

Highlights of the Conference

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THE two broad concepts of joint development and multiple use of transportation rights-of-way hold promise in helping to resolve some of the problems in the urban environment. However, they have not been discussed widely among engineers, planners, political leaders, and decision-makers. The Highway Research Board convened this conference to bring together a broad interdisciplinary group of professional and community leaders to examine and discuss these topics.

The conference was divided into four general topic areas. The first session was a general overview of joint development and multiple use of transportation rights-of-way with illustrations of projects that have been constructed or contemplated throughout the country. The second session reviewed a number of case studies that utilized the joint development and multiple use concepts. The third portion of the program considered planning, economic, social, engineering, and legal aspects of joint development and multiple use. The final portion of the program reviewed current programs and policies of the Federal Highway Administration, the Bureau of Public Roads, and the Department of Housing and Urban Development toward multiple use and joint development.

In his opening remarks D. Grant Mickle stated that multiple use can provide economies in the use of land requiring high accessibility. It may also be utilized to improve the structure of neighborhoods and add to any housing supply or supplement open space. However, the erection of high-rise apartment developments or multistory office buildings straddling transportation systems may provide insurmountable obstacles to adding subsequent capacity to the transportation facilities.

Joint development and its related notion of multiple use of transportation rights-of-way was defined by Frederick T. Aschman as a "process of conceiving, designing, and carrying out a combination of urban development activities in a unified way, to the end that benefits are greater than if each individual activity were separately planned and executed." Aschman pointed out that the way land is used is a major determinant for the demand for transportation. Concomitantly, transportation is a major determinant of the extent and way land is used. Therefore, both transportation and land use must be jointly considered. Transportation rights-of-way, especially on a scale in which we think of them today, are themselves a major land use. The joint development concept is a potential method for reducing the frictions of competition in the allocation of urban land use.

Joint development sees its implication in the economics of right-of-way acquisition and more efficient urban forms that may tend to reduce the need for actual movement. Joint development is a concept of collaboration and cooperation on a scale we have seldom before encountered. It demands an expanded view of cost and benefits. Some see joint development as mainly a means of achieving economy or public acceptance of plans. Others place its value on achievement of excellence in design and on reducing the frictions of competition for space and on the possibilities of achieving new city forms and structure. The corridor concept places emphasis on multiple-mode transportation routes as the core of linear concentration of land uses with accessibility requirements matching the level of access provided by the transportation systems.

Since the requirements for joint development and multiple use are interdisciplinary, a new design team approach is necessary to bring together the route location and design dimensions in consideration of broad economic, social, and political impacts of such projects, especially in urban areas. The design team approach implies that transportation facilities can no longer be blasted through existing urban areas or expensively and inefficiently maneuvered through the city to avoid adverse economic and social effects to those within the transportation corridor. Instead the concept team approach advances the notion of replanning and restructuring the entire transportation corridor using the joint development concept as a means of adding new values to the corridor, compensating those affected by the transportation system and attempting to design a transportation facility that will enhance rather than deteriorate the environments through which it passes.

The presentation by David Levin was primarily directed at illustrating the many joint development and multiple-use projects that currently exist throughout the country, the proposals currently being considered, and further possibilities for the application of these concepts. He pointed out that new highway rights-of-way presently take taxed lands off the tax rolls. Multiple use offers an opportunity for restoring some taxable base or even expanding the tax base.

Another characteristic of multiple use in conjunction with freeway or other transportation development is the economy of space. When the land values are high enough to justify it, people may be generally relocated into about one-third of the space that they formerly occupied, at the same time, leaving additional open space for other kinds of uses such as parks or playgrounds.

