

CALTRANS PRIVATIZATION
PROJECT

**LAX
TO PALMDALE
TRANSIT**

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PERINI/DMJM/HSST

August 1, 1990

Mr. Carl Williams
Office of Privatization
California Department of Transportation
1120 N Street, Room 1100
Sacramento, California 95814

Subject: Toll Revenue Transportation Project Proposal

Dear Mr. Williams:

The Perini/DMJM/HSST Consortium is pleased to submit this proposal to the California Department of Transportation for consideration under the Toll Revenue Transportation Projects program established by the provisions of Assembly Bill No. 680. This proposal is divided into four volumes:

- Volume 1 — EXECUTIVE SUMMARY
- Volume 2 — DESCRIPTION OF PROPOSER
- Volume 3 — TECHNICAL PROPOSAL
- Volume 4 — ALIGNMENT AND STATION DRAWINGS.

The project proposed herein is for a rapid transit link between the Los Angeles International Airport (LAX) and, ultimately, the proposed Palmdale Regional (or possibly International) Airport. The project will be staged in two phases. Phase I, the focus of this proposal, will be built between LAX and the Santa Clarita area, utilizing the Route 405, 5, and 14 Freeway corridors. Phase II will extend the project from the Santa Clarita area to Palmdale using the Route 14 Freeway corridor.

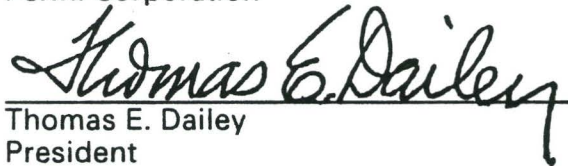
The technology being proposed by the consortium for this project is the most advanced transit technology available in the world today: a magnetically levitated (maglev) system developed by consortium member High-Speed Surface Transport (HSST) Corporation. This environmentally beneficial technology provides substantial benefits in terms of reduced noise, vibration, and visual intrusion and improved performance and efficiency, in comparison to conventional rail transit technology.

The Perini/DMJM consortium, one of those originally qualified by Caltrans to submit project proposals, has subsequently added HSST as a key member. Bank of America and Lockheed Air Terminal are additional supporting members of the project team. Perini will provide overall project management and will perform the construction work. DMJM will perform the design and engineering for the project. HSST will supply the maglev system elements. Bank of America serves as a financial advisor to the project, and Lockheed Air Terminal is the designated entity to operate the system.

The consortium of Perini/DMJM/HSST is excited about the privatization program in general and about this proposed project in particular. We feel that this project has the potential to provide substantial benefits to the southern California area, and we look forward to working with Caltrans to make the proposal a reality.

