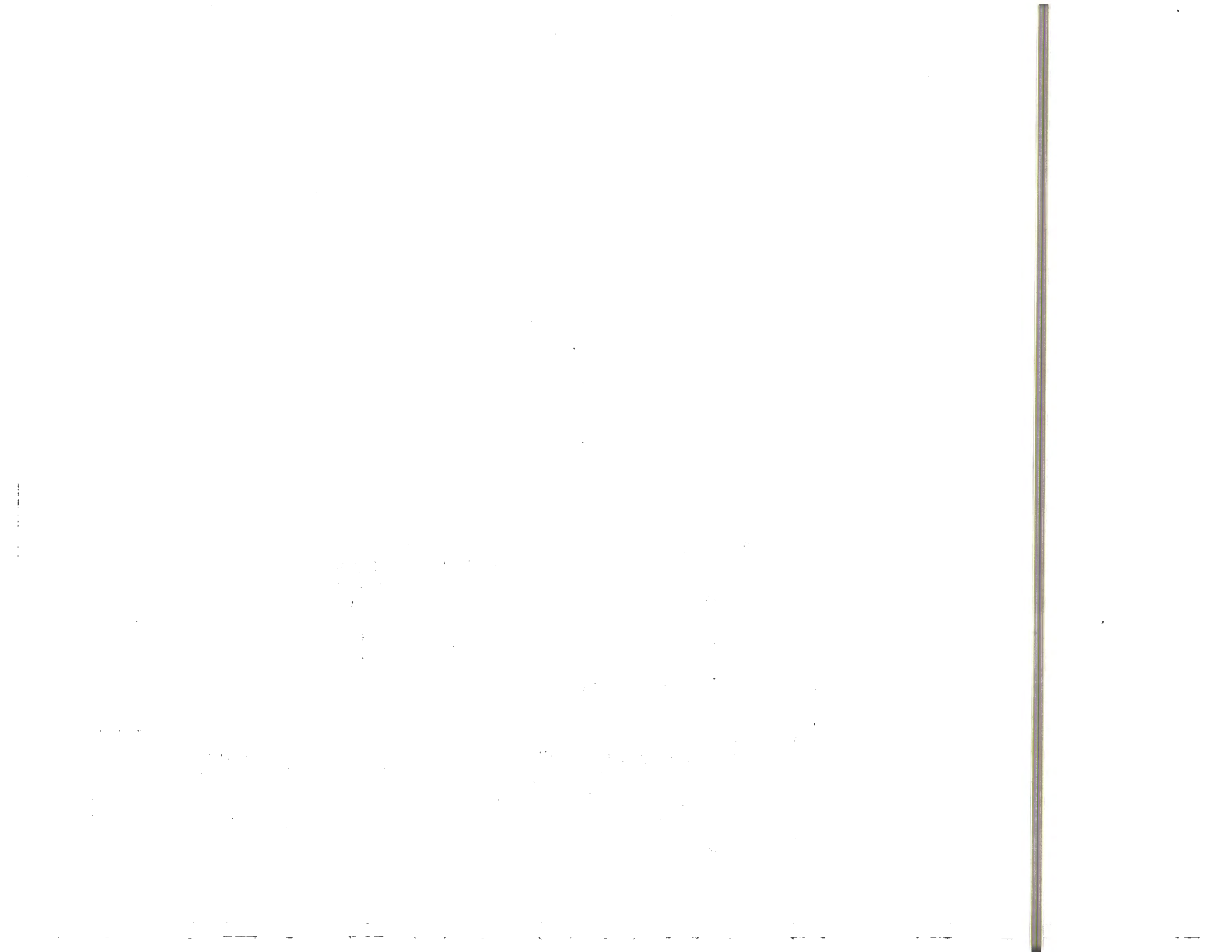


FIGURE 5-4

FLOW CHART OF GRC (DIFKIN) MODEL



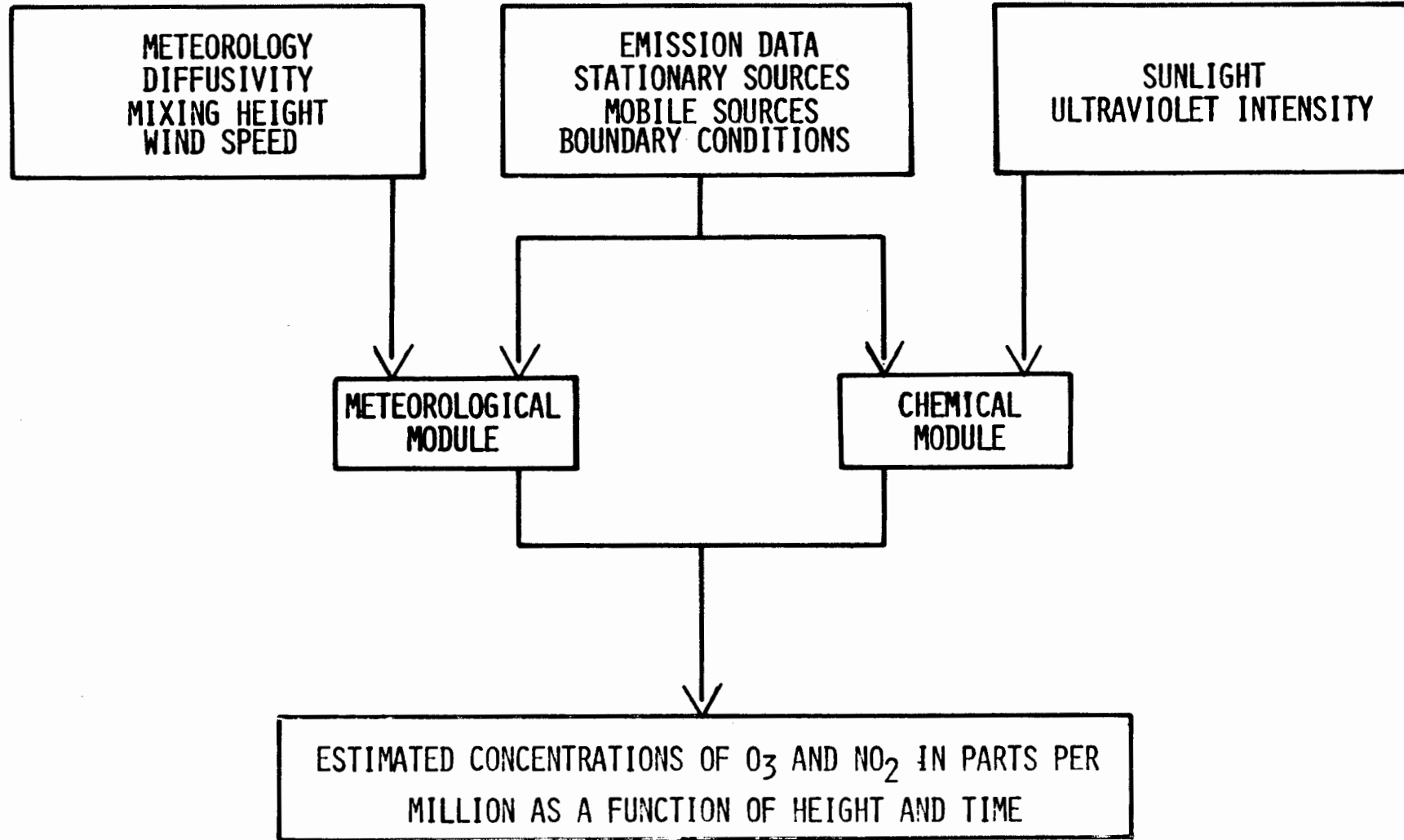
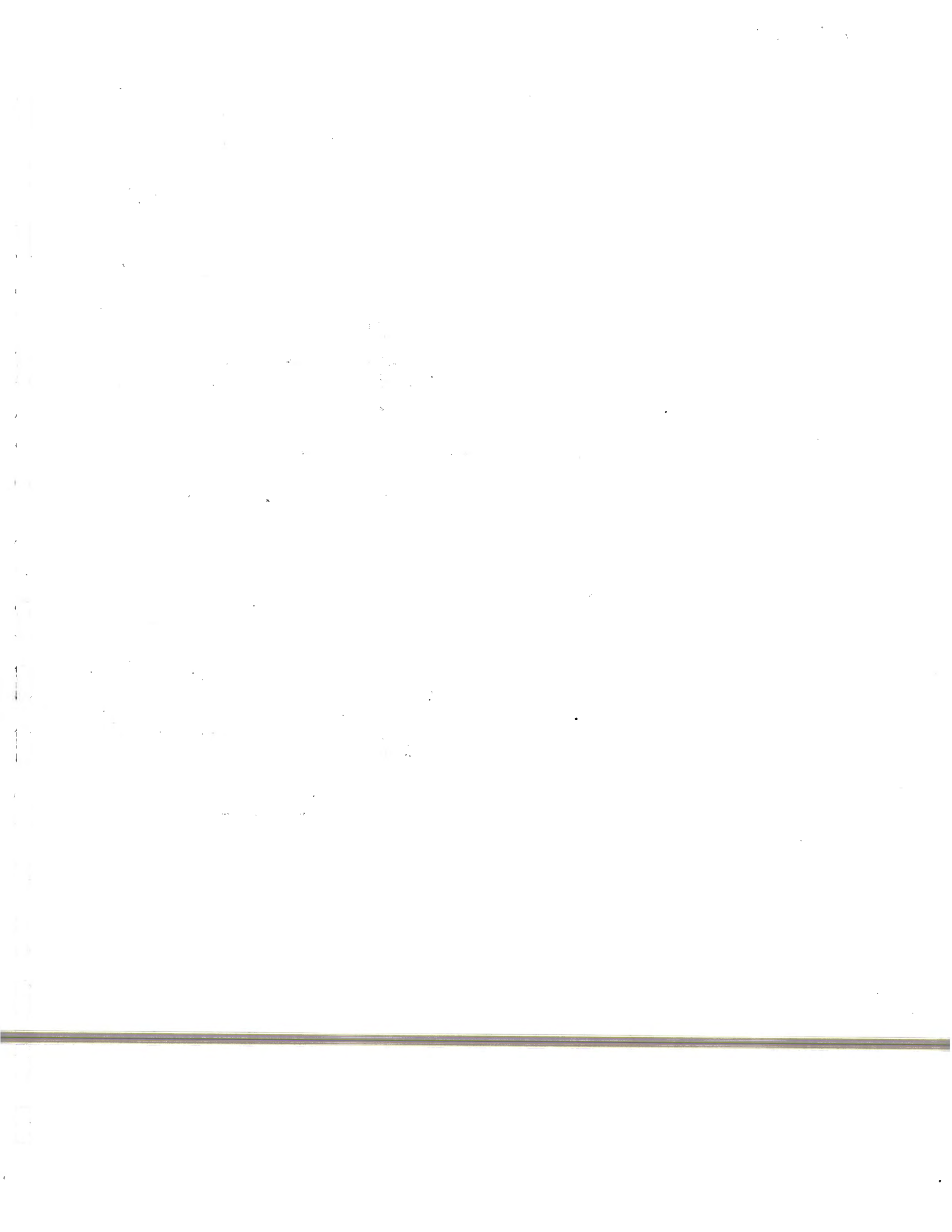


FIGURE 5-4

FLOW CHART OF GRC (DIFKIN) MODEL



Macroscale (Regional-Los Angeles Air Basin):

Table 5-2 is a tabulation of results for comparing the Project and No Project alternatives. Listed are the estimated tons per day of pollutants emitted in the Los Angeles Air Basin based upon LARTS traffic data.

The results in Table 5.2 show that the I-105 Project will, compared to the No Project alternative, effect a negligible change to pollutant volumes. Throughout the initial 20-year period of operation of the Project, regional traffic would produce a slight decrease in CO, virtually no change in HC and a slight increase in NO<sub>x</sub>. The basis for these results is that the regional transportation system which includes the Project would operate in a more efficient manner. The small increase in VMT generated by the availability of the I-105 Freeway in the system is offset by the higher average and more efficient speeds afforded by the Project.

With respect to the other nonfreeway alternatives, the macroscale results will fall between the Project and No Project alternatives. Again, this is based on the relationship between travel speeds and pollutant production. The Exclusive Busway, Local Improvements and Combined alternatives would result in regional air-quality effects, qualitatively similar to I-105 (decreases in CO, no change in HC, and increases in NO<sub>x</sub>); however, the magnitude of the effect would be much smaller since these alternatives would not produce the equivalent changes in average travel speed anticipated with I-105. The Grade Separation and Combination Exclusive Busway/Grade Separation alternatives would approximate I-105 in terms of average travel-speed increases and corresponding regional air quality impact.

Figures 5-5 through 5-7 graphically present the CO, HC, and NO<sub>x</sub> results in total tons per day. While the macroscale differences between the Project and No Project alternative are too small to show graphically on these Figures, the figures do illustrate the projected effects of motor-vehicle emission controls through the year 2000. Assuming current vehicular emission standards are not modified between now and the year 2000, the total daily tons of CO, HC, and NO<sub>x</sub> will be significantly reduced (53%, 54%, and 58%, respectively) and reach a minimum in the 1990-1995 time period, at which time all vehicles on the road will be fully controlled. Thereafter, in the unlikely event that no new technology is developed, the anticipated growth in population (and travel) will result in gradually increased emissions (less than 1%) through the year 2000 and beyond.

Microscale (Local-Norwalk-El Segundo Corridor):

Figure 5-8 indicates the location of the most critical sensitive receptors with respect to the Project and other alternate freeway alignments which were evaluated for the I-105 location studies. These receptors are the nearest schools, churches and hospitals within which are located those most susceptible to adverse air quality: the very young, the old and the physically handicapped. Because of their large number, other sensitive receptors such as residential dwellings are not shown.

Figure 5-9 represents the CO burden in the corridor (in tons per hour) for the A.M., mid-day, and P.M. periods of the ambient analysis. The results indicate that with the Project, there will be a decrease in CO ranging from 15% to 25% for each of the three time periods in this corridor.

The figures indicate not only the reduction (air quality improvement) in CO emissions associated with the Project, but like the regional burden analysis, the very significant reduction due to vehicular emission controls as more and more vehicles become fully controlled between now and the early 1990's.

For the microscale impact analysis, projected CO concentrations at 50, 100, 200, 300, 500, and 1,000 feet downwind from the edge-of-freeway shoulder were added to projected ambient concentrations levels. Figures 5-10 and 5-11 depict I-105 results for a depressed freeway section exposed to the worst meteorological and traffic conditions expected to occur in the years 1980 and 2000, respectively. Calculations for 1980 and 2000 were made for the elevated and at-grade freeway sections, which resulted in lower CO concentrations than those found for the depressed sections.<sup>1</sup>

<sup>1</sup>See Air Quality Report: El Segundo-Norwalk Freeway, LA I/105, for data regarding I-105 at-grade, elevated and depressed sections, and results for intersecting north-south freeways (I-405, I-605, Route 7, and Route 11).

TABLE 5-2

ESTIMATED TONS PER DAY OF CO, HC, AND NO<sub>x</sub>,  
 EMITTED IN THE LA AIR BASIN BY THE VEHICLE POPULATION WITH AND WITHOUT THE PROJECT

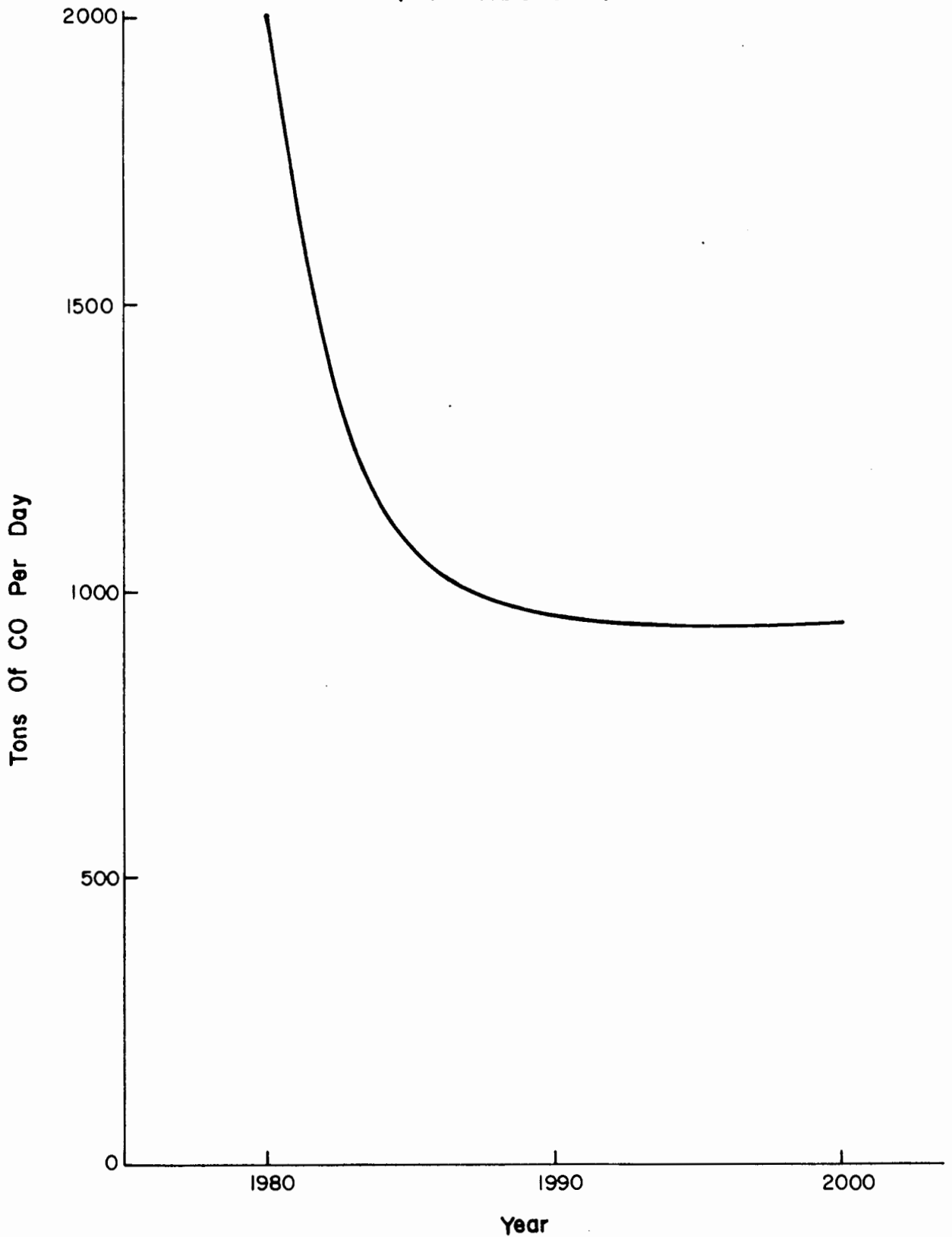
YEAR	CO				TOTAL HC				NO <sub>x</sub>			
	WITHOUT PROJECT	WITH PROJECT	CALC WITH PROJECT	CHANGE PROJECT	WITHOUT PROJECT	WITH PROJECT	CALC WITH PROJECT	CHANGE PROJECT	WITHOUT PROJECT	WITH PROJECT	CALC WITH PROJECT	CHANGE PROJECT
1980*	2000	1995		-5	223	223		0	302	303		1
1981	1688	1683		-5	191	191		0	258	260		2
1982	1434	1429		-5	165	165		0	221	222		1
1983	1257	1252		-5	146	146		0	194	195		1
1984	1126	1121		-5	133	133		0	172	174		2
1985	1070	1064		-6	127	127		0	158	160		2
1986	1026	1020		-6	120	120		0	148	149		1
1987	994	987		-7	116	117		1	142	143		1
1988	981	974		-7	113	113		0	139	140		1
1989	968	961		-7	109	109		0	136	137		1
1990	966	958		-8	108	108		0	134	136		2
1991	957	949		-8	105	105		0	130	132		2
1992	954	945		-9	104	105		1	129	131		2
1993	941	932		-9	102	102		0	126	128		2
1994	939	929		-10	102	102		0	126	127		1
1995	939	929		-10	102	102		0	126	128		2
1996	940	929		-11	102	102		0	126	128		2
1997	940	949		-11	102	102		0	126	129		3
1998	941	929		-12	102	102		0	127	129		2
1999	941	929		-12	102	103		1	127	129		2
2000	942	929		-13	103	103		0	127	130		3

\*Estimated Time of Completion of Project

SOURCE: ADDENDUM TO THE AIR QUALITY REPORT: EL SEGUNDO - NORWALK FREEWAY, 7 LA I/105, APRIL, 1976

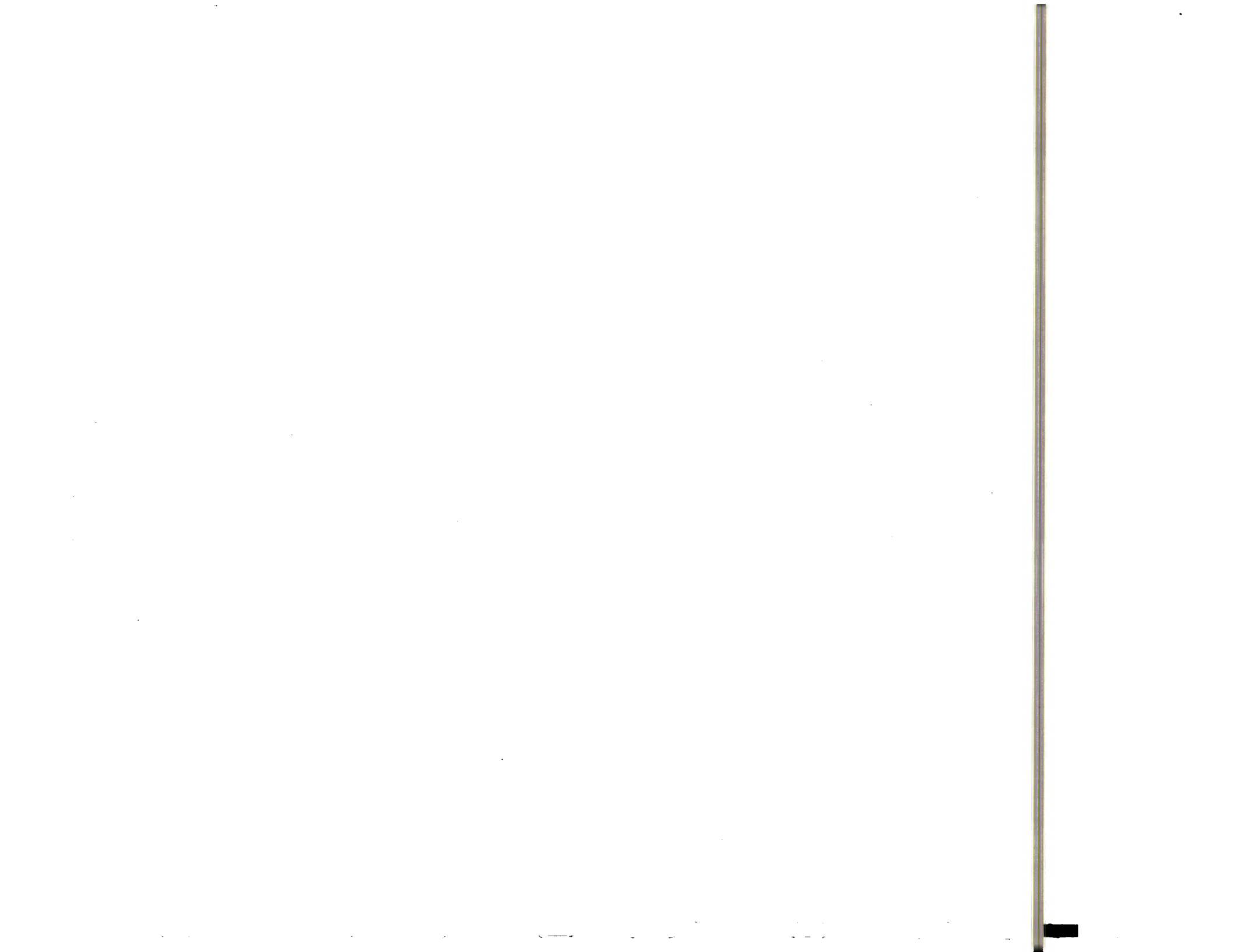


ESTIMATED TONS PER DAY OF VEHICULAR CO  
EMITTED IN THE LA AIR BASIN  
(From Table 5-2)



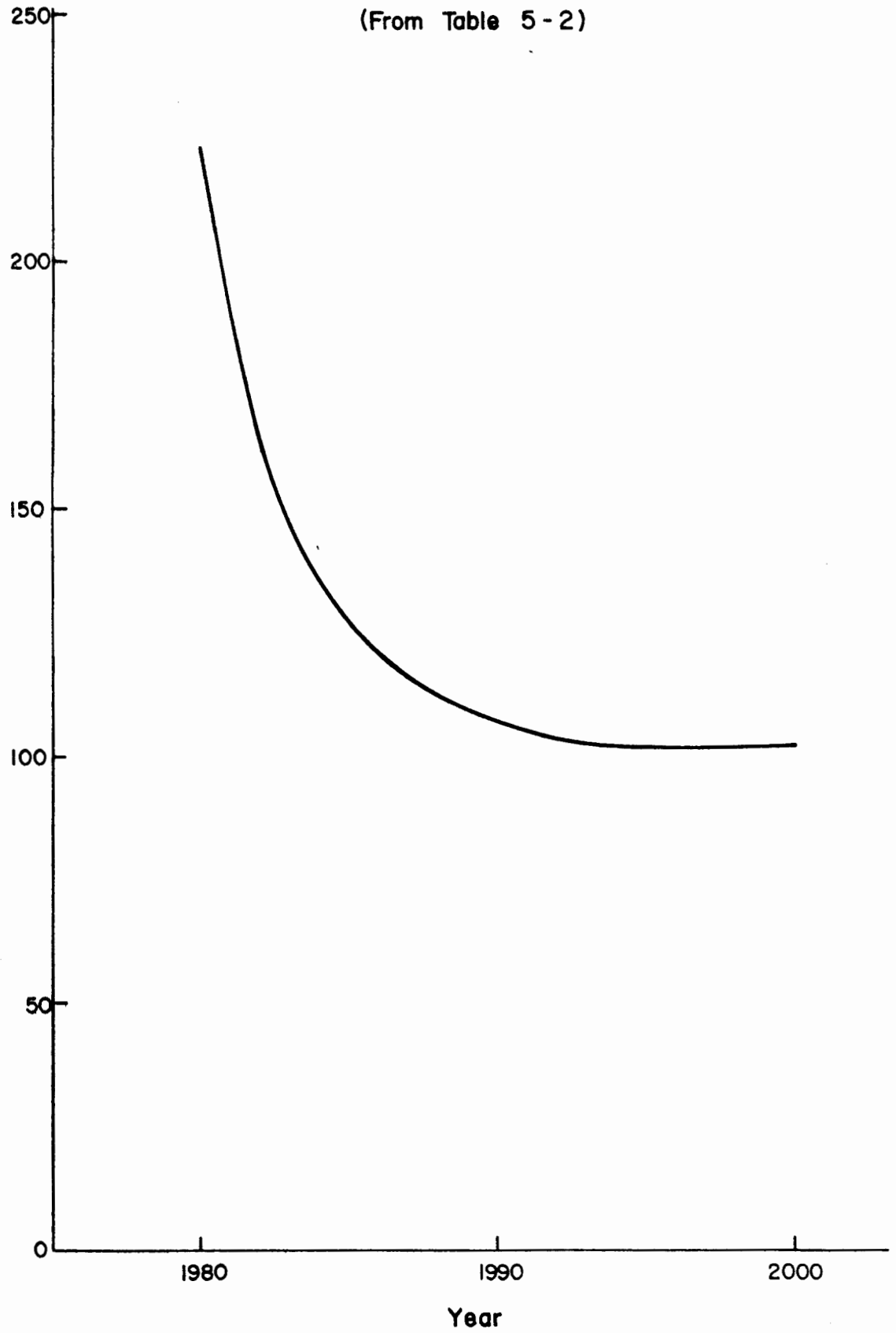
Differences between the with and without project conditions are too small to show graphically on this scale.

FIGURE 5-5



ESTIMATED TONS PER DAY OF VEHICULAR HC  
EMITTED IN THE LA AIR BASIN

(From Table 5-2)



Differences between the with and without project conditions are too small to show graphically on this scale.

FIGURE 5-6

1. The first part of the document is a list of names and titles.

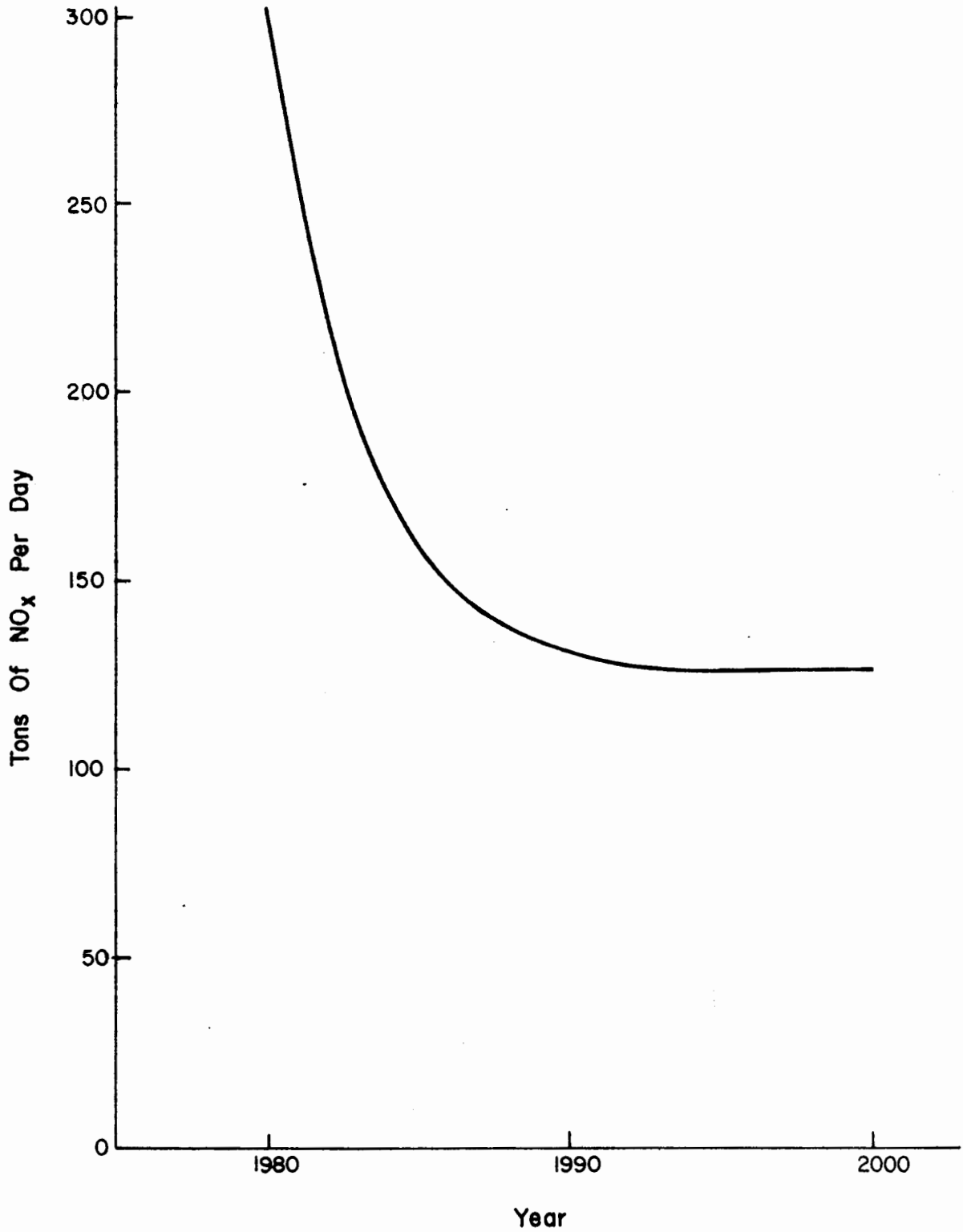
2.

3. The second part of the document is a list of names and titles.

4. The third part of the document is a list of names and titles.



ESTIMATED TONS PER DAY OF VEHICULAR NO<sub>x</sub>  
EMITTED IN THE LA AIR BASIN  
(From Table 5-2)



Differences between the with and without project conditions are too small to show graphically on this scale.

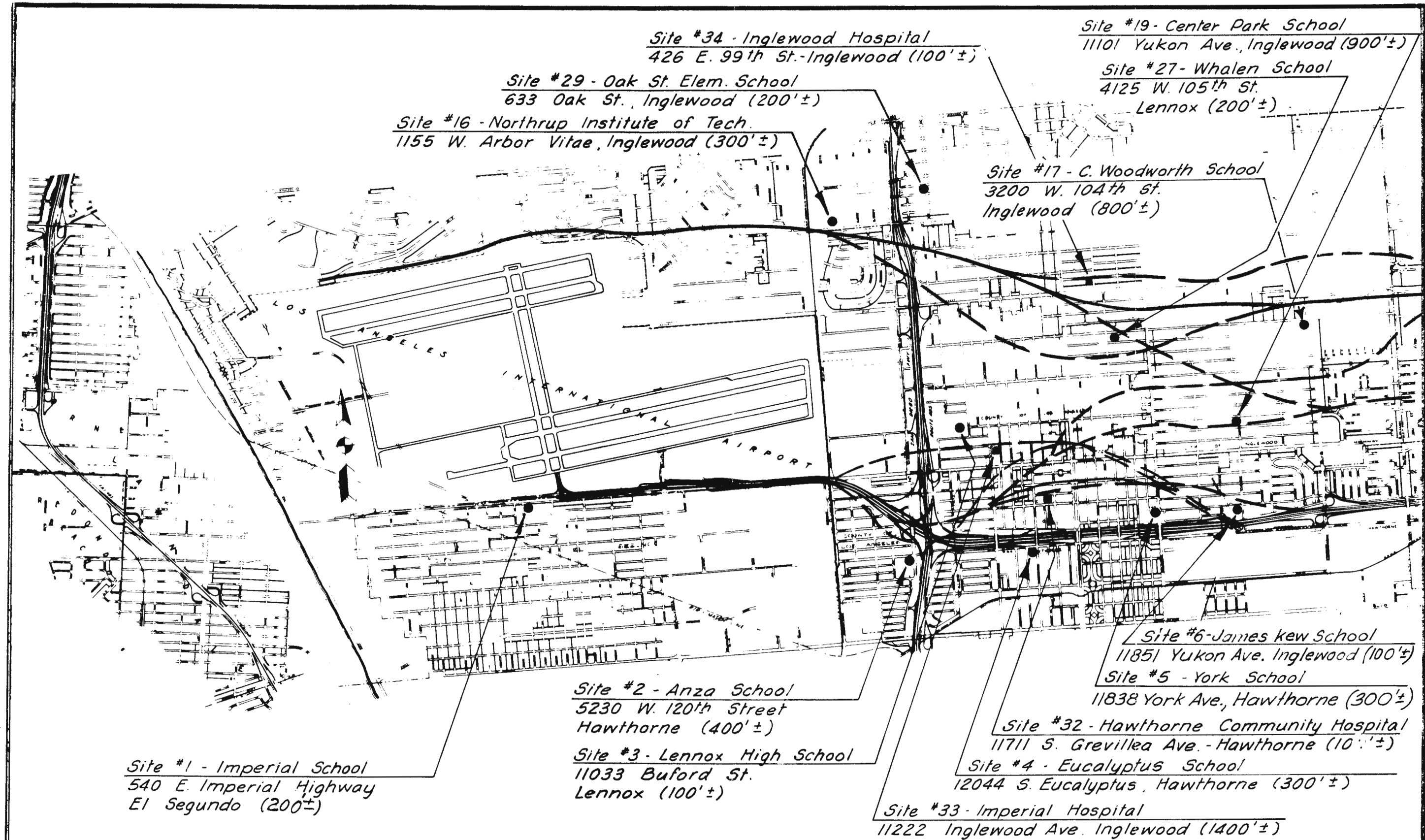
FIGURE 5-7

1. The first part of the document is a list of names and addresses.

2. The second part of the document is a list of names and addresses.

3. The third part of the document is a list of names and addresses.

4. The fourth part of the document is a list of names and addresses.

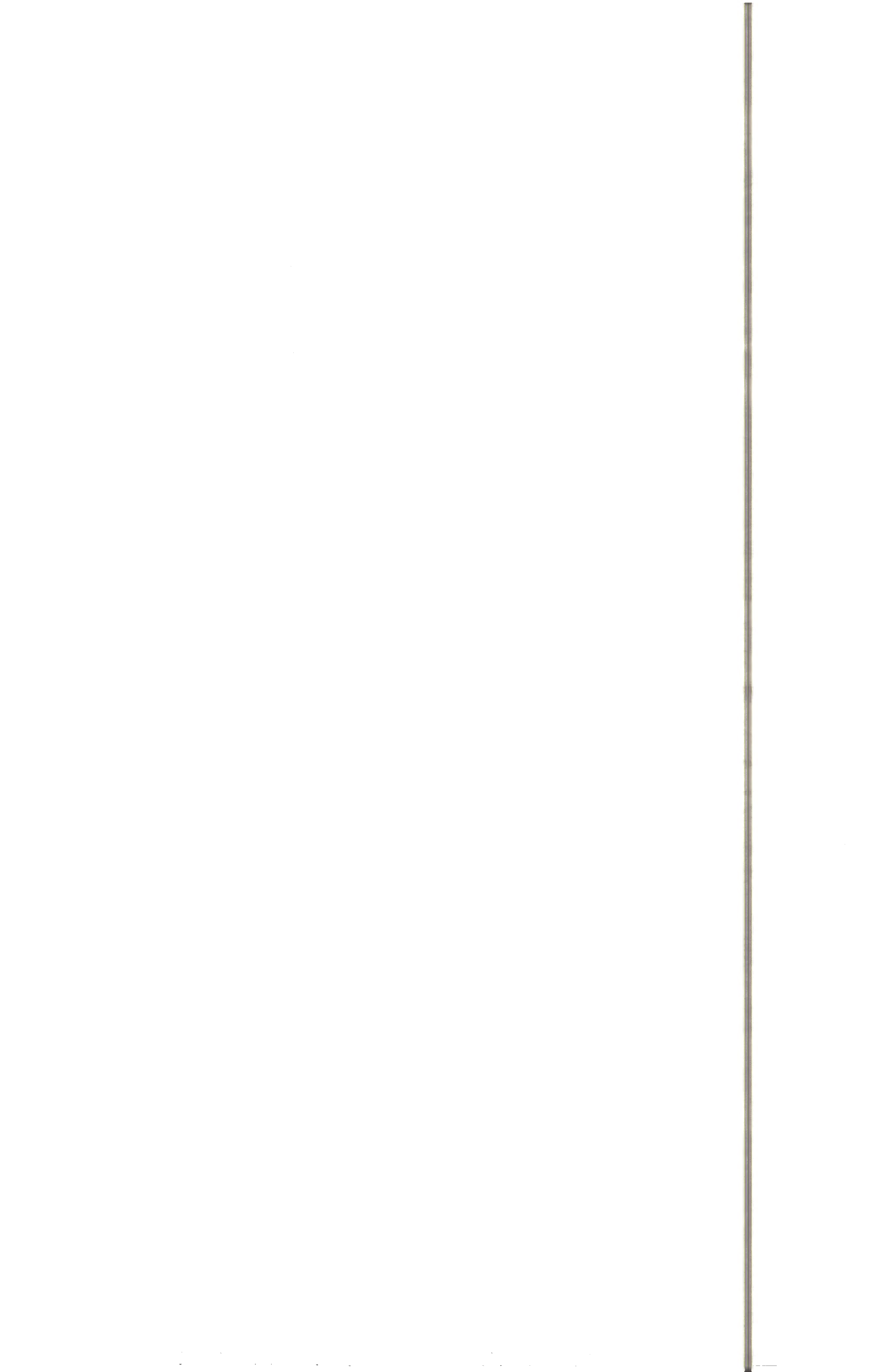


**LEGEND**

- = School
- = Hospital
- ▷ = Church
- ( ) = Distance to nearest alignment

**ROUTE 105 FWY.**  
**CRITICAL RECEPTORS**  
NOT TO SCALE

**FIGURE 5-8a**





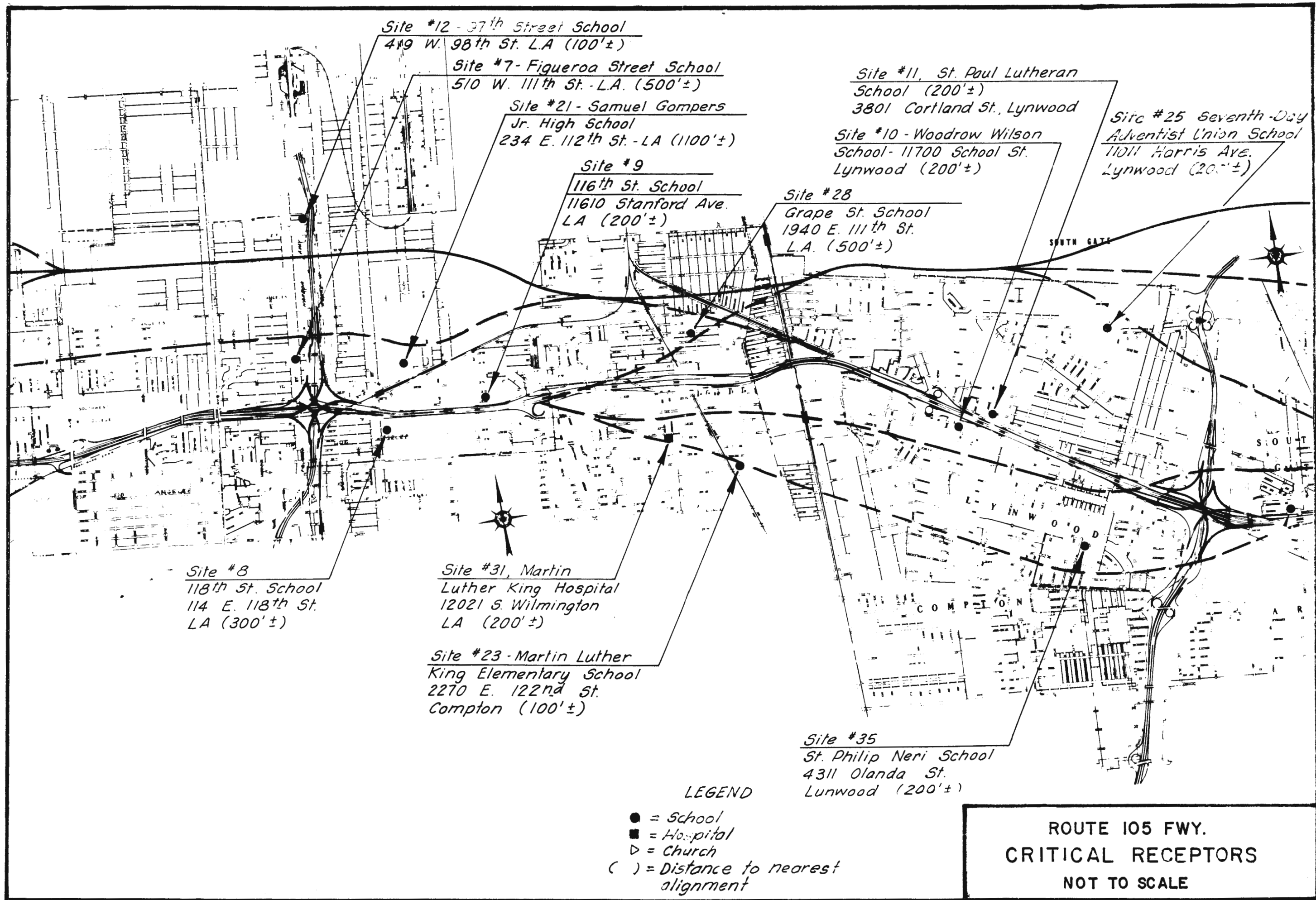
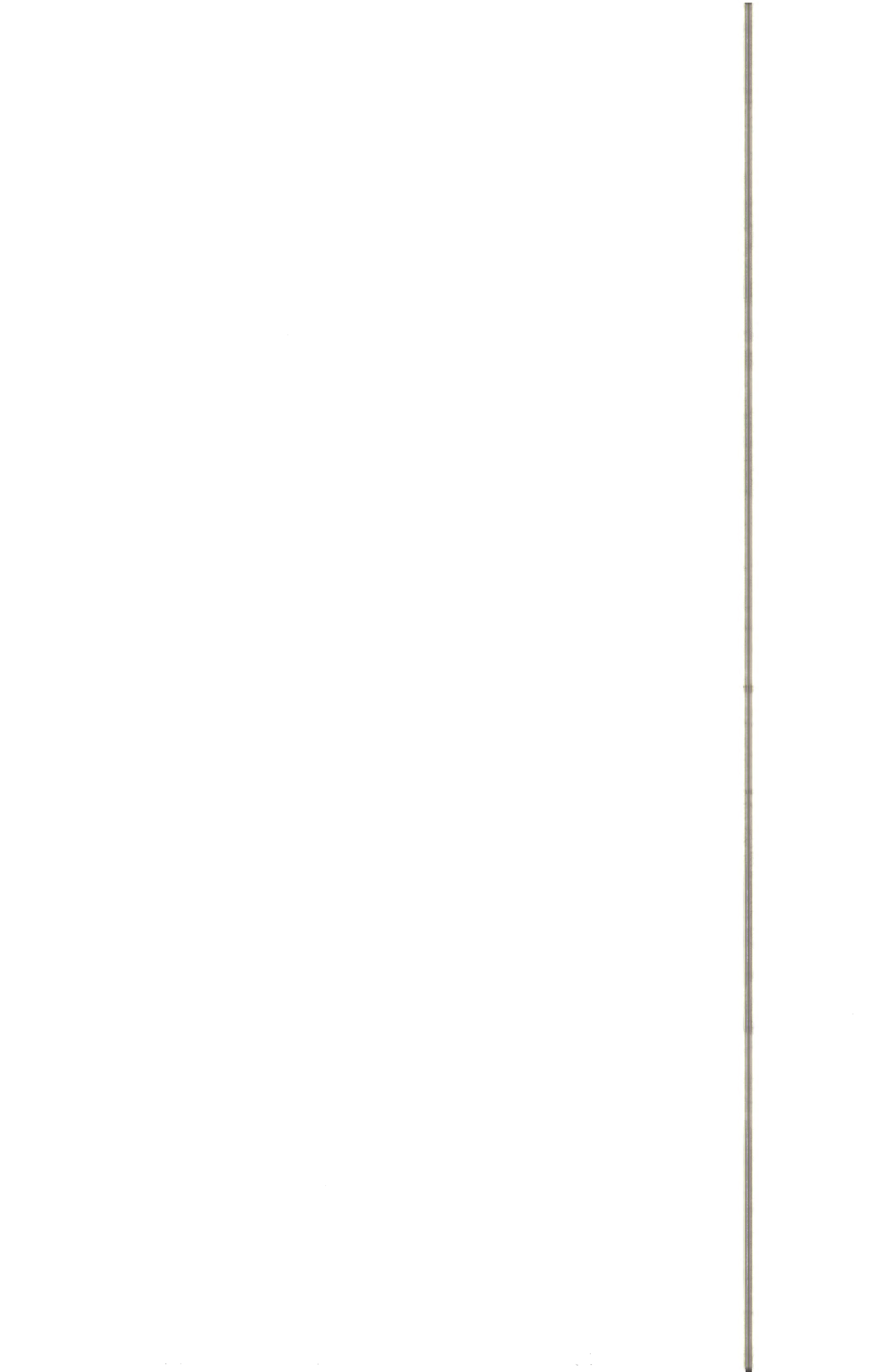


FIGURE 5-8b



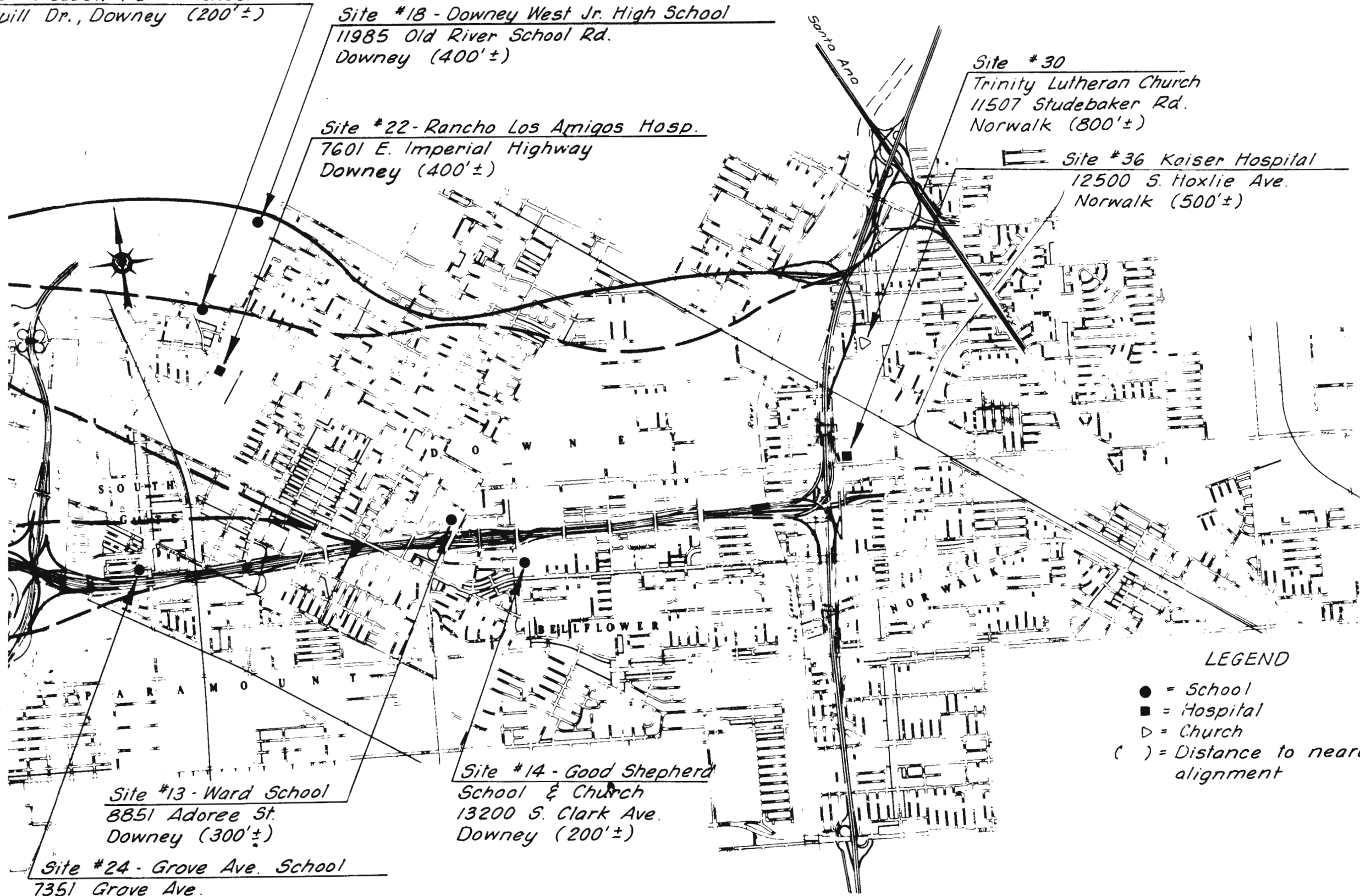
Site #20 - Meadow Park School  
7200 Quill Dr., Downey (200'±)

Site #18 - Downey West Jr. High School  
11985 Old River School Rd.  
Downey (400'±)

Site #22 - Rancho Los Amigos Hosp.  
7601 E. Imperial Highway  
Downey (400'±)

Site #30  
Trinity Lutheran Church  
11507 Studebaker Rd.  
Norwalk (800'±)

Site #36 Kaiser Hospital  
12500 S. Hoxlie Ave.  
Norwalk (500'±)



Site #13 - Ward School  
8851 Adoree St.  
Downey (300'±)

Site #24 - Grove Ave. School  
7351 Grove Ave.  
Paramount (400'±)

Site #14 - Good Shepherd  
School & Church  
13200 S. Clark Ave.  
Downey (200'±)

LEGEND

- = School
- = Hospital
- ▷ = Church
- ( ) = Distance to nearest alignment

LEGEND

- = School
- = Hospital
- ▷ = Church
- ( ) = Distance to nearest alignment

ROUTE 105 FWY.  
CRITICAL RECEPTORS  
NOT TO SCALE

FIGURE 5-8c



ESTIMATED CO VEHICULAR BURDEN EMITTED  
IN THE CORRIDOR  
WITH AND WITHOUT THE PROJECT

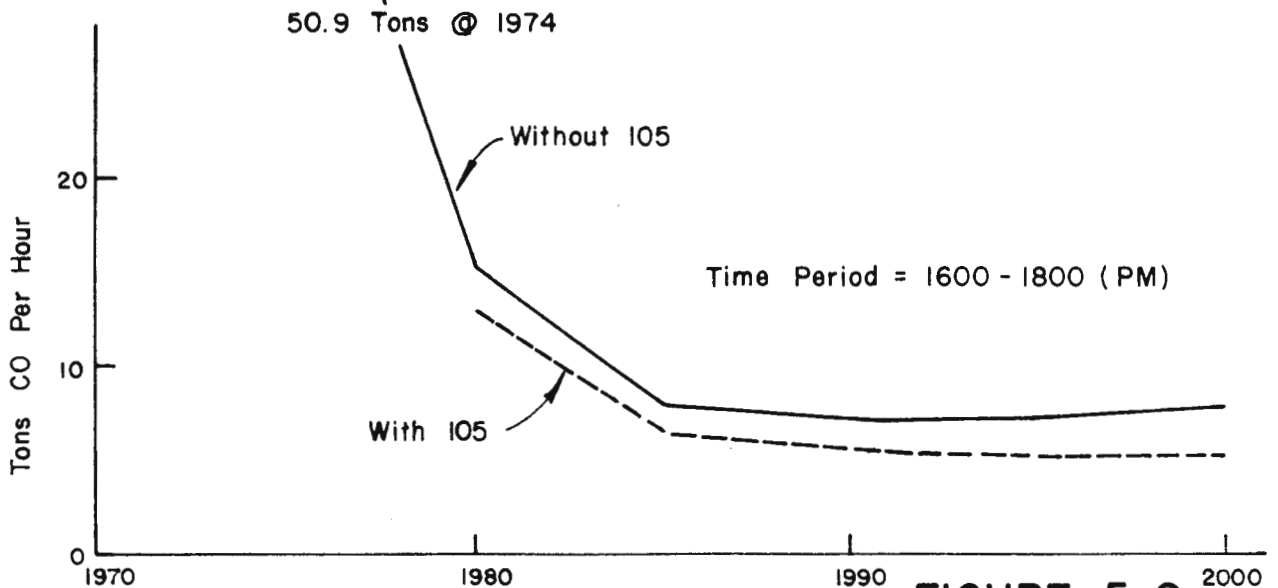
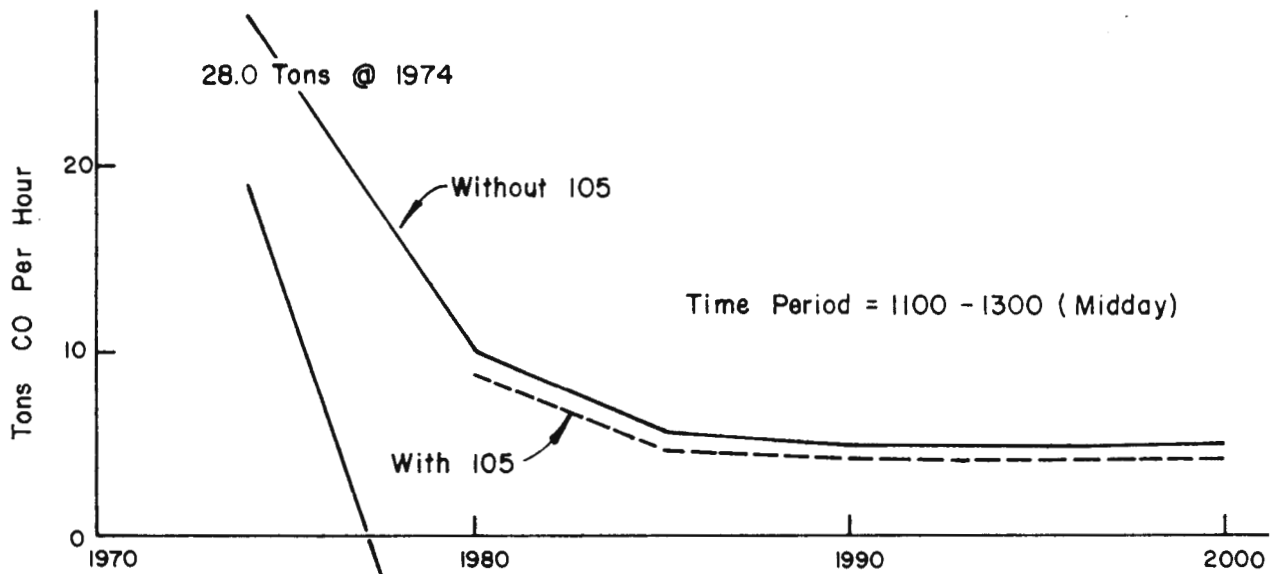
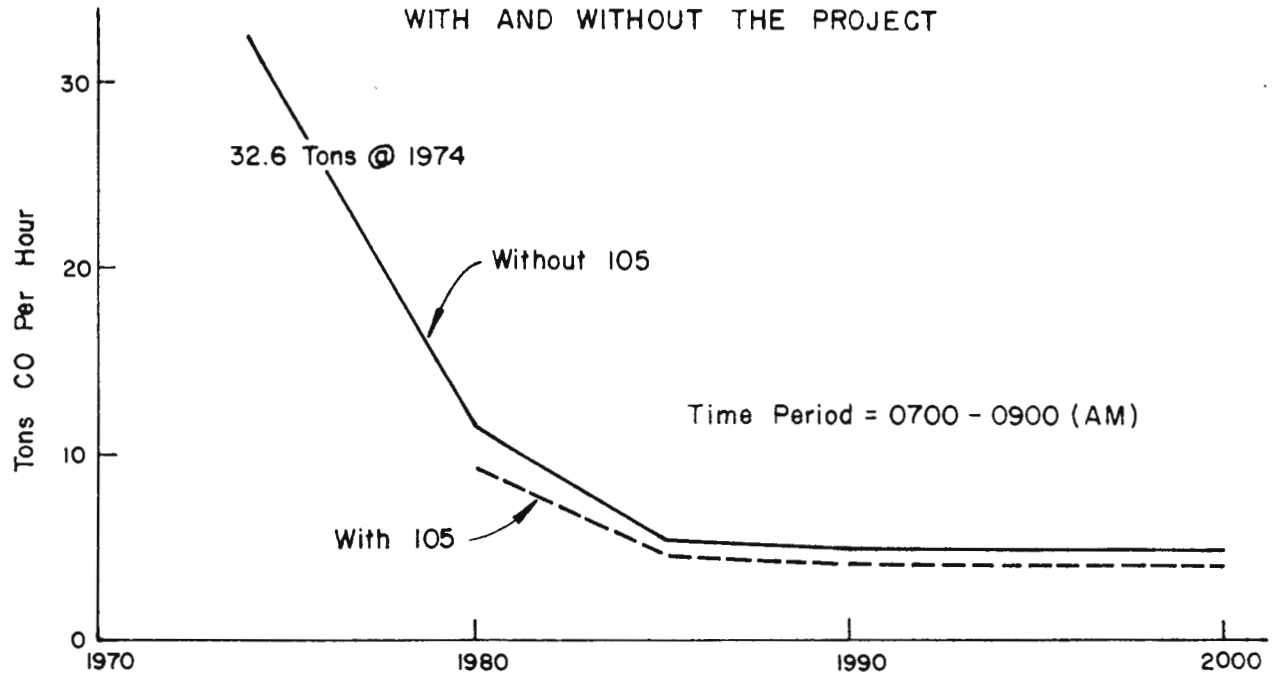


FIGURE 5-9



ROUTE 105 FREEWAY  
 MAXIMUM HOUR CO CONCENTRATION  
 TYPICAL CUT SECTION  
 1980

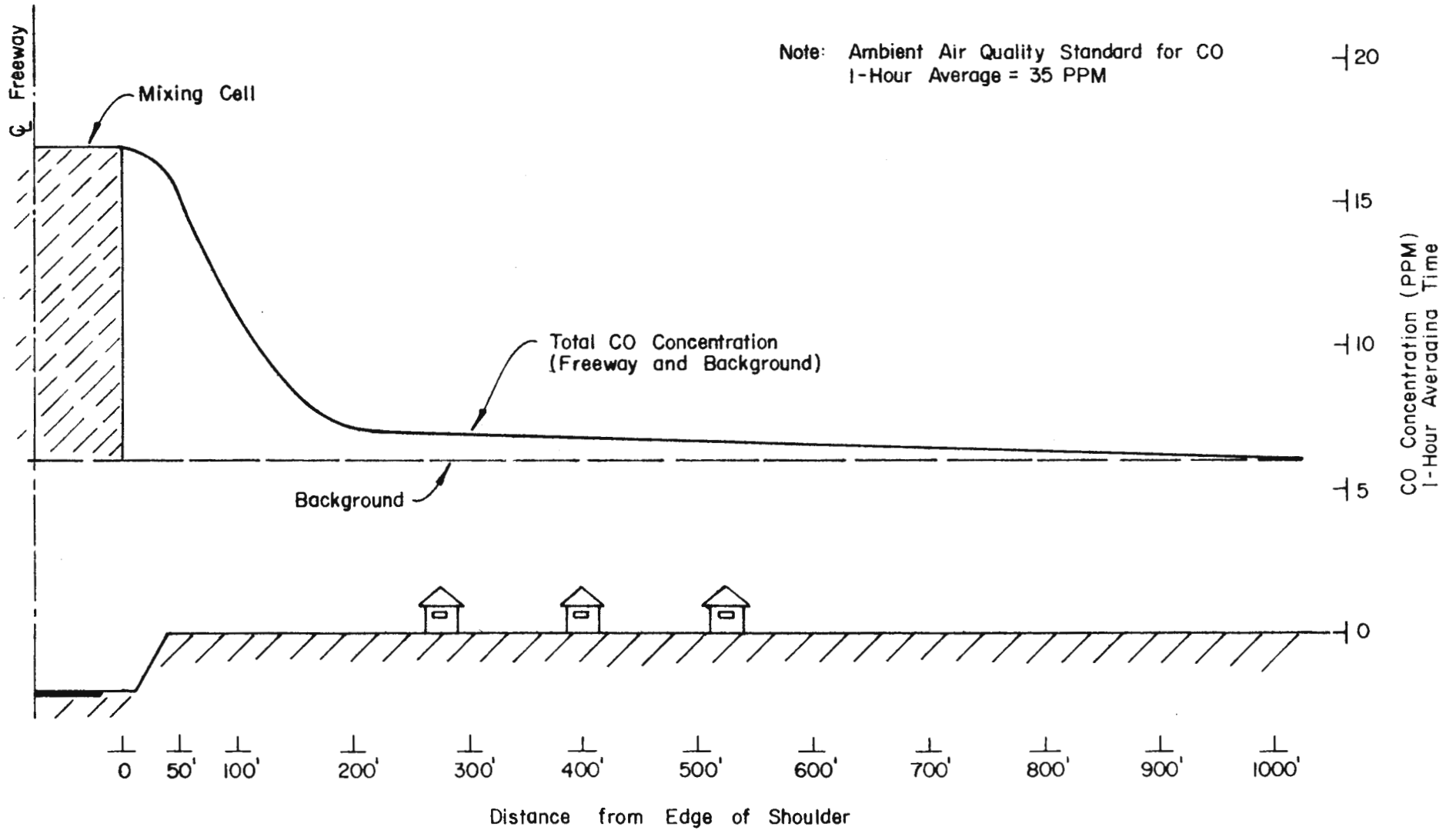


FIGURE 5-10

FIGURE 5-10

*[Faint, illegible text, likely bleed-through from the reverse side of the page]*



ROUTE 105 FREEWAY  
 MAXIMUM HOUR CO CONCENTRATION  
 TYPICAL CUT SECTION  
 2000

Note: Ambient Air Quality Standard for CO  
 1-Hour Average = 35 PPM

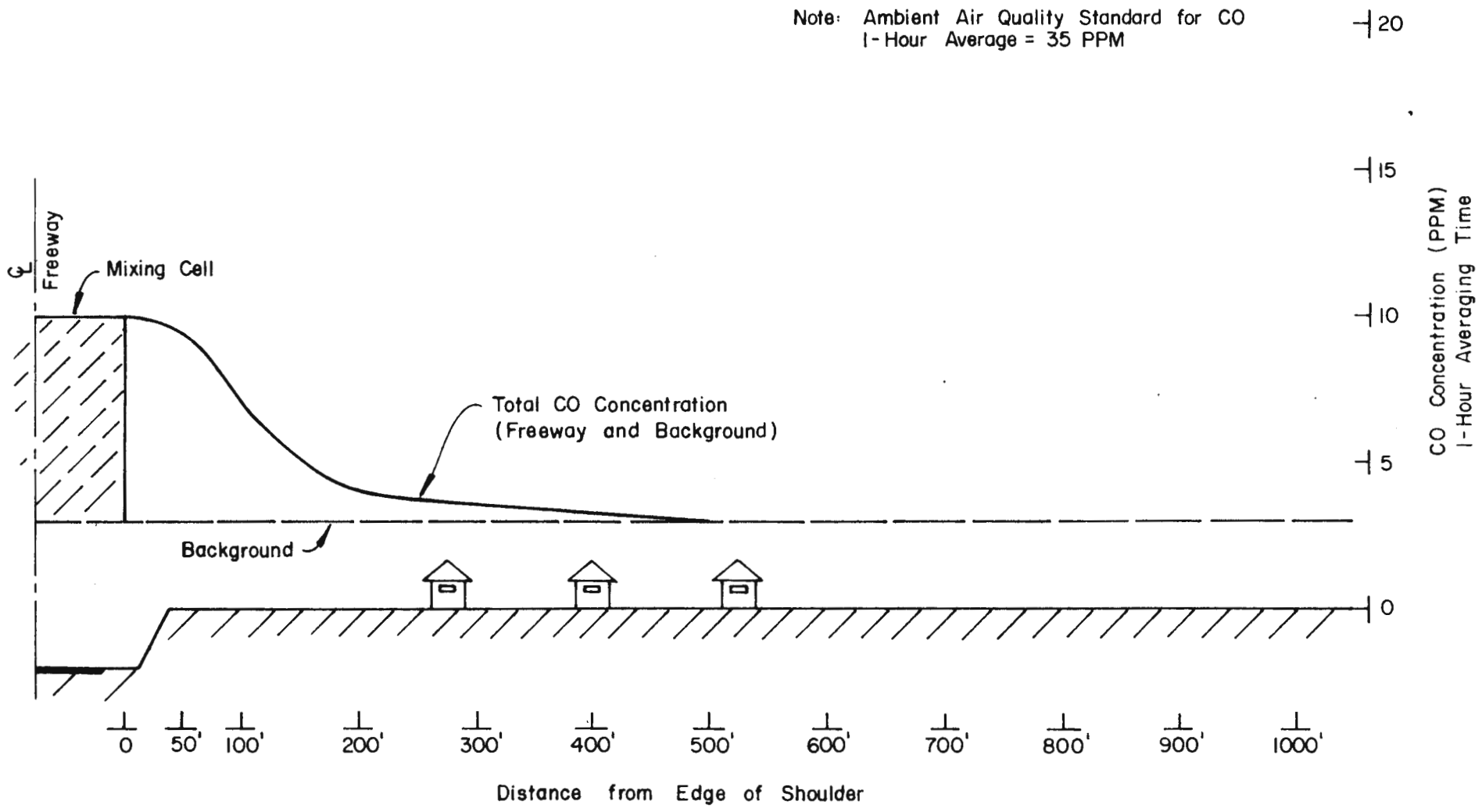


FIGURE 5-11

FIGURE 5-11



Under the conditions of worst meteorology and highest traffic volumes, the maximum hourly concentrations of CO at the nearest sensitive receptors 50 feet from the proposed project are estimated to be 15 ppm in 1980 and 10 ppm in the year 2000. There have been no sensitive receptors such as residential facilities, schools, hospitals, etc. identified within this 50-foot distance. The corresponding maximum average 8-hour concentrations, the most critical values for standards comparison, are estimated to be 9 ppm in 1980 and 6 ppm by 2000.

Downwind estimates of CO were made for each intersecting north-south freeway under the same "worst conditions" as indicated above. Results shown that there will be up to a 4 ppm decrease in maximum hourly concentrations of CO along Routes 405 and 605 with widening. Along Routes 7 and 11, the maximum hourly levels of CO will increase or decrease no more than 1 ppm at various sections with widening. These changes are due to operational changes on these existing freeways as a result of constructing I-105.

Investigations were also made to determine the effects of the Project and its alternatives on the microscale environment of a typical corridor arterial street (Imperial Highway). Year 2000 results are presented in Figure 5-12. The results indicate that the Project and the Grade Separation alternative will have the least and approximately equal effect on arterial neighborhoods. The remaining non-project alternatives, the unimproved and widened arterials, will produce maximum hourly concentrations of 5 ppm higher along the arterial streets.

A microscale investigation of the transit (busway) alternatives was also conducted. The results indicate that an exclusive (median) busway without transportation control strategies would provide a minute decrease in CO concentrations from the freeway. Due to the few motorists expected to divert to public transit, there would be an insignificant benefit to corridor traffic. In the other case, the Exclusive Busway would contribute negligible CO concentrations (few buses compared to the freeway traffic volumes), but again would provide no appreciable benefit to arterial streets (similar to the No Project effect). However, the effect of these busway alternatives operating in concert with the transportation control strategies would contribute significantly to CO reductions. The effects will range between those of the Project which includes the Busway and those approaching the No Project alternative.

#### Photochemical Analysis:

The DIFKIN Method represents a significant advance in air quality technology; however, it is still under development. The reader is cautioned that the results discussed here were obtained from the initial trial and should be considered preliminary only.

To represent the entire length of the freeway proposal, the Project was divided into three segments. Based upon "worst day" meteorological conditions (observed on a day, 9-29-69, when oxidant levels resulted in a first stage alert), trajectories were simulated for air masses<sup>1</sup> which crossed the mid-point of each of the three segments at 7, 9, and 11 a.m. and 1 p.m. These crossings coincided with periods of high traffic activity sufficiently early in the day to permit photochemical reaction. Trajectories generally began over the ocean in the early morning hours, reached a peak in the afternoon and terminated at mountainous barriers, or in the evening (for lack of sunlight).

Figure 5-13 shows the trajectories of the air masses which cross the Project at 7 a.m. Numbers along each trajectory indicate time of day. Figure 5-14 is a summary of the data for these trajectories. Both are computer printouts and are typical of results obtained for the remaining three hours.

Maximum values of .30 ppm for NO<sub>2</sub> and .07 ppm for O<sub>3</sub> were computed. These are instantaneous peak values which are rarely maintained throughout an hourly period. The values are, therefore, likely to be higher than hourly averages.

The O<sub>3</sub> concentrations that are associated with the Project condition are invariably equal to or lower than those of the No Project condition. The opposite generally holds true for NO<sub>2</sub> concentrations although not evident in the example. In both cases the differences are very small.

---

<sup>1</sup>Air Mass; a body of air covering a relatively wide area, exhibiting approximately uniform properties through any horizontal section.

The results also indicate very little improvement or deterioration in photochemical air quality between 1980 and 2000. By 1980, emissions control of the vehicle population will be incomplete. The air quality will continue to improve until all vehicles are controlled; sometime in the early-90's. Without new or additional controls proposed for both stationary and mobile sources by this point in time, a gradual degradation of air quality will occur due to vehicle population growth and stationary source increases to meet growing energy demands.

The "linear rollback" method for evaluating oxidant levels was also performed. Although this method assumes photochemical reactions produce oxidant levels in direct proportion to highly reactive organic gas (RHC) emissions (which is questionable), it is the method currently approved by EPA. The California Air Resources Board (ARB) also uses this method in conjunction with the State Implementation Plan (SIP) for Achieving and Maintaining the National Ambient Air Quality Standards in the South Coast Air Basin (SCAB). The evaluation period begins with 1973, the base year, and extends from 1980 to 1995, the years for which predictions were mutually provided by Caltrans and ARB.

The results of this analysis indicate that the standard for ozone may not be achieved in this century. It is important, however, to point out that the effect of automobile travel on these results is almost negligible. By 1990, with or without implementation of transportation control strategies, RHC emission from the entire light duty vehicle population will be at or below 10% of the regional total.

#### Comparison with Standards

##### Primary Pollutants:

Comparison of the effect of the I-105 Project to Federal Ambient Air Quality Standards for primary pollutants was made for CO, but not for HC, NO<sub>x</sub> or the others. As indicated previously, HC, NO<sub>x</sub> and even particulates are unstable and react variably in time and space to take different pollutant forms. The result is that the remaining and/or new concentrations of nonmethane HC, NO<sub>2</sub> and suspended particulates for which there are standards cannot easily be identified with their source and therefore reliably quantified by source.

Total CO concentrations, Project contribution plus ambient, at distances of 50 feet to 2,000 feet from the Project, were analyzed for 1980 through 2000. Ambient concentrations were determined for the corridor with and without the I-105 Project. To insure coverage of all averaging periods (1-, 8-, and 12-hours), 24-hour assessment was made to align the daytime concentrations resulting from highest traffic volumes with high nighttime CO concentrations peculiar to the Project area. The results are that, within the 20-year period following completion of the I-105 Project (1980-2000), the Standards for CO will not be exceeded at any receptor 50 feet or further from the edge of freeway shoulder. (It was estimated that the 8-hour standard of 9 ppm will be equalled in 1980 along the easternmost section of the Project, but not exceeded.)

In the early years following 1980 adjacent to the arterial alternatives to the freeway, the Federal 8-hour CO standard will be exceeded in the shopping or business zone (10 to 50 feet from the roadways). The exceedances range from 12 ppm along the unimproved arterials (No Project) to 10 ppm for the Widening proposals. The 8-hour standard will not be exceeded next to the Grade Separation alternative.

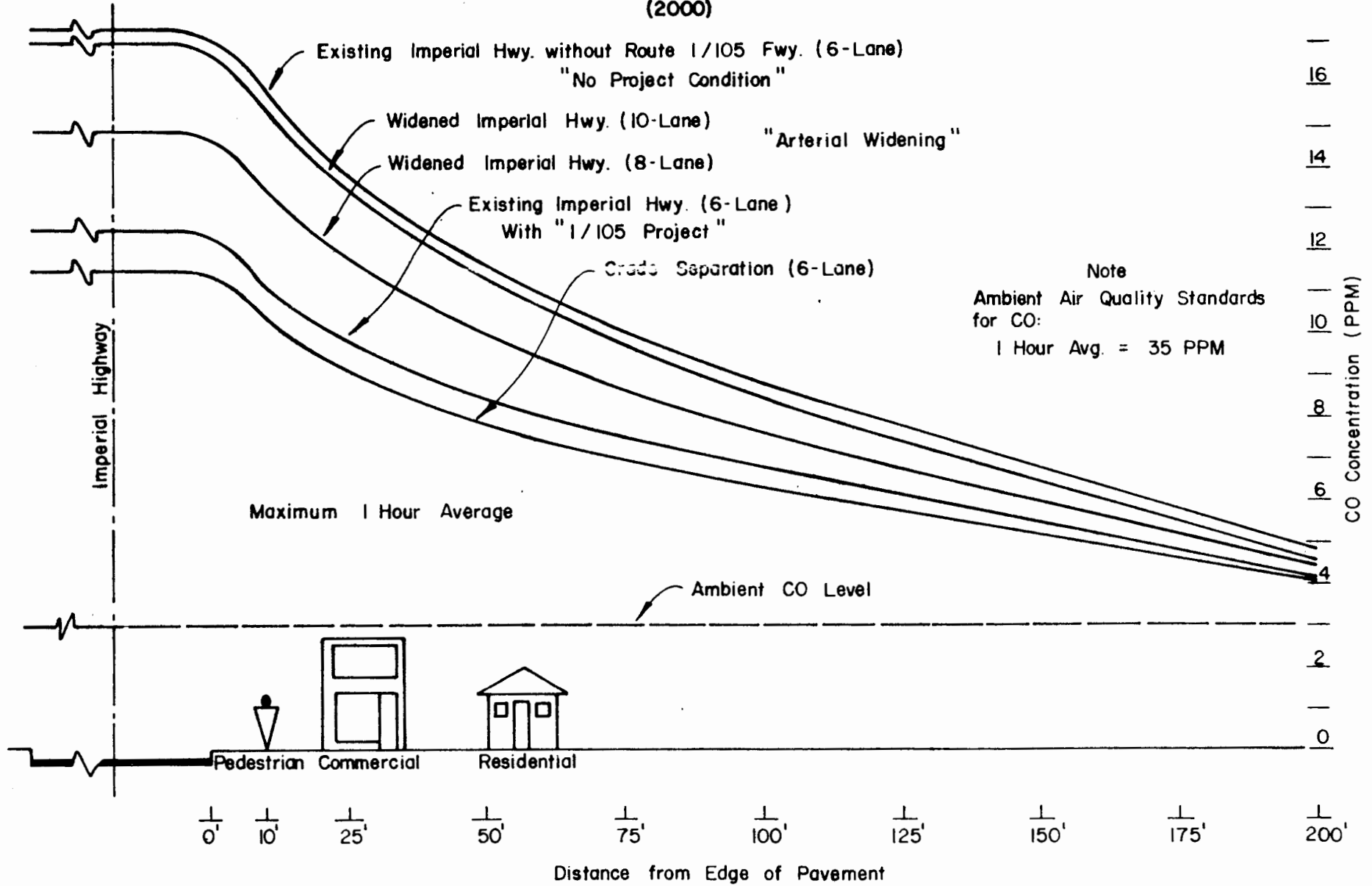
CO concentrations will not differ significantly from ambient levels in the immediate vicinity of the Exclusive Busway alternative. However, since total vehicle miles of travel within the corridor would not be reduced appreciably by this alternate, CO concentrations along arterial streets would approximate the No Project alternative.

By the mid-80's and thereafter, none of the alternatives will exceed the CO standards. With the I-105 Project, the 1-, 8-, and 12-hour CO standards will not be exceeded adjacent to corridor arterials throughout the period of 1980 and 2000.

##### Secondary Pollutants:

Comparing the secondary pollutant concentrations associated with the Project to Federal Standards is difficult because there are no approved methods for reliable quantification. On the other hand, using the approved but questionable "linear rollback" method, the base year maximum oxidant data ('72, '73 and '74 average) of 0.49 ppm is proportioned to produce 0.26 ppm in 1995, whether or not the Project is included in the regional transportation system. In other words, although the .08 ppm standard for a 1-hour average may be exceeded, it would not be due to the construction of the I-105 Project.

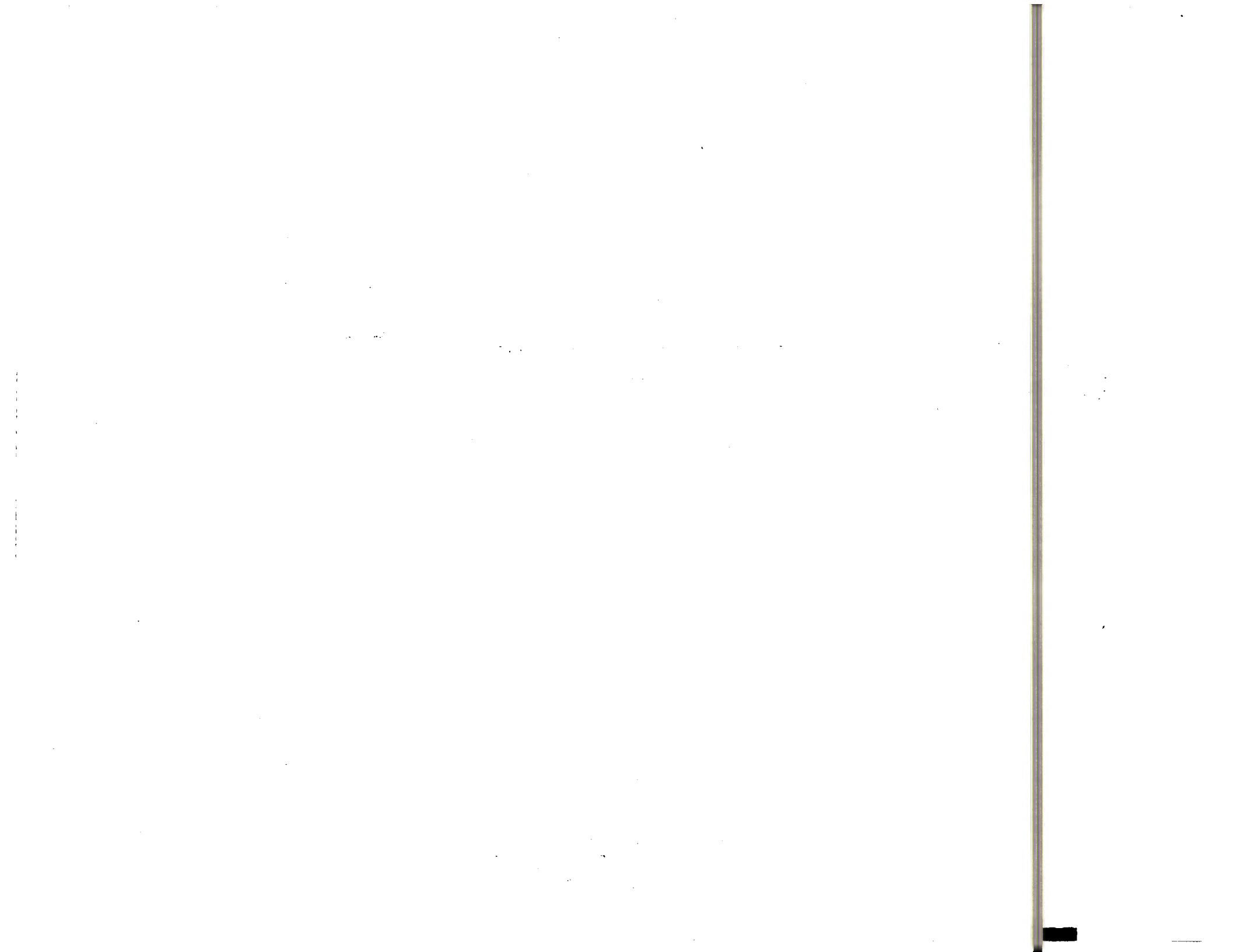
PREDICTED CARBON MONOXIDE CONCENTRATIONS (PPM)  
 ADJACENT TO IMPERIAL HIGHWAY  
 (2000)



Source: Air Quality Report; El Segundo-Norwalk Freeway, LA 1/105

FIGURE 5-12

FIGURE 5-12



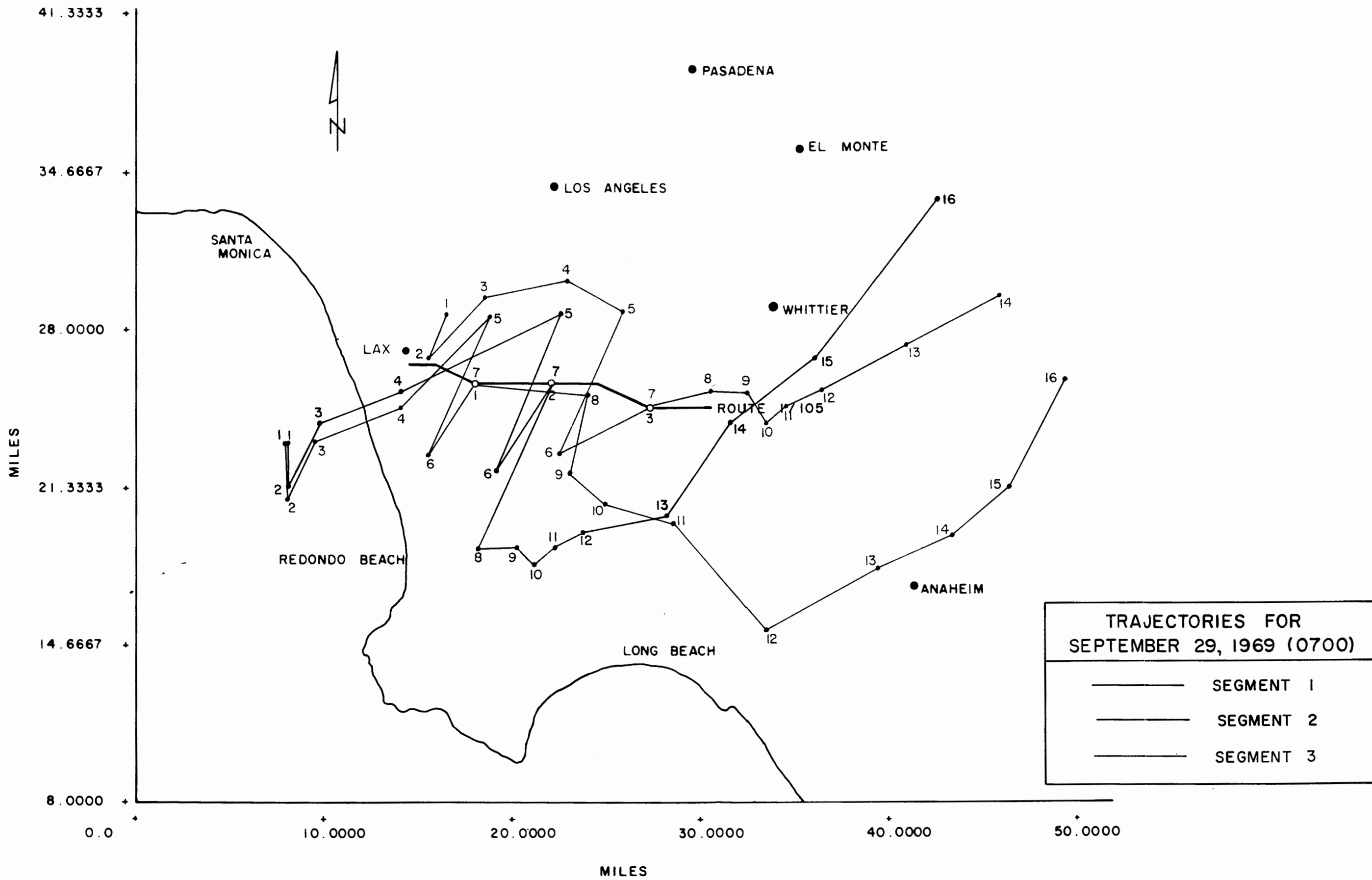
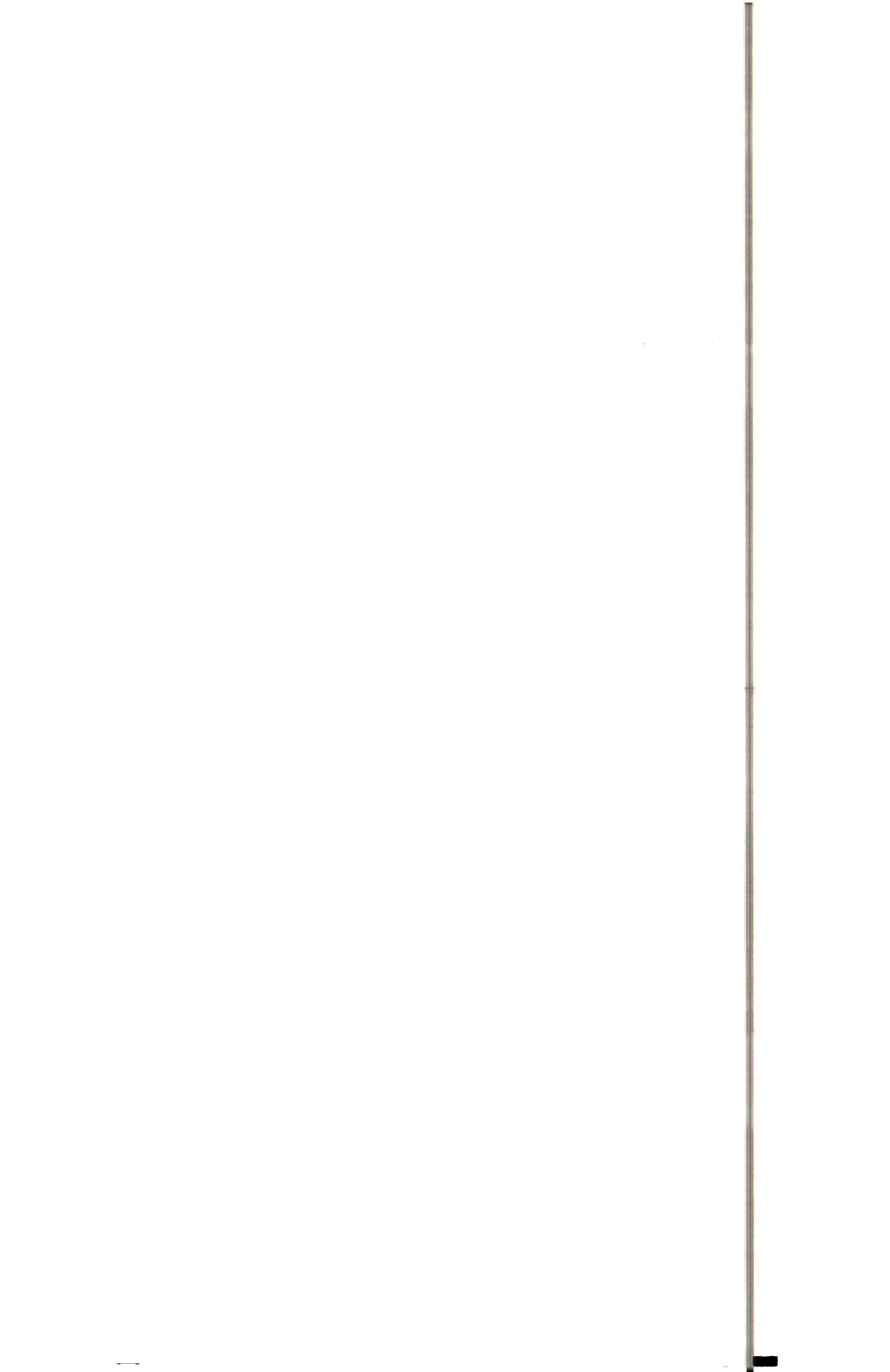


FIGURE 5-13





CONCENTRATIONS (PPHM)

DATA SUMMARY

9-29-69 TRAJECTORIES (0700)

LOCAL TIME	SEGMENT 1 (BLUE)							
	OZONE (O <sub>3</sub> )				NITROGEN DIOXIDE (NO <sub>2</sub> )			
	1980		2000		1980		2000	
	BUILD	NO BUILD	BUILD	NO BUILD	BUILD	NO BUILD	BUILD	NO BUILD
0000								
0100					4	4	4	4
0200					4	4	4	4
0300					4	4	4	4
0400					4	4	4	4
0500					4	4	3	3
0600					4	4	3	3
0700	0	0	0	0	4	4	3	3
0800	0	0	0	0	4	4	4	4
0900	0	0	0	0	6	7	6	6
1000	0	0	0	0	10	10	9	9
1100	1	1	0	0	14	14	13	13
1200	1	1	1	1	18	18	17	17
1300	1	1	1	1	21	21	19	19
1400	1	1	1	1	23	23	22	22
1500	1	1	1	1	25	25	24	24
1600	3	3	2	2	22	22	22	22
1700	5	5	2	3	19	18	20	20
1800								

TIME	SEGMENT 2 (RED)							
	OZONE (O <sub>3</sub> )				NITROGEN DIOXIDE (NO <sub>2</sub> )			
	1980		2000		1980		2000	
	BUILD	NO BUILD	BUILD	NO BUILD	BUILD	NO BUILD	BUILD	NO BUILD
0000								
0100					4	4	4	4
0200					4	4	4	4
0300					4	4	4	4
0400					4	4	4	4
0500					4	4	3	3
0600					4	4	3	3
0700	0	0	0	0	4	4	3	3
0800	0	0	0	0	4	4	4	4
0900	0	0	0	0	6	6	6	6
1000	0	0	0	0	10	10	9	9
1100	0	0	0	0	14	13	13	13
1200	1	1	0	0	18	18	16	17
1300	1	1	1	1	22	22	20	21
1400	1	1	1	1	26	26	25	25
1500	1	1	1	1	30	30	29	29
1600	2	2	1	1	26	26	26	26
1700								
1800								

TIME	SEGMENT 3 (GREEN)							
	OZONE (O <sub>3</sub> )				NITROGEN DIOXIDE (NO <sub>2</sub> )			
	1980		2000		1980		2000	
	BUILD	NO BUILD	BUILD	NO BUILD	BUILD	NO BUILD	BUILD	NO BUILD
0000								
0100					4	4	4	4
0200					4	4	4	4
0300					4	4	4	4
0400					4	4	4	4
0500					4	4	3	3
0600					4	4	3	3
0700	0	0	0	0	4	4	3	3
0800	0	0	0	0	4	4	4	4
0900	0	0	0	0	7	7	6	6
1000	1	1	0	0	10	11	9	9
1100	1	1	0	1	15	15	13	13
1200	1	1	0	1	19	20	17	18
1300	1	1	1	1	22	22	20	21
1400	2	2	1	1	24	24	23	23
1500	2	3	1	1	25	25	25	25
1600								
1700								
1800								

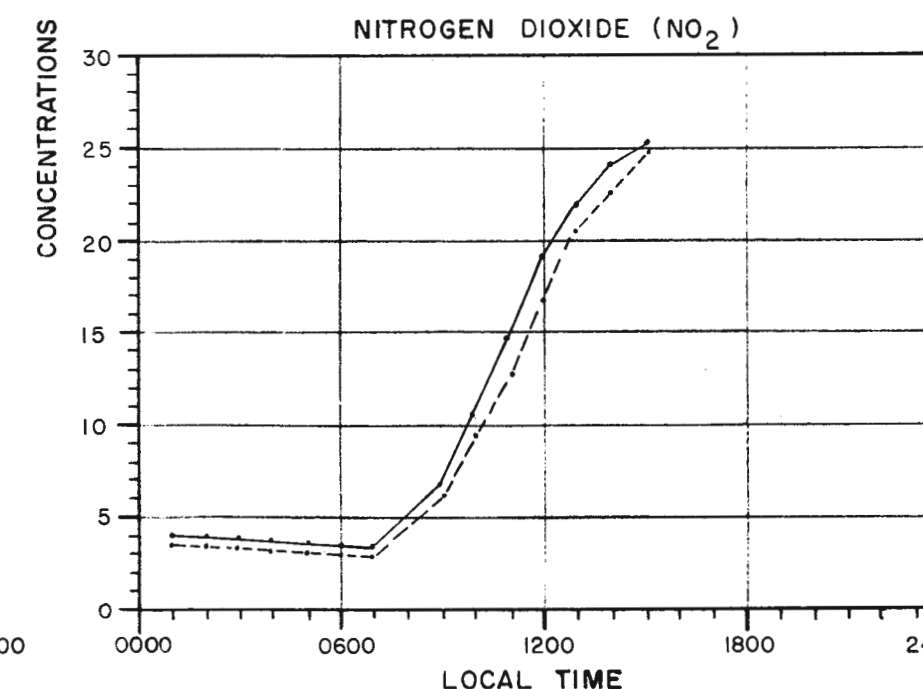
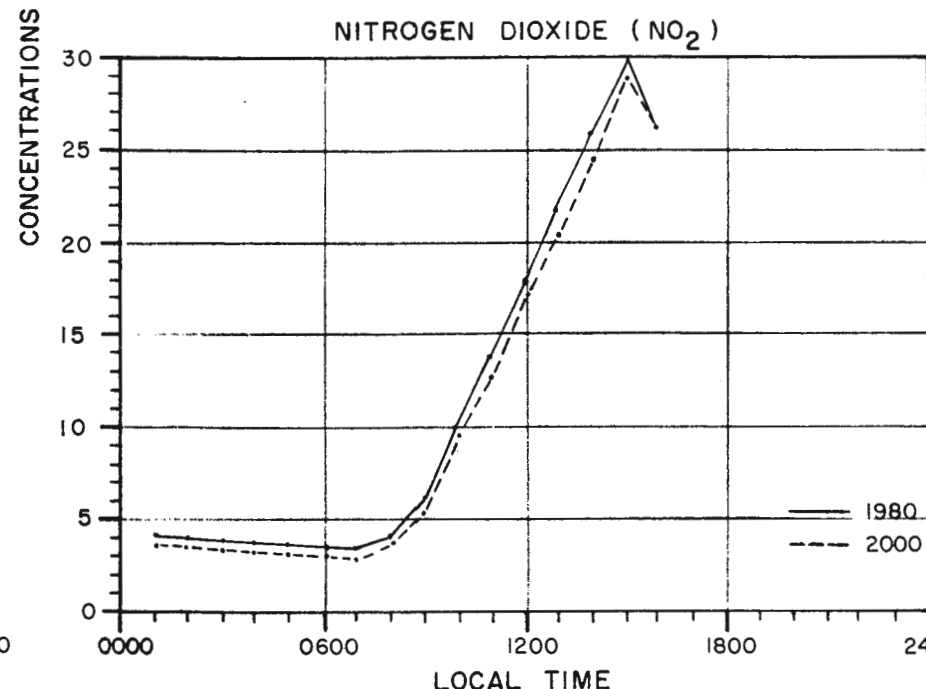
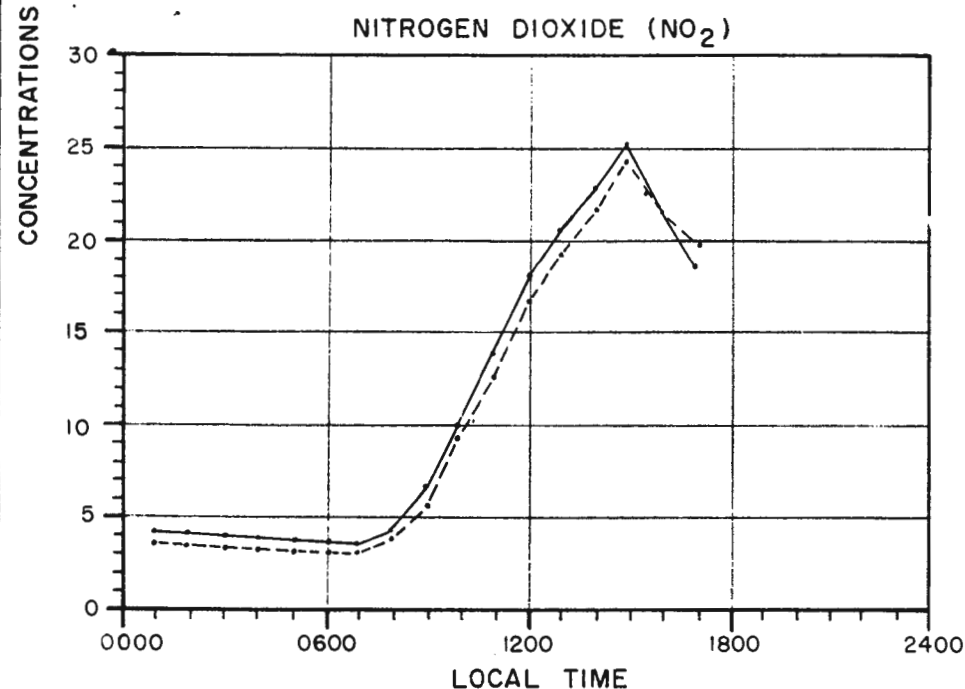
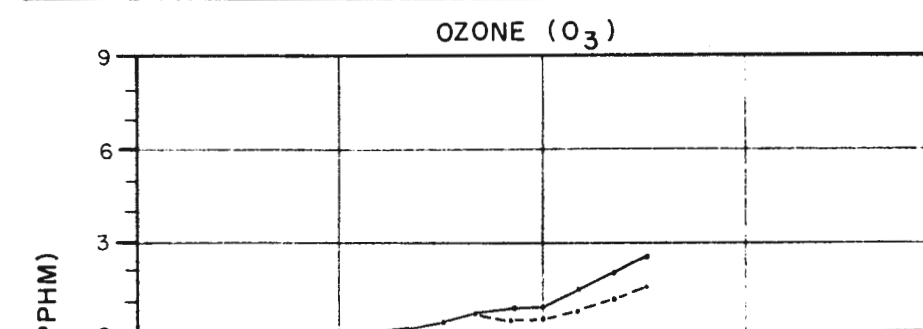
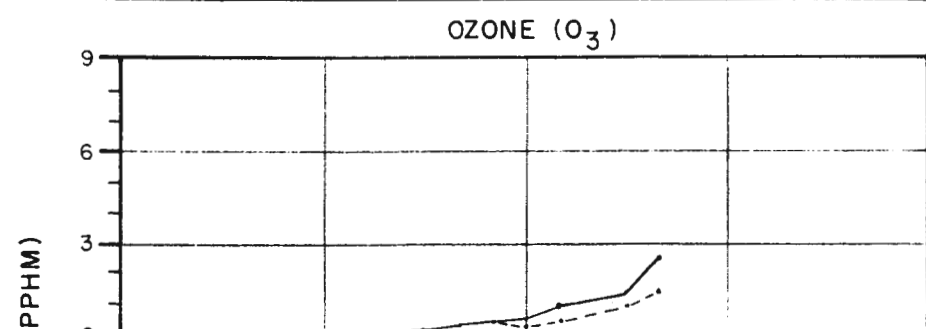
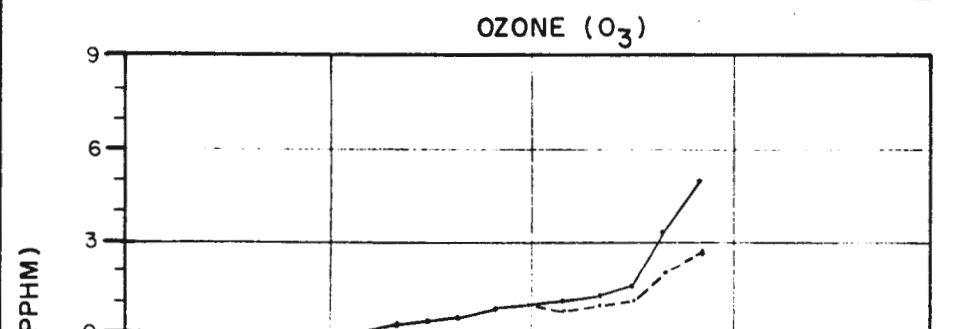
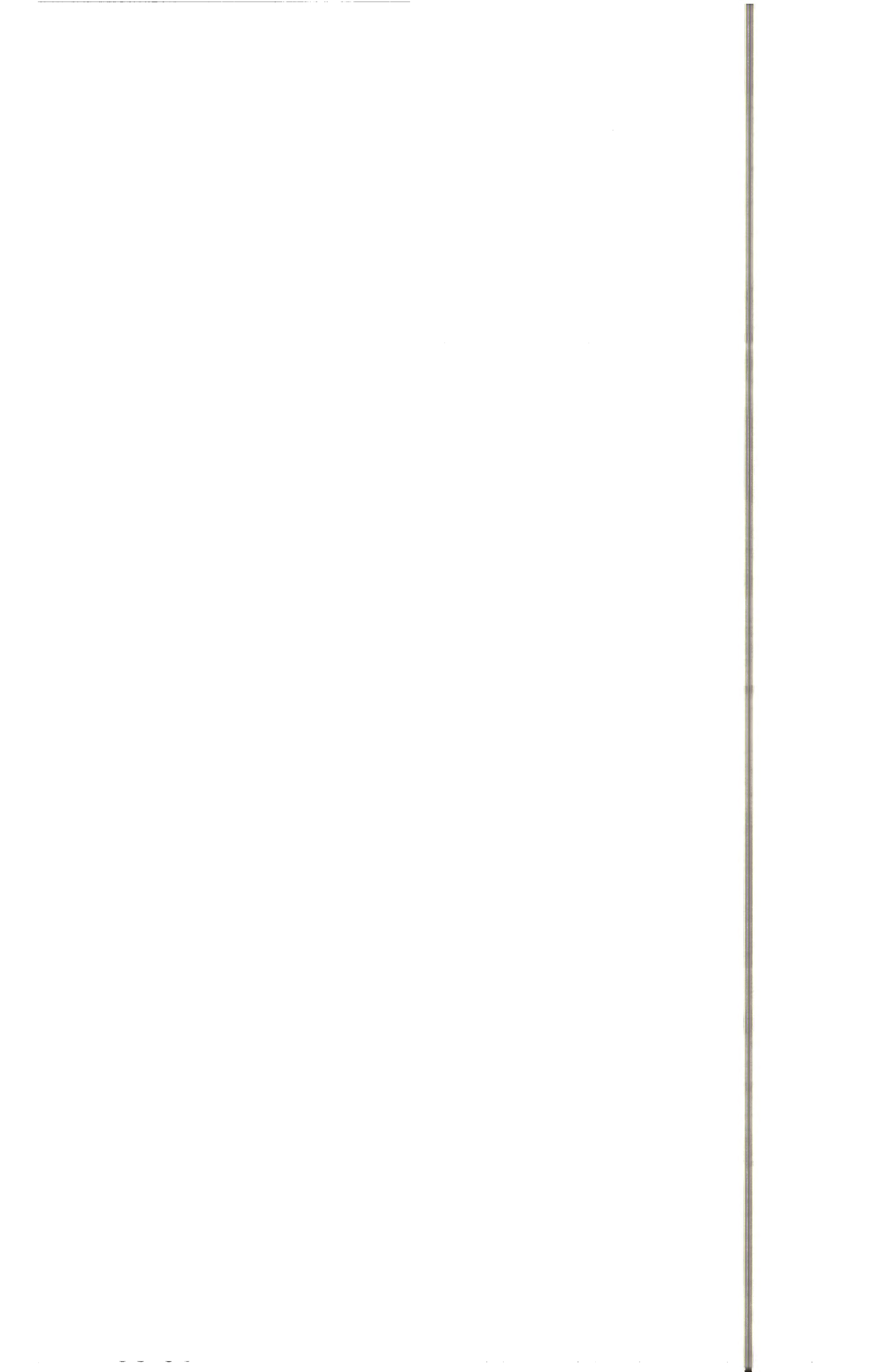


FIGURE 5-14



## Mitigation Measures

Completion of the I-105 Project will enhance traffic flow through the corridor and generally provide for more efficient traffic movement. Most importantly, a freeway is the most adaptable facility for promotion of mitigation strategies such as greater use of high occupancy vehicles and further improvement of operating efficiency. Controlled access improves freeway traffic flow and tends toward maximizing or balancing the use of all facilities. This feature plus freeway bus routes, exclusive bus and carpool lanes and adjacent park and ride facilities all encourage higher occupancy of vehicles.

