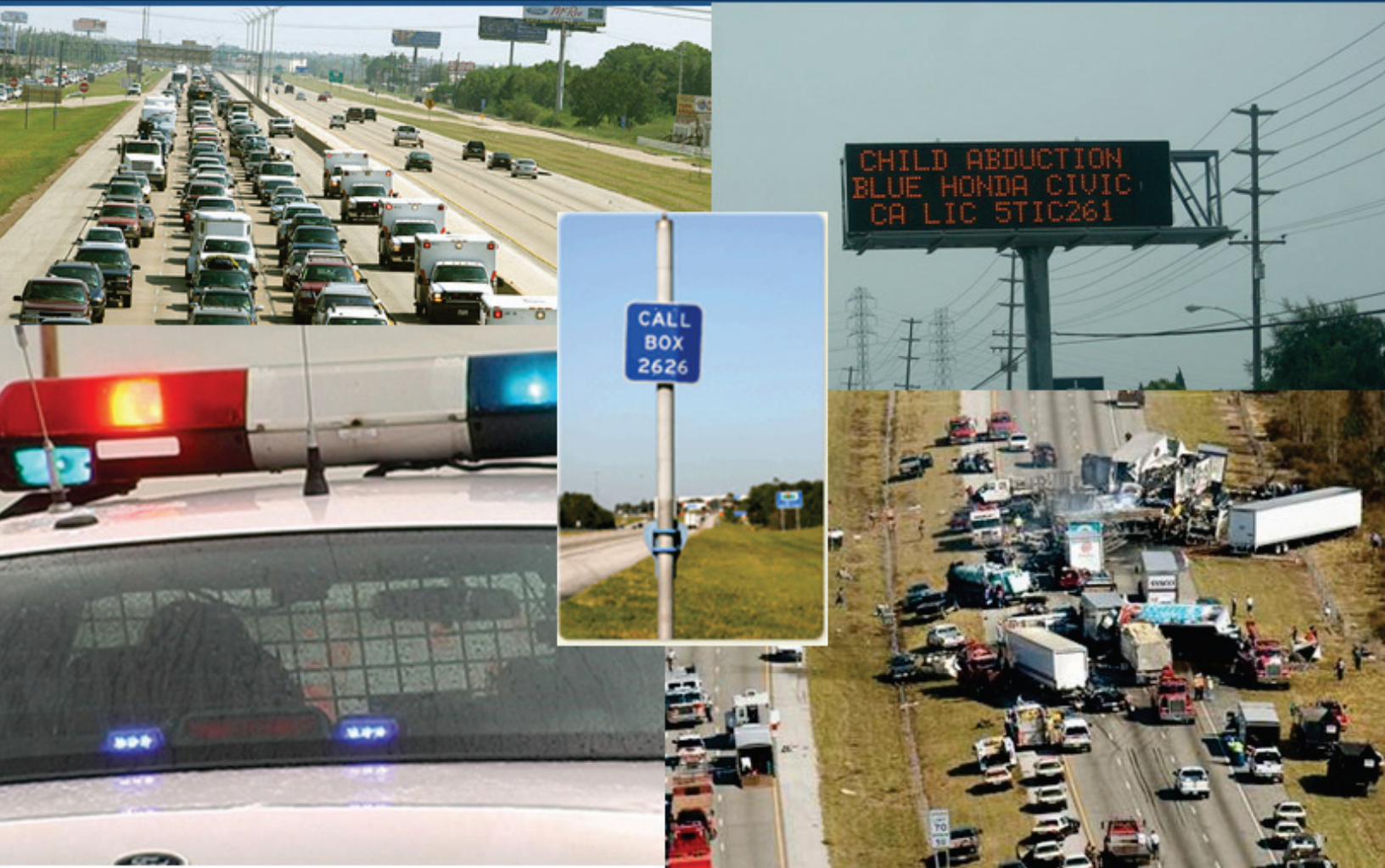# Considering
Security and Emergency Management
in the
Planning of Transportation Projects

A Guide for Planners of
New Transportation Projects

ACKNOWLEDGEMENTS

THIS PAGE NOT USED

CONTENTS

APPENDICES:

THIS PAGE NOT USED

INTRODUCTION

The world has come to understand, since September 11, 2001, that we simply cannot stop the determined terrorist if he/she really wants to destroy an item of transportation infrastructure. However, there are measures that can be taken to minimize the possibility and mitigate potential consequences.

This guide has been developed to increase the awareness of the transportation infrastructure project community, especially those individuals working for a State Department of Transportation (DOT) or a regional Metropolitan Planning Organization (MPO), about security and emergency management. The intended primary audience is those individuals – **planners of new projects** – responsible for developing new highway-related infrastructure projects. For the purpose of this guide, a "planner of new transportation projects" may be someone responsible for:

- Developing the project's initial concept.
- Designing the project.
- Reviewing the project specifications.
- Simply assisting with the project development.

The principles discussed herein, while provided for project planners as described above, can certainly be used by any transportation planner, whether that person is:

- Conducting long term or strategic planning.
- Looking at specific transportation improvement programs (TIP).
- Conducting regional and corridor planning, with municipality, other regional, MPO and/or State project planners.
- Developing plans for retrofitting or replacing existing infrastructure.

It is important for the user to understand that the information resources contained in this guide are not all-inclusive of what is currently available. A variety of references that discuss in greater detail transportation-related concepts of security and emergency management already exists – and we are not attempting to restate all of that in this guide. Appendix A contains a list of potential references that project planners may find useful.

