

SCRTD

SHORT RANGE
TRANSIT IMPROVEMENT
PROGRAM

SUMMARY

REPORT

RECOMMENDED

**TRANSIT IMPROVEMENT
PLAN**

FOR THE

**LOS ANGELES SOUTH BAY
AREA**

PREPARED BY

SCRTD

PLANNING & OPERATIONS STAFF

CENTS

TRANSIT OPERATIONS & PLANNING DIVISION

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ABOUT THE WORK. . .

This plan was prepared by the staff of CENTS' Transit Operations and Planning Division in close association with the senior SCRTD planning staff. Unlike most such efforts where the work is presented through a report after its completion, the CENTS staff met frequently with their SCRTD counterparts. As concepts for changing routes and ideas for improving service emerged, the experience and policy perceptions of the SCRTD staff were brought to bear on these concepts. Before this Summary Report and the more detailed report on which it is based were prepared, the SCRTD planning and operational staffs that worked with CENTS knew as much about the plan and each step of its formulation as did the CENTS staff.

The process of evaluating the existing transit services and formulating route and service changes included 31 separate meetings between the CENTS staff and planning agency officials and/or community leaders from the 15 cities and 10 additional communities as well as meetings with the 5 municipal transit operators in the study area. Usually, at least two meetings were held with each community, each meeting being attended by a member of the SCRTD staff. The first meeting was designed to acquaint city officials with the purpose for the project, to assure them that they would have an opportunity to react to any transit changes affecting their cities before these were codified, and to obtain from them information on travel patterns and transportation requirements as they and the communities that they represented perceived them. At the second meeting, detailed evaluation of the CENTS data base was presented along with alternative ideas for its expansion and with alternative ideas for improving service. The reactions and suggestions from this second meeting are reflected in the transit improvement plan.

Besides the information and data supplied by the cities, communities, municipal transit operators and the major shopping centers, the evaluation of existing services used passenger check data and schedules supplied by SCRTD, demographic and travel data from the 1970 U.S. Census, origin and destination data supplied by the major employers and street network data from the Los Angeles Road Department.

This report is a summary of the work that was undertaken to evaluate the current transit services in the South Bay Area. The principal features of the South Bay Transit Improvement Plan are highlighted in the succeeding pages. A profile of each of the proposed 42 SCRTD lines that will serve the South Bay area has been prepared and accompany this summary under separate cover. In addition, a final report containing the technical details and analyses for the proposed plan and for each proposed transit line has been drafted.

SCRTD TRANSIT IMPROVEMENT PROGRAM. . .

The plan for improving transit services in the South Bay area is part of a comprehensive Short Range Transit Improvement Program that SCRTD initiated recently to evaluate and elevate the quality and effectiveness of its bus services in the entire Los Angeles Metropolitan area. The Program is designed to bring present SCRTD service into conformance with existing and emerging travel patterns.

Certain areas in the Los Angeles Basin have experienced intensive development and population growth that have produced radical changes in the travel requirements in those areas. The divergence between transit services and mobility requirements in local areas have become more pronounced since the fare zones were revamped.

