



I-95 Corridor Coalition

Best Practices for Border Bridge Incident Management *Executive Summary*



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COALITION**

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Executive Summary

Prepared for:

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INTRODUCTION

Successful incident management entails a series of activities carried out by personnel from a variety of transportation and emergency management agencies. These agencies typically include police, fire, 911 dispatch, towing and recovery, emergency medical service (EMS), transportation agencies, and the regional media. Cooperation, coordination, and communication between these agencies are vital to the success of the incident management program.

Where incident management traverses state boundaries, the number of agencies involved in the program increases significantly, as transportation and emergency management agencies from all states near the border are involved in responding to incidents. This is especially the case at border bridges, such as the Woodrow Wilson Bridge (WWB), which connects the State of Maryland, the Commonwealth of Virginia, and the District of Columbia along the Capital Beltway segment of Interstate 95.

PROJECT SUMMARY

The objective of this project was to identify best practices for inter-jurisdictional operational procedures for bridges that cross borders between states and regional/local jurisdictions. The final report documents the process, methodology, lessons learned, and results of the inter-jurisdictional work that has been done between Virginia, Maryland, and Washington, D.C. regarding incident management on the Woodrow Wilson Bridge. Focus was placed on protocols for incident response, location, identification and verification; cross-border Dynamic Message Sign (DMS) coordination; bridge jumper protocol; quick clearance strategies; responder safety; towing guidelines; and coordination of weather-related or emergency maintenance services.

The Woodrow Wilson Bridge is a drawbridge over the Potomac River within the Washington, D.C. Metropolitan Area. Located on I-495/I-95, the bridge connects Northern Virginia (City of Alexandria) with Maryland (Prince George's County). More than 200,000 vehicles per day cross the bridge and congestion is a daily problem. An effective incident management program is necessary for the WWB, which currently operates at capacity during peak travel periods and is classified in the top 10 high accident locations on the Capital Beltway. A new 12-lane bridge structure is currently being built to replace the original Woodrow Wilson Bridge. When the new WWB is completed, it will accommodate 300,000 vehicles per day on two parallel structures containing local, express, and HOV/transit lanes in both the northbound and southbound directions.

Incident Management Roles, Responsibilities, and Relationships

Incident management activities on the Woodrow Wilson Bridge require the skills and expertise of a diverse group of agencies including: (1) law enforcement, (2) fire and rescue, (3) emergency medical services, (4) transportation agencies, (5) towing and recovery service providers, (6) media, and (7) information service providers from

Maryland, Virginia, and the District of Columbia at both the statewide and local level. Detailed discussion of the roles and responsibilities of these agencies, which are based on the FHWA Incident Management Handbook, are provided in the final report.

Incident management on the Woodrow Wilson Bridge has been successful because of the relationships that agency staffs have fostered. As part of the Woodrow Wilson Bridge Construction Project, agency staffs from Maryland, Virginia, and the District of Columbia meet on a monthly basis to discuss incident management on the Woodrow Wilson Bridge. Additionally, Maryland and Virginia Freeway Service Patrols have daily interactions – both professional and personal – with the state police. Such relationships are important because they provide personnel responding to incidents the opportunity to develop trust and understanding with their counterparts. Simply put, these relationships allow the various agencies to confide and support one another.

Training is another vital component of a successful incident management program. Maryland, Virginia, and the District of Columbia transportation and emergency management agencies conduct numerous training activities to help facilitate incident management not only on the Woodrow Wilson Bridge, but in the entire Washington, D.C. Metropolitan Area. These activities include the National Highway Institute (NHI) Unified Incident Command Course, the American Traffic Safety Services Association Course for Emergency Traffic Control, an Annual Incident Management Conference, and agency cross-training exercises.

Border Bridge Incident Management Activities

Border bridge incident management activities, although similar to incident management activities on interstate highways, require additional cooperation and coordination because more transportation and emergency management agencies are involved in the process. Border bridge incident management includes a series of activities, carried out by personnel from a variety of response agencies and organizations. A detailed description of the Woodrow Wilson Bridge incident management process is provided in the final report. The process includes: (1) detection, (2) verification, (3) traveler information, (4) response, (5) site management, (6) traffic management, (7) clearance, (8) weather/maintenance management, (9) 511 coordination, and (10) bridge jumpers.

