

# IDENTIFICATION AND ANALYSIS OF LOCAL AGENCY TRANSIT PROJECT PERFORMANCE CRITERIA (RESEARCH INITIATION GRANT)

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## **ABSTRACT**

Improvement in delivery performance for locally managed projects will strengthen the infrastructure upon which mass transit systems depend, assist in forecasting and minimizing service disruptions, and enhance delivery of transit services in metropolitan areas. The goal of this research was to identify both positive and negative factors in the management of local transit projects that affect the local agency satisfaction with the project delivery process and affect project budget performance and schedule performance. A one-page survey was created and distributed to local agencies for data collection on completed projects. Eighteen completed surveys were returned within the research period. The data contained in these surveys is summarized in this report and analyzed with respect to project characteristics, performance, and key project success / hindrance factors. Based on the analysis, summary level information with respect to cost and schedule performance has been established, and two specific key success factors and two key hindrance factors have been identified for implementation / consideration in the management of future local transit projects. Additional data collection is recommended with additional analysis potentially leading to even more efficient use of dwindling available funds, as well as further improved project delivery according to identified success criteria.

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## **DISCLOSURE**

Project was funded in entirety under this contract to California Department of Transportation.

## **INTRODUCTION**

The objective of this project is to identify management factors that lead to improved delivery of transit services to large metropolitan areas. Improvement in delivery performance for locally managed projects will strengthen the infrastructure upon which mass transit systems depend, assist in forecasting and minimizing service disruptions, and enhance delivery of transit services in metropolitan areas. The goal of this research was to identify both positive and negative factors in the management of local transit projects, which affect the local agency satisfaction with the project delivery process, and project budget performance, and project schedule performance. This report summarizes the research findings.

The report details a one-page survey that was created and distributed to local agencies for data collection on completed projects. Eighteen completed surveys were returned within the research period. The data contained in these surveys is summarized in this report and analyzed with respect to project characteristics, performance, and key project success / hindrance factors. Based on the analysis, specific initial policies and procedures have been recommended for implementation in management of future local transit projects. Additional data collection is recommended with additional analysis potentially leading to even more efficient use of dwindling available funds, as well as further improved project delivery according to identified success criteria.

## **BACKGROUND**

As the public agency responsible for the annual delivery of over three billion dollars in construction projects, the California Department of Transportation (Caltrans) has a tremendous responsibility to effectively manage the design and construction for all phases of future projects. Of the \$3 billion, \$250 million is available for local transit projects, intended to improve transit services to all communities within our highly decentralized cities. Unfortunately, recent delivery success of these local transit projects has been only 40%, meaning only 40% of the funded transit design and construction projects are completed in the year that funding is available. The availability and quality of area-wide transit services depend on the effective management of the design and construction process for future local transit projects because the completed projects are part of the planned infrastructure necessary for future transit service, and therefore timely, cost effective completion of each project ensures overall, area-wide service availability and quality.

### **Literature Review**

Literature reviews have shown that effective management has proven to be essential in controlling costs and adhering to schedules for these types of projects (Jaraiedi et al 1995). The California Department of Transportation has successfully begun the use of project management techniques to improve project delivery (Chittenden 1997), but specific policies and procedures to improve local transit project programs have not been completely developed. Identification and analysis of factors that positively or adversely influence the delivery steps, costs, and schedules of local agency projects needs to be

done in order to improve upon the 40% delivery rate for the program. The Caltrans Local Transit Project Delivery (LTPD) task force began work in early 1999 on improving the project management delivery process.

Several research articles are available that looked into the factors that influence performance of the project delivery process. Different scholars have defined several factors proven to make major impact on cost, schedule and/or quality of the global project. Project characteristics is one major factor that affects performance of a construction project. Many researchers have looked at different project characteristics such as project risks, public impacts, funding issues, constructibility, contract language and process in isolation from other parameters:

1. Gibson et al. (1995) emphasized the importance of pre-project planning to minimize the risk associated with construction projects. They showed that pre-project planning is an important decision support tool and can help managers to decide how to allocate resources to a construction project. A pre-project planning process was introduced and then the authors concluded that pre-project planning should be tied closely to business planning, should answer to business needs of the company, and it should be extremely emphasized, specially at the early stages of the project.
2. O'Conner and El-Diraby (2000) emphasized the importance of planning in reconstruction of highway projects. They specifically looked into reconstruction of Mockingbird Bridge in Dallas, Texas as a case study. The authors came up with a framework that covered major success factors, namely as Travelers Safety, Construction Safety, Enhanced Site Accessibility, Optimize Highway Capacity, Minimize Project Duration and Project Costs. These Performance Measures were broken down into site conditions that could improve performance. The interesting part of this study was the number performance measurement factors that were used. In general, in a construction project, Cost, Schedule, and quality are considered as the major evaluators of performance. This study introduced more number of performance measurement parameters that are specific to Highway construction. One could relate Quality to project characteristics such as traffic safety, traffic control planning, construction sequencing, and constructibility.
3. Herbsman (1995) showed the impact of A+B bidding method on project cost and schedule. In this method, the contractor bids based on both Time and Cost. Contract duration is multiplied by daily cost of road-user (usually equal to liquidated damages) and is added to cost estimate. A+B method results in significant savings in time and almost no impact on project cost. In this study, quality was not evaluated as a performance criterion.
4. Jarajedi et al. (1995) provided guidelines to select Incentive/Disincentive (I/D) contract method for Highway Projects and to improve performance of such projects by developing a sound structure for such contracts. The authors also showed how (I/D) provision could significantly reduce duration of the project without any major impact on the quality. Cost impacts, however, were not analyzed.
5. Arditi et al. (1998) conducted a study similar to Jarajedi et al. (1995) and showed that (I/D) provision is a good instrument to contract duration of a construction project.



However, it does increase project costs in most situations. It was shown that (I/D) contracts, in general, have larger contract amounts and larger and more frequent Change Orders. The research also concluded that unfavorable results with regards to schedule appeared only in paving projects.

6. Arditi and Yasamis (1998) also studied the application (I/D) contracting method in highway construction. They surveyed Illinois DOT (I/D) projects and showed how it can positively impact behavior and performance of the contractors. However, they cautioned that, both the contractor and the client both should have clear understanding and appropriate perception of (I/D) contracting before its use.
7. Molenaar et al. (1999) studied the impact of Design-Build (DB) delivery method on the performance of Public Projects. Performance of several DB projects was evaluated based on owner's experience with DB projects, Stage of design at which DB is proposed, selection of DB contractor, Contract type, award method, and form of DB contract (one-step, two-steps, qualifications based). Performance criteria were defined by Budget Performance, Schedule Performance, Conformance with Expectations, Administrative Burden, and Owner Satisfaction. The authors summarized their findings in a table that presented advantages and disadvantages of each form of DB contracts to the others, with regards to performance criteria.
8. Ohrn and Schexnayard (1998) looked at another aspect of contractual arrangements – specification development. They explained the concept of Performance-Related Specifications for highway projects and what are their advantages and disadvantages to traditional specifications.

Specific research on the transit and transportation project process has been done throughout the United States. Researcher findings are as follows:

1. Reed, Luetlich and Lamm (1993) examined how to measure state transportation program performance. The research isolated and defined the key program-performance measures and indicators needed by state officials in state highway and transportation departments for effective and efficient administration of state highway and transportation programs. The research effort produced a list of 38 key program-performance measures with definitions and brief descriptions of their use. The researchers also found that the use of program-performance measures and indicators is an evolving concept. The team found that several states have initiated comprehensive programs to develop and use such tools, but no state has enough experience to cite its example.
2. The KFH Group (1999) conducted research to create a toolkit of management principles and techniques for use by small urban and rural public transportation providers. The kit assists in managing their transportation services and resources effectively and has two parts: a guidebook and a self-assessment tool. The guidebook provides the user with desirable service attributes and general management philosophies as well as exemplary practices for some topics. The self-assessment tool is a software tool designed to give the user a baseline or current picture of the status of the transit system.

3. Otto and Ariaratnam (1999) researched performance measures in highway maintenance operations. Their research examined the general theories of performance measurement systems, based on current conditions and practices in the province of Alberta, Canada, and applied them to develop examples for highway maintenance. Their research analyzed the extra considerations on a performance measurement system when private companies operates under contract to a public agency perform the work.
4. Poister (1997) researched the degree to which state departments of transportation have developed and implemented performance measures. The research describes how performance measures have evolved in state transportation departments, the types of measures that have been developed, and the effectiveness of such measures in assessing performance and improving productivity, as perceived by the departments. Poister found that the new generation of performance measures tends to be focused more strategically, with greater emphasis on quality. The research found that these measurement systems were determined to be more useful when they were as a result of a genuine commitment to manage programs more effectively, as opposed to a desire to just comply with reporting requirements. Poister noted that the development of such performance measures tends to be an iterative process. The work was based upon information assembled from numerous sources, including a large number of state highway and transportation departments and a topic panel of experts.
5. Hartman et al (1994) conducted two surveys to research how performance measures are related to financing transit. The research concluded that state funding organizations have established measures to use in assessing or monitoring local transit systems; however, few organizations provide financial assistance based exclusively on performance factors. The researchers also found that the role of the funding body, usually the state or region, also varies from an ownership position to arms-length grant programs. The research identified that state interests in the process ultimately relate to ensuring service, but they also often relate providing citizens with mobility, facilitating economic development, and achieving environmental goals.

### **Key Factors Definition**

Chua et al. (1999) came up with a simple and comprehensive hierarchical model that categorizes all these factors into four groups

- External Project Characteristics
- Contractual Arrangements
- Project Participants
- Monitoring & Control

Chua then conducted a survey and collected information about the influence of these factors on three performance criteria (cost, schedule, and quality), using a pairwise comparison technique.

Chua's performance criteria can be viewed as either positive or negative enhancements to a project delivery model process. If one of the above factors/criterion (external project characteristics, contractual arrangements, project participants, or monitoring and control

systems and tools) enhanced the likelihood of process success, then the factor/criterion was denoted a success factor. If defined as an action or attribute that decreased the likelihood of process success, then the criterion was denoted a hindrance factor.

