Art Integration: An Essential Design Component and Vehicle for Community Commitment in Santa Clara County

William L. Barnes, *Parsons Brinckerhoff Quade & Douglas, Inc.*
Jack Mackie, *PB/MK Tasman Team*
Robert L. Bertini, *Parsons Brinckerhoff Quade & Douglas, Inc.*

The objectives are to relate the way in which an integrated art program can be developed successfully during the light rail transit (LRT) design process in an extremely cost-effective manner, using the Tasman Corridor light rail project in Santa Clara County, California, as a case example; to describe valuable lessons learned in Seattle during the implementation of the Downtown Seattle Transit Project; to discuss the value of an integrated art program as an integral, valuable component of LRT design; and to present the unique community relationships and support that an integrated art program can engender. The Tasman Corridor LRT project is a 20-km (12.4-mi), $530 million light rail extension of the Guadalupe Corridor LRT system in Santa Clara County. The Tasman Corridor final design was completed in May 1995.

It has long been recognized that art is an integral component of society and its constructed environment. It is generally accepted that the sensitive use of design and art in transit systems makes public spaces vibrant and presents an image of the local culture and architectural heritage. Transit systems in Amsterdam, Paris, Seoul, and Stockholm as well as Atlanta, Boston, Buffalo, and Pittsburgh bear out these facts. More recently, the power of artists' work as a tool in establishing relationships with a community has been recognized. Recent experience has shown that transit facilities that respond to and reflect a community's identity create places where people want to be.

With these principles in mind, the Santa Clara County Transit District (SCCTD) and the Tasman Corridor Light Rail Transit (LRT) project design team, led by Parsons Brinckerhoff/Morrison Knudsen (PB/MK), have developed an integrated art program. The Tasman Corridor LRT project is a 20-km (12.4-mi) $530 million light rail extension of the Guadalupe Corridor LRT system in Santa Clara County, California, as shown in Figure 1. The integrated art program will develop a comprehensive cultural arts element, integrated with and responsible to the overall system's design process, resulting in an extremely visible and exciting cultural resource at a very small cost.

The program's mission statement reflects the project team's commitment: to establish a public art integration program for the Tasman Corridor project that involves the community in the organized review of the aesthetics of the built environment.