Measures applicable to freeway construction for the mitigation of air quality are invariably in conflict with noise. An elevated freeway will expose auto pollutants to greater dispersion but will spread traffic noise over a greater area. In the opposite case of a depressed freeway, the noise will be suppressed but the air pollutants tend to concentrate in the trough and disperse slowly.

## Evaluative Summary

Table 5-3 ranks the alternatives, considering both impact scale (regional, corridor, and near facility) and pollutant (primary: CO, HC, NO<sub>x</sub>, and secondary: O<sub>3</sub> and NO<sub>2</sub>). These qualitative rankings are based on the quantitative primary and secondary (photochemical) pollutant analysis results. The rankings reflect the general conclusion that transportation alternatives which increase average corridor and regional vehicular travel speed will promote: (1) regional and corridor scale reductions in CO; (2) increases in NO<sub>x</sub> at all impact scale; (3) decreases in O<sub>3</sub> at all impact scales; and (4) increases of NO<sub>2</sub> at all impact scales.

The rankings indicate that the Project results in air quality effects which are either the best or the worst among the alternatives considered. For example, the Project is first in the most relative improvement of CO at the regional (Los Angeles Air Basin) and corridor scales and is second adjacent to arterials (due to freeway-related congestion relief). The I-105 also produces the most relative improvement of O<sub>3</sub> at all impact scales. However, the Project is fifth or last in terms of relative CO effect near the proposed alignment, since it introduces a "new pollution source". Also, the Project is fifth (relatively) in terms of both NO<sub>x</sub> and NO<sub>2</sub> at all impact scales.

All changes that result from the Project or the alternatives are extremely small (on the order of 1% or less), except for CO in the corridor which will be reduced 15 to 25% with the Project.

Emphasis on strategies involving VMT reduction and in particular, reduction of light duty vehicle (LDV) mileage to meet National Ambient Air Quality Standards (NAAQS) in SCAB bears further examination. The ARB inventory of reactive organic gas (same as RHC) in SCAB is illustrated in Figure 5-15. The reduction of RHC is considered the key to achieving the NAAQS for oxidant, the principal pollution problem in SCAB. The contribution from LDV sources in 1973 was roughly 50% of the total but by 1980, this percentage is projected to drop to less than 25%. The vehicle emission control program will have already reduced the LVD contribution approaching parity with both stationary and background sources. Thus, the effect of VMT reductions on oxidant levels will be almost negligible. For instance, restricting or penalizing personal vehicle travel to produce a 20% VMT reduction by 1980 will achieve only a 3% reduction in total RHC, a 7% reduction of CO emissions (Figure 5-16) and a 3% reduction in NO<sub>x</sub> emissions (Figure 5-17). These reductions grow smaller by 1990. Based on this data, increases or decreases of VMT after 1980 should not weigh heavily in decision making for this or other highway projects in the South Coast Air Basin.

The above information is based on an emissions inventory prepared by the Air Resources Board (ARB) and dated November 12, 1975. Subsequent to that date, ARB prepared another inventory for assessing air quality impacts. Though the numbers noted above and Figures 5-15, 5-16, and 5-17 are changed as a consequence, the conclusions are the same.

In summary, air quality within the I-105 corridor and the Los Angeles Air Basin will improve significantly through the 1980's due to stationary and mobile source emission controls and transportation control strategies that are to be instituted as part of the Clean Air Act of 1970, and the State Implementation Plan to Achieve and Maintain the National Ambient Air Quality Standards. After the late 1980's, in the absence of further technological controls, air quality will deteriorate very slightly due to increases in population and travel. No significant improvement in regional air quality can be attributed to any transportation improvement that can be made in this or any other single corridor. However, among the alternatives considered, the Project appears to provide the greatest margin of improvement.

TABLE 5-3  
AIR QUALITY COMPARISONS

<u>Pollutant and Impact Scale</u>	<u>ALTERNATIVES</u>				
	<u>I-105* Project</u>	<u>No Project</u>	<u>Exclusive Busway</u>	<u>Local Improvements</u>	
				<u>Widen</u>	<u>Grade-Separate</u>
<u>CO</u>					
. Regional and Corridor	First	Fifth	Fourth	Third	Second
. Near Facility					
- I-105 Alignment	Fifth	Third	Fourth	Second	First
- Arterials	Second	Fifth	Fourth	Third	First
<u>HC</u>					
. All Scales	.....Negligible Change.....				
<u>NO<sub>x</sub></u>					
. All Scales	Fifth	First	Second	Third	Fourth
<u>O<sub>3</sub></u>					
. All Scales	First	Fifth	Fourth	Third	Second
<u>NO<sub>2</sub></u>					
. All Scales	Fifth	First	Second	Third	Fourth

\*The original adopted and Bell line variations result in the same conclusions as the proposed alignment except that near facility impacts occur at different locations.

Consistency with State Implementation Plan (SIP)

The Clean Air Act of 1970 required the promulgation of a State Implementation Plan (SIP) to achieve and maintain federally-mandated air quality standards within critical air quality control regions. For lack of a submittal by the State of California, that portion of the SIP which addresses mobile source emissions, called the Transportation Control Plan (TCP), was prepared by the Environmental Protection Agency (EPA) acting under a federal court order. The plan promulgated November 12, 1973 includes the VMT reduction measures featuring bus and carpool lanes, carpooling systems, parking management, parking surcharges and gas-rationing. Because the latter three measures would involve a drastic reduction in mobility with severe adverse socioeconomic side effects, the State undertook its option to substitute its own plan provided it met with EPA's requirements.

Caltrans, the State's agent, in cooperation with the Southern California Association of Governments (SCAG), the regional planning agency, prepared a plan to avoid the more severe aspects of the federal plan. Substantial public resistance to some elements of the plan have inhibited implementation. While EPA, the State, SCAG and local agencies search for an effective and acceptable TCP, the region has embarked on implementing the other elements of the TCP in the South Coast Air Basin. These elements are part of a program that includes carpooling, vanpooling, fringe parking and refinements in existing bus service. It includes a regionwide transportation management system composed of ramp metering and HOV bypass lanes which seek to provide the free flow conditions conducive to a minimization of emissions. The program considers an eventual line-haul bus-on-freeway system, a downtown people mover system and an element of a possible regionwide fixed-rail transit system.

Under Section 109(J) of the Federal Aid Highway Act, Regional Transportation Plans (RTP) are to be consistent with the SIP. Currently, the SCAG RTP has been found to be inconsistent with the SIP. Environmental Planning Agency, Region 9 has indicated that, in order for the RTP to be consistent with the SIP that the Plan should, at a minimum, result in no net increase in emissions with no emission reduction credit given for the California Motor Vehicle Emission Control Program.<sup>1</sup>

Judgments on project level consistency are based upon a project's ability to operate in concert with the RTP which contains both the project and the TCP element of the SIP. In absence of an RTP judged to be consistent with the SIP, the project to be consistent with the SIP must then satisfy the RTP consistency criteria.

The proposed I-105 project is consistent with this basic premise. In satisfying the criteria for consistency, the results of the regional analysis (Table 5-2) indicate that there will be no net increase in vehicular emissions to result from the Project when compared with the no project alternative. The analysis shows a continuing decrease in CO, no change in the HC and a slight increase in NO<sub>x</sub> for a net decrease in vehicular emissions due to the Project.

In addition to meeting the basic premise of consistency, the project is an important regional transportation link in promulgating the features of the proposed State TCP which is designed to reduce both VMT and traffic congestion. The project as presently proposed is an 8-lane freeway incorporating ramp metering and HOV bypasses commensurate with the TCP objective of a higher vehicle occupancy factor and free-flow conditions on the regional freeway system. The project includes provisions for a median transitway. The width is adequate for and consistent with the short-term (bus) and long-term (fixed guideway) element of the projected regional public transportation system and the TCP. This combination represents a significant shift towards a more compact urban environment with greater emphasis on HOV, both public and private, with the resultant lower emissions in the interest of improving air quality.

## 5.2 NOISE EFFECTS

### Introduction

This section describes the results of studies<sup>2</sup> undertaken to assess the noise impact on the surrounding communities of the Project and its alternatives. The major steps in this analysis include:

- . Measurement of existing (ambient) noise levels at locations in or near sensitive areas and facilities within the I-105 corridor.
- . Prediction of noise levels at the sensitive areas and facilities to result from transportation alternatives.
- . Comparison of predicted levels with ambient levels and noise criteria.
- . Identification of the noise attenuation required and the abatement measures to be employed.

### Assessment Methodology

#### Existing (Ambient) Noise Levels:

The first step in the assessment of noise impact involves the measurement of existing noise levels at locations adjoining the Project and the alternatives. For the I-105 Project, locations of measurement sites were chosen to represent areas of noise sensitive land use such as a residential neighborhood or a single, noise sensitive facility such as a

<sup>1</sup>Letter: F. M. Covington; Director, Air and Hazardous Materials Division, EPA to M. Pisano; Director SCAG; April 1, 1977.

<sup>2</sup>Noise Report: El Segundo-Norwalk Freeway, 7 LA I/105, July 1973, and Addendums, California Department of Transportation, District 7 Environmental Investigations Sections.

school. For the non-project alternatives, locations were selected which represent typical noise levels along the current major transportation arterials. The locations were divided into two groups. The first group represents noise levels at major intersecting streets while the second reflects the noise levels away from major cross streets. Figure 5-18 indicates the approximate location of all existing noise level measurements.

Existing noise level measurements were recorded for a 10-minute period. The 10-minute recording time for noise level measurements was validated as representative by time/measurement studies performed in the project area. The noise level recordings were converted to values compatible with the predicted noise descriptors.

In order to put the numerical data which follows into a proper frame of reference, Figure 5-19 is included to indicate the relative loudness of noise emanating from familiar sources. Highway noise is measured in decibel units on the A scale of a standard sound level meter, and is abbreviated "dBA". The A measurement scale is used because it closely approximates human ear response to traffic noises.

#### Predicted Noise Levels:

Two procedures were used for predicting highway noise: One of the procedures is based on the methodology provided in the National Cooperative Highway Research Program (NCHRP) Report 117<sup>1</sup> and the other procedure follows the method developed by the California Department of Transportation.<sup>2</sup> Both procedures predict noise levels from information on the characteristics of the traffic and the highway and their relationship to the observer.

The federally approved NCHRP Report 117 method predicts highway noise as a function of traffic density. Densities were derived for the project from projections of hourly volumes, percent of heavy duty vehicles and average speeds for the year 2000. The noise descriptor is expressed in terms of a statistical time distribution notation of L<sub>10</sub>, a noise level that is exceeded 10 percent of the time. Critical freeway traffic periods were identified and the associated traffic densities were input to produce L<sub>10</sub> level predictions. For the non-project alternatives, traffic characteristics of surface facilities were interpreted from the Highway Capacity Manual.<sup>3</sup>

The "California Method" predicts the average peak noise level from the loudest motor vehicles operating on adjacent facilities. On freeways and the most major arterials, the noisiest vehicles are diesel trucks. On other facilities, they may be gasoline-powered trucks or light-duty vehicles only. Use of this method is limited to school classroom analysis where the noise descriptor is most sensitive to the more stringent requirements of State law versus the Federal standards applicable to impacted schools.

#### Mitigation:

Evaluation of impact and determination of need for noise mitigation measures were based on two sets of criteria. The first approach establishes an acceptable (design) noise level for various land use categories (Table 5-4). If the predicted noise level exceeds the design level, mitigation is indicated to bring the predicted level equal to or below the design level.

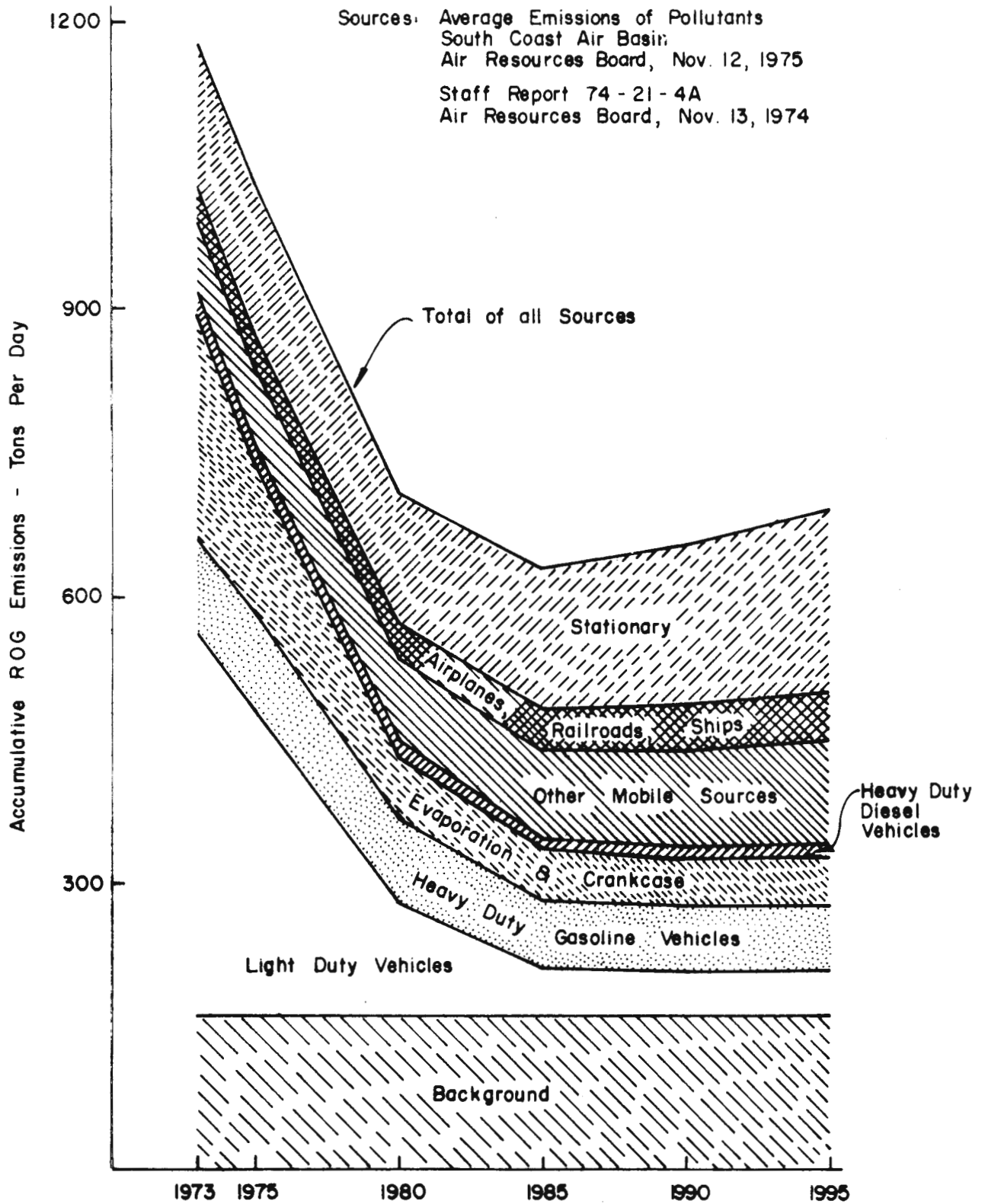
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<sup>1</sup>Highway Research Board, Highway Noise - A Design Guide for Highway Engineers, National Cooperative Highway Research Program Report 117, 1971.

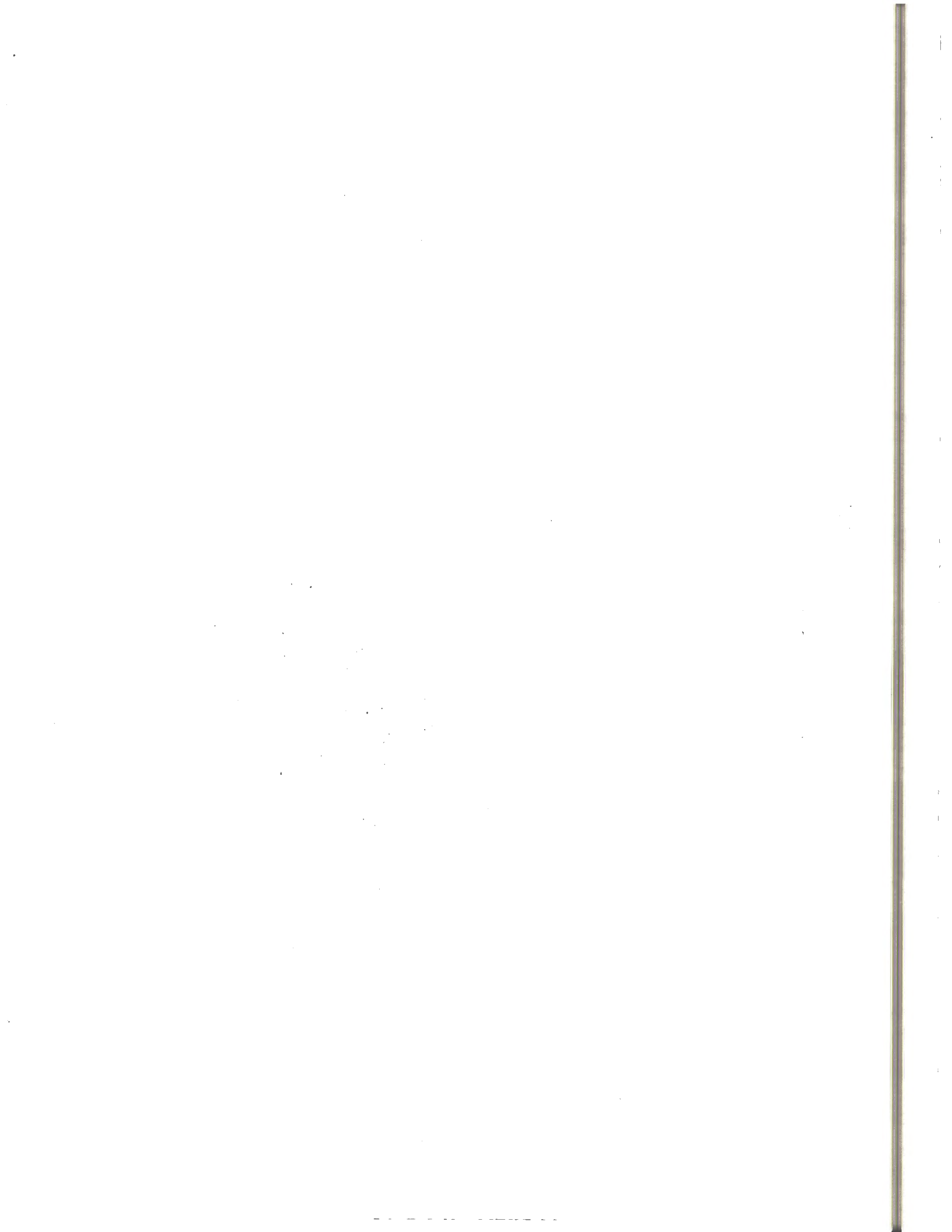
<sup>2</sup>Beaton, J. L. and Bourget, L., Can Noise Radiation from Highways be Reduced by Design? Highway Research Report, 1968.

<sup>3</sup>Highway Research Board, Highway Capacity Manual, 1965. Special Report No. 87, Washington, 1965.

# TOTAL REACTIVE ORGANIC GAS EMISSIONS SOUTH COAST AIR BASIN



**FIGURE 5-15**





# TOTAL CARBON MONOXIDE EMISSIONS SOUTH COAST AIR BASIN

Sources: Average Emissions of Pollutants  
South Coast Air Basin  
Air Resources Board, Nov. 12, 1975  
Background Concentrations in the  
South Coast Air Basin  
Air Resources Board, Feb. 27, 1976

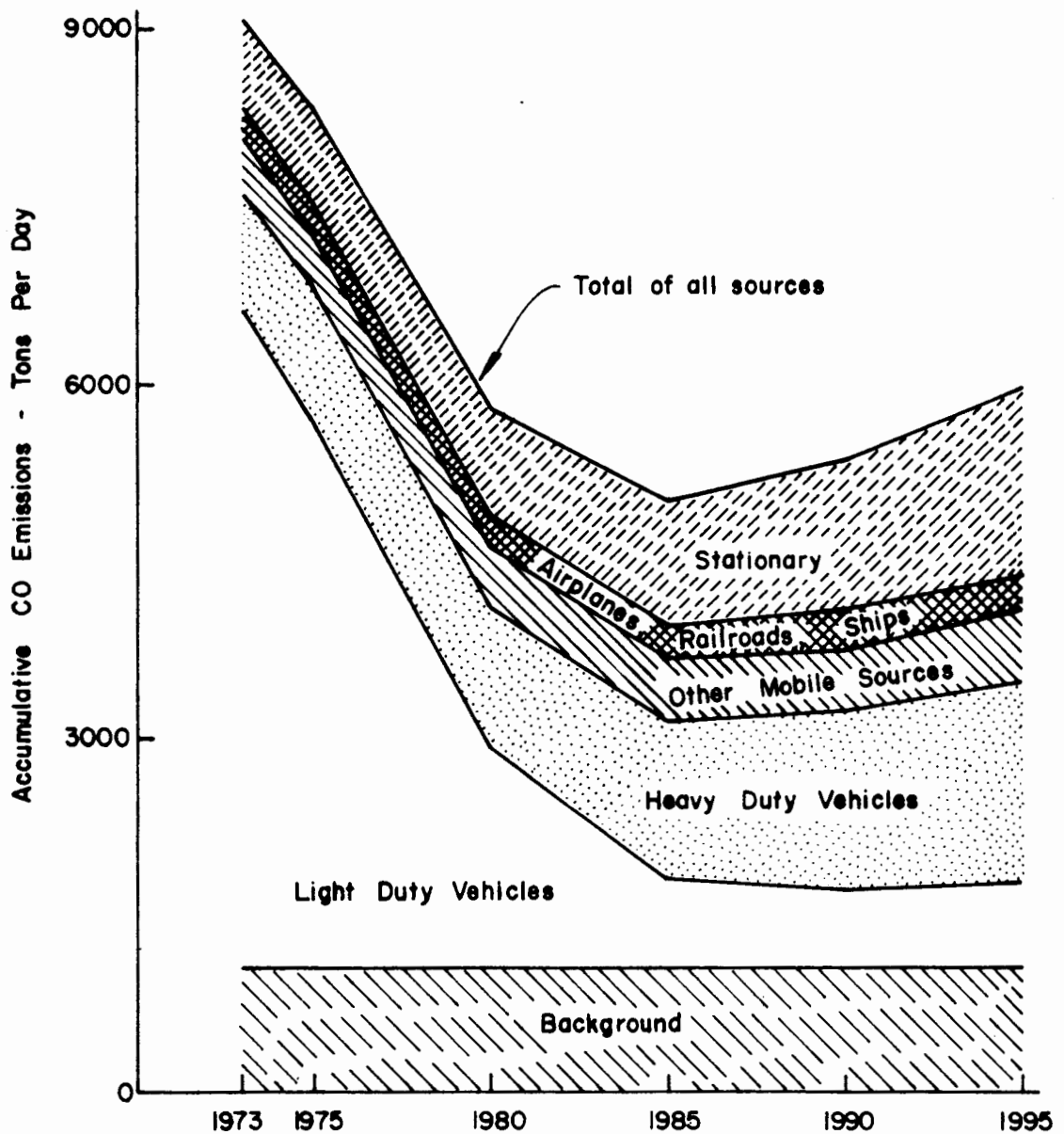


FIGURE 5-16



# TOTAL OXIDES OF NITROGEN EMISSIONS SOUTH COAST AIR BASIN

Sources: Average Emissions of Pollutants  
South Coast Air Basin  
Air Resources Board, Nov. 12, 1975  
Background Concentrations in the  
South Coast Air Basin  
Air Resources Board, Feb. 27, 1976

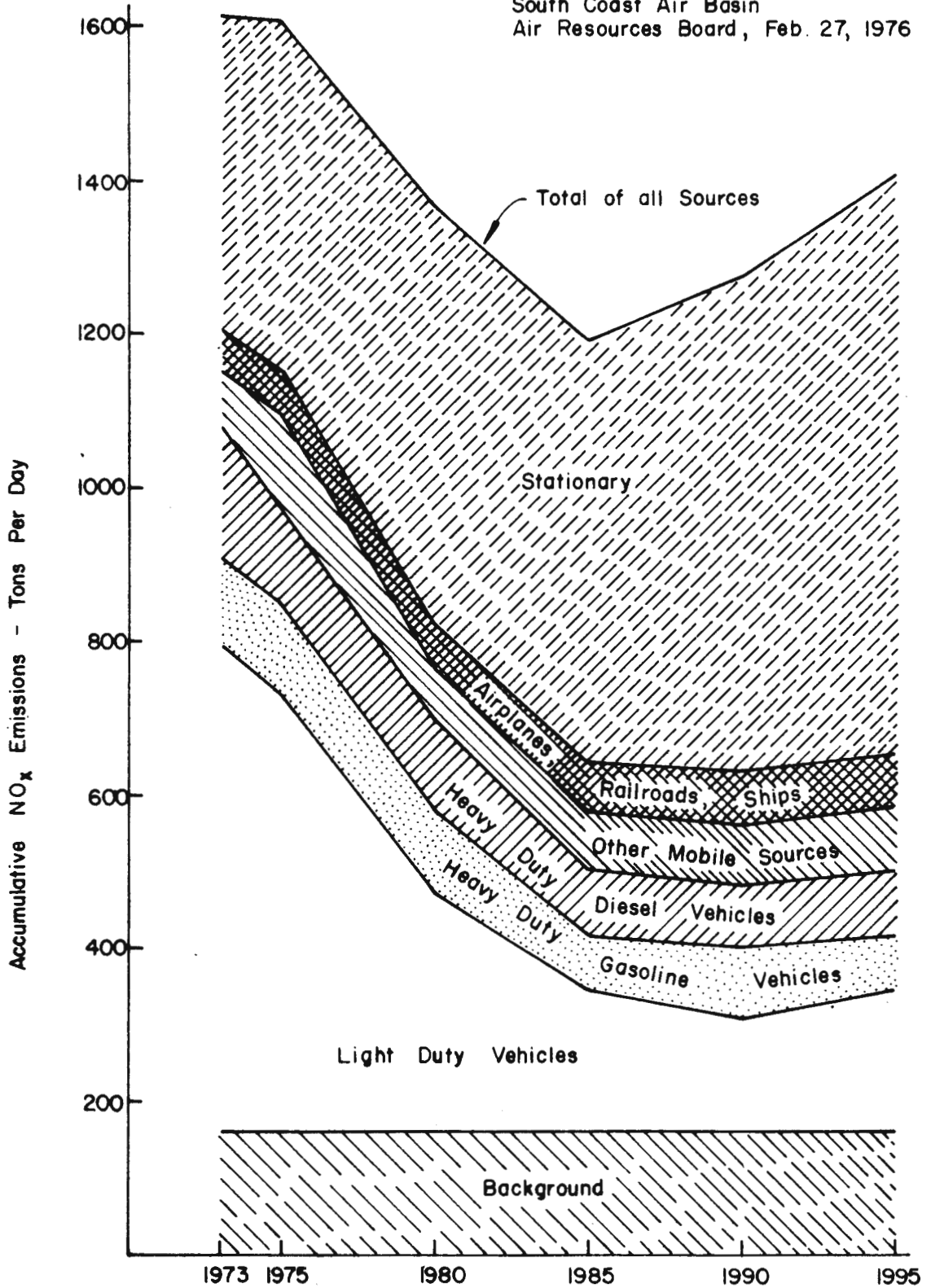
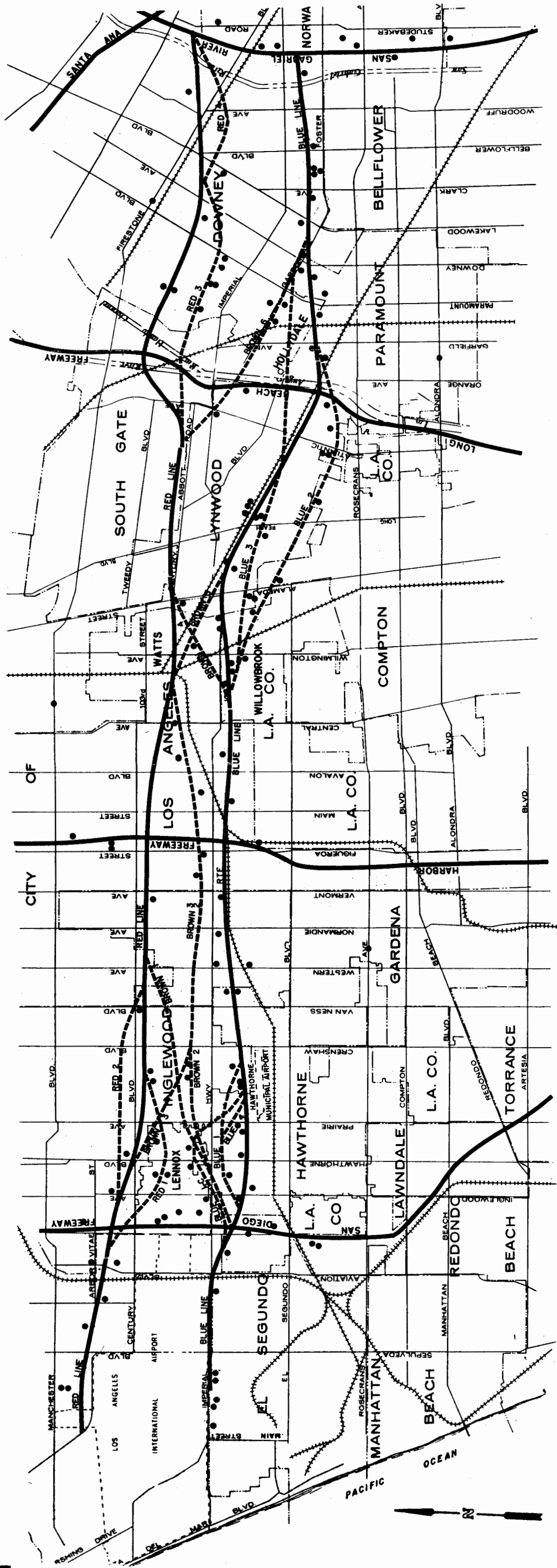


FIGURE 5-17





● NOISE MEASUREMENT SITE

NOISE MEASUREMENT SITES

FIGURE 5-18



**TYPICAL SOUNDS**

Artillery Fire  
Elevated Train  
Automatic Punch Press

**LOUD**

Noisy Industrial Plant  
Subway Train at 20'  
10 H.P. Outboard at 50'  
Symphony Orchestra

Steam Press  
Office W/Tabulating  
Machines  
Shouting Voice at 6'

Conversation at 3'  
Accounting Office  
Normal Speaking Voice

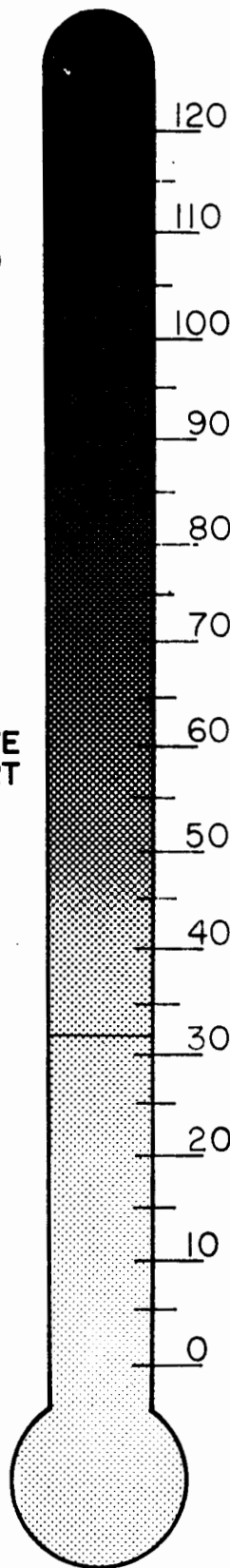
**RELATIVE  
COMFORT  
ZONE**

Private Business Office  
Average Residence  
Quiet Living Room

Broadcasting Studio  
Studio for Sound  
Pictures  
Rustling Leaves

Threshold of Hearing

**VERY  
QUIET**



**DECIBEL  
SCALE**

**TYPICAL TRAFFIC  
NOISES**

Trumpet Auto Horn at 3'

Heavy Truck Traffic at 20'  
Inside Auto Sedan in City  
Traffic

Small Truck Accelerating  
at 30'

Light Trucks in City at 20'

Heavy Auto Traffic at 25-50'

Average Traffic at 100'

Light Traffic at 100'

NOTE: An increase of  
10 dBA doubles the  
relative loudness.

**RELATIVE SOUND LEVELS**

**FIGURE 5-19**

1870

1871

1872

1873

1874

1875

1876

1877

1878

1879



TABLE 5-4  
DESIGN NOISE LEVEL/LAND USE RELATIONSHIPS

<u>Land Use Category</u>	<u>Design Noise Level L10</u>	<u>Description of Land Use Category</u>
A	60 dBA (Exterior)	Tracts of land in which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	70 dBA (Exterior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, picnic areas, recreation areas, playgrounds, active sport areas, and parks.
C	75 dBA (Exterior)	Developed lands, properties or activities not included in Categories A and B above.
D	-----	For requirements on undeveloped lands, see paragraphs 5.a(5) and (6) of PPM 90-2.
E	55 dBA (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums.

Source: Policy and Procedure Memorandum (PPM) 90-2, Federal Highway Administration, U. S. Department of Transportation, February 1973.

This approach, however, does not address the problem of "relative" noise level increase. For instance, it is quite possible for a noise sensitive location characterized by a very low ambient level to be exposed to a substantial increase in traffic noise without exceeding design criteria. Therefore, the evaluation includes another set of criteria which relates impact to predicted noise level increases (Table 5-5).

TABLE 5-5  
EXPECTED IMPACT WHEN PROJECTED NOISE LEVELS  
EXCEED AMBIENT LEVELS

<u>Predicted L10 minus Ambient L10</u>	<u>Assessment</u>
Less than 6 dBA	No Impact
6 to 15 dBA	Some Impact
More than 15 dBA	Great Impact

Source: Highway Noise - A Design Guide for Highway Engineers, National Cooperative Highway Research Program Report 117, Highway Research Board, 1971.

The final step is to assess the noise abatement measures required to satisfy noise criteria. These measures include earth barriers, walls, revised highway design in the form of profile alterations and, in the case of schools, soundproofing of the classroom under certain conditions.

Where noise levels exceed ambient levels significantly, but fall below the 70 dBA design criteria, consideration will be given to mitigation where it is feasible both financially and practically, and where benefits accrue to a significant number of people.

Noise Impact Evaluation

I-105 Project (and Hawthorne Location Alternatives):

Noise level predictions were made for differing sections of the Project (at-grade, elevated or depressed), at noise sensitive land uses (residential neighborhoods, playgrounds, etc.) and at noise sensitive facilities (churches, schools, etc.). From the measurements of existing noise levels, the ambient noise level at each of the above locations was identified.

The noise impact was then determined by comparing predicted and ambient values, as well as the level acceptable for each location.

It can be seen from Figure 5-18 that evaluations were performed over a wide area of the corridor, including all of the freeway alignments. When these alignment alternatives were compared with each other, very little difference in the magnitude of impact could be determined. In fact, the differences relative to freeway traffic noise were considered so small that there exists little basis for choice of one alignment over the other. As in earlier chapters, the evaluations presented herein are confined to a single freeway alignment, the adopted line, as modified by the location proposed in the Hawthorne area, the Imperial Line.

It should be pointed out here that the analysis of the original and current proposals differed in the area affected by the approach flight path to LAX, generally west of the Harbor Freeway. The earlier analysis excluded the effect of aircraft in order to uniformly isolate the relationship of current and projected surface traffic only. For the currently proposed Project, the ambient levels include the influence of aircraft. The change was considered necessary to more accurately identify the mitigation possible; i.e., to what extent can freeway noise barriers effect reductions in neighborhood noise levels significantly influenced by aircraft overflights?

The results of the evaluations are tabulated in detail in Exhibit 7 in Appendix E. A summation of these results cannot be thoroughly condensed here. However, in general, freeway traffic is estimated to produce noise levels in the mid-60 dBA to mid-70 dBA range at frontage currently exhibiting ambient levels in the mid-50 dBA to mid-60 dBA range.

Non-Project Alternatives:

For evaluation purposes, twelve locations were selected to represent ambient noise levels along major arterial streets. These measurement sites are located on corridor arterials considered for the widening or grade-separation alternatives to the Project. Table 5-6 summarizes the existing noise level data.

TABLE 5-6  
EXISTING NOISE LEVELS - SAMPLE LOCATIONS FOR ALTERNATIVES

<u>Sample Number</u>	<u>Location</u>	<u>L10-dBA @ 50 Feet</u>
1	Imperial Highway at Western Avenue	72
1a	Imperial Highway at St. Andrews Place	71
2	Rosecrans Avenue at Western Avenue	73
2a	Rosecrans Avenue at Denker Avenue	71
3	Manchester Avenue at Central Avenue	71
3a	Manchester Avenue at Mary Avenue	70
4	Long Beach Boulevard at Los Flores Boulevard	67
4a	Imperial Highway at California Avenue	73
5	Alondra Boulevard at Orange Avenue	75
5a	Alondra Boulevard at Gundry Avenue	70
6	Firestone Boulevard at Paramount Boulevard	76
6a	Firestone Boulevard at Myrtle Street	72

The existing noise levels, as would be expected, were highest at major intersections. The higher traffic volumes from four directions instead of two, plus acceleration noise, produced noise levels 1 to 5 dBA greater than those away from major intersecting streets. Along the arterials away from major intersecting streets, traffic patterns were invariably intermittent or platooned. The average speed for these conditions ranged from 25 mph to 35 mph. The recorded levels resulted in  $L_{10}$  values of 67 to 72 dBA along the arterials and 70 to 76 dBA at the intersections.

To provide service at current levels (25 mph), the equivalent of 8 to 10 additional surface street lanes would be required between Rosecrans Avenue and Manchester Boulevard. In terms of impact on the community, the widening alternative will raise present noise levels by 10 to 15 dBA at the frontage opposite widenings.

Along grade separated facilities, the immediate frontage would experience increases approaching 10 dBA, double the present loudness. Noise levels throughout the neighboring feeder-street systems will also be higher due to the detouring required by the users of the grade-separated arterials. Increases of as high as 10 to 15 dBA can be expected.

As noted earlier,  $L_{10}$  noise levels are those levels which are exceeded 10 percent of the time. In order for mass public transit (the exclusive busway in this case) to have an effect on local noise levels, trips would have to occur in excess of one per minute. This frequency is much greater than the service required to satisfy predicted patronage in this corridor. On this basis, it would be concluded that transit operation would have a negligible noise impact, but present buses and railed vehicles are very noisy and produce peak noise levels in the same range as diesel trucks, 80 to 92 dBA at 50 feet. When these vehicles are mutually operated with other motor vehicles on the same facility, such as the median busway element of the proposed project, their noise levels blend and have practically no effect on the already high levels predicted for the freeway. On the other hand, noise levels next to an exclusive transit system will fluctuate from a base or ambient level of approximately 60 dBA up to 80 dBA and higher for each passing vehicle. This difference is greater at night when ambient levels are normally down to 40 dBA. While the  $L_{10}$  method does not indicate an impact, the intermittent increases in local noise levels, several times higher than existing, are disturbing and therefore will have an impact on adjacent communities.

For the No Project alternative, the levels of service and corresponding vehicle speeds will decrease on arterial streets as corridor traffic volumes increase. Also, as volumes exceed the capacity of the major arterial streets, traffic will seek alternative routes and probably divert to secondary streets, many of which are basically residential streets. Speeds of less than 20 mph and congestion could double and sometimes triple (10-15 dBA) present noise levels at adjacent arterial frontage. This increase will extend the highway noise several hundred feet further into the community than present impact levels reach.

### Noise Mitigation

#### I-105 Project (and Hawthorne Location Alternatives):

The maximum predicted noise levels at sensitive locations are generally considered to be within the realm of control by conventional mitigation methods. The methods currently used to mitigate noise levels can be divided into two major categories: (1) Reduction of noise levels at the freeway by path interference; and, (2) Reduction of noise levels at receptor locations by modification of receptor.

Freeway designs that maximize the use of depressed roadway sections are effective in diminishing the impact of traffic noises. A depressed freeway design through level terrain has an advantage of approximately 10 dBA compared to an at-grade section at 100' distance. This advantage decreases rapidly for nearer distances and is completely lost near the crest of the side slopes, where all shielding from the traffic lanes is eliminated. Elevated freeway designs are less effective than depressed roadway sections but can offer an average of 3 to 7 dBA advantage over at-grade sections depending on lateral shoulder widths and observer heights.

The construction of barrier walls, earthen berms, or combinations thereof, are measures that can be used to reduce noise levels by interrupting the sound path between the source and receptor. To be effective, the barrier wall should have reasonable mass, be impervious to air flow, block the view of the noise source, and exhibit high losses and low efficiencies with respect to refractive and reflective sound paths.

The noise-reducing characteristic of barrier-type walls varies with the height of the barrier, the locations of the noise sources and receptors, and the existence and character of alternative noise transmission paths. A maximum of 12 to 15 dBA attenuation may be obtained from practical noise barriers under ideal conditions. Typical means of reducing noise levels from freeway path interference are shown in Figures 5-20 and 5-21.

Basic barrier requirements at specific locations along the Project are tabulated in the previously noted Exhibit 7 in Appendix E. These tabulations indicate the physical dimensions of barriers which are estimated to reduce noise to meet design levels. Final locations, types and dimensions will be determined during development of final design details when such factors as safety, costs, aesthetics and availability of right-of-way are considered along with the results of consultation with local officials and communities. Mitigation to 70 dBA or less with exceptions discussed below will be provided unless the design studies and consultations indicate a need for additional exceptions to the design levels.

There are approximately 32 sensitive sites next to the project alignment where analysis indicates that design levels will not be met. Most all are at locations which could be mitigated but the measures required make abatement impractical. The circumstances and alternatives are noted in the Summary of Noise Data (Exhibit 7 in Appendix E) and in Table 5-7.

TABLE 5-7  
LIST OF NOISE EXCEPTIONS

<u>Location</u>	<u>No. of Buildings</u>	<u>Predicted Noise Level (L<sub>10</sub>)</u>
1. Upper floor of 2-story residence on Redfern Avenue between 112th Street and 111th Place (East side of Route 405 Freeway)	(1)	73 dBA
2. Upper floor of 2-story residence, north side Route 105 Freeway between Condon Avenue and Truro Avenue	(1)	73
3. Upper floor of 2-story residence, south side Route 105 Freeway between Hawthorne Boulevard and Acacia Avenue	(1)	71
4. Upper floors of 2-story residences, north side Route 105 Freeway between Croesus Avenue and Mona Boulevard (North side Imperial Highway)	(4)	77*
5. Single story residences, south side Route 105 Freeway between Atlantic Avenue and Virginia Avenue	(3)	72
6. Upper floor of 2-story residence, north side Route 105 Freeway between Imperial Highway and State Street	(1)	72
7. Single story residences, north side Route 105 Freeway between Long Beach Boulevard and Copeland Street	(5)	75
8. Upper floors of 2-story residences, north side Route 105 Freeway between Birch Street and Bullis Road	(4)	72
9. Single story residences, east side Route 405 Freeway between 109th Street and 104th Street	(7)	76*
10. 2-story residences east side Route 605 Freeway between Adoree Street and Imperial Highway	(5)	74
	(32)	

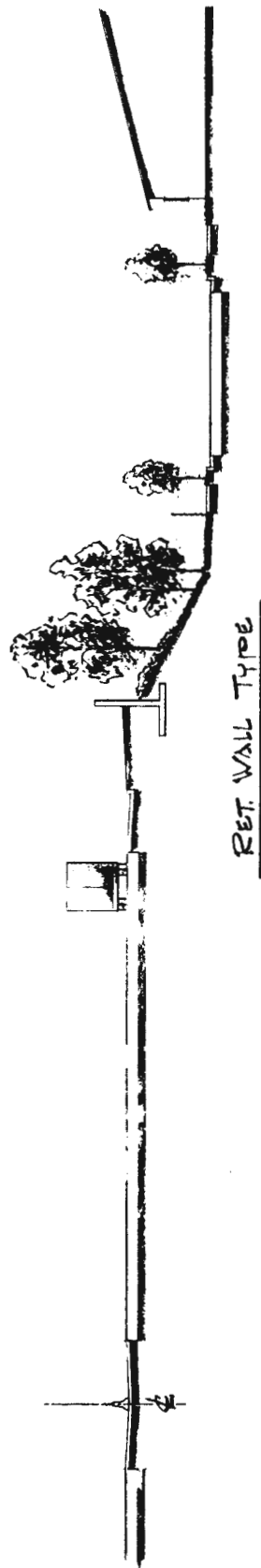
\*Noise levels dominated by other sources such as aircraft overflights and adjacent highway traffic making noise abatement measures ineffective.



RET. WALL OR SOUND WALL & MOUND TYPE



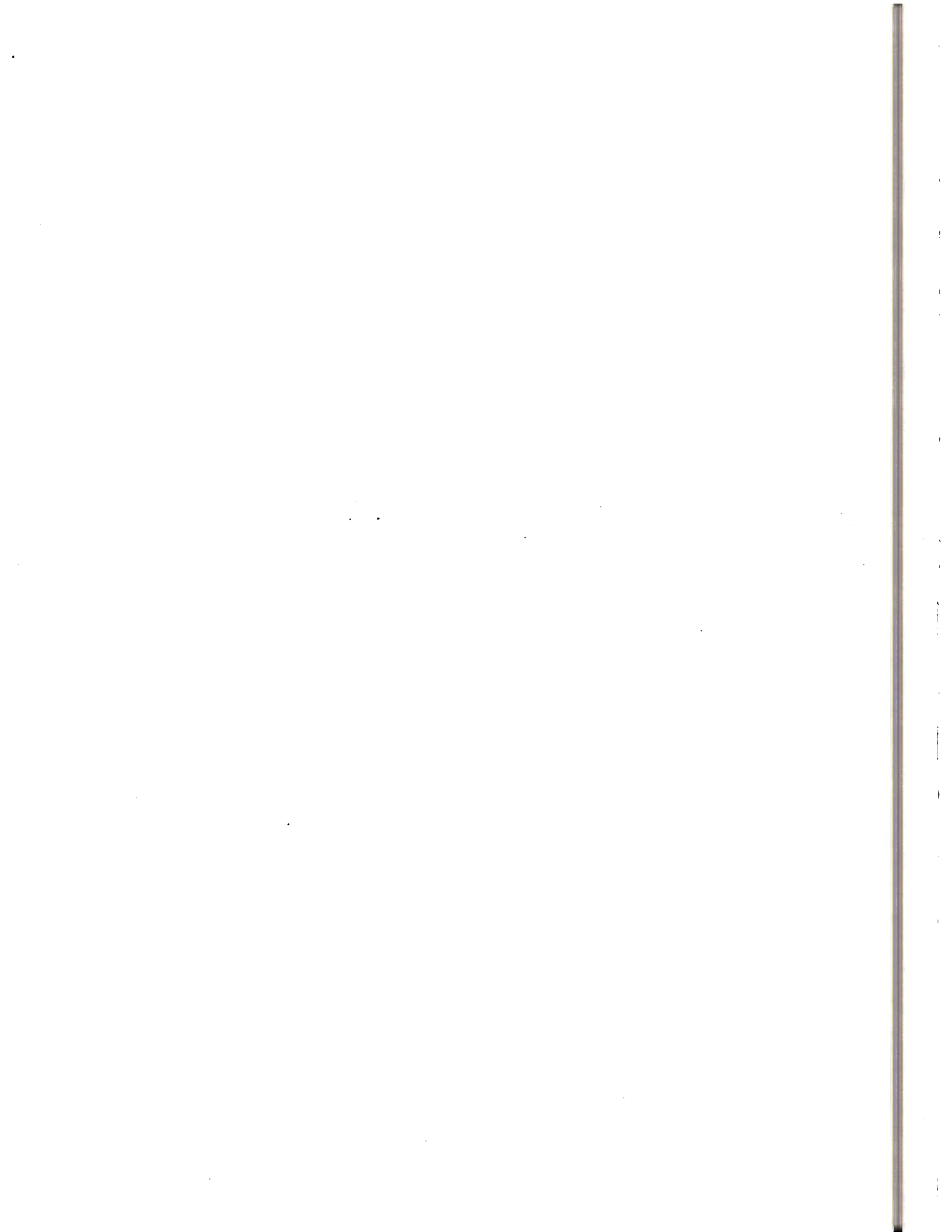
SOUND WALL & MOUND TYPE

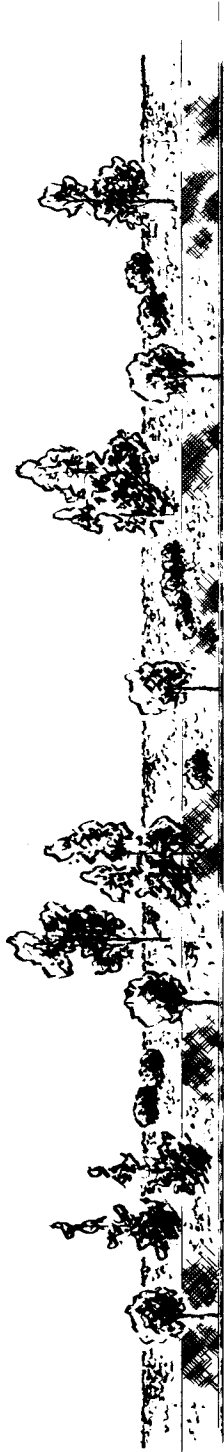


RET. WALL TYPE

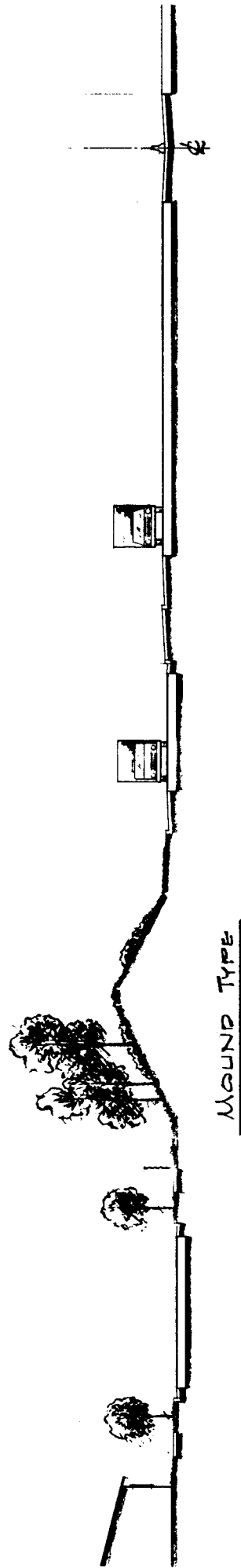
**TYPICAL FREEWAY NOISE  
MITIGATION MEASURES**

**FIGURE 5-20**





MOUND TYPE



MOUND TYPE

TYPICAL FREEWAY NOISE  
MITIGATION MEASURES      FIGURE 5-21

FIGURE 5-21





The shielding of interiors from external noise sources is largely dependent on the amount of natural attenuation provided by a structure's composition, orientation, and degree of exposure through window areas.

The types of practical, remedial, treatment that can be used to reduce the noise penetration into interior areas is basically the closure or sealing off of the window areas by double-paning, glass block, etc. The noise reductions provided by this method of treatment is shown in Table 5-8. Also listed are the ranges of peak exterior noise levels (dBA) that will satisfy the interior noise requirement for school classrooms.

TABLE 5-8 SOUND TRANSMISSION LOSS		
<u>Condition</u>	<u>Typical Reduction of Exterior Noise (dBA)</u>	<u>Exterior dBA, Peak Tolerable Exposure for School Classrooms</u>
Windows partly open	10 - 15	60 - 65
Windows closed, and about 50% of wall area	20 - 23	70 - 73
Windows closed, and less than 50% of wall area	23 - 28	73 - 78
Storm windows added with 3" to 4" of space between panes	30 - 35	80 - 85
Windows replaced with glass block (in thick concrete walls only)	40	90
Noise Barrier, completely hiding trucks from school	15 or more	*See Comment
*A sound barrier can reduce peak noise exposures of 80 dBA down to 65 dBA or less provided that the sources in all lanes can be hidden from view.		
NOTE: All except for the first and last-listed conditions, require that a system be provided for ventilation, heating, and cooling.		
Source: Design Information Bulletin No. 50.		

In addition to mitigating noise at the receptor, technological efforts are being made to reduce noise generated at the source; i.e., the motor vehicle. Current law (California Vehicle Code-Section 27160) establishes a time table for the yearly reduction of noise, ultimately to acceptable levels. In the opinion of most experts, however, it may be extremely difficult to fully comply with the established time frame--1987.

#### Summary

While no clear-cut choice can be made in terms of one alternative over another relative to noise impact, the following factors should be kept in mind in weighing the various options.

The Project introduces a new facility into an urbanized area where previously nothing of equivalent magnitude existed. This will result in a "sudden" increase in noise level to the population adjacent to the new facility. At the same time it will provide reductions in noise along arterial streets due to traffic diversion. The non-freeway alternatives, while perhaps producing the same or even greater noise levels along the arterials, will do so gradually. While the end result is very nearly the same, the perception and degree of disturbance may be judged quite differently. The sudden appearance of a new noise source

can and probably will be perceived as far greater than the same phenomenon gradually building up over a long period of time. It follows that the public reaction to a sudden noise increase would be far more intense and critical than for a gradual one.

A counter-balancing factor is the application of mitigating devices that Caltrans and U.S. Department of Transportation have developed and are presently committed to for freeways. Similar applications could be made for the Exclusive Busway. However, evidence to date suggests that there are no practical ways to mitigate noise for the other alternatives. Even assuming techniques could be made available which would bring noise levels associated with these alternatives within acceptable criteria, there is presently no clear responsibility for implementation of such measures on conventional surface streets.

In summary, an increase in traffic-generated noise can be expected regardless of the method of solving the transportation needs of the corridor, or even under a No Project situation.

If the I-105 Project is constructed, noise level along parallel arterials would decrease as surface traffic diverts to the freeway. While noise levels adjacent to I-105 would increase, mitigation measures could maintain noise at levels established to minimize interference with most normal daily activities.

A median busway as part of the Project would not create any additional noise impact.

The freeway-transitway alignment alternatives in the Hawthorne area (original adopted and Bell lines) involve substantially the same noise impacts as the proposed Imperial Line. However, in that the locations are different, the receptors are different.

Under No Project conditions, noise levels would increase throughout the corridor, along both major and secondary arterials.

The Exclusive Busway alternative would have little impact based on the L<sub>10</sub> analysis method. However, there would be an impact from intermittent peak noise, which could be mitigated with barrier walls. There would be an insignificant effect upon noise levels along corridor arterials (i.e., would be similar to No Project conditions).

The Local Improvements alternatives produce noise level increases along improved major arterials and tend to forestall increases along secondary arterials.

A combined Busway and Local Improvements alternative would produce noise level increases along the busway and improved arterials, and would tend to hold noise along secondary arterials at existing levels.

It is impossible to rank alternatives with respect to noise impact due to the variety of locations and number of people which would be affected. Overall, the I-105 Project would result in the least relative increase in future traffic-generated noise within the entire corridor. This assumes joint community/Caltrans agreement on barrier details to permit their most effective use.

### 5.3 VIBRATION IMPACTS

#### Introduction

Many studies have been conducted over the last decade to evaluate possible vibration impacts from freeways. Generally, it has been found that earthborne traffic and construction vibrations were usually insignificant 100 feet removed from the freeway or vibration source and, where measurable, were very small in magnitude.

Therefore, no general study of vibration impacts was made for either the I-105 Project or the alternatives.

However, investigation did reveal two extremely vibration sensitive industrial facilities, each with structure walls within 200 feet of the Project right-of-way, which became the subjects of tests to determine whether critical vibration impacts would result from development of the Project.

## Summary of Vibration Studies for Critical Receptors<sup>1</sup>

### Northrop Corporation's Facility:

The Northrop Corporation operates an industrial facility in the City of Hawthorne, located at 120th Street and Van Ness Avenue. The facility produces optical and electronic devices that are highly sensitive to vibrations both during their development and during laboratory testing. The Project would be located north of the plant with the edge of the nearest freeway lane about 140 to 150 feet from the building wall.

Caltrans conducted studies which concluded that the Project would not adversely affect the facility,<sup>2</sup> while Northrop Corporation conducted studies that concluded otherwise.<sup>3</sup>

Consultation with Northrop officials to reconcile the different conclusions of the two studies was interrupted and postponed until the future of the Project is clarified, both legally and in Hawthorne.

In any event, if the Project is completed, some property acquisition from Northrop is required. The question of Project generated vibrations and their effect upon plant operations will, of necessity, be resolved and mitigated as part of the right-of-way acquisition negotiations.

### Rockwell International:

The critical receptor is a meteorology laboratory within Rockwell's Downey complex. It is used for testing sensitive components for various aerospace systems, and would be located about 430 feet north of the Project.

Tests conducted in 1969 concluded that the then planned Project would not significantly increase present in-plant vibrations.<sup>4</sup>

The now proposed Project could alter traffic patterns near the facility, so that some mitigation might be required. It does not appear that there would be any insurmountable vibration impact.

Rockwell International was concerned that Project induced vibrations, particularly during construction, could affect use of the facility. Subsequent discussions concluded that construction provisions could be developed to minimize or eliminate vibration impacts.

As noted above, the Northrop facility, vibration concerns will be addressed, resolved and mitigated as part of the right-of-way negotiations.

### Summary

Essentially, the prospect of adverse vibration impacts being associated with the Project seems to be insignificant based on the studies conducted for other projects in the last decade, and from the two specific studies conducted on vibration-sensitive facilities.

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<sup>1</sup>Critical receptors are defined as those activities which have specific and unusual vibration tolerances.

<sup>2</sup>A Survey of Earth-Borne Vibrations and Their Probable Effects on Northrop Corporation Facilities, State of California, Department of Public Works, Division of Highways, Materials and Research Department, October 1963.

<sup>3</sup>See Ground Vibration Study Sources and Effect on Nortronics Manufacturing Center - Hawthorne, California; Daniel, Mann, Johnson and Mendenhall, August 1965.

<sup>4</sup>Nordling, E.F., "A Survey of Earth-Borne Vibrations at North American Rockwell-Downey Facility," California State Department of Public Works, Division of Highways, March 14, 1969.

## 5.4 WATER QUALITY AND SOLID WASTE

### Introduction

The approach utilized for the water quality and solid waste study<sup>1</sup> is primarily a qualitative evaluation of the potential problems which could occur when transportation facilities are constructed in urban areas. A determination is made of activities which may affect water quality or solid waste disposal and the plans, procedures and capabilities to meet existing standards and guidelines.

### Water Quality

Within the I-105 corridor there are six major drainage channels. Five of these flow to the Los Angeles-Long Beach Harbor areas, they are: The Los Angeles River, Rio Hondo River (tributary to the Los Angeles River), Compton Creek, Cerritos Channel and Dominguez Channel. The San Gabriel River flows directly to the Pacific Ocean south of the Long Beach Marina. These channels, prior to urbanization of the basin may have been dry creeks or intermittent streams and have been largely paved or lined to control storm waters. There are numerous smaller storm drains and channels which contribute to these major channels. The drainage areas range from 2.5 square miles to 620 square miles. The total area drained is over 945 square miles, while the Project surface area is 1.1 square miles, or 0.12 percent of the total.

In this densely populated urban development storm runoff is now at a maximum. The quantity of runoff will not change appreciably as a direct result of the Project. The flood control characteristics of the corridor may be enhanced by construction of storm drains of greater capacity within the right-of-way. Other than minor hydraulic improvements, drainage patterns will not materially change.

Streams in the project area are used mainly for flood control purposes and to carry off effluents from sewage plants and industrial waste dischargers. No important fisheries' resources will be affected by the proposed freeway development. Since this route passes only through urbanized areas, no wildlife will be affected. There are no natural marshes or wooded areas within the freeway corridor.

The effects of roadway runoff from a highway, on ocean waters are presently unknown. Methods have not been developed to separate highway-related contaminants from the total of all contaminants from the drainage basin. Furthermore, standards for control of contaminants from urban runoff have not been established.

However, it would appear that highway-related contaminants entering the drainage system must be directly proportional to the amount of VMT and considering that the I-105 Project will have a very limited affect on regional VMT (less than 1 percent), it can be concluded that any effect on ocean waters from contaminants related to the I-105 Project would be insignificant.

The entire network of drains and channels is for flood control purposes. It does not supply water to reservoirs to be used for drinking water purposes, nor are flows diverted to impoundment basins to replenish the underground water table.

Water wells which exist within the Project right-of-way will be abandoned (and replaced if required by their owners) in accordance with the requirements of the California Department of Water Resources to prevent possible pollution of the underground water basin. A listing of wells which have been investigated is included in Appendix E as Exhibit 10.

Erosion from construction operations is controlled by contract specifications.<sup>2</sup> The contractor is required to present a comprehensive plan covering all contingencies, not only for erosion control, but water pollution control. The plan must be approved by Caltrans and adhered to by the contractor or work on the Project may not commence or proceed.

<sup>1</sup>Based on results presented in Water Quality Report: El Segundo-Norwalk Freeway, 7 LA I/105, California Department of Transportation District 7, Environmental Investigations Unit, August 1973 (updated January 1974).

<sup>2</sup>CALIFORNIA STANDARD SPECIFICATIONS, January 1975, Section 7 - 1.01L Water Pollution.

Long-range erosion will be controlled by landscaping the Project. As root systems become established, slope areas will stabilize which eliminates the possibility of massive erosion entering the aquatic environment.

Accidental spills of materials, whether harmful substances or not, can create a potential hazard both to man and the environment. Procedures established for containment and removal of such material limits the possibility of a major catastrophe. Cleanup of spills is handled by a variety of methods. Following identification of materials, removal is based upon the guidelines or directive of the coordinating agency and/or the expertise of the personnel responding to the incident. Obvious nonhazardous materials are removed and deposited at appropriate disposal sites. Nonhazardous liquid spills are covered with absorptive materials, and likewise removed and deposited. Hazardous materials are usually handled under the direction of experts. In their absence, measures are taken to avoid immediate threat to human life. Removal of any foreign substance by washing onto side slopes or into local drainage systems is avoided. The exception, again, would be only for the immediate protection of human life.

Chemicals used as pesticides, herbicides, and fertilizers have become a matter of concern throughout the United States. The main areas of concern are that many synthetics used for pesticides or plant control are extremely toxic and resist degradation to less toxic forms. Also, some of the chemicals contribute to nutrient enrichment of receiving waters and can stimulate algae growth. Caltrans, having recognized this problem has adopted a policy to retain as much native vegetation on roadsides as may be compatible with adjacent areas, safe highway use, aesthetics, and erosion and dust control. Criteria for selecting pesticides, herbicides, and fertilizers; for use within the highway right-of-way; are safe for highway users, personnel applying the materials, adjacent plant and animal life, and downstream aquatic life. Performance and economy are secondary considerations.

Particulate materials from combustion, petroleum products, rubber and asbestos are the major contributions of vehicles to roadway matter which might enter the aquatic environment. These pollutants accumulate, in greatest amounts, in the areas closest to the edge of the roadway. These materials, along with other debris accumulated on and near the roadway, will be washed into storm drains during a rainstorm and eventually deposited into the aquatic environment. The toxic effects of particulate matter on aquatic life is currently under study, however, results will not be available for several years. In any event, traffic estimates show that daily vehicle mileage will not change significantly, whether or not the Project or any of the alternatives is constructed. Therefore, no significant change in particulate materials or their impacts is expected.

#### Solid Wastes

Solid wastes, and their handling, usually is of most concern during construction of a project in an urban area. These wastes are either degradable or non-degradable.

Non-degradable waste consists of brick, concrete, asphalt, etc. These materials are usually incorporated directly into embankment areas and pose no threat to health.

Degradable matter consists of trees, shrubs, and vegetation which require special handling. These materials (and any excess non-degradable material) are disposed of under State and local sanitation regulations.

The Project will result in the removal of three old dump sites (over 550,000 cubic yards) which contain organic (degradable) materials, and may be polluting the underground water basin. Material from these sites can be disposed of by placing in approved sanitary landfills. The Los Angeles County Sanitation District operates several class II sites certified by the Regional Water Quality Control Board, which can accept this material. The most convenient to the Project would be Puente Hills Landfill Site No. 6. A private site, operating Industries Landfill Site in Monterey Park, which is presently in operation also could accommodate the waste material. An alternative method of disposal of this dump material which is also being investigated, and which could be utilized for this Project consists of incorporating the material in the interior portion of large freeway fill areas above the original ground plane. With this method the protective requirements for a Class II site are specified for the fill construction. This alternative, in addition to providing protection to the underground water basin from pollution, has the advantage of not reducing the capacity of existing landfill sites. This method may also prove more economical, and will avoid long hauls to existing dump sites. All construction details will be coordinated with and concurred in by the State Regional Water Quality Control Board prior to beginning such work.

Solid wastes are of less concern for a completed project. The Project, being within the Los Angeles urban area, will not have rest areas and attendant restrooms, and therefore no sewage disposal problems. Trash generated on the freeway will be disposed of in licensed public dumps, while any dead animals will be removed to the nearest animal shelter for disposal.

### Alternatives to the Project

The alternatives to the Project were not specifically analyzed with respect to potential water quality and solid waste effects. However, based on the Project findings, no significant effects or differences in effects are anticipated.

### Summary

The effect of the Project on the water quality in the Los Angeles Basin will be negligible. No major changes in drainage patterns or storm runoff are expected. Measures are included to minimize pollution of the aquatic environment from erosion, accidental spills, herbicides, pesticides or fertilizers. No significant change in motor vehicle related particulate matter or impacts are anticipated.

A major benefit of the Project from a solid waste standpoint is expected through removal of three existing dump sites within the right-of-way. These dump sites contain organic wastes which may be polluting the underground water basin. No significant impacts are expected through disposal of project generated wastes. These can either be recycled into the Project or disposed of in approved sanitary landfills.

Alternatives to the Project are not expected to have any significant difference in water quality or solid waste impacts, except for the Exclusive Busway, which will also result in removal of the existing dump site waste material referred to above.

## 5.5 REGIONAL GEOLOGY AND SEISMIC EFFECTS

### Introduction

This section summarizes the results of a study<sup>1</sup> covering such specific subjects as:

- Geological Setting
- Landslides and Slope Stability
- Slope Erosion and Sedimentation
- Subsidence and Settlement
- Subsurface Water
- Economic Resources
- Seismicity (Earthquakes)

The principle questions are whether the Project or its alternatives will affect, or be affected by, static (geologic) or dynamic (seismic) conditions.

### Geologic Effects

There are no known major geologic features that are unique within the I-105 corridor which set it off from the rest of the Los Angeles Basin. A major fault, the Newport-Inglewood Fault, crosses the alignment; however, it trends northwest across the corridor so that it cannot be avoided. Therefore, there is no geological reason to consider changes in the location or scope of the Project or the alternatives.

Consequently, the most significant geological features become the local soils and their relationship to the Project or the alternatives. In this regard the major factor affecting soils is whether a proposal is grade-separated or not. Grade-separated projects (freeways, busways, transit facilities, etc.) usually involve excavation of large amounts of earth, and movement into the embankments.

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<sup>1</sup>GEOLOGICAL REPORT: Route 1/105, California Department of Transportation, District 7, Materials Section, April 1974.

Excavation will intercept some "perched" ground water in certain locations. Perched ground water is distinct from, and lies above, the permanent water table from which water is drawn for domestic purposes. Thus, interception of such water poses no threat to public health and is usually handled in the same manner as storm water.

Embankment construction results in compressing the underlying soil as materials are placed upon it. Over a period of time, this underlying soil will subside and the embankment will settle; however, these effects, even where considerable settlement occurs, are so extremely localized that they do not affect adjoining property. The three dump sites noted in the previous section are man-made but are considered part of the local geology. In addition to having potential for polluting underground water, they consist of unconsolidated material. They will be removed and replaced with new embankment, or with proper processing, may be consolidated in new embankment above the existing ground elevation.

An aspect of soils, already addressed in the previous section, is their erosive nature. The soils in the corridor have moderate to high erosive qualities which could contribute to sedimentation in the drainage systems if unprotected; however, erosion control measures such as straw, seeding, mulch, etc. are a part of Project design.

No landslides or areas of slope instability are expected.

The Project crosses the Howard Township Oil Field (between Western Avenue and Normandie Boulevard). Six wells which are required for the Project have already been acquired, and are to be sealed. Production, consisting of natural gas and crude oil, has been generally low. It is considered uneconomical to re-drill these wells from outside the Project. As an energy resource, the loss of these wells is insignificant.

Seismic (Earthquake) Effects

The I-105 Project is located in a seismically active area. A number of fault zones are found within the study area which could affect the corridor. These are listed in Table 5-9. Figure 5-22 shows fault zones in the Los Angeles area. The faults must be considered active with the potential for producing earthquakes.

TABLE 5-9  
ACTIVE FAULTS ASSOCIATED WITH PROJECT

Fault	Distance from Site (Miles)*	Maximum Historical Magnitude (Richter)	Maximum Credible Capability	
			Magnitude (Richter)**	Duration (Sec)
Cucamonga	24	---	6.6	18
Malibu-Santa Monica	8	5.2	7.5	30
Newport-Inglewood	At Site	6.3	7.1	24 or more
Palos Verdes	6	---	7.2	24 or more
Raymond Hill	12	---	7.5	30
San Andreas	37	8.3	8.3	40 or more
San Fernando	23	6.4	6.6	18
Santa Susana	26	---	6.7	18 or more
Sierra Madre	18	---	6.6	18
Simi-Northridge	22	---	7.5	30
Whitter-Elsinore	10	---	7.6	30

\*This distance is measured from the fault to the nearest point on the proposed project. Sections of the project will be of greater distance than listed.

\*\*After R. W. Greensfelder

In a report prepared for the California Division of Mines and Geology in 1973, a maximum credible capability of Richter magnitude 7.1 has been assigned to the Newport-Inglewood Fault. This fault zone crosses the Project between Vermont and Western Avenues. This would be considered a major earthquake. A maximum earthquake on the San Andreas Fault could be a magnitude of 8.3, defined as a great earthquake.<sup>1</sup> Both of these events would be damaging to the area through which the Project will pass. Damage would also result from an earthquake on the Raymond Hill-Santa Monica-Malibu Fault system or the Palos Verdes Fault.

Since earthquake phenomena affect large areas, the reaction to be expected from the seismic event will be the same for any grade-separated project. In the following discussion, under particular subject headings, it is important to understand that predictions of damage are based on historical records of what has happened in past seismic events. Damage estimated at some particular magnitude is somewhat arbitrary. This is true because each earthquake of even the same magnitude is different; therefore, the response and exact damage may be different from that predicted by application of existing data.

#### Tsunami<sup>2</sup> and Seiche<sup>3</sup>:

There will be no earthquake-induced problem of tsunami or seiche phenomena on this Project. The west end of the Project is within one mile of the Pacific Ocean; however, the sudden increase in elevation at the sand-dune line just westerly will prevent any sea wave from reaching the Project.

#### Liquefaction<sup>4</sup>:

Potential for liquefaction exists when fine silts and sands are located below the water table. The water can be perched groundwater. Along most of the Project, except the section from State Street to Atlantic Avenue,<sup>5</sup> a minor chance of some area liquefaction occurs. An event on the Newport-Inglewood or San Andreas Fault could cause this problem, and there is also a possibility the Palos-Verdes or Raymond Hills-Santa Monica-Malibu Faults could cause liquefaction to occur.

This conclusion is based on the existing water levels. Historically this area had very high groundwater near the turn of the century. An increase in the water elevation, which is considered unlikely, would increase the chance of liquefaction. A drop in water level would reduce the potential for liquefaction.

#### Ground Shaking:

Ground shaking, magnitude, duration, and vibration frequency characteristics will vary greatly, depending upon the particular fault involved and its distance from the Project corridor. Table 5-9 indicates the distance of regional faults to the Project. As previously noted, the nearest known active fault is the Newport-Inglewood Fault which would intersect the Project roughly between Vermont and Western Avenues. The maximum credible magnitude for an earthquake emanating from this fault system is estimated to be 7.1. This would create high horizontal bedrock acceleration, on the order one-half g, with a time duration of 24 seconds or more.

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<sup>1</sup>See Greensfelder, Roger W., "A Map of Maximum Expected Bedrock Acceleration from Earthquakes in California," California Division of Mines and Geology, January 1973.

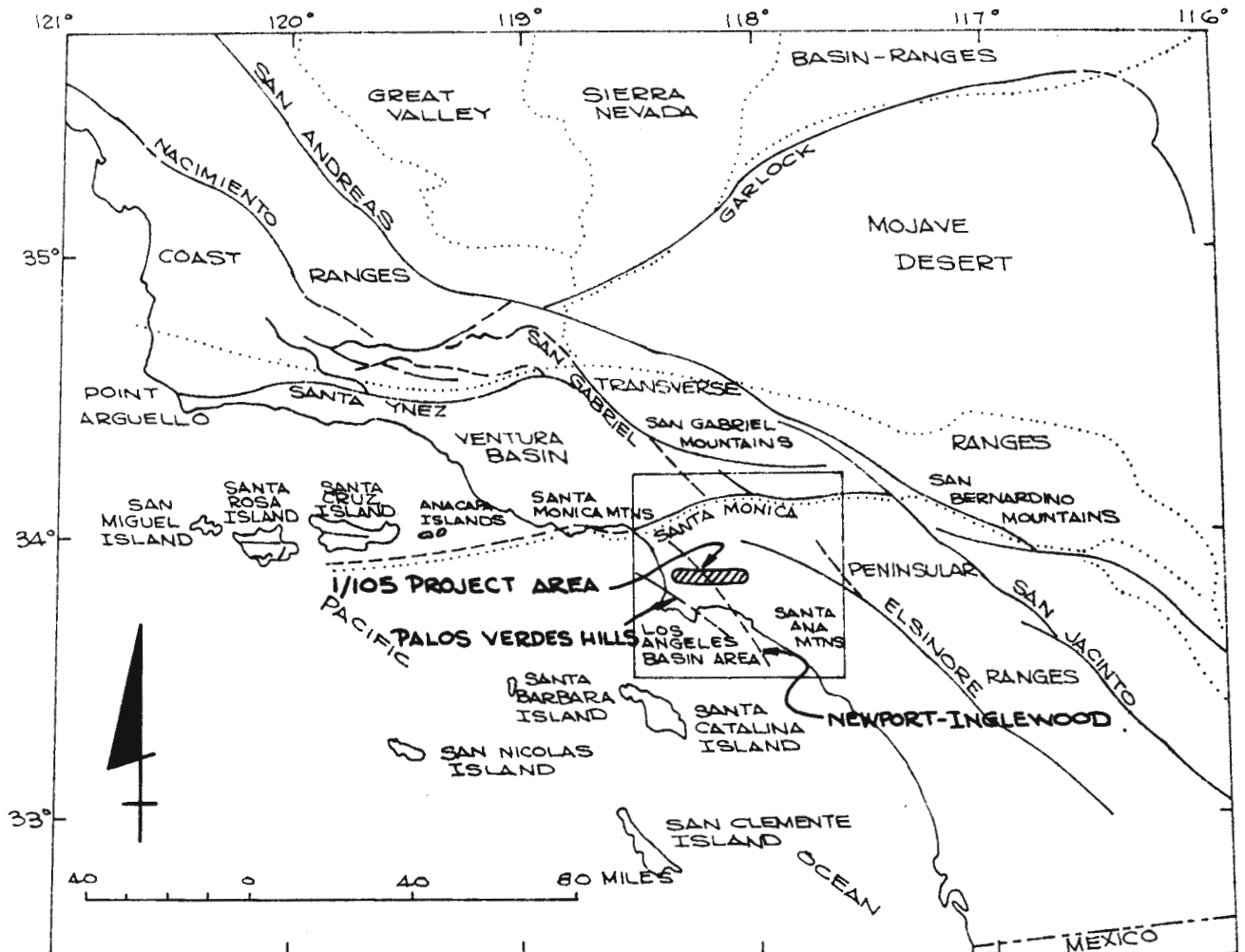
<sup>2</sup>A great sea wave produced by a submarine earthquake or volcanic eruption.

<sup>3</sup>A periodic oscillation of a body of water induced by an earthquake.

<sup>4</sup>A sudden loss of grain-to-grain bearing contact in sands below the water table, due to sand particle rearrangement after a shock or disturbance. This loss of contact causes the sand and water to flow as viscous fluid.

<sup>5</sup>From State Street to Atlantic Avenue the possibility is greater because of a higher perched water level within these limits.





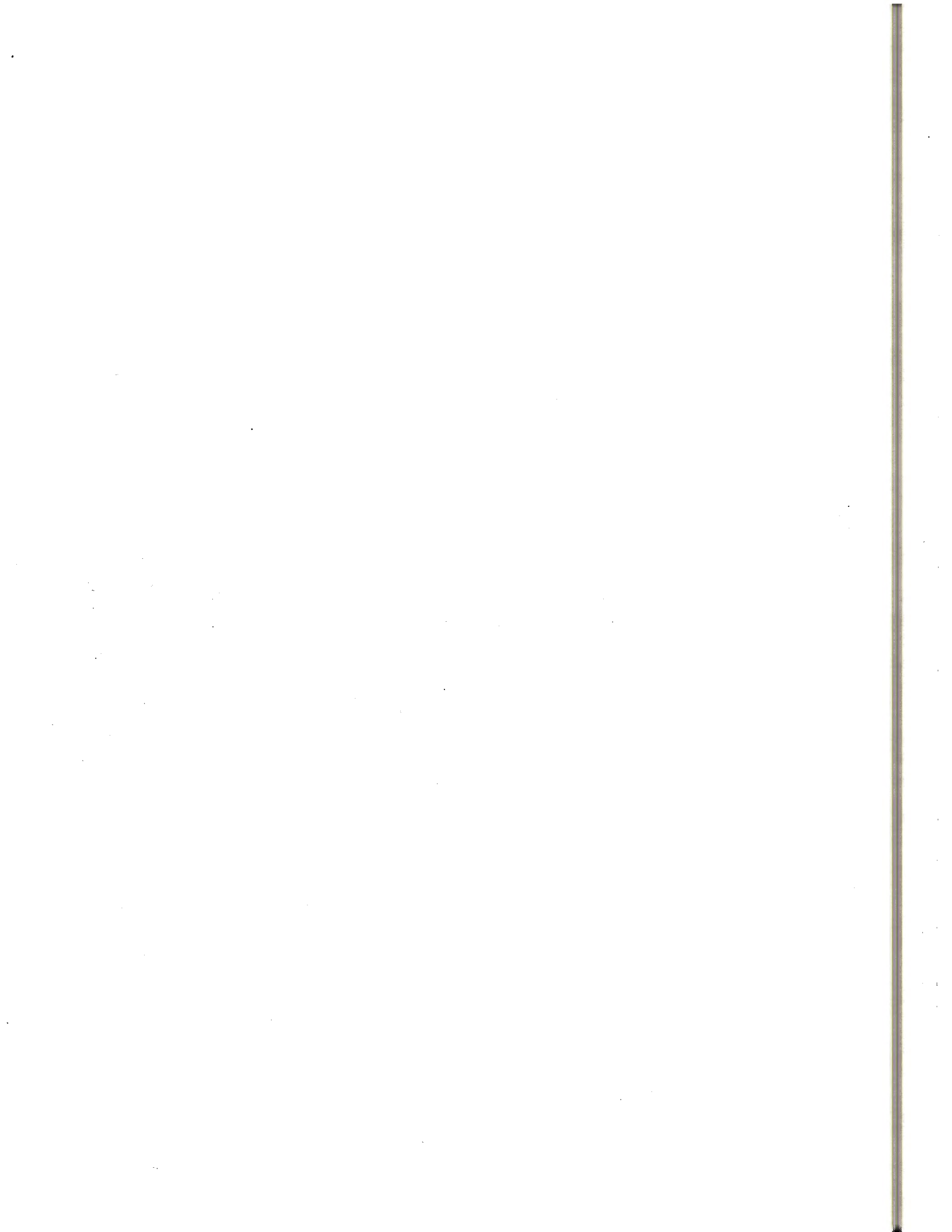
**EXPLANATION**

- APPROXIMATE LOCATION OF MAJOR FAULT ZONE
- ..... BOUNDARY OF GEOMORPHIC PROVINCE

OUTLINE MAP OF SOUTHERN CALIFORNIA SHOWING LOS ANGELES BASIN AREA, MAJOR FAULT ZONES, AND BOUNDARIES OF GEOMORPHIC PROVINCES. MODIFIED FROM O.P. JENKINS.

AFTER YERKES.

**FIGURE 5-22**



Earthquakes originating along other active faults at the distances listed in Table 5-9 would have maximum credible magnitudes from 6.6 to 7.6. Durations could range from 18 to 30 or more seconds with bedrock accelerations ranging from low to moderate, depending on the originating fault.

The maximum magnitude earthquake considered to affect the study area would be produced by movement on the San Andreas Fault zone. This fault, at its closest point, is 37 miles from the Project, and the maximum credible magnitude is 3.3 Richter.<sup>1</sup> Characteristically, such an earthquake would produce moderate ground accelerations at the project site, with a relative duration of 40 or more seconds.

Ground response will be different at various locations along the route. The alluvium composed of dune sand and other poorly consolidated material will have a greater ground response than the more consolidated soils known as terrace deposits.<sup>2</sup>

Ground-shaking is the primary cause of structural damage during an earthquake; it is considered the most likely damage-producing earthquake phenomena on this project.

Some consolidation of foundation soils can be expected because of ground-shaking. The amount is difficult to predict without site-to-site dynamic response analysis of the soils. It would be expected that the maximum amount would take place with a seismic event along the Newport-Inglewood zone. More distant earthquakes might produce little, if any, consolidation, depending upon both magnitude and distance.

#### Ground Rupture:

Ground rupture can take place along the trace (surface path or location) of a fault during an earthquake. The potential rupture path on the Newport-Inglewood Fault cannot be determined from existing data since a trace is not visible or obvious. The zone is generally considered to cover the area from Western Avenue to Vermont Avenue within the Project limits. Significantly, no major interchange is planned with this zone. Single-level structures will be constructed in the zone, but there exists no information to determine if a fault break would take place at or near a structure.

#### Landslides and Embankment Slipout:

Earthquake ground motion can produce landslides. While it is possible that a landslide could take place in an excavation area, it is considered to be a very minor possibility. However, any landslide that would take place would be small, with a limited effect on the nearby area. Normal construction practice is to cut the slopes at angles flat enough to minimize slides.

Embankment slipout will be a minor problem. The most likely location would be the embankments between State Street and Atlantic Avenue. The higher potential in this area is due to the presence of perched groundwater near the surface. If slipout occur, they can be corrected through normal construction techniques.

#### Seismic Mitigation

Seismic mitigation measures are different from mitigation measures associated with other types of impacts. With an engineering project like the I-105, it will not increase or decrease the earthquake hazard of an area. It is the Project itself, and the people who use it, that are affected by potential earthquake hazards.

The following mitigation measures are taken to minimize earthquake hazards:

- The construction of embankments will reduce the potential for liquefaction by consolidating and constraining the foundation soils.

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<sup>1</sup>Greensfelder, op. cit.

<sup>2</sup>Joint Committee on Seismic Safety, Final Report to California Legislature, Appendix C, January 1974.

- . Flattened excavation and embankment slopes, if required. This determination can only be made after completion of a full foundation investigation.
- . Reduce depth of excavations if final field exploration indicates some area of potential instability during an earthquake.
- . In the case of bridge structures, the following mitigation measures will be included:
  - Structures will be designed in accordance with criteria which utilize a seismic design force that is approximately 2.5 times greater than that used for structures prior to the San Fernando Earthquake of 1971. Factors considered in the seismic design of the structures include:
    - Seismicity of the site.
    - Soil response at the site.
    - Dynamic characteristics of the structure.
    - Ground rupture.
  - Improved structural features, added following studies of the effects from the San Fernando Earthquake of 1971, will be incorporated in the design of these structures and include:
    - The use of hinge restrainers to hold together superstructure elements during extreme motions.
    - The use of heavy keys to limit movement between the superstructure and abutments.
    - The use of increased column tie reinforcement in regions of maximum flexure to permit dynamic excursions into the inelastic range without failure.

#### Results of a Major or Great Earthquake on the Facility

Dynamic analysis and nonlinear studies by Caltrans and others indicate that structures designed using the improved structural features will be able to withstand heavy seismic excitations. Damage resulting from a major or great earthquake will depend on the fault causing the earthquake. The maximum amount of damage would be caused by an event on the Inglewood-Newport Fault. Some liquefaction might take place causing minor damage. Fill settlement of up to 6" would take place. Pavement disruption might occur if a ground rupture extends to the surface. Structures may receive substantial damage, depending largely on the structure's location in relation to any rupture zone.

The facility could be made operational within 24 to 72 hours if no major structure is so badly damaged that it will not carry traffic. Structural loss would require detour provisions with an indeterminate length of time required for complete repair.

An earthquake on any other fault that would affect the Project could be expected to produce only limited structural damage, no surface rupture, and very small fill settlement. The facility should remain operational, but might require a reduction in operational speed because of pavement roughness near structures. Temporary repairs could be made in 24 to 48 hours, with complete repair completed within a few months.

These comments could apply equally to any grade-separated project (such as the Exclusive Busway) in the corridor.

#### Summary

The I-105 corridor has no unique major geologic features. Minor, localized geological factors encountered or affected by the Project are well within the scope of normal engineering practices. These include soil-structure, sub-surface water, unconsolidated dumps, oil wells, and the effects of large scale excavation and embankment construction. Consequently, under static conditions, neither the stability of the Project nor the adjacent properties would be significantly affected.

It is recognized that the Project is located in a seismically active area and that there are major concerns about the possible effects of earthquakes. There are a number of earthquake faults which could affect the Project to varying degrees. Studies indicate that the potential for damage from such earthquake related phenomena as Tsunamis, Seiches, Liquefaction, Landslides or Embankment Slipouts are minimal. Damages related to Ground Shaking or Ground Rupture represent the most severe threats. Experience gained from the 1971 San Fernando Earthquake has resulted in development of additional safety factors to be applied to bridge structures. It is now expected that these structures can withstand the effects of a major earthquake even though heavy damage might occur.

The Project alternatives are not expected to be significantly affected, nor will they have significant localized impacts. To the extent that the alternatives are grade-separated, they are similar to the Project in impacts and considerations.

## 5.6 ENERGY USE

Energy availability and consumption have become critical concerns. To address the energy issue, each alternative was evaluated in terms of its impact on the Los Angeles region; both in terms of the direct consumption by vehicles, and the indirect consumption involved to manufacture and support the vehicles, as well as to construct and maintain the roadway or guideway facility.<sup>1</sup> This data is tabulated for each alternate from 1980 to the year 2000, in terms of equivalent weekday regional consumption of gasoline.

As noted in Table 5-10, the range of energy impact for the year 2000 is less than 1% from the most efficient to the least efficient alternate. These minute differences become absolutely meaningless in recognition of the fact that projections of traffic volumes for 20 years into the future are based upon critical planning assumptions which may not be achievable and which could be in error by a substantial margin. Also, the data presented in the figure is predicated on the assumption that vehicle fuel consumption and occupancy rates remain constant at 1974 levels. Even a slight improvement in either of these values would have a far greater impact than any of these alternates. For example, an easily achievable 1 mile per gallon improvement in vehicle fuel economy would produce a 4% reduction in regional fuel consumption. In this regard, the EPA has disclosed that 1976 vehicles are 6% more fuel efficient than 1975 models.

Year	ALTERNATIVES				
	No Project	Freeway- Transitway	Exclusive Transitway	Street Widening	Mini Freeway
1980	22.30	22.36	22.31	22.31	22.32
1990	24.30	24.44	24.29	24.33	24.36
2000	26.23	26.46	26.21	26.25	26.27
% above or below No Project Alternative in the year 2000	---	+0.9	-0.1	+0.1	+0.2

\*Based on direct vehicle fuel consumption on streets and freeways, indirect consumption involved with manufacture, maintenance, gasoline retailing direct and indirect transit fuel consumption construction and maintenance of the project over a projected 50-year life.

<sup>1</sup>"An Interim Procedure to Calculate Transportation Energy," California Department of Transportation, Translab No. 657082, April 1976. Actual computations are available for inspection in Caltrans Los Angeles Office.

Because of the foregoing, energy does not appear to constitute a reasonable basis for selection among alternatives. For practical purposes, the fuel consumption involved with each must be considered the same.

## 5.7 PARKS AND RECREATION FACILITIES

### Introduction

This analysis focuses on two main Project related considerations:

1. Facilities gaining improved accessibility.
2. Opportunities resulting from the Project to create new facilities.

The category of facilities discussed here are those in which no "physical taking" of property is involved. That category in which a "physical taking" is involved is discussed in Chapter 6 under Public Service and Community Facility Impacts.

### Facilities Gaining Improved Accessibility

George Washington Carver Park, which is located at 118th Street and Success Avenue in Los Angeles County, is a sufficient distance from the freeway to not be affected by freeway noise; however, improved access to the area by way of the freeway would occur and should encourage increased use of the park. Since 118th Street, which fronts on the park, does not presently extend to the west across Compton Creek, this street will be constructed across Compton Creek with the freeway construction and will provide improved traffic circulation south of the freeway and improved access to the park.

John D. Ham Memorial Park, located at Century Boulevard and Wright Road (Lynwood), would gain improved access because of the Project, due to a revision of the Century Boulevard/Route 7 (Long Beach) Freeway Interchange. The park will not be affected by freeway-generated noise due to the new ramps.

### Opportunity for New Facilities

Specific legislation enacted in 1969, the Porter Bill, enables the State to lease some excess parcels to local jurisdictions for parks and recreation purposes at very nominal lease rates--typically, \$100 per year. Not all excess parcels fall within the scope of the Porter Bill. However, State policy gives local communities first option to acquire any excess property, if for public purposes, at fair market value. Most cities have, at one time or another, expressed interest in taking advantage of these opportunities.

#### Downey:

A prime example, one of the first in the State using the provisions of the Porter Bill, involves the City of Downey.

Downey and the State have been cooperating several years towards development of a city-proposed park (commonly known as Wilderness Park) at the intersection of the Route 605 Freeway and Florence Avenue. The 24-acre park consists of 14 acres of State-owned excess land and 10 acres of Southern California Edison Company right-of-way adjoining the State's land. The City has already reconstructed Little Lake Road to accommodate revisions to I-605 in connection with I-105 and the park is essentially developed at the present time. This park is designed to service the entire community of Downey and, in keeping with the City's overall park and development plan, will assist in the integration of the highway facility into the community. In addition to Downey, the park is readily accessible to residents of Norwalk, Santa Fe Springs, Pico Rivera and Bellflower. It is also an asset to the highway user in that, when fully developed, it will be aesthetically pleasing and provide an opportunity for the traveler to enjoy a recreational facility in immediate proximity to Route 605.

#### Paramount:

Another parcel identified for possible park purposes lies between the Los Angeles River area and future Orange Avenue. It is about 150 feet wide, north of the Project and totals about 1.5 acres. The City of Paramount has intended to provide park facilities in the

general area, and this parcel could serve that purpose. Should this be implemented, it could connect on the westerly end to an area identified by Los Angeles County as a possible linear park paralleling the River Channel, where a hiking and riding trail is already in use.

Another site which could be developed into a park is located at the present site of the Roosevelt Elementary School<sup>1</sup> in Paramount. Approximately five acres could be available as excess property, if the School District does not wish to retain it for school use. The City has expressed a desire to create a park in this portion of the community, and this property could serve that purpose.

#### South-Central Los Angeles:

In the south-central portion of Los Angeles, particularly the Watts-Green Meadows Community, there are few parks or recreation facilities. During the Design Concept Team Studies, a unique opportunity arose for development of a linear park adjacent to the freeway, though the utilization of excess parcels between 116th Place and the freeway from San Pedro Street to Wadsworth Avenue. It was suggested that a spine of linear parks could be developed through similar treatment of Department of Water and Power right-of-way east of Stanford Avenue, a multiple use becoming more common in the Los Angeles urban area. If implemented, the combination could provide much needed recreational facilities at nominal cost.

While there has been a reluctance on the part of the local jurisdiction to take advantage of this opportunity, due to financial limitations for maintenance and concern for supervision and policing, the City Planning Department has included the concept in the Southeast General Plan currently under preparation. Also, it was included with other potential programs considered by the Model Cities Program but has a relatively low priority at the present time. However, the opportunity remains, and the City will be given first option to any public sale.

Other excess parcels are available and the affected cities have generally expressed positive interest in the available opportunities.

#### Nonmotorized Traffic Facilities

When designing a new freeway project, or widening an existing freeway which requires additional outside right-of-way, a determination is made as to whether there are existing pedestrian and bicycle routes or reasonable alternatives within the proposed corridor. If there are not, appropriate facilities will be incorporated to conform to master plans of local agencies. In the interest of the nonmotorized highway user, Caltrans will cooperate and coordinate with appropriate Federal, State, regional, local or private entities as part of the regional and Statewide comprehensive transportation planning processes. Such planning will give full consideration to, and will incorporate, to the extent possible, any adopted or proposed Federal, State, regional or local master plan pertaining to non-motorized transportation routes.

In the specific instances noted below, the Project will be designed such that these will be no "physical taking" of public lands devoted to these types of recreational facilities.

#### Los Angeles-El Segundo:

The City of Los Angeles proposes a bicycle route in Imperial Highway from Pacific Ocean at Vista Del Mar Boulevard to Sepuvleda Boulevard with provisions for future extension easterly. Because this route coincides longitudinally with a portion of the I-105 Project, rather than merely crossing it, it poses a special problem. Caltrans and the city staff have opened discussions to make appropriate provision for this bike route in the proposed Project.

#### Inglewood-Hawthorne:

The Los Angeles County Regional Planning Department and the Department of Parks and Recreation propose a bicycle trail in the Route 105 Corridor. From the ocean, the route runs east along Manchester Boulevard, then south along Inglewood Boulevard, over I-105, to the Southern Pacific Transportation Company's railroad line where it turns southwesterly along the existing railroad line. It would not be affected by either the Project or alternatives.

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<sup>1</sup>Roosevelt Elementary School will be acquired for the project.

Los Angeles City-Los Angeles County Boundary:

In the I-105 Corridor, the Los Angeles County Regional Planning Department and the Department of Parks and Recreation propose Vermont Avenue as a north-south bicycle trail, where it will pass over and not be affected by the Project.

Watts-Willowbrook:

In this corridor, the Los Angeles County Regional Planning Department and the Department of Parks and Recreation propose Central Avenue as a north-south bicycle trail. It will pass under the Project through a separation structure, and consequently, it will not be affected.

Los Angeles River Vicinity:

A hiking and riding trail exists generally along the east side of the river right-of-way. This trail is included in the County Department of Parks and Recreation Master Plan of hiking and riding trails. Approaching the south of the Project, it traverses excess Los Angeles County Flood Control District property outside the channel fence, until it approaches the Southern Pacific Transportation Company's right-of-way. The trail then crosses the levee and down into the channel so as to pass under the Southern Pacific Transportation Company's right-of-way (and tracks), then climbs the bank and across the levee again. This is in the general area of the Route 105, Route 105/7 Connector structures.

It is proposed to extend these bridge structures far enough east to allow the hiking and riding trail to avoid the present detour down into the river channel. The trail will then be adjacent to a realigned Los Angeles County Flood Control District access road which can also be used to provide continuity for a potential linear park along the east side of the river. Under the structure, the hiking and riding trail will contain paved and unpaved sections through the structure area to allow for hiking, bicycling, and equestrian use. The Los Angeles County Department of Parks and Recreation has reviewed the proposed method of handling the trail and finds it acceptable.

Paramount:

The City of Paramount has adopted a system of bicycle routes, two of which cross the Project at Paramount Boulevard and Downey Avenue. Separation structures are provided so the bicycle routes can be retained on both streets.

In addition, a segment of the Southern Pacific Transportation Company's West Santa Ana Branch Railroad right-of-way from the Los Angeles River levee southeasterly to Compton Boulevard has been designated. The proposed Project passes near this route at its junction with the hiking, biking and riding trail along the River. This bikeway will be accommodated and coordinated with the River trail as indicated in the preceding discussion.

San Gabriel River Vicinity:

A hiking and riding trail exists along the eastern side of this river, just outside of the levee. This trail is also included in the County Department of Parks and Recreation Master Plan of Trails. It was opened in the fall of 1973 to bicycle and equestrian users, between a point just south of Whittier Narrows Recreation Area (San Gabriel River Parkway) and Eldorado Park in the City of Long Beach. The trail is operated and maintained by the Los Angeles County Department of Parks and Recreation, under a permit from the County Flood Control District.

Because of the trail, modification of project bridge structures is necessary so that continuity will be continued. Specific treatment for accommodating the trail will be submitted to the Department of Parks and Recreation for their review and concurrence.



## 5.8 ARCHAEOLOGICAL AND HISTORICAL SITES

### Introduction

Congress, in 1966, enacted the National Historic Preservation Act, thereby initiating procedures for the protection and preservation of historic and cultural properties.<sup>1</sup>

Briefly, the procedures established require:

- . An inventory of sites which may be adversely affected by a proposed public undertaking (project).
- . Public informational meetings to consider the proposed project and its effects on historic or cultural property.
- . Consultation and agreement between Federal, State and Agency (project sponsor) on a feasible and prudent alternative to either avoid or mitigate adverse effects.

### Inventory of Archaeological Sites

The potential impact of the proposed project on archaeological resources was assessed by the University of California, Los Angeles, in a study conducted under supervision of Dr. C. William Clewlow, Jr., Ph.D., Chief Archaeologist of the Institute of Archaeology's Archaeological Survey. The report on the survey, dated March 4, 1975 is included in Appendix E as Exhibit 9. The survey disclosed only one archaeological site, prehistoric Indian ruins which are described as having largely been destroyed by previous urbanization. Further, the report indicates the site, located north of the project, should not be a major factor in consideration of the route.

There is, of course, the potential to unearth unknown sites during the course of construction. Under these circumstances, State and Federal regulations provide for their immediate protection until an evaluation of the site can be made, and any salvage operations completed.

### Inventory of Historic Sites

A survey revealed the following designated or potential sites within the I-105 corridor. (These sites are also located on Figure 2-11, Community Facilities in the Corridor, in Chapter 2.)

Designated Cultural Resources:

- . Centinela Adobe  
7634 Midfield Avenue, Inglewood  
Located 2.6 miles north of the Project  
Source: National Register of Historic Places (N.R.H.P.)
- . Watts Station  
1636 East 103rd Street, Los Angeles  
Located 1.1 miles north of the Project  
Source: N.R.H.P.
- . Lynwood Pacific Electric Railway Depot  
11453 Long Beach Boulevard, Lynwood  
Located within the proposed Project  
Source: N.R.H.P.
- . Centinela Springs  
Centinela Park, City of Inglewood  
Located 3.1 miles north of the Project  
Source: California Historical Landmark (CHL) #363

<sup>1</sup> National Historic Preservation Act of 1966 (80 Stat. 915; 16 USC 470); Executive Order 11593 of May 3, 1971 (36 F.R. 8921 USC 470) "Procedures for Compliance-Protection of Properties on the National Register" (36 CFR 300) February 19, 1974.

- . Heritage House  
205 South Willowbrook Avenue, Compton  
About 2.2 miles south of the Project  
Source: CHL #664
- . The Watts Towers of Simon Rodia  
1765 East 107th Street, Los Angeles  
About 0.7 mile north of the Project  
Source: Los Angeles Historic-Cultural Monument (LAHCM) #15
- . The Watts Station (see above)  
Source: LAHCM #36
- . Hangar #1 - Los Angeles International Airport  
5701 Imperial Highway, Los Angeles  
About 1,000 feet north of the Project  
Source: LAHCM #44
- . The Angeles Abbey (Example: Islamic Revival Architecture)  
1515 East Compton Boulevard, Compton  
About 1.7 miles south of the Project  
Source: A Guide to Architecture in Southern California<sup>1</sup>
- . International Hotel (Architectural Merit)  
Vicinity of Sepulveda and Century Boulevard, Los Angeles  
1.0 mile north of Project  
Source: Cited by American Institute of Architects

The following cities in the corridor reported that no local landmarks have been designated within the corridor: Norwalk, Paramount, Redondo Beach, South Gate, Torrance, Bellflower, El Segundo, Hawthorne, Downey, Inglewood and Gardena.<sup>2</sup>

Potential Cultural Resources:

The City of Lynwood has identified four properties which are considered to have architectural merit.

- . Recreation Building at 11555 Wright Road about 0.2 mile north of proposed project.
- . House at 12156 Louise Avenue about 0.1 mile south of proposed project.
- . House at 11118 Duncan Avenue about 0.7 mile north of proposed project.
- . House at 11175 Pope Avenue about 0.8 mile north of proposed project.

The City further states, however, that these properties do not possess any historical significance concerning the City or their invention, nor do they possess integrity of location or uniqueness of style.

The Downey Historical Society, after circulation of the DEIS, suggested that the Downey Cemetery might be historically significant.

- . Downey Cemetery at the northeast corner of Gardendale Street and Lakewood Boulevard, about 0.1 mile south of proposed project.

An evaluation of three of the closest sites--the Recreation building, house at 12156 Louise Street, and the Downey Cemetery; was conducted to determine whether they were within the environmental impact of the Project. It was concluded that these sites are outside of the area of potential environmental impact.<sup>3</sup>

<sup>1</sup>A Guide to Architecture in Southern California, Gebhard and Winter, Los Angeles County Museum of Art, 1965.

<sup>2</sup>The City of Compton did not reply to the request; however, investigation disclosed only The Angeles Abbey in Compton (listed above) to be within the Corridor.

<sup>3</sup>See letter dated June 13, 1973 from State Historic Preservation Officer to FHWA Division Engineer on file in Caltrans Los Angeles Office.

Local cultural heritage groups or historical societies in each community in the corridor have also been contacted to insure that no existing or potential site having local significance has been overlooked. A listing of such groups and societies contacted is contained in Appendix C.

#### Impact of the Project on Inventoried Cultural Resources

The only direct impact of the I-105 Project with cultural resources involves the Lynwood Pacific Electric Railway Depot which is within the area of the proposed Long Beach Boulevard interchange. (See Exhibits 10 and 11 of the Section 4(f) Statement for I-105 which is included as an attachment to Volume I of this Final EIS.)

The depot is located along the West Santa Ana Branch railroad line of the Southern Pacific Transportation Company (S.P.T.Co.). This Branch is to be abandoned as part of an overall modification to S.P.T.Co. lines in the Watts-Willowbrook-Lynwood areas.

When the railroad abandonment became a part of the Project, Lynwood began investigating ways to preserve the depot building. It was the City's intent to remove and place the building at some location within the City. The S.P.T.Co. would be willing to donate the depot building for the relocation.

The depot was nominated by the City for inclusion in the National Register by application dated March 20, 1974 and was placed in the National Register as of September 25, 1974. Excerpts from the City's application as to the significance of the depot state:

"To present knowledge the Lynwood Depot is the only remaining Pacific Electric passenger station. It has survived the devastating Long Beach earthquake of 1933, neglect and vandalism and stands as evidence of a part of greater Los Angeles history and Southern California heritage. It bears invaluable testimony to the cultural identity of Lynwood and is a symbolic landmark in a time of change when all too often the foundations of the past are forgotten and lost forever."

###

"The first interurban line built by the Pacific Electric was the Long Beach Line opening in May of 1902. Lines to Newport Beach and San Pedro opened in 1904 and the Santa Ana line in 1905. By 1907 the Pacific Electric network reached most Southern California communities, declaring itself 'The Greatest Electric Railway System on Earth.' The Pacific Electric offered conducted trolley tours which included the Triangle Trolley Trip from Los Angeles to San Pedro, Long Beach and down the coast to Newport Beach and Balboa, then doubling back through Huntington Beach to Santa Ana and back to Los Angeles with Lynwood enroute.

"The Pacific Electric had several stops in Lynwood, the first and apparently most elaborate being Modjeska Park. Nothing remains of this depot today and its existence is solely committed to memory. Other stops included Lynwood (Long Beach Boulevard), Lugo and Morton (Atlantic Avenue). The Lynwood stop was originally a simple shed-type shelter and bench adjacent to sugar beet fields. Other structures along the right-of-way included 'Beet Dumps' consisting of elevated platforms with scales for weighing and loading the beets for hauling by rail. As the land was subdivided, the beet farming declined and the dumps became idle. Public objection to the structures finally signalled their demolition.

"The Lynwood Depot faired better. In 1917 the old shed shelter was replaced with a larger station for passenger operation, including a lunch room, at the intersection of Fernwood Avenue and Long Beach Boulevard. The station was built by the Lynwood Company for the Southern Pacific in return for other improvements to the intersection by the railroad which included landfill, site grading, installation of drainage culverts and relocation of a new cattle guard. Drawings of the depot have yet to be found; possibly they were destroyed with other records when a former wooden City Hall structure burned prior to 1927."

###

"Oddly enough at the time when Lynwood was getting a new and elaborate (by comparison) railway passenger station, the Pacific Electric began to lose public support with the increase in automobile traffic. In order to survive the Pacific Electric began in 1930 to purchase and by 1936 had purchased competing interurban bus lines. It planned a rehabilitation program between 1939 and 1941 for

abandoning its major rail network. World War II interrupted the move, pressing into service all available rail equipment to handle both passenger and freight traffic.

"At the war's end the Pacific Electric was faced with needing new equipment, track rehabilitation and declining patronage. In 1953 it sold all of its passenger services to Metropolitan Coach Lines. The Los Angeles Metropolitan Transit Authority took over bus and rail services in March 1958. Passenger service on the line between Bellflower and Santa Ana was discontinued in July 1950. The Bellflower line was finally abandoned in 1958 and with its passing Lynwood lost its only link with rapid transit."

