

ENHANCING THE PUBLIC SHARE OF HIGHWAY BENEFITS

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Ways to increase the public share of highway nonuser benefits are examined. Methods include zoning bonuses for special performance, public acquisition of affected land, and a one-time tax on benefited land. Taxes on benefited land may have broader purposes than to increase the public's share of benefits, for example, to restrain development as the Vermont tax on land value gains.

• "THERE is going to be a new highway through here in a couple of years." This phrase, which has been heard countless times across the United States during the past three decades, sets in motion a series of forces that almost always changes the nature of the surrounding community and natural environment. The changes will be valued differently by different people in the community: change that will benefit some and disrupt others.

Highway and other transportation facilities are built primarily for the benefit of their users. There has been no widespread practice of attempting to realize, for the general public, some of the other benefits, the nonuser benefits that are possible as a result of providing transportation facilities. Most of these benefits are associated in one way or another with the land surrounding the particular transportation facility. The most common benefit to the land is improved access, and if land is in demand, the improved access may create the highest valued property in areas immediately adjacent to the transportation facility improvement. Normally, private market forces determine who will benefit from this improved access and value and what kinds of benefits there will be. The general public will benefit through increased property tax revenues or from a wider availability of services or jobs, but these benefits are indirect, and, except for the tax revenues, they usually occur by happenstance or coincidence, or they may not occur at all.

This paper examines methods and techniques for increasing the ability of the general public to share in the nonuser benefits of transportation facilities. It is designed to open up a new area of exploration useful to citizens and public officials at the local, state, and federal levels who want to take advantage of these particular benefits.

The problems under study are complicated because the subject matter touches on the fundamental issues of property rights, the exercise of public power over private property, the basic systems of land economics and development and jurisdictional responsibility of public agencies, and fundamental issues of equity and fair play. For this reason, our study has put as much emphasis on exploring the basic concepts and situations where increasing benefits may come into play as on methods and techniques for increasing the public involvement in these benefits.

BENEFITS AND THEIR REALIZATION

When a highway of other transportation facility is built or improved, there are a number of nonuser benefits that can occur: those associated with the creation of accessible sites and locations for development and with increases in property values, and those achieved through the protection or conservation of land under increased pressure for development and through a transfer of development rights from one property to another.

For this paper, we illustrate these benefits through three brief hypothetical cases (based on real situations) around which these benefits occur. In this way, we hope to

focus attention both on what the potential benefits are and methods through which they can be realized.

Case 1

Case 1 (Fig. 1) is a common situation. An Interstate (I-63), built along the northern edge of a town where urban development ends and farms begin, changes the dynamics of most of the property in the neighborhood. The owner of tract A has had his land cut off from town; it is also too far from the intersection to be desirable for any new development. On the other hand, the owner of tracts B, C, D, and E had some of his land condemned by the state for the interchange, but he has already sold tract C for a service station at a price per acre close to 10 times greater than what he bought his farm for 20 years ago and can expect similar price rises on the remaining tracts.

On the south side of I-63, the neighborhood is in turmoil. Tract I was recently sold for a major motel-restaurant complex. On tract H, a national fast-food chain has built a drive-in stand. A developer who has options on tracts G and F has been trying to get the zoning designation for these tracts changed from R to C so that he can build a shopping center, but the Balek Road neighbors are objecting strenuously because they feel that their neighborhood would be ruined if there were a shopping center. The Board of Education, which originally wanted to purchase tract I for a new elementary school, is now eager to get tracts F and G for the school, even though they are not as desirable as tract I. The environmental interests in town and present residents of Lovely Acres are concerned that tracts J, K, and L will now be developed and wipe out much of the amenity of Townville Park. In this situation, there may be winners and losers among those several interested parties, depending on the existing zoning, ability to get zoning changed, development pressures, community views, and environmental pressures.

The basic question, however, is how might the general public fare? The answer is somewhat complicated because the following groups are involved:

1. Users of I-63 benefit—They now have access to convenience services at the intersection.
2. Taxpayers of Townville benefit—Their tax base has been increased substantially by I-63.
3. Neighborhood residents do not benefit—The neighborhood is a less desirable place to live because of more traffic, and residential land values may decline. Potentially, residents will be hurt most by I-63.
4. School children and their parents may not benefit—They may be disadvantaged by the problems of finding a site for a new school as a result of I-63.