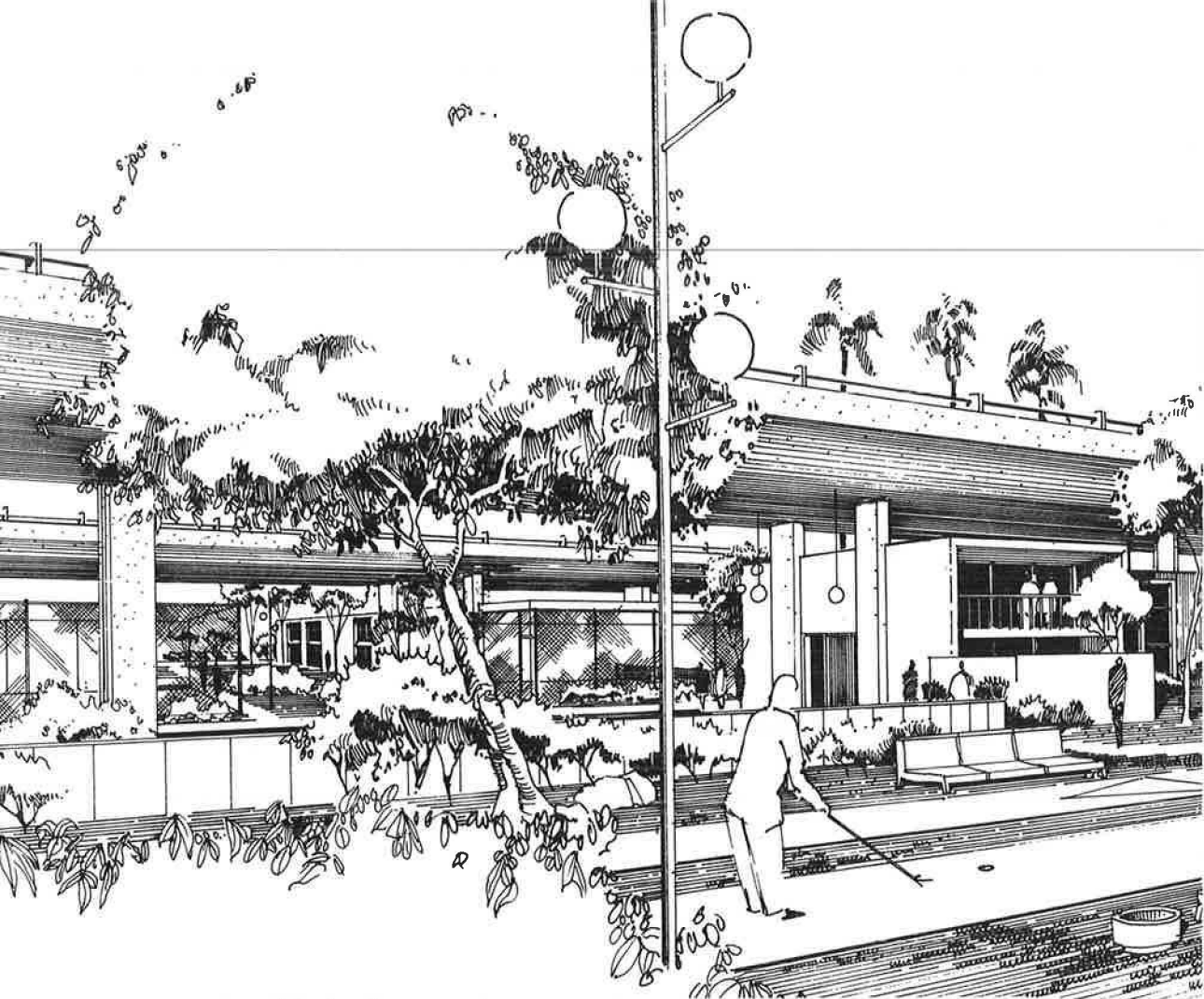
The cost of right-of-way taking in urban areas is extremely high. Part of this high cost is due to the current policy of only acquiring the limited right-of-way necessary for the facility itself. In most cases the highway corridor requires only 25 to 35 percent of the block width, but the cost is approximately 65 to 75 percent of the total block value. If the highway department or other public agencies could acquire total blocks, the remaining 65 to 75 percent of the area not needed for right-of-way would amount to only about 20 to 30 percent additional cost. This land then could be put to public or private uses that otherwise would not be economically justifiable.

Joint development and multiple use is applicable to all modes of transportation. Samuel Hellenbrand addressed himself to the topic from the railroads' point of view. He pointed out that the railroads have been in the multiple-use business for more than a half a century. He suggested that not only should other modes cooperate with railroads in designing multiple-use facilities, but also that railroads had a knowledge on the subject that they could share with highway and other mass transit interests. He pointed to the need to have cooperative planning by all modes of transportation in the location of new facilities. With the growing shortage of industrial sites, it is important to avoid losing such potential sites by cutting off rail access service in locating a highway or transit facility.

