

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

DATE:	December 13, 2000
TO:	Riverside County Transportation Commission
FROM:	Plans and Programs Committee Technical Advisory Committee Stephanie Wiggins, Program Manager
THROUGH:	Eric Haley, Executive Director
SUBJECT:	RCTC's Alameda Corridor-East Trade Corridor Grade Crossing Priority List

PLANS AND PROGRAMS COMMITTEE, TECHNICAL ADVISORY COMMITTEE AND STAFF RECOMMENDATION:

This item is to seek Commission approval of the RCTC Alameda Corridor-East Trade Corridor Grade Crossing Priority List.

BACKGROUND INFORMATION:

As a result of RCTC's involvement in the development of the Corridor Plan for the Alameda Corridor East Steering Committee, a prioritized list of grade crossing improvements along the three main lines (UP Los Angeles Subdivision, UP Yuma Main, and BNSF San Bernardino Subdivision) must be developed. The following jurisdictions, which have public at-grade crossings along the three main lines, were asked last month to submit a "Grade Crossing Prioritization Form": Cities of Banning, Beaumont, Calimesa, Coachella, Corona, Indio, and Riverside, and the County of Riverside.

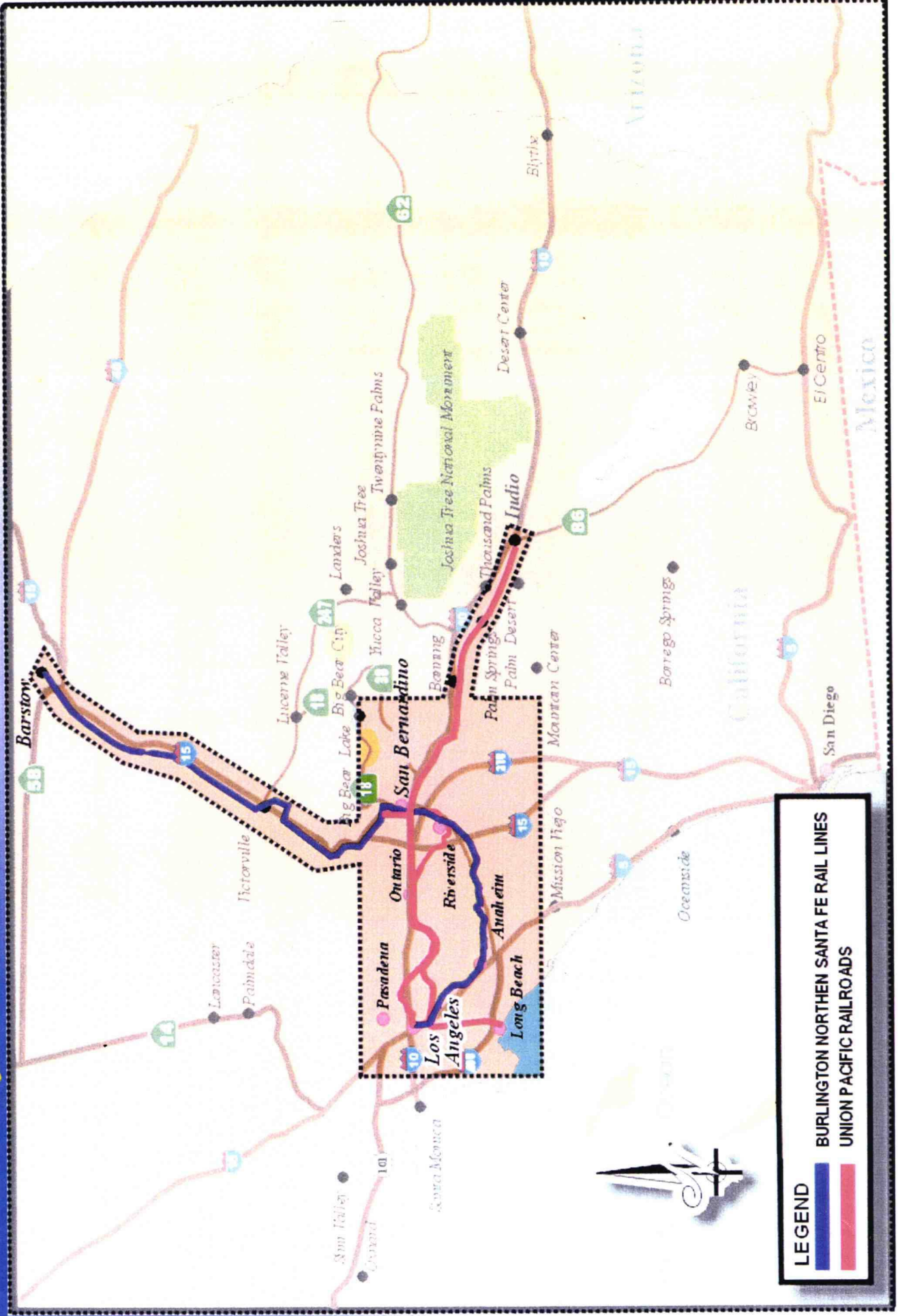
On Tuesday, November 14th, a meeting was held to review the submitted forms and develop criteria that would form the basis of developing a prioritized tier list. The key factors agreed upon were safety, delay, and availability of alternate grade separations. On Monday, November 20th, the RCTC TAC approved the prioritized tier list subject to technical clean-up (the addition of Airport Road and consideration for calculating total delay along Van Buren (Rutile, Jurupa, Bellegrave, and Clay). The attached prioritized list incorporates Airport Road however, County staff will continue to work with Parsons Brinckerhoff to better quantify total delay along Van Buren Blvd.