Sincerely,

Perini Corporation


Thomas E. Dailey
President

Daniel, Mann, Johnson, & Mendenhall


M. Paul Brott
President

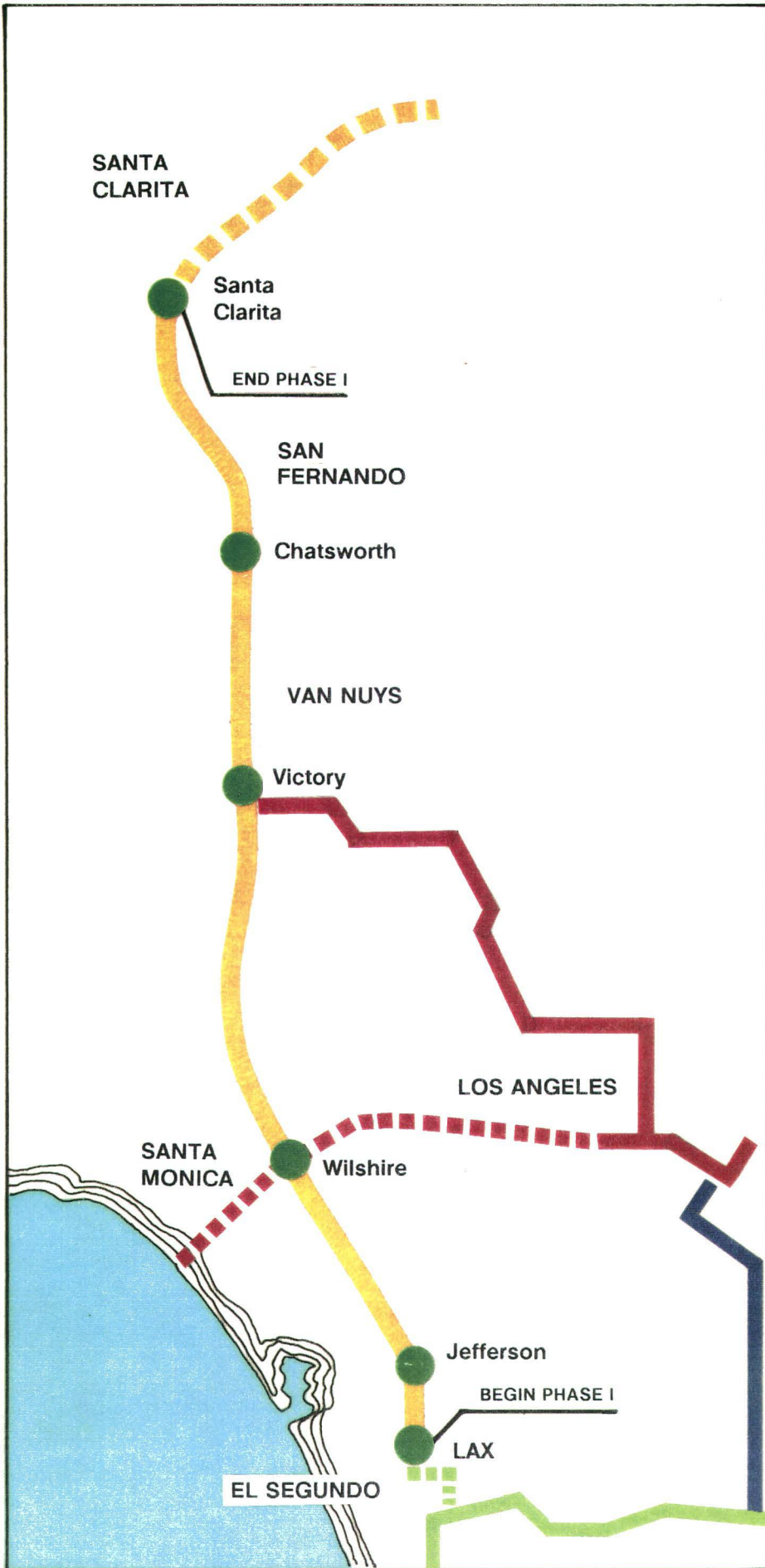
HSST Corporation


Akira Hayashi
President

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EXECUTIVE SUMMARY

A. DESCRIPTION OF TRANSPORTATION SERVICE PROVIDED

This project proposal has been prepared by the Perini/DMJM/HSST Consortium for submittal to Caltrans in response to the recently passed legislation, Assembly Bill No. 680. This legislation directs Caltrans to solicit and enter into privatization partnerships with private entities to design, build, and operate four privately financed transportation demonstration projects. The Perini/DMJM consortium is one that has been qualified by Caltrans to submit project proposals. Perini/DMJM has added the High-Speed Surface Transport (HSST) Corporation to their consortium.

Perini/DMJM/HSST is proposing a transit project utilizing the most advanced technology in the world today, a magnetic levitation (maglev) system developed by the HSST Corporation. The HSST maglev system has carried approximately 3 million passengers safely and has a proven operational record. The maglev vehicles are fast, nonpolluting, quiet, safe, comfortable, and economical.

The project will ultimately provide a physical connection between the Los Angeles International Airport (LAX) and the proposed Palmdale Regional (or possibly International) Airport. The project will be staged in two phases, with Phase I initially being built between LAX and the Santa Clarita area, utilizing the Route 405, 5, and 14 Freeway corridors and having a length of about 31 miles. Phase II will extend the project from the Santa Clarita area to Palmdale using the Route 14 Freeway corridor.

Project financing will require an agreement to be developed and entered into between the Perini/DMJM/HSST Consortium and the Los Angeles County Transportation Commission (LACTC), whereby the consortium will construct the project as described. On completion, LACTC will assume management and operational control of the project. Elements of the consortium are prepared to undertake the actual operation of the system under contract to LACTC should the agreement provide for such participation. LACTC will provide periodic payments to the consortium sufficient to retire the construction and finance costs and costs for any operating services provided under the agreement. The consortium and LACTC will work jointly to broaden the financial participation among other interested public bodies to lessen the cost retirement burden borne by LACTC.

