

Section 2.14

SIGNING FOR EVACUATION ROUTES

2.14.1 PURPOSE

To establish a uniform basis for erecting and maintaining evacuation route signs on the State Highway System.

2.14.2 BACKGROUND

- (1) Emergency management officials requested the Department to erect and maintain evacuation route signs on those portions of the State Highway System that comprise official evacuation routes to educate motorists as to the available routes and to ensure that signs are in place well in advance of the actual need to guide motorists away from high risk areas.
- (2) The Secretary of Transportation determined that evacuation route signs would be erected and in place on the State Highway System prior to the hurricane season (June through November). The Department of Community Affairs, Division of Emergency Management, the Department of Law Enforcement, the Florida Highway Patrol, the Department of Transportation State Safety office, and the Florida counties collectively developed statewide regional evacuation plans. Each regional plan includes the Traffic Management Element (routes and manpower), a sheltering element, and the public information element. The regional evacuation plans move evacuees from a high-risk location to a specific safer location (shelter, family residence, etc.).
- (3) In the absence of specific sign standards in the *MUTCD*, the Department with the guidance and concurrence of the Federal Highway Administration, determined that use of Modified CD-1 Evacuation Signs, removing the CD symbol and arrow and adding the weather symbol for a hurricane, was appropriate.

2.14.3 PROCEDURE

- (1) The State Traffic Operations Engineer will obtain a hurricane regional evacuations plan showing the approved routes and a listing of County Emergency Management Directors for the Department of Transportation's Emergency Coordinating Officer, and shall forward them to the appropriate District Traffic Operations Engineer.

- (2) The District Traffic Operations Engineer shall initiate the actions necessary at the district level to implement these guidelines and that evacuation routes are properly and promptly signed. District Maintenance will ensure that the signs are erected and maintained in the field.
- (3) The District Traffic Operations Engineer shall contact the County Emergency Management Director and coordinate state signing efforts through the Emergency Management Director with the appropriate local governments.
- (4) Subsequent signing changes necessitated by Department of Community Affairs, Division of Emergency Management approved changes in evacuation routes shall be handled by the District Traffic Operations Engineer upon request of the regional counties coordinated through the Department's Emergency Coordination Officer.
- (5) Technical questions regarding evacuation routes may be directed to the Department of Transportation's Emergency Coordinating Officer (State Safety office).

2.14.4 SIGN DESIGN

- (1) The EVACUATION ROUTE (**FTP-53**) sign shall conform to the **Department's Roadway and Traffic Design Standards, Index No. 17355**.
- (2) Either a 18 or 24-inch diameter **FTP-53** sign may be used by local governments to indicate roads or streets under local jurisdiction as official evacuation routes.
- (3) The 24-inch diameter **FTP-53** sign shall be used by the Department to indicate roads on the State Highway System as official evacuation routes. A 36-inch diameter sign shall be used on limited access highways.
- (4) Where **CD-1** evacuation signs have already been erected by local governments on city streets or county roads, they should be replaced with the **FTP-53** signs whenever the **CD-1** signs require routine replacement; i.e., due to wear, crashes, vandalism, etc. However, on state highways, they shall be replaced by the Department with the 24-inch diameter **FTP-53** signs as part of the initial installation process.
- (5) Local governments may obtain design details for the manufacturing of evacuation route signs from the District Traffic Operations Engineer or from the Department's Roadway Design Office, 605 Suwannee Street, M.S. 32, Tallahassee, Florida 32399-0450, telephone (850) 414-4310.

2.14.5 SIGN USE

- (1) The **FTP-53** sign shall be used exclusively to sign along regional evacuation routes that have been so designated on the approved statewide regional evacuation route plans recorded by the Department of Community Affairs, Division of Emergency Management.
- (2) The **FTP-53** sign shall be used to guide motorists along the regional evacuation routes to shelter destinations away from potential high-risk areas; i.e., signs shall be posted to guide traffic along the approved routes.
- (3) The sign shall comply with applicable provisions of the **MUTCD**.