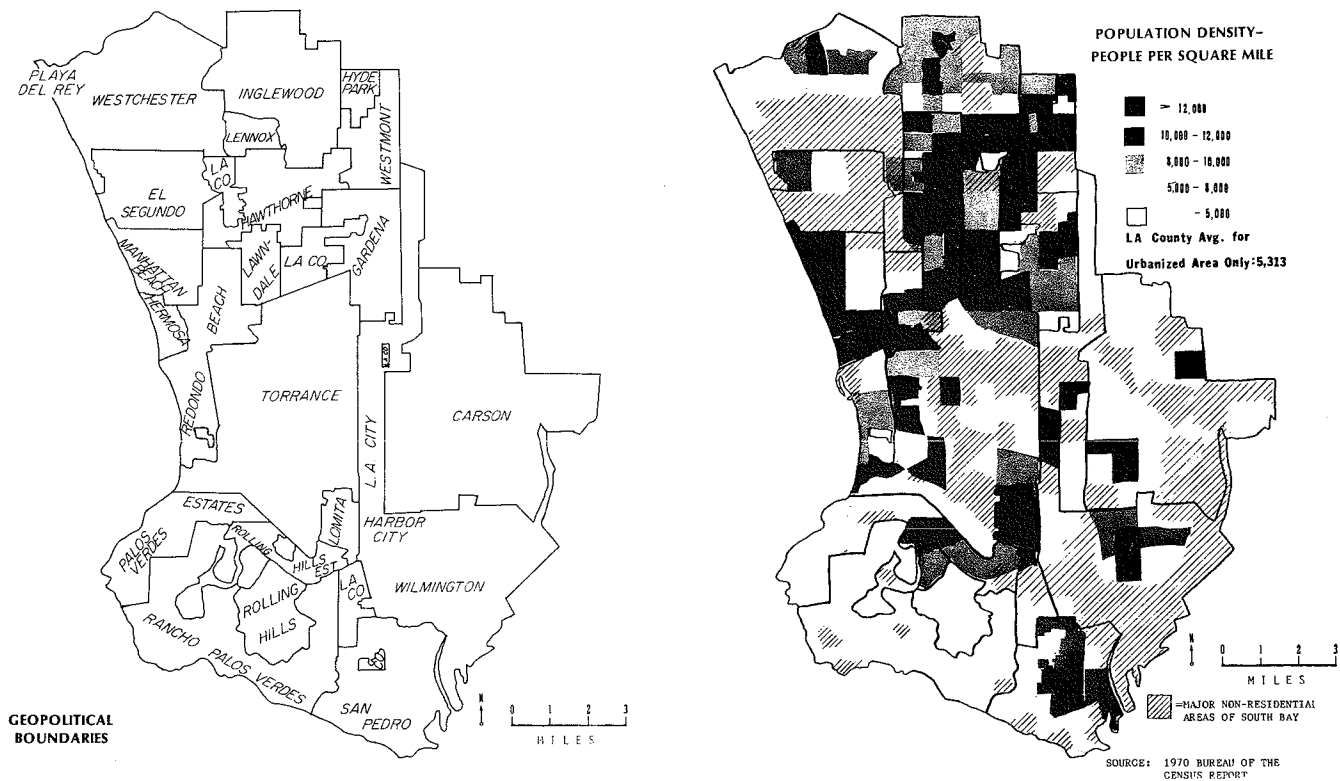
The first version of the transit improvement plan for the South Bay area was completed in July 1975. Several events, all affecting the integrity of the plan, occurred in the second half of 1975 and through the winter of 1976. First, certain lines from the South Central area, to the northeast of the South Bay area, penetrate the South Bay area. Some of these lines were rerouted or service on them was modified in the latter part of 1975. Second, the City of Manhattan Beach arranged to have certain SCRTD lines rerouted away from the beach areas. Third, the City of Torrance, which operates a municipal transit line, decided to investigate the merits of integrating its services with those planned by SCRTD within that city. Fourth, the recently implemented transit improvement plan for the Mid-Cities area contains transit lines that penetrate the South Bay area from the east and therefore had to be integrated into the plan. Sixth, the revised plan takes into consideration the park and ride facilities planned for Torrance and San Pedro and the service that was recently implemented on the Santa Monica Freeway by SCRTD.

CHARACTER OF THE SOUTH BAY AREA. . .

The South Bay study area, which includes approximately 160 square miles, is located in the southwest corner of Los Angeles County. The border starts at the Pacific Ocean on the south side of the channel of the Playa Del Rey Marina and includes on the north—Playa del Rey and the Westchester section of Los Angeles (excluding the low land along the Hughes Airport). The boundary continues along the north and eastern boundaries of the City of Inglewood to Manchester Avenue and then easterly along Manchester Avenue to Vermont Avenue. The border continues south along Vermont to El Segundo Boulevard and then extends east to the Harbor Freeway and follows the Harbor Freeway to Alondra Boulevard. From that point to the Pacific Ocean, the boundary follows the easterly boundaries of the City of Carson and the City of Los Angeles (Wilmington-San Pedro area and the Los Angeles Harbor). The area is bounded by the Pacific Ocean on the south and west sides.

