

Freeways in the Urban Environment

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I WOULD like to try to get some perspective on joint development and multiple use of rights-of-way. I think we need to look first at what we have been doing and then at the directions in which we can move to make the most of our opportunities.

For more than a decade the highway program has been moving toward a new role. It has been a groping effort, marked by *ad hoc* decisions. It has gained definition by the statements and actions of the Federal and state highway agencies and of the professions which serve them. It has been helped along at times by the cities, by the direction of Congress, and by the pressure of opposition. At the center of this search has been our recognition that transportation and land use are interrelated — really two dimensions of the same urban complex. Our experience to date with highways shows that mobility and the other goals of the community are inseparable. Changes in accessibility have brought changes in land use and the character of urban life. Thus, our actions and *ad hoc* decisions over this period have moved us toward accepting a larger concept of highway responsibility — a concept that highways should try to contribute to the satisfaction of community desires and to the fulfillment of community goals, while at the same time providing mobility.

In defining this role of highways, many incremental steps have been taken, ranging from landscaping to the Linear City idea. We have seen highway departments take responsibility for providing roadside rest areas and scenic overlooks. We have seen full-parcel takes

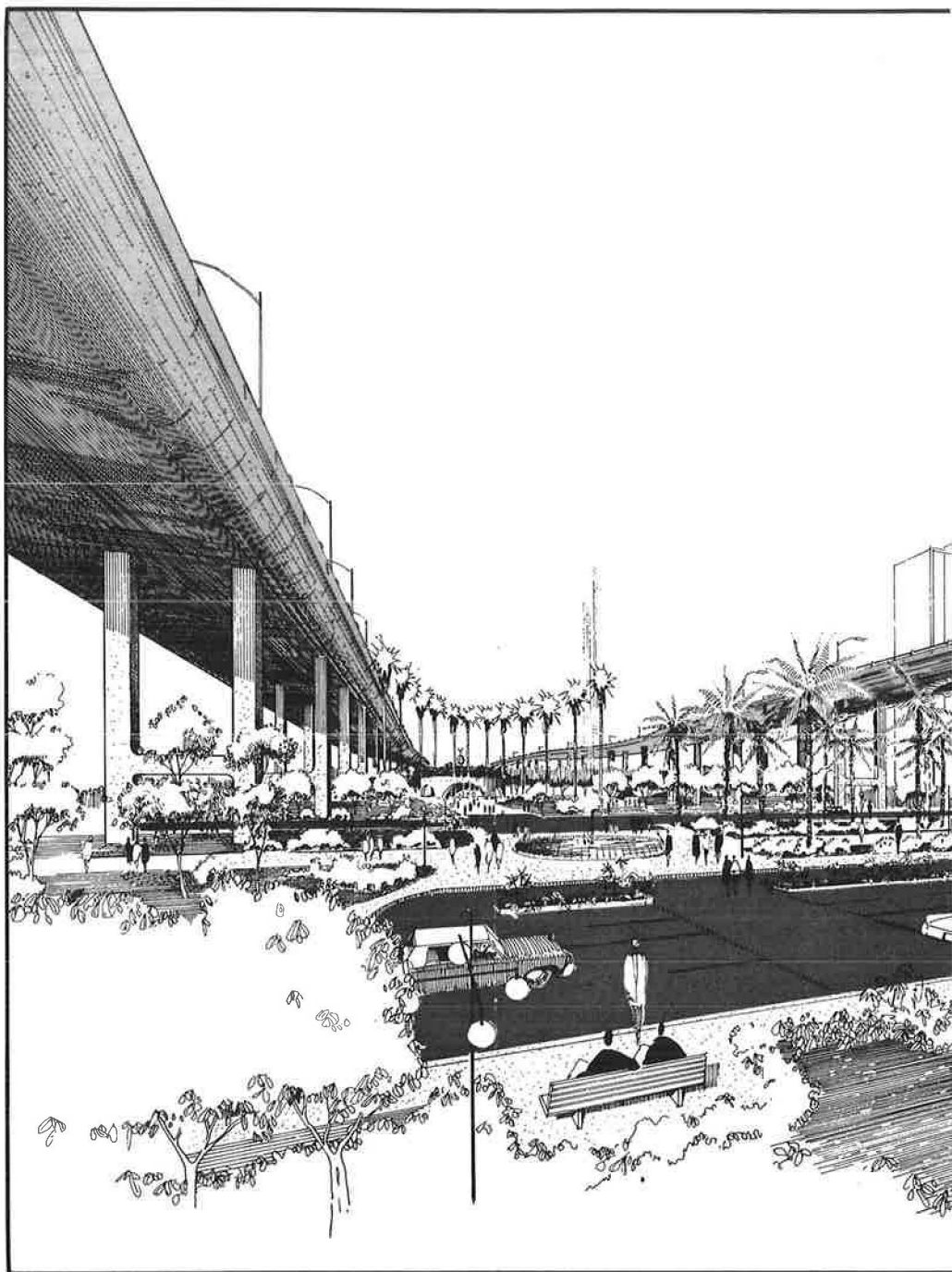
to use the remnants for recreation areas and open space. We have seen use of highway rights-of-way under elevated structures for parking, recreation, public and private uses. We have seen use of airspace above highways for many uses — residential, offices, open space, transportation facilities, etc. We have seen extensive design treatment costing more money for freeways crossing sensitive areas, including depression of roadways below ground level, and architectural treatment of structures.

