

"Even if we were to try to solve urban transportation problems by highways alone with an urban highway program averaging \$10-million to \$20-million a mile in high density areas, there is every possibility that the remedy would only succeed in killing the patient—by replacing valuable tax ratable property with non-taxable concrete and asphalt."

There are social costs attached to urban highways as well. Neighborhoods are divided and destroyed, families and businesses uprooted, historical landmarks fall, and public recreational areas are invaded. Highway construction with inadequate regard for social factors has been one of the major grievances voiced by minority groups in cities that have experienced civil disorders.

Scientific studies suggest that as much as 65 to 70 percent of city air pollutants may come from motor vehicles operating on urban highways.

The ideal urban transportation system would, in my view, consist of a modern, efficient mass transportation facility supplemented by a network of urban highways.

Mass transportation facilities serving as basic passenger carriers in high-population-density areas would relieve many of the problems posed by our present highway-oriented urban transportation systems. Mass transit facilities can transport passengers more cheaply, more rapidly, and more conveniently than traffic clogged highways. San Francisco's Bay Area Rapid Transit (BART) will have a peak capacity of 30,000 seated passengers in each direction, and will cost \$13-million a mile. A comparable \$13-million-a-mile eight lane expressway would have a peak capacity of only 10,000 to 12,000 passengers before congestion began to slow travel down. And the rapid transit line, of course, requires less right-of-way and no costly downtown parking facilities. The average rush hour journey in an urban area by transit bus requires only from one-sixth to one-fiftieth as much space per person as by automobile, and rail mass transit requires only from one-tenth to one-one-hundredth as much space as automobiles. One study concluded that passenger costs for rail transit are about half those of commuting by automobile.

Most existing mass transportation systems, however, are currently in no condition to take over the passenger loads being borne by urban streets and highways. Discomfort, inconvenience, low average speed and obsolescence of equipment plague users of existing systems. Passenger volume at rush hour in many cities exceeds the seating capacities of trains and buses by as much as 200 per cent. A survey of average rates of speed for rush-hour travel in 25 cities showed the overall average to be 13 miles an hour for mass transit systems as compared with 20 miles per hour for automobiles.

As a result, patronage of existing mass transportation facilities lags in many cities. People will, however, patronize improved facilities. In recent years, improvements in the New York subway system have brought about an increase of 20 million passengers. Modernization of Philadelphia's commuter system has resulted in a 44 per cent increase in riders over the past several years. A change in Boston's Highland Branch from a commuter railroad to a high-speed transit in 1958 resulted in a 1000 per cent increase in passengers.

Considerably more funds than Congress has so far been willing to appropriate will be needed to upgrade and expand mass transportation systems and to bring them up to their rightful place as the core of our urban passenger moving systems. Where this money will come from and how it will be administered is a major problem. To solve it will require all of our political and administrative skill. But solve it we must.

While the needs of the cities for mass transportation are immediate and great, the need for more roads and highways is considerably less pressing. With new road construction projects being undertaken, proposed, and contemplated every day, and little such development of other transportation modes, there is steady movement toward ever greater transportation imbalance. In light of these facts, and in view of the current need to cut back on all non-essential spending, it would seem that less spending on highway construction and upgrading would both help our total financial situation and help restore a proper balance between highways and other modes of transportation.

There are, it seems to me, two major alternatives—two directions in which we might move—to meet the essential and immediate need for urban mass transportation development, and to permit a possible cutback in highway development. One alternative would be to do away entirely with the Highway Trust Fund. This would require the Congress periodically to determine proper spending levels and commit Federal funds for both highways and urban mass transportation through