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466-98274



John A. Dyer
General Manager

July 22, 1983

TO: Board of Directors
FROM: John A. Dyer
SUBJECT: PROPOSED MEASURES TO RELIEVE OVERCROWDING

RECOMMENDATION

It is recommended that the Board of Directors consider authorizing the General Manager to:

- (1) Immediately implement a program of on-street supervision requiring up to 25 temporary personnel to regulate service at major loading locations;
- (2) Increase service temporarily by 30 to 40 peak buses from the reserve fleet which will totally exhaust our reserve fleet capacity without undertaking an extremely costly rehabilitation program;
- (3) Initiate a program of reallocation of buses from lesser utilized lines to higher demand lines and increase shortlining on existing high frequency lines;
- (4) Negotiate for additional funding with the LACTC to increase the ceiling of annual vehicle hours.

These measures are designed to mitigate the real and perceived overcrowding conditions presently experienced throughout the system.

BACKGROUND

Staff has performed an analysis of present overcrowding conditions that have been created by increased passenger demand throughout the system. Prompted by correspondence from the United Transportation Union (UTU) and discussions with Supervisor Hahn, ridership and service levels have been thoroughly reviewed using the most recent data available and are shown in Attachment #1.

The end of the first full year under the Reduced Fare Program made possible by Proposition A has seen record numbers of patronage. The trend has not ceased and several lines are continuing to experience overloads beyond established policies for load factors. Several options have been identified in this report to mitigate this problem within the next two

months which would satisfy the immediate demand in the short term. Other measures will have to be taken if patronage continues to increase in future months.

EFFECTS OF THE 50 CENT FARE

The implementation of the Reduced Fare Program in July 1982, has prompted a tremendous increase in the demand for District services. This demand, experienced throughout the system, is best described by the following key statistics:

- (1) The average estimated weekday ridership for the 1983 Fiscal Year was approximately 37% greater than for the previous Fiscal Year.
- (2) The average estimated weekend ridership has increased by 8% and 17% for Saturday and Sunday, respectively.
- (3) The highest single day for weekday ridership occurred on June 20, 1983 when over 1,529,000 boardings were recorded. This is four per cent greater than the previous record achieved during the 1979 energy crisis.
- (4) The demand for transit continues to grow. Monthly ridership data indicates that boardings are increasing each month, despite an exceedingly wet winter and this summer is proving to be an exception with ridership levels moderately increasing or holding, not declining.

The increase in ridership has placed a significant burden on the bus system. All of the demand local lines have experienced overcrowding with the vast majority receiving additional equipment within the past year. Many demand lines were realigned as part of Phases V and VI of the 1980 Sector Improvement Program, permitting the RTD to redeploy service from lighter segments of lines to heavier portions without adding equipment.

Express service has also experienced significant ridership increases. Service has been readjusted where possible as well as adding buses when necessary. Ridership trends are perhaps easier to monitor on these lines because rider loads are recorded monthly as they arrive or depart from the CBD.

Finally, the remaining lines of the system, scheduled on a policy basis, have also recorded substantial increases in ridership. This group, which includes many marginal lines, has even experienced overcrowding on selected trips. Service has been added as necessary although this group of lines had the most amount of available capacity to handle additional patronage. Although most trips on these lines continue to operate with empty seats, the increase in ridership has created a problem in schedule adherence and running time. Buses operating on these lines now are stopping at many more stops to board and alight passengers where before they could operate with fewer stops. This increase in running time has reduced the scheduled recovery time and complaints have been received from the operators

regarding poor schedule performance. In many instances, these lines have been reduced to operate at minimal frequencies prior to the advent of the Reduced Fare Program. Therefore, to accommodate the additional running time, some lines have actually seen frequencies worsened to permit scheduling in the increased running time, despite increased patronage.

Present Policies and Issues Guiding Service Deployment Strategies

The District presently has two major policies relating to service deployment. The detailed policy is shown in Attachment 2. In summary they are:

- (1) **Service Allocation Formula:** provides that, by area, 55% of service is to be distributed on the basis of demand and 45% on the basis of population.
- (2) **Level of Service Policy:** sets guidelines on,
 - a. population coverage;
 - b. line spacing;
 - c. minimum headways;
 - d. loading standards; and
 - e. service effectiveness.

Several recent events have prompted questions about the service deployment policies of the District and whether these policies should be revised or substantially changed. The first event was a requirement by LACTC for the District to develop an "Action Plan" to deal with reductions in the fare subsidy program in 1985. The LACTC is requiring the District to identify line-by-line service cuts and fare levels to ameliorate funding shortfalls. The second event was a decision by the Pasadena Unified School District to end school bus service and to rely instead on the RTD for student transportation. Third, Supervisor Hahn has expressed concerns about overcrowding of buses within his district.

The implementation of the fare reduction program introduced new elements into the service deployment strategies which have produced difficulties in meeting RTD policy guidelines. The Memorandum of Understanding (MOU) between the LACTC and SCRITD states:

"SCRITD will provide additional service on existing lines where increased ridership demand caused by the fare reduction exceeds capacity according to current load standards. In addition, SCRITD will redeploy service wherever possible so that capacity is shifted to meet demand."

In the last year ridership has increased on every line on the system due to the fare reductions. Equipment has been redeployed to reduce low productivity lines to the minimum level of service dictated by RTD policies. We are now faced with the elimination of service on lower productivity lines in order to maintain higher productivity lines within RTD service standards. Attachment 3 shows a listing of the existing ranking of lines by productivity.

It should be pointed out that many of these low productivity lines carry substantial ridership during the peak period, and are themselves in violation of existing loading standards for that time. It is almost paradoxical, but may be necessary to consider redeploying full trips on one peak hour run in order to substitute it on another peak hour run on a more productive line. One example is Line 177 which carries 65 passengers on one peak hour trip using a 35 passenger bus. By eliminating the 31 least productive lines, for example, it would save 105 peak hour buses at an estimated annual saving of \$19 million. Elimination of those lines would result in certain suburban areas including the eastern San Gabriel Valley, western San Fernando Valley, Palos Verdes Peninsula, Mid-Cities, and the Pomona Valley having less service or no service at all, an option that is not reasonable or appropriate.

In the short-term there are two critical factors. They are (1) the limit on operating hours imposed by the MOU and (2) the shortage of buses at the RTD. In the long-term, consideration of changing the service deployment policy will necessitate examining the equity of the RTD service allocation policy competing with the desire of the Board of Directors to serve all areas of the region.

The number of daily boardings is still increasing heavily but additional pass sales and revenue have begun to slow down. This indicates that the attraction of new riders is leveling off but the pass use has already increased dramatically. For example, student pass sales increased 162% from February, 1982 to February, 1983. What is happening is the existing riders are "consuming" more transit due to the lower cost.

Adherence to the Policies

All transportation systems are subject to sporadic overcrowding for a number of reasons. Examples of conditions which exacerbate normal operations include delays at railroad crossings, equipment failures, traffic conditions, inclement weather, and special events. In order to avoid such situations on a regular basis, a system would actually have to be designed with excess capacity built in, resulting in real inefficiencies. To avoid this situation, schedules are adjusted several times a year to permit changes in service to accommodate changing patronage. Schedules are designed to adhere to the established loading standards included in the MOU with the LACTC:

<u>Type of Service</u>	<u>Percent of Seated Capacity</u>
Local	140% Peak Periods 100% Midday, Nights and Weekends
Limited	140% Peak Periods 100% Midday, Nights and Weekends
Express	100% All times

These measures are applied on a floating hourly period. Only when the number of passengers passing a peak load point of a line for an entire hour exceeds the loading standards will an additional bus be placed into service. If overloading exists on some trips, but not for the average trips within the established "floating hour," the schedule may be adjusted to even the passenger loads within existing resources.

