



The TxDOT Sign Crew Field Book

Drivers depend upon highway guide signs to help them find their way on unfamiliar rural highways. The *Texas Manual on Uniform Traffic Control Devices* (MUTCD) provides the basic principles regarding how guide signs should be used. However, due to the multitude of situations that can exist on a highway, the guide sign guidelines in the MUTCD are general and leave room for variation in actual field application. This has led to inconsistencies in guide sign installations across the state, even though the installations comply with the MUTCD. Furthermore, there is little coordination between sign placement in the regulatory, warning, and guide sign portions of the MUTCD. For example, the MUTCD indicates that the Junction assembly should usually be about 750 feet from the intersection. If a Stop Ahead sign is to be placed on the intersection approach, the MUTCD indicates that it should be 775 feet away on a 60 mph road. Using this placement would put the signs too close together for either to be effective.

Research project 0-1373 began as an effort to evaluate drivers' information needs for guide sign information on conventional rural highways. After conducting research and developing preliminary recommendations, the researchers and Texas Department of Transportation (TxDOT) staff began looking for a means to implement the findings. The need for implementation led to the development of the *TxDOT Sign Crew Field Book*. The intent of the field book is to make available a document prepared specifically for field crews that provides sign placement information in a manner that coordinates regulatory, warning, and guide signs and promotes statewide consistency.

The eight chapters of the *Sign Crew Field Book* provide information on the field placement of regulatory, warning, and guide signs; location and placement of object markers, delineators, and barrier reflectors; and location and installation of mailboxes. The field book does not supersede the MUTCD, but it provides additional guidance with respect

to standards, recommended practices, or other requirements established by TxDOT documents.

One of the crucial findings of the initial research activities was a need to provide drivers with more advance information at intersections. This has been accomplished by moving signs further from the intersection on the approach. [Figure 1](#) illustrates the typical sign placement distances on the intersection approach. Signs on the departure have also been moved further away. A "no sign zone" is another concept implemented through the field book. [Figure 2](#) illustrates the typical sign placement distances and the no sign zone on the intersection departure.

Since its initial publication, the *Sign Crew Field Book* has been one of the most popular documents distributed by the Traffic Operations Division. Greg Brinkmeyer, the project director for the research effort, says "The *Sign Crew Field Book* is one of the best documents that TxDOT has ever produced." It has been widely distributed to TxDOT maintenance sections



and can be found in almost every sign truck in the state. Area and district offices are also using the document when designing the sign portion of highway plans. A memo from Mike Behrens urges “that field and design personnel use the

guidance provided by the *Sign Crew Field Book* as they work to upgrade or install new sign and roadway marking installations.”

The *Sign Crew Field Book* was developed over a period of five

years. While Texas Transportation Institute (TTI) researchers were responsible for preparing the material in the field book based on the preliminary recommendations of the research, a panel of TxDOT and FHWA staff provided

