1983

URBAN ACTION

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Editor's Note:

This is the fourth publication of URBAN ACTION. In reviewing the past issues I note we have yet to duplicate topics in our articles, with the exception of interviews focusing on UC Berkeley instructors! Considering the depth of the urban field this is not a surprising achievement though it does speak for the diversity of our Department and University.

Last year's journal had a welcomed international flavor to it; this year we return to San Francisco for a deserving, contemporary look. One can no longer refer to San Francisco as being quaint. It is a major city with problems in housing, transportation, and politics. Its problems of growth are comparable to those of Los Angeles, albeit lesser in scale, but proportionate all the same. Yet, this city does maintain a vitality and perhaps it, and developed cities in general, can best be summarized by two diametric quotations. One is attributable to Percy Bysshe Shelley, who writes, "Hell is a place just like London"; the other comes from Samuel Johnson, "When a (wo)man is tired of London, (s)he is tired of life." Paul Sedway's closing interview comments express a feeling very near this latter sentiment.

Regarding credit due URBAN ACTION 1983; unlike previous years where a core of Urban Studies students have come forth to work on the journal, this issue has been produced by individuals from various disciplines. My deepest appreciation is extended to my friends who have contributed their time, energy, and patience with me towards this endeavor. I would like to explicitly thank Granville Hogg for his production assistance; Maria Marsh and Lori Keppler for their diligent work in transcribing and editing; Alison Kendall, in taking time out of her studies at UC Berkeley to assist in this year's interview; Donna Hetrick, whose design input and photography is on the cover and elsewhere in the journal; and Deborah Lukens for her counseling these past six months! I also thank Sedway/Cooke, Urban and Environmental Planners, in providing many of the exquisite graphics found in the pages to follow.

As with every year, the Urban Studies Department faculty of Dick LeGates, Deborah LeVeen, and Norm Schneider were instrumental in the publication taking place. I was able to capitalize on much of the groundwork performed in the previous years. I am also proud to mention that in these days of cutbacks, URBAN ACTION has received an increase in funding for next year's publication; a testimonial to its stature.

Brett Brogan
Managing Editor, URBAN ACTION 1983

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The Arts in Controversy

by Allison Knapp Wollam

Allison Knapp Wollam is a fiber artist and sculptor. Among her credits in San Francisco are the Source, Vorpal and Allrich Galleries.

This semester completes her Bachelor's in Geography with a minor in Urban Studies. She will begin graduate work in the fall.

This article addresses two areas concerning the Arts: benefits within the context of city planning and citations of state and local legislation. A discussion of the Moscone pedestal will then be examined within this political framework.

The Art's refer to (1) the visual arts, examples are: painting, sculpture, tapestry; (2) the performing arts, examples are: theatre, ballet, opera, concerts; and (3) architecture. These classifications are in part extracted from legislation on the California State level in reference to the California Arts Commission.

Benefits within the Context of City Planning

The Arts play an important role in the economic development of a city. The 1978 Conference of Mayors reports that:

> . . . For every one dollar of funds spent for the arts, it has been estimated that between three and four dollars are generated for the city, directly and indirectly.

Direct revenue is obtained from ticket sales. Indirect revenue is received in the accompanying service areas of parking fees, hotels, and restaurants. San Francisco recognizes the positive effect the Arts have on drawing tourists to the city. In this, a portion of the revenues raised from the Hotel Tax are set aside in a fund earmarked for arts promotion. Mayor Feinstein, in her May 7, 1980 speech delivered to the Financial Women's Club in San Francisco, addressed the impact the Arts have financially in this city. In part she stated that:

> . . . Our Museums are among the finest found anywhere. Last summer's exhibition of Egypt's, "Treasures of Tutankhamum," "The Splendors of Dresden," and "500 Years of Korean Art" broke all international attendance records and brought $108 million dollars into the City. . .

The influence the Arts have on the economic development of a city is quite clear.

The economic failure of an area is related to its unattractiveness for living and working. The Arts can play a substantial role in the restoration of a city and hence, promote its attractiveness and economic health. Instead of mirroring the redundancy of the suburbs, to cease these outmigrations that are occuring, a city can revitalize, restore and recapture its old charm. Revitilization includes recapturing a historical background. Zoning for Historical Landmarks Preservation will facilitate this. Employing architects sensitive to a city's history will also be of benefit. Encouraging the Arts in various forms such as public art, opera, concerts, galleries and theatre are ways of providing amenities and ambience in a city. Old Town in Sacramento, California and Pioneer Square in Seattle, Washington are two examples of this process. The planning bodies of both cities have acknowledged the sense and history of the respective areas and expanded on their themes.

Old Town's cobblestone and brick roads were retained along with its boardwalks, hitching posts and storefronts. Buildings built in the 1800's such as 'The Jane Adams' and 'The Merchantile' were restored, repainted and now house modern day retail shops, restaurants, theatres and galleries.

In Pioneer Square in Seattle, Washington, old buildings were restored and some were declared historical landmarks. This restoration area houses retail shops, galleries, antique stores, theatres, coffee houses and wining and dining establishments. A foggy windowed, family owned Italian restaurant stays open until 4:00 a.m. Next door an elite, expensive interior design studio closes at 5:00 p.m.

Maximum land use for a given area is another important consideration in planning. Jane Jacobs in her book, *Life and Death of Great American Cities*, suggests multiple use as a key factor in successful park design. Malls and plazas require large capital expenditures; leaving them empty is a waste. Justin Herman Plaza in San Francisco is an example of mixed use. In addition to pedestrian traffic, outdoor concerts, public art and street artists utilize the space. Portland, Oregon hosts a Satur-

day Market along its waterfront and underneath the Burnside Bridge. Cultural and commercial uses can be woven into a beneficial fabric for a city. Community involvement, ethnic pride, employment, cultural enrichment, rehabilitational therapy, new skills development and emotional health maintenance through art and music therapies are a few social benefits the Arts can provide.

Legislation Concerning the Arts

In 1973 the California Legislature established the California Arts Commission. This was in direct response to a legislative declaration based on the findings that:

> . . . Many of our citizens lack the opportunity to view, enjoy or participate in living theatrical performances, musical concerts, ballet, exhibits . . . the Arts are of increasing importance . . . many of our citizens possess talents of an artistic nature . . . general welfare of the people will be promoted by giving future recognition to the arts . . . (the arts) will provide employment . . . general economy will be helped. (Government Code, Chapter 9, Section 8750).

"Organizations like the Asian American Theatre Company . . . have received but small portions of the fund . . ."

Section 8753 states the membership, appointment and qualification requirements of the California Arts Commission:

> . . . There is in the state government a California Arts Commission. The Commission shall be responsible directly to the Governor. The Commission shall consist of 15 members appointed by the Governor with the consent of the Senate. The members of the Commission shall be broadly representative of all fields of the performing and visual arts and shall be appointed from among private citizens who are widely known for their professional competence and their experience in connection groups concerned with or engaged in the production or presentation of the performing and visual arts . . .

Other sections of the code go on to address topics of: powers and duties, public meetings, terms of appointment, and deposition of gifts. Particular attention should be given to Section 8752, Policy of Assisting Freedom of Artistic Expression. It states:

> The Legislature declares that all activities undertaken by the state, in carrying out the policy set out in Section 8751 shall be directed toward encouraging and assisting, rather than in any way limiting, the freedom of artistic expression which is essential for the well-being of the arts.

Thus the California Arts Commission was formed. Local governments soon followed suit.

San Francisco has five official agencies concerning the Arts. These agencies are: The San Francisco Arts Commission, The Fine Arts Museum Board of Trustees, War Memorial Board of Trustees, Asian Art Commission and the Publicity and Advertising Fund. Other agencies concerning the Arts include, but are not limited to, the Public Library, Academy of Sciences, Recreation and Parks Commission, San Francisco Unified School District, San Francisco Community College District and Department of Public Works.

The two agencies of primary concern to this article are the San Francisco Arts Commission and the Publicity and Advertising Fund. The Publicity and Advertising Fund was established in 1961. This fund consists of revenues collected from the City's Hotel Tax. The Arts, in drawing many tourists into the City, receive a portion of the revenue collected. Under the California Government Code Section 26100 these funds are earmarked:

> . . . For advertising, exploiting and making known the resources of the County for the purpose of inducing immigration to and increasing the trade and commerce of said County, or for exhibiting or advertising for said purposes, the agricultural, mineral, industrial, climatic, educational, recreational, artistic, musical, cultural and other resources or advantages of the county . . .

The Municipal Code of the City and County of San Francisco entrusts the disbursement of these funds to the Chief Administrative Officer. Groups applying for these monies have to meet certain criteria, as is the case with any funding source. Organizations like the Asian American Theatre Company, Galeria de la Raza and the Oberlin Dance Collective have received but small portions of the fund, whereas 50% of the revenues raised in the years 1979-81 were applied towards the construction of the Moscone Center. Additionally, another 50% of the 1981-82 monies are allocated for maintenance of the center. This amounts to approximately $46 million. The Moscone Center by the mere fact of its construction displaced many residents in the area. Among these people were the poor, the elderly, and artists who had found affordable living and studio space there. Resistance to the construction coalesced in an interesting mixture of people. The elderly, the poor, the frustrated taxpayer, the environmentalist, and the artist formed an angry opposition. This is a convention center whose doors are closed a majority of the time to the people of San Francisco. It is now faced with water leaks and revisionary construction. More funds are appropriated for these repairs. When will this money drain cease?

There are 15 prerequisites to qualify for the publicity and advertising funds. One of these is, "The program has already established permancy and credibility." The Moscone Center has not done so. Organizations such as

Oberlin Dance Collective or Asian American Theatre Company have been established in San Francisco for years. They have received a small portion of this fund. The actors and dancers of these companies are working for minimal sums while their technical and support staffs are working for free. It has been just in this past year that the Asian American Theatre Company has been able to pay their set designers and lighting technicians anything but complimentary tickets. The past disbursement of funds has not been equitable for the artists of San Francisco.

The San Francisco Arts Commission consists of 12 members appointed by the Mayor. They serve without compensation for staggered five year terms. The City Charter sets membership requirements of: 3 lay members, 1 artist-painter, 1 artist-sculptor, 1 musician, 1 dancer, 1 actor, 1 literateur, 2 architects and 1 landscape architect. It can be seen that groundwork has been set for a broad representation of the arts in the Commission.

The City Charter in Section 3.601 delineates the Commission's powers and responsibilities as:

- Every work of art to be contracted for, or placed or erected on city or county property, or becomes the property of the city and county by purchase, gift, or otherwise (except for any museum or art gallery), together with the proposed location of such work, shall first be submitted to, and approved by, the Art Commission.
- No existing work of art in the possession of the city and county shall be removed, relocated, or altered without the approval of the Commission.
- The Commission shall have similar powers with respect to the design of bridges, viaducts, elevated ways, approaches, gates, fences, lamps or other

structures erected, upon land belonging to the city and county, and concerning arches, bridges and approaches, which are the property of any corporation or private individual and which shall extend over or upon any street, avenue, highway, park, or public place belonging to the city and county.

- The Commission shall supervise and control the expenditure of all appropriations made by the Board of Supervisors for the arts, and the advancement of art or music.
- The Commission shall exercise all reasonable supervision of policy connected with the arts as may be assigned to it by ordinance or executive action.

The Commission also administers the Capricorn Asunder Gallery, San Francisco Blues Festival, Neighborhood Arts Program, Art Enrichment Program, San Francisco Arts Festival, Fine Arts Collection, "Pops" Concerts and Civic Chorale. The Commission screens, licenses and monitors street artists, approves the amount of money to be utilized in the Art Adornment program and disburses the funds earmarked for the maintenance of the symphony orchestra.

The Moscone Pedestal

> . . . The public has always, and in every age, been badly brought up. They are continually asking Art to be popular, to please their want of taste, to flatter their absurd vanity, to tell them what they have been told before, to show them what they ought to be tired of seeing, to amuse them when they feel heavy after eating too much and to distract their thoughts when they are wearied of their own stupidity. Now Art should never try to be popular. The public should try to make itself artistic . . .
>
> *Oscar Wilde, from "The Soul of Man Under Socialism" 1891 in De Profundis and other Writings.*

This quote is illustrative of the continual controversy between the artist and the patron of the arts. What is beauty, who determines this and is it relevant? Many artists have died impoverished and in disgrace only to be declared masters years after their death. Edouard Manet's, Le'Dejeuner sur 1' herbe caused great public outcry. Galleries of its time refused to exhibit the painting. Now it holds a place of honor in present day exhibitions.

Matters are becoming more complex. We, as a society, are realizing the importance the arts play in our lives. This manifests in programs like San Francisco's Art Enrichment Program whereby large sums of money are allocated for the purchase of Public Art. Expenditures for one piece of art can be as high as $250,000 as is the case for some of the art in the Embarcadero complex. In this case the developer paid for the art under the 1% for Art Program. However, for art in public buildings like the Moscone Center funds are obtained from the Art and Publicity Fund under the auspices of the Art Enrichment Program administered by the San Francisco Arts Commission.

Legal contracts are drawn up when an artist has been commissioned for a work of art by the city. These contracts stipulate matters of payment schedule, liability, insurance, date of completion, restoration, loss, destruction, installation and design changes (Controller's #CT20489). It is unsettling that the state government has mandated the freedom of artistic expression while locally administered contracts are drafted and signed stating that the artist shall not deviate from the proposal submitted.

The following case study is extracted from an interview on November 22, 1982 with Richard Mayer, member of the San Francisco Arts Commission; and an opinion by the City Attorney (#78-78), dated October 11, 1978.

The Chief Administrative Officer of San Francisco (CAO) Rodger Boas, in 1978 appointed a committee to develop the Art Enrichment program for the Moscone Center. This committee was to orchestrate the solicitation and screening of artist's proposals for the art to be included in the center. The proposals were to be reviewed by the CAO for final selection and then by the Arts Commission for final approval.

"The Moscone family had already stated they did not want a bronze . . . they wanted an art statement."

Ray Taliaferro, then president of the Arts Commission, asked for the City Attorney's opinion regarding the formation of Boas' art committee. Was it within the CAO's authority to select an art committee to administer the Art Enrichment Program? The City Charter states that the San Francisco Art Commission is entrusted with the responsibility of " . . . supervising and controlling the expenditures of all funds appropriated for Art Adornment" (Schneider, 1980: 59). Boas' responsibility according to the City Charter was to disburse monies from the city's Publicity and Advertising Fund. It says nothing of him appointing art committees or making final selections as to the purchase of public art. Boas had already appropriated 50% of the fund for the construction and maintenance of the center. Next he was attempting to appoint an art committee and to make the final decisions concerning the art for the center. These actions tried to circumvent the authority of the San Francisco Art Commission.

In the City Attorney's opinion when the Board of Supervisors joined the words, supervise and control, they drafted a phrase which:

> . . . Invests the Art Commission with the complete discretion to expend all appropriations from building construction funds set aside for

> art adornment. The provisions of the proposed agreement (Boas' committee) appear to limit this authority and therefore would result in an improper delegation of the authority vested in the (Art) commission pursuant to Charter Section 3.601 and Administrative Code Section 3.13.

A new committee was appointed by Ray Taliaferro to administer the Art Enrichment Program at the Moscone Center. This new committee was a compromise. It consisted of four of the old members originally appointed by Boas and three new members from the San Francisco Arts Commission. The idea that the CAO is very powerful in San Francisco's government is reflected in Taliaferro's appointment decisions.

Richard Mayer was a member of this new committee. The first order of business was to expand the art mediums considered for the Moscone site. Originally the only considerations were paintings. $550,000 was allocated for five works of art. One of these works was to be a memorial bust of George Moscone.

The Moscone family had already stated they did not want a bronze. According to Mayer they wanted an *art statement*. An invitational was orchestrated and artists were paid $2,500 to submit drawings or models of their proposals for the site.

Eventually five artists were selected and approved. Robert Arneson was the artist selected to do the memorial bust. All the artists signed a contract with the City stating in part:

> . . . Unilateral changes may not be made by the Artist in either the design or completed art work without prior written approval of the City. If such changes are requested, they shall not increase the cost of the Work beyond the agreed price. Request for changes must be in writing and must be approved in advance and in writing by the City (Controller's #CT 20489).

All the artists at one point or another had decided to alter their original proposal. Some of these changes were accepted and some were rejected.

Arneson from the onset had agreed to consult with Gina Moscone on the piece. Originally he had proposed a blank pedestal for the base of the bust. He later conceived of adding graffiti to the pedestal to 'tell the story of Moscone.' He consulted with Gina Moscone and they were in agreement. The extent of the graffiti evolved into a key issue. Note, this agreement was not in writing, as it should have been as outlined in the contract.

Arneson invited the art committee to his studio to view the completed work. The only member who attended was Richard Mayer. Mayer accepted the work. He viewed it as a very powerful piece. He also stated that, "it was not a very safe piece politically," but nevertheless requested its installation.

The pedestal was the "unsafe" political statement. It pictorially recorded Moscone's life with references to his high school, marriage, and his mayoralty. It also described his death complete with a shadow representing his assailant Dan White, bullet holes, a gun, Feinstein's name inscribed near the gun, and a Hostess Twinkie which was a reference to White's defense arguments of diminished capacity.

The piece was installed. The full committee viewed the piece and voted unanimously to accept the work. According to Mayer, Andy Casper, then the Fire Chief for San Francisco, saw the piece in the Center was appalled. Casper phoned Mayor Feinstein and voiced his shock and discontent. The Mayor viewed the piece and acted immediately. She sent letters to the Art Commissioners urging them to reject the piece. Some of the objections were: it was painful to view, it was ugly, it implied that San Francisco was crime ridden, it implied a miscarriage of justice (diminished capacity pleas), it didn't follow the signed agreement between the City and Arneson. The piece by Arneson was rejected by a 7-3 vote of the Art Commission. The three Commissioners voting against the Mayor's wishes were the three that served on the Art Committee.

Arneson returned the $18,500 partial payment he had received. The total cost of the piece was to be $37,000 with the balance to be paid later as stipulated in the contract with the City. The City returned the piece to Arneson. The conflict between the artist and the patron remains. Some questions follow:

- Was the City contract in violation of the state statue Section 8752 in Chapter 9 of the California Code? This statute deals with the freedom of artistic expression.
- Richard Mayer submits that, "The piece was extraordinary and should be evaluated separately from other concerns." Can certain works be evaluated separately from political concerns? If so, how can this process be facilitated?
- How do we as a society effectively balance the differences the artist and the art patron have always encountered, specifically, that conflict between what the artist wants to say and what the public wants to hear? If the art is to be contracted from public expenditures, how do we design our legal documents to facilitate this balance?
- Are we ascribing to levels of mediocrity by commissioning only 'safe' works of art? Remember the importance of the Arts in exploring and portraying the history of humankind. One recalls Picasso's Guernica or the writings of James Joyce in this context.
- Whose desires were being served during the balloting at the Art Commission meeting? Was this representative of the desires of the City as a whole?