###

The State reviewed Lynwood's application and forwarded it to Federal officials in early September, with the recommendation the depot be included in the National Register, and as previously noted, it was placed on the National Register September 25, 1974. Subsequently, consultation between the State Historical Preservation Officer, California Department of Transportation (Caltrans), Federal Highway Administration (FHWA), and the City of Lynwood was initiated regarding this structure.

A Preliminary Case Report has been completed, as well as a proposal for the disposition of the Depot. This proposal entails relocation of the building to a site within the City of Lynwood. Once relocated, the building would be rehabilitated by local interests, in keeping with the building's National Register status. The Lynwood Chamber of Commerce is working with the City towards establishing the Chamber offices within the Depot. A cooperative agreement between Caltrans and the City will specify the method of site selection, moving arrangements, the rehabilitation concept and the various responsibilities of the parties involved. This concept is also covered in the Section 4(f) Statement attached to this Final EIS.

## 5.9 AESTHETICS AND AMENITIES

### Introduction

This section is included for the purpose of presenting some of the more prominent aspects of the Project that relate to aesthetic and amenity considerations.

Bearing in mind that the prime objective of any transportation facility is to provide safety and service, aesthetic and amenity considerations are brought to the forefront by utilizing opportunities provided by the basic design features to achieve subjective harmony. For instance, the use of green plant materials is used to achieve a park-like setting. Conversely, landscaping techniques can also be used simply to shield undesirable visual elements of a project.

Finally, since aesthetic and amenity considerations are subjects of personal taste involving notions of beauty and ugliness, the examination focuses on those instances where action is planned to bring the Project's visual elements into harmony with the surroundings.

### Description of Corridor Topography

The corridor area consists of a flat, urban landscape with one exception (a range of low hills near Western Avenue), and no panoramic views. The Los Angeles and San Gabriel Rivers cross the corridor at central and eastern locations, respectively. There are no other distinguishing topographic features. The area is highly urbanized, and land use varies between residential, industrial and commercial development. Against this setting, it is possible to examine two distinguishable Project-related visual environments:

- . View of the Project itself, or the view perceived by the community.
- . View from the Project, or the view perceived by the facility user.

### View of the Project

Views of the Project include the following major elements:

- . Configuration of the roadway; i.e., depressed or elevated.

- . Freeway-to-freeway and freeway-to-arterial street interchanges.
- . Bridge structures across arterial streets.
- . Viaduct structures.

A depressed roadway will present the fewest problems in visually blending a facility into a community, because it will essentially allow existing vistas to be maintained. Conversely, an elevated roadway will present a linear visual barrier which may interrupt existing pedestrian level vistas somewhat.

Treatment aimed at bringing the freeway into visual harmony with the communities along the right-of-way consists primarily of utilizing a combination of landscaping and design techniques, as well as working with the local communities. The local cities and communities are encouraged to help plan and develop the appropriate landscaping treatment for their neighborhoods.

For depressed roadways, the technique calls for screen planting at or just below the crest at the top of the slope. The area between the screen planting and the right-of-way line will be landscaped with evergreen and flowering trees, shrubs and ground cover in scale with adjacent land uses. The City of Downey has already been involved with Caltrans in developing the basic visual treatment and landscaping concepts through the City. In particular, walls will be installed along the right-of-way, creating a strong visual element.

The portions of the highway elevated on embankment, especially through residential areas, will probably be screened with sound attenuation walls, a dense screen of shrubs, or a combination of both to shield the roadway and traffic from view. The side slopes will then be planted with evergreen and flowering plant material, aimed at providing a pleasant visual experience for the community. Plant materials and design styles will be chosen that best blend into the community and, where possible, improve it. Through commercial and industrial areas, screen planting is ordinarily not used, and slopes are planted to conform with the landscape of adjacent properties. This will provide a strong continuity in form and texture.

Bridge structures across arterial streets are being designed with careful consideration given to the architectural character created.

Freeway-to-freeway interchanges are frequently visible from a great distance and affect a large area. As in the case of bridge structures, emphasis will be placed on the aesthetics of the structural design. Outward-facing slopes will be screened where appropriate, and all planting areas will be landscaped to establish a visually oriented park-like atmosphere. Figure 5-23 is a rendering of a typical bridge crossing and aesthetic treatment. Planting along the existing freeways which must be removed during construction will be replaced, although some time will be required for establishment.

Architectural treatment of viaduct structures will differ in impact, depending on the development of areas beneath and immediately adjacent to them. Local policy and design requirements will undoubtedly have a considerable effect on what kind of visual experience results from viaduct structures in the communities along the right-of-way.

#### Views from the Facility

While views from the facility will occur at a larger scale than most views of it, the design principles to be utilized remain the same. Essentially, discordant elements must be brought into visual harmony.

Depressed portions of the highway will have a screen planting at the top of the slope and side slopes landscaped at freeway scale. As noted earlier, general concepts for landscaping have already been developed and agreed upon in cooperation with the City of Downey. In this area, slopes facing the Project will be planted with dense groupings of several varieties of trees, both evergreen and deciduous. Figure 5-24 is a rendering of this type of treatment. It will create a strong visual element in contrast to treatment anticipated within the City of Hawthorne and County of Los Angeles. Here it is proposed to landscape the slopes with sweeping ground-cover patterns, mass groupings of shrubs, and natural drifts of medium-to-large trees. These two types of plantings will provide an evolving sequence and variation of visual experiences for the motorist.

Along elevated portions of the Project, particularly through residential areas, the continuous screen planting will tend to produce some monotony, especially for the passengers. The continuous screen will be broken through commercial and industrial areas, providing variation and an overview of the urban landscape.

Particular design and landscaping consideration will be given to off-ramp areas where a visitor's first impressions of a community will be formed. The Project's design and landscaping will be directed toward a smooth transition from the large scale to the more intimate scale of the community.

### Summary

The I-105 Project consists of a major freeway facility of approximately 11 miles of elevated roadway and 7 miles of depressed roadway, located through a relatively flat, fully-developed urban landscape. Clearly, a Project of this magnitude will have visual impact to the extent that it will change existing vistas and create new visual impressions ranging from subtle to bold. Subtle changes would be anticipated, for example, in the case of a depressed roadway through a residential community, while elevated roadways will probably create expansive and perhaps occasional dramatic views for motorists.

Landscaping of a Project of this magnitude creates a visual park for the motorist and community alike; in effect, green-belts within an urbanized setting. The removal of existing shrubbery and trees is more than compensated by the landscaping to be provided. In fact, for every tree removed from the Project right-of-way, about three are planted.

With respect to the alternatives to the Project, the Exclusive Busway alternative would result in similar visual experience from a community viewpoint since the section configuration would be similar, although the overall busway right-of-way would only be about half that of the I-105 Project. The Grade-Separation alternative would result in 69 elevated structures at major intersections (see rendering, Figure 3-19 in Chapter 3), while the Arterial Widening alternative would alter the visual experience along the approximately 60 miles of widened roadway due to the need to acquire property and clear improvements along at least one side of the affected arterials. The No Project alternatives would not significantly alter the visual experience of highway users or community residents.

A combined Busway and Grade Separation alternative would result in several miles of elevated busway plus the 69 grade-separation structures, while the combined Busway and Arterial Widening alternative would result in an altered visual experience related only to the elevated busway.

## 5.10 CONSTRUCTION IMPACTS

### Introduction

Construction of large-scale transportation facilities in an already developed urban area creates highly visible physical changes in the urban fabric, and results in direct and indirect impacts.

This section discusses the approach to be taken in constructing the Project, and the consideration given to construction impacts.

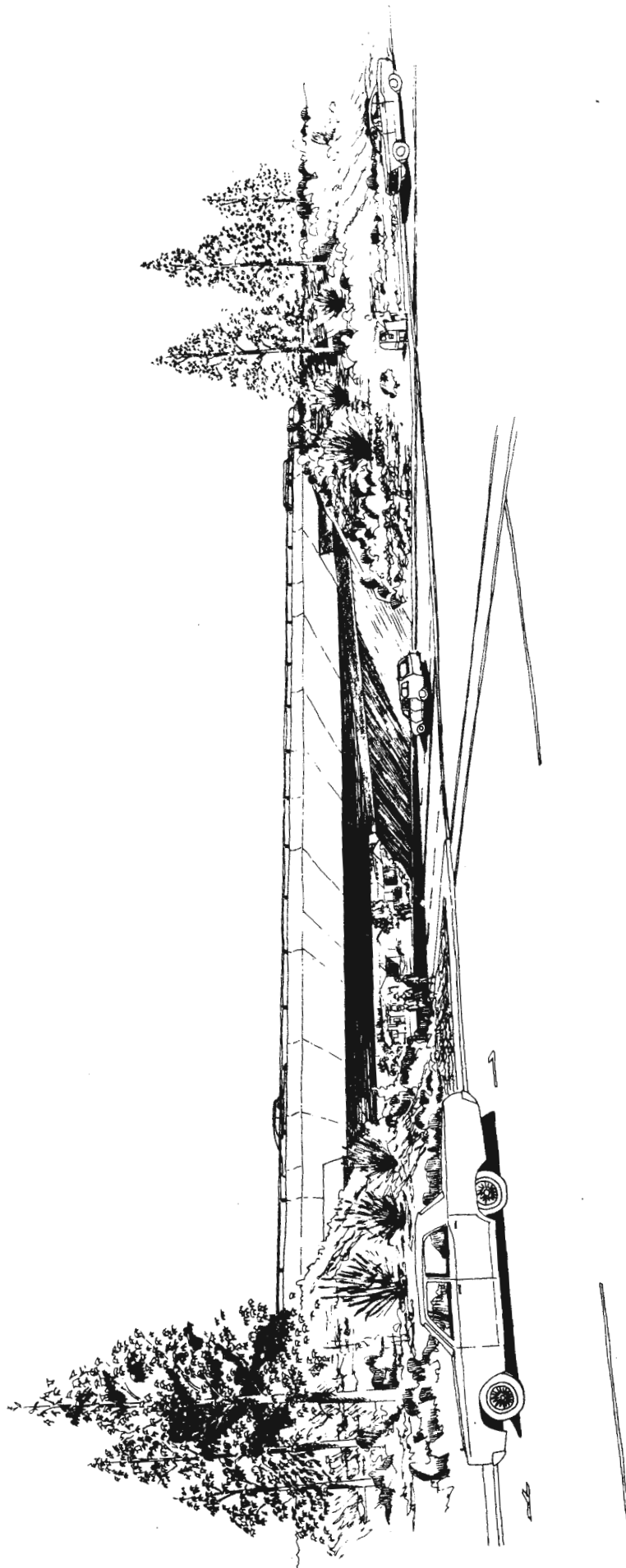
### Project Construction Schedule

Scheduling for this Project will be based upon the following factors:

- . The approval of the EIS.
- . Lifting of the injunction.
- . The availability of funding.
- . The deadline for completion of the Interstate System mandated by law.
- . The capacity of the highway construction industry to perform in the timeframe available.

The optimum schedule must weigh the above factors, giving consideration to tradeoffs and compromises and, predicated on certain assumptions, provide for a certain amount of flexibility conditions change.

Some of the desirable criteria to be followed in establishing a schedule for this Project are:

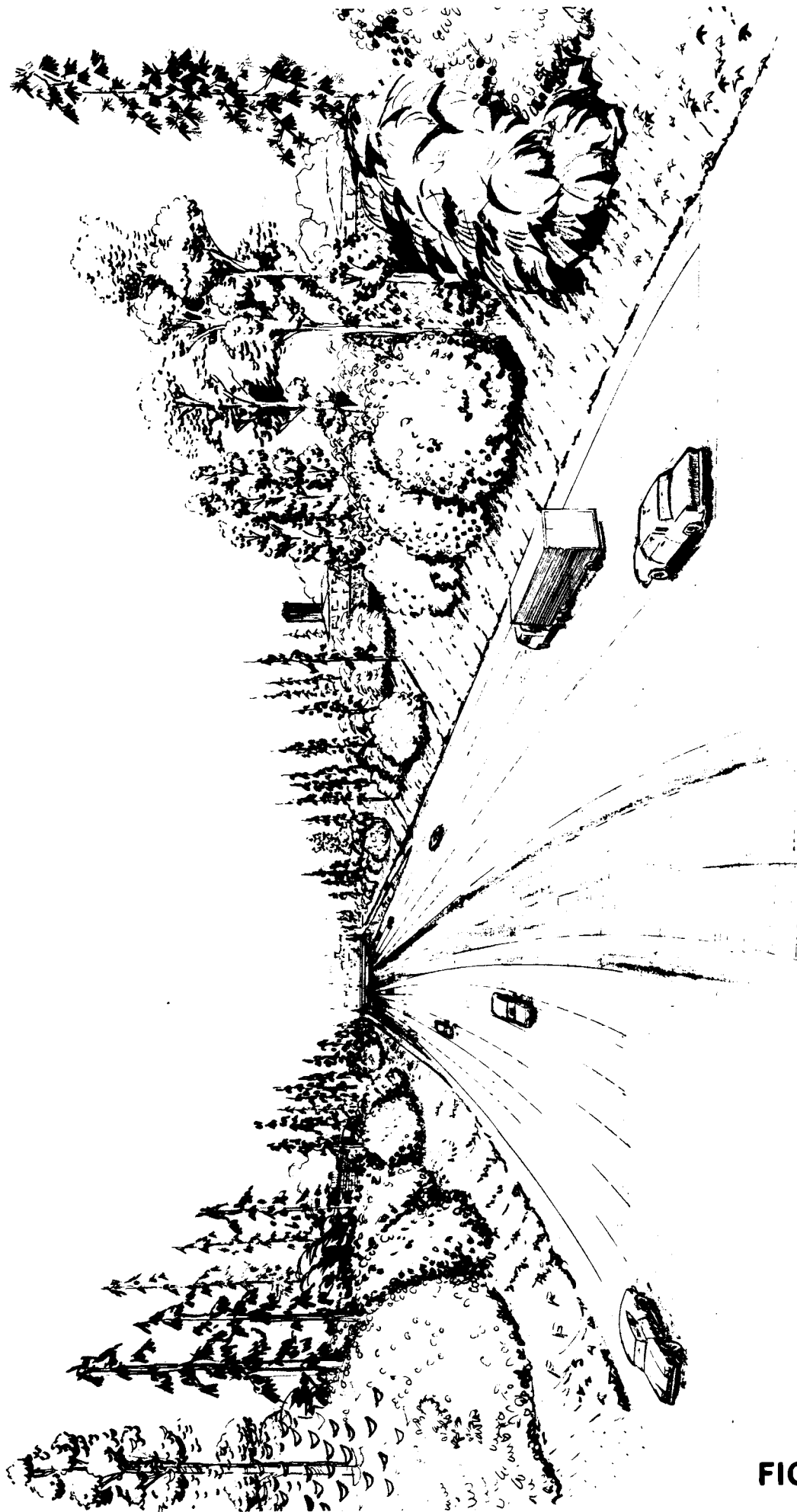


AESTHETIC TREATMENT OF  
TYPICAL BRIDGE CROSSING

FIGURE 5-23

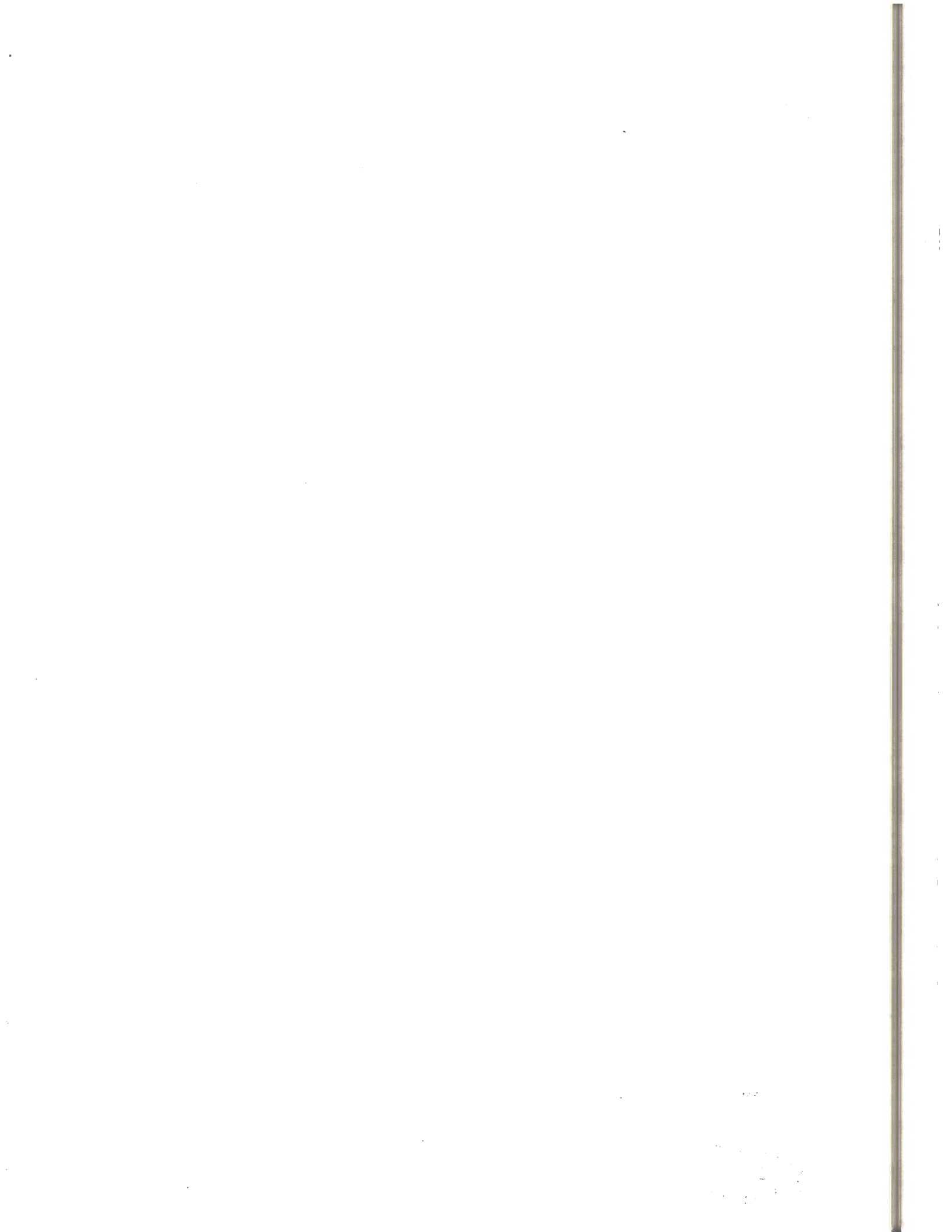
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LANDSCAPING TREATMENT

FIGURE 5-24



From a traffic service standpoint, it is desirable to begin construction at the westerly limit first. Completion and opening to traffic would progress easterly. Possible segments that would be made serviceable could be:

- LAX to Route 405 (San Diego Freeway)
- Route 405 to Route 11 (Harbor Freeway)
- Route 11 to Route 7 (Long Beach Freeway)
- Route 7 to Route 605 (San Gabriel River Freeway)

The proposed modification in Hawthorne indicates the need to develop an alternative completion and opening schedule. Because of the lead time to acquire and clear right-of-way following agreement with Hawthorne, it appears that an alternative schedule from a traffic service standpoint would be to proceed from the east, reversing the above sequence.

Intermediate units within these segments could also be opened, depending on relative timing of such intermediate units.

North-south intersecting freeway widenings or reconstructions can be done as early contract units such that they are completed when Route 105 construction crossing these routes begins. This will minimize traffic handling problems and conflicts, make operational improvements as early as possible, and leave the adjacent communities with a completed facility as quickly as possible.

Moving earthwork should be accomplished within the Route 105 Freeway right-of-way to the maximum extent possible. Right-of-way will be acquired and cleared to provide as broad a haul route as possible. In this way, the earth moving will be accomplished more safely, with less community impact and more economically. Traffic conflicts are minimized by separating the hauling tracks from City street traffic, which avoids added congestion as well. A contractor will be able to use "off highway" equipment which can carry larger quantities of earth per unit compared to legal highway loads on city streets. The benefits here are reduced numbers of hauling units, reduced time to complete earth movement, and reduced costs to the public.

A Project of this magnitude would require about 5 years minimum construction time even with the most judicious contract scheduling so that if a "go" decision is reached in 1977, the Project at the earliest would be completed about 1982 or 1983.

### Earthwork

One of the most important single elements of a project is that of earthmoving. This involves a significant portion of the construction time and utilizes heavy equipment which, in spite of controls, tends to generate the most annoying intrusions into the community--noise and dust. Consequently, organizing and scheduling a project to accomplish earthmoving in the most expeditious and efficient manner possible has environmental as well as economic benefits. Basically, efficient earthmoving requires the material from excavation be moved to embankment locations. Depending upon whether a project has a shortage or surplus in material, this minimizes the need for borrow or disposal sites outside of the Project's right-of-way. Ideally, a project is "balanced" from an earthwork standpoint; i.e., all the material from excavation areas will complete all the embankments.

The I-105 Project as proposed is essentially a balanced earthwork project.<sup>1</sup> It requires a total of about 14 million cubic yards of material for embankments with an equivalent amount available from excavations so that there will be no need for either borrow or disposal of material.

In the event further design revisions develop which would throw the Project out of balance and necessitate the use of either borrow or disposal sites, proposed locations from which material might be obtained (borrow sites) or locations to which excess material might be hauled (disposal sites), include the following:

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<sup>1</sup>Except for the trash material to be wasted as noted in Section 5.4, Solid Wastes.

Borrow Sites:

- . Los Angeles County Sanitation District  
Landfill Site No. 6 in Puente Hills  
  
Haul: 25 miles+  
Owner: Los Angeles County
- . Rio Hondo Spreading Grounds  
San Gabriel River near Santa Ana Freeway  
  
Haul: 10 miles+  
Owner: Los Angeles County
- . J. R. Kirkwood Site  
Rosecrans and Beach Boulevards  
  
Haul: 12 miles+  
Owner: J. R. Kirkwood
- . J. R. Kirkwood Site  
Montebello Hills at Pomona Freeway (Route 60)  
  
Haul: 25 miles+  
Owner: J. R. Kirkwood

These above-noted sites are in operation and have environmental clearance. Additional sites which have been investigated but which do not yet have environmental clearance are:

- . San Jose Hills  
Grand Avenue and Temple Avenue  
  
Haul: 30 miles+  
Owner: Mount San Antonio College
- . La Puente Hills  
Azusa Avenue 3/4-mile north of Valley Boulevard  
  
Haul: 25 miles+  
Owner: City of Industry
- . La Puente Hills  
Turnbull Canyon  
  
Haul: 17 miles+  
Owner: Rose Hills Memorial Association
- . Rose Hills  
  
Haul: 17 miles+  
Owner: Rose Hills Memorial Association
- . Olinda Oil Fields  
Carbon Canyon  
  
Haul: 20 miles+  
Owner: Chansler Western Oil Development Company

Although these sources would probably not be used exclusively for the I-105 Project, estimates indicate that sufficient material will be available if needed within the near terms for the Project.

Disposal Sites:

- . The County Sanitation District has indicated that several of their Landfill Sites (Class II) will be available for disposal of waste fill dirt. The Puente Hills' site is the closest of these and probably would be utilized.
- . Operating Industries Landfill Site (a private Class II site) located in Monterey Park would also be available for disposal.

It was pointed out earlier that one of the important considerations for scheduling the Project construction was the movement of on-site earth through the project right-of-way. The present planning does provide this type of schedule which minimizes the impact of earth movement. If borrow material is needed or waste is required, it would be hauled from a borrow site or to a disposal site utilizing existing freeways and the Project right-of-way as much as possible. Where hauling on local streets cannot be avoided, cooperative planning with local agencies will result in designating the best city street routes for such haul, to mitigate impact to the local communities.

### Mitigation

The scheduling of contract units is done, in part, with consideration for minimizing construction impacts. For example, the movement of earthwork through the Project right-of-way and the early widenings of existing cross freeways to allow traffic to continue without conflict and interference are key considerations to minimize impacts.

More specific attention to avoiding or mitigating impacts is accomplished through contractual controls. The plans and specifications will include a number of provisions.

### Standard Specifications:

Each contract is covered by the provisions of the State of California, Department of Public Works, Standard Specifications. (Current issue dated January, 1975.)

Contracts are publicly advertised for a period of time reasonable enough to allow contractors to evaluate and prepare bids. Sealed bids are submitted, then opened by the State on a designated bid-opening date. Award of a contract is made to the lowest responsible bidder, who also must be licensed by the State. He also must post two bonds; one a Labor and Material Bond for payment of any claims of laborers, mechanics, materialmen, etc.; the second a Performance Bond to guarantee faithful performance of the Contract by the contractor. The Contractor is required to complete the contract in a given period of time, provide a progress schedule to meet that time, and is assessed liquidated damages if the contract is not completed in that specified time. This information is contained in the State Contract Act and Sections 2, 3, 7 and 8 of the Standard Specifications.

Section 7, "Legal Relations and Responsibility," deals with the responsibility of the Contractor on many items of concern, as follows:

- . He shall conform to all applicable and enforceable State, Federal, County, and municipal ordinances and regulations.
- . It is specifically mentioned that the California Environmental Quality Act of 1970 might apply to permits, licenses or other authorization which the Contractor may have to obtain (this could apply to any deviations or additions to those items, details, materials, locations, etc. not covered by this document).
- . He must comply with all air pollution control rules, regulations, ordinances and statutes.
- . The Contractor shall comply with all local sound control and noise level rules, regulations and ordinances.
- . He shall exercise every reasonable precaution to protect streams, lakes, reservoirs, etc. from pollution with fuel, oil, etc. and schedule operations to avoid or minimize muddying and silting in these waters.
- . The use of pesticides must be in conformance with all rules and regulations of the Department of Food and Agriculture, the Department of Health, the Department of Industrial Relations, and all other agencies which govern the use of pesticides.
- . The Contractor shall conform to all the rules and regulations pertaining to safety established by the California Division of Industrial Safety.
- . He shall conform to all the rules and regulations pertaining to sanitary provisions established by the State.

- . There are broad requirements regarding the convenience of the public and public traffic. The rights and protection of the public are to be considered so as to cause as little inconvenience and delay as possible with respect to abutting property owners, access, traveling surfaces, detouring, staging operations, flagging, dust control, signing, lighting, barricading, etc.
- . There are also broad requirements to provide for the safety of the public. This includes signing, lighting, barricading, regulation of equipment use, and other protective measures.
- . He shall exercise care in avoiding damage or injury to existing highway or utility facilities, adjacent property, trees, shrubs, etc.
- . The Contractor is made specifically responsible for any damage or injury resulting from his operations to any person or property.
- . For any materials which are to be disposed of outside the highway right-of-way, the Contractor must obtain written permission or permits to insure proper disposal.
- . The Contractor is required to cooperate with any and all other forces of Contractors working within or adjacent to the site.
- . The Contractor is responsible for all the materials used in the work and shall rebuild, restore, repair and make good all injuries, damages, or losses which occur before acceptance of the contract.

Section 10 is specifically directed at controlling dust resulting from the Contractor's operations. This work shall consist of applying either water or dust palliative, or both, for the alleviation of dust nuisance.

Section 20 requires for erosion control measures to be taken on freeway slopes. This includes incorporating straw, fertilizer, and seeding of these areas. This is not landscaping, which usually occurs following actual freeway construction.

The remainder of these Standard Specifications (95 Sections in all) cover specific materials or items in the work, and sets forth very specific construction methods, material composition or quality, etc.

As these Specifications apply to the entire State, and are printed only every 2 or 3 years, additional requirements or controls are included for specific contracts and locations, and to update specifications, in the form of plans and Special Provisions.

#### Plans:

Controls included in the plans are related to traffic handling and movement in a safe manner during construction. Detour location and configuration, staging operations, and placement of construction signing, lighting and barricading are detailed.

#### Special Provisions:

For each project there are conditions unique to that project or location, or new specifications applicable, which are detailed in the Special Provisions.

In order to provide for material, supplies, and equipment movement on local streets, to, from and around the job-site with a minimum of disruption, specific routes are defined. These routes are selected cooperatively by the State and local jurisdiction in terms of existing use and safety, most appropriate for use during construction.

An order of work is specified which establishes priorities and relative order of construction for the many elements involved in a job. Some general criteria are:

- . City street modifications, connections or reconstruction are to be completed as a first order of work. As these streets are made traverseable, so local traffic circulation is maintained, or otherwise replaced, streets within the highway right-of-way can be closed and removed.

- . Fencing around the right-of-way to the maximum extent practicable is a first order of work also. This is to provide the public with a separation from the work area and, in particular, preclude children from entering the work areas.
- . Wherever large amounts of traffic must be handled and maintained, a specific staging plan is detailed.
- . Usually relocation and replacement of utility services in new city streets must be coordinated and detailed in the order of work.
- . In dealing with reconstruction, modification, or working with flood control facilities, work is restricted to the dry part of the year, or with very tight restrictions during the rainy season.

There are specific requirements on maintaining traffic on local streets and freeways. Generally, a number of lanes which must remain in operation, and the hours for such operation, are listed. All utility services are to remain in operation, too.

At crossing streets that will remain after completion of the freeway, and will be separated by an undercrossing structure (freeway passes over), requirements on the falsework widths and heights of opening, including pedestrian ways, are detailed.

At crossing streets which will be on overcrossings (freeway under), either the existing streets can be closed during construction (traffic will have sufficient alternative routes), or detours will be constructed.

Another provision not in Standard Specifications, but included in Special Provisions adds more specific noise requirements. His operations shall be conducted so that the noise level between the hours of 9:00 p.m. and 6:00 a.m. will not exceed 86 dBA at a distance of 50 feet.

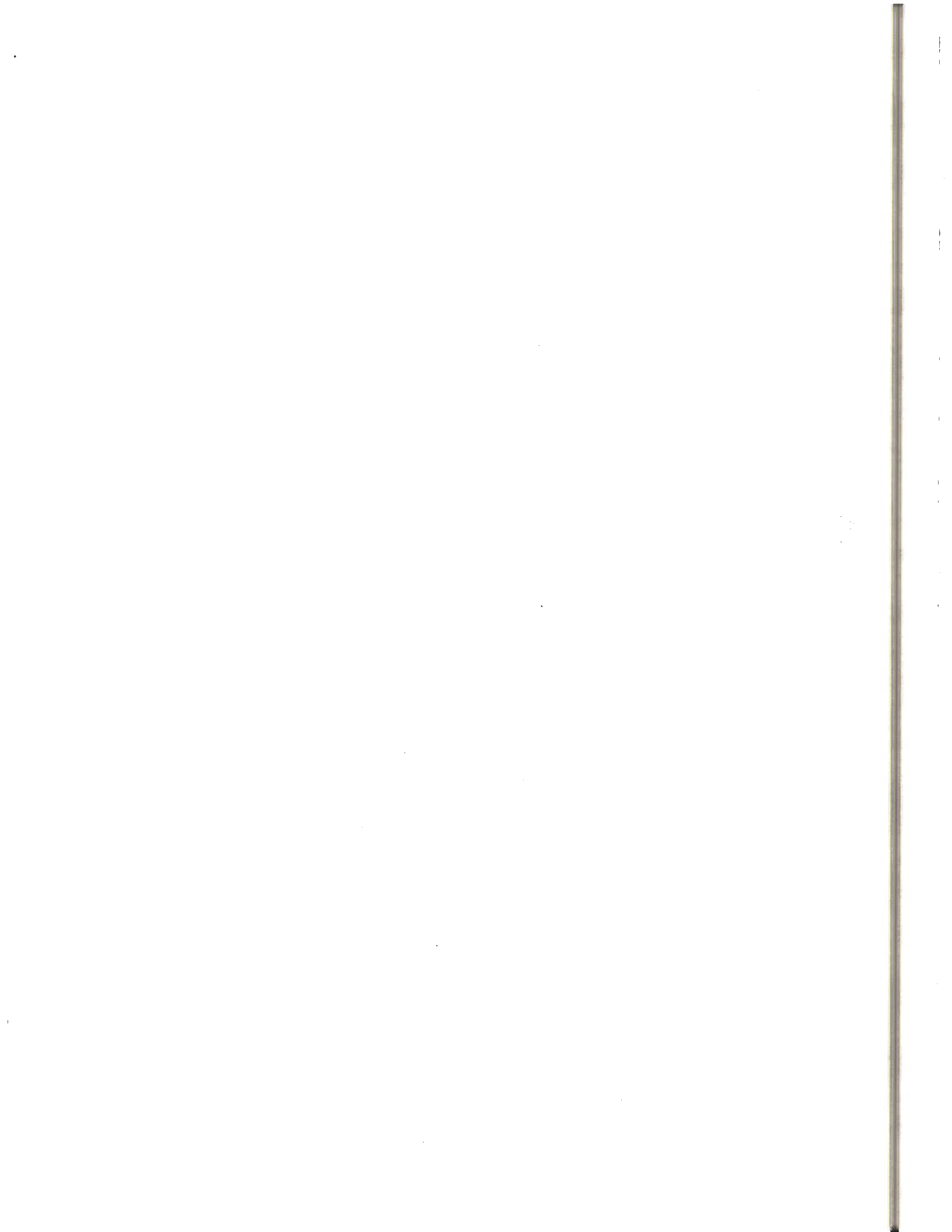
#### Summary

Construction of the Project will result in significant physical changes in the area of the Project right-of-way. Impacts will result from the movement of massive amounts of earth, reconstruction of existing streets, rearrangement of street patterns, temporary detouring of traffic, etc. Construction operations involve large amounts of construction machinery and equipment which create concerns over public safety, air pollution, noise, etc. These impacts are of a short-term nature, generally in the immediate vicinity of the Project.

Earthwork and its movement is perhaps the most significant single element in the construction of the Project. The planned Project will result in the movement of 14 million cubic yards of earth from excavation areas to embankments, through the Project right-of-way.

These impacts can be eliminated, minimized or mitigated through the appropriate scheduling of contract units and contractual controls.

Of the alternatives, the Exclusive Busway would be similar to the Project, except to a somewhat smaller degree. The Local Improvement alternative would not involve large amounts of earthwork, but would be widespread throughout the corridor. Perhaps the most significant of these would be the amount of construction work requiring traffic handling. No Project would have impacts related to redevelopment of the existing cleared land.





**CHAPTER 6**  
**SOCIAL AND ECONOMIC EVALUATION**



## CHAPTER 6 - SOCIAL AND ECONOMIC EVALUATION

This chapter presents the results of the social and economic studies performed for the Project and its alternatives. The following social and economic criteria form the basis of the major sections of the chapter.

- . Residential Displacement (People and Housing Units)
- . Business and Employment Displacement
- . Public Service and Community Facility Impacts
- . Effects on Community Cohesion
- . Local Fiscal Impact (Property, Taxing Agencies and Retail Sales Tax)
- . Proximity Impacts and Property Values

The primary purpose of this chapter is to define the anticipated direct and indirect social and economic consequence of the Project and its alternatives. The social and economic consequences presented in this chapter are primarily short-term effects. Other effects which have long-term social and economic implications are treated in Chapter 4 - Transportation Service (such as improved long-term regional accessibility), Chapter 5 - Environmental Evaluation (such as improved long-term air quality), and Chapter 7 - Land Use and Development Evaluation (such as long-term residential, commercial and industrial development activity).

Under each social and economic factor, the anticipated positive and negative effects of each alternative are covered, followed by available measures to mitigate negative impacts, and then those adverse effects which cannot be avoided.

At the conclusion of each discussion (e.g., Residential Displacement), an evaluative summary is presented. Finally, following coverage of all of the criteria, an overall social and economic summary is presented.

The original studies from which this summary was compiled, were conducted in early 1973. Some information, principally residential displacement, was updated to 1976 to reflect the on-going acquisition, relocation, and clearance program being conducted under the auspices of the U. S. District Court.

In addition a report evaluating the effects on community cohesion of the I-105 Project and its alternatives was completed in early 1976. A summary and the conclusions of this report are included in Section 6-4.

### 6.1 RESIDENTIAL DISPLACEMENT

There are three key aspects related to residential displacement: (1) the anticipated number of persons and housing units displaced by a particular alternative, (2) the availability of suitable replacement housing, and (3) the available mitigation measures.

This section presents the anticipated number of persons and housing units which would be displaced by each alternative. The results of in-depth "Housing Availability Studies"<sup>1</sup> performed for the I-105 Project are summarized and their applicability to the other alternatives assessed. In addition, the approach to mitigating residential displacement is presented.<sup>2</sup>

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<sup>1</sup>Summary and Conclusions of the I-105 Housing Availability Studies and Relocation Plan (available from Caltrans).

<sup>2</sup>All of the I-105 alternatives are potentially subject to provisions of the "Uniform Relocation and Real Property Acquisition Policies Act of 1970," which call for uniform and equitable land acquisition policies and relocation assistance of displaced persons in connection with Federal or Federally-assisted programs.

## Displacement of People and Housing

### I-105 Project:

There are approximately 8,130 persons still residing within the I-105 right-of-way and approximately 4,550 housing units remaining. Of these remaining units, some 1,600 are unoccupied, while about 770 units, housing approximately 2,400 persons, are being rented to families who were neither original owner-occupants nor tenant-occupants within the I-105 right-of-way.<sup>1</sup> Of the 8,130 persons there are about 770 original owners or tenants who are living in acquired properties, but who have not yet relocated. Thus, of the nearly 25,500 original residents within the I-105 right-of-way, approximately 8,130 (or 30 percent) remain to be relocated.

### Location Alternatives:

#### Bell Alignment

There are approximately 8,250 people in some 4,700 housing units who would be displaced along this alignment. About 1,600 of these remaining units are vacant, while 770 units are being re-rented to families who were neither original owner-occupants nor tenant-occupants.

Compared to the proposed alignment there are 80 more people and 150 more housing units.

#### Original Adopted Alignment

This alignment would have 6,600 people and 4,360 housing units remaining to be displaced. These remaining units contain some 1,600 vacant units, and 770 units which are re-rented.

The proposed alignment, then, involves an additional 1,530 persons and 190 more housing units than this alignment.

### No Project Alternative:

Property acquisition and the displacement of people required for the Project would not continue under this alternative. However, the subsequent disposal of the acquired I-105 right-of-way and its redevelopment could lead to additional displacement of people and housing units in certain cases. For example, if existing State-owned, occupied housing units were to be sold to the private sector, the new buyer might require the existing tenant to move. In other cases, effective redevelopment of entire blocks or neighborhoods might require the displacement of the few people and housing units still remaining and intact. Additionally, some vacant housing units are deteriorated beyond rehabilitation (a total of 60 housing units). Thus, while the additional displacement of people under No Project conditions cannot be estimated, a minimum of 60 additional housing units would be removed from the corridor housing stock.

### Exclusive Busway Alternative:

An Exclusive Busway would result in the displacement of approximately 4,000 additional people<sup>2</sup> and 1,950 housing units. Along with the disposal and redevelopment of the "excess I-105 right-of-way," an estimated 30 housing units would be removed due to excessive deterioration. Also, as under No Project conditions, some additional displacement of people may occur.

<sup>1</sup>These families, defined as "re-renters," are temporary occupants of State-owned housing and understand that they will be required to move without relocation financial assistance, upon 30-day written notice. However, they will be provided relocation advisory assistance.

<sup>2</sup>In addition, approximately 800 "re-renters" of State-owned units would be displaced. It is also assumed that the additional 770 original owners or tenants who are living in acquired properties, but who have not yet relocated, would move.

Local Improvement Alternative:

- . Arterial Widening - This alternate would directly displace an estimated 8,700 persons and 3,050 housing units along affected corridor arterials.
- . Grade Separation - This alternative would directly displace an estimated 600 persons and 190 housing units.

Under either of these Local Improvement conditions related to disposal of the acquired I-105 right-of-way would pertain, that is, a minimum of 60 deteriorated housing units would be removed and some additional displacement would occur.

Combined Busway and Local Improvement Alternatives:

- . Busway and Arterial Widening - This alternative would directly displace an estimated 12,700<sup>1</sup> persons and 5,000 housing units.
- . Busway and Grade Separation - This alternative would directly displace 4,600<sup>1</sup> persons and 2,140 housing units.

As under Exclusive Busway conditions, an estimated 30 deteriorated housing units within the excess I-105 right-of-way would be removed; also, some additional displacement of people may occur.

Residential Displacement Summary:

Table 6-1 tabulates the remaining residential displacement for I-105 and the alternatives. The following order (from most to least) of people and housing displacement is indicated.

<u>Displacement of People</u>	<u>Displacement of Housing Units</u>
1 Busway and Arterial Widening	1 Busway and Arterial Widening
2 Arterial Widening	2 I-105 Project
3 I-105 Project	3 Arterial Widening
4 Busway and Grade Separation	4 Busway and Grade Separation
5 Exclusive Busway	5 Exclusive Busway
6 Grade Separation	6 Grade Separation
7 No Project	7 No Project

Figure 6-1 represents a graphical representation of the residential displacement for the I-105 alternatives. In addition to the information contained in Table 6-1, the figure also indicates the estimated I-105 relocation which has already occurred (roughly 18,200 people and 3,240 housing units), the temporary "re-renters" who would have to move, and the vacant, deteriorated housing units within the I-105 right-of-way which would have to be removed if the Project is not completed.

<sup>1</sup>In addition, approximately 800 "re-renters" of State-owned units would be displaced, as well as 770 original owners or tenants who have not yet relocated from properties which have been acquired.

TABLE 6-1  
REMAINING RESIDENTIAL DISPLACEMENT

<u>Alternative</u>	<u>Number of Persons To Be Relocated</u>	<u>Number of Housing Units To Be Relocated</u>
I-105 Project (Proposed Alignment)	8,130 <sup>ab</sup>	4,550
Hawthorne Location Alternatives:		
. Bell-shaped Line	8,250 <sup>ab</sup>	4,700
. Original Adopted Line	6,600 <sup>ab</sup>	4,360
No Project	770 <sup>b</sup>	60 <sup>d</sup>
Exclusive Busway	4,770 <sup>bc</sup>	1,980 <sup>f</sup>
Local Improvements:		
. Arterial Widening	9,470 <sup>b</sup>	3,110 <sup>e</sup>
. Grade Separation	1,370 <sup>b</sup>	250 <sup>e</sup>
Combined Alternatives:		
. Busway and Widening	13,470 <sup>bc</sup>	5,030 <sup>f</sup>
. Busway and Grade Separation	5,370 <sup>bc</sup>	2,170 <sup>f</sup>

<sup>a</sup>Does not include relocation of approximately 2,400 re-renters.

<sup>b</sup>Includes 770 persons in acquired properties, who have not yet moved.

<sup>c</sup>Does not include relocation of approximately 800 re-renters.

<sup>d</sup>Represents deteriorated housing units within I-105 right-of-way.

<sup>e</sup>Includes removal of an estimated 60 vacant, deteriorated housing units within I-105 right-of-way.

<sup>f</sup>Includes removal of an estimated 30 vacant, deteriorated housing units within I-105 right-of-way.

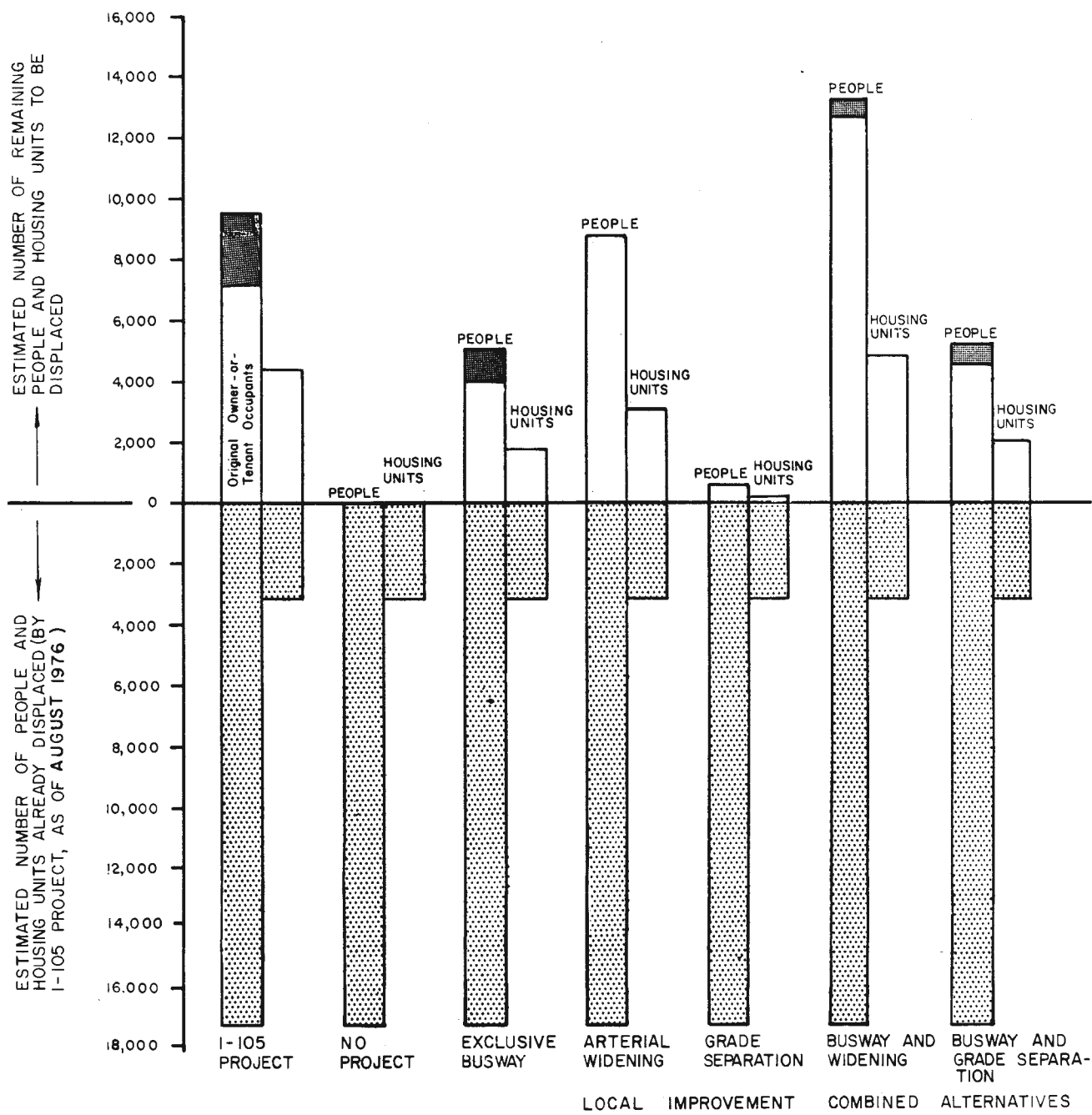
#### Availability of Replacement Housing




Residential displacement of the magnitude generated by the I-105 Project is a primary social concern. The Project is no exception in that the question of the availability of an adequate supply of replacement housing was one subject of the lawsuit which was filed against the U. S. Department of Transportation and Caltrans. The preliminary injunction which was issued by the United States District Court on July 7, 1972 stated, "No one can be completely sure on the basis of the studies (housing studies) heretofore conducted that the available replacement is adequate. For the many people still living in the Century Freeway corridor, the consequences of proceeding with the Freeway in the face of an inadequate supply of replacement housing could be severe....Therefore, the Court believes that the most equitable course of action is to order the Division of Highways (Caltrans) to conduct additional housing availability studies."

In carrying out this particular order of the Court, completely new Housing Availability Studies were prepared in accordance with Federal Highway Administration guidelines and regulations established to meet the intent of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

#### Methodolgy:

Both Conceptual Stage (preliminary) and Right-of-Way Stage (detailed) Housing Availability Studies have been utilized for this report.



 REMAINING DIRECT DISPLACEMENT OF ALTERNATIVES  
 I-105 DISPLACEMENT WHICH HAS ALREADY OCCURRED  
 NUMBER OF TEMPORARY "RERENTERS" OF STATE OWNED I-105 PROPERTY WHO WOULD BE REQUIRED TO RELOCATE

NOTE: IMPACTS FOR THE HAWTHORNE VARIATIONS ARE APPROXIMATELY THE SAME AS THOSE FOR THE PROJECT.

RESIDENTIAL DISPLACEMENT SUMMARY OF I-105 ALTERNATIVES

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A Conceptual Stage Housing Study and Relocation Program Plan is preliminary in nature and is required prior to approval of the final location. This plan provides:

1. An estimated number of persons and families to be relocated.
2. The probable availability of decent, safe and sanitary housing within the financial means of people being displaced.
3. Problems and possible solutions so that an orderly, efficient, and humane relocation of people can be achieved.

A Conceptual Stage Study on the entire Route 105 Project, as currently adopted, has been prepared dated June 23, 1973. A subsequent Conceptual Stage Study was prepared on the westerly portion of the project, Area 1, from Vermont Avenue to Sepulveda Boulevard. This Study dated December 15, 1975 related to the proposed location near the City of Hawthorne and westerly.

A Right-of-Way Housing Study and Relocation Program Plan is a more detailed study providing reasonable assurances of the availability of decent, safe and sanitary housing within the financial means of those who will actually be displaced. The Plan includes:

1. An inventory of residential displacement anticipated.
2. An inventory of available housing that is decent, safe and sanitary and within the financial means of people to be displaced.
3. An analysis and correlation of those inventories which will disclose replacement problems, and the methods of resolving these problems, so that an orderly, efficient, and humane relocation of people can be achieved.

A Right-of-Way Stage Study is required to be prepared by the State and approved by FHWA prior to initiating the acquisition of property.

#### Housing Availability Studies:

A detailed "Housing Availability Study and Relocation Plan"<sup>1</sup> was performed in each of four separate replacement housing areas, each delineated on the basis of proximity to the displacement areas, relocation preferences established by survey of prospective displacees, and comparable community demographic profiles. Replacement areas are shown in Figure 6-2. They were then analyzed to determine if they would afford displacees with comparable housing in similar neighborhoods.<sup>2</sup>

Table 6-2 shows a breakdown of remaining residences to be displaced, by type of unit, occupancy (owner or tenant), and location for the Project. The Table shows that the largest remaining impact will be felt by the communities of Los Angeles City, Los Angeles County, Hawthorne, and Inglewood in Study Area 1--the westernmost portion of the right-of-way; and Paramount, South Gate, Downey, and Norwalk in Study Area 4--the easternmost portion of the right-of-way. These two study areas will account for approximately 90 percent of the remaining residential displacement.

<sup>1</sup>These studies were accomplished for the entire length of the right-of-way as originally adopted by four individual study areas. Four area studies and a summary were prepared, dated from March 31, 1973 to June 29, 1973. A review and update of housing availability was performed in 1974 and in 1975. 1975 data is used herein and is applicable to the entire route as is now proposed. A new update is in preparation, however, preliminary data indicates no significant change from 1975 conditions.

<sup>2</sup>Comparable housing means fair housing that is decent, safe and sanitary, in an equal or better neighborhood, available on the market and within the financial means of the displaced family, comparable in price or rent, number of size of rooms, utilities, and accessibility to public and community facilities and employment.

TABLE 6-2  
OCCUPIED HOUSING UNITS REMAINING TO BE DISPLACED BY I-105 PROJECT

Type of Unit	Number of Occupied Units in Study Areas <sup>1</sup>				Total
	Study Area 1 <sup>a</sup>	Study Area 2 <sup>b</sup>	Study Area 3 <sup>c</sup>	Study Area 4 <sup>d</sup>	
Single-family (owner)	432	28	37	201	698
Single-family (tenant)	519	17	40	103	679
Multiple-family	<u>1,259</u>	<u>32</u>	<u>101</u>	<u>404</u>	<u>1,796</u>
TOTAL	2,210	77	178	708	3,173

<sup>a</sup>Study area 1, between Sepulveda Boulevard on the west and Vermont Avenue on the east, is within the Cities of Los Angeles, Hawthorne, and Inglewood and a portion of the County of Los Angeles. Source: Design Stage Housing Availability Study, Caltrans, December 15, 1975.

<sup>b</sup>Study Area 2, is located between Vermont Avenue and Alameda Street and is within the City and County of Los Angeles.<sup>2</sup>

<sup>c</sup>Study Area 3, is located between Alameda Street and the Long Beach Freeway. This portion is for the most part within the City of Lynwood.<sup>2</sup>

<sup>d</sup>Study Area 4, is located between the Long Beach Freeway and Studebaker Road. This portion passes through the Cities of Paramount, South Gate, Downey and Norwalk.<sup>2</sup>

<sup>1</sup>Study areas are shown on Figure 6-2. Occupied units include re-renters.

<sup>2</sup>Source: Summary and Conclusions of the I-105 Freeway Housing Availability and Relocation Program Plans, prepared by the Housing Studies Section of the Environmental Planning Branch, Caltrans, June 1973, and subsequent update reviews.

Determination of available relocation housing was made in the following manner:

Tenant-Occupied Units - The total housing inventory within each relocation area was determined from the 1970 Census by single-family and multiple-family categories. These figures were then adjusted to reflect the number of units removed by the Project in each study area.

Vacancy Rates for each relocation area were taken from postal vacancy rates published by the Department of Housing and Urban Development. These rates were then applied to the adjusted inventory.

A further test of availability for tenant-occupied units involved a sample survey of classified newspaper rental advertisements on one issue of one paper per month for each relocation area over a one-year period.<sup>1</sup> The newspaper that best coincided geographically to each area was used.

These surveys were used to determine the breakdown by percentage of advertised rental units by bedroom count and rental rate. These percentages were then used to categorize the availability of the tenant-occupied housing inventory.

<sup>1</sup>This period varies for each relocation area. Generally, the period covered a part of 1972 and a part of 1973. Subsequent 1975 review and update reports utilized 1974-75 data.

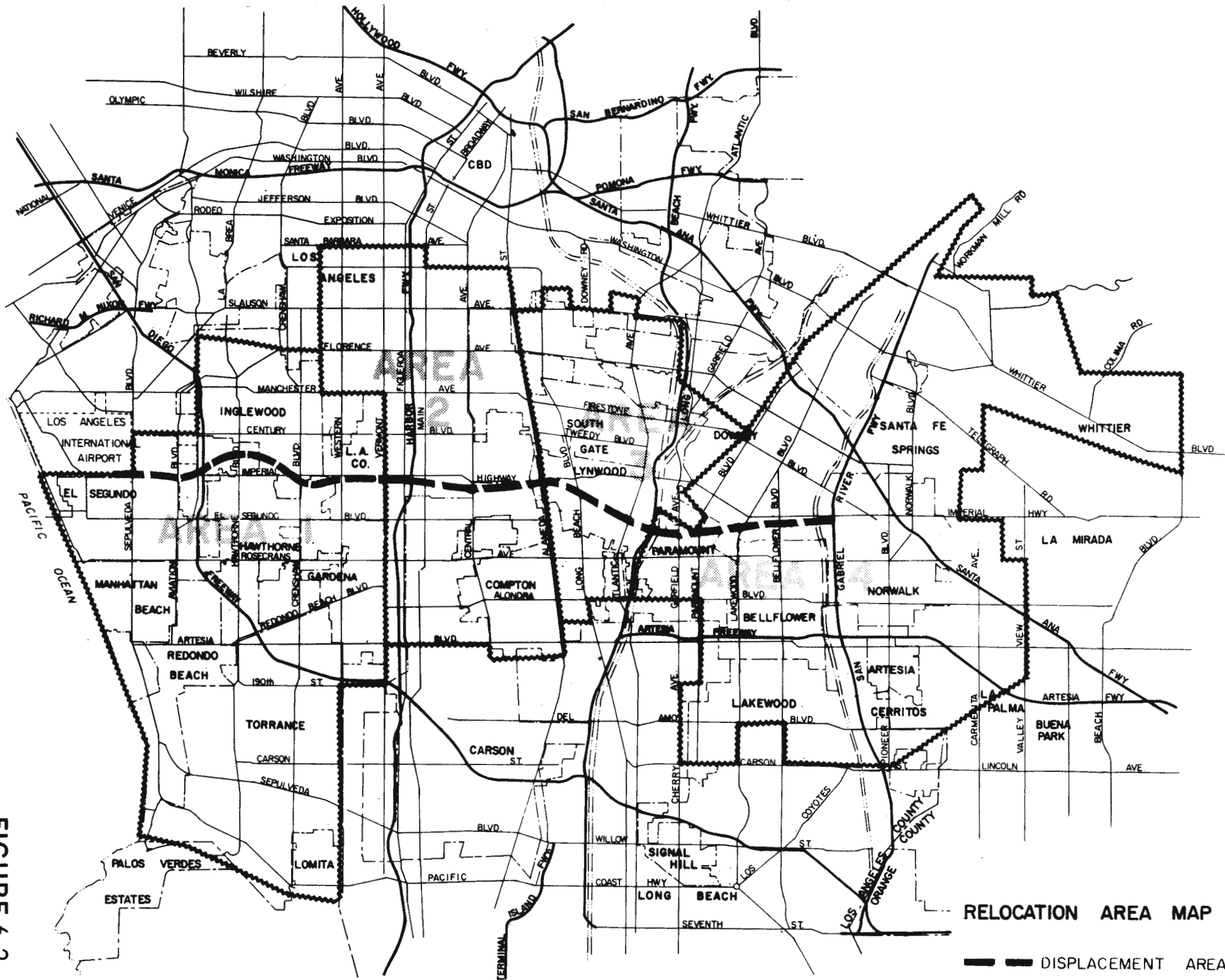
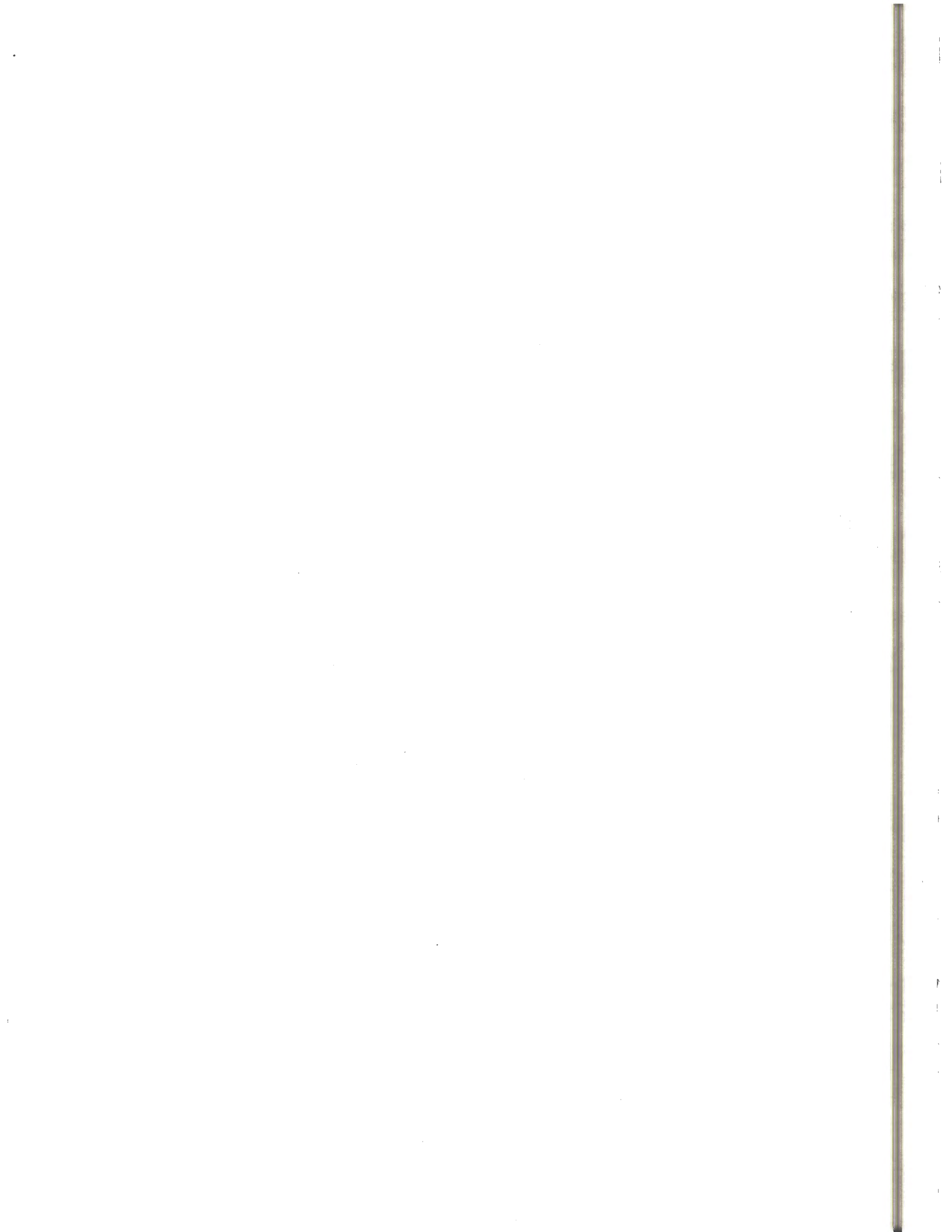


FIGURE 6-2

RELOCATION AREA MAP

— DISPLACEMENT AREA



Owner-Occupied Units - The availability of owner-occupied single-family dwellings was determined by an analysis of single-family real estate activity. The number of properties that had been listed over the past few years was gathered from the various multiple listing boards which covered each of the replacement areas. In each case, the actual number of sales was determined and deducted from the total number of listings, thus measuring the number of properties that were listed and did not sell. These were classified as excess listings. The sales indicate normal demand, whereas the excess listings over sales represent availability above the normal demand. These excess listings were then used as the measure of availability.

#### Comparisons of Needs to Availability:

The housing needs of the families were determined by a 1975 survey by questionnaire.<sup>1</sup> They were asked the amount of their monthly rent or house payment, the number of bedrooms in the unit, and the family size. If a large family lived in a two-bedroom unit but actually needed a three- or four-bedroom unit, they were put in a category matching their needs. However, if a family of two occupied a four-bedroom home, they were left in that four-bedroom category.

Through the use of actual field survey, census data, and information from building and safety departments, the number of units that were not "decent, safe and sanitary" was estimated. These units were then deducted from the inventory of available replacement housing. For example, if the data sources indicated that three percent of the apartments were non-decent, safe nor sanitary, and the projected available housing was 1,000 apartments, then 30 units would be deducted. The 30 units were not deducted evenly from all rental categories. The entire 30 units were deducted from the lowest rental (price range in the case of the owner-occupied homes) units as they would have a higher tendency to non-decent, unsafe and unsanitary.

It was determined that, for the most part, sufficient replacement housing was available in the replacement areas for the families who are to be displaced. There were some exceptions which, if necessary, could be handled by providing last resort housing. The actual approach to providing for relocation of these families is discussed in the following section on mitigation.

In reality many people will relocate to areas completely removed from the replacement areas. A study conducted in November 1972 of 3,600 families who had already relocated, showed that over 50% moved out of the corridor. See Exhibit 5 in Appendix E. However, for the purposes of determining housing needs and availability, it is assumed that all people to be displaced would have to be accommodated within the replacement areas.

#### Mitigation Measures

The Housing Availability Studies determined specific relocation housing requirements of the people to be displaced. Actual relocation involves application of the Relocation Assistance and Payments Program. Persons occupying property acquired by the State at the time the first written offer to purchase the property is made, and who move as a result of the State's acquisition, are eligible for reimbursement of moving expenses.<sup>2</sup> Residential occupants will receive either the actual reasonable costs involved in moving family and personal property up to a maximum of 50 miles, or a payment based on a schedule relating to the size of their present dwelling, not to exceed \$500.

In addition, displaced homeowners and tenants may also be eligible for payments for increased costs of replacement housing, if any.

<sup>1</sup>In Study Areas 2, 3, and 4. Questionnaires were not used for the 1975 survey of Area 1 because a portion of an alternate route location was then only proposed, but not adopted. A new Right of Way Stage Housing Study and Relocation Plan will be required if the location is adopted. This Study will include: questionnaires, an inventory of residential displacement, and relevant analysis. Exhibit 4a in the Appendix is a copy of a questionnaire sent to each family in Area 1 in the earlier survey. Exhibit 4b was used in Areas 2, 3, and 4.

<sup>2</sup>Also includes "subsequent occupants," (those occupying the property at the time of acquisition).

Tenants who have occupied the property to be acquired by the State for 90 days or more prior to the date of the first written offer to purchase may qualify to receive a rental differential payment if it will cost more to rent a replacement dwelling than it costs to rent the dwelling in which they presently reside. Or, as an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to its purchase. The maximum amount payment to any tenant in addition to moving expenses is \$4,000.

Homeowners who have owned and occupied the property to be acquired by the State for 180 days prior to the date of the first written offer to purchase may qualify to receive a purchase differential payment if it will cost more to buy a replacement dwelling than the amount being paid by the State for the dwelling currently occupied. In addition, these owner-occupants may also qualify to receive payment for certain costs incidental to the purchase of a replacement property, and an Interest Differential Payment if the interest rate for the loan on the replacement property is higher than the one on the currently occupied property. The maximum combined supplemental payments that these owner-occupants can receive is \$15,000. Homeowners who have owned and occupied the property to be acquired by the State for at least 90 days but less than 180 days are generally eligible for the same payments as tenants of 90 days or more, up to a maximum total payment of \$4,000.

Additional information is detailed in Appendix E, Exhibit 3.

A supplement to this basic program permits development of suitable replacement housing in the event none is available at the time of displacement. Originally, California State Law (AB 1072 and AB 1869), otherwise known as The Ralph Act, allowed development of replacement housing in economically depressed areas. This program has resulted in the development of 29 single-family residential units and 70 apartment units, which are now occupied. This law has been superseded by Section 206a of the Federal Uniform Relocation Assistance Act. Thus, all future housing required under these "last-resort" circumstances would be constructed, if needed, under the Federal legislation.<sup>1</sup>

A "Relocation Plan"<sup>2</sup> has been developed for the overall Project and each of the four study areas. Specific steps and actions are recommended in each to carry out orderly, timely and efficient relocations. Generally, the following actions have been approved as a policy plan.

- . The tenants of previously-acquired single-family residences who are not eligible for relocation assistance payments should be among the first contacted.
- . Those tenant-occupants of single-family residences with four or five bedrooms should also be among the first contacted.
- . The studies should be reviewed on a yearly basis to determine the condition of the housing market and, if there has been a significant change, the study should be updated.
- . A no-rental policy is recommended for all single-family residences, and in some cases, for apartments with three bedrooms or more.
- . In Area 3, because of a small projected shortage in four-bedroom units, it is contemplated that Project funds would be used for Last Resort Housing.
- . In Areas 2, 3 and 4, it is recommended that all acquired properties be appraised and acquired as soon as possible so that relocation procedures will not be delayed.

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<sup>1</sup>Last Resort Housing is that housing that is provided by the State when it is determined that the project cannot proceed to actual construction because comparable replacement, sale or rental housing is not available.

Development of Last Resort Housing does not necessarily mean construction of homes or units per se. It could mean purchase or lease of existing homes that are suitable to the needs of the displacees. Homes could be purchased and enlarged to meet size requirements of the family. Other alternative plans could be developed.

<sup>2</sup>Appendix C, Exhibit No. 3a-c presents details of the "I-105 Relocation Plan," and "Relocation Assistance Program Benefits" per the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970."

The relocation periods that have been approved for each study area are as follows:

<u>Area</u>	<u>Relocation Period</u>
1	3 years
2	1-1/2 years
3	1 year
4	2 years

It is being recommended that a Relocation Field Office be established in Area 1. There is an office established in Area 4. The office, previously located in Area 2, would have to be reopened. In Area 3, which is Lynwood, it is not being recommended that an office be established since the office that serves Area 4 in western Downey is sufficiently close to Lynwood to provide any relocation services needed.

Although Caltrans would have primary implementation responsibility for the Project only, any of the other alternatives which would involve Federal participation would likewise be subject to provisions of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

#### Residential Displacement Summary

More than 18,200 persons have been relocated as a result of on-going I-105 activities. To complete the project, an additional 8,130 persons would be relocated, plus approximately 2,400 temporary "re-renters". In addition, more than 4,550 living units currently remaining within the right-of-way would be removed prior to construction of I-105.

While 70 percent of I-105 residential relocation is currently completed, the relocation of an additional 7,300 persons represents an adverse and unavoidable short-term impact. It would be mitigated to a substantial degree by application of the relocation assistance program, which specifies financial relief for relocatees and seeks to insure that comparable, decent, safe and sanitary housing is provided for each relocated person or family. There are, however, other impacts, such as loss of neighbors, changes in relations to community facilities, and the like, which cannot be mitigated through financial resettlement assistance.

Based upon the relocation which has already occurred, approximately one-half of the relocatees remain within the relocation area.

As a result of the relocation assistance financial package, approximately 20 percent of renters have become homeowners. In addition, utilizing Last Resort Housing provisions of State and Federal legislation, approximately 100 replacement housing units have been developed for relocatees.

The alternative alignments in the Hawthorne area involve remaining displacement of 4,700 housing units and 8,200 people for the Bell Alignment, and 4,360 housing units and 6,500 people for the Original Adopted Alignment. These displacements, compared to the proposed alignment, represent an additional 900 people and 350 housing units for the Bell Alignment, and 800 fewer people as well as 10 more housing units along the Original Adopted Alignment.

Under No Project conditions, no significant additional residential displacement would be required, although a few persons might have to be relocated as a result of redevelopment activities. However, a decision to abandon the Project would mean that more than 17,400 persons would have been displaced for a purpose that was not realized.

By using the right-of-way already acquired for the I-105 Project, the Exclusive Busway alternative would require only about one-half the additional displacement of people and housing, as compared to completing I-105, or 4,000 persons (plus 800 temporary "re-renters") and 1,950 housing units, respectively. Relocation benefits available to relocatees under this alternative would be similar to those for the I-105 Project.

The Arterial Widening alternative would require the relocation of approximately 8,700 persons and the removal of almost 3,100 housing units, while the Grade Separation alternative would require the relocation of approximately 600 persons and the removal of 190 housing units.

The combined Busway and Arterial Widening alternative would require a total relocation of more than 12,700 persons and the removal of 5,000 housing units, while the combined Busway and Grade Separation alternative would require a total relocation of 4,600 persons and the removal of approximately 2,140 housing units.

The combined Busway and Arterial Widening alternative would result in the greatest relocation of persons and removal of housing units, while the No Project alternative would result in the least. The I-105 Project falls midway between these extremes, although the removal of housing units is somewhat disproportionate to the relocation of persons due to the almost 1,500 units currently standing vacant within the I-105 right-of-way. Similar mitigation measures would be employed under all of the alternatives where Federal funds are used.

## 6.2 BUSINESS AND EMPLOYMENT DISPLACEMENT

The impacts presented in this section are expressed in terms of the numbers of businesses and jobs displaced. Experience to date on the Project indicates that many businesses, once displaced, have relocated in the jurisdictions from which they were displaced. A working estimate, is that approximately one-third to one-half of all businesses will relocate in the jurisdiction of origin.

### I-105 Project

The relocation of 52 businesses from various jurisdictions along the Project right-of-way has already occurred. This represents about 18 percent of all businesses that would be acquired for the Project. Tables 6-3 and 6-4 summarize remaining displacements.

The City of Lynwood would experience by far the greatest share of the total remaining displacement. Almost 31 percent of the total employment displacement of 1,140 would occur in Lynwood. Hawthorne would experience the next highest impact, while Inglewood, Compton, El Segundo, Watts, Norwalk, and South Gate would not be affected at all.

TABLE 6-3  
COMMERCIAL AND INDUSTRIAL DISPLACEMENT OF THE  
PROPOSED PROJECT, BY POLITICAL JURISDICTION

<u>Jurisdiction</u>	<u>Type of Business</u>			<u>Total</u>
	<u>Commercial</u>	<u>Industrial</u>	<u>Special</u>	
Compton	0	0	0	0
Downey	11	0	0	11
El Segundo	0	0	0	0
Hawthorne	22	0	5	27
Inglewood	1	0	0	1
Los Angeles City				
. Westchester	31	0	1	32
. Watts	0	0	0	0
Los Angeles County				
. Del Aire	0	0	0	0
. Lennox	22	0	1	23
. Athens	28	2	1	31
. Willowbrook	28	5	1	34
Lynwood	45	24	1	70
Norwalk	0	0	0	0
Paramount	10	1	2	13
South Gate	0	0	0	0
TOTALS	198	32	12	242

Source: Caltrans - Environmental Planning Branch



TABLE 6-4  
ESTIMATED EMPLOYMENT DISPLACEMENT OF THE PROPOSED  
PROJECT, BY TYPE AND POLITICAL JURISDICTION

<u>Jurisdiction</u>	<u>Type of Business</u>			<u>Total</u>
	<u>Commercial</u>	<u>Industrial</u>	<u>Special</u>	
Compton	0	0	0	0
Downey	18	0	0	18
El Segundo	0	0	0	0
Hawthorne	80	0	180	260
Inglewood	23	0	0	23
Los Angeles City				
. Westchester	84	0	5	89
. Watts	0	0	0	0
Los Angeles County				
. Del Aire	0	0	0	0
. Lennox	100	0	32	132
. Athens	89	29	3	121
. Willowbrook	82	22	7	111
Lynwood	182	174	3	359
Norwalk	0	0	0	0
Paramount	14	3	3	20
South Gate	0	0	0	0
<b>TOTALS</b>	<b>682</b>	<b>228</b>	<b>231</b>	<b>1,141</b>

Source: El Segundo-Norwalk Freeway  
Environmental Impact Assessment Report, Environmental  
Planning Branch, dated February 1977 (updated)

The impact of business displacement is mitigated through provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, which include moving payments and fair market value payment for property acquired. Specific provisions are contained in Appendix E, Exhibit 3.

#### Hawthorne Location Alternatives

##### . Bell Alignment:

This variation involves displacement of an additional 17 businesses and 30 more employees than the proposed alignment. Total remaining displacement is estimated at 259 businesses with 1,170 employees.

##### . Original Adopted Alignment:

This alignment has remaining displacements of 208 businesses and 840 employees, or 34 fewer businesses and 300 less employees than the proposed alignment.

#### No Project

The No Project alternative would cease business and employment displacement and, depending on the nature of redevelopment activities, could provide for restoration of business development in the various communities along the right-of-way.

#### The Exclusive Busway Alternative

The Exclusive Busway alternative would require less displacement than the Project. Approximately 75 businesses would be displaced, affecting 440 employees. Mitigation measures would be similar to those for the I-105 Project, assuming Federal funds are involved.

## The Street Improvements Alternatives

### Arterial Widening:

The Arterial Widening alternative would displace approximately 1,440 businesses and approximately 6,530 jobs. This alternative would have a substantial impact, since extensive commercial strip development exists along the streets involved. Mitigation measures would be similar to those for the I-105 Project, assuming the same Federal legislation applies.

### Grade Separation:

The Grade Separation alternative would directly displace 21 businesses, affecting an estimated 95 jobs. The design features of this alternative suggest that it could result in significant, indirect "proximity economic impacts" along affected arterials, especially at the grade-separated intersections. These impacts would result from (a) the restricted accessibility inherent in the total prohibition of street parking, and (b) the reduced visibility for businesses near the grade separations.

Under existing relocation assistance legislation, these indirect impacts are not mitigated.

## Combined Busway and Street Improvements Alternatives

### Busway and Arterial Widening:

The Busway and Arterial Widening alternative would require the direct displacement of 1,515 businesses, affecting 6,970 employees. Federal legislation would permit full mitigation of financial impacts.

### Busway and Grade Separation:

The Busway and Grade Separation alternative would require direct displacement of 96 businesses, affecting 535 employees. The financial impact of this direct business displacement would be mitigated through application of Federal relocation assistance legislation. As under the Grade Separation alternative, significant, indirect "proximity impacts" are anticipated along affected corridor arterials. Under existing Federal legislation, no mitigation measures applicable to these indirect effects are available.

## Business and Employment Displacement Summary

The displacement of 52 businesses from within the I-105 right-of-way has already occurred. This represents 18 percent of the total which would be required if the Project is completed. An additional 240 businesses remain to be displaced, including associated employment of 1,140. Based on experience gained with the 52 businesses already displaced, from one-third to one-half of the affected businesses would relocate within their original jurisdiction. If I-105 is completed and these past trends continue, the net business and employment displacement impact would be correspondingly less than the figures cited. The impact of remaining business displacement would be mitigated through relocation assistance to affected businesses, which includes moving payments and fair market value for property acquired.

Table 6-5 presents a comparison of the business and employment displacement of the alternatives. The Arterial Widening and combined Busway and Arterial Widening alternatives result in by far the greatest direct impact with displacement of the many small business establishments which are established along corridor arterials.

Although the direct impact of the Grade Separation alternative upon businesses and employment is relatively small (21 businesses and 95 employees), the indirect or "proximity effects" may be substantial as a result of changes in access, parking, or visibility of, commercial activities along grade-separated arterials.

TABLE 6-5  
COMPARISON OF BUSINESS AND EMPLOYMENT DISPLACEMENT  
OF I-105 PROJECT AND ALTERNATIVES

<u>Alternatives</u>	<u>Number of Businesses To Be Displaced</u>	<u>Number of Employees To Be Displaced</u>
I-105 Project - Proposed Alignment	240	1,140
Hawthorne Location Alternatives		
. Originally Adopted Alignment	208	840
. Bell-Shaped Alignment	259	1,170
Exclusive Busway	75	440
Local Improvements		
. Arterial Widening	1,440	6,530
. Grade Separation*	21	95
Combined		
. Busway and Widening	1,515	6,970
. Busway and Grade Separation*	96	535

\*Does not consider results of "proximity effects"  
due to grade separations

Source: El Segundo-Norwalk Freeway Environmental Impact  
Assessment Report, Caltrans, District 7, Environmental  
Planning Branch, dated February 1977 (Updated).

### 6.3 PUBLIC SERVICE AND COMMUNITY FACILITY IMPACTS

This section identifies direct and indirect effects related to public services and community facilities. The direct effects range from partial to complete acquisition of facilities. Indirect effects include: changes in school enrollment related to residential displacement, potential joint-use opportunities for creating new community facilities, and changes in access to community facilities and services.<sup>1</sup>

In addition, specific mitigation measures proposed for the I-105 Project are presented, while generalized mitigation measures for the alternatives are discussed.

#### I-105 Project

The Project would directly affect 38 community facilities either by total or partial acquisition.<sup>2</sup> This is broken down by category and jurisdiction in Table 6-6. The table also indicates the extent to which the I-105 impacts have already taken place. Thus, of the 11 schools affected, required property acquisition has already taken place for 4 of the schools, and replacement sites already developed for 2 of these schools. Similarly, the one park facility affected has already been acquired, 11 of the 20 religious institutions affected have been acquired, all of which have already been relocated. Of the 6 required "other" facilities (service organizations, a 92-bed hospital, etc.), 2 have been acquired and 2 of these have already relocated.

<sup>1</sup>Environmental effects (such as air quality and noise impacts) are covered in Chapter 5. Fiscal impacts are discussed in Section 6-4.

<sup>2</sup>Figure 6-3 shows community facilities within the corridor in relation to the I-105 adopted alignment as modified by the Imperial alignment in Hawthorne.

Included in the totals are two church facilities which were acquired for the adopted 10-lane project, but which are not required for the proposed project. These facilities have also relocated.

TABLE 6-6  
SUMMARY OF COMMUNITY FACILITIES AFFECTED BY  
THE PROPOSED PROJECT\* AS OF AUGUST 1976

<u>Jurisdiction</u>	<u>Public Schools</u>	<u>Parks and Recreation</u>	<u>Religious Institutions</u>	<u>Other</u>
Compton	0	0	0	0
Downey	1	0	1	0
El Segundo	0	0	0	0
Hawthorne	0	0	2 (1, 1)	0
Inglewood	1	1 (1, 0)**	0	0
Los Angeles City				
. Westchester-Playa Del Rey	0	0	0	0
. South Central-Southeast	1 (1, 1)**	0	3 (2, 2)**	0
. Watts	1	0	0	1
Los Angeles County				
. Lennox	3	0	0	1
. Willowbrook	0	0	8 (5, 5)**	0
. Other Unincorporated Areas	1	0	0	1
Lynwood	1 (1, 1)**	0	1 (1, 1)**	2 (1, 1)**
Norwalk	0	0	2 (1, 1)**	1 (1, 1)**
Paramount	2 (2, 0)**	0	0	0
South Gate	0	0	2 (1, 1)**	0
<b>TOTAL</b>	<b>11 (4, 2)**</b>	<b>1 (1, 0)**</b>	<b>20 (11, 11)**</b>	<b>6 (2, 2)**</b>

\*"Affected" generally means the partial or complete acquisition of land and improvements thereon.

\*\* (Number already acquired, number already relocated)

Thus, the remaining direct impact of the Project includes the acquisition and relocation of 20 facilities and completion of the relocation of 3 facilities which have been acquired but not relocated. These impacts are summarized as follows:

	<u>Schools</u>	<u>Parks and Recreation</u>	<u>Religious Institutions</u>	<u>Other</u>	<u>Total</u>
Remaining Acquisition	7	0	9	4	20
Remaining Relocation	9	1	9	4	23

The specific facilities affected by the proposed I-105 Project alignment are presented as follows, including their current completion status.

Schools:

- City of Los Angeles - A 50-foot-wide strip of the playground at the 97th Street Elementary School is required and has already been acquired. Replacement land for the playground has already been provided adjacent to the school on Colden Avenue. The relocated playground will adjoin a frontage road adjacent to the freeway. Classrooms will be within 100 feet of traffic.
- During the EIS process, the Ritter Elementary School was identified as another school facility which should be acquired for the Project. The abandonment and modification of various railroad lines involves a connection in this vicinity, aligned through the Ritter site. Indications are that pupil enrollments in the various adjacent elementary schools are low enough to absorb pupils from the Ritter School. Therefore, it is not expected that the Los Angeles City School District would replace this school.

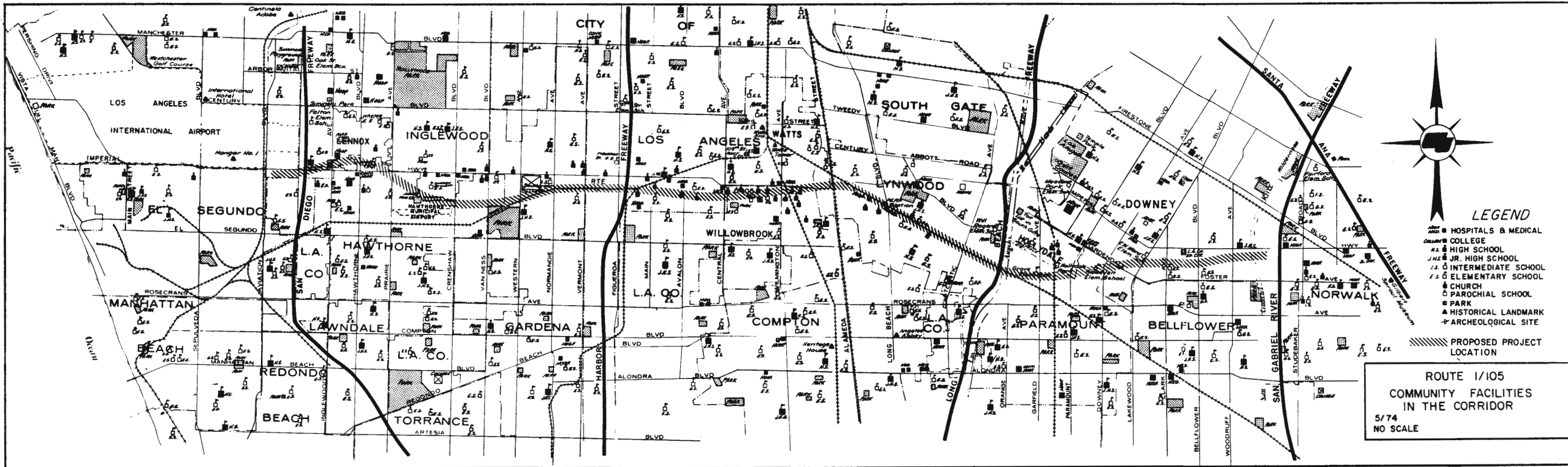
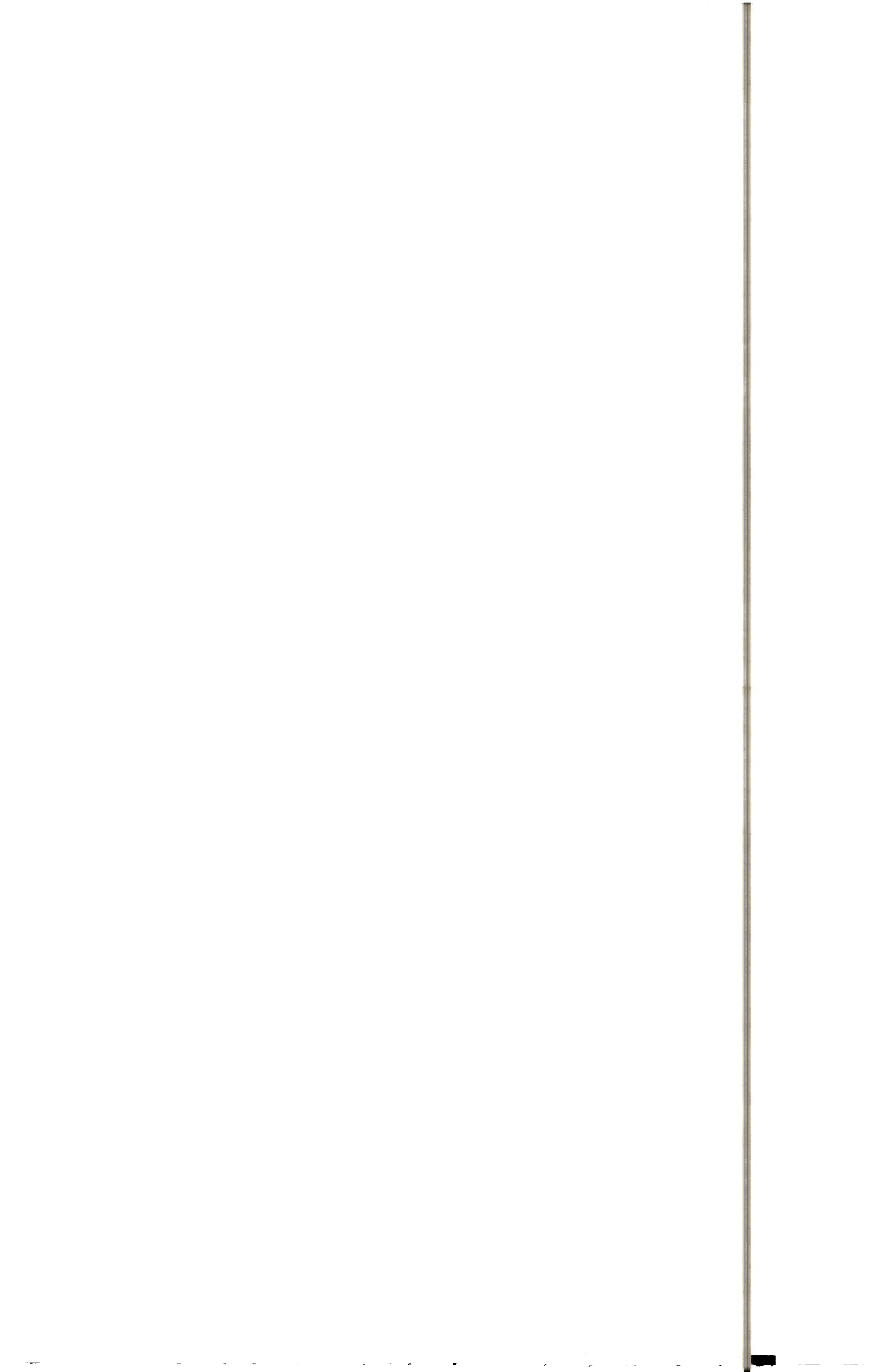


FIGURE 6-3



County of Los Angeles - A small triangular strip of the athletic field at Lennox High School would be required for the freeway. Traffic would be within 50 feet of the athletic field and 700 feet from classrooms.

A 50-foot-wide strip of athletic field at Felton Avenue Intermediate School would be required for the freeway. Replacement land for the athletic field has been proposed and is being negotiated with the school district. Traffic would be 50 feet from the field and 400 feet from classrooms.

The Larch Avenue Elementary School would be acquired and replaced. Through discussions with the School District, State Board of Education, and the State Division of Aeronautics, it appears possible to replace the facility within a few blocks of the existing site. The school is not currently soundproofed or air-conditioned. A new facility could incorporate features which would buffer the significant external environmental impacts now experienced.

The James Kew School would be acquired in its entirety and would be replaced in cooperation with the Inglewood Unified School District in the immediate vicinity of the Andrew Bennett School. This relocation would complement both the existing Bennett School and the proposed replacement site for the Imperial Village Park.

A portion of the Southwest Community College property, including one-third of the track and football stadium, would be traversed by the freeway. Planning and design have been closely coordinated with the college staff in developing a freeway design to accommodate the college's future master plan. The freeway would be depressed in this area and would be located adjacent to the planned athletic facilities of the college. (The college site is largely undeveloped at this time.) Replacement property adjacent to the college has been acquired by the State in accordance with the college's master plan, and negotiations are under way concerning the relocation of the affected athletic facilities.

City of Downey - A 50-foot-wide strip of the athletic field of E. W. Ward Elementary School is required to extend a city street to restore circulation disrupted by the proposed freeway. The athletic facilities can be relocated into the remaining school property. Formal negotiations with the school district have not yet commenced.

City of Lynwood - A portion of the Will Rogers Elementary School is required for the freeway. The entire school has been purchased by the State. Acquisition of a replacement site two blocks away is complete and a new school has been constructed on the site.

City of Norwalk - Early planning (as reported in the DEIS) had indicated that a small portion from the front of the property of the Hoxie Avenue Elementary School required to build a pedestrian landscaped and no school facilities are affected. The school recently has been closed as an elementary school and it appears that the need for the overcrossing has been eliminated. It therefore has been removed from the Design Features of the Project.

City of Paramount - All of Grove Elementary School and a portion of the Roosevelt Elementary School, both in the Paramount Unified School District, are required for the Project. It is the school district's intention, through a right-of-way contract completed in April 1976, to have Caltrans acquire an 11-acre relocation site for a new school adjacent to the freeway, and an additional 2 acres adjoining the Hollydale Elementary School, away from the freeway, to replace these two schools. New school facilities will be constructed on the 11-acre site and the Hollydale School will be expanded. (The Hollydale School is in the City of South Gate, but it is part of the Paramount Unified School District.)

#### Parks and Recreation:

The only park required for the Project is the Imperial Village Park in the City of Inglewood. Plans for replacement of this park have been worked out to the satisfaction of the city, and the replacement property has been acquired by the State. A Section 4(f) clearance has been obtained from the U. S. Secretary of Transportation (Section 5.7 and 4(f) Report.)

The replacement site is adjacent to Andrew Bennett Elementary School, which jointly with Kew School, services the same attendance area.

In addition to dedicated park and recreation lands, many public agencies permit incidental use of their facilities for recreational purposes; e.g., schools, flood control districts, and water districts.

The preceding section discussed the direct effect the Project will have on a number of schools. In many cases, their athletic facilities are also used for general public recreation purposes. In these cases, the athletic facilities will be functionally replaced to the satisfaction of the school districts, and school policy insures that public recreational use will continue with the replacement facilities. The impact of the Project on these facilities from the recreational viewpoint is detailed in the attached Section 4(f) Statement.

The Los Angeles County Flood Control District permits hiking, riding and bicycle trails within the Los Angeles and San Gabriel Rivers. In addition, many of the corridor communities designate bicycle trails. The impacts of the project on these facilities were covered in Section 5.7.

#### Churches:

- . City of Downey - A three-foot strip along Clark Avenue would be taken from the frontage of the Good Shepherd Lutheran Church and School. The buildings would be 170 feet from the nearest freeway ramp. Negotiations with church officials have continued during design studies, and the church has had input into the freeway design during its development. The officials have indicated satisfaction with the design as proposed.
- . City of Hawthorne - The Doty Avenue Baptist Church and the Del Aire Assembly of God Church are required. The First Southern Baptist Church, although not required, has already been acquired and relocated for the original adopted alignment.
- . City of Los Angeles - The Greater Providence Baptist Church and the Harvest Temple Church of God have already been acquired and relocated. The Grace Temple Missionary Baptist Church is also required.
- . County of Los Angeles - Churches required are:
  - Holy Chapel Missionary Baptist Church (acquired and relocated).
  - First African Church of Los Angeles.
  - Baptist Church on the south side of Imperial Highway between Compton and Holmes Avenues.
  - Greater New Unity Baptist Church (acquired and relocated).
  - Mount Beulah Baptist Church (acquired and relocated).
  - Gethsemane Holy Cross New Testament Church.
  - Saint Leo's Roman Catholic Church (acquired).
  - The Greater Progressive Baptist Church is not required, however had been acquired and relocated for the 10-lane project.
- . City of Lynwood - St. Anne's Episcopal Church has been acquired for the proposed Project.
- . City of Norwalk - Construction of the Route 105/605 Interchange has necessitated the acquisition of the Norwalk District Baptist Church. Also, a 60-foot strip of land belonging to the Norwalk Congregational Church will be taken. This strip of land is vacant and its acquisition should not significantly impair the operation of the church.



. City of South Gate - Bethany Chapel Assembly of God Church and School has been acquired, and the church has relocated. In discussions with the pastor prior to acquisition (May 1969), he indicated they welcomed acquisition since their facilities were too small and they had been trying to find a new location where they could expand. Jehovah's Witness Hollydale Congregation Church is also to be acquired.

Other Community Facilities:

- . County of Los Angeles (Lennox) - The 92-bed Imperial Hospital will be acquired in its entirety.
- . County of Los Angeles - The National Croatian Association Lodge will be acquired.
- . City of Lynwood - The Lynwood Masonic Temple will be acquired. The American Legion Hall has been acquired and relocated.
- . City of Norwalk - The Norwalk Women's Club has been acquired and relocated.
- . City and County of Los Angeles; Cities of Compton, Lynwood and Paramount - In conjunction with construction of the Project, it has been proposed to relocate (or abandon) three Southern Pacific rail lines. These are: (1) the north-south Wilmington Branch through the communities of Watts and Willowbrook and the City of Compton; (2) the west Santa Ana Branch south from Watts through the City of Lynwood (and a portion of Paramount), and (3) the El Segundo Branch in the Watts area.<sup>1</sup>

This railroad relocation proposal will be implemented in three stages:

- a. The Wilmington Branch will be relocated within the railroad right-of-way on Alameda Street.
- b. The West Santa Ana Branch will be connected to the El Segundo Branch and the Alameda Street Branch via short spurs. The portion of the West Santa Ana Branch east of Alameda Street will be abandoned (except for one industrial spur).
- c. The City of Los Angeles is interested in eventually relocating the El Segundo Branch and the West Santa Ana Branch lines within the center median divider of the project. A short spur would be maintained on the El Segundo Branch to service industry in the area.

Mitigation Measures:

During the route planning stage, efforts were made to minimize many of the potential adverse impacts by selecting routes that follow existing political boundaries and transportation corridors, and avoid as much as possible schools, churches, community facilities, and major employment generators within the community.

However, as previously indicated, a total of 38 community facilities would be affected to varying degrees by the I-105 Project. To minimize adverse impacts upon schools, Caltrans and School Districts are frequently involved in coordinated efforts to provide suitable replacement sites and develop comparable facilities. If possible, relocation occurs during the summer months to minimize student disruption. Mitigation for displacement of parks and recreation areas is fully provided for by State and Federal legislation which insures that comparable facilities can be developed when these facilities cannot be avoided.

The displacement of other public and community facilities such as hospitals, service clubs, and fire stations are equitably mitigated by payment of fair market value, moving expenses and aid in locating replacement sites (as required by Federal legislation)

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<sup>1</sup>See Chapter 3, including Figures 3-7 and 3-7A, for additional details of the railroad relocation project.

Student Enrollment Decreases:<sup>1</sup>

Another impact upon school districts results from decreases in student enrollment related to displacement of people and housing units in the Districts. For the I-105 Project, this impact would involve a displacement of approximately 2,400 students. Table 6-7 shows the distribution of this total by school district and grade level. These estimates are based on census data and represent the maximum number of students to be displaced, and assume none resettle within the school districts.

TABLE 6-7  
ESTIMATED REMAINING STUDENT DISPLACEMENT BY SCHOOL DISTRICT\*  
(I-105 PROJECT)

School District	Grade Level			Total
	Kindergarten	Elementary	High School	
Centinela Valley Union High	0	0	250	250
Hawthorne Elementary	25	243	0	268
Lennox Elementary	50	414	0	464
Wiseburn Elementary	13	108	0	121
Compton Unified	12	81	36	129
Downey Unified	7	66	46	119
El Segundo Unified	0	0	0	0
Inglewood Unified	1	3	2	6
Los Angeles Unified	49	396	164	609
Lynwood Unified	15	107	45	167
Norwalk-La Mirada Unified	11	92	45	148
Paramount Unified	12	90	30	132
<b>TOTAL</b>	<b>195</b>	<b>1,600</b>	<b>618</b>	<b>2,413</b>

\*These figures represent the maximum number of students to be displaced provided none resettle within the school districts.

Source: 1970 Census of Population, U. S. Department of Commerce, Bureau of the Census.

In certain instances, enrollment decreases have been beneficial to the affected school districts. For example, reductions in enrollments offer school districts the opportunity to consolidate operations, phase out inefficient plants, adjust attendance boundaries, improve student-teacher ratios and generally improve educational quality.

Opportunities for New Community Facilities:

Two specific statutes--Section 104.15 of the Streets and Highways Code (also known as the Porter Bill) and Section 14013 of the Government Code (also known as the Marler-Johnson Act)--enable the State to lease portions of freeway right-of-way and some excess parcels to local jurisdictions for park and recreational purposes for a nominal lease rate of \$100 per year. Most of the corridor cities have, at one time or another, expressed interest in taking advantage of one or both of these programs.

Under this provision, the City of Downey, in developing Wilderness Park, will utilize 6 acres of State-owned excess land along the San Gabriel River Freeway (I-605). The City of Paramount has expressed interest in an application of this option, while the City of Los Angeles has an opportunity to create a linear park in the Watts-Green Meadows Community. Additional details are presented in Section 5.7 - Parks and Recreation Facilities.

<sup>1</sup>The loss of school district property tax base resulting from residential and business displacement is discussed in Section 6.5.

## Hawthorne Location Alternatives

### Bell Alignment

This alignment would involve the same community facilities as the proposed Project alignment.

### Original Adopted Alignment

In total, there are two less community facilities affected by this alignment than the proposed alignment. There are two additional churches--the Del Aire Baptist and First Southern Baptist. The facilities which would not be affected are the Kew and Larch Elementary Schools, Doty Avenue Baptist Church and the Imperial Hospital.

## The No Project Alternative

No Project would halt further acquisition of community facilities. However, activities would probably continue where acquisition of parks and schools has already taken place but development of replacement facilities is not yet complete. (Imperial Village Park in Inglewood, the 97th Street Elementary School in the City of Los Angeles, Will Rogers School in Lynwood, and the Grove and Roosevelt Elementary Schools in Paramount.) Relocation and abandonment of railroad facilities would not take place under No Project conditions.

In terms of indirect effects, no further decrease in school enrollments would occur, and none of the other indirect effects (such as joint-use recreational facility opportunities and changes in localized community access) associated with Project completion would occur under No Project.

However, Project activities have already created indirect impacts through the displacement of people, houses, businesses, etc., which are presently borne by the communities. These Project effects in essence become part of the No Project alternative (or any non-project-related alternative).

In the long-term, the decision of most cities to redevelop cleared areas as single-family residential will reverse a process that had begun with acquisition. Specifically, it will mean restoring or providing expanded services, which may include public facilities for an increasing population.

## The Exclusive Busway Alternative

Since the Exclusive Busway would follow the adopted alignment (as modified by the Imperial alignment in Hawthorne, see Figure 6-3), but would require a narrower right-of-way, only 11 of 38 community facilities affected by the I-105 Project would also be affected. These include two schools (Grove Elementary in Paramount and Kew School in Inglewood), one park (Imperial Village Park in Inglewood), a 92-bed hospital, four churches, two Baptist and one Catholic churches in Los Angeles, and one Episcopal church in Lynwood), and two other organizations in Los Angeles County (National Croatian Association Lodge) and in Lynwood (Lynwood Masonic Temple). In addition, it is possible that the railroad relocation project could also occur with the Exclusive Busway alternative.

Of the 11 affected facilities, 4 have already been acquired for the I-105 Project (Imperial Village Park, Grove School and 2 churches). Although not directly required for the Exclusive Busway 14 other facilities have already been acquired and 13 of these have been relocated. These impacts, which have already occurred, should be considered part of the impact of an Exclusive Busway alternative.

In terms of indirect effects, the Exclusive Busway would displace 1,230 less students than the proposed Project. Other indirect effects previously identified for the I-105 Project would generally apply for the Exclusive Busway alternative.

## The Street Improvements Alternatives

Figure 6-4 shows the relationship of Arterial Widening and Grade Separation alternatives to community facilities.

Arterial Widening:

This alternative would partly or fully displace 66 community facilities, including 39 churches, 6 schools, and 21 other facilities. These impacts are summarized by type, displacement (part or full), and jurisdiction, in Table 6-8.<sup>1</sup> Of the facilities, two are also required for the I-105 Project--Southwest Community College and Saint Leo's Catholic Church in Los Angeles County. Saint Leo's has already been acquired. The additional 10 facilities which have been acquired for the Project would also have to be considered as part of the impact of this alternative.

TABLE 6-8  
PUBLIC AND COMMUNITY FACILITIES DISPLACED BY ARTERIAL WIDENING

Jurisdiction	Schools		Parks and Recreation		Churches		Other		Total	
	F	P	F	P	F	P	F	P	F	P
Bellflower	1	0	0	0	1	0	0	0	1	0
Compton	0	2	0	0	8	0	1	0	10	0
Downey	0	0	0	0	0	0	1	3	1	5
Gardena	0	0	0	0	1	0	0	1	1	1
Hawthorne	0	0	0	0	0	0	1	1	1	1
Los Angeles City	0	1	0	1	16	2	4	0	20	4
Los Angeles County	0	1	0	0	4	4	0	1	4	6
Lynwood	0	1	0	0	1	0	1	2	2	3
Norwalk	0	0	0	0	0	0	0	2	0	2
Paramount	0	0	0	0	0	0	0	1	0	1
South Gate	0	0	0	0	2	0	0	1	2	1
TOTALS	1	5	0	1	33	6	8	12	42	24

F = Full  
P = Partial

In terms of indirect effects, the Arterial Widening alternative would cause displacement of students of a magnitude similar to the Project. However, these would be students in different schools, and in some case, different districts. Also, the wider streets may reduce pedestrian safety and street "liveability". Each community will also be faced with rezoning problems and odd-sized excess parcels.

Grade Separation Alternative:

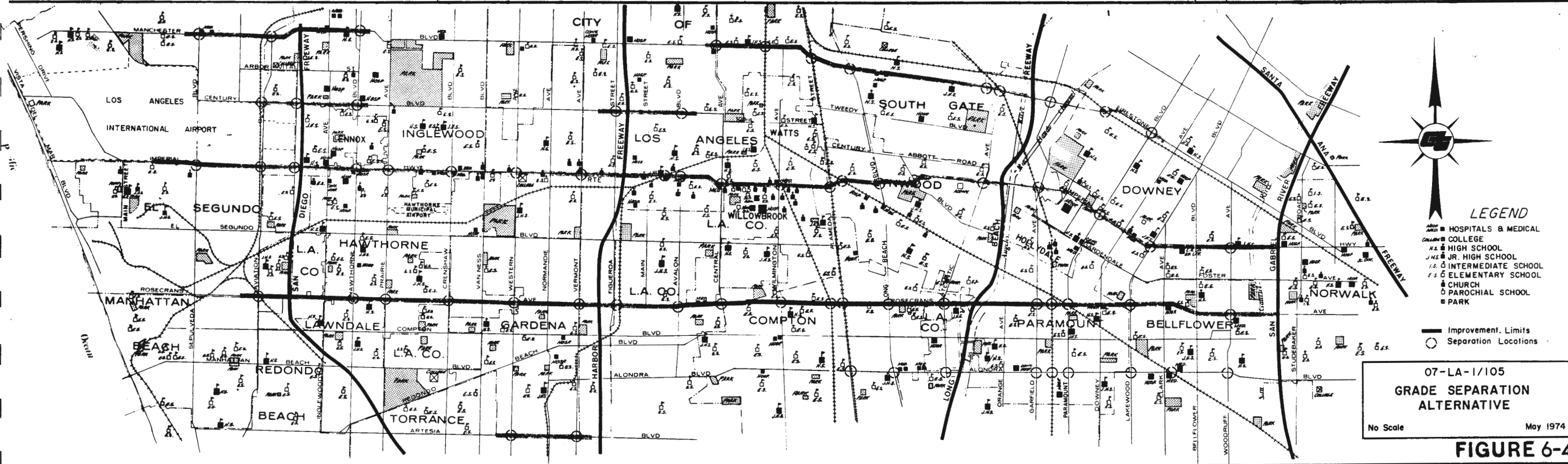
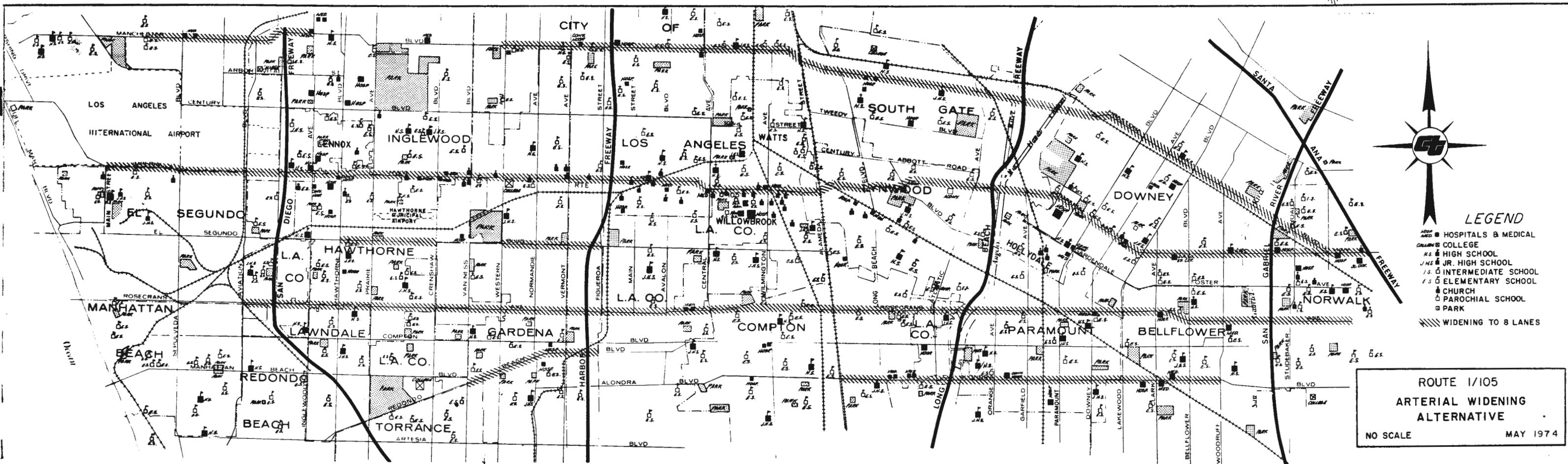
This alternative would not require the actual taking of property for right-of-way purposes except where remodeling is required at existing interchanges with cross freeways. However, it presents unique accessibility problems that could be disruptive. Restrictions or crossing a grade-separated street will alter the established pattern of circulation for both people and vehicles. For example, children may have to walk farther to school and emergency vehicles may be delayed. The prohibition on street parking would make it less convenient to use some community facilities and services.

