

EFFECTS OF TRANSPORTATION PLANNING ON URBAN AREAS¹

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Abstract. The greatest effects of the Federal Aid highway-oriented policy have been social, economic, and environmental. People have been displaced, neighborhoods have been changed, business patterns have been altered, the air has been polluted, and our cities even look very different—primarily as a result of building urban highways and freeways. A study of a freeway under construction in Akron, OH illustrates some of these effects of highway-oriented transportation planning. This particular freeway, although only partially finished, has had numerous social, economic, environmental effects and if finished will have many more. Some of the effects have either tended to perpetuate or aggravate already existing problems, with the result that the overall quality of life has been impacted thereby.

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The year 1916 marked the launching of the Federal Aid Highway Program—a purely highway-oriented program that has dominated transportation policy ever since. In implementing the program, the highway builders have not always demonstrated very much awareness of their impacts upon urban areas. It would be a mistake to characterize federal highway policy as anti-urban. More correctly it can be called essentially non-urban, because it has generally been pursued with not enough concern for its impact upon the total urban environment. Federal highway policy eventually accomplished the Interstate System of 1956, a system that goes down in history as one of the most extensive construction projects of the human race and one that has had great effects upon urban areas.

Within the context of a predominantly highway-oriented transportation policy, the transportation planners (or highway-builders, more correctly) in this country have only recently begun to demonstrate a relatively serious concern for the effects of their plans on the urban environment. Some of this concern is both a cause and effect of the passage of the Environmental Policy Act of 1970, according to which detailed studies must be made of the en-

vironmental impacts of “major” federal actions that “significantly” affect the quality of the human environment (U.S. Public Law 91-190, 1970). Although there are doubts about the effectiveness of the new requirements, at least the new process has required planners and consultants to amass much valuable data about transportation projects (Burchell and Listokin 1975). It is to one such study of a particular highway project, prepared by a group of graduate students in Urban Studies at the University of Akron, that we turn to illustrate some of the effects, both actual and anticipated, that are changing cities so drastically. The present study is concerned with the environmental effects of the Akron Innerbelt Freeway, a multi-million dollar highway project that was originally planned for the ultimate purpose of maintaining “a healthy, productive and amenable atmosphere” for the citizens of Akron, OH (Jones 1972).

The original plans for freeways in Akron go back to 1947, nine years before the federal government authorized the Interstate System. The object then was to service the main industrial centers, population centers, truck centers, and interstate routes. Overlooked at that time was the Central Business District (CBD) because the theory was that providing high-speed access for traffic through

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the city would service industries and thereby indirectly help the development of the city as a whole. As the freeways were completed (Akron ended up with 2 east-west freeways and a north-south freeway), plans were developed to build another long freeway that would go through the center of the city in a north-east-southwest direction from one freeway to another, and between one end of the county and the center of the next county to the east (fig. 1). Plans were finalized in 1962 and publicized in 1963 (fig. 1). In 1964, the proposed Innerbelt was also made part of a plan for an urban renewal project on Main Street in the CBD (called the Cascade Project). Originally the cost of the entire freeway was to have been borne by the state and the city on a

75%-25% matching basis. Now, however, the State of Ohio is without adequate funds for all desired freeway construction, so the state has gone to the federal government, a development that requires the preparation of an Environmental Impact Statement on the entire proposed project.

Three-quarters of a mile of the freeway was actually completed between 1970 and 1973, and a second section of almost the same length is now under construction, the cost of both sections adding to nearly \$50 million. These 2 sections have been financed primarily by state and local funds. The next 2 sections will be financed by federal-state-local funds at a projected cost of some \$40 million to complete the freeway, for a total distance of