We have approved design changes that accommodate adjacent land uses and create usable airspace. In Baltimore, for example, we have approved elevated structure extensions in place of fill to permit visual access to a park and to permit industrial development. We have seen highway departments participate in the cost of platforms over freeways to provide environmental continuity and development — Philadelphia, New York, Cincinnati, Fall River are some example cities. Additional sites are under study in numerous cities with highway department encouragement. We have seen highway-financed interdisciplinary teams charged with environmental enhancement and corridor development planning in Chicago and Baltimore.

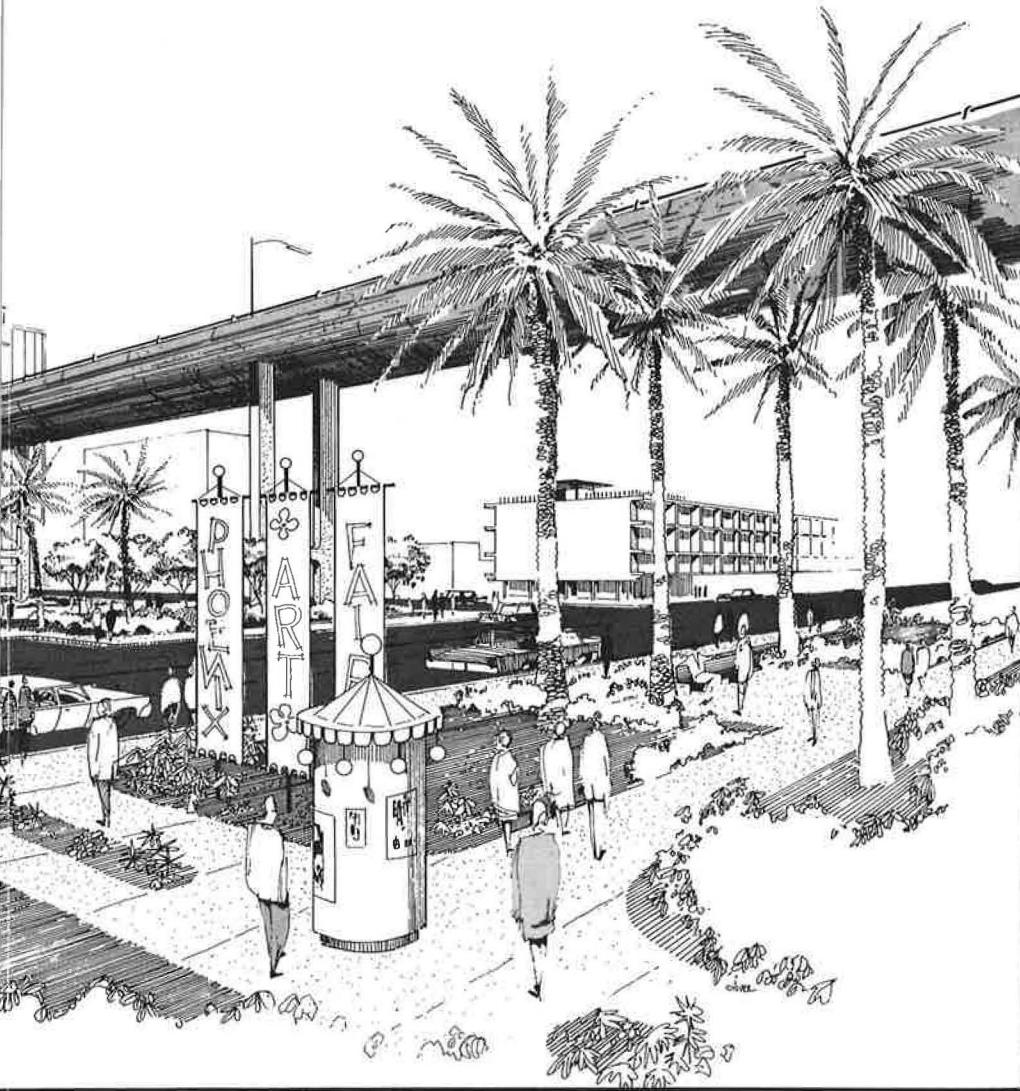
We are about to see an interdisciplinary corridor-planning effort in Cambridge that will look at the total benefits and total costs — social and economic — of all projects that will correlate with the freeway, and on that basis choose the best highway location and design. In connection with the Cambridge project, we have seen suggestion of the exchange principle, so that joint-use space in the right-of-way can be made available for a commercial or industrial activity in order to make the space it now occupies available for residential purposes. Similarly, the California Division of Highways has gotten statutory authority to condemn property off the highway rights-of-way for use in relocating displaced families. The plan makes imaginative use of the additional compensation to displacees authorized by the Federal-Aid Highway Act of 1968. And, of course, we may have the Linear City project in Brooklyn, which will involve educational, highway, and HUD planning resources in a coordinated corridor-development effort.

This is not an exhaustive list, but it clearly indicates the changing concept of the role of highways. Taken together, these steps represent a series of specific actions that recognize the unique contributions highways can make to other nontransportation community objectives.

