



U.S. Department of
Transportation
Federal Transit
Administration

"DESIGN/BUILD: A NEW APPROACH"

TURNKEY

DEMONSTRATION

PROGRAM

IMPLEMENTATION

STRATEGY

BACKGROUND

INTRODUCTION

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), whose stated goal is to advance new technology and lower the cost of constructing new transit systems, provided the impetus for the Turnkey Demonstration Program of the Federal Transit Administration (FTA). Emphasis is on the Design-Build aspects of turnkey. The Program was announced in the August 13, 1992, *Federal Register* with a call for Letters of Intent to participate. A national competition was held and seventeen (17) responses were received. Eleven (11) of the respondents were invited to submit formal requests to participate. From those FTA received ten (10) formal proposals. The FTA Turnkey Task Force used six (6) criteria to evaluate the 10 Turnkey Demonstration Program proposals. The criteria were: turnkey demonstration potential, local consensus, financial feasibility, understanding of project risk, management capability, and technical capability. Five (5) of these projects survived the evaluation process. The projects are: Bay Area Rapid Transit Airport Extension, Baltimore Light Rail Extensions, San Juan Tren Urbano, Los Angeles El Segundo Station and Los Angeles Electric Trolley Bus.

- ⊙ The BART Project is a 6.4 mile extension to the airport (SFO) through Colma. Only 4.4 miles will be built for Turnkey.
- ⊙ The Baltimore Light Rail Extensions Project will consist of three extensions (Hunt Valley, BWI, and Penn Station) and will total 6.7 miles.
- ⊙ The San Juan, Puerto Rico, Tren Urbano is a 17 mile rail line from Bayamon to Old San Juan. The rail technology has not been selected.
- ⊙ The El Segundo Del Norte Station Project is a new station of the Metro Green Line, and is being promoted

by the City of El Segundo and the El Segundo Employers Association.

- ⊙ The Los Angeles Electric Trolley Bus Project was withdrawn by the Los Angeles County Metropolitan Transportation Authority.

INDUSTRY OUTREACH

Industry Outreach was an essential activity in initiating the Demonstration Program. As Turnkey by definition involves a number of different disciplines—Procurement, Finance, Engineering, and Construction—Industry input was essential. Consistent with this notion, FTA held a number of meetings with various factions of the transit infrastructure industry.

One of the first of these was the Mini Forum on Transit Turnkey Development held February 23, 1993, in Washington, D.C. and sponsored by the American Society of Civil Engineers (ASCE). The purpose was to enable participants, representing various components of the engineering and surety industries to offer opinions and advice to FTA.

Key issues discussed included:

1. Cost of conducting preliminary engineering (P.E.)
2. Timing of P.E.
3. Consideration of political and financial risk
4. The assignment and management of project risk
5. Involvement of small, minority and disadvantaged businesses
6. Quality control and
7. Need for model turnkey contracting documents.

The second in a series of scheduled roundtable seminars on turnkey development was held by FTA on March 10, 1993, in Washington, D.C. The seminar was held to provide general managers, board of directors and other senior executive level persons an opportunity to dialogue and discuss issues with the FTA officials, private sector representatives and officials from other Federal Agencies. The meeting focused on three main topics:

1. Turnkey Procurement from the General Manager's Perspective
2. Other Federal Agency Experiences and Perspectives
3. Contracting and System Supply

The third in this series of meetings was on Financing Turnkey Transit. It was sponsored by FTA, in association with *Public Works Financing* and KPMG Peat Marwick and was held April 30, 1993 in Washington, D.C. Thirty seven representatives of the public and private sectors involved in financing mass transit and other transportation infrastructure projects attended. The Turnkey Financing Issues discussed were:

1. Procurement: How Early?
2. Risk-Sharing Constraints
3. Rating Turnkey Construction Risks
4. Financing Techniques

Another of these meetings was the Turnkey Development Program Workshop sponsored by FTA's Office of Technical Assistance and Safety and the American Public Transit Association (APTA). It was held in Miami, Florida on June 10, 1993 and attended by industry groups involved in the planning, engineering, financing and construction of mass transit projects. The purpose of the workshop was:

1. To disseminate the initial findings of the Turnkey Demonstration Program
2. To elicit comments from the transit industry on the evaluation of the demonstration projects.

The workshop provided technical presentations on:

- ⊙ Contracting
- ⊙ Financing
- ⊙ Environmental Processing
- ⊙ Project Management

OTHER SIGNIFICANT EVENTS

A number of other significant events have occurred since FTA launched the program. There has been passage of favorable Design-Build legislation in the states of California and Washington. In addition, the states of Florida, Maryland, and Virginia also have legislation that is favorable to Design-Build. Also the **Design-Build Institute of America** was established in the Fall of 1992, to promote widespread and successful utilization of the design-build project delivery method throughout U.S. industry and government. It will implement its goals through programs such as: development and dissemination of standard procedures for design-build, development of public relations and communications material for design-build project delivery, conducting dialogue with key government agencies to promote design-build, support of authoritative and independent studies about design-build and influencing state licensing laws to facilitate design-build delivery.