Once approved by the Commission, the list will be forwarded to the Alameda Corridor-East Steering Committee for inclusion in a Corridor Plan that will be used to support a federal earmark in the re-authorization of TEA-21.

REGIONAL MAP

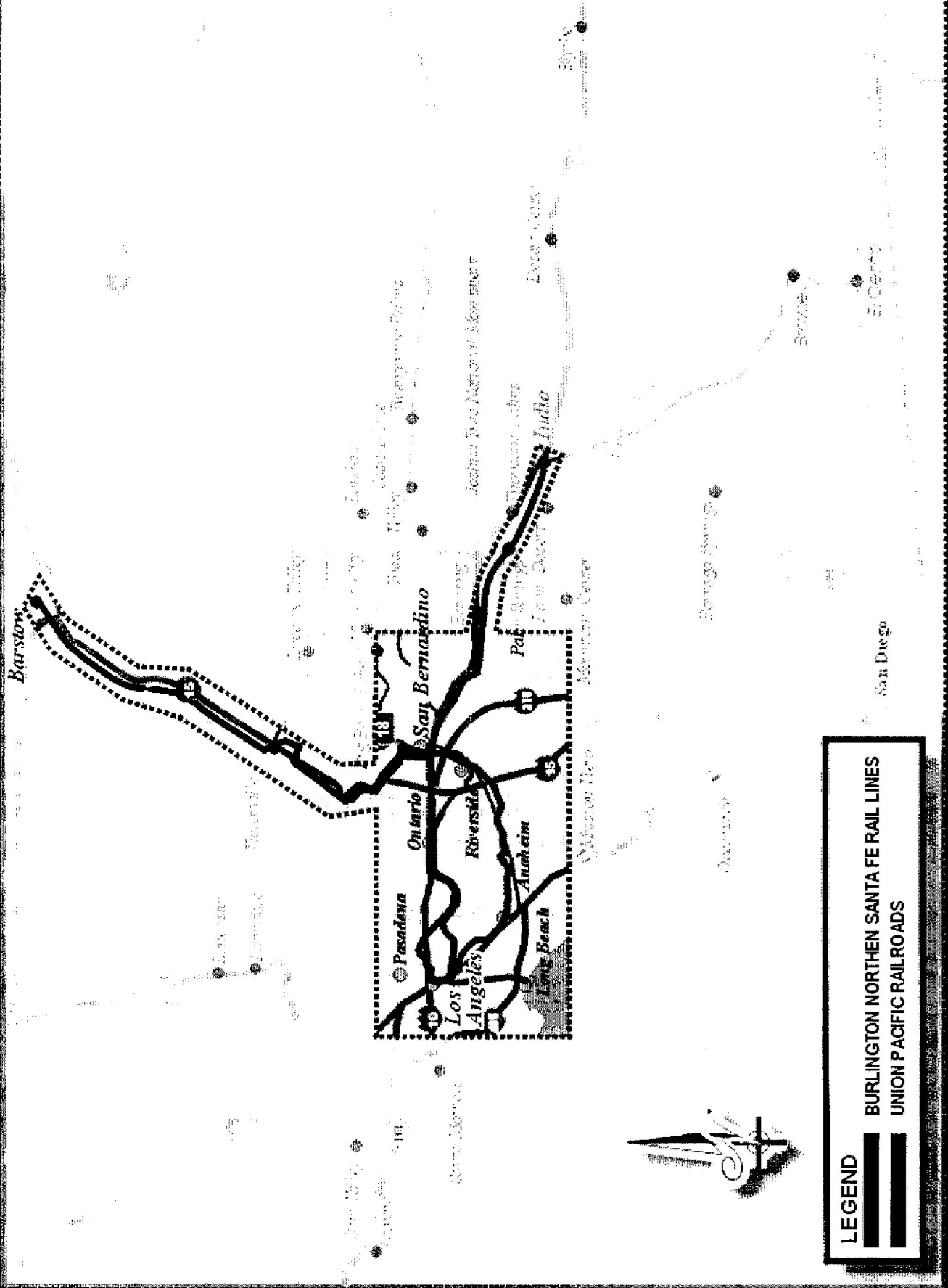
Southern California

DECEMBER 6, 2000



REGIONAL MAP

DECEMBER 6, 2000



LEGEND

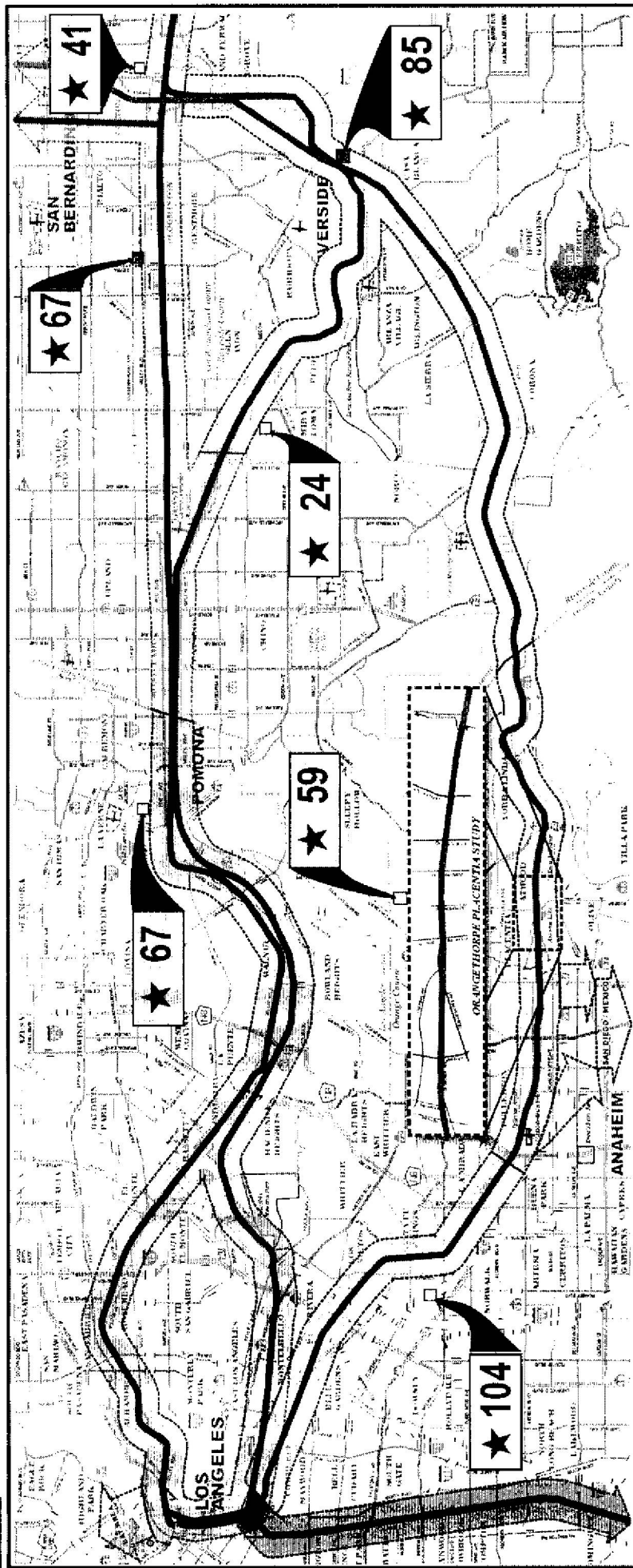
 BURLINGTON NORTHERN SANTA FE RAIL LINES