There are a number of developments at the Federal level which should be noted, since they emphasize the new role of highways. One that goes back a number of years is the pooling of 1½ percent highway funds with HUD "701" funds to assist metropolitan areas in transportation planning based on comprehensive land use planning. This correlated the highway interest with land-use planning and community development. It has been followed by an agreement between the Department of Transportation and the Department of Housing and Urban



By using highly elevated freeways in conjunction with parks and shopping malls, and by separating the directional lanes, the proposal for the Papago Freeways for Phoenix, Arizona seeks to minimize some of the unattractive features of elevated freeway systems. (Source: Johannessen & Girard Consulting Engineers, The Papago Freeway, A Report prepared for the Arizona Highway Department, Phoenix, Ariz., 1968.)



Development that assures the close coordination of transportation planning and development at all stages (even on a project-by-project basis) with community development as laid out in the comprehensive planning process.

This past year we established an Environmental Development Division in the Bureau of Public Roads to guarantee full consideration of environmental factors in the location, design, and construction of freeways. This division is bringing together all appropriate disciplines to develop standards for evaluating the economic, social, aesthetic, cultural, and environmental factors to be weighed in providing freeways. Its job includes fostering the joint-development concept.

In this connection, I might note the promotional efforts of the Federal Highway Administration in encouraging joint use and environmental development. To this end, we published "The Freeway in the City" and are now publishing a picture treatment of joint development, called "A Book About Space." To this end also we joined others in supporting this conference.