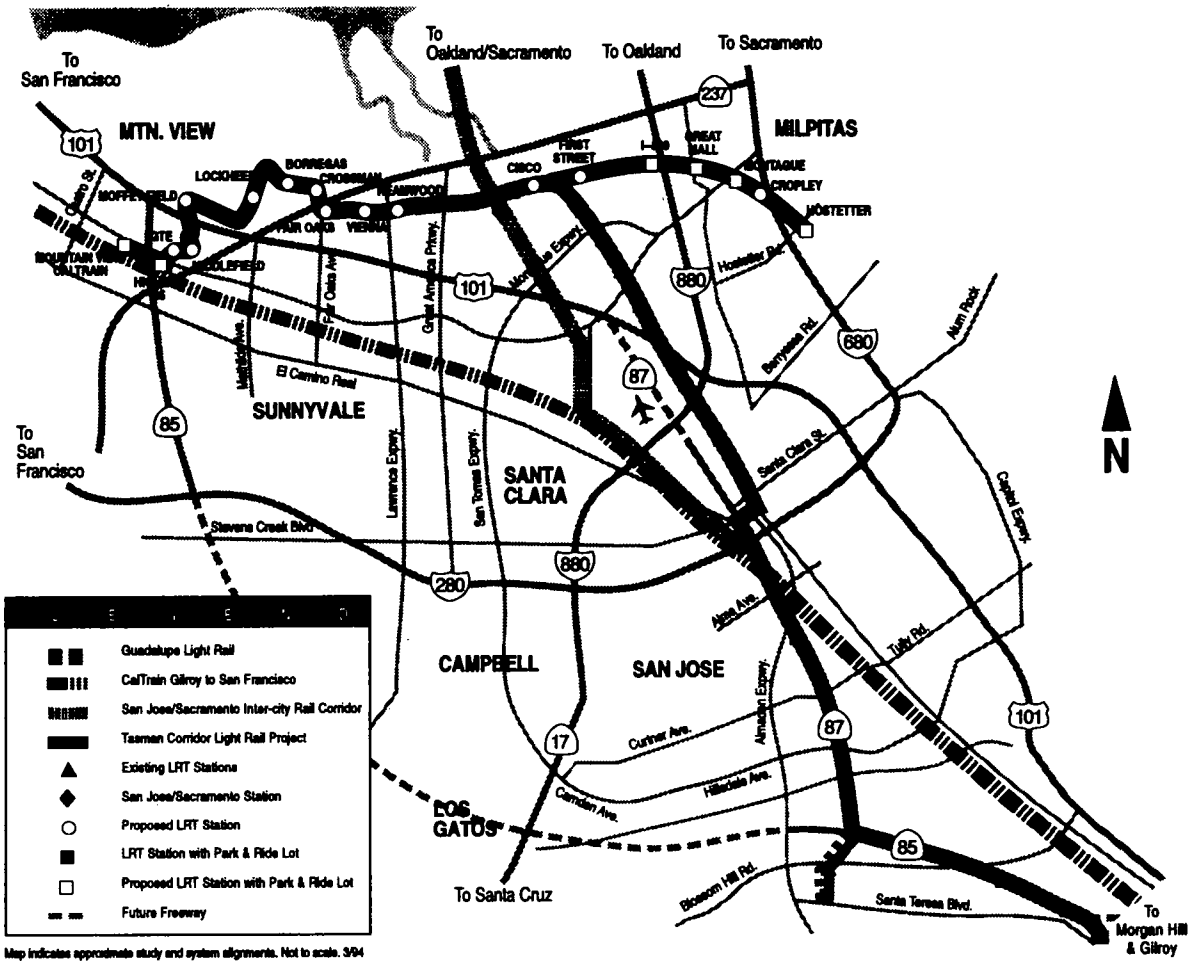

FIGURE 1 Tasman Corridor LRT project map.

The integrated art program, led by a committee of elected officials, is involving local artists, citizens, and existing arts groups. Through the public art integration process, the community is developing a heightened sense of ownership and pride that will carry over beyond the design and construction phases and will make them partners in the future operation and maintenance of the system.

Benefiting From Seattle Experience

The Tasman integrated art program has benefited greatly from projects such as the Downtown Seattle Transit Project (DSTP). The DSTP consists of a 2-km (1.24-mi) transit tunnel separating high-volume bus lines from surface traffic, five underground stations, and surface improvements along the tunnel route. The new dual-powered buses operate on diesel power on the surface and change to electric operation in the tunnel. In the future, the tunnel and stations can be converted to rail transit operations.

This project, which demonstrates how art can be integrated into transit design, offered to the Tasman design team both proven procedures for integrating art and seasoned experts in the field. Project manager William Barnes and project artist Jack Mackie, a Seattle-based public artist, developed and tested these procedures together in Seattle's unique urban setting.

Integrating art into the system's design was first contemplated during the DSTP's design phase. Since Seattle has a strong public art program, a relatively generous budget (1 percent of construction budget) was allocated for art. From the beginning, it was apparent that many entities would be involved, each of which could significantly affect success of the art program. The players included

- Seattle Metro, the agency/owner;
- Other public agencies such as King County and the city of Seattle;

- Individuals who had been involved in past art and transit programs such as city councilmembers Jim Street and George Benson;
- The project's general design consultant (Parsons Brinckerhoff) and its architectural subconsultant (TRA); and
- The artists themselves.

Early in the DSTP's planning phase, it was decided that each of the five stations would reflect the features of the surrounding neighborhood, bringing that neighborhood's character into the underground station. Many transit systems throughout the world have integrated art into their design. However, the collaboration of artists, architects, and even engineers early in the DSTP design process was a somewhat new concept. Seattle Metro contracted directly with the artists, who worked with the architects and engineers; the general design consultant provided the office space. The general design consultant had extraordinary staff members who could supervise the design project and integrate the activities, such as the late Ed Elliott, who followed the plan through planning, design, and construction. Carol Valenta, the arts program coordinator for Seattle Metro, administered the program with an enlightened view. Another important element was the architecture subconsultant, TRA, which provided another leg of the "art-itecture" design team approach.

Issues surrounding the International District Station typified the assorted players, personalities, and design approaches that defined the DSTP. Situated in a vibrant community of downtown apartments, shops, and restaurants, the community rejected the initial station design because it did not accommodate the community's needs beyond providing access to the transit system. They intimated that they would block design and delay construction if their needs were not served. Through working sessions within the public art and design team process, they requested that the station accommodate a small community gathering area and weekend marketplace. Seattle Metro directed the designers to incorporate these ideas into the station's plaza design. Having participated in the design process, the community understood what the agency could build and how the design would benefit them. The community subsequently allied with the agency through the long and arduous construction process. The artistic processes and review procedures of the public art program gave citizens an avenue for participating in the project. By becoming invested in the project, the community worked toward implementing it rather than opposing it.

More than 20 artists created over 50 artworks for the stations and surface sidewalks and streets, and the project has won many awards for its quality. Early collaboration contributed greatly to the finished product. As Ed Elliot described it, the collaboration produced "an art gallery through which buses run".

The collaborative design process also fostered a goal of the DSTP art program to create stations that are unique and individual expressions of each of the neighborhoods that the system serves. This goal also guides the Tasman Corridor's integrated art program.

Developing Santa Clara County's Program

Santa Clara County's existing Guadalupe Corridor LRT System (Figure 1) sufficiently meets the corridor's transit needs, but its design lacks vitality and a sense of place. To give vibrancy to the public spaces of the light rail system, the general design consultant, PB/MK, proposed initiating an integrated art program. Project manager William Barnes and civil coordinator Robert Bertini contacted project staff to inquire if such a program would be welcomed. The transit district policy makers responded positively, and Carol Valenta and Jack Mackie joined the project design team to develop the Tasman Corridor's integrated art program. Mackie has collaborated with artists, engineers, architects, urban planners, and others in major construction and redevelopment projects. Valenta, the art program coordinator for Seattle Metro, brought a crucial agency perspective to the program.