The second session of the conference was devoted to examining case studies illustrating the use or planned use of joint development and multiple use of rights-of-way. Because of the magnitude of the subject the illustrative cases were primarily limited to the urban scene. Case studies were presented for current projects in Chicago, Baltimore, Minneapolis, St. Paul, Los Angeles and New York. It is hoped that later workshops will consider joint development and multiple use as they relate to rural areas.

Milton Pikarsky discussed the planning of the Chicago Crosstown Expressway. Each potential alignment within the corridor was evaluated separately from three different aspects: engineering, community impact, and demographic and population effect. While relative values were given for each of the individual criteria in the three categories with respect to one another, alignments were rated separately for each category.

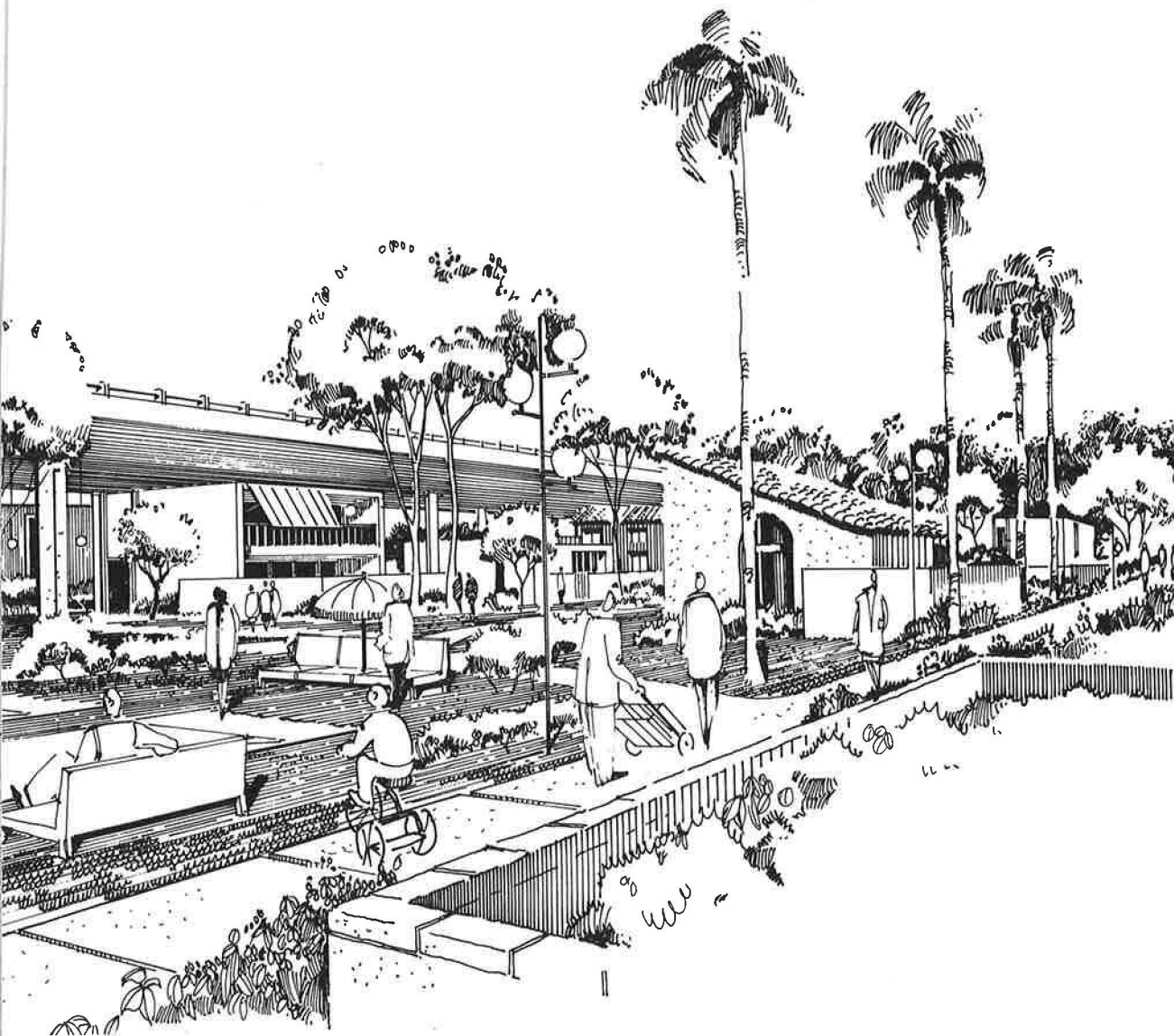
The category for engineering considerations included all technical and economic requirements of the facility itself. The community impact category attempted to evaluate ethnic, religious, and political bases



