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A SURVEY REGARDING ALTERNATE LOCATIONS
FOR THE PROPOSED BEVERLY HILLS FREEWAY

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Prepared for
The Western Freeway Council

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I. INTRODUCTION

Planning Research Corporation was retained by the Western Freeway Council to conduct a study of alternate locations developed by the California Division of Highways for the proposed Route 162 Freeway, commonly called the Beverly Hills Freeway. The principal purpose of the study was to provide a comparative analysis of the economic impact of these alternate locations to be submitted to the State Highway Engineer and the California Highway Commission for their use in final route recommendation and adoption. The study considers each alternate location primarily in terms of (1) its service to nearby families, (2) its impact on present and future land use and population growth, and (3) its present and future impact on municipal tax revenues through land removed from the tax rolls and through its impact on adjacent property values.

The alternate locations developed by the Division of Highways are shown on the map in Exhibit 1. The area to be traversed extends from Ardmore Avenue on the east to the San Diego Freeway on the west, and includes the City of Beverly Hills and parts of the City of Los Angeles. The magnitude of this project is apparent from the lengths of the alternate locations (which vary from 9.2 to 10.3 miles) and from preliminary cost estimates for their completion (from \$168 million up). From 144,000 to 175,000 people reside, respectively, within a two-mile band centered on each of the two basic alternate locations.

The two basic alternate locations (shown in red and blue in Exhibit 1) are relatively close together between their eastern terminus at Ardmore Avenue and the eastern city limits of Beverly Hills (at approximately Doheny Drive). From this point west to the San Diego Freeway they diverge rather widely, with the red location following a path generally north of Sunset Boulevard and the blue location (with its green, broken green, and broken blue variations) following along or near Santa Monica Boulevard.

Discussion and statistics are presented in this report for the basic red and blue alternate locations and for segments and variations of these basic alternates. A definition follows of the more commonly found terms:

Western portions of basic alternate locations: That segment of each alternate between the San Diego Freeway and Doheny Drive (eastern city limits of Beverly Hills).

Blue alternate variations:

- a. Basic blue variation: This variation is routed to the north of Santa Monica Boulevard at two separate points. Within the city limits of Beverly Hills, it passes to the north (or behind) churches located on the north side of Santa Monica Boulevard. West of Beverly Hills, it is again routed north of Santa Monica Boulevard. At the western end, this latter variation is commonly called the Ohio Avenue variation.
- b. Broken green variation: This variation occurs at the western end of the blue alternate, and routes this alternate down Santa Monica Boulevard from the western city limits of Beverly Hills to the San Diego Freeway.
- c. Green (solid) variation: This variation again occurs at the western end of the blue alternate, and calls for a location south of Santa Monica Boulevard. It is commonly called the Missouri Avenue variation.
- d. Broken Blue variation: This is a variation within the city limits of Beverly Hills. Its location remains on Santa Monica Boulevard and passes south (in front of) the churches located on the north side of Santa Monica Boulevard.

These segments and variations are the ones with the greatest basic differences in economic impact and are, therefore, the ones cited most frequently in the following sections.

A summary of the principal findings of this study will be found in Section II, which immediately follows. Section III contains an analysis of comparative population impact, and Section IV discusses the comparative impact on properties and municipal revenues.

II. SUMMARY

1. In terms of local service, population and population growth data indicate that at least 21 percent more people would be served by a freeway located along the broken green variation of the blue alternate (i. e., along Santa Monica Boulevard) than would be served by one located along the red alternate. This percentage will rise substantially in the future. Moreover, from Doheny Drive west to the San Diego Freeway, where there is a substantial geographic divergence between the two alternates, the difference in people to be served by the blue alternate, as opposed to the red, increases to 87 percent. If attention is confined for these same segments (i. e., from Doheny Drive to the San Diego Freeway) to only that population living north of the red alternate and south of the blue alternate, the difference in service in favor of the blue alternate increases to 133 percent.

With regard to comparative service at the western termini of the two alternates, the population within a two-mile radius of the intersection of Santa Monica Boulevard and the San Diego Freeway (the blue alternate terminus) is 55,700 (or 100 percent) greater than the population within a similar area around the intersection of Sunset Boulevard and the San Diego Freeway (the red alternate terminus). Even the addition of the ultimate population increase of 20,513 projected by the Los Angeles City Planning Department for that part of the Santa Monica Mountain Area which is most relevant to the present adoption proceedings (i. e., for an area north of Sunset Boulevard which extends approximately two miles west and two miles east from the intersection of Sunset Boulevard and the San Diego Freeway) does not change the significantly greater service to be provided by a freeway with the blue alternate terminus.

2. Zoning and deed restrictions along the western portion of the red alternate (from the San Diego Freeway to Doheny Drive) prevent more intensive land use of the present single-family unit development. This is not true along the blue alternate or along the eastern portion of the red alternate (between Doheny Drive and Ardmore Avenue). A

freeway along one of these latter locations would pass through areas in which there is already a large number of apartments or in which a conversion to multiple-dwelling units is occurring. Such a freeway would stimulate the present conversion trends and tend to shorten the time span in which this conversion would otherwise occur. A freeway along the western portion of the red alternate, however, can have no such effect since, in fact, there cannot be more intensive land development.

3. Overall, a freeway along the red alternate would displace 172 more families than a freeway along the broken green-broken blue variation (i. e., a location entirely on Santa Monica Boulevard) of the blue alternate. With regard to the western portions of these two alternates (i. e., between the San Diego Freeway and Doheny Drive), the red alternate location would displace 45 fewer family units, which is a relatively small difference. Of considerably more significance is the fact that this portion of the red alternate would displace 45 times as many single-family units (402 along the western portion of the red alternate as compared with 9 along the Santa Monica Boulevard variation of the blue alternate). It appears evident, therefore, that the immediate collective community impact or disruption will be considerably less along the blue alternate than along the red alternate.

4. Additional problems and costs occur either to the property owner or to the state as a result of partial lots created by the right of way. Either a new use suitable for the smaller land area must be found by the property owner, or the property must be sold (and at a probable loss in value). If the state has acquired property title, then it is faced with the additional burden and cost of disposing of the partial lot. Preliminary right of way maps are subject to variations in their final form; therefore, it is not possible to compare precisely the number of such lots to be created by each alternate. A tabulation from these preliminary maps, however, indicates that the number of partial lots created by a red alternate location would be on the order of 75 percent more than the number created by a blue alternate location.

5. Estimated acquisition costs of the Santa Monica Boulevard variation of the blue alternate are \$5.3 million less than for the red alternate. This cost difference is almost entirely accounted for by the difference in acquisition costs between the western portions of these two alternates. This portion of the red alternate has an estimated acquisition cost of \$60.4 million, as compared with \$55.7 million for the Santa Monica Boulevard variation of the blue alternate.

6. The annual loss in property tax revenues resulting from a freeway along the red alternate would be approximately one-half million dollars greater than the loss resulting from a freeway along the Santa Monica Boulevard variation of the blue alternate. Such a loss is both immediate (following right of way acquisition) and permanent. Given a fixed tax rate and fixed property valuations, over a ten-year period the red alternate location would result in an incremental loss of \$5 million more than a Santa Monica Boulevard location. Increasing tax rates, increasing property values, and increasing assessed valuations will have the future effect of increasing the difference in this loss.

7. Freeway locations do affect the value of all types of adjacent property through which they are placed. Both the amount and direction of these changes in value come about primarily as a result of changes in land use, and reflect both the relocation of activity from previous locations and the new activity attracted that had not previously existed. Where more intensive land use is permitted and desired, the change in land value is almost invariably upward. In other words, new freeways serve as economic stimulants only where other conditions are favorable to economic development.