As previously stated, ridership has increased by 37% over the past year. Additional buses have been added throughout this period but the peak number of scheduled buses has increased by only 9%. This disparity between increased patronage and increased buses would indicate that either a considerable amount of overloading is occurring or that all new patronage has been filling the excess capacity. Ridership data indicates that both are true in that a large portion of the increased patronage is recorded on suburban lines or on our demand-scheduled lines at times when capacity is available, such as midday, or at night.

Peak hour service has had a share of increased patronage as well. For a point of comparison, the average number of daily boardings per peak bus increased from 560 to 700 in the first quarter of FY 1983. Since that time, this factor has increased only to 710 despite constant increases in ridership, indicating that Schedules has been keeping up with the difficult task of matching demand with actual service provided. Nonetheless, overloading will continue to occur at times prompted by the dynamics of changing ridership, the changing traffic conditions, and the inability to adjust service on an immediate basis. Real time capacity control on certain lines would effectively relieve loading disparities up to a point. Buses must be added beyond that point.

The RTD staff has performed a computer analysis of all one-way trips scheduled on an average weekday. Figure 1 below presents this analysis by time of day, distinguishing the morning and afternoon peak periods, the base period, and nights, which is defined to include all service operating after 6:00 PM. We may conclude from this data that overcrowding exists throughout the day but that actual overloading on individual trips occurs during the peak and base periods. The database represents a series of passenger checks taken over a period of time that do not reflect recent schedule improvements implemented by Phase V and VI as well as other trips added in response to overcrowding during the past six months. The result of these adjustments may lessen the impact, particularly in the base period.

FIGURE 1

ANALYSIS OF WEEKDAY LOADING CONDITIONS

	<u>Scheduled One-Way Trips</u>	<u>% Trips With Standees</u>	<u>% Trips In Excess Of Loading Standards</u>	<u>% Add'l Trips Required</u>	<u>Projected Added Trips Required</u>	<u>Buses Required</u>
Peak	7,700	42%	21%	4%	280	30-40
Base	5,300	20%	20%	6%	320	25-30
Nite	3,200	< 1%	< 1%	< 1%	40	0-10
TOTAL	16,200	30%	18%	4%	640	30-40

Although the data indicates that 21% of the peak trips and 20% of the base trips are experiencing overloading in excess of existing standards, they are occurring on individual trips and must be considered in relation to service operating over a period of time. To properly assess the magnitude of the situation, one example might be that a trip would experience overloading caused by delays, while the following trip would operate with excess capacity. In accounting for this phenomenon, there is only a need to provide additional trips equating to approximately 4 percent during the peak hours and 6 percent during the base period. The estimated number of buses required to provide these trips indicates that there is a need for a maximum number of 30-40 vehicles during the afternoon peak periods.

It is estimated that the additional buses would increase our annual vehicle hours by a maximum of 98,000 at a cost of approximately \$4.4 million to overcome existing overcrowding conditions.

Alternatives to Address Overcrowding

Increasing passenger capacities is the key to relieving overcrowding on those lines which are in violation of loading standards. Four alternatives have been identified which may provide at least short-term relief. A discussion of each is contained in Attachment 4. They include:

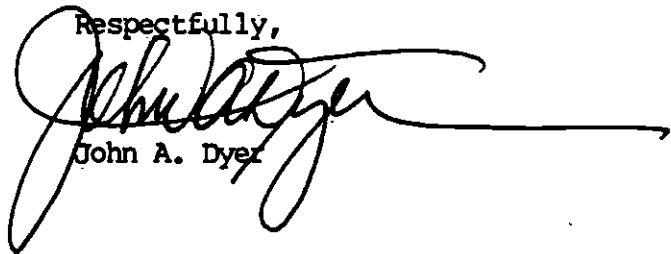
- (1) Alternative I - on-street supervision through the deployment of traffic loaders who can "hold" buses to ensure improved spacing on high frequency lines; (Attachment #5)
- (2) Alternative II - add buses to overcrowded lines by deploying all roadworthy vehicles presently in the reserve fleet. (Attachment #6)

- (3) Alternative III - reallocate buses presently in service through the cancellation of low productivity lines; (Attachments 7 & 8)
- (4) Alternative IV - additional shortlining on high frequency lines, where existing resources may be used more efficiently in that one bus may be able to supply an additional trip. This requires longer lead time but can be effective if the overcrowding occurs during an extended peak period.

Conclusion

While recognizing the need to eliminate overcrowding, the funding arrangements with the LACTC on Prop. A dollars have severely limited the District from adding buses and hours to our present schedule requirements. In order to improve loading conditions in the near term, several alternative methods have been identified. It appears that the only approach to mitigating this situation on a temporary basis would be to receive approval to add buses and increase the vehicle hours. The ceiling must be increased to do this. The addition of buses may not be temporary, rather, once they are placed in service, the patronage will continue to grow and eventually will require even more additions in service. Deletions or eliminations of lines may not be entirely possible or the best solution in the view of many, as increases have been recorded on virtually every line in the system. Rather, a variety of solutions to keeping increased costs to a minimum must be undertaken, which must be accomplished during the next six months.

Respectfully,



John A. Dyer

Attachments

ATTACHMENT I.

UTU Memorandums of Scheduling Problems

Page 1

Line No.	UTU Comment	SCRTD Actions	Further Action Required	If Yes, What and When
9	This line is heavy in the rush hour and off hours through Huntington Park.	Line 9 was cancelled with the implementation of Phase VI of the SIP on June 26, 1983 and replaced by Line 38 on Jefferson Blvd., Line 60-61-360 through Huntington Park to Long Beach and Line 251-252 to Century and Imperial. Additional running time and service trips were added to the replacement lines based on the most recent riding check made on Line 9 prior to the change (February 17, 1983). Early reports indicate that the replacement service is adequate and the operation is much improved.	Yes	Follow-up checks have been scheduled on the replacement lines and they will be evaluated when completed.
20	This line can be heavy, but if everyone did their job, it would be okay.	Effective June 26, 1983, new 308-309 limited weekend beach service was instituted on Wilshire Blvd. This service will be re-evaluated in September, 1983 to see if a year-round service is warranted. A total of 13 buses, 140 vehicle hours and 2,000 miles were added to the Saturday and Sunday operation. Four (4) peak hour buses have been added since January, 1983 due to the increase in patronage.	No	
24	No remarks reported.	Even though no remarks were reported, recent riding checks indicated the need for more Monday through Friday running time and service trips and more Saturday service. This will add costs to the present schedule. Other lower productivity lines will be rescheduled for a savings to offset the additional costs on Line 24.	Yes	A new weekday and Saturday schedule will be implemented in October.