2.14.6 SIGN PLACEMENT

- (1) Signs shall be placed in accordance with existing Department standards and be consistent with the **MUTCD** and safety criteria.
- (2) The EVACUATION (**FTP-53**) sign with stock **M6** arrow plate, where appropriate, shall be erected 150 to 300 feet in advance of, and at any turn in an approved evacuation route and elsewhere for straight-ahead confirmation, if needed. The signs shall be mounted according to height and lateral clearances specified in the **Department's Roadway and Traffic Design Standards Index No. 17302**.

2.14.7 SIGN INSTALLATION

- (1) Signs shall be furnished, erected, and maintained by the Department on official evacuation routes that are on the State Highway System.
- (2) Signs shall be erected only at locations reviewed and approved by the District Traffic Operations Engineer to insure that such signs do not interfere with existing traffic control devices.

2.14.8 SHELTER AND TRAVELER INFORMATION SIGNING

- (1) The statewide emergency evacuation plan must compliment both local and regional evacuation plans. In order to assist in this effort, shelter signing and emergency evacuation traveler information is included in this section.
- (2) The State Traffic Operations Engineer will coordinate, address, and implement operational concerns on evacuation route signing and related operational needs with the Safety office and other offices within the Department and with the Department of Community Affairs, Division of Emergency Management.

- (3) The District Traffic Operations Engineers will coordinate evacuation shelter signing efforts on a districtwide basis. If signing for shelters or evacuation traveler information is required, the use of the signs must be included in the CEMP (**C**omprehensive **E**mergency **M**anagement **P**lan) area/regional evacuation plan. The plan should assign responsibility for turning the “flip up” signs up during emergency conditions, and back down when conditions return to normal.
- (4) Shelter signing will be erected on limited access highways at key locations. The location determination shall be a joint effort between the District Traffic Operations Engineer and the local agencies.
- (5) Signs will be installed under the following conditions:
 - (a) the shelter location is part of the regional plan;
 - (b) the local agency shall purchase the signs;
 - (c) the local agency shall be responsible to “flip-up” or “flip-down” the signs pursuant to their needs.

2.14.9 SHELTER SIGN DESIGN AND USE

- (1) The color for shelter signs will be blue background with white legend and directional arrow.
- (2) The type of shelter signing support used on the State Highway System, portable (temporary), or permanent, will be determined by the District Traffic Operations Engineer.
- (3) The sign designs for shelters are shown in **Figure 2.14-1** for permanent signing and **2.14-2** for temporary. The permanent design will use a “flip up” design as shown in **Figure 2.14-4**. This means the bottom panel will be flipped up to reveal the shelter message. The Safety Belt Symbol Sign shall be used as the default message for shelter signs.

2.14.10 TRAVELER INFORMATION SIGNING DESIGN AND USE

- (1) The Traveler Information sign shall have a blue background with a white legend. The exact sign detail is shown in **Figure 2.14-3**.
- (2) When the local/regional CEMP plan includes the use of traveler information on local shelters and other evacuation information, and a local radio station has a written agreement to be the official traveler information station, the frequency of the station may be signed for on the interstate system. This can be done with

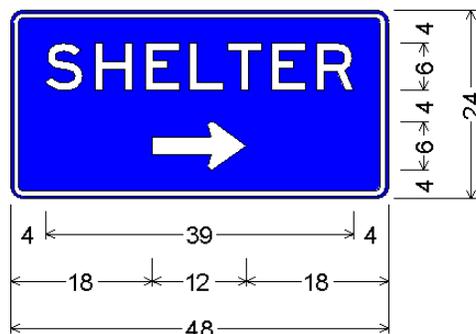
Changeable Message Signs, or with permanent flip up signs as shown in **Figure 2.14-3**. A default message for the "flip up" sign shall be the Safety Belt Symbol sign.