Finally, we have had the social and community responsibilities of the highway program asserted as never before in the Federal Aid Highway Act of 1968. This landmark legislation includes, among other things a far-reaching relocation assistance program to minimize injury and provide equitable treatment of those displaced by highway improvements. This responsibility gives the highway program a direct interest in one of the essential community facilities, housing, and makes close cooperation with public and private housing officials imperative. In short, if we can't find housing, we can't build highways.

The Highway Act of 1968 also contains the Urban Impact Amendment. This requires that in addition to the economic effects, the highway department consider the social effects of a highway location, its impact on the environment, and consistency with the goals and objectives of such urban planning as has been promulgated by the community.

Here we have, then, the outlines of a broad national policy — a mandate to employ the highway program to help communities achieve their social and economic goals and the beginnings of organizational methods to accomplish this goal. This role of highways was, of course, implicit in the series of *ad hoc* steps I reviewed earlier. These steps have given us experience in these areas, and signify our acceptance of wider responsibilities to city development and character.

It is time now that we in the highway program explicitly recognize our new role. It is time to consolidate and distill the experiences we have had in this field and to establish a formal policy for joint development that will implement the role on a continuing routine basis. Such a policy is being drafted now in the Bureau of Public Roads. The details, of course, remain to be worked out, but we can discuss the underlying tenets of this policy.

I see three imperatives for an effective program of highway corridor development. First, corridor development should be regarded as part of the job of building highways, as an integral part of normal highway planning, location, acquisition, design, construction, and use. To get the maximum benefits, it is in the community's interest to plan for the development of the transportation corridor — to assure the highest and best use. The community needs to consider not only public uses such as recreation or education, but private uses — industrial, commercial, or residential — that will increase the tax base and provide the needed capital investment for development and renewal.

Up to this point, in broadening our role, we have approved additional expenditures of highway funds to achieve social purposes with little thought of monetary return. The social gain — be it a park, a playground, or a scenic view — was our justification. But we should not ignore opportunities for economic development — and for getting dollars back on the taxrolls for reinvestment in the highway program. At the same time, from the viewpoint of highway transportation, the objective is to assure complementary and compatible development of the corridor. Putting it another way, to optimize the total contribution of the highway to the city and to protect the highway facility from detrimental or incompatible uses, we must have corridor planning and corridor development.

Using tools already available, highway departments should take the initiative in corridor development. It is well established that the highway program has responsibilities beyond the roadway; if not, we should not be in joint development. However, having accepted these responsibilities, it is incumbent on us to make joint development work. This means highway departments, in close working cooperation with the communities, should take the lead in preparing comprehensive plans for corridor development and encourage coordination among all agencies having an interest in it. The highway, as part of this plan, should be so located and designed to allow the combined activities of all entities involved to make maximum contribution to the well-being of the area. This will call for increased analytical sophistication. It also means the highway department will need additional expertise in all the appropriate disciplines, either on their own staffs or through consultants.

Secondly, highways can contribute to community development and redevelopment through their ability to assemble space. The difficulty and often impossibility of buying and assembling land in developed areas through private means led to creation of the urban renewal program, with its use of eminent domain. The highway program has the same ability to assemble space and to deliberately attract private and public investment with the advantage of proximity to highway transportation.

To take advantage of this ability and fulfill the needs of corridor development, the highway department must purchase or control these areas that must go through a land use change in order to make them compatible with the new highway facility. In other words, in land acquisition, rights-of-way for highway purposes are rights for the roadway plus whatever additional lands, or space are necessary to assure compatible usage.

We have seen this concept applied in the highway program, as I noted earlier, particularly in regard to full-parcel takings and scenic easements. It is also applied with regard to air transportation. The Federal Aviation Administration and local airport bodies now buy development rights for land adjacent to airfields to assure compatible uses and to avoid the errors of the past that permitted housing developments on the edges of runways.