If this project is selected by Caltrans for implementation, it will be subject to thorough environmental and community reviews. Every effort will be made to enhance the quality of life in the areas to be served by the project. This privately funded project will provide a much-needed increase in public transportation service and capacity that is otherwise years away from realization. It will provide a high-quality service, relieving heavy travel corridors, and will be nondisruptive to the environment. The proposed maglev system will provide southern California with the most advanced transportation technology in existence, superior in virtually all respects to conventional modes. It will complement and be integrated with the LACTC rail network.

This proposal is contingent on the ability of the consortium to successfully: secure financing for the planned 2-year development period, which will yield a financial closing and signal the commencement of final design and construction; secure interim construction and permanent financing at the time of financial closing; finalize structural agreements with LACTC; and secure PUC approvals for the introduction and operation of the HSST technology in southern California.

1. PROJECT DESCRIPTION

The project's southerly terminus is proposed in the vicinity of LAX's Parking Lot C, where the Norwalk-El Segundo Light Rail (Green Line) will interface with LAX's Transportation Center. Currently, an LAX multimodal study is investigating a series of alternatives, including a people-mover system that would connect the Lot C Transportation Center with the roadway loop in the center of the airport (World Way). The possibility of extending the proposed maglev system into the airport terminal will also be investigated.

The northerly terminus of Phase I is proposed in the Santa Clarita area at the intersection of the Antelope Valley Freeway and San Fernando Road, Route 126.

Within Phase I, there are proposed stations and/or transportation centers at some freeway-to-freeway interchanges, at some major street interchanges, and at transit connections such as the Metro Rail system (Red Line) and the Norwalk-El Segundo Light Rail System (Green Line).

The transportation function of Phase I is to serve as a feeder to LAX and its nearby employment centers and to the regional rapid transit system now under development. The system will also relieve automobile traffic, diverting riders and vehicles off the crowded freeway corridors in the service area. It will interface with local bus and van services, providing the maximum possible range of opportunity for travelers to utilize on their journeys. Stations will be provided with automobile parking and with bus, van, and automobile drop-off facilities.

Phase II of the project will extend from the Santa Clarita area to the proposed Palmdale Airport, a distance of about 38 miles.

The alignment will be located within the Antelope Valley Freeway until reaching Palmdale, where it will veer east until reaching its terminus at the future Palmdale Airport. Proposed at this terminus is a major transportation center, which will also provide an interface with the high-speed train connecting Las Vegas with southern California.

The transportation function of Phase II includes that of Phase I but incorporates the additional features of an expanded service area, linkage of the LAX and Palmdale airport facilities, and linkage to the proposed high-speed train to Las Vegas. Current planning of this high-speed train includes terminating in Anaheim but with consideration of a spur line running to Palmdale, provided there is a complementary connection from Palmdale to the Los Angeles Basin. The Perini/DMJM/HSST project provides this connection.

Phase I and Phase II will allow the existing transportation infrastructure in the service area to accommodate a substantially greater volume of travelers, with minimal impact on its surroundings. The project allows for the projected greater future

travel volumes to occur, while keeping the increased person flows generally isolated from the neighboring communities.

2. PROPOSED TRANSIT SYSTEM

A maglev system, considered by many people in the public transportation field as the technology of the future, is proposed for this project. Perini/DMJM chose HSST maglev technology for this project because of its advantages:

- Capability of high speed
- Comfortable ride
- Free of air and noise pollution and vibration
- Aesthetically attractive
- Economical, energy-efficient operation
- Reliable
- Safe
- Proven record (licensed by Japanese government for revenue operation)
- Low construction cost.

The HSST maglev vehicle is propelled by a linear motor along a track over which it magnetically floats. As there is no rail-wheel contact between the vehicle and guideway, the problems of noise and vibration associated with conventional rail systems are essentially eliminated. Due to the system's simplicity and the vehicle's light weight, a comparatively light track structure is required. It also occupies only a small amount of physical land space, standing on slender, easily constructed columns. This facilitates implementation in the available space, with minimal land encroachment problems, and also reduces the problems of visual obtrusion.