In the case of residential properties, prices reflect not only the intensity of land use but a combination of such other factors as convenience to work and business activity, and social, cultural, esthetic, and educational amenities. The presence of a new freeway may have either a positive or a negative effect on all or any one of these forces affecting land values. Where changing or more intensive land uses are permitted, property values have increased. Where such changes in land use are

not permitted, and where the social disturbance is great, property values do not increase and, in fact, may decrease.

The implications of the comparative impact on these forces by a freeway along the alternates under consideration is clear. Along the blue alternate or along the eastern portion of the red alternate (where more intensive land use is permitted and is in fact occurring), the presence of a new freeway will generally have a stimulating effect on property values (with the possible exception of a narrow band approximating one block on either side of the freeway). As these property values increase, increases in assessed valuations will follow with a resultant increase in property tax flows.

The opposite effect, however, can be anticipated along the western portion of the red alternate. Changing and more intense land use cannot occur, so that the presence of a new freeway cannot exert a stimulating effect on this force. Rather, the impact of a new freeway will fall upon those social, cultural, esthetic, and other amenities which also have a direct bearing on property values. There is little doubt that the influence of a freeway located along the western portion of the red alternate will be negative on these latter forces, and the resulting direction of property values will be downward and dramatically downward for properties located close to the right of way.

Total current property values in an area extending outward approximately 300 feet on either side of this portion of the red alternate (from the San Diego Freeway to Doheny Drive), but not including the right of way, are on the order of \$120 million. A decrease of only 20 percent in property values in these relatively narrow bands would result in a penalty cost to property owners on the order of \$24 million, while a 30 percent decrease would result in a loss in value on the order of \$36 million. This is a penalty which would not be experienced by the property owners adjacent to the western portion of the Santa Monica Boulevard variation of the blue alternate.

There would be an additional loss in property tax revenues on the order of \$600,000 annually arising from the loss in property values along

the western portion of the red route. The sum of this incremental loss and the incremental loss of \$500,000 occurring from right of way differences totals \$1.1 million annually. Thus, over a ten-year period the location of a freeway along the red alternate would result in an incremental loss of \$11.0 million more in property tax revenues than a location along the Santa Monica Boulevard variation of the blue alternate.

III. COMPARATIVE POPULATION IMPACT

A. Families To Be Displaced

One immediate impact of a new freeway is, of course, the number of families displaced by the new right of way. Generally, these displaced families do not represent a net loss in population to the metropolitan area. They must, however, go through the disruptions, hardships, and costs associated with a move not of their own choosing. The degree of impact of such disruptions will vary with such factors, among others, as family size, length of residence within the community, property ownership, and financial position.

Data in Exhibit 2 reflect the number of families to be immediately affected by the proposed alternate locations. These data, developed by the California Division of Highways, are shown by segment for the basic red alternate and by segment for three variations of the basic blue alternate. Within the City of Beverly Hills, the number of units to be displaced by a blue alternate location north of the churches is shown. This is followed, for each of the three variations of the basic blue alternate, by an indication of the incremental units to be displaced by a location south of the churches (i. e., one that remains on Santa Monica Boulevard within the city limits of Beverly Hills. Other combinations using the brown connectors result in the displacement of additional families over the numbers shown in Exhibit 2.

Overall, the broken green (Santa Monica Boulevard) variation of the basic blue alternate will cause the least number of families to be displaced. As shown in Exhibit 2, this variation requires the displacement of either 3,646 families or 3,663 families along its entirety, depending on whether it is located north or south, respectively, of the churches in Beverly Hills. This is either 189 or 172 fewer families than along the red alternate, which requires the second lowest total number of families to be displaced.

Also of note is the difference in the number and character of families to be displaced along the western portion of each basic alternate. It is these portions (from the San Diego Freeway to Doheny Drive) which

EXHIBIT 2 - DWELLING UNITS TO BE REMOVED BY ALTERNATE LOCATIONS

	<u>Single Family</u>	<u>Multiple</u>		<u>Total Number of Dwelling Units</u>
		<u>Number of Buildings</u>	<u>Number of Units</u>	
<u>Red Alternate</u>				
San Diego Freeway to Doheny Drive	402	14	89	491
Doheny Drive to Ardmore Avenue	701	616	2,643	3,344
Total	<u>1,103</u>	<u>630</u>	<u>2,732</u>	<u>3,835</u>
<u>Blue Alternate</u>				
<u>(a) Broken-Green (Santa Monica) variation:</u>				
San Diego Freeway to Moreno Drive	9	24	194	203
Moreno Dr. to Doheny Dr. (North of Churches) ⁽¹⁾	88	27	228	316
Doheny Drive to Ardmore Avenue	978	508	2,149	3,127
Total	<u>1,075</u>	<u>559</u>	<u>2,571</u>	<u>3,646</u>
Moreno Dr. to Doheny Dr. (South of Churches) ⁽¹⁾	- 88	+ 9	+ 105	+ 17
Total	<u>987</u>	<u>568</u>	<u>2,676</u>	<u>3,663</u>
<u>(b) Blue (Ohio) variation:</u>				
San Diego Freeway to Moreno Drive	230	135	903	1,133
Moreno Dr. to Doheny Dr. (North of Churches) ⁽¹⁾	88	27	228	316
Doheny Drive to Ardmore Avenue	978	508	2,149	3,127
Total	<u>1,296</u>	<u>670</u>	<u>3,280</u>	<u>4,576</u>
Moreno Dr. to Doheny Drive (South of Churches) ⁽¹⁾	- 88	+568	+ 105	+ 17
Total	<u>1,208</u>	<u>1,238</u>	<u>3,385</u>	<u>4,593</u>

EXHIBIT 2 (Continued)

	Single Family	Multiple		Total Number of Dwelling Units
		Number of Buildings	Number of Units	
<u>(c) Green (Missouri) variation:</u>				
San Diego Freeway to Moreno Drive	106	184	748	854
Moreno Dr. to Doheny Dr. (North of Churches) ⁽¹⁾	88	27	228	316
Doheny Drive to Ardmere Avenue	978	508	2,149	3,127
Total	<u>1,172</u>	<u>719</u>	<u>3,125</u>	<u>4,297</u>
Moreno Drive to Doheny Drive (South of Churches) ⁽¹⁾	- 88	+568	+ 105	+ 17
Total	<u>1,084</u>	<u>1,287</u>	<u>3,230</u>	<u>4,314</u>

Note: (1) A variation (broken blue) to this sector of the basic blue alternate within the City of Beverly Hills runs south of the churches (i. e., remains on Santa Monica Boulevard) and, depending on the type of construction, requires the removal of additional dwelling units. The incremental adjustment for this location is shown for each blue alternate variation. The number of units shown in the exhibit for the broken blue location (south of the churches) is for the combination depressed withwalls and tunnel construction. Construction with depressed walls only requires the removal of an additional 98 family dwelling units over those removed with the combination construction.

Source: California Division of Highways.

have the widest geographic difference (see map in Exhibit 1). For ease of comparison, these data are summarized from Exhibit 2 in the following table.