Success factors are well established in the construction industry. Jaselskis and Ashley (1991) found that key success factors affect project outcomes differently. Sanvido et al (1992) also found that when certain success factors related to the project owner, engineer, contractor, or operator are completed, the likelihood for project success is increased. Parfitt and Sanvido (1993) developed a checklist as a guideline to predict the success of a project. Recent researchers have begun to apply these factors to specific types and subsets of the construction industry. Success factors are also well used on the design/procurement stages. Based on a survey of over 450 respondents, Anderson and Tucker (1994) identified 52 specific best practices in 5 project management categories for project management of the design process. These five categories were

- Strategic project organizing
- Design effectiveness
- Project control
- Management of quality
- Materials management

These categories were identified as part of best practices study for the Construction Industry Institute (CII). In this study the research team sought to define key success factors and key hindrance factors that influence Local Transit Agency Project Delivery (LTPD) performance.

## **DATA COLLECTION**

After this review of existing research on transit project delivery, the second step in the study process was collection of historical local transit agency project performance data from completed projects that were done for Caltrans. The data collection process used in this step consisted of four steps

- Identification of project characteristics
- Identification of types of funding
- Identification of types of projects
- Creation and distribution of survey form to local agencies

These steps are described below.

## Project Characteristics – Types of Projects and Funding

The research team from the University of Southern California worked with Caltrans staff to identify all descriptive elements of any local transit agency project. Dozens of possible data elements of a typical local transit agency project were identified. Based upon the literature review of typical key data elements, and the fact that such detailed data is not maintained by Caltrans or the local agencies, several key project characteristics were identified. The characteristics were of two types

- Descriptive (i.e. where the project was located)
- Performance (i.e. how the project performed with respect to schedule)

Two elements of particular importance in describing a project were the project type and the project funding. The research team worked with local transit agency staff to identify and compile lists for types of funding and types of projects. Figure 1 shows a list of District Numbers and their location. Figure 2 shows the 28 typical types of funding for local transit agency work. Figure 3 shows the 6 typical types of projects for local transit agency work.

### Survey Form

In order to provide accurate and reliable information, a standard data collection survey was created by the METTRANS research team to gather descriptive and performance data.



Figure 1. Map of District Numbers

5311(f)	P&E
AB2766	PIC Grade Separation
AB973	Prop 116
BSNF Participatory	PSE
CMAQ	PVEA
Construction	R/W
Dedicated transit sales tax	State hwy
ENVIR	STIP-State
FAEL	STP
Farbox revenue	STTA
FTA	TCI
FTA 5311 Assistance	TDA
Local funds	TPI
LTF	TSM

**Figure 2. List of Types of Funding**

3R
Bikeway
Fixed Guideway
SB45
Transit Operations
Vehicle Acquisition

**Figure 3. List of Types of Projects**

A first draft survey was completed in February 2000. After a first review by Caltrans of the draft survey, the METRANS project team decided to add two questions to the survey to gather information related to key success / hindrance factors (items identified as critical within the literature review). The final form of the survey is shown in Figure 3. Note that the final survey references the lists of types of funding and types of projects from Figures 1 and 2.

During the months of March, April, and May, 2000, over 100 surveys were distributed by the Caltrans LTPD staff to local transit agency staffs throughout the state. At the time of completion of this study (December 31, 2000), 18 were returned. One (1) cost record and six (6) schedule records had incomplete information and were not useful. The remaining survey data was entered as it was received into a database that was used to conduct the initial data analysis for the LTPD team.

# California Department of Transportation

## Local Agency Transit Project Delivery Data Collection Form

*As part of Caltrans' effort to improve project delivery performance, the Local Transit Project Delivery (LTPD) Task Force is in the process of collecting data representative completed local transit agency projects to identify performance trends and areas for improvement. Your assistance in completing this for your agency's completed projects is the first step in this effort. All information is confidential; please select projects representative of your agency. Answer all questions as best you can.*

*Please use one form per project; thanks for your help!*

1. **Project Title** \_\_\_\_\_  
**PPNO number** \_\_\_\_\_  
**EA number** \_\_\_\_\_

2. **Project Location** City \_\_\_\_\_  
County \_\_\_\_\_  
Caltrans District No. \_\_\_\_\_

4. **Project Type**   *enter the appropriate number from the attached list of project types*

5. **Project Funding**  *enter the appropriate letters from the attached list of fund codes*

6. **Project Cost** \$ \_\_\_\_\_ *(programmed amount)*  
\$ \_\_\_\_\_ *(allocation amount)*  
\$ \_\_\_\_\_ *(actual expended amount at completion)*

6. **Project Schedule**  
Planned Start Date \_\_\_\_\_ Planned Completion Date \_\_\_\_\_  
Actual Start Date \_\_\_\_\_ Actual Completion Date \_\_\_\_\_

7. **Keys to Success (alright to list several)** \_\_\_\_\_  
\_\_\_\_\_

**Key Hinderences (alright to list several)** \_\_\_\_\_  
\_\_\_\_\_

8. **Additional Comments (optional; as needed)** \_\_\_\_\_  
\_\_\_\_\_

**Contact Name:** \_\_\_\_\_ *(for questions only!)*  
**Phone:** \_\_\_\_\_  
**email:** \_\_\_\_\_

Please return your completed surveys to:

Elhami Nasr, LTPD Project Manager  
California Department of Transportation (CALTRANS)  
District 7  
120 S. Spring St.

Questions? Please contact:  
Elhami Nasr, LTPD Project Manager  
Tel: (213) 897-0227; Fax (213) 897-0227  
ATSS: 8-647-0227

**Figure 4. Survey Form**

## DATA ANALYSIS

Data analysis began when the first completed survey forms were received in late April 2000. As additional data were obtained, they were added to the analysis database. The final data set (18 completed surveys) was analyzed across the three characteristics/elements of the survey:

- descriptive data
- performance data
- key success / hindrance factors

The sections below detail the results of the analysis through a series of tables. A diskette version of the Microsoft Access Database file (containing data to date, input screens, and queries) is attached to this report as Appendix II.

### Descriptive Characteristics

In an effort to check that the projects of the data sample were representative of all Local Transit Agency projects, three tables were generated. Table 1 is a summary of projects by district. Table 2 is a summary of projects by project type. Table 3 is a summary of projects by funding type.

Table 1 shows that for our limited sample size, the projects were somewhat spread throughout the thirteen (13) Caltrans districts (no district had more that 23% of the projects). However, three (3) districts (i.e. districts 1, 2 and 4) were not represented at all

**Table 1. Summary of Projects by District**

<b>Caltrans District Number (1)</b>	<b>Number of Occurrences (2)</b>	<b>Percentage (3)</b>
3	1	5.56%
5	4	22.22%
6	1	5.56%
7	3	16.67%
8	4	22.22%
9	2	11.11%
10	1	5.56%
<i>not identified</i>	2	11.11%
<b>TOTAL</b>	<b>18</b>	<b>100.00%</b>

**Table 2. Summary of Projects by Project Type**

<b>Project Type (1)</b>	<b>Number of Occurrences (2)</b>	<b>Percentage (3)</b>
3R	3	16.67%
Bikeway	1	5.56%
Fixed Guideway	1	5.56%
SB45	1	5.56%
Transit Operations	7	38.89%
Vehicle Acquisition	3	16.67%
<i>not identified</i>	2	11.11%
<b>TOTAL</b>	<b>18</b>	<b>100.00%</b>

and two (2) respondents did not identify the District Number. It should be noted, however, that not all districts are of equal size and each has a different level of use of transit. Table 2 shows that the projects were somewhat representative of the six (6) types of projects (identified in Figure 2); however, “Transit Operations” projects were most common (38.9%) and two (2) projects were not assigned any project types. With more data, the research team would expect all project types to be represented. Table 3 shows the large number of funds (31 funds) that were used on the eighteen (18) projects of the database. Note that several projects (12 projects, 67% of the sample) used more than one fund, and some projects used more than two funds (8 projects, 44% of the sample). The table shows that TCI funding was most frequent used (6 occurrences), but the highest funding amounts (in dollars) came from STTA and local sources (\$133 million and \$118.5 million respectively). Given the large variety of projects included in this program, the funding levels also vary greatly, depending on project type and scope. Hence, study of average funding values must be considered in this context.

Additional analysis was, however, conducted with respect to the project funding variance. Table 4 shows a summary of funding variance by type of variance (i.e. positive, negative, or none) and Table 5 shows a Summary of Funding Variance by Type of Fund. Table 4 shows how well local agencies were able to satisfy their anticipated project funding requirements. *The table shows that nearly two thirds of the projects experienced a negative funding variance, meaning the projects did not receive funding up to the amount estimated to be needed by the local agency.* Table 5 attempts to identify whether any funding source is particular susceptible to contributing to a funding deficit. A lack of data at this point does not allow this information to be determined, however, a potential reporting methodology is shown in the table.