I submit that our public art is ascribing to levels of mediocrity and it is the desires of the political figures that are being realized. This statement is not intended to belittle existing art such as, Henry Moore's, Knife Figure in Alcoa Plaza; Louise Nevelson's, Sky Tree or Barbara Shawcroft's, Yellow Legs both installed in the Embarcadero Complex. These works are majestic and strong.

One can be propelled into dreams and fantasies upon viewing them. But where are the 'Guernicas' in our public art? Where are our political and social statements? It is quite comfortable for the City of San Francisco to be praised for its support of the arts, especially when the arts aren't saying anything.

"We, as a society, are realizing the importance the arts play in our lives."

One can realize the importance the arts have in the areas of social awareness and reform. Here the arts have made statements reflecting the human condition. Take for example, the journalists in San Francisco who have exposed the living conditions of the elderly in the Tenderloin. How many people would be aware of heat shut downs, intimidation, and violence perpetuated by the management of these apartments and hotels onto these elderly people? This expose came about via our journalists not by any public official's survey. Songs, poetry, articles, theatre, paintings and sculpture, such as Arneson's, have pricked the awareness and brought pressure to bear on the populace and politicians of a society. This is a valuable form of non-violent communication, social awareness, and artistic fulfillment.

A complaint about Arneson's sculpture was that Mayor Feinstein didn't want San Francisco associated with crime and the miscarriage of justice. A crime was committed, a heinous crime. That is a fact. Many people believe that Dan White's successful plea of diminished capacity was a miscarriage of justice. This is an opinion worth exploring. People can read accounts of the trial, filing away facts and figures in their minds. They can apply rational theory as to why it occurred. This is all safe abstract thought severed from any emotional response. It is emotion and intellect that make us whole. The Moscone bust and pedestal is a forum for both. The pedestal had the power to shock one into emotional awareness; it permeated one's being like spilled ink wicking through a blotter. It had the power to catapult some peoples' awareness from a stance of "so what can I do about it . . ." to a position of action. It communicated. The Arneson sculpture said something a handful of politicians didn't want to hear. Deferring to Oscar Wilde, " . . . it didn't flatter their (politicians) absurd vanity or please their want of taste, amuse or distract." It called instead, for the truth, it forced awareness and did both in an indomitable manner.■

References

Contract between the City of San Francisco and Robert Arneson. Controller's number CT 20489; Department number C-2. August 24, 1981.

Deerings California Codes Annotated, Government 3600-11499.

Jacobs, Allan B., Making City Planning Work: American Planning Association, 1980: 31.

Publicity and Advertising Fund Department. Conversation, November 29, 1982.

Schneider, Norm et al. San Francisco's Arts Policy: A Background Paper: San Francisco State University, 1980: 59.

Southern Pacific's Mission Bay Development: A Neighborhood Perspective

by Jack M. Moore

Jack Moore is an Urban Studies student with interests in city life, computers, and space industralization. He was raised in Oakland, attended Laney and Merrit Colleges, and the University of Oregon.

Jobs. Views. Affordable housing. Open space along Mission Creek. These were the four topics discussed by Jim Firth, president of the Potrero League of Active Neighbors (PLAN), at a recent meeting held by the City Planning Department. This Public Scoping Meeting was held to solicit public concerns with Southern Pacific's Mission Bay project. These concerns will be addressed in the Environmental Impact Report/Environmental Impact Statement now being prepared. The EIR/EIS will analyze six of the eleven alternatives first presented to the public by SP in October of 1982, including SP's preferred plan, #6, a high-density mixed-use plan which would include approximately 18 million square feet of office space and 7,000 housing units.

It is this alternative to which most of the speakers at the meeting addressed themselves. Mr. Firth's comments were based on a consensus reached by PLAN at its last general membership meeting. As a neighborhood with a large blue collar population, Potrero hill is concerned that the project guarantee a large proportion of the construction jobs be reserved for local residents. Also, with a proposed daytime working population of 55,000 after construction, the project should make every effort to provide entry-level positions available to local residents. Government-sponsored job training programs, union apprenticeships, and private sector involvement can all make this desire a reality.

Housing is a concern for many San Franciscans. Southern Pacific's plan for 7,000 units would be fine if everyone could afford market-priced condominiums. PLAN suggests that a significant portion of the housing be made affordable for working class families. At present, SP has no plans for this. Although the infrastructure costs for the total project will be quite high, the land cost to SP will be low. Affordable homes and rental units should be a high-priority in the planning of the development.

The views from Potrero Hill are one of the neighborhood's finest assets. SP's preferred plan includes towers of 20 to 40 stories high. This is a major concern of the Hill. Our views of the bay and the downtown skyline are threatened by a design which has shown little concern for the present residents of the area. SP's first proposal for the site, made privately to the city in late 1981, was instantly rejected, partially because the design by John Carl Warnecke and Associates had office towers lined up as walls. At least the designers for proposal #6, I.M. Pei of New York and Wallace, Roberts & Todd of Philadelphia, have clustered the tallest buildings in the northeast corner of the development. Still, SP's first proposal called for 7 to 8 million square feet of offices, while this latest favored one develops more than twice that. Those offices have to go up somewhere.

"SP's preferred plan includes towers of 20 to 40 stories high."

Mission Bay was once just that, an inlet of San Francisco Bay. Most of the 195 acres being proposed for development by Southern Pacific was filled in during the latter half of the 19th century. The last vestige of that once-thriving harbor area is Mission Creek. The creek is home for a number of people and a remarkable, diverse wildlife. The 20 or so households on the creek share this special tidal creek with egrets, herons, cormorants and grebes. SP would line the creek with concrete; erect a 15 story, 400 room hotel; and create a small marina. They would also connect it with a small canal system, which would *not* be a tidal tributary of the bay. Our concerns about Mission Creek are the protection of the natural wildlife and the preservation of the houseboat community. We feel most strongly that open space in this area should be preserved and enhanced. It should *not* become the private park of the project, but should be open and easily accessible to all San Franciscans. The city ought to preserve this unique area, known as Mission Creek. Residents have formed the Mission Creek Conservancy, a non-profit, tax-exempt corporation. They have gained members from around the Bay, ranging from Bay Institute naturalists to local San Francisco activists. They hope to have Mission Creek become a beautiful, natural centerpiece to the entire Mission Bay development.

Beyond the issues discussed above, many other concerns were voiced at the scoping meeting, not the least of which is the philosophy of the development itself. SP's desire to build a 'city within the City' is seen as an attempt to build an enclave, isolated from its neighbors. PLAN's position expresses the desire that the project (especially the housing portion which will abut Potrero Hill), conform to the heights, bulk, and form of existing neighborhoods. Most importantly, it should be accessible.

Another point, raised over and over again, was the traffic that the project will generate. Where will those 55,000 daytime workers come from? Past experience with office buildings downtown shows that 60%, or 33,000 people, will commute from the suburbs. That will mean 15,000 cars a day crossing the bridges and coming up the Peninsula freeways. Secondly, what about the strain on San Francisco's Muni service? In his last year in office, former head of the Muni, Dick Sklar, recommended that *no* new developments be approved by the Planning Commission. His appeal has been ignored. If the new E-line is extended to Mission Bay, who will pay for it? The taxpayers? Or will the tax revenues generated by the project be enough to justify it?

"The city ought to preserve this unique area, known as Mission Creek."

The overall costs to the residents of the city was a major point often raised. What pressures on the present housing stock of the city will the project have? The 7,000 units of housing proposed would only take care of half of the demand created by the project. As a direct consequence of increasing residential property values (due partly to this kind of imbalance and Proposition 13's property tax assessment provisions) the share that residential property has assumed of the city's overall property tax burden has dramatically increased. (Prop. 13 requires reassessment when property is sold; an unfair treatment of residential property which turns over more often than commercial property.) David Jones of San Franciscans for Reasonable Growth relates that, "in the last 15 years, downtown office property has doubled in value, while residential real estate prices have quadrupled. This has resulted in a decreasing share of commercial property tax revenues from 21% to 13%."

Another question to be addressed in the EIR/EIS concerns the energy needs of the project. A few years ago, the residents of Potrero Hill, Bayview, Hunters Point and Peralta Heights banded together in order to stop PG&E from building another power plant on its Hunters Point site. Will this development's electricity demand require that another close-in, fossil fuel plant be built? And what about water and sewage? Will the project pay for the added strain on the present system; will it be part of the new Super-Sewer system?

One of the most important considerations in the EIR/EIS will be that of transportation. At present, the Port Commission is developing plans for converting the China Basic Harbor to a container facility. As presently shown, *all* of the alternatives being studied would eliminate the only rail link between China Basin and Southern Pacific's Main line. If the Port's southern waterfront is to be developed, shouldn't the maintenance of that rail link be a high priority? If the link *is* cut, the only feasible means of transferring cargo would require the total trucking of freight. That would mean a huge increase of heavy traffic along 3rd Street, in addition to the increases attributable to the project itself.

Another transportation item is the commuter rail service, presently being operated by Caltrans using SP tracks and equipment. In Southern Pacific's preferred alternative, they speak of 'abasing' the commute service. Abase is a verb defined as, "to humiliate, humble, or degrade." Is abasing the commuter rail service in the best interest of the city? If we do, how will those present users get to work? Will they switch to private automobiles? Besides those new workers at Mission Bay who will bring their autos into the city, do we want to allow the project to force even more cars on our streets? San Francisco's Chamber of Commerce has developed a strategic plan for the city. In this plan they warn that by 1995, *all* the routes into the city will be over capacity during the rush hours. Do we really want to expedite this scenario?

". . . all of the alternatives being studied would eliminate the only rail link between China Basin and Southern Pacific's Main line."

Due to Mission Bay's huge size and consequent impacts on the city, great care must be taken to minimize those impacts. One negotiating point is in Southern Pacific's need for zoning changes. They wish to enter into an agreement with the city which will allow them to go through the permit process just *once* for the entire project; as parcels are developed, in accordance with guidelines determined at the present time each will have an 'automatic' approval. This is a lot to ask. The future economic, social, and environmental impacts and needs in 20 years hence are difficult to define.

Mission Bay has the potential to become one of the greatest additions to the city since the Earthquake and fire of 1906. It can be a hallmark of the entire south of Market area. Only by carefully considering *all* the ramifications of the project, and demanding that those elements that will impose a disproportionate hardship on the city be eliminated, can we ensure that all of San Francisco, not just the developers, will benefit. We would do well as a city to balance our present needs of jobs and housing with our long-range goals of keeping San Francisco a place where a mixed and diverse population can thrive. ■

San Francisco: Perspectives for the Future

by Vivian Rescalvo and Gersan Zurita

This award winning essay for the Architectural Foundation of Northern California was written during the authors' graduating semester from Urban Studies in Spring 1982. Vivian Rescalvo had worked with the San Francisco Redevelopment Agency while at SF State and is now concentrating on an MUP at UCLA. Gersan Zurita is currently seeking an MCP at Pratt University in New York under a scholarship from his home country of Venezuela.

San Francisco is known around the world for its beauty, charm, vitality and diversity. More importantly, San Francisco is known for its tolerance of evolving social, political and economic structures. It has attracted peoples of various life-style, ethnicities and nationalities; it is the gateway for the Far East and a receptor of Central America. San Franciscans have been able to establish and maintain a quality of urban life that can hardly be matched by any other urban center. However, as we approach the twenty-first century, planning for and making emphasis on education, employment and housing is imperative, should we want to preserve and improve our quality of life.

A high proportion of San Francisco's population has been and will continue to be composed of immigrants for whom English is their second language. Educational programs that focus on improving communication skills such as reading and writing should be implemented. A campus that is well planned and designed, and that contains features such as a library, pleasant classrooms, and recreational facilities could be built for immigrant groups. It is well-known that the physical state of schools influences human behavior. That is why we strongly recommend that special care and importance be given to the design and building of the campus and its structures. In an institution like this, learning English, making emphasis on the spoken and written language, will allow ethnic minorities and recent immigrants to acquire basic marketable skills that lead into well-paid jobs.

". . . the city needs to address issues associated with the exodus of industrial firms."

The role of education has become more essential in urban centers through the years. This is due to the advancement of technologies which have caused high levels of automation. The continuous influence of quantitative methods has caused people to learn how to program and operate computers. Therefore, it is important that quantitative tools of analysis, computer operation and data processing be included in the curricula of secondary-level educational institutions.

Due to its economic advantage, San Francisco will continue as it has been doing to attract firms in the financial, insurance, and real estate (F.I.R.E.) sectors. The office industry continues to grow and forecfully demand land in the city. One of the benefits of this growth is the employment that has been and will continue to be generated in the future. Not only will professional and managerial jobs increase but also service related jobs.

Because of a steady and continuous decline in manufacturing, blue collar jobs may seem to be significantly and negatively affected. This is why the city needs to address issues associated with the exodus of industrial firms. For instance, the future of the apparel industry is uncertain because of rising land values and the lack of public services in areas of the city where this industry could operate more efficiently in terms of production costs. Therefore, concentrating efforts on encouraging the apparel industry, which employs large numbers of Asian and Latin American women, is imperative for the future economic base of San Francisco.

Our recommendation for the city is to address, with a problem-solving attitude, zoning, transportation, safety and provision of incentives for manufacturers to not only stay in the city but to attract others also, instead of concentrating efforts in trying to limit downtown physical development and economic growth. FIRE, located in the downtown area, generates large amounts of revenue for the city.

An alternative that should be considered is the revitalization of areas where manufacturing firms are located. At present, these areas are deteriorated and blighted.

"By high density, it is not meant twenty-five-story towers. Instead, we propose the building of compact townhouse-condominium clusters that have common open space."

Careful planning in the eastern edge of the city can be the answer to maintaining a viable industrial base. The creation of well-planned, well-designed, and environmentally sound industrial parks is one of the strategies that can be undertaken in order to accomplish the revitalization of the area. These industrial parks can also change negative perceptions on what industrial sites are. Because of the category under which manufacturing firms that would justify a San Francisco location fall, the industrial parks can contain landscaping, parking, recreational facilities and supporting businesses such as restaurants, banks, and drug stores.

Given this, housing where the labor force of the industrial parks may inhabit can be planned and built comprehensively in accordance with the industrial parks. This means that the concept of single land use zoning should be modified to permit the location of housing near the work place.

Because land in the city is scarce, high density housing will prove to be functional and affordable. In addition, with density housing, the amount of land used, construction and energy will be minimized. By high density, it is not meant twenty-five-story towers. Instead, we propose the building of compact townhouse-condominium clusters that have common open space. Compactness is a very important aspect to consider in building housing in San Francisco because it allows for other land uses.

Because San Francisco does not possess a surplus of land, proper administration of what we have must be established and preserved. Renovation of old stocks of housing, office buildings and other structures can be carried out in order to upgrade the conditions of neighborhoods and districts of the city will cause them to become more viable and pleasant for their residents.

Final statements can be made on the fact that to write on the future of San Francisco is a major undertaking. Much can be said about all the aspects that orchestrate and shape the social, economic, political and geographic conditions of the city. We have concentrated on education, employment and housing because these aspects play significant roles in determining the quality of life of San Franciscans. ■

Downtown GROWTH Scenarios

[Ed. The following graphic comparison of growth projections on San Francisco's downtown under its current C-3 zoning with Proposition O (the defeated, 1979 anti-highrise initiative) has been extracted from "The Downtown San Francisco Conservation and Development Planning Program: Phase 1 Study"; produced by Sedway/Cooke, Urban and Environmental Planners for the City and County of San Francisco in October, 1979. They are presented by Urban Action independent of other articles and authors in this publication. We apologize for the lack of explanatory text that should accompany the graphics, but nonetheless felt the information was highly appropriate for this issue. We refer the reader to the original study for further evaluations of these growth projections and other impacts that were analyzed.]