<u>Red Alternate</u>	<u>Dwelling Units Displaced</u>		
	<u>Single Family</u>	<u>Multiple Units</u>	<u>Total</u>
San Diego Freeway to Doheny Drive	402	89	491
<u>Blue Alternate</u>			
a. <u>Broken Green (Santa Monica Blvd):</u>			
San Diego Freeway to Doheny Drive (north of churches)	97	422	519
San Diego Freeway to Doheny Drive (south of churches)	9	527	536
b. <u>Blue (Ohio Avenue):</u>			
San Diego Freeway to Doheny Drive (north of churches)	318	1131	1449
San Diego Freeway to Doheny Drive (south of churches)	230	1236	1446
c. <u>Green (Missouri Avenue):</u>			
San Diego Freeway to Doheny Drive (north of churches)	194	976	1170
San Diego Freeway to Doheny Drive (south of churches)	106	1081	1187

The western portion of the red alternate displaces 28 fewer families than the western portion of the broken green variation which runs north of the churches, and 45 fewer families than the broken green variation which runs south of the churches. (The red alternate and both broken green variations displace considerably fewer units than either the Ohio or Missouri variations of the western portion of the blue alternate.) A difference of either 28 or 45 families is relatively small. A much more significant distinction is the one apparent from the differences indicated as to the type of dwelling units to be displaced. Along the western portion of the red alternate, 402 single-family units are to be displaced.

This is four times the 97 single-family units to be displaced along the broken green variation north of the churches and almost 45 times the 9 single-family units to be displaced by a broken green variation which remains on Santa Monica Boulevard (i. e., south of the churches). The opposite prevails with regard to multiple-family units. Only 89 such units are to be displaced along the red alternate as compared with 422 or 527 along the broken green variation. Independently of any other socioeconomic characteristics that might be compared, it can be safely generalized from these data that the group of families to be displaced by the broken green variation of the blue alternate are of a more mobile nature (i. e., are not burdened by property ownership) with immediate community ties of probably shorter duration. Moreover, because of a smaller average family size, they probably represent fewer numbers of people totally. It appears evident, therefore, that the immediate collective community impact or disruption will be considerably less along the broken green variation of the blue alternate than along the red alternate. This is not to minimize the burden which may fall on any one family but rather to provide an insight as to the comparative impact on all families along each alternate.

B. Local Population To Be Served

Freeways are, of course, constructed in order to improve traffic service, and one significant measure of the comparative impact of alternate locations is the comparative number of people residing adjacent to each. It is these families who comprise the principal market to be served by the new freeway.¹ The following paragraphs present data

¹ Improved service is, of course, also provided to through traffic and to traffic flowing to local employment and commercial centers. In this regard, a freeway along the blue alternate location would be immediately adjacent to downtown Beverly Hills and the new regional business complex under development at Century City. It also would provide a more direct access to Westwood Village, the smaller commercial and governmental center in West Los Angeles and the Veteran's Hospital, than would a freeway along the red alternate location.

concerning the population to be served within a band which extends one mile north and one mile south of the basic red and blue alternates. Population data for the blue alternate are for the broken green (Santa Monica Boulevard) variation. Other variations to the blue alternate vary only in an extremely minor way from the population data presented for the broken green variation.

Data are also presented concerning the comparative population growth along each alternate. Such data provide a good measure of the basic economic forces at work in shaping the direction, character, and scope of development occurring in a given area (e. g., access, income, housing costs, zoning, distance to employment, and housing preference). From this analysis, an evaluation can then be made of the comparative impact of each alternate location on the direction and character of the development already occurring.

As shown in Exhibit 3, the local population to be served along the blue alternate as of October 1963 totaled 174,684. This is 30,579 (or 21 percent) more than the 144,105 in a similar band along the red alternate. Thus, the local service to be provided by the blue alternate, as measured in terms of local population density, is 21 percent greater than along the red route.

The most significant difference in the local population to be served occurs along the western portions of each alternate location (from the San Diego Freeway to Doheny Drive), where the two alternates have their widest geographic divergence. The data in Exhibit 3 for October 1963 show a local population of 57,675 along the blue alternate -- almost twice the 30,860 along the western portion of the red alternate. This compares with a difference of only 3,764 along the eastern portions (from Doheny Drive to Ardmore Avenue) of these two alternates. It emphasizes that the western portion of the blue route will provide the greatest improvement in traffic service (87 percent greater than the red alternate) to the local population.

This last point receives additional emphasis when only the population residing within an area one mile north of the western portion of the red alternate is compared with the population residing one mile

EXHIBIT 3 - POPULATION WITHIN ONE MILE NORTH AND ONE MILE SOUTH OF THE RED AND BLUE ALTERNATE LOCATIONS, 1960 AND 1963

<u>Red Alternate</u>	<u>Population</u>		
	<u>April 1960</u>	<u>October 1963</u>	<u>Increase</u>
San Diego Freeway to Doheny Drive	27,940	30,860	2,920
Doheny Drive to Ardmore Avenue	<u>106,205</u>	<u>113,245</u>	<u>7,040</u>
Total	134,145	144,105	9,960
<u>Blue Alternate (Broken-Green variation)</u>			
San Diego Freeway to Doheny Drive	52,280	57,675	5,395
Doheny Drive to Ardmore Avenue	<u>110,612</u>	<u>117,009</u>	<u>6,397</u>
Total	162,892	174,684	11,792

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Note: The Blue Alternate data shown are for the green-dash variation. Other variations of the blue alternate show insignificant differences (less than 600) with these figures.

Sources: U. S. Census, 1960; Los Angeles City Planning Commission and Los Angeles County Planning Commission. Detailed population data by census tract are presented in the appendix.

south of the western portion of the blue alternate. This eliminates the area of overlap between the two alternates in which a proportion of residents would reside about equidistant from each alternate. As of October 1963, there were 28,818 people living within an area one mile south of the western portion of the blue alternate. This is 16,460 (or 133 percent) more than the 12,358 residents living north of the western portion of the red alternate. Again, it is clear that the local market to be served by the western portion of the blue alternate is considerably larger than that to be served by the western portion of the red alternate.

The data in Exhibit 3 also show that the population along the entire length of the blue alternate increased by a total of 11,792 between April 1960 and October 1963. This is 1,832, or about 18 percent, more than the increase of 9,960 which occurred along the entire red alternate during the same time period. The significance of the difference between the western portions of the two alternates in terms of the opportunity for greater local service improvement is again apparent. The increase of 5,395 along the western portion of the blue route between April 1960 and October 1963 is almost twice the 2,920 increase along the red route. Continuation of these trends over time will, of course, greatly widen the disparity in favor of the blue alternate, and particularly its western portion, in terms of improved service to the local population. The forces affecting these trends and the comparative impact of the two alternates upon them are considered in later paragraphs.

C. Population Adjacent to the Western Termini

The present red and blue alternate locations under consideration do not extend west of their respective intersections with the San Diego Freeway.¹ Considerable discussion, however, has concerned the comparative service improvements to be provided present and future residents west of the San Diego Freeway. Two population comparisons, therefore, were developed for those areas within an approximate one-mile radius and within an approximate two-mile radius of the intersections of the blue and red alternates with the San Diego Freeway. These

¹With the exception of requirements for ramp connectors with surface streets.

areas include portions of the Santa Monica Mountain Area presently under long-range study by a number of private and governmental groups as to the desired and possible scope and character of ultimate development. Considerable divergence of opinion exists among these groups (which include property owners and adjacent property owner groups, as well as various government planning agencies) as to the scope and character of an optimal development. One factor appears certain and this is that complete or ultimate development, whatever its final character may be, will occur only over an extended period of time.

The comparative population data in Exhibit 4 are for a semicircle extending westward from the termini of the red and blue alternates, with the San Diego Freeway forming the base for both semicircles. (See map in Exhibit 5.) From the data in Exhibit 4, it is clear that an alternate freeway location ending at or near the intersecting point of Santa Monica Boulevard and the San Diego Freeway will provide local service improvements to approximately 100 percent more people than would an alternate ending at or near the intersection of Sunset Boulevard and the San Diego Freeway.