**Table 3. Summary of Projects by Funding Type**

<b>Funding Type (1)</b>	<b>Number of Occurrences (2)</b>	<b>Percentage (3)</b>	<b>Average Funding (4)</b>	<b>High Value (5)</b>	<b>Low Value (6)</b>
5311(f)	1	2.17%	\$34,000	\$34,000	\$34,000
AB2766	1	2.17%	\$6,000	\$6,000	\$6,000
AB973	1	2.17%	\$12,179,000	\$12,179,000	\$12,179,000
BSNF Participatory	1	2.17%	\$600,000	\$600,000	\$600,000
CMAQ	2	4.35%	\$1,750,306	\$3,106,292	\$394,320
Construct	2	4.35%	\$1,106,500	\$1,166,000	\$1,047,000
Constructr	1	2.17%	\$1,473,000	\$1,473,000	\$1,473,000
Dedicated transit sales tax	1	2.17%	\$306,376	\$306,376	\$306,376
ENVIR	3	6.52%	\$15,000	\$18,000	\$13,000
FAEL	1	2.17%	\$5,284,229	\$5,284,229	\$5,284,229
Farbox revenue	1	2.17%	\$34,625	\$34,625	\$34,625
FTA	1	2.17%	\$584,290	\$584,290	\$584,290
FTA 5311 Assistance	1	2.17%	\$36,604	\$36,604	\$36,604
Local	2	4.35%	\$59,254,000	\$118,484,000	\$24,000
Local funds	1	2.17%	\$3,293,708	\$3,293,708	\$3,293,708
LTF	1	2.17%	\$73,680	\$73,680	\$73,680
P&E	2	4.35%	\$37,500	\$52,000	\$23,000
PIC Grade Separation	1	2.17%	\$5,000,000	\$5,000,000	\$5,000,000
Prop 116	1	2.17%	\$31,708,000	\$31,708,000	\$31,708,000
PSE	1	2.17%	\$28,000	\$28,000	\$28,000
PVEA	1	2.17%	\$100,000	\$100,000	\$100,000
R/W	3	6.52%	\$3,000	\$3,000	\$3,000
State hwy	1	2.17%	\$50,849,000	\$50,849,000	\$50,849,000
STIP-State	1	2.17%	\$1,456	\$1,456	\$1,456
STP	2	4.35%	\$26,678,500	\$52,100,000	\$1,257,000
STTA	1	2.17%	\$133,029,000	\$133,029,000	\$133,029,000
TCI	6	13.04%	\$2,239,000	\$11,051,000	\$349,000
TDA	2	4.35%	\$2,442,563	\$4,605,126	\$280,000
TPI	1	2.17%	\$1,670,000	\$1,670,000	\$1,670,000
TSM	1	2.17%	\$163,000	\$163,000	\$163,000
Other	1	2.17%	\$13,512,355	\$13,512,355	\$13,512,355
<b>Total / Average</b>	<b>46</b>	<b>100%</b>	<b>\$11,402,990</b>	<b>-</b>	<b>-</b>

**Performance Characteristics**

The second characteristic of the data collected was performance information. Two levels of performance were studied. One level of performance of the project is performance with respect to its budget. Once a project was funded, how close did the actual expenditures for the completed project come to the available funding (initial budget)? As defined in this report, a positive budget variance would be considered bad, meaning the project ran over its expected budget. The second level of performance relates to schedule. How do a project’s start and finish dates compare to the original plan? In addition, once a project’s expected start and completion dates were established, how close did the actual project duration (defined as difference between completion date and start date) compare to the planned duration? As defined in this study, a positive duration variance would be considered bad, meaning the project ran over its expected duration.

**Table 4. Summary of Funding Variance by Type of Fund**

Type of Funding  (1)	Average Percent Variance				Average Percent Variance			
	Total (2)	Positive (3)	Zero (4)	Negative (5)	All (6)	Positive (7)	Zero (8)	Negative (9)
5311(f)	1	1	0	0	47.61%	47.61%		
AB2766	1	0	1	0	0.00%		0.00%	
AB973	1	0	1	0	0.00%		0.00%	
BSNF Participatory	1	1	0	0	57.34%	57.34%		
CMAQ	2	0	1	1	-1.70%		0.00%	-3.41%
Dedicated transit sales tax	1	0	1	0	0.00%		0.00%	
ENVIR	3	0	3	0	0.00%		0.00%	
FAEL	1	0	1	0	0.00%		0.00%	
Farbox revenue	1	0	1	0	0.00%		0.00%	
FTA	1	0	1	0	0.00%		0.00%	
FTA 5311 Assistance	1	0	1	0	0.00%		0.00%	
Local	2	0	1	1	-18.73%		0.00%	-37.46%
Local funds	1	0	0	1	-72.68%			-72.68%
LTF	1	0	0	1	-99.90%			-99.90%
P&E	2	0	0	2	-44.82%			-44.82%
PIC Grade Separation	1	0	1	0	0.00%		0.00%	
Prop 116	1	0	1	0	0.00%		0.00%	
PSE	1	0	0	1	-46.43%			-46.43%
State hwy	1	0	1	0	0.00%		0.00%	
STIP-State	1	0	0	1	-7.28%			-7.28%
STP	2	0	2	0	0.00%		0.00%	
STTA	1	0	1	0	0.00%		0.00%	
TCI	6	0	4	2	-2.26%		0.00%	-6.78%
TDA	2	1	1	0	137.57%	275.14%	0.00%	
TPI	1	0	1	0	0.00%		0.00%	
TSM	1	0	1	0	0.00%		0.00%	
Other	1	0	1	0	0.00%		0.00%	
<b>Total / Average</b>	<b>39</b>	<b>3</b>	<b>26</b>	<b>10</b>	<b>0.25%</b>	<b>126.70%</b>	<b>0.00%</b>	<b>-37.03%</b>

**Table 5. Summary of Funding Variance by Type of Variance**

Project Subgroup (1)	Number of Occurrences (2)	Percentage (3)	Average Programmed Budget (4)	Average Number of Funds (5)	Budget Deviation	
					Average Amount (6)	% of Budget (7)
No Deviation	26	66.67%	\$20,516,570	1.3	\$0	0.00%
Postive Deviation	3	7.69%	\$304,667	1.0	\$376,867	126.70%
Negative Deviation	10	25.64%	\$551,208	1.3	(\$320,285)	-39.84%
<b>TOTAL / AVERAGE</b>	<b>39</b>	<b>100.00%</b>	<b>\$134,082</b>	<b>1.26</b>	<b>(\$462)</b>	<b>1.98%</b>

Four tables show the analysis. Table 6 shows a summary of budget variance by type of variance. The table shows that over three quarters of the projects had no budget variance from the budgeted amount; the remaining one quarter of the projects were almost equally divided between performing over and under budget. Tables 7 through 9 examine schedule performance. Table 7 shows a summary of project start date deviations by type of variance. Table 8 shows a summary of project completion date deviations by type of variance. Table 9 shows a summary of project duration deviations by type of variance. These tables show that half of the projects started later than planned and three quarters of the projects surveyed were completed later than planned. As a result, with respect to project duration, two thirds of the projects took longer to complete than originally planned. Future studies should attempt to determine when in the project life cycle the budget and schedule changes occur. It is possible that certain phases of the project may trigger these changes.

**Key Success/Hindrance Factors**

The third characteristic of the data collected was key factors. These factors were items identified by the local transit agencies that were deemed to have been keys to success or key hindrances for a specific project. Two tables are used to show these results. Most surveys listed several key factors (both success and hindrance) for any individual project. Table 10 shows a summary of key hindrances and the eleven key factors identified through the surveys. Table 11 shows a summary of keys to success and the eight key factors identified through the surveys. As shown in the tables, the two primary keys to project success were identified as “Caltrans Staff Assistance” and “Established Funding Procedures”. The primary key hindrances were “Bureaucracy”, and “Poor Local Staff Assistance”. An examination of the key success and key hindrance across funding type and project type will be possible as additional data is collected. Given the current lack of data, no conclusions could be reached at this time with this analysis. An examination of factors based on project performance is possible at this time, and the examination follows this section.

**Table 6. Summary of Budget Variance by Type of Variance**

Project Subgroup (1)	Number of Occurrences (2)	Percentage (3)	Average Programmed Budget (4)	Average Number of Funds (5)	Budget Deviation	
					Average Amount (6)	% of Budget (7)
No Deviation	35	76.09%	\$13,826,448	1.46	\$0	0.00%
Postive Deviation	5	10.87%	\$1,829,673	1.67	\$51,930	24.23%
Negative Deviation	6	13.04%	\$3,690,956	1.2	(\$62,498)	-69.45%
<b>TOTAL</b>	<b>46</b>	<b>100.00%</b>	<b>\$11,118,080</b>	<b>1.44</b>	<b>(\$4,897)</b>	<b>-8.58%</b>

**Table 7. Summary of Project Start Date Deviations by Type of Variance**

Schedule Performance (1)	Start Date		
	Frequency (2)	Percentage (3)	Average Deviation (4)
No Deviation	5	41.67%	-
Positive Deviation	6	50.00%	342 days
Negative Deviation	1	8.33%	(332) days
<b>Total / Average</b>	<b>12</b>	<b>100.00%</b>	<b>143 days</b>

**Table 8. Summary of Project Completion Date Deviations  
by Type of Variance**

Schedule Performance  (1)	Finish Date		
	Frequency  (2)	Percentage  (3)	Average Deviation  (4)
No Deviation	3	25.00%	-
Positive Deviation	9	75.00%	361 days
Negative Deviation	0	0.00%	N/A
<b>Total / Average</b>	<b>12</b>	<b>100.00%</b>	<b>270 days</b>

**Table 9. Summary of Project Duration Deviations by Type of Variance**

Project Subgroup  (1)	Number of Occurrences  (2)	Percentage  (3)	Average Project Duration  (4)	Schedule Deviation	
				Average No. of Days  (6)	% of Total Duration  (7)
No Deviation	2	16.67%	364 days	0 days	0.00%
Postive Deviation	8	66.67%	1005 days	231 days	34.13%
Negative Deviation	2	16.67%	197 days	-160 days	-12.30%
<b>TOTAL / AVERAGE</b>	<b>12</b>	<b>100.00%</b>	<b>764 days</b>	<b>127 days</b>	<b>16.65%</b>

**Table 10. Summary of Key Hindrances**

<b>Hindrance Criteria (1)</b>	<b>Number of Occurrences (2)</b>	<b>Percentage (3)</b>
Bureaucracy	4	16.00%
Caltrans Process & Procedures	2	8.00%
Caltrans Staff Assistance	1	4.00%
Contractors	3	12.00%
Engineering	1	4.00%
Environmental Issues	1	4.00%
Established Funding Procedures	1	4.00%
Local Staff Assistance	3	12.00%
State Process & Procedures	1	4.00%
Suppliers	2	8.00%
Unexpected Issues	1	4.00%
<i>No Comments</i>	5	20.00%
<b>Total</b>	<b>20</b>	<b>100.00%</b>

**Table 11. Summary of Keys to Success**

<b>Success Criteria (1)</b>	<b>Number of Occurrences (2)</b>	<b>Percentage (3)</b>
Caltrans Staff Assistance	9	26.47%
Cooperation among entities	4	11.76%
Established Funding Procedures	9	26.47%
Local Staff Assistance	4	11.76%
Ongoing Operations	4	11.76%
Program Flexibility	1	2.94%
Suppliers	1	2.94%
Training Programs	1	2.94%
<i>No Comments</i>	1	2.94%
<b>Total</b>	<b>34</b>	<b>100.00%</b>

## DIFFERENTIATION ANALYSIS

Despite the shortage of data, the research team next attempted to identify whether any project characteristics were more common to projects which performed better (with respect to budget and schedule) than in projects which did not perform as well. In order to make this differentiation, the team categorized the results into “Successful Projects” and “Special Projects” as defined below:

- **Successful Project:** Neither cost variance (expended – allocated) nor schedule duration variance (actual duration – planned duration) should be greater than zero (i.e. no cost overrun AND no duration / schedule slippage)
- **Special Project:** At least one of the two variances (cost and/or schedule) performed poorly (i.e. either cost overrun or schedule slippage, or both)

Table 12 shows the data sample breakdown between successful and special projects. As seen in the table, nearly two thirds of the projects were categorized as special, with most of the special projects resulting from schedule problems (65%). The table shows the average cost deviation for special projects to be \$32,000 (over budget) or about 10% of the expected budget. The average schedule duration deviation for special projects was 264 days (delayed) or 36% of the total duration.