PROPOSITION O SCENARIO

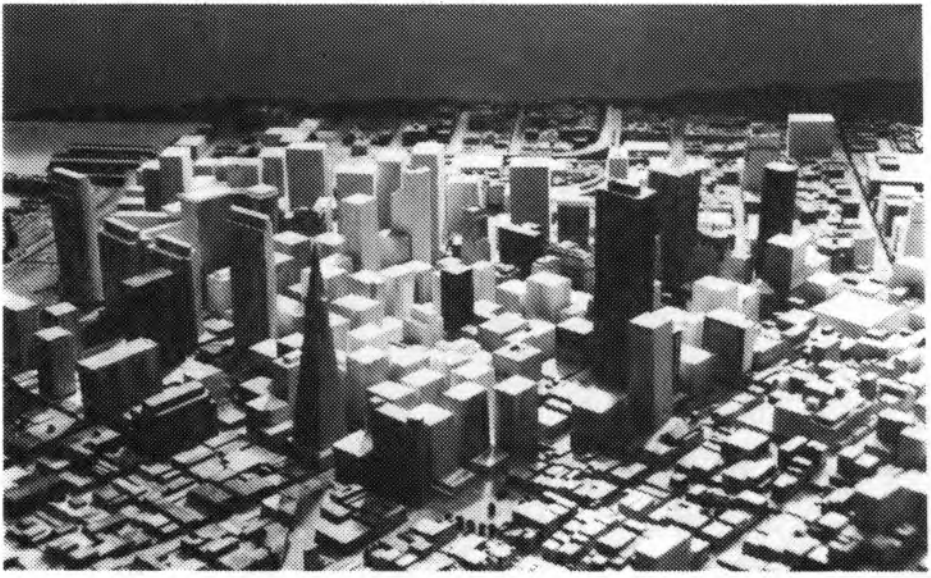
C-3 SCENARIO

MARKET STREET – FROM THE SOUTHWEST

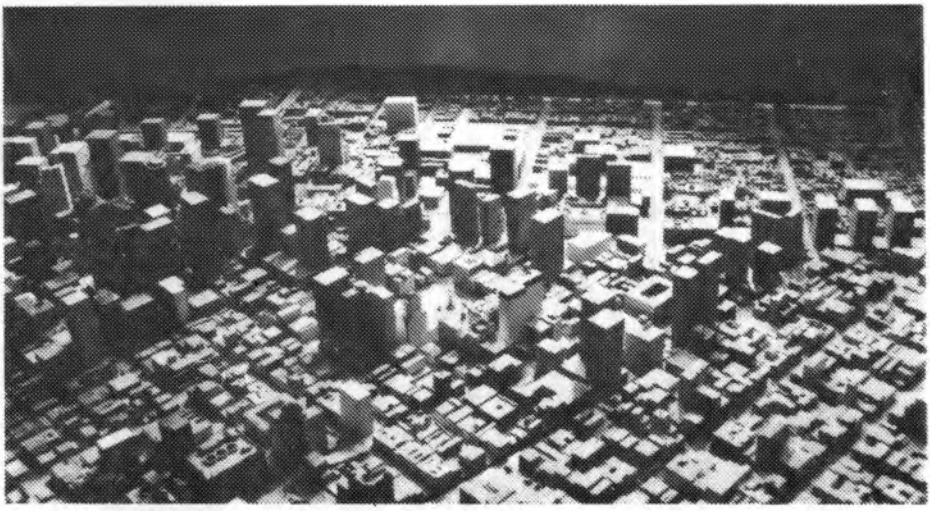
UNION SQUARE – FROM THE NORTHWEST

PROPOSITION O SCENARIO

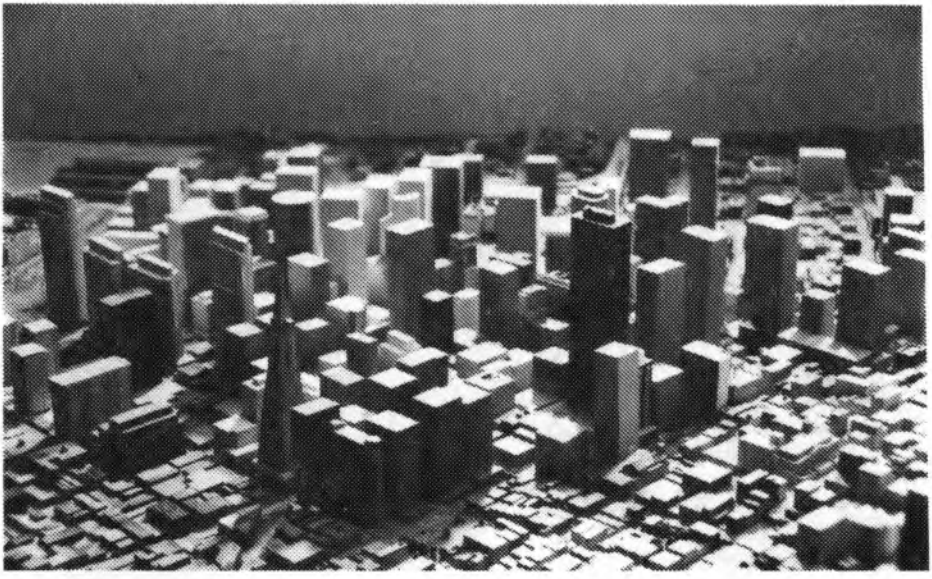
FINANCIAL DISTRICT – FROM THE NORTHWEST



PROPOSITION O SCENARIO



C-3 SCENARIO



C-3 SCENARIO

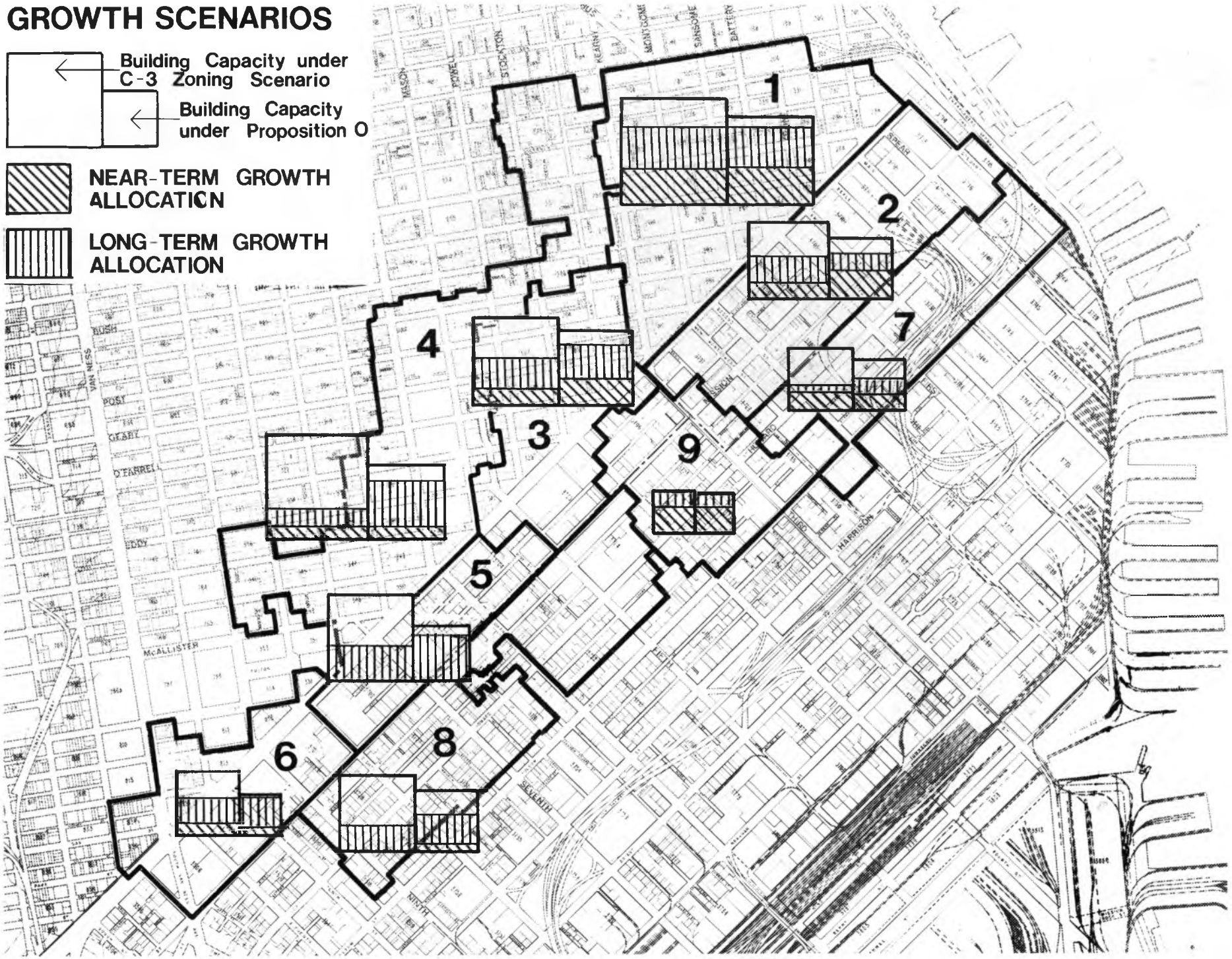
G.G. BUS 4,200
AUTO 5,250
NORTH BAY
G.G. FERRY 1,050
EAST BAY
STUDY AREA
SAN FRANCISCO
AUTO 9,100
MUNI 18,550
BART 4,200
PENINSULA
AUTO 5,250
SAMTRANS 700
S.P. 2,450

NEAR-TERM INCREASE OF PERSON TRIPS - (P.M. PEAK)

0 3000 N

SCALE IN FEET

GROWTH SCENARIOS



CURRENT C-3 ZONING DEVELOPMENT SCENARIO
Allocation of Growth Estimates (in Million Square Feet)

Subarea	Allocation	Office	Retail	Hotel	Other	Total	Building Capacity	Absorption Rates (%)
1/C-3-O	Near-Term	4.81	0.29	0.42	--	5.52		31.6
	Long-Term	6.27	0.76	--	--	7.03		40.2
	Subtotal	11.08	1.05	0.42	--	12.55	17.47	71.8
2/C-3-O	Near-Term	0.97	0.01	--	0.72	1.70		17.1
	Long-Term	3.14	0.30	--	--	3.44		34.6
	Subtotal	4.11	0.31	--	0.72	5.14	9.95	51.7
3/C-3-R	Near-Term	0.50	0.18	--	--	2.14		17.8
	Long-Term	1.08	0.70	2.52	--	4.30		35.7
	Subtotal	1.58	1.38	3.48	--	6.44	12.03	53.5
4/C-3-G	Near-Term	--	0.21	1.44	--	1.65		10.0
	Long-Term	1.10	0.60	0.60	--	2.30		14.0
	Subtotal	1.10	0.81	2.04	--	3.95	16.44	24.0
5/C-3-G	Near-Term	--	--	--	0.20	0.20		1.9
	Long-Term	3.41	0.27	0.60	-	4.28		40.5
	Subtotal	3.41	0.27	0.60	0.20	4.48	10.57	42.4
6/C-3-G	Near-Term	1.38	--	--	--	1.38		21.8
	Long-Term	1.81	0.13	0.60	--	2.54		40.1
	Subtotal	3.19	0.13	0.60	--	3.92	6.34	61.8
7/C-3-S	Near-Term	0.37	0.06	--	1.08	1.51		24.0
	Long-Term	0.39	--	--	--	0.39		6.2
	Subtotal	0.76	0.06	--	1.08	1.90	6.30	30.2
8/C-3-S	Near-Term	--	--	--	--	--		0
	Long-Term	2.07	0.24	--	0.64	2.95		34.0
	Subtotal	2.07	0.24	--	0.64	2.95	8.68	34.0
9/YBC	Near-Term	0.73	0.46	0.42	--	1.61		59.6
	Long-Term	0.73	--	--	0.36	1.09		40.4
	Subtotal	1.46	0.46	0.42	0.36	2.70	2.70	100.0
TOTAL	Near-Term	8.76	1.71	3.24	2.00	15.71		17.4
	Long-Term	20.00	3.00	4.32	1.00	28.32		31.3
	Total	28.76	4.71	7.56	3.00	44.03	90.48	48.7

Notes: Approximately 6.34 million square feet of building space for which building permit applications have been filed are included in the Near-Term allocation. Approximately 4.53 million square feet now under construction are not included in the allocation chart

PROPOSITION "O" ZONING DEVELOPMENT SCENARIO
Allocation of Growth Estimates (in Million Square Feet)

Subarea	Allocation	Office	Retail	Hotel	Other	Total	Building Capacity	Absorption Rates (%)
1/C-3-O	Near-Term	4.35	0.32	0.24	--	4.91		41.2
	Long-Term	4.78	0.69	--	--	5.47		45.9
	Subtotal	9.13	1.01	0.24	--	10.38	11.91	87.1
2/C-3-O	Near-Term	2.75	0.17	--	0.46	3.38		48.5
	Long-Term	1.27	0.34	--	--	1.61		23.1
	Subtotal	4.02	0.51	--	0.46	4.99	6.97	71.6
3/C-3-R	Near-Term	0.50	0.56	1.56	--	2.62		34.6
	Long-Term	1.21	0.88	1.41	--	3.50		46.2
	Subtotal	1.71	1.44	2.97	--	6.12	7.57	80.8
4/C-3-G	Near-Term	--	0.10	1.02	--	1.12		12.6
	Long-Term	4.06	0.60	1.02	--	5.68		63.8
	Subtotal	4.06	0.70	2.04	--	6.80	8.90	76.4
5/C-3-G	Near-Term	--	--	--	--	--		--
	Long-Term	2.70	0.25	1.59	0.17	4.71		82.2
	Subtotal	2.70	0.25	1.59	0.17	4.71	5.73	82.2
6/C-3-G	Near-Term	0.47	--	--	--	0.47		14.9
	Long-Term	2.08	0.13	0.30	--	2.51		79.4
	Subtotal	2.55	0.13	0.30	--	2.98	3.16	94.3
7/C-3-S	Near-Term	0.17	0.05	--	1.11	1.33		33.4
	Long-Term	0.93	0.01	--	0.10	1.04		26.1
	Subtotal	1.10	0.06	--	1.21	2.37	3.98	59.5
8/C-3-S	Near-Term	--	0.05	--	0.43	0.48		8.5
	Long-Term	2.45	0.10	--	0.37	2.92		51.8
	Subtotal	2.45	0.15	--	0.80	3.40	5.64	60.3
9/YBC	Near-Term	0.52	0.46	0.42	--	1.40		61.4
	Long-Term	0.52	--	--	0.36	0.88		38.6
	Subtotal	1.04	0.46	0.42	0.36	2.28	2.28	100.0
TOTAL	Near-Term	8.76	1.71	3.24	2.00	15.71		28.0
	Long-Term	20.00	3.00	4.32	1.00	28.32		50.4
	TOTAL	28.76	4.71	7.56	3.00	44.03	56.14	78.4

Notes: Approximately 4 million square feet of building space are included in the Near-Term allocation, as a modified program of those presently filed for building permits. Approximately 4.53 million square feet now under construction are not included in the allocation chart--for breakdown, see Table 3: Building Capacity.

URBAN ACTION Interview: Paul H. Sedway

Paul H. Sedway holds a bachelor's and law degree from Harvard University and a Master's of City Planning degree from the University of California at Berkeley. He is a principal of Sedway/Cooke, a firm specializing in urban and environmental planning and design. Among the firm's recent and current projects are the New State Capital City Plan for Alaska, the Downtown Conservation and Development Plan for San Francisco and a Regional Governmental Organization Study of the Southern California Association of Governments. The firm has won widespread recognition for work in a variety of areas including growth management, transportation planning, environmental impact assessment, citizen participation and implementation programs. Sedway has been involved in all of these areas, specializing in the formulation and implementation of land use policies and objectives.

In addition to his work at Sedway/Cooke, Paul Sedway teaches planning implementation and the institutional and governmental constraints on planning in the Department of City and Regional Planning at UC Berkeley. He has also written numerous articles on land use policy and environmental protection. In his book, Land and the Environment, Planning in California Today, he evaluated the effectiveness of environmental planning agencies in California. He is currently pursuing this interest as chair of a task force preparing proposals for the improvement of the state and local planning process in California.

On a rainy afternoon last February, URBAN ACTION managing editor Brett Brogan and Alison Kendall, a graduate student in Architecture and Planning at Berkeley, interviewed Paul Sedway in his San Francisco office. Over cups of hot coffee, Sedway discussed his ideas about how the planning process can be improved at various levels of government and the major issues facing planners in California today.

UA: In your book Land and the Environment: Planning in California Today, you analyzed the performance of California's environmental planning agencies. What are your suggestions for the various levels of government to improve their performance in urban and environmental planning?

PS: I see the need at the local level for more attention to the planning process, rather than what is now an inordinate emphasis on the planning document — the general plan in most communities. Other than in large central cities, the general plan has become an end in itself, and it's not often consulted the way it should be. Also, there has to be consistency with the zoning ordinance; so the general plan can sometimes become more of an adjunct for the zoning ordinance instead of getting a future direction. The consistency requirement has been a mixed blessing. It's given greater importance to the general plan, but it has watered it down to some extent, because of this connection between the two.

"At the state level I think there has to be more attention paid to coordinating all the functional planning going on."

UA: Are local governments looking at preparing general plans as just a requirement?

PS: Many see it not so much as a responsibility, but as a need to avoid litigation. There are jurisdictions that do see it as a real opportunity to identify the issues of the future. But, by and large, especially in the housing element, many see it as a very demanding and onerous burden.

I would prefer seeing an annual redefinition of planning issues of the future. I was chairman of a task force which is committed to revising California's planning law. We came up with a proposal, to be sent to the Legislature where a legislative advisory group has been created which is broadly constituted. I now represent the California Planners Foundation, of which I was president. Also on it is the American Planning Association, the California Association of Realtors, the Committee for Economic and Environmental Balance, the California Building Industries Association, the League of Cities, the County Supervisors Association, and the League of Women Voters. Over the past six months we have come up with a proposal, which is now being put in bill form, which reflects a much simplified approach to comprehensive planning. Instead of having separate elements, which are very rigid in some ways, and very demanding to prepare, it has "subject matters" and a "shoe fits" approach. If it's applicable in your community, then you devote greater attention to it; if it is not germane to what you do, then you ignore it.

The other side of the two-pronged thrust is that we are proposing a much stronger state planning process. Aside from the abortive effort at preparing a state plan in the early sixties, it's the first time that a real state planning overview function has gone this far in California. We are proposing a State Planning Conservation and Development Council, which would be appointed by the Governor and the Legislature. Its function is the redefining of goals of state interest. So the important thing is that for the first time we're proposing that *local* plans have to meet goals of *state* interest. Now, you can say the housing element already does that because it suggests that housing is a statewide need, and that's true to some extent. But the rest of the portions of the state planning law don't really pay much attention to larger interests — to either regional or state needs.

UA: When was this task force first formed?

PS: It actually started two years ago when a symposium was convened by the California Planners Foundation, the American Planning Association and the State Office of Planning and Research. One hundred of the top thinkers in the field took part. At that symposium, we addressed a series of commissioned working papers. Out of that came a selection of twelve people, who met for close to a year to come up with this proposal. Then, we went into this third phase with a public interest advisory group.

UA: Had the Legislature requested this task force?

PS: No. We initiated it. I felt it was time for another look at the planning law, which I calculated is reviewed about once every 18 years. The state planning law was revised right after the war, about 1947. Then the next real review was about 1965. Add 18 more years and we are at today. We have had a difficult time doing this because of retrenching. We now have a Proposition 4 limitation, which means you can't impose new burdens on local government without their being compensated. Once you have that constraint, one is confined to simply adjusting current requirements. I think we've dealt with that well.

UA: Do you feel there are some problems with local governments losing some of their control because of these proposals?

PS: Well, I don't really believe they'll lose control. We are saying, they should still be fully responsible for each issue of local concern, but certain state aspects of certain broad issues — environmental protection, housing, agricultural preservation, etc., must take cognizance of state needs. I don't think this will take away from local authority or power, but it will make local governments aware of new concerns.

Another area that must be addressed is the regional concern. So far, it has been a group consensus that there not be very much more done in terms of regional planning than exists today. The Task Forces proposed that we abolish or eliminate the three pre-existing enabling regional planning laws.

"So far, it has been a group consensus that there not be very much more done in terms of regional planning than exists today."

UA: (In mutual shock.) Why did the committee want them abolished?

PS: Well, because they had not been used and they wanted to substitute a more generic areawide planning to be done only by Councils of Governments.

UA: It seems especially important for some kind of regional planning for housing and transportation.

PS: Yes, I think there is no question that those areas have to be addressed regionally, not only housing and transportation, but also regional open space, air quality and other issues. Almost everything local governments address have some regional counterpart. But, the Association of Bay Area Governments (ABAG) has hardly any function left, even the A-95 requirement of regional review of projects for federal funding has been threatened by the President. That was the last remaining major ABAG function, except for the fair share housing allocation to local governments under the state housing law. The Southern California Area Association of Governments (SCAG) is different because they have a transportation function like the Metropolitan Transportation Commission in the Bay Area. Transportation planning monies are more abundant than 701 monies which supported the original regional bodies.