A comparison of population growth rates in these two areas becomes of particular significance in considering the question of future service requirements as that portion of the Santa Monica Mountain Area which falls within the red alternate semicircle is developed. Between 1960 and 1963, as shown in Exhibit 4, the population adjacent to the blue alternate terminus increased by more than six times the increase in population adjacent to the red alternate terminus. Thus, even if the population growth within the blue alternate semicircle were to cease altogether and the average annual increase in the red alternate semicircle were to triple, it would be fifteen years before the total population was equivalent. The obvious point is that population growth adjacent to the western terminus of the red alternate can increase dramatically over its present trend and still, in a comparative sense, a freeway with a blue alternate terminus will provide service to a considerably larger population. To the extent that the present difference in population

EXHIBIT 4 - POPULATION WITHIN A ONE-MILE SEMICIRCLE
OF THE WESTERN TERMINI OF THE ALTERNATE
LOCATIONS

	Population Within One-Mile Semicircle		
	<u>April 1960</u>	<u>October 1963</u>	<u>Increase</u>
Western Terminus of Red Alternate	8,520	9,158	638
Western Terminus of Blue Alternate	14,673	18,758	4,085

Note: The San Diego Freeway is the base for each semicircle which extends in a westerly direction with a one-mile radius. See map in Exhibit 5.

Source: U. S. Census, 1960, Los Angeles City Planning Commission; Los Angeles County Regional Planning Commission. Detailed population data by census tract are presented in the appendix of this report.

growth trends continues, the degree of greater comparative local service to be provided by a freeway with a blue alternate terminus will increase.

In order to provide another measure of the relative importance of the ultimate development of that part of the Santa Monica Mountain Area within a somewhat expanded but still relevant area to the western terminus of the red alternate, an additional analysis was made of population within a range of approximately four miles to the north of this terminus. The population data shown in Exhibit 6 are for an area entirely north of Sunset Boulevard extending approximately two miles east and two miles west of the red alternate terminus at the San Diego Freeway. (This area is outlined on the map in Exhibit 5.) Present population data and ultimate population projections for this area, as shown in Exhibit 6, are those developed by the Los Angeles City Planning Department. Present population within this area totals 17,705, and the ultimate population is expected to be on the order of 38,218, which is an increase of 20,513 over some undefined but lengthy time period.

The absence of a more precisely defined time frame for this projected ultimate population makes it of doubtful value to the present selection of the red or blue alternate. One meaningful measure, however, of its relative significance (independent of time considerations) is its size in relation to the present total population within a complete two-mile circle around each of the western termini of the red and blue alternate locations. These data are shown in Exhibit 7.

As shown in Exhibit 7, the present population within a complete two-mile radius of the western terminus of the red alternate totals 54,012. This compares with a total of 109,712 in a similar area around the western terminus of the blue alternate. It would be possible, therefore, currently to impose the entire expected ultimate population growth of 20,513 projected for this part of the Santa Monica Mountain Area to the present population of 54,012 within a two-mile radius of the western terminus of the red alternate, and the improvement in local service to be provided by a red alternate location would still not approach that to be provided by the blue alternate. The sum of these two preceding

EXHIBIT 6 - PRESENT AND ULTIMATE POPULATION IN THAT PART OF THE SANTA MONICA MOUNTAIN AREA WITHIN APPROXIMATELY TWO MILES OF THE WESTERN TERMINUS OF THE RED ALTERNATE

<u>Drainage Divides</u>	<u>1962 Population</u>	<u>Ultimate Population</u>
20	1,765	5,379
21	1,140	2,885
22	1,650	1,720
23	2,135	4,482
24	470	5,667
25	2,480	3,022
26	5,250	5,610
27	965	5,713
28	<u>1,850</u>	<u>3,740</u>
	17,705	38,218

Projected Increase: 20,513

Note: The drainage divides listed are those any part of which falls within a two-mile radius of the western terminus of the red alternate. Population data are for the entire drainage divide.

Source: Preliminary General Plan, Santa Monica Mountain Area Study, Revised to April 1963, Los Angeles City Planning Department.

EXHIBIT 7- POPULATION WITHIN A TWO-MILE CIRCLE OF THE
WESTERN TERMINI OF THE RED AND BLUE ALTERNATES

	Population Within A Two- Mile Circle		
	<u>April 1960</u>	<u>October 1963</u>	<u>Increase</u>
Western Terminus of Red Alternate (Sunset and the San Diego Freeway)	47,762	54,012	6,250
Western Terminus of Blue Alternate (Santa Monica Boulevard and the San Diego Freeway)	99,968	109,712	9,744

Source: U. S. Census, 1960; Los Angeles City Planning Commission,
Los Angeles County Regional Planning Commission. Detailed
data by census tract will be found in the appendix.

population figures for the red alternate is 74,525, which is 35,187 less than the existing population within a two-mile radius of the western terminus of the blue route. In other words, even given the presence of the ultimate population projected for the most relevant part of the Santa Monica Mountain Area, a freeway with a blue alternate western terminus (i. e., Santa Monica Boulevard and the San Diego Freeway) will provide 32 percent greater local service, as measured by adjacent population density, than would a freeway with a red alternate western terminus (i. e., Sunset Boulevard and the San Diego Freeway).

The greater population increase occurring in the vicinity of the western terminus of the blue alternate is also apparent in Exhibit 7. Between April 1960 and October 1963, population in this area increased by 9,744 as compared to 6,250 in the similar area on the red alternate. Continuation of these present trends, and any continued delays in development of the Santa Monica Mountain Area, will only serve to increase the difference in favor of the blue alternate in terms of the greater service improvement to be provided.

In summary, the absence of a more precise time frame for development of the Santa Monica Mountain Area makes its ultimate development of doubtful value to the present problem of route adoption between Ardmore Avenue and the San Diego Freeway. Even given the assumption of an immediate development, the presence of the projected ultimate population would not affect the considerably greater (32 percent) service improvement to be provided by a freeway terminating at or near Santa Monica Boulevard and the San Diego Freeway.

D. Impact On Future Population Growth

A recent study¹ by the Los Angeles City Planning Department indicates that in general the blue alternate east of Fairfax Avenue (see map in Exhibit 8) and the red alternate west of Doheny Drive traverse areas generally zoned and developed for single-family use. On the other hand, the red alternate east of Doheny Drive and the basic blue alternate (and

¹ Beverly Hills Freeway Route Study, Staff Report to the Director of Planning, Los Angeles City Planning Department, December 20, 1963.

its broken green and green variations) traverse areas generally zoned for multiple-family uses but which are presently largely developed with lower density development than is possible with their respective zonings. These areas are, however, experiencing conversion to multiple-dwelling unit development, and these changes are reflected in population growth data previously presented in Exhibit 3.

The present basic apartment area, as defined by the Los Angeles City Planning Department, is outlined on the map in Exhibit 8, and includes the Hollywood area of Los Angeles with a western extension to approximately Doheny Drive. The eastern part of the red alternate (i. e., from Doheny Drive to Ardmore Avenue) traverses this area. Also shown are those areas in which zoning generally permits multiple-family development and in which the Los Angeles City Planning Department estimates increases in multiple-dwelling unit development will continue to occur.

