

PLANNING AND DESIGN FOR TRANSPORTATION SYSTEM MANAGEMENT

WALTER G. HANSEN

Alan M. Voorhees and Associates, Inc.

There is probably a question in everybody's mind as to what impact participation has had on the actual results of the Boston Transportation Planning Review. There are 3 areas where participation should have and in fact has had a great deal of impact: in the generation of alternatives, in the evaluation of those alternatives, and in the selection of the alternative to be pursued.

GENERATION OF ALTERNATIVES

In the area of generation of alternatives, participation as pursued in Boston has had the major effect of broadening the range of alternatives in 2 major areas: first, to substitute regulation of transport demand for the construction of facilities to meet that demand and, second, to substitute one type of mode for another type of mode to meet a single type of demand. There are many examples where, in fact, the participatory process generated alternatives that, I believe, would never have been developed or evaluated by technically skilled people in a more traditional process that had no participation.

Substitution of Regulation

We were continually questioned about transportation demand and were many times embarrassed because we had no good answers as to what transport demand is. Is it an invariate? Does it respond to regulation? Does it respond to prices? Does it only respond to capacity and service? Obviously, the answers are, "It does respond to regulation. It does respond to price. Therefore, demand is not something that you first predetermine and then try to find ways of serving. But it in itself is a variable in the equation."

Another question we were forced to answer was, Is a parking pricing policy a substitution for the construction of highway facilities? Our best technical answer was, "Yes, it is. If the public body chooses to regulate itself and price itself in the form of

a parking pricing policy, you can probably get about the same impact as far as level of service on the highway system is concerned with a dollar increase in pricing as you can with an 8-lane expressway." In fact, that choice was put up for the final decision, and the governor, in concert with the mayor, announced as part of his policy a parking freeze and the possibility of parking pricing in the core area of the Boston region.

A number of communities that are impacted in a very heavy way by truck traffic also raised the question, Can the regulations or the policies or in fact the statutes be changed? (One of the major functions of the expressway system that had previously been planned was to reduce the amount of truck traffic on local streets and local arterials.) Cambridge is an area that happens to be between a particular entrance on the Massachusetts Turnpike and the destination of many trucks carrying oil and dangerous cargo. Because of current regulations by the Department of Public Utilities and because of the use of air rights over the Massachusetts Turnpike, the Prudential Center, and also some tunnels, all of those trucks must leave the turnpike and proceed through Cambridge to get to their final destination at the port. We continually looked for solutions in the form of modification of the physical street system. At the same time, there was the persistent question, Why can't the regulations be changed so that the trucks can stay on the turnpike and proceed around Cambridge on the already available freeway? Again, we said, "Because of fire hazards, the regulations will not permit that if the highway is covered more than 600 feet." The questions then were, Can't the tunnel be protected from fire? Why do we have to build something else and thereby make physical changes that will have adverse impacts in a dense urban setting when in fact regulation changes would better solve the problem? This issue has not yet been resolved and is still being worked on by our technical staff. However, we have assisted the city of Cambridge in making applications for a relaxation of the particular regulation that was in part responsible for the problem.

Substitution of Mode

Most participants who came to our meetings wanted a change in or a substitution of mode, i. e., transit for highways. Two things happened in this process: The technical staff really found ways to extend the impact that various transit modes could have on highway travel demands, and the participants gained a better realization of the limits of substituting one mode for another. The impacts of transit are by no means as dramatic as the substitution of changes in statutory regulations on the transport-demand equation, but they are more dramatic than most of our technical staff anticipated they could be if we were imaginative in the definition and the use of various types of transit services to replace highway movements.

After the project had been under way for about 2 months, working committee meetings became consumed with a general disagreement between me and the working committee. The committee was completely dissatisfied with the technical staff in terms of its experience and view toward the development of transit alternatives. This pressure was maintained, and, as we got more and more into the development of alternatives, we did in fact massively expand the staff in terms of competence and experience in the analysis of transit. Thus, the impact of the participatory process here was on staffing.

A more concrete example is the third harbor crossing. We had studied a number of general-purpose highway tunnels, some of them having special lanes and special priorities. As a result, we were kicked around and then kicked out of a whole variety of meetings in East Boston and also in South Boston. They said, "There must be some solutions that do not involve building a general-purpose highway. We want a transit solution." In looking for a transit solution, we effectively devised what would be a new public transportation system. This was the concept of a special-purpose tunnel so that priority vehicles—in particular a new bus-limousine airport service—would have very fast access to the airport from the western portion of the metropolitan area, which generates about two-thirds to three-fourths of all the airline trips. Again, this particular option,

which I must admit we were reluctant to investigate because of our preconceived notions of what is and is not feasible, became the recommended solution, or the one that the governor is now pursuing.

EVALUATION OF ALTERNATIVES

In the area of evaluation, participation influenced the definition of the areas of concern and how those concerns can in fact be measured. This was a continuing, back-and-forth process. We would say, "Well, it does this." And they would comment, "That is not a very good way to measure what you are telling me it does," or "I don't even understand what it does yet." In this way, the evaluation criteria themselves evolved from a technical and community participation process.

The other thing that the process did was to monitor the accuracy of the evaluation results. One of the highlights of the entire process was that, in studying alternative transit systems for the southwest corridor, we kept arriving at one particular course of action. One woman in our working committee would continually say, "But you haven't studied this alternative." After we had gone through the alternatives, and got to a draft report, she said, "But you didn't study this other alternative in the right context, and your results therefore are biased." We printed the final report, but she did not give up. Finally one day she caught me in the hall and said, "I don't think I am getting through to you. What I mean to say is that you haven't studied the right alternative. Therefore, although I believe your numbers, you haven't presented all the numbers you could." A couple of hours later we discovered that she was right and that the results we had presented were in fact biased not because we did not like her solution but because we had not looked at it quite the right way. We did a rerun and, fortunately, prior to public hearings and public meetings, we were able to issue an addendum. The alternative that this woman insisted that we study became a part of the recommended plan.

An important aspect of the community participation process—resulting from the participation on a continuing basis of a wide range of groups, the working committee particularly—is the monitoring of the clarity of the presentation. Many times we put out information that only we understood. Every one of our major reports was fully reviewed, and the reviewers would say, "I don't know what you mean by this." We would say, "Well, it is perfectly clear what we mean by that. We mean. . . ." They would say, "Well, that isn't what we thought you meant. Why don't you state it the way you explained it?" This was an extremely important contribution to the reports, which, although they are voluminous and take a great deal of energy and perseverance to read, do contain information that is understandable to a wide range of people because they participated with us and insisted that it be understandable.

SELECTION OF ALTERNATIVES

Obviously selection of alternatives is a political process. That is as it should be. The main thing that the participatory process did was to expose the results of the studies and assemble a series of voices to influence the choice to be made by the political process. The assembly of value positions in a way that was visible to the politicians as well as to other groups who had different values was an extremely important aspect of this entire process. Had that not occurred, the governor could have been making decisions in isolation of what in fact his constituency felt. As it was, they were able to arm themselves with reasons, to assemble groups behind those reasons, and to make the presentations heard by the political process. In summary then, participation broadens the scope of alternatives, broadens the scope of evaluation, and creates a broader understanding of the issues, the options, and the results by the general public.