

**ORIGINAL**Decision 93160 JUN 2 1981

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation for the purpose )  
of establishing a list for the )  
fiscal year 1981-82 of existing )  
and proposed crossings at grade )  
of city streets, county roads )  
or state highways most urgently )  
in need of separation, or )  
projects effecting the elimination )  
of grade crossings by removal or )  
relocation of streets or railroad )  
tracks, or existing separations )  
in need of alteration or )  
reconstruction as contemplated )  
by Section 2452 of the Streets and )  
Highways Code. )

OII 83  
(Filed November 18, 1980)

(Appearances are listed in Appendix A.)

**O P I N I O N**

By its order dated November 18, 1980, the Commission instituted an investigation for the purpose of establishing the 1981-82 Railroad-Highway Grade Separation Priority List as required by California Streets and Highways Code Section 2452, which requires that by July 1 of each year the California Public Utilities Commission shall establish a priority list of those railroad grade separation projects, including the elimination of existing or proposed grade crossings, the elimination of grade crossings by removal or relocation of streets or railroad tracks, and the alteration or reconstruction of existing grade separations most urgently in need of separation or alteration. This list, based on criteria established by the

Commission, contains projects on city streets, county roads, and state highways which are not freeways as defined in California Streets and Highways Code Section 257. The list is furnished to the Department of Transportation (Caltrans) and the California Transportation Commission. Those agencies, under the provisions of California Streets and Highways Code Sections 190 and 2453, allocate at least \$15,000,000 annually to those nominations in accordance with their priority on the list.

Funding for projects included on each annual priority list is provided through Section 190; and the basis for allocation is contained in California Streets and Highways Code Sections 2450-2461. On projects which eliminate an existing crossing, or alter or reconstruct an existing grade separation, an allocation of 80% of the estimated cost of the project is made with the local agency and railroad each contributing 10%. On other projects an allocation of 50% of the estimated cost of the project is made for a proposed crossing with the remaining 50% contributed by the local agency.

Following issuance by the Commission of an Annual Grade Separation Priority List, applications to Caltrans for an allocation must be made no later than April 1 of each fiscal year. The requirements for filing an application for an allocation of grade separation funds are set forth in Title 21 (Public Works), Chapter 2, Subchapter 13 (Grade Separation Projects) of the California Administrative Code.

The allocation by the Transportation Commission is limited to that necessary to make the separation operable and the initial allocation of funds by the Transportation Commission is not to exceed the applicant's project cost estimate used by the Public Utilities Commission in establishing the annual separation priority list.

By Decision (D.) 91887 dated June 3, 1980, the Commission established the 24th priority list of 67 projects for the 1980-81 fiscal year, which will expire on June 30, 1981. A new priority list for the 1981-82 fiscal year is now required.

Public hearings were held in San Francisco and Los Angeles before Administrative Law Judge Daly, and on April 1, 1981 the matter was submitted subject to the receipt of late-filed Exhibit 14, which was filed on April 20, 1981.

Copies of the Order Instituting Investigation (OII) were served upon each city, county, and city and county in which there is a railroad crossing, each railroad corporation involved, Caltrans, the California Transportation Commission, the League of California Cities, the County Supervisors Association, and other persons who might have an interest in the proceeding.

In response to the OII, various public bodies desiring to nominate crossings or separations for the 1981-82 priority list filed with the Commission the following information:

A. For Existing or Proposed Crossings at Grade Nominated for Elimination by Proposed Separation and Grade Crossings Nominated for Elimination by Removal or Relocation of Streets or Railroad Tracks

1. Identification of crossing, including name of street or road, name of railroad, and crossing number.
2. Twenty-four-hour vehicular traffic count, or for proposed crossings, estimated ADT for 1981.
3. Number of train movements for one typical day segregated by type, i.e., passenger, through-freight, or switching.
4. Vehicular speed limit and the maximum prevailing train speed.
5. Quantitative statement on blocking delay at crossing, in minutes per day.

6. Distance on each side of the crossing to the nearest alternate routes, in feet.
7. A 10-year accident history of the number of vehicle-object and vehicle-vehicle accidents directly attributable to the presence of the grade crossing.
8. Width of the crossing in feet and in number of lanes.
9. Preliminary cost estimate for project with costs separated into right-of-way, engineering, and construction.
10. Statement of the need for the proposed improvement and agencies' willingness to pursue the project.
11. Any proposed crossing nominated for separation should be subtyped either:
  - a. A grade crossing is practical and feasible.
  - b. A grade crossing is not practical and feasible.
12. For grade crossing(s) nominated for elimination by removal or relocation of streets or tracks, the estimated cost of eliminating crossing(s) if grade separation facilities on the existing alignment of the street and railroad tracks were constructed.

B. For Grade Separations Proposed for Alteration

1. Identification of crossing, including name of street or road, name of railroad, and crossing number.
2. Twenty-four-hour vehicle traffic count.
3. Number of train movements for one typical day segregated by type, i.e., passenger, through freight, or switching.
4. Description of existing and proposed separation structure with principal dimensions.
5. Type of alteration proposed.

6. Preliminary cost estimate of project with costs separated into right-of-way, engineering, and construction.
7. A list and relative description of any of the following, if applicable:
  - a. Substandard highway width or height clearances.
  - b. Highway speed reduction due to alignment.
  - c. Railroad slow order due to structure.
  - d. Highway load limit due to structure.
8. A 10-year history of the number of vehicle accidents at or near the structure.
9. A detailed statement describing acute structural deficiencies, if any, and the probability of structural failure.
10. Statement of the need for the proposed improvement and agencies' willingness to pursue the project.

Upon receipt of the requested information, the staff applied a formula adopted in determining the 1980-81 Grade Separation Priority List, and introduced the results in Exhibit 2.