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Line No.	UTU Comment	SCRTD Actions	Further Action Required	If Yes, What and When
35	There is a need at this time for more recovery time on the base runs.	This line was the most severely affected by additional patronage when the fares were reduced one year ago. A total of 12 morning and 6 afternoon peak buses were added since July, 1982. Additional running time and recovery time was also added to some runs. However, the reconstruction of Ventura Blvd. has inhibited implementation of a realistic running time.	Yes	The line is currently undergoing a complete rescheduling which will be accomplished by mid-October. After that a follow-up evaluation will be made.
44	This line is heavy in the peak hours and 20-minute headway in the off hours is too much--need more buses.	Due to the increase in patronage, a total of two (2) afternoon peak hour buses have been added since January, 1983. Service is provided Monday through Friday from 4-8 minutes in the peak hours and 11 minutes rather than 20 minutes during the mid-day. Saturday service is every 12 minutes and just recently four (4) buses were added to the Sunday schedule which improved service from 20 to 10 minutes during the peak period of the day. The reference to 20 minutes headway is not clear.	No	
49	This line is heavy during the peak hours and the 20 minutes headway during the off hours is too much--need more buses.	Line 49 was cancelled effective with Phase VI of the SIP on June 26, 1983 and replaced by new Line 48 on Maple Ave. and San Pedro St. and Line 81 on South Figueroa St. The most recent riding check made during October, 1982 was used to determine running time and headways. No schedule complaints of overloading or inadequate running time have been received.	Yes	Follow-up checks have been scheduled on the replacement lines and they will be evaluated when completed.
51	This line is heavy in the peak hours and the off peak hours.	New Line 51 replaced old Line 29 effective January 30, 1983. A complete riding check was made on March 8, 1983. The line is being fine-tuned with new running time and headways.	Yes	A new weekday schedule will become effective in October

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Line NO.	UTU Comment	SCRID Actions	Further Action Required	If Yes, What and When
70-71	There are not enough buses on Saturday and Sunday on these lines and the buses have heavy loads all day. On weekdays, the lines are heavy going into Los Angeles and the County Hospital stop is especially heavy--need more running time, especially on the Line 71 from Sybil Brand Institute.	This line replaced old Line 422 effective with Phase VI of the SIP on January 30, 1983. The most recent riding check was used to determine headways and running time. A total of four (4) morning and afternoon peak buses have been added since the fare change one (1) year ago. Weekend service has also been added. The line is presently being fine-tuned with new running time and headways	Yes	A new weekday schedule will become effective in the fall.
76	The buses cannot keep the schedule on this line and are overloaded all day.	The schedule is presently being fine-tuned, with possible new headways and running time. Two (2) morning and two (2) afternoon daily peak hour buses have been added since the fare change. Additional weekend service has also been added.	Yes	A new weekday schedule will become effective in October.
78-79	The AM rush hour is overloaded and they cannot keep the schedule on both of these lines. The pull-out time to Myrtle and Longden is too short.	This new line became effective January 30, 1983 with Phase VI of the SIP. The line is presently being rescheduled. The pull-out allowance to Myrtle and Longden has been corrected.	Yes	A new weekday schedule will become effective in October.
86	Short running time.	A new schedule adding running time and recovery time was implemented effective March 13, 1983. The line was routed to off street Terminal 28 for operator conveniences. Recent riding check made on May 5, 1983 shows an improvement in on time performance. In response to operator requests several adjustments have been made to become effective July 24, 1983.	Yes	After the adjustments effective July 24, 1983 are implemented then checks will be scheduled to determine their effectiveness.

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Line No.	UTU Comment	SCRID Actions	Further Action Required	If Yes, What and When
88	This line needs more recovery time and running time and it has been reported that this is mainly due to poor equipment.	Currently there are three (3) extra morning and and afternoon buses scheduled on this line on weekends because of beach travel. The running time and recovery time was adjusted on March 13, 1983 and three (3) weekday peak buses were added because of extra running time needed and increase in patronage. On July 13, 1983, two (2) mid-day and peak buses were added to the weekday schedule due to a further increase in patronage. Operators report that old, slow buses make it difficult to keep the schedule, especially on the freeway portion, which is almost 75% of the route.	Yes	The recent temporary adjustments will be evaluated.
90-91	Headways on this line are too excessive (one hour) on Saturday and Sunday schedules.	The Saturday headway on this line was reduced from 60 to 45 minutes effective December 5, 1982. Point checks made on Saturday, April 30, 1983 show an average maximum load (AML) of 30.8 and Sunday check made January 23, 1983 shows AML of 19.7 riders. These loads do not justify added service at this time.	No	
93	Base runs need more recovery time.	The type of operation (Freeway) makes this line difficult to guarantee on-time performance because of fluctuating freeway conditions. The line is presently being re-scheduled, with new running time and headways. A total of six (6) morning and two (2) afternoon buses have been added since the fare change last year. Additional running time and recovery time have also been added to some runs.	Yes	A new schedule will be implemented in October. After the re-scheduling takes effect a follow-up evaluation will be made.
150	It has been recommended that the entire line be reconstructed and discontinue the time point at Hollywood and Highland, eastbound.	The Line 150 running time is presently being reviewed. The eastbound time point at Hollywood and Highland has been deleted as requested.	Yes	A new schedule will become effective in the fall. After the re-scheduling takes effect a follow-up evaluation will be made.

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Line No.	UTU Comment	SCRTD Actions	Further Action Required	If Yes, What and When
151	Need more time along Topanga Canyon without removing it from the recovery time.	The line will be renumbered to Line 245 on October 2, 1983 and a new schedule with revised running time will be considered after that. To maintain current recovery time headways would have to be widened.	Yes	A new schedule will be considered for the fall. Follow-up checks will be made after the change to determine its effectiveness.
152	Running time is too fast.	A new schedule is presently being prepared with adjusted running time. Also passenger restrictions will be removed from Line 721 along Roscoe Blvd. which may help Line 152 operation.	Yes	A new schedule will be implemented in September. Follow-up checks will be made after the change to determine its effectiveness.
153	Running time is too fast.	A new running time is being prepared to become effective about mid-October along with a minor change. The October 2 renumbering of lines has delayed the date of this project.	Yes	A new schedule will be implemented in October. Follow-up checks will be made after the changes to determine its effectiveness.
154	Need more running time during peak hours.	A revised new schedule with added running time and minor headway changes will become effective August 21, 1983.	Yes	Follow-up checks will be made after the change to determine its effectiveness.
156	OK at the present time.	The operation is okay due to a revised running time and recovery time being implemented in March, 1983. This was in response to operator complaints.	No	
158	Operators cannot make their schedule even doing over the speed limit during the weekdays.	A riding check made on June 21, 1983 shows all buses operating 2-3 minutes over the scheduled running time. The check shows the roundtrip recovery of 32 minutes is adequate.	No	
161	OK at the present time.	This is a very low productivity line and would be a candidate for possible cancellation in an economy program.	No	

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Line No.	UTU Comment	SCRTD Actions	Further Action Required	If Yes, What and When
163	Need more running time in the peak hours and additional recovery time on the Burbank end of the line. On Saturday and Sundays, operators exceed the speed limit to make their schedules.	A new running time was implemented on December 5, 1982. A riding check made May 9, 1983 shows enough running time on most trips. The recovery time is presently 20 minutes in Canoga Park and 10 minutes in Burbank and most all trips get the scheduled recovery.	No	
164-165	Need more running time during the peak hours and additional recovery time. Operators have to drive over the speed limit in order to make the schedule.	On March 13, 1983 one (1) morning bus and three (3) extra trips were added to the daily schedule. The latest riding check shows a continuous increase in patronage. One (1) peak bus will be added for summer school travel effective July 18, 1983. A new daily schedule based on a running time and passenger analysis is being planned.	Yes	A new schedule will be implemented in October. Follow-up checks will be made after the change to determine its effectiveness.
168	Need more running time in the peak hours and more recovery time.	A riding check made on April 21, 1983 shows the need to adjust the northbound running time. The check shows the 30-minute roundtrip recovery is adequate. If recovery time is to be lengthened then headways will have to be widened.	Yes	An evaluation of the schedule will be performed this fall. The new schedule may require headway widened.
200	This line is heavy in the peak hours.	Line 200 is a short line (5.5 miles) and crosses every major east/west line to/from downtown Los Angeles. The turnover on each trip is tremendous, but the distance travelled by each passenger is only 1.5 miles. The Department has not received any complaints of pass ups and no additional equipment has been added during the past year.	Yes	Schedules will be monitored and adjusted as needed.