The "no-friction, no-moving parts" features of the HSST maglev allow it to operate on only a fraction of the power required by wheeled systems. Using electric power, it contributes to substantial reductions in automobile pollutants. The vehicle straddles and surrounds the guideway structure, eliminating the possibility of derailment or toppling. A central automated control system controls the vehicle operations at a level of safety higher than that possible with human operators and ensures that collisions are a virtual impossibility.

The automated control, coupled with the high-performance capabilities of maglev technology, allows the system proposed here to operate efficiently at a high frequency of service and at high average speeds. The intended speeds of the maglev vehicles for this project are generally in the range of 80 to 100 mph between stations, with speeds in excess of 100 mph where there is sufficient distance for acceleration and deceleration. Average travel speed, including station stops, is in excess of 60 mph. The resulting service level is substantially superior to that achieved by conventional transit technology. Considering the state of southern California's freeways and arterials, the system will also be substantially superior to automobile travel.

3. CONSORTIUM

- PERINI CORPORATION
Construction management

The Perini Corporation provides diversified construction and construction management services for public and private clients throughout the world.

- DMJM
Traffic and environmental studies, preliminary and final design

DMJM is a multidisciplinary firm providing engineering, architecture, program management, management planning, feasibility and economic studies, environmental assessment, systems design, construction management, and construction inspection services to public, military, and private clients worldwide.

- HIGH-SPEED SURFACE TRANSPORT (HSST)
Magnetic Levitation Technology

HSST Corporation is a developer of maglev transportation technology for implementation in urban areas. Identified by the *Wall Street Journal* as one of the top 66 companies of the future, the HSST Corporation has been responsible for the operation of maglev systems in Japanese and North American cities, carrying approximately 3 million passengers.

In association with:

- BANK OF AMERICA
Financial Advisor

Bank of America and its affiliates provide diverse financial products and services to customers throughout the world. Its parent, Bank America Corporation, has assets near \$100 billion.

- LOCKHEED AIR TERMINAL (LAT)
Operations and Maintenance

LAT is a wholly owned subsidiary of Lockheed Corporation, which provides operation and maintenance services for transportation facilities throughout the world.



B. ECONOMIC ASPECTS OF THE PROJECT

1. PROJECT FINANCES

As discussed in detail in the Concept Report following, the proposed maglev transit system from LAX to Santa Clarita is not viable as a strict privatization project. Although our projections indicate that the system will recover operating costs and, in time, retire the capitalized development and construction debt, the projected returns are not sufficiently robust to attract financing as a privatization project.

As evidenced in its letter of support included herein, LACTC has recognized the considerable value of the proposed project in meeting certain goals not currently within its capability. LACTC has indicated an interest in assuming a lead role in working with the consortium and other parties to establish the structure necessary to finance this project. Under a possible scenario, the consortium will design, build, and test the system, then transfer ownership to Caltrans and accept the lease back as provided for in the franchise agreement. The consortium will then sublease the system to an entity, who will manage the fare box and all operating and maintenance expenses and pay to the consortium or its lenders periodic amounts sufficient to retire the capitalized cost. *This proposal is contingent on the successful conclusion of such an agreement with LACTC.*

2. EFFECTS ON THE LOCAL ECONOMY

We envision three significant effects on the economy of the LAX-Santa Clarita corridor resulting from the implementation of this proposed project. The most immediate impact will be felt during the 1994-1996 construction period, when an average of 700 new construction jobs will be created in the corridor. This will introduce some \$100 million in wages into the area, spawning perhaps an additional 600 or so jobs in supporting industries and services. Also during this period, the \$1.2 billion expended in the design and construction of the project is projected to generate an additional \$1 billion or so in local business activity. The sum of these newly created jobs and business activities will have a positive impact on income and sales tax revenues during the construction years.

The development of the air rights and other properties within the Caltrans corridor is projected to result in some \$1.5 billion in new real estate construction in the 15 to 20 years following the opening of service. We anticipate that construction-related jobs will average some 200 to 300 per year, introducing some \$10-15 million per year into the local economy and creating an additional 175 or so jobs in supporting industries and services. Impacts on local business activity, income, and sales taxes will be proportional.

The third impact will be the real estate tax revenue base created by the new development. At present rates, impacted municipalities are projected to share in \$15 million per year of new tax revenues.