It is hard to tell whether the general public can come out ahead in this situation; however, one could ask whether there is a better way in which certain aspects of this laissez-faire situation could be managed:

1. Could not some of the money received for all the land sold (for which the owners did nothing) have found its way back into public coffers? Obviously the owners would have to pay income and capital gains taxes on the revenue generated by these transactions, but does this reflect a just situation, particularly because some owners' situations are worsened by the highway construction?
2. Could not the school board have had access to tract I? Could the highway department or town appropriately have acquired tract I at the same time land was acquired for the interchange so that it was reserved for an important public use?
3. Do not the residents of Balek Road have a legitimate reason to object to what has happened to the neighborhood and does not the highway department have a legitimate worry about the impact all the development going on around the area will have on the operation and safety of the interchange?
4. Is not tract C a good location for a park-and-ride facility for downtown-bound commuters, now that a bus line can be provided to the new industry nearby? Is it not in the public interest and consistent with the investment in I-63 and the interchange to have a park-and-ride facility in that location in place of or in addition to the gas station?

Figure 1. Interchange development, case 1.

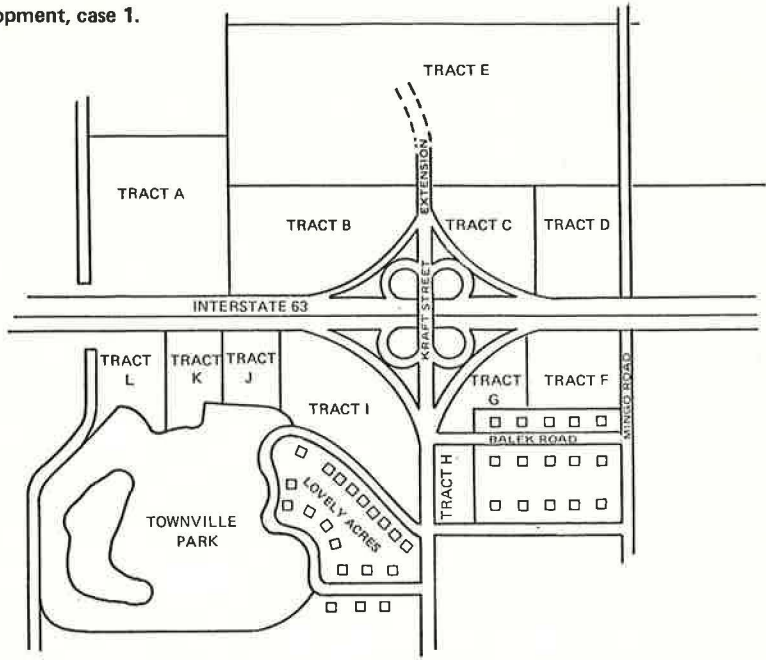


Figure 2. Town development as a result of new highway, case 2.