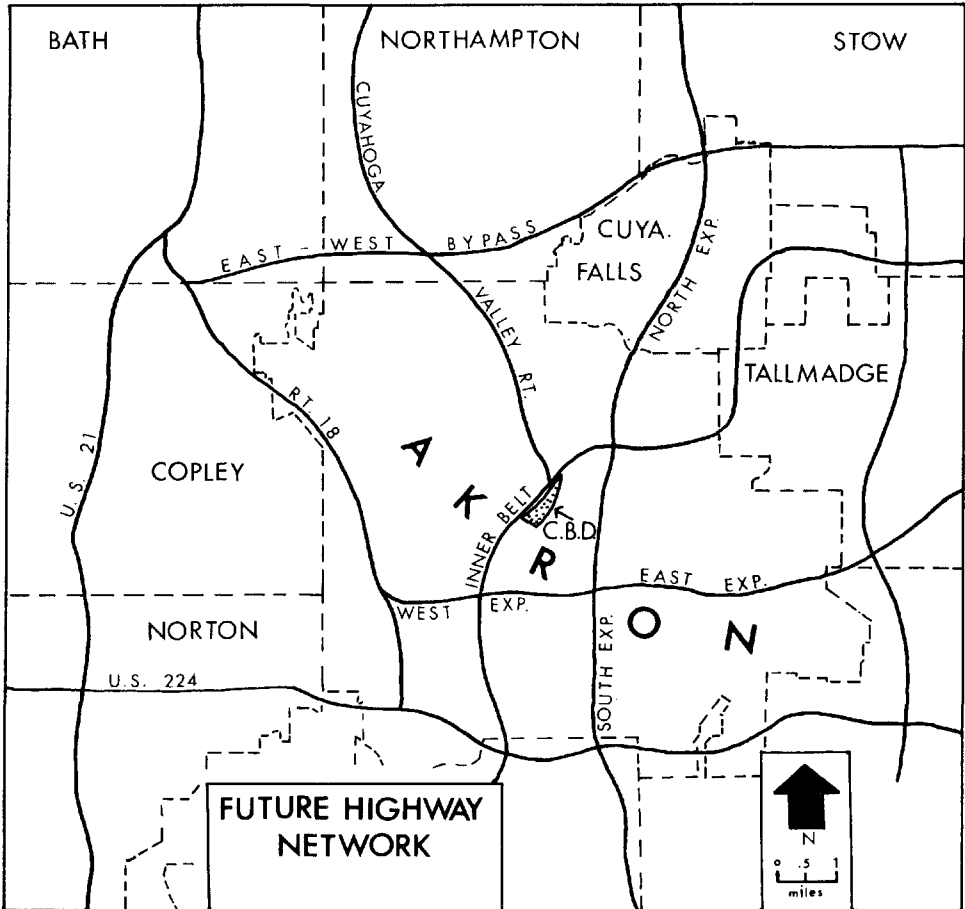


FIGURE 1. Original Innerbelt Freeway Plan. (Akron Department of Planning and Urban Renewal).

less than 5 miles. The 3 stated purposes for justifying such a large commitment of funds are: to provide for regional transportation efficiency, to assist economic development, and to provide better access to the CBD.

EFFECTS OF FREEWAY CONSTRUCTION

Four general categories of effects—all primarily social, economic, and environmental—are to be considered here: the social effects on the neighborhoods through which the freeway passes, the economic effects on the neighborhoods and the city, the physical effects, and

the contemplated effects on regional development.

SOCIAL EFFECTS

To begin with, the largest part of the neighborhood through which the freeway passes has been designated as the Akron Model Cities Neighborhood (fig 2). In fact, the Innerbelt will cut two-thirds of the neighborhood almost exactly in half before it connects with the east-west freeway that already bisects the southern half of the neighborhood. The purpose of the federal Model Neighborhood Program was to assist community efforts to provide for the social