Combined Exclusive Busway and Local Improvements Alternative

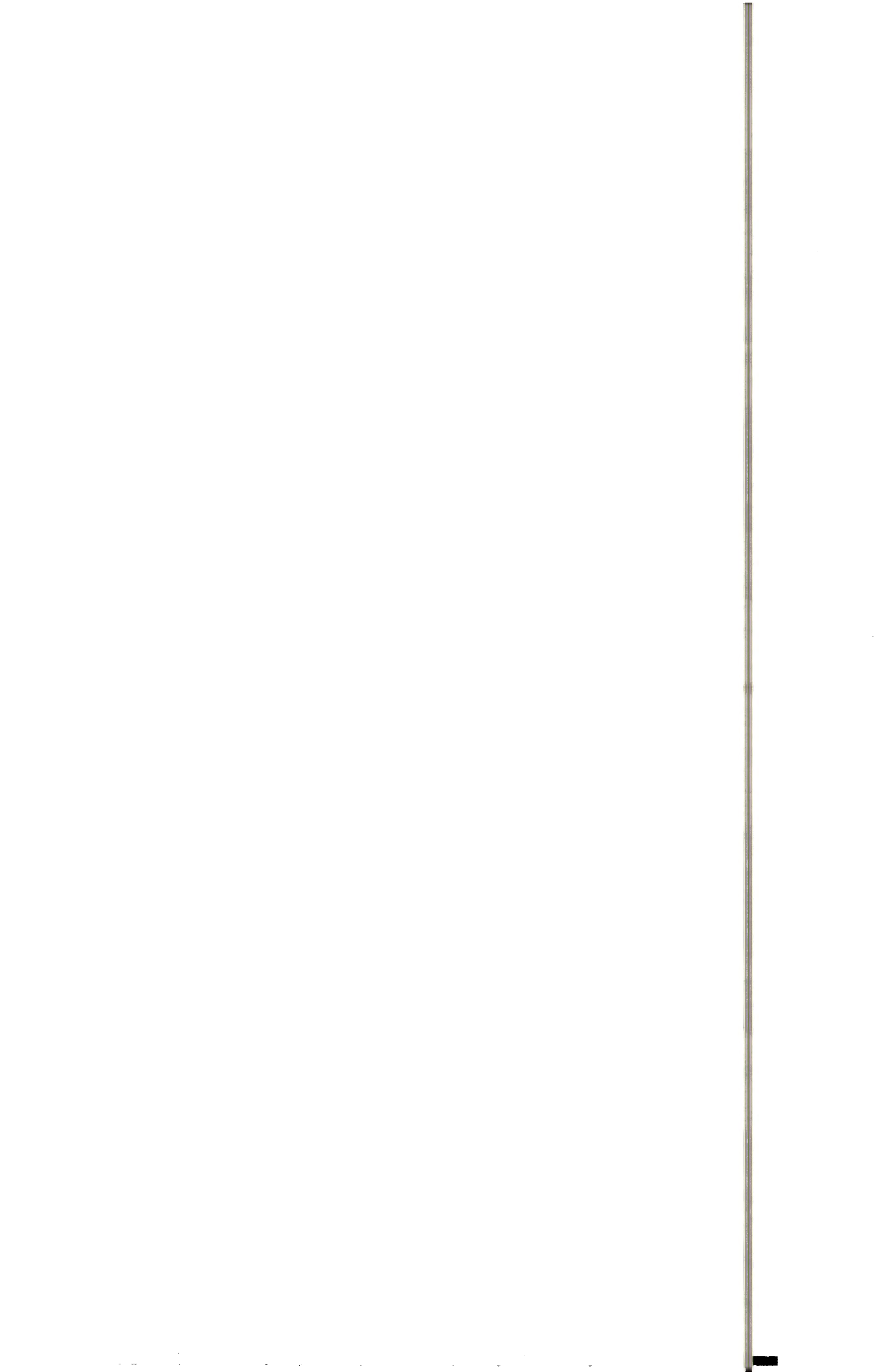
Busway and Arterial Widening:

This combined alternative would directly affect a total of 76 community facilities, 4 of which have already been acquired as a result of I-105 Project activities. The indirect effects noted under the separate Busway and Arterial Widening discussions would apply.

<sup>1</sup>For discussion of each facility affected, see Addendum to Environmental Impact Assessment, El Segundo-Norwalk Freeway (7 LA I/105), California Department of Transportation, District 7, Environmental Planning Branch, May 1974.



**FIGURE 6-4**



Busway and Grade-Separation Alternatives:

Direct effects of this alternative would be identical to the Exclusive Busway alternative, that is 11 community facilities would be affected, 4 of which have already been acquired. Other effects previously indicated under the separate Exclusive Busway and Grade Separation discussions would apply.

Summary: Public Service and Community Facility Impact

If the I-105 Project is completed as planned, a total of 38 community facilities (schools, a park, churches, and others) would either be fully or partially acquired. At the present time, a total of 18 community facilities have been acquired. These totals include two churches which had been acquired for the 10-lane project.

Table 6-9 presents a summary of community facilities impacted by the Project and its alternatives. Facilities already acquired are noted, and are included in the impacts associated with each alternative.

TABLE 6-9  
COMPARISON OF COMMUNITY FACILITIES REQUIRED AND  
ACQUIRED BY THE I-105 PROJECT AND ALTERNATIVES\*

<u>Alternatives</u>	<u>Schools</u>	<u>Parks and Recreation</u>	<u>Churches</u>	<u>Other</u>	<u>Total</u>
I-105 Project - Proposed Alignment	11 (4)	1 (1)	20 (11)	6 (2)	38 (18)
Hawthorne Location Alternatives					
Original Adopted Alignment	9 (4)	1 (1)	21 (11)	5 (2)	36 (18)
Bell Alignment	11 (4)	1 (1)	20 (11)	6 (2)	38 (18)
Exclusive Busway	5 (4)	1 (1)	13 (11)	6 (2)	23 (18)
Local Improvements					
Arterial Widening	10 (4)	1 (1)	49 (11)	23 (2)	83 (18)
Grade Separation	4 (4)	1 (1)	11 (11)	2 (2)	18 (18)
Combined					
Busway and Widening	11 (4)	1 (1)	51 (11)	27 (2)	90 (18)
Busway and Grade Separation	5 (4)	1 (1)	13 (11)	6 (2)	23 (18)

\*Figures in parenthesis denotes number of facilities already acquired for I-105 Project.

The Arterial Widening and combined Busway and Arterial Widening alternatives would have by far, the greatest impact upon community facilities. At the other extreme, the Grade Separation and No Project alternatives would affect the 18 facilities already acquired for the Project. Also, negotiations leading to State acquisition of the remaining 20 facilities would have to be terminated, including resolution of commitments made in anticipation of the Project.

In general, mitigation of community-facility displacement involves payment of fair market value, moving costs, etc. and aid in locating suitable replacement sites. However, in the case of schools and parks and recreation facilities, mitigation has included actual participation in development of comparable facilities on suitable replacement sites.

6.4 EFFECTS ON COMMUNITY COHESION

An important aspect of individual and family relationships is the sense of belonging and participation. Shared among neighbors, this feeling generates a "cohesiveness" that ties the community together. In a very real sense, this cohesiveness is the essence of a community.

Community cohesion as used in this section is defined as: a sense of identity with a specific residential neighborhood. This is evidenced by degrees of participation in activities such as the Parents-Teachers Association (PTA), youth athletics, and even informal backyard gossip.

Neighborhood identification may be disrupted when a project physically divides a population or dislocates facilities around which such a relationship revolves. This concept of cohesion is discussed on subsequent pages.

### Impact Assessment Methodology

The assessment of social impacts was made in three stages.

1. Through use of a single-variably Mobility Index, the residentially most stable areas within and alongside the impact or target area was estimated;
2. A determination of patterns in residential visits on foot to local social facilities of various kinds (e.g., churches, social clubs, shopping facilities, schools, etc.);
3. A final determination through the use of formulas of pedestrian dependency within the study corridor.

#### Mobility Index:

This index was calculated using secondary U. S. Census data. Index values were calculated by the formula:

$$\text{Mobility Index} = 200 - 2R$$

Where "R" = the percent of households in the same dwelling units as they were 5 years earlier.

By identifying the residentially most stable access within the study corridor this index may suggest areas most subject to disruption and may be of some use in identifying areas appropriate for more detailed scrutiny.

The index is based on the premise that residential stability is indicative of satisfaction with a residential area arising out of the existence of the conditions cited above. Economic, prejudicial or other constraints may of course be the principal influence which causes stability and thus may not be related to satisfaction, nevertheless, some experimentation with it suggests a statistical tendency for areas segmented by transportation developments to become less stable. Higher index-values indicate increasingly less stable neighborhoods. See Figure 6-5.

#### Social Activity Analysis - Extent and Strength:

The extent and strength of residential social activity were examined with a focus on three elements:

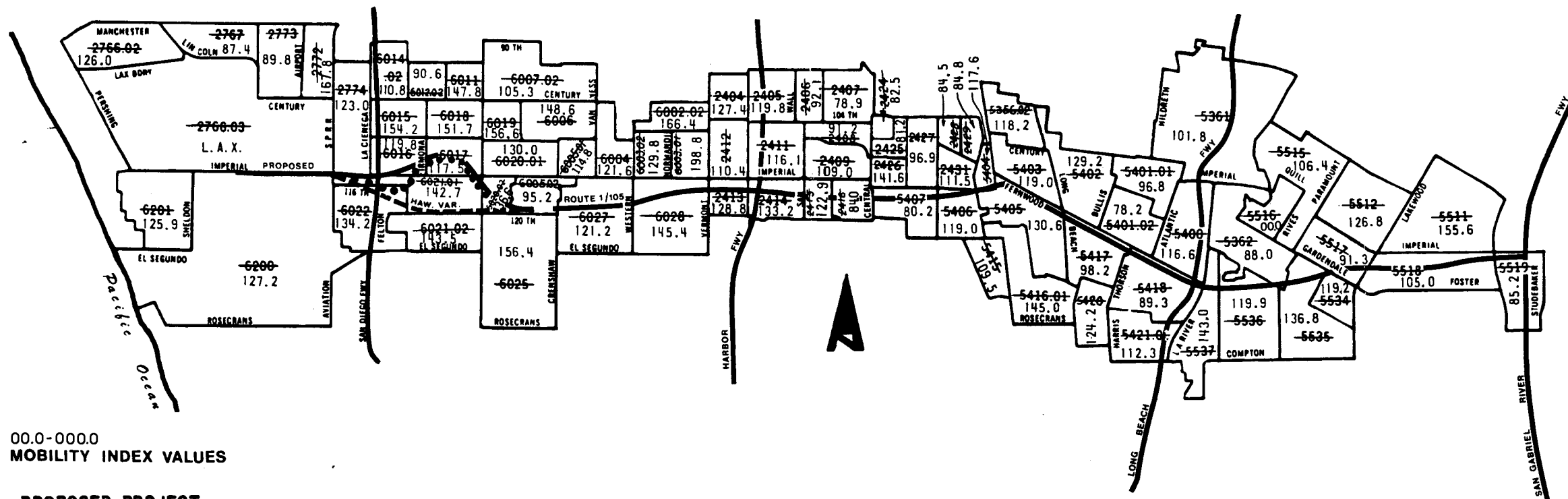
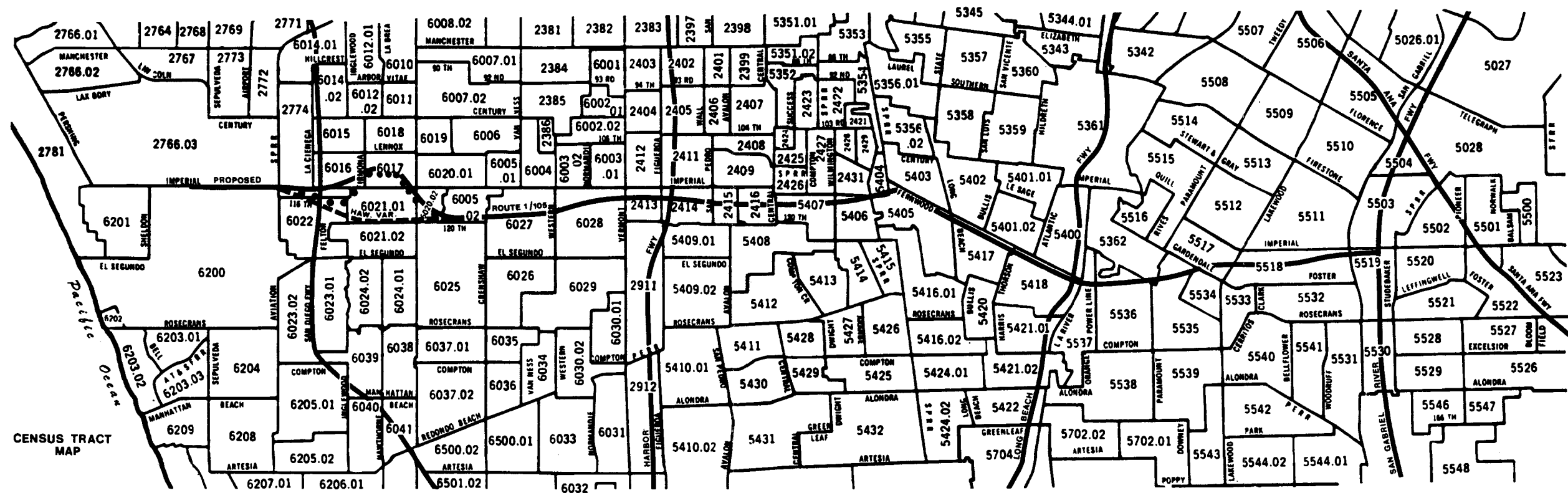
- . the identification of social facilities;
- . the definition of neighborhood visiting areas;
- . an evaluation of neighborhood activity patterns' vitality.

Many neighborhood activities center upon facilities which depend, in turn, on the ability of community residents to reach them by foot. This required an overall inventory of social facilities affected.

#### Pedestrian Dependence:

A determination of neighborhood activity pattern strength relies on a recognition that social facilities are least partially dependent upon routes of pedestrian access. Pedestrian dependence, however, is based on the characteristics of the local population as well as on those of each facility.

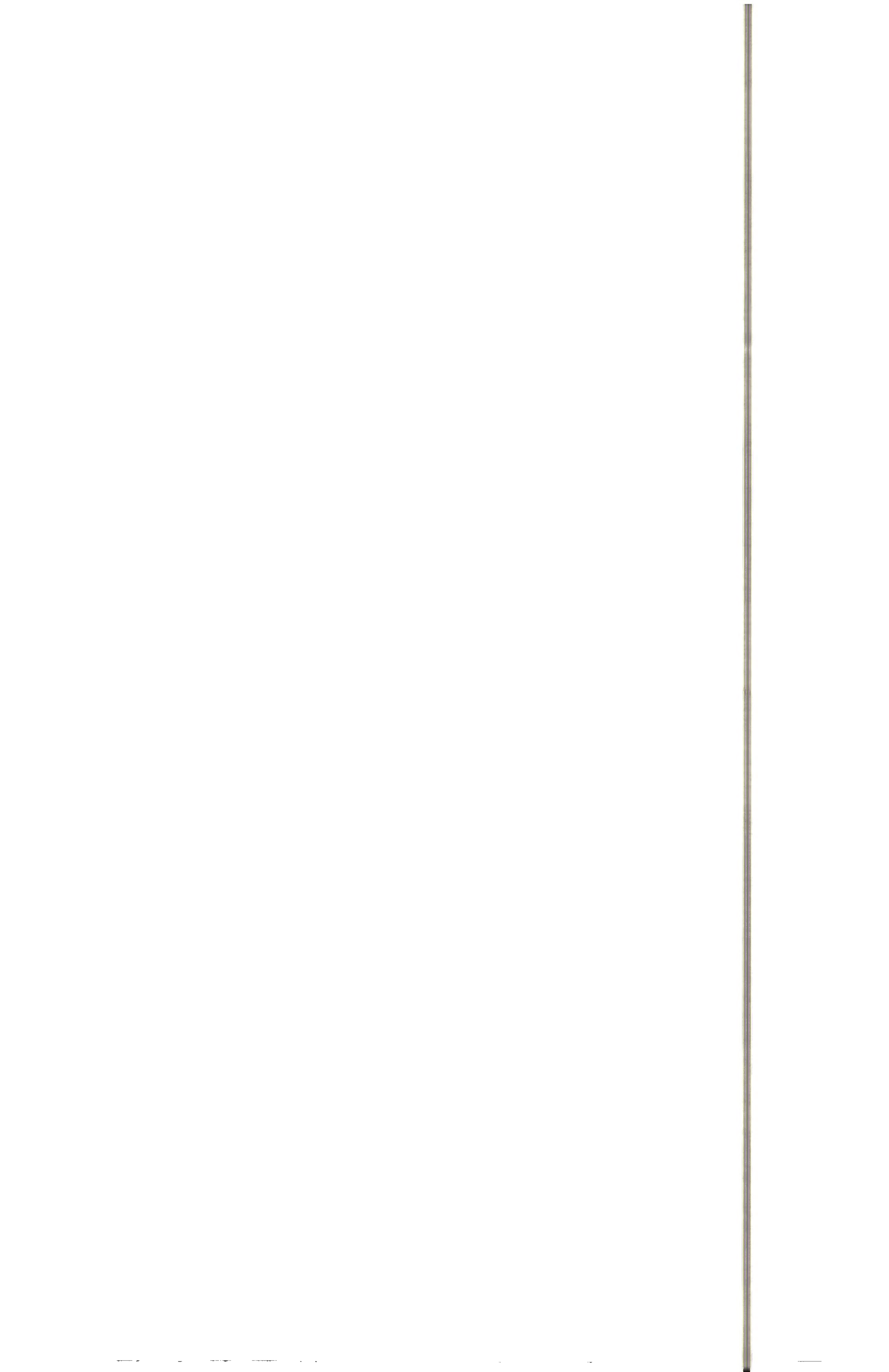




00.0-000.0  
MOBILITY INDEX VALUES

- PROPOSED PROJECT
- ..... BELL SHAPED ALIGNMENT
- ORIGINAL ADOPTED ALIGNMENT

FIGURE 6-5



Residential areas where use of neighborhood facilities is highly dependent upon pedestrian access may be significantly impacted by transportation facilities which impede such pedestrian access. Therefore, analysis of various indicators of pedestrian dependency was performed within the corridor area.

Data from U. S. Census Bureau sources were computed for each of the affected census tracts to determine the following indicators.

General Pedestrian Dependency (GPD) reflects such neighborhood characteristics as portion of households without cars, numbers of people per household and median household income in the neighborhood compared with income in the city. The higher the number produced by this formula, the greater the dependence is on walking and, supposedly, the more disruptive a project would be.

School Pedestrian Dependency (SPD) is simply the percentage of the local population made up by grade school dependency. The more children there are, the higher the dependency on walking and the more vulnerable the neighborhood is to disruption.

Local Shopping Pedestrian Dependency (LSPD) relates to the need and the ability of local residents to do their shopping while walking. This indicator depends on the number of households without cars, the number of people per household, the number of elderly (age 65 and over). Local shopping, especially grocery shopping, often involves packages that are serious problems for the carless or infirm.

Social Institution Pedestrian Dependency (SIPD) relies on such things as the number of people in the same house for 5 years, the number of Black people, and the number of foreign stock. Foreign stock includes people born abroad or with at least one parent born abroad. The presence of these or some of these may indicate a closeknit community where walking, visiting, and other interaction among residents may occur.

Composite Pedestrian Dependency. A single composite pedestrian dependency score for each census tract was then computed by adding the three Social Indicator Ratings for each tract:

$$\text{SPD} + \text{LSPD} + \text{SIPD} = \text{Composite Score}$$

Scores or figures at the census tract level for each formula were then weighted according to the average figure for Los Angeles County as a whole in each case and added as composite scores. These were then ranked in order of increasing value and mapped (Figure 6-6).

#### Community Impact Sensitivity:

Area alongside the project which are most sensitive to potential impacts are identified on Figure 6-6 which displays aggregate relevant data on residential mobility, social activity and pedestrian independence.

Two of the projects' socially impacting features are:

- . local street closures
- . profile

Keeping in mind their effects on pedestrian movements across the project's right-of-way, the extent of local street closures was compared with the distribution of streets left open. A determination was then made of increased distances required for travel between points on opposite sides of the corridors. Measures in city blocks, these distances were used as one measure for determining the actual impact severity. A second measure of severity is the physical form of the completed facility; i.e., those portions elevated on viaducts, elevated on embankments, at grade and depressed (open cut). Prior research indicates that residents' psychological perception of controlled access facilities are obstacles to a feeling of unity within formerly unsegmented neighborhoods.

#### Community Impact Severity:

These criteria act as further guidelines at the census tract level for assessing the social impact severity:

- . The impact is considered severe when a particular tract is:
  - Very sensitive to project-induced social impacts and
  - ~~Pedestrians must walk at least 4 extra blocks or more in order to cross the facility and~~
  - One where the facility is elevated, either on viaducts or embankments.
- . The impact is moderate as above when the tract is:
  - Very or moderately sensitive and
  - Pedestrians must walk less than 4 extra blocks in order to cross the facility and
  - The facility is either elevated or depressed.
- . It is slight when the tract is:
  - Slightly sensitive and
  - Pedestrians must walk less than 4 extra blocks and
  - The facility is either elevated or depressed.

As above, findings resulting from the application of these criteria were also mapped.

Where relevant to a particular alternative, social effects of the following impacts were also considered.

- . Increases in congestion (e.g., volumes of traffic per hour at various points, such as street corners);
- . Local impacts on pedestrian activity, safety;
- . Introduction of new forms of traffic (e.g., trucks, vans, etc.);
- . Noise, air pollution, etc.;
- . Possible effects on residential turnover;
- . Effects on public services (e.g., hospitals, schools, fire protection, etc.);
- . Population density changes;
- . Changes in private car ridership patterns and congestion (e.g., volumes of traffic per hour);
- . Effects on mobility;
- . Effects on public services (as above);
- . Changes in pedestrian congestion levels (on sidewalks);
- . Bus patronage increases.

#### Social Impacts Assessment

##### I-105 Project:

Residential Mobility. See Figure 6.5. For all census tracts within Los Angeles County, the average Mobility Index value is 120.0. Census tracts are areas with substantially uniform population characteristics, economic status and living conditions. Of those tracts crossed by the proposed project, Census Tract (hereinafter C.T.) number 5401.02 in Lynwood is the least residentially mobile--or in other words, the most stable--with a Mobility Index score of 78.2. Conversely, C.T. #6025 in Hawthorne reveals the greatest degree of residential mobility with a Mobility Index score of 156.4.

Social Activity - Extent and Strength. A review indicates that schools and churches predominate among the kinds of social facilities in these communities. This is not surprising, as virtually all of the land immediately adjoining the project is urbanized and committed to residential uses. Generally, such facilities draw most of their pedestrians from distances of up to 1/2 mile away. Undoubtedly, many others exist just beyond the limits of the immediate area studied. Such facilities will share potential impacts to an extent that will diminish, the more distance they are located from the project's right-of-way. But for a cluster of facilities at the extreme western terminus of the project in El Segundo, on-foot patronage radii of the remainder will form a contiguous zone across the entire immediate corridor. Two exceptions to this observation may exist with respect to a drainage canal across Imperial Highway at the Hawthorne-Inglewood boundary together with Census Tract #6028 (East Hawthorne) which is given over to hilly terrain, much of it undeveloped.

Economically, the most marginal residential areas along the project appear to lie between Western Avenue in Westmont and the Los Angeles River in Paramount. A June 1975 inspection tour of the corridor revealed a marked deterioration of residential and commercial buildings within this portion. The presence of light industry and railroad tracks adds to the area an aesthetic impression of "blight". Again, right-of-way clearance activity in anticipation of planned construction has engendered residential migration.

Characteristically, the Western Avenue-Los Angeles River Sector reveals the highest concentration of mixed single and multiple housing together with large multiple-family tracts. Many of the latter appear to have recently been built apparently as an effort to offset urban deterioration. Another conspicuously large contiguous area featuring mixed single and multiple residency lies between Hawthorne and Lennox. It would appear that a historical shift in the domestic housing construction from single family to multiple family dwellings (condominiums) etc., is responsible.

To the extent that individual school districts lie on both sides of the Project, mobility on foot remains the focus of consideration. An exception to this observation is in order for parochial institutions, such as church-related schools. Economically, the more affluent portions of the corridor study area appear to lie in El Segundo, the westernmost city or jurisdiction directly bordered or crossed by this Project. Housing here contrasts with older, more dilapidated single and multiple facilities that exist further east.

Pedestrian Dependence. Figure 6-6 generally displays the findings developed for this study. The extreme western and eastern fringes of the corridor feature relatively low degrees of pedestrian dependence. Pedestrian dependence levels, conversely, are higher in the central portion. This confirms visual findings of relatively more affluent fringes, together with an economically depressed central portion.

Corridor Sensitivity to Impacts. A review of Figure 6-7 reveals a concentration of sensitive and very sensitive areas along the eastern portion of the project. This finding correlates to some degree with earlier observations that the less affluent and pedestrian-dependent residents tend to be concentrated east of Hawthorne. In general, jurisdictions within Los Angeles County reveal various degrees of sensitivity to the project's social impacts:

- . El Segundo. El Segundo, westernmost of the jurisdictions close to or crossed by the project will not be affected, except for improved access.
- . Los Angeles City (Portion). This portion of the city consists of only one affected residential tract (C.T. #2774), together with the International Airport immediately to the west. Because that portion of the tract closest to the project is taken up by industry, it is considered minimally sensitive on this fact alone.
- . Los Angeles County (Portion). This almost rectangular part of the County comprises only a single census tract (C.T. #6022). It has been given a minimally sensitive rating because of its high residential mobility (MI=134.2) and low pedestrian dependency.
- . Hawthorne. The northern portion of Hawthorne (through which the project passes) has a markedly high rate of residential turnover (MI=142.7), one much higher than the Los Angeles County average of 120.0. As with Los Angeles City, immediately above, this area is also minimally sensitive to the project's potential impact.

- . Lennox. Residential mobility through the southernmost census tract of this unincorporated county jurisdiction (C.T. #6016 and 6017) lies very close to the county average. Lennox is rated as minimally sensitive for this reason.
- . Inglewood. Inglewood's only directly affected census tract (C.T. #6005.02) stands out as very sensitive to the project's impact. This is so because residential mobility is markedly lower (MI=95.2) than the county average. This may arise from Inglewood's stable industrial employment, which supports aircraft and aerospace development near the airport. Another factor contributing to its stability, an abundance of churches and schools, accounts for the very sensitive rating assigned to this tract.
- . Westmont. Between the eastern portion of Hawthorne and Vermont Avenue, this unincorporated portion of the County is slightly sensitive to potential impact.
- . Los Angeles City (Portion). Four census tracts make up this portion of Los Angeles City crossed by the project (C.T. #2413 to #2416). The westernmost three are moderately sensitive to its potential impact; the last or easternmost, very sensitive. This is so because in the first three cases, pedestrian dependence is either moderately high or high. (It is high, for example, in census tract #2416.) Three schools are found in C.T. #2416 together with a medical center immediately nearby. The Mobility Index score for this particular tract is 84.0, conspicuously low compared with both the scores of the adjoining tracts and the county average of 120.0.
- . Willowbrook. Another unincorporated portion of the County, its two affected census tracts (C.T.'s #5406 and 5407) have been found very sensitive to the project's potential impacts. This is so because of the resident's relatively limited access to private transportation. Numerous churches, schools and hospitals are clustered within these two tracts. The Mobility Index score for C.T. #5407 is only 80.2, one of the lowest for all tracts crossed by the project.
- . Watts. Very sensitive to the project's potential impacts, the single census tract (C.T. #2431) that comprises this unincorporated community's southernmost portion characterizes a degree of residential stability somewhat above the average for the county as a whole. Its residential population has only very limited access to private transportation. Pedestrian (on-foot) transportation dependence is very high here.
- . Lynwood. All but one census tract (C.T. #5400) here are considered either very sensitive or moderately sensitive to potential impacts. The most sensitive areas here (C.T. #'s 5401.02, 5417 and 5418) reveal only a median degree of pedestrian dependence. However, the presence of numerous schools along the southern boundary of census tract 5401.02, together with very low residential mobility throughout, justify the "very sensitive" and "moderately sensitive" ratings.
- . Paramount. Paramount reveals in part a slight degree of sensitivity to the project's impact. Census tract #5535 is moderately sensitive because of its median level of pedestrian dependence and the presence of a church and school.
- . South Gate (Hollydale area). Hollydale, this city's southernmost extension is the only part of this city to be crossed by the project. It is very sensitive to potential impacts. Hollydale, identified with C. T. #5362 characterizes a markedly low Mobility Index score (88.0), indicating restricted access to private transportation on the part of local residents.
- . Downey. The portion of this city to be crossed by the project reveals for the most part moderate sensitivity to its impact. Although numerous churches and schools lie within C. T. #5518, its southernmost portion, pedestrian dependence there is low. C.T. #5518, together with adjoining C. T. #5517 are residentially more stable than is the county as a whole. C.T. #5517 is pedestrian dependent to a medium degree.
- . Norwalk. Census Tract #5519, the only area affected by the project, is considered very sensitive to potential impacts because of its high residential stability (M.I.=85.2) although pedestrian dependence is low. Commercial, religious and educational facilities are located above this tract's northern boundary.

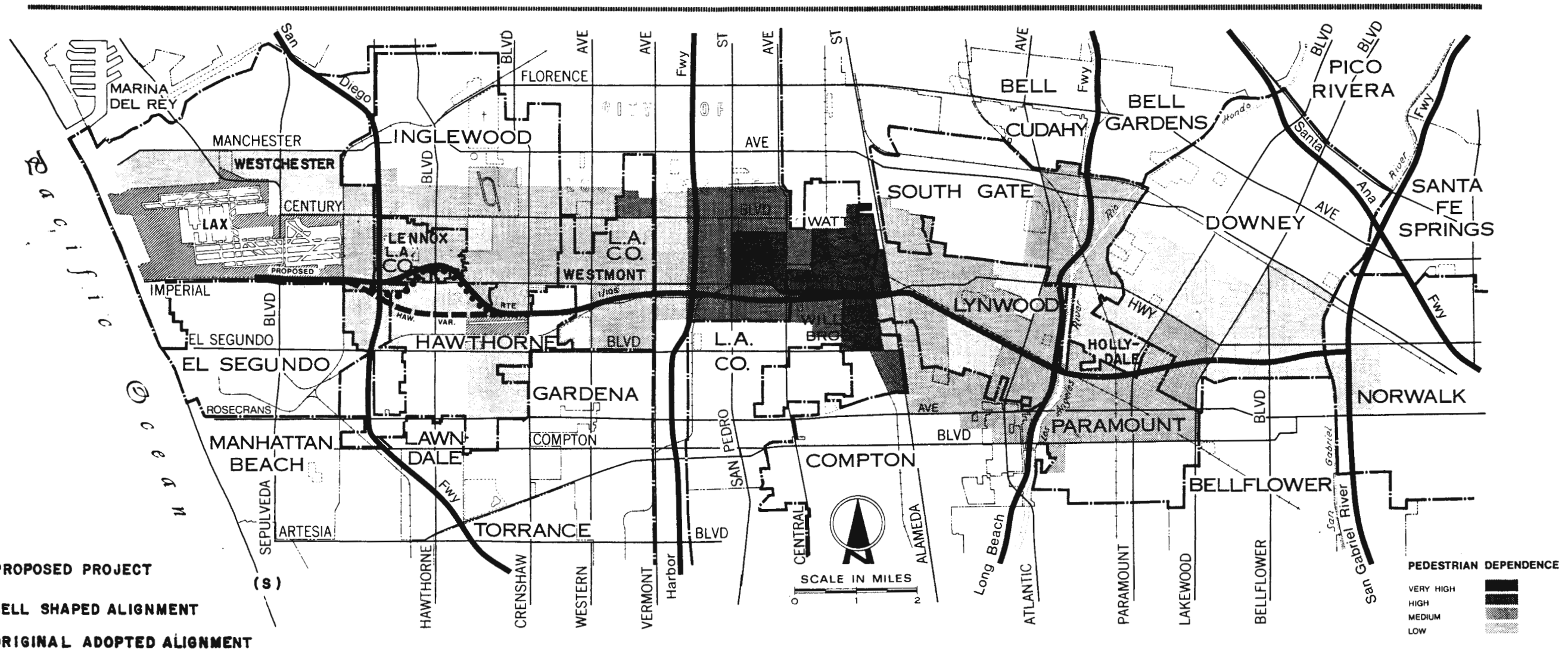
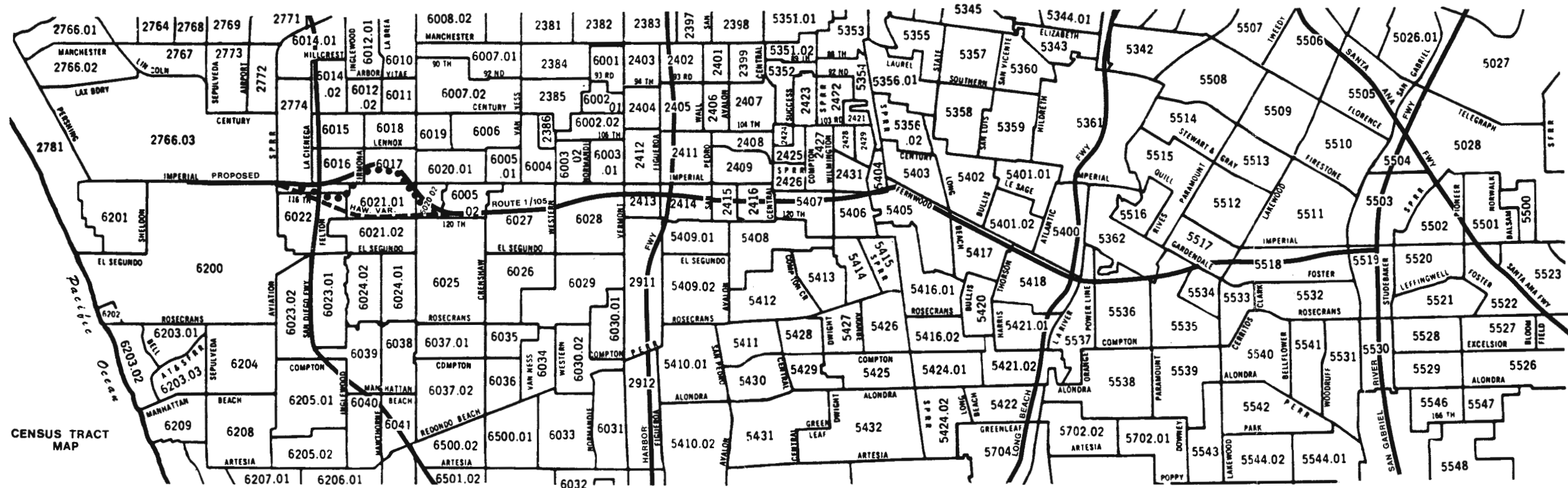
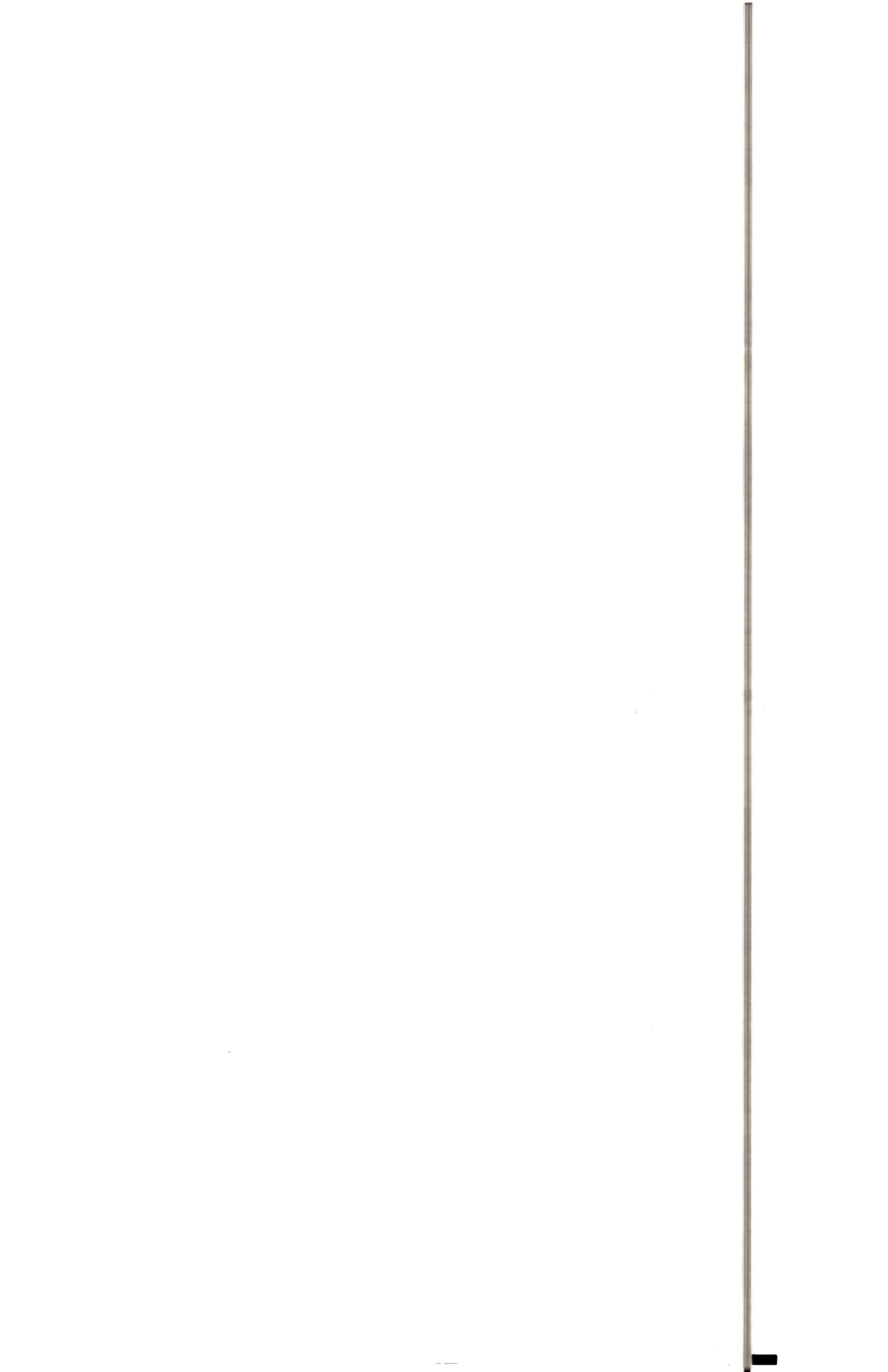


FIGURE 6-6





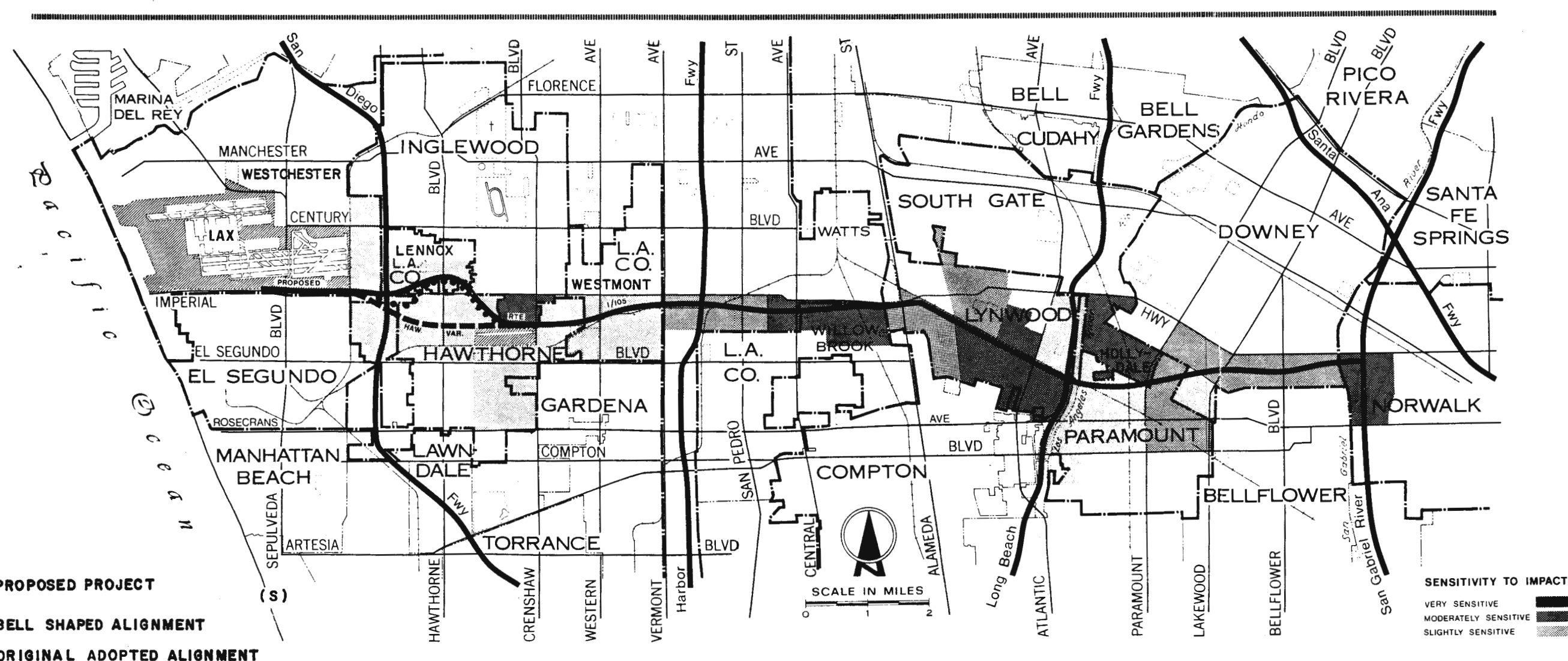
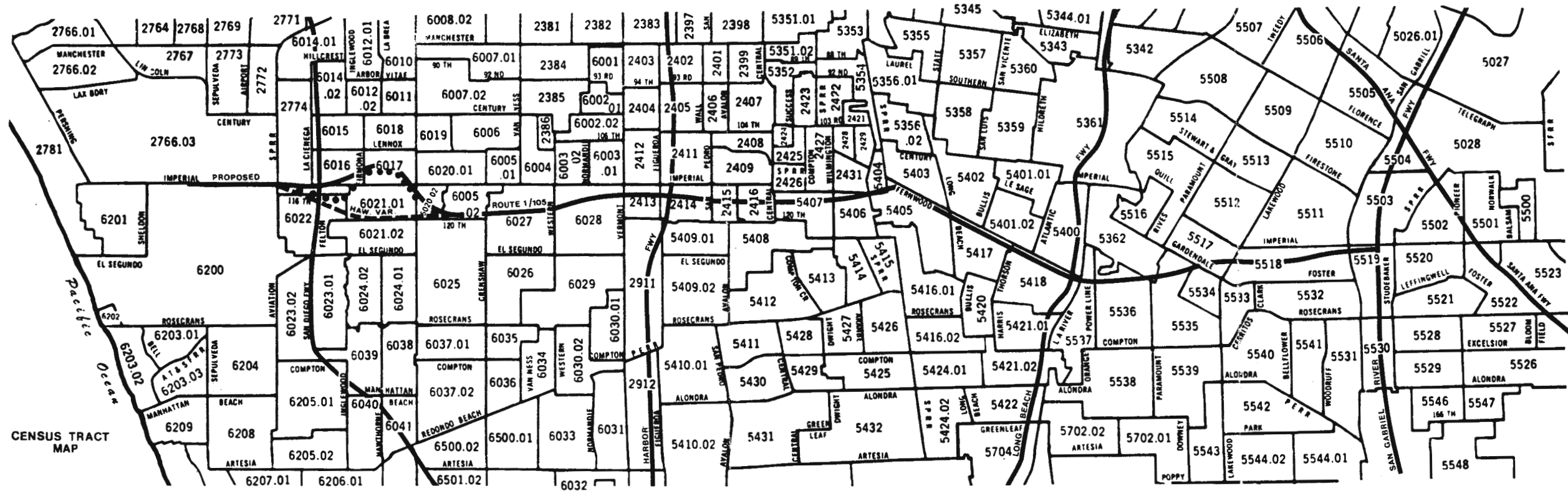
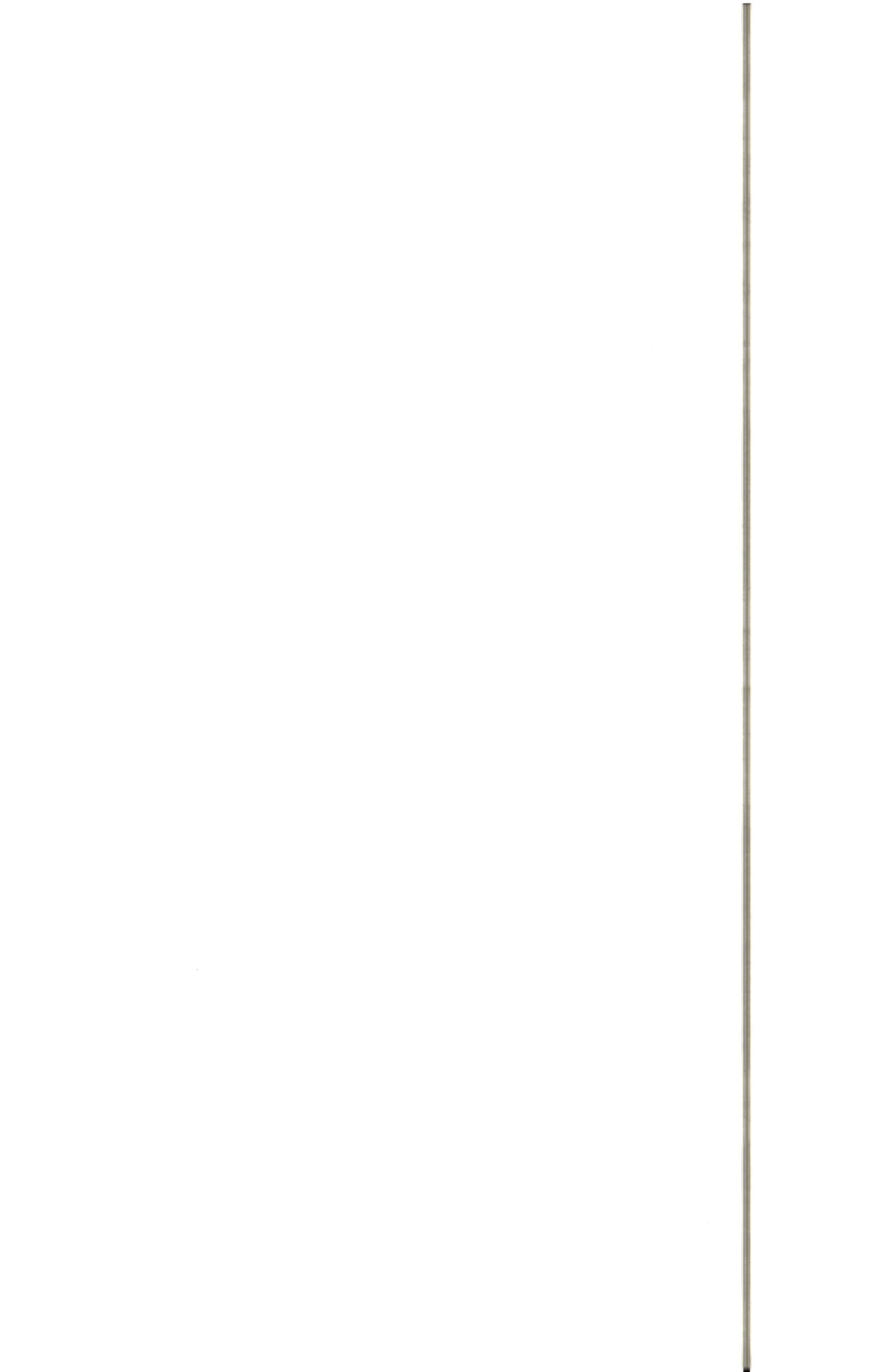


FIGURE 6-7



Severity of Social Impacts. When the project is placed into its setting, a relationship forms between its socially impacting features and the area's sensitivity as previously determined. This relationship determines the project's impact severity. An evaluation of impact severity is mapped on Figure 6-8. This map reveals the location of areas determined to be severely impacted, moderately impacted and slightly impacted along the project's corridor.

- . El Segundo. This city will not be affected by the project, except for improved access.
- . Los Angeles City (Portion). C.T. #2774 is the only tract directly affected by the project, apart from a second tract (C.T. #2766.03) in which Los Angeles International Airport is located. This portion of the city has been determined as only slightly sensitive to project construction, and a review indicates that no disruptive street closure will occur. That portion of Census Tract #2774 closest to the project limit is occupied by industrial plants.
- . Los Angeles County (Portion). Composed only of C. T. #6022, this rectangular portion of the County will also be slightly affected by the project, because of its high residential turnover and low degree of pedestrian dependence.
- . Lennox. Although the project closely follows the city/county boundary, its jigsaw arrangement is such that several mostly small residential areas, both north and south would be separated from their political jurisdictions. It has been suggested that a project along this alignment might form a more practical community boundary.

Moderately sensitive to construction, Lennox will be affected by the project. Minor north-south streets will be closed, leaving open for access three major streets. These open streets are separated by as many as 8 blocks. Residential mobility throughout south Lennox (census tracts #6016 and #6017) is average for the county as a whole, but pedestrian dependence is moderately high. Although this portion of Lennox is considered only moderately affected by the project, it is one of the more severely impacted areas within the moderate classification.

Hawthorne. The project will cross its highly irregular boundary with Lennox, affecting a region determined to be only slightly sensitive to the route's impact. The facility would be depressed throughout Hawthorne, except for a portion on embankment along Hawthorne's boundary with Inglewood. Additional street closures will not pose significant obstacles to pedestrians, as major north-south streets will be left open and are only four blocks apart at most. For this reason, Hawthorne will be only slightly affected by the project. It should be added, however, that the project will require the removal of the 92-bed Imperial Hospital, employing about 150 persons. Its disappearance will eliminate or displace their jobs, as well as impose a reduction in the immediate area's available social services. This is not considered a critical deficiency however as there is currently an oversupply of hospital beds in the general area.

Inglewood. Directly north of Hawthorne's eastern portion, much of Inglewood will not be directly affected by the project. The southernmost portion of Inglewood extends into Hawthorne, however, and is considered very sensitive to the project's impact. The project will be constructed on embankment along the southern boundary adjacent to the Hawthorne Municipal Airport and this portion of Inglewood will be only moderately impacted by the facility.

Westmont. Only slightly sensitive to project-related impacts, this unincorporated portion of Los Angeles County will not be significantly affected by street closures. The project would be depressed here except for a small portion between Western and Normandie Avenues. Impact of the project will be slight.

Los Angeles City (Portion). The westernmost three census tracts of the City's southern extension (C.T. #'s 2413 to 15) are only moderately sensitive to potential impacts; the last is very sensitive. The project would be elevated on embankment, except for a small portion about 1/3 of the distance between Vermont Avenue and Figueroa Street.

Closing of streets within the very sensitive portion of the corridor (C.T. #2416) would require pedestrians to walk more than 4 extra blocks in some cases to cross the facility. Because of the sensitivity rating and the presence of an embankment together with the street closure, the impact to this easternmost portion of the city's southerly extension is rated severe. The remaining census tracts to the west would be only moderately impacted.

Willowbrook. That portion of Willowbrook along which the project's alignment will pass is very sensitive to potential impacts; moreover, it would lie above grade on an embankment and would require the closure of numerous streets throughout, necessitating additional on-foot travel of 5 blocks or more in many cases. Although north-south accessibility would be maintained on five major streets, Willowbrook is rated severe for this reason.

Watts. The project would abut the southernmost portion of this particular community (C.T. #2431), which is in itself very sensitive to potential impact. As above, the facility here would be on embankment, and would impose similar street-closure obstacles. The impact in Watts is also rated severe.

Lynwood. Throughout Lynwood, the project would follow a railroad right-of-way passing through very moderately and slightly sensitive areas of the city. The project would be elevated throughout, featuring numerous street closures. Because of the fairly even distribution of closures and its elevation, the project would incur a pattern of relative severity through Lynwood similar to that of the area's impact sensitivity. That is, very sensitive portions of Lynwood would be rated severe, and so on.

Paramount. While the westernmost two-thirds of that portion of Paramount along the corridor (CT's #5536-5537) is only slightly sensitive to potential impacts, the easternmost portion (C.T. #5535) is moderately so. Fortunately, for most of this area, the project would lie below grade (depressed). Street closures would not severely hamper pedestrian movements. For this reason, Paramount would not be any more than slightly affected by the project.

For this respect, a reorientation of neighborhoods would likely occur through placement of two elementary schools with a new site and school south of the I-105 project and the expansion of the Hollydale Elementary School.

South Gate (Hollydale area). Although rated very sensitive to potential impacts only a corner of this jurisdiction (C.T. #5362) will be crossed by the project's right-of-way. The project would be elevated and street closures would require pedestrians to walk a minimum of five blocks out of their way (approximately 1/4 mile). However, because of the geographically limited area affected, Hollydale as such will only be moderately affected.

Downey. The project would cross the southern portion of Downey (C.T.'s #5534, 5517-18) which is divided into slightly and moderately sensitive areas. No more than four blocks would be added to distances traversed on foot, and the project would be depressed. Therefore, sensitivity and actual impacts would be similarly slight and moderate.

Norwalk. The westernmost portion of this city (C.T. 5519) would be crossed by the project, and is very sensitive to potential impacts. Moreover, the project would be above grade throughout most of its Norwalk segment, necessitating as well up to four blocks of added on-foot travel. The project's impact on Norwalk would be relatively severe.

Effects on Minorities. See Chapter 2, page 2-9 for a detailed discussion of the socioeconomic characteristics of the affected communities.

Basically, poorer and less mobile blacks tend to remain in central and south Los Angeles County, while more mobile and affluent whites move away. Unfortunately, it is not possible to state how much this movement is directly attributable to the project or how many would have moved from the project area in any case; however, the project has caused many people to move sooner than they otherwise would have.

Tabular data indicates that greatest percentages of blacks reside in affected county and city areas, which constitute much of the immediate corridor's central portion.

The south-central portion of Los Angeles City, Watts, Willowbrook, and Westmont have residential populations that are 70% black or more. Moreover, they are grouped in a contiguous fashion, forming the central portion of the corridor. All share, at least partially, markedly depressed economic conditions, as evidenced by pedestrian activities. Watts, in particular (CT #2431) shows a very high degree of pedestrian dependence. All of the surveyed portions of Willowbrook (CT #5406, 5407 and 5415) reveal high pedestrian dependence. South central and Westmont comprise census tracts rated either minimum or high on this measure.

Several of these jurisdictions, or parts thereof, would be severely affected by the project. These jurisdictions will be severely affected (by census tract): South Central (CT #2416), Watts (CT #2431) and Willowbrook (CT's 5406 and 5407). South Central (CT's 2413-15) will be moderately affected. In addition, the project would exist on continually elevated embankment through South Central, Watts and Willowbrook.

Jurisdictions with predominately white populations would not on the whole be as severely affected as those listed above. These particular areas are comprised of white residents by a factor of 70% or more: Downey, El Segundo, Hawthorne, Inglewood, Norwalk, Paramount, Westchester, Lennox and Los Angeles County. Of these, only Norwalk (CT 5519) will be severely affected. These moderately affected are as follows: Downey (CT #5518), Inglewood (CT #6005-02) and Lennox (CT's #6016 and 6017).

These findings suggest that the central area identified with high percentages of black residents will be more severely affected generally than the fringe areas. However, it should also be borne in mind that in this area, up to 90% of the right-of-way has already been acquired for the project.

#### Hawthorne Location Alternatives:

##### Bell Alignment

This alignment differs from the proposed project primarily at the western end near the San Diego Freeway and would remain south of Imperial Highway for a longer distance than would the proposed project. The Bell Shaped Alignment would pass through Census Tract 6022 in the City of Los Angeles rather than Census Tract 6016 in Los Angeles County affected by the proposed project. Pedestrian dependence and sensitivity to impact have been determined to be essentially the same for both Census Tracts. However, Census Tract 6022 exhibits a higher mobility index score indicating somewhat less stability than Census Tract 2744. Therefore, the severity of the impact from the Bell Shaped Alignment would be slightly less than for the proposed project.

##### Originally Adopted

This alignment directly affects portions of Los Angeles City, Hawthorne (through which it passes), and Inglewood. The bulk of its impact would affect Hawthorne directly. It should be stressed too that the Proposed Project and this alignment rejoin in Los Angeles City (CT #2774) and Inglewood (CT #6005.02) and were discussed earlier in the context of the Proposed Project. That portion of Hawthorne affected comprises CT's #6021.01 and #6020.02.

Both of these tracts reveal a higher degree of residential turnover than do those portions of Lennox affected by the Proposed Project (mobility index scores for Hawthorne census tracts #6021.01 and #6020.02 are 142.7 and 136.6, respectively. Lennox census tracts #6016 and #6017 are 119.8 and 117.5, respectively). The originally adopted alignment would therefore pass through less stable areas than the Proposed Project to the north.

It would pass through (but not displace) a cluster of medical facilities, commercial establishments and churches within CT #6021.02 before merging to the east with the common right-of-way corridor. Pedestrians would be required to walk no more than 4 extra blocks to reach destinations on opposite sides within Hawthorne. Residential use throughout Hawthorne's affected census tract is characterized by single and multiple family dwelling units. The degrees of pedestrian dependence throughout Hawthorne's affected census tracts are low within CT #6021.01 and medium within CT #6020.03.

These contrast with medium dependence ratings for the correspondingly affected portion of Lennox to the north.

Slight sensitivity to potential impacts characterizes both of the affected census tracts, and their counterparts in Lennox. These conclusions were reached primarily on the basis of residential mobility data. Pedestrian dependence, however, is higher throughout the affected portion of Lennox than throughout the part of Hawthorne directly affected by the southerly alignment. Thus, CT's #6021.01 and #6020.02 in Hawthorne are less sensitive to potential impacts than their counterparts in neighboring Lennox.

This relationship persists when the proposed, the originally adopted and the bell shaped alignments are considered. Again pedestrian dependence is the deciding factor. Removal of the 92-bed hospital by the Proposed Project is a factor in favor of the originally adopted alignment, when severity of impact is considered.

The displacement of minority-group residents and the impacts felt by those who remain behind in Hawthorne would be a relatively less severe problem here than in more central portions of the corridor.

The No Project Alternative:

The No Project Alternative is essentially equivalent to the status quo, but for the massive disposal of acquired right-of-way.

Selection of the "No-Build" Alternative would require disposal of the acquired right-of-way. Social problems may arise if adjacent post-revision land-uses are grossly incompatible (e.g., residential and industrial), and if lower-class residential areas (public housing projects, for example) are isolated from transportation, commercial and other public facilities and services like police and fire protection. Such problems may take the forms of increased residential and instability and crime levels.

The Exclusive Busway Alternative:

In assessing impact severity, similarities between the Exclusive Busway Alternative and the freeway-transitway should be specified. The project and Exclusive Busway alternative share these similarities:

- . Corridor placement, as the somewhat narrower Exclusive Busway right-of-way remains within the freeway right-of-way;
- . Vertical configuration except at the east and west termini;
- . Street closures, overcrossings, undercrossings, bridges, and pedestrian crossing locations;
- . Plans for six bus stations with parking lots at junctions near the Long Beach Freeway, Harbor Freeway, in the Willowbrook area, near Los Angeles International Airport, near Normandie Avenue, and in Norwalk.
- . Vertical configuration adjustments to join existing streets at the east and west termini.
- . Feeder service to provide access to the stations would be implemented.

The foregoing suggests that this alternative's impacts on community cohesion would be similar to those of the corresponding freeway transitway except perhaps in magnitude. If anything the severity of these impacts would be somewhat attenuated because of the smaller number of residents displaced. Specifically, somewhat more than half of those required to move by the freeway-transitway would be displaced by the corresponding Exclusive Busway alternative. However, the distribution of relative severity should be similar on a jurisdictional basis.

The construction of an Exclusive Busway facility will create the following impacts:

<u>LOCATION</u>	<u>IMPACT(S) AND REMARKS</u>
1. Between 118th Street and Busway, West of San Diego Freeway	Isolation of single-family residence
2. Between Felton and Prairie Avenues	Acceleration of trend from single to multiple-family housing
3. Eucalyptus Elementary School	Restricted pedestrian access
4. Near Hawthorne Community Hospital	Increase of congestion by traffic-pattern changes
5. St. Joseph Church and Parish School	Restricted pedestrian access as result of busway barrier
6. York Elementary School	Restricted pedestrian access as result of busway barrier

LOCATION	IMPACT(S) AND REMARKS
7. South of Alignment between 119th Street and 120th Street	Isolation of residences
8. Area bounded by St. Andrews Place, 117th Street and Manhattan Place	Isolation of ten lots, noise.
9. Willowbrook	63% of property has been acquired, 39% of which has been cleared. If the busway is constructed, much of this property will be offered for private ownership.
10. Martin Luther King, Jr. Memorial Hospital and the King Triangle Redevelopment Project	Improved transit access
11. Lynwood	Nearly 75% of this property has been cleared. If the busway is constructed, much of this will have to be returned to private ownership
12. Paramount	Approximately 62% of this property has been acquired and 43% has been cleared. Much of this will no longer be needed. Islands of residences will also be created north of the busway between Garfield Avenue and Century Boulevard, and between Paramount Boulevard and Gardendale Street
13. Roosevelt Elementary School	Restricted pedestrian access
14. Downey	Over 75% of its property has been acquired, but only 10% has been cleared. Much of this area will not be required by the busway.

Street Improvement Alternative:

Arterial Widening--This alternative would require the displacement of far greater number of residents than separations at grade, almost equalling the number of those that would eventually leave were a freeway-transitway constructed. However, community cohesion would not be so severely disrupted as by the freeway-transitway option because direct accessibility across widened streets would still be possible. Although congestion and rates of traffic flow will increase, the psychological barrier-effect produced by elevated embankments would be lessened.

This alternative would require the arterial widening of approximately 60 miles of city and county streets, ranging over a rectangular area with dimensions of about 18 miles east to west and 5 miles north to south. The Arterial Widening alternative, therefore, would include areas either unaffected or only remotely affected by the project.

Arterial widening would partially or fully displace 66 community facilities, including 39 churches, 6 schools and 21 other facilities. However, only about 1.1 facilities would be required for each mile of the 60-mile network. In the case of a freeway-transitway, approximately 2 such facilities would be required per mile of the rights-of-way, which is approximately 17 miles in length. However, total impacts of a freeway-transitway or Exclusive Busway would be more extensive than those of the Arterial Widening alternative.

Grade Separation--This alternative would not require the actual taking of property for right-of-way purposes except where reconstruction is required at existing interchanges with cross-freeways. However, it presents unique problems that could be disruptive. Restrictions on crossing grade-separated streets will alter established circulation patterns for both people and vehicles, requiring pedestrians to walk two extra blocks in many cases to reach overcrossings. For example, children may have to walk further to school, and emergency vehicles may experience delays because of peak-hour secondary street closures. Street-parking prohibitions would inconvenience the uses of some community and commercial facilities and services. The elimination of curbside parking would reduce available areas for loading and unloading of goods along affected streets. Since commercial and other firms would be unable to load or unload goods, they may be forced to utilize residential

side streets creating congestion, noise, and other problems for local residents. Most significantly, limitations on available parking could impose economic hardships on small operators of businesses and community facilities situated along arterial streets. Moreover, these businesses would be unable to provide off-street parking for patrons in many cases. It should be added that many of these businesses are of the store front variety with only one or two employees, and on this account are far more sensitive to these impacts than larger concerns would be.

The geographical area that would be affected by Grade Separations is similar in extent to that of the Arterial Widening alternative. Approximately 55 miles of city and county streets would be affected, as before. Effects on community cohesion would be limited for the most part to restrictions on local circulation patterns, noted above. Local intensity of its impacts will be much less severe than that of the alternatives discussed above, when the total number of residential and business displacements are contrasted with the various sizes of the project-users concerned.

#### Combined Busway and Street Improvement Alternatives:

Combining the Exclusive Busway alternative with either the Arterial Widening alternative or the Grade Separation alternative will compound these adverse impacts to community cohesion previously identified under each alternative separately. In an effort to evaluate these combined alternatives, they have been ranked in order of severity in Table 6-13.

#### Summary

The I-105 Project and alternatives have been ranked on the basis of both statistical information and subjective evaluations. Examples of statistical information include data on residential mobility, social facility patronage areas and relative strength of pedestrian activity. Subjective evaluations concern the effects of the project and alternatives on ethnic groups. Impacts experienced only by these groups were also determined and discussed. A final subjective evaluation concerns the ability of formerly cohesive but now segmented communities to function as integrated social units within the most severely impacted corridor areas.

Both the type of project-related impacts and their severity would directly influence the continued viability of affected communities as cohesive units. In this regard, attention should be focused on the severely impacted portion of the freeway-transitway corridor, particularly its central portion. In South-Central Los Angeles City (Census Tract's #2416 and 2431) and Willowbrook (Census Tracts #5406 and 5407), relative residential stability, a predominance of pedestrian activity, a clustering of social facilities, particularly churches and high percentages of ethnic minorities combined with community segmentation to create generally the most severe overall impact anywhere within the project area. It can be safely reasoned that these directly affected portions of the south-central city and Willowbrook would have the least ability of all project-area communities to remain cohesively viable. The four remaining tracts that would be severely impacted (Census Tracts 5401.02, 5417 and 5418 in Lynwood and Census Tract 5519 in Norwalk) generally characterize a markedly high degree of residential stability, together with the clustering of social facilities. Low area, however, would afford them a somewhat greater ability to retain at least some identity as cohesive communities. It should be added in this connection that the freeway-transitway corridor would follow a railroad right-of-way throughout most of Lynwood. Impact here will not be as extensive were no railway in existence. Norwalk (C.T. #5519), however, must bear the burden of an interchange with the existing San Gabriel River Freeway.

Future effects of the Arterial Widening alternative on cohesion may well be greater than those of any other alternative because its particular project area is almost entirely unaffected by freeway related property acquisition in contrast with that of the I-105 Project and Exclusive Busway.

Combining the Exclusive Busway alternative with either of the two Street Improvement Alternatives would result in a combination of the adverse social impacts previously identified for the alternatives separately.

Table 6-10 ranks the I-105 Project and its alternatives in descending order of impact-severity according to these criteria:

- . Residential stability;
- . Effects on public services and community facilities;



- . Pedestrian activity;
- . Effects on minority population;
- . Displacement effects on community cohesion; and
- . Total impact on community cohesion.

This ranking of the project and its alternatives is shown for a basis of comparison only and in no way indicates the magnitude of impacts; i.e., a rank of 1 (most severe) does not indicate an impact nine times greater than a rank of 9 (least severe). Furthermore, the ranking compares impacts on factors relating to community cohesion which is only one of the many factors weighed by decision-makers in final alternative selection.

#### Beneficial Impacts:

A number of beneficial impacts on community cohesion would occur as a result of the project alternatives previously discussed. These beneficial impacts include the potential for increasing the safety and liveability of surrounding neighborhoods by removing much of the east-west traffic particularly truck traffic from local streets. Although north-south access may be diminished in some areas due to street closure, east-west access will be improved throughout the corridor. The Compton-Watts-Willowbrook area would benefit from the abandonment of approximately nine miles of existing railroad lines. This action would eliminate an existing obstacle to community cohesion in these areas. Increased access to the Martin Luther King Jr. Memorial Hospital complex and the King Triangle Redevelopment Project would benefit these same areas. The construction of a Freeway-Transitway or an Exclusive Busway would benefit particularly those pedestrian dependent areas in the central portion of the corridor by increasing access to health, educational and recreational facilities thus expanding their perceived community.

#### Mitigation:

Mitigation of adverse impacts on community cohesion lie in mitigation of housing and community facility displacement impacts (see Section 6-1 and 6-2) and the mitigation of reduced north-south pedestrian access. The previous discussions of impacts severity relating to pedestrian north-south access were presented for comparison of alternatives only and do not measure quantitative future pedestrian traffic desires. If the affected communities are sufficiently adversely affected by reduced pedestrian access, construction of pedestrian overcrossings will be considered at any such location. The benefits of a pedestrian crossing at a particular location must be carefully weighed. In some areas construction of a pedestrian crossing would require either an underpass (considered unsafe) or would require a structure 50 feet above ground (questionable pedestrian usage and exorbitant cost).

### 6.5 LOCAL FISCAL IMPACTS

This section presents the fiscal impacts of the I-105 Project and the alternatives. Where applicable, estimates of impacts which have already occurred are presented. Also, where appropriate, available mitigation measures are discussed.

In analyzing local fiscal impact, it is important to consider that local practice is to provide public services through a multitude of separate special tax districts. These districts frequently do not coincide with municipal boundaries. As a result, fiscal impact on a particular tax district may be more or less severe than the total effect of all tax districts within a community. For this reason, fiscal impacts are reported two ways. First, there is the total effect on each separate tax district. The second way is through the combined effects of that assemblage of each special tax districts contained within each community. This latter way is an attempt to provide a clearer picture of fiscal impacts as they relate to the total services provided locally.

Fiscal impacts are reported in terms of reductions in property tax revenues for schools; and from property and sales tax revenues for communities. Property tax rates are those in effect in 1975-76 although this is somewhat misleading in terms of actual impact. The reason is that most of the acquired properties were purchased several years ago when assessments and tax rates were substantially less. In the interim, affected local agencies have adjusted tax rates to compensate not only for inflationary trends, but also for the lost assessments, and reductions in services.

TABLE 6-10  
IMPACT ON COMMUNITY COHESION RANKED IN DECLINING ORDER OF SEVERITY

SOCIAL IMPACT CRITERIA	HAWTHORNE VARIATION(S)					STREET IMPROVEMENTS		COMBINED ALTERNATIVES	
	PROPOSED	BELL SHAPED	ORIGINALLY ADOPTED	NO PROJECT	EXCLUSIVE BUSWAY	WIDENING	GRADE SEPARATE	BUSWAY AND WIDEN	BUSWAY AND GRADE SEPARATE
Effects on Residential Stability	1	2	3	9	4	5	8	6	7
Effects on Public Services and Community Facilities	3	4	6	9	7	2	8*	1	5
Effects on Pedestrian Activity	1	2	3	9	6	7	8	4	5
Effects on Minority Populations	1	2	3	9	6	7	8	4	5
Displacement Effects on Community Cohesion									
. Total	2	3	5	9	6	7	8	1	4
. Future	3	4	6	9	7	2	8	1	5
Total Impact on Community Cohesion	1	2	4	9	7	5	8	3	6

\*Although grade-separated intersections will not displace facilities, certain indirect impacts are anticipated; therefore, it cannot be considered equal to "no project" which will not have any significant effect upon public services and community facilities.

Sales tax losses have been determined on the basis of normal rate of return for the estimated gross sales associated with the commercial and industrial establishments affected (acquired) by each alternative; i.e., 1% for cities and 0.25% for County.

I-105 Project

Approximately \$24 million in assessed valuation has been removed from the corridor communities tax rolls as a result of I-105 right-of-way acquisition. This represents an approximate total annual local revenue loss of \$1.7 million to cities and \$1.4 million to school districts at current average tax rates. Sales tax revenue losses are estimated to be \$68,800 annually.

Of all the cities traversed by the Project, Lynwood has sustained the largest percentage and actual dollar loss to its tax base and revenues, about 8-1/2%. The City tax rate from 1968 through 1975 increased from \$.77 to \$1.61 per \$100 of assessed valuation. Lynwood reports that this increase (about 109%) was attributed to inflation and the loss of tax income as a result of Project property acquisition. While inflation has been responsible for the major portion of the increase, an 8-1/2% reduction in tax base is a significant factor.

This is an example of the fiscal impacts local agencies are experiencing. A city has basically four alternative courses of action when revenue sources are diminished: seek added revenue from State and Federal sources, increase local taxes such as property tax, reduce the quantity or quality of local public services or attract new tax-producible development.

When the I-105 Project is completed, an additional \$11 million in assessed valuation would be removed. This results in annual revenue reductions of about \$800,000 to local cities and \$600,000 to school districts. Also, as a result of the remaining business displacement, annual sales tax reductions of \$315,000 are anticipated if none of the businesses relocate within the corridor.<sup>1</sup>

The approximate equivalent total fiscal impact of the Project (in terms of assessed valuation) for each separate community is shown in Table 6-11. The table distinguishes between impacts which have already occurred and those remaining as they relate to total assessed valuation within the community. It also assumes that the excess property acquired for the original project has been returned to the tax rolls.

TABLE 6-11  
APPROXIMATE NET ASSESSED VALUATION IMPACTED BY COMMUNITY - PROPOSED PROJECT

Community	Reduction in Assessed Valuation In Millions				
	Incurred	Remaining	Excess*	Total (Net)	% A. V.
El Segundo	\$ -----	\$ 0.125	\$ -----	\$ 0.120	
Westchester (City of LA)	0.119	1.818	-----	1.937	0.027
Del Aire (County)	2.380	0.005	1.277	1.108	.005
Lennox (County)	0.170	2.100	-----	2.270	.010
Hawthorne	1.485	2.926	0.664	3.750	2.075
Inglewood	1.143	0.149	0.094	1.198	.709
Athens (County)	1.153	0.111	-----	1.260	0.006
Watts (City of LA)	2.780	0.280	0.226	2.835	0.039
Willowbrook (County)	1.145	0.746	0.003	1.820	0.008
Compton	0.004	0.027	0.074	0.031	0.019
Lynwood	5.290	0.657	0.084	5.865	8.530
South Gate	0.252	0.094	-----	0.350	0.307
Paramount	1.277	0.719	-----	2.000	0.449
Downey	3.296	0.885	-----	4.181	1.584
Norwalk	3.360	0.187	1.118	2.430	1.947
PROJECT TOTALS	\$23.854	\$10.829	\$3.540	\$31.155	-----

\*Represents present work (A.V.) of properties to be returned to tax rolls. Much of this property has been cleared of improvements. With reconstruction, these figures will increase substantially.

<sup>1</sup>As previously noted, approximately 50 percent of businesses previously displaced by I-105 have relocated within the same jurisdiction.

A tabulation of fiscal impact on each separate tax agency affected by the Project is shown in Table 6-12. Once removed from the tax rolls, it is no longer possible to accurately detail the fiscal impact of the acquired properties. Table 6-12 also includes the approximation of the total effect of the removal of all of the assessed valuation associated with the Project, in comparison to a recent annual budget of each separate tax district. Since acquisition is spread over several years, the effect in any one year would be about one-fifth or less.

In the short term, mitigation to a small degree is accomplished when properties are cleared and the associated services are eliminated. Those properties bought for the Project, and re-rented return 24% of the rental fees to the local taxing districts. This closely approximates revenues originally derived from the property tax. For school districts there is also a degree of mitigation for reduced revenues to the extent enrollment declines. Further, the Lanterman Act provides for reimbursement of school district tax losses when a highway project reduces tax revenues over 0.5 percent in a year. These payments would occur over a three to five year period. Also, it is estimated the Project will generate about 45,000 manyears of additional employment. Since some of this represents the local labor force, it would have a stimulating effect on local economies, producing increased retail sales, home buying, etc.

From a long-term perspective, the Project would create a significant improvement in regional accessibility. This should result in a somewhat greater demand for corridor housing; the stimulation of industrial development in the Cities of El Segundo, Lynwood, Paramount and South Gate; and the development of several commercial properties. Some examples of new development already under way are: Continental Park and International Center in El Segundo, a major regional shopping center in Hawthorne, Watts Industrial Park, Montgomery Ward in Lynwood, Lynwood's redevelopment project for a major regional shopping center, a major industrial joint-use opportunity in Lynwood, and two community redevelopment projects related to railroad abandonments to be accomplished with the Project.<sup>1</sup> These expected by-products of the Project would tend to increase the value of corridor property and re-establish much if not all or more of the tax base loss.

#### Hawthorne Location Alternatives

##### Bell Alignment:

The total fiscal impact of this alternative would be approximately \$34 million in assessed valuation. This represents an approximate annual revenue loss of \$2.5 million.

Partially off-setting these impacts is the \$2 million in assessed valuation associated with acquired property which would be excess on this alignment. Much of this excess has been cleared of improvements and it is assumed that with redevelopment, its valuation will be substantially higher. This effect will be felt principally in Del Aire (County) and Norwalk where the bulk of the excess property is located.

Sales tax losses and school tax losses are estimated at \$325,000 and \$2 million, respectively. Again, putting the excess property back on the tax rolls will reduce both figures.

##### Original Adopted Alignment:

Total fiscal impact is \$33 million in assessed valuation. This represents an annual local revenue loss of \$2.4 million. School tax losses are estimated at \$2 million, and sales tax revenue loss at \$250,000.

With this alternative, \$1.7 million in assessed valuation associated with excess property will be returned to the tax rolls. Redeveloped, this assessed valuation will tend to reduce fiscal impacts along this route. However, the major impact will be in Norwalk where the majority of the excess property exists.

TABLE 6-12  
SUMMARY OF APPROXIMATE FISCAL IMPACT BY TAX DISTRICT<sup>1</sup> - PROPOSED PROJECT

Tax District	Assessed Valuation In 1000's			Total A.V. In District (1975-1976) In 1000's	Percent A.V. <sup>2</sup> Impacted	1975-1976 Property Tax Rate	Property Tax Revenue Loss In Dollars	Sales Tax Loss <sup>3</sup> In Dollars	Total Revenue Loss	1975-1976 Budget In 1000's	Percent Budget Impact
	Unacquired	Acquired	Total Removed								
City of Los Angeles	\$ 2,098	\$ 2,961	\$ 5,059	\$ 7,263,469	0.0696	3.0813	155,882	38,040	193,922	904,056	0.021
County General	10,830	23,854	34,684	22,095,068	0.1554	4.5185	1,567,196	182,056	1,749,252	2,823,776	0.062
County School Services	10,830	23,854	34,684	22,095,068	0.1554	0.0580	20,116	---	20,116	13,670	0.147
Handicapped Education	9,717	18,794	28,511	11,100,000	0.2600	0.2071	59,046	---	59,046	23,000	0.256
Wiseburn School District	1,839	2,748	4,587	190,908	2.3686	2.1941	100,643	---	100,643	3,131	3.214
Centinela Valley Union High School District	6,317	3,567	9,884	417,374	2.3481	2.3894	236,168	---	236,168	14,770	1.599
El Camino Community College District	6,466	4,471	10,937	1,818,978	0.5998	0.6882	75,268	---	75,268	24,511	0.307
Los Angeles County Flood Control District	10,652	20,597	31,249	21,284,885	0.1467	0.3830	119,684	---	119,684	124,563	0.096
County Sanitation District #5	7,221	6,076	13,297	1,888,585	0.7018	0.2373	31,554	---	31,554	9,157	0.344
Central West Basin Water District	10,830	23,854	34,684	8,020,894	0.4262	0.0030	1,040	---	1,040	250	0.416
Metropolitan Water District	10,830	23,854	34,684	21,113,366	0.1622	0.1300	44,089	---	45,089	199,780	0.022
Los Angeles County West Mosquito Abatement District	1,818	114	1,932	4,727,872	0.0409	0.0041	79	---	79	194,000	Negligible
Athens Lighting District	159	2,190	2,349	38,726	5.74	0.4969	11,672	---	11,672	340	3.433
Hawthorne School District	1,054	678	1,732	133,268	1.2930	2.6414	45,749	---	45,749	6,646	0.688
Lennox School District	3,424	531	3,955	31,878	12.2034	2.6186	103,565	---	103,565	7,077	1.463
Special Road District #2	2,957	5,061	8,018	377,536	2.0957	0.0689	5,524	---	5,524	317	1.743

<sup>1</sup>Approximate only. Both tax rates and budgets are adjusted annually to reflect reductions to assessed valuation and services provided. The assessed valuations given for acquired and unacquired property reflect changes which have or will have occurred over several years. Total A.V. in District (1976) does not include acquired properties since they had previously been removed from tax rolls. Table does not consider the effect of returning excess property to tax rolls.

<sup>2</sup>(Total A.V. Removed) ÷ (Total A.V. in district plus A.V. acquired)

<sup>3</sup>Based upon a return of 1% of gross sales to cities and 0.25% to the County of Los Angeles.

TABLE 6-12 (Continued)  
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Tax District	Assessed Valuation In 1000's			Total A.V. In District (1975-1976) In 1000's	Percent A.V. <sup>2</sup> Impacted	1975-1976 Property Tax Rate	Property Tax Revenue Loss In Dollars	Sales Tax Loss <sup>3</sup> In Dollars	Total Revenue Loss	1975-1976 Budget In 1000's	Percent Budget Impact
	Unacquired	Acquired	Total Removed								
Los Angeles County Consolidated Fire Protection District	\$ 2,957	\$ 5,061	\$ 8,018	\$ 4,699,039	0.1704	0.7838	62,845	---	62,845	57,517	0.109
Los Angeles County Library District	6,662	11,781	18,443	6,011,050	0.3062	0.2792	51,493	---	51,493	23,669	0.218
Consolidated Sewer Maintenance District	3,437	5,223	8,680	3,805,890	0.2277	0.0663	5,755	---	5,755	4,769	0.121
Los Angeles County Water Works District #22	0	2,640	2,640	21,170	12.4705	0.3501	9,242	---	9,242	622	1.486
Hawthorne City Tax District #1	2,926	1,207	4,133	180,662	2.2725	0.9300	38,437	35,000	73,437	11,198	0.655
Inglewood City Tax District #1	149	904	1,053	168,870	0.6202	1.8200	19,165	1,200	20,365	38,426	0.053
Inglewood Unified School District	149	904	1,053	218,157	0.4807	5.3835	56,688	---	56,688	28,008	0.202
Los Angeles Unified School District	1,176	4,734	5,910	10,440,632	0.0566	5.4010	319,199	---	319,199	1,113,434	0.029
Los Angeles City Community College District	1,176	4,734	5,910	12,689,887	0.04655	0.7133	42,156	---	42,156	164,850	0.026
Los Angeles County Sanitation District #1	1,710	9,236	10,946	636,543	1.6950	0.2137	23,392	---	23,392	4,018	0.582
Willowbrook Lighting	293	445	738	5,043	13.4475	1.1896	8,779	---	8,779	97	9.051
Firestone Garbage District	746	1,128	1,874	73,528	2.5102	0.9788	18,343	---	18,343	1,171	1.566
Compton Unified School District	640	934	1,574	250,152	0.6253	5.9000	92,866	---	92,866	56,705	0.164
Compton Community College District	2,111	7,720	9,831	452,232	2.1374	0.4432	43,571	---	43,571	7,891	0.552
Stephenson Laguna Lighting District	453	690	1,143	66,211	1.7085	0.8270	9,453	---	9,453	931	1.015
Lynwood City Tax District #1	643	5,257	5,900	68,757	8.5300	1.6100	94,990	85,640	180,630	6,248	2.890
Lynwood Unified School District	657	5,257	5,914	71,963	7.6586	4.3858	259,376	---	259,376	13,267	1.955
Southeast Mosquito Abatement District	2,380	10,086	12,466	7,737,335	0.1609	0.0053	661	---	661	532	0.124
Lynwood Redevelopment "A"	4	30	34	1,611	2.0719	1.6100	547	---	547	703	0.078

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TABLE 6-12 (Continued)  
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Tax District	Assessed Valuation In 1000's			Total A.V. In District (1975-1976) In 1000's	Percent A.V. <sup>2</sup> Impacted	1975-1976 Property Tax Rate	Property Tax Revenue Loss In Dollars	Sales Tax Loss <sup>3</sup> In Dollars	Total Revenue Loss	1975-1976 Budget In 1000's	Percent Budget Impact
	Unacquired	Acquired	Total Removed								
Compton City Tax District #1	\$ 27	\$ 4	\$ 31	\$ 163,177	0.0189	1.7500	542	---	542	30,000	0.002
Compton Creek Mosquito Abatement District	722	4	726	152,900	0.4748	0.0137	99	---	99	46	0.215
Paramount City Tax District #1	719	1,277	1,996	44,512	4.3582	1.0630	21,217	19,000	40,217	3,226	1.247
Paramount Unified School District	814	1,529	2,343	127,917	1.8100	4.5565	106,759	---	106,759	14,882	0.717
County Lighting Main District #10066	719	1,277	1,996	77,598	2.5306	0.4987	9,954	---	9,954	527	1.889
County Sanitation District #2	1,741	5,965	7,706	1,353,790	0.5667	0.2085	16,067	---	16,067	6,391	0.251
Downey Cemetery District	1,352	4,171	5,523	233,728	2.3216	0.0142	784	---	784	30	2.613
South Gate City Tax District #1	95	252	347	113,194	0.3059	0.9900	3,435	---	3,435	9,143	0.038
Downey City Tax District #1	885	3,296	4,181	264,399	1.5619	0.6600	27,595	21,348	48,943	10,978	0.446
Downey Unified School District	885	3,296	4,181	283,955	1.4555	4.7593	198,986	---	198,986	22,875	0.870
Cerritos Community College District	1,007	6,603	7,610	896,953	0.8422	0.6929	52,730	---	52,730	20,085	0.263
Downey City Lighting District	746	2,900	3,646	265,428	1.3588	0.1800	6,563	---	6,563	192	3.418
Norwalk City Tax District #1	122	3,307	3,429	124,841	2.7470	1.0630	36,450	---	36,450	6,278	0.580
Norwalk-La Mirada Unified School District	122	3,307	3,429	240,960	1.4038	5.1602	176,943	---	176,943	38,885	0.455
County Sanitation District #18	81	2,180	2,261	773,799	0.2914	0.2355	5,325	---	5,325	3,629	0.147
Southeast Recreation and Park District	122	3,307	3,429	248,015	1.3644	0.6294	21,582	---	21,582	2,340	0.922
Little Lake Cemetery District	122	3,307	3,429	335,366	1.0125	0.0134	459	---	459	116	0.396
El Segundo, City of	125	0	125	269,729	0.0463	0.4400	550	---	550	12,887	0.004
TOTALS							4,421,723	382,284	4,803,557	6,065,110	0.079

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### No Project Alternative

The fiscal impact of the No Project alternative would be related to the present effect of the Project. The effect on a given community's tax base (see Table 6-11, Incurred column) would depend on the extent to which the relevant portion of the right-of-way had been cleared, and upon how quickly the right-of-way could be restored to productive use. Since it appears that a lengthy period may be required for redevelopment, in certain areas, a blighting effect on surrounding property may still result. After redevelopment, the value of the same property may be substantially higher than before it was removed from the tax rolls. The present assessed valuation of these properties is estimated at \$15,852,000.

### Exclusive Busway Alternative

In addition to those fiscal impacts already sustained by the community, this alternative would result in additional assessment losses of \$5 million, and annual local revenue losses of more than \$350,000 at current tax rates. In addition, there would be annual sales tax losses of approximately \$90,000. However, these short-term fiscal impacts could be partially off-set in the long-term as a result of somewhat more intensive development which could be expected along the right-of-way and near the proposed transit stations. Also, annual school tax losses are estimated at \$275,000. These impacts would be partially off-set since about one-half the acquired properties would eventually be returned to the tax rolls. The present estimated assessed valuation of these excess properties--as is--is \$11 million. Redeveloped, they would be assessed substantially higher.

### Local Improvements Alternatives

The direct fiscal impacts of these two alternatives are in addition to those associated with the No Project alternative. In each of these cases, the impacts would be reduced, at least, by the present assessed value of the property already acquired for the Project; i.e., \$15.8 million.

#### . Arterial Widening:

The fiscal impact of this alternative includes an estimated \$22 million loss in assessed valuation resulting in annual local revenue losses of \$1.6 million. Additionally, annual sales tax losses of \$2 million, and annual school revenue losses of \$1.3 million are anticipated.

#### . Grade Separation:

The total fiscal impact of this alternative, including both direct displacement and "proximity impacts," would be an estimated \$18 million loss in assessed valuation which represents an annual local revenue loss of \$800,000. Most of this results from the "proximity effects" unique on this alternative.

"Proximity effects" result from: loss of curb parking, inability to cross over median strip to patronize business, loss of advertisement, inconvenience to shoppers, etc. The "proximity effects" would also result in sales tax losses estimated at \$160,000 annually. School revenue losses would be about \$1 million annually.

### Combined Exclusive Busway and Local Improvements Alternatives

In these two alternatives also, the effects are in addition to those already sustained as a result of the Project. Disposal of excess property not needed for the Exclusive Busway itself would reduce the total impacts by an estimated \$11 million in assessed valuation.

#### . Busway and Arterial Widening:

This alternative would result in additional valuation losses of \$27 million which produce annual local revenue of \$2 million. Local sales tax losses of \$2.1 million annually are also estimated. School revenue losses are estimated at \$2.1 million annually.



#### Busway and Grade Separation:

Assessed valuation losses of \$23 million are anticipated, including the "proximity effects" associated with the grade-separated intersections. Annual local revenue losses of approximately \$1.2 million would occur. Sales tax losses of \$250,000 are anticipated as a result of business displacement. School revenue are estimated at \$1.3 million annually.

#### Summary: Local Fiscal Impact

Table 6-13 presents a comparison of remaining property tax and sales tax losses for the I-105 alternatives. The combined Busway and Arterial Widening and Arterial Widening alternatives have by far, the greatest remaining tax impact, while the Exclusive Busway alternative has the least. The No Project alternative, which is not shown on the table, would have tax loss impacts related to the disposition of the acquired I-105 right-of-way, that is, annual losses of \$3.1 million which would decrease as the right-of-way is returned to the private sector and rehabilitated or redeveloped. The Grade Separation alternative, which directly affects only 200 housing units and 21 business establishments, has a relatively large tax loss impact due to "proximity effects" on businesses along improved arterials, particularly near the grade-separated intersections.

All of the tax losses presented for the I-105 alternatives would be relatively short-term impacts since the proposed transportation improvements would likely stimulate development in other portions of the corridor--thus tending to restore the tax base losses. While the No Project alternative would not tend to stimulate development in the corridor, the I-105 right-of-way could generally be returned to productive use over a four-to-ten year period.

Each of the alternatives would generate some local employment in proportion to their cost related to the Project construction. This would tend to offset local fiscal losses due to displacement of homes and businesses.

In this regard, the Project has the greatest potential to stimulate lagging local economies. Moreover, since it can be implemented quicker, its effect will be more immediate.

#### 6.6 PROXIMITY EFFECTS AND PROPERTY VALUES

Proximity effects of transportation facilities vary widely, depending upon such factors as the type of land being affected and the characteristics of traffic on the facility. For example, being next to (abutting) a major highway may be a disadvantage for residences but a benefit for business.

While proximity effects of transportation facilities actually goes beyond abutting property, this remains the area of principal impact. The primary problem, in this regard, is that some properties, particularly single-family residences, immediately abutting a highway, freeway, or transit line may be adversely affected.

California studied these effects intensively during the 1950's and 1960's, as many freeways were being constructed in the urban developed areas, as well as the developing areas. While it is difficult to directly relate property values only to freeway proximity, it was generally concluded at that time that values of properties abutting freeways were insignificantly affected (maximum of 3%).

A number of more recent studies have been conducted to identify attitudes and facts on this subject. A study by Pennsylvania State University<sup>1</sup> related attitudes of residents adjacent to a freeway to noise, air quality and property values. Results indicated that even though some forty percent of the abutters in the study area were annoyed by traffic noise while inside their houses and 60 percent noticed dust on windowsills, which they attributed to freeway traffic, only 22 percent thought the freeway had reduced the value of their property. Almost as many, 19 percent, thought the freeway had increased the value of their property.

<sup>1</sup>Community Effects of Highways Reflected by Property Values, Volume III: "Perceptions of Highway Effects by Residents in Four Suburban Communities," by Penn State University for FHWA. 1973.

TABLE 6-13  
LOCAL FISCAL IMPACT COMPARISONS OF I-105 PROJECT AND ALTERNATIVES

	Property Tax <sup>1</sup> Revenue Loss (Annual Dollars)		Local Sales Tax Loss (Annual Dollars)		School District Revenue Loss (Annual Dollars)		Total (Net) Revenue Loss (Annual Dollars)	
	Remaining To Be Acquired	Already <sup>2</sup> Acquired	Remaining To Be Acquired	Already <sup>3</sup> Acquired	Remaining To Be Acquired	Already <sup>2</sup> Acquired	Remaining To Be Acquired	Already <sup>2</sup> Acquired
I-105 (Proposed Alignment)	\$ 760,000	\$1,420,000	\$ 313,600	\$ 68,800	\$ 628,000	\$1,160,000	\$1,701,600	\$2,648,800
Hawthorne Location Alternatives								
. Originally Adopted Alignment	660,000	1,580,000	251,000	68,800	536,000	1,280,000	1,447,000	2,860,000
. Bell Shaped Alignment	740,000	1,540,000	326,000	68,800	610,000	1,250,000	1,676,000	2,790,000
Exclusive Busway	355,000	930,000	92,000	68,800	290,000	760,000	737,000	1,690,000
Local Improvements								
. Arterial Widening	1,628,000	450,000	2,000,000	Negligible	1,853,000	370,000	5,481,000	820,000
. Grade Separation <sup>3</sup>	811,000	450,000	160,000	Negligible	1,015,000	370,000	1,986,000	820,000
Combined								
. Busway and Widening	1,983,000	1,380,000	2,092,000	68,800	2,143,000	1,130,000	6,218,000	2,578,800
. Busway and Grade Separation <sup>3</sup>	1,166,000	1,380,000	252,000	68,800	1,305,000	1,130,000	2,723,000	2,578,800

<sup>1</sup>Except School Districts.

<sup>2</sup>Figures reflect the disposal of acquired property and their return to the tax rolls.

<sup>3</sup>Includes estimated "proximity effects" on business activity near grade-separated intersections.

A property value analysis by the same research team indicated that neither abutting or nearby properties experienced any net loss in value as a result of the freeway. However, the net increase in benefit was related to distance from the freeway. This study concluded that the improved accessibility afforded by the freeway resulted in a 10 percent increase in value for non-abutting property. In this study, the proximity effects of the freeway apparently represented the difference in gain.

In a similar study by the University of Toledo (Ohio)<sup>1</sup>, it was concluded that only residential properties which actually abut a freeway were found to be affected in any significant amount. Nor did all properties seem to be affected. It was noted that apartments and other residential developments continue to spring up along freeways even while statements and opinions abound which deplore the environmental effects of freeways. Professional realtors in the Toledo area were asked their opinion of the comparative value of identical single-family properties, one abutting a freeway and the other much farther away. Although their responses indicated a difference of 20 to 30 percent, actual experience does not seem to support this view. A study of a large subdivision in the Toledo area showed that lots adjoining a freeway sold at comparable prices, although more slowly than those in the interior of the tract.

Case studies show that individual businesses may be harmed by highways in close proximity --for example, when a freeway cuts off access or removes customers on which the business depends. However these are usually exceptional cases. Businessmen often seek to locate near highways and freeways. Indeed, studies show that freeway proximity can be more important than other desirable site characteristics. One such study found the primary reasons given for site selection as "first, proximity to highways; second, access to local markets; third, price of land; fourth, availability of land, and fifth, site amenities."

Nonetheless, nearly all recent studies<sup>2</sup> suggest that residential property which abuts a freeway may experience a reduction in market value, by from 0 to 10 percent. However, all of these studies have dealt with an after-the-fact situation; i.e., the highway or freeway has already been built. Immediately, this leads to practical problems of addressing proximity effects for it is extremely difficult to predict, in advance, exactly which properties will be affected and by how much. Largely because of these practical problems, there generally has been no legislative or administrative approach to compensating abutting property owners for any adverse effects. In the typical case, a property owner had only one recourse, to sue the State through "inverse condemnation". However, under these circumstances, the property owner must bear the expenses as well as the burden of proof. And compensation, if awarded at all, was untimely, sometimes years after the damages occurred.

In recent years and particularly since enactment of environmental legislation, Courts have begun to recognize that an adverse proximity impact is reason for a valid claim against the State. At the same time, it is well recognized that "inverse condemnation" is not the most satisfactory method to handle the matter, particularly since while damages may be paid, it does not usually remove the adverse impact. Recognizing this, legislators have addressed the problem more directly. For example, laws have been enacted in recent years which seek to eliminate or at least reduce the tolerance levels two of the most cited adverse impacts; i.e., noise and air emissions (see Chapter 5).

In closing, it should be emphasized that these comments on proximity effects as they affect property values are, in general, valid and applicable to any of the principle alternatives considered in this Environmental Impact Statement, be that the Project, the Exclusive Busway or Local Street Improvements. Ironically, they may have some relevance to the No Project alternative. For example, it may be extremely difficult, if not impossible, to sell an existing thirty year old house when an equivalent, but new, publicly subsidized, house has been reconstructed on the cleared lot next door, and is offered at comparable prices.

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<sup>1</sup>"Some Proximity Effects of Highways," prepared by D. C. Colony for a 3-day pilot course sponsored by the Federal Highway Administration, December 1973.

<sup>2</sup>"Social and Economic Effects of Highways," U. S. Department of Transportation, FHWA, Washington, D.C. 1974.

## 6.7 SUMMARY SOCIAL AND ECONOMIC EVALUATION

This section of the chapter presents a ranking of the Project and its alternatives as measured by remaining direct, or quantifiable, social and economic impact criteria. Indirect impacts which cannot be quantified are summarized. And, finally, mitigation measures are discussed.

Table 6-14 summarizes and compares the data used in ranking the Project and alternatives by the quantitative social and economic categories. The Project and alternatives have been ranked in Table 6-15 by impact categories, with the least impact ranked first and highest impact ranked seventh.

Indirect effects are generally either indiscernible or non-quantifiable; and were discussed in terms of the only two aspects which appear relevant; namely, community cohesion and proximity impact. In general, the Project will produce changes in local accessibility, which will effect changes in local services or facilities and may alter neighborhood relationships. Due to past Project activity, many of these effects have already occurred.

If, as has been assumed, the acquired right-of-way is returned to its prior use (the No Project alternative), then accessibility would not be affected since existing streets would not have been disturbed. However, it is reasonable to conclude that Project activity has already had a disruptive effect on neighborhoods. To the extent this has happened all alternatives under consideration would clearly involve these as a minimum. Ultimately, these disruptions will be healed by area redevelopment. In the case of local street alternatives indirect effects would be similar but much more pervasive throughout the corridor.

Social and economic impacts are mitigated to various degrees by a number of measures. The displacement of people either as homeowners or tenants, is one of the larger direct impacts of the Project. Housing availability studies were conducted to determine people's needs and the availability of decent, safe and sanitary housing. Essentially, there are adequate replacement opportunities for the people who are to be displaced. In any situation where housing is not available, it can be developed or built. Relocation assistance and payments are two programs which assist people in their moves to find housing, and to cover moving expenses, provide supplemental payments to assure equivalent adequate or better housing, interest rate differential and incidental costs.

Displacement of businesses is covered by the same type of relocation assistance and payment programs as are residential moves. From the communities' viewpoint, experience thus far indicates that one-third to one-half relocate within the same jurisdiction.

Community facilities such as parks and schools are for the most part replaced in kind through cooperative efforts with the affected jurisdictions. Churches are provided assistance through the relocation programs.

Efforts are made to locate the Project along political, natural, man-made, incompatible land-use or other boundaries to minimize effects on community cohesion as much as possible.

The psychological impact frequently associated with projects of this magnitude is minimized by depressing them below the surrounding area wherever feasible.

Local circulation is retained through street modifications and crossings, or pedestrian crossings. Accessibility to and from community facilities, as well as community services are thereby continued. In some areas local accessibility is enhanced by additional streets created with the Project.

Some mitigation for loss in tax revenues occurs when people move and local and school services are correspondingly reduced. Any re-rental of properties returns money to local taxing agencies commensurate with tax losses. School districts may be reimbursed for reductions in tax revenues.

Many of these same mitigation measures apply to other alternatives as well.

Studies indicate that some abutting properties, particularly single-family residences, may be adversely affected by their proximity to transportation facilities. Factors most generally cited are noise and air emissions. The result may be a reduction in property value. Because improved accessibility tends to improve all nearby property value in general, the reduction experienced by an abutting property owner may be relative rather than absolute. In other words, an abutting property may gain in value, but not as much as a similar but non-abutting property.

TABLE 6-14  
SUMMARY OF REMAINING SOCIAL AND ECONOMIC IMPACTS OF I-105 ALTERNATIVES

Alternatives	Residential Displacement		Number of Community Facilities Affected <sup>a</sup>					Student Displacement <sup>b</sup>	Business Displacement		Local Tax Losses		
	Number of Persons Displaced	Number of Living Units Displaced	Schools	Parks and Recreation	Churches	Other	Total		Number of Businesses	Number of Employees	Net Assessed Valuation Loss <sup>c</sup> (Thousands of Dollars)	Local Sales Tax Loss (Thousands of Dollars)	Property Tax Revenue (Dollars)
I-105 Project (Proposed)	8,130 <sup>g</sup>	4,550 <sup>f</sup>	9 (2)	1 (1)	9	4	23 (3)	2,410	240	1,140	7,290	314	1,388,000
Hawthorne Variations <sup>d</sup>													
As Originally Adopted	6,600 <sup>g</sup>	4,360 <sup>f</sup>	7 (2)	1 (1)	9	3	20 (3)	2,220	208	840	7,640	251	1,196,000
Bell Shaped Location	8,250 <sup>g</sup>	4,700 <sup>f</sup>	9 (2)	1 (1)	9	4	23 (3)	2,640	259	1,170	8,490	326	1,350,000
Exclusive Busway	4,770 <sup>g</sup>	1,980 <sup>f</sup>	3 (2)	1 (1)	4 (3)	4	12 (6)	1,180	75	440	6,330 credit	92	645,000
Arterial Widening	9,470	3,110	6	1	39 (1)	20	66 (1)	N/A <sup>g</sup>	1,440	6,530	1,600	2,000	3,481,000
Grade-Separation	1,370 <sup>h</sup>	250	0	0	0	0	0	110	21	95	1,800 credit	160	1,826,000
Combined Alternatives													
Busway and Widening	13,470 <sup>g</sup>	5,030 <sup>f</sup>	9 (2)	2 (1)	42 (3)	24	77 (6)	1,180	1,515	6,960	15,070	2,092	4,126,000
Busway and Grade Separations	5,370 <sup>g</sup>	2,170 <sup>f</sup>	3 (2)	1 (1)	4 (3)	4	12 (6)	1,290	96	535	11,670	252	2,471,000

<sup>a</sup>"Affected" means partial or complete acquisition of land and improvements thereon. ( ) indicates number of acquired facilities which have not yet relocated.

<sup>b</sup>Student displacement is a function of residential displacement

<sup>c</sup>Refers to assessed valuation removed from tax rolls. Assumes sales of acquired I-105 property and their return to the tax rolls.

<sup>d</sup>Both variations utilize adopted location outside of Hawthorne.

<sup>e</sup>Estimated remaining displacement--does not include displacement which has already occurred or displacement of temporary re-renters. Does include 770 persons living in acquired properties who have not yet relocated.

<sup>f</sup>Estimated remaining displacement--does not include I-105 related clearance of residential units which has already occurred.

<sup>g</sup>Not available.

<sup>h</sup>Estimated maximum displacement.

TABLE 6-15  
SUMMARY MATRIX OF ALTERNATIVES BY REMAINING SOCIAL AND ECONOMIC IMPACT CRITERIA

Remaining Social & Economic Impact Criteria	ALTERNATIVES									
	I-105	Hawthorne Variation(s)			No Project	Exclusive Busway	Local Improvements		Combined Alternatives	
		Originally Adopted	Bell-Shaped				Widening	Grade-Separate	Busway and Widen	Busway and Grade-Separate
Residential Displacement*										
. People	Sixth	Fifth	Seventh	First	Third	Eighth	Second	Ninth	Fourth	
. Housing	Sixth	Seventh	Eighth	First	Third	Fifth	Second	Ninth	Fourth	
Business and Employment Displacement	Sixth	Fifth	Seventh	First	Third	Eighth	Second	Ninth	Fourth	
Effects on Public Services and Community Facilities	Sixth	Fifth	Seventh	First	Fourth	Eighth	Second	Ninth	Third	
Effects on Taxes (Short-Term)										
. Property	Fifth	Third	Fourth	First	Second	Eighth	Sixth	Ninth	Seventh	
. Retail Sales	Sixth	Fourth	Seventh	First	Second	Eighth	Third	Ninth	Fifth	
Community Cohesion	Ninth	Sixth	Eighth	First	Third	Fifth	Second	Seventh	Fourth	

\*Under this criterion, only original right-of-way residents and others eligible for Relocation Assistance Payments are counted, so that double-counting errors are minimized. Approximately 2,400 temporary "renters" now in the right-of-way are not eligible for such assistance.