Possible development of commercial or residential used in conjunction with low elevated section of a proposal for the Papago Freeway which will create an inner beltway for Phoenix, Arizona. (Source: Johannessen & Girard Consulting Engineers, The Papago Freeway, A Report prepared for the Arizona Highway Department, Phoenix, Ariz., 1968.)

and the extent to which people and business would be dislocated by the proposed alignment. The demographic survey investigated population trends, potential displacement of schools, churches, parks, and special purpose public districts.

One of the specific factors considered in the location of the expressway was an attempt to make the highway development compatible with the way those affected by the facility would like to see their community developed. Special attention was given to the addition of badly needed small parks and recreation areas, to the reduction of heavy



trucking over residential streets, and to the minimum displacement of families. Location and design proposals attempted to eliminate the possibility of commercial strip development and to assist in consolidating commercial activities into efficient centers. Provision was also made for right-of-way for mass transit within the alignment.

A number of transportation agencies have recognized the need to consider social, economic, and aesthetic needs of the city's environment in conjunction with the location of a transportation facility. Some cities have created design teams including not only engineers but also

economists, sociologists, psychologists, demographers, planners, architects, and representatives of other disciplines to develop a totally integrated transportation system in the urban environment. The city of Baltimore has probably had one of the most extensive design teams which is currently in the process of developing plans for a highway system through the Franklin-Mulberry corridor. The design concept team attempts to bring together consultants with expertise in urban affairs and local agencies responsible for the design location of the highway system. A number of consulting firms were retained by the State Roads Commission to plan the 24-mile route which passed through a park, a ghetto area, the waterfront, and historical and industrial areas as well as open space. Norman Klein reported on the activities of the design concept team and how they have operated since their inception.

A general survey of the total route location has been completed and current planning activities are directed toward the development of a school multiservice center in Franklin-Mulberry corridor. The school system is to be built upon a platform over a right-of-way. Special attention is being given to the problem of acoustics and noise as well as that of pollution and of providing necessary ventilation incident to the highway below.

Robert Jorvig reported that in the Twin-Cities area of Minneapolis and St. Paul many of the best examples of current development were related to urban renewal programs. He gave special attention to the large general neighborhood renewal project in the St. Paul area that consisted of a series of renewal activities accomplished over a period of years. A problem arose between the renewal program and the location of the Interstate Highway System. Because of problems of timing the acquisition and clearing of land for the redevelopment project and the ultimate location and construction of the freeway, the city and the highway department could not reach a mutual agreement. As a result the renewal project had to be reduced in size and the portion of the area within the highway right-of-way was deleted. The blighted area continued to deteriorate and ultimately agreement was reached between the two parties. A key feature in the design of the Interstate Highway System and the urban renewal programs was the development of attractive vistas, especially in the state capitol area as seen from the highways.

The metropolitan council of the Twin-Cities area was designated by the state legislature as the reviewing agency for any program requiring regional review by the Federal Government. The agency also has reviewed functions and the right to suspend plans of multipurpose special districts when they are not in conformance with the guide for the general metropolitan development.