Security and emergency management have some basic similarities. While security is normally considered in the realm of prevention and protection related to man-made incidents, when steps are taken to reduce the impact of such incidents on our transportation infrastructure, such measures may also act to mitigate the effects of a natural disaster. Emergency management generally includes preparedness, and the sets of steps undertaken when a government or organization responds to and recovers from a natural or man-made incident. Project planners and their partners should consider an all-hazards approach in their planning efforts because security and emergency management concepts and measures complement each other.

Emergency Management

State DOT and MPO project planners may be familiar with emergency management organizations' use of transportation infrastructure prior to and in response to emergencies and disasters, e.g.:
- Evacuation of the public prior to a hurricane.
- Response by fire departments and law enforcement organizations after a hazardous materials accident.
- Actions taken to prevent the loss of life of persons stranded following a blizzard.

It is also likely that some State DOTs and MPOs already consider some aspects of emergency management when discussing and planning projects. However, some may not, for a variety of reasons, possibly including:
- Erroneously believing that including emergency management in planning is "too hard to do."
- Not knowing how or where to start, because they lack a close working relationship with the State, regional or local emergency management organizations.
- Limited exposure to a significant risk of broad-impact disasters, such as hurricanes.

However, as DOTs become increasingly familiar with the National Response Framework (NRF) and, more directly, Emergency Support Function (ESF) 1 – Transportation, they are developing a closer working relationship with both the State Emergency Management Agency (EMA) and the agencies supporting ESF 1. This growing relationship should bring an increase in the awareness of transportation project planners concerning measures that enhance emergency management preparedness and response and recovery operations. Very likely, MPOs would play an important role working with State DOTs, because of in-depth knowledge of regional demographics and needs following a major disaster.

Security

Transportation infrastructure project planners are generally not as familiar with how to involve security considerations when developing new infrastructure projects. While awareness of the need for infrastructure protection and other aspects of security have increased over the last decade, complacency and shrinking budgets may have taken their toll.

As with emergency management, few transportation project planners consider aspects of security when planning projects. This could be for a variety of reasons, including:
- Not knowing where or how to start, because they do not have a close working relationship with those agencies and individuals that work in the security arena at State, regional or local governments.
- The lack of significant risk of terrorism incidents in their State or region minimizes the perceived need to include security considerations when planning.
- Lacking a habitual infrastructure planning partnership between local, tribal, regional/MPO, State and/or Federal law enforcement organizations.

States conduct risk and threat assessments, especially since September 2001, to determine what prevention, protection and preparedness measures may be required for a variety of structures and infrastructure, including those that are integral to their transportation system: bridges, tunnels, highways, rail and aviation facilities, and so forth, yet the results are not necessarily sent to transportation project planners that are designing new infrastructure projects.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) calls for the security of the transportation system to be a stand-alone planning factor, signaling an increase in importance from prior legislation, in which security was coupled with safety in the same planning factor. Some specific references in the Act include:

- **§135**(d)(1)(C) **Statewide transportation planning** SCOPE OF PLANNING PROCESS—IN GENERAL—Each State **shall carry out** a statewide transportation planning process that provides for consideration and implementation of projects, strategies, and services that will—"increase the security of the transportation system for motorized and nonmotorized users; …"
- **§5303**(h)(1)(C) **Metropolitan transportation planning** SCOPE OF PLANNING PROCESS—IN GENERAL—The metropolitan planning process for a metropolitan planning area under this section **shall provide** for consideration of projects and strategies that will—"increase the security of the transportation system for motorized and nonmotorized users; …"

This change recognizes that the incorporation of critical elements of transportation security is an essential part of the project planning process. The Federal Highway Administration (FHWA) is committed to working with State DOTs, MPOs and other transportation planning process partners in order to promote a secure transportation system.

Organization of this Guide

The specific security and emergency management measures a particular State or MPO might consider depends on the:

- Unique circumstances of a given State or region.
- Transportation system in use in that specific area/region.
- Level of risk the impacted governments are willing to accept.
- Costs of implementing such measures in light of possible budget limitations.

This guide will:

- Provide a rationale for the consideration of security and emergency management measures when planning transportation infrastructure projects.
- Identify potential partners for project planners.
- Provide examples of these measures, but cannot, in the scope of this guide, identify them all.
- Discuss when to incorporate the measures into the planning process.
- Provide a checklist for project planners to guide them through the initial phase of getting partners on board.

In addition, this guide contains three appendices:
- Appendix A identifies references related to security and emergency management, including papers, reports, and websites; documents hyperlinked in the body of the guide are not relisted.
- Appendix B contains a checklist that project planners can use to focus their efforts to incorporate security and emergency management into the project planning process. The checklist should be used to establish an initial comprehensive list of ALL potential partners, and then can be reworked for specific projects depending on where construction will occur.
- Appendix C contains a table that can be used for identifying points of contact (POC) for each potential partner agency, both as a master listing and for individual projects.

Return to Contents

WHY SHOULD PROJECT PLANNERS CONSIDER SECURITY AND EMERGENCY MANAGEMENT MEASURES IN THE PROJECT PLANNING PROCESS?

It is not enough to only incorporate security measures in the project planning process because laws, e.g., SAFETEA-LU, say it is necessary. It is incumbent upon the transportation infrastructure project planner to ensure that - aspects of security are incorporated in order to maximize protection for the users and to minimize the potential for adversaries to significantly damage transportation infrastructure. Additionally, the project planner needs to ensure measures that facilitate the capability of first responders to respond to emergencies and to perform their lifesaving missions are incorporated into the project as it is being developed.

Since the project planner will generally not be an expert in many aspects of security and emergency management, he/she needs to seek out and actively work with internal State DOT or MPO and external local, tribal, regional/MPO, State and Federal partner organization SME. These individuals, and their contacts, should be able to provide answers to the project planners security- and emergency management-related questions, identify enhancements that can result in increased security of the infrastructure and improved capability to support emergency management operations. This is true during the initial concept development meetings and throughout the planning process.