Figure 2.14-1. Permanent Shelter Signing



Sign Width (inches)	Sign Height (inches)	Letter Series	Arrow Size (inches)
48	48	8C	24 x 12
36	48	6C	18 X 9
24	30	4C	12 x 6

Figure 2.14-2. Portable Shelter Sign



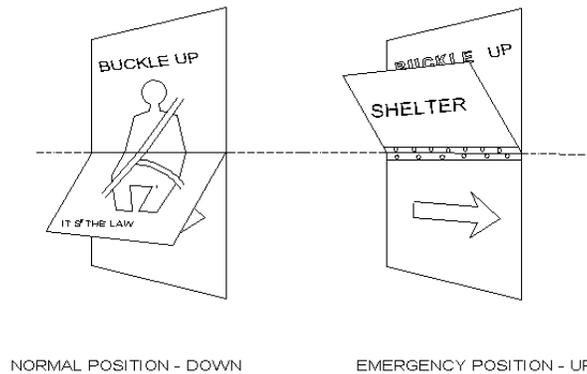
Portable Shelter Sign;
 2" Radius, 1" Border, 0" Indent, White on Blue;
 "SHELTER" E;
 Standard Arrow Custom 12" X 6" 0°;

Figure 2.14-3. Traveler Information Sign



Sign Width (inches)	Sign Height (inches)	Letter Series
48	48	6E
36	48	5C

Figure 2.14-4. Flip Up Sign



2.14.11 CONTINUOUS HINGE REQUIREMENTS

The continuous hinge shall be of stainless steel, with minimum .060-inch leaf thickness, 2-inch open width and .120 pin diameter. The hinge shall be attached to the aluminum sign panels with 1/8-inch stainless steel pop rivets installed on 4-inch centers for the width of the sign. The pin must be permanently located in place by shortening the pin at each end of the hinge and staking the ends of the two outboard knuckles.

Two sources for these hinges are:

H.A. Guden Co.	(800) 344-6437	FAX (516) 737-2933
Stanley Co.	(800) 622-4393	FAX (800) 445-5723

2.14.12 RADIO FREQUENCY INFORMATION SIGNS

The addition of radio frequency information signs along evacuation routes on the State Highway System has been approved by the Department as an important communication link for public safety during evacuation periods. The addition of these signs was made possible when Florida Public Radio Stations volunteered to partner with other state and local agencies in the state's evacuation efforts.

2.14.12.1 Radio Frequency Information Sign Design

The exact sign details for the radio frequency signs are shown in **Figure 2.14-5** for limited access highways and in **Figure 2.14-6** for non-limited access highways.

2.14.12.2 Radio Frequency Information Sign Placement

- (1) The Radio Frequency Information Sign will be placed at the following locations:
 - (a) All limited access highways classified as evacuation routes.
 - (b) Principal non-limited access highways in areas where limited access highways are not the main evacuation routes.
 - (c) Principal non-limited access highways that are critical links leading to limited access highways.
- (2) Limited access highways will consist of a 36-inch **FTP-53** sign and a 36 x 24-inch Radio Frequency Information sign (**Figure 2.14-5**). This sign assembly will be positioned near county lines (where radio coverage is present) and where radio frequency coverages change. When overlap occurs, the frequency motorists would be driving into is the correct frequency to sign.
- (3) Evacuation routes on the State Highway System non-limited access highways are currently signed with the 24-inch **FTP-53** signs. A 24 x 18-inch Radio Frequency Information sign (**Figure 2.14-6**) will be attached to the existing sign assembly in the above mentioned locations erected close to the county lines or coverage area changes are to be modified with the addition of the radio frequency panel. Additional locations to be modified are the beginning and termination points of qualifying links.