### Key Success/Hindrance Factors

The one characteristic of the differentiated data that has immediate value, despite the lack of surveys, is key factors. These factors were items identified by the local transit agencies that were judged to have been keys to success or key hindrances for the specific project, but, in this analysis, the factors are divided based upon the successful/special project differentiation explained above.

Two tables are used to show these results. Table 13 shows a summary of keys to success for successful and special projects. The table shows that “Established Funding Procedures” and “Ongoing Operations” were the two key success factors for projects that performed well. In other words, the success of the projects that were truly successful was believed to be a result of appropriate funding and development and implementation of a sound and well-structured procedure. Table 13 also shows that “Established Funding Procedures” and “Caltrans Staff Assistance” were the two key success factors for projects that did not perform well. That means even special projects were perceived to be successful due to the above two factors.

The summary of key hindrance factors divided based upon the successful/special differentiation is not as clear. Table 14 shows a summary of key hindrances for successful and special projects. The table shows a large number of keys for projects that performed well and for projects that did not perform well. The keys are diverse and mostly common to both the successful and special projects types. Additional data is needed to reach conclusions, but it appears that “Contractors”, “Bureaucracy”, and “Local Staff Assistance” may be critical factors.

**Table 12. Summary of Successful and Special Projects – Overall**

Project Classification  (1)	Number of Occur.  (2)	Percent  (3)	C O S T				S C H E D U L E		
			Average No. of Funds  (4)	Average Amount  (5)	Average Deviation		Average Duration  (8)	Average Deviation	
					Amount  (6)	Percent  (7)		Amount  (9)	Percent  (10)
<b>Successful Projects</b>	4	36.36%	3	\$1,670,206	(\$10,632)	-3.51%	281 days	-80 days	-31.11%
<i>Schedule Slippage</i>	7	63.64%	1.71	\$13,643,452	\$32,138	9.85%	1097 days	264 days	36.31%
<i>Funding Slippage</i>	2	18.18%	2	\$300,333	\$136,494	69.66%	758 days	271 days	40.93%
<i>Sch. &amp; Fund Slippage</i>	2	18.18%	2	\$300,333	\$136,494	69.66%	758 days	271 days	40.93%
<b>Total Special Projects</b>	7	63.64%	2	\$13,643,452	\$32,138	9.85%	1097 days	264 days	36.31%
<b>TOTAL / AVERAGE</b>	<b>11</b>	<b>100.00%</b>	<b>2</b>	<b>\$9,289,545</b>	<b>\$16,585</b>	<b>4.99%</b>	<b>800 days</b>	<b>139 days</b>	<b>11.79%</b>



**Table 13. Summary of Keys to Success – Successful vs. Special Projects**

Success Category (1)	Successful Projects		Special Projects	
	No. of Occurrences (2)	Percentage (3)	No. of Occurrences (4)	Percentage (5)
Caltrans Staff Assistance	1	10.00%	4	28.57%
Cooperation among entities	0	0.00%	2	14.29%
Established Funding Procedures	3	30.00%	5	35.71%
Local Staff Assistance	2	20.00%	1	7.14%
Ongoing Operations	3	30.00%	1	7.14%
Suppliers	0	0.00%	1	7.14%
Training Programs	1	10.00%	0	0.00%
<b>Total</b>	<b>10</b>	<b>100.00%</b>	<b>14</b>	<b>100.00%</b>

**Table 14. Summary of Key Hindrances – Successful vs. Special Projects**

Hindrance Category (1)	Successful Projects		Special Projects	
	No. of Occurrences (2)	Percentage (3)	No. of Occurrences (4)	Percentage (5)
Bureaucracy	2	28.57%	2	20.00%
Caltrans Process & Procedures	1	14.29%	0	0.00%
Caltrans Staff Assistance	1	14.29%	0	0.00%
Contractors	1	14.29%	2	20.00%
Engineering	0	0.00%	1	10.00%
Established Funding Procedures	1	14.29%	0	0.00%
Local Staff Assistance	0	0.00%	2	20.00%
State Process & Procedures	0	0.00%	1	10.00%
Suppliers	0	0.00%	1	10.00%
<i>No Comments</i>	1	14.29%	1	10.00%
<b>Total</b>	<b>10</b>	<b>100.00%</b>	<b>14</b>	<b>100.00%</b>

## Future Analysis

As additional data becomes available, the power of the differentiation analysis can be truly recognized. Practically all of the tables of this report can be re-run based upon the two categories or even upon the subdivisions within the special projects category. Analyses of particular interest would be

- Examination of successful/special projects verses type of project
- Examination of successful/special projects verses size of project
- Examination of successful/special projects verses type of funding
- Examination of successful/special projects verses number of funds per project
- Examination of successful/special projects verses funding variation

Again, as was the case for the analysis that has already been done, once the database queries for these examinations has been done, monitoring and reporting of the results can take place as data comes available and/or as the analysis is needed.

## CONCLUSIONS AND RECOMMENDATIONS

The study has accomplished several major milestones in the analysis and improvement of the local transit agency project delivery process. The study achieved the following:

- Formalized the data collection process – identified list of data items to be collected (survey form), identified list of types of funding, identified list of types of projects
- Collection of data on 18 completed local agency transit projects
- Development of a data analysis methodology and presentation formats, using databases and spreadsheets. Development of capability to perform automated statistical analysis upon compilation of additional information true a user-friendly database form. *A diskette version of the Microsoft Access Database file (containing data to date, input screens, and queries) is attached to this report as Appendix II.* The program can be enhanced to incorporate additional analysis tools, as needed.
- Completion of data analysis for 11 completed projects. Specific findings to date are:
  1. *Nearly two thirds of the projects experienced a positive funding variance, meaning the projects did not receive funding up to the amount estimated to be needed by the local agency.*

2. *Three quarters of the projects had no budget variance from the funded amount;*
  3. *Half of the projects start later than planned and three quarters of the projects surveyed are completed later than planned.*
  4. *With respect to project duration, two thirds of the projects took longer to complete than originally planned.*
  5. *The average cost deviation for special projects was \$32,000 (over budget) or about 10% of the expected budget. The average schedule duration deviation for special projects was 264 days (delayed) or 36% of the total duration.*
- Creation of a list of key success/hindrane factors based on initial data set. Findings to date are:
    1. *The two primary keys to project success were identified as presence of “Caltrans Staff Assistance” and having an “Established Funding Procedure”.*
    2. *The primary key hindrances were excessive “Bureaucracy”, and poor “Local Staff Assistance.*

Some work remains to be researched by future METRANS teams and/or Caltrans. Specifically with respect to the local transit agency process, the following items are needed:

- Collection of additional data (to an amount so as to allow statistical justification of conclusions)
- Development of a framework to facilitate the data collection process (web-based/email)
- Development of automated project performance analysis methods through standard software packages in order to facilitate the Caltrans and local agency management and reporting efforts.
- Additional analysis of data particularly to determine when in the project life cycle the budget and schedule changes occur and whether key success and key hindrance factors vary across funding type and project type.

## IMPLEMENTATION

The implementation of the research findings has immediate practical application in three areas. The findings can be used by Caltrans Local Transit Project Delivery (LTPD) staff to:

- Begin data collection of existing projects as they come to completion through use of the data collection project survey form.
- Report program and project status using completed data forms and analysis methodology detailed in this report.
- Begin storage of completed project data in a master LTPD database. A diskette version of the Microsoft Access Database file (containing data to date, input screens, and queries) is attached to this report as Appendix II.

The recommended procedure for implementation of the findings in these two areas is through formal presentation of report findings and implementation suggestions to LTPD staff.

The implementation of the research findings also has potential practical application in two areas. The findings can potentially be used by Caltrans LTPD staff to:

- Continue the data collection process as projects are completed, create a statistically significant sample, confirm and/or deny and expand upon the key success/hindrance factors proposed in this report
- Facilitate program and project status reporting through web-based data collection forms and automated analysis methodology and report templates.

The recommended procedure for potential implementation of the findings in these two areas is through formal presentation of report findings and implementation suggestions to LTPD staff and further work by the Caltrans LTPD teams and METTRANS researchers in these two areas.

## REFERENCES

Anderson, Stuart D. and Tucker, Richard L. (1994). Improving Project Management if Design." *Journal of Management in Engineering*, Vol. 10, No.4, July/August 1994.

Arditi, David, and Yasamis, Firuzan (1998). "Incentive/Disincentive Controls: Perceptions of Owners and Contractors." *Journal of Construction Engineering and Management*, Vol. 124, No. 5, September/October 1998.

Arditi, David, Khisty, C. Jotin, and Yasamis, Firuzan (1997). "Incentive/Disincentive Provisions in Highway Contracts." *Journal of Construction Engineering and Management*, Vol. 123, No. 3, September 1997.

Chua, D. K. H., Kog, Y. C., and Loh, P. K. (1999). "Critical Success Factors for Different Project Objectives." *Journal of Construction Engineering and Management*, Vol.125, No.3, May/June 1999.

Cittenden, Ross A. (1997). "Caltrans' quest for "True Project Management" in government", *PM Network*, Vol. 11, No. 4, p. 25-28.

Gibson, G. E., Kaczmarowski, J. H., and Lore, H. E. (1995). "Preproject-planning process for capital facilities", *Journal of Construction Engineering and Management*, Vol. 121, No. 3, p. 312-318.