At this point, the support of the Tasman project design and management team and the leadership from San Jose city councilmember Margie Fernandes, a member of the corridor's policy oversight committee, were critical. Through these efforts, the SCCTD committed $1.2 million to develop and administer the integrated art program and to construct the resulting artwork (this figure represents approximately 0.2 percent of the total project cost).

In early 1994 the SCCTD approved the plan for the Tasman Corridor project integrated art program, which Valenta and Mackie developed as part of the PB/MK team. One of the plan's major recommendations was that the SCCTD institutionalize the art integration program within the agency. The agency appointed Gail Collins as the art program administrator from the SCCTD planning and programming division staff. This was done to ensure that the program will continue after the design is complete and the consultant team has completed its work. In addition, it sets a precedent to include integrated art programs in future LRT corridors and for other projects.

The goals of the program are to

- Foster creative collaboration between the design team and the communities to be served,

- Mitigate the sense of uniformity and loss of human scale generated by a large-scale transit project,
- Maximize funding resources by including art that is integral to the rail system, and
- Create high-quality works of art that respond to and reflect the cultural identities of the communities served and that contribute to a positive experience for the rail line's future riders.

The Tasman Corridor, a system with 21 stations over 20 km (12.4 mi), passes through five different cities, each with its own design characteristics and identity, level of urban sophistication, and approach to public art. An important task of the art integration program was to develop a comprehensive plan that could represent each of these city's unique personalities while supporting a systemic approach to design. To that end the program moved forward with a plan based on ensuring community participation in design review, integrating art into the system's design, and using the region's artists to develop artworks that reflect the residents of the area.

Art and Aesthetics Committee

As proposed in the integrated art program plan, the Tasman Art and Aesthetics Committee was formed in late spring 1994 to oversee the corridor's aesthetic design issues and the funding allocated for the integrated art program. Each of five cities has two representatives on this committee: one from its arts community and one from its architectural and engineering design staff. San Jose city councilmember Margie Fernandes chairs the aesthetics committee (she also chairs the transit district board and serves on the Tasman policy oversight committee). The mayor of Santa Clara, one of the corridor cities, also serves on the committee.

Development of Elements Plan

After the integrated art program was adopted, Mackie became the lead project artist as part of the PB/MK team. At this point, the corridor's design was approximately 65 percent complete. In addition to implementing the program, he assessed the design completed to date and developed a master list of opportunities for design collaborations and art enhancement. This included cataloguing critical path elements and prototypical elements that can be modified to give identity and focus to each station.

Mackie's primary focus at this point was to work with the Tasman Corridor project engineers and architects to direct enhancement efforts to areas of the system that care for the passenger and to parts of the system that have substantial visual impact on the corridor communities. Mackie worked closely with project architect Shirley Bassett, principal of SBA Architects, to integrate these enhancements into the contract documents. Included in this effort were stations, sound walls, traction electrification system (TES) poles, park-and-ride lots, landscaping, and the 2.9-km (1.8-mi) double-track aerial guideway.

Selecting Segment and City Artists

In fall 1994 three artists from the Santa Clara County region—Deborah Kennedy, Diana Pumpelly-Bates, and Dan Dykes—joined lead artist Jack Mackie and the design team. These artists first worked with each of the five cities' existing arts committees to develop an aesthetic values statement for each city. These statements define each city's character, history, aesthetic priorities, and artistic vision. The aesthetic values statements are