 UNION PACIFIC RAILROADS

ACE TRADE CORRIDOR MAP

DECEMBER 6, 2000

Freight



BURLINGTON NORTHERN SANTA FE RAIL LINES

UNION PACIFIC RAILROADS

ALAMEDA CORRIDOR

SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS-
GRADE CROSSING STUDY

GATEWAY CITIES GRADE CROSSING STUDY

INLAND GOODS MOVEMENT CORRIDOR

RIVERSIDE COUNTY COMPREHENSIVE
TRANSPORTATION PLAN (WESTERN/RIVERSIDE COUNTY)

ORANGETHORPE CORRIDOR GRADE CROSSING STUDY

ORANGE/OLIVE CORRIDOR GRADE CROSSING STUDY

DAILY

PRESENT
TRAINS*

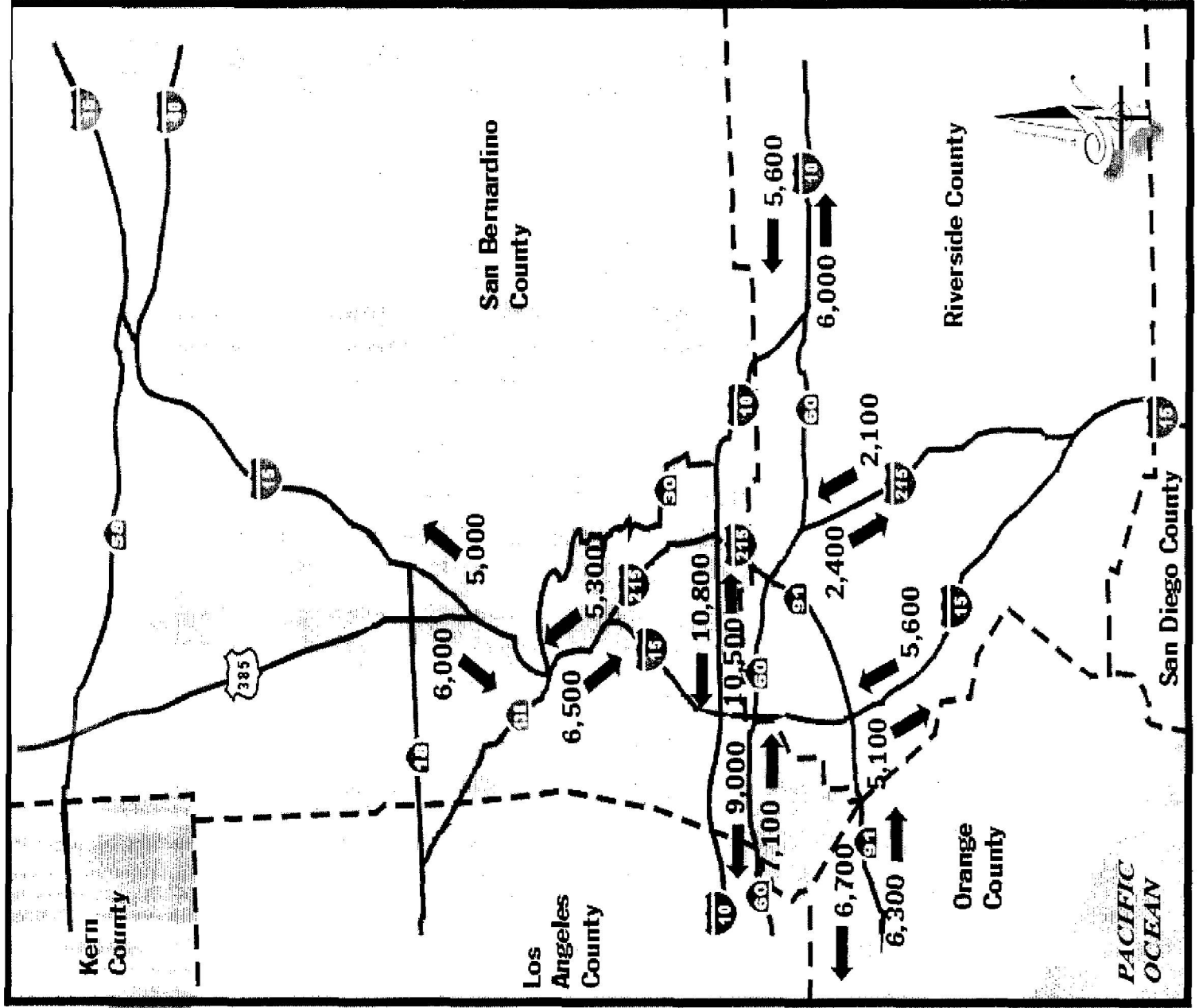
LEGEND

Note: THE SCAG REGIONAL RAILROAD CONSOLIDATION STUDY INCLUDES BOTH LINES.

* BASED ON MOST RECENT STUDIES

TRUCK MOVEMENTS

DECEMBER 6, 2000





Memorandum

505 South Main St., Suite 900
Orange, CA 92868
(714) 973-4880
fax (714) 973-4918

To: RCTC Technical Advisory Committee

From: J.D. Douglas

Date: November 20, 2000

Subject: Rail Crossing Prioritization Factors

On November 14, RCTC staff and I met with the TAC subcommittee dealing with rail crossing grade separation issues. One of the items discussed was which evaluation factors RCTC should recommend be used in the four-county study to establish grade separation priorities.

Based on our discussions with the subcommittee, the following factors should be recommended by RCTC for use as primary criteria for prioritizing grade separations in the four-county study:

Safety

- Existing accident rates and severity