The third condition concerns implementation of the corridor development plan. Once the corridor is planned (responsive to the desires of the community and compatible with the highway facility) and once the indicated land, or space is acquired, assurance of development in accordance with the plan is necessary. Part of this assurance will be in the agreements reached between the highway department and the other public and private agencies during the process of arriving at the plan with its schedule. In addition, the plan will be accomplished through the lease or sale of land or rights under free competitive bid, conditioned on carrying out the planned development. This will provide an equitable means of involving private investment in corridor development, while at the same time retaining control of that development in the highway department and community.

Additionally, the income from sale or lease of the acquired land will be recouped for use in the highway program. This is of importance as it will help to offset the additional expenditures required to carry out the plan—increases similar to those we have allowed in our *ad hoc* decisions.

The result of this process, because of the highway actions combined with those of other private and public factors, will be, in effect, corridor renewal that also supplies essential mobility for the city. It will provide the city with roadway integrated with compatible land uses on both sides and under or over, through imaginative use of rights-of-way.

We recognize that such a program for joint development of highway corridors will require some revisions in state legislation as well as Federal procedures. We are drafting model legislation for this purpose which will authorize full state participation under the new Federal procedures.

The opportunities and the potential benefits from joint development of highway corridors are enormous. Through multiple use we can help satisfy a great range of community needs—needs that in too

many instances would otherwise go unmet. Too often today the gratification of these needs is being put off — postponed for lack of suitable space to accommodate them in crowded urban areas, postponed for lack of capital for their development, postponed for lack of administrative machinery to effect them. To such needs, joint development of highway corridors offers a positive answer.

It would be tragic if we failed to make the most of such an opportunity — tragic for the highway program and for our cities.

The time to act is now. As we put a formal, coherent program for joint development into action, we will be entering a new era of service for the highway program. It will be an era in which highways, while improving the mobility we require, will contribute more than ever before in meeting the many other human needs of our citizens.

Panel Discussion

QUESTION: Assuming that a highway can sever a community into one or more of several dimensions, and assuming the accuracy of the assumption that a community severance takes place, then to what extent are highway funds going to be made available to reestablish continuity of communities?

MR. BRIDWELL: There is no precise answer to that question, and this is because each individual case would have to be judged on what kind of severance took place and what it would take to recreate continuity.

This is not an attempt to duck the question. It is an attempt rather to elaborate on what I have already said by stating that there is no specific width of highway rights-of-way contemplated under this program. It is not 150 feet or 300 feet or to the parcel limits of any particular parcel touched by the roadway itself; but rather it is an opportunity to plan highway rights-of-way that include the space for the roadway itself as well as the adjacent land necessary for compatible use. Highway funds then are available for use in this newly described definition of highway rights-of-way.

Now it is perfectly obvious that if a corridor plan called for redevelopment of land adjacent to the roadway as commercial office space, apartments, or as some kind of industrial or commercial productive facility, any attempt to use highway funds for that kind of a development would be so overwhelming that there just simply wouldn't be funds available. What I am saying instead is that highway funds can be made available for the assembly of this land, which then could be taken over by a public agency, by a development corporation, or

could be sold under competitive bids to a private investor who would agree to develop the land in accordance with the plan, and the amount paid for that assembled land would be reinvested in the highway program.

QUESTION: In New York City the city planning commission has more or less advised us that it is hard to plan what we can build over an expressway until certain decisions are made as far as decking. Will there be a cost-sharing formula for decking or will it just be a local community expense?

MR. BRIDWELL: We have stated on a number of occasions — although there is no formal paper out as such — that in a planned air space use above a highway, we would pay the footing and foundation cost providing it was done as a part of the highway construction. That has been helpful in some instances. In some instances that I could describe it has not provided enough of a subsidy for the planned development to make it otherwise economically attractive.

In one instance we paid 90 percent of the cost of a deck, and there probably will be other instances in which we will pay 90 percent of the cost of a deck.

I think it is completely unrealistic, however, to assume that in every instance that someone wants to build a structure in air space over an Interstate highway that we will pay 90 percent of the cost of the foundation, of footing, the support work, and the deck. So if you are asking the question, What is the specific formula? I cannot give you an answer because it is going to range all the way from zero to 90 percent.