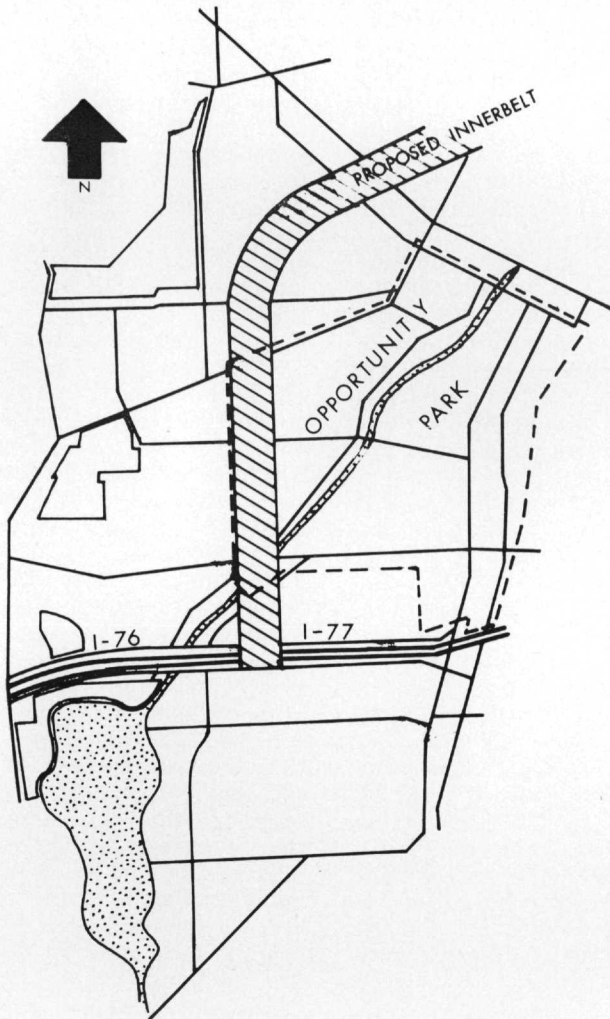


FIGURE 2. Akron Model Cities Neighborhood. (Akron Department of Planning and Urban Renewal)

and physical rehabilitation of blighted neighborhoods. Akron's Model Neighborhood was selected in 1967 and it has received funds since then for a variety of projects. Presently, the Akron program is being phased into the City Department of Planning and Urban Renewal, where some of its better projects will be retained.

The neighborhood is also the site of a large urban renewal project called Opportunity Park, one of the largest such projects in the United States (fig. 2). This many-faceted project, located directly to the east of the new freeway location, was begun in 1966, covers 404 acres, and will cost, when completed, over \$80 million. Only 25% complete, it has required the relocation of 1,244 families, 886 individuals, and 316 businesses, and has provided 696 housing units so far. Although the housing units do not replace all those that were torn down, the taxes on the new units are more than double what they were before the project was begun. The housing part of the project is considered by the Planning Department of Akron as a kind of new town-in-town, and an example of an outstanding approach to urban renewal. Its execution also means that the Model City Neighborhood was already greatly affected before Innerbelt construction began.

As for the neighborhood in general, it consists primarily of single-family housing units, 50 to 60 years old, about 40% of which are substandard. In 1960, the population in the Model City Neighborhood was 26,000. By 1970, after the advent of urban renewal and freeway building, the population was down to about 20,000. About two-thirds of the residents are now lower income, non-white, with a high unemployment rate. The neighborhood is already divided by an expressway, with mostly blacks living to the north and whites to the south. The Innerbelt will further divide the neighborhood by creating a barrier between poorer blacks to the west and the new racially mixed, urban renewal project to the east.

When plans for the freeway were announced, many objections were raised, and it is reported that some neighborhood

meetings in 1970 experienced near riot conditions. No attempt had been made to determine attitudes of residents, so the neighborhood was simply informed of the route that would be taken. Considering the fact that the announcement was first made in 1963 and less than one mile of the freeway has been completed, there was probably a long-term intangible effect on residents who did not know for years when, or if, they were to be relocated. Naturally, this probably also added to the general depression of the neighborhood.

To the north of the Model Neighborhood, where work was begun in 1970, residents were concerned that the highway would divide them from their churches, stores, and from the CBD. A temporary bridge built across the construction site did little to minimize general fears. In the Model Neighborhood feelings ran even higher, particularly after residents learned that a major neighborhood business center, containing several newly-established, black-controlled businesses, would be removed by the freeway.

As a result of the controversy, a team from the American Institute of Architects (AIA) was invited by the city in 1970 to study the situation. After a brief, three-day study, the AIA team recommended the consideration of 2 alternative routes that would go around each side of the Model Neighborhood and which they felt would cause less damage to the area. The team also suggested that suburban communities to the west, which were considered to be the greatest potential beneficiaries of the new highway because most of its commuter traffic would be generated by their residents, should permit construction of low-income housing within their borders for residents displaced from the neighborhood. Moreover, the team suggested that the highway be renamed the *Greenbelt*, with trees and shrubs planted on each side and a park down the middle. Finally, the team suggested that some housing be rehabilitated in the neighborhood in order to try to upgrade the community.

The city, however, rejected the alternative routes for various reasons and did nothing to implement the second sugges-

tion. A consultant was hired to improve the design of the freeway along the lines of the *Greenbelt* suggestion and landscaping was planned for the project. Moreover, a community development project in the neighborhood included rehabilitation of certain homes. Thus it can be said that the AIA study did have some positive results.