Hartman, Ronald J., Kurtz, Elaine M., and Winn, Alan B., "The Role of Performance-Based Measures in Allocating Funding for Transit Operations", *National Cooperative Highway Research Program Synthesis of Transit Practice 6*, Transportation Research Board, Washington D. C.

Herbsman, Zohar, J. (1995). "A + B bidding method -- Hidden Success Story for Highway Construction", *Journal of Construction Engineering and Management*, Vol. 121, No. 4, p. 430-437.

Jaselskis, Edward J. and Ashley, David B. (1991). "Optimal Allocation of Project Management Resources for Achieving Project Success." *Journal of Construction Engineering and Management*, Vol. 117, No. 2, p. 321-340

KFH Group, Institute for Transpiration Research and Education (ITRE), and Laidlaw Tranist Services (1999). "Management Toolkit for Rural and Small Urban Transportation Systems", *National Cooperative Highway Research Program Report 357*, Transportation Research Board, Washington D. C.

Molenaar, Keith R., Songer, Anthony D., and Barash, Mouji (1999). "Public-Sector Design/Build Evolution and Performance." *Journal of Management in Engineering*, Vol. 15, No. 2, March/April 1999.

O'Connor, James T., and El-Diraby, Tamer E. (2000). "Urban Freeway Bridge Reconstruction Planning: Case of Mockingbird Bridge." *Journal of Construction Engineering and Management*, Vol. 126, No. 1, January/February 2000.

Otto, Steve and Ariaratnam, Samuel T. (1999). "Guidelines for Developing Performance Measures in Highway Maintenance Operations" *Journal of Transportation Engineering*, Vol. 125, No. 1, p. 46-54.

Poister, Theodore H. (1999). "Performance Measurement in State Departments of Transportation", *National Cooperative Highway Research Program Synthesis of Highway Practice 238*, Transportation Research Board, Washington D. C.

Reed, M. F., Luettich, R. A., and Lamm, L. P. (1993). "Measuring State Transportation Program Performance", *National Cooperative Highway Research Program Report 357*, Transportation Research Board, Washington D. C.

Sanvido, Victor, Grobler, Francois, Parfitt, Kevin, Guvenis, Moris, and Coyle, Michael (1992). "Critical Success Factors for Construction Projects." *Journal of Construction Engineering and Management*, Vol. 118, No. 1, p. 94-111.

## **APPENDIX I**

The following pages contain the 18 data surveys completed by local agencies.

# California Department of Transportation

## Local Agency Transit Project Delivery Data Collection Form

As part of Caltrans' effort to improve project delivery performance, the Local Transit Project Delivery (LTPD) Task Force is in the process of collecting data that is representative of completed local transit agency projects in order to identify performance trends and areas for improvement. Your assistance in completing this for your agency's completed projects is the first step in this effort. All information is confidential; please select projects representative of your agency. Answer all questions to the best of your ability. Return to Caltrans by April 21, 2000.

Please use one form per project; thanks for your help!

1. Project Title FY 98-99 OPERATIONS  
 Project Description OPERATE TRANSIT SERVICE IN SANTA CRUZ COUNTY 7/1/98 - 6/30/99

2. Project Location SANTA CRUZ COUNTY Caltrans Dist. No. 045

3. Project Type OPERATIONS PPNO# NA  
(see reverse side for examples)

4. Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
a TDA	\$ 4,455,126	4,605,126	4,605,126
b FTA	\$ 1,514,904	504,290	584,290
c FARE	\$ 5,412,218	5,284,729	5,284,229
d SOCIAL OTHER	\$ 13,457,747	13,512,355	13,512,355
e	\$		
<b>Total Project Cost</b>	<b>\$ 24,664,000</b>	<b>24,856,000</b>	<b>24,856,000</b>

5. Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>7/1/1998</u>	<u>6/30/1999</u>	<u>7/1/1998</u>	<u>6/30/1999</u>

6. Keys to Success (Feel free to list several) ① ONGOING OPERATIONS  
② ESTABLISHED FUNDING PROCEDURES

Major Hindrances (Feel free to list several) EXCESSIVE DOCUMENTATION FOR FTA APPLICATION

7. Additional Comments (optional; as needed)

Contact Name: THOMAS HETNER (for questions only!)  
 Phone: 857 426 6080 email: thetner@scm.co.gov

Please return your completed surveys to:

Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov



# California Department of Transportation

## Local Agency Transit Project Delivery Data Collection Form

*As part of Caltrans' effort to improve project delivery performance, the Local Transit Project Delivery (LTPD) Task Force is in the process of collecting data that is representative of completed local transit agency projects in order to identify performance trends and areas for improvement. Your assistance in completing this for your agency's completed projects is the first step in this effort. All information is confidential; please select projects representative of your agency. Answer all questions to the best of your ability. Return to Caltrans by April 21, 2000.*

*Please use one form per project; thanks for your help!*

1. **Project Title** Operate Sunday Service for 2 years  
**Project Description** CMAQ funding for new service start up

2. **Project Location** City / County Modesto **Caltrans Dist. No.** 10

3. **Project Type** Transit Operation **PPNO #** CML 5059 (46)  
(see reverse side for examples)

4. **Project Funding**

Fund Type	Programmed	Allocated	Expended (actual)
a <u>CMAQ</u>	<u>\$394,320</u>	<u>394,320</u>	<u>380,874</u>
b <u>LTF</u>	<u>\$ 73,680</u>	<u>73,680</u>	<u>71,151</u>
c _____	<u>\$ _____</u>	<u>_____</u>	<u>_____</u>
d _____	<u>\$ _____</u>	<u>_____</u>	<u>_____</u>
e _____	<u>\$ _____</u>	<u>_____</u>	<u>_____</u>
<b>Total Project Cost</b>	<b><u>\$468,000</u></b>	<b><u>468,000</u></b>	<b><u>452,025</u></b>

5. **Project Schedule (Dates)**

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>10 / 01 / 97</u>	<u>10 / 31 / 99</u>	<u>11 / 03 / 96</u>	<u>10 / 31 / 99</u>

6. **Keys to Success (Feel free to list several)** Adequate demand for Sunday Service. Appropriate routing and scheduling.

**Major Hindrances (Feel free to list several)** Paperwork for FTA who administers the grant was less burdensome than the Caltrans paperwork requesting transferring the funds to FTA.

7. **Additional Comments (optional; as needed)** Modesto is an urbanized area of more than 200,000. We deal directly with FTA for all Federal Transit Funding with the exception of CMAQ.

Contact Name: Terry Easley (for questions only)  
 Phone: (209) 577-5317 email: teasley@ci.modesto.ca.us

Please return your completed surveys to:

Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St. Los Angeles, CA 90012

Questions? Please contact:  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov

# California Department of Transportation

## Local Agency Transit Project Delivery Data Collection Form

As part of Caltrans' effort to improve project delivery performance, the Local Transit Project Delivery (LTPD) Task Force is in the process of collecting data that is representative of completed local transit agency projects in order to identify performance trends and areas for improvement. Your assistance in completing this for your agency's completed projects is the first step in this effort. All information is confidential; please select projects representative of your agency. Answer all questions to the best of your ability. Return to Caltrans by April 21, 2000.

Please use one form per project; thanks for your help!

1. Project Title FY 98-99 RURAL OPERATING ASSISTANCE  
 Project Description OPERATE PUBLIC TRANSIT SERVICE IN THE NON-URBANIZED AREA OF SANTA CRUZ Co.

2. Project Location City/County SANTA CRUZ COUNTY Caltrans Dist. No. 05

3. Project Type OPERATIONS PPNO # \_\_\_\_\_  
(see reverse side for examples)

4. Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
a DEDICATED TRANSIT SALES TAX	\$ <u>306,376</u>	<u>306,376</u>	<u>306,376</u>
b FTA 65% ASSISTANCE	\$ <u>36,604</u>	<u>36,604</u>	<u>36,604</u>
c <u>(FAREBOX REVENUE)</u>	\$ <u>(34,625)</u>	<u>(34,625)</u>	<u>(34,625)</u>
d	\$ _____	_____	_____
e	\$ _____	_____	_____
Total Project Cost	\$ <u>377,605</u>	<u>377,605</u>	<u>377,605</u>

5. Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>7/1/1998</u>	<u>6/30/1999</u>	<u>7/1/1998</u>	<u>6/30/1999</u>

6. Keys to Success (Feel free to list several) ① ONGOING OPERATIONS REQUIRED NO PROCUREMENT, TRAINING OR PERSONNEL RECRUITMENT  
② ESTABLISHED CALTRANS PROCEDURES FOR ALLOCATION APPLICATION, GRANTING + INVOICING EXPEDITED DELIVERY OF PROJECT.

Major Hindrances (Feel free to list several) NONE

7. Additional Comments (optional; as needed) THIS IS A VERY EFFICIENT GRANT PROGRAM ADMINISTERED AT CALTRANS THROUGH THE DLAD.

Contact Name: THOMAS HILTNER (for questions only!)  
 Phone: 831-426-6000 email: thiltner@scmtd

Please return your completed surveys to:

Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov

CITY OF CORCORAN PUBLIC WORKS MEMO

DATE: 04/27/2000  
 TO: DARIA SIMOLKE, CALTRANS  
 FROM: STEVE KROEKER  
 RE: CALTRANS

Here are my answers to your Data Collection Form.

Project 1.

1. Project Title -

A/C Overlay

Project Description -

Grinding placement of reinforcing fabric, 2" A/C overlay, re-stripping and manhole adjustments locations within the City of Corcoran.

2. Project Location

City of Corcoran / Kings County

Caltrans District Number

6 - Fresno

3. Project Type

SB45

PPNO#

COR-01/15

4. Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
STIP - State	1,456,000.	1,456,000.	1,350,000.