\*\*Although grade-separated intersections will not displace facilities, certain indirect impacts are anticipated; therefore, it cannot be considered equal to "no project," which will not have any significant effects upon public services and community facilities.

The principle difficulty in regards to proximity impacts as they affect property values, is that it is extremely difficult to predict; first, exactly where adverse effects will occur; and second, by how much. Because of this, and rather than attempt to handle them as damages to the property which does not remove the impact, laws have been enacted to deal with them directly. For example, noise and air standards have been established to insure reasonable use and enjoyment of one's property without significant adverse impact. In all but a few extreme cases, application of these standards eliminates or largely mitigates potential adverse proximity effects which may seriously effect the value of adjacent property.





**CHAPTER 7**  
**LAND USE AND DEVELOPMENT EVALUATION**



## CHAPTER 7 - LAND USE AND DEVELOPMENT EVALUATION

This chapter presents the results of the land use and development studies performed for the I-105 Project and alternatives considered. The following criteria were considered and form the basis of the major sections of the chapter.

- . Growth Inducement
- . Effect on Public and Private Sector Development Activity
- . Future Use of Project Right-of-Way (for non-freeway alternatives only)

The primary purpose of this chapter is to: (1) define the future regional and corridor land use and development implications of each alternative; (2) point out specific examples of public and private sector plans and development activities which have occurred within the corridor in response to the I-105 Project--and evaluate the implications of the non-freeway alternatives upon these activities; and (3) evaluate the nature and implications, both on a corridor and community-by-community basis, of the non-freeway alternatives with respect to the future use and/or redevelopment of the acquired right-of-way. At the conclusion of each discussion (e.g., Growth Inducement), an evaluative summary is presented.

### 7.1 GROWTH INDUCEMENT

The purpose of this section is to describe the extent to which the proposed I-105 Project and its alternatives could "foster economic or population growth, either directly or indirectly, in the surrounding environment."<sup>1</sup> This growth-inducing potential, when related to major transportation improvement projects, can, if realized, take the form of "urban sprawl" (development beyond the fringes of urbanized area) at the regional scale and "development intensification" at the corridor scale. "Development intensification" can be development on vacant land within the region's urbanized area or redevelopment of currently-developed land.

It should be recognized that transportation facilities constitute only one of many factors affecting the distribution of growth potential within a region. Other key factors involve relationships between market conditions and developmental costs. Included in the first are such factors as population trends, housing demand, community "image," employment opportunities, public services, tax rates and economic means. Developmental costs include such items as physical constraints inherent in the land (level, rugged, etc.), and availability of essential or basic services such as power, water, and waste disposal systems. Expansion of these services are usually not as obvious as transportation systems which are quite visible, but are also essential to growth.

Two recent examples of transportation facilities demonstrate that these other factors and transportation are only part of urban growth. The Santa Ana Freeway (Route 5) was initially developed to service increasing traffic flow between Los Angeles and San Diego. Once completed, it became instrumental in facilitating the rapid growth in southeastern Los Angeles and Orange Counties; i.e., growth followed accessibility. In contrast, Simi Valley experienced considerable growth before having adequate accessibility. The result has been vociferous public demand for completion of the Simi Valley-San Fernando Valley Freeway (Route 118). Here, transportation is following growth. An expanding population must be accommodated somewhere which means growth and transportation. It is becoming widely recognized that there is a strong interrelationship between all services (not just transportation) and land use.

Within the context established by these factors, introduction of new transportation facilities may alter the distribution of growth potential within a region. However, the extent to which new transportation facilities can influence this potential depends upon the status of the pre-existing regional transportation system. An application of the economic "marginal utility" theory to transportation in the Design Team Concept studies suggested that, if a new transportation facility is an early, "first generation," link in a regional system, it will create extraordinary economic values and benefits, both within its corridor and in other parts of the region which gain accessibility. Later, "second generation," facilities in the same area will reinforce these new values but will have, overall, less dramatic economic effects. Finally, "third generation" facilities will fill in the inter-

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<sup>1</sup>"Guidelines for Implementation of the California Environmental Quality of 1970." The Resources Agency of California, February 5, 1973.

stices of the system. The impact of these facilities is likely to be minor with respect to the redistribution of growth potentials. Third generation facilities will, however, assist affected communities in sustaining their economic bases through improved accessibility.

Because of the diversity of the communities traversed by the I-105 alignment, the Project has attributes of all three generation categories. Consequently, the Project can have different growth inducing effects in different parts of its corridor and the Southern California region.

Based on the preceding general remarks, the remainder of this section will be devoted to three topics: (1) the historical effects of major transportation improvements on development in the Southern California Region, (2) the anticipated "urban sprawl" impact of the Project and its alternatives, and (3) the anticipated "development intensification" impact of the Project and its alternatives.

#### Development of the Los Angeles Region

The basic form and extent of the region through 1950 was essentially shaped by the Pacific Electric "Red Car" interurban Railway System which achieved its maximum ridership in 1924. Freeway development in the 1950s and 1960s contributed significantly to the further expansion and suburbanization of the region. This latter urbanization occurred primarily in the outer areas of Los Angeles County and the adjacent Counties of Orange, San Bernardino, Riverside and Ventura. The growth of the region's urbanized area between 1906 and 1970 is shown in the following figures:

Figure 7-1 Urban Development and Major Transportation Networks: 1906-1940

Figure 7-2 Urban Development and Major Transportation Networks: 1950-1970

Figure 7-1a shows the extent of urban development in 1906, along with the major regional transportation network of that era--the Pacific Electric Interurban Railway System, or the "Red Cars." Since the real beginning of the "Red Cars" occurred in 1902, the urban development in 1906 could not have been significantly influenced by the "Red Cars." This early development pattern was primarily attributable to the first five railroads that connected Los Angeles with the rest of the region. These initial railroads were:<sup>1</sup>

1. Line completed to Wilmington (near Los Angeles Harbor) in 1868.
2. Line completed to San Fernando in 1874.
3. Lines completed to Santa Monica, Anaheim (adjacent to Santa Ana) and Pomona in 1875.

Thus, as a result of the distribution of urbanized area and the distribution of Pacific Electric tracks in 1906, the "Red Cars" were serving many of the existing urbanized areas as well as serving areas which were not yet urbanized. At this point in time, only two percent of the land area of the I-105 corridor was urbanized.

In the period from 1906 to 1924, as shown on Figure 7-1b, the region experienced rapid growth, primarily along or adjacent to the "Red Car" lines. This rapid growth and expansion, with the regional population reaching approximately 1.5 million in 1924, included development of low-density residential area, strip commercial and areas of "leap-frog" development.<sup>2</sup> In addition, due to the fine grid of the "Red Car" plus the Los Angeles Railway lines in the central and western portions of the basin, significant infilling development was facilitated during this period.

Although 1924 was the "high water mark" of the Pacific Electric System, carrying 100 million rail passengers that year, it can be observed by comparing Figure 7-1b to Figure 7-2 that the basic form of the entire region for the years to come was significantly influenced by the "Red Car" network. At this particular time, approximately 30 percent of the I-105 corridor was developed.

<sup>1</sup>Reyner Banham, Los Angeles: The Architecture of Four Ecologies, pp. 31 to 33.

<sup>2</sup>New development which leaves a gap of undeveloped land between itself and the existing urbanized area.

During the period from 1924 to 1940, the regional highway network was greatly expanded (see Figure 7-1c), including the development of initial segments of the first freeways in the region--the Pasadena and the Hollywood Freeways. By 1940, the "Red Cars" were rapidly declining, having reduced total miles of track and carrying only 48 million rail passengers for the year. The I-105 corridor was approximately 45 percent developed by 1940.

By 1950, as shown on Figure 7-2a, segments of two additional freeways had been completed (the Santa Ana and San Bernardino); however, the extent of the freeway system was too limited at this point in time to make a significant contribution to the growth and form of the region. An exception may be the Hollywood Freeway, which could have facilitated the rapid growth of the San Fernando Valley (note the additional "leap-frog" developments along the highway).

Also by 1950, the Pacific Electric had been reduced to a skeleton system. However, by comparing Figures 7-1b and 7-2a, it can be observed that the basic expanse of the entire region in 1950 was generally defined by the extent of the "Red Car" system in 1924, with the exception of southern Orange County.

Thus, as late as 1950, the regional form was generally a derivative of the "Red Car" network, while growth can be characterized as a combination of multi-centered expansion (primarily of a low-density residential nature) and infilling. The I-105 corridor was approximately 75 percent developed in 1950.

The period from 1950 to 1960, as displayed on Figure 7-2b, can be characterized as the "first generation" freeway era, in which significant miles of new freeways were completed and connected to form a "backbone system;" and as was the case with the Pacific Electric "Red Car" system, these freeways provided added potential for the region to experience substantial new outward expansion and further infilling. By 1960, the I-105 corridor was approximately 95 percent developed.

While the decade from 1960 to 1970 saw significant additions to the "backbone" freeway system ("second generation" freeways), their main influence with respect to regional growth and expansion was to facilitate the completion of the infilling process; i.e., the development of those areas which were initially by-passed by the rapid expansion between 1950 and 1960 (see Figure 7-2c). The I-105 corridor experienced less rapid growth during this decade than the region as a whole, with urbanization reaching approximately 99 percent of the available land area.

Thus, from a historical perspective, it is concluded that the Pacific Electric Interurban Railway System significantly influenced the basic form and expanse of the Los Angeles region until the early 1950s, while the "first generation" freeway system developed in the 1950s and 1960s continued and facilitated further expansion of this earlier condition. Since the I-105 corridor was 75 percent urbanized by 1950, the advent of the "first generation" freeway system had a minor role in its further development, although it must be assumed that the infilling process was somewhat promoted by the north-south freeways serving the corridor.

#### Potential Contribution of I-105 and its Alternatives to Urban Sprawl

Based on the historical discussion previously presented, a limited effect on regional expansion could be anticipated as a result of transportation improvements in the corridor. With respect to the urban sprawl implications of the I-105 Freeway at the regional scale, the commute range of the home-to-work trip is an important transportation-related factor. The ensuing analysis will focus on this single factor, although it would be well to remember this is only one aspect of transportation and, as discussed in the opening remarks of this chapter, transportation is only one factor that influences the distribution of growth potential.

Assuming a work place located near the centroid of the I-105 corridor and a peak hour work trip of 45 minutes in length,<sup>1</sup> isochrones (equal travel-time contours) were developed, both with and without the I-105 Freeway. These isochrones were then compared to the 1970 urban development distribution to identify undeveloped areas which might experience added pressure for residential development.

The results of this analysis are presented on Figure 7-3 and represent the post-1980 potential contribution to urban sprawl by the Project.

<sup>1</sup>Less than 14 percent of the region's commuters will travel more than 45 minutes to work, according to the LARTS 1967 Origin-Destination Survey.

It is concluded from this analysis that the I-105 related potential for new development would exist in the following areas:

1. The eastern portion of the Santa Monica Mountains.
2. The Verdugo Mountains northwest of Pasadena.
3. ~~The southern foothills of the Angeles National Forest.~~
4. The Puente Hills west of Pomona.
5. Small portions at the edge of development in Orange County.

With respect to the Santa Monica foothills, two factors may effectively limit extensive urban development. First, actions of the Coastal Zone Commission regulating development within the "permit area" (1,000 yards inland from mean high tide) plus a reluctance to provide capacity improvements on State Route 1, may limit accessibility from the ocean side. Second, interest persists in creation here of a National Urban Park (Toyon), which would have a decisive influence on minimizing urban growth of these mountains.

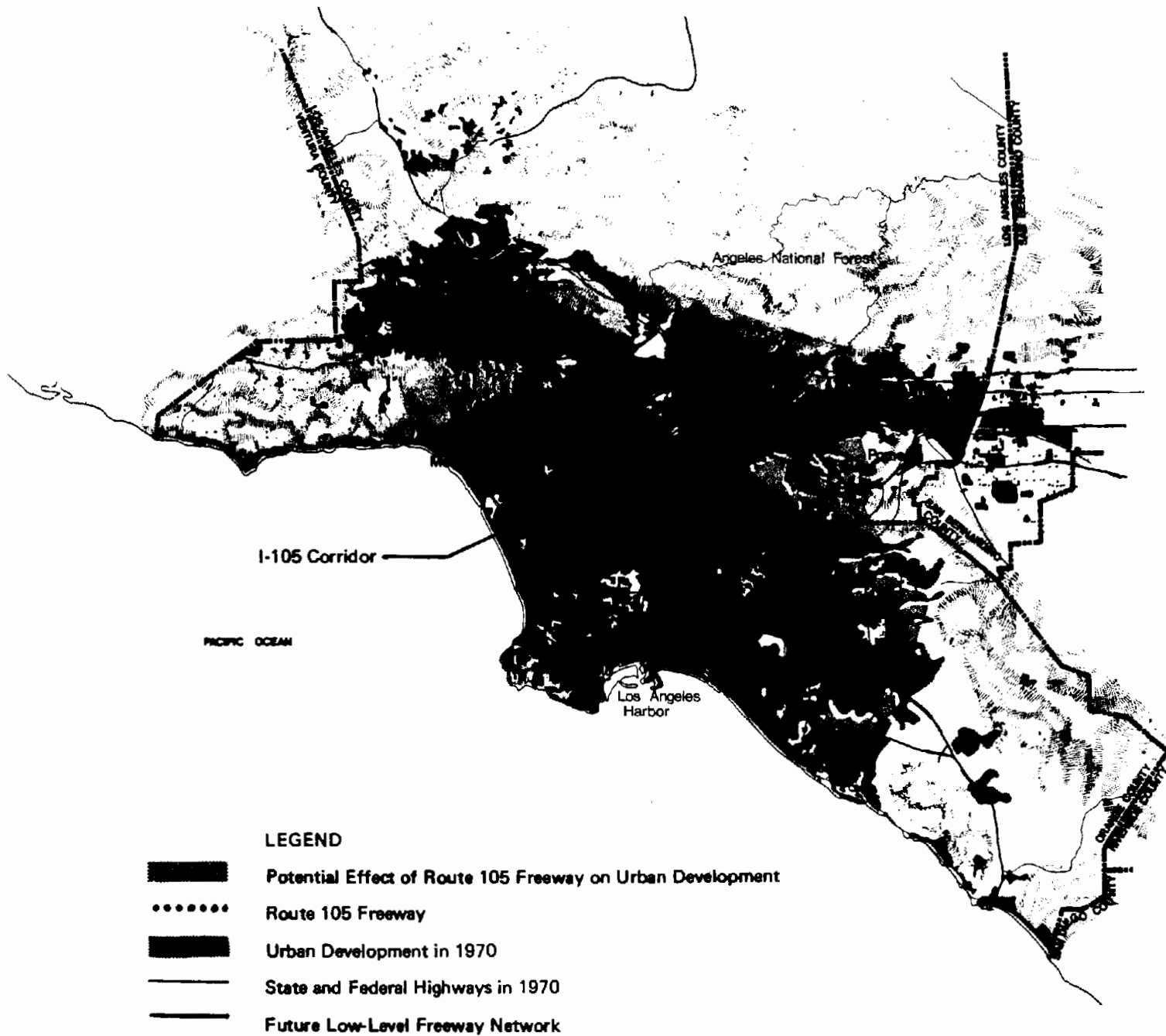
Similarly, it is possible that urban development restrictions will be imposed for the Verdugo Mountains near Glendale. The City of Glendale, which currently owns 55 percent of the land in the portion of the Verdugo Mountains within its borders, is attempting to prohibit further development at elevations of 1,200 feet or greater. If this effort is successful, the City may have to acquire all private property affected by the prohibition. With respect to the Angeles National Forest, it can be assumed that these Federal lands will not be developed.

Thus, the most likely areas which could experience added pressure due to the I-105 Freeway would be the Puente Hills near Pomona and at the edge of existing development in Orange County. Since these areas, notably the master planned communities of Diamond Bar, Irvine and Mission Viejo, are currently experiencing rapid growth and development based largely upon other factors, the potential effect of I-105 upon them may be minimal, in particular, since the earliest date at which the freeway could become fully operational would be about 1983.

The I-105 Project or either of the Hawthorne location alternatives would have essentially the same home to work commute range as the Project and would therefore provide the same potential for new development as would the Project.

With respect to the urban sprawl implications of transportation alternatives other than the proposed Project, the following conclusions have been reached assuming a 45-minute travel time to work:

1. The "no project" alternative will discourage urban sprawl. This conclusion is based on the projections presented in Chapter 4, that surface street congestion within the corridor will increase significantly as a result of this alternative. An increase in congestion will prevent both the Puente Hills area near Pomona and the edge of existing development in Orange County from being reached within a 45-minute drive from a hypothetical work place at the midpoint of the corridor.
2. Based on the findings presented in Chapter 4, the "surface street improvement" alternative will, at best, result in a maintenance of current travel speeds within and through the corridor; therefore, no contribution to urban sprawl is anticipated.
3. Although some planners fear the proposed regional transit system may further contribute to urban sprawl, the "exclusive busway" element proposed for the I-105 corridor would, based on the 45-minute work trip to the centroid of the I-105 corridor discussed in Chapter 4, make neither the Puente Hills nor the development fringe of Orange County accessible. Consequently, this alternative by itself would create no added urban sprawl potential.
4. The combination alternatives, composed of surface street improvements and public mass transit, would create no added potential for further expansion of the region. This conclusion follows directly from conclusions 2 and 3 above.



**FIGURE 7-3  
POTENTIAL EFFECT OF I-105  
ON URBAN DEVELOPMENT:  
POST-1980**



**FIGURE 7-3**

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1007

1008

1009

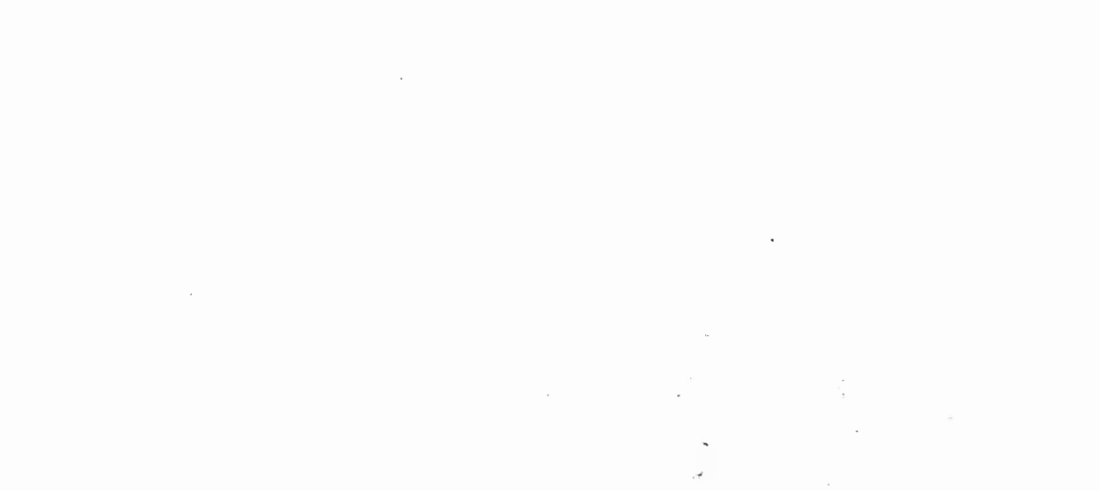
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Development Intensification

With respect to the I-105-generated pressure for promoting residential development intensification, the following general conclusions were reached:

1. I-105 will likely have a more pronounced effect on the spatial distribution, rather than the magnitude, of future residential development within the corridor.
2. This future residential development will be predominantly in multiple-family units, thus continuing the trend toward conversion of the corridor housing stock from single-family to multiple-family units.
3. This future residential development will likely occur at locations which are proximate to the I-105 Project, since regional accessibility is relatively more pronounced near freeways.

These general conclusions are based upon the following data and analysis.

While the population of the corridor increased by 10 percent from 1960 to 1970, recent estimates by the Los Angeles County Regional Planning Commission (RPC) show that the corridor has experienced a loss of approximately one percent since the 1970 U. S. Census, which primarily reflects the displacement of families due to the I-105 acquisition and relocation program. Thus, it can be concluded that the corridor population is rather static at the present time. Furthermore, the latest projections by RPC, which presume the completion of the project, indicates that the corridor will experience very little growth in population by 1990 (approximately three percent compared to 1970).<sup>1</sup> The 1990 projection also implies a correspondingly modest increase in the total housing units within the corridor. Since most cities desire an increase in commercial/industrial base, have negligible vacant land available, and intend also to accommodate an increased population, it follows that the result will be a continued conversion from single to multiple dwelling units.

Against this background of current trends and future projections of modest growth for the I-105 corridor, it is concluded that the I-105 can do no more than affect the distributional pattern of such growth within the corridor. Support for this conclusion is based upon an analysis of the actual effects of the Santa Monica Freeway<sup>2</sup> (I-10) upon the distribution of population growth within a four-mile wide corridor. The results of this analysis, which are based upon comparable 1960 and 1970 U. S. Census data, are presented in Table 7-1.

TABLE 7-1  
CHANGES IN RESIDENTIAL POPULATION WITHIN THE SANTA MONICA FREEWAY (I-10) CORRIDOR:  
1960-1970

	<u>1960 Population</u>	<u>1970 Population</u>	<u>Percent Change</u>
1. Within census tracts bisected by freeway	73,749	70,458	- 5*
2. Within census tracts contiguous to those tracts bisected by freeway	86,769	101,280	+17
3. Within remaining census tracts within a four-mile corridor	258,672	268,768	+ 4
4. Overall corridor	419,190	440,506	+ 5

Source: U. S. Census Data

\*Actual change. Since figures do not reflect people displaced by this project, the effective change is unknown. Presumably it would be comparable to line 2, that is +17%.

<sup>1</sup>These Los Angeles projections assume a "replacement birth rate" (2.1 children per family) and significant outmigration until the late 1970s, followed by modest immigration through 1990.

<sup>2</sup>The east-west freeway is approximately eight miles north of the proposed I-105, was constructed through a mature urban area, and was fully opened for traffic in 1965.

The population data in the table show that, while the overall corridor experienced a modest increase of five percent during the decade,<sup>1</sup> the area adjacent to the census tracts which were actually bisected by the I-10 Freeway experienced significantly greater relative growth (17 percent). In fact, this area within approximately one-half to one mile on either side of the freeway accounted for 68 percent of the overall corridor growth during the decade, starting from a base of only 21 percent of the corridor's 1960 population.

Since the Santa Monica Freeway traversed a mature urban area, the bulk of the population increase was accommodated through a change in use from single to multiple-housing units within the I-10 corridor.

While the I-105 Project situation is not directly comparable to that of the Santa Monica Freeway, it is sufficiently similar to draw the general conclusions reached. That is, to the extent that residential development intensification occurs, it will represent a significant redistribution (adjacent to the freeway) rather than a marked change in overall magnitude.

Since the specific locations at which future (post-1980) residential intensification would occur when I-105 is constructed are dependent upon the prevailing zoning, land costs, taxes, public services, community development objectives, attractiveness to investors, and community image, their determination is very difficult to ascertain at this time. However, based on current conditions, it is likely that residential intensification would be relatively more pronounced in the Cities of Inglewood, Hawthorne, Lynwood, South Gate, and Paramount.

With respect to the I-105 Project-generated pressure for promoting commercial and industrial development intensification, the following general conclusions have been reached:

1. The Project will likely to have an effect on both the spatial distribution and the magnitude of future commercial/industrial development within the corridor.
2. This future development will occur at locations which are proximate to the Project, so that regional accessibility and exposure benefits associated with the Project will be realized.
3. The majority of this future potential development will probably be industrial in nature and will primarily occur within the eastern and western ends of the corridor.
4. While commercial intensification is generally expected to occur at various locations throughout the corridor, it is anticipated that a significant amount will occur within the western portion of the corridor (El Segundo) as a result of the influence of Los Angeles International Airport (LAX) and the availability of large tracts of appropriately zoned land.

These conclusions are based upon the following data and analysis. The Los Angeles County RPC 1990 projections indicate that the corridor will experience a growth in total employment of five percent compared to 1970. While these projections do not break down employment by type, the RPC staff anticipates that the majority of this increase will be industrial employment for the I-105 corridor. Since the comparable population projections indicate a three percent increase for the same 20-year period, the corridor will undergo a slight shift towards an employment as opposed to a residential area. However, the 1990 projections indicate that the residential population will still outnumber the total employment within the corridor by a factor of slightly more than two to one in 1990.

Based on these projections, and the fact that the corridor is essentially fully developed, some commercial and industrial development intensification will occur in the corridor associated with the projected employment increases. Since the RPC projections assumed the I-105 Project would constitute a segment of the 1990 transportation network, it is difficult to assess the precise extent to which I-105 contributes to the projected intensification of employment within the corridor.

However, based on actual and proposed commercial and industrial activity which has occurred in anticipation of the I-105 Project, a general picture of future development activity can be developed.

<sup>1</sup>The Los Angeles region experienced a population growth of 25 percent during the decade from 1960 to 1970.

The following major commercial and industrial projects (by city) which are either in the planning or initial development stage, anticipated completion of the I-105 Project and are considered dependent upon it to a significant degree for either their initial economic viability and/or their potential for future expansion.<sup>1</sup>

#### El Segundo

- . Continental Park (commercial development in initial stages)
- . International Center (commercial development - proposed)

#### Hawthorne

- . Hawthorne Plaza (planned regional all-purpose shopping center)

#### Lynwood

- . Interchange Industrial Park (proposed joint-use industrial park which partially utilizes I-105 air space)
- . Watts Industrial Park (industrial park in initial development phase)
- . Montgomery Ward's department store (freestanding development which may be the nucleus for a regional shopping center)
- . Regional Shopping Center (with Montgomery Ward above) under planning by City Redevelopment Agency.

#### South Gate

- . Proposed industrial park (Project would redevelop existing deteriorated single-family area)

#### Paramount

- . Industrial Park (City's Redevelopment Agency in the initial stages of developing the area immediately south of I-105, and adjacent to the Los Angeles River)

In addition, there are areas adjacent the proposed Project which, for reasons discussed in Chapter 6 (Community Accessibility), may not be amenable to continued long-term single-family residential use. These areas may experience pressure for redevelopment to commercial or industrial use. Examples are:

1. The small pocket that would remain between the Project and Imperial Highway in Lennox (see Appendix - Exhibit 6a);
2. The Holly Park section of Hawthorne adjacent 120th Street between Van Ness and Wilton (Appendix - Exhibit 6a); and
3. Possibly the residential area in Downey east of Rockwell International between the Project and the industrial property along Imperial Highway (Appendix - Exhibit 6e).

While the preceding do not represent an exhaustive survey of I-105-related commercial/industrial and higher density residential development projects, they do represent a sample of significant number and magnitude to indicate that I-105 has already exerted some development intensification pressure upon the corridor. When these known projects are combined with the future commercial and industrial development potential which would be likely realized if I-105 is constructed, the overall intensification effect appears significant.

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<sup>1</sup>More extensive descriptions of these projects are presented in Section 7.2.

With respect to the overall development intensification (residential plus commercial and industrial) implications of transportation alternatives other than the Project, the following relative conclusions have been reached:

1. Since, according to the Los Angeles County Regional Planning Commission (RPC), the corridor is expected to experience some increased population during the period from the present through 1990, the desire for new residential development will not diminish if the "no project" alternative is implemented. However, the location of new residential development is likely to be more uniformly dispersed throughout the corridor than in the case of the alternatives involving major linear transportation facilities (freeway or exclusive busway). In terms of future commercial and industrial development intensifications, both the magnitude and distribution will be altered with a "no project" condition. Major regional shopping centers will probably not be constructed, while industrial park development will be of a smaller scale and will generally be spread throughout the corridor--with some concentrations near the existing north-south freeways.

In view of the constraint on mobility that this decision implies, serious consideration would likely be given to the early establishment of controls to arrest growth. Control might be aimed at stabilizing the residential and employment population at a fixed level at or slightly below today's total. All new development would then be essentially a replacement in kind. Perhaps only in this way could residents retain the amenities of living this corridor. What is not known however, is whether such controls, particularly if they applied only to the corridor, could produce the desired result or lead to eventual and complete community deterioration.

2. The "local street improvement" alternatives will generally have the same impact as the "no project" alternative. These alternatives may result in new or recycled commercial uses along major corridor arterials. This is particularly true of the "widening" alternative. Since widening is proposed only on one side of the street (to minimize impact) acquisitions would usually involve taking all, not part, of the property. Considerable excess land would remain after street improvements were completed, ranging in width from 50' to 75' for typical residential and small commercial property to considerably more for the large commercial and industrial property.

Near grade-separated intersections there may be some impetus for commercial interests to relocate due to "proximity impacts".

Properly planned, re-development of the excess appears to be good. Appropriately assembled it could serve any purpose, including perhaps needed neighborhood parks, off-street parking and other public services.

However, if the redevelopment of this excess were to occur at the same time as Project right-of-way were under redevelopment, the market might be too saturated. This would delay development of both this excess land and Project lands, although this would give many people displaced along arterials an opportunity to retain community ties by relocating in the I-105 right of way.

3. It is anticipated that the "exclusive busway" alternative would have a somewhat lower potential than the I-105 Project for intensifying residential and commercial uses within the corridor, except near transit stations. While this alternative would also provide increased access to industrial jobs within the corridor, the potential for industrial intensification would be somewhat diminished since under current regulations, public transit may not be used for movement of needed raw materials and products.
4. The combined "exclusive busway and local improvement" alternatives would have overall intensification effects most similar to the I-105 Project, with the following exceptions:
  - . Under these alternatives, future residential and commercial uses would be more uniformly spread throughout the corridor, except possibly near proposed transit stations.
  - . Future industrial developments would likely be stimulated as a result of major arterial improvements; however, their location and magnitude would likely differ from the "with I-105" condition.

## Growth Inducement Summary

Growth inducement studies focused upon potential "urban sprawl" and "development intensification" related to the Project and its alternatives. A strong consideration is that the corridor is almost totally developed, and much of the region is similarly urbanized. Also transportation facilities are but one of many factors influencing growth.

### Urban Sprawl:

When the I-105 Project is constructed, the most likely undeveloped areas which would experience added pressure for development to urban uses with transportation as the sole criterion would be the Puente Hills near Pomona and at the edge of existing development in Orange County. Since these areas are currently experiencing rapid growth and development, the potential effect of I-105 upon them may be negligible, particularly since the earliest date when the Project could become operational would be about 1983. Thus, unless future commuters opt for home-workplace travel times greater than those experienced in the past, the urban sprawl potential of I-105 would be relatively insignificant.

Further, since planning efforts at the regional level (SCAG) have identified an apparent trend to a decrease in travel times, I-105 may have no actual effect on future urban sprawl in the region.

The alternatives to the Project would have even less potential for promoting future urban sprawl. In terms of relative potential, the "no project" alternative would have the least, followed by the "local improvements," the "exclusive busway," and the "combined" alternatives, respectively.

### Development Intensification:

While the I-105 Project and alternatives would likely have little or no effect upon future "urban sprawl" in the region, they could have impact upon future development and redevelopment patterns within the corridor. Specifically, I-105 would tend to alter the spatial distribution--although probably not the magnitude--of future residential redevelopments within the corridor. In terms of commercial and industrial development, the area near the western terminus of I-105 (particularly in the City of El Segundo and LAX) would probably experience accelerated commercial and industrial development. This conclusion is based on the following: (1) this area has a high development potential; (2) the City of El Segundo actively supports commercial and industrial development through its zoning and planning policies and (3) the completion of I-105 would provide significant local street congestion relief and improved regional accessibility. Other areas likely to experience some increase in industrial development are the Cities of Paramount, Lynwood, and South Gate, which also are supportive of industrial development through their zoning and planning policies.

In terms of I-105 alternatives, the "exclusive busway" would probably have similar, although smaller, effects upon residential and commercial development within the corridor. However, this alternative would have little effect upon industrial development since the movement of goods is not currently permitted on transit facilities.

The "local improvement" alternatives would tend to redistribute commercial activity within the corridor through: (1) actual physical displacement of businesses (arterial widening), or (2) "proximity impacts" (grade separations) which would tend to diminish the viability of businesses along affected arterials, thus making other locations within, or without, the corridor more attractive.

The "combined" alternatives, compared to other alternatives, would probably have an effect upon future corridor development most like the I-105 Project, since they would most nearly provide the same transportation benefits.

## 7.2 PUBLIC AND PRIVATE SECTOR RESPONSE TO THE PROJECT

During the years since the I-105 Project became a funded component of the State freeway system, a number of actions have been taken by the public and private sectors in response to or predicted, on the Project. These actions include General Plan modifications by affected communities, actual or planned improvements to surface streets undertaken in response to both ongoing traffic increases and the additional traffic anticipated in the vicinity of freeway access points, extensive exploration of neighborhood improvement opportunities and economic development opportunities by local government agencies, and the actual construction of private development projects.

The intent of this section is to describe the extent to which actions by both the public and private sectors have taken place in response to the Project and to discuss the consequences of each alternative with respect to these responses.

### Public Sector

~~The following actions have been taken by the public sector in response to the proposed Project.~~

#### General Plan Modifications:

State law requires that local agencies have comprehensive, long-range, General Plans which include a number of elements, among them one for circulation. Upon freeway route adoption by the California Highway Commission, the statutes require that local agencies include the adopted location in the Circulation Element. Over the years, then, the local agencies traversed by the Project have revised and adopted General Plans incorporating I-105. These plans have, in various degrees, been predicated on the accessibility provided by the Project, perhaps influencing many other Elements such as Land Use, Open-space and Recreation, Redevelopment, etc.

As previously noted (Chapter 2), many other agencies had similarly developed Master or General Plans incorporating the Project and to some degree were dependent upon the Project. These were SCAG, Los Angeles City, Los Angeles County, Department of Airports (LAX), and SCRTD.

When the Project is completed, little, if any, additional work will be required on aspects of the Central Plan Elements related to the I-105 Project. It is possible that, as post-construction traffic patterns become established, some redesignation and improvement of surface streets might be necessary. These would perhaps require further modifications to community General Plans.

Were the Project not completed, all relevant General Plans would have to be revised to eliminate the I-105 Project and to incorporate such changes that are necessary to handle present and future traffic congestion problems. Recent examples are Lynwood and Paramount, where General Plan revisions were in progress when the Project was enjoined in July 1972. In these communities, because of the uncertainty of the Project, two alternative plans were considered, one with the I-105 Project and one without.

An additional consequence of the "no project" alternative would be the uncertainty of mass rapid transit in the corridor. This uncertainty would arise from the need to reassess regional transit priorities in the light of prevailing federal funding support and potential transfer of highway trust monies from deleted interstate routes.

If an "exclusive busway" were constructed, all affected general plans will have to be revised and, as in the "no project" case previously discussed, solutions will have to be found to existing and future local street traffic congestion problems.

In the case of the "local street improvement" alternatives, the anticipated effects on community General Plans are generally the same as the "no project" alternative.

In the case of a combination of an "exclusive busway," and a "local street improvement alternative, the effects on community General Plans are essentially the same as in the case of the "exclusive busway."

#### Surface Street Improvements:

The City of Lynwood has undertaken the widening of Long Beach Boulevard along the three-mile section between Tweedy Boulevard and Orchard Avenue. These improvements will cost approximately \$2.5 million, shared with the County of Los Angeles, and are partially motivated by anticipated traffic increases in the vicinity of the on/off ramp system at the I-105 Freeway as well as a regional shopping center whose development is in part predicated on the Project. Regardless of whether the Project were built or not, this widening project would be carried out. Thus, the consequences of each alternative with respect to the widening project is the same--no effect.

Improvements to existing streets or development of new streets, were planned by local agencies and were to be coordinated with the Project. Examples of these are:

- . Century Boulevard - This major arterial highway is discontinuous at the Long Beach Freeway-Los Angeles River, and is substandard easterly of that location. The County of Los Angeles and Cities of South Gate and Paramount intended to coordinate Century Boulevard's development with the Project modifications to the Long Beach Freeway.
- . Santa Fe Avenue - The City of Lynwood, City of South Gate, and County of Los Angeles were improving this major highway in the north-south corridor east of Alameda Street. Again, its improvement was to be developed concurrently with the Project.
- . Orange Avenue - This arterial street was planned by the City of Paramount in the north-south corridor east of the Los Angeles River. Its development is likewise to be coordinated with the Project.
- . Clark Avenue - This street in Downey was to be widened to its master-planned section with the Project.

In each of these cases, portions of the streets were to be accomplished by the State with Project funds. While the ultimate completion of the streets may proceed in the "no project" alternative, their funding and development may be delayed.

#### Railroad Relocation:

As noted in previous chapters, it has been planned, as part of the I-105 Project, to relocate (or abandon) three Southern Pacific rail lines. These are: (1) the north-south Wilmington Branch through the communities of Watts and Willowbrook and the City of Compton; (2) the West Santa Ana Branch south from Watts through the City of Lynwood; and (3) the El Segundo Branch in the Watts areas.

The community benefits that would result from the proposed abandonment and relocation of rail lines include the reduction of community fragmentation in the Watts-Willowbrook area, reduction of periodic traffic congestion resulting from rail lines crossing arterial streets at grade, and the elimination of a major noise source and hazard to public safety in the Watts-Willowbrook and Compton residential communities. These considerations were discussed in Chapter 6 in relation to community cohesion and accessibility.

The anticipated relocation of these railroad lines had been incorporated into the long-range planning carried on in the Watts (Los Angeles City), Willowbrook (Los Angeles County), and Compton communities. This concept was not only included in plans developed by these agencies' planning departments, but also in the planning developed by community redevelopment agencies and the Model Cities (or Neighborhood) Programs.

Two redevelopment projects well along in design or construction, which began during the years while the I-105 Project was in the design phase, are heavily dependent upon the eventual abandonment and relocation of the railroad lines.

In Watts, the Community Redevelopment Agency (CRA) is currently in the implementation phase of its 103rd Street redevelopment project. Land has been cleared, and housing construction is underway. If the railroad remains, the CRA will have to construct sound barriers, reconstruct and lower the tracks, and provide new crossing protection at a cost of about \$200,000. Further, the railroad will remain in the residential area and prevent park and open space development in the railroad corridor.

Compton's downtown redevelopment project also depends heavily on eventual relocation of the railroad. It too has been planned for a number of years, and will require reconsideration of many project features if the tracks are not removed.

Were the I-105 Project to be abandoned, the funds necessary to facilitate the relocation and abandonment of rail lines would not be available and the accompanying neighborhood improvements, would not occur.

If any of the other alternatives are developed, except possibly the alternatives with an exclusive busway within the I-105 right-of-way, adequate funds to accomplish the desired relocations and abandonments would probably not be available and, consequently, neither of these activities nor their attendant neighborhood improvements would occur.

#### Joint Use Development:

The Design Team Concept Studies in 1969 and 1970, identified a number of opportunities for the joint use of project air rights. One of these, the development of a 30-acre industrial park within the interchange between I-105 and the Long Beach Freeway, had been actively pursued by the City of Lynwood to the extent that preliminary development plans were prepared.

When the I-105 Project is approved, the City of Lynwood will likely resume efforts to develop industrial uses within the interchange. However, the amount of the acreage would be revised, as a lesser amount of viaduct and bridge structure is proposed.

In addition, alternatives other than the proposed Project, or alternatives with an "exclusive busway" in the I-105 right-of-way, would not permit the development of the other joint use opportunities identified in the Design Team Concept Studies.

Other joint use opportunities were: a hotel complex known as World Crossroads west of the Route 405 Freeway which would have utilized air space under, over and around the 105 Project. A highway maintenance yard and California Highway Patrol Station in the 105/405 interchange area; additional parking under a viaduct to replace some taken for the Project in the industrial area east of Alameda Street; and municipal yards under other viaduct sections.

#### Public Redevelopments:

A number of projects have been undertaken, or were in some stage of planning, which were of a redevelopment nature. These have generally been conceived in relation to the Project and were intended to renew blighted or deteriorating areas. An area near the Martin Luther King, Jr. Hospital in Willowbrook is being planned for redevelopment by the Los Angeles County Model Neighborhood Organization. Known as the King Triangle Redevelopment, it and the hospital are intended to form a focal point for the community. In Hawthorne, the City has formed a Redevelopment Agency and is developing a regional shopping center in the downtown business district. The City of Lynwood, likewise, is in the process of creating a regional shopping center, which would use the recently completed Montgomery Ward store as a cornerstone. Along with the joint use industrial center contemplated in the 105/7 Interchange there is a possibility of continuing such a development beyond the interchange. Watts Industrial Park is located immediately adjacent to the project and is somewhat dependent on the accessibility to be provided for full realization of its potential. The City of South Gate has started a Redevelopment Agency and had indicated some interest in continuing expansion of its industrial base related to the project. The City of Paramount has also formed a redevelopment agency, which has included an area immediately south of the Project within its program. Two redevelopments related to the railroad abandonments were already noted in Los Angeles and Compton.

If the Project were not completed, many of these would still proceed; however, would have to be replanned and perhaps reduced in scope.

#### Private Sector

Actions by the private sector in response to I-105 have taken the form of commercial and industrial projects. Four major projects and the implications of alternatives to I-105 regarding their viability are discussed in the following paragraphs:

##### Continental Park and International Center:

This project is a major commercial and industrial project undertaken by the Continental Development Corporation within the Los Angeles International Airport (LAX) influence area.<sup>1</sup> Total projected leasable space is 2.5 million square feet.

International Center is a commercial office and industrial development by Sepulveda Properties, Inc. The project is currently in its initial development phase; however, the ultimate total leasable space is estimated to be approximately six million square feet. Like Continental Park, International Center is located within the LAX influence area.

<sup>1</sup>"Influence area" in this context refers to general commercial activity in a zone roughly extending from Manchester Boulevard on the north to Rosecrans Avenue on the south, Lincoln Boulevard on the west to the San Diego Freeway on the east.



The feasibility of these projects was originally predicated upon the assumption that I-105 would be constructed, thus providing the necessary relief of traffic congestion in the vicinity of LAX and providing a measure of improved regional accessibility sufficient to complement the existing development potential of the El Segundo/LAX area.

If the I-105 Project were to be abandoned, the burden of providing relief from traffic congestion would fall on the City of El Segundo and surrounding communities. Perhaps more significantly, however, regional accessibility would not be improved. Without the improvement of these two conditions, the projected ultimate development of Continental Park and International Center either may never occur or may require a substantially longer period of time to accomplish.

Opinions of El Segundo officials as well as those of affected commercial interests regarding abandonment of the I-105 Project are presented in the following series of excerpts:

"In order to alleviate the confusion generated by such things as the Los Angeles International Airport and the existing industrial complex; not only in El Segundo but in the adjoining communities, we feel it is necessary that such a freeway be constructed. Developments such as the International Center Complex, the Continental Development, and other multi-million dollar developments would undoubtedly be affected financially if the 105 Freeway were to be deleted. It is our feeling that construction of the 105 Freeway will offer the City of El Segundo a greater selectivity in the type of development which will take place.

"In the event that the 105 Freeway is deleted, it will certainly be necessary for some sort of ameliorative action to take place to resolve the existing traffic conditions. The complexity of these alternatives would be too costly to be undertaken at the lower level, and therefore necessitates some sort of State action anyway."<sup>1</sup>

"We feel that the construction of the freeway is essential for the continued rational development of the City of El Segundo, and certainly imperative from the standpoint of the implementation of Sepulveda's project plan.

1. El Segundo future development will be geared to the continued growth in its commercial community now evidenced by the nucleus along Imperial Boulevard and in International Centers.
2. Successful growth of the commercial community is dependent on solution of surface transportation problems, the major element of which the 105 Freeway complex will solve.
3. International Center's "Master Plan" concept derived its ultimate expression from traffic studies in which the 105 Freeway complex played a key role.

"We fear that, without the 105 Freeway, present surface transportation facilities will very soon reach their practical capacities; and that, having done so, the result will be to stymie further development in the area pending the creation of alternate solutions--a process which promises to require many years."<sup>2</sup>

We at Continental Development Corporation have a master-planned \$75-million development in the City of El Segundo. This development was undertaken to supply a need for companies that primarily use the airport. Our master plan is one that requires the use of the El Segundo-Norwalk Freeway to effectively move the

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<sup>1</sup>Excerpt from a letter to Mr. C. J. O'Connell, Chief of Project Development Branch "A", District 7, California Department of Transportation, from Mr. Edward R. Loverde, Director of Planning, City of El Segundo, dated February 16, 1973.

<sup>2</sup>Excerpt from a letter to Mr. Edward Loverde, Planning Director, City of El Segundo, from Mr. Jack D. Froggatt, President, Sepulveda Properties, Inc., dated December 7, 1973.

generated traffic. Our master plan was adopted by ourselves and the City of El Segundo subsequent to the adoption of the freeway route and was a dominating factor in determining traffic circulation. Without the freeway, we would be limited as to the development of our master plan and therefore, would lose a substantial amount of the investment that has already been made. "

If an "exclusive busway" were to have been constructed, the reduction in surface street congestion would not be significant, based on findings presented in Chapter 4 - Transportation Service Evaluation, Section 4.5. An additional consequence of the "exclusive busway" alternative would be some expansion of the regional accessibility of Continental Park and International Center. However, this expansion, would not be as great as that provided by the Project.

In the case of the local improvement alternatives, potentially significant reductions in traffic congestion could result similar to the project. However, regional accessibility would be reduced and would somewhat reduce the developments' potentials.

If combinations of transit and local improvements were implemented, traffic congestion relief would be equivalent to that offered by the local improvement package, while modifications to regional accessibility would be equivalent to the transit element of the combination.

#### Montgomery Ward's Department Store:

The Montgomery Ward's department store is a general merchandise outlet which opened April 4, 1973. The prime factor in the selection of the project site was the prospective development of I-105.

When the I-105 Project is constructed, the projected income for the Montgomery Ward's department store in Lynwood, would probably be realized. This situation would occur because the Project would enlarge the population served by the store by expanding the area that can be reached within a driving time of approximately 25 minutes. According to John H. Burgess, Montgomery Ward's Western Regional Real Estate Manager, "...downtown Lynwood is geographically a good location of Ward's relative to our heretofore established strategy for basic coverage of the Los Angeles Metropolitan Market. However, Ward's would not have committed to the investment in Lynwood based upon the geographical attribute alone. The ultimate Corporate decision was based primarily upon the assumption and assurance that the proposed Century Freeway would be operational by the mid-1970s..."

If the I-105 Project were not completed, the projected trade area would not materialize, and Ward's estimates an average annual decline in projected sales of approximately \$3 million. This decline would result in a reduction of some \$30,000 in projected annual sales tax revenues to the City of Lynwood.

All other alternatives to the Project would be likely to affect the proposed Project in a manner similar to the "no project" case. This situation would exist because none of the other alternatives would significantly increase Ward's trade area. Even the "exclusive busway" alternative would not have an appreciable effect on trade area.

#### Summary

As a result of the I-105 Project, many public and private sector planning and development activities have occurred within the corridor. Public sector activities include: (1) General Plan revisions for the affected communities; (2) planning or development of local streets in conjunction with the Project; (3) planning for joint use of air-space projects; (4) plans for commercial and industrial redevelopment projects (Hawthorne, Willowbrook, Lynwood, South Gate, Paramount); (5) expansion of existing projects (Watts Industrial Park, Lynwood), and (6) plans to abandon and relocate the Southern Pacific rail lines in the communities of Watts, Willowbrook, Compton, and Lynwood with concomitant redevelopment of two areas in these communities.

Within the private sector, several ongoing and proposed commercial and industrial projects were, or are, predicated upon the existence of I-105 for their economic viability.

<sup>1</sup>Excerpt from a letter to Mr. C. J. O'Connell, Chief of Project Development Branch "A", District 7, California Department of Transportation, from Mr. C. H. Lundquist, Continental development Corporation, dated March 19, 1973.

If I-105 were not completed, much of the foregoing activity (particularly the project planning efforts) would be adversely affected in the sense that many projects, if they proceed at all, could be reduced in scope and potential. However, it is possible that the railroad relocation project could become a reality if the "exclusive busway" or combined "busway and local improvements" alternatives are constructed. Also, the "local improvements" and "combined" alternatives would, through providing surface street congestion relief, tend to make ongoing projects more economically viable than the "no project" alternative.

### 7.3 FUTURE USE OF PROJECT RIGHT-OF-WAY

In most communities traversed by the I-105 Project, substantial numbers of right-of-way parcels have been acquired and many cleared. Thus, if an alternative that involves abandonment or partial abandonment of the right-of-way is adopted, there is a need to sell these parcels and return the unneeded right-of-way area to some urban use.

Several factors will affect the character and rate of right-of-way disposal and redevelopment. These include the number, size and pattern of cleared parcels; the number, size and pattern of remaining buildings; the character of surrounding development; the development goals of affected communities; the image of the area, its accessibility, and the presence of competition for the same prospective markets.

Most communities have indicated a preference to retain their single-family character. Because of conditions in the housing market, and since so many houses have already been removed, it soon became evident that reconstruction of single-family residences in the corridor would involve a number of implementation and financial questions, some of which are:

- Would the State market the properties "as is", accepting whatever price the marketplace would bring - even though this price could be substantially less than the original purchase price?
- At what rate could the marketplace absorb the properties without an adverse impact on private sales?
- What are the prospects for a developer to finance and market new or refurbished buildings?
- What are the borrowing abilities of prospective purchasers and the availability of funds from lending institutions?
- Would the local agencies agree with the sale of buildings "as is", or would they require rehabilitation to meet current building codes?
- Would it be desirable to sell individual properties or "package" them in blocks?
- Would the local agencies consider zoning revisions?
- What should be done with existing isolated buildings in an otherwise cleared expanse? Should these be bought to assemble block "packages"? And, if so, by whom?--the private sector, State, Redevelopment Agencies, etc.
- If some properties (or areas) are not marketable, what is to be done with them? Do they lie fallow and nonproductive? Who would maintain them?
- Since the present condition resulted from a State and Federal program, what obligations do the State and Federal governments incur? What can be accomplished within the present legal framework?

With so many questions, a wide range of possible solutions, and the many fluctuations in the housing market it is extremely difficult to predict all the implications of redevelopment of unneeded right of way. For the purpose of the analysis in this EIS, it was determined that a reasonable approach was to be consistent with local agency desires. This approach is directed at restoring the pre-existing land use, predominated by single-family properties.

#### Redevelopment

Redevelopment would require a lengthy period after a decision is made to abandon the Project.

TABLE 7-2  
REDEVELOPMENT TIME PERIOD

Right-of-way Disposal	2- 4 years
Redevelopment of Parcels	2- 6 years
TOTAL	4-10 years

Disposal of right-of-way would require close cooperation between State and local agency officials to carefully package cleared parcels, probably on a block by block basis to attract developers.

Redevelopment itself would occur at a rate that could be absorbed by the market, with particular attention to similar, competing activities in adjoining communities. It would also relate to the total number of parcels requiring redevelopment within a given community.

In addition to properties where houses have already been cleared, there are others on which houses still stand. Some are rented while others are vacant. Some vacant houses have been vandalized or damaged to such an extent that it is not economically feasible to repair them. Such houses would be demolished and new houses constructed on the lots. The balance of vacant houses can be made habitable with repairs.

Table 7-3 shows, by community, the number of cleared parcels which would ultimately be redeveloped. Included in the figures are parcels upon which there are buildings which cannot be rehabilitated and must be demolished.

TABLE 7-3  
PARCELS REQUIRING REDEVELOPMENT

Community	PARCEL TYPE					Total
	Single Family	Multi Family	Commercial	Industrial	Miscellaneous	
El Segundo	0	0	0	0	0	0
City of Los Angeles West of Felton	10	1	1	0	0	11
Los Angeles County West of Felton	475	7	0	0	1	483
Hawthorne	70	1	0	0	0	71
Inglewood	2	0	0	0	0	2
Los Angeles County Wilton to Vermont	80	24	7	0	1	112
City of Los Angeles Vermont to Central	614	95	16	3	11	739
Los Angeles County Central to Mona	100	54	7	3	4	168
Lynwood	319	99	20	8	4	450
Paramount	193	21	0	0	1	225
South Gate	32	3	2	0	1	38
Downey	91	2	1	1	0	95
Norwalk	371	3	1	0	0	375
TOTALS	2357	309	55	15	23	2759

Note: Above figures include 53 parcels upon which there are buildings that cannot be rehabilitated, and must be demolished.

For the most part, redevelopment of these properties could probably occur within the 4-10 year time period shown above. However, in the central portion of the corridor, it is likely that considerably longer than a 10-year redevelopment period would be required.

Rehabilitation

There are over 970 residential parcels which contain some 1460 living units that are boarded and require some rehabilitation. For this EIS it was assumed that these parcels would be sold as-is, so that sales prices would reflect the condition of the properties and rehabilitation necessary.

Table 7-4 summarizes, by community, the number of residential parcels and dwelling units in need of rehabilitation.

TABLE 7-4  
PARCELS AND DWELLING UNITS REQUIRING REHABILITATION

<u>Community</u>	<u>Single Family</u>		<u>Multi Family</u>		<u>Totals</u>	
	<u>Parcels</u>	<u>Dwelling Units</u>	<u>Parcels</u>	<u>Dwelling Units</u>	<u>Parcels</u>	<u>Dwelling Units</u>
El Segundo	0	0	0	0	0	0
City of Los Angeles West of Felton	10	10	0	0	10	10
Los Angeles County West of Felton	17	17	0	0	17	17
Hawthorne	2	2	25	52	27	54
Inglewood	0	0	0	0	0	0
Los Angeles County Wilton to Vermont	13	13	0	0	13	13
City of Los Angeles Vermont to Central	75	75	15	76	90	151
Los Angeles County Central to Mona	9	9	7	27	16	36
Lynwood	83	83	76	406	159	489
Paramount	34	34	4	34	38	68
South Gate	12	12	1	16	13	28
Downey	463	463	1	4	464	467
Norwalk	123	123	1	4	124	127
TOTALS	841	841	130	619	971	1460

Summary

At the present time, almost 4,800 parcels for the I-105 Project right-of-way (including Route 1 and associated north-south freeway-widening projects have been acquired, and almost 2,800 are clear of improvements. Of the remaining parcels acquired, over 970 have buildings which have been vandalized or are in need of some repair before they could be habitable. Under No Project conditions, these excess acquired parcels would be transferred from State ownership to either (1) local government ownership to be utilized for public purposes, or (2) private ownership for ultimate rehabilitation or redevelopment, as required. Since most local governments either do not have funds available to purchase these acquired properties for public use or prefer that they be returned to productive uses so that short-term tax losses would be partially recouped, transfer of ownership to the private sector would probably occur.

The majority of the affected communities would have preferred that the land be restored to the preacquisition condition, which was predominantly single-family residential.

Total estimated time to dispose of and redevelop the right-of-way would have been in the four- to ten-year range, assuming investor interest in the properties given current zoning and reuse objectives of affected local governments. In the central portion of the route, redevelopment may not occur even within the 10-year period.

An alternative redevelopment would have been multi-family residential, where it would be consistent with surrounding land uses. The implementation of such a program would have to consider possible rezoning, upgrading of public and utility services, need for additional transportation facilities, possible overcrowding of schools, and expansion of police and fire protection services.

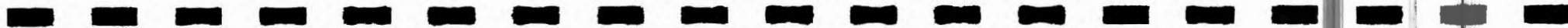
If either the Exclusive Busway or Combined Busway and Local Improvements projects had been developed, roughly one-half of the acquired I-105 right-of-way would be utilized; therefore, redevelopment activities would have been similar to the No Project conditions, but the magnitude in terms of number of affected parcels would be significantly less. Both of the Local Improvements alternatives would require full disposal and redevelopment of all acquired I-105 parcels as well as rehabilitation of deteriorated structures, because neither alternative would utilize any of the acquired I-105 right-of-way.

Even implementing the proposed Project itself will involve redevelopment of some properties. This stems from two circumstances. First, the Project has been scaled down from 10 to 8 lanes. This resulted in a general reduction in right of way, some of which had already been acquired. Second, the proposed project follows a new alignment near Hawthorne, and results in considerable excess property in Hawthorne, and particularly in the adjacent unincorporated community of Del Aire.

The monetary implications of restoring these properties to their original use is analyzed in the following chapter.

CHAPTER 8

COST AND IMPLEMENTATION EVALUATION





CHAPTER 8 - COST AND IMPLEMENTATION EVALUATION

The purpose of this chapter is to compare the proposed Project with other alternatives considered in terms of the following criteria:

- Cost (direct, indirect, and total)
- Funding (source and availability)
- Implementation (responsible agencies, required actions, and phasing)

8.1 COST COMPARISON

This section presents the estimated direct, indirect (non-recoverable) and total costs for the proposed Project and each alternative. The direct costs are right-of-way acquisition costs (including relocation payments and clearance) and construction costs. The indirect costs are the I-105 expenditures which have already been incurred and which would be considered as non-recoverable if the Project were not completed. Finally, total cost comparisons are made considering both direct and non-recoverable costs.

Direct Costs

I-105 Project:

Table 8-1 summarizes the estimated costs for the Project. As shown on the table, direct Project costs are estimated to be \$611 million. Since approximately \$154 million has already been spent for right-of-way and relocation assistance payments, remaining direct costs of \$457 million are estimated, consisting of \$85 million in additional remaining right-of-way and relocation expenditures and \$372 million for construction. Remaining right of way costs reflect the recovery of \$19 million from the sale of excess property acquired for the original ten-lane project, or along the original adopted line in Hawthorne, and no longer needed for the proposed Project.

TABLE 8-1

PROPOSED I-105 PROJECT - COST SUMMARY<sup>1</sup>

	Expenditures to Date (\$Millions)	Remaining Cost (\$Millions)	Direct Project Cost (\$Millions)
Right-of-Way			
Freeway	\$147	\$78 <sup>2</sup>	\$225 <sup>2</sup>
Median-Busway <sup>3</sup>	<u>7</u>	<u>7</u>	<u>14</u>
Sub-Total	\$154	\$85 <sup>2</sup>	\$239 <sup>2</sup>
Construction			
Freeway <sup>4</sup>		336	336
Median-Busway <sup>3</sup>	—	<u>36</u>	<u>36</u>
Sub-Total		\$372	\$372
TOTAL	\$154	\$457 <sup>2</sup>	\$611 <sup>2</sup>

1. Includes relocation assistance payments and property clearance costs. Does not include Project planning and overhead costs related to design, construction and right of way.
2. Reflects recovery of \$19 million for excess property.
3. Includes costs for 6 stations and park/ride facilities.
4. Includes costs for Route 1 Freeway segment and related improvements to Route 405, 7, 11, and 605 (San Diego, Long Beach, Harbor, San Gabriel River Freeways)

Hawthorne Location Alternatives:

Table 8-2 indicates the direct costs of constructing a freeway-transitway along the "original adopted" and "Bell-shaped" alternative alignments near the City of Hawthorne. In each case the facility that would have been built would have had essentially the same features as the proposed Project, including the median busway. Also, the indicated right-of-way costs reflect recovery of funds through sale of excess property. In the case of the "original adopted" alignment the excess is that property which had already been acquired for the original ten-lane version and is not needed in the final eight-lane proposal. In the case of the "Bell-shaped" alignment, some of the excess stems from a reduction in lanes and the balance is due to the shift of alignment near Hawthorne.

TABLE 8-2

FREEWAY/TRANSITWAY-HAWTHORNE ALTERNATIVE ALIGNMENTS-DIRECT COST SUMMARY<sup>1</sup>

Cost Item	Direct Costs, (\$Millions)	
	Original Adopted Alignment	Bell-shaped Alignment
Right of Way	\$243 <sup>3</sup>	\$247 <sup>4</sup>
Construction <sup>2</sup>	<u>357</u>	<u>363</u>
TOTAL	\$600 <sup>3</sup>	\$610 <sup>4</sup>

1. Relocation assistance payments and clearance costs are included. Project Planning and overhead costs related to design, construction and right of way are not included.
2. Includes related improvements on cross freeways as well as busway, stations and park/ride facilities.
3. Reflects recovery of \$8 million in excess property.
4. Reflects recovery of \$14 million in excess property.

Exclusive Busway Alternative:

If an Exclusive Busway were constructed within the I-105 right-of-way (except in the Hawthorne area, where it would be on new alignment), a direct cost of approximately \$235 million is estimated for right-of-way construction as shown on Table 8-3.

TABLE 8-3

EXCLUSIVE BUSWAY ALTERNATIVE-DIRECT COST SUMMARY<sup>1</sup>

Cost Item	Direct Costs (\$ Millions)
Right-of-way	
Basic Busway	\$102
Stations and Park/Ride Facilities (6)	7
Busway-to-Freeway Connections	<u>Non.</u>
SUBTOTAL	\$109
Construction	
Basic Busway	\$ 90
Stations and Park/Ride Facilities (6)	11
Busway-to-Freeway Connections <sup>2</sup>	<u>25</u>
SUBTOTAL	\$126
TOTAL (NET) COST	\$235

1. Includes relocation assistance payments and property clearance costs. Does not include planning and overhead costs related to design, construction and right of way.
2. Direct connections to Routes 405, 7, 11 and 605.

Local Improvement Alternatives:

Table 8-4 shows estimated right-of-way and construction costs for the arterial widening and grade-separation alternatives, which would have had direct costs of approximately \$177 million and \$284 million, respectively.

TABLE 8-4

LOCAL IMPROVEMENT ALTERNATIVES-DIRECT COST SUMMARY

Cost Item	Direct Cost (\$ Millions)	
	<u>Arterial Widening</u>	<u>Grade-Separated* Intersections (Elevated Configuration)</u>
Right-of-Way	\$107	\$ 58
Construction	<u>70</u>	<u>226</u>
TOTAL COST	\$177	\$284

\*Includes an estimated \$33 million for utilities relocation. Does not include estimated \$82 million "proximity impact" associated with grade-separation alternative.

Combined Exclusive Busway and Local Improvements Alternatives:

Table 8-5 shows the estimated direct costs for both a combined exclusive busway plus arterial widening alternative, and a combined exclusive busway plus grade-separation alternative. Direct costs would be \$412 million and \$519 million, respectively. As previously discussed under the Exclusive Busway alternative, acquired I-105 right-of-way valued at \$62 million could be utilized for the combined alternatives.

TABLE 8-5

COMBINED BUSWAY AND LOCAL ALTERNATIVES-DIRECT COST SUMMARY

Cost Item	Direct Cost (\$ Millions)	
	<u>Busway and Widening</u>	<u>Busway and Grade Separation*</u>
Right-of-Way	\$216	\$167
Construction	<u>196</u>	<u>352</u>
TOTAL COST	\$412	\$519

\*Does not include estimated \$82 million "proximity impact" associated with grade-separation alternative.

Non-Recoverable Costs

If a decision to abandon the I-105 Project (and all or part of the right of way) were made, the State and Federal governments would experience certain nonrecoverable costs. The losses would most likely be shared by the Federal Government and the State of California within their respective highway funds.

The assumptions related to the estimation of non-recoverable costs are as follows:

- . All expenditures related to right-of-way support (overhead costs), relocation assistance, and Project design and planning would be nonrecoverable.
- . Expenditures for right-of-way disposal would be approximately \$1000 per acquired parcel.

Recoverable funds are the estimated present worth of the acquired properties, based upon "fair market value".<sup>1</sup>

No Project and Local Improvements Alternatives:

The maximum nonrecoverable cost would occur under these two alternates, in that, all of the acquired properties would be sold off. A total nonrecoverable cost of approximately \$105 million is anticipated, as shown on Table 8-6. This figure represents 56 percent of the total cumulative Project-related expenditures (\$186 million through August, 1976).

TABLE 8-6  
ESTIMATED NONRECOVERABLE COST SUMMARY-NO PROJECT AND LOCAL IMPROVEMENTS ALTERNATIVES

Right-of-Way Acquisition (Incl. Demolition and Utility Relocation)		\$135,413,000
Relocation Assistance Program (RAP)		19,000,000
Right-of-Way and RAP Support (Overhead)		18,449,000
Project Development (Design and Planning)		<u>13,355,000</u>
Sub-total - Costs to Date		\$186,217,000
Estimated Present Worth of Acquired Right of Way	\$86,477,000	
Less Disposal Admin. (4800 Parcels @ \$1000 ea.)	<u>- 4,800,000</u>	
Net Recoverable		<u>\$ 81,677,000</u>
TOTAL NONRECOVERABLE COST		\$104,540,000

Figure 8-1 graphically summarizes the nonrecoverable costs aspects of the No Project and Local Improvements alternatives by comparing I-105 Project expenditures against anticipated nonrecoverable and recoverable costs.

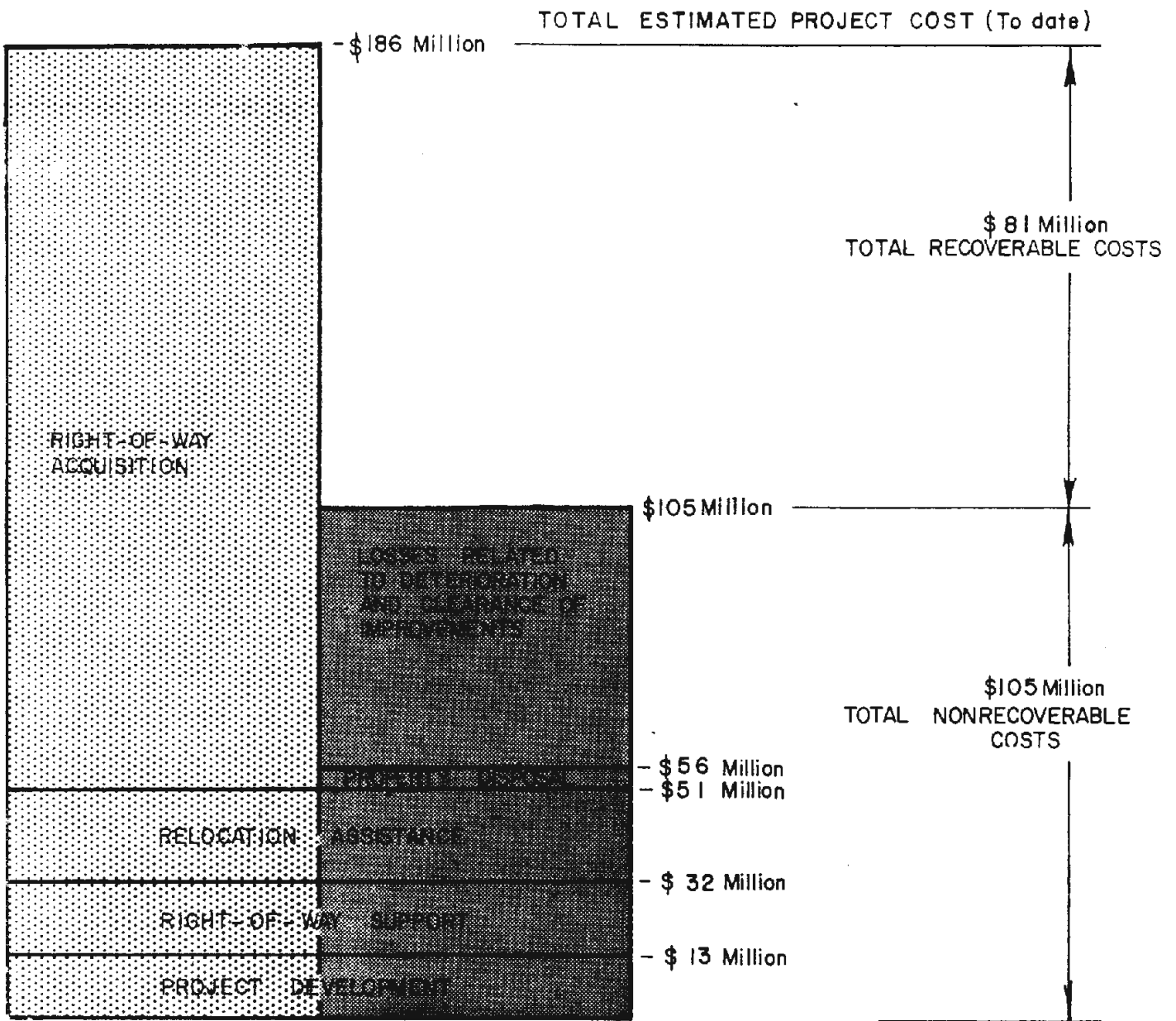
Exclusive Busway and Combined Alternatives:

The Exclusive Busway could utilize approximately 40% of the right of way acquired for the I-105 Project. The unused right of way would be disposed of in much the same manner as previously discussed. The estimated nonrecoverable costs resulting from the disposal program, as well as nonrecoverable project development costs, are summarized in Table 8-7. The \$84 million nonrecoverable cost total represents 45 percent of total accumulated project expenditures to date.

TABLE 8-7  
ESTIMATED NONRECOVERABLE COST SUMMARY-EXCLUSIVE BUSWAY AND COMBINED ALTERNATIVES

Right-of-Way Acquisition (Incl. Demolition and Utility Relocation)		\$ 82,755,000
Relocation Assistance Program (RAP)		19,000,000
Right-of-Way and RAP Support (Overhead)		18,449,000
Project Development (Design and Planning)		<u>13,355,000</u>
Costs to Date		\$132,559,000
Estimated Present Worth of Acquired Unusable Right of Way	\$51,886,000	
Less Disposal Admin. (Approx. 3020 Parcels @ \$1000 ea.)	<u>- 3,020,000</u>	
Net Recoverable		<u>\$ 48,866,000</u>
TOTAL NONRECOVERABLE		\$ 83,693,000
CALL		\$ 84 Million

<sup>1</sup>The legal definition of fair market value is: "The highest price estimated in terms of money which the land (property) will bring if exposed for sale in the open market, with a reasonable time allowed to find a purchaser, buying with full knowledge of all the uses and purposes to which it is adapted and for which it is capable of being used."



I-105 PROJECT COSTS (To date)



I-105 NONRECOVERABLE COSTS

NONRECOVERABLE COSTS - "NO PROJECT"  
& "LOCAL IMPROVEMENTS" ALTERNATIVES

DATE: AUGUST, 1976

FIGURE 8-1

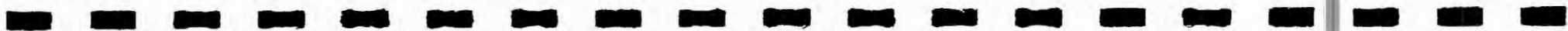


Figure 8-2 graphically summarizes the I-105 related nonrecoverable costs associated with the Exclusive Busway or Combined alternatives. The figure also shows the approximately \$52 million of acquired right of way which could be utilized as well as the net recoverable cost of \$49 million.

Total Cost Comparisons

Total costs for the proposed Project and each of the alternatives, which include the applicable direct (right-of-way and construction) and nonrecoverable cost components, are shown graphically in Figure 8-3. A comparison in terms of total costs, indicates the following (from highest to lowest cost):

I-105 Project	\$611 million*
Hawthorne Location Alternatives	\$610 million*
Original Adopted Line	\$600 million*
Exclusive Busway and Grade Separation**	\$603 million
Exclusive Busway and Arterial Widening	\$496 million
Grade Separation**	\$389 million
Exclusive Busway	\$319 million
Arterial Widening	\$282 million
No Project	\$105 million

\*Includes \$50 million to fully implement median busway.

\*\*Does not include \$82 million "proximity impacts" associated with the Grade Separation Alternative.

Since approximately \$154 million has already been expended for the I-105 Project and \$19 million can be expected from the sale of excess property remaining net costs are \$457 million. Thus, in terms of future investment, the proposed Project is the second most costly alternative after the combined "exclusive busway and grade separation" alternative.

8.2 FUNDING COMPARISONS

While total cost is an objective basis for comparison, it ignores the source of, and limitation upon, the funds required for implementation. This section discusses funding sources, including possible Federal, State, and Local cost-sharing formulas.

The I-105 Project

The Project would be funded under Federal-Aid Interstate (FAI) provisions of Federal Highway Statutes, Title 23 of the United States Code.

For Interstate routes, the Federal contribution is normally about 91.5% from the Federal Highway Trust Fund, with the State Highway Fund providing the matching 8.5%. The Project expenditures thus far have been shared on this basis.

The extent of the future, total, federal expenditures for I-105 are subject to Section 103 (e)(2) of Title 23. This section, included by the 1968 Federal-Aid Highway Act, and commonly known as the Howard-Cramer Amendment, enables routes to be added to the Interstate System as substitutes for other routes which are withdrawn from the system. In this instance, I-105 was substituted for a segment of Interstate Freeway in San Francisco.

When originally enacted, the amendment limited the Federal share of the substituted route to the cost of the withdrawn route--as determined by a 1965 cost estimate. The 1973 Federal-Aid Highway Act increased participation based on the cost estimated as of 1972. It appeared that adjustments to the cost limits would be allowed to reflect inflation, and

for added features such as the busway and environmental mitigation measures. However, in March 1975, the Federal Highway Administrator advised the State that further adjustments could only be accomplished by Congressional action.

Congress recognized that this created a serious funding problem on substituted Interstate routes, and increased the funding level in the 1976 Federal Aid Highway Act to \$760 million.

The Federal Highway Trust Fund would participate in all right-of-way and practically all of the Freeway-Transitway construction cost, including the basic busway and park/ride lots. Buses, passenger stations and maintenance facilities associated with the busway would probably be funded, locally from SB 325<sup>1</sup> or Proposition 5<sup>2</sup> monies, and Federally from Urban Mass Transit Administration (General) funds on a 20%-80% basis. Table 8-8 summarizes the most probable Federal, State and local cost sharing percentages and costs.<sup>3</sup>

TABLE 8-8  
I-105 PROJECT FUNDING SUMMARY (\$ MILLIONS)

Item	Total Cost	FEDEPAL		STATE 8.5%	LOCAL (SB 325 or Proposition 5)	
		FHWA (Interstate) 91.5%	UMTA 80%		8.5%	20%
I-105 Project						
- Freeway Element	561	513		48		
- Busway element						
a. Basic facility	40	37			3	
b. Balance of Busway (essentially stations)	10		8			2
TOTALS	611	558		48		5

No Project Alternative

Under current proposed regulations, there is a possibility that the anticipated nonrecoverable costs of \$105 million would be shared at the prevailing Federal/California Interstate cost-sharing basis; i.e., 91.5% Federal and 8.5% California, or \$96 million and \$9 million, respectively. However, the final cost-sharing basis could only be determined following a decision not to proceed with the I-105 Project.

If a project is not constructed, there would be a State-wide impact. The status of California's Highway Program, at any point in time, is dependent on several factors including projected revenue, current work load and project development to meet statutory requirements relating to expenditure of funds, both State and Federal.

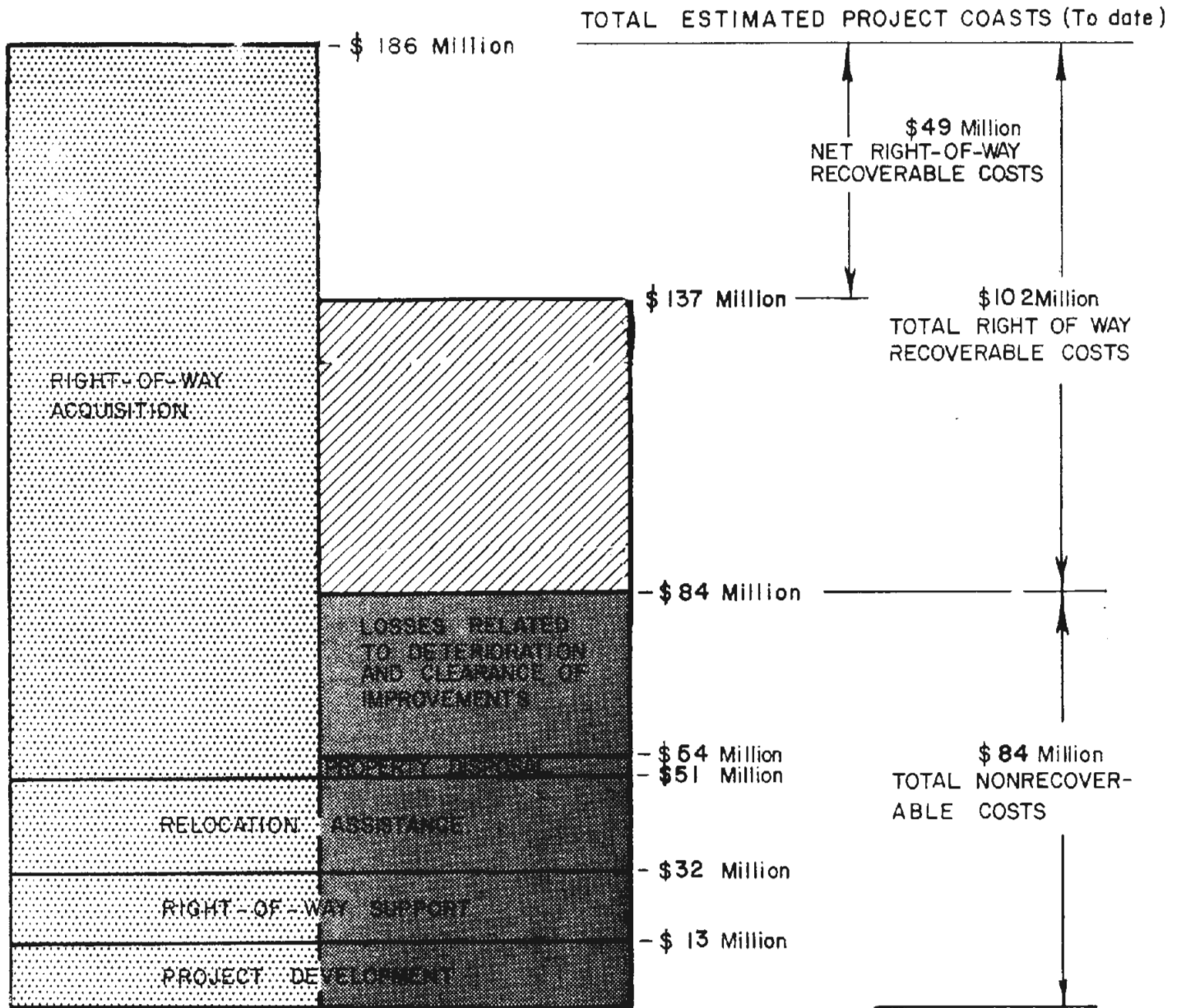
Since the lead time on major highway projects is often eight years or more, it is necessary to make decisions based on the best information available plus rational projections of expected conditions in the future.

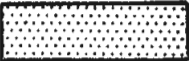


<sup>1</sup>California Transportation Development Act of 1971 (SB 325), which extended the sales tax to gasoline purchases and established a transportation fund which can be used for public transit or highway improvements.

<sup>2</sup>This potential diversion of highway funds for transit development is a result of the passage of Proposition 5 in the June 1974 election, which revised Article 26 of the California Constitution.

<sup>3</sup>Funding would be essentially the same for the Hawthorne Location Alternatives, but proportionate to total costs.

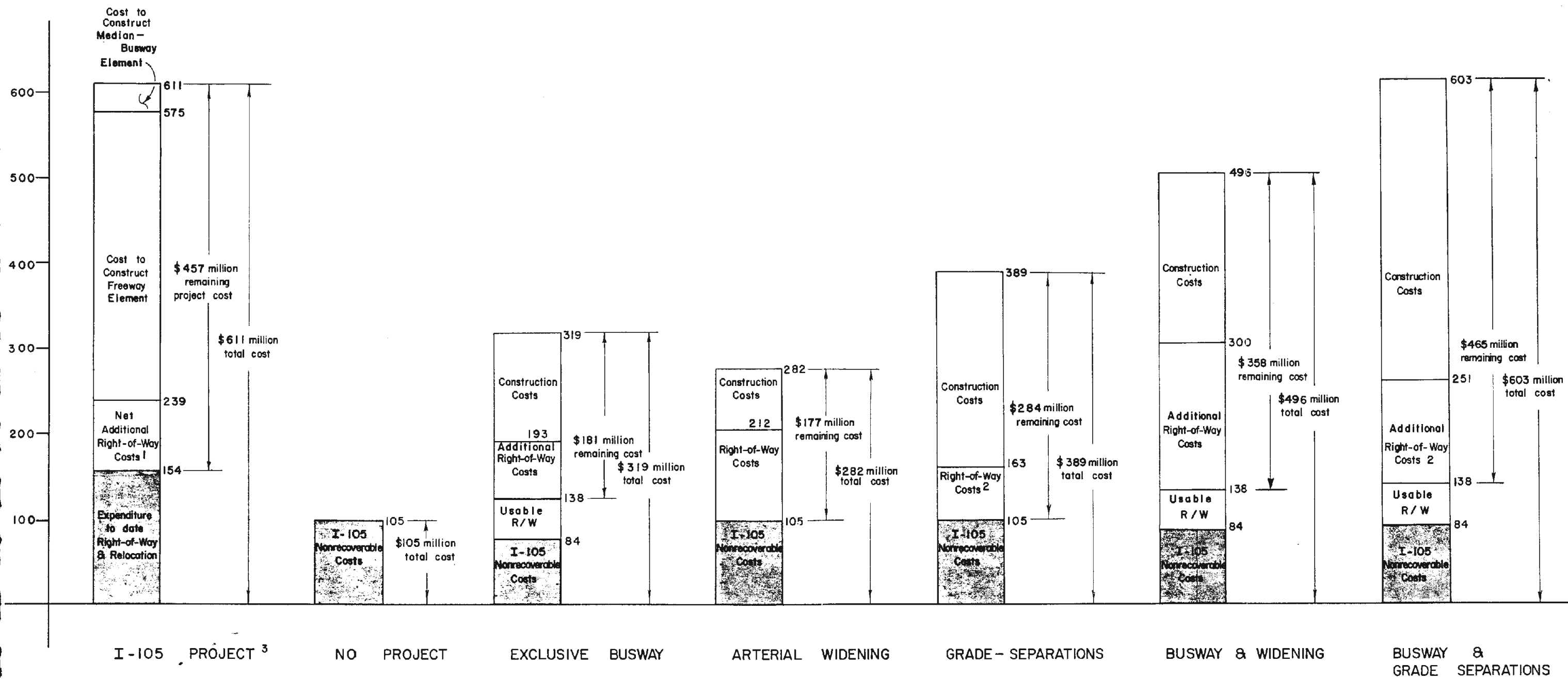




-  I-105 PROJECT COSTS (To date)
-  I-105 NONRECOVERABLE COSTS
-  I-105 ACQUIRED RIGHT-OF-WAY USABLE FOR BUSWAY

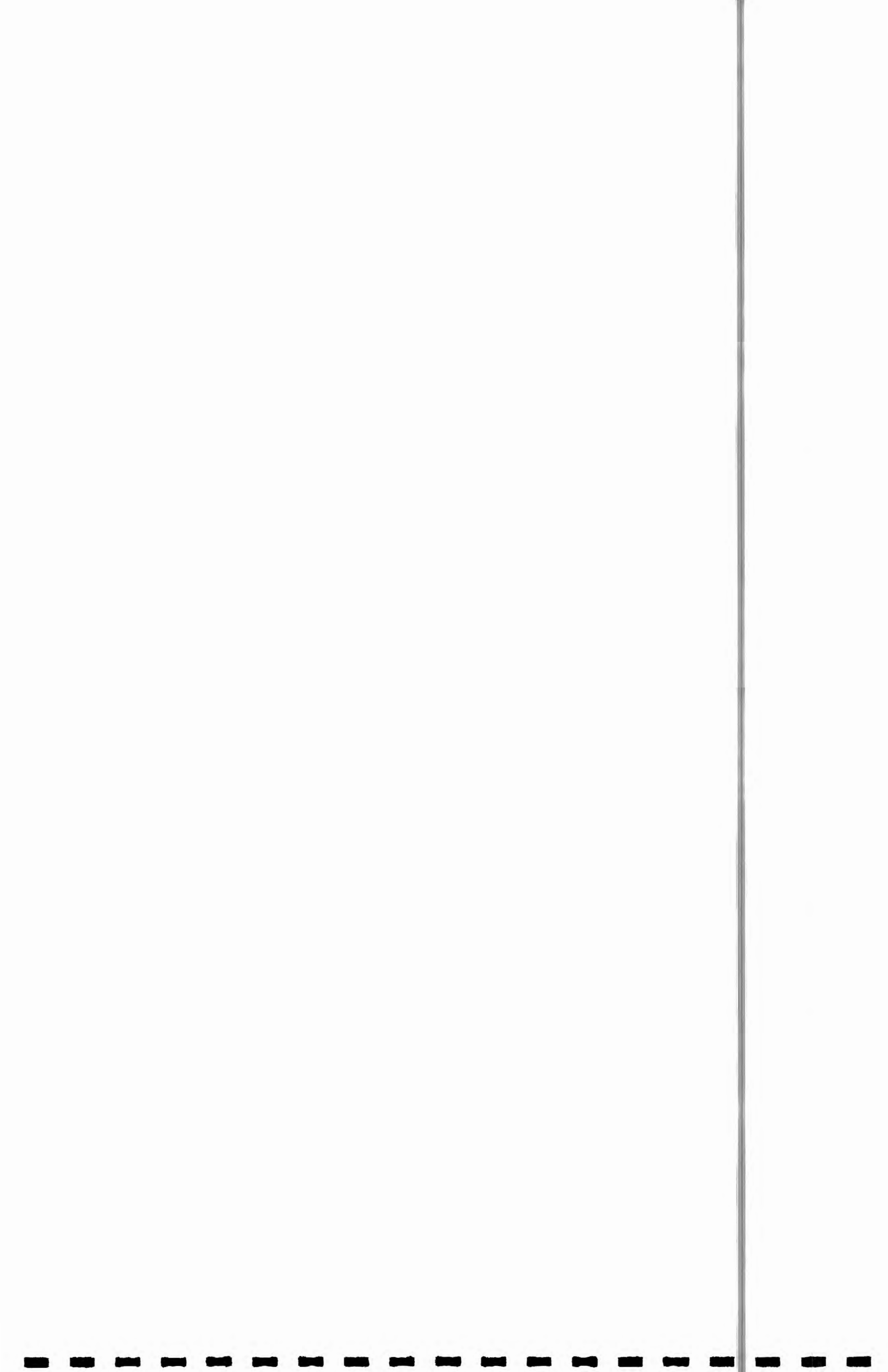
NONRECOVERABLE COSTS - "EXCLUSIVE BUSWAY" & "COMBINED" ALTERNATIVES





Notes: 1. Reflects recovery of \$19 million in excess property. Includes \$14 million for median busway.  
 2. Does not include estimated \$82 million "proximity impact" associated with Grade-Separation Alternative  
 3. Total cost of alternative freeway-transitway "Hawtrone" alignments are \$610 & \$650 million for the "Bell-Shaped" and "Original Adopted" locations, respectively.

TOTAL PROJECT COST SUMMARY OF THE I-105 ALTERNATIVES



The proposed Route 105 Freeway project is, and has had, a major influence on the State Highway Program, and in particular, on the Los Angeles area (CALTRANS' District 07) for the past 10+ years. Because of the project's dollar value of work remaining, its value impact continues into the next six years, which is the current limit of program planning.

From now to the end of the 1982-83 fiscal year, planned capital expenditures for District 07 on Route 105 are about \$300 million. Over 90 percent of these funds are Federal Interstate.

District 07 loss of approximately \$300 million in Interstate funds over the next six years would have a major impact on other areas of the State. This is because the expenditure of highway funds, statewide, is guided by statutes regarding geographic expenditures (North/South split) and a four-year accounting to assure each of the 11 Districts receive a minimum calculated share of total available funds. To maintain statutory compliance, if Interstate funds are reduced, non-Interstate money would have to be transferred into District 07 with the result of virtually shutting down all statewide rehabilitation, operating and safety improvement projects, except in District 07. Additionally, eliminating Route 105 from the Interstate system would reduce California's remaining cost to complete the Interstate System by approximately 20-25 percent. This, in turn, would reduce the annual Interstate apportionments to California by \$40-\$50 million per year for the next several years. California is now getting back from the Federal Government less than 60 percent of the 4-cent Federal Gas Tax and other revenue sent to Washington by its motorists and the loss of Route 105 would aggravate this situation. Such a loss in Interstate funds would have a significant economic impact on California's construction industry.

In summary, the loss of Route 105 Interstate funds in District 07 would affect the statewide Highway Program and require legislation to suspend or repeal District and County Minimums plus the total restructuring of the proposed Highway Program. There would also be a significant economic impact.

#### Exclusive Busway Alternative

The Exclusive Busway might be funded one of two ways, at either 83% or 91.5% Federal participation, utilizing Urban System or Interstate provisions of Federal-Aid highway statutes. Thus, the direct busway cost of \$235 million could be funded at \$194 million (83%) to \$213 (91.5%) million Federal, and \$41 million (17%) in local transit funds (SB 325); or \$18 million (8.5%) in State Highway funds and \$4 million in local matching. In either case, it is assumed bus stations would be funded at 80% UMTA and 20% local matching.

Nonrecoverable costs of \$84 million were anticipated under this alternative. As under "no project" conditions, these "losses" would likely be shared 91.5% Federal and 8.5% California, i.e. \$77 million Federal and \$7 million State.

#### Local Improvement Alternatives

It is possible that the Arterial Widening and Grade Separation alternatives could qualify for up to 83 percent Federal funding for direct project costs under the Federal-Aid Urban (FAU) System provisions. Thus, the Arterial Widening alternative could qualify for up to \$147 million in Federal highway funds, while the Grade Separation alternative could qualify for up to \$236 million. The amount of FAU Funds normally available to the agencies involved falls far short of funding a comprehensive program of improvements like these. Additional FAU Funds could be made available to these agencies under the "substitute" provisions of Federal law.

Assuming 83% Federal participation, the State and local 17% share would be \$30 million for the Arterial Widening alternative and \$48 million for the Grade Separation alternative. These local funds would be jointly shared by the affected cities, Los Angeles County, and Caltrans, according to their pro rata share of improvements. An estimated cost breakdown (by jurisdiction) for each alternative is presented in Table 8-9.

TABLE 8-9  
 JURISDICTIONAL COST OF LOCAL IMPROVEMENTS ALTERNATIVES

<u>Jurisdiction</u>	<u>Widening</u> \$ Million	<u>Grade Separation</u> \$ Million
State of California	\$ 51.4	\$ 48.4
City of Los Angeles	16.0	55.0
County of Los Angeles	17.6	29.6
Inglewood	3.1	10.6
El Segundo	1.0	3.8
Downey	9.1	14.0
Paramount	13.7	24.4
Hawthorne	14.7	14.8
Gardena	7.0	8.4
Torrance	0.7	0.9
Lynwood	8.2	18.5
Compton	14.8	29.3
Bellflower	9.2	17.2
South Gate	2.9	3.9
Norwalk	8.0	0.6
Manhattan Beach	-	0.9
Lawndale	-	2.9
<b>TOTALS</b>	<b>\$177.4</b>	<b>\$283.2</b>

In addition, the nonrecoverable costs of \$105 million are anticipated under these alternatives. As under No Project conditions, these "losses" would likely be shared 91.5% Federal and 8.5% California. These alternatives would also have an impact on the Statewide highway program, as explained under the No Project alternative.

Combined Busway and Local Improvement Alternatives

Either of the combined alternatives might qualify for 83 or 91.5% direct-cost Federal funding for the busway component, and 83% for the highway component. Thus, the combined Busway and Widening alternative could qualify for up to \$360 million, while the Busway and Grade Separation alternative could qualify for up to \$449 million in Federal funds. Total State and local share for the Busway and Widening would range from \$59-71 million, and \$77-96 million for the Busway and Grade Separation. The local matching funds would consist of local transit funds (SB 325 and Proposition 5 funds), or State, Los Angeles County, and affected city highway funds.

Funding Summary

Table 8-10 presents a funding summary comparison of the I-105 alternatives showing Federal, State, and local funding splits. In terms of funds required, I-105 requires the least Local funds (except for the No Project alternative) and requires the most State and Federal funds. The I-105 Project has the most certain State and Federal funding, whereas the Local Improvement or Combined Alternatives have the least certain funding--from both a Federal and Local perspective.

TABLE 8-10  
FUNDING COMPARISON OF I-105 PROJECT AND ALTERNATIVE

	<u>Funding Source and Amount (in \$ Millions)</u>			
	<u>Federal</u>	<u>State</u>	<u>Local</u>	<u>Total</u>
<u>I-105 Project</u> <sup>1</sup>	558	48	5	611
<u>Hawthorne Location Alternatives</u>				
- Bell <sup>2</sup>	557	48	5	610
- Original Adopted <sup>3</sup>	548	47	5	600
<u>No Project</u>				
- Nonrecoverable	96	9	0	105
<u>Exclusive Busway</u>	271	7	41	319
	(or) 290	25	4	319
<u>Local Improvements</u> <sup>4</sup>				
- Arterial Widening	243	18	21	282
- Grade Separation <sup>5</sup>	332	17	40	389
<u>Combined Alternatives</u>				
- Busway and Widening	418	16	62	496
	(or) 437	34	25	496
- Busway and Grade Separation	507	15	81	603
	(or) 526	33	44	603

<sup>1</sup>Reflects recovery of \$19 million in excess property.

<sup>2</sup>Reflects recovery of \$14 million in excess property.

<sup>3</sup>Reflects recovery of \$8 million in excess property.

<sup>4</sup>Nonrecoverable costs of \$105 million are included.

<sup>5</sup>Does not include \$82 million in "proximity impacts".

As previously indicated, an 83% Federal share for the Local Improvements is unlikely based on current availability of Federal matching funds.

Under the No Project or Local Improvements alternatives, nonrecoverable costs of \$105 million were anticipated. These "losses" would likely be shared 91.5% Federal and 8.5% California.

The Statewide highway program would be adversely affected under any non-project alternative.

### 8.3 IMPLEMENTATION COMPARISONS

This section is a discussion of the implementation aspects of the proposed Project and each alternative, in terms of responsible agencies, actions required, phasing and scheduling.

## The I-105 Project

Caltrans would have primary responsibility for the remaining final design effort, completion of right-of-way acquisition and relocation, demolition and utility relocation, and actual construction of the Project. It is anticipated that SCRTD would be a major participant in the combined Freeway-Transitway project. Overall, it is estimated that I-105 Project could become operational about 1983.

There may be social or environmental reasons which would suggest an initial staging of the Project. Staging could be implemented in several ways. The Project could be constructed as a full 8-lane facility for a portion of the total length as one approach. A second approach would be to construct fewer lanes for the entire length. This latter approach involves many options:

- . Construct symmetrically about the center
- . Construct on either side of the center

On either of the above schemes, it may be desirable to partial interchanges, or defer some interchanges altogether.

Under any staging approach, it is intended to purchase and clear the right of way for the ultimate project. The complete purchase and clearance would allow all affected property owners to resolve their relocations more quickly, and alleviate all communities of the problems involved with a deferred process.

The actual staging, if necessary, would be developed in cooperation with all affected agencies, and in accordance with the then current Regional Transportation Plan (RTP).

## The No Project Alternative

The major actions required would relate to the disposal of the acquired right-of-way. The following steps would be required:

### Step 1 - Inventory Right-of-Way

This procedure would involve mapping and assembling detailed descriptive material on each State-owned parcel.

### Step 2 - Identify and Propose Means of Resolving Legal Obligations

A review of all contractual arrangements would be made, particularly in those areas where only parts of property were acquired.

### Step 3 - Develop Sales Plan

In order to develop a set of sales plans which respond to conditions in the many, diverse areas of the right-of-way, it might be necessary for the State to perform environmental impact and housing studies and to participate in a series of public hearings. This procedure, if necessary, would require an additional period of one-half to one year beyond the time required to develop the "sales plan."

### Step 4 - Dispose of Legal Obligations

The State would come to agreement, either privately or through litigation, with all parties to which it had contractually obligated itself. It is conceivable that substantial cases would develop around the issues of relocation assistance, violation of performance agreements, and local planning efforts related to right-of-way redevelopment.

### Step 5 - Dispose of Right-of-Way Property

Disposal of right-of-way property would be handled through procedures established by the State to dispose of excess lands. These procedures would involve defining minimum bid auction sales and either accepting the best bid or recycling the parcel for another round of bidding.



Many of the activities discussed could take place simultaneously and in a variable time frame. Thus, it is not possible to pinpoint the exact amount of time required to dispose of the right-of-way. However, it is estimated that a period of 2 to 4 years would be required to dispose of all right-of-way parcels not complicated by litigation. If litigation, new housing studies and additional environmental impact studies were required, the disposal period could extend to eight years or longer.

#### Exclusive Busway Alternative

The implementation of the Exclusive Busway alternative would require actions similar to those required for the I-105 Project (design, right-of-way acquisition and relocation, construction) and the No Project alternative (disposal of excess right-of-way). While the magnitude of these actions would be reduced under this alternative, time required to implement the busway and dispose of excess right-of-way may be somewhat longer than the Project and No Project alternatives, respectively.

Implementation of the Exclusive Busway would certainly involve SCRTD, and probably include Caltrans, depending upon the method under which the busway would be funded. As a transit facility funded under UMTA, SCRTD would probably assume the role of lead agency. If the Busway were to be defined as an Interstate facility, Caltrans would likely have the major involvement.

#### Local Improvement Alternatives

In order to implement either of the two local street improvement alternatives on a corridor-wide basis, it would be necessary for all the local jurisdictions involved to reach agreement upon the desired course of action. For the arterial widening program, this would involve agreement upon 68 miles of two-lane widening (one for each travel direction). The grade-separation alternative would require agreement regarding 55 miles of street operational improvements and 89 separated intersections.

Los Angeles County would probably take the lead in either of these overall programs, perhaps utilizing the Highways-Through-Cities-Program, while Caltrans would implement any agreed upon improvements to Manchester/Firestone Boulevard, the only State highway in the east-west direction within the corridor.

Under either of these alternatives, the acquired I-105 right-of-way would have to be disposed of in the same fashion as discussed under the No Project alternative.

#### Combined Busway and Local Improvement Alternative

The implementation of the combined alternatives would require actions similar to those required for each of the alternatives combined separately, that is:

- . Perform design, right-of-way acquisition and relocation, demolition and utility relocation, and construction.
- . Reach agreement among the 10 affected local jurisdictions regarding the Busway, and all the local jurisdictions regarding the widening or grade-separation improvements.
- . Dispose of the roughly 68% of the acquired I-105 right-of-way which would not be used for the Exclusive Busway.

#### **8.4 SUMMARY COST AND IMPLEMENTATION EVALUATION**

##### I-105 Project

This ongoing Project has, compared to the other alternatives, the greatest total cost (\$511 million) and the greatest Federal and State funding participation. No direct local funds are required for the freeway component of the Project from the County of Los Angeles or any of the affected corridor communities; however, \$5 million in local matching funds would be required to fully implement the median-busway construction.

While the total project costs are the greatest for the proposed I-105 Project, its funding is most certain of the alternatives considered, and implementation responsibilities are clearly defined. Assuming a decision to complete the Project is reached in 1977, at least an initial stage of the Project could become fully operational about 1983.

#### Hawthorne Location Alternatives

These alternatives are similar to the proposed Project. Total costs are \$610 million and \$600 million, respectively, for the "Bell-shaped" alignment and the "Original Adopted" alignment.

#### No Project Alternative

Under No Project conditions, nonrecoverable costs of \$105 million (out of the total I-105 expenditures of \$186 million) would be realized as a result of the right-of-way disposal program and other Project-development expenses. It is anticipated that all "losses" would be shared 91.5 percent Federal and 8.5 percent State, per the normal interstate cost-sharing basis. Approximately two to four years would be required for Caltrans to dispose of the acquired I-105 right-of-way, followed by a two-to-six-year rehabilitation and redevelopment period for the majority of the right-of-way, or a total redevelopment period of four to ten years.

The Statewide Highway Program would be adversely affected, as major program reductions would be made in each Transportation District in the State.

#### Exclusive Busway Alternative

This alternative, which would probably utilize the acquired I-105 right-of-way to the greatest extent possible, at remaining costs of \$181 million, would be less than one-half of the cost to complete the I-105 Project. However, local matching fund requirements could be as high as \$41 million or many more times that required for the median-busway component of the I-105 Project. If the Busway were defined as an Interstate facility State funding participation of about \$25 million could be involved.

Since additional design stage environmental studies (beyond the conceptual stage studies performed for this EIS) may be required for the Exclusive Busway, it is anticipated that operational status would not be reached until sometime after the 1983 period. This would be a joint Federal, State and Local project. SCRTD would presumably have primary implementation responsibility, although the State would probably provide technical assistance. Total redevelopment time for the excess I-105 right-of-way would be similar to that under No Project conditions, that is, a minimum of four to ten years for the majority of the right-of-way.

#### Local Improvements Alternatives

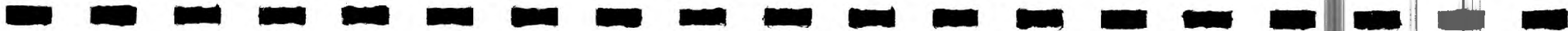
These alternatives would require local matching funds ranging from at least \$21 to \$40 million (not including some State participation for improvements to Manchester Avenue/Firestone Boulevard). Given the uncertainty surrounding both Federal and local funding the necessity to reach a consensus among the many affected local governments, and the need for further design and environmental studies, an estimate of when the alternatives could become operational is impossible to make.

As under No Project conditions, four to ten years would be required to sell and redevelop the acquired I-105 right-of-way property. Also, as under No Project conditions, there would be an adverse impact on the Statewide Highway Program.

#### Combined Alternatives

The combined Busway and Local Improvements alternatives would approach the proposed I-105 Project in terms of total remaining cost, but would have combined local fund requirements of \$25 to \$81 million, far exceeding any of the other alternatives. Since the funding and jurisdictional agreement uncertainties associated with the Combined alternatives exceed those of the other alternatives, the time to reach operational status is unknown. As under No Project conditions, these Combined alternatives would also require that the excess I-105 right-of-way be sold and redeveloped.

CHAPTER 9  
RELATIONSHIP BETWEEN LOCAL SHORT TERM  
ENVIRONMENTAL USES AND MAINTENANCE AND ENHANCEMENT  
OF LONG TERM PRODUCTIVITY



CHAPTER 9 - RELATIONSHIP BETWEEN LOCAL SHORT-TERM ENVIRONMENTAL USES AND MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Construction of the I-105 Freeway-Transitway Project is a commitment of existing urbanized land to a singular long-term purpose-transportation. As such it will result in the following remaining short-term impacts.

Displacement of 4350 living units housing 7300 persons; 240 commercial and industrial and industrial establishments employing 1140 persons; and 23 community facilities, including 9 schools, one park, 9 churches, one 92-bed hospital and 3 other facilities. As a result of these displacements, local communities will sustain annual property and sales tax losses of \$800,000 and \$315,000 respectively, exclusive of school impacts. Depending upon the specific community this means an annual percentage revenue reduction ranging up to 1 percent.

School District will experience revenue reductions of \$600,000, ranging up to 1 percent percent depending upon the specific district affected.

Some changes in local accessibility will effect changes in local services or facilities, altering neighborhood relationships - or community cohesion. Due to the Project's status, many of these effects have already occurred.

Construction activities will take from 2 to 4 years (depending upon location). During this period, an adjacent property owner may be intermittently inconvenienced by equipment noise, dust and the disruption of normal traffic patterns. However, specifications have been prepared for the control of construction operations which seek to minimize these inconveniences whenever possible. During and immediately following completion of construction, portions of the Project may appear unsightly. This condition will persist until landscaping and erosion control measures have become firmly established and mature - a period of up to several years.

In both short and long-term, the Project will result in a new noise source, subjecting adjacent neighborhoods to some noise increase. With a few exceptions these higher levels will not exceed accepted standards for the enjoyment of normal activities. The Project will also result in a higher level of carbon monoxide at the nearest adjacent properties than the corridor ambient level, but again, within established standards. At the regional level, the Project will result in virtually no change in the primary air pollutant HC and only an insignificant increase in oxides of nitrogen (1-2%).

Based upon current motor vehicle fuel consumption rates, the Project will also result in a very slight increase in regional daily fuel consumption as compared to the alternatives, about 0.2%; and a slight increase in total energy consumption of 0.9%.

Lastly, the Project may be a contributing factor in the urbanization of the foothills near Pomona and eastern Orange County.

In judging the advisability of implementing the Project, consideration must also be given to the associated long-term productivity which is anticipated. The Project has been designed to service the needs of a fully urbanized corridor which is expected to sustain a slight (1%) increase in population by the year 1990. This is as predicted by local and regional planners. After considering this predicted increase, the Project will contribute to the following long-term improvements.

Diversion of traffic from local streets to the new facility will result in an average reduction in traffic on corridor arterial streets of about 23 percent. Traffic on arterials in the immediate vicinity of the Project may be reduced fifty percent. This will contribute to a significant reduction in arterial traffic congestion and noise, and a marked improvement in air quality (15 to 25% reduction in carbon monoxide is anticipated in the corridor with the project).

The Project will provide improved accessibility to regional opportunities (employment, shopping, recreation, etc.) for both auto and transit user. Reduction in corridor congestion and improved regional access will also tend to reduce the local cost of goods and services. The improved level of service provided by the Project, along with reductions in traffic congestion are estimated to result in some 560 fewer traffic accidents annually than the No Project Alternative.

Improved regional accessibility is expected to accelerate new commercial and industrial growth within the corridor. This will eventually result in a new and higher level of assessed valuation to recoup short-term losses and provide a tax base adequate to future needs. In order to accommodate the expected increase in population, it is anticipated that more intensive residential development would occur near the Project. Properties currently single-family residential may eventually become multi-family apartments. This too would result in higher assessed valuations, and also provide an opportunity for construction of new buildings which would be designed to be more environmentally compatible with the Project.

The Project incorporates a relocation of the Southern Pacific Railroad within Watts, Willowbrook, Compton and Lynwood. This is an important local objective if these communities expect to fully realize their long-range community goals.