In the long run, the major portion of the Innerbelt neighborhood has become a low-income, black-majority area, with an increasing number of substandard buildings. The black proportion of the population in 2 census tracts has surpassed 90% in the past 15 years. According to the Housing Division of the Akron Health Department, some residents have done relatively little to improve their homes or living conditions because they have been unsure of the final route of the highway. Business has also declined greatly. For example, at the end of the completed freeway section only one small cafe remains. In the entire neighborhood only a few businesses remain along the line of freeway construction.

Since 1970, all families that have to be moved out of any area that is the site of public construction must be assisted in finding comparable housing before any construction can be initiated. Because the first section of the Innerbelt was started in 1970, it is now possible to examine data about where at least part of the families relocated by the highway have actually moved. In the area for which data is now available, some 340 households were moved, of which 311 were white. This area was not in the Model Neighborhood and had not been, before 1960, the object of black migration. The whites who were moved generally dispersed throughout predominantly white areas, and the blacks moved either to one area which was predominantly black, or to white areas where the median house value was lower than the house value in the original tract.

Because of its close proximity to the Innerbelt area and because population movements have been similar, it is relevant to examine the relocation of families from the urban renewal area of the neighborhood before 1970. This process in-

involved over 700 black households and over 400 white households. While the whites generally scattered widely throughout the city, the largest proportion of blacks moved to adjacent areas characterized by declining population. One of these tracts changed rapidly from an approximately even black-white population to 74% black by 1970.

In general, then, there was a distinctive pattern of movement which was noted with other relocation efforts in Akron. The neighborhoods that received the highest numbers of white families were more widely dispersed, were already predominantly white, and remain white to this day. But the neighborhoods receiving the largest number of black families were either changing in population, were declining in population, or were already predominantly black. Although there are some indications that this pattern has become less rigid in recent years, the pattern of relocation of the 1950's and 1960's has already contributed substantially to increased racial isolation in the city.

The census tracts bordering the Innerbelt area have also experienced change. Along with a general population decrease after 1960, the percentage of blacks in these areas increased from 52% in 1960 to 77% by 1970. Both of these trends were in marked contrast to the pre-1960 years, when the population rose, the racial ratio was stable, and house values also rose. After 1960, the trends became quite dramatic, with the population declining, the white-black ratio changing drastically, and the values of houses dropping.

The question is: What proportion of these trends is due to Innerbelt plans and construction? No doubt many of the most significant changes were due initially to the urban renewal project as well as to other factors. There is no doubt, however, that the highway has added greatly to an already worsening situation. The end result is that the neighborhood, even though most of it was until recently an official Model Cities Neighborhood, is now mostly depressed and declining.

ECONOMIC EFFECTS

Some economic effects have been men-

tioned above, including the general decline and closing of neighborhood businesses and the drop in median house values. Considering that the Innerbelt was designed for, among other purposes "assisting economic development," the economic effects deserve special attention. One of the major, current reasons given for building the Innerbelt is that it will provide easy access to the CBD.

It is extremely doubtful that the new freeway, even if completed, will do much to attract retail businesses or shoppers downtown. The total driving time downtown to be saved by travelers from the west side using the new highway has been estimated officially at 1.25 minutes, certainly not much of an inducement for prospective shoppers. At present, Akron is of such size that it is usually possible to travel to the CBD from any part of the periphery in less than 30 minutes, even if one uses public transportation and even at the most congested times. Yet downtown Akron continues to decline as a center of retail business, as stores close or move to shopping centers. It is for this reason that downtown merchants are now pressing for completion of the freeway on the basis of the vague notion that it will bring large numbers of new shoppers to their stores.

On the other hand, the past decade has seen the construction of a number of new office buildings in the Cascade urban renewal area, a new public library and a federal government office complex, all in downtown Akron. Moreover, a new shopping center containing gift shops, restaurants, and specialty stores has been developed within the structure of the old Quaker Oats Company only 2 blocks from Main Street. Such developments may offset the decline in retail businesses in the CBD by providing more customers from those individuals who will work in the new offices. Again, it is very doubtful whether the existence of the Innerbelt will have much of an effect on this situation.

The economic impact on the neighborhood through which the freeway passes might potentially be more positive if attractive businesses should be developed along the highway. Whether or not they could offset the loss of businesses moved

out of the path of the Innerbelt is another question. Moreover, it is questionable whether such new businesses would offset the loss of employment opportunities of those businesses which moved out. If a purpose for having the freeway is to entice people to the CBD, then economic benefits to the neighborhood are considered of secondary importance at best. Finally, the commuters who are expected to make the greatest use of the freeway are probably the least likely to stop along their way to work or home in order to visit neighborhood businesses.