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Line No.	UTU Comment	SCRID Actions	Further Action Required	If Yes, What and When
204	This is the most complained about line. Operators said that they get no layover time and that recovery time is too short and buses are overloaded with school kids all day.	Service is provided Monday through Friday every 3-4 minutes during the peak hours, every 5 minutes during the mid-day. Saturday service is every eight (8) minutes and Sunday service is ten (10) minutes. Just recently the Vermont & Hollywood layover terminal was relocated for operator convenience and some trips during the peak school time were given additional dwell time to load students at LA City College. Since the fare decrease, two (2) morning and two (2) afternoon peak hour buses were added and weekend service was also improved. The turnover on this line is great because of all the major line connections. Checks indicate that service is adequate if all buses would operate according to schedule.	Yes	Schedules will be monitored and adjusted as needed.
212	No remarks reported.	Two (2) morning and two (2) afternoon peak hour buses have been added since March, 1983 due to the increase in patronage. Schedules are presently being reviewed due to an increase in mid-day ridership on the south end of the line.	Yes	After reviewing the checks available, any necessary changes will be made.
260	Through buses to Long Beach are overloaded throughout the day and operators cannot keep the schedule.	Effective June 26, 1983 the service on Atlantic Blvd. was improved. The shortline was extended from Slauson Ave. to Artesia Blvd. and the peak hour service improved from 20 to 15 minutes. Two (2) additional afternoon peak hour buses were added.	Yes	An evaluation of the recent improvements will be conducted and any necessary changes made.
445	The running time on this line is too short and the operators cannot make it to Montclair Plaza.	The Department received one complaint of inadequate running time. Running time was added in January 1983, a riding check was made and an analysis indicated no immediate need for more running time. This is a low productivity line providing 65 minutes service between Hacienda Heights and Montclair.	Yes	Schedules will be monitored.

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Line NO.	UTU Comment.	SCRTD Actions	Further Action Required	If Yes, What and When
470-471	The operators cannot make it to Brea Mall on time and there is insufficient running time.	About one year ago a new schedule with new running time, headways and recovery time was implemented along with removal of the free running time note. Since that time very few complaints have been received regarding the operation. One morning and three (3) afternoon peak hour buses have been added since January, 1983 due to the increase in patronage.	Yes	The line will continue to be monitored.
482	Operators cannot keep the schedule and running time is short.	A new schedule adding running time was implemented on this line last year. Since that time a few complaints have been received regarding the need for more running time on certain trips. These trips were adjusted and follow-up checks indicate the operation is good. One afternoon peak hour bus was added to the schedule since the fare change.	Yes	A re-evaluation of last years' running time changes will take place in the fall.
484	The pull-out time to Brea Canyon is too short and the recovery time is short. Buses are overloaded during the school hours at the colleges.	An additional five (5) minutes will be given to buses that pull out to Brea Canyon. The Saturday schedule was fine-tuned for June 26, 1983 adding running time, an additional bus, and recovery time. One (1) extra afternoon trip was added to the daily schedule because of patronage increase.	Yes	Additional pull-out time to Brea Canyon was made effective 7-21-83. An evaluation of running time and passenger loadings will be made after school resumes this fall.
493-494	There is not enough layover and running time on these lines.	In a recent rap session Division 9 Line Instructors submitted a complaint of insufficient running time and recovery time on these lines. Line 488 is currently interlined with Line 493 and this operation will be reviewed with possibly untying these routes.	Yes	The midday interline operation will be evaluated for possibly widening of headways on Line 493. An evaluation of the Line 494 off-route time will be made.
825	There is insufficient running time and recovery time over the entire line.	Line 825 service is provided every 60 minutes between Hawaiian Gardens and Whittier. The line is a low productivity line and a possible candidate for cancellation in an economy program.	Yes	The headways will be considered for widening to allow for additional running time and recovery time sometime this fall.

ATTACHMENT 2

EXISTING SCRFD LEVEL-OF-SERVICE POLICY GUIDELINES (as adopted by the Board of Directors, May 5, 1976)

As a result of tax support for transit, the District has an obligation both to its riders and to the general taxpaying public to provide a wide distribution of transit service while making effective use of available resources. This has created the need for an explicit statement of policy to define a consistent rationale for distributing service throughout the District's service area.

Assuming the availability of funds and equipment, it is the District's policy to maximize transit accessibility and mobility within its service area, consistent with the following accessibility and service effectiveness objectives.

Accessibility

- A. Population Coverage. These objectives apply to local service only, which for this purpose is defined as service with four or more stops per mile and with no restrictions on passenger boarding and alighting.
1. In areas where population density is greater than 8,000 per square mile, service with a weekday base headway of 30 minutes or less will be provided to within one-quarter mile of 90% of the population.
 2. In areas where population density is 4,000 to 8,000 per square mile, service with a weekday base headway of 30 minutes or less will be provided to within one-half mile of 90% of the population.
 3. In areas where population density is 4,000 to fewer persons per square mile, service with a weekday base headway of 60 minutes or less will be provided to within one-half mile of 90% of the population. This statement will represent the minimum service standard throughout the service area.
- B. Line Spacing. The population coverage objectives imply spacing objectives (e.g., spacing of one-half mile or less in at least one direction for areas with population density greater than 8,000 per square mile). Appropriate spacing will vary according to terrain, the street system, and the relative demand for travel in different directions.
- C. Loading. In order to provide an accessible and dependable transit system, headways on local services should not exceed the policy headways described under the population coverage objectives. All parts of the transit system should also have adequate capacity for safety and to attract and keep riders.

EXISTING SCRIPD LEVEL-OF-SERVICE POLICY GUIDELINES
(as adopted by the Board of Directors, May 5, 1976)
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1. Loading ratios for individual lines should not exceed 140% measured for the peak 20 minutes at the maximum load point.
2. Loading ratios should not exceed 100% for base periods and evenings.
3. Loading ratios for long distance freeway and busway services should not exceed 100% measured for the peak half-hours.

Service Effectiveness:

New services should be designed to meet the objectives specified below. New or existing services not meeting these objectives will be evaluated for remedial action or deletion in accordance with the procedure for treatment of low performance lines outlined in the District's Service Evaluation Program.

A. For local services:

1. at least 20 passengers per bus hour (all day);
2. at least 2.5 passengers per bus mile in the peak period; and
3. at least 1.5 passengers per bus mile (all day).

B. For express service:

At least 250 passenger-miles per bus hour.