The topography of the northern 4/5ths of the study area is essentially flat and presents no major barriers to development or to transit. The southern 1/5th, which includes the Palos Verdes Peninsula, has a more rugged topography with rolling and occasionally precipitous hills. The peninsula itself flattens towards San Pedro in the southeasterly corner of the study area. The westerly portion of the County along the Pacific Ocean has an extensive beach area extending from Playa del Rey to Malaga Cove in the Palos Verdes Estates. Immediately behind this beach area, a dune barrier rises north of Redondo Beach separating the beach area from the rest of the study area to the east.

The average population density in the South Bay area is approximately 6,000 people per square mile. Such population density is typical of city areas rather than suburban areas. Los Angeles itself had a population density in 1970 of 6,070 people. By comparison, Denver had a population density of 5,406 persons per square mile and Cincinnati had a population density of 5,794.



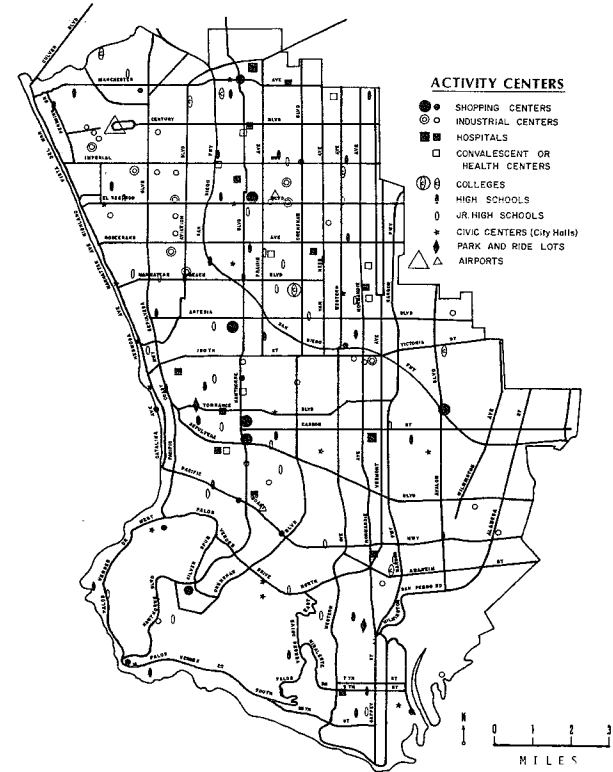
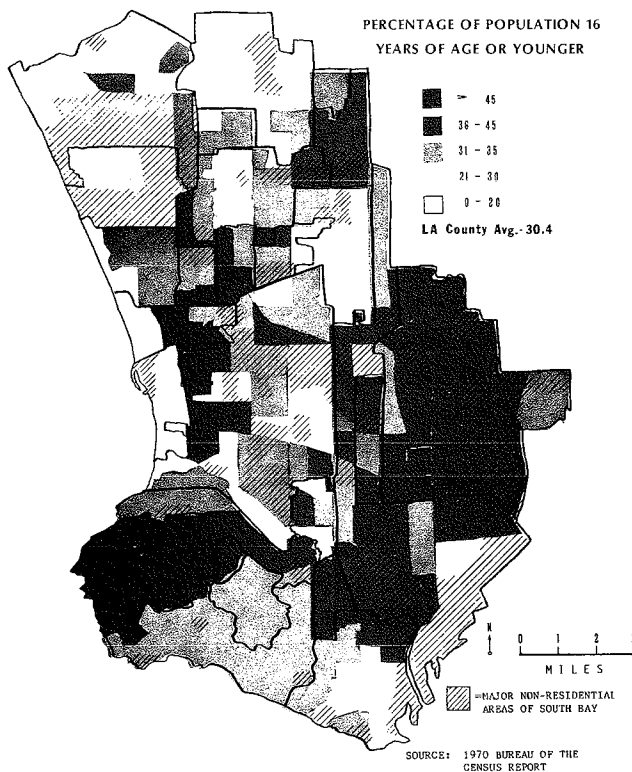
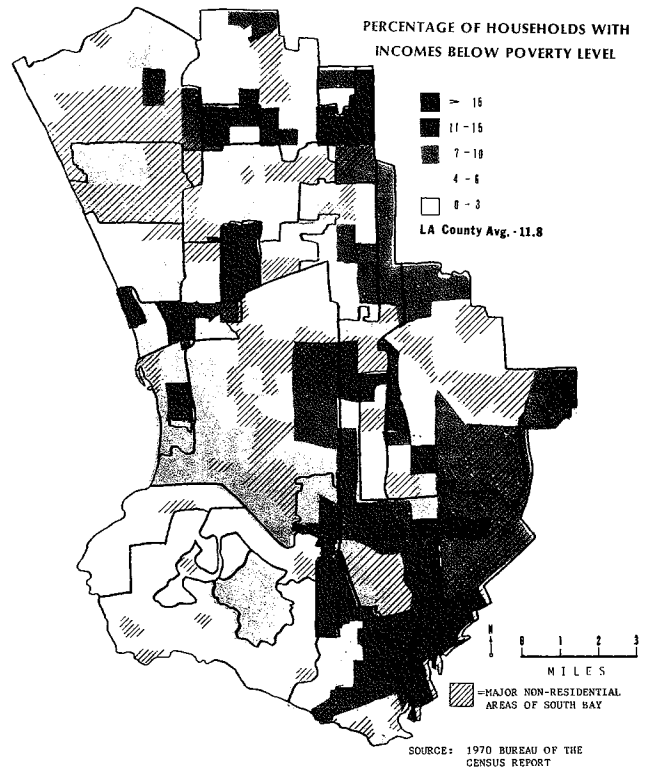
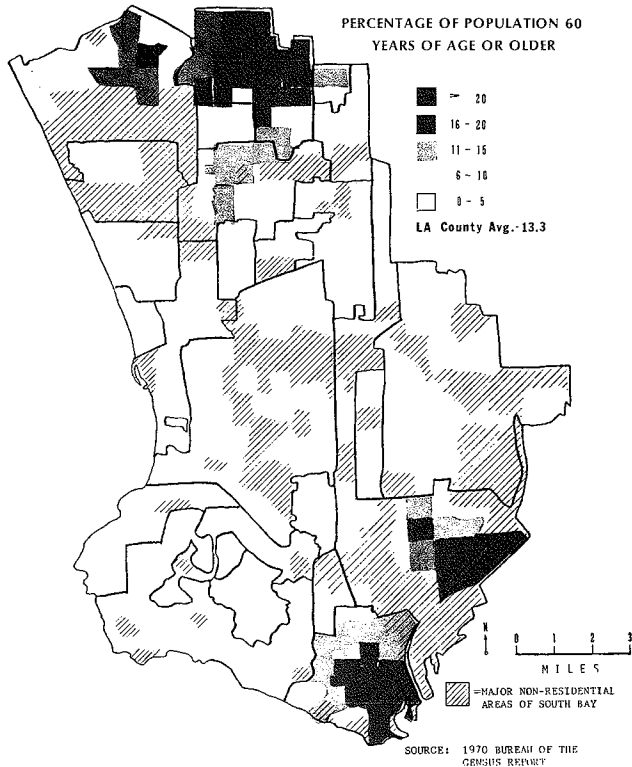
Population densities are not uniformly distributed throughout the area. In those census tracts showing low population densities, it is usually the result of competition from other land uses. The principal exception is in the Palos Verdes Peninsula which is still under development and which has expensive single family homes on relatively large tracts of land.

The segment of the transit dependent population that includes the elderly and those with household incomes below the poverty level are concentrated in a few of the northern communities (Inglewood, Lennox, Westmont, Lawndale) and several of the southeastern communities (Wilmington, San Pedro). By far the largest segment of the transit dependent populations in the South Bay area are the young who cannot drive, i.e. those under 16 years of age. In general, the representation of those under 16 years among the South Bay area population is much higher than the average for the County. It is particularly true in the southern belt extending from the City of Carson through the various communities within the Palos Verdes Peninsula.

The entire South Bay area lies within the political boundaries of Los Angeles County. The County plays a dual role providing countywide services to the entire area and acting in the capacity of the governmental body in those relatively small areas which are not a part of one of the 16 incorporated cities. Parts of the City of Los Angeles included within the study are: Playa del Rey, Westchester, the shoestring strip down through the Harbor area, the communities of San Pedro and Wilmington and the Los Angeles International Airport. There are 15 separately incorporated cities within the area, each of which has its own local government.