In addition to SAFETEA-LU, there are a number of publications that have been developed and/or updated and groups that have been formed since the events of September 11, 2001, that directly speak to the importance of transportation infrastructure protection (security) and emergency response that have direct application here. Internal and external SMEs will likely be very knowledgeable about these documents and groups, and thus, be excellent sources for the planner, but it is important for the project planner to at least be familiar with the different publications and groups.

Security

The National Infrastructure Protection Plan (NIPP) was published in 2009. Its overarching goal is:

> *Build a safer, more secure, and more resilient America by preventing, deterring, neutralizing, or mitigating the effects of deliberate efforts by terrorists to destroy, incapacitate, or exploit elements of our Nation's CIKR [sic: critical infrastructure and key resources] and to strengthen national preparedness, timely response, and rapid recovery of CIKR in the event of an attack, natural disaster, or other emergency.*

At the Federal level, the sector specific agency responsible for transportation systems is the Transportation Security Agency (TSA), an element of the United States Department of Homeland Security (USDHS). However, as stated in Homeland Security Presidential Directive (HSPD)-7, (December 2003), the U.S. Department of Transportation (USDOT) and USDHS will collaborate on all matters relating to transportation security and transportation infrastructure protection. When you extrapolate that to the State level, the State DOT becomes the responsible

organization for transportation security and transportation infrastructure protection. While MPOs will normally not take on ESF-1 roles during response operations, they may be major partners of State and/or local ESF-1 lead organizations.

One of the requirements of the NIPP was to develop sector-specific plans. In May 2007, the Transportation Sector Government Coordinating Committee published the Transportation Systems Sector-Specific Plan (SSP). The Transportation Systems SSP is one of 17 sector plans required by the NIPP. The USDHS, through the TSA and the U.S. Coast Guard (USCG) has the responsibility for developing, implementing, and updating the Transportation Systems SSP and the supporting modal implementation plan annexes. These two organizations collaborate with the USDOT and its modal administrations, and with local, tribal, regional/MPO, State and Federal organization and private industry security partners.

The USDHS has established a Critical Infrastructure Partnership Advisory Council (CIPAC) to facilitate effective coordination between Federal infrastructure protection programs with the infrastructure protection activities of the local, tribal, regional/MPO and State governments/organizations and private sector organizations. The American Association of State Highway and Transportation Officials (AASHTO) and several Federal organizations, including the USDOT, form the Transportation Sector Committee, the element of the CIPAC that deals directly with transportation security issues. Various elements of the USDOT participate including FHWA.

There is a significant amount of interest in securing all modes of the transportation system, including highways and related infrastructure. The project planner has to consider the end use and users of the projects they are planning. Will the project:
- Be in primarily rural areas?
- Intersect State borders?
- Be constructed in the vicinity of a metropolitan area, maybe as a beltway?
- Become a major thoroughfare subject to heavy truck usage, with routine transit of hazardous cargoes?
- Result in a piece of critical infrastructure?

Considering questions like these will help planners identify which partner organizations they may need to invite onto the planning group.

There are many reasons to consider security measures when designing new construction projects. One thought is: it is typically less expensive and thus more cost effective to incorporate security and emergency management measures into a project when it is being planned and constructed, rather than having to retrofit such measures later.

If one considers the amount of hazardous materials (HazMat), e.g., corrosive or deadly chemicals, liquefied gases and flammable petroleum products, which are transported on the country's surface infrastructure every day, it is easy to understand the need for security measures along highways and bridges. Many times, security measures instituted to provide added

protection against HazMat incidents are also the measures that would be included to mitigate against terrorism.

Emergency Management

In 2008, USDHS published the NRF. The NRF presents the guiding principles that enable all response partners to prepare for and provide a unified national response to disasters and emergencies – from the smallest incident to the largest catastrophe. It establishes a comprehensive, national, **all-hazards** approach to domestic incident response. It also describes how communities, tribes, States, the Federal Government, and private-sector and nongovernmental partners apply these principles for a coordinated, effective national response.

One of the significant elements of the NRF is the concept of ESFs. At the Federal level, the ESFs represent an effective way to bundle and funnel resources and capabilities to local, tribal, State, and other responders. These functions are coordinated by a single agency but may rely on several agencies that provide resources for each functional area. The mission of the ESFs is to provide the greatest possible access to capabilities of the Federal Government regardless of which agency has those capabilities. The USDOT is the primary and coordinating agency for ESF 1, Transportation. At the State level, the State DOT is the primary and coordinating agency for ESF 1.

During emergency response activities, critical resources most often travel on the US highway system, making roads, bridges and other critical elements supporting an efficient and effective response – saving lives and reducing the possible destruction of property. Thus, project planners need to consider measures that ensure the resilience of highway-related infrastructure when developing projects. For example:

- Emergency responders act to save lives, but local responders are hindered if they have to use an access ramp 15 miles away from an incident location. It is essential for project planners to consider measures that enhance the capability of local emergency responders to perform their missions when designing limited access highways. Some examples may include installation of gates in security fences to give local emergency responders easy access to highways.
- In the southeast, hurricane threats make it essential that highways can easily be used to conduct the smooth evacuation of thousands of residents.
- Designing roadways with rest areas, or other areas that can support refueling operations or where disabled vehicles can be moved, can facilitate smooth evacuations.

Summary

One of the outcomes of incorporating security and emergency management considerations into the planning process is an increase in safety.

Return to Contents

THIS PAGE NOT USED

WHO ARE POTENTIAL PARTNERS IN THE PROJECT PLANNING PROCESS?