For the purposes of determining the 1981-82 Grade Separation Priority List, the staff used the following criteria which are similar to those used in the 1980-81 proceeding:

$$P = \frac{V \times T}{C \times 24} + SCF$$

Where:

- P = Priority Index Number
- V = Average 24-Hour Vehicular Volume
- C = Total Costs of Separation Project  
(In Thousands of Dollars)
- T = Average 24-Hour Train Volume
- SCF = Special Conditions Factor

For Existing or Proposed Crossings Nominated  
for Separation or Elimination

$$SCF = G1 + G2 + G3 + G4 + G5 + G6 + G7$$

Where:	<u>Points Possible</u>
G1 = Vehicular Speed Limit	0- 5
G2 = Railroad Prevailing Maximum Speed	0- 5
G3 = Crossing Geometrics	0- 5
G4 = Crossing Blocking Delay	0-10
G5 = Alternate Route Availability	0- 5
G6 = Accident History	0-20
G7 = Irreducibles	<u>0-15</u>
Total Possible	0-65

For Separations Nominated for Alteration or  
Reconstruction

$$SCF = S1 + S2 + S3 + S4 + S5 + S6$$

Where:	<u>Points Possible</u>
S1 = Width Clearance	0-10
S2 = Height Clearance	0-10
S3 = Speed Reduction or Slow Order	0- 5
S4 = Load Limit	0- 5
S5 = Accidents at or Near Structure	0-10
S6 = Probability of Failure and Irreducibles	<u>0-10</u>
Total Possible	0-50

Points in each category were assigned according to the following schedule:

Grade Crossings

G1 = Vehicular Speed Limit

<u>MPH</u>	<u>Points</u>
0-30	0
31-35	1
36-40	2
41-45	3
46-50	4
51-55	5

G2 = Railroad Maximum Speed

<u>MPH</u>	<u>Points</u>
0-25	0
26-35	1
36-45	2
46-55	3
56-65	4
66 +	5

G3 = Crossing Geometrics

0-5 points based on relative severity of physical conditions.

G4 = Crossing Blocking Delay, Total Minutes per Day

<u>Minutes</u>	<u>Points</u>
0-20	0
21-40	1
41-60	2
61-80	3
81-100	4
101-120	5
121-140	6
141-160	7
161-180	8
181-200	9
201 +	10

G5 = Alternate Route Availability

<u>Distance-feet</u>	<u>Points</u>
0-1,000	0
1,001-2,000	1
2,001-3,000	2
3,001-4,000	3
4,001-5,000	4
5,001 +	5

G6 = Accident History (10 years)

Each reportable train-involved accident

Points = (1 + 2 x No. killed + No. injured) x PF\*

\*PF = Protection Factor for:

- Std. #9 = 1.0
- Std. #8 = 0.4
- Std. #3 = 0.2
- Std. #1 = 0.1

Note 1. No more than 3 points shall be allowed for each accident prior to modification by the protection factor.

Note 2. Each accident shall be rated separately and modified by a factor appropriate to the protection in existence at the time of the accident.

G7 = Irreducibles

- (a) Secondary accidents.
- (b) Emergency vehicle usage.
- (c) Accident potential.

Separations

<u>S1 = Width Clearance</u>		<u>S2 = Separation Height Clearance</u>	
<u>Width (Ft.)</u>	<u>Points</u>	<u>Underpass (Ft.)</u>	<u>Points</u>
9' + 12(N)	0	15' +	0
6' but less than 9' + 12(N)	2	14' but less than 15'	4
3' but less than 6' + 12(N)	4	13' but less than 14'	8
0 but less than 3' + 12(N)	6	Less than 13'	10
		<u>Overpass (Ft.)</u>	
11(N) but less than 12(N)	8		
Less than 11(N)	10	22½' +	0
N = Number of Traffic Lanes		20' but not less than 22½'	4
		18' but not less than 20'	8
		Less than 18'	10
 <u>S3 = Speed Reduction or Slow Order</u>			
		None	0
		Moderate	2
		Severe	5
 <u>S4 = Load Limit</u>			
		None	0
		Moderate	2
		Severe	5



S5 = Accidents at or Near Structure (10 years)

<u>Number</u>	<u>Points</u>
0-10	0
11-20	1
21-30	2
31-40	3
41-50	4
51-60	5
61-70	6
71-80	7
81-90	8
91-100	9
101 +	10

S6 = Irreducibles

- (a) Probability of Failure.
- (b) Accident Potential.
- (c) Delay Effects.

Following the hearing the staff prepared and submitted late-filed Exhibit 14. Based upon the testimony and evidence presented during the course of hearing, changes were made in the number of points originally awarded to projects, as the result of changes in factual data and further explanation of data that were first submitted with the nominations. Changes were also made where local agencies did not provide sufficient evidence or foundation for the information contained in their original nominations. Projects for which no appearance was made were eliminated from consideration.

Projects with points revised because of changes in factual data or because of further explanation of previously submitted information are as follows:

<u>Agency</u>	<u>Crossing Name</u>	<u>Affected Category</u>
Alameda County	Niles-Pls CNL	Vehicle Volume Project Cost
Anaheim	Lincoln Avenue	Train Volume
Caltrans	162-Butte	Load Limit

<u>Agency</u>	<u>Crossing Name</u>	<u>Affected Category</u>
Caltrans	180-Fresno	Train Volume Project Cost Blocking Delay
Caltrans	267-Nevada	Type of Project Vehicle Speed Limit Crossing Geometrics Accident History Irreducibles
Caltrans	166-Santa Barbara	Train Volume Blocking Delay
Caltrans	70-Yuba	Load Limit
Colton	Fogg Street	Project Cost
Fresno County	Herndon Avenue (B-195.8)	Train Volume
Irvine	Irvine LWR	Vehicle Volume
Los Angeles County	Hollywood Way	Project Cost
Los Angeles	Nordhoff Street	Vehicle Volume Project Cost
Los Angeles	Santa Fe- Washington	Vehicle Volume
Merced	G. Street	Train Volume
Norwalk	Imperial Highway	Train Speed
Pleasanton	Bernal	Vehicle Volume Train Volume Project Cost
Pomona	Humane Way	Vehicle Volume
Redondo Beach	Inglewood Avenue	Project Cost
Richmond	23rd Street	Crossing Geometrics Irreducibles
Rocklin	Argonaut Avenue	Railroad Branch Milepost Vehicle Volume Train Speed
Rocklin	Granite Drive	Train Speed
Rocklin	Rocklin Road	Train Speed

<u>Agency</u>	<u>Crossing Name</u>	<u>Affected Category</u>
Roseville	Subway Road	Suffix Load Limit
Sacramento	El Camino	Load Limit
Santa Ana	Fourth Street	Train Volume Project Cost Blocking Delay Irreducibles
San Carlos	Holly Stteet	Train Speed Crossing Geometrics
San Gabriel	Del Mar - SGBL	Train Speed Blocking Delay
San Gabriel	San Gabl. LWR	Train Speed Blocking Delay
San Gabriel	Ramona - MSN	Train Speed Blocking Delay
San Jose	Branham Lane	Vehicle Volume Irreducibles

The Shingle Road project was eliminated from consideration at the request of the County of El Dorado.