In the instance of the description yesterday by Norm Klein of the possible educational complex in Baltimore, it would be my expectation that if that development occurs the cost will be shared jointly by the highway program, by the Board of Education, and by the City of Baltimore, which benefits from this over and above the specific location of a school.

QUESTION: Is it legal to spend Federal highway funds for the property off the right-of-way?

MR. BRIDWELL: It is not off the right-of-way. It is on the right-of-way. I think that is precisely the point. We are not talking about off the right-of-way, we are talking about in the right-of-way.

The specific answer to your question is that we have a legal opinion saying that Federal funds are available or can be used for this program. It has never been court-tested. Each state, of course, has its own laws as to what it can spend money for, and in some instances it has a fairly tight description of what can be considered highway rights-of-way. So the state part of it will vary from state-to-state.

But let me make it clear because the point is obvious, we are not talking about space outside the rights-of-way. We are talking about

space inside the right-of-way, when a right-of-way is greater than that necessary for the roadway and its appurtenances.

MR. McGRATH: In articulating this concept of linear renewal, which this really would amount to, I think you have suggested the possibility of adding a very dramatic new dimension to the entire highway program. I am sure we all appreciate that it is fairly close to setting a precedent in urban development comparable to *Berman v. Parker*, a legal benchmark in the history of urban renewal legislation. This will have a dramatic effect on the cities, because even though the highway right-of-way may be fairly small, in many cities it will be much larger than most renewal projects. The median size of renewal projects in 15 years has been only 60 acres. Suddenly the highway with these new development capabilities, will have the attraction and potential to be very serious competition and to require absolutely new planning criteria for the entire industrial base and related commercial development in communities. I would like to know how you see determinations of the compatibility of land use being made and how the priority of development for the highway right-of-way will be determined in relation to other development priorities that the community may have. Would the local plans from place-to-place along the route be dominant or would they suddenly require rethinking?

MR. BRIDWELL: First of all, it may only be a semantic quarrel, but nevertheless let me quarrel with your use of the word "renewal." I would rather call it development because there is a certain connotation to the word "renewal," stemming from our urban renewal program that I do not think is the same as what we are talking about in corridor development.

Also I would not regard this in any way as competition with an urban renewal program. I think they have two completely separate and distinct philosophical bases that certainly can be compatible in some instances, but that I never would regard as competitive.

As to major thrust of your question, I think the answer lies in the fact that development and redevelopment does in fact take place when a highway is built or reconstructed in a complex urban environment. So the question is really not what priority we should assign; the question is, Are we going to have planned or unplanned development and redevelopment? Without question, this is going to occur anyway by the mere fact of the decision to build a highway facility.

In the sense that this may force or have a tendency to put priorities on various kinds of development in the highway corridor, I think yes, it will have that effect. But if that constrained, if you will, priority that is placed on the community could theoretically be considered a penalty, I would also suggest that it has many benefits.

There is no question but what is being talked about here in this conference is a rather substantial increase to the highway program.

But for those of you who had a part in it, I would suggest that what we are discussing and contemplating here is just that, an incremental increase or change in the highway program, and it doesn't begin to challenge the scope and imagination necessary any more than the original concept of a 41,000-mile system of controlled limited-access superhighways challenged the initiative, the imagination, and the innovativeness of people 12, 14, 16 years ago.

MR. McGRATH: With respect to the relationship between local development plans which may contemplate the same amount of acreage for industrial and many other compatible land uses and those in the highway corridor, where will this sort of decision be made? At this point it is unclear, and traditionally it has been unclear, how these things are reconciled.

MR. BRIDWELL: Well, the decision for all practical purposes has to be made by the local community and the state highway department cooperatively.

You know, we talk a lot and we are quite proud of the fact that the highway program is a Federal-state partnership. In this instance we are adding a third partner — the local community.

We already have, and have had for six years, a law requiring that highway projects be planned as a part of the total transportation system of a metropolitan area, and that these take into full account the comprehensive land use plans, and the development goals and objectives of the community as a part of the planning process.