When project planners consider security and emergency management measures within the scope of the primary use and projected users of the project being developed, they probably do not possess the knowledge to do it alone. Subject matter experts (SME) from a variety of agencies and organizations are available to assist. The planning team/organization should develop a comprehensive master list of ALL potential partners and open an initial dialogue with those partners.

Then subsequently, for each project, a list of those partners that will be directly impacted should be identified. Those partners with the greatest potential to provide support to individual projects should be identified **early** in the planning process to maximize the opportunity for collaboration. Not only will partners help identify security and emergency management concerns for various types of projects, but they are able to assist the planners throughout the development process.

State DOT **internal** partners are critical to the success of your outreach to external partners because they may already have a strong working relationship with the outside agencies – and **can facilitate your outreach process**. The internal partners listed below need to be identified and brought into the planning process:
- State DOT Emergency Management and ESF 1 Coordinators – work very closely with the State EMA, other State agencies and those agencies that support your DOT with ESF 1 responsibilities.
- State DOT Security Coordinator – works with the USDHS-provided Protective Security Advisor (PSA) and State Homeland Security personnel.
- Civil and Mechanical Engineers.
- Bridge Engineers.
- Traffic Management Center(s).
- Other personnel that may be part of your organization.

Because different agencies have different organizational constructs, internal partners may have different titles and some organizations may have additional internal partners to which they can reach out.

Most MPOs are organized with personnel from a variety of organizations from a specific region or area, so the internal partners will generally be known simply as part of the normal business operating methodology. Some of these personnel may represent emergency management and security-oriented organizations in the region and should be able to easily reach out to their peers in their home organizations.

Specifically, project planners should initially identify the pool of all potential external partners from among those listed below, understanding that there may be additional partners particular to their State or MPO. A consolidated list of agencies, organizations and individuals should be developed and kept updated on a regular schedule. Then, project planners can identify critical partners for a given project and invite them to participate in the planning process. The internal

partners are an excellent source to assist the project planner in identifying external partner organizations and individuals and, possibly, non-governmental organizations.

There are many possible **external** partners. There are government organizations at the Federal and State level that operate in the security and emergency management realms; there are also non-governmental organizations/groups that can provide answers and suggestions. Some of these include:

- Government partners:
  - International
    - Government of Canada and its provinces
      - Transport Canada
    - Government of Mexico and its states
      - Secretaría de Comuniciaones y Transportes
  - Federal
    - USDOT
      - FHWA
        - Regional Emergency Transportation Representative (RETREP) – works with multiple States; has contacts within FHWA and other elements of USDOT; can answer project planners' questions; can provide lessons learned from other States; works with the Federal Emergency Management Agency (FEMA) Regional Offices (and other Federal agencies/ESFs). Contact your local FHWA Division office to find out who your RETREP is.
      - Research and Innovative Technology Administration (RITA)/Intelligent Transportation Systems (ITS)
      - National Highway Traffic Safety Administration (NHTSA)
      - Federal Motor Carrier Safety Administration (FMCSA)
      - Surface Transportation Board (STB)
      - Pipeline and Hazardous Materials Safety Administration (PHMSA)
    - U.S. Department of Homeland Security (USDHS)
      - Office of Infrastructure Protection (OIP)
        - Protective Security Advisors – these individuals are provided by OIP to each State and some major metropolitan areas; they are an excellent source of security-related information and ideas; is an excellent entry point into other security-related areas.
      - Transportation Security Administration (TSA), Highway and Motor Carriers Division
      - Federal Emergency Management Agency (FEMA)
        - 10 FEMA Regional Offices – coordinates provision of Federal assistance to States during incident response operations for major natural and man-caused incidents; interfaces with all ESF agencies; works with States in the area of preparedness; is an excellent entry point for other DHS elements.

- U.S. Army Corps of Engineers (USACE) – divisions, districts – can provide information about navigable rivers and river traffic; can identify areas subject to flooding.
- USCG – districts – can provide information about navigable rivers and river traffic; has knowledge of security aspects involving marine and port facilities and river areas.

o Interstate
- State(s) sharing your State's borders
- Multi-State MPOs – may be several

o State
- State Homeland Security Agency (SHSA)/State Administrative Agency (SAA)
- State EMA [may be combined with SHSA/SAA]
- DOT's partner agencies at the State level, especially those supporting ESF 1
- State Police/Highway Patrol
- Turnpike Authority
- Law Enforcement
- National Guard
- Public Utilities Commission

o Intrastate
- Regional Task Forces – may be several – coordinate the security and response operations of two or more counties/parishes.
- Regional MPOs – may be several – excellent sources of planning assistance, generally specific to a limited regional area.

o Local
- Counties/Parish EMA
- Municipalities – have knowledge of population statistics; public transportation.
- Highway Departments – have solid knowledge of geography/geology of local area; knows about flooding potential; knows local road network.
- Law Enforcement – can identify local security concerns.
- Fire Services – can identify specific needs that support firefighting operations.
- Public Works – can identify utility requirements.
- Emergency Medical Services/hospitals – can identify needs that enhance life-saving operations along highways/bridges.
- Urban Traffic Management Center (TMC)

- Functional partners:
  o Transportation Organizations
  - AASHTO
  - Transportation Research Board (TRB)
    ➢ National Cooperative Highway Research Program (NCHRP)
    ➢ Transit Cooperative Research Program

- American Public Transportation Association (APTA)

- Other partners:
    - Appropriate private sector firms or organizations – depends on nature/scope of the project

Within each of the organizations listed above, there will be one or more individuals that will be able to assist/advise project planners with identifying possible security risks/threats and measures that can be incorporated to mitigate those risks/threats. Likewise, there will be individual(s) that can identify measures that will enhance the execution of emergency response operations.

Appendix C contains a chart that can be used as a model for project planners to construct both master partner lists and partner lists for specific individual projects.