The staff made a motion to strike the Pacheco Boulevard project nominated by the County of Contra Costa, because it was determined that the County did not propose to close the existing crossing upon completion of the separation. The motion will be granted.

The staff made another motion to strike the Railroad Avenue project nominated by the City of Pittsburg on the ground that the project calls for the proposed separation of the Atchison, Topeka & Santa Fe Railway (Santa Fe) and the Southern Pacific Transportation Company (SP) and should be considered as two separate nominations.

The SP and Santa Fe railroads parallel each other throughout Contra Costa County and at Railroad Avenue; the tracks are approximately 980 feet apart. The number of trains and durations of blocking delays

are about the same at each of the two railroads. As a result, access to the "Old Downtown" area in Pittsburg is seriously impaired. According to the City, this constitutes a single problem that requires a single solution, i.e. the separation of both railroads as a single project. The motion to strike the Railroad Avenue project will be denied.

Projects in Excess of \$5 Million

California Streets and Highways Code Section 2454(g) requires that the total allocations for any single project shall not exceed \$5,000,000 without specific legislative authorization except that under certain specified financial circumstances the maximum allocation may be increased as determined by the Public Utilities Commission. It has been determined that the following projects qualify for initial allocations in excess of \$5,000,000 for the reasons indicated.

Projects resulting in multiple crossing closures or alterations

Alameda County	Niles - Pleasanton Consolidation
Caltrans	St. Route 162-Butte County
Caltrans	St. Route 180-Fresno County
Dixon	West A Street Lowering
Irvine	Irvine Lowering
Los Angeles	North Main Street
Los Angeles	Santa Fe-Washington
Los Angeles County	Bandini Boulevard
Los Angeles County	Grand Avenue
Oceanside	Combined Lowering
San Diego MTDB	E-F Streets
San Gabriel	Del Mar-San Gabriel
San Gabriel	Ramona-Mission
San Gabriel	San Gabriel Lowering
Santa Ana	Fourth Street

Projects achieving major changes/improvements in  
 traffic safety and circulation by completion or  
 realignment of major arterials or realignment  
of complex adjacent street intersections

Anaheim	Lincoln Avenue
Caltrans	St. Route 41-Fresno
Caltrans	St. Route 267-Nevada
Caltrans	St. Route 70-Yuba
Hayward	A Street-WP
Indio	Monroe Street
Los Angeles	Saticoy Street
Los Angeles	Valley Boulevard
Los Angeles County	Florence Avenue
Los Angeles County	Hollywood Way
Merced	Parsons Avenue
Redondo Beach	Inglewood Avenue
Richmond	23rd Street
Roseville	Subway Road
San Carlos	Holly Street
South San Francisco	Grand Avenue

Appendix B lists, in alphabetical order, the projects nominated for the 1981-82 priority list. Included in the table, in addition to information identifying each project, are the vehicular and train volumes, project cost, and the  $\frac{V \times T}{C \times 24}$  calculation for each named project.

Appendix C is a list of point values awarded in each Special Conditions Factor category to existing or proposed crossings nominated for separation or elimination.

Appendix D is a list of point values awarded in each Special Conditions Factor category to existing grade separations nominated for alteration or reconstruction.

The basic procedure employed by the staff for processing and evaluating the nominations was as follows:

1. Nominations were received by the Commission and logged in by the Traffic Engineering Section staff.

2. The data required to complete the formulae and the information identifying the crossing(s) were entered on a crossing file input form.
3. Data entered on the form were transferred to data input cards and entered into the computer.
4. The  $\frac{V \times T}{C \times 24}$  calculation was performed for each project and Special Conditions Factor points were assigned according to the defined schedules by the computer.
5. Totals for each project in the Special Conditions Factor categories were gathered and the Priority Index Number was calculated.
6. The projects were ranked according to their descending Priority Index Number.

Findings of Fact

1. The criteria set forth in Appendixes B, C, and D attached are reasonable and should be used to establish the 1981-82 priority list.

2. The Shingle Road project nominated by the County of El Dorado should be excluded from the 1981-82 Grade Separation Priority List.

3. The Railroad Avenue project nominated by the City of Pittsburg should be considered as a single project.

4. The Pacheco Boulevard project nominated by the County of Contra Costa should be excluded because the project does not contemplate the closing of an existing or proposed grade crossing.

5. Those projects, described under the heading "Projects In Excess of \$5 Million" qualify for initial allocations in excess of \$5,000,000 as provided by California Streets and Highways Code Section 2454(g).

6. Because of the many nominations that have to be considered and the limited amount of time for hearing, there is little or no opportunity in the priority list proceeding to consider in detail issues of need or specifics affecting final design or apportionment of cost. The close scrutiny of a project's detail should be considered in an application for authority-to-construct proceeding.

7. The criteria or rules of the Commission established for use in determining the 1981-82 priority list are subject to modification, and the Commission invites the participation of interested parties to offer their recommendations.

8. With regard to projects having the same priority index number, consideration should first be given to projects which separate or eliminate existing grade crossings, then to projects for the alteration or reconstruction of existing grade separations. Within each of these categories, first consideration should be given to the lowest cost project in order that the maximum number of projects may be accomplished with the available funds.

9. As the statute requires our order by July 1, the effective date of this order should be the date of signing.

Conclusion of Law

The list set out in Appendix E should be established as the 1981-82 Grade Separation Priority List in accordance with Section 2452 of the Streets and Highways Code.

O R D E R

IT IS ORDERED that:

1. The list of projects appearing in Appendix E is established as required by California Streets and Highways Code Section 2452 as the 1981-82 list, in order of priority, of projects which the Commission determines to be most urgently in need of separation or alteration.

2. The motion of the staff to exclude the Railroad Avenue project is denied. The motion of the staff to strike the Pacheco Boulevard project is granted.