UA: So, MTC is limited by being a single purpose agency?

PS: You can't do transportation planning without doing land-use planning. These days MTC distributes money and local governments do the planning. There is not yet any comprehensive regional planning in Northern California.

UA: The overall conclusion of your book was that you felt that state environmental planning agencies were fairly inadequate or only mildly beneficial, BCDC and the State Water Resource Control Board were the only two you gave really high marks.

PS: Well, I gave high marks to BCDC because it has a very limited mission which is relatively easy to carry out, filling and a 100 foot shoreline land control. But the rest of the agencies, I thought, were not doing a good job, particularly the Office of Planning and Research which had not really embarked on any significant state planning function. They were serving an important political function for the governor, and one should not dismiss that too lightly. OPR put out a lot of useful information but no one was looking at statewide issues. Everybody was working at a functional planning level and even that was somewhat sporadic.

At the state level I think there has to be more attention paid to coordinating all the functional planning going on. All the agencies do plans of their own, but there is still nobody to reconcile them, to make sure the water plan is consistent with the state housing plan and the transportation plan is consistent with the air quality plan, etc.

Some of the agencies have begun to do a much better job, and the Coastal Commission, of course, wasn't in existence then. Their prior incarnation was in existence, but not the final, permanent organization. They've certainly been effective, maybe too effective, in what they've done, but they have been burdened with an impossible task, which is to try to do land use planning for an artifically narrow area.

UA: They had no overall plan to work through . . . ?

PS: When the legislation was enacted, they did not enact the coastal plan — a plan that was worked on for four years and was originally proposed to be adopted through legislation. Now the directive is to let local jurisdictions follow state guidelines and then they can take over the regulations themselves once they have the plan adopted. But there's no overarching guiding plan to follow. The Legislature did not give them any locational policies.

The CCC was charged with making sure their work was consistent with what happened inland with no real authority to ensure this. They couldn't relate very well to what happened inland. The housing mandate caused them trouble. They were trying to meet all state and local needs on the coastline.

UA: The Deukmejian Administration proposed the abolition of the CCC. Do you see this as an actual threat or political rhetoric thrown out for support?

PS: Well, it is hard to know right now, because the Governor is so immersed in the budget. But certainly in the campaign he was explicit about doing away with the Commission. Of course, you can't do that, it's a legislative creation. You *can* starve it, because the budget process is a little more difficult for the legislature to overturn. The Commission did an analysis of what would happen if the Governor's budget proposal were to be adopted in toto this year. It would cut out the Coastal Energy Impact Program, and the local coastal program effort. My hunch is that the Governor will moderate his position as he becomes aware of the substantial support for the Commission, which I think still exists.

UA: How can citizen participation be incorporated in regional and state planning?

PS: That's a tough one. I have thought about that for a long while and it's very hard to do. Since we have no real regional or state planning, it is an academic question. If we did have it, how would we get input? It is difficult to do because of the distances involved. How do you get people to define regional issues and understand them? You could use the same techniques we use at the local level: workshops, newsletters, citizens' forums, and public hearings, but, of course, those would have to be decentralized. It is very hard to do at the state level. I think if our proposal is enacted, the State Conservation and Development Council would at least have the locus of participation.

"There really is no such thing as an EIR on a downtown. You can't do an EIR on a downtown!"

"I think the EIR review is the antithesis of sound planning . . ."

UA: One of the big issues in San Francisco right now is the new downtown development controls. Which of the proposals do you think best preserves the quality of the downtown as well as providing for a reasonable amount of economic growth?

PS: When you say proposals, I think you are referring to the things the "downtown EIR" is evaluating. We did a forecast of what the downtown would be like without action. We compared Proposition O with the existing regulations projected and found serious problems. After that, people started to come up with spontaneous proposals — a quota system or a certain number of square feet of office space per year. There's also the City Planning Department's forthcoming plan. The City Planning Department will finish the downtown plan soon, yet if the city's plan is not yet finished, what is the Downtown EIR evaluating? There really is no such thing as an EIR on a downtown. You can't do an EIR on a downtown!

There has been no real public exposure of any proposals. I don't know what will ultimately emerge. We are quite concerned about what is happening downtown. Our original growth projections are being borne out daily. The economy, ironically, has helped, because all the buildings going up are not being occupied. Nobody can establish what the vacancy rate is, but it's pretty high, and is quite substantial in absolute terms. If the economy turns around and that space gets filled, the transportation constraints are going to be particularly serious by 1985.

UA: What are your opinions on Southern Pacific's Mission Bay proposals?

PS: Whatever happens, there should be an awareness of the implications of growth for downtown. Of course, the transportation issue is very important. We have to be aware of the implications of a new stadium. The urban form and visual effects could be interesting and significant.

UA: It has been claimed by opponents of the Mission Bay project that if their proposal goes through, Southern Pacific cannot continue to run rail into San Francisco.

PS: The removal of the tracks is part of the study. That's why the transportation issue is so important.

UA: The S.F. Port Master Plan for the southern waterfront, which is in close proximity to Mission Bay calls for construction of their own extensive rail system and increasing containerization facilities. Is there any conflict occurring between the two programs?

PS: Possibly there may be too much development in that area. The concept proposed is that it would be a self-contained community, although that's rarely achieved. I think we can assume a lot of people living there will work downtown and others living elsewhere will work in Mission Bay. We're not yet sure what kind of living environment it will provide. With respect to moderate cost housing, we do not yet know whether Southern Pacific will meet those needs.

"How can one channel growth away from San Francisco? It should be done eventually, for a better region and for a better city."

UA: The Bay Area can be seen as a sub-regional economy. There is heavy manufacturing in the East Bay, light industry in the South Bay and a financial center in San Francisco. Is San Francisco intentionally letting its blue collar industry fall to the wayside?

PS: They say they are not, but I'm not sure their assessment is accurate. The economic-spatial pattern you present isn't quite that neat, especially in the East Bay where there is a lot of office dispersion — it's no longer just manufacturing. Silicon Valley is generating a lot of office development, too. Now, I don't see anything wrong with this as long as housing and transportation are provided. Offices are labor intensive, so one should be aware of where available housing is before deciding where commercial and industrial activities should go. Most manufacturing and warehousing is not labor intensive, but is getting located in many of the wrong places. It becomes a locational analysis beyond basic economics and in the context of the Bay Area's pattern of housing and transportation, we can see an emerging imbalance. San Francisco is as imbalanced as Silicon Valley. The East Bay, as yet, doesn't have that imbalance. That is why it's become more attractive, with offices moving to Walnut Creek and downtown Oakland because there is still housing available.

UA: Do you think that kind of spatial economy creates more of a need for regional planning?

PS: Absolutely. I could easily get nostalgic about the good old days when we had yearly regional planning legislation and people were taking them seriously. One can't even mention regional planning now without resulting snickers. In San Jose they are attempting to correct the imbalance through transit. The Guadalupe Corridor light rail vehicle system is supposed to take people up to their jobs from the southern portion of the city. How can one channel growth away from San Francisco? It should be done eventually, for a better region and for a better city. Local government still has all the land use authority — the state has none, the region has none.

The environmental question is an important consideration, too. Everybody forgets about the North Bay. What are the objectives for those areas? Should it be limited to a place where one can get away? This is another topic for regional planning, although local governments there are not yet allowing too much growth. However, west Marin's current character may be reevaluated by policies of a new Board of Supervisors. Maybe we should think of west Marin as a regional recreational area.

UA: What problems or opportunities do you see in the present trend towards deregulation of environmental controls?

PS: First of all, I don't think there is any real trend towards deregulation of environmental controls . . . yet. What has happened is there's more laxity of enforcement. State level controls have not seen any change, though deadlines for the Federal Water Pollution Control Act and the Clean Air Act have been postponed. I guess that's a kind of deregulation, but those laws are still in place.

CEQA is a good candidate for deregulation! I don't think the environmental movement is well served by CEQA, or by the EIR. It needs an overhaul. CEQA doesn't achieve what it set out to do. It was originally designed for federal projects and was converted to private application by the California Supreme Court. It simply approaches projects the wrong way in terms of its review. It takes an after-the-fact, static perspective which provides a good opportunity for delay and litigation and not for basic improvement.

I have been exhorting people to come back to a planning perspective because I think the EIR review is the antithesis of sound planning . . . at the end we'll evaluate this project and come up with "mitigations." Those things tend to be very cosmetic. You can't really make any significant changes when you get to that point. There is so much time invested . . . whereas, prestated regulations, which are essentially what the planning process is designed to provide for, can give positive direction. CEQA tends to be very negative in that regard. CEQA provides an attitude which is just the reverse of what we should be encouraging. We should be encouraging people to think about what they want their communities to be like in advance.

Now, I have a different attitude towards NEPA, which serves a very important function because there is no real federal planning. It's true though, there is a whole industry that has sprung up around EIR writing and it is in jeopardy because there are people out to replace CEQA this year or next.

"Deregulation wouldn't help in stimulating business activity or creating more jobs."

I don't think environmental regulation is the cause of fewer jobs at all, nor is environmental regulation stopping the development of housing. It is really inflation and interest rates. Deregulation wouldn't help in stimulating business activity or creating more jobs.

UA: How do you find working in environmental and urban planning in San Francisco, as compared to other areas?

PS: People in the Bay Area tend to be more sensitive to environmental questions, with more knowledge about government. They tend to be more sophisticated about conveying their views to public officials. All of these things make working in the Bay Area more difficult, but much more challenging, and quite a bit more rewarding. It's more receptive to innovation and therefore more interesting.

UA: We have a tradition of asking this last question. What is your favorite American city?

PS: It is so easy to say San Francisco, isn't it? But you don't want to hear San Francisco again, do you?

UA: Well, you know how San Franciscans love to hear how wonderful their city is.

PS: One of my favorites is Eugene, Oregon. It's a small town. It has a lot of amenity. It is a very attractive city. The weather is terrible. Culturally, it has the university; good living conditions. It is one of my favorites, but I would hate to spend more than two weeks there at a time! You need an answer, don't you?

UA: We could break the tradition.

PS: You always ask this question?

UA: It seems so.

PS: Okay, two of them. One would be San Francisco and the other is Boston. What they share is that the people who live in them love cities. ■

Conservation Building Codes

by Amy Pinkerton

Amy Pinkerton is co-author of The Energy Crisis, Conservation and Solar (Ann Arbor Science Publishers, 1981). A graduate of Stanford, she is now in the Masters in Public Administration program at SFSU. In 1980, she worked for the Solar Energy Research Institute in Colorado.

Introduction

Conservation building codes are regulations which require the use of energy conservation methods in buildings. These codes or standards may be enacted by city, county, or state governments, or by federal agencies.

There are two types: prescriptive standards and performance standards. Prescriptive standards stipulate certain materials and techniques that must be used in the buildings. For example, they may specify minimum insulation levels, require the use of weatherstripping and caulking, and state that windows must be double-paned. Performance standards do not specify methods, but mandate a desired result. This takes the form of a maximum allowable energy usage — a statement that a building may not use more than a given amount of energy per unit of area and per unit of time (see Tables A and B for examples from the Vacaville Residential Energy Program).

There are important legal questions about conservation building codes. One is the legality of these codes — does the government have the right to tell homeowners and builders how they should construct their homes in order to conserve energy? Is the government overstepping its bounds when it places a limit on the amount of energy a home should be designed to use? Can't the free market handle home energy conservation without government intrusion?

Another question concerns the equity effects of these codes. Will compliance with the codes raise the cost of homes so much that many potential home buyers — especially those with low and moderate incomes — will be priced out of the market? Are the benefits of the codes outweighed by the increased costs of housing?

In this paper, I will examine the possible rationales for conservation building codes, as well as the objections voiced by opponents. I will also discuss examples from the local, state, and federal government levels, and explore alternative policy approaches.

TABLE A
Proposed Residential Building Energy Standards
(Effective January 1, 1982)

A. PRESCRIPTIVE STANDARDS

1. Dual-setback thermostat.
2. Duct insulation per Uniform Mechanical Code, current edition.
3. Plenum, fitting, and transverse duct joints sealed.
4. Weatherstripping of all doors and windows exposed to ambient conditions or to unconditioned areas.
5. Caulking or comparable sealing of exterior joints around windows and door frames, between wall soleplates and floors, between wall panels, and around all wall openings.
6. Compliance of manufactured windows and sliding glass doors with air-infiltration standards of the 1972 American National Standards Institute or the National Wood Manufacturer's Association.
7. Gasketing or comparable sealing of electrical outlets in building envelope.
8. Backdraft or automatic dampers on fans and other exhaust systems.
9. Doors, outside air intakes, and flue dampers for fireplaces.
10. Lighting that provides at least as many lumens per watt as a fluorescent luminaire appropriate for a given application for all permanently installed general-purpose luminaires. (Does not include special-purpose lighting such as chandeliers, makeup lamps, heat lamps, or decorative or outdoor lighting.)
11. R-3 insulation on first five (5) feet of water-heater pipes.
12. R-6 external insulation on water heaters (in addition to insulation within shell of water heater).
13. Automatic economizer which substitutes filtered outdoor air for return air whenever conditions are favorable for conserving energy.
14. Furnace capacity of less than 45,000 Btu/hr.
15. Central air conditioning sized according to ASHRAE standards.

TABLE B
Major Components

Performance Standard*

	Annual Space Conditioning (KBtu/ft²)		
	Heating Only	Heating/Cooling	Annual Water/Heating (KBtu/dwelling)
Single-Family Detached	6.93	15.12	18,900
Single-Family Attached	3.52	11.20	18,900
Multifamily Low Rise	9.89	14.61	9,500

OR

1. R-38 ceiling/roof insulation.
2. R-19 wall insulation.
3. R-5 slab edge or R-11 floor insulation.
4. Glazing U-value of 0.50 or less; i.e., triple glazing or heat mirror.
5. Shading coefficient of less than or equal to 0.36 on east and west glazing (June 1-September 1).
6. Shading coefficient of less than or equal to 0.36 or overhang 60% of the distance from base of window to top of wall; shading coefficient of 1.0 (November 1-February 28).
7. Glazing less than or equal to 16% of floor area with 50% facing south for each dwelling unit.
8. Solar water heating with natural gas (or comparably energy-efficient for primary energy use) backup.

* Expressed in units of primary energy, i.e., including transmission losses.

". . . some planners prefer to give builders an option of complying with either prescriptive or performance standards, . . ."

Rationales for Home Conservation Standards

One justification for energy standards cited by proponents is the seriousness of the energy problem and the need to prevent future energy crises. Standards could be seen as an application of the police power, since an energy shortage could threaten the health and safety of citizens. Indeed, many people have already died of excessive cold or heat because of their inability to pay for adequate levels of energy in their homes. Mandated weatherization could help make homes more comfortable and prevent such tragedies.

Another reason is that one person's use of energy can affect other people. A fact sheet from the city of Portland puts it this way:

> If we each had our own supply of energy, it wouldn't matter that you conserved and I didn't. But we share a common supply. When I waste energy you pay too because we both bear the cost of new supplies. Put simply, my failure to conserve causes your rates to go up. It costs the whole community. That's not fair. (City of Portland, 1980)

"If people can be shown the economic advantages of conservation codes, it is more likely that they'll support them."

Proponents also claim that market imperfections prevent consumers and developers from making the correct decisions about conservation. These imperfections include:

1. Multi-billion dollar subsidies to conventional energy sources make energy seem artificially cheap (Rose, Pinkerton, 1981: 97).
2. Energy prices do not reflect externalities, such as the full social costs of pollution from fossil fuels, or the national security dangers from relying on imported oil.
3. Consumers do not have easily understandable information about the energy usage of different homes and apartments or the economics of conservation measures.
4. Landlords have little incentive to invest in conservation if the tenants pay the energy bill. Tenants don't want to pay to improve a building that they do not own. Most rental units have little or no insulation (Morris 1982: 131).

In addition, advocates stress that weatherization will pay back its cost through energy bill savings and save large amounts of money; thus it does not hurt consumers financially, but it helps them. If people can be shown the economic advantages of conservation codes, it is more likely that they'll support them. Furthermore, tax credits, low-interest loans, and free weatherization for the poor can help people afford to comply with the codes (City of Portland, 1980).

Proponents also argue that conservation codes are within the law because they are just an extension of present building codes, which are already an accepted part of American life (Wagner, 1980: 253). According to energy analyst David Morris, the power of local governments to enact mandatory conservation measures has yet to be tested in the courts (Morris, 1980: 232).

Arguments Against Conservation Standards

Opponents claim that conservation standards are a violation of property rights, and represent an unjustified intrusion into private affairs. They assert that the market should handle energy matters.

Many builders, developers, and consumers oppose building standards because they usually mean higher-priced houses. For example, Robert H. Rivinius, executive vice president of the California Building Industry Association, claims that California's new, stricter building codes will add $3000 to the price of a new home. He says this "means it will take 10 to 15 years before a new home buyer's utility bill savings offset higher mortgage payments" (Green, 1982). However, the California Energy Commission says that in 82% of the cases, costs will be less than $1900 (Green, 1982), and that the standards will save the average homeowner $18,000-$29,000 over 30 years (Irving, 1982).

A study by the U.S. League of Savings Associations says that for every $1000 increase in the price of a new home in the affordable range ($50,750-$60,750), over 102,000 buyers are priced out of the market. On the other hand, a recent survey of home buyers says 87% said they would be willing to pay extra for upgraded insulation (Green, 1982).

Some builders also say that prescriptive energy standards stifle innovation by dictating the conservation methods to be used. The American Institute of Architects (AIA) says that while prescriptive standards are easier to administer, they ignore the possible tradeoffs that an architect might want to make. For instance, an architect may wish to increase the amount of window area, even though windows have a high heat loss, but compensate through extra insulation. The AIA favors performance standards. But the latter may require the use of an expensive computer program to calculate the energy use of building designs (Carr, 1980), and builders may find them confusing (Miller, 1979: 774). For these reasons, some planners prefer to give builders an option of complying with either prescriptive or performance standards, and I agree with this approach.

"As for California, governor-elect Deukmejian favors a two-year moratorium on the state's new energy standards."

Examples

In January of 1976, the city of Davis, California became the first city in America to implement a comprehensive energy conservation code. This code for new buildings gives developers a choice between two methods of compliance. Path I is a set of prescriptive standards specifying insulation levels, conservation devices, shading of windows, and so on; almost all builders use this method. Path II is a performance standard stating the maximum allowable heat loss per floor area. Added costs have often been less than $200 for a typical 1500 ft^2 house, but savings are over $5 per month with energy costs increasing by 10% per year (Hunt, Bainbridge, 1978).

