

40923

SUMMARY WORK STATEMENT
TECHNICAL STUDY OF
ALTERNATIVE TRANSIT CORRIDORS AND SYSTEMS
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

The objective of this study is to create an action program intended to develop a rapid or improved public transit system to serve the travel needs of the Los Angeles Metropolitan Area.

Various urban development corridors shall be studied with regard to transit types and system procedures, and a determination shall be made as to the nature and magnitude of the demand for transit service in these corridors. The use of existing railroad facilities for commuter service and the development of an expanded bus system shall also be studied.

The study will review all major corridors in the area, including those identified as having top priority in the Southern California Rapid Transit District 1968 Rapid Transit Plan, to assess the demand for transit services within them, so as to allow the determination of their relative priorities.

On the basis of this review the most appropriate corridors for inclusion in an action program will be selected for development of the specific detail necessary for a construction grant application.

I. PLAN REFINEMENT

A. Analyze Transit System Needs and Possible Solutions
and Develop System Performance Criteria.

In this phase of the study, the travel demands will be analyzed; performance criteria will be developed; pertinent types of data, such as existing and projected land use, will be gathered; the alternative forms of transit service will be evaluated; the environmental impact of the various transit alternatives will be considered; and the various financing plan possibilities will be examined.

EVALUATE
TRANSIT
NEEDS AND
TRAVEL
DEMANDS

Available demographic, land use and socio-economic data will be reviewed to assist in conceptualizing the nature of the present and potential travel demand in the areas served by the several transit corridors. This information will be the basis for finalizing the transit development concepts to be studied in the several corridors. General performance criteria will be developed for a regional transit system so that decisions regarding route and station locations, hardware configuration and operating policies may be made.

Initially, existing and projected land use data will be collated. Agencies such as SCAG, LARTS, SCRIS,

Bureau of Census and various City and County departments will be the source of appropriate information.

EXAMINE
GENERAL
PLANS

Analysis of the General Plans of the various jurisdictions will be performed with emphasis on projected land use, circulation and service systems. These data will be checked for consistency and will then be analyzed to evaluate travel patterns in the corridors.

DEVELOP
PERFOR-
MANCE AND
ENVIRON-
MENTAL
CRITERIA

Performance criteria for a regional transit system will be developed. The diversity of needs must be recognized so that general criteria may be developed that will be adequate for the general area and not just the needs of a single corridor or system. Consideration will be given to frequency of service, safety, speed, comfort, convenience, secondary feeder systems and other necessary characteristics. Consideration will be given to each system's ability to attract riders who have other means of transportation available to them as well as those who do not. In developing these criteria, full consideration will be given to the effect that the transit system will have on the environment and the community. These criteria shall be used in later phases of the study to select a system hardware configuration and to set operating policies that will best serve the region.

EXAMINE
ALTERNATIVE FORMS
OF TRANSIT
SERVICE

Based primarily upon transportation needs and available technology, the most promising alternatives for transit service will be evaluated against the criteria developed. Among the alternatives will be various modes of modern rapid transit, an expanded bus system, a commuter rail service or a combination of the above.

EXAMINE
FINANCING
PLANS

A preliminary examination of all relevant financing plans will be conducted. All sources will be explored including federal grants, and state support; property taxes, including benefit assessment districts and tax allocation bonds; and motor vehicle taxes, including vehicle registration fees and gas sales taxes. Multi-burden taxation programs will be explored.

B. Define Alternative Routes and Systems.

This phase of the study is to develop preliminary route alignments within the corridors and to select operating systems suited to the region. It also includes the development of very preliminary construction cost estimates and tentative schedules of capital requirements for construction in the corridors. The feasibility of commuter service on railroad lines, and the concept of a sophisticated grid-type or other bus service system as complementary to or as an alternative to rapid transit development will also be analyzed.