3. With regard to projects having the same priority index number, consideration shall first be given to projects which separate or eliminate existing grade crossings, then to projects for the alteration or reconstruction of existing grade separations, and finally to projects for the construction of new grade separations. Within each of these categories, first consideration shall be given to the lowest cost project in order that the maximum number of projects may be accomplished with the available funds.

4. The Executive Director shall furnish a certified copy of this opinion and order to the California Transportation Commission.

This order is effective today.

Dated JUN 2 1981, at San Francisco, California.

John E. Saxon President  
Richard N. Gandy  
Francis J. ...  
Walter ...  
Commissioners

Commissioner Priscilla C. Grew, being necessarily absent, did not participate in the disposition of this proceeding.



## APPENDIX A

LIST OF APPEARANCES

Interested Parties: Harold S. Lentz, Attorney at Law, for Southern Pacific Transportation Company and affected companies; John Miller, for the Western Pacific Railroad Company; Eugene C. Bonnstetter, Attorney at Law, for the State of California, Department of Transportation; E. G. Gilmer, for The Atchison, Topeka & Santa Fe Railway Company; R. Gordon Elliot, for City of South San Francisco; Robert Bezzant, for City of San Mateo; George E. Cook, for City of San Carlos; Edward Harden, for City of Hayward; Elliott Anderson, for City of San Jose; William E. Mitchell, for City of Rocklin; Richard John Folkers, for City of Sacramento; James A. Marchand, for County of Sacramento; William Fairfield, for City of Dixon; Ron W. Miller, for City of Stockton; Ronald Brust, for City of Rohnert Park; Robert M. Barton, for County of Alameda and the Cities of Livermore, Pleasanton, and Bakersfield; Roy Nakadegawa, for City of Richmond; Dan R. Tonelli, for County of Contra Costa; Ron Lefler, for City of Pittsburg; Larry Pagel, for City of Roseville; Allen J. Savitts, for City of Chico; Thomas Perch, for County of Fresno; Wayne Peterson, for City of San Luis Obispo; Earl Pikin, for City of Los Angeles; David Hedlund, for Cities of Paramount and Santa Ana; Gary P. Dysart, for City of Norwalk; Donald K. Jensen, for City of Buena Park; Hugh L. Berry, for City of Fullerton; Dwight F. French, for Cities of San Gabriel and Pomona; Dennis L. Cote, for City of Merced; Joseph R. Palencia, for City of Corona; John J. Maddock, for County of Santa Barbara; Eldon K. Lee, for City of Indio; C. Glenn Wilson, for City of San Bernardino; Calvin K. Wang, for City of Colton; Roger N. Clark, for City of San Diego; William D. Bell, for City of Oceanside; Brent G. Muchow, for City of Irvine; Robert L. Larson, for County of Los Angeles; John A. Held, for City of Redondo Beach; and Paul Singer, for City of Anaheim.

Commission Staff: Robert W. Stich.

ALPHABETICAL LIST OF PROJECTS BY NOMINATING AGENCY

AGENCY	CROSSING NAME	RR	RR	MILE POST	SURF	PAID PROJ	TYPE	VEN VOLUME	TOTAL VOLUME	PROJECT COST	V.F.F. C X 24
ALAMEDA COUNTY	LIV-ALT CASH	1	B	46.0		1	1	2516	5	496000	3
ALAMEDA COUNTY	MILES-PLS CML	4		38.7	0	1	1	3765	5	280000	2
ALAMEDA COUNTY	PLS-SUNOL RD	4		37.2	0	4	4	2100	13	1230000	1
ALAMEDA COUNTY	LINCOLN AV	2		157.7		1	1	14500	20	1662900	1
BERKESELEO	M STREET	2		487.5		1	1	15427	56	434000	7
BERKESELEO	UNION-21TH	1	B	312.3		1	1	22954	32	5827000	5
BUENA PARK	DALE STREET	2		161.3		1	1	9400	42	4700000	4
CALIFORNIA	162-ROUTE	4		204.0	0	4	4	23000	34	8100000	4
CALIFORNIA	41-FRESNO	1	B	205.9		1	1	18600	45	791000	5
CALIFORNIA	180-FRESNO	2		197.8		1	1	28000	34	659000	4
CALIFORNIA	48-MONTEZUMA	1	E	119.29		1	1	13900	44	451000	4
CALIFORNIA	247-MERIDA	1	A	208.1		2A	2A	10500	27	6900000	2
CALIFORNIA	58-SAN SIBO	2		280.3		1	1	7900	22	1580000	4
CALIFORNIA	138-SAN SIBO	2		40.9		1	1	4850	54	4800000	2
CALIFORNIA	166-STA BARBA	1	E	274.4		1	1	4900	40	2800000	3
CALIFORNIA	70-TUBA	1	C	141.7	0	4	4	19000	40	11195000	3
CAMBRILLO	LAS POSAS RD	1	E	419.0		1	1	450	16	411800	0
CHECO	DAYTON RD	1	C	183.8		3	3	1584	29	480000	3
COLTON	7066 ST	2	B	4.1	0	4	4	1900	57	307800	1
CONTRA COSTA COUNTY	MORIELLO AV	2		1169.1	0	4	4	3800	20	2285000	1
CONTRA COSTA COUNTY	SOMERSVILLE	1	B	32.1		1	1	14600	4	2495000	1
CORONA	LINCOLN-RR ST	2	B	25.6		1	1	2052	55	4538000	1
DIxon	N A ST LWB	1	A	47.4		1	1	10400	27	833000	1
FRESNO COUNTY	HEMBORN AV	1	B	195.8		1	1	9600	17	5317000	1
FRESNO COUNTY	MEADOWN AV	2		107.4		1	1	9600	26	2461000	4