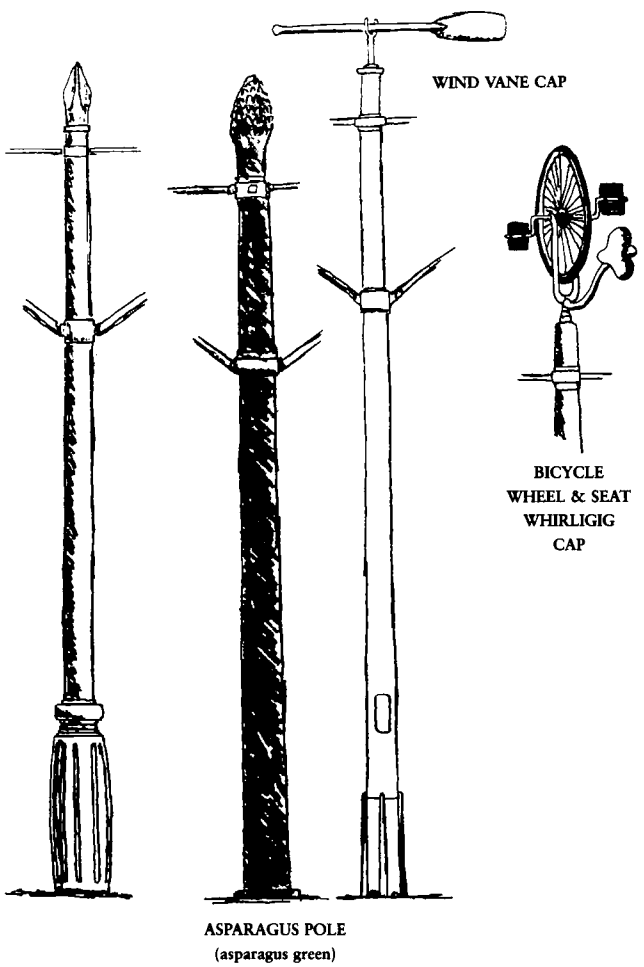

FIGURE 2 TES pole enhancement concepts. ***(continued on next page)***

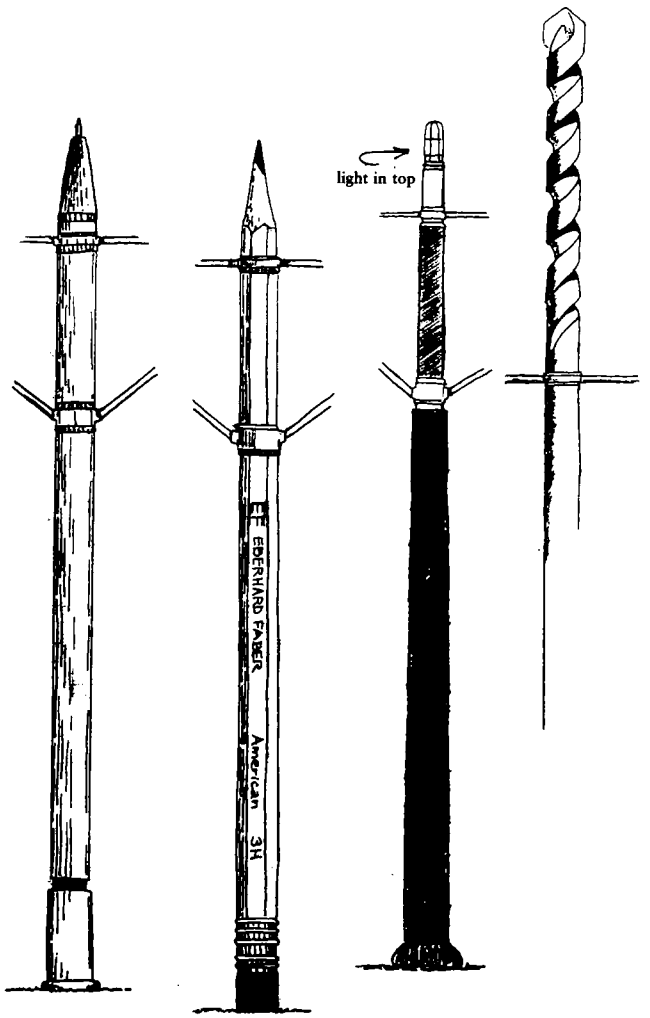

FIGURE 2 (*Continued*)

used to develop site-specific artwork commissions for each of the stations. The intention of these commissioned works is to reflect each city's vision of itself and the memory that each city wishes to extend to the transit rider.

For example, the values statement for the city of Milipitas emphasizes pride in being a city composed of citizens with very diverse ethnic heritages. It also refers to the city's geographic location that historically made it a crossroads for travelers between the northern and southern regions of San Francisco Bay. One of the new Tasman stations in Milpitas has been located to potentially connect the Tasman Corridor and a possible future Bay Area Rapid Transit extension, making it a crossroads. In the station's immediate neighborhood, residents speak 32 languages. These combined themes of a historic crossroads and ethnic diversity have suggested art elements for the station that draw on the city's multicultural heritage and support the station as a cultural crossroads. These features will assist the

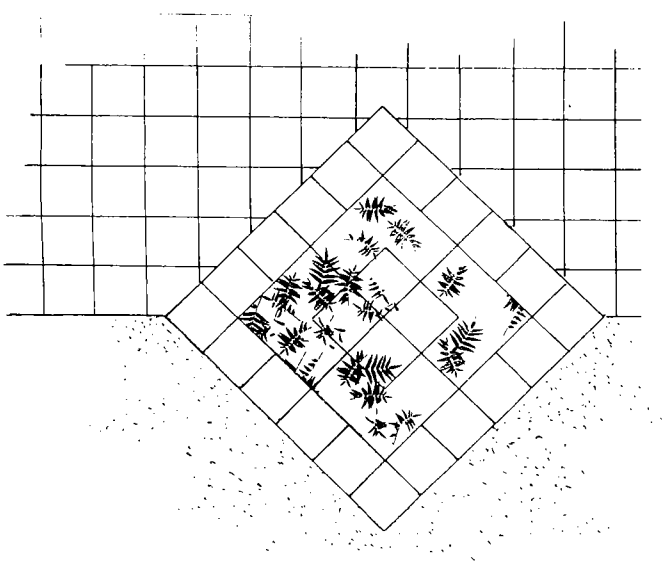

FIGURE 3 Typical station paving medallion.