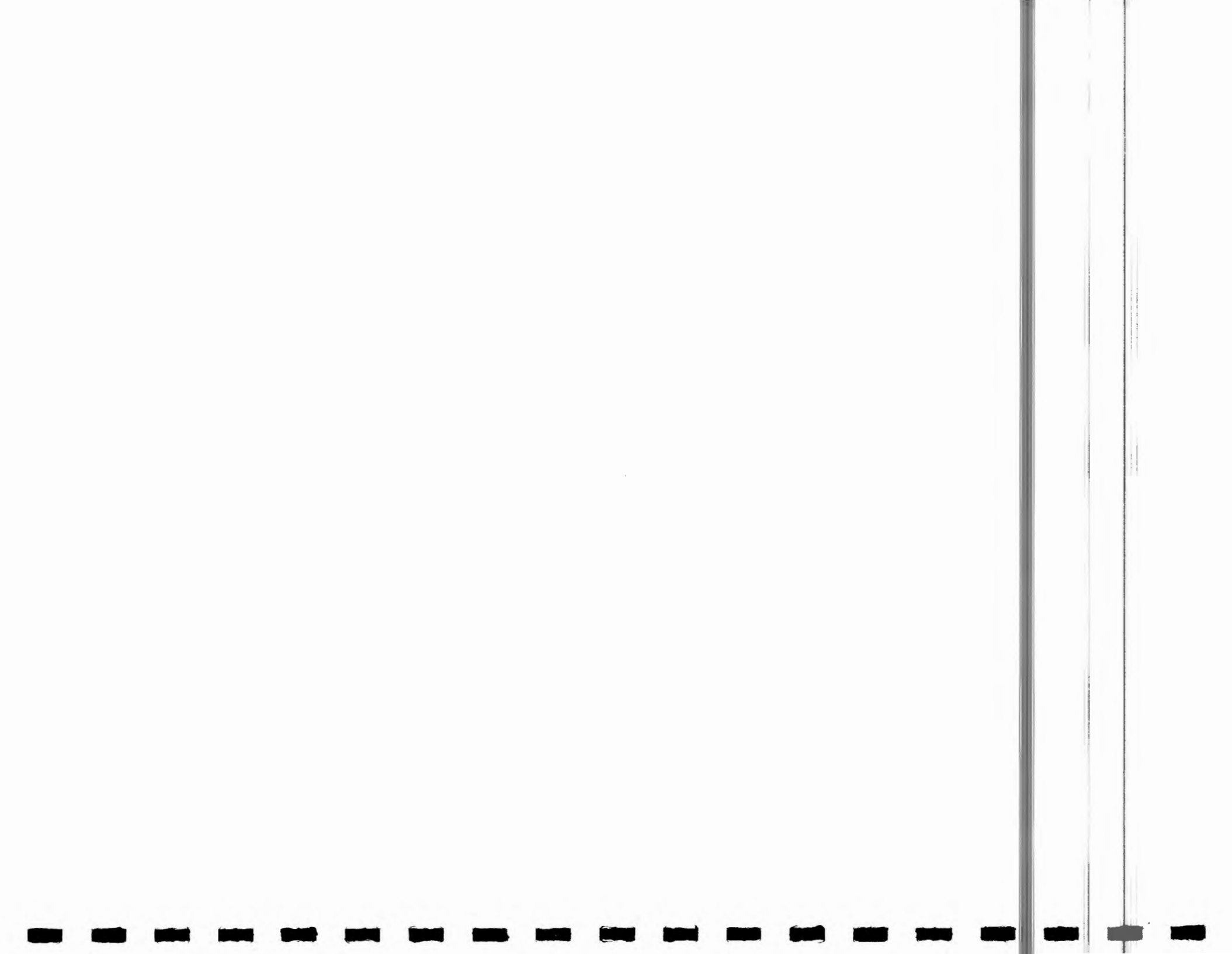
As an additional benefit, the City of Inglewood will gain a new, improved park, which along with several others within the corridor, will have improved accessibility. Also, several school districts will be able to construct new schools on new sites to replace older ones, to consolidate, and to generally improve the educational establishment.

Construction of the Project will add a new link in the regional freeway system. Redistribution of traffic will improve the operational efficiency of the entire network. One important result is that at the regional level the situation with respect to two components of air quality, carbon monoxide and hydrocarbons, is improved marginally. At the corridor level there will be a significant reduction of about 20% in carbon monoxide.

And finally, the Project is expected to provide vitally needed improved accessibility to Los Angeles International Airport.

CHAPTER 10

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS  
OF RESOURCES  
AND  
PROBABLE ADVERSE ENVIRONMENTAL EFFECTS  
WHICH CANNOT BE AVOIDED





CHAPTER 10 - IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES  
AND PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT  
BE AVOIDED

This chapter identifies and discusses the extent to which the Project and alternatives may irretrievably and irreversibly curtail or preclude the full range of potential uses of the environment. "Environment", in this instances, means the natural and cultural resources that would either be lost, destroyed or unavailable for other purposes as a result of implementing the Project. For purposes of discussion, these resources will be considered within each of two separate categories, i.e., land use resources and labor and materials resources.

This chapter also identifies and discusses those adverse unavoidable impacts which the use of reasonable corrective or abatement measures will not mitigate or reduce to acceptable levels. It further discusses controversial issues and trade-offs associated with the Project proposal.

10.1 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Land Use Resources

With respect to land usage, the effects of a given action, such as implementing a highway project, could vary widely as to its irreversibility. At one extreme, undisturbed, undeveloped virgin land could be used for a multitude of purposes. A given decision or action under these circumstances could preclude all or most of the options available. At the other extreme, where extensive development has already taken place, most options have already been excluded. Thus the question of the irreversibility of an action can only have meaning within those options which are yet available.

The latter is the case in the I-105 corridor. It is already fully urbanized with a large commitment of resources already made to the present population and its continuing needs. As to the future, regional and local entities without exception propose to maintain, enhance and optimize conditions conducive to human habitation.

To provide for human needs in this setting requires a proper integration of vital services. These vital services constitute the urban infra-structure and consists of the power, water, waste disposal, distribution (transportation), and communications systems etc. The result of a multitude of prior decisions made in each of these categories, has been the creation of an essentially man-made environment. Within a man-made environment, no land use decision can be considered as "absolutely" irreversible. They may, however, be irreversible in a "relative" sense depending upon the degree of permanence associated them.

For the range of transportation alternatives considered in the I-105 corridor, this "relative" irreversibility may vary from forty to over one-hundred years.

At the upper end would be the Project itself. Somewhat lower on the time scale but certainly within the same general area is the Exclusive Busway alternative. These two actions would be considered relatively permanent in that they are links in the regional infra-structure. Once either were implemented it becomes difficult to reverse the decision without disrupting these respective systems and without large scale indirect (regional) repercussions.

At the low end of the time scale is the No Project alternative where irreversibility of decisions are estimated at about forty or fifty years. This is considered the time frame of significant large-scale land use or zoning decisions made at local levels of government. This period corresponds too with the desire of all corridor cities to return the acquired right-of-way to its former low density status in the event of No Project. It represents the typical life expectancy of single-family residential development which enjoys good care and maintenance.

Intermediate in irreversibility (60 to 70 years) would be decisions related to the Grade Separation or Street Widening alternatives. Each city or community could unilaterally reverse or alter decisions with regard to its own streets; however, since these alternatives involve major streets extending into other cities, such actions are likely to be done cooperatively and at a slower pace.

The foregoing discussion was based on the assumption that the urban environment is man-made and that within this context human actions are reversible. This conclusion is not valid if there are features within the essentially man-made environment which are generally recognized as "uniquely" natural or cultural. A review of the corridor disclosed no unique natural features. There are however several unique cultural items. These range from one archaeological site to a number of historical sites. Investigation has further disclosed that among the items of record, only one (the Lynwood Pacific Electric Railway Station) is either directly or indirectly affected by any of the proposed alternatives.

In this instance, the station is directly impacted by the Project. In conjunction with the Project, it is proposed for relocation, refurbishment and a new and active role in local affairs. This is certainly an improvement over its present abandoned, dilapidated status. The result of a decision to implement the Project is, of course, an irretrievable action with respect to the present situation of this Station. At the same time, it is not an adverse impact.

### Labor and Material Resources

Aside from the implications of irreversibility of transportation decisions on land usage, there is the question of irretrievable loss or destruction of resources used in the construction of a project.

In terms of labor or materials, the question is a relative one depending upon whether demand is or is projected to exceed supply. The question could become absolute where materials under consideration are finite and non-renewable. In the first instance, the economic system is designed to adjust the supply of labor and materials to demand. Temporary shortages could result in establishing priorities among competing demands, however, the decisions made would not be construed as irretrievable. Furthermore, most materials used in construction are merely changed in form and can eventually be recycled if necessary. Thus, the irreversibility is again "relative" and only effective during the time such materials are "tied up" for the specific purpose. The types and proportions of materials used in all the alternatives, except "no project", is about the same and consists largely of iron and steel, cement, concrete aggregates, earth and asphaltic paving materials and their respective raw materials. The No Project alternative assumes reconstituting the development with previously existing. Raw materials utilized by the "building", as distinct from "transportation", construction industry would differ in both type and proportion with heavy emphasis on timber for framing.

The magnitude of the raw materials required except possibly for the No Project alternative, is approximately proportionate to the total cost of each alternative.

Most of the materials required can be considered either inexhaustible or recyclable within the foreseeable future. Others are not and once used are lost forever. A decision to use them is an irreversible and irretrievable commitment of resources. With regards to the alternatives considered in this EIS, the most important "non-renewable" resources are petroleum products used for street paving and to fuel construction equipment.

All the alternatives, even No Project will require some "non-renewable" petroleum. The amounts are largely in proportion to total project cost. Because of the "irreversible and irretrievable" nature of decisions regarding petroleum and products, it is discussed separately in Chapter 5 under the heading of "Energy".

### Summary

An irretrievable and irreversible commitment of resources can have a different connotation depending upon whether we are considering "land use" or "labor and raw material" resources. In the case of land use resources decisions may be irreversibly "absolute" or "relative". In a "natural" setting an action may be absolute. In a "man-made setting" they are generally relative. The I-105 alternatives are in an essentially man-made environment and as such an action to implement any is relative and only within the time frame of the land use commitment. The Project and Exclusive Transit (Busway) alternatives involve a commitment of about the order of one-hundred years. Intermediate at 60 to 70 years are decisions to implement either of the Local Street alternatives (Grade Separation or Widening). At the low end is the No Project at forty years. This corresponds with the life expectancy of local land use zoning decisions. Within this forty to one hundred years period, all other large scale options are precluded i.e. the decision is irreversible and irretrievable for all practicality.

Decisions which affect labor and materials are not ordinarily considered irretrievable or irreversible.

The reason is that these resources are generally considered inexhaustible and the economic system is designed to adjust the supply to meet the demand. Some natural "raw" materials are "non-renewable" in nature and once used are gone forever. With regard to the I-105 Project or alternatives the most important of these is petroleum (oil). All alternatives including No Project will require petroleum. The amount is largely proportionate to total project cost. Because of the tremendous significance of petroleum as a source of "energy" to fuel the economy it is considered in depth elsewhere in this EIS.

## 10.2 PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

Inasmuch as the proposed Project would be constructed in a fully urbanized area, it is unavoidable that people, housing, businesses with their employees, and public and quasi-public facilities will be displaced. This has adverse social and economic implications both for those directly displaced and indirectly to the communities themselves. In addition, there are unavoidable adverse impacts on noise and energy. These impacts, detailed elsewhere in this EIS, are consolidated here in the interest of summarization.

About 25,500 persons will eventually be displaced by this Project. Of these, 18,000 have already been displaced. Under the law, these people receive equitable treatment in terms of acquisition and relocation assistance. This does not always fully compensate for the unwilling disruption to individual lives and families. For most, the effects are minor, but for others the separation from the stability and security of familiar surroundings is undeniably a very traumatic experience.

The eventual removal of an additional 4,540 housing units (3,240 have already been removed) is clearly an adverse impact. While some of the remaining 4,540 units can be relocated and rehabilitated, a great many will have to be demolished. In spite of the fact that adequate replacement housing presently exists, there is always a strong demand for new housing to accommodate the increase in population and to replace old housing as it deteriorates. At the same time, rising costs are pricing many families out of the market place. In such a climate, the removal of any housing, however marginal, must be considered a serious loss in the reverse stock.

About 240 businesses, out of a total of 300 in the area, are yet to be displaced by the Project. These remaining businesses employ about 1,140 persons. About half of all businesses displaced generally relocate in the same community, and to this extent the impacts are of minor importance. However, the prospect of losing the others can have serious consequences, particularly for smaller communities with narrow tax bases. Since businesses ordinarily generate more revenue than their servicing costs, their displacement has a disproportionate and adverse local fiscal impact, particularly on property taxes. Local officials are aware of this, and view these displacements as a necessary investment in improving future tax base. However, until such time as this occurs, the interim losses in tax revenues must be carried by remaining businesses and property owners. This may work a hardship on some of the smaller cities in the corridor.

When displaced businesses relocate a considerable distance away, it can have an adverse effect on their employees. This is particularly true if the employee faces increased commute costs, is forced to move his family; or, as sometimes happens, becomes unemployed.

The Project will also displace eleven schools. This has both beneficial and adverse implications. For example, the result of these acquisitions can place school districts in much better positions insofar as physical plant is concerned. However, it also has required altering attendance boundaries. Thus, students benefit from better facilities, at the expense of familiar travel patterns and associations.

These are the separate individual effects of the Project. The "essence" of any community is not these separate parts, but the complex pattern of established interrelationships between people, their style of living, the business community and the neighborhood schools, churches, recreational and cultural facilities. Although these relationships are constantly changing, these changes are usually of such small magnitude, and dispersed uniformly so that the community, if it changes at all, does so imperceptibly and with adequate time for adjustment. The effect of the large scale displacements associated with the Project represents a pivotal situation for some communities, particularly the smaller ones. They may be unalterably changed, and in ways local officials and residents do not envision and would not desire. The risk is unavoidable, although the consequence may or may not be adverse.

Another unavoidable adverse aspect of the Project will come from the construction phase itself. A given area along the route will be disrupted for about two to four years, the period of a typical contract (the entire Project may require up to eight years to complete). Construction operations are frequently the source of much irritation in the community. As a minimum, the State's Resident Engineer will insure that all legal requirements are met. Most Contractors are not insensitive to these concerns and, in the interest of good public relations, will plan work to minimize problems in this area. Nonetheless, adjacent property owners can expect inconvenience from noise, dust, torn-up streets and detours from time to time. Such conditions cannot be completely avoided.

Although the Project will incorporate barriers to reduce traffic noise to established standards, some adjacent properties will experience noise levels higher than previously. This is unavoidable and adverse; and occurs generally through one of two circumstances. First, due to inordinate cost for the barrier heights required, it is not practical to protect the upper level of some two-story residences. Second, the existing noise level is low in a few neighborhoods. These neighborhoods will be given special consideration in the design of noise barriers. However, within the present "state-of-the-art" it is not practical to reduce noise much below the standard. As a consequence, the neighborhood will perceive a significant increase in noise, but to a level somewhat below the standard for general acceptance.

Construction of the Project will result in a very significant (up to 30%) reduction in carbon monoxide (CO) within the three-to-four-mile-wide transportation corridor. This occurs largely through relief from traffic congestion. Yet, because of their close proximity to the freeway, adjacent properties may experience somewhat higher localized concentrations of CO than if the Project were not built. These higher levels will be below the established health standard, however.

Finally, the Project will result in a tendency to increase (0.9%) regional transportation related energy use. This stems from the fact that the reduction in energy achieved from an improvement in operating conditions will be more than offset by increased travel by automobile. The amount is small and is based upon current fuel consumption rates. Future improvement in vehicular operating efficiencies should result in a relative, and ideally, a net reduction in total energy needs.

SECTION 4 (f) STATEMENT



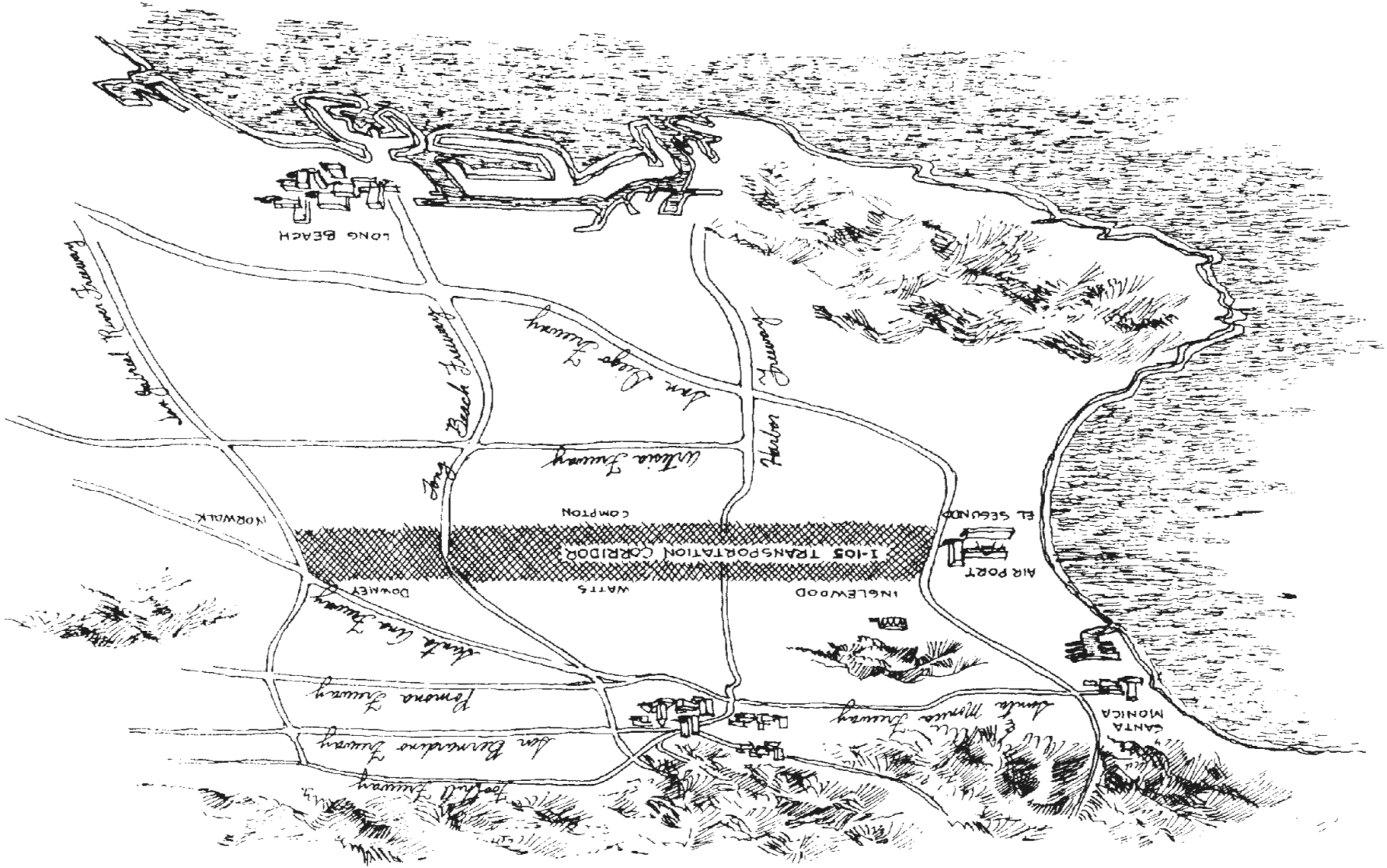
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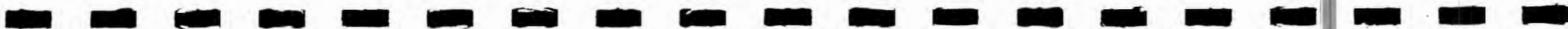
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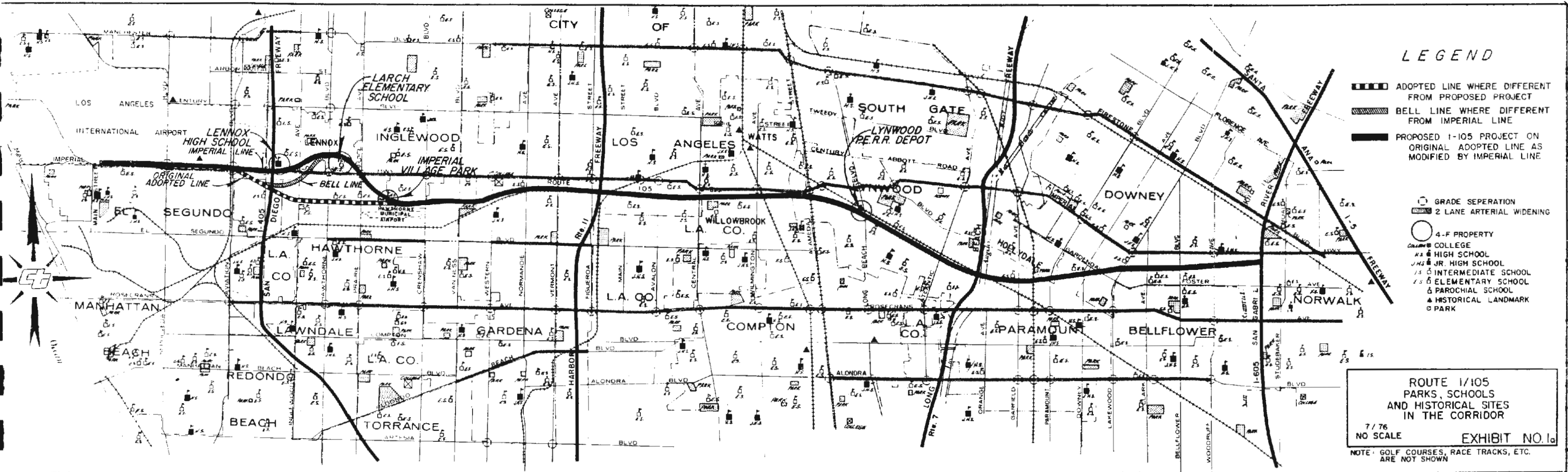
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**LEGEND**

- ADOPTED LINE WHERE DIFFERENT FROM PROPOSED PROJECT
- BELL LINE WHERE DIFFERENT FROM IMPERIAL LINE
- PROPOSED 1-105 PROJECT ON ORIGINAL ADOPTED LINE AS MODIFIED BY IMPERIAL LINE

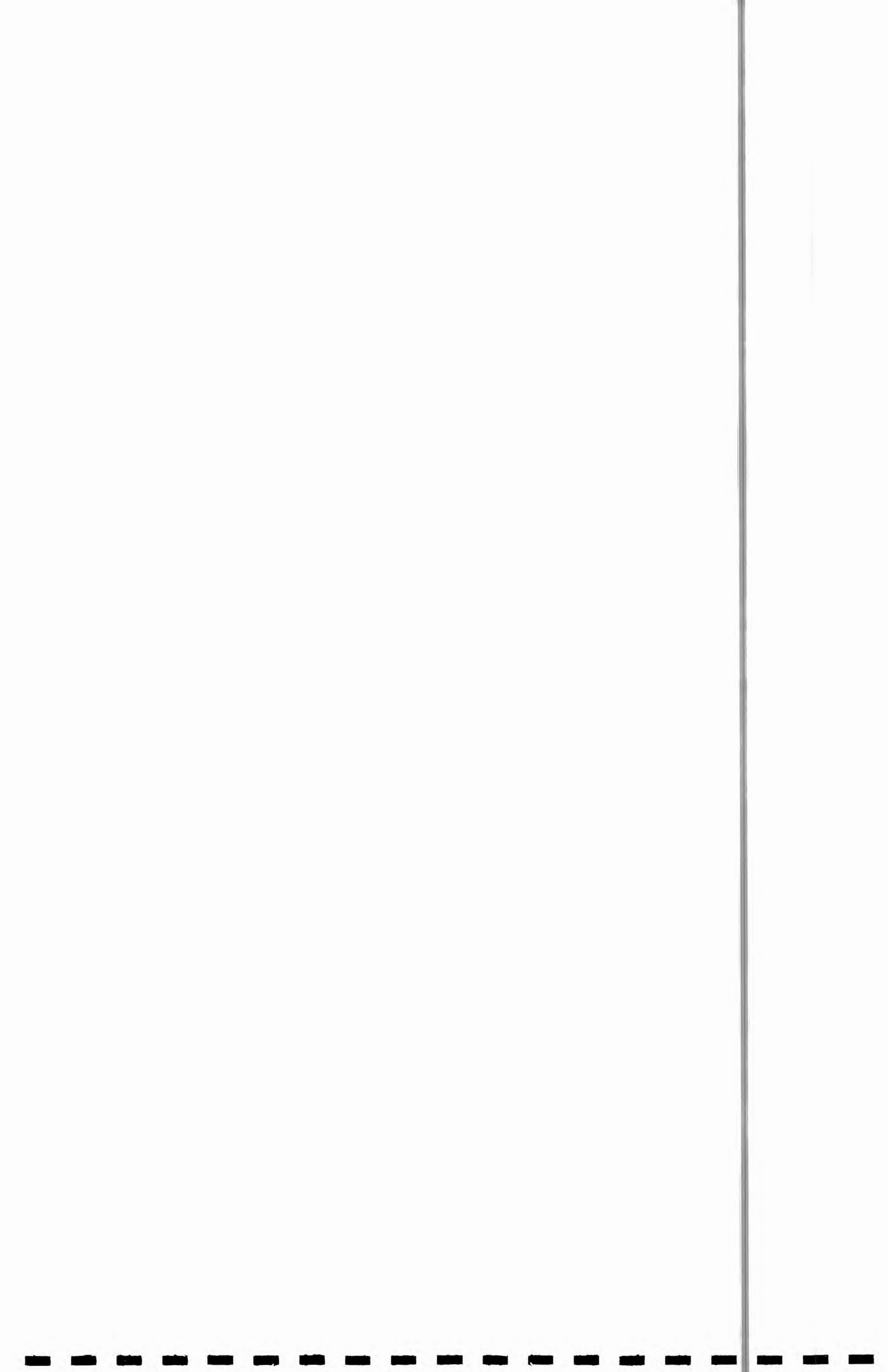
- GRADE SEPERATION
- 2 LANE ARTERIAL WIDENING
- 4-F PROPERTY
- COLLEGE
- HIGH SCHOOL
- JR. HIGH SCHOOL
- INTERMEDIATE SCHOOL
- ELEMENTARY SCHOOL
- PAROCHIAL SCHOOL
- HISTORICAL LANDMARK
- PARK

**ROUTE 1/105  
PARKS, SCHOOLS  
AND HISTORICAL SITES  
IN THE CORRIDOR**

7/76  
NO SCALE

**EXHIBIT NO. 1a**

NOTE: GOLF COURSES, RACE TRACKS, ETC.  
ARE NOT SHOWN



4(f) STATEMENT  
FOR  
FEDERAL HIGHWAY ADMINISTRATION  
ADMINISTRATIVE ACTION

( ) Draft ( x ) Final  
( x ) Section 4(f) Statement

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SECTION 4(f) STATEMENT  
(PARKS, RECREATION AREAS AND HISTORIC SITES)

A. NEED FOR A TRANSPORTATION FACILITY

The Interstate 105 Transportation Corridor is a 17-mile long corridor in Los Angeles County, between the Cities of El Segundo and Norwalk (Exhibit 1). The Cities of El Segundo, Hawthorne, Inglewood, Los Angeles, Lynwood, South Gate, Paramount, Downey, Norwalk, and unincorporated parts of Los Angeles County, including such communities as Del Aire, Lennox, Watts and Willowbrook, lie in this corridor, which extends from Florence Avenue on the north to Artesia Boulevard on the south (Exhibit 1a).

Currently, over three-quarters of a million people live in this corridor and each household produces about seven person trips daily. Today's east-west travel is served by a system of streets, many of which are discontinuous and there are restrictions at railroad crossings and at the Los Angeles, Rio Hondo and San Gabriel Rivers. Traffic congestion occurs on more than one-third of the corridor streets during peak hours, slowing travel in cars, trucks, and buses.

The congestion and delays during peak periods on east-west major streets, occur especially near Los Angeles International Airport (LAX) and along Florence Avenue and Manchester Boulevard. Many streets are handling 35,000 or more vehicles daily. This traffic data is for 1974, the most recent year for which complete records were available. For most of these streets, already constructed to their master-plan widths, 35,000 vehicles represent the design limit.

East-west freeway service is not presently available within a 12-mile wide area between the Santa Monica Freeway on the north and the Artesia Freeway on the south. As a result, mobility for the residents of the I-105 corridor is limited by the 23 to 28 mph speeds of major east-west surface streets through the 17-mile long corridor. Other measures of the quality of travel service in the I-105 corridor also reflect the lower travel service available from surface streets only. These include additional stop-and-go traffic, increased travel friction and traffic conflicts, and the increased hazards associated with surface street travel (accident rate more than three times that of freeways, while the fatality rate is two to three times that of freeways).

During the past five years, daily corridor traffic volumes have typically been increasing at the rate of one to two percent per year. Continuing regional growth, commercial and industrial development, and increasing car ownership will produce greater travel demand within the corridor, and in the absence of any constraints aggravate and extend peak period congestion problems. A successful traffic control program might improve arterial street speeds up to 5 miles per hour, however, without freeway service in this corridor, the longer distance trips would not be effectively served by these streets.

From a regional standpoint, Freeways and Expressways were developed as a system to provide safer and more efficient transportation for people, services and goods. The nearest parallel freeways, Santa Monica and Artesia, were built on the basis that additional facilities such as I-105 would be part of the system, and balance transportation movements in the region. In the meantime, these existing freeways are subject to increased traffic which was originally intended to be served by I-105. The Los Angeles International Airport (LAX) area, although involving but 2.5% of the total trips in the region, is a major trip generator, being second only to the Central Business District (CBD) which involves 5%.

Ground access at LAX is now limited and a major constraint to the effective handling of air passengers and cargo.

Projected passenger capacity will be double that of today, while a planned air cargo facility is expected to handle several times today's air freight tonnage of specialized, high-cost, technological products and perishable consumer goods.

Thus, the need for a transportation improvement is evidenced by the inability of existing transportation facilities to handle present or projected traffic efficiently and safely.

The overall objective of the transportation improvement is to provide for the safe, orderly, efficient, integrated and systematic movement of all persons, goods and services, regionally and within the corridor--with due regard for regional and local social, economic and environmental goals and policies.

## B. PROPOSED PROJECT

### 1. Project Description

Interstate 105 (I-105) is proposed as a multimodal transportation facility. It would provide an eight-lane, 17.2-mile, access-controlled highway with a public transitway in the median. I-105 would extend through the southern portion of Los Angeles County from the City of El Segundo on the west to the City of Norwalk on the east.

At its western end, I-105 would be connected to the Los Angeles International Airport (LAX) and the local street system via a 0.4-mile segment of California State Route 1. Connectors from the freeway may eventually join a vehicular tunnel to the LAX passenger terminal area which is proposed by the LAX Plan element of the City of Los Angeles General Plan.

A minimum of 40 feet of right-of-way in the freeway median has been included for public transit use. It was assumed for the DEIS evaluation that this median area would be developed as an exclusive busway. An exclusive busway is still the most likely public transit mode which would initially be developed in the median. It could subsequently be converted, if desired, to rail transit or any other advanced fixed-guideway transit mode.

In addition to the freeway and public transitway components of the Project, other related major features include interchanges with and widenings of the four north-south freeways which intersect the I-105 (Routes 405, 11, 7 and 605), interchanges with many local city streets, and relocation of the Southern Pacific Transportation Company rail lines in the central portion of the corridor.

Exhibit 1a shows the I-105 Project in the corridor, illustrating the proposed alignment. Where the expressions "the Project," "I-105", or "I-105 Project" are subsequently used in this Statement, they shall mean the I-105 proposed alignment as delineated on Exhibit 1a.

## 2. Project's Solution To Transportation Problem

The proposed Project, is a multimodal facility which provides the most comprehensive solution to the transportation needs identified for the corridor. It will provide for the movement of people, goods and services by automobile, truck and public transit.

Up to 180,000 vehicles per day will use the freeway, about one-half of which would be diverted from existing parallel freeways, and the remainder from east-west streets in the corridor.

Regionally, this facility will interconnect two north-south (circumferential) Interstate routes (Routes 405 and 605), establish links with two additional north-south freeways (Routes 7 and 11), and provide additional access to Los Angeles International Airport (LAX). The facility would connect with LAX through a proposed new south tunnel and, further, complement the peripheral parking concept now being implemented.

Traffic redistribution and balancing would occur so that the region's Freeway system would more nearly operate as originally planned. A substantial reduction of traffic, 15-30%, is expected on the Artesia Freeway, while other east-west freeways would have reductions of 3-10%.

Automobile and truck traffic would be reduced on local streets by as much as 50% (20% on the average) resulting in 50% fewer areas of congestion. The benefits of these reductions are increased travel speeds, reduced travel times and an improvement in safety as traffic accidents, injuries and fatalities are reduced. Further, the project will enhance the accessibility of corridor residents to a greater number and range of employment, cultural and recreational opportunities.

A significant improvement in public transportation is added to the corridor and region. The median busway will carry from 30,000 to 60,000 patrons daily depending upon whether it functions along or is integrated with an extensive region-wide transit system. Buses on local streets will be able to travel easier and faster as congestion is reduced.

The decision to implement this Project must weigh the environmental, social, and economic aspects along with transportation benefits. These factors were considered in the decision to propose the Project. The results of the evaluations can be summarized by saying that many of the impacts are negligible; some are positive and some are negative, but relatively insignificant. There are some adverse impacts which can be effectively mitigated; and there are a few which cannot be completely mitigated. On balance, the impacts are not so adverse that they would dictate against proceeding with the Project.

When considering the alternatives to the Project, none were determined to provide a reasonably full and complete solution to the observed and projected transportation needs, even though some of the environmental, social, or economic impacts may have been reduced or mitigated. It is also important in the decision-making process to recognize the results of public participation and involvement. First, the public agencies involved have pursued the ultimate completion of the project proposed. Innumerable planning decisions, commitments to municipal improvements, and other developments proceeded on the basis of the project. These local agencies have been virtually unanimous in their support and desire for the project. Secondly, there has been broad support from the general public, both from private groups and individual citizens. In addition, the I-105 Project is included for planning purposes in the Regional Transportation Plan adopted by the Southern California Association of Governments (SCAG).

## 3. 4(f) Impacts Of Project

The proposed Project has four 4(f) involvements. There is one park, Imperial Village Park. There are two schools which are significant as local recreational sites for the public; these are Lennox High School and Larch Avenue Elementary School. Finally, there is one historical site (listed on the National Register of Historic Places), the Lynwood Pacific Electric Railway Depot.

The parks, schools and historic site in the corridor are shown on Exhibit 1a and the four 4(f) involvements are circled.

#### 4. Background

Both the Route 105 Freeway and the Coastal Freeway (State Route 1) were formally included by the Legislature in the California Freeway and Expressway System in 1959. After extensive hearings the California Highway Commission adopted by segments the location of this freeway between 1965 and 1970. In 1968 the entire route was made part of the National System of Interstate and Defense Highways.

On the basis of 1969 and 1970 Design Hearings, the Federal Highway Administration (FHWA) gave approval to the location and major design features, authorized acquisition of whole parcels of property for the entire length of the Route 105 project and approved the location of this section of State Route 1. All required freeway agreements between the State and affected Cities and County have been executed (a total of 25), with the exception of Hawthorne and an agreement pending with the Cities of Los Angeles and El Segundo for a small portion of the project near LAX.

In response to the enactment in 1970 of the National Environmental Policy Act (NEPA) the Federal Department of Transportation reviewed ongoing projects such as the I-105. It was determined that the I-105 project had been developed in such a manner as to give detailed consideration to the impact upon the human environment.

A Section 4(f) clearance was secured from the Federal Department of Transportation in 1971, for Imperial Village Park in Inglewood. (Since that time FHWA has clarified its position on whether schools should be covered under 4(f): "Where the playground facilities are open and used without restriction, regardless of whether such use is organized or 'walk on,' they may be considered to be a recreational lands subject to the 4(f) requirements." Also, a historic site has more recently been identified.)

A suit (Keith, et al vs. Volpe, et al) was filed (February 16, 1972) in Federal District Court, Los Angeles, which resulted in a preliminary injunction, enjoining State and Federal officials from further development of the project, pending preparation of a formal Environmental Impact Statement (EIS). This injunction is presently in force until completion of the EIS processes.

An environmental reassessment of the project, in conformance with NEPA and the California Environmental Quality Act, (CEQA) resulted in the preparation of a Draft EIS which was released for public comment on December 19, 1974.

During 1975, a series of public hearings were conducted within the I-105 corridor to receive public comment on the conceptual alternatives considered in the Draft EIS. However, during the months following release of the DEIS, and immediately preceding the hearings, significant changes at the regional planning level (a reduced population prediction and proposed constraints on auto traffic travel for air quality improvements) resulted in a reduction of traffic forecasts for the I-105 Transportation Corridor. The reduced forecasts, the revised design, and their relative effect on the socioeconomic and environmental impacts of the DEIS conceptual alternatives were presented at these public hearings. It was at this time the design of the Project was revised from 10 to 8 lanes.

The City of Hawthorne, although stating that a freeway was needed in the corridor, objected to the freeway's adopted location in the Western portion of the city. As a result of a continuing effort to resolve this issue, the California Highway Commission held location public hearings on April 23, 1975 and August 27, 1975 to consider two alternate locations suggested by Hawthorne for the Freeway-Transitway.

The one considered on April 23 is known as the "Bell" Line. The one considered on August 27, 1975 is known as the "Imperial" Line (Exhibit No. 1a). The Imperial Line is now proposed as the alignment for the Project.

At present, about \$186 million has been expended on the Project. The largest portion of this, \$154 million, has been spent on the acquisition of properties. Supplemental payments to people for moving and purchasing of replacement properties totals \$19 million. The remainder of funds were spent for engineering planning and design, right-of-way overhead, and the environmental process.

The status of property acquisition and clearance is as follows:

- . About 75% of the parcels have been acquired.
- . About 45% of the parcels have been cleared of buildings and other improvements.



C. ALTERNATIVES CONSIDERED

1. Location and Conceptual Alternatives

In addition to the I-105 Project, other transportation alternatives in the I-105 Corridor were analyzed and evaluated. These alternatives can be identified as follows:

- a. Other Freeway-Transitway Alignments
- b. The No Project Alternative
- c. The Exclusive Busway Alternative
- d. The Street Improvements (Arterial Widening) Alternative
- e. The Street Improvements (Grade Separation) Alternative
- f. The Combination Exclusive Busway and Street Improvements Alternative

Two other alternative alignments for the Freeway-Transitway were analyzed and evaluated in the Hawthorne area between Aviation Boulevard and Cherry Avenue; those being the original Adopted Alignment and the Bell Line (shown on Exhibit 1a).

The "No Project Alternative" assumed that no major transportation improvements will be made in the corridor through the year 2000. The "Exclusive Busway Alternative" assumed the construction of an Exclusive Busway within a portion of the I-105 Freeway-Transitway right-of-way, rather than construction of a freeway with a busway. The "Street Improvements (Arterial Widening) Alternative" assumes a conventional arterial widening program and would consist of selected two-lane widenings at various locations to achieve a degree of surface street congestion relief similar to that of the I-105 Project. The "Street Improvements (Grade Separation) Alternative" assumed the construction of grade separations at selected existing major intersections throughout the corridor to achieve a degree of surface street congestion relief similar to that of the I-105 Project. The "Combination Alternative" assumed that a combination of the Exclusive Busway and one of the Street Improvements Alternatives would be built. Exhibit 1a indicates the ranges of the alternatives.

2. 4(f) Impact of the Alternatives (See Chart 1)

a. Other Freeway-Transitway Alternatives

From the standpoint of 4(f) involvement, the Bell Line is identical to the Imperial Line (Proposed Project). The impact on 4(f) land of the Proposed Project or Bell Line, is greater than the impact of the Original Adopted Line or any of the other alternatives. Therefore, the 4(f) involvements of the other alternatives are compared to it.

The Original Adopted Line would impact one less 4(f) property than the Proposed Project. Larch Elementary School would be completely avoided, leaving three 4(f) involvements: Lennox High School, Imperial Village Park and Lynwood Pacific Electric Railway Depot. Imperial Village Park would be affected somewhat differently, but it would still be completely required, and the mitigation measures would remain the same.

b. No Project

This alternative has no 4(f) involvement because no major transportation improvement would be made in the corridor through the year 2000.

c. Exclusive Busway

This alternative would have one 4(f) involvement--Imperial Village Park. Because of the much narrower width of the right-of-way required (180 feet) and the lack of a need for many interchanges, it is possible to avoid all of the other 4(f) involvements of the Proposed Project, even though the busway is on the same general alignment. The impact on and the mitigation proposed for Imperial Village Park would be essentially the same as it would be for the Proposed Project.

d. Arterial Widening

This alternative could have no 4(f) involvement. Although it is proposed to widen various portions of Manchester Boulevard, Firestone Boulevard, Imperial Highway,

4(f) Involvement					
Transportation Alternative	Imperial Village Park	Lennox High School	Larch Ele- mentary School	Lynwood PERR Depot	Other 4(f)
Freeway-Transitway on original Adopted Line with Imperial Line (Proposed Project), or Bell Line	x	x	x	x	
Freeway-Transitway on original Adopted Line Only	x	x		x	
No Project					
Exclusive Busway	x				
Street Improvement-Arterial Widening					
Street Improvement-Grade Separation					
Combination Busway and Street Improvement	x				
4(f) IMPACTS ON TRANSPORTATION ALTERNATIVES					

CHART 1

El Segundo Boulevard by two lanes, it is possible to accomplish all of the widening on the opposite side of the street from any potential 4(f) lands so as to avoid 4(f) involvement. Although several public school playgrounds are mentioned in the DEIS as being impacted by this alternative, they could all be avoided if they were determined to be 4(f) involvements.

e. Grade Separation

This alternative would have no 4(f) involvement. It is proposed to build grade separations on portions of Manchester Boulevard, Firestone Boulevard, Century Boulevard, Imperial Highway, Rosecrans Avenue, Alondra Boulevard and Artesia Boulevard. These would all be contained within existing street right-of-way, and thus would not impact any 4(f) property.

f. Combination Busway and Street Improvement

This alternative would have the same impact on 4(f) property as the Busway along--one property--Imperial Village Park, as described above.

D. DETERMINATION THERE IS NO FEASIBLE AND PRUDENT ALTERNATIVE

The following location and conceptual alternatives were considered and it was determined that they are not feasible nor prudent alternatives to the proposed project.

a. Other Freeway-Transitway Alignments

The alignment now proposed for the Project, is different than that originally adopted in the Hawthorne area of the corridor. The decision to consider a different alignment than originally adopted was made recognizing that greater impacts might be involved. However, it was evident that the original alignment was not a prudent alternative, it having been rejected and opposed consistently by the City of Hawthorne since its adoption in 1965, including a local referendum in 1971 wherein 70% of those voting opposed this location. Over the years, many alternatives were proposed, evaluated, and considered in an effort to identify a location satisfactory to all agencies effected, as well as the general public. During the DEIS/Public Hearing process, mutual efforts of the involved agencies resulted in the identification of two specific alternative locations which had the potential for resolving the longstanding controversy. These became popularly known as the "Bell" and "Imperial" lines. Both were evaluated as well as presented and discussed at a series of corridor/design public hearings held in March and April 1975. Each was also the subject of a separate California Highway Commission Public Hearing. A hearing on the Bell Line was held April 23, 1975. A hearing on the Imperial Line (now the proposed location), was held August 27, 1975.

Although the original adopted alignment involves somewhat less impacts in terms of people and living units displaced when compared to the Imperial line, it appears to be less compatible with neighborhood patterns and community goals and objectives.

Hawthorne's objections to the original adopted routing centered on its disruptive effect, severing its business district and the possible isolation of the northwesterly portion of the city.

Moreover, in the unlikely event the original adopted routing were to be implemented over Hawthorne's objections; that is, without a freeway agreement, it would have to be constructed in accordance with Section 100.2 of the Streets and Highways Code. This would mean that no city streets could be closed, and no ramp connections could be made. The only way to avoid closing city streets, which run parallel to as well as crossways with the Freeway-Transitway would be to put the Freeway-Transitway on an overhead bridge structure (viaduct) throughout the entire portion in Hawthorne.

It is estimated that this type of construction would cost approximately \$50 million more than if it were constructed in the conventional manner. This would result in a significant incremental increase in cost of \$39 million over the Imperial line and \$40 million over the Bell line. In addition, there would not be any traffic service to the City of Hawthorne because there would be no ramp connections with Hawthorne Boulevard or Praire Avenue.

For these reasons, the original alignment is not considered a feasible and prudent alternative.

In most other categories of impact, notably air quality, there is no significant difference in effects. However, in that the proposed Imperial alignment will border relatively more commercial and industrial and less residential property, the effects of noise would be further mitigated. The final factor in the decision to propose the Imperial Alignment is that it has the full, unanimous support of the local governments involved.

Both the Bell and Imperial alignments are similar in location. They were developed somewhat concurrently, although development of the Bell line preceeded the Imperial alignment.

By early April 1975, development of the Imperial line had proceeded far enough to gain the support of the City of Hawthorne. Consequently, at the April 23 Highway Commission Hearing held under Section 211.5 of the Streets and Highways Code to consider the Bell line, Hawthorne expressed its desire to pursue the Imperial line.

Subsequently in May 1975 Hawthorne by resolution requested that the Highway Commission consider the Imperial line. Also in May, Los Angeles City took action in support of the Imperial line.

Hawthorne's action in effect eliminated the Bell line from further consideration and reinitiated the Section 211.5 process. This subsequently led to the August 27, 1975 Highway Commission hearing on the Imperial line.

The Imperial line offers engineering and community advantages over the Bell line. The Imperial line is less circuitous and therefore reduces out of direction travel. The Imperial line also reduces the severance of land-use patterns and is in keeping with the planning principle that transportation facilities follow city boundaries wherever possible. In addition, the Imperial line has continued to hold the acceptability of the affected jurisdictions.

For the above reasons and because the Imperial line is the only alignment other than the original adopted alignment which can legally be considered by the Highway Commission under provision of Section 211.5, the Bell line is not considered a feasible and prudent alternative.

A more detailed discussion of the impacts of the Bell and the original adopted lines are discussed under the subheading of the Hawthorne Location Alternatives, in various sections of the EIS. The reader can refer to these sections to more readily compare their impact to the proposed project.

#### b. No Project Alternative

In that over 4,800 parcels have been acquired and 2,900 cleared, due to prior Project activities, this can hardly be defined in the usual sense as a "do-nothing" alternative. Tremendous impacts have already been felt, mostly adverse, and have only been accepted locally because of the belief that the Project would be an important stimulus to the achievement of future community goals. All of the communities involved have planned accordingly. To select this alternative would involve a general reappraisal of all local planning and in some cases, at least, major changes.

This alternative ignores both the existing and projected transportation conditions. Congestion is already critical on many segments of arterial street system. Since regional planning assumes a modest increase in population and somewhat greater employment within the corridor, congestion can only get worse. This in itself will result in adverse noise, energy and air quality impacts. Further, lack of a major east-west transportation facility tailored to the longer regional level trip would hinder the efficient distribution of goods and services within the corridor, and also aggravate the already critical problem of accessibility to LAX. It is unlikely that the LAX planning goal of 40 million annual passengers (currently 23 million) would ever be achievable under No Project conditions. And, if this goal at LAX cannot be achieved, it would result in serious repercussions in the regional airport plan.

The regional goal to increase employment opportunities within the corridor could be frustrated by this alternative since increased congestion coupled with lower accessibility could discourage investment capital. In this respect, all communities would suffer economically, but particularly the depressed central black communities.

Yet, the prospect of No Project had to be faced. The communities responded by saying they believed the State and Federal government ought to accept the responsibility, in this event, to re-constitute some semblance of original conditions. Generally speaking they wanted to retain their prior low density life style. This meant, in effect, re-construction of single family housing on much of the cleared right-of-way. Studies had indicated that market conditions were not favorable for accomplishing this everywhere within the corridor without a sizeable public subsidy. Again, the needy central corridor communities would be the big losers.

The No Project alternative would also be a severe loss to the State as well. Over ninety percent of the cost of the project is underwritten by Federal Interstate funds. Unless a project of equal proportions were substituted, the result would be further aggravation to the local economy and to the unemployment picture, particularly the already hard-hit construction industry.

This impact is felt not only at the local and regional levels, but across the State as well. Since the Statewide highway program must involve certain minimum expenditures of the highway fund in the various State Transportation Districts and Counties, any reduction in Los Angeles produces proportionate reductions Statewide. Under present law, substitution of a transit project may not be possible. As a practical matter, this would involve substitution of a transit facility elsewhere in the region. The reason is that a busway can be built in the corridor without substitution, whereas a rail-transit facility would result in diverting what little local matching money is available to this, a very low priority transit corridor, to the detriment of higher priority corridors in the region, not a likely prospect.

In summary, the No Project alternative is not a feasible and prudent course of action because it will disrupt local planning; leave the cities with a condition of adverse impact as a result of largely irreversible acquisitions already taken place; retard the economic recovery of the corridor; further depress the general economy of the region, particularly unemployment in the construction sector through loss of interstate funds; aggravate the already critical corridor traffic conditions with adversely related air quality, energy utilization and noise; jeopardize the achievement of the LAX development plan with repercussions to the regional airport systems plan; result in non-recoverable State/Federal highway fund losses of \$105 million; and because it has negligible public support.

c. Exclusive Busway Alternative

This alternative will not satisfy the full scope of the corridor's transportation needs. Since it handles public (personal) transit needs exclusively, it would not serve to improve the efficiency of goods movement and would offer a very limited relief to LAX's problems. Consequently, its cost effectiveness is extremely low. Moreover, since about one-half of the already acquired right-of-way would be excess for this plan, it may involve many of the objectionable features of right-of-way disposal associated with the No Project alternative; i.e., economic stagnation, reconsideration of local planning, etc.

In that little would be done to alleviate current or projected congestion on arterial streets, it would intensify air, noise and energy problems.

This alternative was conceived as a busway on the basis of low projected patronage. Although the concept of a transitway only was favorable to some people, the impression is that what was expected was a rail type facility. The cost effectiveness of a rail type solution is less than for a busway. The operational effectiveness of a rail solution is also very limited, since there are presently no prospects for integration with other elements of a regional rail system.

Lastly, in that there is no official local support for a transitway only solution, whether it be a busway or rail transit, this is not a feasible and prudent alternative.

d. Street Improvements (Arterial Widening) Alternative

Although this alternative would meet a major objective of the Project; i.e., alleviate traffic congestion, it would not provide for the effective separation of through versus local traffic. To this extent it would not offer as high a level of service. The concentration of increasing conventional traffic along arterials would aggravate problems of noise, energy, and air quality. Since this alternative involves acquiring considerably more property than the balance needed to complete the project, it would compound the social impacts even more. For local cities, the loss of commercial and industrial development along these arterials would mean that the local tax base would be even more disproportionately reduced.

This alternative also involves all the adverse problems attendant to the disposal of the acquired Project right-of-way.

Adequate funding is not apparent. The local agencies would likely use only gas tax subventions for their matching shares. These improvements might qualify for a maximum of 83% Federal participation as part of the FAU program. However, the proportionate share of FAU funds available to the agencies involved falls far short of funding a comprehensive program of improvements like these, at a reasonable percentage of participation. Given the amount of these funds and considering current local needs, it does not appear that this alternative could be implemented in any reasonable time. Public support for this alternative was minimal. The social and economic implications are too great for acceptance. Indeed, the City of Los Angeles feels that these implications have been underestimated.

Finally, there has been no official support from any of the 17 different municipalities which would be directly affected. Considering that it would require near unanimous approval, cooperation and participation for effective implementation, this alternative is neither prudent nor, as a practical matter, feasible.

e. Street Improvements (Grade Separation) Alternative

From the transportation point of view, this alternative might offer a degree of congestion relief and a level of service commensurate with the Project. Moreover, vehicles would operate at optimum conditions for fuel economy and also for air emissions. Noise could be worse, however. On the other hand, this alternative is heavily oriented to east-west traffic. Because of its operational features, it could aggravate north-south flow to such an extent that some of the expected improvements in air and energy are offset.

Although this concept does not involve the direct acquisition of very much property, the agencies responsible for implementing it would need to use their police powers to restrict access to the adjacent properties, in the interest of traffic flow. Successful resistance to the imposition of controls by property owners (restricted access may be detrimental to property values) would nullify the effectiveness of this alternative. It is a cycle that has been repeated many times in the past and led to the idea of the full access controlled highway (Freeway) in the first place. If, on the other hand, the cities were successful in resisting efforts to relax access controls, this alternative could lead to many damage suits through inverse condemnation action; i.e., sue the government.

As in the previous case, this alternative could run into problems of the adequacy of timely local and federal matching funds. Further, it too would require unanimous approval and cooperation from all of the agencies directly affected - a total of 17.

There is no local support for this alternative. Without the desire or ability to obtain funds, it would not be implemented; thus it is not a feasible nor prudent course of action.

f. Combination Exclusive Busway and Street Improvements Alternative

The premise of the Combination Alternative has been that by combining local street improvements with an exclusive busway, most of the major transportation objectives could be met. This is essentially true, except that the lack of separation of local and through traffic would not provide the highest possible level of service.

But the principal objection to the Combination Alternative is that the social, economic and environmental consequences of this solution is equal or greater than the proposed Project.

This combination contains the worst aspects of its separate elements (exclusive busway and arterial widening or grade separation). There has been no general or official public support for this alternative. To pursue it in the face of equal or greater impact is not feasible or prudent.

E. SECTION 4(f) LAND (PROPOSED PROJECT)

1. Imperial Village Park Summary

The only public park land affected by the I-105 Project is located in the City of Inglewood. This is a 2.02-acre public park known as Imperial Village Community Park. It is part of the City of Inglewood's park system and it is operated by their Parks and Recreation Department. A replacement site of 2.92 acres is proposed.

Discussions with the City of Inglewood have taken place since early in the design phase. Prior to the design hearing in September 1969, several information hearings were held, including one at the nearby Bennett School. No adverse comments were received about the park involvement.

The Secretary of the Federal Department of Transportation approved the use of Imperial Village Park for highway purposes on February 1, 1971. A copy of this approved 4(f) Statement is attached as APPENDIX I.

A cooperative agreement was executed by the City of Inglewood in November 1971; it spelled out the details of the replacement site acquisition. All parcels for the replacement site have been acquired by the State.

The only change that has taken place since then has been that the I-105 Project will now cross the park at a different angle than was formerly proposed on the Original Adopted Alignment only. The entire park site is still required, the replacement site is unchanged and has been acquired. As a consequence, it has been determined that the 4(f) Statement which was previously approved is still appropriate.

The other alternatives have been determined not to be feasible and prudent alternatives to the Project (See Section D).

The I-105 Project and its relationship to the park and the replacement site are shown on Exhibit 2.

2. Lennox High School

a. Description

Lennox High School is located in the Lennox area of the County of Los Angeles and is in the Centinela Valley Union High School District. The high school site contains 27.99 acres of which 0.55 acre would be required for the I-105 Project. The approach flight pattern of Los Angeles International Airport to the south runway passes over the northern boundary of the high school. Approximately 60% of the total area is devoted to physical education use including field and track soccer, baseball, tennis, basketball, handball and football.

Many organizations use Lennox High School for recreational purposes other than normal school use. Permits are granted annually by the high school for this use. The permits issued over past years indicate that four areas are utilized for recreational purposes by outside groups. These are the Boys' Gymnasium, the tennis courts, the baseball fields and the football practice field.

Although the grounds are fenced, the outdoor recreation facilities are readily available to walk on use by the public through gates. From 200 to 300 persons per day on weekends use the school grounds for baseball, soccer, volleyball, basketball, tennis, picnicking, and so forth. All of the baseball diamonds are used by the Little League and others for baseball during the week. They use them every day from February through August whenever they are not being used by the Lennox High School. At least 60 children per day take part. The tennis courts have been used during various periods by outside groups, including church tennis clubs and corporate employee organizations and tennis leagues. This amounts to about 20-30 people per day.

There is good access to Lennox High School on the streets from every direction, except from the west where the San Diego Freeway can be crossed at only Imperial Highway, Lennox Boulevard and Century Boulevard. Streets go around every side of the high school; however, Ocean Gate Avenue on the west is closed to vehicles by barricades.

The Centinela Valley Union High School District owns the high school site. State funds were utilized for acquisition of the school land as evidenced by a certificate of interest in real property dated January 16, 1964 and filed pursuant to Section No. 19563 of the Education Code and recorded January 20, 1964 in Book M-1433, page 613 of Official Records of Los Angeles County. A search of the records indicate no deed restrictions or reversionary clauses.

~~Other similar land in the vicinity includes Hawthorne High School located one mile to the south, Inglewood High School located one and a half miles to the north and Morningside High School located two miles to the east.~~

All three of these high schools have facilities similar to Lennox High School--a football field and track, a baseball diamond, tennis courts, basketball courts, and open fields. Also, Lennox Park, which has a diamond, is located one half mile to the east. In addition, there are a number of elementary or intermediate schools close by, which have open fields and small diamonds. These include Buford Elementary, which is adjacent to Lennox High on the north, Felton Intermediate, which is one quarter mile to the north, and Jefferson Elementary, which is three quarters of a mile to the northeast.

The only unusual characteristics of the high school site are that it is located adjacent to the San Diego Freeway (I-405) and is immediately adjacent to the flight path of the Los Angeles International Airport, causing high ambient noise levels.

Lennox High School was determined to have local significance as a public recreation area, although its use is subject to permission granted by the high school district. It is the primary location for the games played by the Little League teams in the Lennox area, and a significant number of other groups utilize the Boys' Gymnasium and the tennis courts.

b. Probable Impacts

In order to accommodate the connection of the Route 105 Project with the existing northbound San Diego Freeway, a two-lane connector roadway and an on-ramp and collector road would be required in the areas adjacent to Lennox High School. The existing Ocean Gate Avenue to the west of the high school (which, at present has been closed by the County) would be eliminated, and a small triangular strip of land would be required from the western edge of the high school property.

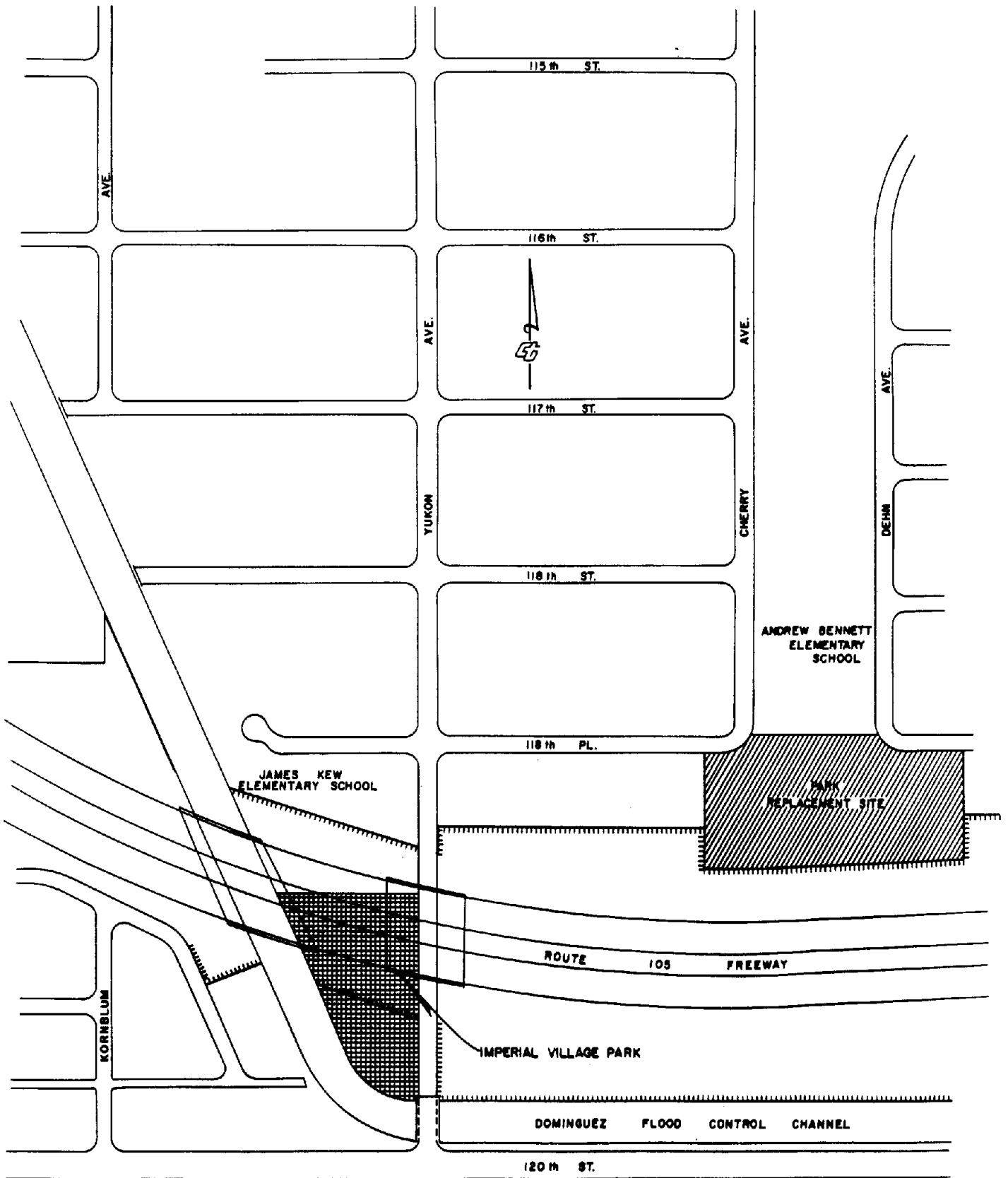
At present, a northbound collector road is west of the high school just across Ocean Gate Avenue. At the southwest corner of the high school it is on a structure about twenty feet above the ground. The structure extends north about 200 feet from the southwest corner. From the end of the structure a retaining wall extends north for about 550 feet along the west side of Ocean Gate Avenue. At the end of the retaining wall, the collector road is just a few feet above ground level and continues like that to the northwest corner of the high school. Exhibit 3 is an aerial photograph showing the existing situation.

After the freeway construction, the northbound on-ramp from Imperial Highway and the collector road would be immediately adjacent to the high school property, on a low landscaped fill, and would have no structures or retaining walls. It would not be separated from the high school by a street. Exhibit 4 is a map showing the effect of the Project.

It should be noted that the taking from the high school is required because of the introduction of the connector roadway from the I-105 Freeway. The connector must join the I-405 Freeway in an area that already has a series of ramps and collector roads serving Imperial Highway and Century Boulevard. These two streets are major access routes to Los Angeles International Airport. They are spaced close together so that their ramps must interconnect in order to allow the required weaving distances so that traffic will operate properly. Introducing the connector roadway in this area requires the placement of the on connection in the area between these two major streets, and the extra room needed for it must of necessity come from the high school property. Movement of the interchange north or south, as has been studied on the Adopted Line and the Bell Line, has no effect on this taking because of the necessity for this connection to join the I-405 Freeway between these interconnecting ramps.

The area that would be incorporated in the freeway right-of-way contains 0.55 acres. The parcel is a triangle having dimension of 67.06 feet along 111th Place and extending northerly along Ocean Gate Avenue 772.83 feet. The physical acquisition would be small in comparison to the entire site, but it would require an adjustment of the

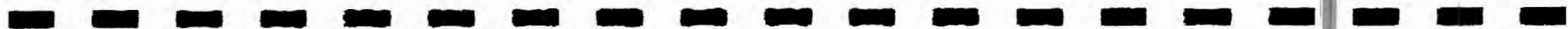


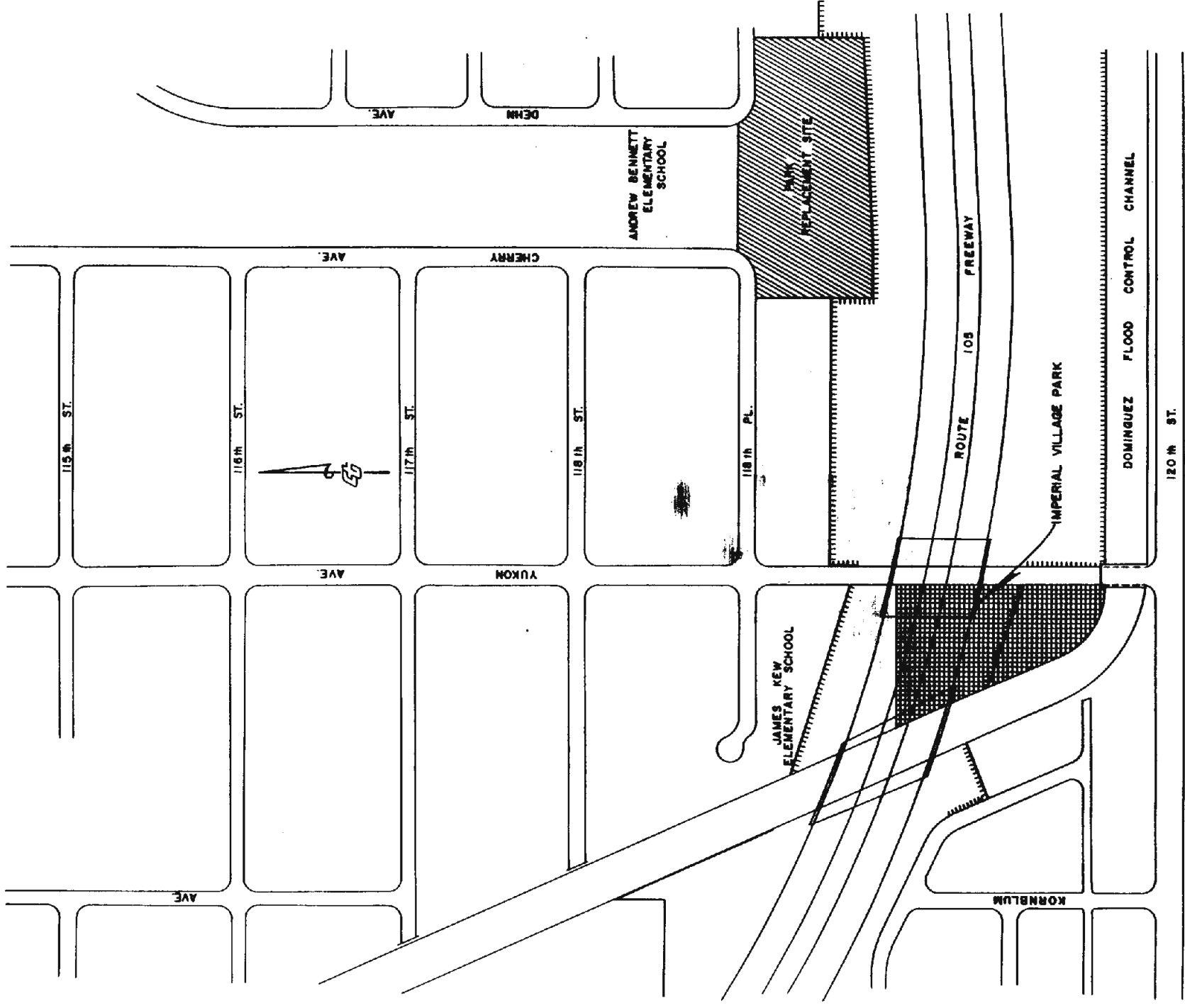


# IMPERIAL VILLAGE PARK & REPLACEMENT SITE

## EXHIBIT NO. 2

 PARK SITE  
 REPLACEMENT SITE

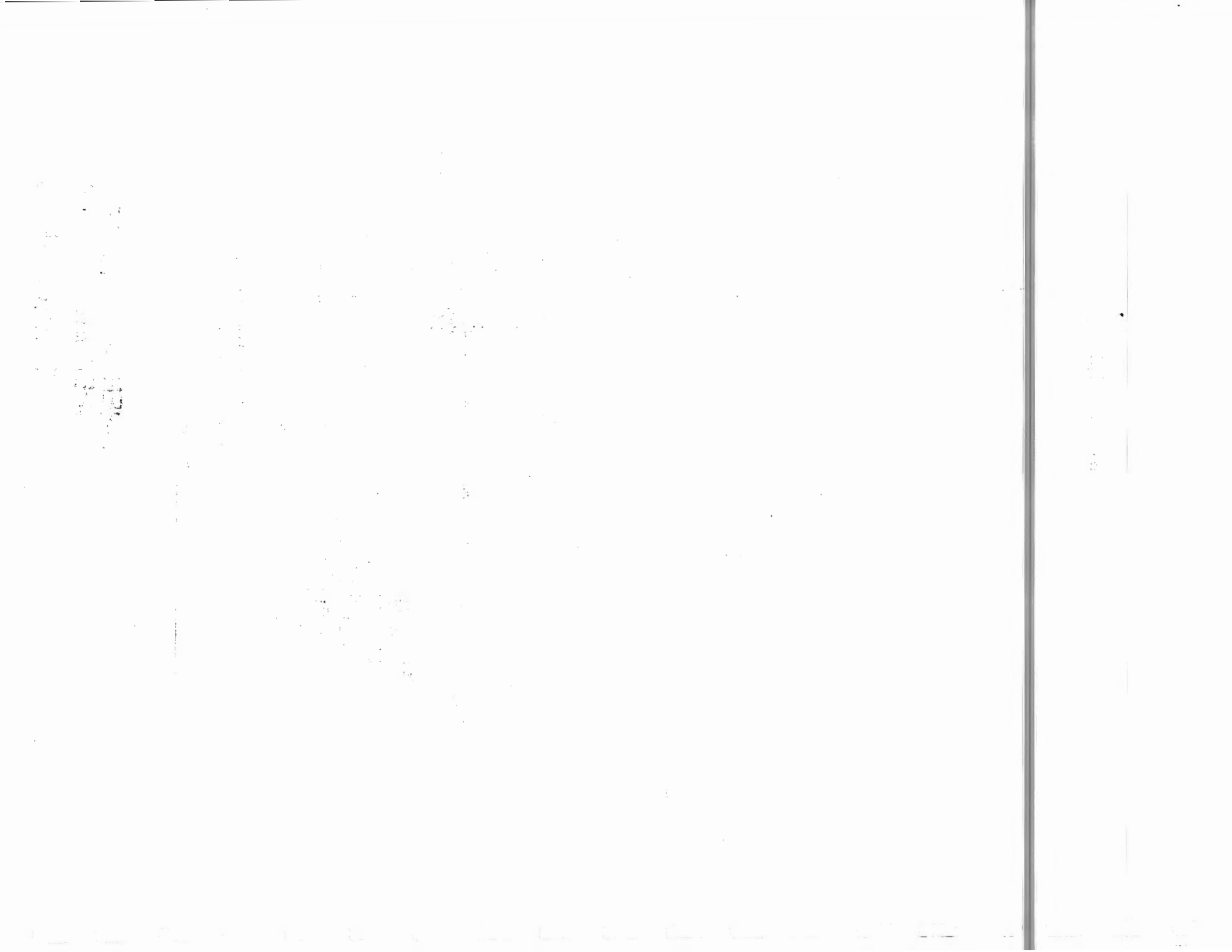


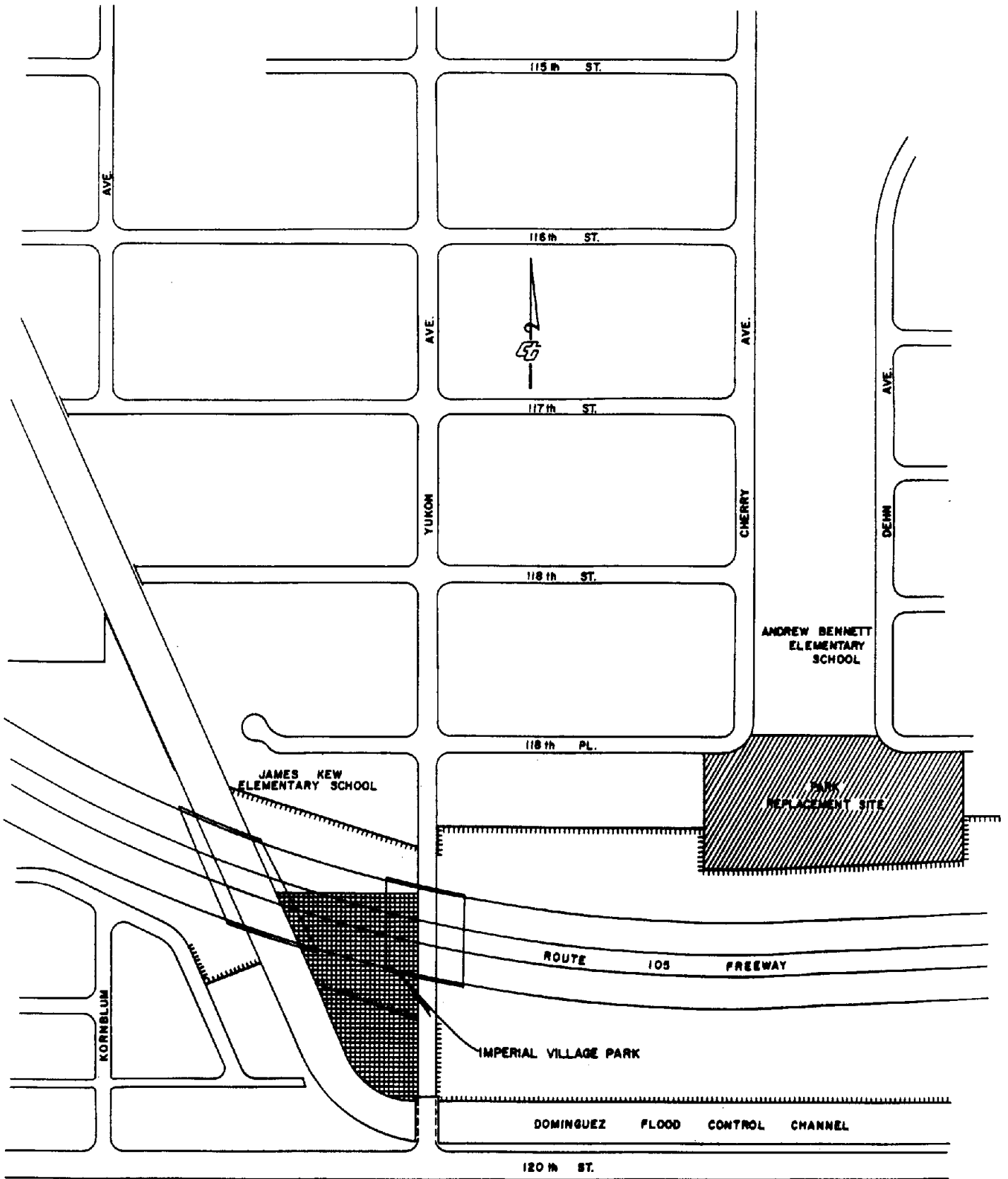


# IMPERIAL VILLAGE PARK & REPLACEMENT SITE

## EXHIBIT NO. 2

 PARK SITE  
 REPLACEMENT SITE

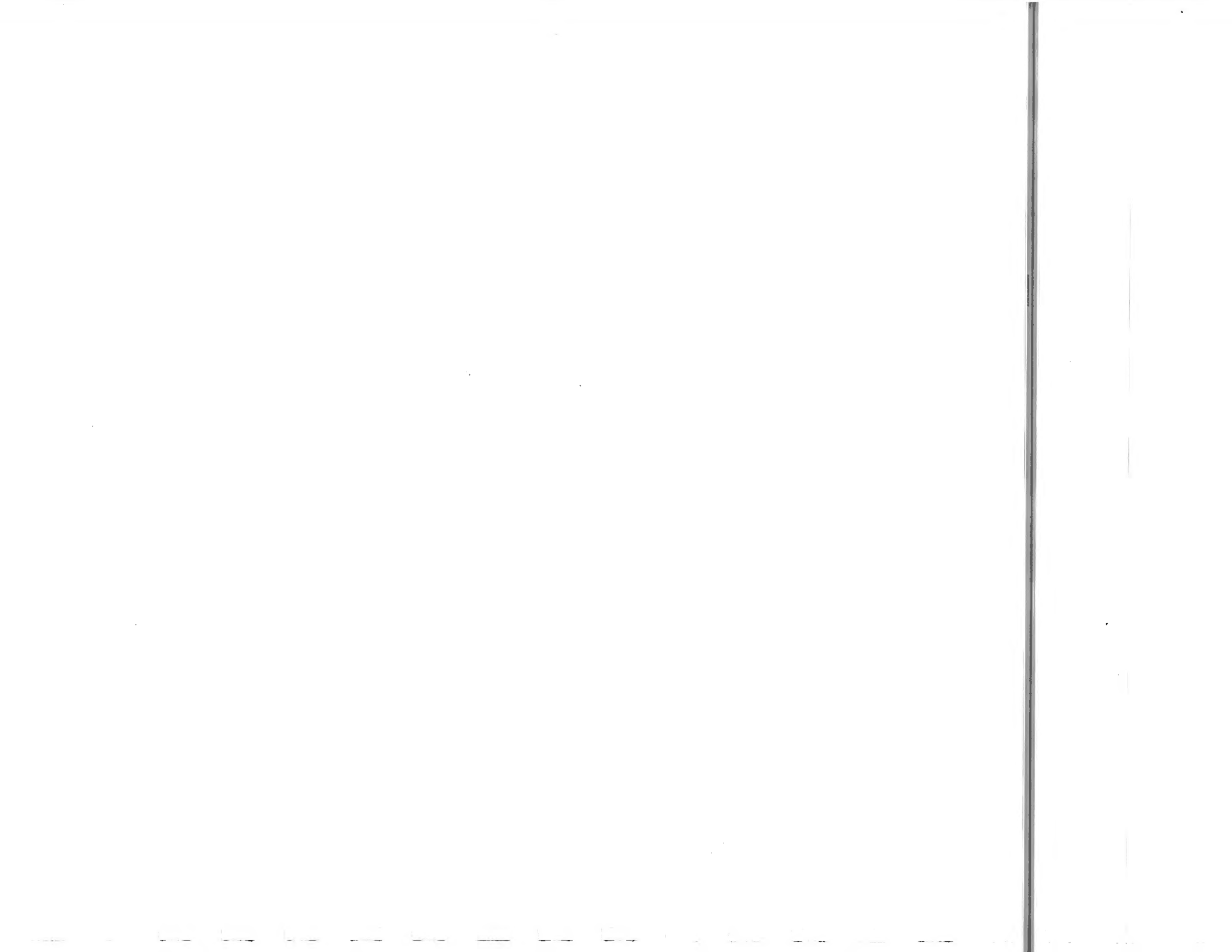


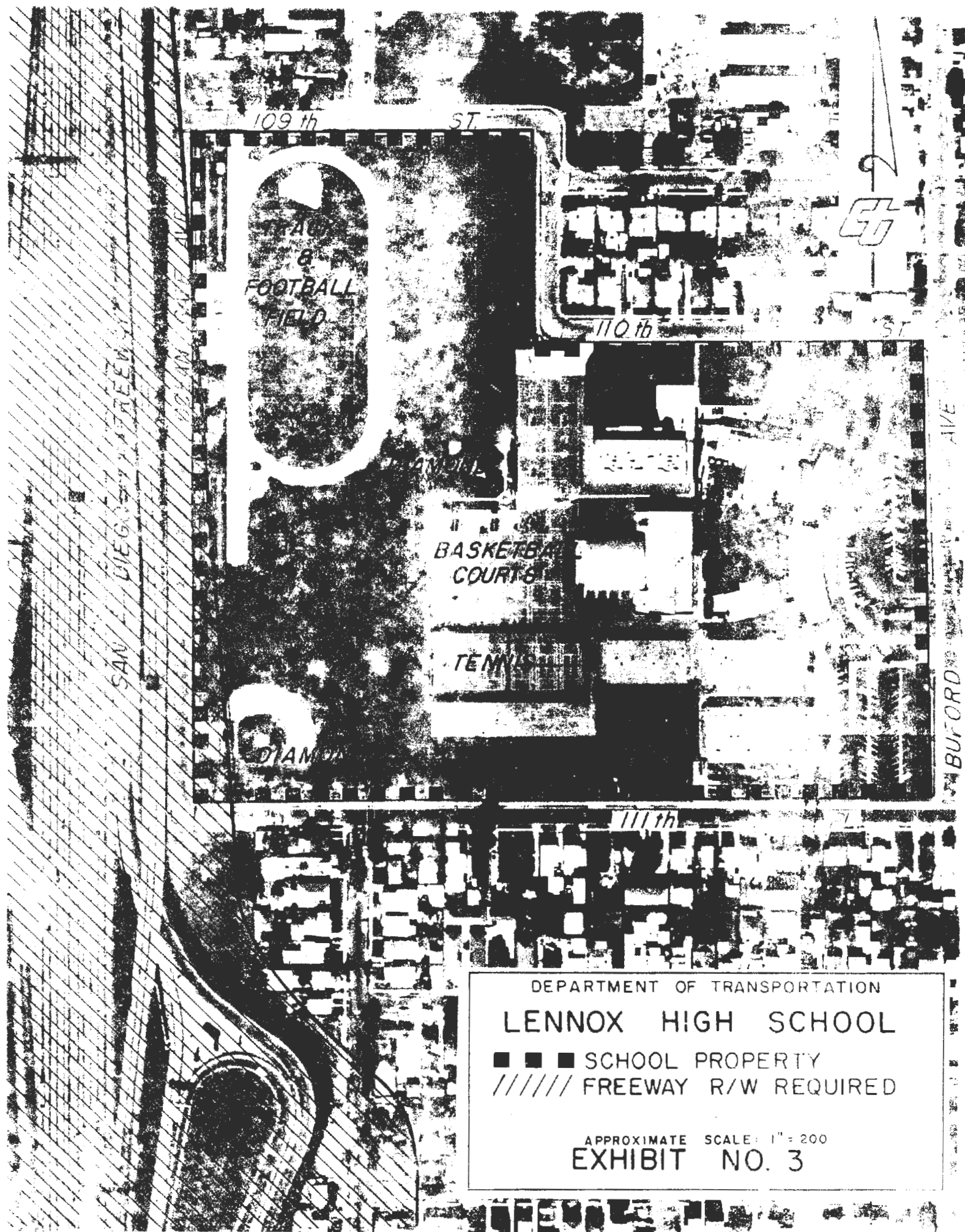


 PARK SITE  
 REPLACEMENT SITE

# IMPERIAL VILLAGE PARK & REPLACEMENT SITE

## EXHIBIT NO. 2





109th ST.

TRACK & FOOTBALL FIELD

110th ST.

BASKETBALL COURTS

TENNIS

DIAMOND

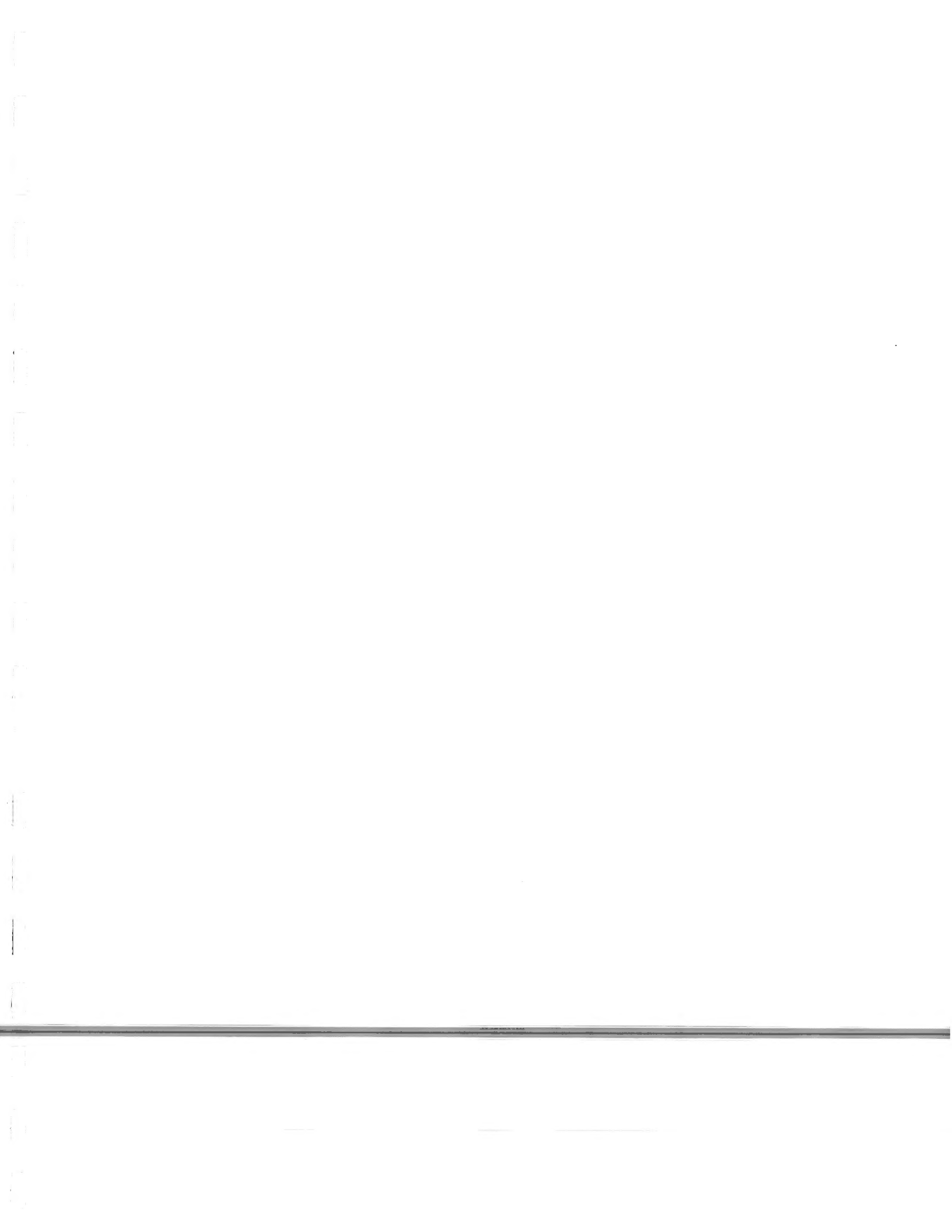
111th ST.

DEPARTMENT OF TRANSPORTATION

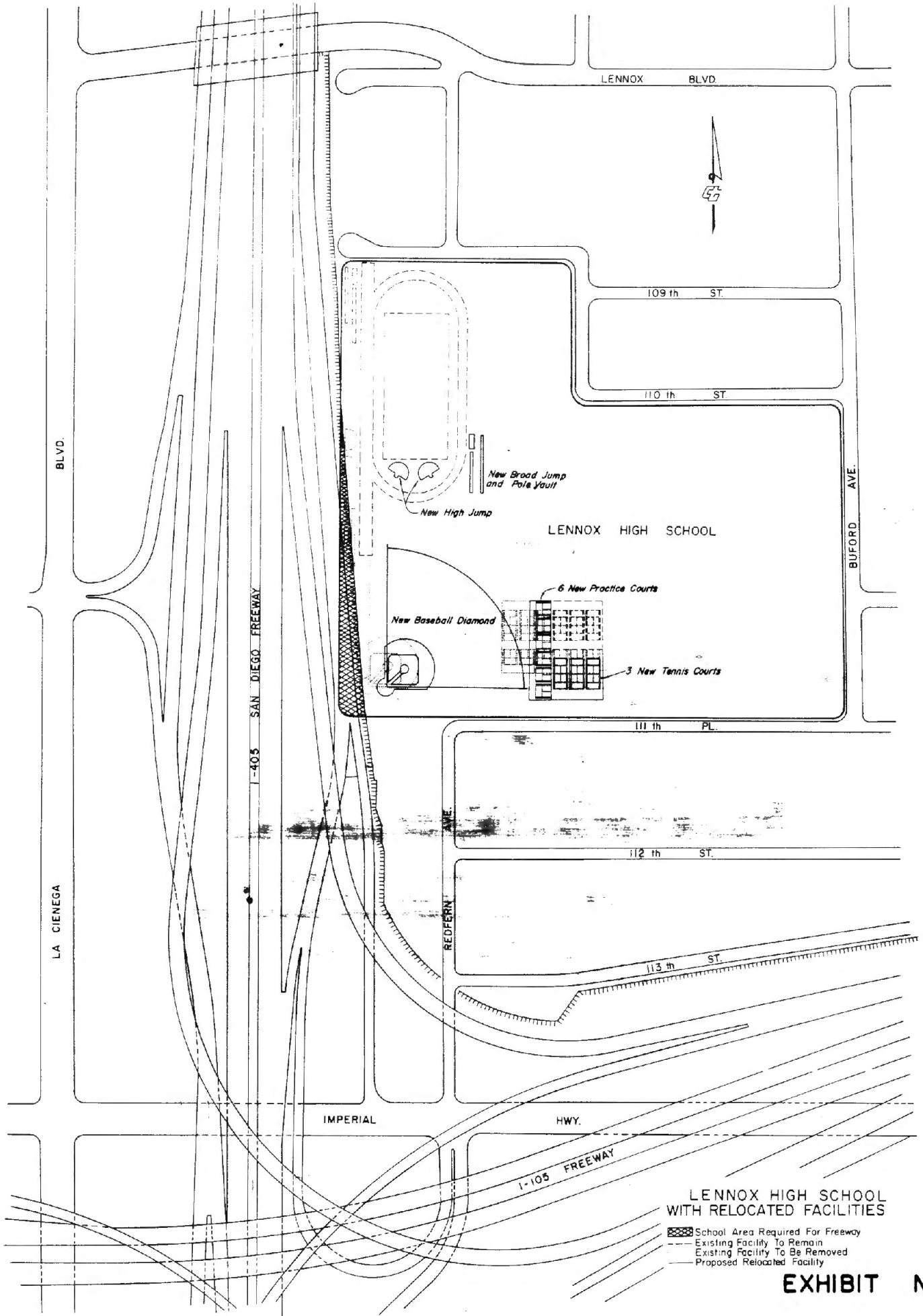
# LENNOX HIGH SCHOOL

- ■ ■ SCHOOL PROPERTY
- ////// FREEWAY R/W REQUIRED





APPROXIMATE SCALE: 1" = 200  
EXHIBIT NO. 3

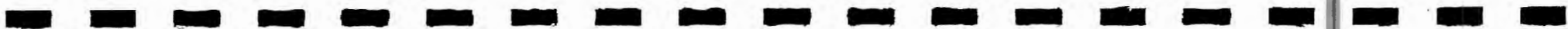






**LENNOX HIGH SCHOOL WITH RELOCATED FACILITIES**

-  School Area Required For Freeway
-  Existing Facility To Remain
-  Existing Facility To Be Removed
-  Proposed Relocated Facility



school's athletic facilities. The acquisition follows along the third base line of the full sized baseball field, and also affects a pole vault runway and a high jump runway. The pole vault runway and the high jump runway can be relocated in the remaining land area, but the baseball field cannot be relocated into the remaining area without affecting some of the tennis courts. The photographs in Exhibits 5 and 6 show the relationship between the Project and these high school facilities.

The existing noise level exceeded 10% of the time (L<sub>10</sub>)\* in the playground area next to the freeway is 73 dBA, while the equivalent noise level excluding aircraft overflights is estimated to be 68 dBA.

The predicted noise level (L<sub>10</sub>) on the playground would be 74 dBA, including aircraft noise, or 70 dBA from freeway sources only. These values represent the anticipated noise levels with or without the Project. The playground level would exceed the design standard for recreational areas by 4 dBA and the existing noise level by 1 dBA, but would be equal to the No Project Alternative.

Mitigation measures (barrier walls) would not be effective in significantly lowering noise levels since overhead aircraft provide the dominating influence, 72 dBA, on ambient noise levels in this area.

Downwind estimates of Carbon Monoxide (CO) hourly concentration levels along Route 405 show that there would be up to a 3 ppm decrease with the Project. Within the 20-year period following completion of the I-105 Project (1980-2000), the Federal 1-hour and 8-hour, and State 12-hour Ambient Air Quality Standards for CO would not be exceeded at any receptor 100 feet or further from the freeway edge of pavement, including the Lennox High School playground.

#### c. Alternatives

There are two alternatives that would cause Lennox High School to be missed: (1) move the San Diego Freeway farther west; and (2) move the alignment of the Route 105 Project far enough north or south that the effects of the freeway-to-freeway interchange would not be felt.

Moving the San Diego Freeway farther west would not be feasible and prudent because of the extraordinary disruption that it would cause. La Cienega Boulevard, which runs parallel to the San Diego Freeway, would have to be moved further west and would require the taking of the airport-related industrial properties located there. Traffic service would not be improved; in fact, the detouring of the existing freeway would be very disruptive. Also, the freeway would infringe on the airspace of the airport.

Moving the alignment of Route 105 far enough north or south would result in extreme community disruption and would most likely result in the involvement of other 4(f) land. Movement of the south would have to be a distance of at least 2-1/2 miles in order to avoid crossing the City of Hawthorne, due to the extreme cost of crossing this City without a freeway agreement. (For a more detailed discussion, see paragraph D.a.) This would place the Freeway-Transitway too far south to provide traffic service to the airport. Lawndale High School would probably be affected and could be a 4(f) involvement. A new alignment would be required west from the Harbor Freeway.

Movement to the north, a distance of a mile and a half, would avoid the high school, but would require the taking of Simmons Playground and Siminski Park in Inglewood, both of which would be 4(f) involvements. Again, there would be extreme community disruption because a new alignment would have to be selected between the Harbor Freeway and Route 405.

There is not enough room between the existing San Diego Freeway and the school site for the necessary connector roads and ramps without the acquisition of some of the school property adjacent to the San Diego Freeway. The off-ramp from the northbound I-405 to Century Boulevard merges with the two northbound on-ramps from Imperial Highway, and the traffic must have enough distance to weave across before it diverges to Century Boulevard. There is no space to bring in the branch connector from westbound I-105 to northbound I-405 and join it to this collector road because of inadequate weaving distance; it must, therefore, span these ramps and collector roads and then merge with the I-405 Freeway independently.

\*The Federal Standard for playground areas is an L<sub>10</sub> level of 70 dBA.

Eliminating the ramps and collector roads adjacent to the high school would not allow service to Century Boulevard, and Imperial Highway. This would hinder realization of one of the primary considerations for implementing the Project; i.e., improved accessibility to Los Angeles International Airport. The northbound loop on-ramp from eastbound Imperial is projected to carry 800 vehicles per hour peak. This would join with the northbound off-ramp to Century which is projected to carry 1,650 vehicles per hour peak. This combined stream would then be joined by the northbound on-ramp from westbound Imperial which is projected to carry 400 vehicles per hour peak. Thus, the collector road adjacent to the High School is projected to carry about 2,800 vehicles per hour peak. The branch connector from westbound Route 105 is also projected to carry 2,800 vehicles per hour peak.

It would be possible to save a portion of the required part of the high school property by building a retaining wall, but not the entire portion. However, this would still require the relocation of the baseball diamond, and the school district would prefer that retaining walls not be built because of problems associated with the defacement of the existing walls by students.

Therefore, there are no prudent and feasible alternatives to requiring a portion of the high school property or the I-105 Project.

d. Planning to Minimize Harm

The taking required from Lennox High School would be minimized by the fact that the existing Ocean Gate Avenue on the west side of the school grounds is not proposed to be replaced. This resulted from a mutual agreement between the Centinela Valley Union High School District, the County of Los Angeles and the State of California. An added benefit would be the improvement to the security of the High School by the elimination of a hard to patrol area adjacent to the school grounds. The area required from the high school has thus been reduced by approximately 1.4 acres.

e. Proposed Mitigating Measures

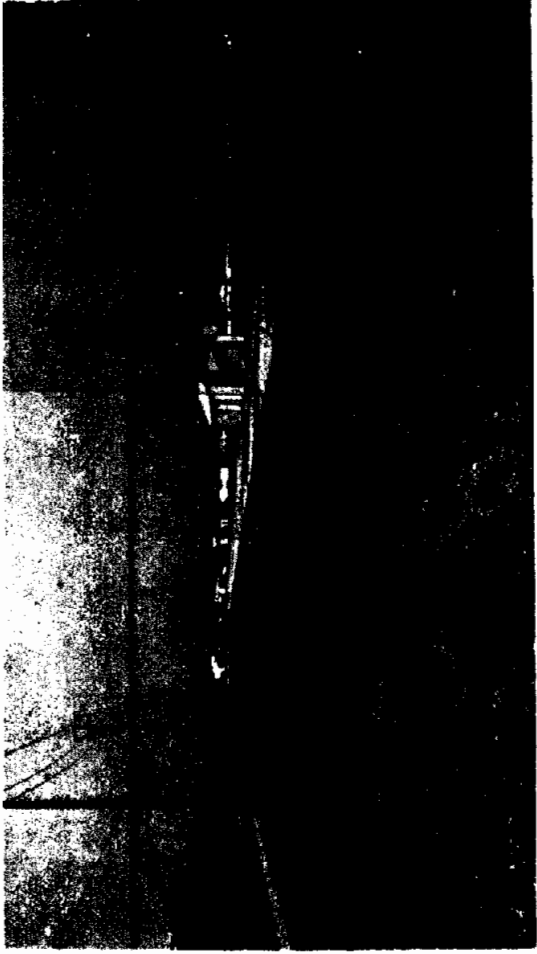
In accordance with State policy, the facilities affected by acquisition from the high school would be replaced with equally desirable functional replacement and the same utility would be re-established. As a result of this policy, the effect of the I-105 Project on the outside recreational use of the school grounds should be negligible, except for a slight change in location of the baseball diamond. No other recreational facilities of the school grounds used by outside groups are affected directly by the Project.

Although the State and the high school district have not yet come to an agreement concerning the functional replacement, the proposal under consideration is to relocate all of the effected facilities onto the existing school property, and to provide monetary compensation for the value of the property that would be taken. The baseball diamond would be relocated about 45 feet farther east; since this would affect at least one tennis court and two practice courts, these would be relocated on the south of the existing courts. The pole vault runway and the broad jump runway and two high jumps would be relocated in the school grounds adjacent to the track. This proposal is shown on Exhibit No. 4.

Access to the high school grounds should be substantially the same as it is at present. Ocean Gate Avenue along the west side of the high school site would be eliminated, but it is presently closed. Redfern Avenue would remain through from Imperial Highway to 111th Place. The replacement would be completed prior to the time that the area to be taken would be utilized for construction. The recreational facilities would be replaced prior to the removal of the old facilities, to the extent practical.

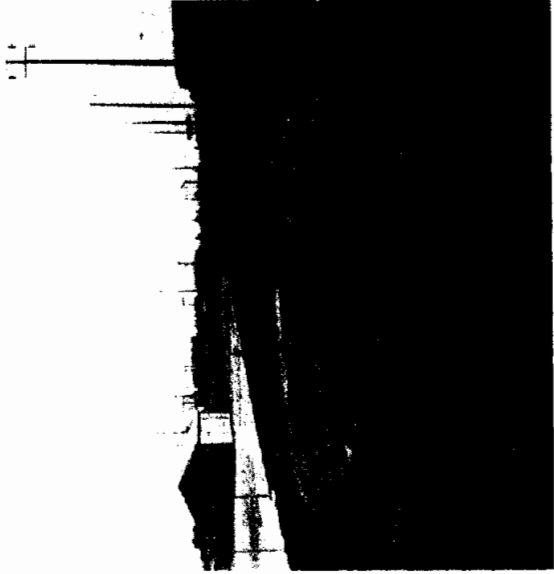
The exact details of the transaction would not be known until after negotiations were completed. Every effort would be made to maintain the use of the existing facilities until the new facilities become available.

The Los Angeles County Department of Parks and Recreation considers the mitigation measures proposed to be adequate to maintain the recreational resources of the Lennox area at a state at least equal, if not superior, to their present state. See letter from Ronald L. Gagnon, District Recreation Director, APPENDIX III.



*R/W Line*

*Looking North  
from near 3rd Base*



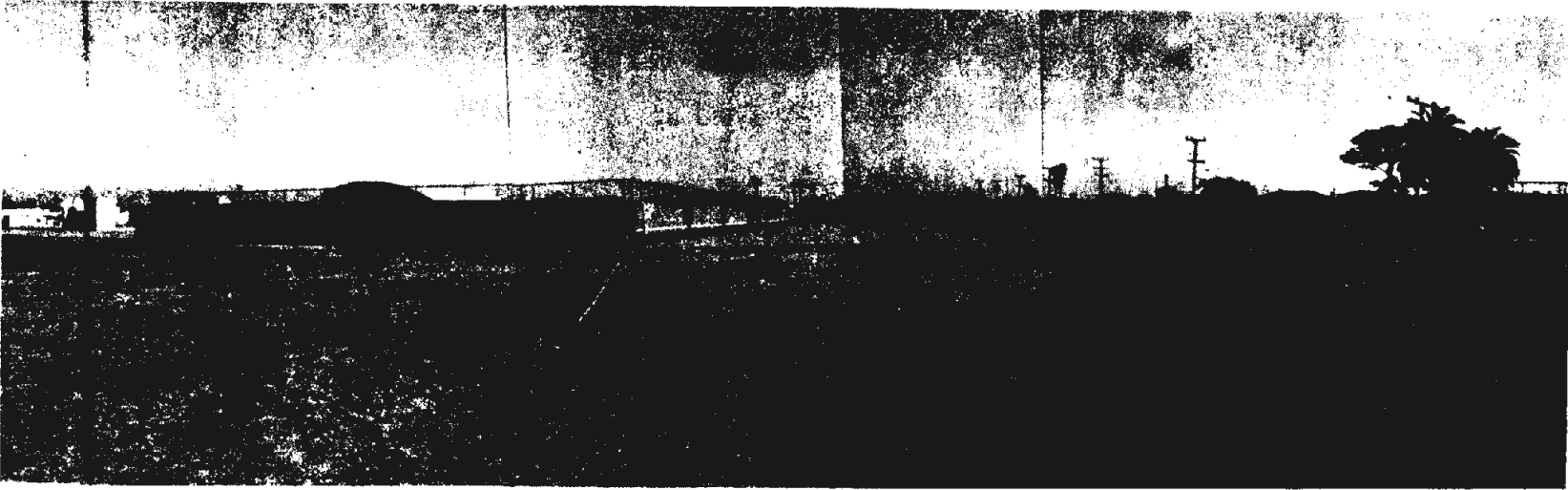
*FREEWAY AREA*

*R/W Line*

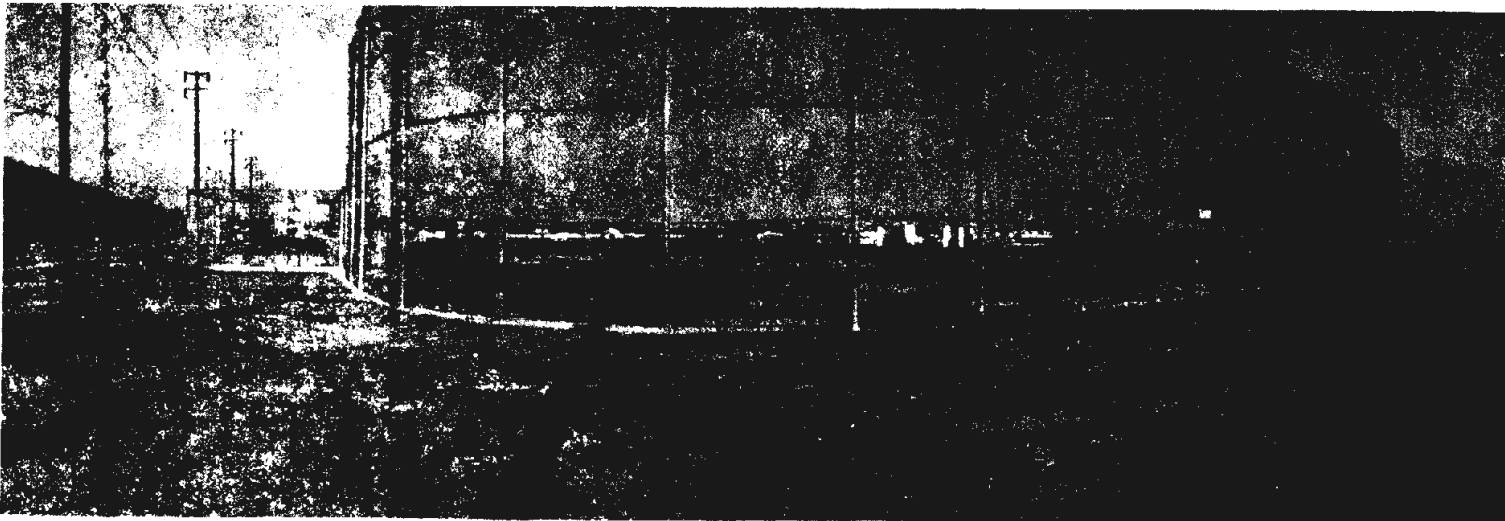
*Looking South from West side  
of Track and Football Field*

*LENNOX HIGH SCHOOL  
LENNOX, CALIFORNIA*





*Looking East  
from near 2nd Base*



*↖ R/W Line*

*LENNOX HIGH SCHOOL  
LENNOX, CALIFORNIA*

*Looking North  
from near Home Plate*







### 3. Larch Avenue Elementary School

#### a. Description

The Larch Avenue Elementary School is located in the unincorporated Lennox area of the County of Los Angeles and is in the Lennox Elementary School District. The school site contains 6.15 acres.

The school is located about half a mile south of the centerline of the flight path of the south (25L) runway of Los Angeles International Airport and is about one and three quarters miles east of the east end of the south runway.

The school buildings are located on the northern portion of the property. A hard-surfaced area is in the central portion containing volleyball, basketball, and handball courts, tetherball poles, bars and other playground equipment. The southern part of the property contains an athletic field area containing three baseball backstops.

The Larch Avenue Elementary School has considerable use by outside groups for recreation purposes. The Los Angeles County Department of Parks and Recreation operates a program after school hours, and on weekends. They have a representative who works there full time when school is not in session, and two hours a day after school hours, when school is in session. Their program consists of drama, arts and crafts, and games inside, and basketball and flag football outside. Approximately 30 to 40 people participate during the week, and from 40 to 50 on weekends. These programs are aimed mostly at the children from the school.

In addition, various other groups also use the facilities for sports, generally for practice during the week and for games on weekends. These include the Little League who use the 3 diamonds, Pop Warner football which has four teams, soccer at the junior and senior high school age level, and an Air Force Softball League of about 15 men. In total there are usually a maximum of from 50 to 75 people, most children, using the recreational facilities at any one time.