ALPHABETICAL LIST OF PROJECTS BY NOMINATING AGENCY

AGENCY	CROSSING NAME	RR	OR	MILE POST	SUP	PROP	TYPE PROJ	VEN VOLUME	TRAIN VOLUME	PROJECT COST	V E I ..... C R 24
FULLERTON	GILBERT ST	2		162.4			1	23000	16	5093000	7
HAYWARD	A STREET	4		20.2			1	23000	10	9210000	1
HAYWARD	HARDEN RD	1	0	21.6			1	21000	18	3967000	4
HAYWARD	TENNISON RD	1	0	23.0			1	31600	18	4383000	3
HAYWARD	W WINTON AV	1	C	20.2			1	4700	34	3867000	1
IRVINE	MONROE ST	1	0	609.2			1	18370	40	2886000	4
IRVINE	IRVINE CYN	2		180.5			1	47169	19	12170000	3
LOS ANGELES	NORRHOFF ST	1	E	468.55			2A	20800	16	5276000	3
LOS ANGELES	M PAIK ST	3	0	1.42			1	9618	88	2866600	1
LOS ANGELES	SANTA FE-BASH	2		163.29			1	63099	40	16966000	5
LOS ANGELES	SATICOV ST	1	E	455.0			2A	16000	16	17518000	1
LOS ANGELES	VALLEY BLV	1	0	483.8			1	19508	34	10383000	3
LOS ANGELES	DANDINI BL	3	A	3.4			1	20200	26	10818000	2
LOS ANGELES COUNTY	DOUGLAS ST	2	M	15.02	0		2A	12000	6	4566000	1
LOS ANGELES COUNTY	LORENCE AV	1	06	488.3			1	31800	16	8772000	2
LOS ANGELES COUNTY	GRAND AV	1	0	308.5	A		2A	9000	50	8011000	2
LOS ANGELES COUNTY	HOLLYWOOD WAY	1	0	469.6			1	21600	10	10781000	1
MERCED	G STREET	2		1055.7			1	18000	29	2865000	0
MERCED	PARSONS AV	2		1636.3			2A	6000	24	6582000	1
MERCED	SPECIAL HWY	1	0K	498.0			1	31584	16	5020000	4
MORNING	CHOLAJER LUN	2		225.9			1	36640	33	72036000	2
PARAMOUNT	ALONRA BL	3	A	12.3			1	18590	20	5120000	3
PITTSBURG	BALFOUR AV	1	0	48.9			1	61659	36	14719000	4
PLEASANTON	DESMAL	4		41.1			1	7000	15	6250000	1
POMONA	MURANE WAY	3		29.8	A		4	5000	20	730000	4

APPENDIX B  
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ALPHABETICAL LIST OF PROJECTS BY NOMINATING AGENCY

AGENCY	CROSSING NAME	RR	OR	MILE POST	SUF	PROP	TYPE PROJ	YEM VOLUME	TRAIL VOLUME	PROJECT COST	Y R T ..... C R T
RENOVO BEACH	INGLEWOOD AV	2	N	16.2			1	38500	4	9335000	1
DICKROND	2300 STREET	1	A	14.5			1	18000	68	10020000	4
DICKMOND	CASPER ST	36		0.15			1	7500	56	4583000	2
ROCKLIN	ARGONAUT AV	1	A1	111.6			1	50	8	1250000	0
ROCKLIN	GRANITE DR	1	A	111.9		1	28	9000	8	1300000	2
ROCKLIN	ROCKLIN RD	1	A	110.6			1	5555	16	1300000	2
ROHWERT PARK	ROHWERT PK EX	5		47.4			1	19500	10	2717000	3
ROSEVILLE	SUBWAY RD	1	A	105.1	OC		6	4200	110	10405000	5
SACRAMENTO	APPLEBY WAY	1	A	93.5			1	24000	30	4775000	8
SACRAMENTO	EL CAPITANO	1	A	95.8	B		4	20000	40	4990000	7
SACRAMENTO	PARCONI	1	A	94.9			1	20000	40	4665000	7
SACRAMENTO COUNTY	U STREET	1	A	102.5			1	5150	42	4870000	2
SAN DEMARINO	PIALTO AVE	2	B	0.7			1	8900	15	2191000	2
SAN CARLOS	MOLLY STREET	1	E	25.2			1	18150	59	6517000	5
SAN DIEGO MTDB	8TH STREET	36		4.6			1	17000	130	2271500	41
SAN DIEGO MTDB	E-F STREETS	36		7.1			1	29000	930	9350000	17
SAN DIEGO MTDB	L STREET	36		8.9			1	13900	130	2590000	32
SAN DIEGO MTDB	COONADO AV	36		11.8			1	11600	150	2798000	22
SAN DIEGO	SMITH AV	36		13.8			1	3100	130	2072000	8
SAN GABRIEL	DEL MAN-569L	1	B	490.7			1	4462C	17	10170000	3
SAN GABRIEL	DAPORA-RSA	1	B	490.3			1	50774	17	6999000	3
SAN GABRIEL	SAN GABL LVR	1	B	490.2			1	25398	17	16852000	4
SAN JOSE	OSWALD RD	1	E	61.			1	12630	24	5565000	4
SAN JOSE	DRINKMAN LANE	1	E	57.5			1	10800	24	6060000	2
SAN LUIS OBISPO	ORCUTT RD	1	E	253.3			1	15200	16	3270000	2

ALPHABETICAL LIST OF PROJECTS BY NOMINATING AGENCY

AGENCY	CROSSING NAME	AN	DN	MILE POST	SUF	PROP	PROJ	TYPE PROJ	YER VOLUME	1981M VOLUME	PROJECT COST	V I I ..... C K 24
SAN MATEO	LAUREL MEADOW	1	€	21.1		1	2A		19000	56	5200000	2
SAN MATEO	MONTE DIABLO	1	€	17.4	0		4		1250	56	2500000	1
SAN MATEO	POPLAR AV	1	€	17.2	0		4		9000	56	2600000	9
SAN MATEO	SANTA INEZ AV	1	€	12.3	0		4		950	56	2650000	1
SAN MATEO	TILTON AV	1	€	17.5	0		4		4400	56	1935000	3
SANTA ANA	FOURTH ST	2		175.4			1		10600	34	2180000	2
SANTA BARBARA COUNTY	MOLLISTER AV	1	€	365.2	0		4		19100	17	2450000	4
SOUTH SAN FRANCISCO	GRAND AV	1	€	9.3			1		26047	68	16608000	5
STOCKTON	WARRER LN	4		98.5			1		26500	15	6034000	3

(END OF APPENDIX B)

APPENDIX C  
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SPECIAL CONDITIONS FACTORS FOR GRADE CROSSINGS NOMINATED FOR SEPARATION OR ELIMINATION