C. SUMMARY OF LOCAL SUPPORT FOR THE PROJECT

The maglev transit project contained in this proposal has been designed to complement and be operationally integrated with the LACTC Proposition A rail transit program. In the San Fernando Valley, the maglev system will provide a north-south connector with the planned extension of the Metro Red Line. Further south in the area of the Wilshire Corridor, the system would also intersect with the Metro Red Line connection planned for this high-density corridor. In the area of the Los Angeles International Airport, the system is designed to create a connection to the Metro Green Line, currently being constructed in the median of the Glen M. Anderson Freeway (I-05). The system will also complement a proposed internal circulation system the Los Angeles Department of Airports is planning to implement in the future.

In addition, the maglev system is planned to address major congestion problems in the Route 14 and 405 corridors, recently identified by Caltrans and the LACTC. In June 1990, the LACTC, with the assistance of Caltrans, identified the most congested corridors in Los Angeles County. The corridor to be served by the maglev system was selected as the third most congested and transportation-deficient corridor in the county.

Because the proposed maglev system provides service to a highly congested corridor and is designed to complement and be integrated with major new rail systems in the county and region, a number of letters of support have been generated for the project. The letters include:

1. California-Nevada Super Speed Train Commission
2. Mayor of Los Angeles
3. Los Angeles Airport Commission
4. Mayor of Palmdale
5. Los Angeles County Transportation Commission
6. State Assemblyman Richard Katz.

These letters are representative of the support for the project that was voiced in individual meetings with a majority of elected officials who represent districts in the corridor to be served by the proposed maglev system. During the project development process for the proposal, meetings were held with state and local elected officials representing over 20 districts. They voiced support for the environmental, social, economic, and mobility benefits the building and operating of the maglev system will generate. In addition, they viewed the proposal as new generation of public-private partnership. Lastly, discussions were also held with private real estate development interests who are planning projects in proximity to the corridor. Many voiced an interest in considering a physical connection between the maglev project and their proposed private development.

D. PROJECT IMPLEMENTATION

Implementation of the project is expected to proceed with minimal complications. The nature of the maglev technology (inherently low in noise and vibration and having a relatively small visual intrusion) should ease its passage through environmental reviews. The superior transportation service provided by the project should further serve to generate public support for it.

Construction is planned in a manner that maintains the number of freeway lanes in operation, so as to minimize the impedance to surface traffic. Work will be performed in stages, and medians (where available) and right shoulder lanes will be utilized for construction and maintaining traffic. A Traffic Management Plan will be developed to further ease the impacts of construction. This may include service patrols, changeable message signs, advisory radio, and other elements proven useful for such situations.

The highway condition after construction will be the same as before with regard to capacity and number of lanes available. Further, the project structures will not preclude the current plans for lane additions along the affected freeways.

E. TEAM EXPERIENCE

The Perini/DMJM/HSST Consortium, with its team members Bank of America and Lockheed Air Terminal, Inc., bring a great depth of experience in the development, design, financing, construction, and operation of major projects and facilities. In particular, the team's experience in transportation projects, advanced technology projects, and privatized facilities ranks it among world leaders in these areas.

Perini Corporation

Since the company's founding, transportation projects have been a major line of business for Perini. Projects have progressed from single-lane gravel roads graded with mule teams to completion of highly complex roadways and turnpike systems. Today, Perini's highway expertise is being focused on the vital task of rehabilitating the nation's infrastructure.

Perini Corporation has had a strong interest in the privatization of transportation and other public facilities. In 1983, Perini Corporation was one of three construction firms chosen to work as equal partners in a joint venture formed to construct the proposed 130-mile "bullet" train from San Diego to Los Angeles. Although this \$3.1 billion project did not succeed, it provided an opportunity to participate in and learn the privatization process. In 1989, a development team that included Perini Corporation as construction manager won a contract to develop and construct a 3.1-million-square-foot mixed-use building on the last open space in the Federal Triangle in Washington, D.C. This was originally proposed as a privatization project.

In 1990, under the Construction Group, Perini Corporation established a separate department to concentrate on privatization with the ability to respond to project opportunities with the full resources of the Company.

Daniel, Mann, Johnson, & Mendenhall (DMJM)

DMJM has a broad perspective in the transportation field and an experience record embracing a number of large, difficult, and challenging projects. These programs have been carried out under diverse circumstances and geographical areas ranging virtually around the world.