Many residents whose homes are to be taken now look upon the impending relocation as a way out of a declining neighborhood. While many white residents of the affected neighborhoods may regard the Innerbelt as a threat to their homes, black residents often consider relocation as a ticket to better neighborhoods. Judging from earlier experience with relocation, this view may not be very well founded. Nonetheless, as the area declines, more and more residents continue to regard the state relocation program as a way of getting better homes in better areas.

Another positive effect of the freeway is that its construction will increase employment opportunities for construction workers and will give lucrative contracts to consulting and construction firms. Moreover, because federal funds are now being sought, the requirements for a complete Environmental Impact Assessment have meant a sizeable contract for a consulting firm that is doing the study. Such benefits should not be overlooked in any reasonably objective consideration of effects.

Economically, a well-served group will be the suburban and west side residents who will use the freeway to go downtown to work. Because they already go downtown, their impact as shoppers will probably not increase as a result of having a slightly faster link to the CBD. Conversely, it also should be noted that those residents who once lived in the area most affected by the first phase of the freeway previously did most of their shopping in the CBD. Ironically, then, their relocation was one factor that contributed to

the general decline of retail business in downtown Akron.

In all, the economic benefits to come to the city, and particularly to the CBD, will depend largely on individual perceptions of accessibility, desirability, and convenience of downtown shopping and employment opportunities. But in the immediate future those residents whose homes will be moved, and who may not be relocated to more desirable areas, along with those business establishments that are removed, will feel by far the greatest initial economic effects of the freeway. Beyond these initial effects, it is very difficult to predict long-term economic impacts on the affected areas.

PHYSICAL EFFECTS

The outstanding physical effect has been upon the area directly adjacent to the CBD. It is in this area that the first and only completed leg of the Innerbelt has been constructed. The "Glendale Hill incident," as it became known, involved cutting the highway through a hill just west of the Cascade urban renewal project and the CBD. Lawrence Halprin (1966), a noted landscape architect, studied the area and proposed an alternate design using tunnels and bridges, after calling the original engineer's design, "an impossible destruction of the urban landscape. Halprin also proposed building a park on the hill's summit and suggested cleaning up the old Ohio Canal at the base of the hill.

However, state and local officials, who were responsible for making the final decisions, dismissed his ideas as impractical and too expensive. Deep cuts were made in the hillside and at least 2 streets were eliminated between the CBD and the adjacent neighborhood. There is no question that this is the greatest visible physical effect of the project; an effect that has also changed the appearance of the adjacent CBD itself. Although this section is virtually useless to automobile traffic in its present stage of completion, it did provide a very convenient site for the city's Sesquicentennial celebration in 1975.

Other physical effects have also been mentioned: the separation of a residential neighborhood from a large urban renewal

project, the removal of numerous physical structures, and the building of the highway through a primarily residential area. There are also the anticipated effects: reduced air quality due to automobile emissions, noise from trucks and cars, removal of more east-west streets, and effects on local aesthetics. Plans are being made to provide for trees and walkways along the highway, and the project will be built at a level below the surrounding area. Such measures will no doubt improve the appearance of the neighborhood as it now is. Nevertheless, improvements to the neighborhood as it existed a decade ago could probably have been made at considerably less cost and without some of the adverse effects already noted.

EFFECTS ON REGIONAL DEVELOPMENT

It is in the area of effects on regional development that the strongest defense of the Innerbelt can be made. As noted previously, the highway was originally planned as a regional link across both counties of the Akron Metropolitan Area. Because of the shortage of funds and for other reasons, this plan has been delayed indefinitely, and the freeway is now, in effect, regarded as a wholly intra-city highway improvement to link 2 existing expressways. As such, its potential for regional development is greatly reduced, while the saving of only a few minutes driving time past, and to, the CBD will probably not do very much to stimulate new economic development in the city.

The Innerbelt was originally conceived by the City Planning Department as a redevelopment of the old southwest-northeast rail transportation corridor between Barberton and Kent. This corridor had been adversely affected when railroad travel was surpassed by highway travel. When the east-west Interstate was completed between Akron and Youngstown, a potential area for economic development was, in effect, bypassed. Thus, it would be fair to say that if the original plans are ever realized the highway might well have some regional economic effects that could offset the tremendous costs.