- Potential for future accidents (due to increases in blockage and delay)

Delay

- Total delay to existing traffic (including train switching and parking)
- Total delay to future traffic

Alternate Crossings

- Availability of alternate grade separations nearby (locations without alternate available crossings should receive higher priority)

In addition, the following factors should be recommended by RCTC for consideration in the four-county prioritization, but should be treated as secondary factors in the prioritization:

- Nearness to residential areas (since grade separation would reduce the noise impacts of train whistles on residential neighborhoods)
- Constructibility
- Existing commitments of local funds

RCTC GRADE SEPARATION PRIORITIES

Prioritization Methodology

Factors Used in Prioritization

- 1999 Average Daily Vehicle Delay
- 2020 Average Daily Vehicle Delay
- Overall Accident Score (combination of frequency and severity)
- Adjacent Grade Separations
- Local Ranking

Methodology for Measuring

- 1999 Average Daily Vehicle Delay: 1999 Average Daily Traffic volume and gate down time (through trains only)
- 2020 Average Daily Vehicle Delay: 2020 Average Daily Traffic volume and gate down time (through trains only)
- Overall Accident Score: Accident frequency multiplied by severity (train-involved accidents).
- Adjacent Grade Separations: Distance to nearest grade separation.
- Local Ranking: local agency ranking of priority.