ATTACHMENT 2

SCRID SERVICE DEPLOYMENT POLICY
(as adopted by the Board of Directors, July 26, 1979)

SCRID Service Deployment Policy states that services will be appropriated among specific geographical areas in the following manner. Each area will be allocated service based on a formula. The formula provides that each area will get a certain share of the District's total expenditure for service. The share of service will be based on 55% on ridership (measured in boarding) in the specific area, and 45% on the population.

Service levels in all areas will be brought gradually to the levels specified by the formula. This will be done through the continuous process of line service adjustment. Since this policy is stated in terms of areas rather than lines, the level of service allowed on an individual line is flexible. But adjustments of service on lines will take into account the total amounts of service in the areas through which the lines pass.

If an area already has more service than would be allowed by the formula, service in the area will not be reduced, but line adjustments that add service will be recommended only if compensating reductions can be made in other nearby lines.

The policy does not alter established procedures that require Board approval for route changes.

ATTACHMENT 3

The analysis and line ranking below is part of the District's Action Plan to be submitted to the Los Angeles County Transportation Commission (LACTC) on September 1, 1983, as an addendum to the SRTP.

The basis for the ranking of the District's transit services is drawn from the indicators of performance included in the line performance reports. The selected performance measures were chosen to show the cost-effectiveness and productivity of each line. Since the measures are not directly comparable and may involve trade-offs when attempting to increase the performance associated with any one measure, a weighted index composed of the selected performance measures used enable all District services to compare on an equal basis.

The weights applied to determine the ranking of routes was: 40 on the operating ratio, 35 on the boardings per revenue bus hour, and 25 on the passenger miles per revenue bus mile.

E. LINES RANKED BY WEIGHTED* PRODUCTIVITY INDEX

LINE	L AC CO TD CE	DATE	TOTAL BOARD -INGS	TOTAL OPERATING COST	TOTAL PASSENGER REVENUE	OPER- ATING RATIO (.40)*	BOARDINGS PER BUS HOUR (.35)*	PASSENGER MILES PER REVENUE BUS MILE (.25)*	WEIGHTED* PRODUCTIVITY INDEX
207	1	830125	34299	\$15991	\$ 6737	.42	145.52	28.2	84.3
204	1	830310	57801	\$26725	\$10686	.40	145.33	28.6	82.7
51	1	830308	25393	\$17020	\$ 8331	.49	95.05	34.9	81.3
200	1	830228	13522	\$ 6329	\$ 2819	.45	117.94	20.4	75.5
206	1	821108	15110	\$ 7902	\$ 3251	.41	119.12	24.5	75.2
494	5	830505	675	\$ 1274	\$ 418	.33	91.35	47.5	73.8
834	1	830315	11691	\$ 6290	\$ 2761	.44	99.18	23.0	71.8
30	1	830412	46775	\$27476	\$10640	.39	102.61	23.8	68.9
762	5	830316	1282	\$ 3656	\$ 1552	.42	46.73	43.0	68.6
44	1	830126	35092	\$22187	\$ 7510	.34	113.18	22.8	66.9
760	5	830316	1480	\$ 3810	\$ 1638	.43	52.19	35.7	66.5
18	1	821014	29096	\$18645	\$ 7144	.38	107.70	17.5	66.4
20	1	830301	69511	\$50374	\$15441	.31	86.67	28.9	61.1
47	1	830317	15996	\$12827	\$ 4179	.33	95.00	21.1	60.6
51	1	830218	25943	\$17012	\$ 5712	.34	92.77	20.1	60.3
157	2	830111	4780	\$ 3644	\$ 1365	.37	83.98	17.0	59.8
5	1	830323	31405	\$25097	\$ 7930	.32	89.66	23.0	59.5
217	1	830225	20653	\$10716	\$ 3280	.31	97.23	19.9	58.9
75	1	830413	26803	\$23964	\$ 6624	.28	89.12	25.2	57.3
105	1	830309	22224	\$13914	\$ 4348	.31	89.09	19.3	57.1
16	1	830414	23196	\$15416	\$ 4803	.31	88.09	19.6	57.0
1	1	821209	14279	\$10976	\$ 2982	.27	94.39	22.9	57.0
45	1	830311	28253	\$19506	\$ 6031	.31	83.99	21.5	56.8
1	1	830119	26694	\$20502	\$ 5896	.29	88.69	22.6	56.7
210	1	830318	23427	\$15638	\$ 4520	.30	81.90	22.8	55.8
438	2	830406	5037	\$ 4511	\$ 1879	.42	57.04	15.0	55.6
9	1	830217	35152	\$28788	\$ 8242	.29	78.50	23.8	54.8
180	2	830325	16481	\$11318	\$ 3446	.30	73.60	23.1	54.8
68	1	830303	18758	\$16993	\$ 6135	.36	66.19	17.6	54.7
49	1	821110	15393	\$12920	\$ 3705	.29	85.15	19.0	53.9
88	4	830106	12675	\$12014	\$ 3834	.32	68.64	19.3	52.8
28	1	830104	28559	\$24579	\$ 6246	.25	88.31	19.3	52.2
53	1	830224	15669	\$12088	\$ 3670	.30	71.66	18.8	51.9
260	2	821215	9688	\$ 7834	\$ 2431	.31	72.96	16.8	51.7
110	2	830223	2159	\$ 2166	\$ 917	.42	49.15	9.0	51.1
764	5	830316	939	\$ 4247	\$ 1421	.33	30.68	31.1	51.1
115	1	830228	15779	\$13430	\$ 3882	.29	72.43	17.2	50.1
84	1	830419	8762	\$ 8611	\$ 2669	.31	60.55	19.1	50.0
163	2	830509	6746	\$ 5408	\$ 1772	.33	60.36	16.1	49.8
26	1	830118	11332	\$10024	\$ 2602	.26	85.20	15.3	49.8
4	1	830420	29577	\$24202	\$ 6873	.28	64.42	20.6	49.6
76	1	830425	11500	\$11933	\$ 3820	.32	56.96	17.8	49.2
841	1	830225	9586	\$ 9063	\$ 2880	.32	52.70	19.8	49.1
107	2	830429	5262	\$ 5689	\$ 2222	.39	49.45	9.6	48.9
32	1	821022	5112	\$ 4109	\$ 1165	.28	79.79	12.2	48.8
93	4	830105	18641	\$20750	\$ 5675	.27	58.42	23.2	48.6
15	2	830110	9113	\$ 8986	\$ 2123	.24	66.31	24.0	47.9
32	2	830321	12689	\$ 9954	\$ 2943	.30	63.14	16.0	47.8
159	2	830502	3865	\$ 3411	\$ 999	.29	76.59	10.1	47.7

