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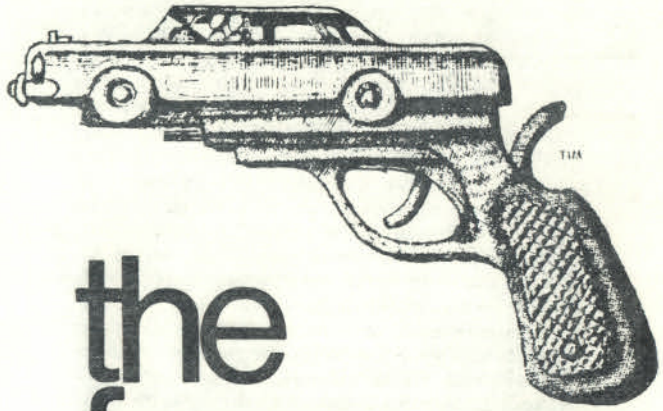

the freeway failure

by

GEORGE W. BROWN, Ph.D.
Transportation Consultant

Presented to

THE THIRD NATIONAL CONFERENCE ON THE TRANSPORTATION CRISIS

Washington, D.C.
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High traffic densities, high speeds and serious mismatch of vehicles produced when high speed heavy truck usage is encouraged, produce skyrocketing casualty rates. In Michigan, where Interstate mileage available for use was created at an earlier date, the casualty rate on Interstate facilities reached a level of 934 per hundred miles as early as 1967. Urban freeways are the most dangerous transportation facility ever devised. During 1967, there were 28 people killed and 1,615 injured for every 100 miles of urban freeway available for use within the State of Michigan.

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Opponents of Freeways have often raised the spectre of the United States being paved over and the proponents produce figures indicating the small percentage of the total land area covered by pavement. Actually, the detrimental effects of Freeways extend far beyond the boundaries of the pavements. A four lane road built to freeway standards requires a 300 ft. right-of-way. Approximately every four miles of such a highway will require an 80 acre interchange. Therefore, every hundred miles of such a facility will take 5,640 acres out of the property tax base and place it on the highway welfare roles. The initial cost of this transfer is averaging 2 million dollars per linear mile of highway construction in rural areas, and up to 20 million dollars per mile in Urban areas. The welfare cost *for pavement replacement alone* is averaging $20,000 dollars per mile per year within the State of Iowa. This does not include the cost of traffic operations, police patrolling, signing, snow removal, or roadside maintenance.

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Unfortunately, the detrimental effects of freeways do not stop at the boundaries of the right-of-way. The drainage water is carefully discharged outside of the right-of-way to eventually be deposited in the soil or ground water tables. It is very illuminating to observe the quality of this water as it emerges from the drainage structures. Recently, large elements of the ground water tables in Massachusetts have been found contaminated from road salt run-off. The spreading of a ton of salt per mile of freeway whenever icing conditions exist is found to exacerbate this problem. The hydrocarbon and lead residues associated with water run-off have not even been evaluated. One enterprising chemist in a town of 40,000 measured the lead levels of river water adjacent to the town's water intakes at periods following the dumping of snow removed from the city streets. He found lead levels considerably above that recommended for safe drinking water.

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