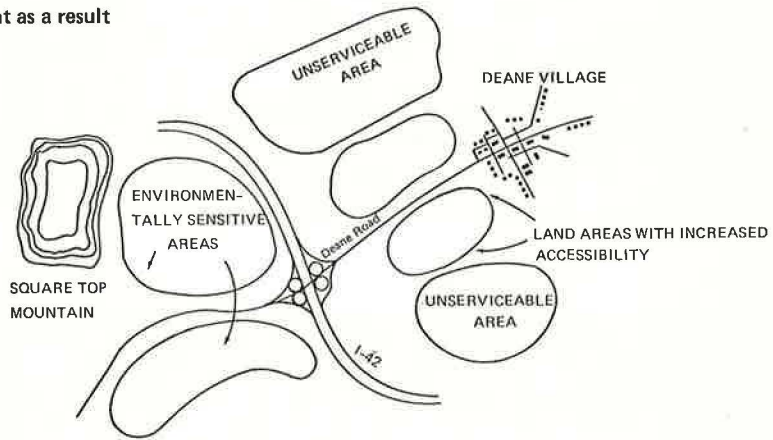
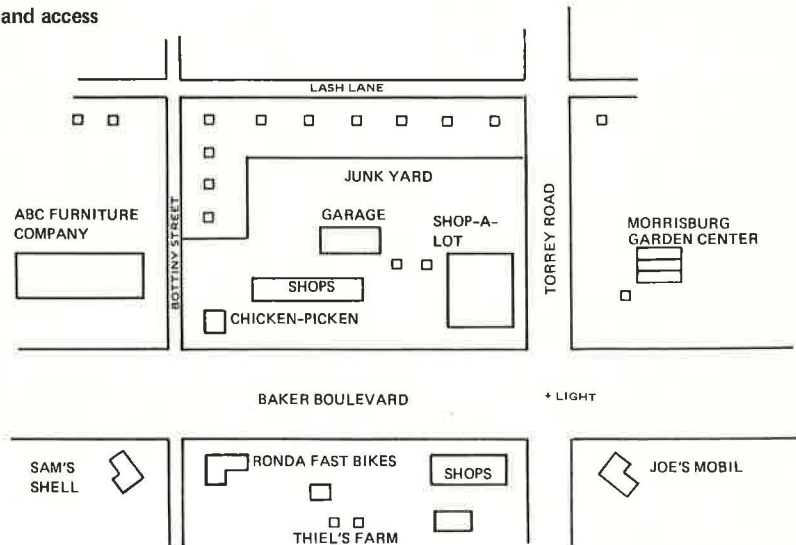


Figure 3. Before change in land access arterial, case 3.



Case 2

Case 2 (Fig. 2) shows that the new highway affects a larger geographic area than was influenced in case 1. Interstate 42 has opened a beautiful region of mountains, lakes, and small farms and villages to a metropolis only an hour away. In Deane, half of the villagers expect I-42 to bring economic opportunity to their rural community in the form of some small industry that would locate near the village and provide jobs for those who have had to move to the metropolis to find work. Many farmers in Deane hope I-42 will stimulate a new interest in their property. The other villagers have come to Deane to escape the metropolis and are against I-42. They have tried hard to prevent the interchange from being built near Deane. They fear that the rural charm of the area will be spoiled with an influx of second home developments, motels, and the other accoutrements of a weekend recreation area. Until now at least, county officials have refused to consider planning and zoning.

The village governing body is in a quandary. It can do nothing about I-42; most of the road has been built. Although industry located in the village would be a benefit, second home developments on the other side of the interchange would not. There are other considerations: public services; potential water pollution, further development, tax rate change; and possible need for zoning.

So that the village will benefit from the highway some measures will have to be taken to prevent excess development that might cause a major strain on the township's limited tax resources. New industry should be encouraged as long as the village can handle the growth. The land to the east of the interchange is the best place to encourage new development, but should people with property on the east side be the only ones to benefit? What about the land owners whose property should stay natural to protect the beauty of the area? Can they share in the monetary benefits of growth without selling all their land to developers? Is it fair if just a few land owners have to pay the price of protecting the natural beauty while others gain from profitable land deals? What about the acquisition of all or part of the environmentally sensitive areas between I-42 and Square Top Mountain? The state parks department has no funds for such acquisition, but the highway department might, except it cannot use funds for park purposes unless they somehow relate to the highway.

Case 3

Case 3 represents a much more complicated situation that has been and will be occurring more frequently: a major arterial widening and intersection construction necessitated by continuing increases in population and traffic. Figure 3 shows the area before the arterial is built. The highway department has developed a plan to (a) widen the boulevard, adding a median barrier (Fig. 4), (b) build an overpass to carry Torrey Road over it (Fig. 4), and (c) build a jug handle with a traffic light at Bottiny Street to allow eastbound traffic to move north onto Bottiny Street (Fig. 5).