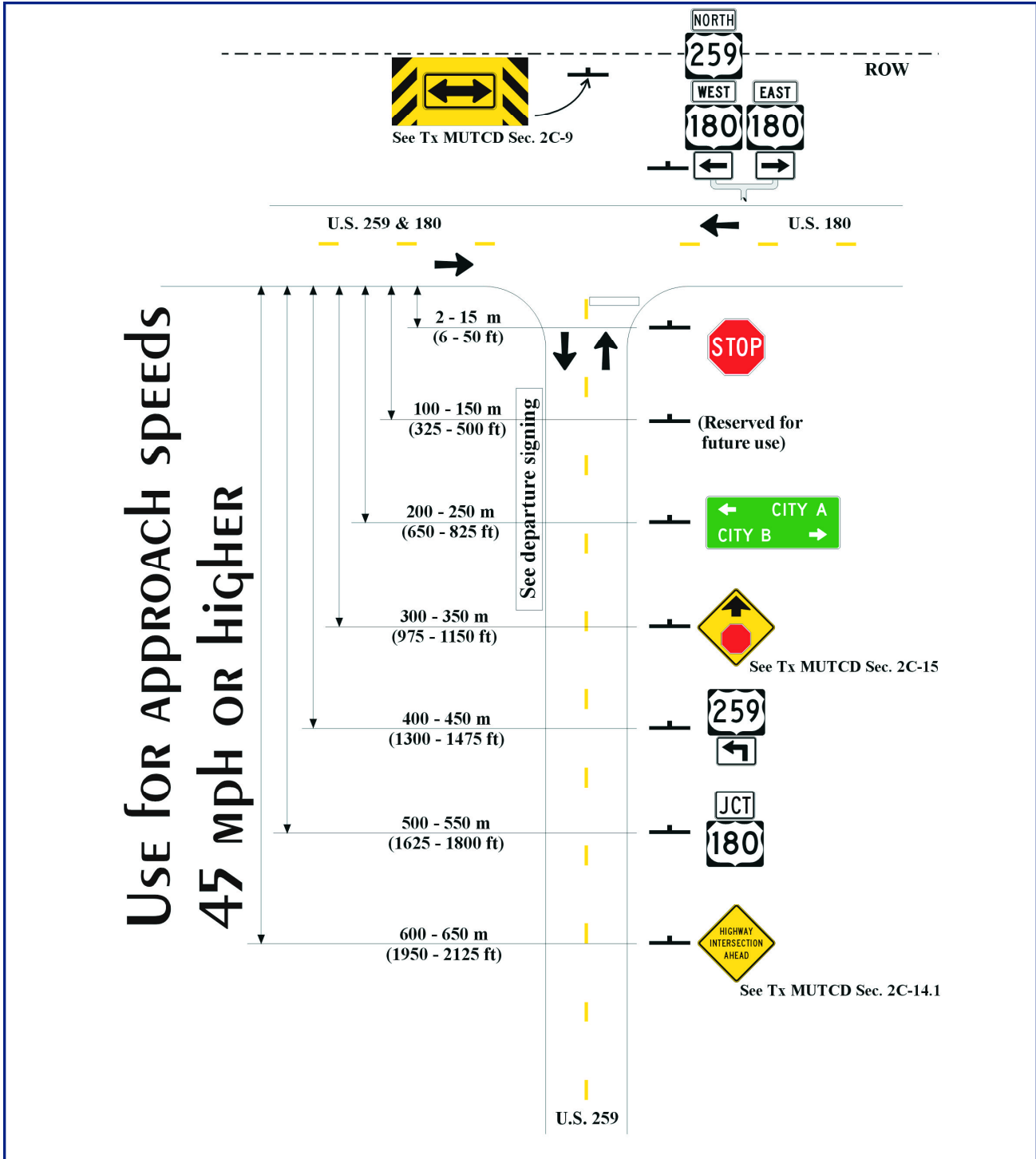


Figure 1. Sign placement on high-speed intersection approach



tremendous assistance in the development and review of the field book information. During the early development of the field book, the panel met on a near-monthly basis to review drafts and determine the content of the field book. The field

book would not have achieved the success it has without the contributions of the 32 TxDOT and FHWA individuals who attended meetings to review the document's content. The first edition of the field book was published in January

1997, with the second edition published in April 1998. The mailbox chapter was issued as a revision in January 2000, and the third edition will be published in the near future.