So again, I do not see any conflict. I do see some constraints on the comprehensive planning process of a community by the mere fact that a decision to build or rebuild a highway is made, and it puts all kinds of emphasis, priorities, time constraints, and that sort of thing on the activities that follow. But once again I would make the point that those activities are going to occur anyway in some degree. The question before us is, Are they planned or unplanned changes, developments, renewals, redevelopments?

MR. BURMEISTER: Mr. Bridwell, this is a bold new concept you have presented here this morning. I have heard it discussed among state legislators and in our highway department, but I have never found anyone who had the courage to get up and make it in an open statement as you have this morning in a public gathering.

MR. BRIDWELL: That's one of the privileges of a lame duck.

MR. BURMEISTER: The thing that has been running through my mind in the discussions is that we have been talking about multiple uses in cities where either the highway has been constructed through a built-up portion of the city or where we are proposing to build a highway through a built-up portion of the city. The thing we have not talked

about is the multiple use of highways in the fringe areas of the cities and the fringe area of the urban part of the city or the suburban part.

Further, when we start talking about multiple use we also get into the rural portion of the freeway systems in the various states.

I know from experience in Wisconsin that in one instance we bought an entire subdivision which was in the process of being developed. In several other instances we have bought entire farms and interchange areas because the farmer wished to be made whole and taken out of the area so he could reestablish himself. I know from the accretion in value of these lands when the excess parcels were subsequently sold that where this is carried far enough, you could almost finance the highway system from the accretion in values of these properties, which subsequently sell for eight to ten times the cost of their original appraised market value.

What concerns me, Mr. Bridwell, is the vast change in the public concept that will have to come about if tracts of land adjacent to these new highway facilities are acquired in the public interest and subsequently sold, as you have indicated, by sealed bids or public auction or otherwise to persons involved in land development adjacent to the highway.

Prior to this time, the accretion in land has gone to the abutting owners. There is some forerunner for this, I believe, in the situation of the railroads where at one time they got alternate sections of land on either side of the railroad to interest them in the development.

Do you think this can be sold on a public interest basis to the extent that we would be able in the highway development to acquire extensive lands beyond those actually needed for the highway development?

MR. BRIDWELL: Yes. I do not think there is any question, but this is something that is not going to occur overnight. It will come about gradually, I hope very rapidly.

I cannot believe that the public interest is served, nor can I believe that the public would support — if it were dramatically called to their attention — the tremendous number of accidental millionaires that have already been created by the Interstate Highway program. And when I say accidental millionaires I am talking about those who by pure chance, by accident, own the land in the four quadrants of any given interchange. I am afraid I do not understand a public program which offers an opportunity for a person to accidentally become tremendously wealthy almost overnight, by selling off the land for land use purposes that frequently detract from, if not absolutely conflict with, the expenditure of public funds in putting the facility there.

Now I think the interchange situation is probably the most dramatic. All of us are familiar with it. But I think there are many other instances other than interchange where this is equally true in varying degrees.

Now I am sure that there are right now, and will continue to be, questions and severe problems in the minds of those associated and responsible for the highway program as to how can we spend highway users' money for this kind of activity. Well, I guess I would answer this about as follows: I can't tell the difference between a highway user and a citizen of the country. I really can't. They are one and the same as far as I am concerned. And to so narrowly constrain the definition of a highway use that it would allow no expenditure for anything other than the roadway and its appurtenances is just as ridiculous as saying my particular family does not have any children in school, therefore no part of my property tax can be paid for the support of school capital and operating cost.

Certainly it is a radical modification of what we have been doing, and I recognize that. But I sincerely believe that this is an opportunity to manage resources which are not only in the best interests of the public at large, but from the most narrow, from the most parochial viewpoint, in the interest of the highway program itself. And I believe that many of these incremental increases in value which result completely and solely from a public improvement, namely, the construction of a highway or development of a highway corridor, should accrue to the public and should accrue to the program creating the benefits.