DEMONSTRATION PROGRAM IMPLEMENTATION ACTIVITIES

INDUSTRY OUTREACH

Periodically, FTA will hold meetings with agencies sponsoring the demonstration projects and other industry experts. The purpose of these meetings is to provide the sponsoring agencies with an opportunity to share experiences on accomplishments and issues associated with their demonstration projects. More specifically, these meetings will involve discussions about:

- ⊙ General engineering consultant (GEC) activities
- ⊙ Project finance
- ⊙ The Turnkey (Design-Build) contracting process
- ⊙ Technology selection
- ⊙ Arrangements for project management
- ⊙ Design
- ⊙ Construction and
- ⊙ Systems acquisition

Since ISTEAD directs FTA to develop guidelines as a result of the Turnkey Demonstration Program, industry meetings will also be held around FTA's Project Development, Project Management and Third Party Contracting. The following industry meetings are planned:

- ⊙ March, 1994 - GEC, Finance, Contracting, Design, and Technology Selection
- ⊙ April, 1995 - Construction Management, Construction and System Acquisition
- ⊙ June, 1996 - FTA Procedures

EXPERT TECHNICAL ASSISTANCE

At key points in the development of the demonstration projects, FTA will, at the request of the sponsoring agencies, provide expert technical assistance. Experts will assist in reviewing procurement documents and providing comments on these documents and be available for on-site visits.

PROJECT MONITORING AND EVALUATION

FTA will retain contractors to assist in monitoring and evaluating the turnkey demonstration projects for the duration of projects.

Monitoring activities will include but are not limited to on-site visits, document reviews, examination of records, analysis of information and evaluations. The on-site visits will coincide with scheduled Quarterly Progress Review meetings where appropriate. Monitoring activities may yield both general and specific recommendations to the grantees in their development and implementation of the turnkey approach. These activities will be documented in monthly reports.

Project evaluation is a key element of the FTA Turnkey Demonstration Program. In determining the value of turnkey, each of the selected turnkey projects will be evaluated carefully against similar non-turnkey type projects. This will allow FTA to validate expected time and costs savings, and other benefits of the turnkey method. This activity will be closely coordinated with the project management oversight (PMO), financial management oversight (FMO), and environmental processing programs.

BALTIMORE LIGHT RAIL EXTENSIONS

	93	94	95	96	97	98
Funding	■	■				
Procurement		■	■			
Design			■	■	■	
Construction				■	■	
Testing & Start-Up					■	■

BART AIRPORT EXTENSION

	93	94	95	96	97	98
Funding	■	■				
Procurement			■			
Design			■	■	■	
Construction			■	■	■	
Testing & Start-Up						■

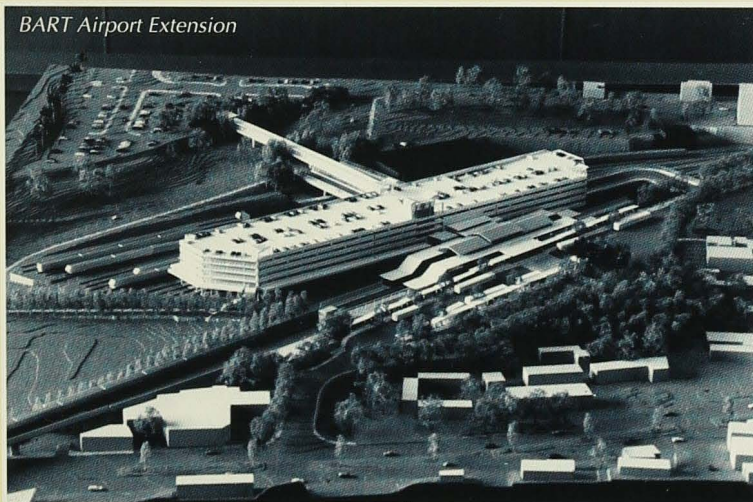
EL SEGUNDO DEL NORTE STATION

	93	94	95	96	97	98
Funding	■	■				
Procurement		■	■			
Design			■	■	■	
Construction				■	■	
Testing & Start-Up						

SAN JUAN "TREN URBANO" RAIL TRANSIT PROJECT

	94	95	96	97	00	01
Funding		■	■			
Procurement			■	■		
Design			■	■		
Construction				■	■	
Testing & Start-Up					■	