Of particular significance is the fact that no multiple-dwelling unit development is foreseen along the western portion of the red alternate (i. e., from the San Diego Freeway to Doheny Drive). This land, as a result of zoning, deed restriction, and the character of its present very high-value, single-family development, is committed to remain as a single-family unit area. As a result, the presence of a freeway along this portion of the red alternate cannot result in a more intensive land use. In effect, the land along this portion of the red alternate is removed from any possibility of more intensive development, with or without the presence of a freeway.

This contrasts sharply with the present and potential intensity of land use along the blue alternate and the eastern portion of the red alternate. A freeway along one of these locations would pass through areas in which there is already a large number of apartments or in which a conversion to multiple-dwelling units is occurring. A freeway traversing one of these areas will clearly stimulate the present conversion trends and tend to shorten the time span in which this conversion would otherwise occur. An excellent example of this effect on the intensity of

land use and the rate of conversion may be found along the Ventura Freeway in the San Fernando Valley. Where permitted by zoning, a general conversion to multiple-dwelling units had begun prior to the freeway development. Since its completion, the construction of multiple units adjacent to the freeway has sharply increased.

In summary, the presence of a freeway will greatly increase the rate of conversion in those areas in which a conversion to more intensive land use is already occurring through the construction of multiple-dwelling units, and, in effect, such a freeway will stimulate the growth of its own market (i. e., the population to be served). In contrast, a freeway along the western portion of the red alternate can have no positive effect on the intensity of land use, since land along this route is committed to its present single-family development. In addition, intensity of land use is, of course, one of the single most, if not the most, important determinants of land value, with more intensive land use resulting in higher property values. Thus, a freeway along the eastern portion of the red alternate or along the blue alternate will, by stimulating more intensive land use, exert an upward force on property values in multiple dwelling unit areas. A freeway along the western portion of the red alternate, however, can have no such effect since, in fact, there cannot be more intensive land development. The comparative effect of these forces on land values, and hence on municipal tax revenues, is discussed more fully in a later section of this report.

IV. COMPARATIVE IMPACT ON PROPERTIES AND MUNICIPAL REVENUES

A. Right Of Way Properties Required

In addition to the number of families to be displaced, owners of various types of property (e.g., residential, commercial, industrial, vacant) required for a right of way will feel an immediate impact of a new freeway. The number and type of properties required will also affect the cost of right of way acquisition and the amount of assessed valuation removed from local tax rolls.

The numbers of parcels required for the right of way along the alternate locations are shown in Exhibit 9. These data, developed by the California Division of Highways, are shown for the same segments and alternate variations as were previously shown in Exhibit 2 concerning the number of families to be displaced.

As was true with the number of families to be displaced, the broken green (Santa Monica Boulevard) variation (either in front of or behind the churches in Beverly Hills) requires acquisition of the smallest number of parcels. This variation of the basic blue alternate, and with a location south of the churches in Beverly Hills, requires acquisition of 1,832 parcels, which is 166 (or 8 percent) fewer parcels than the 1,998 parcels required for the red alternate. A comparison of only the western portions of the two alternates (between the San Diego Freeway and Doheny Drive) shows that this segment of the broken green variation of the blue alternate (with a location south of the churches in Beverly Hills) requires a total of 234 parcels, which is 190 parcels (or 45 percent) less (and 190 fewer property owners) than the 424 required by this segment of the red alternate.

From an economic viewpoint, both the value of the required properties and the problems and costs associated with partial lots created by the right of way are, of course, more significant than just comparative numbers of total parcels. In the case of a partial lot, the owner is

EXHIBIT 9 - RIGHT OF WAY PROPERTIES REQUIRED BY ALTERNATE LOCATIONS

	Number of Parcels					Total
	Residential	Industrial	Commercial	Vacant	Misc.	
<u>Red Alternate:</u>						
San Diego Freeway to Doheny Drive	416	-	-	7	1	424
Doheny Drive to Ardmore Ave.	1,377	2	176	16	3	1,574
Total	1,793	2	176	23	4	1,998
<u>Blue Alternate:</u>						
(a) <u>Broken Green (Santa Monica) variation:</u>						
San Diego Freeway to Moreno Dr.	33	6	97	7	7	150
Moreno Dr. to Doheny Dr. (North of Churches) ⁽¹⁾	115	-	23	-	4	142
Doheny Dr. to Ardmore Ave.	1,486	-	106	4	2	1,598
Total	1,634	6	226	11	13	1,890
Moreno Dr. to Doheny Dr. (South of Churches) ⁽¹⁾	- 79	-	+21	-	-	- 58
Total	1,555	6	247	11	13	1,832
(b) <u>Blue (Ohio) variation:</u>						
San Diego Freeway to Moreno Dr.	365	-	60	6	3	434
Moreno Dr. to Doheny Dr. (North of Churches) ⁽¹⁾	115	-	23	-	4	142
Doheny Dr. to Ardmore Ave.	1,486	-	106	4	2	1,598
Total	1,966	-	189	10	9	2,174
Moreno Dr. to Doheny Dr. (South of Churches) ⁽¹⁾	- 79	-	+21	-	-	- 58
Total	1,887	-	210	10	9	2,116

EXHIBIT 9 (Continued)

	Number of Parcels					Total
	Residential	Industrial	Commercial	Vacant	Misc.	
<u>(c) Green (Missouri) variation:</u>						
San Diego Freeway to Moreno Dr.	290	16	17	2	4	329
Moreno Dr. to Doheny Dr. (North of Churches) ⁽¹⁾	115	-	23	-	4	142
Doheny Dr. to Ardmore Ave.	1,486	-	106	4	2	1,598
Total	<u>1,891</u>	<u>15</u>	<u>145</u>	<u>6</u>	<u>10</u>	<u>2,069</u>
Moreno Dr. to Doheny Dr. (South of Churches) ⁽¹⁾	- 79	-	+21	-	-	- 58
Total	<u>1,812</u>	<u>15</u>	<u>167</u>	<u>6</u>	<u>10</u>	<u>2,011</u>

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Note: (1) A variation (broken blue) to this sector of the basic blue alternate within the city of Beverly Hills runs south of the churches (i. e., remains on Santa Monica Boulevard) and, depending on the type of construction, requires fewer right of way properties. The incremental adjustment for this location is shown for each blue alternate variation. The number of units shown in the exhibit for the broken blue location (south of churches) is for the combination depressed with walls and tunnel construction. Construction with depressed walls only required for the combination construction.

Source: California Division of Highways.

faced with the prospect of either finding some new use suitable for the smaller land area or disposing of it, with a probable loss in value. On the other hand, if the state has acquired the property title, then it is faced with the additional burden and cost of disposing of the partial lot.

With regard to the comparative number of partial lots to be created, it is not possible to be precise, since preliminary right of way maps are, as PRC understands, subject to some variations in their final form. It is possible, however, to provide an order of magnitude comparison as to the relative effect of each alternate location in creating partial lots. The following table compares the approximate number of lots for which the preliminary alternate location maps indicate that one-half or less of the individual lot is required for the respective rights of way.

	<u>Approximate Number of Half-Lots Required</u>
<u>Red Alternate</u>	240
<u>Blue Alternate (South of Churches)</u>	
(a) Broken green variation	137
(b) Basic blue variation	194
(c) Green variation	163

(Source: Tabulation by PRC from California Division of Highway Maps)

The difference in the numbers of half-lots required between the red alternate (240) and any one of the three blue alternate variations shown is sufficiently large to indicate strongly that a red alternate right of way would, in its final design location, create considerably more partial lots. As compared with the broken green (Santa Monica Boulevard) variation of the blue alternate, which requires the least number of half-lots (137), these data suggest that the partial lots created by a red alternate location would be on the order of 75 percent more than those created by a blue alternate location.