In 1970, the population in the area totalled 918,465 persons or 13 per cent of the county population. The current population is estimated at 970,000 persons. If this area

were to be considered as one city in 1970, it would have ranked 7th in population. The geographic distribution of the population is uneven, being extremely light in the central and southerly portions of the area because of large industrial tracts and in the Palos Verdes Peninsula because of its newness and the value of dwelling units that produce low density land use.



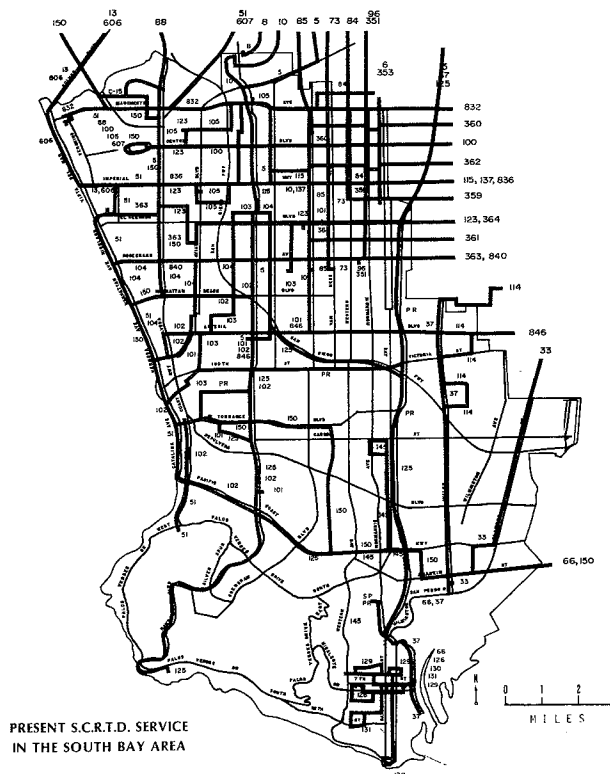
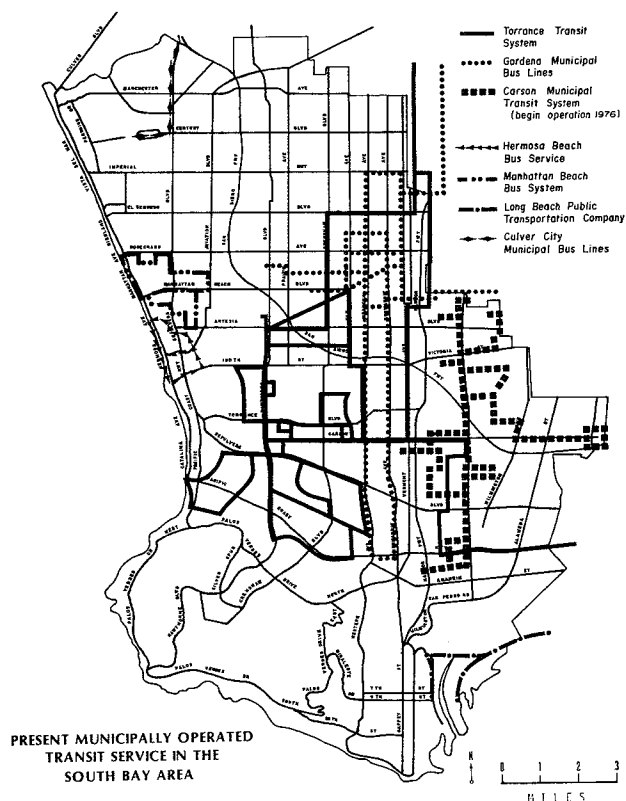
The South Bay area contains a wide variety of land uses. Industrial land uses tend to concentrate along transportation corridors such as Hawthorne, Aviation, Imperial and Century Boulevards. Many of the industries such as aerospace, petroleum refineries, and manufacturing firms located in the South Bay area are large employers. The area around Los Angeles International Airport (World Way West) is representative of a concentration of industries and airport-related businesses that employ large numbers of people.