AGENCY	CROSSING NAME	AD	BQ	PILE POST	SUP	PROP	VEN SPD LIMIT 61	TRAIN SPD 62	KING GEOP 63	BIENN DELAY 64	ALT RIE 65	ACC MISS 66	TODD 67	TOTAL SCR
ALAMEDA COUNTY	LIV-ALT CML	1	0	46.C			3	3	3	1	5	11	15	43
ALAMEDA COUNTY	MILES-PLS CML	4		38.7	0		0	3	3	1	2	20	13	46
AMATEL	LINCOLN AV	2		167.7			0	2	2	2	0	0	12	18
BERKESFELD	N STREET	2		187.5			0	0	2	10	0	3	10	25
BERKESFELD	UNION-26TH	1	0	312.3			1	3	4	0	2	3	11	34
QUEEN PARK	GALE STREET	2		161.3			2	3	2	2	2	0	7	21
CALIFANS	41-FAESHO	1	0	205.9			0	1	3	6	0	3	8	21
CALIFANS	180-FAESHO	2		497.8			0	0	2	3	1	2	8	18
CALIFANS	48-MONTECIT	1	1	119.29			1	0	2	4	1	2	7	19
CALIFANS	247-NEVADA	1	A	208.1			3	2	0	4	3	0	6	22
CALIFANS	58-SAN ORDO	2		280.3			5	3	3	1	5	3	8	32
CALIFANS	138-SAN ORDO	2		50.9			3	1	4	6	3	8	8	37
CALIFANS	166-17A BARDA	1	1	276.8			0	3	2	4	4	3	7	25
CALIFANS	LAS POSAS RD	1	1	419.0			0	3	3	1	5	0	6	18
CANAPIZELLO	DAYTON RD	1	C	163.8			3	1	4	3	3	0	6	26
CONTRA COSTA COUNTY	30PENSVILLE	1	0	32.1			1	2	2	0	3	0	6	16
CODONA	LINCOLN-RA ST	2	0	25.6			2	1	3	3	3	0	9	25
DIXON	W A ST LVR	1	J	67.4			0	3	2	3	3	1	9	23
FRESNO COUNTY	HERNDON AV	1	0	193.8			3	2	3	2	3	7	10	36
FRESNO COUNTY	HERNDON AV	2		107.4			3	3	3	2	3	15	10	43
FULLERTON	GILBERT ST	2		162.6			1	4	4	1	3	1	9	23
HAYWARD	A STREET	4		20.2			0	4	3	0	1	0	8	18
HAYWARD	HARPER RD	1	1	21.6			1	1	3	1	3	1	6	16
HAYWARD	TENNISON RD	1	0	23.C			1	1	2	1	4	1	6	16
HAYWARD	V VINTON AV	1	1	20.2			1	3	2	2	5	0	5	18

SPECIAL CONDITIONS FACTORS FOR GRADE CROSSINGS NOMINATED FOR SEPARATION OR ELIMINATION

AGENCY	CROSSING NAME	AC	BA	PILE POST	SUF	PROP	NEW SPD LIMIT 61	TRAIN SPEED 62	SIGNS FROM 63	BLIND DELAY 64	ALT HIE 65	ACC HIE 66	LAW 67	LAW 67	TOTAL STR
INDIO	MORRIS ST	1	9	609.7			2	3	4	9	5	3	3	10	36
IRVINE	IRVINE LVR	2		180.5			3	3	3	1	2	2	2	10	28
LOS ANGELES	NORWOOD ST	1	6	668.55			2	4	0	0	1	0	0	6	13
LOS ANGELES	N PAIR ST	3	9	1.42			1	0	5	10	1	2	2	31	30
LOS ANGELES	SANTA FE-BASH	2		143.29	C		1	0	3	8	2	2	5	10	29
LOS ANGELES	SATCCT ST	1	6	655.0			1	4	0	2	2	0	0	3	14
LOS ANGELES	VALLEY BLV	1	8	485.8			1	0	3	3	4	1	2	7	19
LOS ANGELES COUNTY	BANDINI BL	3	A	3.4			3	0	3	8	1	3	9	9	27
LOS ANGELES COUNTY	DOUGLAS ST	2	K	15.02	0		2	0	0	0	2	0	0	3	9
LOS ANGELES COUNTY	FLORENCE AV	1	86	488.3			1	0	3	1	2	2	2	7	16
LOS ANGELES COUNTY	GRAND AV	1	8	508.5	A		3	4	0	4	2	0	4	4	19
LOS ANGELES COUNTY	HOLLYWOOD WAY	1	8	469.4			1	2	3	2	4	4	3	10	25
PEACED	8 STREET	2		1055.7			0	1	4	1	1	2	2	9	18
PEACED	PARSONS AV	2		1054.3			0	4	0	1	4	0	4	4	13
NORWALK	IMPERIAL HWY	1	DK	698.0			2	0	3	3	2	3	3	9	22
OCEANSIDE	COMBINED LVR	2		225.9			0	1	4	5	3	11	13	37	
PARAMOUNT	ALCORN BL	3	A	32.3			1	0	2	2	2	8	9	24	
PATTSBURG	RAILROAD AV	1	8	48.9			0	2	4	5	2	7	10	30	
PLEASANTON	BERNAL	4		41.1			0	2	4	3	3	4	12	30	
REDONDO BEACH	INGLEWOOD AV	2	K	16.7			1	0	3	0	5	4	10	23	
RICHMOND	23RD STREET	1	A	14.5			0	3	5	5	1	9	12	35	
RICHMOND	CASTRO ST	34		0.15			0	9	2	7	3	0	7	19	
ROCKLIN	ARGONAUT AV	1	AI	111.6			0	5	2	0	4	6	6	17	
ROCKLIN	GRANITE PP	1	A	111.9			1	2	0	0	2	0	5	10	
ROCKLIN	ROCKLIN RD	1	A	110.6			0	5	2	1	1	0	6	15	

