

Background and Objectives

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WE HAVE convened here to examine a dynamic concept of cooperative planning that has the essential objective of integrating transportation and other forms of community development.

The need for this integration has a wide range of manifestations. At one extreme, it presents itself in the troublesome form of vexing political problems of the mayor who must be sensitive to those who oppose highway construction and of the highway official who is mandated to get on with the job. At the other extreme, the need is manifested in the search for ways in which urban transportation policy can be used positively and imaginatively to help reshape city patterns, maintain and enhance existing communities, create new environments, and to bring more and greater urban opportunity within reach of all city dwellers.

This calls for new ideas in planning and design, in legal technique, and in the ways that governments, private enterprise, and professional disciplines can cooperate and collaborate — new ideas that attract broad public support because they respect and achieve basic community values — new ideas that look to a future that is more than a computerized projection of old ways of doing things.

Joint development and the related notion of multiple use of transportation rights-of-way make up a concept that offers much in the way of these needed new ideas. It can be broadly defined 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.

The major thrust in advancing this concept in the field of urban transportation has come from the Bureau of Public Roads. The interest of the Department of Transportation is obviously widely shared by the Department of Housing and Urban Development, the American Association of State Highway Officials, the Automotive Safety Foundation, local government, and indeed all of us represented here today. As background for our discussions, it may be well to examine some of the conditions that have generated such widespread interest and some of the objectives that characterize the growing practice of joint development.

The underlying conditions that support the joint development concept are to be found in the fundamental three-part relationship of land use and transportation.

The first element of the land use-transportation relationship is that the way land is used is the major determinant of the demand for transportation. The most obvious result of today's dynamic urban growth patterns is an explosive demand for more and better means of movement. In keeping with our times, this has called for larger-scale, more expensive development in a day when competition for the public dollar is greater than ever before and transportation officials are unable to meet every demand with the funds at their disposal. Joint development is thus of interest to the highway official who sees its implications in the economics of right-of-way acquisition, or in the fostering of more efficient urban forms that may tend to reduce the actual need for movement, or in the demonstration of greater benefits that may offset the costs of transportation.

Less obvious, but well-known to the highway engineer, is the fact that the way land is developed, especially in interchange areas, may threaten the workability of freeways. To the engineer, the joint development concept may afford new opportunities to foster land use arrangements and characteristics that avoid this threat.

To the transit official, joint development of land and transportation facilities may well imply an arrangement of high-intensity land uses in more effective relationship to mass transportation arteries.

The second element of the land use-transportation relationship is, conversely, that transportation is a major determinant of the extent and way that land is used. It is this fact that offers the great potential for using transportation policy and planning and programming as a series of levers to help reshape our cities and create new forms and structures in urban settlements of the future.

If the location and nature of transportation facilities is a determinant of how and when land will be developed, it logically follows that the freeway and the rapid transit facility must be potentially effective tools for influencing urban growth in predetermined directions and ways. The joint development concept pursues this principle by generating ideas of how the use of space above, below, and adjacent to transportation rights-of-way may be planned to accommodate urban



The Anthony Wayne Recreation Area on the Palisades Interstate Parkway, located some 40 miles north of New York City, is an example of the coordination of freeways with major recreation facilities. (Source: NCHRP Report 53.)

activities attracted by the new accessibility afforded by the highway or transit line.

Promotion of the joint development concept has thus given rise to new interest in the corridor as an urban form. The term "corridor" is variously defined, ranging in definition from the broadest view of linear cities and metropolitan sector plans to the more practical statement by David Levin that simply defines a highway corridor as a major highway and its abutting land uses.

The significant underlying fact in all thinking about corridors as urban forms is that their achievement demands a correlation of the planning, design, and execution of transportation projects with the planning, design, and execution of land development projects—in short, joint development.

The third element of the land use-transportation relationship represents a basic condition that probably has been the greatest generator of interest in the joint development concept and its companion idea of multiple use of rights-of-way. That element is that transportation rights-of-way, especially on the scale in which we think today, are themselves a major urban land use.

As such, urban transportation facilities, especially the freeway and its parking terminals, are major competitors for space in the city, and usually for space that is already occupied. To further complicate matters, the space it seeks is not directly revenue-producing, a fact that may not really be relevant in view of the offsetting economic advantages of improved transportation but nonetheless a fact that often generates political controversy.

The joint development concept is a potential method of reducing the frictions of competition in allocation of urban land use. This may come about in several important ways. Multiple use of rights-of-way is obviously one of these. Another is to combine use of rights-of-way with use of adjacent land in a way that enables large-scale "planned unit" development of housing, community facilities, institutions, and a host of other uses that meet either community or regional needs. Still another way is to view the transportation right-of-way simply as open space, designing it to meet some of the needs for this important urban use.

As important as space allocation is, however, the most critical aspect of the use of land for transportation rights-of-way is that like all land uses, freeways and rapid transit facilities certainly should be compatible with the other land uses in their environs. It makes no more sense and arouses no less public indignation to inject a poorly designed or poorly located transportation "land use" into a residential community than to propose development of a noxious factory.