Commercial development for convenient shopping is distributed throughout the area. Major retail centers tend to concentrate along Hawthorne Boulevard or in the older centers such as Westchester, Torrance and San Pedro. Since corporate headquarters, financial institutions and insurance institutions are not well represented in the South Bay area, residents of South Bay who work in these industries must commute.

EXISTING TRANSIT SERVICES. . .

The Southern California Rapid Transit District is the major transit operator in the South Bay area providing both local and regional service. Torrance and Gardena Municipal Lines serve routes within their own municipalities and connect with the Los Angeles CBD. Manhattan and Hermosa Beach Municipal Lines provide intra-city service, and the City of Carson has indicated it will provide service within its municipality in 1976. Culver City Municipal Lines has extended service to the Los Angeles Airport in the northerly section of the service area and the Long Beach Transit Lines operates its Terminal Island service to the San Pedro area.

SCRTD serves the area with 39 lines that make 3,509 scheduled trips daily with 357 buses. The headways range from 3 to 60 minutes in the peak AM period and from 10 to



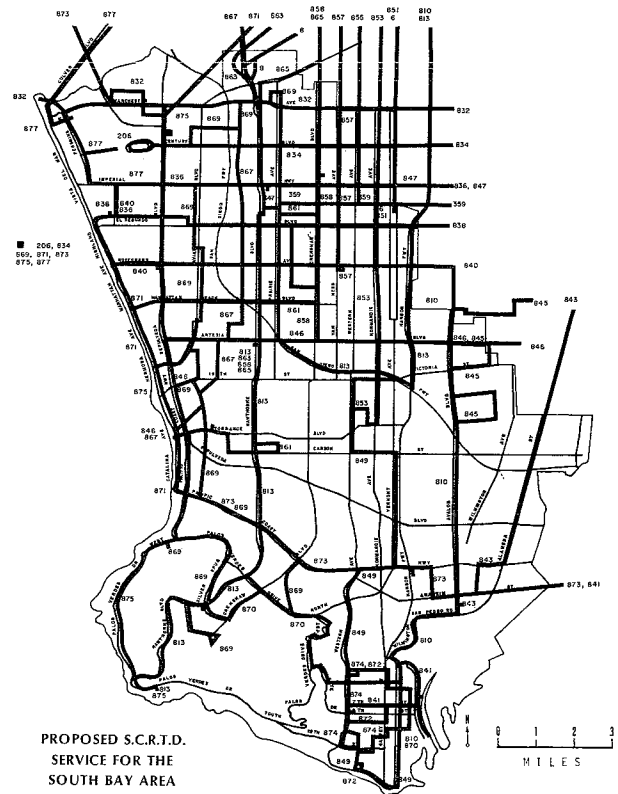
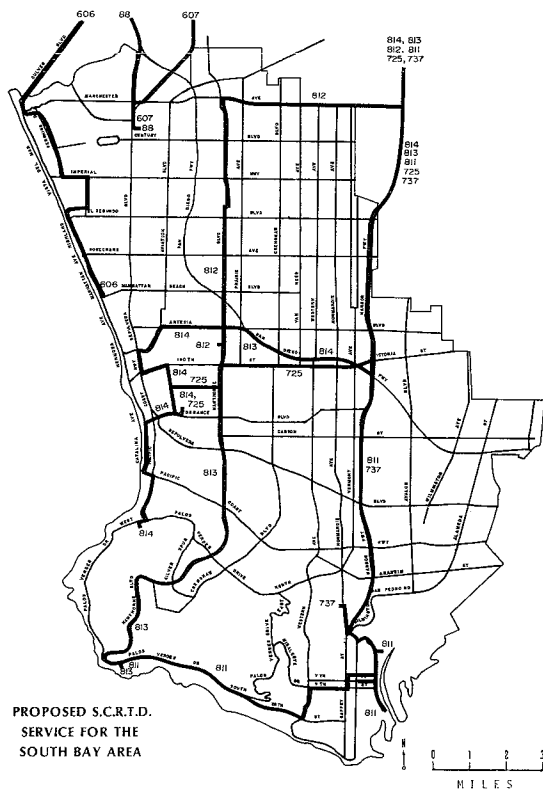
reach the shopping centers along Hawthorne Boulevard, the shopping and recreation center of San Pedro and the beach communities of Redondo and Hermosa Beaches. The beach communities cannot access directly the principal South Bay area shopping and commercial spine.