The planning for the Century Freeway through Watts in the Los Angeles area was described by Stuart Hill. He pointed out that the

introduction of any major transportation improvement in a city disrupts the community. In addition, in Watts there has already been a riot. The proposed freeway is to have two interchanges in the Watts community. In addition, 2,600 families will be displaced, most of them from low-cost housing. Half the houses affected are owner occupied, and 20 percent of the occupants are retired or on a fixed income. The average value of the homes to be taken is about \$13,000. Cost of comparable homes outside the Watts area is estimated to be between \$18,000 and \$22,000. Therefore, a compensation of the homeowner by fair market valuation techniques would prohibit the displaced families from finding comparable housing. Part of this problem has been offset by the additional compensation provisions of the 1968 Federal Highway Act. The area affected by the Century Freeway is one of the most stable elements in Watts, and a survey indicated that only one-third of the residents really wanted to relocate outside of Watts. Most of them have lived in Watts for many years and had no desire to leave. In addition, nearly all proposals for community improvement began to be viewed with suspicion as an attempt by the white power structure to break up the Watts population and distribute its residents throughout the Los Angeles area.

With these problems before them, the highway planners developed a different strategy for land acquisition in the Watts community. The keys to the strategy were involvement of the community in the development of plans and the provision of replacement housing within the Watts area.

Local groups in Watts, including militant organizations, home improvement organizations, street improvement associations, garden clubs, churches and every other group that would listen, were contacted and the effects of the highway on the community were discussed. The Watts Labor Community Action Committee has been one of the most active forces in the program.

At first the highway department had conceived the freeway as an attempt to upgrade living conditions in the Watts environment through the development of modern public buildings and parks. However, these plans did not represent the desires of the Watts residents, especially those most seriously affected by the freeway. The vast majority of the residents lived in single-family dwellings on individual lots. The house was a status symbol. Any thought of replacing houses by apartment units would be rejected by the community as not providing the same dignity, meaning, and comfort as their present homes.

There is still substantial undeveloped open space in the Watts area as well as sites of homes and businesses that were destroyed during the Watts riots. The joint development program, therefore, became one of replacement housing for the displaced residents mainly in single-family dwellings. Houses from the right-of-way could be removed and relocated on vacant sites in the Watts area and renovated using local

community labor. In this way the replacement housing program could offer the community an opportunity to change the shape of their environment in a manner that would most suit their own expectations and aspirations.

To make such a program possible, the California legislature passed a law enabling the highway department to acquire and condemn vacant unoccupied property outside the freeway right-of-way, providing for contracting with public and private entities for the financing, planning, development, construction, management, sale, and exchange or lease of replacement housing for low-income families displaced by the freeways.

For years there has been a need for an east-west expressway to serve the central Brooklyn area in New York City. As part of the Interstate program several alternative routes have been proposed for such an expressway. Cost and community resistance have prevented the development of such a route. Archibald Rogers reported on a proposed alternative route, the Cross-Brooklyn Expressway, that will utilize the existing right-of-way of the Long Island Railroad's Bay Bridge Line.

The land use along the existing railroad right-of-way is already incompatible with corridor development to a substantial extent, and the intrusion of the new highway could cause an even more detrimental effect to the east central Brooklyn area which is already seriously hampered in its efforts to achieve residential stability. Therefore, it was necessary to combine the highway needs and community needs and to develop a new linear community along and over the right-of-way. The new development would include housing, commercial facilities, and school and recreation centers. In this way the corridor would act as a means of bringing together the community in a more cohesive manner, rather than as a Chinese wall further dividing the area.

Current planning emphasis has been put on the development of a new full-range educational institution for 18,000 to 20,000 students. The educational campus will provide preschool through adult educational facilities and will reflect the needs and desires of the community. When the linear city is completed it will be six miles in length and will be anchored at one end by Brooklyn College and at the other end by another major institution.

Like the Baltimore approach, the planning is being done by a team using the multiple disciplines necessary for developing such a community plan. Also there is an attempt to obtain public participation, and all planning is done with as much public knowledge and participation as possible.

In his formal speech, Lowell Bridwell discussed how highways should contribute to the satisfaction of community desires and goals while at the same time providing mobility. He explained that the 1968 Federal Highway Act provided far-reaching relocation assistance programs to minimize injury and to provide equitable treatment for fami-

lies to be displaced by the highway improvements. He pointed out that if adequate replacement housing could not be obtained it would be no longer possible to build highways in urban areas.

He also discussed the urban impact amendment to the 1968 Highway Act requiring that in addition to considering economic effects, highway departments must consider the social effects of highway location and the impact on the environment as well as their consistency with the goals and objectives of the community involved.