The longer Innerbelt would, no doubt, open up new, undeveloped lands for

potential industrial development. Moreover, it would connect a number of suburban communities which might thereby be encouraged to do more developing on their own. Finally, it would improve connections to at least one small, undeveloped airport. But virtually none of these effects will be realized unless the freeway is built to follow the original and most optimistic plans. There is no likelihood of this eventuality occurring in the immediate future, however.

Yet the city's planners have by no means abandoned their original ideas and now talk in terms of the Innerbelt being connected with existing, improved streets and highways running from the CBD to the east. In effect, by improving existing thoroughfares, the Innerbelt could be made to serve most of the area originally intended to be served. Also, connecting the Innerbelt to the existing east-west freeway to the south would serve part of the southwestern area that was included in the original plans. These developments, combined with the anticipated effects of relieving traffic congestion on existing freeways and city streets, are used to help justify the continued construction of the Innerbelt. The major weakness in this argument is that existing streets that now parallel the Innerbelt route could also be improved to accomplish similar results, without either the expense or the neighborhood impact.

FUTURE CONSIDERATIONS

The overall cost of the Innerbelt Freeway has so far been almost \$50 million for one section completed and for another section under construction. The third phase—the interchange with an existing freeway—will cost another \$11 million, and the final phase to the north is estimated at between \$80 million and \$25 million. Depending upon the sources of the funds, the project will cost the City of Akron approximately 15% to 20% of the total cost for construction. Considering the anticipated benefits to be derived from this highway, it is apparent that this is a very high commitment of resources. Considering the actual effects, particularly upon the neighborhood through which the highway

will pass, it is also apparent that the main beneficiaries will be suburbanites and city residents who live to the east and the west of the Model Neighborhood.

Regardless of the costs on the one hand and the mainly conjectural benefits on the other, the city is pushing ahead with its plans to complete the Innerbelt Freeway. Naturally, one of the main arguments now is that the expenditure of \$50 million justifies the completion of the project. Considering the relatively limited process which is now being followed in complying with federal and state regulations for environmental assessment and citizen participation, it is evident that the city wants to provide as little opportunity as possible for any concerted neighborhood opposition to develop. In the past year, only 2 neighborhood meetings have been held, one for the third phase and one for the fourth phase; and plans are being made for holding only one more. Moreover, little publicity has accompanied the planning, while the city's capital budget for the next 6 years includes a \$40 million allocation for the Innerbelt.

The Innerbelt is an outstanding example of what is now happening to many large-scale transportation projects and plans in urban areas. Projects are completed in small increments over long periods of time, regardless of how conditions may change or how other plans may be altered. Indeed, the most important barriers to such projects are the rapid inflation of prices for construction and the current shortage of money. These factors have accounted for the current change in the Innerbelt's design from a regional transportation link to a primarily intra-city freeway, truly a very significant change which has not, however, led to a reconsideration of the original plans by city officials.

There appears to be an almost inevitable tendency for human organizations to attempt to complete large-scale projects that they have begun, regardless of how needs may change or what unforeseen contingencies may arise. Current freeway planning in many cities, and the Akron Innerbelt is an example, is based upon plans that go back to the formative years of the 1950's and 1960's when

nothing could be seen as an obstacle to facilitating the continually increasing use of automobiles in urban areas. Although we are now aware of the value of other transportation alternatives, as well as many of the outstanding adverse effects of the freeway building of the past 25 years, our original plans are still used to justify continued and hoped for construction. The fact is, if a large freeway project is not completed within a few years after it is begun, the chances are now greatly reduced that it will ever be completed, at least as originally conceived. Therefore, we find the Innerbelt plans now, in effect, being modified to reflect present realities, while at the same time the modifications actually tend to make the project far less justifiable in terms of long-range economic benefits to the city.

City planners in Akron might well reflect upon the following warning by Robert L. Morris, the noted transportation planning consultant:

"The downtown of any large city is a complex organism. When signs of disease appear, it would be nice to have a miracle cure at hand. Freeways are not that miracle cure; on the contrary, they are more likely to intensify center-city problems. Sick downtowns can recover their lost

vigor; there are many examples throughout the country. There is no evidence, anywhere, that freeways have helped in the revitalization process" (Morris 1975).

If the Akron Innerbelt is an example of what is happening elsewhere in this country, it would appear that transportation planners and policymakers are still not greatly impressed by the many changes in urban development that have taken place over the past decade. For this reason, the future does not yet look very promising for the creation of balanced transportation systems in American cities—systems that are more in harmony and balance with their existing urban environments.

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