Other similarly used land in the vicinity include the Wheland Elementary School located about three quarters of a mile to the north, Lennox Park located about three quarters of a mile to the north, Lennox Park located about three quarters of a mile to the northwest, the Jefferson Elementary School located about one mile to the northwest, the York Elementary School (Hawthorne Unified School District) located about three quarters of a mile to the southeast in Hawthorne, The Eucalyptus Elementary School (Hawthorne Unified School District) located about one and one quarter mile to the southwest in Hawthorne, and the Center Park Elementary School (Inglewood Unified School District) located about one mile to the east in Inglewood.

All of the elementary schools named above have the same type of outdoor recreational facilities as does Larch School--basketball courts, playground equipment, and open fields with backstops. In addition, Center Park School is adjacent to Center Park, which has a diamond, and Jefferson School has a diamond adjacent to it. Lennox Park, the major park is in the area, has a diamond, basketball courts and it also has other facilities that Larch School doesn't have.

The ambient noise level which is exceeded 10% of the time ( $L_{10}$ ) was measured to be 66 dBA in the Larch School Playground. The peak noise level, measured at 77 dBA, includes airplanes.

The Larch Elementary School is owned by Lennox Elementary School District. No deed restrictions or reversionary clauses are known to exist. The only Federal grant money used to acquire land or facilities were some funds under the ESEA (Elementary and Secondary Education Act) Title I (HEW), for a 30' x 32' relocatable building. This is a program for children of low income families.

Access to the school is from Larch Avenue on which the school fronts. There is also a pedestrian entrance to the rear of the school property from Freeman Avenue.

Larch Elementary School was determined to have local significance as a public recreation area, although its use is subject to permission granted by the school district. It is sufficiently isolated from the nearby schools and parks by the major streets of Hawthorne Boulevard, Imperial Highway, and Prairie Avenue, that it serves a recreational function to the local area that cannot be replaced at the other facilities.

Exhibit 7 is an aerial photograph showing the existing situation.

b. Probable Impacts

The Route 105 Project would pass diagonally through the north portion of the school property. The Freeway-Transitway would be depressed and would pass under Hawthorne Boulevard two blocks to the west of the school. Continuing to the southeast, the ~~freeway would cross under Imperial Highway and Prairie Avenue. An eastbound on-ramp from~~ Hawthorne Boulevard and a westbound off-ramp to Prairie Avenue (which would cross over the freeway just east of the school) would be located along the south side of the Freeway-Transitway through the school property. All north-south streets between Hawthorne Boulevard and Prairie Avenue would terminate at the Freeway right-of-way line, including Larch Avenue.

This would require the use of approximately 3 acres of the school property, including all of the school buildings. Exhibit 8 is a map showing the effect of the Freeway-Transitway alternative.

Although all of the school buildings would be taken, most of the recreation area (except for the basketball courts) would remain. Discussions with the County Department of Parks and Recreation however have indicated that they are not interested in this remaining property. This is because it would be uneconomical to operate and more importantly the new replacement site would provide improved recreational use for the community.

Exhibit 9 shows the relationship between the Project and the school facilities at ground level.

The predicted noise level on the remaining playground (L10) would be 72 dBA. This is higher than the Federal L10 sound level standard of 70 dBA by 2 dBA, and a 6-foot high sound barrier would be constructed to reduce it to the design standard. The Ambient Air Quality Standards for CO would not be exceeded at any receptor 100 feet or further from the freeway edge of pavement, which includes the playground area.

c. Alternatives

Various alternate freeway alignments that would avoid the taking of this school have been studied over the years. A discussion of the alignment selection of the Proposed Project is contained in Section D.a. of this report.

The Proposed Project attempts to approximate the jagged northern boundary of the City of Hawthorne. Moving this line far enough to the south to avoid the Larch School is unacceptable to the City of Hawthorne and would result in the problems described above because of the lack of a freeway agreement. It would also cause community disruption and result in a substantial reduction in the City's tax base because it would remove most of the businesses along Imperial Highway in the City. As a consequence, this is not a feasible and prudent alternative because of the cost and community disruption.

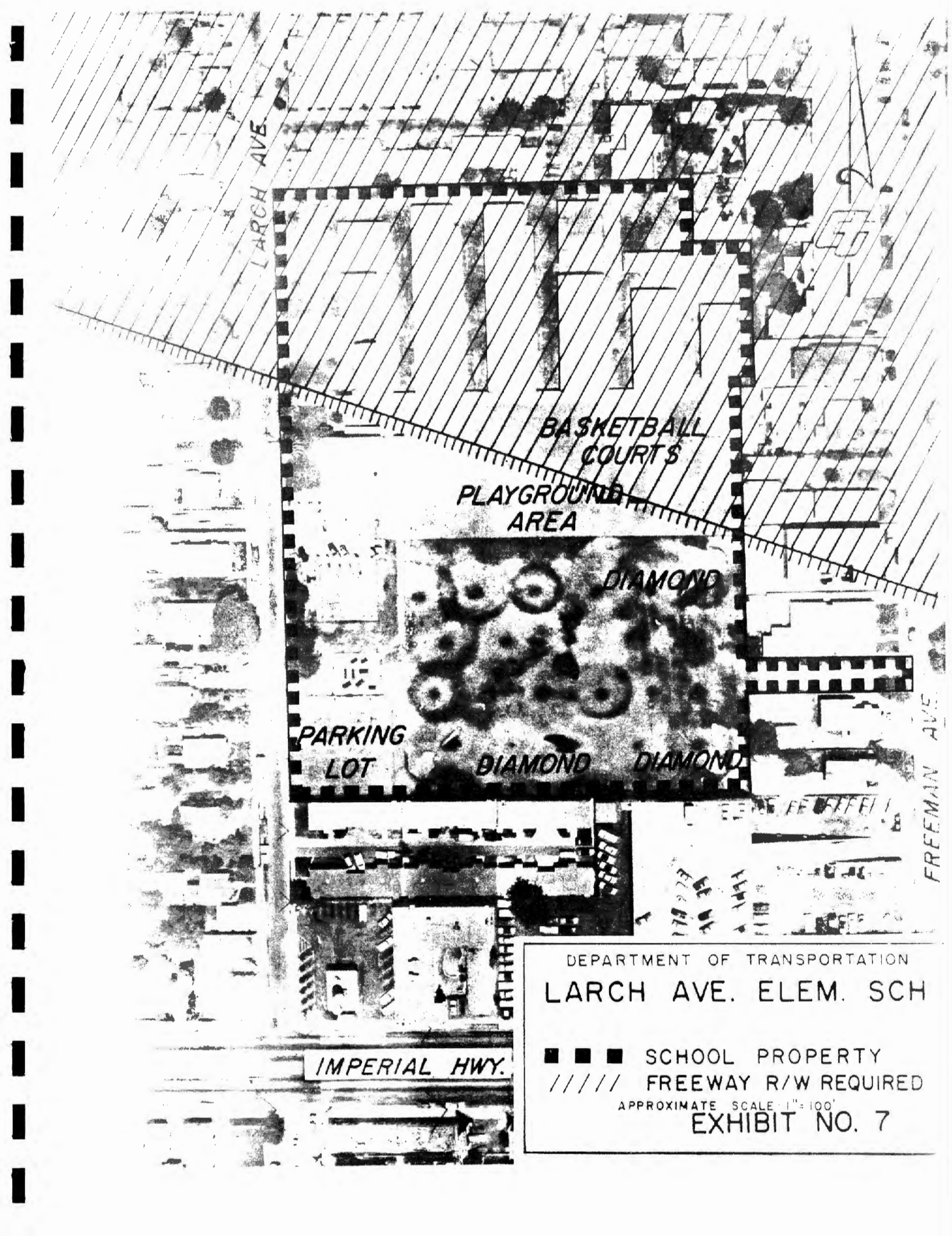
Moving this line far enough north to avoid the Larch School would cause greater community disruption by cutting deeper into the Lennox area; it would then nearly cut through the center of the attendance area of the Larch School, and would have a greater impact on the tax base of the Lennox School District. In addition, the traffic service would be worsened because the alignment would be longer and more circuitous. As a consequence, this alternative is not feasible and prudent because of the relatively greater community disruption.

The various political jurisdictions affected by the Proposed Project which include the Cities of Hawthorne, Los Angeles, and Inglewood, and the County of Los Angeles, have not indicated any objection to consideration of either of these two alignments. (However, there has been a mixed reaction by residents of these communities to this alignment, as well as to the Adopted and Bell Lines.) Hawthorne's and Los Angeles' preference is the "Imperial" Line, but the other jurisdiction have stated no preference.

Therefore, there are no feasible or prudent alternatives to the taking of Larch School.

d. Planning to Minimize Harm

Since it is not possible to avoid the taking of the main plant of the Larch School on the Proposed Project or "Bell" alignments, the only measures to minimize harm would be the mitigation measures discussed under "Proposed Mitigation Measures."



LARCH AVE

BASKETBALL COURTS

PLAYGROUND AREA

DIAMOND

PARKING LOT

DIAMOND

DIAMOND

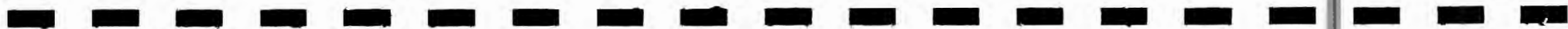
FREEMAN AVE

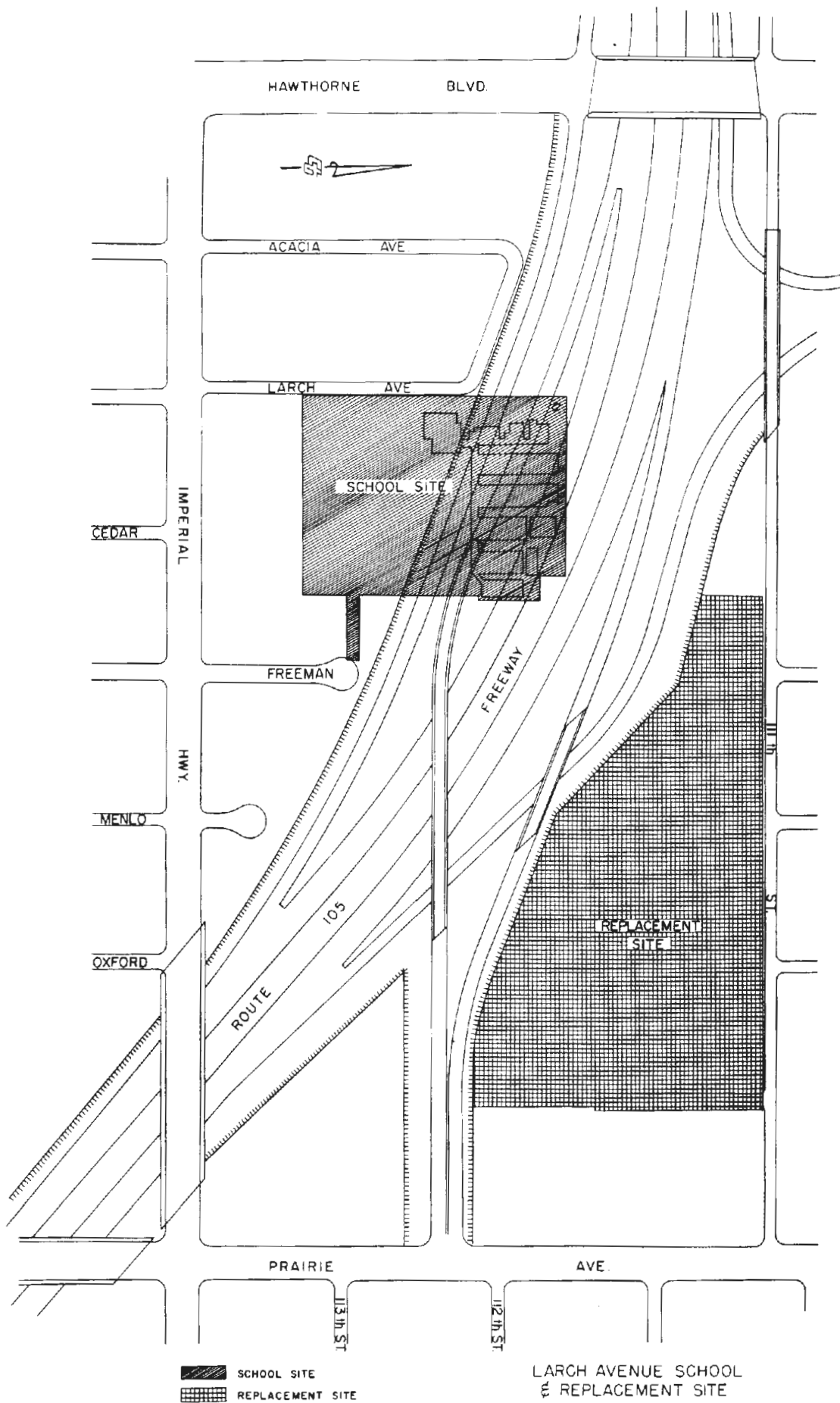
IMPERIAL HWY.

DEPARTMENT OF TRANSPORTATION  
LARCH AVE. ELEM. SCH

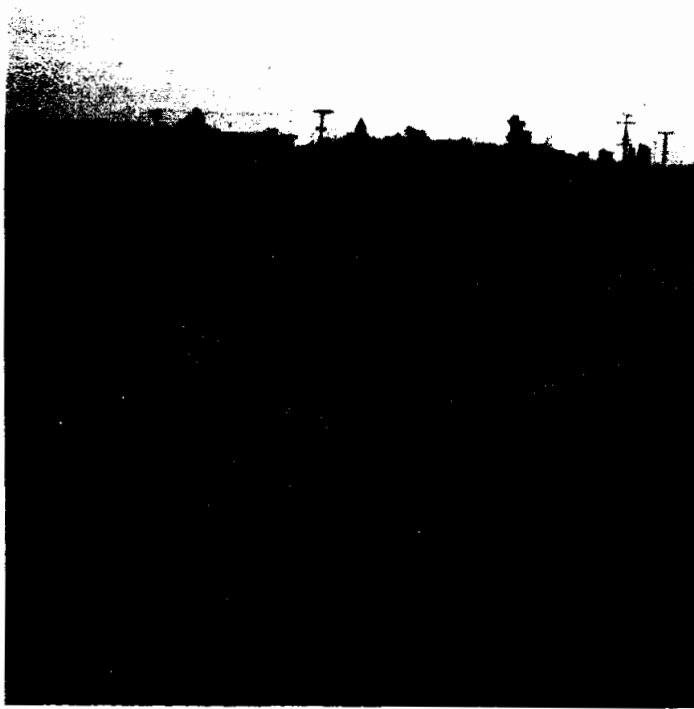
- ■ ■ SCHOOL PROPERTY
- ///// FREEWAY R/W REQUIRED

APPROXIMATE SCALE: 1" = 100'  
EXHIBIT NO. 7









← *R/W Line*

*Looking  
Northeast*



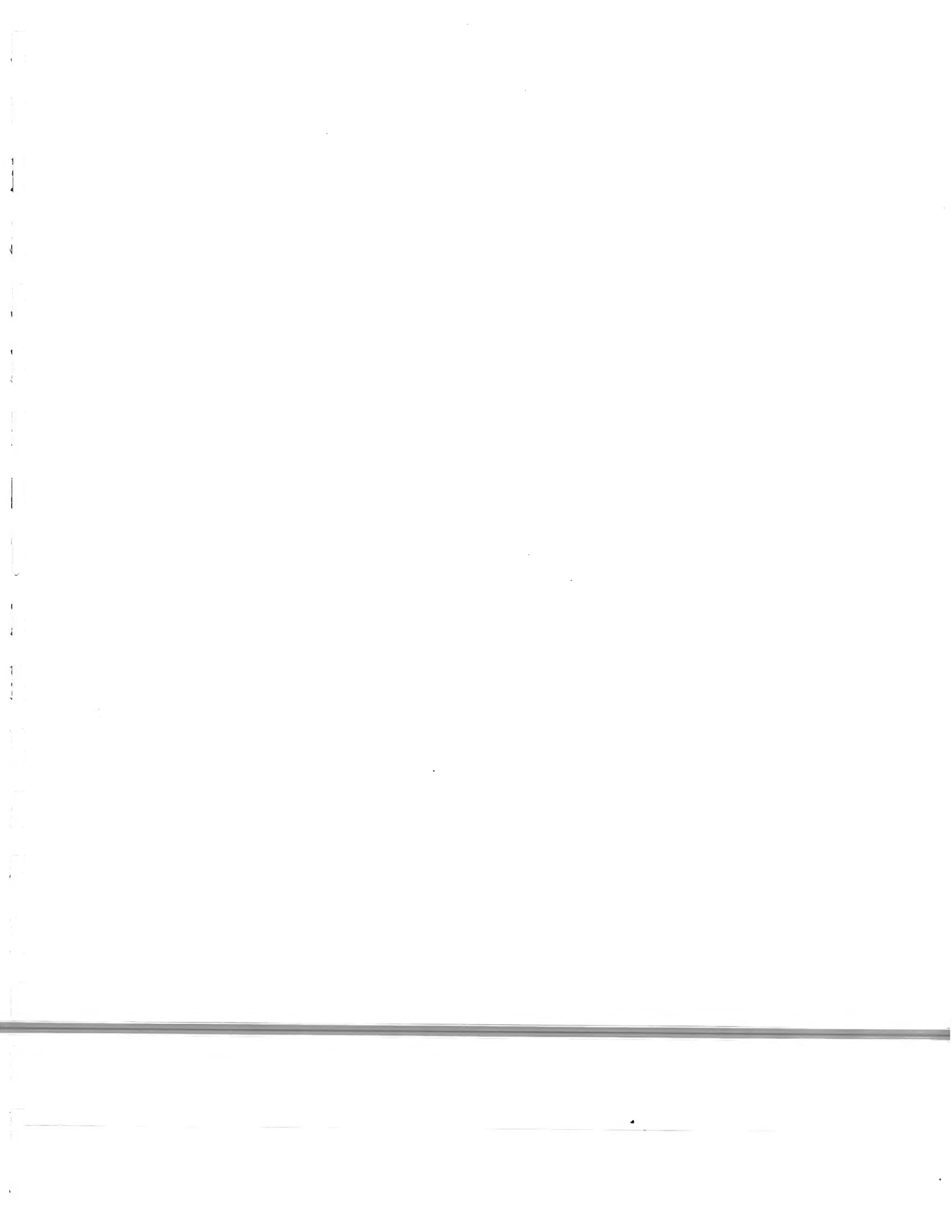
← *FREEWAY  
AREA*

← *R/W Line*

*Looking  
Northwest*

*LARCH AVENUE ELEMENTARY SCHOOL  
LENNOX, CALIFORNIA*

EXHIBIT NO. 9





e. Proposed Mitigation Measures

A replacement site containing about 11.4 acres is proposed (including some street area) for relocation of the school. The number of acres required for the new site is dependent upon a projected school enrollment. The new site could contain about 5 acres more than the old site. This is in accordance with State policy providing for the functional replacement of the effected school. This site has been developed in cooperation with the Lennox Elementary School District, the Division of Aeronautics, and the State Board of Education, and meets all of the requirements for a school of this size. The school buildings would be sound attenuated, including possibly acoustical architecture and treatment of the new buildings, so that they can be sealed against outside noise. The peak noise level in the new classrooms would be no more than 50 dBA, in accordance with the State requirements.

The new site is farther east from the end of the south runway of the airport, and is no closer to the flight path.

The recreational area will be considerable increased because of the larger site. The exact details of the facilities at the new site cannot be given until the negotiations have been conducted and the school district adopts a development plan.

Access to the site would be from 111th Street. Access from the south would be limited to those locations where local streets would cross the Freeway-Transitway--such as Prairie, Imperial and Hawthorne. However, most of the area served by the school would be north of the Freeway-Transitway. If the county elects to retain the remainder of the existing school site as a park, then access to this facility would remain much the same as it now is for those persons who would be south of the Freeway-Transitway. Those persons to the north would have more ready access to the new school site.

The area south of the Proposed Project and north of Imperial Highway is in the Lennox School District. However, a considerable portion of this area is in the City of Hawthorne. The Proposed Project creates the potential for a more uniform boundary adjustment between local jurisdictions, should the local entities so decide, and would be in keeping with the planning principle that freeways follow city boundaries wherever possible. Also, since both Imperial Highway and Hawthorne Boulevard are both developed commercially, it appears likely that this entire area in the long term would be redeveloped for commercial uses. Therefore, it appears that in the long term, access from the south will not be unduly limited, and that the proposed freeway crossings on Hawthorne and Imperial would provide adequate access for the shorter term.

The noise level ( $L_{10}$ ) estimated for the new playground area is estimated to be 72 dBA, which is above the Federal standard of 70 dBA by 2 dBA. A 7-foot high sound barrier would be constructed to reduce it to the design standard.

Downwind estimates of carbon monoxide (CO) hourly concentration levels along the Freeway-Transitway alternative show them to reach from 3 ppm to 14 ppm in 1980, and from 2 ppm to 7 ppm by 2000, at a distance of 100 feet from the freeway shoulder. Within the 20-year period following completion of the I-105 Project (1980-2000), the Federal 1-hour and 8-hour, and State 12-hour Ambient Air Quality Standards for CO would not be exceeded at any receptor 100 feet or further from the freeway edge of pavement, which would include the relocated Larch School playground area.

The agreement which would be negotiated with the school would provide for the complete functional replacement of the existing school facilities, including the playground facilities. It would also be specified that the new facilities be made available prior to the taking of the old facilities.

The parcels to be acquired for the replacement area would include 29 single family residences and 22 multiple family residences, and 6 commercial properties, and would require the relocation of 135 families. This would result in a reduction of the tax base of Lennox School District and Centinela Valley Union High School District by about \$559,000 each, of Los Angeles County by about \$498,000, of Hawthorne by about \$19,000, and of Inglewood about \$42,000. (This amounts to about 1.8% of the assessed valuation of the Lennox School District, and less than 1% of the others.) The cost of the replacement site is estimated at \$3.5 million including \$240,000 for relocation.

The Los Angeles County Department of Parks and Recreation considers the mitigation measures proposed to be adequate to maintain the recreational resources of the Lennox area at a state at least equal, if not superior, to their present state. See the letter from Ronald L. Gagnon, District Recreation Director, in APPENDIX III.

#### 4. Lynwood Pacific Electric Railway Depot

##### a. Description

The only historic property affected by the I-105 Project is the Lynwood Pacific Electric Railway Depot. It is located in the City of Lynwood at the intersection of the Southern Pacific Railroad right-of-way along Fernwood Avenue and Long Beach Boulevard.

The depot was built about 1917, replacing an old shed shelter, by the Lynwood Company for the Pacific Electric Railway, which became a part of the Southern Pacific Transportation Company, for passenger operation, and included a lunch room. Passenger service on the railway line was discontinued in July 1950. The Lynwood Depot stood abandoned and vandalized until recently, when a local group painted it and cleaned it up to some extent. It has been used as a Bus Depot, Taxi Stand, Lunch Stand and Commercial Typing School. These operations altered the building slightly, but did not change its overall appearance or plan. It has withstood the ravages of weather and physical abuse in spite of its high public exposure. Its condition has deteriorated (peeling paint, broken windows, graffiti, etc.) but not beyond the point of repair.

Although the architect is unknown, the building exemplifies regional architecture of the time and can be said to enjoy the best influence from Greene and Greene and their Southern California Bungalow style and Bernard Maybeck and his Bay Area Neo-Classical expression. The style of the Lynwood Depot is unique in that the design apparently had no precedent and was never repeated in the Pacific Electric System. See Exhibit 10 for a picture of the building.

Civic groups in Lynwood, recognizing that construction of the I-105 Project would require removal of the depot, began efforts for preservation of the depot about 1972. Informal contacts were made with Caltrans and Southern Pacific Transportation Company (SPTCo.).

The depot, now owned by the SPTCo, was offered to the City as a gift, with the proviso that it would be removed.

The Lynwood Pacific Electric Railway Depot was placed on the National Register of Historic Places on September 25, 1974. The nomination form states that the Depot's significance lies in its unique architectural style, stands as a symbolic landmark of greater Los Angeles history and Southern California heritage, and bears invaluable testimony to the cultural identity of Lynwood. The City's specific interest is in preserving the building through relocation to a suitable replacement site.

The Depot building contains approximately 1,625 square feet, of which about 1,100 are presently enclosed. The land on which the building is located is a part of the Southern Pacific Company's right-of-way.

Access to the depot is gained from the north roadway of Fernwood Avenue and from Long Beach Boulevard. Pedestrians must cross Fernwood along Long Beach Boulevard to reach the station.

There are several similar railway depots in the Los Angeles area, some restored and relocated, and some in a state of decay. However, none are similar in architectural style, nor do any others remain in the City of Lynwood.

The Depot has no recreational facilities and is not used for any recreational purpose at present. The railroad track is used by two freight trains a day, which serve local industries.

There are no title restrictions on the land as far as is known.

The ambient noise level that is exceeded 10% of the time (L<sub>10</sub>) is about 65 dBA in the area of the Depot.

##### b. Probable Impacts

The Route I-105 Project would require the entire site on which the Depot is located. Exhibit 11 shows the location of the Depot and its relationship with the Freeway-Transitway.

LYNWOOD PACIFIC ELECTRIC  
RAILWAY DEPOT

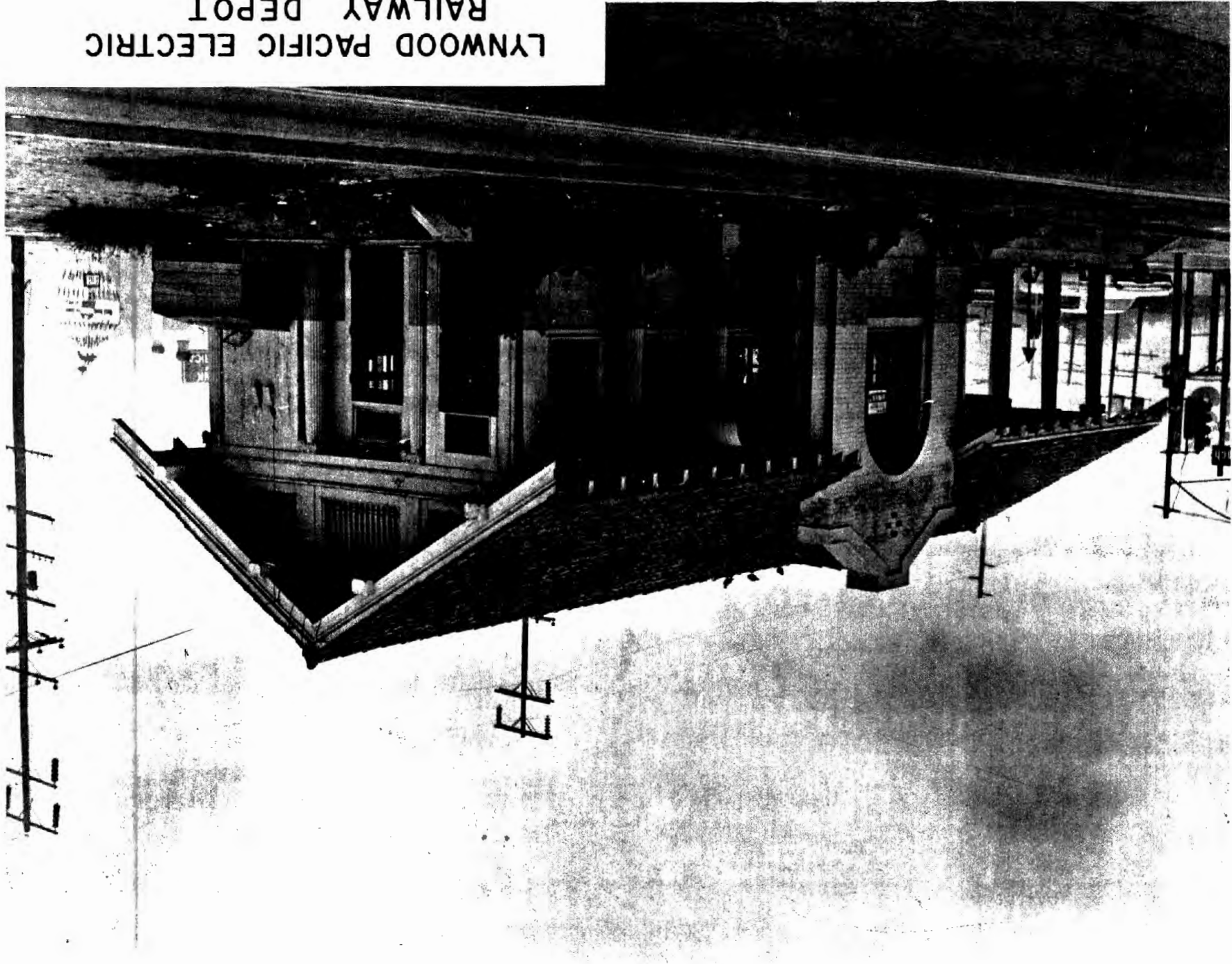
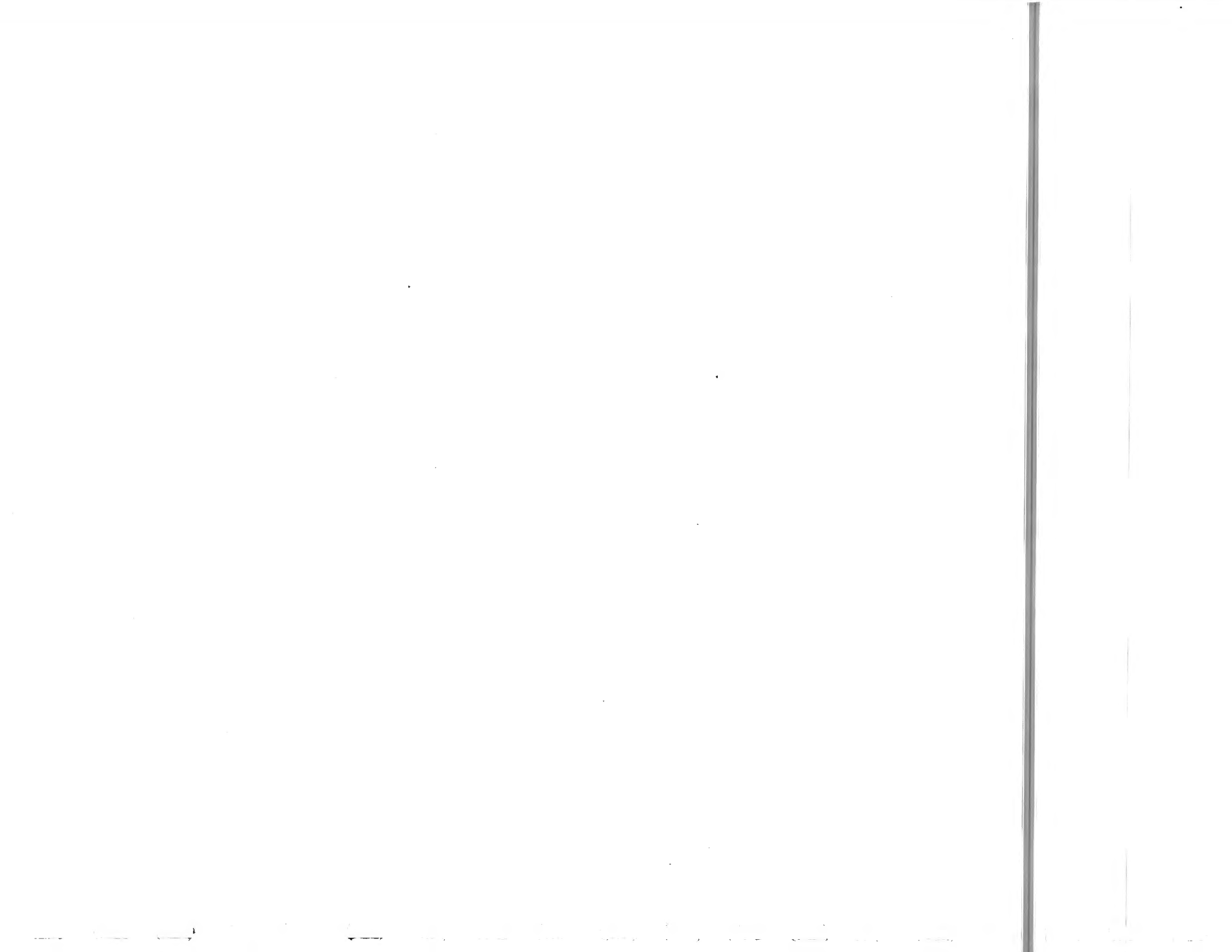
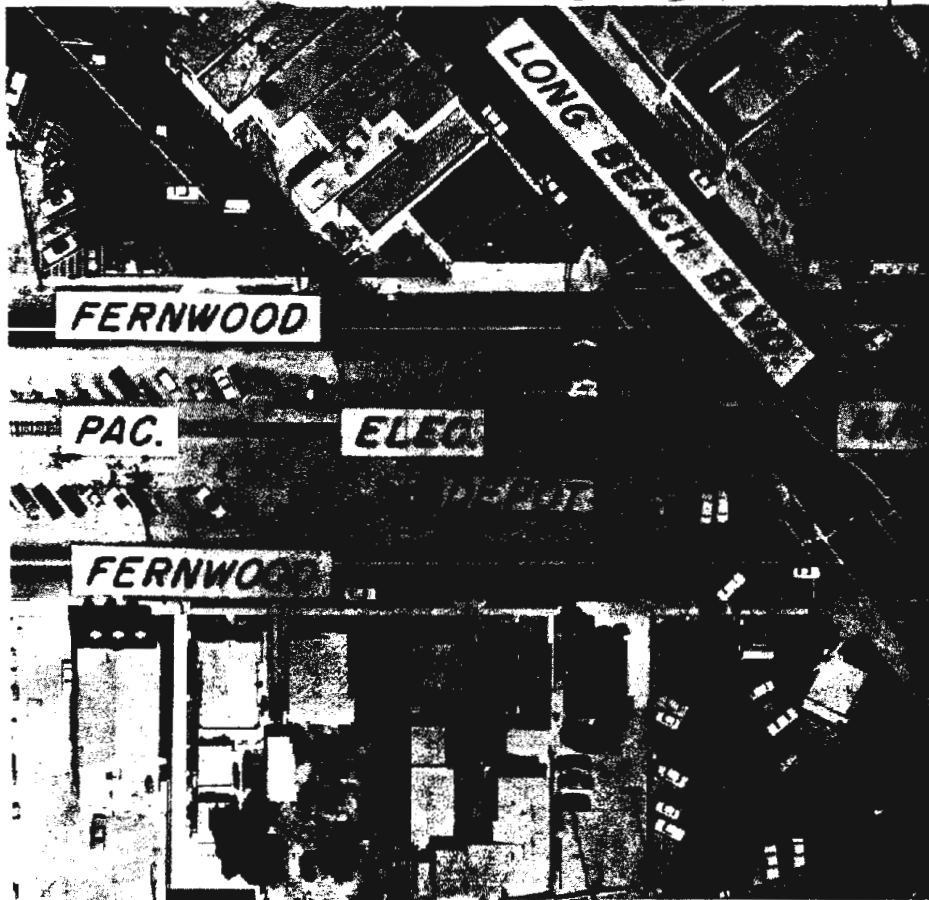
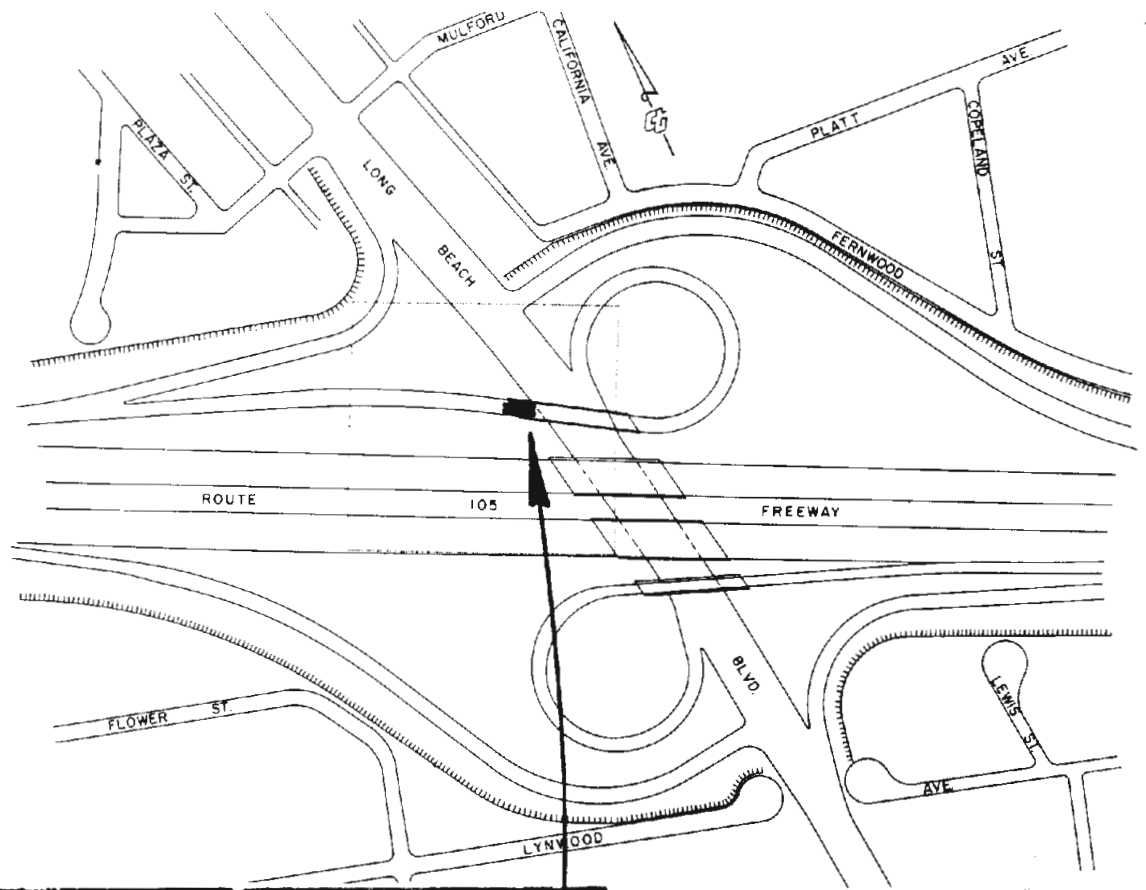


EXHIBIT NO. 10

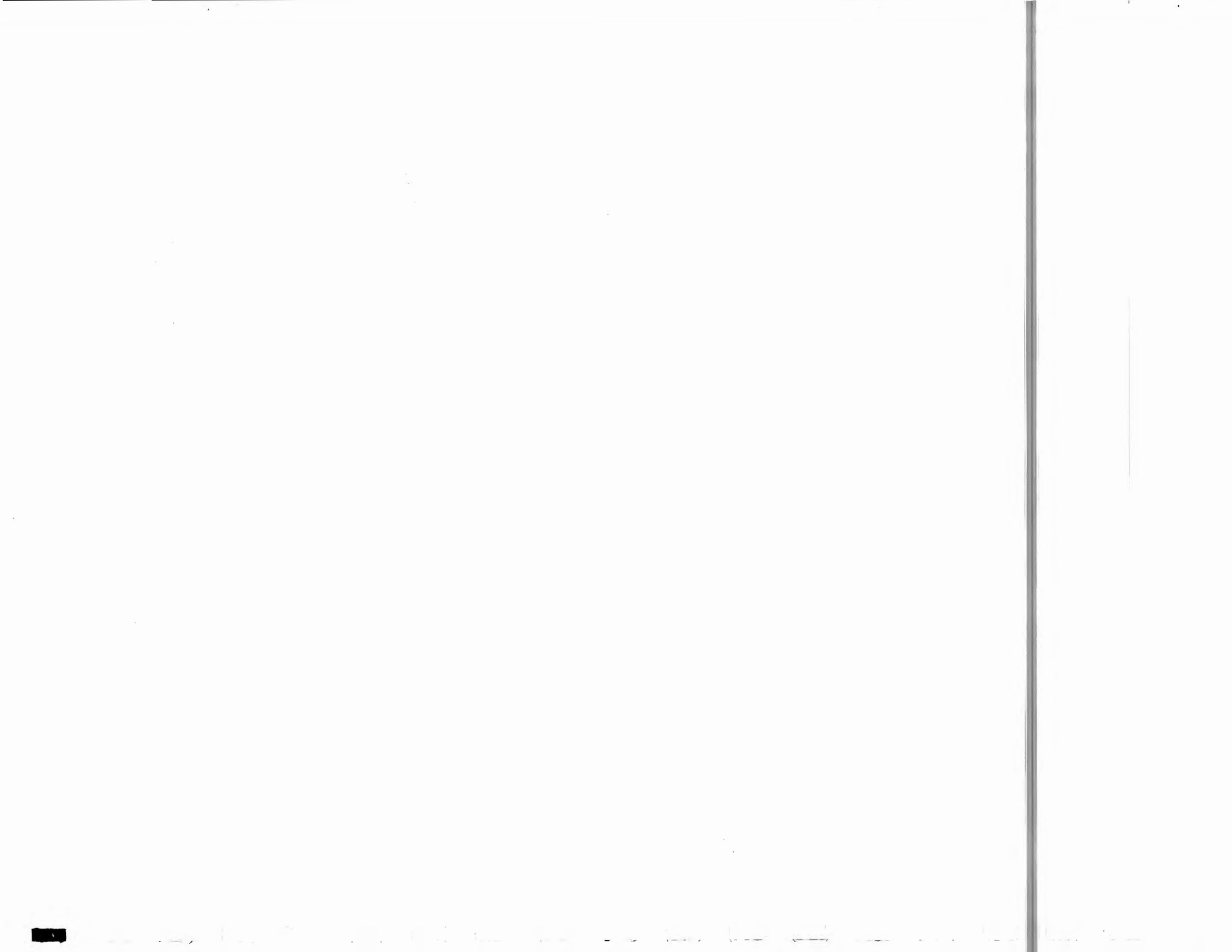


I-105 PLAN



AERIAL PHOTO LOCATION  
OF LYNWOOD PACIFIC  
ELECTRIC R.R. DEPOT

EXHIBIT NO. II



Basically, the Freeway-Transitway would follow the transportation corridor through Lynwood that was first laid out by the railway line. Long Beach Boulevard, a major arterial street would require an interchange. The railway Depot would be totally within the interchange area, requiring its complete removal.

c. Alternatives

(1) Avoiding Adverse Effects

In order to avoid any adverse effects (the acquisition of the building and site), it would be necessary to construct the Project on a different alignment.

This is not considered to be a prudent and feasible alternative based on the following:

- . The route location was adopted in 1968, a Design Public Hearing held in 1969, and a freeway agreement completed with the city in 1970. A substantial amount of right-of-way has been purchased and cleared. A change in alignment would involve many additional parcels and people (possibly hundreds).
- . The City has formed a redevelopment agency to redevelop an area immediately adjacent and north of the project. Development is well under way and has proceeded based on the Project.
- . Improvements to Long Beach Boulevard have been accomplished by the City, again based on the original Project.
- . In the Draft EIS and at the Public-Hearings the impact of the project was discussed. There were no comments or suggestions by the public that the site and Depot be avoided.
- . Acquisition of the Depot, and the Railroad property are a key part of an overall railroad abandonment and modification concept. This concept is firmly supported and desired by all agencies and communities involved.
- . The Freeway-Transitway follows the railroad right-of-way in this sector and this alignment was so chosen to lessen residential and business dislocations.

(2) Mitigation of Adverse Effects

It is possible to "build around" the Depot by modifying the interchange with Long Beach Boulevard.

This is estimated to cost an additional \$340,000 and would require the acquisition of seven more parcels, as well as the entire acquisition of another parcel which formerly was partially required.

This scheme is not considered prudent and feasible due to the additional costs and impacts on right-of-way and people. Further, in this setting, public access to the Depot would be limited and its cultural and historical significance would be impaired.

d. Planning to Minimize Harm

Since the Depot falls within the proposed Long Beach Boulevard Interchange area, the only measures to minimize harm would be the mitigation measures discussed under "Proposed Mitigation Measures."

e. Proposed Mitigation Measures

At this time, it is proposed to have the building relocated to a site within the City of Lynwood, to be ultimately administered and maintained by local City interests.

Caltrans, FHWA, the City and the Lynwood Chamber of Commerce are engaged in a mutual effort to accomplish the relocation. This includes selecting the specific site as well as refining the details of which agency would administer the site acquisition and accomplish the relocation. Additionally, the financial obligations and responsibilities of each party will be defined.

In any event, Caltrans would be responsible for the costs of a new site and the relocation of the structure, including placement on a new floor and foundation. It is expected that the City will provide the State with an assurance that the building would be administered and maintained consistent with its historical status (the City could enter a separate agreement with the Chamber such that the Chamber would actually accept this responsibility). While rehabilitation of the building might be necessary to create a functional office, the basic architecture and style would be retained.

This approach would provide a positive method for preserving and restoring the Depot. Since it would be used and occupied it would not be subjected to deterioration, neglect or vandalism. It also would be established in an appropriate setting, which should enhance its accessibility and its cultural and historical significance.

A Preliminary Case Report and a Proposal have been prepared in accordance with the provisions of 36 CFR Part 800. This Report discusses the alternatives considered as well as the mitigation proposed. The alternate selected will be covered by a memorandum of agreement. The text of the Preliminary Case Report and the Proposal and the Memorandum of Agreement are included in Appendix III.

F. COORDINATION AND NEGOTIATIONS

1. Consultation to Determine Non-Significance

Although consultations were conducted with many local agencies and school districts in order to determine whether any of the local schools affected by the project were locally significant as a public recreational use, a number of these involvements proved to be non-significant.

The Statements by the local officials having jurisdiction over these recreational areas concluded non-significance and are included in APPENDIX III. They are itemized as follows:

	<u>School</u>	<u>School District</u>	<u>Date of Letter</u>
1.	Felton Ave Intermediate	Lennox Elementary	9-4-75
2.	James Kew Elementary	Inglewood Unified	5-28-75
3.	Los Angeles S.W. College	L.A. City Community College	8-22-75
4.	Ritter Elementary	L.A. City Unified	6-3-75 7-26-76
5.	Will Rogers Elementary	Lynwood Unified	4-23-75
6.	Grove	Paramount Unified	4-23-75
7.	Roosevelt Elementary	Paramount Unified	4-23-75
8.	E.W. Ward Elementary	Downey Unified	7-8-75

A letter from the City of Downey supporting the determination on Ward School dated 12-15-75 is also included in APPENDIX III.



That portion of the 97th Street Elementary School impacted by the I-105 Project has been completely relocated and therefore is not included in the Statement. All right-of-way transactions were complete by June, 1972.

Two other recreational uses were also considered. These were the horseback riding, bicycle riding and hiking trail along the Los Angeles River Flood Control Channel, and a similar trail along the San Gabriel River Flood Control Channel. Since they would only essentially be spanned by structures over the rivers and are not on publicly owned land to be acquired for the I-105 Project, it has been determined by the Federal Highway Administration and Caltrans that they are not covered by the Section 4(f) requirements and have not been included in the Statement. The trail along the Los Angeles River generally runs adjacent to the levee, either on an easement on private property or under permit on the flood control easement. In the vicinity of the proposed I-105 crossing, the trail crosses over the levee and down to the river bed because the existing railroad line cannot be legally crossed at grade. It remains on flood control easement. The trail along the San Gabriel River runs along the top of the levee except where city streets cross over the river. It is under permit on the flood control fee right-of-way. The I-105 would span the trails, either in their original location, or in a relocated location.

Representatives of the Bureau of Outdoor Recreation (BOR) of the Department of the Interior have been contacted on a number of occasions to discuss the significance of any potential 4(f) facilities effected by the Project. Joint field reviews with BOR Representatives have also been conducted. A copy of their letter dated 5-24-76 documenting this contact is included in paragraph H., "Comments Not Requiring a Response."

Further discussion of the environmental impacts on the above named facilities is contained in the Final EIS, and the reader is referred there for more information.

As a part of the EIS process, three identified "historic" properties, in addition to the Lynwood Railway Depot, were investigated and were determined by the FHWA in consultation with the State Historic Preservation Officer (SHPO) to be outside of the area of potential environmental impact. A letter dated 6-6-75 from James R. Gordon, Caltrans, to Omar L. Homme, FHWA, requesting this determination, and the replies are included in Appendix B of Preliminary Case Report and Proposal.

## 2. Consultation Concerning Significant 4(f) Properties

Documentation of coordination with the City of Inglewood is contained in an appendix to the approved 4(f) Report.

Consultation with the Centinela Valley Union High School District and the Lennox School District concerning the involvements at Lennox High School and Larch Avenue Elementary School has been a continuous and ongoing process over the past several years. Letters from these Districts, dated 4-14-76 and 5-5-76, expressing their agreement with the measures proposed are included in APPENDIX III.

The County of Los Angeles Department of Parks and Recreation was consulted concerning the 4(f) involvements at these two schools. A letter dated 10-13-75 expressing their agreement with the measures proposed is included in APPENDIX III.

The State of California Department of Education and Division of Aeronautics were consulted concerning the relocation of the Larch School. Letters dated 7-15-74 and 6-26-74 documenting this consultation are included in APPENDIX III.

Consultation with the City of Lynwood, the SPTCo., the SHPO and the Lynwood Chamber of Commerce have been conducted on a continuing basis over the past several years. Documentation of this consultation is included in APPENDIX II.

The Department of Housing and Urban Development reviewed the Draft 4(f) Statement, and their concurrence with the measures proposed are included in APPENDIX III in a letter dated 7-8-76.

It was determined that circulation of the Draft 4(f) Statement to the Department of Agriculture was not needed on this project relative to 4(f) lands.

### 3. Consultation on Potential Cultural Resources

An extensive Cultural Resource survey to identify properties in or eligible for inclusion in the National Register of Historic Places was conducted with the aid of all cities involved, various local historical societies and cultural groups.

Twelve Cultural Resources were found in the corridor of the proposed project and its alternatives. All these Cultural Resources with the exception of the Lynwood Pacific Electric Railway Depot have been found to be either outside of the zone of potential environmental impact of the proposed project or lacking in significance. (See Appendix B of the Preliminary Case Report for supporting documentation.)

#### G. COMMENTS TO DRAFT 4(f) STATEMENT REQUIRING A RESPONSE

The only comment requiring response is the letter from Assistant Secretary for Environment, Safety, and Consumer Affairs dated 5-20-76. The following responses given below are keyed to the numbers in the margin of the letter (see attached).

1. Showing that the conceptual alternatives were not feasible and prudent was not appropriate in the Draft 4(f) Statement because the intent in that document was merely to point out the 4(f) involvements of each of the alternatives. However, in this Final 4(f) Statement, where a project is proposed, this determination of feasibility and prudence has been made and can be found in paragraph D., "Determination There is No Feasible and Prudent Alternative."
2. Design changes which would avoid Lennox High School are discussed in detail in paragraph E.2.c under "Alternatives." The need for the existing ramps on the I-405 Freeway to Century Boulevard and Imperial Highway are discussed in paragraph E.2.b., under Probable Impacts. The importance of maintaining these existing ramps as major access routes to LAX cannot be overemphasized.
3. The need for a new or revised section 4(f) Statement for the Imperial Village Park was analyzed during preparation of the Draft 4(f) Statement. It was determined that, since none of the conditions which constituted the earlier approval for no feasible and prudent alternative had changed, the 4(f) Statement previously approved was still appropriate.
4. The final determination of the nonsignificance of the Ward Elementary School and Southwest Community College was made by the local officials having jurisdiction over the facilities in letters subsequent to the July 14, 1975 letter by the Bureau of Outdoor Recreation. At the time the July 14 letter was written, the local officials for Ward School and Southwest College had not made a final determination. These determinations are discussed in paragraph F.1., under "Consultation to Determine Non-Significance," and supporting documentation is included in APPENDIX III. After a series of discussions, field reviews, and correspondence, the Department of Interior, Bureau of Outdoor Recreation has concurred with this determination in their letter dated 5-24-76, contained in paragraph H, "Comments Not Requiring A Response."

#### H. COMMENTS TO DRAFT 4(f) STATEMENT NOT REQUIRING A RESPONSE

1. Centinela Valley Union High School District - 4-14-76
2. City of Los Angeles - 4-30-76
3. Lennox School District - 5-5-76
4. D.O.I. - 5-24-76
5. H.U.D. - 7-8-76

UNITED STATES GOVERNMENT

DEPARTMENT OF TRANSPORTATION  
OFFICE OF THE SECRETARY

# Memorandum

DATE: MAY 20 1976

SUBJECT: Draft Section 4(f) Statement - Routes 1 and 105,  
El Segundo-Norwalk Freeway, Los Angeles County,  
California (FHWA-CA-EIS-74-14-DS) in reply  
refer to: TES-72

FROM: Assistant Secretary for Environment,  
Safety, and Consumer Affairs

TO: Chief, Environmental Programs Division, FHWA/HEV-10

Thank you for the opportunity to review this draft supplement. We look forward to receiving the final EIS and section 4(f) determination for this project, including the comments received from other public agencies and the general public on the draft statement.

  
Judith T. Connor

Attachment

We have reviewed the draft section 4(f) statement for the Century Freeway. Section 4(f) documentation is included for use of land from Lennox High School, Larch Avenue Elementary School, the Lynwood Pacific Electric Railway Depot, and the Imperial Village Park.

The information provided in the draft section 4(f) statement does not support a determination that there are no feasible or prudent alternatives to use of the section 4(f) lands. For example, there is no discussion of why the alternative of arterial street improvements (grade separation) is not feasible and prudent; the previously circulated draft EIS indicates that this alternative would provide approximately the same traffic service and relief of congestion as the proposed project. Design changes which would avoid Lennox High School should be discussed in detail, and the need for the ramps to Century Boulevard and Imperial Highway should be demonstrated.

It appears that a new section 4(f) determination will be required for use of the Imperial Village Park. The revised determination should include evidence that there is no feasible and prudent alternative to use of the park land.

The proposed project also requires use of land from eight other public schools. For each of these schools, the draft section 4(f) statement includes a determination by local officials that the school properties are not significant for recreation purposes. In a letter dated July 14, 1975 (copy attached), the Bureau of Outdoor Recreation expressed the opinion that the Southwestern Community College and Ward Elementary School were both significant local recreation resources. This opinion was based upon site visits and consultation with local school and recreation officials. It appears that further information should be provided to support a conclusion as to whether the grounds of these two schools are significant for recreation purposes.

1  
2  
3  
4

228



# Centinela Valley Union High School District

12227 SOUTH HAWTHORNE WAY, HAWTHORNE, CALIFORNIA 90250  
TELEPHONES - HAWTHORNE: 679-8141 - LOS ANGELES: 772-4321

April 14, 1976

Mr. S. L. Elicks, P.E.  
Chief, Project Development Branch A  
Department of Transportation, District 7  
State of California - Business and Transportation Agency  
P. O. Box 2304, Los Angeles, California 90051

Your Ref: 07-LA-105 EIS  
07225-040601  
Draft 4 (f) Statement

Dear Sir:

This will acknowledge receipt of your referenced letter dated April 5, 1976.

Staff representatives of this school district, the architects retained by this school district, and faculty and administrators of Lennox High School have met and discussed the potential impact of the development of Route 105 Freeway-Transitway. We are in general agreement that all feasible alternatives have been considered, and that the proposed taking of approximately 0.55 acre at Lennox High School would best serve the needs of all concerned.

The school athletic facilities can be relocated and redeveloped on the existing site with no specific loss of effectiveness. The impact on future educational services - such as construction of additional industrial arts structures and needed parking areas remains to be determined, but we are sure a solution can be achieved.

Very truly yours,

W. R. McDonald  
Assistant Superintendent  
Business Services

WRM/pk

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## CITY OF LOS ANGELES CALIFORNIA



TOM BRADLEY  
MAYOR

Mr. S. L. Elicks, PE  
Chief, Project Development  
Branch D  
Caltrans  
P. O. Box 2304  
Los Angeles, California 90051

DATE April 30, 1976  
FILE NO. W.O. 01006 TED  
El Segundo - Norwalk Free-  
way (I-105) - Draft 4(f)  
Statement.

Dear Mr. Elicks:

I have reviewed the Draft 4(f) Statement as you requested in your letter dated April 5, 1976. None of the four properties you have identified as being impacted by your project are within the City of Los Angeles, and I therefore have no comments on the Draft.

Thank you for the opportunity to make input to you in this matter.

Sincerely,

DONALD C. TILLMAN  
City Engineer

By

DONALD R. HOWERY  
Division Engineer  
Transportation Engineering Division

DRH/DAB:zp

DEPARTMENT OF  
PUBLIC WORKS  
BUREAU OF  
ENGINEERING  
DONALD C. TILLMAN  
CITY ENGINEER  
ROOM 900 CITY HALL  
LOS ANGELES 90012

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Lennox School District

10318 FIRMONA AVENUE  
LENNOX, CALIFORNIA 90304  
671-8271 678-9421

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SUPT. AND SEC. TO BOARD  
H. CHARLES SHIELDS  
ASST. SUPERINTENDENT  
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JEPPERSON LARCH AVE.  
SHELLEN



ER-76/336

United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

MAY 24 1976

May 5, 1976

Department of Transportation  
Division #7  
P. O. Box 2304  
Los Angeles, California 90051

The Draft 4(f) Statement has been reviewed with particular attention to that portion relating to the taking of Larch Avenue School by Route I-105 Freeway.

A number of discussions have been held on the matter between Transportation representatives and Lennox School District Administrators and Governing Board. In fact, one discussion on replacement of Larch School was attended by representatives from the Division of Aeronautics, State Department of Transportation and from the State Department of Education Bureau of School Planning.

While details remain to be agreed upon, the proposed replacement and larger site as described in the 4(f) Statement would replace our present Larch facilities function for function with the end result a larger and equally functional site.

In summary, I concur in the decision to take Larch Avenue School for freeway use and replace it as described.

  
H. W. Colby, Ed. D.  
Superintendent

sm

Dear Mr. Home:

This responds to your request for the Department of the Interior's comments on the draft Section 4(f) statement for I-105, (El Segundo-Norwalk Freeway), Los Angeles County, California.

General Comments

In our comments on the draft environmental statement for this project, we contended that all of the school properties, which would be affected by the proposed freeway, should be subject to the provisions of Section 4(f). Subsequently, members of your staff, the California Department of Transportation, (CALTRANS) District Seven, and the Pacific Southwest Region of the Bureau of Outdoor Recreation (BOR) have held discussions on and field inspections of the project. Also, local school and park and recreation officials have been consulted on the significance of the affected school sites. As a result of these meetings and consultations, you have determined that Section 4(f) is applicable only to the Lennox High School, Larch Avenue Elementary School and the Lynwood Pacific Electric Railway Depot (a Section 4(f) statement was previously approved, by the Secretary of Transportation, for the Imperial Village Park). We concur with this determination.

Section 4(f) Comments

With respect to the Lennox High School and the Larch Avenue Elementary School, we concur that there are no feasible or prudent alternatives to the taking of land from the recreation facilities of the two schools. The proposed measures to minimize harm appear to be adequate.

With respect to the Lynwood Pacific Electric Railroad Depot, we note that on page 22, the statement indicates that a Preliminary Case Report is being prepared regarding alternatives and mitigative measures involving the depot. This property is listed on the National Register of Historic Places. A final decision regarding an appropriate course of action concerning this property should be reached before the final 4(f) statement is made available to the public for review. A copy of the signed Memorandum of Agreement, between the Advisory Council on Historic Preservation and the State Historic Preservation Officer,



should be included in the final statement. Only in this way will we be able to adequately assess the impacts of the project upon this property. Also, from the information given on page 22, it appears that the State Historic Preservation Officer has been consulted. A copy of his comments should be included in the final statement.

Summary Comments

Subject to a determination of a suitable course of action for the Lynwood Railroad Depot and the signing of the aforementioned Memorandum of Agreement, we would not object to the U.S. Department of Transportation's approval of the Section 4(f) aspects of this case. We appreciate the field coordination efforts on this case, on the part of your staff and CALTRANS District Seven, with the BOR's Pacific Southwest Regional Office.

Sincerely yours,



Deputy Assistant Secretary of the Interior

Mr. Omar L. Honne  
Division Administrator  
Federal Highway Administration  
Post Office Box 1915  
Sacramento, California 95809

✓cc: Mr. H. Ayanian  
District Director  
California Department of Transportation  
District Seven  
Post Office Box 2304, Terminal Annex  
Los Angeles, California 90015



DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
REGIONAL OFFICE  
450 GOLDEN GATE AVE., P.O. BOX 34002, SAN FRANCISCO, CALIF. 94102

JUL 8 1976

REGION IX  
Office of Community Planning  
and Development

IN REPLY REFER TO:  
9CE

Mr. S. L. Elicks  
Chief, Project Development, Branch A  
California Department of Transportation  
720 South Spring Street  
Los Angeles, California 90012

Dear Mr. Elicks:

Subject: Proposed Route I-105 in the County of Los Angeles,  
California - Section 4(f) Review

We have reviewed the report you prepared for the proposed I-105 route through several communities in Los Angeles County. As you know, consultation with HUD is required by Section 4(f) of the 1966 Department of Transportation Act.

The proposal would take all or part of two schools, a park, and a historic railroad station. Although none of these actions is desirable to all parties affected, your proposals are probably the best compromises available.

Based on the information provided, we agree that:

1. There are no better, more feasible, or more prudent alternatives to the proposed actions.
2. All possible planning has been, and will continue to be, included in the design process to minimize harm to the encroached-upon land and structures.

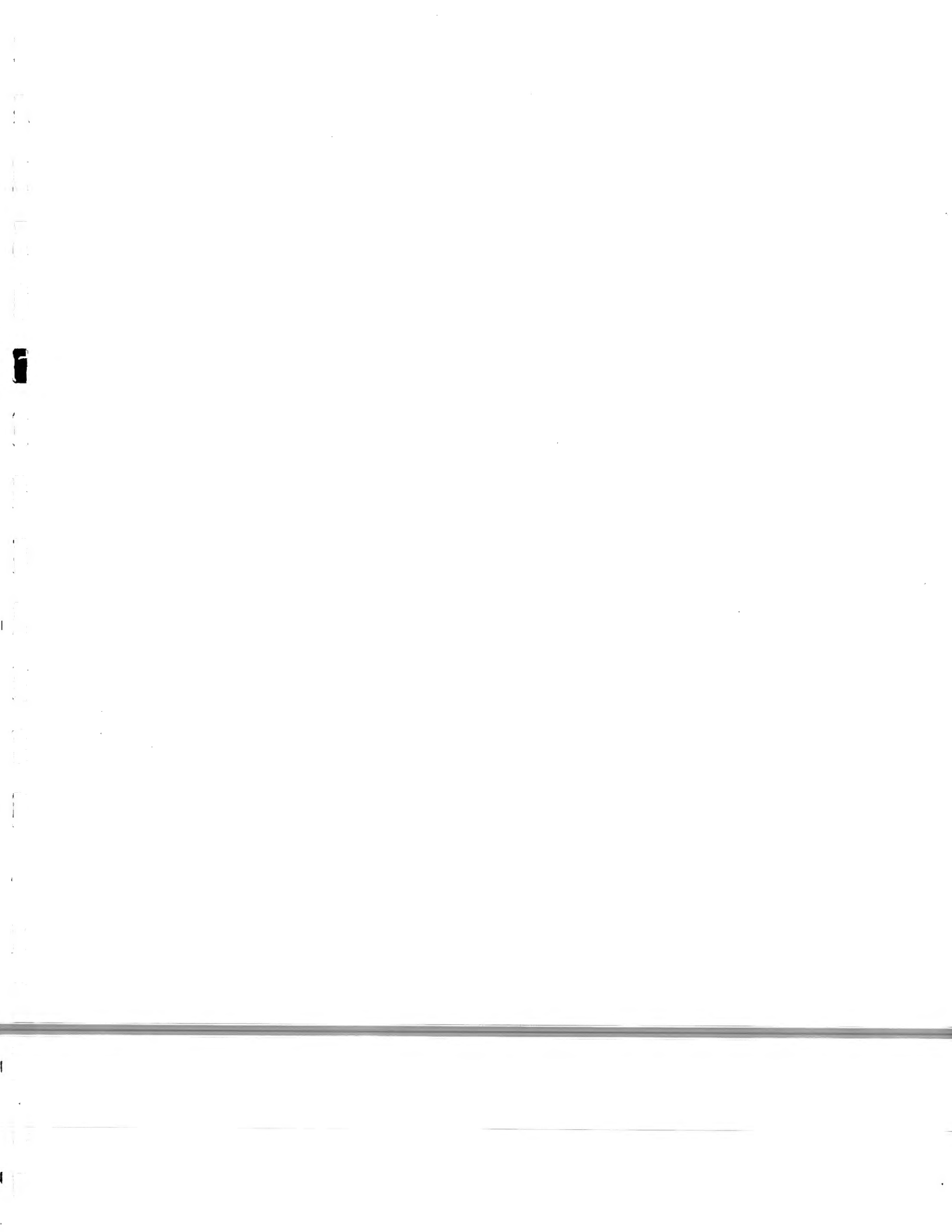
I am impressed by the quality and thoroughness of your analysis. Please keep us informed on the progress of this route.

Sincerely,

*Dale J. James*

for Elizabeth Tapscott  
Assistant Regional Administrator

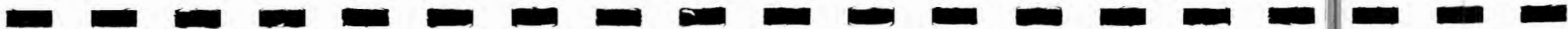
CC:  
Mr. Omar Hoeme, Division Administrator





APPENDIX I

APPROVED 4(f) REPORT (IMPERIAL VILLAGE PARK)



# Memorandum

TO: Honorable John A. Volpe  
Secretary of Transportation

DATE: SEP 18 1971

FROM: *[Handwritten signature]*  
Federal Highway Administrator

In reply refer to:  
34-30

SUBJECT: ACTION: California, Los Angeles, I-105-3(·)  
Determination and Statement required by Section 4(2) of the  
DOT Act, Section 138 of Title 23, U.S.C., and Section 102(2)(c)  
of the Environmental Policy Act of 1969.

Enclosed is an Environmental Statement and Determination on which we have indicated our acceptance of the use of Imperial Village Park for highway purposes. Our review indicated that (1) there is no feasible and prudent alternative to the use of the subject lands, and (2) the State's proposal includes all possible planning to minimize harm resulting from such use. However, we would appreciate your approval before our Regional Administrator is advised of this action.

Information pertaining to this matter was forwarded to you by a previous memorandum.

For convenience of your staff we have included on this memorandum concurrence blocks for the Under Secretary, the Assistant Secretary for Environment and Urban Systems, and the General Counsel.

We will be available to confer with you or your staff on this request should you desire.

Enclosure

Date 2/1/71

Approve *[Signature]*  
Secretary of Transportation

Date 1/3/71

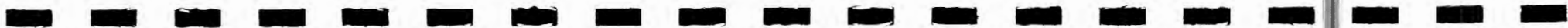
Concur *[Signature]*  
J. A. Beggs, Under Secretary

Date 1/20/71

Concur *[Signature]*  
Assistant Secretary  
Environment and Urban Systems

Date 1/21/71

Concur *[Signature]*  
J. A. Washington, General Counsel



STATE OF CALIFORNIA  
BUSINESS AND TRANSPORTATION AGENCY  
DEPARTMENT OF PUBLIC WORKS  
DIVISION OF HIGHWAYS

APRIL 30, 1970

REPORT SUPPORTING CLEARANCE OF  
SECTION 4(f) OF THE  
DEPARTMENT OF TRANSPORTATION ACT  
THROUGH THE  
BUREAU OF PUBLIC ROADS  
FOR  
INTERSTATE 105 1.7/18.9  
FROM  
SEPULVEDA BOULEVARD (STATE ROUTE 1)  
TO  
SAN GABRIEL RIVER FREEWAY (INTERSTATE 605)

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PUBLIC PARK LAND AFFECTED.....	1
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HIGHWAYS' EFFECT UPON THE PARK.....	1
ALTERNATE DESIGNS.....	2
CURRENT PARK USE.....	2
MEASURES TAKEN TO MAINTAIN THE PARK RESOURCE.....	2
IMPLEMENTATION AND COST.....	3

## INTRODUCTION

This report is submitted in accordance with Section 4(f) of the Department of Transportation Act. The 4(f) clearance is requested for the entire project as defined under "Highway Project".

## HIGHWAY PROJECT

This highway project is the Interstate Route 105 Freeway between Sepulveda Boulevard (State Route 1) at Los Angeles International Airport and the San Gabriel River Freeway (Interstate 605) in the City of Norwalk.

## PUBLIC PARK LAND AFFECTED

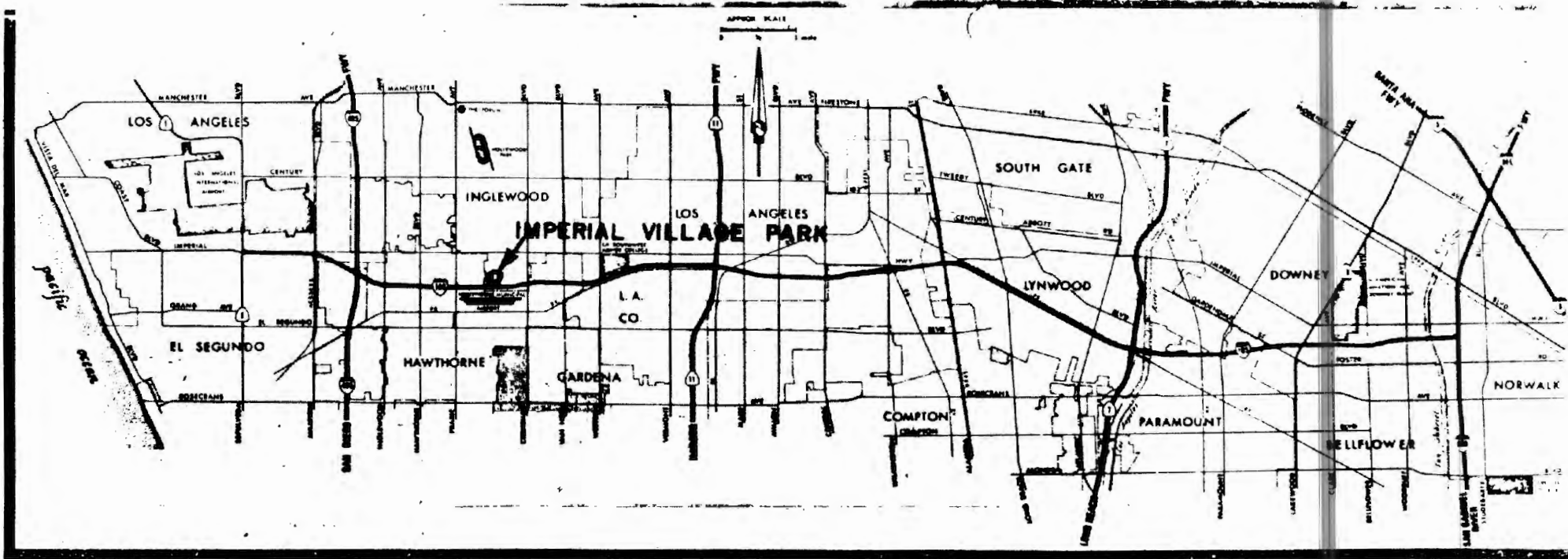
The only public resource land as defined by the provisions of Section 4(f) affected by the Interstate 105 project is located in the City of Inglewood, County of Los Angeles. This is a 2-acre public park known as Imperial Village Community Park. It is part of the City of Inglewood's park system and it is operated by their Parks and Recreation Department (see Report Plate 1).

## PROJECT BACKGROUND

Detailed background for this highway project through the area of involvement is discussed in the Design Study Report for the portion of the Route 105 Freeway between the San Diego Freeway (Felton Avenue) and the Harbor Freeway (Figueroa Street) dated October 24, 1969. In brief, Interstate 105 is part of the California Freeway and Expressway System. The route between Sepulveda Boulevard and Central Avenue was adopted by the California Highway Commission on November 17, 1965. The Central Avenue to Interstate 605 section was adopted on July 24, 1968. The entire route was added to the Interstate system March 20, 1968. A freeway agreement with the City of Inglewood was executed by the City July 29, 1969. On September 17, 1969, a Design Public Hearing (for the above Design Study Report limits) was held and on April 14, 1970, the Bureau of Public Roads approved the proposed major design features for the hearing limits. Construction funds for this segment are proposed for the 1974/75 Fiscal Year according to the current planning program.

## HIGHWAYS' EFFECT UPON THE PARK

The freeway will pass through the existing park either on an embankment or viaduct depending upon community preference. The entire park is required in both cases (see Report Plate 2).



ENLARGED AREA



ROUTE 105 FREEWAY

SEPULVEDA BLVD to SAN GABRIEL RIVER FREEWAY

AUG. 1969



### ALTERNATE DESIGNS

The alignment selected provides a buffer between the Hawthorne Municipal Airport to the south and the residential area to the north. It parallels a County secondary highway (120th Street). Avoiding the park would require moving the freeway to the north leaving a strip pocket of residential property between the freeway and the airport. A more northerly alignment would also adversely affect or require the acquisition of the James Kew and Andrew Benntee Elementary Schools (see Report Plate 2). The City of Inglewood strongly opposes a more northerly line and has unanimously passed a resolution approving the proposed alignment.

### CURRENT PARK USE

It is the City of Inglewood's policy to develop their parks adjacent to school facilities to provide a common use arrangement. The Imperial Village Park is located immediately south of the James Kew Elementary School. The park is quite small and its triangular shape has limited its potential for development. Its facilities include a baseball diamond, a barbeque pit, and an open playfield. It is used by the school as a playground for school activities and also as an open park. Since it is located on the perimeter of the City, its accessibility to its service area is poor. The City is presently processing a Department of Housing and Urban Development contract for purchasing additional land for expansion to the north of the Kew School (a "tot lot" is proposed).

### MEASURES TAKEN TO MAINTAIN THE PARK RESOURCE

Early in the design phase of this project, the Division of Highways discussed with the City measures for park restoration. Prior to the design hearing, several general information hearings were held, including one at the Bennett School. No adverse comments were received about the park involvement. Along with this the Division of Highways requested its Design Concept Team consultant, Gruen Associates, to conduct a park replacement opportunity survey and later to conduct a design implementation study.

The restoration approach has been mutually supported by the Division of Highways, the City of Inglewood, and the Inglewood Unified School District. As a result of combined efforts, an agreement to relocate the park one block to the east adjacent to the Andrew Bennett Elementary School has evolved. Functionally equivalent replacement property will be provided by the Division of Highways. The City will add to this with the purchase of additional land at this proposed site under its HUD contract instead of at the existing park site. (The City has obtained clearance with HUD for this transfer.) The land

purchased will be of a configuration that will provide the potential for development into a far more useful facility than the present park site. Its accessibility will be slightly improved since it is no longer on the perimeter of the City (see Report Plates 1 & 3).

Letters from the City expressing the City's position on the matter are included in the appendix of this report.

In the opinion of the Division of Highways, the community benefit from the relocated park will be equal to or better than the present park.

Additional studies are underway with the City of Ingelwood to determine if a recreational potential exists under the freeway at the existing park site should all or part of the freeway be on viaduct. These studies are independent of the relocation plan and will have no effect upon its implementation.

#### IMPLEMENTATION AND COST

Precise cost of replacement property has not been negotiated yet. However, we estimate the land cost in addition to freeway excess land at approximately \$225,000. Replacement right of way is in the process of being acquired. Evaluation of the park recreation improvements has not yet been estimated, however, the City has begun site planning.

LIST OF REPORT PLATES

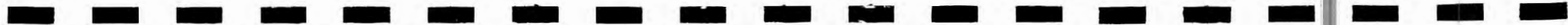
1. Vicinity Map
2. Detail Map - Scale 1"=100'
3. Proposed Replacement Park Development Area

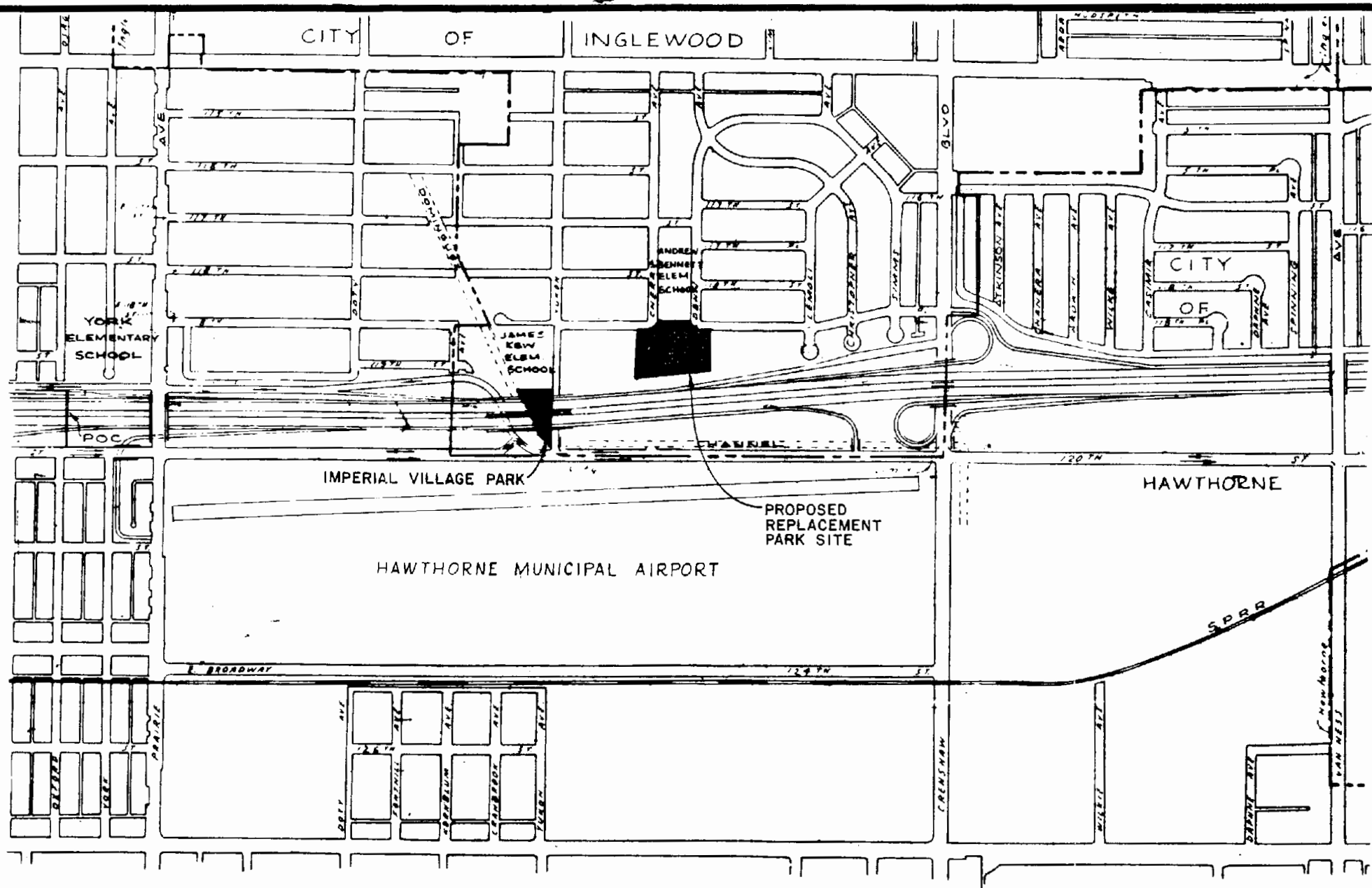
Appendix

Los Angeles Times Newspaper Editorial,  
February 3, 1969

Letters from City of Inglewood

Letter from Division of Highways





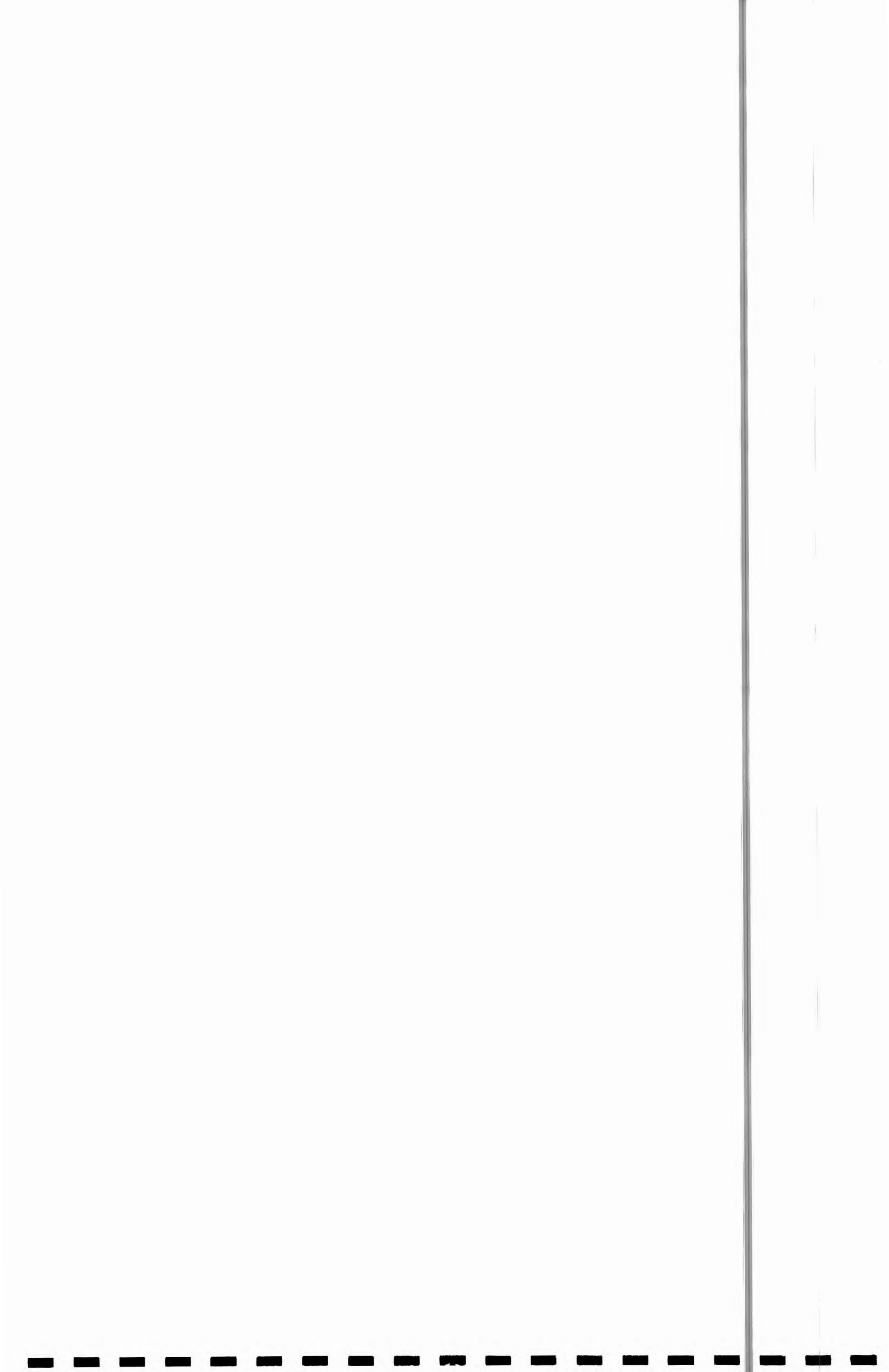
**PROPOSED ROUTE 105 FREEWAY  
DESIGN FEATURES STRIP MAP**

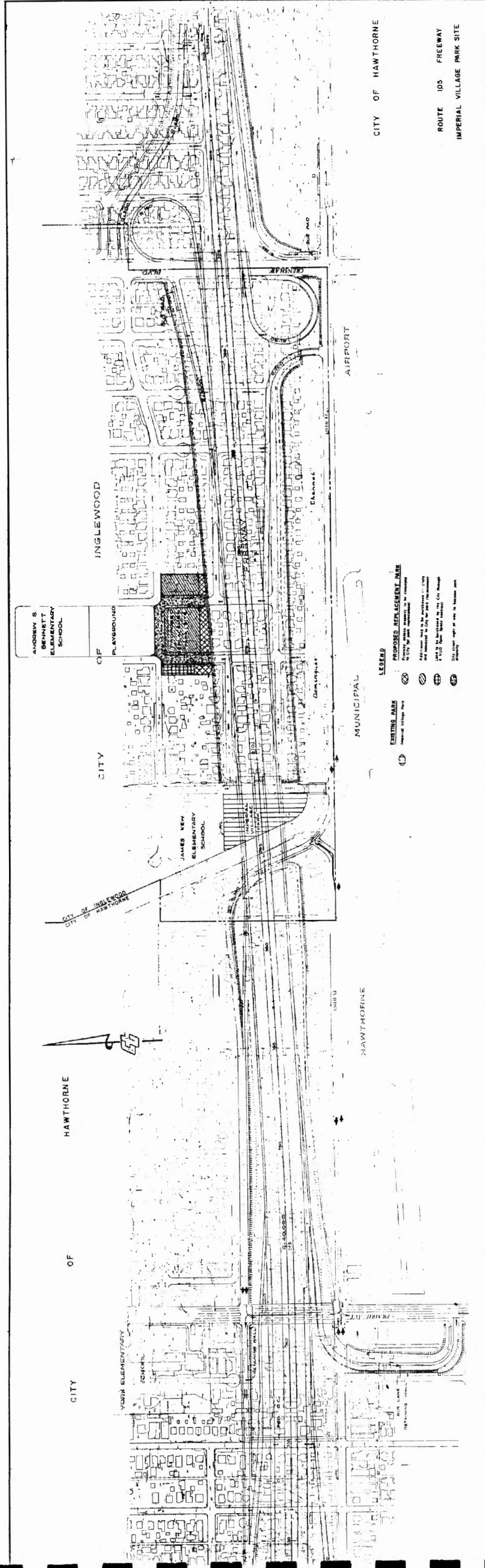
**SAN DIEGO FREEWAY (FELTON AVE.) to  
HARBOR FREEWAY (FIGUEROA ST.)**

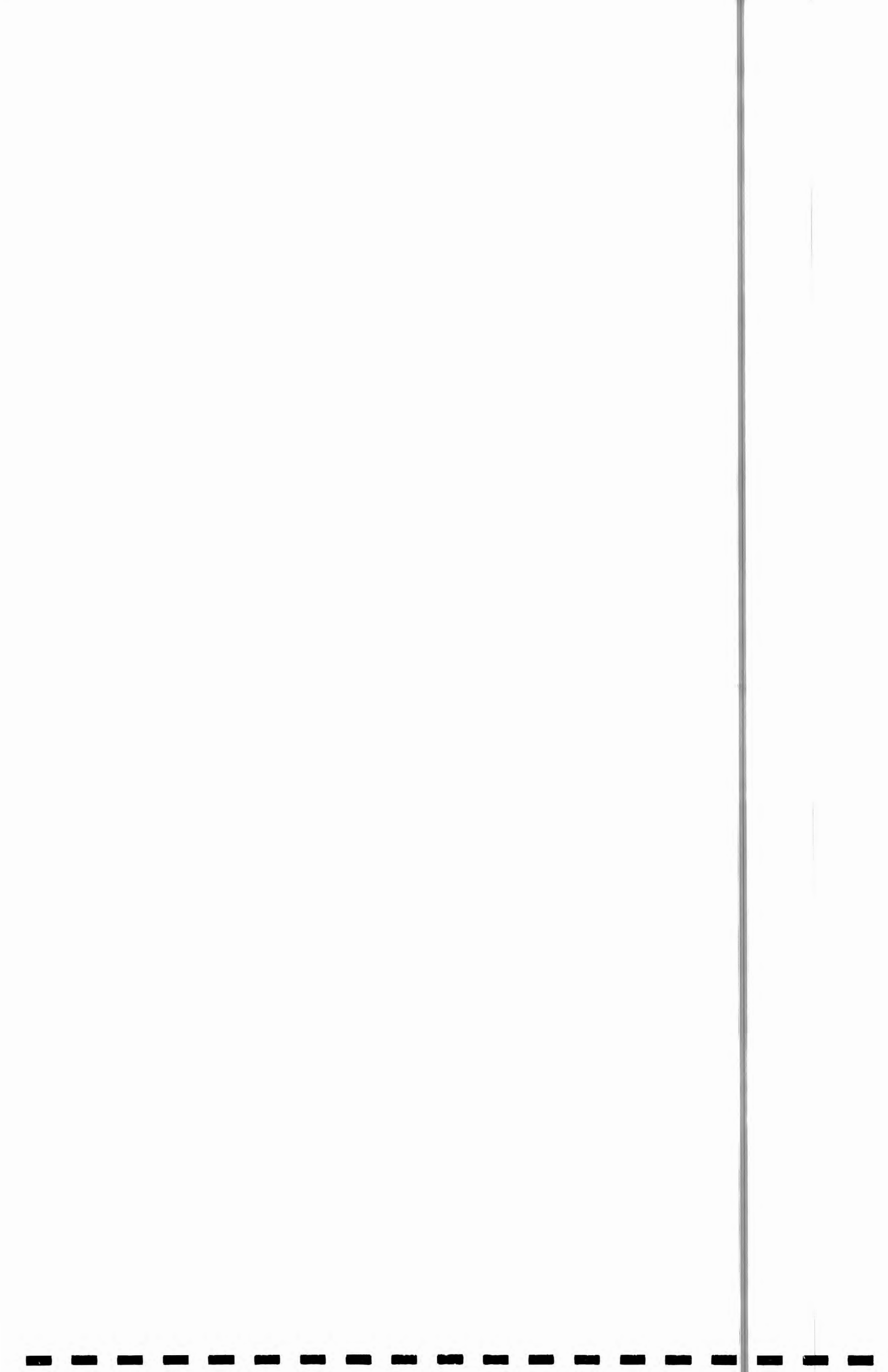
Scale: 1" = 600'

Date: Dec. 30, 1969

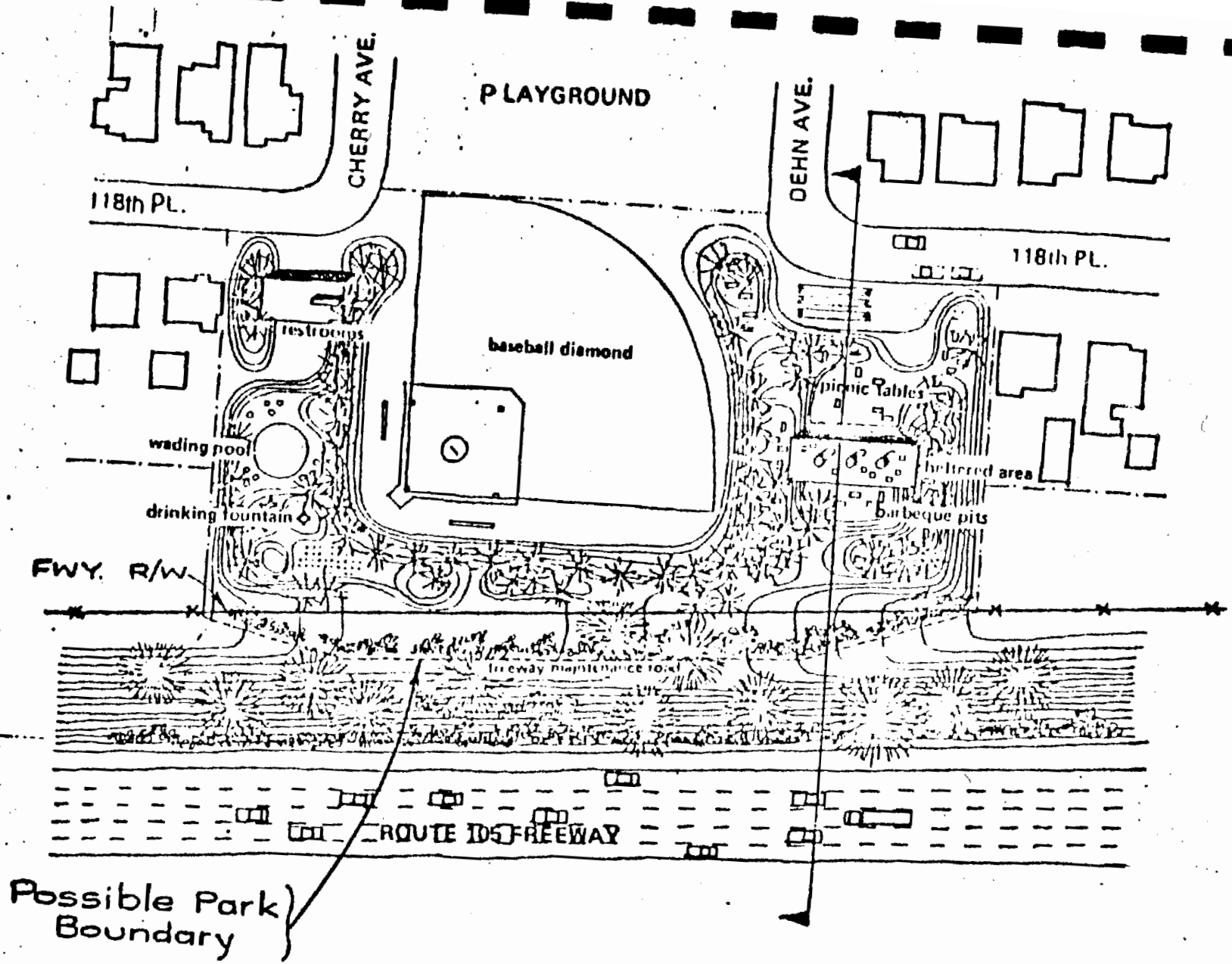
**REPORT PLATE I**



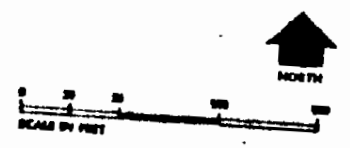








PROPOSED REPLACEMENT PARK DEVELOPMENT AREA



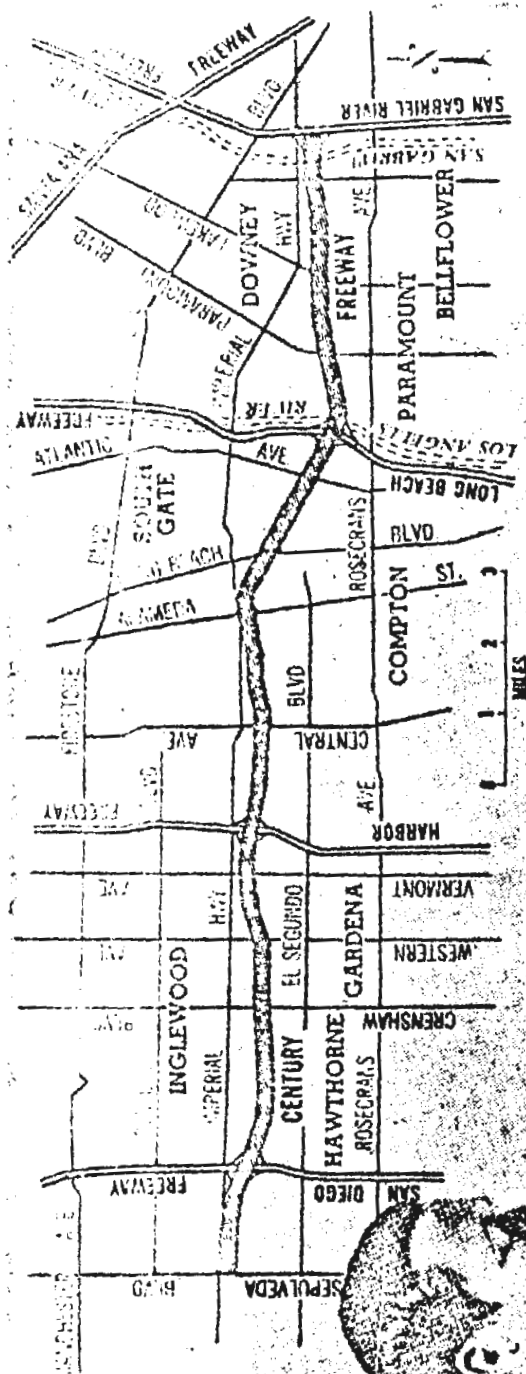


APPENDIX



EX-111  
Part II  
Design A

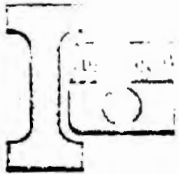
(1)



**NEW FREEWAY IDEA**—Heinz Heckeroth of the State Highway Dept. studies route of proposed Century Freeway (shown above) which will have its terminus at International Airport. He is head of team that will

replan and rebuild communities along route in a new building concept. In background is a neighborhood park at Yukon and 119th St. which will be eliminated by the freeway, despite more careful planning approach.

Times Photo



CITY OF INGLEWOOD CALIFORNIA

CIVIC CENTER  
105 EAST QUEEN STREET / INGLEWOOD CALIFORNIA 90301

March 18, 1970

Ki Suh Park, A.I.A., A.I.P.  
Vice President  
Gruen Associates, Inc.  
6330 San Vicente Boulevard  
Los Angeles, California 90048

re: Century Freeway/Imperial Park

Dear Mr. Park:

We appreciate your study of techniques to improve the relationship between the new freeway and the adjacent areas of Inglewood.

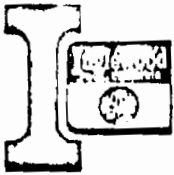
A discussion on the proposal previously discussed, which would provide that the State replace our present Imperial Park at Kew School with similar park space adjacent to nearby Bennett School, is becoming essential because of a pending Open-Space Contract with HUD.

Any indication of the expected date of State approval of the proposal or steps required to obtain approval would be appreciated.

Yours truly,

Larry K. Coons  
Assistant to City Administrator

LRC:sw



CITY OF INGLEWOOD CALIFORNIA

CIVIC CENTER  
108 EAST QUEEN STREET / INGLEWOOD CALIFORNIA 90301

April 14, 1970

DESIGN A		
	INITIAL	DATE
TRL		
<del>HH</del>		
<del>GJO</del>	<i>G</i>	
DHR		
R/W		
APR 16 1970		

Mr. Heinz Heckeroth  
Assistant District Engineer  
Division of Highways, District 7  
P.O. Box 2304 Terminal Annex  
Los Angeles, California 90054

ATTN: Mr. Charles O'Connell

RE: Imperial Park Displacement/Replacement


Following our meeting on April 6, I have talked with the HUD officials in San Francisco and found that they will be willing to consider an amendment to our Open Space contract to make it possible for the City to purchase the parcel at 3500 West 118th Place (southwest corner of 118th Place and Cherry Avenue). We will prepare an application for the contract amendment as promptly as possible.

In the meantime, we would like to confirm our agreement that the State Division of Highways will purchase the parcels south of Bennett School (118th Place) and convey the replacement Imperial Park site, as described on the attachment to the City.

Because you will be acquiring property and removing structures in the area, we would also like to request that you appraise, acquire, and clear the parcel at 3500 West 118th Place. As soon as this could be done and the HUD Open Space contract is amended, we will reimburse your costs for this parcel.

With the exception of 3500 West 118th Place, we compute the property to be conveyed to the City as 1.89 acres. We do not accept the premise that the State has the option to compute street right-of-way as a portion of the replacement parcel. However, since the cooperative effort of HUD, the City, and the State will assemble 2.06 acres, we feel this acreage is a fair replacement for the 2.04 acres in the existing Imperial Park located adjacent to Kew School.

We appreciate your cooperation in this transaction and will be grateful for your continued help in preserving this recreation facility for the neighborhood.

  
Larry R. Coons  
Assistant to the City Administrator

LRC:ma

Attachment: Assessor's Map

April 21, 1970

LA-105  
City of Inglewood  
Imperial Park  
Displacement/Replacement

Mr. Larry R. Coons  
Assistant to the City Administrator  
City of Inglewood  
105 E. Queen Street, Civic Center  
Inglewood, California 90301

Dear Mr. Coons:

In reply to your April 14, 1970 letter in regard to the Imperial Park Displacement/Replacement situation, this letter will confirm our verbal agreement that the State of California, Division of Highways will provide a replacement for the Imperial Park site south of the Bennett School as described in your letter of April 14, 1970.

We are in the process of certifying property necessary for the replacement of the Imperial Park together with certifications of the Imperial Park site itself. Also, we will furnish you a proposed draft of a cooperative agreement as to the purchase of the parcel at 3500 West 18th Place.

Upon completion of the appraisals of the replacement site and the Imperial Park, discussions will be commenced towards the purpose of executing a Right of Way Contract which will incorporate the necessary details in effecting the exchange of land, etc., in order to bring this transaction to a conclusion.

If you have any further questions concerning the above transaction, please call the undersigned at MAO-3594.

Very truly yours,

M. L. EURGER  
Senior Right of Way Agent

6/4/2  
MLB:sld



APPENDIX II

PRELIMINARY CASE REPORT AND PROPOSAL WITH  
PERTINENT APPENDIXES

MEMORANDUM OF AGREEMENT



Preliminary Case Report  
and  
Proposal for Preservation  
of the  
Lynwood Pacific Electric Railway Depot

## Introduction

This Report, prepared in compliance with 36 C.F.R. 800.4(f) discusses the involvement of an undertaking of the U.S. Department of Transportation, Federal Highway Administration with a property in the National Register of Historic Places.

The first portion, the "Preliminary Case Report", gives background information on the proposed project and the National Register property. The second portion, the "Proposal for Preservation", identifies two options for preservation, the proposed method of preservation and its effect on the significance of the property.

# PRESERVATION OF THE LYNWOOD RAILWAY DEPOT

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- V. Public and Agency Views and Coordination on Cultural Resources
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- II. Effects of Relocation on the Significance of the Lynwood Depot

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Part 1  
Preliminary Case Report

I. General Description of the Undertaking and Background Information

A. Description of the Undertaking

The undertaking is the construction of the Interstate Route 105 Freeway/Transitway, an 8-lane full-access-control highway with provision for public transit facilities in the median. The average right of way width of the proposed Freeway/Transitway is 320 feet.

The undertaking is located in Los Angeles County, California. As shown in Exhibit 1, the Freeway/Transitway would link Los Angeles International Airport with existing freeways (Routes 405, 11, 7) and terminate at Interstate Route 605 in Norwalk, over 17 miles to the east.

Interchanges and necessary widenings of the four existing north-south freeways, interchanges with the major local streets, separation structures to allow north-south continuity of local circulation, and a major relocation of various Southern Pacific Transportation Company rail lines are included in the undertaking.

B. History

The Route 105 Freeway was formally included in the California Freeway and Expressway System in 1959. After extensive study, the California Highway Commission adopted the location for the westerly portion in November, 1965, and for the easterly portion in July, 1968. In 1968, the entire route received Interstate classification.

Seven design public hearings were held between June, 1969, and May, 1970. A total of 25 Freeway Agreements were executed between the State and the affected cities and county. An agreement is pending with the City of Los Angeles for a small portion of the route near Los Angeles International Airport. The City of Hawthorne has not signed an agreement. A portion of State Route 1 in the City of Los Angeles was appended to the project in November, 1970

The Federal Highway Administration gave approval to the location and major design features for various increments between October, 1966 and December, 1970. At present, about 73% of the necessary right of way has been acquired.

A lawsuit (Keith, et al vs. Volpe, et al) was filed on February 16, 1972 in Federal District Court, Los Angeles. This resulted in a preliminary injunction which is in force until the Environmental Impact Statement process is completed.

The Draft Environmental Impact Statement was circulated on December 19, 1974 and ten additional public hearings covering this document and the location and design aspects of the proposed project were held between March and August of 1975.

The Final Environmental Impact Statement is now in preparation and is scheduled for completion in early 1977. The decision on whether to implement the proposed project will probably be made at the end of 1977.

#### C. Alternatives Considered

Four conceptual alternatives to the proposed undertaking were considered in the Draft Environmental Impact Statement. These are no-project, local street improvements only, public transit only, and a combination of public transit and local street improvement. (See Appendix A.) Also, modifications to the proposed undertaking were evaluated, including different alignment locations.

#### D. Proposed Project

After consideration of all the factors involved in the environmental evaluation of alternatives; it has been recommended that the proposed project, an 8-lane Freeway/Transitway generally on the adopted alignment, best meets the stated objectives, i.e. "to provide for the safe, orderly, efficient, integrated and systematic movement of all persons, goods, and services regionally and within the corridor--with due regard for regional and local social, economic and environmental goals and policies."

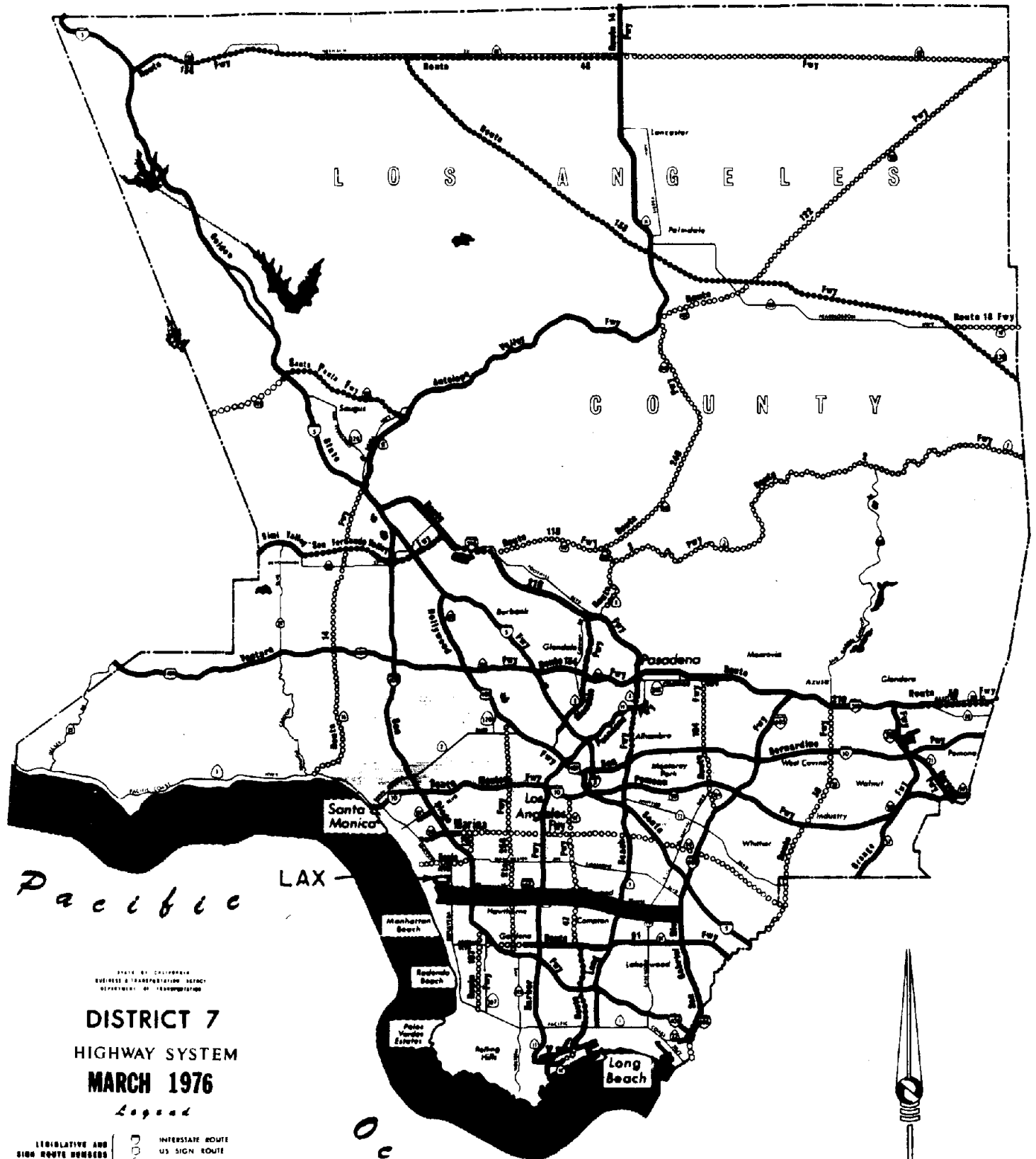
Additionally, a broad segment of the general public have indicated support for this facility. The affected local governments have stated unanimous support for the proposed project. Many of the local governmental agencies have included the facility in their General Plans, and numerous development plans, both public and private, have proceeded on the assumption that the proposed project would be implemented.

