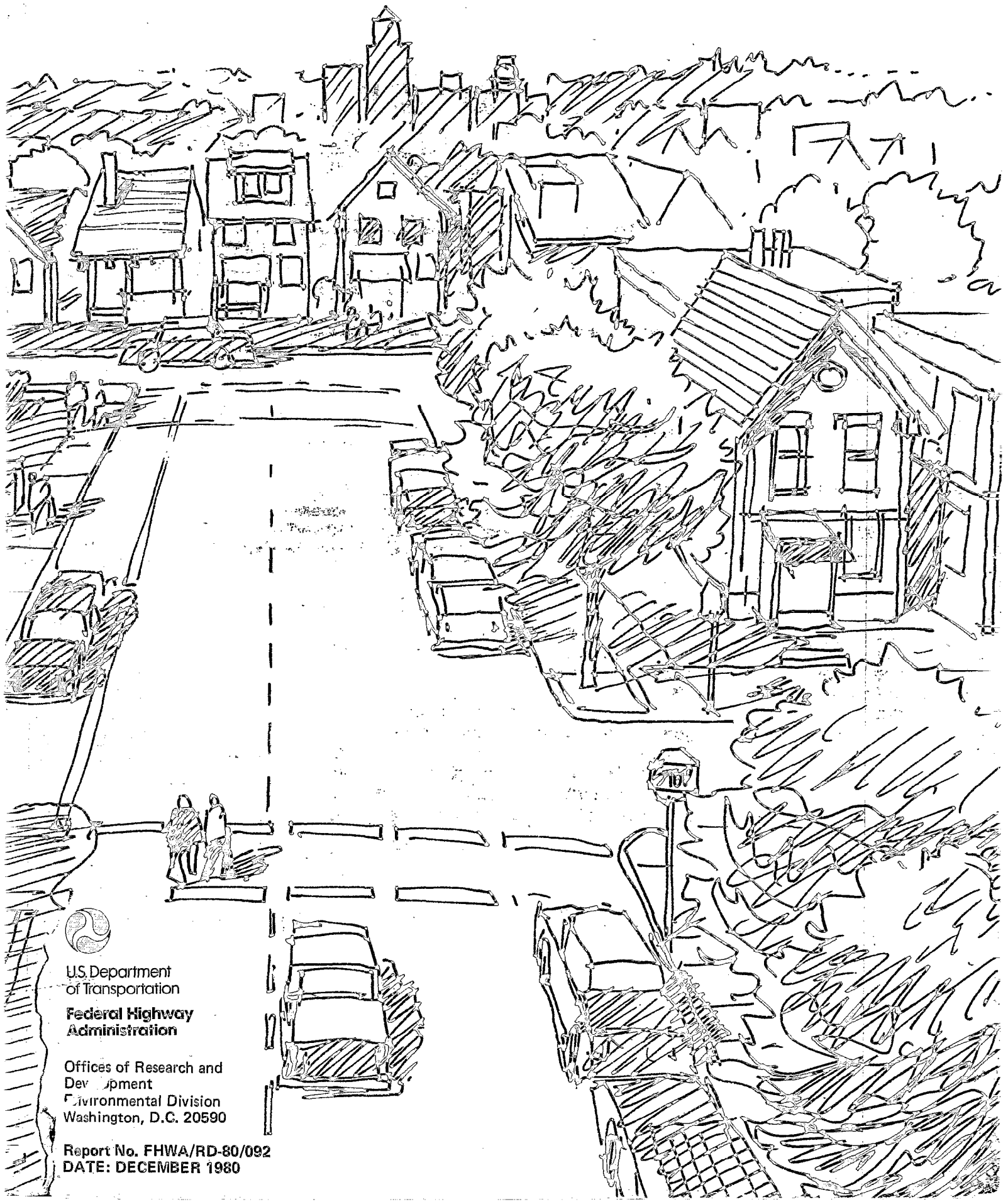


State of the Art Report: Residential Traffic Management



U.S. Department
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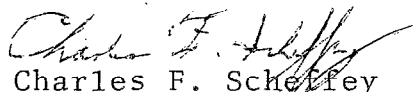
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FOREWORD

This report assesses the performance of various traffic control devices which affect traffic on existing residential streets (as opposed to initial design features of new subdivisions). Detailed techniques for developing neighborhood traffic control plans including community involvement and technical evaluation elements are given.

This study was conducted in response to a research problem statement submitted by the City of Santa Ana, California. Research in traffic control devices is included in the Federally Coordinated Program of Highway Research and Development as Task 1 of Project 1A, "Traffic Engineering Improvements for Safety." Mr. H. Douglas Robertson is the Project Manager and Mr. John C. Fegan, Contract Manager.

Sufficient copies of the report are being distributed to provide a minimum of one copy to each FHWA regional office, division office and State highway agency. Direct distribution is being made to the division offices.


Charles F. Schefley
Director of Research
Federal Highway Administration

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16. Abstract The research program "Improving The Residential Street Environment" deals with control and restraint or management of traffic on local residential streets. This State of The Art report covers current practices in this field through 1978. The report assesses the performance of various control devices to affect traffic on existing residential streets (as opposed to initial design features of new Subdivisions). Included are diagonal diverters, half-diverters, cul-de-sacs, median barriers, speed bumps and undulations, stop signs, rumble strips and many other measures. The report also details techniques for developing neighborhood traffic control plans including community involvement and technical evaluation elements.					
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Preface

This "State-of-the-Art" report has been prepared for the urban traffic engineer or planner and all those concerned with control of traffic in neighborhoods. Traffic in neighborhoods has been a longstanding concern to the public but a concern to which professionals over the years have been unsympathetic or unprepared to respond. However, in recent times attempts at restraining traffic and its adverse impacts in neighborhoods have proliferated. Some schemes have had noteworthy success; others, though operationally successful, have generated opposition and controversy; others yet have not operated satisfactorily.

For the professionals, these efforts involve significant departures from customary practices — new applications of conventional traffic control devices, use of entirely new types of control devices, and changes in philosophy relative to the role of streets and of the professional in "managing" rather than necessarily "facilitating" traffic. Naturally, when a new element of professional practice evolves from isolated and independent efforts, communications of results from innovators to other practitioners lags. This report is intended to bridge the communication gap, to provide up-to-date information on the details of control devices used in neighborhood traffic management and on the techniques for planning neighborhood traffic control schemes.

In introducing readers to the findings of our research, the authors wish to affirm our commitment to the objectives of traffic management in residential areas. Sections of this report may seem to belie this. The facts are that traffic management is inherently controversial and numerous traffic management attempts have failed because of inappropriate control devices or breakdowns in the process of planning for them. We have called attention to these conditions at several points in the report. We have not done

this to discourage further traffic management programs; we have done so to prepare professionals and the community involved for controversy, and to aid users in coping with problems and pitfalls previously experienced by others.

Residential traffic management is a still rapidly evolving area of professional practice. This report explores the range of current practices; it does not necessarily define the limitations of good practice. Further experimentation and innovation is needed. Do not be afraid to try new measures which seem to be more reasonable and effective solutions to your problems than the devices covered herein.