Rating Points

	1999 Average Daily Vehicle Delay	2020 Average Daily Vehicle Delay	Overall Accident Score	Adjacent Grade Separations
5	> 30 veh hrs/day	>100 veh hrs/day	> 0.20	> 1 mile
4	> 20 veh hrs/day	> 75 veh hrs/day	> 0.15	
3	> 15 veh hrs/day	> 50 veh hrs/day	> 0.10	> 1/2 mile
2	> 10 veh hrs/day	> 25 veh hrs/day	> 0.05	
1	> 5 veh hrs/day	> 10 veh hrs/day	> 0.00	> 1/4 mile
0	< 5 veh hrs/day	< 10 veh hrs/day	0	< 1/4 mile

Rating points for local ranking score were determined using the inverse of the local agency's ranking, factored up so that the highest priority project received 25 points.

Weighting Points

Weighting points were applied to each evaluation factor so that each factor is weighted equally, with a maximum possible score of 500 points. The maximum possible total score is 2,500 points (500 for each factor).

Priority Groupings

The grade crossings were grouped into five priority groupings based on their overall score.

TABLE 3
PRIORITY GROUPINGS

Rail Line	Cross Street	Jurisdiction	Overall Weighted Score	Group
BNSF (SB SUB)	McKinley St	Corona	1800	1
UP (YUMA MAIN)	Avenue 50	Coachella	1900	1
UP (YUMA MAIN)	Avenue 48/ Dillon Rd	Indio/Coachella	1975	1
BNSF & UP (SB SUB)	3rd St	Riverside	2060	1
BNSF & UP (SB SUB)	Chicago Av	Riverside	1740	1
BNSF & UP (SB SUB)	Columbia Av	Riverside	1640	1
BNSF & UP (SB SUB)	Iowa Av	Riverside	2080	1
BNSF (SB SUB)	Mary St	Riverside	1620	1
UP (LA SUB)	Riverside Av	Riverside	1660	1
BNSF (SB SUB)	Magnolia Av	Riverside County	1900	1
UP (YUMA MAIN)	Hargrave St	Banning	1400	2
UP (YUMA MAIN)	Sunset Av	Banning	1575	2
BNSF (SB SUB)	Auto Center Dr	Corona	1538	2
UP (LA SUB)	Brockton Av	Riverside	1380	2
UP (LA SUB)	Magnolia Av	Riverside	1600	2
BNSF & UP (SB SUB)	Spruce St	Riverside	1580	2
UP (LA SUB)	Streeter Av	Riverside	1600	2
BNSF & UP (SB SUB)	Center St	Riverside County	1300	2
UP (LA SUB)	Jurupa Rd	Riverside County	1550	2
UP (YUMA MAIN)	California Av	Beaumont	1000	3
UP (YUMA MAIN)	San Timoteo Canyon Rd	Calimesa	1250	3
BNSF (SB SUB)	Smith Av	Corona	1213	3
BNSF (SB SUB)	Adams St	Riverside	1000	3
BNSF & UP (RIV)	Cridge St	Riverside	1020	3
BNSF & UP (SB SUB)	Kansas Av	Riverside	1280	3
BNSF (SB SUB)	Madison St	Riverside	1140	3
UP (LA SUB)	Palm Av	Riverside	1020	3
BNSF (SB SUB)	Tyler St	Riverside	1060	3
BNSF (SB SUB)	Washington St	Riverside	1220	3
UP (YUMA MAIN)	Broadway	Riverside County	1250	3
UP (LA SUB)	Rutile St	Riverside County	1050	3
UP (YUMA MAIN)	22nd St	Banning	950	4
UP (YUMA MAIN)	San Geronio Av	Banning	825	4
UP (YUMA MAIN)	Viele Av	Beaumont	833	4
UP (YUMA MAIN)	Avenue 52	Coachella	850	4
BNSF (SB SUB)	Cota St	Corona	988	4
BNSF (SB SUB)	Joy St	Corona	750	4
BNSF (SB SUB)	Railroad St	Corona	975	4
BNSF (SB SUB)	Buchanan St	Riverside	880	4
BNSF (SB SUB)	Jefferson St	Riverside	840	4
BNSF (SB SUB)	Pierce St	Riverside	860	4
UP (LA SUB)	Bellgrave Av	Riverside County	900	4
UP (LA SUB)	Clay St	Riverside County	900	4
BNSF & UP (SB SUB)	Main St	Riverside County	850	4
UP (YUMA MAIN)	Pennsylvania Av	Beaumont	667	5
UP (YUMA MAIN)	Avenue 54	Coachella	625	5
BNSF (SB SUB)	Radio Rd	Corona	363	5
BNSF (SB SUB)	Sheridan St	Corona	425	5
UP (YUMA MAIN)	Avenue 66	Riverside County	550	5
BNSF & UP (SB SUB)	7th St	Riverside	600	5
BNSF (SB SUB)	Gibson St	Riverside	420	5
BNSF (SB SUB)	Harrison St	Riverside	640	5
BNSF (SB SUB)	Jackson St	Riverside	680	5
BNSF (SB SUB)	Jane St	Riverside	400	5
UP (LA SUB)	Mountain View Av	Riverside	500	5
BNSF & UP (SB SUB)	Palmyrita Av	Riverside	620	5
UP (LA SUB)	Panorama Rd	Riverside	460	5
UP (YUMA MAIN)	Apache Trail	Riverside County	600	5
UP (YUMA MAIN)	Airport Road	Riverside County		