BART Airport Extension



TURNKEY DEMONSTRATION PROGRAM CONTACTS

FEDERAL TRANSIT ADMINISTRATION (FTA)

Mr. Edward L. Thomas
Chief, Capital Development Division
Office of Mobility Enhancement
400 7th Street, S.W.
Washington, D.C. 20590
Tel: 202-366-0264
Fax: 202-366-3765

BALTIMORE LIGHT RAIL EXTENSIONS

Mr. Doug Matzke
Project Manager
Mass Transit Administration
300 W. Lexington Street
Baltimore, MD 21201-3415
Tel: 410-333-3434
Fax: 410-436-4810

BART AIRPORT EXTENSION

Mr. P. Takis Salpeas
Project Manager
Bay Area Rapid Transit District
800 Madison Street
Oakland, CA 94604-2688
Tel: 510-287-4815
Fax: 510-287-4834

EL SEGUNDO GREEN LINE

Ms. Michelle Caldwell
Program Manager
Los Angeles County Metropolitan Transit Authority
818 West 7th Street
Los Angeles, CA 90017
Tel: 213-244-6375
Fax: 213-244-6011



SAN JUAN "TREN URBANO" RAIL TRANSIT

Dr. Rafael Jimenez
Project Manager
P.O. Box 1777
Santurce, Puerto Rico 00917
Tel: 809-250-0085
Fax: 809-250-1866

PROGRAM PRODUCTS

INTERIM FINDINGS REPORTS

- ⊙ Turnkey Contracting
- ⊙ Financing, Design
- ⊙ Construction Management
- ⊙ Construction and
- ⊙ System Acquisition

EXPERT TECHNICAL ASSISTANCE PRODUCTS

- ⊙ Minutes of Meetings
- ⊙ Project Review Reports

INDUSTRY MEETINGS PROCEEDINGS

MODEL PROCUREMENT DOCUMENTS

- ⊙ Civil
- ⊙ Systems
- ⊙ Civil/Systems
- ⊙ Civil/Systems/Operation

PROJECT DOCUMENTATION REPORTS

PROJECT EVALUATIONS

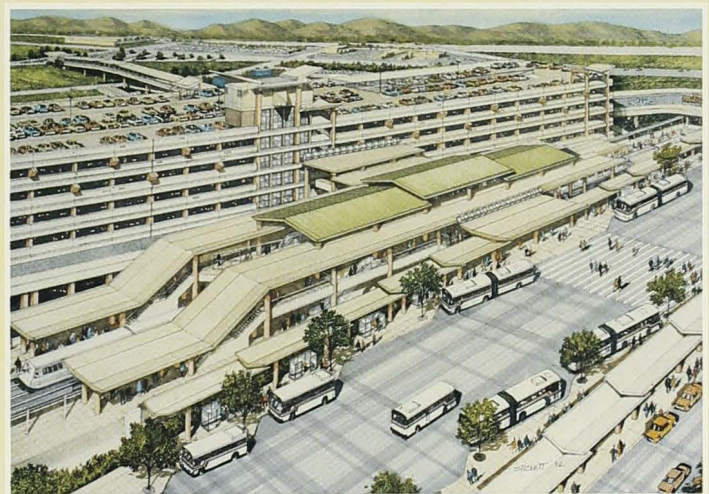
- ⊙ BART SFO Extension
- ⊙ Baltimore LRT Extensions
- ⊙ San Juan Tren Urbano
- ⊙ El Segundo del Norte Station

FTA GUIDANCE

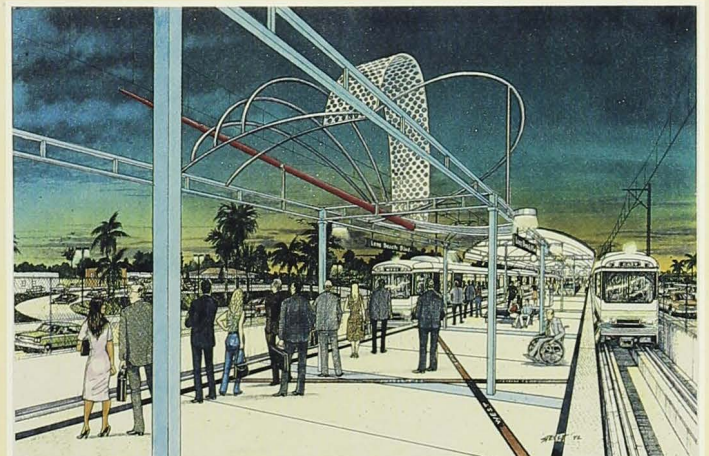
- ⊙ Third Party Contracting
- ⊙ Project Finance
- ⊙ Project Development
- ⊙ Project Management



San Juan "Tren Urbano"



BART Airport Extension



El Segundo del Norte