SCCTD in building the station around and for the people who will use it.

As another example, in the city of Mountain View, the downtown Mountain View Station is emphasized as a gateway into the city, connecting the newly revitalized downtown with the light rail corridor's western terminus. A concept for a *portal sculpture* will have a prominent location. The artistic emphasis changes to a garden theme where the line runs along an exclusive right of way of an existing rail spur line; native plantings and trellises will provide the desired effect. At the Bayshore/NASA Station, the theme of flight will be incorporated into the station with a landmark sculpture. The idea of flight emerged as the theme because of the station's proximity to the National Aeronautics and Space Administration (NASA) Ames Research Center, which includes a federal airfield and a World War 2–vintage dirigible hangar, and to the San Francisco Bay Shore and its large bird populations. The city's artist has collaborated closely with the city Visual Arts Committee,

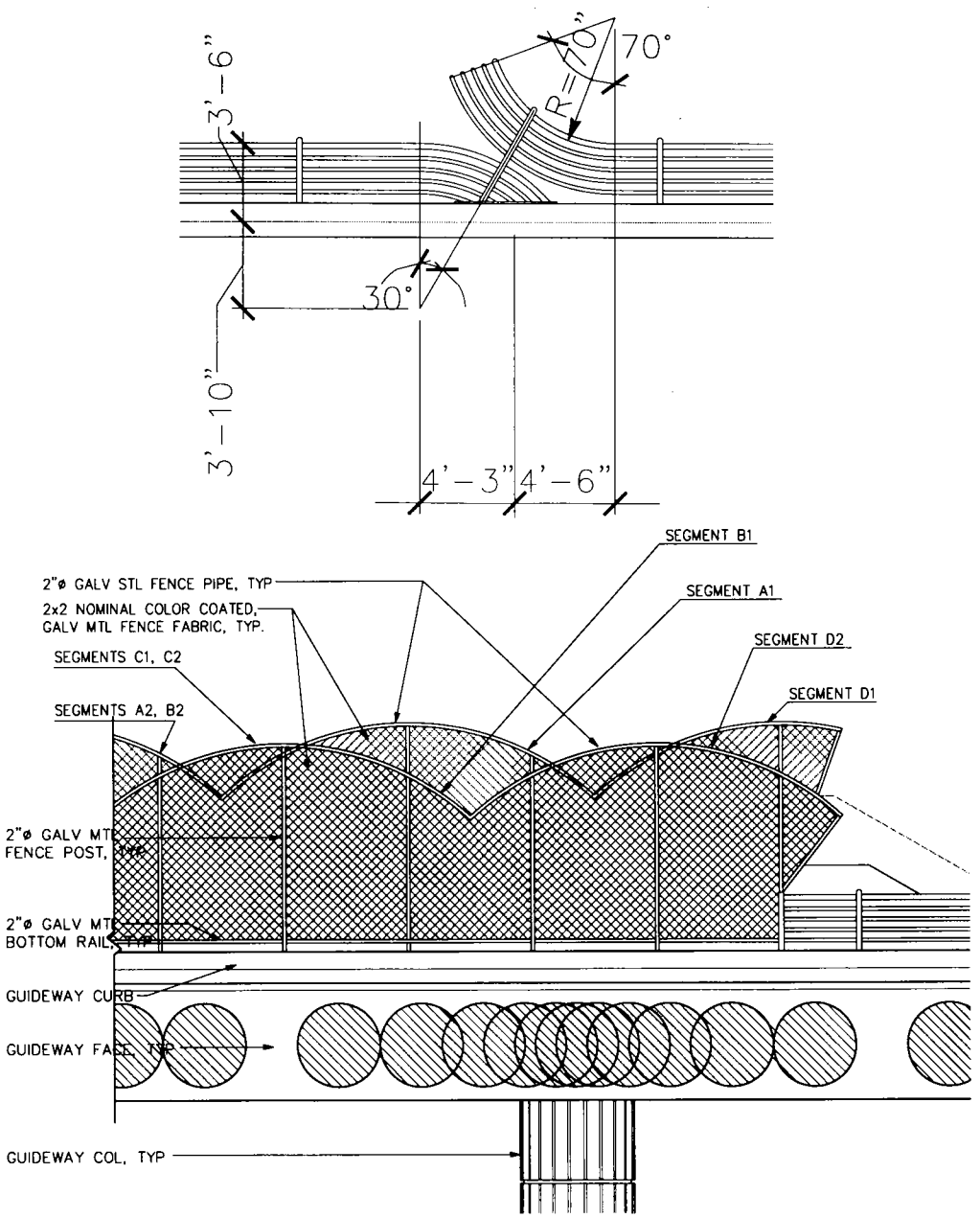

FIGURE 4 Aerial guideway rail and safety screen.

the Downtown Revitalization Committee, and the Tasman Art and Aesthetics Committee to set the tone for the Mountain View LRT segment.