Figure 2.14-5. Radio Information Sign Detail - Limited Access Highways

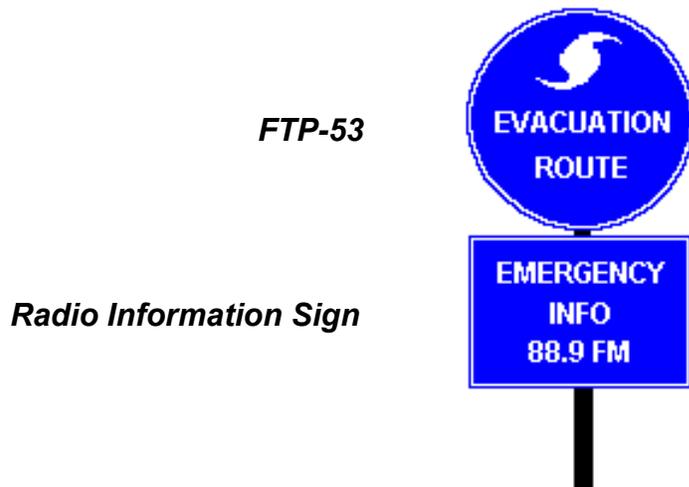


Figure 2.14-6. Radio Information Sign Detail - Non-limited Access Highways



- (4) When long segments occur on both limited access and non-limited access highways, confirmation signs should be installed at 10-mile increments.
- (5) **Figure 2.14-7** depicts the new Evacuation Route sign assembly.
- (6) **Figure 2.14-8** represents the general statewide radio coverage area for this program.

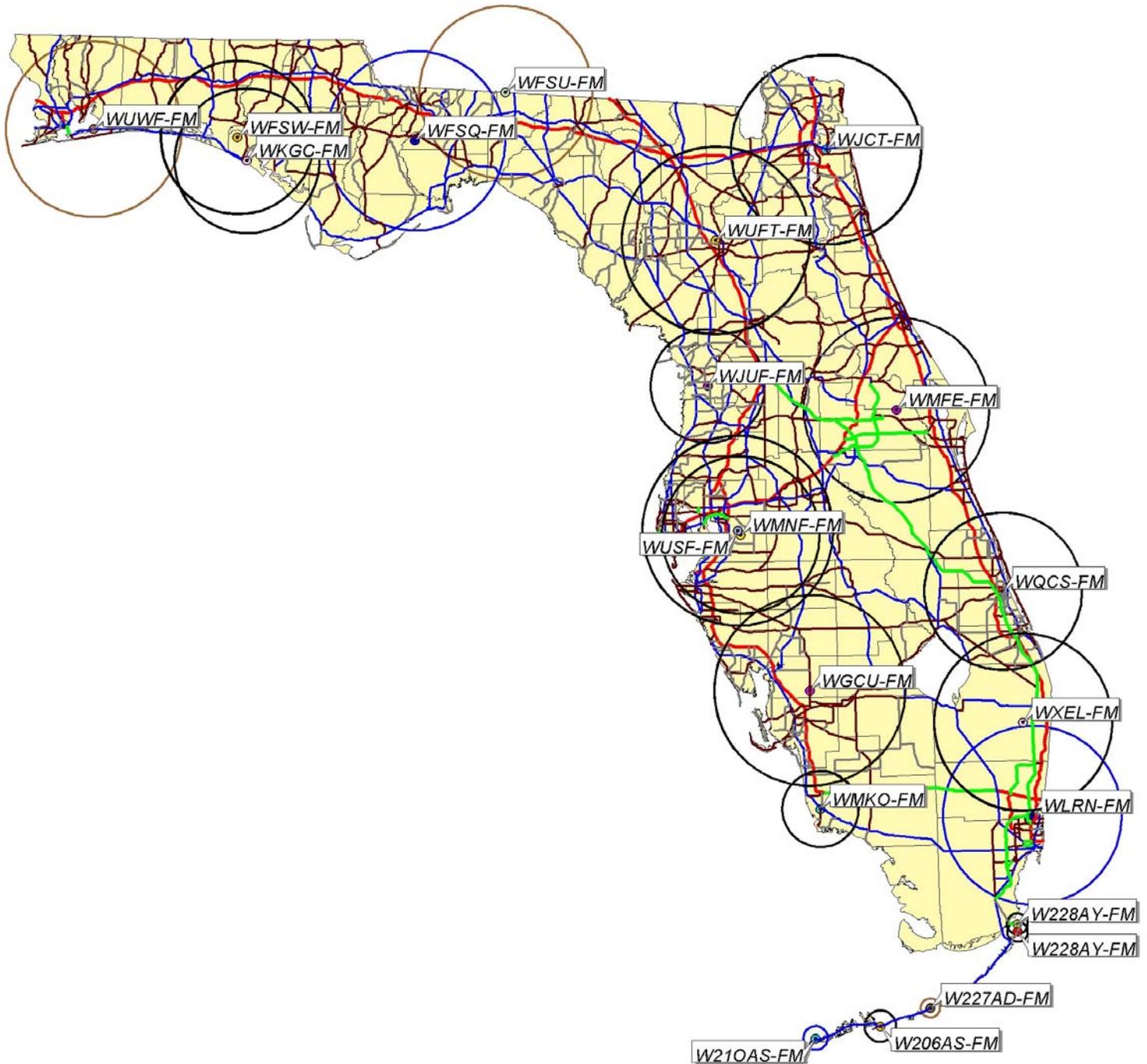
Figure 2.14-7. Complete Evacuation Sign Assembly