Highway development has become more than the mere construction of the roadway. It requires consideration of the development of the corridor as an integral part of highway planning. Both public and private uses of corridor development should be considered by the community as a means of increasing the tax base. Highways can contribute to community development through their ability to assemble large tracts of land.

Of special note was Mr. Bridwell's statement that "... rights-of-way for highway purposes are rights for the roadway plus whatever additional lands, or space, are necessary to assure compatible usage." In the panel discussion after the formal presentation, he amplified this statement to the effect that the right-of-way necessary for a particular project need not be totally contained within the normal right-of-way limits but may include adjacent land that is necessary for compatible use.

He pointed out that the question that we must resolve is whether we are going to have planned development or the development that will occur inevitably by the mere fact of the existence of a highway facility. He advocated that highway funds be made available for the assembly of land, which could then be taken over by either the highway department or some other public agency and sold by competitive bid to private investors who want to develop land in accordance with a compatible plan. Funds so received should be reinvested in the highway program.

Mr. Bridwell also discussed cases where highway location has provided residual landowners with excessive profits from the sale of land, especially around the interchanges. Such remainder parcels are sometimes used for a purpose that is not compatible with the highway. He indicated that he did not concur with such a policy.

In response to concern over whether highway user funds should be spent for activities such as joint development, he stated that he could no longer tell the difference between the highway user and the citizen of the country. He pointed out that the definition of highway use that would not allow expenditure for anything other than the roadway and its appurtenances is just as ridiculous as saying that property taxes cannot be used to support schools because the individual paying the property tax does not have any children in school.

The third portion of the conference sought to examine political, economic, social, engineering, and legal aspects of joint development and multiple use of transportation rights-of-way.

Charles Blessing spoke on policy and planning considerations. He pointed out that in order to prepare a comprehensive plan that will satisfy the human values and goals of the community it is first necessary to find better ways to identify such goals and values. He commended the recent developments of the design team approach and efforts at total transportation planning. He pointed out that people want to identify with the community, yet they also want to be free from feeling that their lives are institutionalized. Overplanning and massive and sudden change resulting in human dislocation can cause such dehumanization. The objectives of urban planning are to provide an environment in which the individual, the family, and the group can develop according to their desires and expectations.

He indicated a need to resolve the problems of intergovernmental relations and responsibilities for joint development projects and for projects incorporating multiple use of transportation rights-of-way. He pointed to the problems that exist between zoning ordinances and multiple-use projects. On the one hand, multiple-use projects may require a reconsideration of current zoning provisions. On the other hand, if we are to have orderly development of urban land use it is necessary to find some technique that will make zoning less sensitive to a change desired by special interest groups.

Philip Hammer addressed himself to the economic considerations of joint development and multiple use. His main theme was the need to rejuvenate the urban centers by utilizing joint development and multiple use as catalytic agents for precipitating reinvestment in the urban core. He felt that appropriate change in environmental conditions within the urban center could change people's attitudes toward it. In the next ten years or so the suburbs are going to have to absorb an additional 35 million or more people. If we can counteract the decay in the central cities we may also counteract the current exodus from the city to the suburbs. Investment is currently taking place where growth is taking place because these are the areas where a return can be obtained. Similarly we are not reinvesting in the central cities because the dwindling population results in the submarginal investment opportunities. By redirecting public investment policy back toward the city center we may also redirect private investment.

In joint development projects there is always the problem of financing and allocation of costs. At the present time there are no firmly stated policies and the cost allocation between the Federal governmental agency and the local community or private community is on an individual project basis. Like several of the other speakers, Mr. Hammer advocated the creation of a public development corporation to acquire necessary land for the development of joint projects either in conjunction with other public activities or private investment opportunities.

Roger Nusbaum presented the engineering considerations for joint development and multiple-use projects. He first compared the ad-

vantages and liabilities of the depressed as compared to the elevated freeway. Of the two types of construction he stated that the depressed urban freeway detracts least from the surrounding urban community in that the aesthetics are not marred by embankments or overhead structures, and it offers more opportunities for a safer design than afforded by elevated freeways. The advantage of elevated freeways is the possible utilization of the ground surface below the structure and the right-of-way taking is normally much less than would be required for a depressed freeway with the result that the land requirements for the facility are minimized with savings of right-of-way costs. An elevated structure will require higher maintenance costs. In selecting projects for joint development and multiple use Mr. Nusbaum pointed out that freeway ramps cannot be constructed indiscriminately at locations to provide access for some joint project without seriously affecting the capacity of the system. In considering multiple use or joint development, the function selected should not increase peak-hour traffic flow by any substantial amount. Likewise, multiple-use projects can restrict future expansion of the transportation facility.