Through design consultations, segment artists were brought into the design process at the earliest possible point. As design consultants, they developed designs that enhance the prototypical station or alignment elements. Three basic areas for artistic expression and design opportunities have been established:

- *Intrinsic design opportunities* are possible at all stations and in some alignment components within the basic budget or may be supplemented by the aesthetic enhancement budget. Examples include platform paving, color of canopy or shelter, landscaping, guardrails, handrails, fences, graphics, seating elements, tree grates, sound walls, TES poles, aerial guideway concrete color, and retaining walls.
- *Functional art opportunities* are areas open for special design or treatment requiring added use of the enhancement budget. Specific examples include windscreen and glass treatments, station welcome mats, paving inserts, guardrail inserts, light poles, crosswalks, and trackway fencing.
- *Specific art opportunities* exclusively require the aesthetics enhancement budget. Examples include canopy frieze or cap, tree guards, station clocks, sound and light installations, station and park-and-ride entry markers, free-standing sculpture, information kiosks, sound wall and retaining wall murals, trellises, and claddings.

Working as a team, the artists determined that their design focus would involve several elements, including the TES poles and station components such as paving, glass panels and windscreens, benches, and planters. The artists viewed the TES poles as forming an open *fence* along the LRT route. Because of the poles' high profile, the artists suggested that the poles should respond to their setting in the changing landscape. Figure 2 shows some concepts for artistic and design enhancement opportunities for the TES poles. Figure 3 shows a typical station paving medallion that has been proposed, incorporating trowelling of natural leaves into the surface of the concrete. (Figures 2 and 3 have been created by Jack Mackie.) Figure 4 shows typical aerial guideway rail and safety screen details, and Figure 5 shows a typical aerial guideway column detail. Figure 6 shows how the combination of the aerial guideway rail, safety screen, and other artistic enhancements of the cast-in-place concrete structure will fit together. A structural steel pedestrian overcrossing will connect the Great Mall aerial station to the parking lot of the new 120 000-m^2 (1.3 million-ft^2) Great Mall in Milpitas. Figures 7 and 8 show the results of an artist working with a team of architects and structural engineers early in the design process. (Figures 4 and 8 have been prepared by SBA Architects.)

These collaborations among the artists, architects, and engineers have resulted in design enhancements that are now part of the base project. The designs are documented in either the architectural or engineering plans and are not specifically noted as the integrated art program. There is no associated cost drawn against the integrated art program except for the artist's fee and any

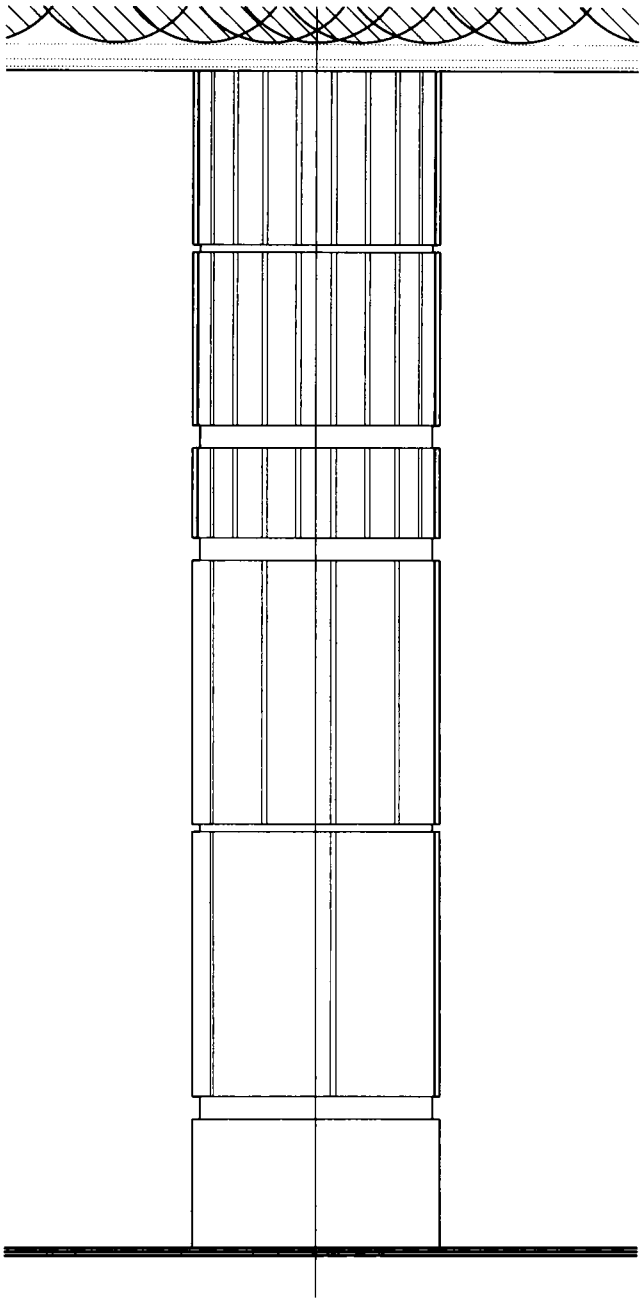

FIGURE 5 Aerial guideway column details.