SPECIAL CONDITIONS FACTORS FOR GRADE CROSSINGS NOMINATED FOR SEPARATION OR ELIMINATION

AGENCY	CROSSING NAME	RN	GN	PILE POST	SUR	PRCP	VEM	SPD	TRAIN	TINC	GLNMG	ALT	ACC	ERR	ERR	TCRUC	SCV	/M/3
ROBERT PARK	ROBERT PK	5	A	47.4			1	2	2	1	1	2	0	4	4	11		
SACRAMENTO	ARDEM WAY	1	A	93.5			2	5	3	3	10	2	5	12	39			
SACRAMENTO	MARCONI	1	A	96.9			1	5	3	3	3	5	11	13	43			
SACRAMENTO COUNTY	U STREET	1	A	102.5			3	1	3	3	10	5	3	6	29			
SAN BERNARDINO	PIALTO AVE	2	B	0.7			1	0	3	3	3	1	3	8	19			
SAN CARLOS	MOULY STREET	1	E	23.2			0	5	5	3	4	4	2	10	28			
SAN DIEGO MTD	8TH STREET	36		4.6			2	2	2	2	3	1	1	10	23			
SAN DIEGO MTD	E-7 STREET	36		7.1			2	3	4	6	10	1	1	12	33			
SAN DIEGO MTD	L STREET	36		8.9			2	3	4	4	5	1	2	9	26			
SAN DIEGO MTD	CORONADO AV	36		11.2			2	3	2	2	5	2	1	9	24			
SAN DIEGO	SMITH AV	36		13.8			0	2	3	3	3	1	0	8	19			
SAN GABRIEL	DEL MAR-SCHOOL	1	B	490.2			1	1	1	3	2	0	1	8	16			
SAN GABRIEL	ANONAH-MSH	1	B	490.3			0	1	1	4	2	0	2	9	18			
SAN GABRIEL	SAN GABL LVA	1	B	490.2			1	1	5	5	2	2	3	15	29			
SAN JOSE	BERNAL RD	1	E	61.			2	5	4	4	3	3	1	8	30			
SAN JOSE	BRANHAM LANE	1	E	37.3			1	5	3	3	3	2	2	9	27			
SAN LUIS COISPO	OLCUTI RD	1	E	253.3			2	0	3	3	6	3	0	8	26			
SAN MATEO	LAUREE PEAROV	1	E	21.3			1	3	5	5	3	4	0	8	26			
SANTA ANA	FOURTH ST	2		175.4			0	3	3	3	10	0	3	10	29			
SOUTH SAN FRANCISCO	GRAND AV	1	E	9.3			1	4	5	5	4	3	7	33	37			
STOCKTON	HANRAE LN	4		98.5			3	4	1	1	2	3	4	7	26			

(END OF APPENDIX C)



APPENDIX D

SPECIAL CONDITIONS FACTORS FOR SEPARATIONS NOMINATED FOR ALTERATION OR RECONSTRUCTION

AGENCY	CROSSING NAME	RR	DN	MILE POST	SUR	PROP	WIDTH		HEIGHT		SPEED		LOAD		ACC		SR	SR	TOTAL
							CLR	SI	CLR	SI	NEVC	SI	LMIT	SI	STRUC	SI			
ALAMEDA COUNTY	PLS-SUNOL RD	4		37.2	0		10	4	4	0	0	0	0	0	3	5	10	10	27
CALIFANS	162-BUITE	4		204.0	0		2	4	4	0	0	0	0	0	1	1	8	8	15
CALIFANS	20-TUBA	1	C	143.7	0		6	4	4	5	0	0	0	0	2	2	8	8	25
COLTON	1066 ST	2	0	4.1	0		10	10	10	5	0	0	0	0	2	2	9	9	36
CONTRA COSTA COUNTY	MONELLO AV	2		1169.1	0		10	4	4	2	0	0	0	0	0	0	9	9	25
PONOMA	HUMANE WAY	3		29.8	1		4	0	0	0	0	0	0	0	0	0	5	5	9
ROSEVILLE	SUGAR RD	1	A	105.1	0C		8	8	8	2	0	0	0	0	2	2	10	10	30
SACRAMENTO	EL CANINO	1	A	93.9	0		4	4	4	0	0	0	0	0	2	2	7	7	17
SAN MATEO	PONTE DIASCO	1	E	17.4	0		2	10	10	0	0	0	0	0	0	0	9	9	21
SAN MATEO	POPLAR AV	1	E	17.2	0		4	8	8	0	0	0	0	0	1	1	8	8	21
SAN MATEO	SANTA INEZ AV	1	E	17.5	0		2	10	10	0	0	0	0	0	0	0	8	8	20
SAN MATEO	TILSON AV	1	E	17.5	0		2	10	10	5	0	0	0	0	2	2	10	10	29
SANTA BARBARA COUNTY	NCLISTER AV	1	E	365.7	0		0	4	4	5	0	0	0	0	10	10	9	9	28

PROJECTS NOMINATED BY PRIORITY INDEX NUMBER

AGENCY	CROSSING NAME	RR	OR	MILE POST	SUP	PROP	V E I ----- E X 24	SEC	PRIORITY INDEX NUMBER	PRIORITY NUMBER
SAN DIEGO MTD	8TH STREET	36		4.6			61	25	46	1
SAN DIEGO MTD	L STREET	36		8.9			32	26	38	2
SACRAMENTO	MACOMI	1	A	46.9			7	43	50	3
SAN DIEGO MTD	E-7 STREET	36		7.1			17	33	30	4
ALAMEDA COUNTY	MILES-PLS (ML)	4		36.7	0		2	46	48	5
SACRAMENTO	HEMPDEN AV	2		1007.4			4	43	67	6
SAN DIEGO MTD	ARBEN WAY	1	A	93.5			8	39	17	7
ALAMEDA COUNTY	CONONADO AV	36		11.8			22	26	46	8
OCEANSIDE	LIV-ALT CASL	1	0	46.0			3	43	46	9
SOUTH SAN FRANCISCO	COMBINED LVR	2		225.9			7	37	46	10
SAN JOSE	GRAND AV	1	E	9.3			3	37	42	11
CALTRANS	MONROE ST	1	0	409.7			4	36	60	12
ALBERTSON	338-SAN BRNC	2		60.9			2	37	39	13
ALBERTSON	UNION-24TH	1	0	312.3			3	36	39	14
ALBERTSON	23RD STREET	1	A	16.5			4	35	39	15
SACRAMENTO COUNTY	HEMPDEN AV	1	0	193.8			1	36	37	16
COLTON	PC66 ST	2	0	4.1	0		1	36	37	17
CALTRANS	52-SAN BRNO	2		780.3			4	32	36	18
SAN JOSE	ORONAL RD	1	E	61.			4	30	34	19
PITTSBURG	RAILROAD AV	1	0	48.9			6	30	36	20
LOS ANGELES	SANTA FE-WASH	2		163.29	C		3	29	34	21
SAN MATEO	TILTON AV	1	E	17.5	0		3	29	36	22
SAN CARLOS	HOLLY STREET	1	E	23.2			5	28	33	23
SAN GABRIEL	SAN GAB LVR	1	0	490.2			4	29	33	24
ROSEVILLE	SUBWAY RD	1	A	105.1	0C		3	30	33	25

