Panel discussion

Urban Nature of the Highway Problem

At the 12th Highway Transportation Congress, sponsored by the National Highway Users Conference in April, members of this panel discussing "Issues of 1968" agreed that the highway problem is largely urban in nature and its solution tends to cut across many areas, such as engineering, sociology and architecture

Design Concept Team

A. E. JOHNSON
Executive director, American Association of State Highway Officials

A DESIGN-CONCEPT TEAM is made up of appropriate design professionals, generally including architects, urban planners, landscape architects and consulting engineers. In addition, other specialists may be included for the particular assignment—sociologist, economists and so on.

This is a group outside the state highway department and its assignment would be to study the full meaning of interaction between the proposed highway and the urban area. This may include the determination of the highway corridor and all other steps to and including the project design, or it may deal only with the development of the highway design in an already predetermined corridor.

The team would consider the highway as only a part of the total environment.

At the present time, I am withholding my judgment on the value of the design-concept team; but I am charitable in my attitude and hope that those in operation will produce a result that will receive sufficient public support so that needed highway improvements can go forward. I also hope that the results produced will not take up too much valuable time and that the facilities designed will be feasible, adequate, safe and attractive.

It appears to me that when the highway program got so big and "glamorous," some people in the design professions took an interest in it for the first time and many of them claimed expertise without much—or any—prior experience in the field of highway planning and design. Some seem to think that everybody is starting from scratch on urban highway design and we must all develop our knowledge and experience together.

I have always believed that competence in any particular field is derived from a proper educational background plus actual experience. This would qualify our state highway people as the foremost authorities on urban highways.

In my opinion, a major contributing factor to anti-highway feeling in urban areas is the displacement of people and the lack of adequate replacement housing. This furnishes an emotional basis for opposition and something that can be parlayed into an effective anti-highway movement by anyone so inclined.

For humanitarian reasons alone, and not just to overcome this opposition, state highway departments and others must face up to the problem of accommodating displaced people. Provision for this must be made before the start of construction.

It is certain that for a city to remain economically healthy adequate highway transportation is an absolute necessity. It is the basic and universal method of moving people, goods and services. All other modes are in addition to adequate highway service.

Any mechanism that can facilitate the construction of adequate highway transportation facilities where it is bogged down—whether it be the design-concept team, the development of replacement housing, the full and conscientious partipation in the planning process and decision making, or anything else within reason—should be used.

Topics and Transit

FRANCIS C. TURNER
Director of Public Roads

URBAN-TRAVEL, expressed in vehicle-miles, is increasing at a rate equivalent to doubling about every 20 to 25 years in most urban areas. It follows, therefore, that keeping pace with the demand for mobility

will require not only new urban streets and highways but the fullest utilization of the highway plant we now have and are developing.

There are also other social and economic reasons for this effort toward fuller utilization of our urban highways. Out in the country, a road can usually be widened or a new one provided with a minimum of dislocation. But in the metropolitan areas, the widening of a street or the construction of a new arterial route requires the taking of homes, businesses or sometimes public lands and buildings serving the community. It is urgent, therefore, that improvements to urban transportation be accomplished to the extent possible by means that will not require immediate extensive construction and large takings of additional land, because we have ample supplies neither of dollars nor land to permit any other early solution to the growing needs for highway transportation in urban areas.

Much can be done toward these ends through major changes in current traffic controls, coupled with relatively inexpensive physical improvements. This is the rationale behind the TOPICS (Traffic Operations Program to Increase Capacity and Safety) program. The TOPICS program, for the first time, authorizes—and encourages—the use of already available federal-aid funds to increase the utilization of existing urban arterials without requiring major construction, by the intelligent improvement of traffic operations combined with minor spot construction as required.

These improvements might include such things as intersection channelization, traffic control and lighting installations, judicious street widening at bottlenecks and a variety of other engineering techniques.

One of the basic purposes we are trying to accomplish with TOPICS, of course, is to stretch the people-carrying capacity of urban streets and highways. Another part of this same effort is to provide greater capacity through using the same or a lesser number of vehicles to move larger numbers of people. This obviously refers to buses operating on the normal street facilities or as they might be revised under TOPICS.

At present, buses carry 70 per cent of all transit passengers in urban areas. Bus transit is, and probably will continue to be, the only form of mass transit in at least 95 per cent of our urban areas of more than 50,000 population and in all smaller communities. But it continues to fight a losing battle with the private automobile. Combined transit service in all U. S. urban areas carried fewer passengers in 1965 than in 1924, a decrease occurring during a time when the urban population doubled.

We believe there is a great potential in the use of reserved lanes or even reserved streets for buses during the rush hours and we are allowing federal-aid funds to be used for this purpose under certain conditions. Where bus service would not justify such exclusive use of special lanes during rush hours, buses could at least be given priority, with a limited but additional number of private cars also allowed.

There are at present no exclusive bus lanes set aside on freeways anywhere in the United States. At least 14 cities, however, have established exclusive bus lanes on other urban streets, with indications to date that both buses and other vehicles can save 10 to 30 per cent travel time as a result.

It will be increasingly important in the years ahead to provide for many urban highway users an acceptable mixture of vehicular modes that will include both bus mass-transit facilities and private passenger cars and trucks.

Highway engineers and officials have very little control over the quality of the bus-transit mode, except to encourage the provision of good routes for them to travel. This we are trying to do through the TOPICS program, the concept of reserved bus lanes and a generally more imaginative approach to the desired goal of moving people, rather than just vehicles.

Many studies indicate that even with planned freeway developments added to those already existing or under construction, there still remains a demand that will exceed 200 per cent of capacity measured in current conventional terms. This additional persons capacity can easily be handled by present and projected facilities with the addition of acceptable bus service without additional costs for complete new highway construction through our complex urban areas.

Parking and Transportation

ALAN M. VOORHEES
Alan M. Voorhees & Associates

DURING the past 20 years, we have talked a great deal about the parking problem. But we have done very little about it, except to build facilities, often to poor standards. The latest statistics indicate that in most cases we are providing parking by a joint public and private effort, even though it is not well coordinated.

Some of the more recent downtown studies have attempted to indicate on what streets parking should be located in light of the capacity of the street system, but we have not found the way to implement this.

Another area of great concern that I have is related to parking standards. Most of our parking standards, whether commercial, industrial or residential, lack good factual bases. Most of them have been established by copying from each other—and I have never been able to find out who prepared the original! Just recently we have been getting some data that is helping us establish realistic standards.

A good example of this is the Urban Land Institute study of shopping centers. They looked at parking demand much as we look at highway demand. They found out, much as we did in the traffic field, that there are extreme peaks that really can't be served economically. The Urban Land Institute study looked at parking usage in shopping centers and found that the highest parking demand had similar characteristics to traffic.