CONDUCT
PRELIMI-
NARY SYSTEM
PLANNING

Three tasks are necessary as follows: 1) conduct preliminary system planning tasks including the study of route alignments, station locations for each corridor and preliminary cost estimates, utilizing information from previous District studies together with studies by various City and County agencies; 2) prepare ridership estimates for each corridor; 3) review the features of existing modern operating transit systems and review new technology rapid transit and feeder systems to determine those systems which may be suited for use by the District. With respect to railroad commuter service, existing lines will be evaluated in terms of operational feasibility, investment required to assure provision of service at a proper standard of reliability and safety, and practicable methods of providing for operation of the trains. These systems, including the concept of a sophisticated grid-type or other bus system as an alternative, will be evaluated in terms of the performance criteria.

PREPARE
RIDERSHIP
ESTIMATES

REVIEW
EXISTING AND
NEW TECH-
NOLOGY

C. Select Most Promising Corridors and Modes of
Transit Service.

SELECT MOST
PROMISING
CORRIDORS
AND MODES

Upon completion of the three previously noted efforts, the most promising corridors or segments of the overall initial rapid transit system will be selected for further consideration.

PROGRESS
REPORT AND
DECISION
POINT

At this point in the study, a progress report will be made available to appropriate agencies.

II PRELIMINARY ENGINEERING

A. Examine All Aspects of Each Corridor.

In this phase of the study, each selected corridor or segment will receive a more detailed engineering study; an examination of estimated capital and operational costs; a determination of probable impact on the existing bus system; preparation of tentative operational plans; and examination of probable ridership; and examination of socio-economic benefits; an examination of environmental impact; and an examination of relevant financing plans.

CONDUCT
MORE
DETAILED
ENGINEERING

A more detailed engineering study will be conducted for each of the selected corridors in sufficient depth to determine engineering feasibility, planning and environmental acceptability of route alignment, the potential for sharing freeway or other rights-of-way, system configuration, station location, and cost of construction.

DEVELOP
CAPITAL
COST ESTI-
MATES

Cost estimates will be developed for each corridor utilizing engineering estimates of the quantities of each item of construction required, together with current unit cost estimates. This will lead to the development that would be needed to construct the initial system.

PREPARE
TENTATIVE
OPERATIONAL
PLANS

Information from both previous and ongoing studies by the District, the Southern California Association of Governments, the Los Angeles Regional Transportation

Study, the City of Los Angeles, the County of Los Angeles, the Bureau of the Census, and other agencies will be collated as a basis for forecasting potential transit trips in the selected corridors. Tentative operational plans, including those for secondary feeder services, and revisions in existing bus service will be prepared for each corridor.

DEVELOP
OPERATING
COST ESTI-
MATES

Unit operating costs will be developed and examined for reasonableness against similar data from existing systems, where possible. Operating expenses will be estimated for each corridor. Items to be examined will include equipment requirements such as fleet size, vehicle miles and vehicle hours. Forecasts of personnel requirements including operators, station personnel, and supervisors needed will be prepared along with estimates of pay hours. Energy requirements will be reviewed and resource capabilities will be assessed. Maintenance and other costs will also be estimated. The financial results of operation that would be associated with each corridor system will be assessed. Forecasts of revenues and expenses for the transit service along each corridor, including secondary feeder systems, will be developed.

FORECAST
RIDERSHIP

The operational plans, with route alignments and station locations developed in an earlier phase of the study, and the information gathered from other studies will be utilized to forecast ridership at various fare levels for the corridors and systems under consideration. These forecasts will estimate the number of daily riders diverted from the bus system and attracted from automobiles. Modes of access to transit system will be investigated. Station-by-station patronage volumes will be estimated and daily and peak period line load tables will be prepared.

EXAMINE
IMPACT ON
EXISTING
BUS SYSTEM

The impact of the proposed transit service on the existing bus system will be examined in terms of increases or decreases in revenues and expenses that would occur.