B. Right of Way Costs

Estimated right of way acquisition costs, as developed by the California Division of Highways, for the red alternate location and the three variations of the blue alternate location are shown in Exhibit 10. The broken green (Santa Monica Boulevard) variation of the blue alternate location has the least expensive right of way of all the locations listed. Its estimated acquisition cost is either a \$121.5 million or \$127.2 million depending upon whether it is located north or south, respectively, of the churches in Beverly Hills. These costs are, respectively, \$11.0 million and \$5.3 million less than the red alternate acquisition cost of \$132.5 million.

The principal cost difference between these two alternates is accounted for almost entirely by the difference in acquisition costs of the western portions (i. e., between the San Diego Freeway and Doheny Drive). This portion of the red alternate has an estimated acquisition cost of \$60.4 million as compared with a cost of \$50.0 million (north of the churches) or \$55.7 (south of the churches) for the similar portion of the blue alternate. From Doheny Drive east to Ardmore, the acquisition costs are quite close (\$72.1 million for the eastern part of the red alternate and \$71.5 million for the eastern part of the blue alternate).

C. Impact on Municipal Revenues

One of the most significant measures of comparative impact from an economic viewpoint is the effect of alternate locations on municipal tax revenues. There are two aspects to this impact. The first concerns the assessed value of land removed from the tax rolls and the resultant loss of property tax revenues. This impact, which is a very real and measurable community cost, is both immediate and permanent. The second aspect concerns the impact of a freeway on adjacent property values and, hence, on assessed valuations and property tax revenues. This impact may or may not be immediate, and its direction may affect tax revenues upward or downward. This latter aspect is discussed more fully in later paragraphs.

EXHIBIT 10 - ESTIMATED RIGHT OF WAY ACQUISITION COSTS

Acquisition Costs
(Millions of Dollars)

Red Alternate

San Diego Freeway to Doheny Drive	\$ 60.4
Doheny Drive to Ardmore Avenue	<u>72.1</u>
Total	\$132.5

Blue Alternate

a. Broken Green (Santa Monica) variation:	
San Diego Freeway to Moreno Drive	\$ 23.3
Moreno Drive to Doheny Drive (North of churches)	26.7
Doheny Drive to Ardmore Avenue	<u>71.5</u>
Total	\$121.5

Moreno Drive to Doheny Drive (South of Churches)	<u>+5.7</u>
Total	\$127.2

b. Blue (Ohio) variation:	
San Diego Freeway to Moreno Drive	\$ 34.6
Moreno Drive to Doheny Drive (North of churches)	26.7
Doheny Drive to Ardmore Avenue	<u>71.5</u>
Total	\$132.8

Moreno Drive to Doheny Drive (South of churches)	<u>+5.7</u>
Total	\$138.5

c. Green (Missouri) variation:	
San Diego Freeway to Moreno Drive	\$ 31.9
Moreno Drive to Doheny Drive (North of churches)	26.7
Doheny Drive to Ardmore Avenue	<u>71.5</u>
Total	\$130.1

Moreno Drive to Doheny Drive (South of churches)	<u>+5.7</u>
Total	\$135.8

Source: California Division of Highways.

Exhibit 11 presents a tabulation of the assessed valuation which would be removed from the tax rolls by the alternate locations. The range varies from a low of \$15.3 million (north of the churches) and \$15.5 million (south of the churches) for the broken green (Santa Monica Boulevard) variation of the blue alternate to a high of \$21.5 million for the red alternate. (These values rather dramatically indicate the size of one overall community cost resulting from metropolitan freeway development.) Thus, a freeway along the red alternate would remove from the tax rolls an additional \$6.0 to \$6.2 million, or approximately 40 percent, over the assessed valuation removed by the broken green variation.

The same percentage differential between the red alternate and broken green will apply directly to the dollar tax flow. That is, the reduction in actual property tax revenues caused by a freeway along the red alternate will be on the order of 40 percent greater than the reduction in property tax revenues resulting from a freeway along the broken green variation. A comparative estimate of the dollar amount of the tax revenues to be lost by these two alternates can be derived by the application of an average or typical tax rate of, say, \$8.00.¹

At this tax rate, the annual flow of property tax revenue to be lost as a result of a freeway along the red alternate would be on the order of \$1.7 million. This compares with an annual loss on the order of \$1.2 million which would result from a freeway along the blue alternate. Thus, a location along the red alternate would result in a direct annual loss in property tax revenues of approximately one-half million dollars more (or as indicated earlier, approximately 40 percent), than a location along the broken green variation. This is, of course, a permanent loss in community property tax revenues. Given a fixed tax rate and fixed property valuations, over a ten-year period the red alternate location would result in an incremental loss of \$5 million more than a location along the broken green variation. Increasing tax rates, increasing property

¹The current tax rate for most of Los Angeles City is \$8.725, while current tax rates in Beverly Hills vary from \$5.501 to \$7.608. Since most of the affected property is in Los Angeles City, a typical rate of \$8.00 has been selected for purposes of comparison.

EXHIBIT 11 - ASSESSED VALUE OF LAND AND IMPROVEMENTS REQUIRED FOR ALTERNATE RIGHTS OF WAY

<u>Red Alternate</u>	<u>1963-64 Assessed Valuations</u>		
	<u>Land</u>	<u>Improvements</u>	<u>Total</u>
San Diego Freeway to Doheny Drive	\$3,590,880	\$ 5,560,920	\$ 9,151,800
Doheny Drive to Ardmore Avenue	<u>5,665,190</u>	<u>6,727,600</u>	<u>12,392,790</u>
Totals	\$9,256,070	\$12,288,520	\$21,544,590
<u>Blue Alternate</u>			
(a) <u>Broken Green (Santa Monica Boulevard)</u>			
San Diego Freeway to Moreno Drive	\$1,026,870	\$ 1,002,360	\$ 2,029,230
Moreno Drive to Doheny Drive (North of Churches)	1,392,862	1,086,460	2,479,322
Doheny Drive to Ardmore Avenue	<u>4,591,458</u>	<u>6,218,000</u>	<u>10,089,458</u>
Totals	\$7,011,190	\$ 8,306,820	\$15,318,010
Moreno Drive to Doheny Drive (South of Churches)	<u>-222,549</u>	<u>+441,040</u>	<u>+218,491</u>
Totals	\$6,788,641	\$ 8,747,860	\$15,536,501
(b) <u>Blue (Ohio) Variation</u>			
San Diego Freeway to Moreno Drive	\$1,632,723	\$ 1,998,870	\$ 3,631,593
Moreno Drive to Doheny Drive (North of Churches)	1,392,862	1,086,460	2,479,322
Doheny Drive to Ardmore Avenue	<u>4,591,458</u>	<u>6,218,000</u>	<u>10,089,458</u>
Totals	\$7,617,043	\$ 9,303,330	\$16,920,373
Moreno Drive to Doheny Drive (South of Churches)	<u>-222,549</u>	<u>+441,040</u>	<u>+218,491</u>
Totals	\$7,394,494	\$ 9,744,370	\$17,138,864

EXHIBIT 11 (Continued)

	<u>1963-64 Assessed Valuations</u>		
	<u>Land</u>	<u>Improvements</u>	<u>Totals</u>
<u>Blue Alternate (Continued)</u>			
(c) <u>Green (Missouri) Variation</u>			
San Diego Freeway to Moreno Drive	\$1,142,425	\$1,636,300	\$ 2,778,725
Moreno Drive to Doheny Drive (North of Churches)	1,392,862	1,086,460	2,479,322
Doheny Drive to Ardmore Avenue	<u>4,591,458</u>	<u>6,218,000</u>	<u>10,089,458</u>
Totals	\$7,126,745	\$8,940,760	\$16,067,505
Moreno Drive to Doheny Drive (South of Churches)	<u>-222,549</u>	<u>+441,040</u>	<u>+218,491</u>
Totals	\$6,904,196	\$9,381,800	\$16,285,996

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Source: Tabulations by PRC from maps of the California Division of Highways and records of the Los Angeles County Assessor and the State Board of Equalization. Where relevant, assessed valuations of required portions of the railroad right of way are included. The values shown for the Moreno Drive to Doheny Drive segment which passes south of the churches are for a combination depressed with walls and tunnel combination.

values, and increasing assessed valuations will, of course, have the effect of increasing the difference in this loss as between the red alternate and broken green variation of the blue alternate.