NOTE: Since every State and Region has unique characteristics and methods of doing business, this list may not represent ALL possible partners for that State and region. As one of the first steps in identifying partners, project planners need to develop a comprehensive master list relevant to their State DOT/MPO. The master list can be used to establish mailing lists for your DOT/MPO email program and should be updated at least annually (identify a recurring schedule element in your organization's computer calendar program).

Return to Contents

WHAT ARE SOME EXAMPLES OF SECURITY AND EMERGENCY MANAGEMENT MEASURES PROJECT PLANNERS CAN CONSIDER?

General

Partners will be an excellent source of information, suggestions, and references for the project planner. However, the project planner needs to have an idea of what questions to ask.

By this time, every State has probably conducted at least one critical infrastructure risk/threat assessment. The results of this will be on file in some archive, and will probably require some form of State-level security clearance to access. However, there may not have been an updated assessment conducted since the initial one, which could have been several years ago. Therefore, there may not be any current information about the area in which the project is to be constructed. The project planner should ask security partners what information may currently be available and, if necessary, to conduct a current risk/threat assessment of the proposed construction area early in the planning process.

Some questions that can be asked to help project planners when reaching out to partners to identify security and emergency management enhancements are:
- FHWA RETREP and Bridge Engineer:
  o What have other State DOT or MPO planners done on this type of project?
  o What can you tell me about state-of-the-art security measures being used by other States?
  o Do you know of any lessons learned from other States?
- USACE:
  o Does the project include bridges across or tunnels under navigable waterways?
- MPOs:
  o What plans have you been developing for the regional areas in which you work?
  o Have you conducted any traffic studies in your area of interest?
- Local Firefighters:
  o What can we add to this project to make it easier for you to conduct firefighting operations? [Example: Incorporating standpipes on bridges to facilitate firefighting.]
  o Will this project interfere with your capability to respond to fires? [Example: This highway will force the truncation of several rural roads, cutting off the ability to get to outlying areas.]
- Local EMS:
  o What do you need to facilitate your lifesaving response operations?
- Local Highway Department:
  o How do you see your road network being impacted by this highway project?
  o Will you have to truncate rural roads due to this highway, or will you want to create intersections with the highway?
- County Government:
  o Are there any non-transportation critical infrastructure/key resources (CI/KR) assets in the vicinity of the proposed project, such as chemical plants or utilities? If so, do

these facilities have their own security plans in place that the project planner and his/her partners need to consider?

- Local/Intrastate:
  - What type and volume of traffic will use the end product – large trucks, cars, pedestrians?
- Local Government:
  - Are frontage/access roads needed?

Security Oriented

Security measures may be "passive" or "active." Passive systems are those that do not require constant monitoring, such as:

- Traffic cameras on interstate highways around cities (however, they require monitors to ensure an effective response).
- A photo detector system to alert someone when a large animal such as a deer has neared the highway.
- The placement of barriers to close a road during an emergency, although drivers could go around the barriers.
- Increasing the "stand-off" or buffer distance around bridge abutments or tunnel entrances. An example of increasing the stand-off distance is the placement of barriers around government buildings or bollards around bridge piers.
- Installing dolphins or fender systems around bridge supports in navigable waterways to protect them from intentional impacts or accidents.
- Incorporating "web walls" between bridge piers to strengthen them to better resist damage from vehicle wrecks or train derailments.

Active systems are usually monitored. Some examples are:

- The installation of electronic signs that remind drivers to be alert for possibly suspicious activity and give a call-in number; this is similar to the airports' "See Something, Say Something" campaign. It was an individual at a rest area that identified the Washington, D.C. sniper in 2002 and notified law enforcement authorities.
- Deploying armed law enforcement personnel to the "passive" road block mentioned above, to ensure that drivers do not pass.

Additionally, measures may operate as a "push" or "pull" system. A push system provides monitoring personnel with an alert signal that says something has happened, such as:

- The General Motors "OnStar" system that alerts staff when an airbag deploys. The monitors then contact emergency responders and can provide them with GPS information to save lives.
- Photoelectric cells that provide an alert when a car passes through the "beam," alerting security staff of an unauthorized entry.

A pull system requires monitoring personnel to constantly watch the system to identify when an incident occurs. An example of this is the highway camera system used by traffic management centers and law enforcement to monitor traffic flow.

The transportation project planner ensures the supporting infrastructure for both active and passive measures – wires, cabling, cameras, etc – are being addressed during the planning process. However, there may be agencies other than the State DOT or MPO using the systems. Thus, the importance of the partner relationship can be seen here, since the builder will incorporate the supporting infrastructure into its project, but an external organization will use it – solid dialogue is necessary to make sure everything falls into place.

Emergency Management Oriented

It is essential for project planners to consider measures that enhance the capability of local emergency responders to perform their missions when designing limited access highways. Some examples may include:
- Installation of gates in security fences to give local emergency responders easy access to highways.
- Developing wider shoulders to allow vehicles to safely pull off during an emergency.
- Installing telephone call boxes connecting automatically to the traffic management center.

Other possible measures include:
- Welcome/Rest areas near State borders can be staging areas for Emergency Management Assistance Compact (EMAC) assets coming into the State during a disaster response.
- Parking areas along evacuation routes can be used to fuel evacuees' autos.
- Lane lights facilitate traffic control in the event of evacuation or during high traffic times such as commutes.
- Railroad crossing-style arms that can be remotely lowered at entrance ramps to interstate highways to prevent drivers from entering the highway when the road is closed due to a blizzard.

There are also measures that can be utilized in both arenas, such as:
- Dynamic electronic message signs used to notify drivers of an "Amber Alert," or notify them of a traffic crash "after" the next exit.
- Rest areas on limited access highways that can also be used to facilitate screening/searching vehicles during a possible terrorist incident.
- Vehicle inspection areas near bridge and tunnel entrances.