Communications

Communication is the most vital aspect of border bridge incident management. While the overall incident management process remains the same, the level of coordination increases for border bridge scenarios. Several more agencies are involved in the border bridge incident management process and these agencies need to communicate. Two key areas of communication are necessary to effectively handle border bridge incidents: (1) Center-to-Center Communications, and (2) Field Communications.

The primary source for Center-to-Center Communications for the Woodrow Wilson Bridge is currently via telephone and email. Although this form of communication has been sufficient in the past, the various agencies in the region understand the benefits of

automated communications using systems. Some agencies have begun sharing information from their operating systems with others in the region. Additionally, the Metropolitan Washington, D.C., region is taking a proactive role in improving information sharing amongst stakeholder agencies. The University of Maryland's Center for Advanced Transportation Technology (CATT) Laboratory has taken the lead in developing RITIS. This system will help to improve the transportation efficiency, safety, and security through the integration of existing transportation management systems.

Field Communications allow personnel in the field to communicate with one another and to their appropriate Traffic Management Center/Emergency Operations Center (TMC/EOC). Field personnel responding to incidents on the Woodrow Wilson Bridge generally use Nextel phones and/or radios for communication. Maryland and Virginia State Police agencies utilize radio communications, such as 800 MHz radios, for communications between field units and their dispatch centers. While incident management activities on the Woodrow Wilson Bridge have benefited from Nextel phones and radio communications, an effort for regional wireless communication is also taking place. The Capital Wireless Integrated Network (CapWIN) is developing an interoperable first responder data communication and information sharing network. It is a unique program, which created the first multi-state and multi-discipline, interoperable public safety and transportation wireless data system in the United States.

Incident Management for the Woodrow Wilson Bridge Project

The various agencies involved with incident management on the Woodrow Wilson Bridge have taken a proactive role toward incident management during the long-term construction project. Prior to the beginning of the project, an Incident Management subcommittee comprised of public safety agencies with incident management responsibilities along the bridge was organized for the purpose of identifying strategies to enhance incident management during and after construction of the Woodrow Wilson Bridge project. A charter, suggested work program, schedule, and approval process were set forth to provide a framework that allowed for meaningful and timely input by all personnel. These items are discussed in more detail in the final report.

Other Regions That May Benefit

Several regions in the I-95 Corridor Coalition can benefit from the research conducted for and provided in the Best Practices for Border Bridge Incident Management Final Report. Any multi-state or multi-jurisdictional borders that span geography such as rivers or canyons and involve physical structures such as bridges and tunnels will find this report applicable. In particular, there are a number of regions in the corridor with border bridge crossings and these regions are identified in the report.

CONCLUSIONS

An evaluation of roles, responsibilities, and activities indicates that incident management operations for border bridges are similar to those on non-border bridges,

although they require additional cooperation and coordination because the process necessitates agencies from adjacent states to work and train together. The additional efforts of those agencies are primarily in the areas of detection, verification, traveler information, response, site management, traffic management, and clearance. There are several areas within the I-95 Corridor Coalition that may benefit from the research conducted for this report and provided here. These regions are those with multi-state and/or multi-jurisdictional borders that span geography such as rivers or canyons and involve bridges and/or tunnels across the border.

A successful border bridge incident management program requires a champion(s) to lead the program. These champions take a proactive role in establishing the incident management program and engage other transportation and emergency management agencies into the program.

A mix of high-tech and low-tech solutions is also important for the success of the program. Major deployments such as transportation management centers, dynamic message signs, highway advisory radios, interoperable information sharing systems, and freeway service patrol units can provide several benefits for an incident management program, albeit at a high cost. At the same time, low-tech solutions such as developing operational agreements, providing training sessions, and exchanging telephone numbers can be equally as important to the program.

Planning, communication, and implementation of written guidelines and procedures that have been agreed upon by the responsible parties are essential elements of a border bridge incident management program. Guidelines and procedures clearly delineate roles and responsibilities for tasks to be completed when an incident occurs.

Regardless of the activities involved, breaking barriers between agencies and building relationships between transportation and emergency management counterparts are the most vital aspects of developing a border bridge incident management program. Cooperation, coordination, and communication are the building blocks for a border bridge incident management program, and a successful program relies on trust and understanding of all agencies and personnel involved.