D. Impact on Property Values

In addition to the direct effect on property tax revenues caused by the removal of property from the tax rolls, a new freeway will exert an indirect effect on such revenues through its influence on adjacent property values. This influence, depending on its direction, will also have either an adverse or favorable impact on the financial position of the owners of adjacent property. It is, of course, impossible to estimate with precision the comparative dollar impact of alternate locations in this regard. It is, however, possible to define the forces which affect property values and then to evaluate the effect of a freeway on these forces, so that a relative measure of the impact on property values can be obtained. In order to make this evaluation, PRC made a very extensive search of studies both locally and nationally which have been concerned with the impact of freeways on property values.¹ In addition, discussions were held with members of the Los Angeles County Assessor's staff with regard to their experience, and a sampling was made of changes in property values along selected freeways in Los Angeles County.

The following major findings are a result of these investigations:

1. Freeway routes do affect the values of all types of adjacent property (residential, commercial, industrial, vacant) through which they are placed. Both the amount and direction of these changes in value come about primarily as a result of the types of changes in land use, and reflect both the relocation of activity from previous locations and the new activity attracted that had not previously existed. Where more intensive land use is permitted and desired, the change in values is almost invariably upward. The largest increases in land value appear to occur to vacant land (committed to no particular use) and to industrial land.

¹See bibliography.

These are followed, in order, by commercial property and property permitting multiple-dwelling unit development. Single-family residential property values are influenced the least.

2. The price of residential property is determined by a combination of such factors as convenience to work and business activity, and social, cultural, esthetic, and educational amenities. The presence of a new freeway may have either a positive or negative effect on these latter forces affecting land values as well as upon the force resulting from intensity of land use.

3. A recent analysis¹ of some 30 studies concerned with the impact of property values (including areas in California) resulted in the following general conclusions regarding residential property. The general, although not universal, tendency is for residential properties within the vicinity of a new freeway (except those in an adjacent band of about one block) to increase in value faster than properties more removed from the facility. Values of residential properties, however, do not always exhibit immediate gains from highway improvements, since a highway improvement is but one of many factors influencing land values. Highway proximity in some instances adversely affects the usefulness of land for residential purposes.

Studies by the California Division of Highways and the Los Angeles County Assessor's office indicate that, in a residential area, any downward property value is generally confined to a very narrow band along a new freeway. These studies, however, have been almost universally on middle-priced tract homes. PRC has found no evidence whatsoever indicating that there is an increase in residential values when the location of a new freeway is placed through an area which is permanently committed to very high-value, single-family homes.

In summary, new freeways serve as economic stimulants only where other conditions are favorable to economic development. The

¹Final Report of the Highway Cost Allocation Study, Letter from the Secretary of Commerce transmitting "Studies of the Economic and Social Effects of Highway Improvement," 87th Congress, 1st Session, House Document No. 72.

degree and direction of influence depend principally on the type of land use of the property prior to the freeway development. Where changing or more intensive land uses are permitted, property values have increased. Where such changes in land use are not permitted, and where the social disturbance is great, property values do not increase and, in fact, may decrease.

Previous discussion has been given to the economic forces influencing the character and scope of development along the red and blue alternate locations. Particular emphasis was placed on population growth rates as a measure of these forces, and an analysis of trends in population density along each route was presented. It was shown that the blue alternate (see map in Exhibit 8) generally passes through an area which is already experiencing a conversion to multiple-dwelling units (i. e., a more intensive land use). A similar condition exists along the eastern part of the red alternate (between Doheny Drive and Ardmore Avenue). Along the western part of the red alternate (between the San Diego Freeway and Doheny Drive), however, such conversion is not occurring and cannot occur in the future.

The implications of the comparative impact on these forces by the presence of a new freeway, and hence on property values, is clear. Along the blue alternate or along the eastern portion of the red alternate, the presence of a new freeway will generally have a stimulating effect on property values, with the possible exception of a very narrow band (perhaps one block) along each side of the freeway. As these property values increase, assessed valuations will follow with a resultant increase in property tax flows.

The opposite effect, however, can be anticipated along the western portion of the red alternate. Changing and more intense land use cannot occur, so that the presence of a new freeway cannot exert a stimulating effect on these forces. The impact of a new freeway, therefore, will fall upon those social, cultural, esthetic, and other amenities which residents associate with the communities in which they live and which have a direct bearing on property values. In the present case, there appears little doubt that the influence of a freeway located along

the western part of the red alternate on these factors will be negative, and the resulting direction of property values will be downward and dramatically downward for properties located close to the right of way.

The right of way acquisition cost estimated by the California Division of Highways (as shown in Exhibit 10) for that portion of the red alternate between the San Diego Freeway and Doheny Drive is \$60.4 million. This cost is for a right of way which averages, as PRC understands, approximately 300 feet in width. The negative impact such a freeway would have on the forces which determine property values in this area was described in the preceding paragraphs. Because of the unique character of this area and the relatively large lot sizes, this negative effect will be felt in a band along either side of the freeway which will at least equal the right of way in width. Total current property values in these two bands (which total 600 feet in width) will be on the order of twice the estimated cost of the right of way, or approximately \$120 million.

If property values along this band were to decrease by only 20 percent, the penalty cost to property owners would be on the order of \$24 million, while a 30 percent decrease would result in a loss in value on the order of \$36 million. For the reasons previously cited with regard to intensity of land use, this is a penalty which would not be experienced by the property owners adjacent to the western portion of the broken green variation of the blue alternate.

This loss in property value along the western portion of the red alternate will also affect assessed valuations and property tax flow. A decline of \$24 million to \$36 million in property values would result in a reduction in assessed valuation of between \$6 million and \$9 million. At the midpoint decrease of \$7.5 million, the annual flow of property tax revenues along the western portion of the red alternate would decline by approximately \$600,000. To the extent that property values are negatively affected beyond 300 feet on either side of this part of the red alternate, or if the percentage decline in property values is greater, both the penalty cost to property owners and loss in property tax revenues to the community will be increased.

This annual property tax loss of \$600,000 is in addition to that loss caused by the right of way itself. In an earlier discussion it was shown that the incremental property tax loss caused by a freeway location along the red alternate was approximately \$500,000 more annually than the loss which would result from a location along the blue alternate. The sum of these two annual incremental losses for the red alternate totals \$1,100,000. Again, this is a permanent loss in community property tax revenues. Given a fixed tax rate and fixed property valuations, over a ten-year period the red alternate location would result in an incremental loss of \$11.0 million more than a location along the broken green variation.

This computation ignores the general stimulating effect a freeway along the broken green alternate is expected to have on adjacent property values. These increasing property values will, of course, result in higher assessed valuations and increased property tax revenues. The effect of this force would be to increase the incremental loss difference of \$11.0 million previously cited which would result from a freeway along the red alternate.