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DELAY, ACCIDENT FREQUENCY, AND ADJACENT CROSSINGS

Rail Line	Cross Street	Jurisdiction	1999 # of Lanes	2020 # of Lanes	# of Tracks	Delay Per Day		ACCIDENT FREQUENCY			ADJACENT CROSSINGS			Local Ranking
						Year 1999 Vehicle Hours of Delay Per Day	Year 2020 Vehicle Hours of Delay Per Day	Accident Frequency rating	Accident Severity rating	Overall Accident Score	within 1/4 mile	within 1/2 mile	within 1 mile	
BNSF (SB SUB)	Auto Center Dr	Corona	4	4	2	10.4	88.1	0.00	0.00	0.00				2
	Smith Av	Corona	4	4	2	9.8	50.1	0.00	0.00	0.00				4
	Railroad St	Corona	4	4	3	10.5	68.7	0.00	0.00	0.00		x	x	3
	Cota St	Corona	2	2	2	6.0	39.0	0.00	0.00	0.00				6
	Sheridan St	Corona	2	2	2	5.4	20.7	0.00	0.00	0.00		x	x	7
	Joy St	Corona	2	2	3	5.2	31.3	0.07	1.00	0.07		x	x	5
	Radio Rd	Corona	2	2	3	0.5	1.8	0.00	0.00	0.00				8
	McKinley St	Corona	4	4	2	50.3	189.8	0.00	0.00	0.00		x	x	1
	Magnolia Av	Riverside County	4	4	2	17.9	90.0	0.06	1.00	0.06				1
	Buchanan St	Riverside	2	2	2	7.0	30.1	0.00	0.00	0.00				22
	Pierce St	Riverside	3	3	2	6.0	27.7	0.04	1.04	0.0416				18
	Tyler St	Riverside	4	4	2	12.6	59.3	0.00	0.00	0.00		x	x	13
	Harrison St	Riverside	2	2	2	11.8	36.0	0.00	0.00	0.00		x	x	19
	Gibson St	Riverside	2	2	3	1.4	5.3	0.11	1.23	0.1353				20
	Jackson St	Riverside	4	4	2	9.7	31.7	0.04	1.00	0.04		x	x	17
	Adams St	Riverside	4	4	2	17.5	53.2	0.00	0.00	0.00		x	x	11
	Jefferson St	Riverside	2	2	2	10.2	15.3	0.00	0.00	0.00				24
	Madison St	Riverside	4	4	2	6.3	27.8	0.03	1.00	0.03				14
	Washington St	Riverside	2	2	2	7.5	30.0	0.08	1.00	0.08				15
	UP (LA SUB)	Mary St	Riverside	4	4	2	13.4	87.1	0.04	1.04	0.0416			
Jane St		Riverside	2	2	2	4.0	15.1	0.00	0.00	0.00		x	x	16
BNSF & UP (R.V)	Belgrave Av	Riverside County	2	2	2	3.8	14.5	0.15	1.00	0.15				3
	Ruthe St	Riverside County	2	2	2	2.5	8.4	0.07	1.00	0.07		x	x	4
	Jurupa Rd	Riverside County	3	3	3	7.6	32.4	0.16	1.16	0.18				2
	Clay St	Riverside County	4	4	2	9.5	22.4	0.00	0.00	0.00			x	5