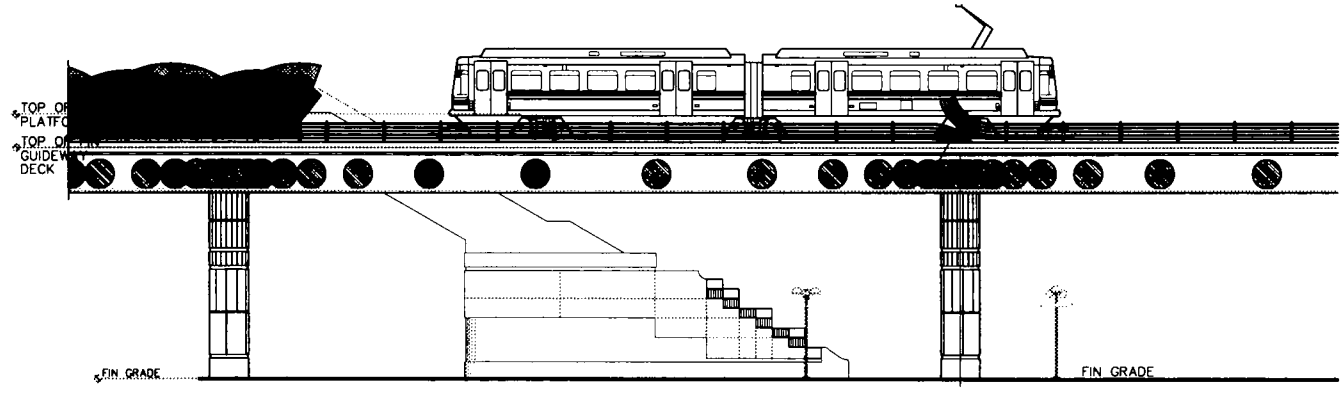

FIGURE 6 Aerial guideway.

exceptional architectural or engineering documentation. The general contractors will construct these projects under normal SCCTD construction contracting and bidding procedures.

Integrated Design and Commissions

The artists' commissions currently being developed must consider not only the design aesthetics of the Tasman Corridor communities but also the design realities of the system. The project construction budget ($530 million) is large but far from extravagant. The $1.2 million set-aside for the integrated art program is just enough to affect each station if approached via traditional methods for art in public places (i.e., placing commissioned art works after construction has been completed). However, if the program is developed through an integrated art and design process, additional resources become available, which enriches the final design product.

Using this approach, the Tasman integrated art program uses, as often as possible, the system's prototypical components. This is done for two primary reasons. First, reaching into the strengths and weaknesses of transit art programs indicates that involving artists as early as possible in the design process is desirable; second, integrating art into the project design maximizes the available budget and minimizes operation and maintenance problems and costs.

By including artists early in the design, artwork can be accommodated in construction documentation (plans and specifications), and work previously completed by other disciplines does not need to be redone to include requirements of the artwork. Budgets can be accessed realistically by people familiar with rail construction costs. If artists are included as integral members of the design team, they can focus on designs for the system components that are basic requirements of the light rail line. For instance, the Milpitas art project discussed earlier will be built directly into the station's paving because the artwork will be the station floor itself. The artist's materials will meet all mandatory safety standards. Paving samples will be tested for durability before project approval to assess any unusual

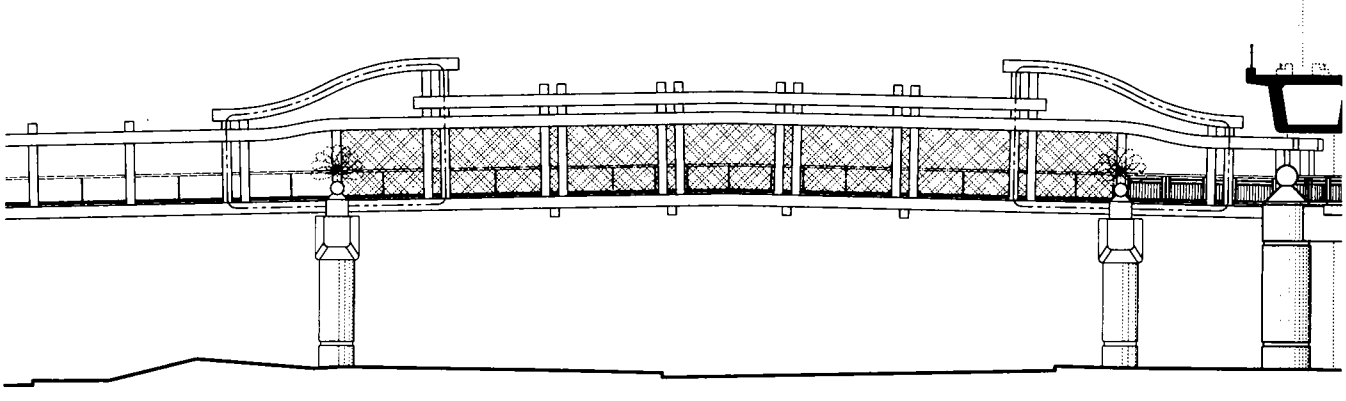

FIGURE 7 Great mall pedestrian overcrossing.