- Headways are poor with 23 percent of the lines running less than once every 30 minutes. This aggravates the time spent in transferring from one line to another producing trip times that are impractically long and therefore discourage transit use. For example, the trip time between Peninsula Shopping Center and Carson City (Del Amo and Avalon) is 170 minutes for a trip of approximately eight miles. The average trip time between twelve key destinations within the South Bay area communities is 78 minutes and involves one transfer.
- Service hours are too short particularly at night discouraging use of transit for work trips. Lines serving South Bay area commuters to the LA CBD stop running at 7 PM mandating that office workers and executives either be aboard their buses shortly after 5 PM or jeopardize catching the connecting bus in South Bay before the line stops running. Of the 39 lines presently serving the area, 38 percent stop running before 8 PM.
- Congestion at LAX is placing between 2 and 20 minutes delay on the 6 bus lines that serve the airport. Since the delays are unpredictable, transfer connections are often not made adding large amounts of time to what would otherwise be a reasonably short trip.

THE RECOMMENDED TRANSIT SYSTEM. . .

The recommended SCRTD transit system consists of 42 lines. It will require an increase of 54 buses over the present system, an increase of approximately 15 percent. The resulting service will use 56,443 bus miles (13 percent more than the present system) and 4484 bus hours (14 percent more than the present system). The service improvements designed into the new service promise to eliminate present service deficiencies as well as add improvements that promise to attract a new group of transit riders. Among the principal features of the recommended system are:

- Expedited service from various communities to the Los Angeles CBD. This service will operate not only in the AM and PM peak periods as is current practice but also during the midday hours. This last feature is a CENTS innovation and was conceived to accommodate those who may have to return home or to their communities for personal reasons.
- Service to the major employment corridors making them easily accessible from most of the South Bay area communities from which they draw employees.
- Service to the five communities on the Palos Verdes Peninsula with five new transit lines. These lines will link Peninsula residents, particularly the large populations of the under 16 year old transit dependent group, with the Hawthorne Boulevard shopping complexes, the beach communities, San Pedro and the industrial corridor on Aviation Boulevard where many Peninsula adults work. Expedited service to the Los Angeles CBD via Line 813 will also serve those that work in the financial, garment and insurance industries.
- The beach communities have been similarly linked to the major activity areas along Hawthorne Boulevard.



- Headways have been dramatically reduced with 39 of the 42 lines operating in 30 minutes or less. The reduced headways and the more direct routing of lines between South Bay area communities promise savings in trip time that average 31 percent, with relatively few trips averaging more than one hour compared to most trips taking that long on the current system.
- Service hours have been extended to at least 9 PM in order to provide commuters with more flexibility in selecting the hour for the journey home. This should attract a significant segment of new transit riders who now do not use transit and those who find the current service hour restrictions too inhibiting for evening shopping and cultural activities.

IMPLEMENTATION. . .

- RTD should replace its current service within the South Bay area with the 42 proposed lines and add the required 54 additional buses to the SCRTD fleet that now serve the South Bay area.
- Immediate attention should be given to the development of the proposed off-street airport terminal.
- Additional in-depth investigations should be undertaken of those South Bay area municipal transit lines that provide both local and regional transit services and duplicate some services of SCRTD in order to develop a service policy that makes optimum use of public transit resources and is in the public interest.
- The CENTS On Board Survey should be administered before the proposed service is implemented and again 3 and 6 months after the proposed system is introduced. The

information from the surveys should be used to modify routes and schedules of the proposed system in order to tune the system to local travel requirements.

- Changes in demography, land use and development of the area should be monitored yearly using the CENTS On Board Survey. This information should be used to modify or expand existing service.
- A viable public information program similar to SCRTD's successful marketing efforts in other areas should be instituted.
- The plan for the recommended system could be implemented within 90 days after its adoption.