2.14.12.3 Radio Frequency Information Sign Installation

- (1) Exact sign locations are to be determined by the District Traffic Operations Engineer. Work orders should be prepared using the usual procedures for installation by Department Maintenance forces.
- (2) The signs shall be mounted according to height and lateral clearances specified in the **Department's Roadway and Traffic Design Standards Index No. 17302**.
- (3) In some cases, the mounting height resulting from attaching an additional panel to an existing sign may be less than the required 7 feet. In rural roadside areas, this situation still meets requirements, however, in urban areas where pedestrians are present, the support must be modified to maintain the required height.

Figure 2.14-8. Evacuation Route Coverage Area



2.14.13 EVACUATION SIGN MESSAGES

The standardization of messages is needed to provide uniform information to motorists during emergency evacuations throughout the State. These standard messages for Dynamic Message Signs (DMS) both portable and fixed, and standard static signs are to be used only during emergency evacuations when orders are issued to implement either shoulder or one-way operation on limited access highways in Florida.

2.14.13.1 Shoulder Operation

- (1) Shoulder operation shall not be used when the one-way operation is in effect and operational.
- (2) Both phases of the DMS message for the Shoulder Operation Begin Here sign is shown in **Figure 2.14-9**. This sign is to be used at specific locations where the use of the shoulder for through traffic is allowed during an emergency evacuation.

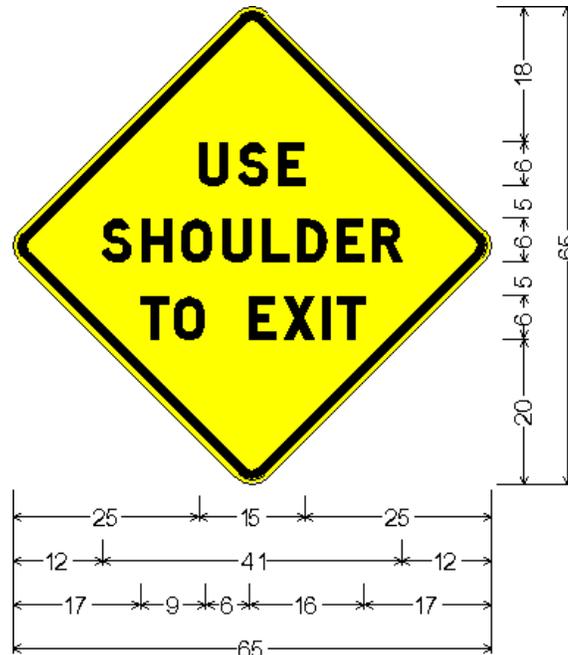
Figure 2.14-9. Shoulder Operation Begin Here Sign (DMS)	
Phase 1	Phase 2
TRAFFIC	BEGIN
USE	HERE
SHOULDER	

- (3) Both phases of the DMS message for the Shoulder Operation Must Exit sign is shown in **Figure 2.14-10**. This sign is to be used to terminate the use of the shoulder for through traffic.

Figure 2.14-10. Shoulder Operation Must Exit Sign (DMS)	
Phase 1	Phase 2
SHOULDER	MUST
TRAFFIC	EXIT AT
	EXIT XXX

- (4) The Use of the Shoulder to Exit sign is shown in **Figure 2.14-11**. This static sign is to be used in advance of an interchange exit to inform motorists to use the shoulder to exit. This sign shall be 48 inches wide with a black legend and yellow background. The sign shall be located on the right shoulder in advance of the exit ramp in accordance with the emergency evacuation implementation plans.