	Mountain View Av	Riverside	2	2	3	0.8	4.5	0.00	0.00	0.00				To be CLOSED by City
	Streeter Av	Riverside	4	4	2	13.5	35.3	0.06	1.08	0.0648				1
	Palm Av	Riverside	4	4	2	5.5	14.0	0.00	0.00	0.00				10
	Brockton Av	Riverside	4	4	2	10.8	27.4	0.02	1.00	0.02				7
	Magnolia Av	Riverside	5	5	2	20.8	54.8	0.00	0.00	0.00				6
	Riverside Av	Riverside	3	3	1	18.1	40.0	0.07	1.07	0.0749				3
	Panorama Rd	Riverside	2	2	1	3.5	11.5	0.00	0.00	0.00		x	x	23
	Cridge St	Riverside	2	2	4	17.1	51.4	0.12	1.00	0.12		x	x	25
	7th St	Riverside	4	4	4	8.1	70.7	0.02	1.05	0.021				21
	3rd St	Riverside	4	4	3	25.0	105.6	0.12	1.00	0.12		x	x	8
	Kansas Av	Riverside	2	2	3	9.6	43.9	0.06	1.00	0.06				Must do together = 12
	Spurce St	Riverside	4	4	3	27.3	81.8	0.00	0.00	0.00				9
	Chicago Av	Riverside	4	4	3	18.3	96.5	0.06	1.03	0.0618				4
	Columbia Av	Riverside	4	4	3	21.9	68.4	0.00	0.00	0.00				28
	Palmyrita Av	Riverside	2	2	3	2.6	16.2	0.00	0.00	0.00				2
	lowa Av	Riverside	4	4	4	27.7	109.7	0.06	1.00	0.06				7
Center St	Riverside County	4	4	4	11.1	43.4	0.08	1.00	0.08				8	
UP (YUMA MAIN)	Main St	Riverside County	2	2	3	6.1	10.1	0.00	0.00	0.00				1
	San Timoteo Canyon Rd	Calimesa	2	2	2	8.4	48.5	0.09	1.00	0.09				2
	Viele Av	Beaumont	2	4	2	0.7	3.5	0.00	0.00	0.00				1
	California Av	Beaumont	2	4	2	3.1	127.4	0.00	0.00	0.00	x	x	x	3
	Pennsylvania Av	Beaumont	2	4	2	1.6	92.3	0.00	0.00	0.00				2
	Sunset Av	Banning	3	3	2	3.0	29.5	0.22	1.22	0.2684				3
	22nd St	Banning	2	2	1	3.8	38.1	0.00	0.00	0.00				4
	San Geronio Av	Banning	2	2	2	3.2	18.8	0.11	1.00	0.11		x	x	1
	Haggrave St	Banning	2	2	2	4.2	99.1	0.00	0.00	0.00				9
	Apache Trail	Riverside County	2	2	2	1.1	5.2	0.00	0.00	0.00				8
	Broadway	Riverside County	2	2	3	2.5	12.2	0.13	1.27	0.1651				2
	Avenue 4B/ Dillon Rd	Indio/Coachella	4	4	2	42.3	193.2	0.01	1.00	0.01				1
	Avenue 50	Coachella	2	2	2	9.0	59.3	0.34	1.17	0.39				3
	Avenue 52	Coachella												4
	Avenue 54	Coachella												10
	Avenue 65	Riverside County	2	2	1									
	Airport Road	Riverside County												

[illegible]