As was pointed out in several of the case studies, adequate provision should be made for light, open space, and air circulation, and consideration should be given for pollution, noise, dust, and distractions for the users of the facility and for the adjacent multiple-use activities. Pedestrians should be segregated from vehicular traffic. Vehicular traffic, on the other hand, should be protected from vandalism, the opportunity for which may be provided by the multiple-use activity.

In designing the structure within the right-of-way, proper provisions should be made for fire and explosion hazards. The collapse of any structure within the right-of-way from any cause could result not only in a loss of life and loss of the structure but the closing of the transportation facility until such time as the debris could be cleared away.

Every effort should be made to provide for the normal movement of traffic during the construction period. The construction program should be designed so that all work on all phases could proceed without delay or interruption until the project is completely finished. Rather than the current procedure of constructing long segments, where one phase is completed in its entirety before construction of the next, urban construction programs should attempt to complete smaller segments and thus disrupt the community to a lesser extent. Fringe landscaping and other techniques should be utilized to shield businesses and residences adjacent to the freeway from the highway activities as much as possible during the construction phase.

In the design of the freeway, special consideration should be given to the maintenance and operation of the facility. The use of the area below the structure for multiple activity may have adverse effects upon such maintenance operations as full-depth deck removal and patching.

Multiple-use structures whether below or above the right-of-way will require added maintenance and operating costs, and every effort should be made to reduce such costs and allocate cost responsibility and liability for such maintenance prior to construction.

Where multiple-use activities are located under the roadway structure, new and better ways must be found to provide drainage and snow removal. Present drainage techniques have been inadequate. Snow removal will present a problem, and either additional storage space for the snow must be provided on the facility or it will be necessary to perform a costly and time-consuming operation of loading and hauling the snow away. With structures over the freeway or closely adjacent to it the roadway surface will be shaded from the sun and scattered icy spots can be expected to cause an additional problem.

Finally, adequate right-of-way and access must be provided in order to allow unimpeded progress for emergency vehicles, both for the activities within the transportation right-of-way and the adjacent facilities.

The construction of freeways in the urban environment has become a highly charged emotional issue in a number of cities. Thomas Fletcher discussed community values in urban transportation systems, especially as they relate to the District of Columbia. He pointed out the fact that Washington has had one of the fastest growing metropolitan areas in the United States for the past decade and a half with a population that has doubled since 1950. The street and mass transit facilities have not been able to keep pace with this rate of development, and the city is far behind in its ability to move people within its boundaries.

He pointed out that the citizens of the District did not need any more through-type traffic on neighborhood streets but needed better quality and probably cheaper mass transit facilities. Mass transit facilities are not adequate and often require substantial amounts of travel time from its users. He pointed out that solutions to the problem must be such that they do not cause extensive disruption to the fabric of the community. At the same time they must serve the needs of the residents as well as users. Requirements for transportation systems in the District are that they protect the homogeneous neighborhoods and keep them from being fragmented or destroyed, that no "Chinese wall" be constructed separating the residents from their schools, churches, recreational and other essential facilities, that freeways be designed so that through traffic on local streets is minimized, that the freeways system be unobtrusive and aesthetically pleasing, and that the transportation facilities promote rather than destroy the welfare and the development of the city.

The freeway system should be designed so as to provide additional sources of revenue to replace the tax dollars lost to the demolition of residential and commercial structures. More importantly, current employment opportunities for the citizens should be protected. Low and

moderate income family housing, especially for the elderly and the handicapped, should be a part of the transportation program, and relocation should be adjacent to their old neighborhoods. Freeway projects if they are to be constructed must be planned with full community participation.

A total transportation system must be balanced between individual and mass transit vehicles. If mass transit cannot be put upon a paying basis it may require subsidization or public ownership.