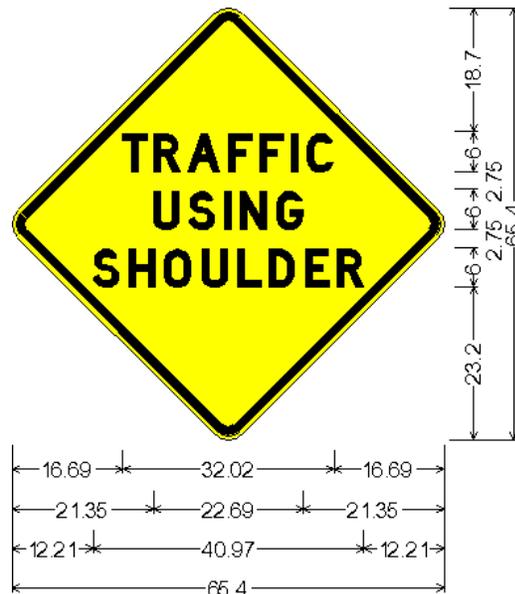
Figure 2.14-11. Use Shoulder to Exit Sign (Static)



Use Shoulder to Exit Sign;
48" across sides 3" Radius, 1" Border, 1" Indent, Black on Yellow;
"USE" D; "SHOULDER" D; "TO EXIT" D;

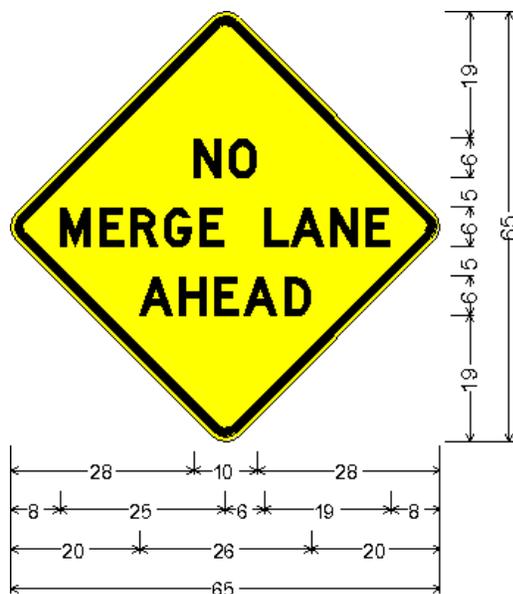
- (5) The Traffic Using Shoulder sign is shown in **Figure 2.14-12**. This static sign shall be used on the entrance ramp to WARN motorist that the limited access highway shoulder is being used for through traffic. The sign is to be located on both the right and left side of the roadway near the beginning of the entrance ramp. This sign shall be 48 inches wide with a black legend and yellow background.
- (6) The No Merge Lane Ahead sign shown in **Figure 2.14-13**. This static sign shall be used to warn motorists that there is **no** room to merge onto the limited access highway. This sign shall be 48 inches wide with a black legend and yellow background. The sign is to be located on both the right and left sides of the ramp, before the entrance ramp gore.

Figure 2.14-12. Traffic Using Shoulder Sign (Static)



Traffic Using Shoulder Sign;
 48.00" across sides 3.00" Radius, 1.25" Border, 0.63" Indent, Black on Yellow;
 "TRAFFIC" D; "USING" D;
 "SHOULDER" D;

Figure 2.14-13. No Merge Lane Ahead Sign (Static)



No Merge Lane Ahead Sign;
 48" across sides 3" Radius, 1" Border, 1" Indent, Black on Yellow;
 "NO" D; "MERGE LANE" D; "AHEAD" D;

2.14.13.2 Dynamic Message Signs (DMS)

- (1) The flashing of any DMS legend is prohibited. There shall not be more than two phases displayed on any DMS.
- (2) All DMS signs used (both portable and permanent) shall be on the ***Department's Approved Product List***.

2.14.13.3 Location of DMS and Static Signs

- (1) The exact location of the DMS and static signs will be determined as part of the emergency evacuation implementation plans for limited access highways that are developed in each District.
- (2) Static signs shall be mounted according to height and lateral clearances specified in the ***Department's Roadway Design and Traffic Standard Index No. 17302***.