E. LINES RANKED BY WEIGHTED* PRODUCTIVITY INDEX

LINE	L AC CO TD CE	DATE	TOTAL BOARD -INGS	TOTAL OPERATING COST	TOTAL PASSENGER REVENUE	OPER- ATING RATIO (.40)*	BOARDINGS PER REVENUE BUS HOUR (.35)*	PASSENGER MILES PER REVENUE BUS MILE (.25)*	WEIGHTED* PRODUCTIVITY INDEX
757	6	830322	1592	\$ 6256	\$ 1806	.29	35.42	28.3	47.0
55	1	830211	10643	\$10042	\$ 2858	.28	58.45	18.2	46.9
810	4	821210	6560	\$ 8494	\$ 2557	.30	44.97	20.7	46.3
426	5	830404	2203	\$ 5776	\$ 1108	.19	58.33	31.5	46.3
70	1	830427	18238	\$18296	\$ 4411	.24	59.03	23.1	46.1
232	2	830209	4530	\$ 5102	\$ 1431	.28	53.67	18.3	45.5
24	1	821103	11200	\$13705	\$ 3305	.24	57.02	20.5	44.2
152	2	830426	8007	\$ 7392	\$ 2003	.27	59.76	13.9	43.8
39	1	830112	11885	\$13077	\$ 2953	.23	63.72	18.3	43.4
120	1	830329	10126	\$ 9762	\$ 2556	.26	57.94	14.5	43.0
25	1	821008	10024	\$ 9501	\$ 2205	.23	62.85	16.7	42.9
401	4	830316	4253	\$ 7679	\$ 1958	.25	42.89	22.1	42.8
165	2	830131	10718	\$10733	\$ 2823	.26	58.01	13.9	42.8
140	2	830304	5312	\$ 5422	\$ 1438	.27	49.24	17.1	42.5
35	4	821026	14915	\$20563	\$ 3502	.17	56.05	27.7	42.0
102	2	830315	3130	\$ 2501	\$ 579	.23	64.59	14.2	41.9
212	1	821109	10612	\$10607	\$ 2395	.23	63.23	15.4	41.8
480	4	830317	6433	\$15336	\$ 4587	.30	33.42	17.6	41.8
721	5	810312	968	\$ 4501	\$ 881	.20	33.30	33.3	41.5
755	5	830322	824	\$ 3908	\$ 987	.25	27.28	26.7	41.3
46	1	830330	17196	\$16764	\$ 3700	.22	60.15	16.2	41.1
56	4	830307	3237	\$ 5733	\$ 1183	.21	55.59	20.4	41.0
153	1	830309	9339	\$ 9327	\$ 2138	.23	57.15	16.0	40.9
202	2	830120	2089	\$ 2424	\$ 624	.26	61.56	9.0	40.6
86	6	830120	5174	\$ 5518	\$ 1293	.23	67.64	9.5	40.4
483	1	830204	6969	\$ 9115	\$ 1774	.19	56.57	19.8	39.9
90	4	830209	8391	\$11891	\$ 2964	.25	40.92	18.3	39.9
492	1	830111	7124	\$10115	\$ 1978	.20	51.84	21.5	39.8
737	5	830414	395	\$ 1306	\$ 222	.17	45.81	26.5	38.9
313	5	830308	385	\$ 1755	\$ 359	.20	36.55	24.9	38.6
2	4	820907	2587	\$ 5238	\$ 1377	.26	32.03	17.3	38.3
125	1	830202	16095	\$18122	\$ 3657	.20	50.75	16.7	37.5
490	2	821208	5272	\$ 6028	\$ 1424	.24	47.48	12.3	37.2
209	4	821201	4701	\$ 8405	\$ 2056	.24	36.93	15.8	37.2
127	2	830425	4308	\$ 4496	\$ 954	.21	49.00	13.5	36.2
849	2	830309	1067	\$ 1508	\$ 452	.30	34.46	6.4	36.2
433	2	830308	1920	\$ 2340	\$ 560	.24	39.60	12.3	35.5
926	2	830328	3145	\$ 3672	\$ 766	.21	44.54	14.5	35.4
756	2	830127	4725	\$ 6121	\$ 1381	.23	51.13	8.8	35.3
156	6	830322	104	\$ 834	\$ 134	.16	21.40	32.0	35.2
78	4	821229	2388	\$ 7718	\$ 1817	.24	19.68	21.1	35.1
183	1	830208	11822	\$17883	\$ 4188	.23	42.67	10.7	35.0
158	3	830505	3471	\$ 3555	\$ 712	.20	51.38	10.7	34.4
201	2	830121	3076	\$ 3407	\$ 734	.22	45.30	10.9	34.2
4	3	830216	2306	\$ 2679	\$ 484	.18	53.69	11.9	33.9
500	2	830215	1113	\$ 1391	\$ 323	.23	39.89	10.0	33.8
447	4	830315	7668	\$14302	\$ 2898	.20	33.97	17.0	33.7
447	6	830322	63	\$ 358	\$ 31	.09	70.00	17.9	33.4
447	2	830330	1605	\$ 2157	\$ 506	.23	36.73	8.7	32.6

E. LINES RANKED BY WEIGHTED* PRODUCTIVITY INDEX

LINE	L AC CO TD CE	DATE	TOTAL BOARD -INGS	TOTAL OPERATING COST	TOTAL PASSENGER REVENUE	OPER- ATING RATIO (.40)*	BOARDINGS PER BUS HOUR (.35)*	PASSENGER MILES PER REVENUE BUS MILE (.25)*	WEIGHTED* PRODUCTIVITY INDEX
169	2	830117	2941	\$ 3878	\$ 694	.18	49.11	11.6	32.6
484	4	821130	5921	\$12243	\$ 2583	.21	31.22	14.2	32.2
160	2	830114	5027	\$ 6561	\$ 1288	.20	44.78	10.2	32.2
606	5	830406	335	\$ 1653	\$ 225	.14	35.83	23.6	32.2
460	6	821021	2837	\$ 8836	\$ 2165	.24	17.38	15.1	32.1
604	5	830406	659	\$ 3173	\$ 402	.13	43.33	21.4	32.0
413	5	830322	173	\$ 843	\$ 116	.14	33.85	23.9	32.0
103	2	830110	1922	\$ 2004	\$ 367	.18	48.41	9.0	31.3
168	2	830421	4187	\$ 5503	\$ 1050	.19	43.03	9.9	31.2
34	1	830325	1796	\$ 3323	\$ 548	.16	31.37	18.7	30.9
154	2	830128	3215	\$ 4044	\$ 818	.20	40.02	8.9	30.8
256	2	830415	4573	\$ 5320	\$ 986	.19	43.46	9.8	30.8
496	6	821019	1037	\$ 4144	\$ 987	.24	16.81	13.6	30.7
359	2	830216	1221	\$ 1397	\$ 259	.19	43.53	8.8	30.3
482	4	830316	3095	\$ 7131	\$ 1211	.17	36.36	14.3	30.2
758	5	830308	505	\$ 2860	\$ 398	.14	25.60	23.1	29.7
176	5	830309	1158	\$ 3366	\$ 345	.10	42.13	20.9	29.5
462	4	830404	1497	\$ 3762	\$ 698	.19	26.73	14.9	29.5
502	5	830406	250	\$ 1569	\$ 179	.11	34.92	21.4	29.0
177	3	830216	2250	\$ 2966	\$ 327	.11	63.90	8.6	28.9
178	2	821015	2271	\$ 3326	\$ 535	.16	50.37	6.7	28.8
435	2	830131	2357	\$ 3193	\$ 568	.18	37.83	9.3	28.5
156	2	830103	2140	\$ 2998	\$ 525	.18	43.10	7.2	28.4
259	2	830210	2693	\$ 3491	\$ 666	.19	38.42	6.6	28.3
424	2	830120	1839	\$ 2751	\$ 498	.18	33.44	9.2	27.7
423	5	830404	157	\$ 1349	\$ 210	.16	15.92	20.4	27.3
130	2	821203	1612	\$ 2760	\$ 477	.17	29.19	10.5	26.7
446	2	830325	1353	\$ 2254	\$ 332	.15	34.72	11.5	26.5
487	4	830210	5194	\$12943	\$ 1931	.15	31.70	12.4	26.3
97	2	830201	2402	\$ 3584	\$ 565	.16	35.16	8.3	25.7
430	2	830308	1841	\$ 2756	\$ 388	.14	40.82	7.9	25.5
434	4	830321	2076	\$ 4866	\$ 582	.12	27.17	17.3	25.4
429	5	830302	1337	\$ 4733	\$ 592	.13	30.88	14.7	25.4
255	3	830121	1138	\$ 1462	\$ 232	.16	38.24	5.8	25.2
867	2	830314	1096	\$ 1999	\$ 279	.14	35.24	9.6	24.9
445	2	830330	1146	\$ 2064	\$ 351	.17	27.78	8.1	24.8
488	4	830331	1866	\$ 5295	\$ 768	.15	29.62	11.1	24.8
605	5	830406	182	\$ 1567	\$ 181	.12	25.63	17.4	24.8
266	2	830304	3580	\$ 7122	\$ 1127	.16	27.30	9.8	24.7
972	3	830325	780	\$ 1354	\$ 191	.14	28.96	11.3	24.4
871	1	830207	3485	\$ 6882	\$ 898	.13	26.13	13.6	24.1
211	2	830329	873	\$ 1453	\$ 238	.16	29.56	5.3	23.3
220	2	830314	2205	\$ 3527	\$ 482	.14	31.03	7.6	22.6
142	2	830127	2577	\$ 4311	\$ 643	.15	29.52	5.7	22.3
314	5	830322	386	\$ 2090	\$ 253	.12	18.59	14.9	22.2
322	3	830216	1853	\$ 2746	\$ 392	.14	33.78	4.1	22.0
431	2	821201	957	\$ 2101	\$ 299	.14	26.04	7.5	21.9
431	2	830316	1265	\$ 2167	\$ 269	.12	31.84	6.7	21.3
861	2	830404	593	\$ 1285	\$ 183	.14	23.60	6.2	20.6