04/27/2000

CITY OF CORCORAN - PUBLIC WORKS MEMO: CALTRANS

*Handwritten scribble*

We currently have several CMAQ projects in the works; they are as follows;

1. New Transit Buses (2) - \$250,000.00 +/-
2. New CNG Vehicles (19) - 375,000.00 +/-
3. New CNG Fueling Station (1) - 250,000.00 +/-
4. Traffic light replacements (3) - \$375,000.00 +/-

The new bus project has been in the process for over a year and a half. Some of this is because we agreed to change the application from one to two buses. The other projects have all been in the process over one year and we do not know when they will be completed. The main problem is that there is a lot of work in this process. We do not do applications for Caltrans projects on a regular basis. Since the requirements may change, some of the applications do not fit into the normal categories. Sometimes there are too many new people trying to assist us in this process so we have a hard time completing this process in what we would consider a timely manner.

On our bus project, we have had at least three different people assigned to this project. Each time we get a new person it is like a new application and this is the same for all of these applications.

I would suggest that the people in Caltrans consider that while this is all they may do, it is only portion of our day, month or year. We do these applications occasionally between many other projects that we have to complete from picking up dead dogs to completing City Master Plans. It may sound lazy but for a City the size of Corcoran, we need a "One Stop Shopping" point where we can come in and say "We need money for this". Then whoever is sitting on the other side of the desk would say "Come back in three weeks". "If there is money available for your project we will have some papers for you to sign or a resolution for your Council to adopt". This person would then let us know when the money is available. We do not need help choosing projects, designing projects, or completing projects, we need help in all of the pre-construction portions of the application and project.

I understand that Caltrans does an awful lot in completing the application process and we all appreciate it. In spite of all of this, a large portion of this money is not getting to the small cities like the City of Corcoran because the staff is not available to complete the process. The staff is not available because there is not enough money to hire the required people.

I have always wondered why does Caltrans use engineers to do this work, - the application process is not engineering.

I hope this will help and that it makes some sense to you, if you have any further questions please feel free to contact me here at the City of Corcoran.

Steve Krocker, City of Corcoran - Public Works Director

04/27/2000

CITY OF CORCORAN - PUBLIC WORKS MEMO: CALTRANS

Total Project Cost	1,456,000.	1,456,000.	1,350,000.
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5. Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
7/1/99	11/15/99	8/99	12/99

6. Keys to Success

Local assistance at the County and State levels. The City of Corcoran is a small rural community with a small Public Works Department. We do not have all of the engineers and people available to respond to all of the questions, requests for information, to complete all of the required forms / documents and other elements often required by these grants.

Major Hindrances

Getting the money once the contractor invoiced for the work completed. We took the admonition serious that if we did not use the money we would loose it so we worked hard to complete the projects quickly and when we submitted the invoices the State was not ready to start paying.

Additional Comments

Before my accepting this position the City of Corcoran did not apply for too many of projects of this type due to the formidable process that many of these projects require. As I mentioned before we are not a large department with the staff and engineers that a City seems to need in order to be successful in funding these projects. While I am willing to do a lot of paper work for the amount of money we are talking about. However, with all of the other things we have to deal with there often just is not enough time to complete this process. This issue is even more of a problem when there are problems with the directions we receive, the forms, receipt of the forms and additional information being requested as a result of the application.

We have just completed a construction project involving the Corcoran Depot. This project was completed with CMAQ, STIP and various other fund sources. The completed project was just under one million dollars. This project went as smooth as possible but it took a great deal of time due to the various agencies which had to approve the project and to complete the plans to meet these requirements. The entire project took over 5 years. The main reason this project went so well was that the people involved with the project with Caltrans were very experienced in completing the applications and projects of this type

## California Department of Transportation Local Agency Transit Project Delivery Data Collection Form

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Please use one form per project; thanks for your help!

1. Project Title: Intermodal Transportation Center  
 Project Description: Acquire ROW for project

2. Project Location: City/County Thousand Oaks Caltrans Dist. No. 7

3. Project Type: Transit Station (see reverse side for examples) PPNO # 9737

4. Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
a. <del>T</del> TCI	\$ <u>349,000</u>	<u>349,000</u>	<u>349,000</u>
b. _____	\$ _____	_____	_____
c. _____	\$ _____	_____	_____
d. _____	\$ _____	_____	_____
e. _____	\$ _____	_____	_____
Total Project Cost	\$ _____	_____	_____

5. Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>1 N/A</u>	<u>6/30/98</u>	<u>1 N/A</u>	<u>4/30/99</u> (acquisition)

6. Keys to Success (Feel free to list several)

Major Hindrances (Feel free to list several)

Lack of up front direction from Caltrans as to what the ~~steps~~ approval requirements, how the process works, what the proper invoice should be. Also, need better training for local agencies.

7. Additional Comments (optional; as needed)

Most of the Caltrans staff involved at the time are no longer with the program.

Contact Name: Peter De Haan (for questions only)  
 Phone: (805) 642-1591, x108 email: pdehaan@govnetno.org

Please return your completed surveys to:  
 Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov

## California Department of Transportation Local Agency Transit Project Delivery Data Collection Form

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Please use one form per project; thanks for your help!

1. Project Title REHABILITATE 4 TRANSIT COACHES  
Project Description REHABILITATE 4 - 1980 GMC RTS COACHES FOR INTER-COUNTY SERVICE

2. Project Location CITY/COUNTY RIVERSIDE, RIVERSIDE COUNTY Caltrans Dist. No. 8

3. Project Type TRANSIT CAPITAL IMPROVEMENT PPNO# FTAAD8A0  
(see reverse side for examples)

4. Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
a <u>LTF/TDA</u>	\$ <u>200,000</u>	\$ <u>200,000</u>	\$ <u>338,778</u>
b <u>TCI</u>	\$ <u>200,000</u>	\$ <u>200,000</u>	\$ <u>178,173</u>
c	\$		
d	\$		
e	\$		
<b>Total Project Cost</b>	\$ <u>400,000</u>	\$ <u>400,000</u>	\$ <u>516,951</u>

5. Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>9/1/95</u>	<u>6/1/96</u>	<u>9/1/95</u>	<u>1/1/96</u>

6. Keys to Success (Feel free to list several)  
TIMELY REIMBURSEMENTS, HELPFUL DISTRICT STAFF

Major Hindrances (Feel free to list several)  
INITIAL MISCOMMUNICATIONS REGARDING ELIGIBLE MATCHING FUND REQUIREMENTS

7. Additional Comments (optional; as needed)

Contact Name: STEVE OLLER, Deputy General Mgr (for questions only)  
Phone: 909.684.0850 email: StevE.O@vta.com

Please return your completed surveys to:

Eihami Nasr, LTPD Project Manager  
California Department of Transportation (CALTRANS), District 7  
120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
Eihami Nasr, LTPD Project Manager  
Tel: (213) 897-0227  
Fax: (213) 897-0361  
eihami.nasr@dot.ca.gov

# California Department of Transportation

## Local Agency Transit Project Delivery Data Collection Form

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Please use one form per project; thanks for your help!

1. Project Title CHOWCHILLA AREA TRANSIT EXPRESS / CATX  
 Project Description VEHICLE ACQUISITION

2. Project Location City/County CITY OF CHOWCHILLA Caltrans Dist No. 6

3. Project Type VEHICLE ACQUISITION PPN# \_\_\_\_\_  
(see reverse side for examples)

4. Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
a <u>CMAQ</u>	\$ <u>47,130</u>	<u>PENDING</u>	<u>PENDING</u>
b <u>LTP</u>	\$ <u>8,870</u>	"	"
c _____	\$ _____	_____	_____
d _____	\$ _____	_____	_____
e _____	\$ _____	_____	_____
Total Project Cost	\$ <u>56,000</u>	"	"

5. Project Schedule (Dates) \*(5311 APPLIC. SUBMITTED 8/99)

*Planned Start	Planned Completion	Actual Start	Actual Completion
<u>11 / 1 / 99</u>	<u>6 / 1 / 00</u>	<u>PENDING</u>	<u>PENDING</u>

6. Keys to Success (Feel free to list several)

Major Hindrances (Feel free to list several)

1. REQUIREMENT TO COMPLETE AN FTA 5311 GRANT APPLICATION TO TRAN AND ALSO THE "REQ. FOR AUTH. TO PROCEED" FORMS TO LOCAL ASSISTANCE FOR CMAQ FUNDS!
2. LACK OF COMMUNICATION, COORDINATION & UNDERSTANDING BY CALTRANS STAFF OF PROCESS BETW. BOTH DIVISIONS
3. STAFF TURNOVER

7. Additional Comments (optional, as needed)

- E76 FORMS NOT USER-FRIENDLY (MORE TO ACCOMMODATE COMPUTER PROGRAMMER) & NOT TRANSIT-FRIENDLY (TRANSIT STAFF ARE NOT FAMILIAR W/ PROCESS, SO REQUIRES HARD LEARNING CURVE)

Contact Name: ELLEN MOY (for questions only!) DELAYS!  
 Phone: (559) 435-1117 email: vcc@mediaone.net RESULTS IN M.

Please return your completed surveys to:

Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov

4. LENGTHY RTPA APPROVAL OF FTIP AMENDMENTS
5. SIGNIFICANT DELAY IN CALTRANS 5311 GRANT APPROVAL (AUGUST 1999 & STILL WAITING!). LOC. ASST. WILL NOT APPROVE AN E76 UNTIL 5311 GRANT APPROVED!



Post-It™ brand fax transmittal memo 7671 # of pages >

To: Elhami Nasr	From: Joseph Wanf
Co: Caltrans	Co: LADOT
Dept: LTPD Project Manager	Phone #: 213-847-6079
Fax #: 213-847-0381	Fax #: 213-485-4182

Department of Transportation  
**Delivery Data Collection Form**

The Transit Project Delivery (LTPD) Task Force is in the process of reviewing projects in order to identify performance trends and areas for improvement. The review of completed projects is the first step in this effort. All information is confidential; please provide information to the best of your ability. Return to Caltrans by April 21, 2000.

Please use one form per project; thanks for your help!

