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# PRACTICE NOTE

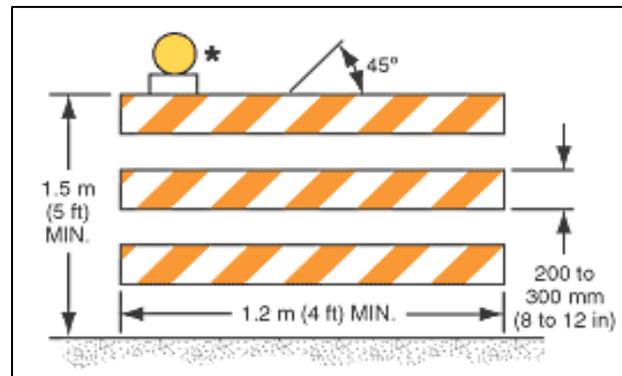
## Mass Evacuation: Virginia Department of Transportation's Installation of Hurricane Gates

### PRACTICE

The Virginia Department of Transportation (VDOT) has installed hurricane gates to close ramps along the contraflow lanes of Interstate 64 (I-64) during a contraflow evacuation of the Hampton Roads area.

### DESCRIPTION

If a major emergency threatens the Hampton Roads region of southeast Virginia, the governor of Virginia could order VDOT to reverse (i.e. contraflow) I-64's eastbound lanes so motorists could use all lanes to evacuate westward. VDOT would block off most eastbound ramps before implementing contraflow on I-64. VDOT had planned to close those ramps with Type III barricades, which require flatbed trucks to transport and maintenance crews to install. At a June 20, 2006, exercise, VDOT teams required an average of only 90 minutes to deploy and to close their assigned ramps. However, VDOT planners anticipated that these same tasks would have taken 3 to 4 hours to complete on a weekend, when maintenance crews would have been off-duty and at home.



Type III Barricade

Source: [The Manual on Uniform Traffic Control Devices \(MUTCD\)](#)

In August 2006, VDOT installed hurricane gates at the end of all ramps that would be closed for the I-64 contraflow operation. VDOT had learned about the concept from the Georgia Department of Transportation, which installed similar "drop gate barricades" along its contraflow evacuation route in 2002. Virginia's hurricane gates resemble railroad crossing arms and would prevent traffic from entering or exiting the interstate when lowered. When the governor authorizes contraflow operations, VDOT personnel will unlock and lower the



Hurricane Gates at an I-64 Eastbound Ramp

gates at their assigned ramps. VDOT, Virginia State Police, and Virginia National Guard personnel will staff these ramps as an added safety precaution.

The new hurricane gates will replace Type III barricades during ramp closures. Blocking a ramp with hurricane gates does not require VDOT to mobilize flatbed trucks and entire crews, so using the gates will reduce the time needed to prepare I-64 for contraflow. VDOT planners estimate that maintenance personnel will now be able to close those ramps in only 1 to 2 hours on a weekend. However, VDOT still plans to use Type III barricades to close the ends of these ramps that adjoin the secondary routes since gates were only installed on the interstate-adjacent ends of these ramps.

#### **CITATION**

Hanshaw, Stephany. Facility Manager, Hampton Roads Smart Traffic Center, Virginia Department of Transportation. Interview with *Lessons Learned Information Sharing*. 27 Sep 2006.

Virginia Department of Transportation. *Hampton Roads Hurricane Traffic Control Plan*. Jun 2006.

[https://www.llis.dhs.gov/member/secure/detail.cfm?content\\_id=18931](https://www.llis.dhs.gov/member/secure/detail.cfm?content_id=18931)

Virginia Department of Transportation. *Virginia's Hurricane Evacuation Routes: Hurricane Gates on I-64*. Aug 2006.

<http://www.virginiadot.org/comtravel/hurricane-evac-default.asp>

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