Return to Contents

THIS PAGE NOT USED

WHEN SHOULD PROJECT PLANNERS INCORPORATE SECURITY AND EMERGENCY MANAGEMENT CONSIDERATIONS DURING PLANNING?

It is important to reach out to potential partners and develop a relationship as part of your day-to-day activities – in order to develop and foster a solid and lasting relationship. Building a network of professionals that work in the areas of security and emergency management that coordinates on a routine basis, regardless of whether a specific project is being developed, is critical to being able to smoothly incorporate these partners when beginning a new project.

Each State DOT and MPO may use different planning terminology for its project planning process. The process may start with something similar to "Identifying a Need" or "Conceptualization" or "Scoping the Project." Regardless of what terminology is used, the best and most fundamental time to begin to consider aspects of security and emergency management during the planning process is **at the beginning**. The sooner the project planner starts collaborating with partners both on a routine basis and for specific projects, the sooner he/she can get their input. And, it is essential to foster a positive relationship – and trust – with your partners **throughout** the planning process.

The project planner should identify appropriate partners based on the scope and impact of the project, then initiate contact and begin to plan meetings (see the checklist at Appendix B). Once the project planner has identified appropriate partners for a given project, he/she needs to identify what questions need to be asked.

All partners may be learning new terms and concepts, and each partner will bring an understanding of how "they" do business, along with the standards to which they adhere – so open communication and full cooperation will be critical to a successful partnership.

It would be advantageous for the project planner to arrange a facilitated after planning workshop to review the partnership process during project development to identify lessons learned for the next project.

Return to Contents

THIS PAGE NOT USED

APPENDIX A – REFERENCES

Notes:
- The documents, e.g., NRF or NIPP, identified in the body of this guide are not relisted here.
- These links have been tested, but from time to time, a website may go down or a document may be withdrawn. In the event you cannot link to one of the sites, wait a while and come back to it later. If you see something on line that you like, save it to local media for future access.
- Resource documents marked with this symbol - ✪ - may be of particular interest to project planners.
- Some documents may address both security and emergency management considerations because these areas are closely linked.
- Your State DOT or MPO will likely have internal operating or reference documents. You should identify applicable internal documents and either assemble an easily accessible library or have a listing of where you can find them.

General Transportation Planning Security

✪ Delaware Valley Regional Planning Commission Report: "Fitting the pieces together – Improving Transportation Security Planning in the Delaware Valley," 2010.
http://www.dvrpc.org/reports/09018.pdf

✪ National Cooperative Highway Research Program (NCHRP) 525, "Incorporating Security into the Transportation Planning Process."
http://trb.org/news/blurb_detail.asp?id=5028

- Website for TRB Documents.
http://www.trb.org/Publications/PubsTRBPublicationsbySubject.aspx

- Website for NCHRP Reports.
http://www.trb.org/Publications/PubsNCHRPProjectReportsAll.aspx

- Website of the TRB Committee on Critical Transportation Infrastructure Protection (ABE40).
http://itri.tsu.edu/TRB_ABE40/home.htm

- Website for AMPO.
Mission Statement: A MPO is the transportation advocate for metropolitan regions and is committed to enhancing MPOs' abilities to improve metropolitan transportation systems.
http://www.ampo.org/

- Examples of security planning from MPOs:
  - Houston-Galveston Area Council, September 2004.
http://www.planning.dot.gov/Documents/SEPHouston.pdf
  - San Diego Association of Governments, September 2004.
http://www.planning.dot.gov/Documents/SEPSanDiego.pdf

- ▪ Oregon State Department of Transportation, September 2004.
  http://www.planning.dot.gov/Documents/SEPOregonDOT.pdf
- ▪ Ohio-Kentucky-Indiana Regional Council of Governments, September 2004.
  http://www.planning.dot.gov/Documents/SEPOKIRegional.pdf

- Michael D. Meyer, "The Role of the Metropolitan Planning Organization (MPO) In Preparing for Security Incidents and Transportation System Response," Georgia Institute of Technology.
  www.planning.dot.gov/Documents/Securitypaper.htm

- Steven Polzin, "Security Considerations in Transportation Planning: A White Paper," Southeastern Transportation Center.
  http://www.planning.dot.gov/documents/SecurityPapers/SecurityConsiderations_Polzin.htm

- FHWA Emergency Transportation Operations Planning Documents, FHWA website.
  http://ops.fhwa.dot.gov/eto_tim_pse//index.htm

- FHWA Security web site.
  http://www.fhwa.dot.gov/whatwedo/topics/security.cfm

- The Infrastructure Security Partnership website.
  www.tisp.org

- ITE Journal, Institute of Transportation Engineers (ITE). Enter "security" in the search block at: http://www.ite.org/itejournal/index.asp

Interagency Coordination in States and Metropolitan Areas
- GAO Report 04-1009, "Homeland Security: Effective Regional Coordination Can Enhance Emergency Preparedness," September 2004.
  www.gao.gov/new.items/d041009.pdf

- Website of the Regional Emergency Management Technical Advisory Committee (REMTAC), Hampton Roads Planning District Commission (HRPDC).
  http://hrpdc.org/EMERMGMT/EM_REMTAC.asp

- Draft 2011 Hazard Mitigation Plan, Houston-Galveston Area Council (H-GAC), Houston, TX.
  http://www.h-gac.com/community/community/hazard/hazard_mitigation_plan.aspx

- Mark Lofgren, "Integrating Security into Small MPO Planning Activities," presented at the 2007 Western Plains MPO Conference.
  http://www.mountain-plains.org/pubs/pdf/MPC08-199.pdf