In this complicated situation there are many competing interests and ideas about the best way to redo the design of the commercial area. For instance, the owner of the farm on the south is under pressure (of instant riches) to sell his land for development, but he wavers because his specialty crop provides him adequate monetary rewards and psychological satisfaction. Supporting this preference for retaining the low density and open space a farm provides are arguments of land use planners, environmentalists, nearby residents, and, until they have to vote to rezone, some of the city council. The highway department planners also would like to back a hold-the-line decision because they feel they should bear some responsibility for maintaining the integrity of the investment for traffic improvements by controlling the amount and location of commercial land use in the area. (Figure 5 shows our bias about the way things are, and this is the reason for the study.)

What are the nonuser benefits of this kind of highway improvement project that can be realized for the public? A more safe and functional boulevard and rational land development in adjacent areas are the most important public benefits that could be obtained. Cleaning up a rather unsightly and economically marginal commercial strip,

Figure 4. Ideal change in land access arterial, case 3.

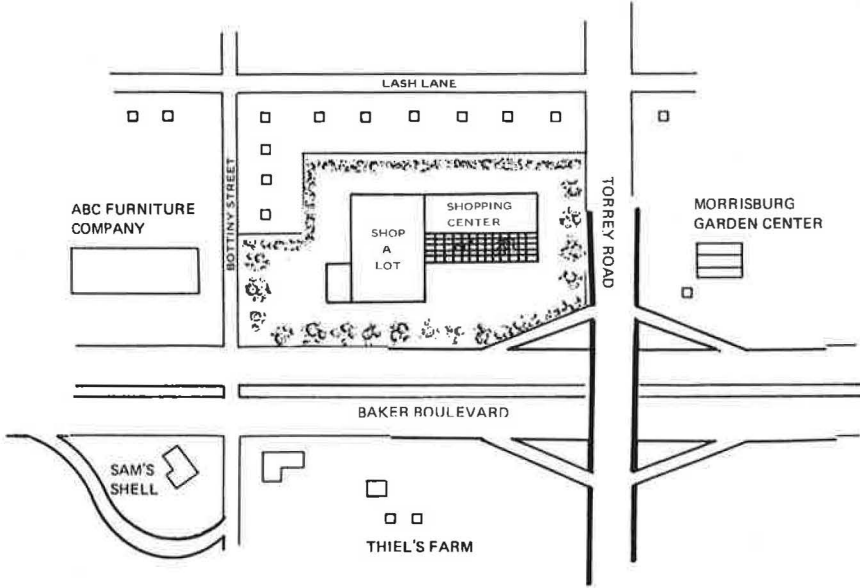
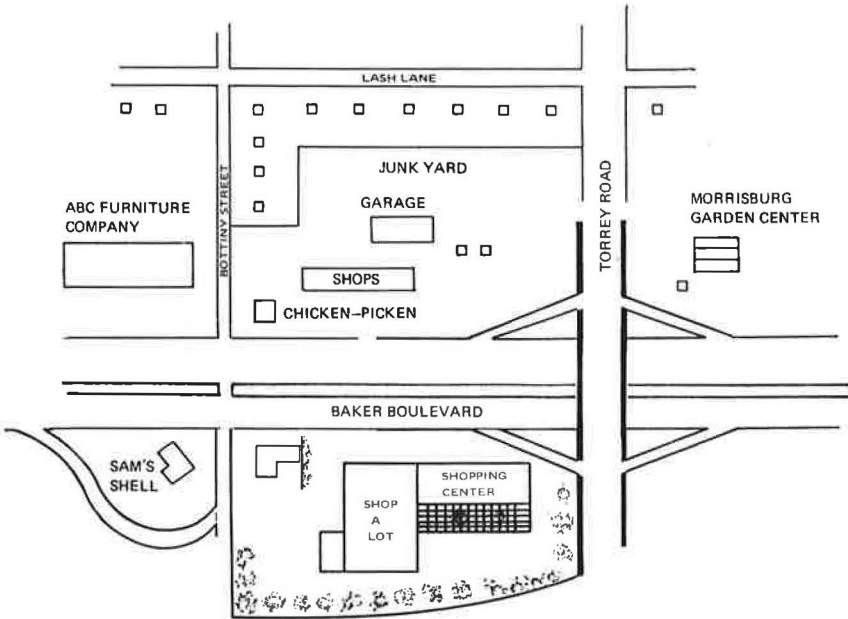


Figure 5. Likely change in land access arterial, case 3.



without doing damage to or putting pressure on the value of agricultural land, but with equity to existing businesses, appears to be in the public interest.