- Project Title: Culver Blvd. Median Bike Path  
 Project Description: Design + construction of a class I bikeway on Culver Blvd. between Sawtelle - McLowry 1.4 miles
- Project Location: City/County LA City/ LA County Caltrans Dist. No. 7
- Project Type: Bikeways PPNO # \_\_\_\_\_  
(see reverse side for examples)
- Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
a <u>STP</u>	\$ <u>1,257,000</u>	<u>1,257,000</u>	<u>1,257,000</u>
b <u>TSM</u>	\$ <u>163,000</u>	<u>163,000</u>	<u>163,000</u>
c <u>TDA 3</u>	\$ <u>280,000</u>	<u>280,000</u>	<u>1,650,400.65</u>
d	\$ _____	_____	_____
e	\$ _____	_____	_____
<b>Total Project Cost</b>	\$ <u>1,700,000</u>	<u>1,700,000</u>	<u>2,470,257.65</u>
- Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>1/1/1995</u>	<u>6/1/1997</u>	<u>4/1/1995</u>	<u>3/1/1999</u>
- Keys to Success (Feel free to list several) ① Supported from local community and elected officials ② LA City provided sufficient funds for front loading, local match, and cost overrun. ③ LADOT and LA Buss have experience and expertise in designing and management of bikeway projects. ④ professional experience of the contractor ⑤ Good coordination with MTA, contractors, city crews etc

Major Hindrances (Feel free to list several) None.
- Additional Comments (optional; as needed)

Contact Name: Joseph Wanf (for questions only)  
 Phone: 213-847-6079 email: \_\_\_\_\_

Please return your completed surveys to:

Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov

# California Department of Transportation

## Local Agency Transit Project Delivery Data Collection Form

As part of Caltrans' effort to improve project delivery performance, the Local Transit Project Delivery (LTPD) Task Force is in the process of collecting data that is representative of **completed local transit agency projects** in order to identify performance trends and areas for improvement. Your assistance in completing this for your agency's completed projects is the first step in this effort. All information is confidential; please select projects representative of your agency. Answer all questions to the best of your ability. **Return to Caltrans by April 21, 2000.**

Please use one form per project; thanks for your help!

1. **Project Title** Eastside Lane  
**Project Description** Rehabilitate, Widen, Improve Drainage and Pave

2. **Project Location** City / Cour Walker, Mono County Caltrans District 9

3. **Project Type** 3R PPNO #  
(see reverse side for examples)

4. **Project Funding**

Fund Type	Programmed	Allocated	Expended (actual)
a <u>Envir</u>	\$ <u>32000</u>	<u>14000</u>	<u>14000</u>
b <u>PSE</u>	\$ <u>10000</u>	<u>28,000</u>	<u>15000</u>
c <u>RIW</u>	\$ <u>3000</u>	<u>3000</u>	<u>0</u>
d <u>Constr</u>	\$ <u>1047000</u>	<u>1047000</u>	<u>0</u>
e	\$		
<b>Total Project Cost</b>	\$ <u>1092000</u>	<u>1092000</u>	<u>29000</u>

5. **Project Schedule (Dates)**

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>5 / 100</u>	<u>9 / 100</u>	<u> / /</u>	<u> / /</u>

6. **Keys to Success (Feel free to list several)** Assistance from Caltrans and DLAE

**Major Hindrances (Feel free to list several)** None

7. **Additional Comments (optional; as needed)**

Contact Name: John K Beck (for questions only)  
 Phone: (760) 932 7655 email: monopw2jb

Please return your completed surveys to:  
 Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov

# California Department of Transportation

## Local Agency Transit Project Delivery Data Collection Form

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Please use one form per project; thanks for your help!

1. **Project Title** Crowley Lake Drive  
**Project Description** Rehabilitate, widen, improve drainage and Pave

2. **Project Location** City / County Crowley Lake, Mono Co Caltrans District No. 9

3. **Project Type** 3R PPNO #  
(see reverse side for examples)

4. **Project Funding**

	Fund Type	Programmed	Allocated	Expended (actual)
a	<u>ENVIR</u>	<u>\$ 50000</u>	<u>13000</u>	<u>13000</u>
b	<u>PS&amp;E</u>	<u>15000</u>	<u>52000</u>	<u>26000</u>
c	<u>RIW</u>	<u>3000</u>	<u>3000</u>	<u>0</u>
d	<u>Constr</u>	<u>1473000</u>	<u>1473000</u>	<u>0</u>
e	<u></u>	<u>\$</u>	<u></u>	<u></u>
<b>Total Project Cost</b>		<b>\$ 1541000</b>	<b>1541000</b>	<b>39000</b>

5. **Project Schedule (Dates)**

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>5 / 100</u>	<u>9 / 00</u>	<u>/ /</u>	<u>/ /</u>

6. **Keys to Success (Feel free to list several)-** Assistance from Caltrans & DLAE

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**Major Hindrances (Feel free to list several)** None

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7. **Additional Comments (optional; as needed)**

---

**Contact Name:** John K. Beck (for questions only!)  
**Phone:** (760) 932 7655 **email:** monopw2jb

Please return your completed surveys to:

Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov

# California Department of Transportation

## Local Agency Transit Project Delivery Data Collection Form

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Please use one form per project; thanks for your help!

1. **Project Title** Lower Rock Creek Road  
**Project Description** Rehabilitate, Improve Drainage and Pave

2. **Project Location** City / County Paradise, Mono County **Caltrans Dist. No.** \_\_\_\_\_

3. **Project Type** 3R **PPNO #** \_\_\_\_\_  
(see reverse side for examples)

4. **Project Funding**

Fund Type	Programmed	Allocated	Expended (actual)
a <u>ENVIR</u>	\$ 26000	18000	18000
b <u>P&amp;E</u>	\$ 15000	23000	13000
c <u>R/W</u>	\$ 3000	3000	0
d <u>Constructr</u>	\$ 1166000	1166000	0
e _____	\$ _____	_____	_____
<b>Total Project Cost</b>	<b>\$ 1210000</b>	<b>1210000</b>	<b>31000</b>

5. **Project Schedule (Dates)**

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>5 / 00</u>	<u>9 / 00</u>	<u> / /</u>	<u> / /</u>

6. **Keys to Success (Feel free to list several) --** Assistance from Caltrans & DLAE

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Major Hindrances (Feel free to list several)** None

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. **Additional Comments (optional; as needed)**

\_\_\_\_\_

\_\_\_\_\_

Contact Name: John K. Beck (for questions only)  
 Phone: (760) 932 7655 email: monopw2jb

Please return your completed surveys to:  
 Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov

# California Department of Transportation

## Local Agency Transit Project Delivery Data Collection Form

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Please use one form per project; thanks for your help!

1. **Project Title** Arlington Avenue Underpass @ BNSF Railroad Crossing Project  
**Project Description** \_\_\_\_\_

2. **Project Location** City / County Riverside/Riverside Caltrans Dist. No. 08

3. **Project Type** \_\_\_\_\_ PPNO # \_\_\_\_\_  
(see reverse side for examples)

4. **Project Funding**

Fund Type	Programmed	Allocated	Expended (actual)
a PUC Grade Separation	\$ 5,000,000	_____	5,000,000
b CMAQ	\$ 3,106,292	_____	Note 3,106,292
c Local Funds	\$ 3,293,708	_____	Note 900,000
d BSNF Participatory	\$ 600,000	_____	Note 944,013
e TCI	\$ 500,000	_____	500,000
<b>Total Project Cost</b>	<b>\$ 12,500,000</b>	_____	<b>10,450,305</b>

5. **Project Schedule (Dates)**

Planned Start	Planned Completion	Actual Start	Actual Completion
/ /	/ /	07/13/1998	08/17/1999

6. **Keys to Success (Feel free to list several)** \_\_\_\_\_  
**Public cooperation** \_\_\_\_\_  
**Coordination/cooperation between contractors, railroad, government agencies, utilities, and local property owners** \_\_\_\_\_

**Major Hindrances (Feel free to list several)** \_\_\_\_\_  
**Typical delays due to unexpected construction occurrences.** \_\_\_\_\_

7. **Additional Comments (optional; as needed)** \_\_\_\_\_  
**A finalized cost accounting has not been completed. Totals are estimated.**

**Contact Name:** Donald Young (for questions only!)  
**Phone:** 909-826-5767 **email:** YDON@ci.riverside.ca.us

Please return your completed surveys to:

Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov

## California Department of Transportation Local Agency Transit Project Delivery Data Collection Form

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Please use one form per project; thanks for your help!

1. Project Title: PALM SPRINGS INTERMODAL STATION Phase II  
 Project Description: Rail Passenger Shelter / Parking / Utilities / Landscape

2. Project Location: City / County PALM SPRINGS / RIVERSIDE Caltrans Dist. No. 8

3. Project Type: TCE FTA OBA04 PPNO # \_\_\_\_\_  
(see reverse side for examples)

4. Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
a <u>TCE</u>	\$ <u>631,650</u>	<u>631,650</u>	<u>549,214.16</u>
b <del>TCE</del> <u>JCI</u>	\$ <u>482,350</u>	<u>482,350</u>	<u>479,940.99</u>
c	\$ _____	_____	_____
d	\$ _____	_____	_____
e	\$ _____	_____	_____
Total Project Cost	\$ <u>1,114,000.00</u>	<u>1,114,000.00</u>	<u>1,029,155.15</u>
	\$ <u>631,650</u>	<u>631,650</u>	<u>549,214.16</u>

5. Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>9/1/96</u>	<u>4/1/98</u>	<u>11/1/98</u>	<u>7/31/99</u>

6. Keys to Success (Feel free to list several) Persistence in dealing with the railroad.  
Great cooperation and help from Dist 8 Reps.

Major Hindrances (Feel free to list several) Railroad folks are not helpful.  
Some delays due to disputes with contractor.

7. Additional Comments (optional; as needed) We have a great station - thanks for the dollars.

Contact Name: Allen Smoot ASST C.M. (for questions only)  
 Phone: (760) 323 8129 email: AllenS@ci-palm-springs.ca.us

Post-It Fax Note	7671	Date	<u>2-25-00</u>	# of Pages	<u>2</u>
To	<u>EIHAMI NASR</u>	From	<u>MARIE PETREY</u>		
Co./Dept	<u>DIST 7</u>	Co.	<u>DIST 8</u>		
Phone #	<u>(213) 897-0227</u>	Phone #	<u>(909) 383-5941</u>		
Fax #	<u>(213) 897-0381</u>	Fax #	<u>(909) 383-5936</u>		

Questions? Please contact:  
 Elhami Naer, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami.naer@dot.ca.gov

## California Department of Transportation Local Agency Transit Project Delivery Data Collection Form

As part of Caltrans' effort to improve project delivery performance, the Local Transit Project Delivery (LTPD) Task Force is in the process of collecting data that is representative of completed local transit agency projects in order to identify performance trends and areas for improvement. Your assistance in completing this for your agency's completed projects is the first step in this effort. All information is confidential; please select projects representative of your agency. Answer all questions to the best of your ability. Return to Caltrans by April 21, 2008.