According to architects Marshall Hunt and David Bainbridge, the actual energy savings have been better than expected, and a majority of the builders who at first opposed the ordinance have become convinced that it works and now support it (Hunt, Bainbridge, 1978). For instance, Davis developer Ronald Brower originally opposed the code, but he testified before Congress in 1978, "I was wrong and now believe the Davis Energy Ordinance should be a model for all new homes and apartments being built" (Morris, 1982: 121).

In January 1980, a new ordinance took effect in Davis requiring conservation measures to be installed in existing residences (built before 1975) before sale or exchange. As in the ordinance for new homes, owners have a choice of Path I or Path II. There is a ceiling on the cost of compliance — an owner can also comply by demonstrating that during the past 12 months, conservation technologies costing at least $500 have been installed (Solar Law Reporter, 1980: 911). Units are inspected before sale to ensure compliance, and the ordinance also applies to apartments, motels, fraternities and sorority houses (Counihan, Nemtzow, 1981). Residents opposed to the retrofit ordinance had it placed on the local ballot; it was narrowly upheld, 53% to 47% (Morris, 1982: 133).

As for California, governor-elect Deukmejian favors a two-year moratorium on the state's new energy standards (Irving, 1982). Some builders say that the energy savings from the standards have not been proven, and propose a delay to construct test homes in developments around the state (Green, 1982). Meanwhile, California's existing conservation building standards remain in effect.

The national Building Energy Performance Standards developed by the DOE have also been delayed for an indefinite period. The only national standards in effect are those for homes financed by FHA loans, which are not very strict. The National Conference of States on Building Codes and Standards prepared a model conservation code which is now followed by 22 state governmnts (Miller, 1979: 774).

Minnesota was the first state to mandate conservation measures in existing rental housing. All rental units had to be caulked and weatherstripped by January 1980. However, there has not been much enforcement aside from random inspections. More rigorous standards may be required in 1983 (Counihan, Nemtzow, 1981).

Pennsylvania passed a far-reaching act with performance standards for all new and renovated industrial, commercial, and residential buildings. The law, which took effect in March 1981, is expected to save about $76 million per year on heating costs. The energy code applies to heating, ventilating, and air conditioning equipment, plumbing systems, lighting, and building exteriors. The need for state enforcement is reduced by a requirement that builders provide home buyers with a warranty stating that the residence complies with the standards. Homeowners can sue for a breach of the warranty, asking for performance of the warranty or for damages (Solar Law Reporter, 1981: 1040).

Seattle's and Portland's proposed ordinances for conservation retrofits before resale were voted down by a majority of their citizens (Morris, 1982: 133).

The cities of Indio and Del Mar, California have conservation codes for new buildings. Santa Clara County and the city of Livermore require that ceilings be insulated to R-19, and other energy-saving measures must be installed, before a home is resold (Corbett, 1981: 954).

Alternatives to Conservation Standards

Instead of (or in addition to) requiring that all new homes meet certain energy standards, cities can provide incentives for builders to construct efficient homes. For example, Fort Collins, Colorado, awards density bonuses for conservation beyond the normal code requirements. If a builder can show that a project will use 10% less energy than the standard, for instance, the builder is awarded a 10% increase in the density allowance. Lincoln, Nebraska allows builders using a certain set of conservation techniques to increase the density of development by 20% (Morris, 1982: 121).

Boulder, Colorado limits the number of building permits to 450 per year under its growth control ordinance. Builders compete for permits by earning points, and 1-20 points can be awarded for energy-saving features (Morris, 1982: 121).

Conclusion

Conservation building codes can be an effective way to make sure that certain amounts of energy conservation will take place in a region. However, they may be challenged by people and groups that oppose the concept of government conservation mandates. There are also important questions about the impact of these codes on the affordability of housing.

Such codes may be more easy to justify if substantial tax credits and financing programs are available to make compliance more affordable. They may also be more reasonable for rental housing, where the market has not been able to stimulate much investment in conservation. Conservation building codes would probably be more popular during times when there is an energy shortage than when energy is readily available. It seems likely that more and more cities and states will pass ordinances to require or encourage the conservation of energy. ■

References

Carr, Donald L. "BEPS: Good or Bad for Solar?," *Solar Age*, June 1980.

City of Portland, "Energy Conservation Policy Fact Sheet" (Portland, OR: City of Portland, 1980).

Corbett, Judy "Local Action for a Solar Future," *Solar Law Reporter*, January/February 1981: 954.

Counihan, Richard H. and Nemtzow, David "Energy Conservation and the Rental Housing Market," *Solar Law Reporter*, March/April 1981; Ordinance #1049, Davis, CA, November 7, 1979.

Green, Terence "Changing Standards in California," *Washington Post*, May 15, 1982.

Hunt, Marshall and Bainbridge, David "The Davis Experience," *Solar Age*, May 1978; Ordinance #781, Davis, CA, October 15, 1975.

Irving, Carl "Deukmejian, Like Bradley, Cheered by Realtors," *S.F. Sunday Examiner &Chronicle*, Sept. 26, 1982.

Miller, Alan S., J.D. "Legal Obstacles to Decentralized Solar Energy Technologies: Part II," *Solar Law Reporter*, November/December 1979: 774.

Morris, David "Matters of Compulsion," *Solar Age*, April 1980: 232.

Morris, David *Self-Reliant Cities* (San Francisco: Sierra Club Books, 1982): 131.

Rose, Harvey and Pinkerton, Amy *The Energy Crisis, Conservation and Solar* (Ann Arbor, MI: Ann Arbor Science Publishers, 1981): 97.

Solar Law Reporter "Davis Requires Home Energy Conservation," January/February 1980: 911.

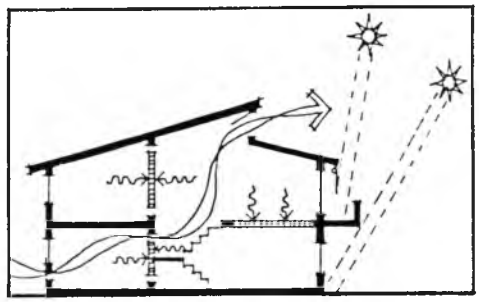
Solar Law Reporter "Energy Code Requires Standards, Warranty," March/April 1981: 1040.

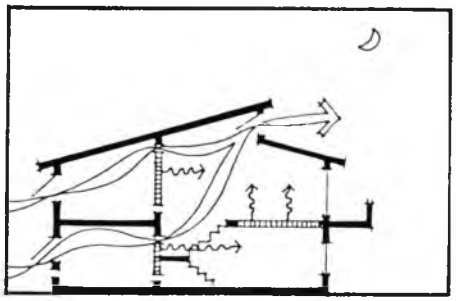
Wagner, David and Associates "Issues and Answers," in Michael Totten, ed., *Local Alternative Energy Futures* (Washington, D.C.: U.S. Department of Energy, December 1980): 253.

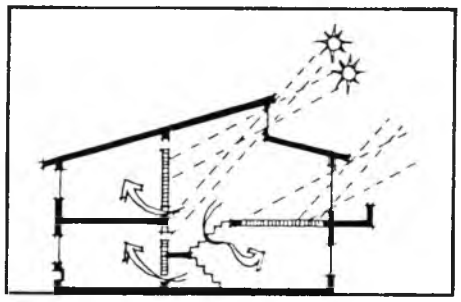
Solar Access Law

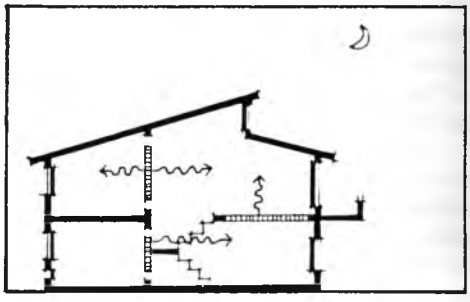
by Harvey Rose

Harvey Rose is a student in the Masters of Public Administration program at SFSU, and has graduated from Stanford University. He worked at the DOE's Solar Energy Research Institute, and in 1979 worked for Senator Charles Mathias. Rose is co-author of The Energy Crisis, Conservation and Solar, and editor of Solar Energy Now, both published by Ann Arbor Science.









Solar access refers to the availability of sunlight, unobstructed by buildings or vegetation, for solar systems and/or potential solar system sites. There are many benefits to protecting solar access worthy of the urban planner's attention. Increased use of solar energy, through properly designed solar access laws, can reduce fuel costs, help assure adequate community energy supplies in the future, and cut down on pollution and health problems from the use of fossil fuels.

A major reason to be concerned about solar access is that today, solar systems in urban areas are not protected from loss of their solar investment through shading of their solar devices by another person. For example, a survey of 23 solar installations in the Central Naugatuck Valley of Connecticut discovered that as many as 13 of the systems are either partially shaded or will become shaded by vegetation in the next five years.

Today, no legal right to receive solar energy in the U.S. as a whole exists. The key court case in this area is the Fountainbleau Hotel Corp. v. Forty-Five Twenty-Five, Inc. (114 So. 2d 357, 181 Fla. Supp. 74 (1959)). When Miami's Fountainbleau Hotel planned to build a 14-story addition that would cast a shadow over the Eden Roc's cabanas, swimming pool, and sunbathing terrace, the Eden Roc's directors went to court, claiming that the lack of sunshine would reduce the hotel's revenues. The U.S. Supreme Court refused to stop the constuction.

However, other nations today and in the past have provided a legal "right to light." The Roman courts in the 5th Century A.D. made violation of a property-owner's solar access a civil offense (Rose, 1982: 151). They wanted to protect people's access to natural lighting from the sun for reading and health purposes. Japanese courts regularly award monetary damages to homeowners whose access to sunlight is obstructed, and have blocked high rise developments to protect seemingly less valuable property interests connected to solar rights under municipal ordinance (Hayes, 1979).

This report discusses four different approaches to protecting solar access: subdivision regulations, planning and zoning methods, solar easements, and public nuisance controls.

Subdivision Regulations

Subdivision regulations are the most popular method of solar access protection. Martin Jaffee of the American Planning Association staff says "Raw land provides a blank slate for development layout and allows solar access to be protected expeditiously in the site planning process." (Jafee, 1980).

Subdivision map approvals, site plan checks and building permits are all points where it is possible to protect solar access. Simple shading diagrams with site plans can show whether solar access is preserved. (See Diagrams.) This sort of regulation need not inhibit development; it merely alters the placement of buildings and vegetation. The California Solar Rights Act requires tentative subdivision maps to provide to the extent possible, for future passive solar opportunities.

The City of Port Arthur, Texas and the counties of San Diego, Sacramento, and Albuquerque have passed subdivision regulations for solar orientation and solar access. They regulate street, lot, or building orientation to facilitate solar usage; solar homes should face south (Pinkerton, 1981). In addition, they allow exceptions if the subdivision's arrangement precludes solar orientation, or if solar access requirements would result in poor development or environmental problems.

Restrictive covenants restrict the use of land for a certain purpose and can be used to hinder or encourage solar buildings. A covenant is a promise of land that is carried with a transfer of title. Developers could require inclusion of restrictive covenants in each deed restricting

"Subdivision map approvals, site plan checks and building permits are all points where it is possible to protect solar access."

future development of tree-planting in a way that preserves solar access.

Covenants are of most potential use where new tracks are opened for development. In large subdivisions, covenants can be incorporated that guarantee access to solar power for home heating and cooling. Large-scale developments could be required to provide such covenants. The owner of another lot in the subdivision who would be harmed by your breach of a covenant, would have standing to sue you.

The benefits of restrictive covenants are great and they should be routinely used in new subdivisions, malls, or industrial park situations. They cost nothing and do not require unsophisticated industrial property owners to draw up legal documents. The developer's lawyer has only to add a clause or two to the deed.

The limitations of covenants as a tool to protect solar access are:

1. They offer little help to established neighborhoods.
2. They are inapplicable to much existing commercial and industrial land.

Planning and Zoning Methods

Zoning laws and comprehensive plans can either facilitate or frustrate the collection of sunlight for heating and cooling structures. Zoning has traditionally provided broad power in controlling both height and setbacks for buildings and fences to enhance neighborhood character and aesthetics. This has generally had a beneficial effect in providing access to sunlight in nearly all cases. The potential does exist, however, for zoning to exert restrictive forces on solar development through strict adherence to yard requirement, fence setbacks, and allowed height. By careful consideration of solar access issues before buildings are completed and vegetation planted, land use planning and zoning can avoid conflicts.

One approach is to require consideration of solar access in comprehensive plans. Comprehensive plans are used in many states to guide long-range policy in local zoning (Solar Energy Research Institute, 1982: 77-85). Provisions for solar energy in comprehensive plans have been considered in at least 2 states, New Mexico and Oregon. These plans must be reasonably specific as to the circumstances in which use of solar energy is to be encouraged or required, including the locations where solar skyspace is protected.

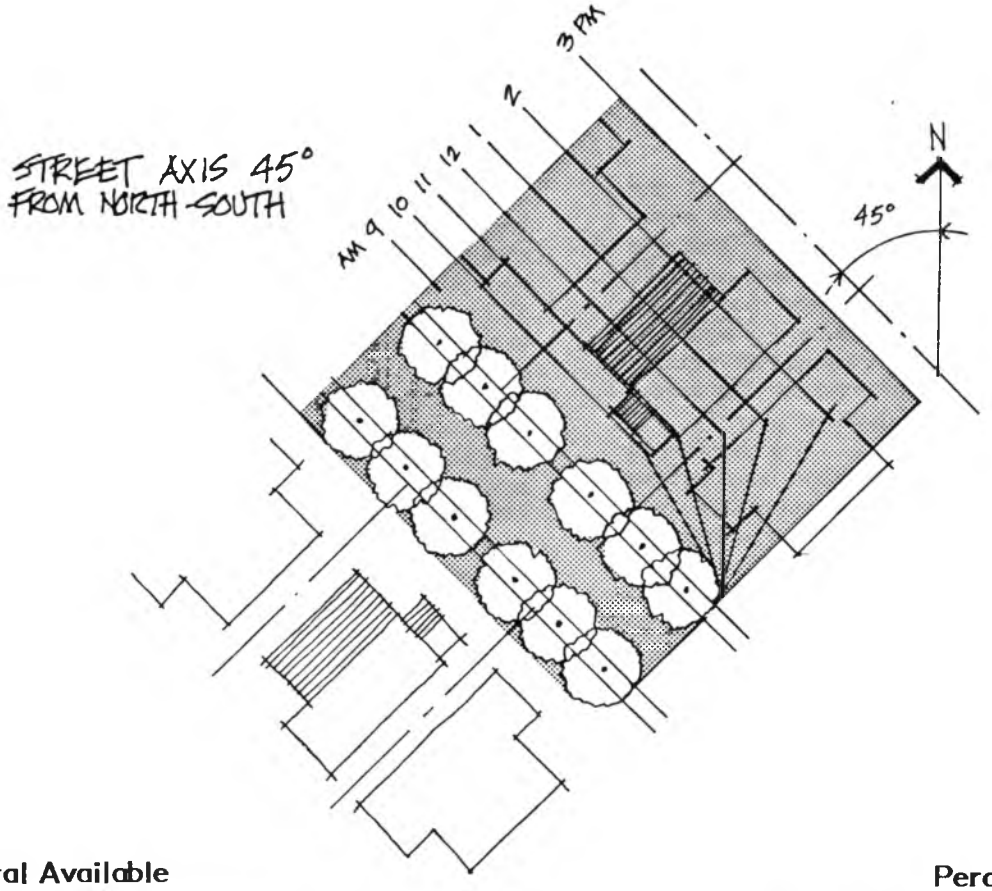
The Albuquerque and Bernadillo County, New Mexico, comprehensive plans propose zoning to achieve solar access guarantees. Included are restricting of tall structures to urban centers and height and setback constraints on buildings to assure south-facing shadow-free sunlight planes.

A 1975 Oregon Law mandates that solar access be considered in any comprehensive plan or zoning, subdivision, or other ordinance affecting land use (Oregon Laws, Ch. 153: 1975). In Japan, more than three hundred cities have adopted legislation that entitles buildings to a minimum number of hours of direct sunlight. These sunshine codes provide compensation if this legislated right is impinged upon.

Another approach to guaranteeing solar access in developed areas would be to establish special zones where solar energy use would be absolutely protected, favored, or discouraged. The suitability of existing structures for retrofitting with solar equipment, their evenness or unevenness of height, setbacks, and structure orientation would all be relevant factors in establishing such zones. An example is the 1978 Minnesota law which authorizes local zoning boards to establish districts for "the protection and encouragement of access to direct sunlight for solar energy systems."