- Metropolitan Washington Council of Governments, "Regional Emergency Coordination Plan," 2002.
  http://www.mwcog.org/store/item.asp?PUBLICATION_ID=401

- Transportation Department Webpage, Ohio-Kentucky-Indiana Regional Council of Governments (OKI).
  http://www.oki.org/transportation/index.html

- ✪ FHWA/Association of Metropolitan Planning Organizations, "SUMMARY REPORT, MPO Peer Workshop on Addressing Security Planning and Natural and Manmade Disasters," Orlando, Florida, 2008.
  http://www.ampo.org/assets/library/172_securitywkshpjan08final.pdf

Modeling Emergency Response and Evacuation

- ✪ Jocelyn Hoffman, Patricia G. Hendren and Russell Henk, "Peer Exchange No. 3: *Disaster Response Issues in Transportation Planning*," NCHRP Project 20-59(27) / 8-36 (53).
  http://144.171.11.40/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=1283

- ✪ Southeast Regional Planning and Economic Development District, "Hurricane Evacuation Route Evaluation," 2006.
  http://www.srpedd.org/transportation/here_full.pdf

- ✪ National Association of Regional Councils, "Transportation & Evacuation Planning A Resource Guide for MPOs and Regional Councils."
  http://narc.org/uploads/transportationandevacuationresourceguide_final.pdf

- Charles E. Wallace, et.al., "NCHRP Report 525, Transportation Security, Vol. 16, *A Guide to Emergency Response Planning at State Transportation Agencies*, TRB, 2010.
  http://www.trb.org/SecurityEmergencies/Blurbs/164691.aspx

- "Report to Congress on Catastrophic Hurricane Evacuation Plan Evaluation," USDOT in cooperation with the USDHS, June 1, 2006.
  http://www.fhwa.dot.gov/reports/hurricanevacuation/

- Julie W. Batchelor, et. al., "Hurricane Floyd Lessons Learned," North Carolina DOT, 2000.
  http://www.ncdot.org/doh/operations/floydlessons/PDF/HurricaneFloydLL.pdf

- NOAA Costal Services Center, Hurricane Planning and Impact Assessment Reports Website. See various reports at: http://www.csc.noaa.gov/hes/general.html

- "Public Safety Committee Public Needs Assessment," San Diego Association of Governments (SANDAG), 2005.
  http://www.sandag.cog.ca.us/uploads/publicationid/publicationid_1166_4520.pdf

- E.A. Urbina, "A State-of-the-Practice Review of Hurricane Evacuation Plans and Policies, A Thesis," Louisiana State University, May 2002.
  http://etd.lsu.edu/docs/available/etd-0418102-140236/unrestricted/Urbina_thesis.pdf

- Various Presentations of the TRB Subcommittee on Emergency Evacuation, 2005.
  http://www.rsip.lsu.edu/anb10-3/Resources/resources.htm

- Various documents on the website of USDOT Emergency Transportation Operations.
  http://www.ops.fhwa.dot.gov/eto_tim_pse/publications/index.htm

- Reuben B. Goldblatt and Kevin Weinisch, "Evacuation Planning, Human Factors, and Traffic Engineering Developing Systems for Training and Effective Response," TR News, No. 238, pg 13, May-June 2005. http://onlinepubs.trb.org/onlinepubs/trnews/trnews238.pdf

- "Identification and Analysis of Factors Affecting Emergency Evacuations - Main Report," NUREG/CR-6864, Vol. 1.
  http://www.nrc.gov/reading-rm/doc-collections/nuregs/contract/cr6864/v1/

- "Routes to Effective Evacuations Primer Series: Using Highways during Evacuation Operations for Events with Advance Notice," FHWA-HOP-06-109.
  http://www.ops.fhwa.dot.gov/publications/evac_primer/primer.pdf

- "Managing Pedestrians During Evacuations of Metropolitan Areas," FHWA-HOP-07-066, 2007.
  http://ops.fhwa.dot.gov/publications/pedevac/index.htm

- Juan Casse, et. al., "On the Formulation and Solution of an Emergency Routing Problem" CALTRANS.
  http://www.dot.ca.gov/newtech/researchreports/reports/2008/final_report_project_06-03_03-13-08.pdf

Planning for Recovery, Financing and System Adaptation
- ✪ "Development of a Statewide Freight System Resiliency Plan," Washington State DOT August 2008.
  http://www.wsdot.wa.gov/NR/rdonlyres/023FC2C7-DD28-4EB6-8203-98560DA76CB7/0/WSDOT_FSR_Report_v25.pdf

- Kathleen Tierney and Michael Bruneau, "Conceptualizing and Measuring Resilience: A Key to Disaster Loss Reduction," TR News, No. 250, pg. 14, May-June 2007.
  http://www.trb.org/news/blurb_detail.asp?id=7870

- Robert Deyle, et. al., "Planning for Post-Disaster Recovery and Reconstruction," (PAS 483/484), 1998, American Planning Association.
  http://planning.org/apastore/Search/Default.aspx?p=2406

- "Risk-Based Hurricane Recovery of Highway Signs, Signals, and Lights," Proceedings of the 1997 Post Hurricane Highway Recovery Workshop, FHWA Virginia Division, 1997.
  www.sys.virginia.edu/students/capstone/past/cap1999/11_16_VDOT.doc

- "Potential Cost Savings from the Pre-Disaster Mitigation Program," Publication No. 2926, Congressional Budget Office, September 2007.
  http://www.cbo.gov/ftpdocs/86xx/doc8653/09-28-Disaster.pdf

- "Regional Disaster Resilience: TISP Guide for Developing an Action Plan," The Infrastructure Security Partnership (TISP), June 2006.
  http://tisp.org/index.cfm?cdid=10962&pid=10261