APPENDIX

EXHIBIT A1 - POPULATION BY CENSUS TRACT WITHIN ONE MILE
 NORTH AND ONE MILE SOUTH OF THE BLUE ALTER-
 NATE LOCATION (BROKEN GREEN VARIATION), 1960
 AND 1963

<u>Census Tract</u>	<u>Percent Included</u>	<u>Population Included</u>	
		<u>April 1960</u>	<u>October 1963</u>
1908	55	2347	2364
1909	85	4932	5229
1917	100	3917	3955
1918	100	4475	4666
1919	95	4740	4874
1921	100	1696	1700
1922	100	4376	4407
1923	100	2331	2394
1924	100	5429	5692
1943	25	411	507
1944	100	5321	5652
1945	100	2669	2848
2115	100	3299	3434
2116	80	1888	1883
2117	15	744	793
2141	100	4475	4477
2142	100	2097	2094
2143	100	2182	2173
2144	100	4293	4290
2145	100	7499	7496
2146	100	2950	2993
2147	65	2199	2200
2148	95	2877	2915
2149	100	3287	3426
2151	25	1066	1067
2152	50	394	388

EXHIBIT A1 (Continued)

<u>Census Tract</u>	<u>Percent Included</u>	<u>Population Included</u>	
		<u>April 1960</u>	<u>October 1963</u>
2153	50	751	746
2651	60	1524	2089
2652	100	3690	4682
2653	50	3809	3952
2655	100	4237	4555
2656	100	3920	4156
2657	100	3937	4820
2671	100	4665	4854
2672	100	3261	3501
2673	30	984	1167
2677	30	729	784
2678	75	2081	2077
2679	100	2896	2948
2692	20	483	498
2693	10	486	480
7001	90	7350	8585
7002	60	3910	4567
7003	65	2588	3023
7004	100	5018	5861
7005	100	5187	6058
7006	55	2987	3274
7007	60	2420	2652
7008	95	6030	6609
7009	25	2319	2542
7010	100	<u>5736</u>	<u>6287</u>
Totals		162,892	174,684

EXHIBIT A1 (Continued)

- Sources: (1) U. S. Census of Population and Housing, 1960, U. S. Bureau of the Census
- (2) Population Estimates and Housing Inventory, October 1, 1963, Research Section, Los Angeles City Planning Commission
- (3) Population and Dwelling Units, Quarterly Bulletins, Los Angeles County Regional Planning Commission

EXHIBIT A2 - POPULATION BY CENSUS TRACT WITHIN ONE MILE
NORTH AND ONE MILE SOUTH OF THE RED ALTER-
NATE LOCATION, 1960 AND 1963

<u>Census Tract</u>	<u>Percent Included</u>	<u>Population Included</u>	
		<u>April 1960</u>	<u>October 1963</u>
1898	90	2069	2149
1899	75	3756	4244
1901	55	2111	2155
1906	10	302	307
1907	70	1680	1748
1908	100	4267	4299
1909	90	5222	5537
1917	100	3917	3955
1918	100	4475	4666
1919	100	4990	5130
1921	100	1696	1700
1922	100	4376	4407
1923	100	2331	2394
1924	100	5429	5429
1942	35	1715	1790
1943	90	1479	1826
1944	100	5321	5321
1945	100	2669	2848
2115	100	3299	3434
2116	40	944	942
2141	75	3356	3358
2142	75	1573	1570
2143	75	1636	1630
2144	100	4293	4290
2145	15	1125	1124
2146	40	1180	1197

EXHIBIT A2 (Continued)

<u>Census Tract</u>	<u>Percent Included</u>	<u>Population Included</u>	
		<u>April 1960</u>	<u>October 1963</u>
2148	30	908	921
2149	55	1808	1884
2611	30	1567	1964
2612	90	1940	2156
2621	85	3260	3328
2622	75	2518	2842
2651	50	1270	1741
2653	60	4571	4743
2654	60	2304	2488
7001	100	8167	9539
7002	100	6517	7612
7003	100	3981	4650
7004	100	5018	5861
7005	100	5187	6058
7006	85	4616	5059
7007	100	4034	4421
7008	20	<u>1268</u>	<u>1388</u>
Totals		134,145	144,105

Sources: See Exhibit A1.

EXHIBIT A3 - POPULATION BY CENSUS TRACT WITHIN A ONE-MILE SEMICIRCLE OF THE WESTERN TERMINI OF THE BLUE AND RED ALTERNATE LOCATIONS, 1960 AND 1963

<u>Census Tract</u>	<u>Percent Included</u>	<u>Population Included</u>	
		<u>April 1960</u>	<u>October 1963</u>
1. Blue Alternate Semicircle			
2643	15	997	1,117
2673	70	2,295	2,772
2674	55	1,338	4,058
2675	60	2,779	3,514
2676	65	1,668	1,775
2677	70	1,702	1,828
2712	3	119	114
7011	70	<u>3,775</u>	<u>3,360</u>
Total Blue Alternate		14,673	18,758
2. Red Alternate Semicircle			
2623	30	2,454	2,684
2641	50	2,642	3,001
2654	40	1,536	1,658
7011	30	<u>1,888</u>	<u>1,815</u>
Total Red Alternate		8,520	9,158

Sources: See Exhibit A1.

EXHIBIT A4 - POPULATION BY CENSUS TRACT WITHIN A TWO-MILE RADIUS OF THE WESTERN TERMINUS OF THE RED ALTERNATE, 1960 AND 1963

<u>Census Tract</u>	<u>Percent Included</u>	<u>Population Included</u>	
		<u>April 1960</u>	<u>October 1963</u>
2621	40	1,534	1,588
2622	40	1,343	1,567
2623	40	906	1,057
2624	5	1,648	1,675
2651	30	762	1,064
2652	90	3,321	4,229
2655	70	2,966	3,201
2656	30	1,176	1,253
2641	100	5,285	6,033
2642	80	1,782	1,933
2643	80	5,319	5,972
2653	100	7,618	7,933
2654	100	3,840	4,151
2673	20	656	784
2674	65	2,874	4,821
2628	10	439	458
7011	100	<u>6,293</u>	<u>6,293</u>
Totals		47,762	54,012

Sources: See Exhibit A1.

EXHIBIT A5 - POPULATION BY CENSUS TRACT WITHIN A TWO-MILE RADIUS OF THE WESTERN TERMINUS OF THE BLUE ALTERNATE, 1960 AND 1963

<u>Census Tract</u>	<u>Percent Included</u>	<u>Population Included</u>	
		<u>April 1960</u>	<u>October 1963</u>
7011	100	6293	6293
2652	100	3690	4699
2656	100	3920	4176
2016	70	4726	4906
2643	80	5319	5972
2642	30	668	725
2623	5	409	455
2654	90	3456	3736
2653	90	6856	7140
2651	30	762	1064
2657	90	3543	4248
2712	100	3969	3805
2711	100	4725	4567
2713	100	3349	3071
2671	90	4199	4398
2679	80	2317	2360
2693	70	3399	3355
2717	30	1771	2063
2716	40	1293	1293
2715	30	993	1034
7023(1)	40	2645	2745
7018(1)	50	5446	5753
7017(1)	50	2853	2962
2672	100	3261	3520
2673	100	3279	3918
2674	100	4422	7417
2675	100	4632	5891
2676	100	2567	2763
2677	100	2431	2616
2678	100	2775	2767
Totals		99,968	109,712

Sources: See Exhibit A1.

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