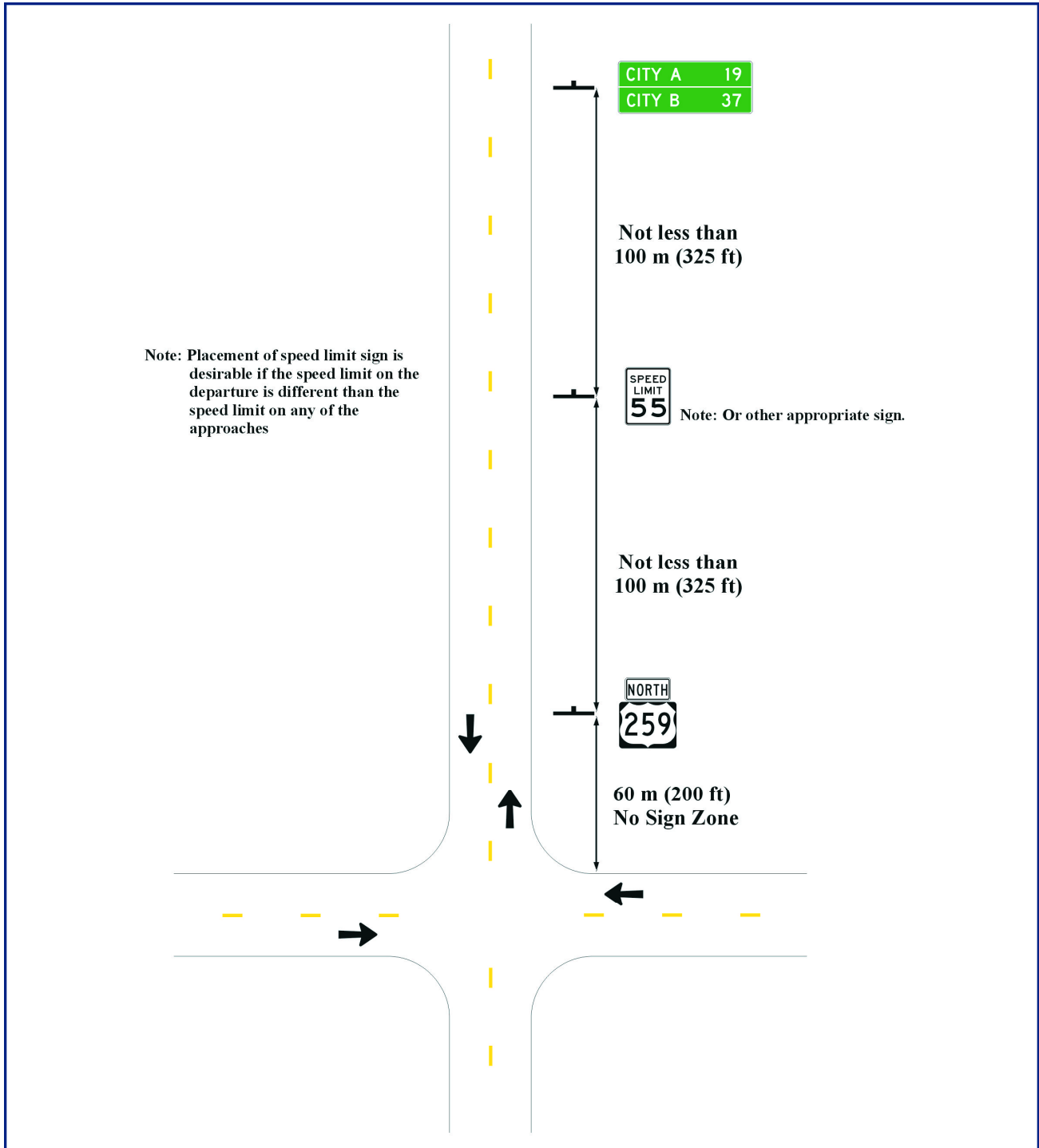


Figure 2. Sign placement on intersection departure



For More Details . . .

The *Sign Crew Field Book* is available from the TxDOT Traffic Operations Division. Contact Jeanne Black at (512) 416-3134 to order a copy of the field book.

The research is documented in the following two reports:

1373-1: *Evaluation of Rural Guide Signing: First Year Report*

1373-2: *Evaluation of Rural Guide Signing: Second Year Activities and Preliminary Recommendations*

Research Supervisor: H. Gene Hawkins, Texas Transportation Institute, gene-h@tamu.edu, (979) 845-6004

TxDOT Project Director: Greg Brinkmeyer, TxDOT–Traffic Operations Division, gbrinkme@dot.state.tx.us, (512) 416-3120

To obtain copies of the research reports, contact Dolores Hott, Texas Transportation Institute, Information & Technology Exchange Center, (979) 845-4853, or e-mail d-hott@tamu.edu. See our on-line catalog at <http://tti.tamu.edu>.

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by John Bassett, P.E.

As indicated in this report, this research is already widely implemented.

The *Sign Crew Field Book*:

- is in the hands of most, if not all, sign crews.
- is being used for the design of the sign portion for new highway plans.
- has strong support from the administration.

Contact: Dan Maupin, P.E., RTI Research Engineer, (512) 302-2363 or e-mail dmaupin@dot.state.tx.us

YOUR INVOLVEMENT IS WELCOME!

DISCLAIMER

This research was performed in cooperation with the Texas Department of Transportation (TxDOT) and the U.S. Department of Transportation, Federal Highway Administration (FHWA). The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of TxDOT or FHWA. This report does not constitute a standard, specification, or regulation, nor is it intended for construction, bidding, or permit purposes. Trade names were used solely for information and not for product endorsement. This report was prepared by H. Gene Hawkins, Jr., P.E. (TX-61509) and Paul J. Carlson, P.E. (TX-85402).