APPENDIX E  
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PROJECTS NOMINATED BY PRIORITY INDEX NUMBER

AGENCY	CROSSING NAME	RR	OR	MILE POST	SUF	PROP	V N I ..... C R 24	SIF	PRIORITY INDEX NUMBER	PRIORITY NUMBER
SAN MATEO	LAURET MEADOW	1	E	21.1		1	7	26	33	26
BAKERFIELD	N STREET	2		287.5			7	25	32	27
FULLERTON	GILBERT ST	2		162.6			7	25	32	28
SANTA BARBARA COUNTY	HOLLISTER AV	1	E	365.7		0	6	28	32	29
SACRAMENTO COUNTY	U STREET	1	A	102.5			2	29	31	30
PLEASANTON	DEANAL	4		41.1			1	30	31	31
SANTA ANA	FOURTH ST	2		175.4			2	29	31	32
IRVINE	IRVINE CVE	2		180.5			3	28	31	33
LOS ANGELES	N PALM ST	3	B	1.42			1	30	31	34
SAN MATEO	POPLAR AV	1	E	17.2		0	9	21	30	35
STOCKTON	WARRER LN	4		98.5			3	26	29	36
SAN JOSE	BRANHAM LANE	3	E	57.3			2	27	29	37
LOS ANGELES COUNTY	BANDINI BL	3	A	3.4			2	27	29	38
CALIFRANS	146-5TH BARBA	1	E	276.0			3	25	28	39
ALAMEDA COUNTY	PLS-SUNOL RD	4		37.2		0	1	27	28	40
CALIFRANS	7C-TUBA	1	C	141.7		0	3	25	28	41
CHICO	DARTON RD	1	C	185.8			3	24	27	42
SAN DIEGO HTDS	SMTHE AV	36		83.4			8	19	27	43
PARAHOUNT	ALONRA BL	3	A	12.3			3	24	27	44
RECEP	G STREET	2		1055.7			0	18	26	45
SAN LUIS OBISPO	OCQUIT RD	1	E	255.3			2	26	26	46
COLOMA	LINCOLN-RR ST	2	B	25.6			1	25	26	47
NORWALK	EPERIAL HWY	1	BT	498.0			4	22	26	48
CALIFRANS	43-FRESNO	1	B	205.6			5	21	26	49
BITON	W A ST LVA	1	A	47.6			1	25	26	50

PROJECTS NOMINATED BY PRIORITY INDEX NUMBER

AGENCY	CROSSING NAME	RA	SA	MILE POST	SUR	PROP	V X I ..... C X 26	SCF	PRIORITY INDEX NUMBER	PRIORITY NUMBER
LOS ANGELES COUNTY	HOLLYWOOD WAY	1	0	465.4			1	25	24	51
CONTRA COSTA COUNTY	MOSELLO AV	2		1169.1	0		1	25	26	52
CALIFRANS	48-MONTEREY	1	6	119.29			4	19	25	53
BUENA PARK	DALE STREET	2		161.3			4	21	25	54
CALIFRANS	180-FRESNO	2		997.0			4	18	24	55
REDMOND BEACH	INGLEWOOD AV	2	K	16.7			1	23	24	56
SACRAMENTO	EL CAMINO	1	A	93.9	0		7	17	24	57
CALIFRANS	267-NEWADA	1	A	208.1			2	22	24	58
LOS ANGELES	VALLEY 9LV	1	0	485.8			3	19	22	59
SAN MATEO	RCHTE DIABLO	1	6	17.4	0		1	21	22	60
SAN BERNARDINO	BIALTC AVE	2	0	0.7			2	19	21	61
NATVARD	TEMMISON RD	1	0	23.0			3	16	21	62
RICHMOND	CASING ST	34		0.13			2	19	21	63
SAN GABRIEL	BARONA-RSN	1	0	490.3			3	18	21	64
SAN MATEO	SANTA INEZ AV	1	6	17.3	0		1	20	21	65
LOS ANGELES COUNTY	GRAND AV	1	0	508.5	A		2	19	21	66
NATVARD	HARBER RD	1	0	21.6			4	16	20	67
NATVARD	V WINTON AV	1	6	20.2			1	18	19	68
NATVARD	A STREET	4		20.2			1	18	19	69
SAN GABRIEL	DEL MAR-STEEL	1	0	490.7			3	16	19	70
ANAHEIM	LINCOLN AV	2		167.7			1	18	19	71
CALIFRANS	122-OUTTE	4		204.0	0		4	15	19	72
CANABILLCO	LAS POSAS RD	1	6	419.0			0	18	18	73
LOS ANGELES COUNTY	FLESCENCE AV	1	06	488.3			2	16	18	74
ROCKLEK	ARGOVAND AV	1	11	111.6			0	17	17	75

PROJECTS NOMINATED BY PRIORITY INDEX NUMBER

AGENCY	CROSSING NAME	RM	QR	MILE POST	SUF	PAOP	V I I ----- C R 24	SCF	PRIORITY INDEX NUMBER	PRIORITY NUMBER
ROCKLIN	ROCKLIN RD	1	A	110.4			2	15	17	76
LOS ANGELES	MONROVE ST	1	E	468.55			3	15	16	77
CENTRA COSTA COUNTY	SOMERSVILLE	1	D	52.1			1	14	15	78
POMONA	MURRAY WAY	3		29.8	A		6	9	15	79
LOS ANGELES	SANTICAY ST	1	F	655.6			1	16	15	80
ROBERT PARK	ROBERT PK EX	5		47.4			3	11	14	81
PERCIE	PARSONS AV	2		1054.3			4	13	14	82
ROCKLIN	GRANITE DR	1	A	111.9			4	10	12	83
LOS ANGELES COUNTY	OCUELAS ST	2	K	15.02	D		1	9	10	84

(END OF APPENDIX E)