Different nonuser benefits created by some highway (or other transportation facility) improvement activity have been discussed in cases 1, 2, and 3. Note, however, that in most instances where these benefits might occur, they are not usually realized for or shared by the general public.

METHODS AND TECHNIQUES FOR BENEFIT ENHANCEMENT

There are many techniques and methods for achieving benefit enhancement: (a) land use and development (zoning) techniques, (b) development permit techniques, (c) taxation methods, and (d) public acquisition and development. These broad categories include techniques such as bonus zoning, special zoning districts, exactions and dedications, capital gains taxation, and expanded public development. Each situation in which benefit enhancement is possible involves variables such as the desired benefit; existing zoning; existing actual land uses; development pressures; and the institutional, political, and legal framework.

Grand Rapids, Michigan, was faced with an upgrading of an existing highway, and from the resultant controversy grew a cooperative solution involving the land owners, local entities, and the state highway agency. Fresno, California, limited, through conventional zoning, other uses at new Interstate interchanges to preserve its agricultural character.

Although in specific situations it is easy to analyze the components to ascertain which techniques might be effective, it is difficult to describe the procedure effectively through generalization. This is why we used the case study.

The kind of analysis necessary in each specific case is as follows for case 1:

1. The benefits received by private landowners in the form of greatly increased land value could have been used for general revenue purposes through public acquisition of the farm and resale to the incoming commercial uses. This would have to be consistent with a development plan prepared by local officials.

2. The interchange could be protected from haphazard overdevelopment through vigorous enforcement of existing or modified zoning (special districts) or performance zoning to avoid traffic density and environmental impacts.

3. The Balek Road residents could have been protected from impacts on the street by a holding zone. They could be further protected from potentially adverse impacts by bonuses to tract F and G in return for buffers such as landscaping along the property lines.

4. A park-and-ride facility at tract C could have been built under presently existing highway programs, and the highway agency could have acquired the land for it along with the right-of-way acquisition.

In case 2, development along Deane Road may be encouraged by zoning, which allows high density and planned unit developments. Development may be discouraged by exactions used to protect environmentally sensitive areas. Theoretically, a transferable development rights scheme might be worked from the environmentally sensitive area to the Deane Road sites. Development along Deane Road could be allowed in the provision by dedication of easements to unserviceable areas.

The environmentally sensitive areas can be protected through density controls, exactions for water and sewer treatment, and, perhaps, through environmentally based special permit systems.

Case 3 suggests a plan is necessary to accommodate the adjustment in equities and access created by improvements to Baker Boulevard. The plan will not be implemented without special encouragement from the municipality because zoning cannot abolish pre-existing uses without condemnation resulting. A special district or a development authority might be appropriate here; the readjustments, which are very complex, might be worked out with little public acquisition and substantial private cooperation. Financial implications of the improvement might be adjusted equitably without compromising the traffic purposes.

In all cases, financial and practical problems of the impacted private owner must be considered. If all the ramifications of benefit enhancement are not adequately understood and taken into account, the leverage on which it is based may disappear.

CONCLUSIONS AND RECOMMENDATIONS

There are no set methods that can be applied automatically in all situations to realize benefits created by a transportation improvement. Indeed, the situations around which benefits can occur are so varied, not only in their physical but also in their political dimensions, that they defy a universal prescription. Thus, what we present are some of the basic principles of benefit enhancement and some general guidelines that will be applicable.

Identification of Critical Variables

Any scheme to realize nonuser benefits must identify the factors and variables in the situation that will both create the benefits and determine the most appropriate means for realization.

Ways To Manage Change

There are two vital factors in any benefit realization situation: (a) presence of a strong concept of what is the particular public benefit to be realized, and (b) presence of someone to take the leadership in devising or arranging the scheme for enhancement.

What benefit enhancement essentially involves is management of change in the public interest in the areas affected by a transportation facility improvement. Such management involves a commitment from some concerned group to implement the plan, policy, and program in a specific geographical area.