Still another option is to offer zoning incentives, such as density bonuses, for developments where solar access is protected. For example, Lincoln, Nebraska, offers Planned Unit Developments a 20% density increase

EFFECT OF STREET TREE HEIGHT ON SOLAR ACCESS

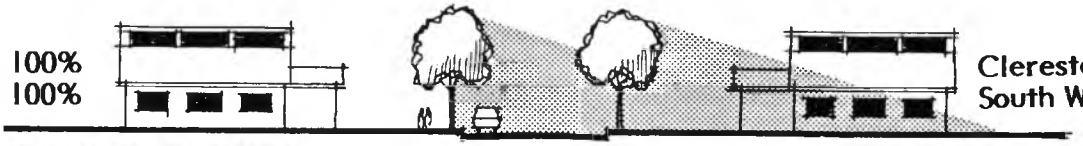


Percent of Total Available Heat Gain on Dec. 21:

Percent of Total Available Heat Gain on Dec. 21:

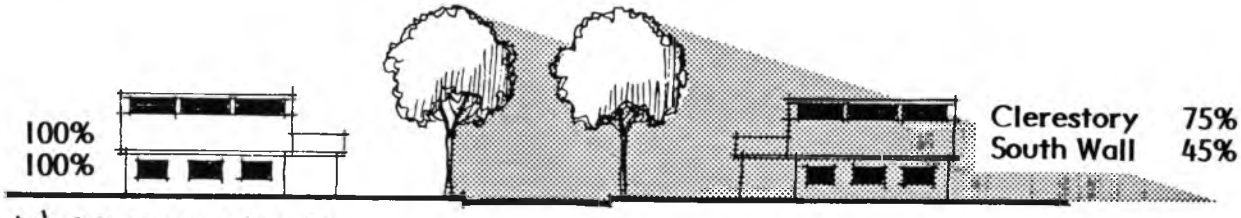
Clerestory	100%	Clerestory	100%
South Wall	100%	South Wall	90%

15' STREET TREES



Clerestory	100%	Clerestory	100%
South Wall	100%	South Wall	75%

25' STREET TREES

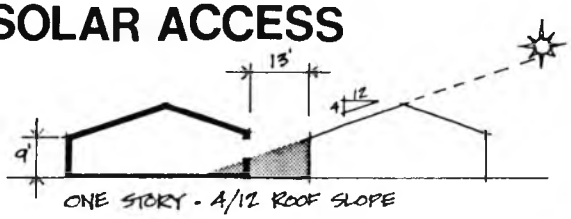


Clerestory	100%	Clerestory	75%
South Wall	100%	South Wall	45%

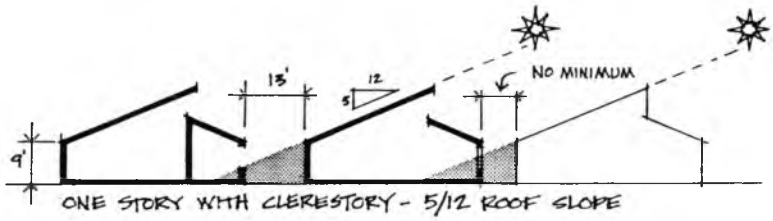
40' STREET TREES

SPACING BETWEEN STRUCTURES TO PROTECT SOLAR ACCESS

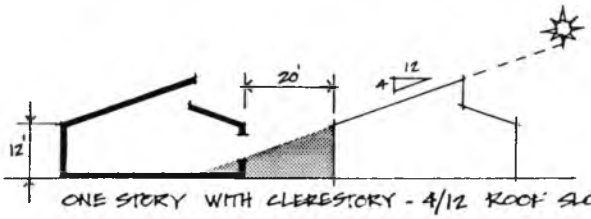
ONE STORY



ONE STORY - 4/12 ROOF SLOPE

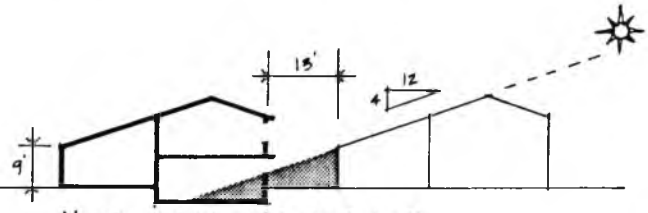


ONE STORY WITH CLERESTORY - 5/12 ROOF SLOPE



ONE STORY WITH CLERESTORY - 4/12 ROOF SLOPE

ONE AND A HALF STORIES



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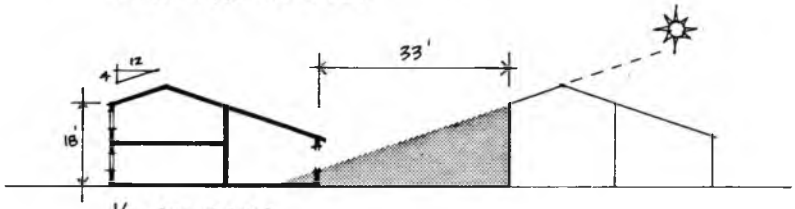
SOUTH SIDE TWO STORY



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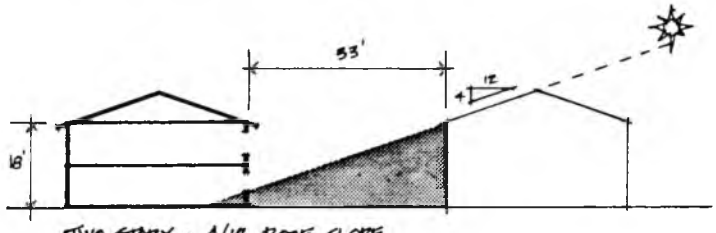

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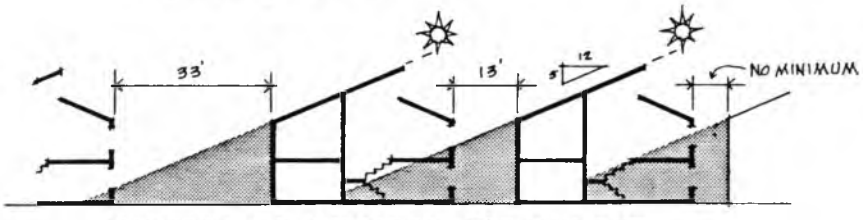


TWO STORY WITH CLERESTORY - 5/12 ROOF SLOPE

as a bonus for solar access site layouts. The controlled growth plan of Boulder, Colorado awards buildings permits on a point system towards which extra points are given for solar developments.

Solar envelopes are zoning regulations that allow the largest possible building volume on a lot without shading nearby buildings during specified hours. In other words, a solar envelope is a three-dimensional shape in which a building could be constructed without shading its neighbors.

"Covenants are of most potential use where new tracks are opened for development."

Since the sun is in the southern part of the sky most of the time (especially in winter), shadows are cast generally to the north, although they move to the northeast and northwest with changing times of day and seasons. Therefore, if building A is to the south of building B, A should be lower in height to avoid shading B. Also, a building with its roof sloped downward to the north produces less shading than a flat-roofed building of the same height. Such considerations are the basis of solar envelopes.

The disadvantages of any approach based on zoning include:

1. The expense and general impracticality of applying it to areas that are already built; structures cannot be moved to meet new requirements for southerly setbacks.
2. It is very expensive for a state or locality to intelligently redesign zoning plans.
3. It is expensive to appeal zoning decisions. It is very difficult to challenge the decision of zoning authorities in court.

Solar Easements

A solar access easement may be defined as a negotiated right to receive sunlight across the real property of another for any solar system (ORA, 1978: Ch. 6). Solar easements are negative easements in the sense that one property owner is restricting another from doing something on his/her own land that he/she normally would be allowed to do. Any owner of a solar collector would be able to negotiate with his south-facing neighbor for purposes of placing height restrictions on trees and structures. These easements would apply to all subsequent property owners until contract termination. Applicants for building permits would be required to show compliance with any easement restrictions before a permit could be issued.

The advantages of a solar easement approach are:

1. The simplicity of two-party contracts, without resorting to government channels.
2. Flexibility — Each easement is tailor-made for each parcel. Thus maximum design flexibility is preserved for both the solar system and adjacent landscaping or development.
3. Being less subject to zoning changes, they offer more permanent protection, particularly in already established neighborhoods.

The California Solar Rights Act (Cal. Govt. Code, Sec. 66473) establishes the right of Californians to negotiate solar easements with their neighbors, guaranteeing access to sufficient sunlight to operate solar collectors or passive systems. In addition, the cost of obtaining an easement from one's neighbor may be included in the system cost eligible for the state 55% solar tax credit. Twenty states have passed enabling legislation for solar easements (Morris, 1982: 119-120).

Solar easements undoubtedly have a place in future solar access policy, but as a complete solution they have limitations. Implicit in the easement process is the existence of cooperative neighbors, who are willing to negotiate. In addition, the price of an easement may be prohibitive to many people. Further, approaching solar access on a case-by-case basis runs the risk of reducing future solar options, for once sunlight is blocked by adjacent development, it can be blocked for the life of the obstruction. A more comprehensive form of access protection may be needed.

Public Nuisance Controls

California passed a little-known Shade Control Act that prohibits new vegetation from shading existing solar systems. It is based on the public nuisance concept and can require new trees to be trimmed if they begin shading solar systems. The Shade Control Act protects solar collectors from being shaded more than 10% between the hours of 10:00 A.M. and 2:00 P.M. by vegetation placed on neighboring property subsequent to the collector's installation. Exempt from the law are trees and shrubs planted before the collector's installation. One who owns or controls property on which "offending" vegetation is located and wh does not remove or trim it is guilty of a public nuisance. No legal cases have yet arisen as a result of this law. Local governments are allowed to exempt themselves from the law, and only a few communities have officially endorsed this approach.

"Still another option is to offer zoning incentives, such as density bonuses, for developments where solar access is protected."

A disadvantage of this approach is that a solar system may be installed when a neighbor's vegetation is small and not shading the system, but in the future vegetation may grow up to shade the system. In this case, solar easements may be the only recourse. An advantage of the Shade Control Act is that it restricts only vegetation, and not future building development, and so its economic impact would not be very severe.

Another public nuisance approach is that of Woodburn, Oregon. Residents may record with the Planning Department the amount of sunlight falling on the sites of planned or existing solar installations. Landowners who record sunlight may seek an injunction against construction that would shade this site or collect damages if the new building cannot be moved. Kowa, Colorado has a law declaring shadows on collectors to be a public nuisance.

Conclusion

It is surprisingly difficult to design an effective solar access law, especially in developed areas. Solar ordinances are best suited for planning new subdivisions, where future solar systems or solar home sites can be protected before any construction has begun. Many planners believe that solar access should be an important consideration in development, but not an absolute right. Although protecting solar access is hardest to do in existing densely built communities, shade control ordinances can help protect access for existing systems. I believe that a combination of several of the four approaches would be most successful in protecting solar access, because each approach has advantages in different circumstances. ■

References

Hayes, Gail Boyer. *Solar Access Law* (Cambridge, Mass.: Ballinger Publishing Co., 1979).

Jaffee, Martin. "A Commentary on Solar Access: Less Theory, More Practice," *Solar Law Reporter*, Nov./Dec., 1980.

Morris, David. *Self-Reliant Cities* (San Francisco, Sierra Club Books, 1982): 119-120.

Office of Technology Assessment (OTA). *Application of Solar Technology to Today's Needs*, Chapter 6, "The Legal and Regulatory Aspects of On-Site Solar Facilities" (Washington, D.C.: O.T.A., 1978).

Or. Laws; Ch. 153, 1975 Or. Rev. Stat. sec. 215.055 (1) (comp. plans, zoning regs.); sec. 215.110 (1) (c) (county ordinances) (1978).

Pinkerton, Amy. "Protecting Solar Access" (Washington, D.C.: U.S. Conference of Mayors, June 1981).

Rose, Harvey. *Solar Energy Now* (Ann Arbor, Michigan: Ann Arbor Science Publishers, 1982): 151.

Solar Energy Research Institute. "What Every Community Should Do About Solar Access," in *Solar Energy Now*: 77-85.

The Impacts of High-Rise Development in Downtown San Francisco

by Bill Kostura

Bill Kostura is an Urban Studies student at San Francisco State University and a researcher of San Francisco history and architecture.

In 1959 the first modern high rise office building in San Francisco, the Crown-Zellerbach Building on Market Street, was built. From that year to the present, development has been at a very rapid pace, and the city has changed greatly in that time. In my opinion this impact has been most significant in three areas: urban design, the social fabric, and strain on the infrastructure. Some statistics will illustrate the rate of office growth in this city and give us an idea of what to expect in the future. According to Sue Hestor of San Franciscans for Reasonable Growth, there is now about 55 million square feet of office space in downtown San Francisco. From a list of all buildings constructed since 1945 I calculate that 33 million sq. ft. were constructed since 1959, leaving a difference of 22 million sq. ft. in existence in 1958 (plus whatever office space was demolished to make way for new construction since that year). Thus, the amount of office space has grown by almost 150% in the past twenty-three years, quite a lot for a city that changed very little in the fifty years before 1959.

Office space approved by the Planning Commission, or under construction at present, totals an additional 20 million sq. ft., according to Hestor. And, in the next ten years, she says, the amount of office space downtown could conceivably double what it is now, that is, 110 million sq. ft. It might seem unrealistic to assume a continued rate of growth which would allow such a projection, especially since, as some have noted, there has been an increase in the vacancy rate in office buildings downtown.

The rate of growth will slow down, somewhat, but in light of the fact that 20 million sq. ft. are under construction or have been approved. Several more high rises are in the pipeline at present, and are likely to be approved. Southern Pacific Co. is pushing for acceptance of its proposed Mission Bay Development, which includes 18.4 million square feet of office development; the Planning Department is issuing transfer of development rights to land owners in the Retail District in order to switch development to the South-of-Market area, which will certainly stimulate further development. The Planning Department, the Planning Commission, and the Mayor are all pushing for development in the city; and high rise foes in the city are ineffective and disorganized, at present.

"The ground floors of older buildings always offered retail space to a variety of merchants, ensuring a vital street life."

Urban Design

What have been, and will be the effects of this past and future development in San Francisco? Modern high rises are very different from the buildings they replace. Commercial buildings built before the Depression come up to the lot line and are adjacent to buildings on adjacent lots. There is no open space around the building. At first it sounds like modern buildings, whose height allow a freer use of open space, would have the advantage. Streets of older buildings, however, put these crowded conditions to good use. The ground floors of older buildings always offered retail space to a variety of merchants, ensuring a vital street life. And the building materials — of brick, stone, cast iron, terra cotta, or wood — were used in a highly decorative manner, offering endless varieties of visual stimuli to passersby. Streets with older buildings fronting on them were busy, functional, and entertaining places to be. Modern structures, on the other hand, are made of smooth, featureless materials and generally lacking in ground floor retail space. There is little to do in front of them, or to look at, and for that reason surrounding plazas, when offered, are boring and unsuccessful, with rare exceptions. The best modern plazas use varying levels, offer functional sitting places, provide food vendors and other contacts with people, and have a minimum of flat, uninterrupted open space. No such plazas exist in San Francisco except for Levi Plaza, a recent arrival surrounded by low-rise, brick buildings.

Older buildings, when more than about twelve stories high, used setbacks on the upper stories to give relief to the eye, and to create a sense of humane proportion and scale. Sculpted details on even the highest stories provided height clues and visual interest. Modern skyscrapers, however, are usually rectangular in shape, rarely use setbacks below the very highest stories, and almost never offer decorative details. They are overpowering and boring to look at. Their solidarity through a dense rectangular pattern create wind tunnels and their extended heights block sunlight.

Presently, modern high rises in San Francisco are found in greatest concentrations on lower Market Street and the adjacent area South of Market. They are slightly less numerous in the Financial District, and scattered along upper Market. Lower Market, on the south side from Second Street to Beale, is a solid wall of modern high rises except for the yellow Sheldon Building, at First Street, and it, too, is scheduled to be replaced soon.

Each modern high rise usually replaces a quarter block to a full block of smaller structures built immediately after the earthquake and fire of 1906. Since Heritage published *Splendid Survivors* in 1979, its survey of buildings in the downtown area, 36 of its architecturally significant rated buildings have been demolished or partially demolished; 29 due to high rise development. Two of these have been City Landmarks. Sixteen more are about to be demolished due to approved project proposals or proposals that are still in the planning stage. This doesn't count buildings outside the Heritage study area, or one built after Heritage's 1945 cut-off date such as the Independence Hall-like Fireman's Fund Building across the street from the Bank of America headquarters.

Many other important buildings are threatened due to plans commissioned or produced by the Planning Department (e.g., the Mid-Market Street Study and the Van Ness Avenue Plan, affecting among others, the Strand and Embassy theaters). Such an erosion of important buildings, when replaced by buildings as poor as are currently being built, is certain to detract from the character of this city and its livability.

The Social Fabric

When the Depression halted building growth in San Francisco in 1929 there were only five office buildings in the city of twenty or more stories. Since building resumed in earnest in 1959 about 41 more have been completed, with more than twelve others under construction or planned (not counting Southern Pacific's proposal). When you add in smaller office buildings and retail, industrial, and residential buildings converted to office use, you get . . . well, a *lot* of white collar employees working in the city that hadn't worked here before. Yet since the 1940s, when the last of the Sunset District's sand dunes were built on, the city's housing stock has not increased and may have gone down significantly due to demolition. The result is a greatly increased competition for living space in the city. This alone would drive up the cost of housing. Yet the new arrivals are often professionals and other white collar workers who make comparatively large salaries and can pay more for housing, and this, too, will increase housing prices.

The effect is displacement of low and moderate income people from the city, and their replacement by office workers. The poor who cannot afford higher rents, or whose rental unit has been converted to a condominium, must move elsewhere, against their will. The gentrified neighborhoods are sometimes less interesting places to live, especially when shops offering basic services are replaced by specialty shops offering only luxury items.

Office growth does more than bring a wealthier class of people to the city. It also replaces blue collar jobs, especially as developments occur South of Market. Warehouses are converted into showrooms and industrial buildings are demolished, resulting in loss of jobs in the office warehousing, printing, and manufacturing fields.

"It (office growth) also replaces blue collar jobs, especially as developments occur South of Market."

With the increase in office growth goes a lack of concern on the part of city officials about maintaining the port and the rail lines, creating a poor atmosphere for those firms not actually forced out of their buildings. Thus Hills Bros. Coffee, owners of their own building, plan to leave the north-central waterfront and perhaps the city. Many other firms have already done so. A resultant effect is that the industrial warehouses ave little reason to continue operations, and so a number of South End Warehouses are now empty.

Break-bulk shipping has not been completely replaced by containerization, and so the city should use its piers to the extent that it can. But it seems to be city policy to let the port wither, and too those industries which depend on it. A result of the loss of all these industries and services is the loss of the blue collar jobs they provide. Blue collar workers must either leave the city or remain here, jobless. An ironic side effect is that housing project residents, who can afford to remain in San Francisco, often have only enough education to achieve employment in blue collar industries. And so, they will remain in the projects, without job opportunities, in a perpetual state of welfare and unemployment.

The Infrastructure

New office development creates infrastructure maintenance costs which the city must pay for. In earlier years, when development was slow, the city was able to bear these costs. Now it is unable to do so. These costs include burdens on the mass transit systems, increased traffic on the three highways leading into the city, increased traffic on downtown streets, parking problems, road repairs, rush-hour traffic direction by police, garbage removal, and fire disaster potential.

Sue Hestor has said that an extra 55 million square feet of office space would mean an extra 200,000 workers. Estimates of the percentage of workers in new office development who would choose to live in the city range from 10% to 60%, with the balance commuting to the city from Marin, the East Bay, and the peninsula. If the higher figure is accepted, it means a major displacement problem for people of average or lower incomes now living in the city. If the lower figure holds true, the result would be a tremendous increase in the number of commuters attempting to use our already overcrowded bridges, highways, and mass transit systems. Either way, the city streets downtown will be jammed even further than they are at present.

One answer would seem to be an increased shift toward mass transit, away from the use of personal cars. But the budgets of BART, AC Transit, Golden Gate Transit, and MUNI are already strained, increased fares do not cover increased costs, and downtown interests have successfully fought the imposition of a yearly transit assessment fee on new high rises. How people will deal with increased congestion due to new highrises is very much an unanswered question at this point.

"How people will deal with increased congestion due to new highrises is very much an unanswered question at this point."

Parking is increasingly a problem since no new parking structures are being built downtown (one on Bush Street would be demolished by a new high rise proposal) and so commuters are forced to drive into the city and park in adjacent residential neighborhoods, increasing parking problems for San Franciscans who live in those neighborhoods.