B. Analyze Socio-economic Effects of Rapid Transit Lines.

In this phase, the socio-economic impacts that will result from establishing the rapid transit alternatives will be investigated. Existing studies will be reviewed for pertinent data and rider and community effects will be presented.

Existing reports and data developed by the District and other agencies such as the City Planning Department, Community Analysis Bureau and other agencies at all levels of government will be collected. Pertinent data from these sources, together with projections of population and land use will be assembled as a basis for the study of socio-economic impacts that would occur from the transit improvements.

INVESTIGATE
RIDER AND
COMMUNITY
BENEFITS

Rider characteristics for each corridor will be investigated. The impact on travel time, and auto cost, including operating, parking and ownership costs will be considered. The effect of the line on mobility, including such items as employment and housing access, and the ability to reach health and welfare services, educational facilities, and cultural activities will be determined.

The impact on the community at large will be investigated for the alternatives. The economic effect on auto and truck operations resulting from any change of traffic conditions will be estimated. The impact of altered access to downtown, airports, and employment centers will be described. The effect on real estate values and business conditions as well as the effect on life styles that would result from transit construction and operation will be

discussed for each corridor. Direct input from community groups in the selected corridors will be solicited by the District.

EXAMINE
ENVIRONMENTAL
IMPACT

An investigation will be made regarding the broader environmental trade-offs and impacts of the proposed system. Such direct effects as air pollution, noise pollution and visual impacts will be examined in detail.

EXAMINE
FINANCING
PLANS

This phase of the study will consider all relevant financing plans. Those that are feasible within the time constraints of an action program will be investigated. All potential financing plans will be screened. They will then be ranked by feasibility of timely implementation as well as by their ability to meet capital requirements. Those plans that could be effected in the near future and would result in significant dollar amounts will be given priority for in-depth investigation. Those plans that require legislative or other action but which show promise of success will also be considered. The plan or plans that have the greatest potential for meeting the needs, both as to dollar amounts and time phasing, of each corridor will be selected.

PROGRESS
REPORT AND
DECISION
POINT

At the conclusion of this phase of the study, a progress report will be made available to all participating agencies and a major decision point of the study will be reached.

C. Selection of System and Preparation of Grant

Application.

SELECT
SYSTEM

The conclusion to this study will be the selection of the corridor segments and modes of transit service. All

REFINE
DATA

data pertaining to the selected transit system shall be refined and consolidated for inclusion in a final report.