The joint development concept responds to this condition by calling for comprehensive analysis of the corridors through which transportation facilities are projected, the determination of ways that routes can be located and the facilities designed to minimize friction, and most of all, to actually create new values and new qualities of compatibility.

Of course, none of this is to say that joint development offers a panacea for all of the problems involved in integrating transportation and urban land utilization. But there have been a number of events or activities that clearly promise that the joint development concept will prove to be one of the most effective new devices in urban development to be advanced in many years. This conference has as its main purpose the exposition and discussion of this experience.

The most significant of these activities has been, of course, the thrust that the Bureau of Public Roads has given to the concept at the national level and on a national scale. At the same time, the Department of Housing and Urban Development has complemented this effort



The Illinois Tollway Commission has built five over-the-roadway restaurants which allow a considerable reduction in land requirements as opposed to other types of road user service plazas. Shown here is the Des Plaines Oasis on the North-West Tollway. (Source: NCHRP Report 53.)

with its interest in correlating other urban development programs with transportation development, through the Model Cities effort, urban renewal, open space and urban facilities grants-in-aid, and the urban planning assistance program.

Both of these agencies are supported in these efforts by Congressional mandate. The Federal-Aid Highway Act of 1966 specifically directed that study be made of the feasibility of joint development in aiding relocation. The Metropolitan Development Act of 1966 called for "greater coordination and additional participation and cooperation from the States and localities" in perfecting solutions to metropolitan growth problems.

In the specific area of multiple use of rights-of-way, other than air rights development, a great deal of activity has taken place in two broad categories: multiple uses oriented primarily toward the highway user, and those that are more strongly related to surrounding local areas. At least three states (Connecticut, California, and New York) have developed a dozen or more different ways to use the unpaved portions of rights-of-way, and 13 other state highway departments and six toll road authorities have reported that they employ from five to seven different types of multiple usage.

In urban renewal there is growing interest in how transportation can be integrated with renewal activity and can support and be sup-

ported by it. And well it might, for in Chicago it was found that 15 miles of proposed expressways and 36 miles of rapid transit lines traverse areas of urban renewal potential. The advantages of this collaboration can be dramatic. New transportation facilities, well-located and well-designed, enhance the market for innercity renewal by providing new qualities of accessibility, for aiding in achievement of new and more viable land use patterns, and for themselves being a form of redevelopment. Collaborative renewal activity can benefit transportation development by providing land for rights-of-way, by relating new land uses to freeways and rapid transit in a constructive way, by providing sites for relocation, and by avoiding land use and circulation conflict through integrated design.

Interchange area planning in recent years makes up another significant activity related to the potentials of the joint development concept. The large contiguous areas of land, often 25 acres or more, that must be devoted to freeway interchanges challenge the imagination of both freeway designers and joint project developers. Market demand for developable land is usually at its peak in these high-accessibility areas, and this offers both opportunity for large-scale joint development and a means of designing land arrangement that will protect the operating capability of the highway facility. Studies in Illinois and elsewhere have suggested, in effect, that the joint development concept be expanded to include large-scale planning of the interchange influence area, combining zoning and access regulation with developmental activities.

Initiation of the concept team approach is another of the significant events leading to the widespread interest in joint development. Its greatest significance probably lies in the fact that it brings to route location and design the new dimensions afforded by a multidisciplinary consideration of community values. At the same time it implies that new transportation facilities are neither to be blasted through existing environments or tortuously and expensively and inefficiently maneuvered through the city. Instead it advances the notion of replanning and skillful restructuring of entire corridors, using the joint development concept as a means of adding new values and compensating for the impact of what otherwise might constitute fatal disruption.

In a broader sense, a significant trend related to joint development is the growing interest in the "corridor" as a new element in comprehensive plans. In Washington's Year 2000 plan the basic concept of urban structure for the future was proposed to be a series of corridors of urban development radiating away from the central city and characterized by their lines of high-speed transportation.

In Chicago, a densely developed grid-pattern city, the concept of "high-accessibility corridors" has been adopted as the basic element of the Chicago Plan. This concept calls for multiple-mode transportation routes as the core of linear concentrations of land uses with acces-

sibility requirements matching the levels of access provided by the freeways and mass transit lines. Within the corridors, zoning and urban renewal and the building of major private and public projects are proposed to be combined in a joint development process to achieve a city-wide corridor system. The work of the Crosstown Concept Team is the first major step in implementation of this element of the city's comprehensive plan.