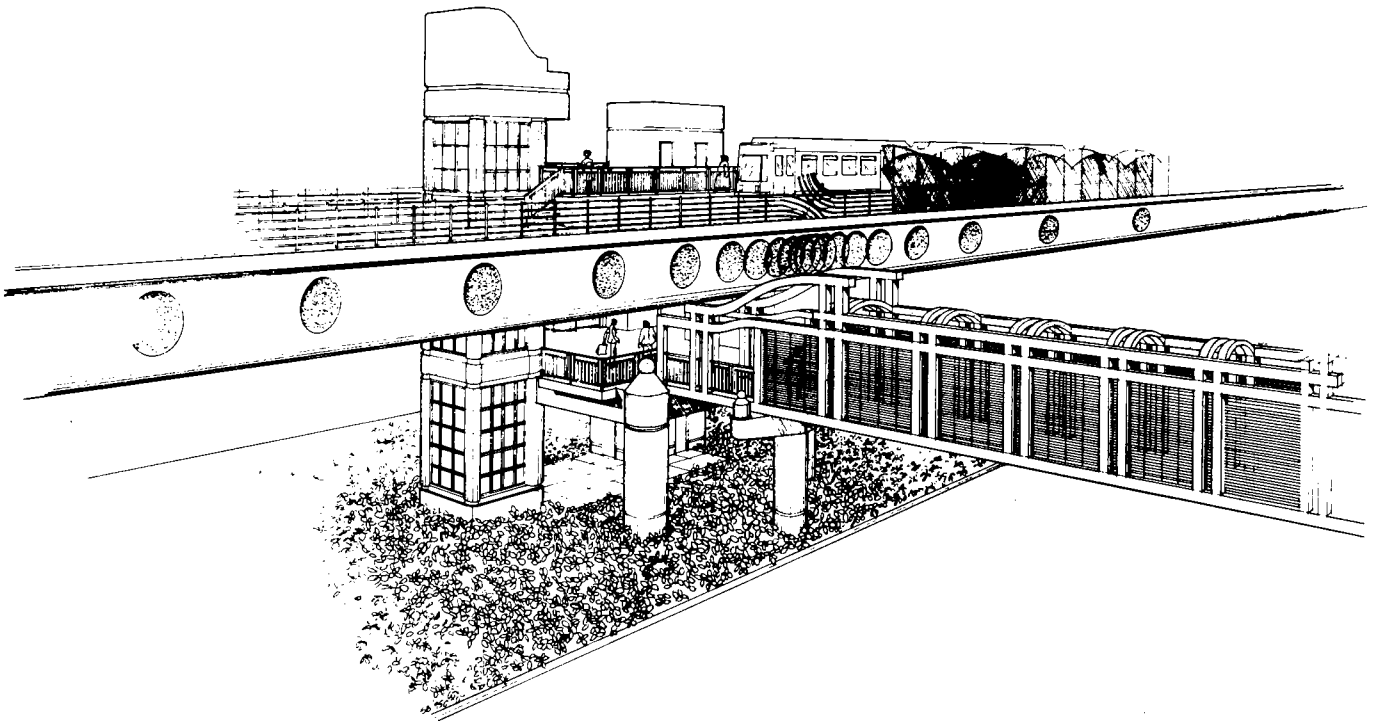

FIGURE 8 Great mall station perspective.

or unacceptable maintenance issues. Through this approach, the system also gains the additional limited art funds that can create an unusual and exciting paving out of what would have otherwise been an acceptable but ordinary paving. Other such integral art projects incorporate the artist's work into safety railings, aerial guideway columns and structure, station shelter glass, systemwide color plans, furniture, and landscaping.

Summary of Status

Throughout the Tasman project's final design process, four artists have worked with the design team and the communities along the corridor. As final construction funds and potential supplemental funds from cities and the private sector become available, the project may engage as many as 30 more artists. These artists will develop projects specific to the neighborhoods that the stations will serve, and representatives of these neighborhoods will act as reviewers. Each art project will respond to the social, industrial, and cultural history of the area and its residents. The artworks will support the ideas and visions of each community and will describe their ambitions and the unique qualities of their lives. In so doing, the integrated art program supports the efforts of the transit district to build a new rail line to link the region's communities. The integrated art program enhances these links by building stations and creating places where people will want to be.