Role of Transportation Agencies

In our discussion of benefit enhancement, we carefully refrained from suggesting that transportation agencies assume the essential leadership role. Theoretically, it may be most appropriate in many such situations for the transportation agency planning and constructing the transportation improvement to take the additional responsibility for planning and implementing the scheme for realizing land-related benefits.

Such a format would run into legal and political difficulty in most parts of the country. Legislative and constitutional restraints on land acquisition powers of the transportation agencies exist in most states; therefore, a substantial amount of new legislation, perhaps, constitutional change, and a major restructuring of the functions and activities of the transportation agencies would be required. We foresee that in the immediate future, benefit schemes will have to be realized through the powers and leadership of the local government authorities. This is not to say that the transportation agencies will not play a role in benefit enhancement. They must because they control critical variables of benefit creation such as the transportation facility, its location and design, and the timetable of its construction. If the transportation agency does not play a major role in the planning and execution of benefit enhancement schemes, they will not work.

How then can the transportation agencies contribute? FHWA might undertake methods to ensure that the metropolitan agencies have the mandate and resources to examine issues of benefit enhancement both at the systems planning level and at the corridor and project planning levels. Benefit enhancement schemes should flow out of the basic processes of planning transportation facilities and systems. The methodology of transportation planning could well use techniques to factor in the potential for benefits in initial transportation plans. FHWA might consider the formulation of regulations and procedural manuals that could enable the technicians working on environmental impact statements to examine the opportunities for benefit enhancement. Possibly some supplementary grants to transportation agencies could be made available for such analysis.

In many cases, benefits created by a transportation facility will not be realized for public use because the local authorities affected lack the resources to conceive or implement an enhancement scheme. In such situations, the transportation agency might appropriately provide services to the local community to help define potential benefits and to design appropriate schemes for their realization. FHWA might take the lead in promoting such technical assistance efforts by issuing guidelines and developing financial programs to assist such efforts.

Benefit Enhancement Process

We have a strong bias toward some kind of identifiable coordinator or manager who would implement a scheme for realizing nonuser benefits. Assuming there is such a person or group, activities that would have to be undertaken to carry out a successful program are (a) analyzing the situation; (b) identifying the benefits; (c) consulting the interested parties; (d) selecting methods; (e) securing decisions, permissions, and approvals; and (f) organizing the mechanisms.

Characteristics of Methods and Techniques To Be Used

The methods and techniques discussed cover a wide range of activities: some that require little or no effort to change existing procedures and others that require dramatic changes.

In selecting the methods and techniques to be used in any benefit enhancement scheme, there are important factors to consider:

1. If a relatively simple and politically acceptable technique is adequate (i.e., a permit system to ensure coordinated high-quality private development in the vicinity of a transportation improvement), then it is advisable to stick to it rather than to try more difficult techniques.
2. A series of techniques could be applied over time.
3. Zoning and related police power controls could be used as the mainstay of most benefit enhancement schemes. We feel that zoning techniques have advanced sufficiently to handle most enhancement situations. Special zoning districts, bonus zoning, and holding zones offer promise in most schemes.
4. Schemes involving public acquisition of land may be more acceptable than schemes involving extraordinary taxes to recoup land value increases. Although Vermont used special capital gains taxes, they were imposed to curb high land speculation and not necessarily to increase the public's share of the increase in land values.
5. Joint development and benefit enhancement are closely related. Those working on joint development projects in transportation planning should concentrate as much energy on developing methods and techniques for implementation as on design possibilities. FHWA, UMTA, and HUD might well reexamine their current efforts to encourage joint development and explore ways to add analysis of implementation methods and techniques to the studies now under way.

Final Observations

Benefit enhancement of nonuser benefits of transportation facilities is just beginning to emerge as an important public policy issue. Because of this, we should expect that, for quite some time, there will be varying views about the desirability of applicability of such schemes. The attitudes and values of various people toward private property will be a key to how, when, where, and under what conditions benefit enhancement schemes will be able to be carried out. Fortunately, there is a growing change in attitude toward the nation's land resources, which, under the pressure of urbanization and development, have become a more precious and valuable commodity. As such values change, programs for benefit enhancement in transportation should become more numerous.