Along with these major activities there are several important embryonic or emerging efforts that are related to the potentials of joint development. One of these is the increasing activity in research on community values, examples of which are the National Cooperative Highway Research Program's ongoing major study and the Highway Research Board's workshop to be conducted in the Spring of 1969. Another is the series of studies of mass transportation as it specifically relates to Model Cities programs in a number of cities. Here the aim is to find ways of providing more equitable access to urban opportunity for those of our citizens to whom urban opportunity has largely been something for others to enjoy. And perhaps the most significant as well as the most ambitious of these corollary activities has been the Department of Housing and Urban Development's New Systems Study and successive collaboration between the Department of Housing and Urban Development and the Department of Transportation in fostering technological advancement throughout the field of transportation. What opportunities this may hold for joint development is today impossible to determine, but certainly they will be great.

Against this background I think we might well ponder two of the most important operational implications of joint development.

The first of these is that joint development is a concept of collaboration and cooperation on a scale that we have seldom before encountered. It calls for a more intimate relationship between transportation engineers, others in the design professions and in the social sciences, developers, and political leaders and the citizenry in whom final decision in our programs is vested. It means developing processes in which opportunities for joint development are identified in the broadest of urban planning contexts. It calls for expanded legal concepts of public purpose, a deeper understanding of community values, and improved mechanisms for interagency and intergovernmental cooperation. In the practical area of route location and design, it should mean progressing from the *ad hoc* concept team approach to the establishment of routing procedures that are based on expanded multidisciplinary capabilities of our official transportation and community planning agencies.

The second important operational implication is that joint development demands the expanded view of costs and benefits that many leaders in the transportation and community planning fields have sought in recent years. If transportation is to be used in this way to advance broader community objectives and create expanded com-

munity values, its benefits must be better measured and credited against its costs.

Out of this background, I hope I have been able to make it possible to identify the broad range of objectives that may be attached to joint development. There is certainly no need for each of us here to allocate our interest uniformly to all of these. It does not matter if some see joint development as mainly a means of achieving economy or public acceptance of our plans, or if others place different values on achievement of excellence in design, or on reducing the frictions of competition for space, or on relocation potentials, or on the possibilities for achieving new city forms and structure.

Yet we do need a common interest and this may well be found in the broad theme stated in the Williamsburg Resolves: "The Planning and development of facilities to move people and goods in urban areas must be directed toward raising urban standards and enhancing the aggregate of urban values. . . . Federal, State and local governments are urged to coordinate plans for the location of buildings, highways and other facilities in the context of overall physical design of the urban environment."

Panel Discussion

MR. BARBER: Of the instances of multiple use that have been vividly described here, I found a great many to be appallingly bad. I think high quality endeavors are strikingly few. Looking at what has been done, by and large, it seems to me that we have not been using the development concept or it has not been applied in ways that are consistent with that grand scale of corridor shaping Mr. Aschman spoke of in his opening remarks. What is needed at this time are systematic and comprehensive programs for joint development to be undertaken through the cooperation of Federal-state and local governments.

MR. ASCHMAN: I tried to be very careful in my definition to point out that joint development really ought to be a process of conceiving and designing as well as executing in a unified way.

I could not agree with you more. The idea of designing a transportation facility and then attempting to hand something onto it really is not, as I see it, in the spirit of the joint development process. We really ought to be trying here to conceive, design, and carry out joint projects in a unified way.

Probably the greatest possibilities in joint development may be obtained if we go back to the regional transportation study, the metropolitan planning process, and the community renewal program, which

analyze renewal opportunities in an overall way, before going into projects. We should see if there is not something we can do to replan the corridors through which transportation facilities will pass. Then, we should plan transportation and community development in a process that includes conception at the very earliest stages in both the transportation planning and community development planning process.

In this way, we can use transportation policy, which is the strongest public level that we really have, to make positive environmental contributions.

MR. RUBIN: First, a comment on Mr. Aschman's presentation and three major points about the relationship of the use of land and transportation.

First, the use of land, recognizing it as a determinant of travel demand—I am sure we all agree on this. The second point—the transportation system as a determinant of land use—I think there is a tendency among people who are involved in the transportation business, whether highway or transit, to overstate the function of a transportation system as a shaper of land use.

It has been my observation over the years that in many cases transportation decisions are made subsequent to the development of travel demand and are a response to existing need, a rather easily projectable need.

There are two other major physical facilities that man provides that I think are far more determinant of the use of land. These are sewer and water facilities. All three go together. Topographical and other considerations will determine the relative importance of the three, but I think we can overstate the case for transportation as a shaper of urban regions. We have to recognize that if we hope to use these facilities, to shape urban regions in corridors or whatever we want to do, it will have to be a coordinated effort to relate land use desires on our part to sewer and water and transportation facility systems. It is a bit easier to accomplish this with a freeway in which clearly the function of the freeway requires some limitation of access so you can orchestrate the interchange locations in such a manner that you encourage development or permit it where you think it is appropriate and discourage it in those areas between the interchange where you prefer it to occur in a somewhat less dense fashion.

I have yet to convince anybody involved in the sewer and water building business that they should accept a concept of a limited-access sewer or water line. We will have to work on that one, if we are really serious about affecting the way our urban regions grow and develop.