Other costs I will not analyze here, except to say that downtown interests feel they should be responsible for only the costs within the four walls of their buildings, and no others, and that they have been successful in that stand so far.

* * *

When you add up the costs to this point of decreased livability due to poor urban design, displacement caused by a massive influx of white collar workers, loss of blue collar jobs, and the strain on San Francisco's infrastructure, all caused by modern high rise construction, it's not hard to see why many people consider San Francisco a less pleasant city to live in than it was twenty years ago. Add in the costs that would result from projected construction in the next ten years alone, and the prospect is overwhelming. Downtown will become a series of glassy canyons, and neighborhoods will become gentrified to the point that Mission Street will resemble Union Street, Potrero Hill will resemble Russian Hill, and the Tenderloin, Nob Hill.

We need sharply lowered height limits throughout downtown and adjacent areas; we need to halt the spread of the office sector to areas presently zoned for industrial use, and to bring back blue collar workers.

We need office holders responsive to the needs outlined above, rather than politicians responsive to the Chamber of Commerce; and we need a much greater public awareness of these issues. This last need is perhaps the greatest; the other needs will probably not be met without it. ■

December, 1982

I-280 Transfer Concept Study

by Heather Baird

Heather Baird graduated from the Urban Studies Program in December 1982. She is now working for Environmental Science Associates, Inc., the firm involved in preparing the San Francisco Downtown Environmental Impact Report.

San Francisco's encouragement of office growth, while failing to require sufficient impact mitigation measures is being properly questioned. One specific issue regarding the city's ability to absorb or withstand its growth are the effects on the transportation network; without sufficient arterial routes, the efficient movement of people and goods is impeded at great costs. Congestion reduces productivity by extending journey-to-work times, increases levels of air pollution and noise, while decreasing the longevity of the infrastructure. San Francisco has already implemented plans to expand its downtown core into the South of Market area bounded on the south by Southern Pacific's Mission Bay Project, though as the map in Figure 1 illustrates, the bulk of existing transportation routes bypass this area.

The San Francisco Board of Supervisors has authorized the I-280 Transfer Concept Study in an effort to spend $87 million in uncommitted Interstate Highway funds. Caltrans and the Metropolitan Transportation Commission (MTC) will monitor and assist in the EIS/EIR assessments that will analyze the effects of the six combinations of traffic and people-movers from the South-of-Market area to the North-of-Market, and along the length of the Eastern waterfront from Southern Pacific's property to Fort Mason. Though ostensibly a treatment of preferred use of highway funds for transportation other than in building more freeways; the report was actually initiated to find an acceptable reason to tear down the 1.3 mile elevated Embarcadero freeway. With the report personally ferried to Washington, D.C., by Mayor Dianne Feinstein for federal approval of its inception, it already is a touchstone for controversy. This paper will address both sides surrounding the political and planning acceptability of tearing down the Embarcadero freeway.

The I-280 Transfer Concept study is being carried out in one year by a team of seven consulting firms, chosen by a joint three-member, MTC/Caltrans/City of San Francisco, Policy Control Committee. This committee's unanimous vote is required for recommendation of any action to be voted upon by the Board of Supervisors. The six alternatives of the study involve various combinations of a new Muni E-line streetcar extending the length of the waterfront; a four to six lane parkway stretching along the waterfront to carry vehicles which previously used the freeway; an extension of the Muni service up to Market Street from the Southern Pacific train station; new on-and-off ramps from the I-280 and I-101 into the area south of Market; satellite parking around the periphery with jitney service; and the possibility of removing the elevated Embarcadero freeway.

"Opponents to its (the Embarcadero freeway's) removal see it as a restriction of needed access to their locations, . . ."

Removal of the freeway is seen by some to enhance their property values in eradicating what they feel is an eyesore. Opponents to its removal see it as a restriction of needed access to their locations, acting as an extreme disincentive to incoming businesses and consumers. The pro-removal consortium's ranks have recently been increased by the approved Ferry Building development. These developers see a strong barrier to pedestrians' use of the sites along the eastern waterfront. Their forces include the Continental Development Corporation, which has the contract to develop the Ferry Building; the Port Commission, whose land values will increase; Hills Brothers Coffee which owns a large piece of land nearby; and The San Francisco Redevelopment Agency with its own plans for a waterfront office, residential, and marina development.

Other groups in favor of tearing down the freeway are San Francisco Tomorrow, San Franciscans for Reasonable Growth, and San Franciscans for the Removal of the Elevated Embarcadero Freeway — all of whom seek slow-growth policies and favor enhanced visual amenities. They see the congestion caused by the dumping of an estimated 73,000 vehicles per day onto city streets (Caltrans, 1981 Traffic Volumes: 190) as a valuable disincentive for growth in the downtown core. Also in favor of removing the freeway are Fisherman's Wharf interests who will benefit from the implementation of a proposed Muni E-Line; and North Beach and Telegraph Hill residents and businesses who believe the restricted access would halt encroaching downtown office growth.

Opposed to the removal of the Embarcadero Freeway are business and transportation concerns epitomized by TransAmerica president and incoming Chamber of Commerce president Jim Harvey. Through his secretary, he maintains, "Our highest priority is the health of the city." His ranks feel that the congestion would create unfathomable problems, which translate into lower property values and higher vacancy rates — a tailspin for downtown businesses. Note that the TransAmerica Pyramid which is located in the northwest

quadrant of downtown, has its parking garage emptying directly onto Clay Street, a one-way channel to the Embarcadero on-ramp. Should the freeway be removed, access to that area would be diminished. According to Bob Harvey, director of Economic Development for San Francisco Chamber of Commerce, because Jim Harvey is their incoming president, the Chamber's position will probably be against tearing the freeway down. But adds, there are quite a few members who would like to see it come down.

Other groups opposed to its removal are the trucking and transportation associations whose concerns center on the most efficient means of delivering goods downtown, reflected in minimal journey times per delivery. Chinatown residents are also wary of the proposal. Its removal would encourage heavier traffic from the west sides of Chinatown, through residential areas, in getting to its tourist attractions. And though MUNI, as a city agency, is not supposed to unilateraly offer opinions on the project, has voiced strong opposition to the idea. Many of the freeway removal alternatives include substantial additions to MUNI, in particular the E-line, at a time when MUNI is having difficulty financing its present level of service and maintenance.

MUNI's opposition is not ill-founded; the $87 million in Interstate Highway funds are only enough to cover removal of the freeway, with small amounts of seed money for other aspects of each alternative. According to Bill Chastain, assistant project manager with Caltrans, "the money for completion is still floating in thin air. Nobody has tapped it and they don't know where it's going to come from." He attributed this project funding approach to the Robert Moses planning philosophy of "once a project is initiated, continued funding is going to come from somewhere." Another hesitation Caltrans has in endorsing a removal plan is that in the long run final approval of the $87 million comes from the Congress, which, although it is generally dependable in approving the same funds for an area from one year to the next, comprehensive funding can never absolutely be assured.

"Many of the freeway removal alternatives include substantial additions to MUNI, . . . at a time when MUNI is having difficulty financing its present level of service and maintenance."

A time constraint is also in effect. In order to obtain the money which is the residual sum from the decision not to complete the I-280 link from Fourth Street to US 101, the entire project must be finished by 1986. This is the year that the entire Interstate System is to be completed. This would require groundbreaking no later than the fall of 1983, and thus has imposed severe time restrictions for carrying out an environmental impact assessment. The time limit presses the approval of the proposals. There is no time to investigate further ways of spending the money beyond the six alternatives proposed, such as the option of simply closing the freeway and monitoring its impact.

"There is no time to investigate further ways of spending the money beyond the six alternatives proposed, . . ."

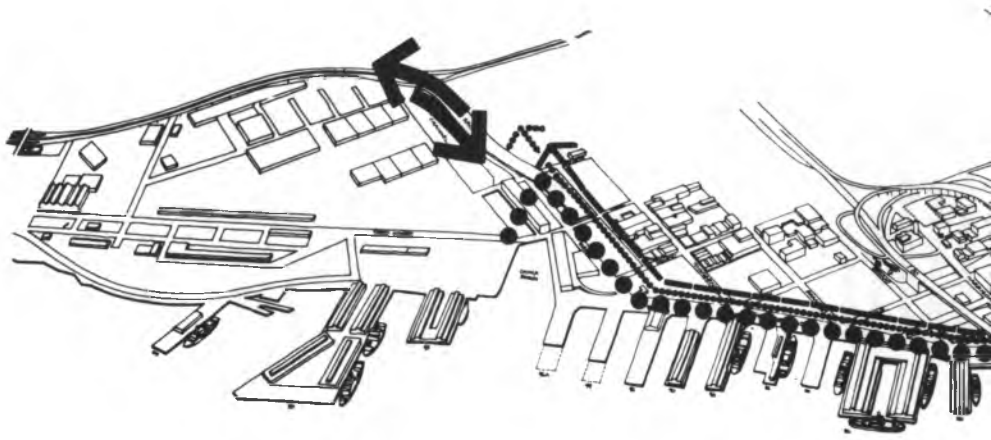
In a broader perspective, the issue reflects a phase of American transportation planning which has traditionally catered to automobile travel, rather than mass transit systems. The increasingly coordinated road network has resulted in a loss of mass transit patronage and consequent revenue. Subsequent declines in service levels and efficiency made it less popular and less financially solvent and attractive as a government investment. With the I-280 removal, the joint Policy Control Committee would be negating existing highway improvement and rerouting a multitude of people onto an already suffering, less-than-convenient mass transit system. Though the increased congestion and commuter frustration of trying to get into and leave the city with a car, but without a freeway might act as an incentive for some people to use public transit, the result of that strategy would be a nightmare for the city in terms of surface level congestion and noise.

The Policy Control Committee upon whose recommendations the Board of Supervisors decision rests, are supposed to be unbiased, but different political groups in the city allude to the fact that the idea of removing the freeway has a choice morsel in it for each member. Dean Macris, director of City Planning, will see a "beautified waterfront." The Metropolitan Transportation Commission will have new transit routes to monitor for movement of people to the region's central workplace, and Caltrans will have a new highway project to demonstrate its expertise in landscaping and rerouting of vehicles.

Decisions rely on the work of the consultants involved, headed by Parsons, Brinkerhoff, Quade and Douglas, Inc. Their figures will represent the only substantive data available for assessing the future impacts of the alternatives. Gathered in a restricted period of time, their data will be the word on projections of pollution levels, noise, length of journey-to-work times, and burdens on the infrastructure.

Further, because the city has no legal downtown guidelines to limit impacts of any one project (a downtown EIR is currently being prepared), the Policy Control Committee has little to compare the study's results to. No cumulative report of San Francisco's existing levels of congestion, pollution, and noise are available on the downtown. Like private office developments, the Embarcadero freeway removal project has only to answer to the effects which can be estimated through the next seven months. The consultants cannot accurately take Mission Bay's expected

I·280 TRANSFER CONCEPT PROGRAM ELEMENTS



I-280 Touchdown Ramps
Embarcadero Freeway
Embarcadero Roadway
Muni-Metro Extension
Muni "E"-Line LRT

massive influx of road and transit users into account because that project's EIR has not been completed. Also, they do not assess the effects of the freeway's removal on Franklin Street, an already heavily congested north-south route from US-101. With limitations on the depth of information that can be generated during the analysis, it is more likely one alternative will be approved on a political basis rather than from thorough research.

The impacts of either position are complicated by the externalities of the project. I feel the fence around the Golden Gateway Tennis Club obstructs pedestrian views of the water as much as the freeway. It is argued by the freeway preservationists that a heavily trafficked surface roadway would be more of a visual barrier to pedestrians between the downtown and the waterfront than the freeway, with its ivy-covered cement pillars and continual siting of new buildings around it.

I particularly don't like the idea of enhancing Ghiradelli-Square like development in the city, which is what Continental Developers and the Department of City Planning has in mind for the Ferry Building site. Though the Chamber of Commerce claims tourism is an economic base which needs to be exponentially increased, I disagree. Tourist-oriented areas are generally avoided by city residents, and the jobs they provide are in some of the lowest paying categories. Ghiradelli Square, Fisherman's Wharf, Pier 39 and the planned Yerba Buena Gardens are enough.

I enjoy the lack of traffic on the existing surface road for bicycling, but I don't like to walk alone in the area because it is dark, cold and it feels unsafe.

As an Embarcadero freeway user, the greatest determinate is one of convenience. Will I get to work as quickly if it is torn down? Or, will I be subjected to unbearable stop-and-go traffic (assuming I still drive because public transportation takes longer). Aesthetics are desirable, but I am accustomed to the freeway's appearance, enjoy the views of the city from its upper deck and feel relief from the confinement below.

Because our city and region's mass transit systems have enormous room for improvement, and in the long run it would be better to use them for dense urban transportation, my vote for the I-280 Concept's use of the $87 million is to allocate all of it for enhancing mass transit.

The freeway may be an eyesore, but San Francisco needs better crosstown movement, not worse, and it makes no sense to put a surface road where there is already a functioning elevated roadway. The mass transit systems could put the money to better use. In addition, fewer people using cars would result in more room to accommodate pedestrians as the downtown expands. Sidewalks could be widened, traffic threats would be reduced.

To influence the city's decision-makers to choose either of the proposals which allow the freeway to remain will be a bit tricky. They are not supposed to formulate opinions until after the data is gathered and presented, and then, they have only two months to review it. By legislative mandate of the California Environmental Quality Act and its federal counterpart, the National Environmental Policy Act, final decisions can only be based on elements in the EIS/EIR. The EIR and EIS will have to be regarded by all interested parties as the most objective document available in analyzing the alternatives. This precludes much early questioning of the project, and with only two months between the completion of the EIS/EIR and the Policy Control Committee's recommendation to the Board of Supervisors, there is very little time to present counter arguments.

"I particularly don't like the idea of enhancing Ghiradelli-Square like development in the city, . . ."

Public awareness is the first step. The Planning Commission is hearing more dissension at every public hearing about the lack of proper planning to accommodate the city's downtown office growth, with specific references to MUNI's inability to provide adequate service. As pressure like this grows on each government agency involved (City Planning, Caltrans, and the Metropolitan Transportation Commission), the chances increase for the I-280 Transfer Concept, Policy Control Committee to be unable to reach a unanimous decision. ■

Commute Alternatives

by Brett Brogan

Brett Brogan has been interning with the Metropolitan Transportation Commission this past year. He will graduate this semester in Geography with a minor in Urban Studies and is making plans for travel along the West Coast this summer.

The author extends his gratitude to the MTC Commute Alternatives staff; Susan Bachman, Karen Frazer-Middleton, and Shanna O'Hare for their input and for use of information and ideas developed through their planning section. Additionally, help was found from the Modelling Section at MTC through Hanna Kollo and Chuck Purvis in their providing of data analysis.

It is disheartening that the vast majority of commuter trips in this country are done in single occupant vehicles; some 52 million of 73 million daily trips are of this drive alone mode. In terms of fuel, commuting consumes 75 million gallons of gasoline each workday (FHWA, 1980:7). These figures are extreme in the waste of gasoline, amount of pollutants, and in traffic congestion and noise.

More encouraging are the commute patterns into San Francisco from the East Bay. The regional transportation planning agency in the San Francisco Bay Area, the Metropolitan Transportation Commission (MTC) has surveyed the traffic across the Oakland Bay Bridge (Spring, 1982); with the inclusion of BART heavy rail vehicle patronage the data for the westbound, 6:30 - 9:00 a.m. commute shows single occupant vehicles to represent just 18 percent of the person trips. This is a far lower rate than the national one. Mass transit accounts for 31 percent of the person trips.

The geographic constraints of the Bay Bridge traffic corridor contribute to this commute pattern of lesser single occupant auto use. With no other access points, the capacity of the bridge restricts the level of auto use from substantial growth. At a capacity of 9500 vehicles per hour[1], the 23,491 vehicles using the bridge during the 2½ hour commute period realistically meet this capacity. The degree of congestion is relative to the capacity of the network and those who make this morning commute have a vivid understanding of the congestion. After contending with backups along freeways 580, 80, and 17 the commuter can then expect to wait up to 20 minutes at the toll plaza. Even then smooth access on the span must be controlled with metering.

Bay Bridge Traffic Corridor Data

Data on the Bay Bridge traffic corridor is presented, following, in measurements commonly used by transportation planners to express traffic levels: vehicle counts (Table A) and person trips (Table B). The data is classified by mode: passenger vehicles, commercial vehicles, buses, and BART. Passenger vehicles are further broken down according to vehicle occupancy; 1 occupant, 2 occupants, 3-6 occupants, and 7-plus occupants. The 1975 data is less specific as to vehicle occupancy; 1 occupant and 2 occupants tabulations are combined as are vehicles with 3-plus occupants.

While the exact percentage of the peak hour trips across the Bay Bridge that represent commuter trips is not easily discerned it can be assumed to be at least 80%[2]. Regarding changes from 1975 to 1982 in passenger vehicles, a marginal 5% increase in the vehicle count (20,233 to 21,698), has supported a 28% increase in the person trips (26,684 to 37,225). Put another way, the aggregate passenger vehicle occupancy ratio has increased from 1.3 in 1975 to 1.7 in 1982. Or, those people involved in ridesharing, 3-plus occupant vehicles, while accounting for only 11% of the passenger vehicle person trips in 1975 have risen to 42% in 1982.

Enticed by this encouraging data, this article takes a look at the means in which government agencies can promote the commute alternatives of mass transit, car and vanpools, and bicycling. All of these modes lessen the environmental ills associated with automobile travel. On an individual level, they can alleviate most of the hassles and expense of driving alone.

BAY BRIDGE TRAFFIC CORRIDOR DATA SPRING 1975, 1980, 1982

TABLE A
Vehicle Counts: Westbound, 6:30-9:00 a.m.

	1975[1]	1980	1982
Passenger Vehicles			
1 occupant	19,504	11,517	13,876
2 occupants		3,130	3,863
3-6 occupants	729	3,229	3,747
7-plus occupants		206	221
(Subtotal)	(20,233)	(18,082)	(21,698)
Commercial Vehicles	1,843	2,350	2,465
Buses	291	375	328
TOTAL	22,367	20,807	23,491

TABLE B
Person Trips: Westbound, 6:30-9:00 a.m.