E. LINES RANKED BY WEIGHTED* PRODUCTIVITY INDEX

LINE	L AC CO TD CE	DATE	TOTAL BOARD -INGS	TOTAL OPERATING COST	TOTAL PASSENGER REVENUE	OPER- ATING RATIO (.40)*	BOARDINGS PER REVENUE BUS HOUR (.35)*	PASSENGER MILES PER REVENUE BUS MILE (.25)*	WEIGHTED* PRODUCTIVITY INDEX
607	4	830322	1357	\$ 3991	\$ 469	.12	20.49	10.3	20.0
493	4	830331	583	\$ 2029	\$ 193	.09	27.87	10.0	19.7
177	2	830207	1967	\$ 4087	\$ 472	.12	24.15	8.2	19.5
601	5	830406	111	\$ 806	\$ 58	.07	26.88	12.9	19.2
969	2	830224	2362	\$ 5214	\$ 570	.11	27.12	6.4	18.8
149	6	821019	530	\$ 2463	\$ 362	.15	13.04	6.5	18.6
161	2	830114	463	\$ 1303	\$ 145	.11	18.09	9.7	18.6
325	2	830331	549	\$ 1303	\$ 168	.13	21.45	5.2	18.4
270	2	830128	1195	\$ 2874	\$ 315	.11	20.53	7.3	17.7
451	3	830302	962	\$ 2686	\$ 287	.11	22.94	3.7	16.2
831	2	830224	932	\$ 2570	\$ 273	.11	18.55	4.3	15.4
608	3	820903	712	\$ 1748	\$ 169	.10	19.12	4.4	14.8
427	5	830404	267	\$ 3121	\$ 124	.04	11.96	13.3	13.1
452	3	830302	741	\$ 2666	\$ 170	.06	16.13	2.9	10.6
441	2	830328	855	\$ 3457	\$ 244	.07	12.35	3.2	10.5
419	5	830404	111	\$ 861	\$ 23	.03	19.89	2.1	8.1
205	6	830401	198	\$ 1293	\$ 20	.02	9.38	1.4	4.2

COSTS AND IMPACTS OF ALTERNATIVES TO RELIEVE OVERCROWDING

<u>ALTERNATIVE</u>	<u>COST</u>	<u>POSITIVE IMPACTS</u>	<u>NEGATIVE IMPACTS</u>
I. On-Street Supervision	o \$660,000 annually (excluding fringe).	o Improves utilization of capacity on selected lines. o No additional equipment required.	o Requires negotiation with UTU to establish working arrangements. o Requires recruitment and training of approximately 25 personnel. o May require several months to negotiate, develop procedures, recruit, and train personnel.
II. Augment Service	o \$44 Million in annual operating cost.	o Mitigates perceived overcrowding on 34 lines. o Could be implemented at short notice.	o Requires approximately 60 additional operators and additional support personnel. o Could exceed vehicle capacity of some operating divisions. o Equipment requirements may exceed District's resources. o Aggravates problem with current MOU vehicle hour ceiling.
III. Reallocate Service from Low Productivity Lines	o No additional operating cost. o Could lose up to \$500,000 in revenue.	o Mitigates perceived overcrowding on 34 lines. o Could be implemented at short notice following public hearing.	o Cancels service on 11 lines. o Creates significant voids in service. o Affects 2.5 million annual boardings. o Does not address problem with current MOU vehicle hour ceiling. o Requires public hearing.

COSTS AND IMPACTS OF ALTERNATIVES TO RELIEVE OVERCROWDING

<u>ALTERNATIVE</u>	<u>COST</u>	<u>POSITIVE IMPACTS</u>	<u>NEGATIVE IMPACTS</u>
IV. Additional Short-Lining	<ul style="list-style-type: none">o No additional operating cost.	<ul style="list-style-type: none">o Mitigates perceived overcrowding on lines with high service levels, appropriate turnback locations, and proper passenger load characteristics.o No additional equipment required.	<ul style="list-style-type: none">o Requires total schedule rebuilding.o Does not address problem with current MOU vehicle hour ceiling.o Moderate to long implementation period.

Attachment 5

STREET SUPERVISOR LOCATIONS

<u>LINE(S)</u>	<u>LOCATION</u>	<u>DIRECTION</u>	<u>TIME</u>
20-21-22 308-309-426	Wilshire-Vermont	West	AM-PM
20-21-22 308-309	Wilshire-Fairfax	West	AM-PM
20-21-22 308-309	Wilshire-Fairfax	East	AM-PM
20-21-22 88-308-309	Wilshire-Westwood	West-North	AM-PM
207	Western-Wilshire	South	PM
93-150-212-426	Highland-Hollywood	North	AM-PM
1-217	Hollywood-Highland	West	AM-PM
1-180-181	Hollywood-Vine	East	AM-PM
204	Vermont-Sunset	South	AM-PM
27-28	Olympic-La Brea	East	AM-PM
5-210	Crenshaw-54th	North-South	AM-PM
5-204	M.L. King-Vermont	North-East	AM-PM
60-61-250-360	Pacific-Florence	North	AM
Busway	El Monte Sta. (Berths 2-3-4)	West	AM
Busway	Spring-City Hall	North	PM
480-487-489- 491-492-493- 494	Flower-Sixth	North	PM
1-2-3-4-10- 11-429	Hill-Seventh N/S	North	AM-PM
35-44-86-93 425-716	Hill-Seventh F/S	North	AM-PM