In each case, the DMJM engineers have adapted technology to the needs of the client and have been prepared to use the most modern design tools, computer models, and advanced methodology while retaining a fundamental knowledge of earth and materials sciences, location, drainage, surveys, supervision, and construction methods.

The firm is noted for the application of good architectural design to transit facilities, highways, bridges, and tunnels. This is made possible by the DMJM multi-disciplinary approach, which is sensitive to aesthetic and environmental conditions as well as to factors of cost, construction practicality, and good engineering design.

DMJM has served a multitude of clients on major transportation programs and has provided services that have included:

- Transportation system plans

- Environmental impact statements
- Graphics to support public meetings and hearings
- Corridor and locations studies
- Preliminary engineering
- Final plans, estimates, and specifications
- Program management
- Construction supervision.

DMJM's experience included freeways, expressways, parkways, arterials, and rapid transit, along with many interchanges, bridges, and special structures. Some projects have been in highly urbanized areas, others in mountainous terrain, desert, or the humid tropics. A wide variety of soil, subgrade, and material conditions have been encountered, and the DMJM engineers have developed many custom solutions including lime and cement stabilization, location of aggregate sources, design of water conveyance systems, and special compaction techniques. Many of the urban freeway projects have dealt with people-related problems. DMJM has demonstrated a sensitive, perceptive approach to corridor and route location in urban areas. Special methodologies have been developed for citizen involvement and participation and for public hearings and presentations.

In particular, DMJM has been the design engineer for guideway, station, and power substation facilities associated with a magnetically levitated people-mover system being built in Las Vegas, Nevada. This work puts DMJM in the unique position of being one of the few firms in the world with real-world maglev facility design experience.

HSST Corporation

HSST Corporation is the only company in the world with experience in the construction and revenue operation of magnetically levitated trains. Licensed by Japan's Ministry of Transport, the firm's systems have carried over 3 million passengers without incident. HSST's technical staff is among the world's most experienced in the implementation and operation of maglev systems. Most of its staff has been involved in the development of the technology from its beginning.

HSST Corporation is currently involved in the implementation of projects in Las Vegas, Nevada, Nagoya, Japan, and Moscow, Russia.

Bank of America

Financing large infrastructure projects on a privatized basis is relatively unknown in the United States. Nevertheless, Bank of America has considerable relevant experience in such financings.

Bank of America's long experience in and long-standing commitment to the financing of California's infrastructure is well highlighted by a current Bank of America advertisement featuring the Golden Gate Bridge, the financing of which was arranged by A. P. Gianinni, the founder of Bank of America, more than 50 years ago.

Today, Bank of America is a leader in project financing with diversified experience in financing energy, transportation, gas transmission, utility, mining, and manufacturing facilities in the United States and countries throughout the world. The Project Finance Group is part of Bank of America's Corporate Finance and Capital Market Group. As part of that organization, it functions in a variety of roles — financial advisor, lead lender, placement agent — and accesses financial markets, principally debt, but also some equity markets, in the United States and many foreign countries to provide financing for its customers and for major projects.

Lockheed Air Terminal

Lockheed Air Terminal, Inc. (Lockheed), a subsidiary of the Lockheed Corporation, is engaged in providing aircraft ground-handling and aviation-fueling services throughout the United States and in Panama and Guam. Additionally, Lockheed is the largest and most experienced private developer and operator of airports in North America. Headquartered in Burbank, California, Lockheed has over 1,000 employees in 22 operating locations worldwide and, pending completion of its latest project, will provide privatized airport management for a total of 78 passenger terminal gates.

Lockheed specializes in providing top-quality handling/support services and facility management and development services, including both technical and operational consulting. Technical services include engineering analysis, facility improvements, and facility feasibility studies. Operational services include demand forecasting, organizational review, traffic evaluation, capital financing arrangements, marketing, and service and facility development.

Lockheed arranged financing and provided construction management for an \$8 million equipment and facility improvement program at San Francisco International Airport's new International Arrivals Building. Lockheed was then selected by a consortium of ten international airlines to manage the facility.

Lockheed was chosen by the Los Angeles Department of Airports to arrange financing, acquisition, installation, and maintenance of terminal support equipment at the new 370,000-sq-ft Terminal 1 at Los Angeles International Airport. This program included passenger-loading bridges, centralized ground power, and a pneumatic system together with a baggage system.