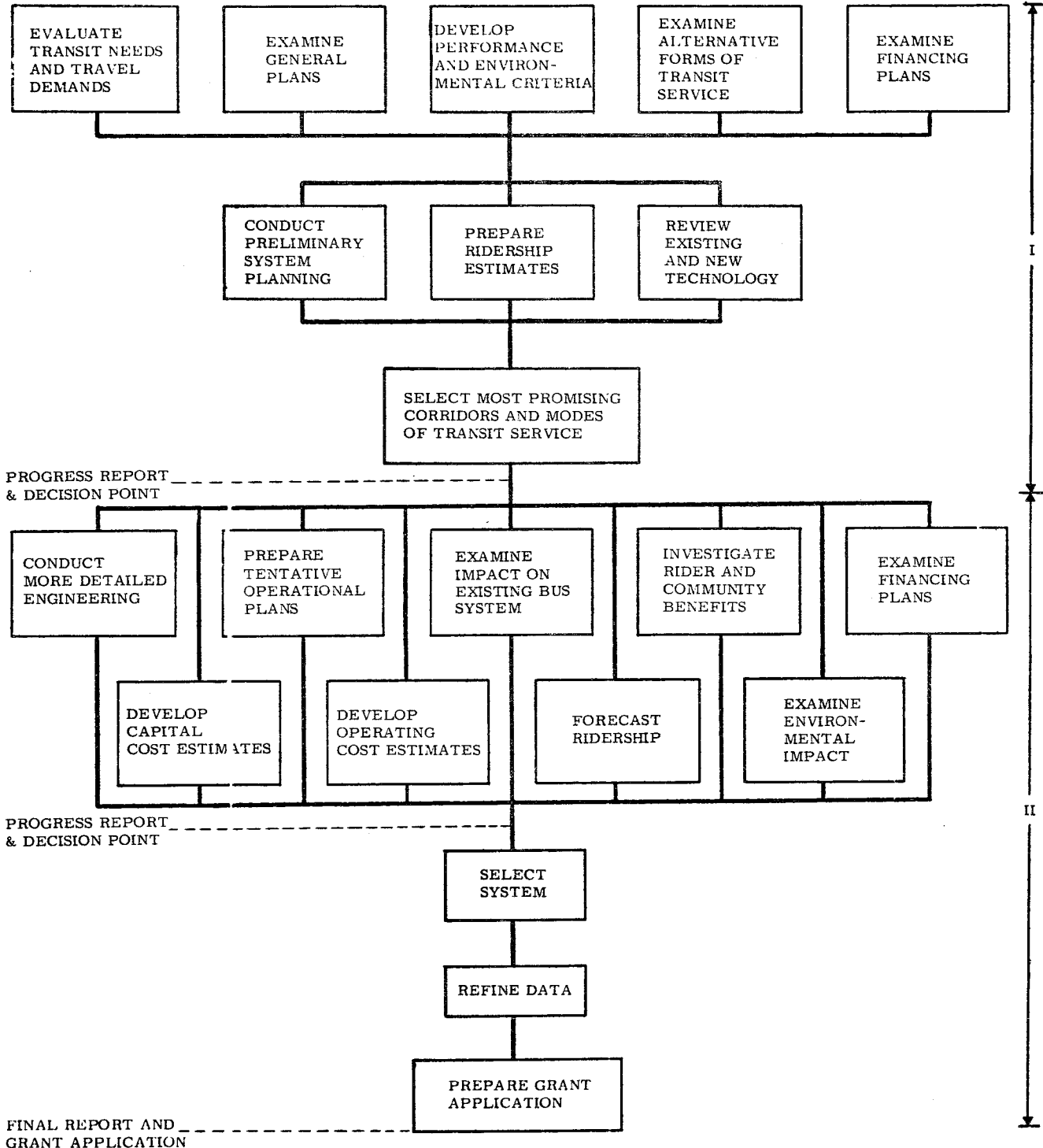
PREPARE
GRANT APPLI-
CATION

A detailed capital grant application to the federal government will be prepared as a final product of this study.