The multiple use of rights-of-way, including air space, and the joint development concept, which may require acquisition of property in excess of that needed directly for the transportation right-of-way, are new segments in the law. Most states do not have any enabling legislation for such activities, and most state courts would consider it in the light of common law or of standard existing statutes, which do not pertain specifically to the problem of joint development or multiple use. So stated Robert R. Wright in his analysis of the legal implications of joint development and multiple use.

The first thing you must determine in any state is whether the title to be taken for the right-of-way is in fee simple or is only an easement. If it is an easement it is important to discover the type of easement. Mr. Wright pointed out that it was advisable to obtain acquisitions in fee title in order to assure the highest possible degree of control over the right-of-way but that in some instances the use of easements may be advantageous. If a highway department only acquired a so-called "tunnel easement" the adjacent landowner would still be able to utilize, sell, or lease the overhead airspace subject to limitations by law.

In some jurisdictions in the United States, in the absence of statutory authorization a municipality does not have the power to allow private encroachment to be erected over public streets. In other jurisdictions, some cases have held that the city possesses the inherent power to allow overhead encroachments even in the easement situation.

However, in the majority of states, according to Mr. Wright, in the absence of specific constitutional or statutory sanctions, the municipality or state holding a fee-simple title to the streets and highways can permit overhead encroachment into the airspaces so long as there is no interference with the use of the facility.

It was brought out later on in the conference that the Bureau of Public Roads of the Federal Highway Administration was in the process of designing a model legislation that could be enacted by the states to provide a positive basis for multiple-use and joint development projects.

Frank Turner further expanded on the role of the Federal Government in encouraging joint development and multiple-use projects. He pointed out that the 1968 Federal Highway Act requires state highway departments to certify if they have given consideration not only to the economics of the highway's location but also to the social and environmental impacts and their consistency with community goals and ob-

jectives. The Bureau of Public Roads considers the joint development and multiple-use concept a major component in comprehensive environmental considerations. The concepts are not limited to urban use and the Bureau of Public Roads is interested in encouraging rural applications of these concepts. Mr. Turner pointed out (as did several of the other speakers) that it might be beneficial for the states to create a public or even private corporation to acquire and assemble the necessary land involved in a joint development project. In the future the Bureau of Public Roads will be issuing procedures permitting Federal participation in basic site development costs for joint use projects on rights-of-way, such as parks, recreational areas, and parking lots.

While endorsing the concepts of joint development and multiple use, Mr. Turner pointed out that under the currently accepted concepts of finance we cannot appropriately use highway funds for other than highway purposes.

In further defining the Federal role for joint development and multiple use, Don Hummel reviewed the activities of the Department of Housing and Urban Development in this area. The 1964 Housing Act authorized renewal projects for air rights development but limited the sites for use to low and moderate income housing and closely related uses. It accepted the cost incurred for foundations and platforms but restricted such costs to be not greater than sites that could be provided through the use of cleared land. The Act prohibited the expenditure of funds for acquisition of airspace over publicly owned rights-of-way. In 1966 the Demonstration Cities and Metropolitan Act extended the use of air rights sites to renewal areas for industrial development where sites were unsuitable for low or moderate income housing. The 1968 Housing Act further extended the uses for educational purposes with the same limitations. There have been only two instances of the use of air rights up to the present time under these Acts. One of the continuing problems that must be resolved in multiple use is intergovernmental responsibility and the gap between the agencies authorized to provide only a part of the solution to the problem. Resolution must be made of the problems of different time schedules, authority, jurisdiction, and allocation of costs. In particular the question of whether one governmental agency should pay another agency for the use of air rights must be resolved.

Mr. Hummel alluded to the concept of the three-dimensional city by stating that urban space should facilitate the conduct of business by vertical travel rather than by further extending the distances on the surface plane.

In the conference summary, D. Grant Mickle concluded that transportation systems must be considered as a part of the total economic and social environment in which the community and non-user must be given equal consideration.

Because of the increasing complexity of the urban transportation

problems it is necessary to include many disciplines in the planning process. The community to be affected must be brought into deliberations at a very early stage in the planning process, and compromise must be reached between user and community interests. We must review and redefine goals and objectives, costs and benefits of transportation systems. We are increasingly moving toward an urban transportation program based on the consensus of those affected.