The new Terminal 3 at Toronto's Lester B. Pearson International Airport is being financed, constructed, and operated by a joint venture formed by Lockheed and a Canadian developer. This venture is indicative of Lockheed's innovative approach to privatized airport development and provides Transport Canada with a modern new facility utilizing fast-track construction, without the need to capitalize.

Lockheed was selected to manage the Rickenbacker Airport in Columbus, Ohio, a former air force base that was transferred from the military to a local authority. Lockheed was instrumental in bringing Flying Tigers to the airport, which has since built a major cargo hub around newly constructed facilities.

F. ENVIRONMENTAL IMPLICATIONS

The proposed maglev technology helps make the project generally environmentally benign. With its low noise and vibration and small visual bulk, the train system itself causes little environmental impact. Construction of the project within Caltrans right-of-way contributes to the minimization of impacts.

Areas with environmental implications include the immediate station and development areas, where potential for increased traffic exists. Street access and parking control are issues that must be adequately treated. In addition, some residential relocations in the Westchester area of Los Angeles are anticipated. These will need to be accommodated according to standard Caltrans procedures.

The proposed maglev train project is consistent with the policies of the California Environmental Quality Act (CEQA) in that:

- It provides a high-capacity, clean-running mode of transportation, which reduces dependence on fossil fuel burning motor vehicles.
- It substantially increases the ability to move people and goods along the existing rights-of-way, with only minimal need for additional land.
- By running largely within existing freeway rights-of-way, it creates minimal disturbance to existing natural areas. Any such disturbance will be appropriately mitigated in adherence to the requirements of CEQA.
- By maintaining a ground footprint limited to widely spaced columns and a limited number of station sites, the system creates little surface disturbance to the environment.
- The system brings a new technology to California that can ultimately serve as the beginning of a network to provide for an even larger share of our citizens' transportation needs.

G. NONTRANSIT REVENUES OF THE PROJECT

This project proposal envisions two sources of nontransit revenue, one from parking and one from air rights development. All parking revenues, estimated at \$12.4 million per year in 1990 dollars, will be utilized to support the operations of the system and retirement of debt.

Development rights revenues have been estimated at about \$70 million in net-present-value 1990 dollars, to be realized over the initial 20 years of the franchise period. The consortium proposes to sell development rights at the Jefferson, Wilshire, and Victory Station sites to third-party developers in accordance with the terms of the franchise agreement to be negotiated. Revenues from such sales will accrue to the account of the consortium.

H. TECHNICAL INNOVATION

The principal technical innovation associated with this proposed project is the introduction of magnetic levitation technology into large-scale, heavy-duty urban transportation revenue service. This pioneering implementation will represent the first serious and practical use of this technology in the United States.

This technology offers significant advantages over conventional wheeled vehicle systems in terms of noise, vibration, visual bulk, economy and efficiency, performance, ride quality, and ease of implementation. By providing California with the next wave in the evolution of transportation technology, the project sets the stage for assisting urbanized areas of the state in effectively dealing with their increasing transportation and congestion problems resulting from the state's projected continued growth. By providing a level of service substantially superior to that achieved with conventional technology or by automobiles in California's increasingly congested urban street and highway system, the project provides the nucleus for an alternative transportation system. This system can offer the citizens of the state a continued, even improved, high level of convenient mobility.

The automated operations feature of the proposed system represents a technical innovation in transit technology in California. However, it is simply state of the art among world-class transit systems. Automated mainstream transit operations exist in major cities in Canada, Europe, and Japan. The underlying control systems in several of the U.S. transit systems, such as BART and Washington, D.C., Metro, are capable of fully controlling the trains automatically. The Los Angeles Metro Rail Green Line, operating on the Century Freeway and interfacing with the system proposed here, will likewise be automated. Thus, this project will serve to support the introduction of this proven approach, with its advantages of safety and efficiency, to California.

I. MBE/WBE UTILIZATION

The Perini/DMJM/HSST consortium will develop a policy to identify and utilize the capabilities of MBE/WBE firms throughout the design, construction, and operation of this project. The spirit and intent of this program is to bring minority and women professionals into the mainstream business environment in meaningful roles. To this end, the consortium will demand that MBE/WBE firms on our team not only play meaningful roles on the project but also meet the same exacting standards for quality that we demand of ourselves.