	1975[1]	1980	1982
Passenger Vehicles			
1 occupant	23,646	11,517	13,867
2 occupants		6,260	7,726
3-6 occupants	3,038	11,350	12,637
7-plus occupants		2,281	2,995
($Subtotal_1$)	(26,684)	(31,408)	(37,225)
Commercial Vehicles	2,212	2,820	1,748
Buses	13,693	17,644	15,322
($Subtotal_2$)	(42,589)	(51,872)	(54,295)
BART	12,629	16,798	24,161
TOTAL	55,218	68,670	78,456

Notes: [1]1975 data assumes a vehicle occupancy ratio of 1.21 for combined 1 occupant and 2 occupants tabulations and a veh. occ. ratio of 4.17 for combined 3-6 occupants and 7-plus occupants.
Source: Bay Bridge Traffic Survey MA-58; MTC, Caltrans

[1]Theoretical capacity of passenger vehicles per hour is established at 2,000 vehicles per lane for uninterrupted flow under ideal conditions (Highway Capacity Manual, 1965: 76); toll plaza and ramp metering onto the 5 lane Bay Bridge reduce this 2,000 vehicle capacity to 1,900 v.p.l.

[2]Estimate based on 1965 MTC Home Interview Survey indicating 65-75% of the entire nine county Bay Area regional traffic between 6:30 and 9:00 a.m. being home based-work. The higher figure of 80% is assumed due to the Bay Bridge serving as a major traffic corridor (Kollo, 1983).

Commute Alternatives Outlined

Make no mistake that mass transit is a vital and the paramount alternative we have. Its infrastructure is well established in many large cities; the San Francisco Bay Area has the potential for a strong regional network. It is a mode that if used in conjunction with wise land use planning can accommodate most of one's transportation needs. However, mass transit's ability to meet the commuter's need in most metropolitan areas of this nation is dwarfed by its incapability of extending route coverage to the outer lying growth communities. This is a problem of inadequate funding and it is obvious the political preference still lies with the auto, as evidenced by only 20% of the recent nickle Federal gas tax hike being allocated for mass transit. The need for appropriations towards capital expenditures is recognized though will not be dwelt upon here. What will be encouraged are lower cost measures that enhance the present transit system, such as properly lighted transit shelters or shuttles running from the transit station to the work place. The modal choices in this article will focus on ridesharing, predominately through car and vanpooling with application of buspooling where logistically feasible. Cycling, while statistically insignificant, certainly deserves attention. How can one deny the promotion of a transportation mode that is healthy for the individual and environment alike, enjoyable, and inexpensive?

There is nothing novel in carpooling. It has been around on an informal basis for a long time; schoolmates, co-workers, and neighbors commonly share a ride. However, when car, van, and buspooling programs are administered through government agencies and corporations the concept is given a new dimension. The distinction between traditional carpooling and contemporary vanpooling becomes more than the passenger capacity of the vehicles; transportation agencies and private companies are now taking the initiative to provide the vans and coordinate the ridership.

The commute alternative approach is exceptional in its aim towards an ever increasing role on the part of the employer. This direction is a proper one; just as child care was previously an unrecognized problem of the worker by management, difficulties in commuting have risen to a level to which management must deal with. To reach this objective of private participation government can make the initial effort by inducing corporations to commit resources to solving transportation problems. Likewise, it needs to induce the commuter to fit commute alternatives into their lifestyle. The methods are to provide incentives through tax and regulatory exemptive legislation, parking strategies, and other conveniences for the commuter including high occupancy vehicle lanes and free tolls. The marketing of commute alternatives is done by transportation agencies such as MTC and Golden Gate Ridesharing, non-profit organizations like Rides for Bay Area Commuters, Inc., and through the use of transportation coordinators at the employing institution. The remaining sections present an overview of these options.

Marketing

Commute alternatives have emerged as the most promising of Transportation System Management (TSM) proposals. TSM's are transportation planning measures, of a low cost nature, in response to existing or proposed development. They may be applied as mitigation measures for transportation impacts identified in EIR's for specific development proposals. On the city level, the San Francisco Department of City Planning requires a TSM of all major development. Concerns on parking, increased stress on the transit system, and traffic flow are addressed. Participation in the San Francisco Joint Institutional TSM program produced TSM's at each of the fourteen employing institutions involved. From these evaluations successful ridesharing programs have emerged from the University of California at San Francisco, Children's Hospital, Fireman's Fund Insurance, the University of San Francisco, and St. Mary's Hospital.

With funding from the Federal Highway Administration, San Francisco's Department of City Planning is developing a program to further define the city's TSM plan requirements of developers, including a proposal that developers assign a transportation coordinator in each new highrise. The first application of the city's model TSM plan will be to the near completed 101 California site. The city will assist other developers in the adaptation of the plan and with additional UMTA funding will extend the program to building management firms who volunteer to participate. The transportation coordinator will be responsible for promoting alternatives to all employees of the companies occupying the building.

MTC has developed a Commute Alternatives program which trains company representatives providing them with information on the services and resources available to assist them in promotion of the various modes. MTC publishes a manual illustrating the approaches and maintains a transportation coordinator network to relay new information and innovative techniques. MTC has trained 110 coordinators via seminars held every six months in different counties of the Bay Area. Rides, Inc., has initiated 455 third party vanpools (6,000 people) as well as placing 29,000 people in carpools since 1978. Golden Gate Ridesharing has been successful in organizing Marin and Sonoma county commuters into buspools with 27 currently in operation.

California Legislation concerning commute alternatives

SB 321 provides a 20% tax credit on the purchase or leasing of vans and cars for ridesharing purposes; 100% deductions on commuter subsidies including monthly transit passes; and accelerated depreciation allowances for facility improvements on bus shelters, bicycles and locking apparatus, showers and lockers, sidewalks, and restriping of up to 20 parking spaces for preferential use. (Unfortunately, California stands alone in states offering these tax incentives for employer investments, though another 10% credit can be gotten on federal tax returns by way of the Federal Energy Tax Act of 1978).

SB 320 puts a cap on the deductions individuals may claim from the state's gas tax on their income tax returns and allowed a $7/month deduction for transit users. This would provide the state with $6 million per year to be allocated across the state for ridesharing. Passed just one year ago, funding appropriations under this bill have been eliminated for FY 82-83 and FY 83-84 in an attempt to cover the state's deficits.

AB 548 makes monetary compensation for ridesharing nontax able. It also prevents a city, county, state or other political jurisdiction from imposing taxes or licenses on a ridesharing activity when it is incidental to another activity (commuting to work).

AB 550 exempts ridesharing vehicles with a seating capacity of 15 or fewer from regulation by local government or the Public Utilities Commission. It defines them as passenger vehicles for registration and other vehicle code purposes.

"The commute alternative approach is exceptional in its aim towards an ever increasing role on the part of the employer."

High Occupancy Vehicle lanes

A physical means of encouraging ridesharing is through use of high occupancy vehicle (HOV) lanes on freeways. These are more commonly referred to as carpool or diamond lanes. These lanes permit vehicles of three or more passengers only (two or more in Santa Clara county) with restrictions generally during the commute hours of 6:00-9:00 a.m. and 3:30-7:00 p.m. Response to four Bay Area HOV lanes has been split; two of them are heavily used, one has been eradicated, and fourth, a proposal to implement them on the approaches to the modified Dunbarton Bridge, has been met with a vociferous rebuttal from neighboring East Bay cities.

The two locations where carpool lanes are effective are the west bound approach to the Bay Bridge and on Hwy. 101, north of the Golden Gate Bridge extending from the Waldo Grade to Corte Madera. The Bay Bridge approach designates three lanes for HOV use and 14 for non-HOV usage. The Spring 1982 data shows 42% of the people crossing the Bridge in the morning commute did so using the HOV lanes. The HOV lanes on Hwy 101 are not controversial in that they were added to the existing freeway shoulders and thereby have not deprived non-carpools of any roadway. Also in effect in the afternoon commute period is a northbound contraflow bus lane that utilizes two lanes on the opposite side of the median. The contraflow lane operates on the inside along

the median with the secoind lane acting as a buffer against the oncoming traffic (Caltrans, 1979:8) Rideshares represent 20% of the passenger vehicle person trips across the Golden Gate Bridge during the morning commute (Caltrans: Spring 1982).

From an environmental planning perspective, diamond lanes are a well intentioned means of soliciting ridesharing. In practice, diamond lanes by themselves are insufficient incentive to attract a large migration of non-HOV commuters. In non-critical times of moderate gas prices the proper placement of HOV lanes would have to not involve the taking away of roadway for general traffic use. After seven years, public anger eventually forced the removal of an 18 mile HOV segment of Hwy. 580 from Dublin to Castro Valley in January, 1983. For the Dunbarton Bridge proposal, the use of HOV lanes is hampered by the capacity limitations of a two lane (each way) span. An HOV bypass on the approach that is curtailed at the toll booths would provide little or no time incentive for HOV's. On the other hand, extending the HOV lane onto the bridge would cause serious delays in the general traffic lane (Caltrans, 1981:18-27). Thus the intelligent use of HOV lanes is one that requires a thorough study of the specific location. Currently, Caltrans has studied and programmed the use of intermittent HOV lanes in three other Bay Area locations: Hwy. 101, north of Corte Madera to Route 37, primarily at San Rafael; I-80, from Hwy. 580 to the Carquinez Straits; and on I-280, from Hwy. 17 north to Magdelana Ave. in Los Atos Hills.

"In practice, diamond lanes by themselves are insufficient incentive to attract a large migration of non-HOV commuters."

Parking Strategies

Government action in providing subsidized parking and park-n-ride lots can greatly aid in the development of ridesharing. Caltrans has instituted a parking program in the greater CBD of San Francisco. Started in January of 1977, it was originally slated for carpools but the strategy was revised for 8-plus passenger vanpools in March of 1979. The vanpools now park free at a savings of up to $125/month in the prime lots nearer Market Street. Since the operators of the lots are leasing them from the state, profits are maintained by limiting the allocation of vanpool spaces. In effect, then, the non-HOV's are paying more and in doing so subsidize the vanpools (Caltrans, 1983).

Park-n-ride lots are an excellent solution to the infeasibility of widespread mass transit service in the suburbs. The lot is typically located along a radial bus route, express preferably, anywhere from 5 to 45 miles outside the CBD (FHWA, 1981:77). Suburban BART stations are essentially park-n-ride lots. In setting up these lots a coordinated effort is needed between the transit agency serving the area and the agency purchasing the site (usually the state in that local governments are without funds for this type of venture). The safest approach is for the agency to first lease the property; put in some facilities; institute good transit service; and then to judge the response. If favorable, further site improvements should be made in lighting, parking, shelters, landscaping, telephones, etc. In developed traffic corridors existing parking sites at shopping centers and stadiums may be leased or received free from the owners. In some instances, as with shopping centers, mandatory dedication of commuter parking could be justified by the establishment's capacity for attracting residential development, many of the homeowners who undoubtedly commute into the CBD. Park-n-ride lots have been very well received across the country. The Bay Area currently has 77 of these lots.

Conclusion

All the means for encouraging commute alternatives that have been presented (and others that are available to companies, such as preferential parking and flex-time) should be expanded upon. Even with all of the proper input, commute alternatives cannot be expected to be a staggering solution to our auto dependency. In the broad sense, most of our commute pattern problems are related to land use; the establishment of residential zones miles from employment centers and exclusive of mass transit. The greatest swing in auto use will follow land use designs that encourage employment and commercial sites nearer the home. Land use assumptions that separated the work place from home were correct in isolating heavy industry but when this industrial type is to be replaced by tertiary and light industry there is not the need for such distinguishing zoning.

A critical point will arise where a continued support of conservation in energy and environment might tip the scale in favor of a more sensible land use pattern. As gas prices rise the public will be pushed to sacrifice the environment for increased oil exploration. Presently, California has thwarted most of the desired critical zone offshore oil exploration attempts. This environmental attitude has been maintained at moderate gas prices of $1.20 per gallon. What will the response be at $2.20 per gallon? A remembrance of the gas crises of 1973-74 and 1979 will remind readers of the pitfalls of such a heavy reliance on driving alone. Red and green flags, odd-even rationing, $5 maximums, and lengthy gas lines, though quickly forgotten, do linger and are always a renewable reality. The automobile, if properly used, i.e., moderately used, can be a splendid luxury for a productive, consumer oriented society; complete with its status symbology and unprecedented freedom of mobility. The auto is well suited for evenings out, recreational travel, and occasional shopping trips. It has also, unfortunately, proved to have become a stranglehold on our thoroughfares and senses during both the morning and evening commute periods. ■

References

Caltrans. Conversation with Merle Johnson, February 14, 1983.

Caltrans. "A Report on the Operational Alternatives for the New Dunbarton Bridge," May 1981.

Caltrans. "Marin Corridor Study, Phase 1 Report," February 1979.

FHWA. "Evaluation of Priority Treatments for High Occupancy Vehicles," January 1981.

FHWA "Ridesharing: Meeting the Challenge of the 80's," National Task Force on Ridesharing, 1980.

Highway Capacity Manual, 1965. Special Report 87, Publication 1328, National Academy of Sciences, National Research Council.

Kollo, Hanna. Conversation at MTC on February 9, 1983.

MTC. "Commute Alternatives: A Transportation Manual," January 1983.

MTC. "The 1981-82 Transportation System Management Element," June 25, 1981.

Shao, Chi Hsin. Conversation at San Francisco Department of City Planning, January 9, 1983.

Freeway Revolt! Rejoinder

by Barry Pearl

Barry Pearl, Masters degree candidate in Environmental Planning through the Consortium of the California State University, is a graduate of San Francisco State University (BA in Geology, 1975). Formerly, a Regional and Environmental officer with the Heritage Conservation and Recreation Service (DOT), Mr. Pearl is currently an associate planner with Gaia Associates, an environmental consulting firm specializing in the air quality impacts of power plants.

The paper by Ms. Stephanie Tutt entitled "Freeway Revolt! San Francisco Neighborhoods Fight for their Future" (*URBAN ACTION* 1981/82) described the ability of many San Francisco neighborhood residents and merchants to organize and defeat freeway proposals. In the discussion about the Central Freeway, poverty and ethnic fragmentation are cited as possible reasons for the failure of the Mission District residents to stop the Central Freeway (page 8, *URBAN ACTION* 81/82). Comparison with the history and evolution of the Century Freeway in the Los Angeles basin may be instructive in identifying the major contributing factors that resulted in the approval of the San Francisco Central Freeway, and the "lack" of neighborhood opposition. Additionally, an article by Neal A. Roberts entitled "Homes, Roadbuilders and the Courts: Highway Relocation and Judicial Review of Administrative Action," Southern California Law Review, Vol. 46, Number 1, pp. 51-96 (December 1972), is very informative.

"Ultimately, 8,000 to 10,000 units of housing will have been destroyed or relocated from the Century Freeway corridor, . . ."

At the 1981 California Chapter of the American Planning Association Conference, Dr. Joseph Leach — member of the Los Angeles County Transportation Commission for over 20 years — described the evolution of what may prove to be the most expensive freeway in the history of the United States Interstate Highway System (over $1.5 billion to build 18 miles of freeway). The Century Freeway, one of the lowest priority sections in the Los Angeles Basin, has remained on the list of freeways to be constructed for two very good reasons; (1) either freeway projects such as the Santa Monica Freeway was defeated by concerted middle-class neighborhood organizing, and (2) poor but well-maintained neighborhood houses and businesses inside the proposed corridor of the Century Freeway were purchased and destroyed by the California Department of Transportation (formerly the Highway Department). Ultimately, 8,000 to 10,000 units of housing will have been destroyed or relocated from the Century Freeway corridor, with approximately 3,700 units to be constructed as replacement housing. Most of the units that were purchased and destroyed were removed in the early 1960's, well before any organized opposition to freeways. Only in the recent history of freeway revolts have lower-income neighborhood residents organized or been represented in the decision-making process. In the Century Freeway fight, local residents were represented in the courts by public interest lawyers. The final court consent decree that approved construction of the freeway (1979) also set the minimum number of replacement housing units and required the creation of an Office of Advocate for Corridor Residents. Today, the State of California Department of Housing and Community Development is responsible for the preparation of a final housing replacement and resident relocation plan (Century Freeway Replenishment Housing Program, Draft Housing Plan & Environmental Assessment, June 1982). In this case the court determines whether the residents are adequately represented in the decision-making process (Final Consent Decree, October 1979, (Keith v. Volpe, U.S. District Court, Central District, 72-355)).

"Relocation assistance was found to be 'unnecessary' because the affected resident had long since been displaced before the final project approvals were granted."

A number of general reasons can be cited for the lack of success of lower-income neighborhoods in stopping urban freeway projects. Probably first and foremost is a lack of understanding of the bureaucratic process and the use of political influence to gain the desired results. Ms. Tutt's article cites numerous examples of freeway opponents utilizing public hearings, altering the city's master plan, and influencing the Board of Supervisors to halt the construction of additional freeways. Throughout the history of the Interstate Highway System and major public works projects in general, the people

who often suffer the greatest financial and social costs are those who came into the decision-making process far too late. Mr. Roberts, in his article "Homes, Roadbuilders and the Courts: Highway Relocation and Judicial Review of Administrative Action," indicated that the courts were often unwilling to stop highway projects despite the adverse consequences to those people being relocated because the projects had received all of the necessary local and federal approvals. Relocation assistance was found to be "unnecessary" because the affected resident had long since been displaced before the final project approvals were granted. Only very recently, through groups such as the Mission Coalition in San Francisco and OCCUR in Oakland, have residents of lower income districts become aware of the importance of understanding the bureaucratic process necessary to defeat or modify specific public works projects. Even today, neighborhood groups in the Mission District have had minimal success before the City Planning Commission and the Board of Supervisors in attempting to affect public or private development proposals.

Secondly, many of the residents of lower income neighborhoods do not own the property they live in. Notices of public hearings or eminent domain proceedings often went only to the property owner. Often, property owners, particularly those owning slum properties, benefited from "hardship" sales before the highway project received final approval (Roberts, 1972, page 64). Only recently in the history of public works projects have government agencies attempted to notify all members of the "affected" public, including renters.

Thirdly, a language barrier may have prevented many non-English speaking residents of the Mission District from fighting the Central Freeway. Official public notices printed in foreign language newspapers is only a very recent innovation mandated by a number of court decisions.

Finally, a minority of the residents along the Central Freeway Corridor might have been illegal aliens who would have been the least likely to appear at any public demonstration. Illegal aliens and non-citizen residents are often very reluctant to do anything other than earn their livings, and neighborhood organizing or community activity is farthest from their minds.

While reasons for a lack of opposition to the Central Freeway may have been unclear, to suggest that poverty or ethnic fragmentation were the major causes is a limited approach. Examination of the evolution of freeway projects in the urban areas of the United States would suggest that a number of factors combined to prevent lower-income neighborhoods from protecting themselves from the adverse impacts of the Interstate Highway System. ■