## II. Cultural Resources

As part of the Environmental Impact Statement process, an extensive Cultural Resource survey to identify properties



# LOS ANGELES COUNTY

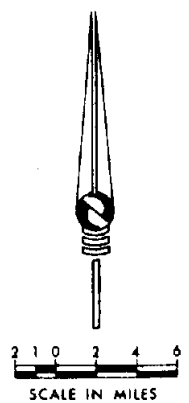


STATE OF CALIFORNIA  
 BUSINESS & TRANSPORTATION AGENCY  
 DEPARTMENT OF TRANSPORTATION

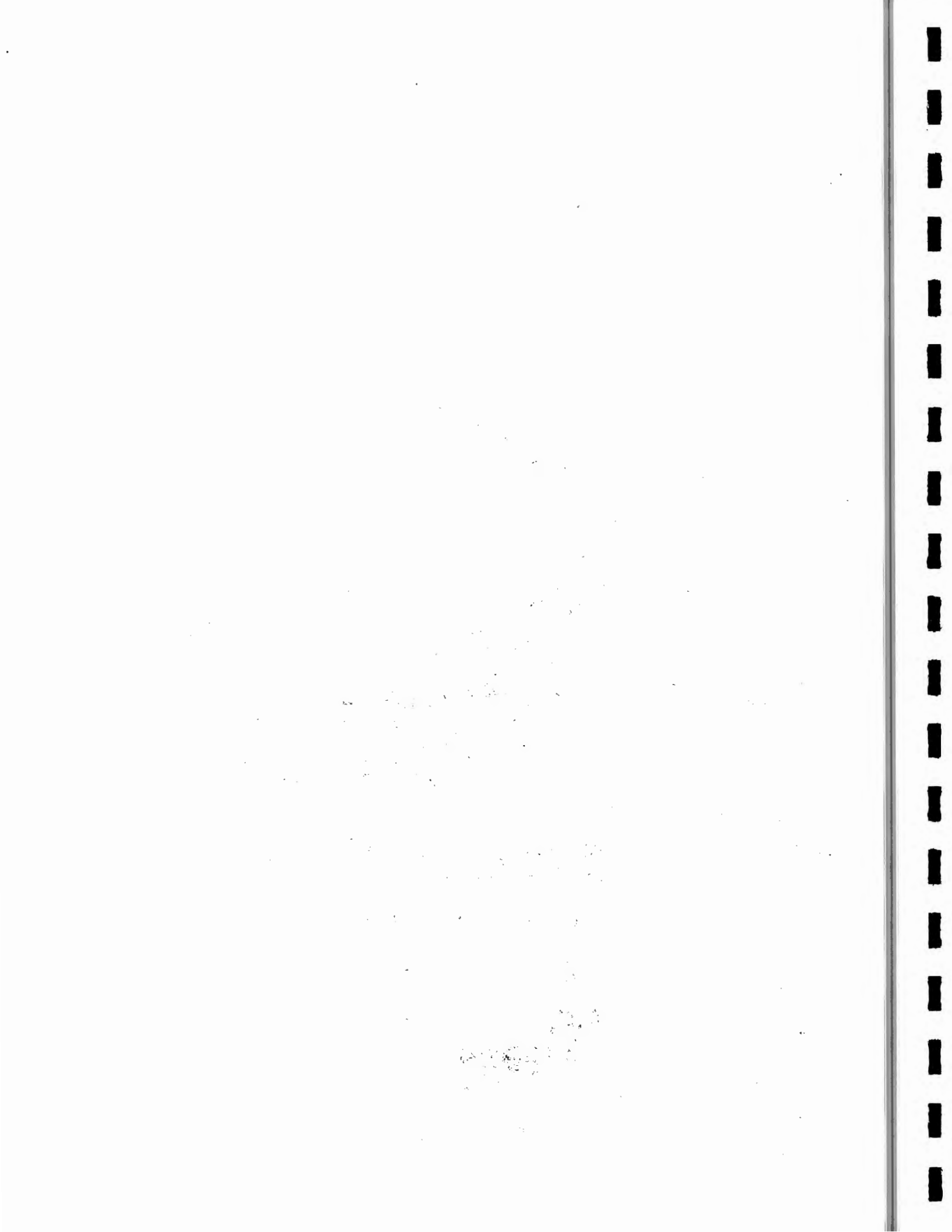
**DISTRICT 7  
 HIGHWAY SYSTEM  
 MARCH 1976**

*Legend*

- |                                    |  |                             |
|------------------------------------|--|-----------------------------|
| LEGISLATIVE AND SIGN ROUTE NUMBERS |  | INTERSTATE ROUTE            |
|                                    |  | US SIGN ROUTE               |
|                                    |  | STATE SIGN ROUTE            |
| FREIGHTWAY                         |  | COMPLETED                   |
|                                    |  | UNDER CONSTRUCTION          |
|                                    |  | BUDGETED                    |
|                                    |  | ROUTE ADOPTED               |
|                                    |  | ROUTE UNDER STUDY           |
|                                    |  | ROUTE NOT ADOPTED           |
| EXPRESSWAY                         |  | Express Location Determined |
| CONVENTIONAL HIGHWAY               |  |                             |



**EXHIBIT NO. 1**



in or eligible for inclusion in the National Register of Historic Places was conducted with the aid of all cities involved, various local historical societies and cultural groups.

Twelve Cultural Resources were found in the corridor of the proposed project and its alternatives. All but one of these Cultural Resources have been found to be either outside of the zone of potential environmental impact of the proposed project or lacking in significance. (See Appendix B for supporting documentation.)

The Lynwood Pacific Electric Railway Depot at 11453 Long Beach Boulevard in the City of Lynwood is directly involved with the proposed project. The Lynwood Pacific Electric Railway Depot was placed in the National Register of Historic Places on September 25, 1974.

### III. The Lynwood Pacific Electric Railway Depot

The Lynwood Pacific Electric Railway Depot was built in 1917. The building exhibits a combination of Classical Revival and California Bungalow style architectures. The structure is unique in that the design was never repeated and had no precedent in the Pacific Electric System.

The Pacific Electric Railway System is closely associated with the formation and growth of the City of Lynwood. The Lynwood Depot is the last remaining station of the Pacific Electric System in the City.

The Lynwood Depot is owned by the Southern Pacific Transportation Company. Since abandonment of passenger service in 1958, the Lynwood Depot has been used as a Bus Depot, Taxi Stand, Lunch Stand and Commercial Typing School. The structure was recently painted to cover the graffiti and peeling paint which resulted from high public exposure and neglect. Broken windows were also removed. Neither the ravages of weather, earthquakes, physical abuse nor vandalism have impaired the exterior architectural integrity of the structure. The feeling conveyed by the Depot in its present location is that of accessibility.

Pictures of the Lynwood Depot are shown in Exhibit 2,<sup>1</sup> and its location in the Pacific Electric Railway System is shown in Exhibit 3.

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<sup>1</sup>The term "Railroad" as used on this Exhibit title, as well as other exhibits, is synonymous with the term "Railway" as used in this report.

IV. Effect of the Proposed Project on the Lynwood Pacific Electric Railway Depot

The proposed Route 105 Freeway/Transitway would pass through The City of Lynwood along Fernwood Avenue. The tracks of the Southern Pacific Transportation Company are located in the median of Fernwood Avenue. The Lynwood Depot is adjacent to these tracks near Long Beach Boulevard--a major arterial street.

The proposed project would require the railroad right of way and adjoining property to the south. Land at the intersection of Long Beach Boulevard and Fernwood Avenue would be required for construction of the Long Beach Boulevard Interchange. The railroad right of way would be abandoned and the railroad would be relocated in the industrial corridor along Alameda Street.

Exhibit 4 shows the features of the proposed project in the vicinity of Lynwood and Exhibit 5 shows details of the proposed project in the immediate area of the Lynwood Depot.

If the project as proposed were implemented, it would be necessary to acquire the Lynwood Depot.

The Federal Highway Administration in consultation with the State Historic Preservation Officer has applied the Criteria of Effect of the proposed project to the Lynwood Depot, established the effect and found it to be adverse. (Documentation of this finding is in Appendix C.)

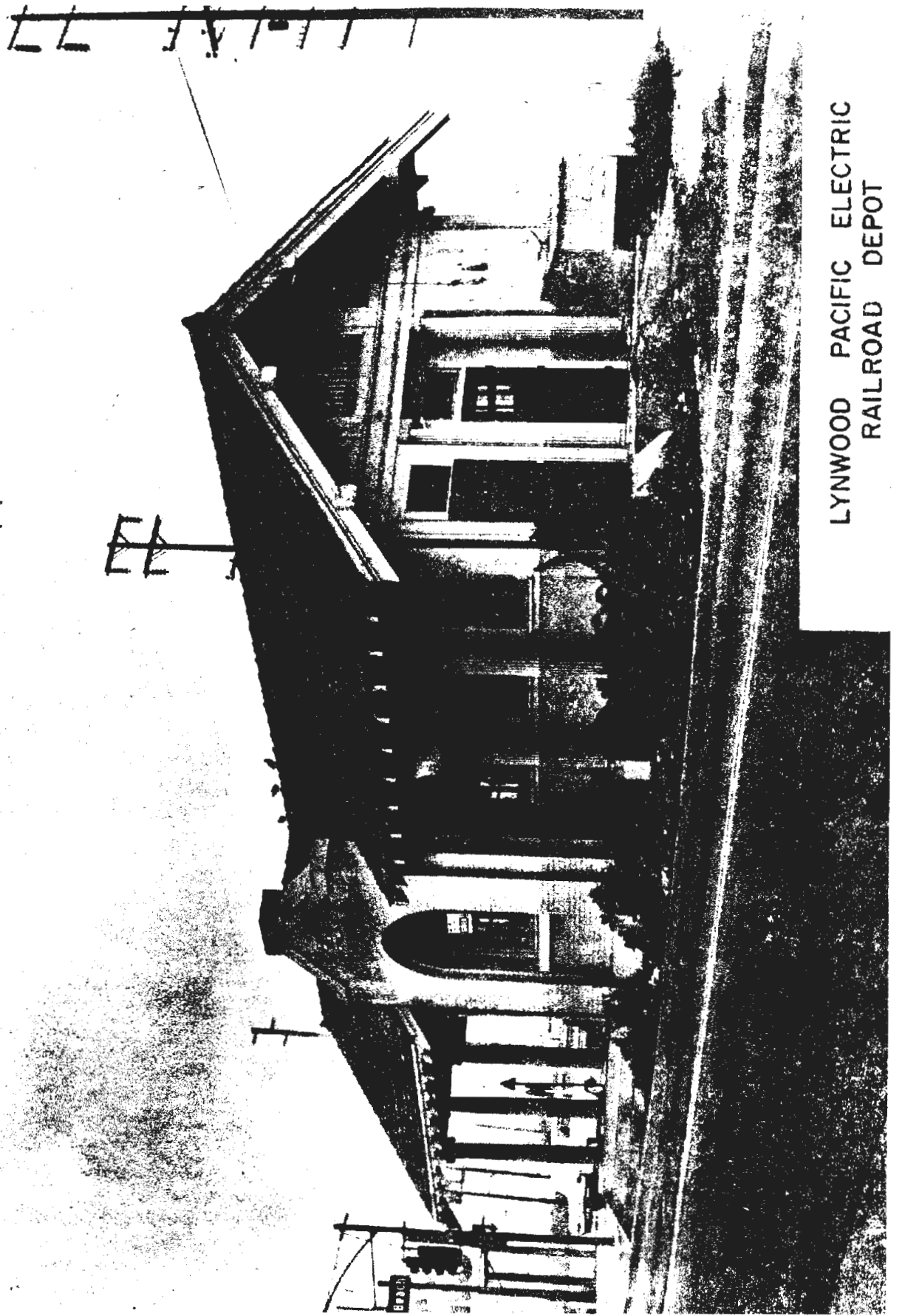
V. Public and Agency Views and Coordination on Cultural Resources

No comments from the general public to the Draft Environmental Impact Statement or at the subsequent public hearings have been made about the Lynwood Depot.

The City of Lynwood strongly supports the proposed project including the railroad relocation plan and also wishes to preserve the Lynwood Depot structure.

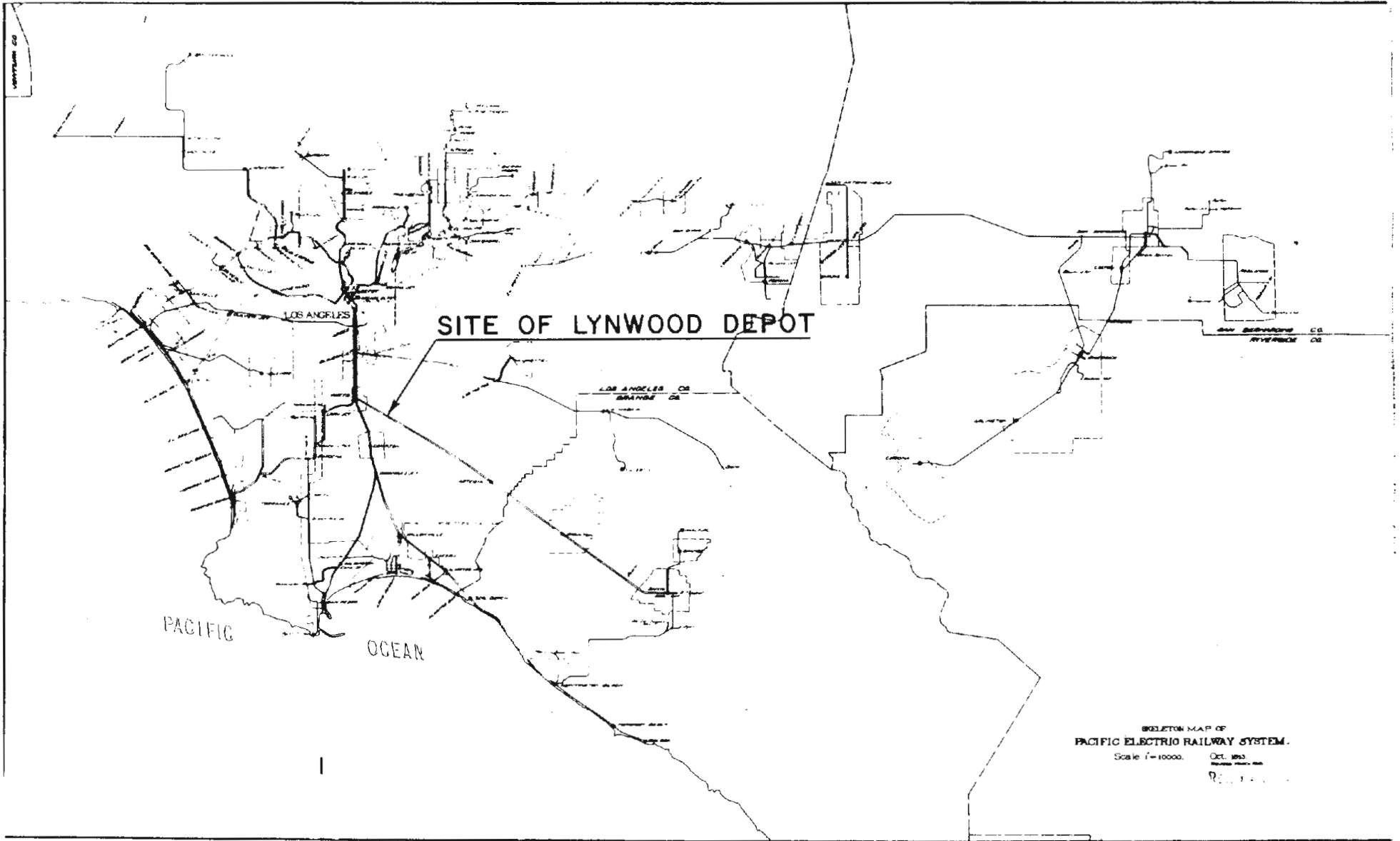
The Southern Pacific Transportation Company would like to see the Lynwood Depot either moved or razed. They are willing to donate the structure to the City of Lynwood or to the State for the purpose of relocation.

The Federal Highway Administration has been in consultation with officials of the City of Lynwood, California Department of Transportation and the State Historic Preservation Officer in compliance with Section 106 of the National Historic Preservation Act of 1966. (Documentation of this meeting and other correspondence are shown in Appendix D.)



LYNWOOD PACIFIC ELECTRIC  
RAILROAD DEPOT



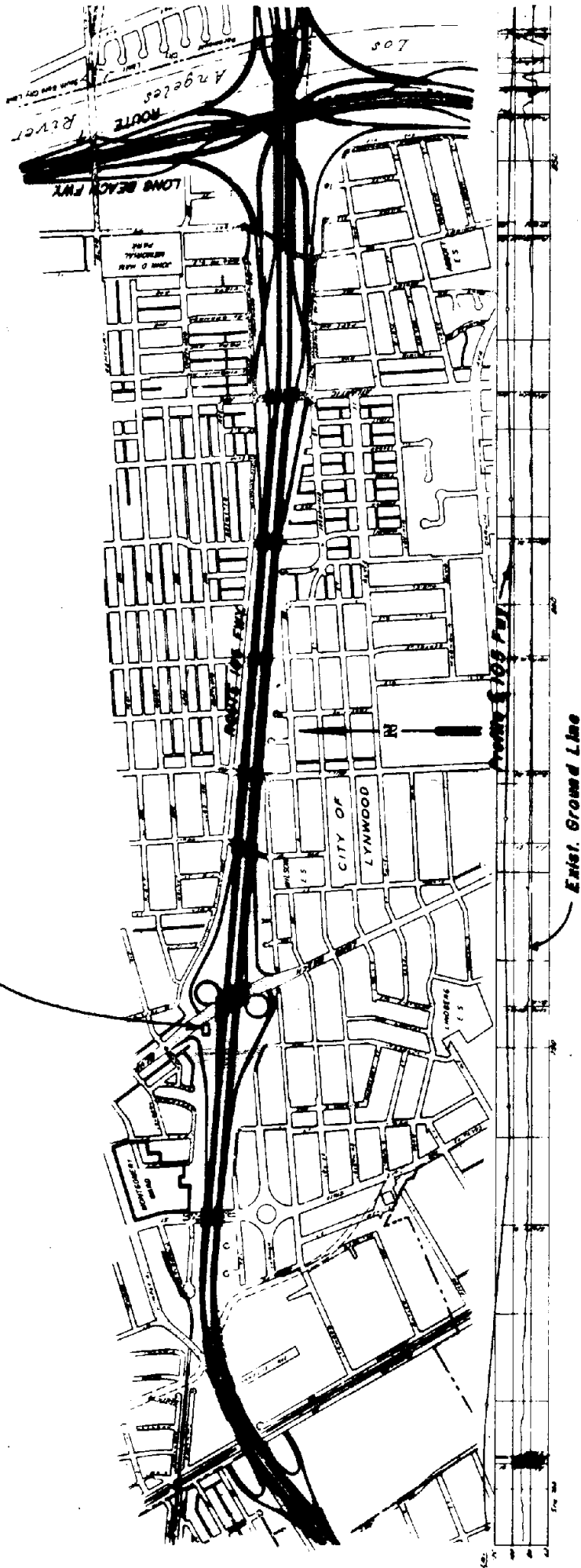


Map: Courtesy Southern California Edison Co.





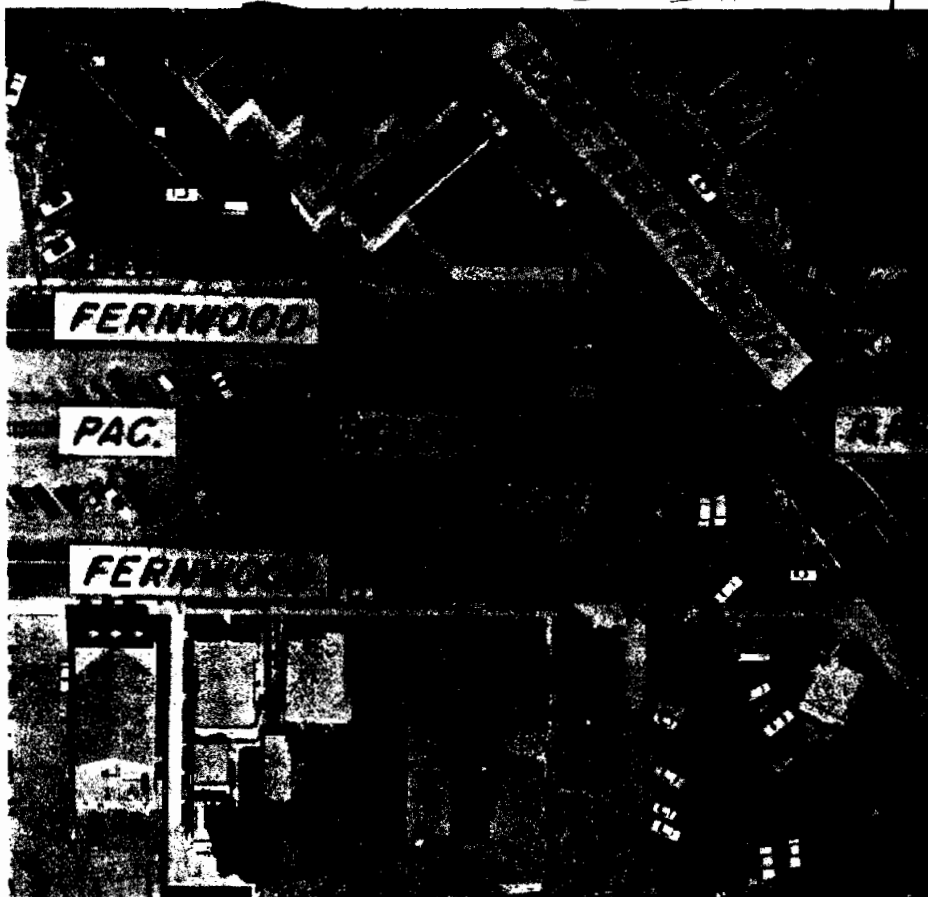
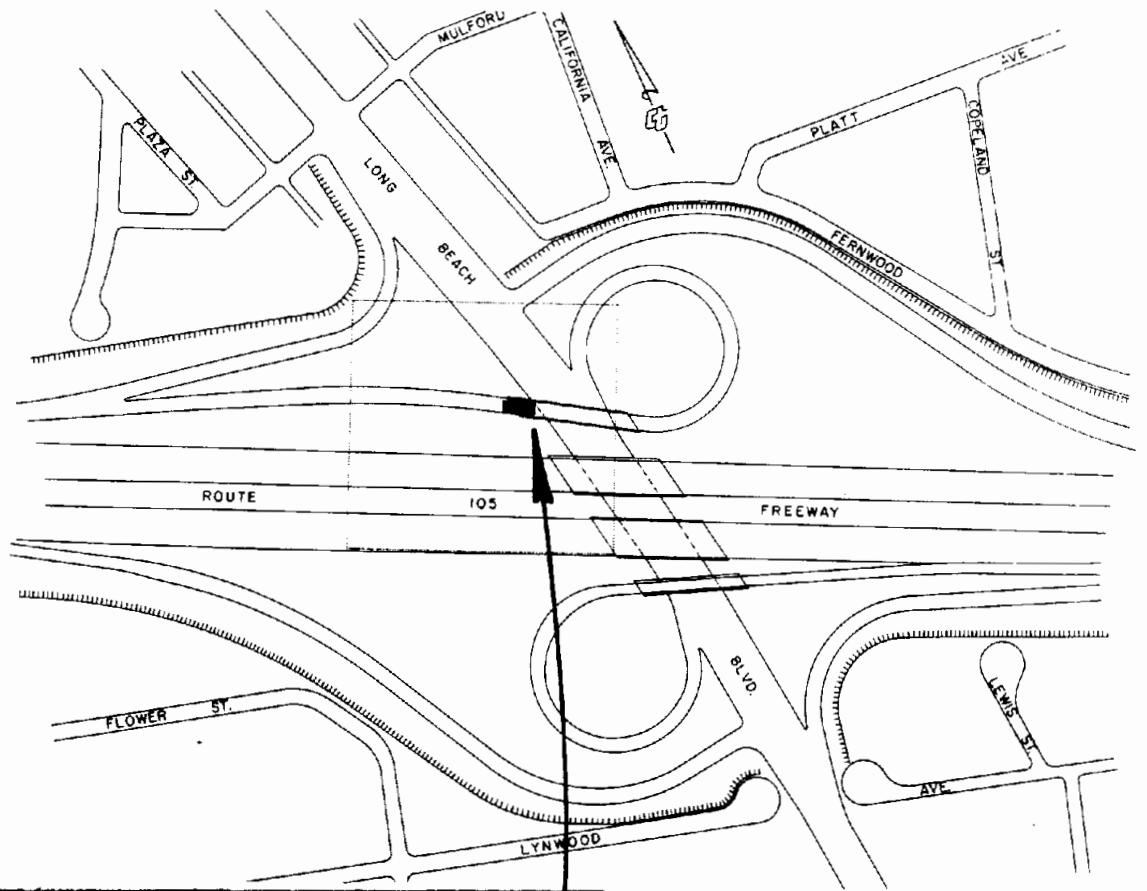
SITE OF LYNWOOD PACIFIC ELECTRIC R.R. DEPOT



PROJECT INDEX MAP



I-105 PLAN



AERIAL PHOTO LOCATION  
OF LYNWOOD PACIFIC  
ELECTRIC R.R. DEPOT



Mr. Robert F. Crecco, Deputy Assistant Secretary for Environment, Safety and Consumer Affairs in the Office of the Secretary of Transportation, U.S. Department of Transportation field reviewed the proposed project in the vicinity of the Lynwood Depot on December 5, 1974.

Mr. Louis Wall, Assistant Director, Review and Compliance, Advisory Council on Historic Preservation, Denver Office field reviewed the proposed project in the Lynwood Depot area on January 20, 1975.

#### VI. Results of Coordination; Options for Preservation

As a result of consultations with the various agencies involved, a number of options for preservation of the Lynwood Depot have been developed and investigated. These options all assume that the proposed project would be implemented.

If the proposed project were not implemented, the Lynwood Pacific Electric Railway Depot would no longer be involved with this federally assisted undertaking.

##### A. Option to Maintain the Status Quo

The option which would maintain the status quo of the Lynwood Depot would require rerouting of the Freeway/Transitway on a new alignment. It must be recognized that the present alignment was adopted in 1968; a Design Public Hearing held in 1969; a freeway agreement executed with the City in 1970; subsequently 86% of the right of way has been acquired in the City of Lynwood. Forty-eight percent (48%) of this right of way has been cleared. An alternative alignment would affect not only new parcels in Lynwood, but in other jurisdictions also. An alternative alignment would require a substantial number of new acquisitions with displacement of many hundreds of additional people. Moreover, another alignment could have an adverse impact on a Lynwood Redevelopment Agency project, which is predicated to a considerable extent on the I-105 Project on its presently adopted alignment. As an initial step, the City has already undertaken improvements on Long Beach Boulevard.

Acquisition of the Depot and the railroad property are a key part of the overall railroad abandonment and modification concept. This concept is firmly supported and desired by all the agencies and communities involved.

The option to maintain the status quo is not recommended due to the substantial additional economic and social impacts which would accrue.

B. Option to Avoid the Lynwood Depot Site

The option which would avoid the Lynwood Depot site involves a modification of the Long Beach Boulevard Interchange. Exhibit 6 gives the details of this modification. An additional seven parcels and the entire acquisition of a partially taken parcel would be necessary. The Lynwood Depot would be acquired as part of the railway abandonment and relocation plan.

The possibility of using the Lynwood Depot in conjunction with the Transitway has been investigated. The Southern California Rapid Transit District has found, however, that the Lynwood Depot would be inadequate for projected Transitway needs.

The Lynwood Depot would be isolated from view and public access. It is doubtful that a new use could be found.

The option to avoid the Lynwood Depot site is not recommended both for the greater economic and social impacts which would result, and the fact that it would create and perpetuate an undesirable effect on the Lynwood Depot.

C. Option to Relocate the Lynwood Depot Structure

The City of Lynwood has suggested that the Lynwood Depot be relocated. Three possibilities have been explored:

1. Relocate in a City Park

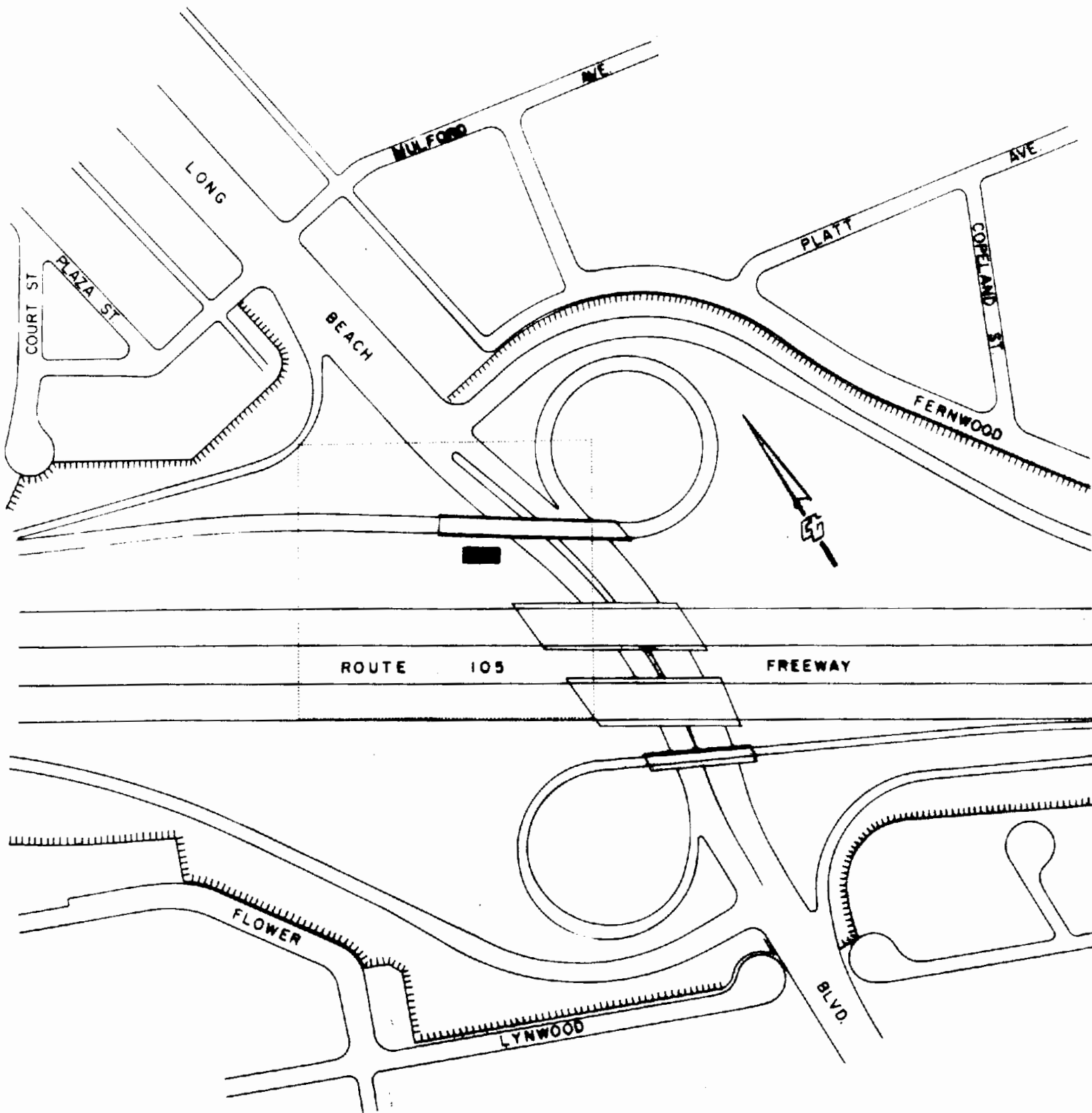
The Lynwood Recreation and Parks Department has no room in existing parks for the Lynwood Depot Structure.

The possibility of using excess land as a park-relocation site has also been explored. The Recreation and Parks Department, however, could maintain neither the new park nor the Lynwood Depot structure due to funding constraints.

2. Relocate for Transit Associated Use

The Southern California Rapid Transit District-Surface Planning Group have no need for the structure. Since the SCRTD provides no passenger facilities for its patrons, the use of the Lynwood Depot for this purpose could establish a costly precedent.

**I-105 MODIFICATIONS  
TO AVOID THE LYNWOOD DEPOT SITE**







### 3. Relocate for Adaptive Use

The Lynwood Chamber of Commerce has expressed interest in utilizing the structure for their offices.

#### D. Documentary Preservation Option

If the proposed project were implemented and no physical preservation plan were possible, it would be necessary to acquire and demolish the Lynwood Depot. This would be done only after full compliance with the procedures and requirements of 36 C.F.R. 800 and Executive Order 11593.2(c).

#### VII. Tentative Preservation Plan

After consideration and investigation of the various options, it is recommended that the only feasible and prudent course to mitigate the adverse effect of the undertaking on the Lynwood Depot and to preserve and enhance certain elements of its significance is relocation of the structure. The State Historic Preservation Officer agrees that this is an acceptable means of preservation (Appendix E).

The Federal Highway Administration would require the California Department of Transportation to acquire a replacement site and move the Depot to the site. The City of Lynwood would give assurance that the relocated structure would be administered and maintained after relocation in a manner consistent with its National Register status. In consideration of these assurances from the City of Lynwood, ownership of the replacement site and the relocated structure would be transferred to the City of Lynwood.

Part 2  
Proposal for Preservation

I. Options for Preservation

There are two options for preservation of the Lynwood Pacific Electric Railway Depot. Physical preservation which involves relocation of the building, and documentary preservation. Physical preservation of the Depot is the preferred course.

Two possible replacement sites are under consideration. Replacement Site A is a vacant parcel located about 0.6 miles northeast of the present location of the Depot. Replacement Site B, which is more tentative, is located about 200 feet north of the present location of the Depot. Both sites have been field reviewed by the staff of the State Historic Preservation Officer. Documentation that both replacement sites are free of cultural resources is shown in Appendix F.

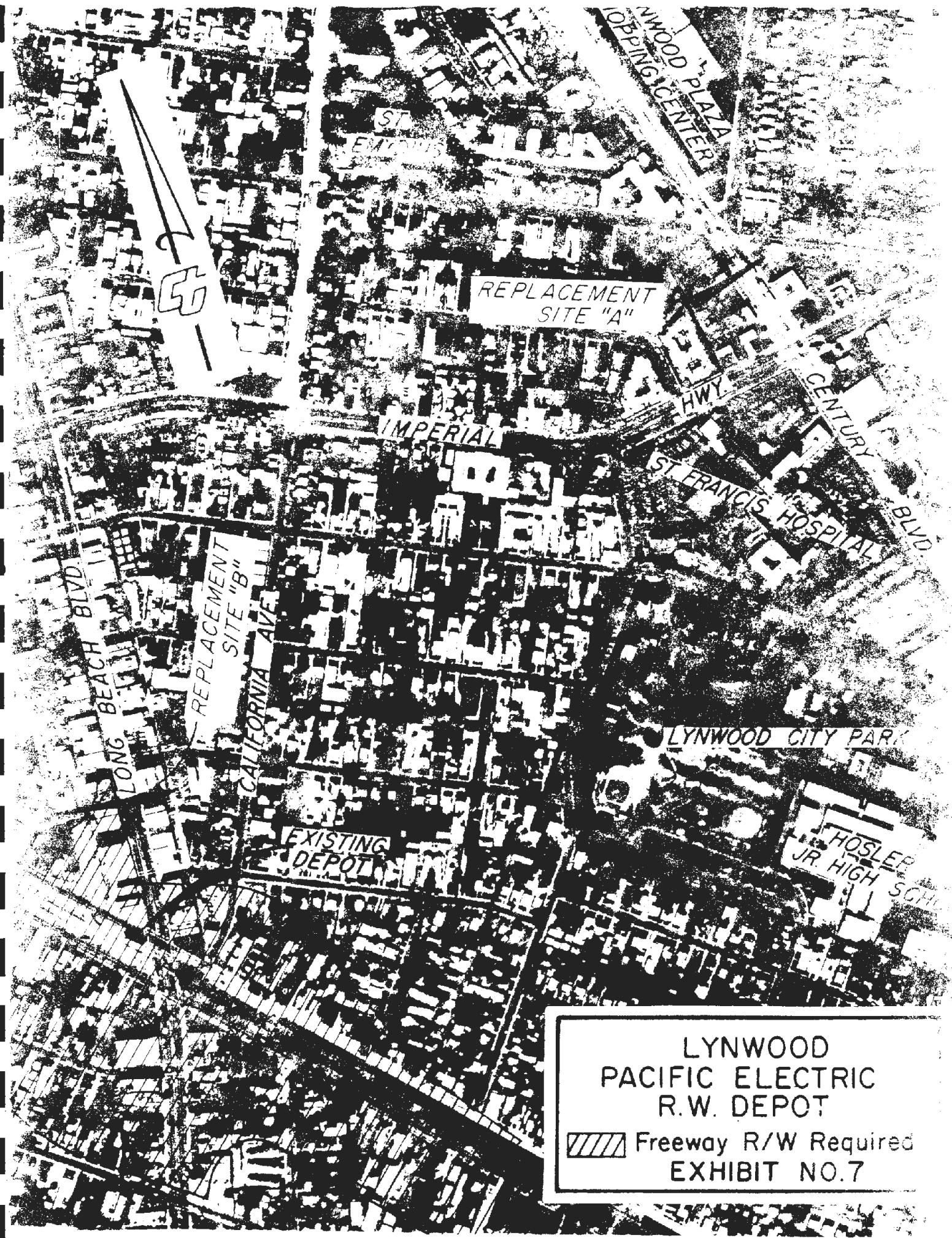
Replacement Site A is a vacant triangular parcel located in a larger triangular area at the intersections of Century Boulevard, Norton Avenue and Imperial Highway in the City of Lynwood, about 0.6 miles northeast of the present location of the Depot. The parcel is about 10,000 square feet in area and is zoned for commercial use.

Exhibits 7 through 9 show facilities and land use (present and proposed future) in Lynwood. A photograph of Replacement Site A is shown in Exhibit 10.

On Norton Avenue to the north of Replacement Site A is a post World War II housing development. Commercial establishments, one-story in height, and parking lots are located along the southwest side of Century Boulevard and southeast side of Imperial Highway in the vicinity of the replacement site.

Other tenants of the area on which Replacement Site A is located are Home Bank, a recently completed 2-story building, and a medical facility 1-story in height. The remainder of the area is used for parking.

Several possible placements of the Depot on Replacement Site A have been studied. Staff of the State Historic Preservation Officer prefers an orientation that would preserve a maximum of the feeling of accessibility and visibility, which is a basic element in the design and present location of the building.



CT

ST  
ENTWINE

LYNWOOD PLAZA  
SHOPPING CENTER

REPLACEMENT  
SITE "A"

IMPERIAL

HWY

CENTURY

ST FRANCIS HOSPITAL  
BLVD

BLVD

LONG BEACH

REPLACEMENT  
SITE "B"

CALIFORNIA AVE

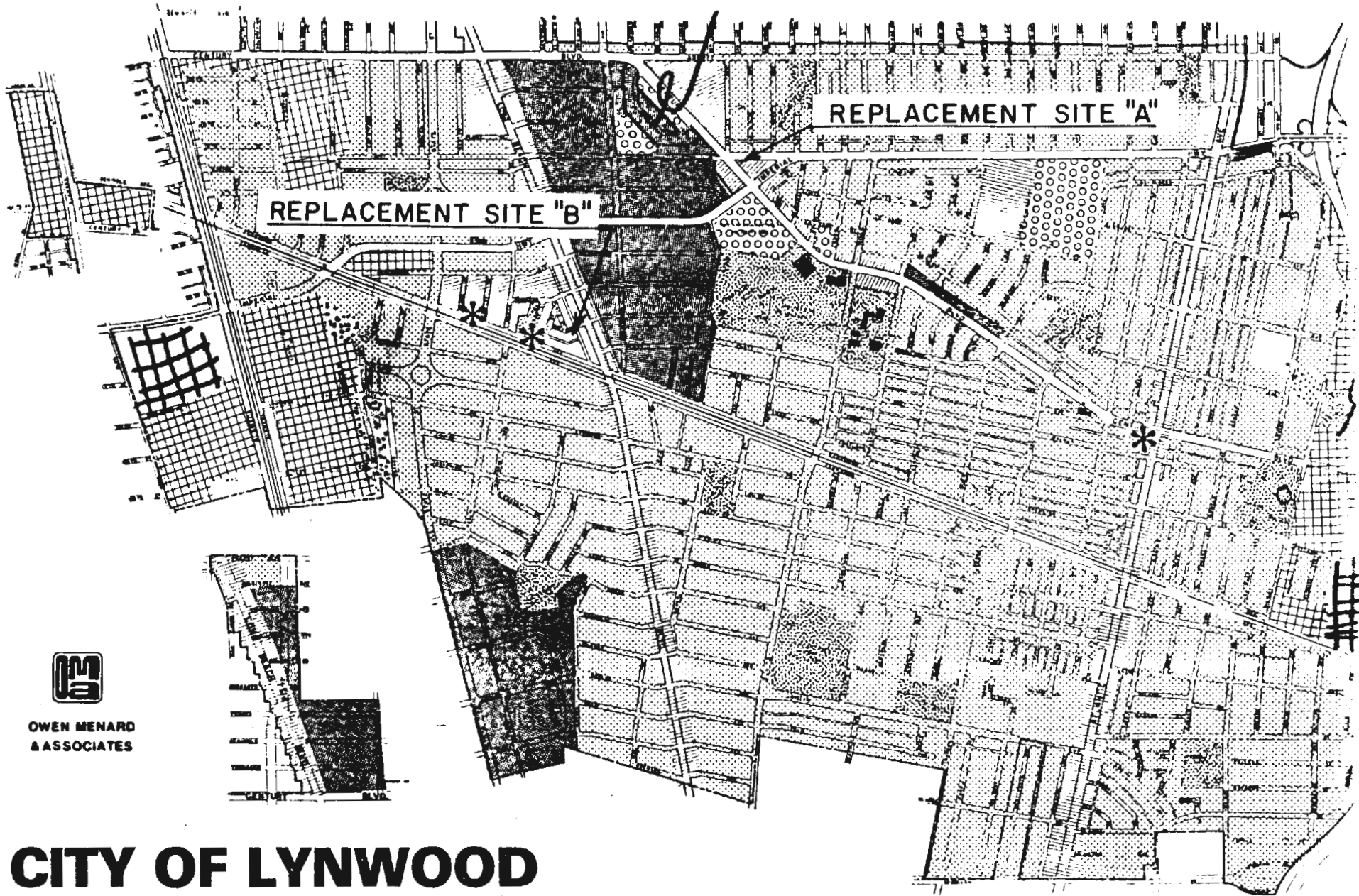
LYNWOOD CITY PARK

EXISTING  
DEPOT

HOSLER  
JR. HIGH SCHOOL

LYNWOOD  
PACIFIC ELECTRIC  
R.W. DEPOT  
/// Freeway R/W Required  
EXHIBIT NO.7



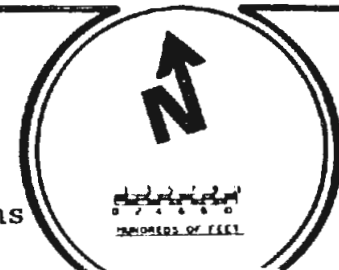


OWEN MENARD  
& ASSOCIATES

# CITY OF LYNWOOD

## LEGEND

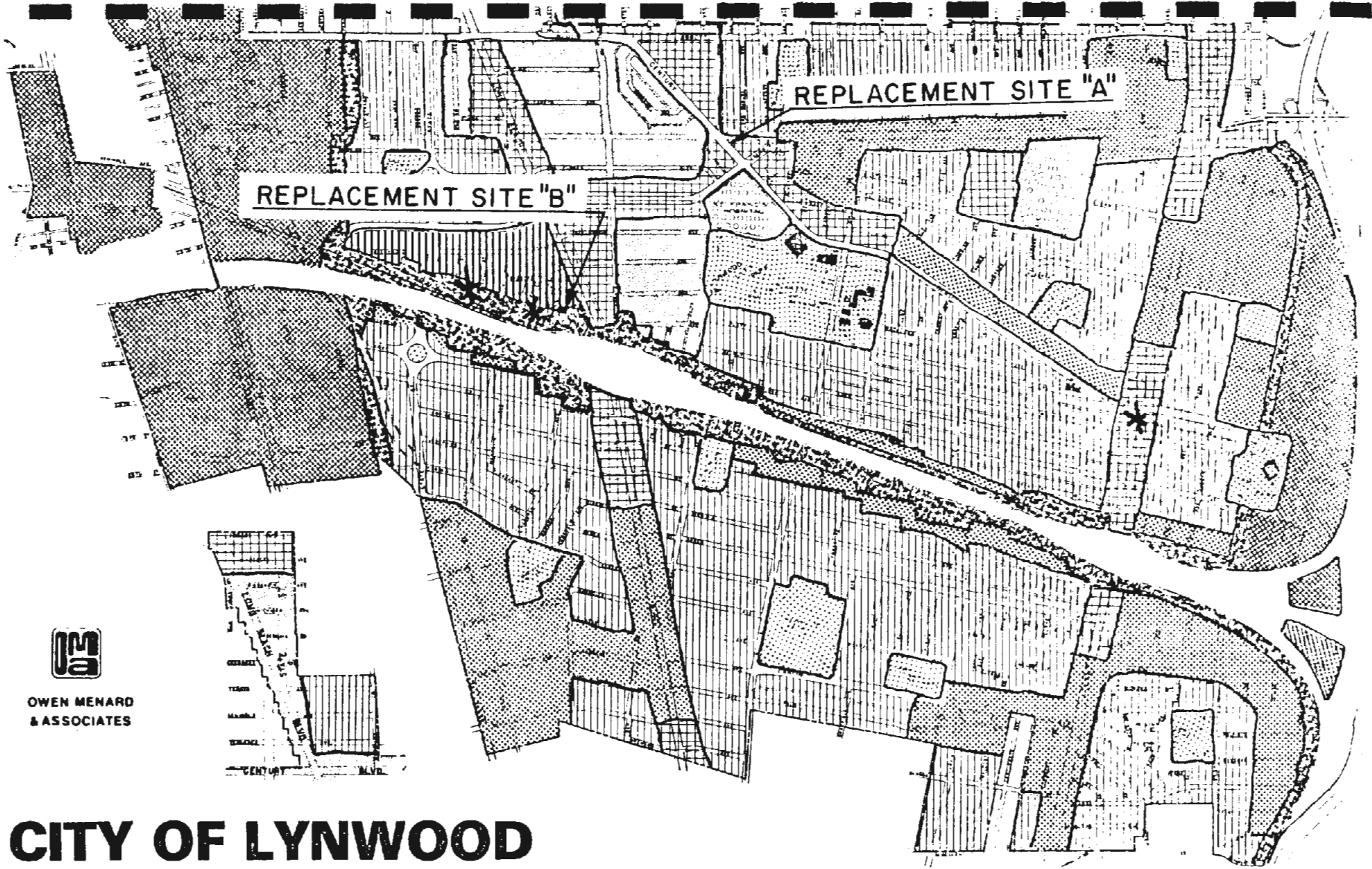
- |  |                           |  |                                    |  |                     |
|--|---------------------------|--|------------------------------------|--|---------------------|
|  | Single-Family Residential |  | Commercial                         |  | Semi-Public Uses    |
|  | Multi-Family Residential  |  | Industrial                         |  | Utility Substations |
|  |                           |  | Public Uses<br>(Parks and Schools) |  |                     |



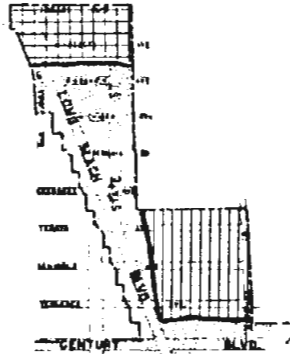
EXIST. LAND USE

EXHIBIT NO. 9










OWEN MENARD  
& ASSOCIATES







# CITY OF LYNWOOD

## LEGEND

-  Residential Single Family
-  Town House & Cluster Housing

-  Multi-Family Housing
-  Industrial
-  Commercial

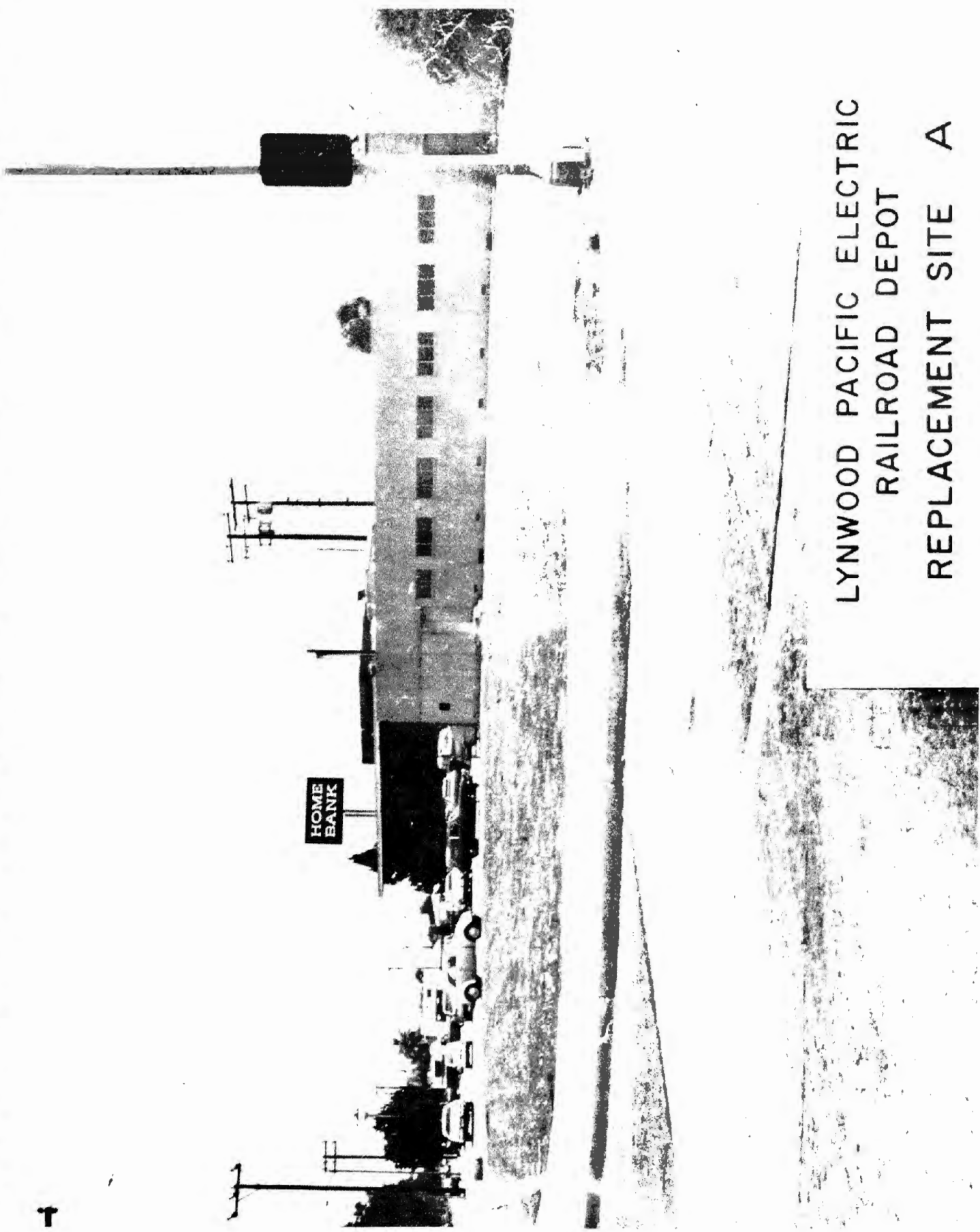
-  Commercial Center
-  Public Uses
-  Semi-Public Uses
-  Buffers



FUTURE LAND USE  
(TENTATIVE AS OF  
27 FEB 76)







LYNWOOD PACIFIC ELECTRIC  
RAILROAD DEPOT  
REPLACEMENT SITE A



Replacement Site B is located in the Lynwood Redevelopment Area immediately to the north of the present location of the Depot.

The Redevelopment Project is in the preliminary architectural design stage at this time (the bonds for the project were sold in late 1976). Work to date consists of tentative site plans and negotiations for possible tenants, however, there is no assurance that the present developer will consummate all of the negotiations necessary to implement the redevelopment project.

A preliminary site plan with the Depot located in the Redevelopment Area is shown in Exhibit 11.

An additional factor associated with Replacement Site B is the possibility of excess land and along Fernwood Avenue. It may be possible to assemble sufficient area for relocation of the Depot in the Redevelopment Area through land exchanges with the Redevelopment Agency, thus, the cost of replacement land acquisition would be reduced.

## II. Effects of Relocation on the Significance of the Lynwood Depot

The Lynwood Pacific Electric Railway Depot was placed in the National Register of Historic Places with three Areas of Significance: architecture, transportation and urban planning. Effects associated with the relocation process itself are discussed in Section A. Effects particular of Replacement Sites A or B are discussed in Sections B and C, respectively, a Summary follows in Section D.

### A. Effects of Relocation

One of the greatest deterrents to maintenance of the architectural integrity of the Lynwood Depot is vacancy. The Preservation Plan requires the assignment of a suitable tenant and adaptive use for the building. Though some modification of the interior would be necessary, the exterior would not be unfavorably altered. This requirement would be a stipulation in the transfer agreement between the California Department of Transportation and the City of Lynwood.

The Lynwood Depot is located next to the Southern Pacific Transportation Company railroad tracks. Even though this Company no longer operates regular service (either passenger or freight) on this line a strong physical association with the rail mode of transit remains as is shown in Exhibit 12. This association would be broken by relocation.

In the Area of urban planning, the City of Lynwood would become owner of the Relocation Site and the Lynwood Depot structure, thus, the association of the Depot with the growth and development of the City would be continued. This association would further be strengthened if the Lynwood Chamber of Commerce were to become the new tenant of the structure.

B. Effects of Relocation to Replacement Site A

In the Area of architecture relocation to Replacement Site A would somewhat impair the sense of accessibility which structure exhibits at its present location. Part of this would be due to the placement of a rectangular structure on a triangular site, and part would be due to the proximity of the parking lot to the structure.

In the area of transportation a new transportation association would be established. The Southern California Rapid Transit District (eventual successor to the Pacific Electric Railway passenger service) operates several bus lines which stop at or layover near Replacement Site A. Even though the SCRTD would not use the structure for a passenger service, a transportation association, however frail, would exist.

In the Area of urban planning, relocation to Replacement Site A would place the Lynwood Depot beyond the original City boundaries established in 1921 in an area that was acquired later by annexation.

C. Effects of Relocation to Replacement Site B

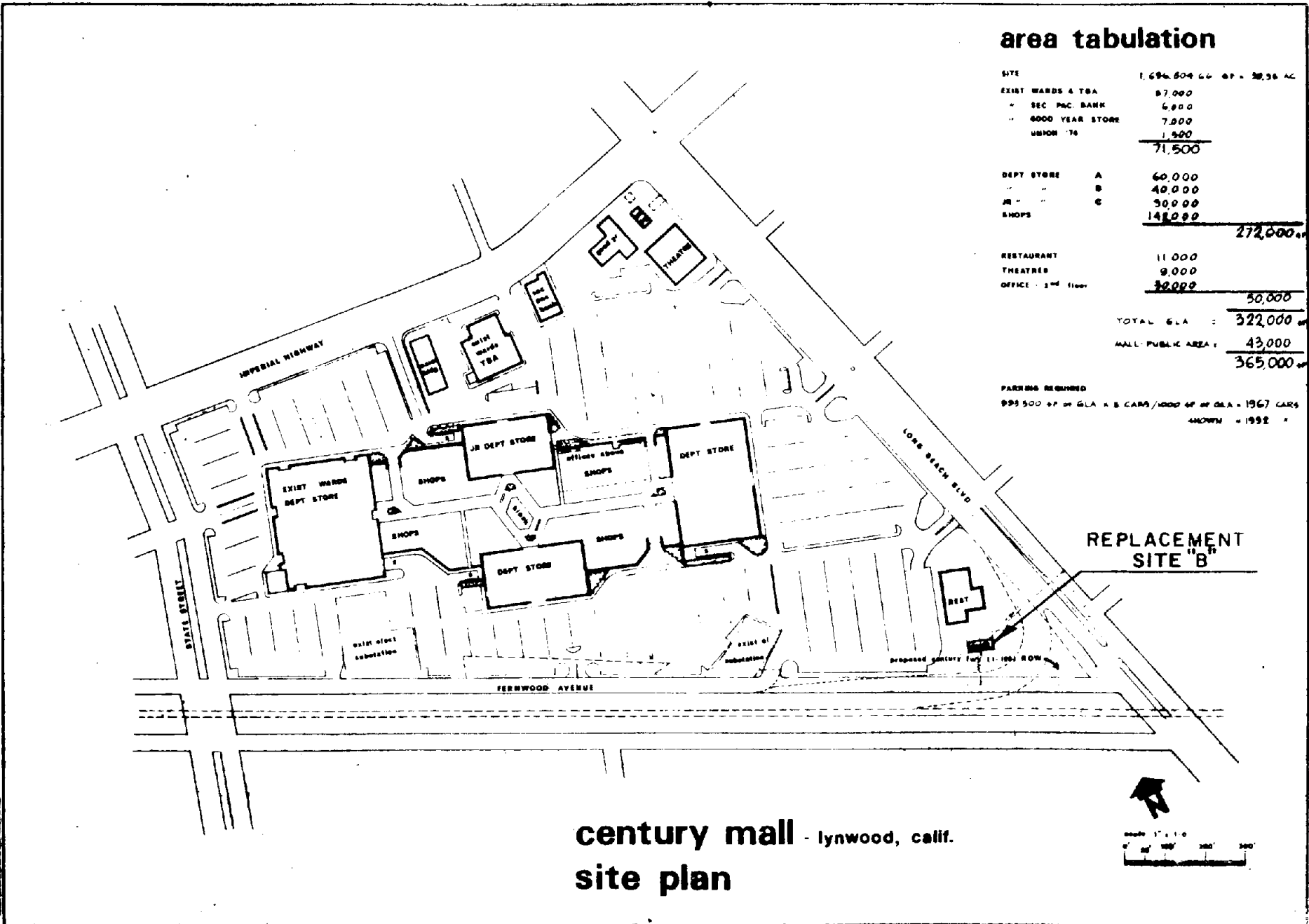
In the Area of architecture, relocation of Lynwood Depot to the Redevelopment Area would preserve the sense of accessibility which the structure now possesses because there would be no more dominant structures in the immediate vicinity as the Depot would be located near the edge of a large parking lot. This plan is tentative, however.

In the Area of transportation the Depot would be close to the facility which displaced it.

In the Area of urban planning the Lynwood Depot would be located less than 200 feet from its original site and within the original city limits.

D. Summary

The Staff of the State Historic Preservation Officer prefers relocation to Replacement Site B, for the reason



**area tabulation**

SITE		1,696,504 sq. ft. = 38.36 AC
EXIST WAREHOUSE YSA		87,000
" SEC. PAC. BANK		6,000
" 6000 YEAR STORE		7,000
UNION '76		1,900
		<u>71,500</u>
DEPT STORE	A	60,000
" "	B	40,000
" "	C	50,000
SHOPS		148,000
		<u>272,000</u>
RESTAURANT		11,000
THEATRE		9,000
OFFICE - 1 <sup>st</sup> floor		<u>30,000</u>
		50,000
TOTAL G.L.A.		<u>322,000</u>
MALL - PUBLIC AREA		43,000
		<u>365,000</u>
PARKING REQUIRED		
995,500 sq. ft. G.L.A. = 5 CARS/1000 sq. ft. G.L.A. = 1967 CARS		
4400000 = 1992		

**century mall - lynwood, calif.  
site plan**

THE EDISON DEVELOPMENT CO., INC.

Scale: 1" = 100'

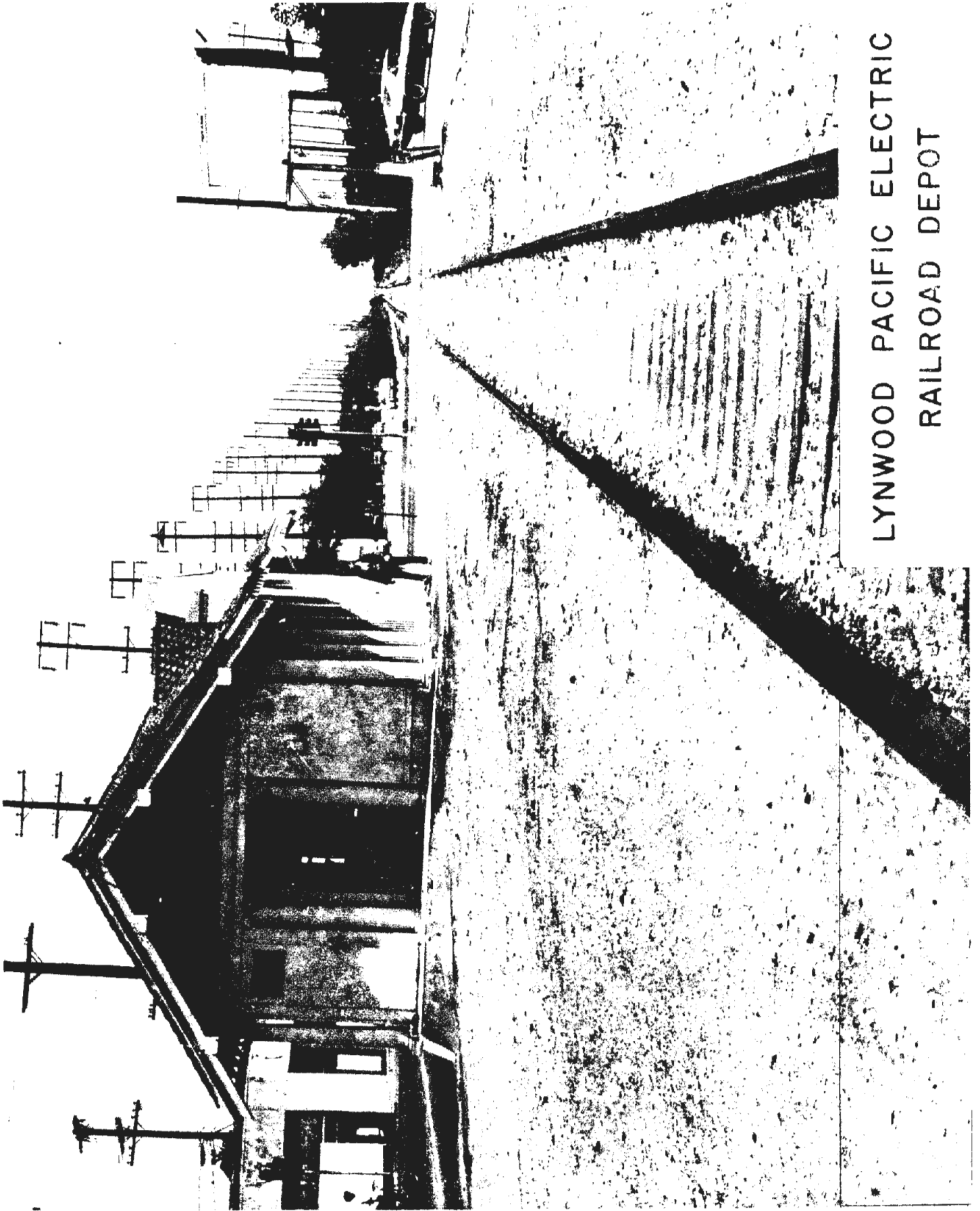
DATE: 11-10-76

PROJECT: CENTURY MALL

7A37



LYNWOOD PACIFIC ELECTRIC  
RAILROAD DEPOT







105 FEIS

Appendix (Abbreviated)

Following are selected letters which were appended to the original case report which provide necessary documentation.

Appendix B - Documentation of Zone of Environmental Impact  
S.H.P.D. - Letter of June 13, 1975

Appendix C - Documentation of Adverse Effect  
H.P.C. - Letter of July 21, 1976

Appendix D - Documentation of Initial Consultation  
Meeting and Pertinent Correspondence  
A.G.H.P. - Letter of January 17, 1975  
Homme - Letter of June 9, 1976

Appendix E - State Historic Preservation Officers  
Views on Relocation of Depot  
S.H.P.O. - Letter of October 19, 1976  
S.H.P.O. - Letter of December 22, 1976

that impacts to the National Register significance of the building would be less. Economic considerations favor Replacement Site B. The potential for damage during the move is lower for Replacement Site B. There are more options open for proper siting of the Depot on Replacement Site B.

Documentary preservation would be used only if all efforts at physical preservation of the building fail. Documentary preservation would consist of an architectural survey as per Historic American Buildings Survey requirements.

## DEPARTMENT OF PARKS AND RECREATION

P.O. BOX 2390  
SACRAMENTO 95811

June 13, 1975

Mr. Omar L. Homme, Division Engineer  
Federal Highway Administration  
Post Office Box 1915  
Sacramento, California 95909

Attention Mr. Duane Lewis

Dear Mr. Homme:

The California Department of Transportation has forwarded a copy of their letter concerning a project in Los Angeles County, described as 07-LA-105, proposed El Segundo-Norwalk freeway. In the letter they have materials relating to the eligibility of three properties for the National Register of Historic Places.

These properties are a recreation building on Wright Road, a house on Louise Avenue, and the Downey Cemetery. My staff has consulted with Mr. Lewis of your staff on the possible eligibility of these properties, and believe that a determination that these properties are outside of the area of potential environmental impact would be appropriate. We anticipate continued cooperation from the Advisory Council procedures on the matter of the Lynwood Pacific Electric Depot, but believe the three above-listed structures may be treated separately.

Sincerely,

Handwritten signature of Herbert Rhodes in cursive script.  
Herbert Rhodes

State Historic Preservation Officer

A-5/3

OFFICE OF HISTORIC PRESERVATION  
DEPARTMENT OF PARKS AND RECREATION  
ST OFFICE BOX 2390  
SACRAMENTO, CALIFORNIA 95811  
(916) 445-8006



July 21, 1976

Mr. Oaar L. Homme  
Division Administrator  
Federal Highway Administration  
Region 9  
California Division  
P. O. Box 1915  
Sacramento, California 95809

Dear Mr. Homme:

We have received your preliminary case report and proposal describing the proposed preservation plan for the Lynwood Railroad Depot in Los Angeles County. We concur with your finding that the proposed "I" 105 Highway transitway will adversely affect the Lynwood Railroad Depot.

Current plans outlined for the future of the station, which is listed on the National Register of Historic Places, are not sufficiently complete to provide adequate mitigation of the adverse effect of the project upon this property. In order to comply with President's Advisory Council procedures 36 CFR, 800, it will be necessary for this office to receive complete and final information regarding the relocation of the station, its future use, and its rehabilitation. The structure should be moved and restored before the project proceeds in order to assure minimal adverse effects upon the structure.

As we are concerned about maintaining, as much as possible, the architectural and historic integrity of the Lynwood station and complying with federal regulations regarding National Register property, we look forward to receiving the required information.

Should you require any further information or assistance, please do not hesitate to contact Paula Boghosian of this office.

Sincerely,

Original Signed by  
Dr. Knox Mellon

Dr. Knox Mellon  
Historic Preservation Coordinator

R-3a/2

cc: Mr. Louis Wall  
President's Advisory Council on  
Historic Preservation  
P. O. Box 25085  
Denver, Colorado 82005

Mr. Duane Frink  
Environmental Branch  
Department of Transportation

KM:PB

Advisory Council  
On Historic Preservation  
1522 K Street N.W. Suite 450  
Washington D.C. 20005

Mr. Omar L. Homme  
Division Engineer, California Division  
Federal Highway Administration  
U.S. Department of Transportation  
P. O. Box 1915  
Sacramento, California 95801

JAN 17 1975

Dear Mr. Homme:

This is in response to your request of December 31, 1974 for comments on the draft environmental statement (DES) for the proposed Routes 1 and I-105 (El Segundo-Norwalk) Freeway, California. The Advisory Council has reviewed the DES and notes that this undertaking will affect the Lynwood Pacific Electric Railway Depot, a property included in the National Register of Historic Places and may affect other cultural resources whose eligibility for inclusion in the National Register has not yet been determined.

In addition, the Council also notes that the Federal Highway Administration (FHWA) is aware of its responsibilities pursuant to Section 106 of the National Historic Preservation Act of 1966 and the provisions of Executive Order 11593, "Protection and Enhancement of the Cultural Environment," of May 13, 1971 with respect to this undertaking and accordingly is preparing a preliminary case report pursuant to Section 800.4(f) of the "Procedures for the Protection of Historic and Cultural Properties" (36 C.F.R. Part 800).

In order to expedite the compliance process, the preliminary case report, accompanying the FHWA's request for Council comments, should contain the following information:

1. a copy of the Secretary of the Interior's opinion concerning the eligibility for inclusion in the National Register of the non-National Register properties identified on pages 5-50 and 5-51 of the DES;
2. a general description of the proposed undertaking with explanatory graphic material;
3. a description of the properties included in or eligible for inclusion in the National Register to be affected by the undertaking, identifying the significant features of the properties;
4. an evaluation of the effect of the undertaking upon the properties included in or eligible for inclusion in the National Register;

5. an outline of measures taken in considering the undertaking's effect upon the properties included in or eligible for inclusion in the National Register, including:

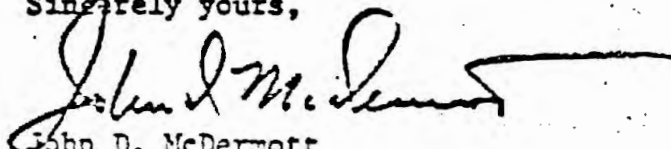
- a. an expression of the views of the State Historic Preservation Officer,
- b. an indication of the support or opposition of units of government, as well as public and private agencies and organizations,
- c. a review of alternatives which would avoid any adverse effects, and
- d. a review of alternatives which would mitigate any adverse effects.

Until the requirements of Section 106 and Executive Order 11593 are met, the Council considers the DES to be incomplete in its treatment of historical, archeological, architectural and cultural resources. To remedy this deficiency, the Council will provide substantive comments on the undertaking's effect on the previously mentioned cultural resources through the compliance process.

Should you have questions or require any additional information, please contact Michael E. Bureman of the Advisory Council staff at P. O. Box 25085, Denver, Colorado 80225, telephone number (303) 234-4946.

Your continued assistance and cooperation are appreciated.

Sincerely yours,



John D. McDermott  
Director, Office of Review  
and Compliance

CALIFORNIA DIVISION  
P. O. Box 1915  
Sacramento, California 95809

June 9, 1976

Lynwood RR Station

Dr. Knox Mellon, Jr.  
Historic Preservation Coordinator  
Dept of Parks and Recreation  
P. O. Box 2390  
Sacramento, California 95814

Dear Dr. Mellon:

The proposed Interstate Route I-105 freeway-transitway will affect the Lynwood Railroad Depot which is a National Register building. We are sending a copy of our Preliminary Case Report and a Proposal describing the proposed preservation plan for the Lynwood Railroad Depot for your review. The proposal is expected to be used as the basis for a memorandum of Agreement, Section 800.5g of the Federal Register.

The preservation plan provides for moving the depot to another location and the proposal contains an analysis showing there is no potential property in the relocation area.

We have reviewed the effect of the freeway-transitway on the Lynwood Station and we consider this effect to be adverse. We request your concurrence for this finding. In addition, we request your review of the proposal for preservation and comments on or concurrence with the proposed mitigation.

Considering the continuous coordination which has taken place between our two respective staffs, our prior contact with the Advisory Council, plus the many public hearings held on the proposed freeway alignment, we do not believe that there is any need for additional on-site inspections or public meetings pursuant to the Council's procedures. Your concurrence in this finding is also requested.

We would like to meet with you as soon as you have had the opportunity to review this submittal.

Sincerely yours,

WILLIAM R. LAKE

For  
Omar L. Homme  
Division Administrator

cc:  
Caltrans, Sacramento - Attention: Mr. James R. Gordon

OFFICE OF HISTORIC PRESERVATION  
DEPARTMENT OF PARKS AND RECREATION  
POST OFFICE BOX 2393  
SACRAMENTO, CALIFORNIA 95811  
(916) 445-8006



October 19, 1976

Mr. Dan Goble, P.E.  
Senior Engineer  
Project Development  
State of California  
Department of Transportation  
District 7  
120 S. Spring Street  
Los Angeles, CA 90012

Dear Mr. Goble:

My staff appreciated the opportunity to meet with you on October 1, 1976 to discuss the relocation of the Lynwood Depot, a National Register property, and to inspect the proposed alternative sites for relocation.

It would appear that relocation of the Depot would be the preferred solution for its preservation in view of the proposed freeway project and either the resultant demolition or potential isolation of the Depot from public access. One site under consideration for the Depot's relocation is located at Norton and Century Boulevards. The site appears to be a feasible one. However, placement of the building on the lot would allow rather minimal side and front sit backs for planting, access, etc. Available parking would also appear to be rather minimal. Additionally, the original associations with transportation would be greatly decreased. The thoroughfare adjacent to the lot would comprise its only association with transportation.

Another site only recently suggested was discussed at the October 1 meeting, although its availability has not yet been completely determined. This site is located directly across the street from the Depot in its current location in a redevelopment area located at State Street, Long Beach Boulevard, the proposed Century Freeway right-of-way (Fernwood) and the Imperial Highway. This latter site would appear to be a more desirable relocation site for the Depot: the site is directly across the street from the Depot on its original site, moving it to this location would not only be less expensive but less detrimental to the building; the Depot would retain its historic association with the site of the Pacific Electric Railroad and transportation much more closely; and the lot upon which it would be placed appears to be large enough to allow ample planting and good siting with respect to parking and landscaping.

Inasmuch as it would appear that the second site may be more suitable for the building, we suggest that the possibility of relocating the Depot to that site be further explored. We would also suggest that the Chamber of Commerce be



Mr. Dan Goble, P.E.

-2-

October 19, 1976

contacted for comments regarding alternative site locations. The Chamber should also be asked to confirm as completely as is currently possible their intention of rehabilitation and future use of the Depot in its new location.

We look forward to your reply and the satisfactory resolution of this issue. Thank you again for the opportunity to meet with you and to inspect the sites. The Depot is a handsome structure and most worthy of all efforts to preserve it. We appreciate your assistance and cooperation in achieving that end.

Sincerely,

*Knox Mellon* <sup>wp</sup>

Dr. Knox Mellon  
Historic Preservation Coordinator

S-2/1

OFFICE OF HISTORIC PRESERVATION  
DEPARTMENT OF PARKS AND RECREATION  
POST OFFICE BOX 2390  
SACRAMENTO, CALIFORNIA 95811  
(916) 445-8006



December 22, 1976

Mr. Omar L. Homme  
Division Administrator  
Federal Highway Administration  
P. O. Box 1915  
Sacramento, CA 95809

Dear Mr. Homme:

I have received a copy of Mr. James Gordon's letter of November 29, 1976 suggesting a plan of action for expediting the historic preservation clearance for the Lynwood Depot in the City of Lynwood, Los Angeles County.

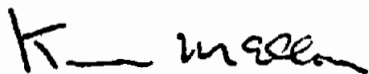
As requested in Mr. Gordon's letter, my staff has acknowledged that the proposed relocation of the Lynwood Depot represents an acceptable preservation plan as an alternative to demolition. My staff further concurs that the Redevelopment Area and the Century Boulevard - Norton Avenue locations are feasible relocation sites. As the proposal to relocate the Lynwood Depot would not destroy the architectural integrity of the structure, the depot would continue to be worthy of National Register designation. My staff has also determined that the Redevelopment Area represents the preferred site.

The Office of Historic Preservation has also received an inquiry from Mr. Dan Goble, District 7, Department of Transportation, requesting that the State Historic Preservation Officer select the most feasible site plot-plan suggested by Mr. Robert Andrew Swan. All eight alternative plot-plans were reviewed, and my staff has concluded that a variation of Scheme No. 3 appears to be the most feasible proposal. The Office of Historic Preservation recommends that Scheme No. 3 be modified to exclude the Red Car and to realign the Depot by positioning the open end of the structure towards the apex of the lot parcel. Enclosed is a Xerox copy of Scheme No. 3 with its modified Depot location.

Mr. Omar L. Homme  
December 22, 1976  
Page - 2.

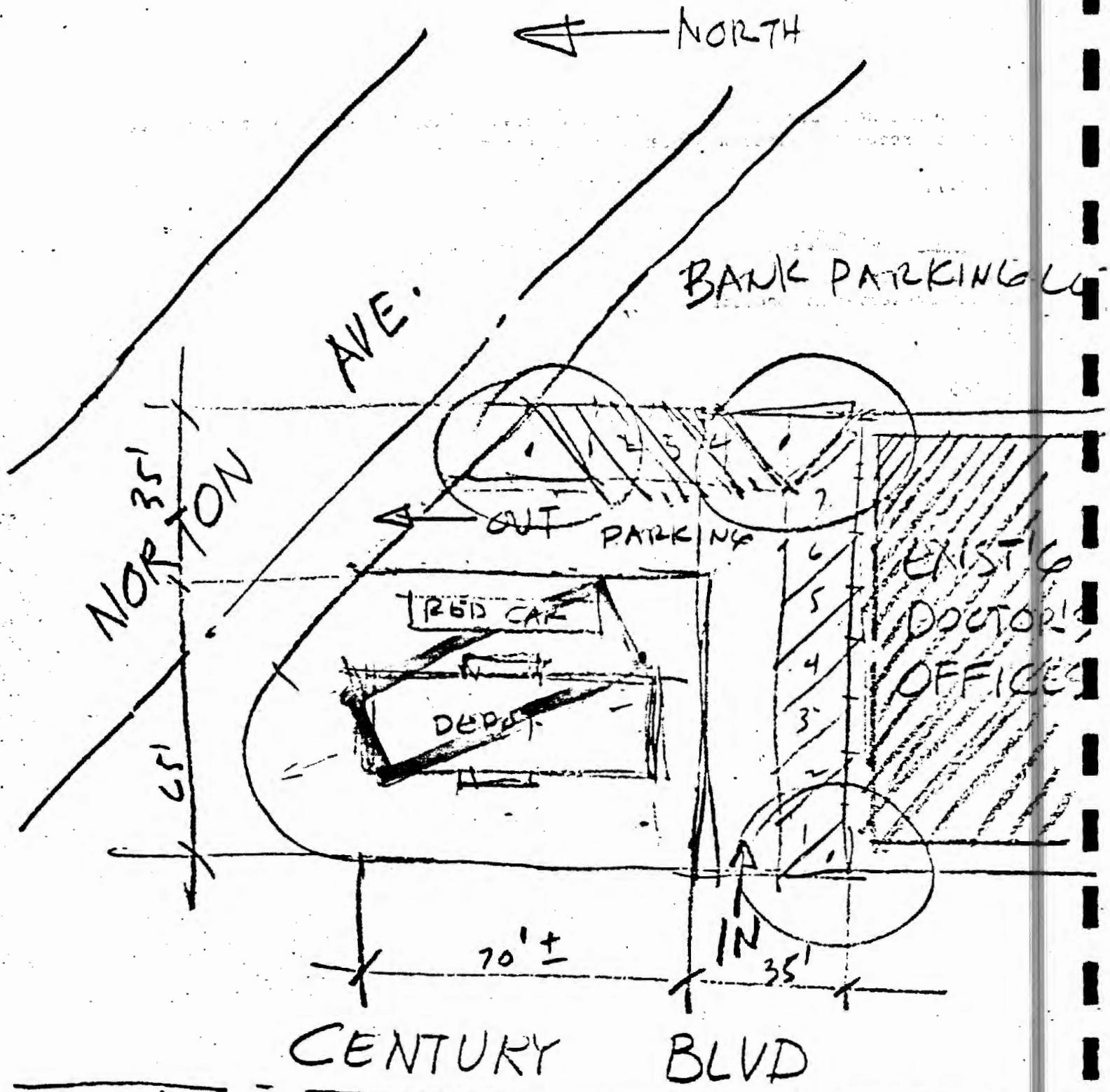
Please do not hesitate to contact Eugene Itogawa, (916) 322-2204, of this office should you require further assistance in this matter.

Sincerely,



Dr. Knox Mellon  
Historic Preservation Coordinator

P-1/1765



SITE PLAN  
 LYNWOOD PE DEPOT  
 SC 1"=30'  
 SCHEME 3

10/8/76

Memorandum of Agreement

Lynwood Pacific Electric Railway Depot



Advisory Council on  
Historic Preservation  
1522 K Street N.W.  
Washington, D.C. 20005

MEMORANDUM OF AGREEMENT

WHEREAS, the Federal Highway Administration proposes to assist the California Department of Transportation with the construction of I-105, El Segundo-Norwalk Freeway; and,

WHEREAS, the Federal Highway Administration, in consultation with the California State Historic Preservation Officer, has determined that this undertaking as proposed would have an adverse effect upon Lynwood Pacific Electric Railway Depot, a property included in the National Register of Historic Places; and,

WHEREAS, pursuant to Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470f, as amended, 90 Stat. 1320), the Federal Highway Administration has requested the comments of the Advisory Council on Historic Preservation; and,

WHEREAS, the California State Historic Preservation Officer has reviewed the proposal to relocate the Lynwood Pacific Electric Railway Depot to either a parcel at the intersection of Century Boulevard and Norton Avenue in the City of Lynwood (Site A), or to a parcel 200 feet north of the Depot's present location (Site B) and finds them acceptable, but preferring the latter; and,

WHEREAS, the City of Lynwood has agreed to accept ownership of the replacement site and the relocated structure which would be administered and maintained after relocation in a manner consistent with its status as a property included in the National Register of Historic Places; and,

WHEREAS, the California State Historic Preservation Officer believes the Lynwood Pacific Electric Railway Depot should remain on the National Register of Historic Places after it has been relocated and will submit to the National Register of Historic Places appropriate documentation to substantiate that position within 90 days after relocation, unless irreparable damage to the architectural integrity of the property occurs during relocation so that it no longer meets National Register criteria; and,

WHEREAS, the California Department of Transportation for the Federal Highway Administration has performed archeological surveys to professional standards on the current site and the two sites considered for relocation and found no evidence of the existence of archeological material that might be eligible for inclusion in the National Register of Historic Places; and,

WHEREAS, pursuant to the procedures of the Advisory Council on Historic Preservation (36 C.F.R. Part 800), representatives of the Advisory Council on Historic Preservation, the Federal Highway Administration and the California State Historic Preservation Officer have consulted and reviewed the undertaking to consider feasible and prudent alternatives to avoid or satisfactorily mitigate the adverse effect; now,

**THEREFORE:**

It is mutually agreed that implementation of the undertaking, in accordance with the following stipulations will satisfactorily mitigate any adverse effect on the above-mentioned property.

**STIPULATIONS**

1. The Federal Highway Administration will arrange for the California Department of Transportation to have the necessary property interests in Site B vested in the City of Lynwood that will permit the relocation of the Lynwood Pacific Electric Railway Depot to that site, when the first construction authorization for the proposed I-105, El Segundo-Norwalk Freeway, is approved by the Federal Highway Administration; unless Site B is no longer available for that purpose, in which case arrangements will be made to have the necessary property interests in Site A vested in the City of Lynwood to permit the relocation of the Depot to that site in accordance with the modified Scheme No. 3 site plan approved by the California State Historic Preservation Officer staff December 22, 1976 (letter and modified Scheme No. 3 attached).
2. If neither Site A nor Site B is available for the relocation of the Lynwood Pacific Electric Railway Depot when the first construction authorization for the proposed I-105, El Segundo-Norwalk Freeway is approved by the Federal Highway Administration, the Federal Highway Administration and the California Department of Transportation will consult with the City of Lynwood, the California State Historic Preservation Officer and the Advisory Council on Historic Preservation and make every reasonable effort to



Page 3

Memorandum of Agreement

Lynwood Pacific Electric Railway Station

Federal Highway Administration

find a mutually agreeable site for the relocation of the Depot; failing to find such a site the above-mentioned parties will consult to find a mutually agreeable alternative for mitigating the adverse effect of the freeway construction on the Depot.

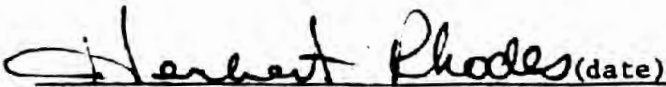
3. Prior to relocation of the Lynwood Pacific Electric Railway Depot the Federal Highway Administration will arrange for the recordation of the property to the standards established by the Historic American Buildings Survey, providing copies of such documentation to the Historic American Buildings Survey, the California State Historic Preservation Officer and the City of Lynwood.
4. After the property has been properly documented to the Historic American Buildings Survey standards the Federal Highway Administration will arrange with the California Department of Transportation for the professional relocation of the Lynwood Pacific Electric Railway Depot to either Site A, Site B or a site found mutually agreeable, if Sites A and B are not available at that time.
5. Within 30 days after the Lynwood Pacific Electric Railway Depot has been relocated the Federal Highway Administration will provide the California State Historic Preservation Officer any documentation he may require with respect to notifying the Keeper of the National Register of Historic Places and to support his justification for having the Depot remain on the National Register of Historic Places.

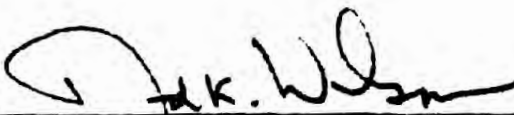
Robert M. Utley 3/24/77 (date)

B. J. White 3/31/77 (date)  
Federal Highway Administration  
Department of Transportation

Page 4  
Memorandum of Agreement  
Lynwood Pacific Electric Railway Station  
Federal Highway Administration

APR 15 1977

  
California State Historic Preservation  
Officer

 5/3/77  
(date)  
✓ Chairman  
Advisory Council on Historic Preservation

Advisory Council on  
Historic Preservation  
1222 K Street N.W.  
Washington, D.C. 20005

COPY

Dr. Knox Mellon  
Historic Preservation Coordinator  
Office of Historic Preservation  
Department of Parks and Recreation  
P.O. Box 2390  
Sacramento, California 95811

Dear Dr. Mellon:

The Memorandum of Agreement for the proposal to assist the California Department of Transportation with the construction of I-105, El Segundo-Norwalk Freeway, affecting the Lynwood Pacific Electric Railway Depot, in Lynwood, California, has been approved by the Chairman of the Council. This document constitutes the comments of the Council as required by Section 106 of the National Historic Preservation Act (16 U.S.C. 470f as amended, 90 Stat. 1320) and completes the "Procedures for the Protection of Historic and Cultural Properties (36 C.F.R. Part 800). A copy of the Memorandum is enclosed.

A copy of this Memorandum of Agreement should be included in any environmental assessment or statement prepared for this undertaking in compliance with the National Environmental Policy Act and should be retained in your records as evidence of compliance with Section 106 of the National Historic Preservation Act of 1966. The Council appreciate your cooperation in reaching a satisfactory solution to the issues raised in this matter.

Sincerely yours,

Robert M. Utley  
Deputy Executive Director

Enclosure



APPENDIX III

CORRESPONDENCE DOCUMENTING COORDINATION

1. Lennox	9-4-75
2. Inglewood Unified	5-28-75
3. Southwest College	8-22-75
4. Los Angeles City Unified	6-3-75 7-26-76
5. Lynwood Unified	4-23-75
6. Paramount Unified	4-23-75
7. Downey Unified	7-8-75
8. City of Downey	12-15-75
9. L.A. County Dept. of Parks & Rec.	10-13-75
10. Dept. of Education	7-15-74
11. Div. of Aeronautics	6-26-74



BOARD OF TRUSTEES

ANTONIO J. LOPEZ, PRESIDENT  
E. RICHARD FULTON, CLERK  
BARBARA A. DANIELSON, MEMBER  
ROBERT W. BUTHERLAND, MEMBER  
ROBERT L. VANDEVEER, MEMBER

Lennox School District

10319 FIRMONA AVENUE  
LENNOX, CALIFORNIA 90304  
871-8271 878-8421

H. W. COLBY, ED. D.  
SUPT. AND SEC. TO BOARD  
H. CHARLES SHIELDS  
ASST. SUPERINTENDENT  
SUFORD AVE. FELTON AVE.  
JEFFERSON LARCH AVE.  
WHELAN



401 S. INGLEWOOD AVE., INGLEWOOD, CALIF. 90301 • (213) 673-3110 • 678-3751

September 4, 1975

C. J. O'Connell, P.E.  
District Design Engineer  
State of California Transportation Agency  
Department of Public Works  
Division of Highways, District 7  
P. O. Box 2304, Terminal Annex  
Los Angeles, California 90054

Dear Mr. O'Connell,

We have considered your recent request for a determination of the local significance of the recreational use of Felton Intermediate School.

The uses of the school grounds for recreation purposes have been reviewed. We have concluded that the Felton School is not of local significance for recreational purposes. Mr. Ron Gagnon of Los Angeles County Parks and Recreation concurs in this.

Recreational uses not a part of the school activities that take place here could be located at Lennox Park or at another district school. They are equally convenient in location size and accessibility. The entire School District is only one and one-half square miles in area. It contains six public schools within its boundary as well as a centrally located County Park.

In addition, the use of school grounds for non-school-related activities is permissive. It is our policy to make the grounds at all our schools available on a permit basis, which can be restricted or denied, depending on circumstances.

Because the right-of-way negotiations with the State have not been finalized, this letter does not in any way affect our position in the negotiations.

  
H. W. Colby, Ed. D.  
Superintendent

May 28, 1975

Mr. Donald W. Cross, P.E.  
Senior Engineer, Project Development  
Branch A  
State Department of Transportation, District 7  
120 South Spring Street  
Los Angeles, CA 90012

Subject: Effect of Proposed Route 105 Freeway on the Recreational Use of James Kew School

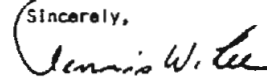
Dear Mr. Cross:

Your request of April 3, 1975, for a determination of local significance on the recreation use at James Kew School has been considered in consultation with the Parks and Recreation Department of the City of Inglewood.

From the standpoint of recreation uses, not a part of regular school activities, these school grounds are not considered locally significant although there is usage by some athletic groups.

Adjacent to James Kew School on the south is the Imperial Village Park which is used by the school as a playground for school activities and also as an open park. This school and park are located in a corner of the southern perimeter of the City of Inglewood and are bounded on the west side by a flood control channel. Therefore, the accessibility to their service area is relatively poor. In addition, the proximity of another elementary school impacts the amount of usage at James Kew School.

In responding to your letter, we understand that, because the right of way negotiations with the State have not been finalized, this letter will not in any way affect our position in the negotiations.

Sincerely,  
  
Dennis W. Lee  
Assistant Superintendent  
Business Services

DWL:bc

## Los Angeles Community Colleges

Administrative Offices: 2140 West Olympic Boulevard, Suite 310, Los Angeles, California 90006 • (213) 380-6000  
Leslie Koltai, Chancellor

August 22, 1975

Mr. C. J. O'Connell  
California Dept. of Transportation  
District 07  
120 South Spring Street  
Los Angeles, California 90012

Dear Sir:

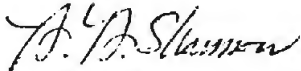
Your request of March 31, 1975 for a determination of local significance on the recreation use at Southwest College has been considered.

We have reviewed the uses of the school grounds for recreation purposes, in consultation with L. A. County Parks & Recreation Department. From the standpoint of recreation uses not a part of regular school programs, the school grounds are not considered locally significant.

These recreational uses could be located at other neighboring schools and parks which are similar in size and accessibility. Also, the use of the school grounds for non-school related activities is permissive. The school grounds are made available on a permit basis, but the use can be restricted or denied, depending on circumstances.

Because the right of way negotiations with the State have not been completed, this letter does not in any way affect our position in the negotiations.

Sincerely,



W. W. Shannon  
School Facilities Planner  
Planning & Construction

cc: Dr. Turner  
Dr. Guynes

## Los Angeles City Unified School District

WILLIAM J. JOHNSTON  
Superintendent of Schools

School Building Planning Division

HARRY B. SAUNDERS  
Director of School  
Building Planning

105 EIS

June 3, 1975


C. J. O'Connell, P.E.  
Chief, Project Development  
Branch A  
Department of Transportation  
Box 2304  
Los Angeles, California 90051

Dear Mr. O'Connell:

Your letter of May 19, 1975 requested a determination on our part of the "local significance" of the recreation use at Ritter Elementary School.

We are enclosing a memo from Mr. Gordon Trigg with reference to this subject. In addition, it is our feeling that although this site is currently used for after school and summer recreational programs, the adjacent Grape Street and Weigand Avenue Elementary schools can adequately provide this service.

Sincerely,



HARRY B. SAUNDERS  
Director

HBS:mrc

Enclosure



INTER-OFFICE CORRESPONDENCE  
Los Angeles City Schools

TO: Ray Owens, Coordinator  
Map and Boundary Section

Date March 12, 1975

FROM: Gordon P. Trigg, Administrator  
Student Auxiliary Services Branch

SUBJECT: RECREATIONAL PROGRAM AT RITTER ELEMENTARY SCHOOL

Ritter Elementary School has been used for recreational programs to serve young children under the guidance of the Youth Services Section. Traditionally the playground is open Monday through Friday from 3 to 5 p.m. during the school year. During the summer months, a recreational program is provided for an eight-week period, Monday through Friday from 12 noon to 5 p.m.

Due to its location and the size of the school, there is a minimum participation by the elementary school children. However there exist in the immediate community few recreational sites for young children or the community.

Please contact this office if you desire additional information about the program at Ritter.

GPT:km

Los Angeles City Unified School District

WILLIAM J. JOHNSTON  
Superintendent of Schools

School Building Planning Division

HARRY B. SAUNDERS  
Director of School  
Building Planning

July 26, 1976

Mr. S. L. Elicks, P.E.  
Chief, Project Development  
Branch A  
Department of Transportation  
P.O. Box 2304  
Los Angeles, Ca. 90051


Dear Mr. Elicks:

In reference to our previous letters regarding the "local significance" of the recreational use of Ritter Elementary School, I provide the following after reviewing the freeway proposal with County Parks and Recreation Department and our Youth Services Branch:

1. Ritter Elementary School does not now play a significant recreational role in the community.
2. The Los Angeles County does not participate in the recreational program at Ritter Elementary School. They operate Will Rogers Park which is a regional facility and accommodates the Ritter Community as well as other surrounding area.
3. The Ritter Elementary recreational program is marginal and if the revenue base for the school district's Youth Services and Recreation Program is reduced, we anticipate closing the recreational program.

It is the collective opinion of the School District and the Los Angeles County Parks and Recreation Department that the Ritter program is not significant to the community whose recreational needs are served at major parks and other schools in the immediate area.

Sincerely,

  
HARRY B. SAUNDERS  
Director

HBS:mrc

c: Gordon Trigg

# LYNWOOD UNIFIED SCHOOL DISTRICT

Dr. MYRUM W. LOUTENBROCK, SUPERINTENDENT OF SCHOOLS

LOUIS A. THOMPSON  
ASSISTANT SUPERINTENDENT  
BUSINESS SERVICES

11331 PLAZA  
LYNWOOD, CALIFORNIA  
639-7781  
EXT. 881

April 23, 1975

State Of California - Business And Transportation Agency  
DEPARTMENT OF TRANSPORTATION  
District 7  
P.O. Box 2304,  
Los Angeles, California 90051

Attention: Mr. C. J. O'Connell, P.E.  
Chief, Project Development  
Branch A

Gentlemen:

Your request of March 11, 1975 for a determination of significance on the recreation use at the Will Rogers Elementary School has been considered.

The use of playground area at the school for recreation purposes serves the easterly portion of Lynwood. Its use is somewhat limited since it is at the extreme easterly end of the City and abuts the Long Beach Freeway.

While it does provide an area for recreation, the fact that its use is somewhat limited by its location, and considering that Ham Park is only a few blocks away, we do not feel that its use could be considered significant to the local area's recreational programs.

This determination was made in consultation with Mr. Donald Snavely, Director of Lynwood's Recreation and Parks Department.

Very truly,

  
Louis A. Thompson  
Assistant Superintendent  
Business Services

LAT/dg

c.c. Mr. Donald Snavely, Director Recreation and Parks Dept.  
Mr. Arol Burns, Real Estate Consultant

# Paramount Unified School District

15110 California Avenue - Paramount, California 90723

213 - 630-3131 213 - 636-8381



April 23, 1975

Mr. C. J. O'Connell, P. E.  
Chief, Project Development - Branch A  
Department of Transportation - District 7  
P. O. Box 2304  
Los Angeles, California 90051

Dear Mr. O'Connell:

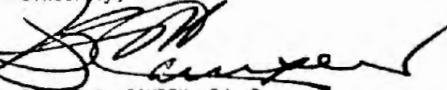
Reference is made to your letter of March 11, 1975 - 07-LA-105 EIS, 07221 - 040601 - regarding the significance of recreation uses of the Grove and Roosevelt Elementary Schools.

We have reviewed the use of the school grounds for non-school-related community recreational purposes with the City of Paramount and have concluded that the State's acquisition of Roosevelt and Grove Schools will cause no significant change in this program. Of the 271 applications for the use of eleven elementary and secondary schools in the District for the 1974-1975 school year, less than 10 were in any way concerned with Roosevelt and Grove Schools. Based on this and other conditions which we have observed, we feel safe in stating that substantially less than 5 percent of the overall non-school recreational programs using school facilities are in any way involved with these two schools.

Since the use of school grounds for non-school-related activities is permissive and at all times subject to the higher priority use of the facilities for school activities, it is frequently necessary for the non-school-related activities to rotate between several different school facilities to take advantage of space available at any given time. This is a normal and necessary aspect of such activities as conducted in the Paramount Unified School District.

We therefore do not consider the recreational use of these two particular schools to be significant in the area's overall recreation program.

Sincerely,

  
PALMER G. CAMPEN, Ed. D.  
District Superintendent

PGC:rb

**DOWNEY UNIFIED SCHOOL DISTRICT**

11627 Brookshire Avenue  
Downey, California 90241

(213) 923-6711 (213) 773-2592



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July 8, 1975

Mr. Dan Goble  
California Department of Transportation  
District 07  
120 South Spring Street  
Los Angeles, California 90012

Dear Dan:

In regard to the recreation at Ward Elementary School, there are three other facilities which provide for recreation, all within about six blocks of the Ward School. These are Brookshire Park, Golden Park and South Middle School. Since the parks are available on a full-time basis, these facilities provide the same or better opportunities for recreation.

From the standpoint that the recreation activities at Ward could be accommodated at these other locations, which would serve the neighborhood equally well, we would not consider the Ward school to be vital in the area's recreational programs. Therefore, the Ward school would not be considered a significant recreational facility.

Mr. James Ruth, former director of Downey Parks and Recreation Department, was consulted and concurred in this opinion.

Sincerely,

*Lawrence E. Zowada*  
Lawrence E. Zowada  
Recreation Department

*City of Downey*



8428 SECOND STREET  
DOWNEY, CALIFORNIA 90241  
MAIL ADDRESS: P.O. BOX 807

December 15, 1975

**CITY COUNCIL**  
JOSEPH E. DILORESTO  
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CITY MANAGER  
DONALD S. ROBISON  
RECORDING CITY MANAGER  
ROBERT L. SHAND  
CITY CLERK - TREASURER  
CITY HALL  
861-0261

Mr. S. L. Elicks, P.E.  
Chief, Project Development, Branch A  
Department of Transportation  
P. O. Box 2304  
Los Angeles, Ca. 90051

07-LA-105 EJS  
X 07-LA-105 (040681)

Dear Mr. Elicks:

We have considered the recreational significance of the playground site at the E. W. Ward Elementary School. This matter was reviewed by the appropriate City agencies with the result that the site in question is not considered to be vital to the recreational program of the City.

Therefore, the site is not considered significant from a recreational standpoint as it is now constituted.

The results of this review are forwarded in reply to Section 4(f).

Very sincerely yours,

*Charles W. Thompson*  
CHARLES W. THOMPSON  
CITY MANAGER

tm



COUNTY OF LOS ANGELES / DEPARTMENT OF PARKS AND RECREATION

155 West Washington Boulevard - Room 1200  
Los Angeles, California 90015 - (213) 749-6941  
Seymour Greben . . . . . Director



COMMISSION MEMBERS: Vernon Fay, Chm., Patricia Delaney, Gloria Heer, Albert Lopez, Chester Washington  
DISTRICT HEADQUARTERS  
Recreation District 2-B  
360 West El Segundo Boulevard  
Los Angeles, California 90061

Mr. Sidney Elicks  
October 13, 1975  
Page Two

We consider the mitigation measures proposed to be adequate to maintain the recreational resources of the Lennox area at a state at least equal, if not superior, to their present state.

If I can be of any more assistance, please let me know.

Very truly yours,  
Seymour Greben, Director  
DEPARTMENT OF PARKS AND RECREATION

BY *Ronald L. Gagnon*  
Ronald L. Gagnon  
District Recreation Director  
Recreation District 2-B

RLG:clf

October 13, 1975

Mr. Sidney Elicks  
California Department  
of Transportation  
District 07  
120 South Spring Street  
Los Angeles, California 90012

Attention: Mr. Don Cross

Dear Mr. Elicks:

Concerning our recent discussions on the effect of the proposed Route 105 Freeway-Transitway on the recreational facilities used by the public in the Lennox area of Los Angeles County, we have the following comments:

1. We consider the use of the recreational facilities as Larch Elementary School and at Lennox High School by the public, that is, not as a part of regular school activities, to be locally significant.
2. The proposed new school site for Larch Elementary School appears to provide superior facilities to those that presently exist. In addition, the possibility exists that the excess portion of the old school site could be utilized as a mini-park site.
3. The proposed replacement property for Lennox High School, or any similar plan agreed upon between Caltrans and the School District which provides for suitable relocation of the affected recreational facilities appears to provide facilities equal to those that presently exist.

STATE OF CALIFORNIA  
DEPARTMENT OF EDUCATION  
117 WEST FIRST STREET, LOS ANGELES 90012  
July 15, 1974

Dr. H. W. Colby  
Lennox School District  
10319 Firwood Avenue  
Lennox, CA 90304

Dear Dr. Colby:

Re: Relocation School Site 1B

Attached is a copy of the Bureau of Aeronautics letter dated June 26, 1974.

The Bureau of School Facilities Planning after considering the recommendations of the Bureau of Aeronautics, and the results of on-site inspections and meetings would approve the relocation school site 1B, or the playground alternative site 5A.

Should the Lennox School District Governing Board decide that the relocation school site 1B is the most desirable alternative, the Bureau of School Facilities Planning recommends the following:

- (1) That a study of existing facilities utilization and capacity be made at this time, as well as, program changes anticipated, etc.
- (2) That a study of the square footage requirements of the proposed new school be made.

Please feel free to call me should you have any further questions.

Very truly yours,

WALTER W. CALVERT, Chief  
Bureau of School Facilities Planning

Thomas W. Falltrick, Jr.  
Field Representative  
(213) (20-4394)

bc

cc: Doc Cross

Memorandum

Mr. Thomas W. Falltrick, Jr.  
Bureau of School Facilities Planning  
217 W. First Street  
Los Angeles, California 90012

Date: JUN 26 1974

File:

From: DEPARTMENT OF TRANSPORTATION  
Division of Aeronautics

Subject: Relocation of the Larch School - Lennox School District  
Los Angeles County

The Division of Aeronautics has completed its evaluation of the proposed sites, and has the following comments to offer:

1. Any site in the existing Lennox School District would be subject to noise intrusion by aircraft operations at Los Angeles International Airport.
2. Due to the type of operations conducted at Los Angeles International Airport, the exposure to aircraft accident hazard is greatest directly under the approach/departure courses.

Considering these factors, and the results of on-site inspections and meetings, the Division of Aeronautics' recommendations are:

Playground: Alternative site 5A is the most desirable.

School Site: Relocation site 1B is the most desirable and is least exposed to aircraft accident hazard. The site is presently marginal when using the definitions of compatible land use relative to the needs for school sites, California Noise Standards, Title 4, California Administrative Code. It is difficult to forecast what the future noise contours might be. It is recommended that an acoustical evaluation and acoustical design methods be employed in the design of the new school building, to insure the inside noise environment desired.

WILLIAM F. SHEA  
Chief

Earl A. Tucker  
Aviation Consultant

EAT:bc

cc: District Transportation Office #7