Please use one form per project; thanks for your help!

1. Project Title Bus Handicapped Type III/State Contract  
Project Description Back-up Vehicle Acquisition

2. Project Location City/County Willows/Glenn Caltrans Dist. No. 3

3. Project Type Vehicle Acquisition (see reverse side for examples) LTRNO # \_\_\_\_\_

4. Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
a 5311(f)	\$ 40,800	\$34,000	\$50,188
b	\$ _____	_____	_____
c	\$ _____	_____	_____
d	\$ _____	_____	_____
e	\$ _____	_____	_____
<b>Total Project Cost</b>	<b>\$ 40,800</b>	<b>\$34,000</b>	<b>\$50,188</b>

5. Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
6 / 29 / 98	9 / 29 / 98	6 / 29 / 98	12 / 22 / 98

6. Keys to Success (Feel free to list several) An opportunity to purchase a new bus verses a used bus as originally approved in the 5311(f) grant.

Major Hindrances (Feel free to list several) Delivery promised in 90 days from acceptar of quote. After 90 days, several frustrating phone calls with El Dorado Bus sales person. State processed contract, after several frustrating calls to State representative. Agency leasing vehicle during this period at \$900 a month. Problem with delivery, as we are small operation with no drivers available to pick-up bus in bay area

7. Additional Comments (optional; as needed) New service that needed this bus for back- Leased vehicle that drivers and management prayed that would not be paded in operation. Bus design is of inferior quality with comfort level not to same standard as other bus purchased for our program. Av

Contact Name: Gloria J. Weems (for questions only) route time 3  
Phone: (530) 934-6700 email: glenntransit@glenncounty.net

Please return your completed surveys to:

Eihani Nasr, LTPD Project Manager  
California Department of Transportation (CALTRANS), District 7  
120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
Eihani Nasr, LTPD Project Manager  
Tel: (213) 897-0227  
Fax: (213) 897-0381  
eihani\_nasr@dot.ca.gov

Examples of Project Types:

- Operations
- Vehicle Acquisition
- Transit Stations (bus, rail, ferry)
- Non-Station Facilities
- Misc. Equipment
- Fixed Guideway - Track Improvements
- Other: (Please Describe)

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Please use one form per project; thanks for your help!

1. Project Title CNG STAFF VEHICLE PURCHASE  
 Project Description PURCHASE CNG FUELED STAFF REPLACEMENT CAR

2. Project Location CITY / COUNTY SANTA CRUZ METRO TRANSIT DISTRICT Caltrans Dist. No. 05

3. Project Type VEHICLE ACQUISITION PPNO # NA  
(see reverse side for examples)

4. Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
a <u>AS 2766</u>	\$ <u>6,000</u>	\$ <u>6,000</u>	\$ <u>6,000</u>
b <u>LOCAL</u>	\$ <u>24,000</u>		<u>15,008.97</u>
c	\$		
d	\$		
e	\$		
<b>Total Project Cost</b>	\$ <u>30,000</u>	<u>6,000</u>	<u>21,008.97</u>

5. Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>10/15/97</u>	<u>10/15/98</u>	<u>10/15/97</u>	<u>8/10/99</u>

6. Keys to Success (Feel free to list several)

- ① METRO ASSISTANCE IN PROCESSING GRANT
- ② METRO STAFF RESPONSIVENESS TO DEVELOP RFP, BID AND ANVRA CONTRACT
- ③ MANUFACTURER'S ABILITY TO DELIVER VEHICLE

Major Hindrances (Feel free to list several)

① UPON PROJECT COMPLETION, STAFF TURNOVER AT SCMTD RESULTED IN LOSS OF PROJECT CONTINUITY. THE FINAL REPORT AND INVOICE WERE SUBMITTED OCTOBER, 1999

7. Additional Comments (optional; as needed)

Contact Name: THOMAS HILTNER (for questions only)  
 Phone: 631 426 6000 email: thiltner@scmtd.com

Please return your completed surveys to:

Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov



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Please use one form per project; thanks for your help!

1. Project Title ALTERNATIVE FUELS PROGRAM SCMTD  
 Project Description PURCHASE & REPLACEMENT ALTERNATIVE FUEL VANS FOR GASOLINE ENGINE VANS

2. Project Location City/County SANTA CRUZ COUNTY Caltrans Dist. No. 5

3. Project Type VEHICLE ACQUISITION PPNO # NA  
(see reverse side for examples)

4. Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
a <u>PVE A</u>	\$ <u>100,000</u>	\$ <u>100,000</u>	\$ <u>0</u>
b	\$		
c	\$		
d	\$		
e	\$		
Total Project Cost	\$ <u>100,000</u>		

5. Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>12/31/98</u>	<u>12/31/99</u>	<u>04/15/99</u>	<u>04/15/2000</u>

6. Keys to Success (Feel free to list several) THE SUCCESS OF THIS PROJECT CAME FROM THE OVERSIGHT AND GUIDANCE OF CEC STAFF, MARIA KETCHUM AND LISA JOHNSON.  
THE PROGRAM'S FLEXIBILITY WHICH ENABLED CHANGES IN VEHICLE TYPE & NUMBER.

Major Hindrances (Feel free to list several) MANUFACTURER DELAYS IN BUILDING VANS.  
METRO DELAYS FROM STAFF VACANCIES IN THE PURCHASING DEPARTMENT

7. Additional Comments (optional; as needed)

Contact Name: THOMAS HILTNER (for questions only)  
 Phone: 831 426 6080 email: thiltner@scmt.com

Please return your completed surveys to:  
 Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact:  
 Elhami Nasr, LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 897-0381  
 elhami\_nasr@dot.ca.gov

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Please use one form per project; thanks for your help!

1. Project Title Los Angeles Metro Red Line Segment 2  
 Project Description 6.7 mile subway extension with 8 stations

2. Project Location City / County \_\_\_\_\_ Caltrans Dist. No. 7

3. Project Type ? \_\_\_\_\_ PPNO # 9702  
(see reverse side for examples)

4. Project Funding (State)

Fund Type	Programmed	Allocated	Expended (actual)
a <u>STA</u>	\$ <u>133,029,000</u>	<u>133,029,000</u>	<u>133,029,000</u>
b <u>STP</u>	\$ <u>52,100,000</u>	<u>52,100,000</u>	<u>52,100,000</u>
c _____	\$ _____	_____	_____
d _____	\$ _____	_____	_____
e _____	\$ _____	_____	_____
<b>Total Project Cost</b>	\$ <u>185,129,000</u>	<u>185,129,000</u>	<u>185,129,000</u>

5. Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>4/10/90</u>	<u>12/31/98</u>	<u>4/10/90</u>	<u>6/13/99</u>

6. Keys to Success (Feel free to list several) Significant financial and political support from State, Federal and local agencies

Major Hindrances (Feel free to list several) Several engineering challenges were encountered including a sinkhole on Hollywood Blvd, difficulties with tunneling and soil conditions, disputes with contractors, cost overruns.

7. Additional Comments (optional; as needed) \_\_\_\_\_

Contact Name: Brian Bowdreau (for questions only)  
 Phone: (213) 922-2474 email: boudreau.b@cta.net

Please return your completed surveys to:  
 Elhami Nasr, LTPD Project Manager  
 California Department of Transportation (CALTRANS), District 7  
 120 S. Spring St., Los Angeles, CA 90012

Questions? Please contact: Elhami Nasr, LTPD Project Manager Tel: (213) 897-0227 Fax: (213) 897-0381 elhami_nasr@dot.ca.gov
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**California Department of Transportation**  
**Local Agency Transit Project Delivery Data Collection Form**

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1. Project Title: Metrolink Depot - Rialto  
 Project Description: Construction of Accessor Cids + additional Parking

2. Project Location: City/County Rialto / San Bernardino Caltrans Dist. No. 8

3. Project Type: Intermediate Station PPNO # \_\_\_\_\_

4. Project Funding

Fund Type	Programmed	Allocated	Expended (actual)
a TCI	\$ <u>420,000</u>	\$ <u>420,000</u>	\$ <u>420,000</u>
b	\$ _____	_____	_____
c	\$ _____	_____	_____
d	\$ _____	_____	_____
e	\$ _____	_____	_____
Total Project Cost	\$ _____	_____	_____

5. Project Schedule (Dates)

Planned Start	Planned Completion	Actual Start	Actual Completion
<u>SEP 15 1995</u>	<u>MAY 15 1996</u>	<u>APR 15 1997</u>	<u>MAY 7 1998</u>

6. Keys to Success (Feel free to list several):  
① Cooperation from TCI administrator in answering questions and processing submittals  
② Coordination of PVEA and ADJUC program administrators in working to keep the project paperwork on track

Major Hindrances (Feel free to list several):  
① Construction change orders and delays  
② Slow response from SCBA / Metrolink to some GFI's and submittal approvals

7. Additional Comments (optional; as needed): \_\_\_\_\_

Contact Name: James E Kinley City Engineer (for questions only)  
 Phone: (909) 850-3530 Email: rialto@ccc.org

Please return your completed surveys to:

Questions? Please contact  
 Elhami Nasr LTPD Project Manager  
 Tel: (213) 897-0227  
 Fax: (213) 807-0381  
 elhami.nasr@dot.ca.gov

Post-it™ Fax Note	7671	Date	# of pages
To	<u>E/HAMI NASR</u>	From	<u>MARIE PETRY</u>
Co./Dept	<u>DIST. 7</u>	Co.	<u>DIST 8</u>
Phone #	<u>(213) 897-0227</u>	Phone #	<u>(909) 383-5941</u>
Fax #	<u>(213) 897-0381</u>	Fax #	<u>(909) 383-5936</u>

## APPENDIX II

A diskette containing a zipped version of the Microsoft Access Database file, *file name LTPD – METRANS*, (containing data to date, input screens, and queries) is attached to this report in this appendix.