WORK FLOW CHART

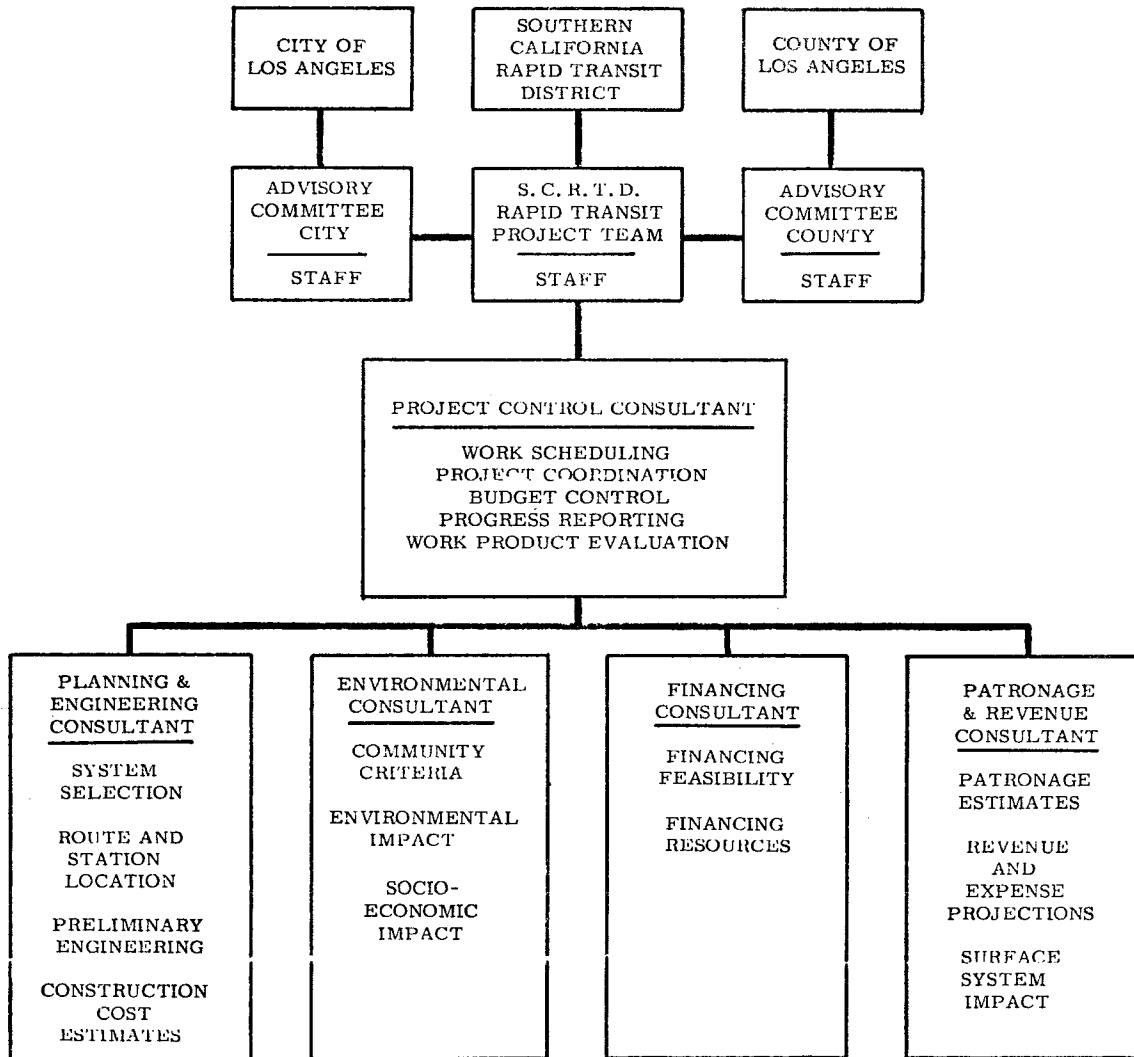
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FUNCTIONAL ORGANIZATION

TECHNICAL STUDY OF
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CONSULTANT PARTICIPATION MATRIX

TECHNICAL STUDY OF
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TASK	Planning & Engineering Consultant	Environmental & Socio-economic Consultant	Financing Consultant	Patronage & Revenue Consultant
Evaluate Transit Needs and Travel Demands	●			○
Examine General Plans	●			
Develop Performance and Environmental Criteria	●	●		
Examine Alternative Forms of Transit Service	●	○		
Examine Financing Plans			●	
Conduct Preliminary System Planning	●			
Prepare Ridership Estimates				●
Review Existing and New Technology	●	○		
Select Most Promising Corridors and Modes of Transit Service	●	○	○	○
Conduct More Detailed Engineering	●	○		
Develop Capital Cost Estimates	●			
Prepare Tentative Operational Plans	○			●
Develop Operating Cost Plans	●			○
Examine Impact on Existing Bus System				●
Forecast Ridership				●
Investigate Rider and Community Benefits		●		○
Examine Environmental Impact		●		●
Examine Financing Plans			●	
Select System	●	○	○	○
Refine Data	●	○	○	●
Prepare Grant Application				

● = Major Participation

○ = Minor Participation

2025 RELEASE UNDER E.O. 14176

PROJECT SCHEDULE
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