<u>LINE (S)</u>	<u>LOCATION</u>	<u>DIRECTION</u>	<u>TIME</u>
26-52-60- 61-320	Seventh-Broadway	East	AM-PM
26-38-51-202	Seventh-Broadway	West	AM-PM
30-31-45-68	Broadway-Seventh	North	AM-PM
5-30-31-45- 27-28-68	Broadway-Sixth	South	PM
18-48-53-358- 455-456	Sixth-Broadway N/S	East	PM
457-460-462- 470-756-757- 758	Sixth-Broadway F/S	East	PM
5-30-31-202	First-Los Angeles	West	PM
30-31	Pico-Figueroa	East	PM

ATTACHMENT 6

ESTIMATE OF
LINES NEEDING ADDITIONAL BUSES

To reduce loadings to currently adopted standards

A-1. FIRST PRIORITY - Recommendations of Schedule Groups:

Line	Div.	Weekdays			Sat. (Max.)	Sun. (Max.)
		AM	Base	PM		
18	1	1		1		
24	15	1	1	1		
30	1	1		1		
35	8		4		3	
44	2-7	2		2		
47	2	1		1		
53	18	1		1		
55	1-12	2*		2*		
70	9	1		2		
76	9	1		1		
88	15	1	1	1		
93	8		2	1		
150	8			1		
200	2	1		1		
204	2	2		2		
206	5(23)	1		1		
207	5(23)	1		1		
210	5	1	1	1		
212	5-15	1	1	1		
217	7		1	1		
266	9-12	1#		1#		
480	9-16	1		1		
760	16			1		
762	16			1		
764	16	1		1		
810	12		1c			
FIRST PRIORITY TOTALS		22	12	28	3	0

* - In addition to temporary letter currently operating.
 # - For protection of beach service.
 c - Summer school travel.

A-II. SECOND PRIORITY - In addition to first priority, those lines experiencing heavy loadings which require additional buses to maintain loading standards; however, these are not considered to be urgent.

<u>Line</u>	<u>Div.</u>	<u>Weekdays</u>			<u>Sat.</u> <u>(Max.)</u>	<u>Sun.</u> <u>(Max.)</u>
		<u>AM</u>	<u>Base</u>	<u>PM</u>		
5	5	1		1		3
20	2-6-7	2		2		
35	8	2		2		3
39	15				2	1
51	2-18	1		1		
88	15	1				
105	5	1		1		
125	18	1		1	1	1
165	8-15	2		2		
204	2	2	3	2	2	4
		—	—	—	—	—
SECOND PRIORITY TOTALS		13	3	12	5	12
FIRST & SECOND COMBINED		35	15	40	8	12

ATTACHMENT 7

REALLOCATION OF PEAK-HOUR BUSES THROUGH LINE CANCELLATIONS

LINE NO.	LINE CANCELLATION		OPERATING COSTS		PRODUC-	PATRONAGE			PEAK WEEK DAY BUSES	
	LINE NAME	SECTOR	ANNUAL	ACCUM.	TIVITY INDEX	DAILY	SAT.	SUN.	THIS LINE	ACCUM.
419	Los Angeles-Chatsworth Express	S.P.V.	219,555	219,555	6.4	111	—	—	2	2
441 443	Puente-Citrus Ave.	S.G.V.	881,535	1,101,090	7.1	855	—	—	5	7
429	Los Angeles-Canoga Park Express	S.P.V.	795,855	1,896,945	10.2	267	—	—	7	14
608	Airport Shuttle	S.B.	646,444	2,543,389	10.2	712	618	497	2	16
831 821	Whittier-Cerritos	M.C.	655,350	3,198,739	10.4	932	—	—	4	20
451 453	Garey Ave.- Foothill Blvd.	S.G.V.	684,930	3,883,669	11.1	962	—	—	4	24
452 454	Arroyo-N. White Aves.	S.G.V.	679,830	4,563,499	12.0	1287	—	—	4	28
825	Hawaiian Gardens-Whittier	M.C.	332,265	4,895,764	12.4	549	—	—	2	30
270	El Monte-Cerritos	M.C.	732,870	5,628,634	12.6	1,195	—	—	4	34
161	Westlake-Canoga Park	S.P.V.	332,265	5,960,899	13.4	463	—	—	2	36
225 226	Aviation Blvd.- Palos Verdes	S.B.	1,573,658	7,534,557	13.5	2,362	780	—	7	43

LINE NO.	LINE CANCELLATION LINE NAME	SECTOR	OPERATING COSTS		PRODUC-	PATRONAGE			PEAK WEEK DAY BUSES	
			ANNUAL	ACCUM.	TIVITY INDEX	DAILY	SAT.	SUN.	THIS LINE	ACCUM.
177	Glendale-Pasadena-Monrovia-Duarte	S.G.V.	1,042,185	8,576,742	14.0	1,967	—	—	6	49
861	Yukon Ave.-Manhattan Beach Blvd.	S.B.	327,675	8,904,417	14.1	593	—	—	2	51
607	L.A.-L.A.X.-Redondo Beach	S.B.	1,017,705	9,922,122	14.5	1,357	—	—	7	58
493	L.A.-El Monte-Monrovia	S.G.V.	607,215	10,529,337	15.0	583	352	382	5	63
250 253	Boyle Ave.	E. LA.	881,828	11,411,165	15.1	1,853	565	364	4	67
822	L.A.-La Mirada via E. Washington Blvd.	M.C.	535,755	11,946,920	15.2	957	—	—	3	70
142	120th Street-Lorena St.	E. LA. S.C.	1,084,828	13,031,748	15.2	2,577	1,913	N/A	6	76
431	S. Gabriel Blvd.-Altadena Dr.	S.G.V.	552,585	13,584,333	15.3	1,265	—	—	3	79
601	Sunset Blvd. Fwy. Express	W. LA.	205,530	13,789,863	15.5	111	—	—	2	81
211	Prairie Ave.	S.B.	446,071	14,235,934	15.6	873	442	—	2	83
220	Robertson Blvd.-Culver City-L.A.X.	W. LA. S.B.	1,605,620	15,841,554	16.0	2,205	987	524	5	88
814	L.A.-Palos Verdes Exp. via Redondo Beach	S.B.	532,950	16,374,504	16.6	386	—	—	4	92

<u>LINE NO.</u>	<u>LINE CANCELLATION</u>		<u>OPERATING COSTS</u>		<u>PRODUC-</u> <u>TIVITY</u>	<u>PATRONAGE</u>			<u>PEAK WEEK DAY BUSES</u>	
	<u>LINE NAME</u>	<u>SECTOR</u>	<u>ANNUAL</u>	<u>ACCUM.</u>	<u>INDEX</u>	<u>DAILY</u>	<u>SAT.</u>	<u>SUN.</u>	<u>THIS LINE</u>	<u>ACCUM.</u>
445	Hacienda Blvd-Irwindale-Arrow Hwy.	S.G.V.	526,320	16,900,824	16.9	1,146	—	—	3	95
266	Lakewood-Rosemead	S.G.V. M.C.	2,379,084	19,279,908	17.3	3,580	2,285	1,347	10	105

ATTACHMENT 8

CANDIDATE LINE ELIMINATIONS
FOR REDEPLOYMENT OF PEAK HOUR BUSES