- "Impacts of Climate Variability and Change on Transportation Systems and Infrastructure: Gulf Coast Study," U.S. Climate Change Science Program, March 2008.
  http://www.climatescience.gov/Library/sap/sap4-7/final-report/

- Emergency Relief Manual (Federal-Aid Highways), Office of Infrastructure, Office of Program Administration, FHWA, November 2009.
  http://www.fhwa.dot.gov/reports/erm/index.cfm

Application of Community and Context Sensitive Solutions in Security Design

- "The Public Transportation System Security and Emergency Preparedness Planning Guide," Federal Transit Administration, 2003.
  http://transit-safety.volpe.dot.gov/Publications/order/singledoc.asp?docid=53

- "Designing for Security in the Nation's Capital," a Report by the Interagency Task Force of the National Capital Planning Commission, 2001.
  http://www.core.org.cn/NR/rdonlyres/PA9FCC57-90CF-4071-8B4A-BC6A12075FC0/0/DesigningSec.pdf

Engaging the Public on Security Issues from Preparedness to Evacuation to Recovery

- "Communicating with the Public Using ATIS During Disasters: A Guide for Practitioners," Report FHWA-HOP-07-068.
  http://ops.fhwa.dot.gov/publications/atis/index.htm

- David R. Godschalk, et. al., "Public Participation in Natural Hazard Mitigation Policy Formation: Challenges for Comprehensive Planning," *Journal of Environmental Planning and Management*, Volume 46, Issue 5, pages 733-754, September 2003, Carfax Publishing.
  http://archone.tamu.edu/epsru/pdf/03-07A.pdf

- Effective Risk Communication, NUREG/BR-0308, Nuclear Regulatory Commission.
  http://www.nrc.gov/reading-rm/doc-collections/nuregs/brochures/br0308/br0308.pdf

Border Security Coordination

- William H. Robinson, et. al., "Border and Transportation Security: Possible New Directions and Policy Options," Congressional Research Service, Library of Congress, March 2005. http://www.fas.org/sgp/crs/homesec/RL32841.pdf.

- "Border Security and Canada-US Integration: Toward a Research Policy Agenda," A Symposium at Western Washington University, Summary Proceedings, April 2005. http://www.thetbwg.org/library-library_e.htm [NOTE: The articles are listed in inverse date order.]

Return to Contents

APPENDIX B – CHECKLIST FOR PROJECT PLANNERS

This checklist contains tables that should be completed and kept up-to-date. Identify potential security and emergency management planning partners for your State, recording names, positions and contact information. It is important to establish and maintain routine contact with these partners, and to identify their position within the organization, as well as position-related contact information, since people will rotate in and out of positions.

Coordination should be made prior to beginning a project to establish relationships before the planning begins. This familiarity with personalities and being able to converse on a first name basis may be crucial to ensure parties can work together.

The checklist also serves as a security and emergency management coordination guide for the entire planning process, from initiation to the beginning of construction.

Directions:
Download the checklist (Microsoft Word 97-2003) from the web to your local computer
[Downloadable Word version]. In order to use the check boxes, double click on the box and left click on "Checked," then left click "OK."

GETTING STARTED – Use this portion to develop a comprehensive master list of potential partners	
☐	Identify, locate and introduce yourself to your internal organizational emergency management coordinator, security coordinator and ESF 1 coordinator, as appropriate for your organization. *(They may be the same person.)*
☐	Identify all potential partners applicable to your organization – work with your State DOT/MPO emergency management, security and/or ESF 1 coordinators. Complete a table and maintain for future reference. *(Use the table in Appendix C as a model and adapt it as necessary to your organization.)*
☐	Obtain a copy of the most recent **general** risk *(natural disasters)* and threat *(man-caused incidents)* assessment for your State or regional area of interest. *(Possible sources: State EMA or homeland security organization.)*
☐	Obtain a copy of the most recent **critical infrastructure** risk and threat assessment for your State or regional area of interest. *(Possible sources: State DOT Engineer/MPO member agency staff and/or the State PSA.)*
☐	Familiarize yourself with all risk/threat assessment information to determine if there is information that impacts the geographic area of the project.
☐	Familiarize yourself with the various hyperlinked documents in the body of the guide, as necessary.
☐	Prepare an initial set of general questions that you would want to ask your partners.

PROJECT SPECIFIC CHECKLIST – Use this set of forms for getting partners involved in a specific project.

PROJECT TITLE:_____

1. Initial Actions

☐	Identify scope of the project – impacted counties/parishes/municipalities *(This will identify partner local, tribal, regional, interstate and/or international governments.)*
	☐ Examine topography and significant geographical features impacting the project. *(This may help you identify need for certain measures.)*
	☐ Identify what special elements are involved in the project, e.g., bridges, tunnels, rest areas. *(This will help you develop the question list that you will use during meetings with partners.)*
	☐ Identify existing nearby critical infrastructure, e.g., bridges, nuclear power plants, chemical refining facilities. *(This may help identify special security and/or emergency response requirements; you also need to talk to the security managers of those facilities.)*
☐	Review the most recent risk/threat assessments for information impacting the project.
	☐ Arrange for a current risk/threat assessment to be conducted at the outset of the planning process. *(Your State DOT/MPO security individual, and bridge and civil engineers can assist with this.)*
☐	Identify the level of risk that will be accepted for the end product. *(This sets the limit for the depth you want to delve into possible security measures; your State DOT/MPO should have a process in place.)*
	☐ Develop a risk management plan. *(Partner with your organizational security officer, bridge and civil engineers, the State Homeland Security office, and local experts, as necessary.)*

2. Identify what partners may be needed, based on the scope of the project. *(NOTE: some partners may always be involved.)*				
☒	Need Local Partners	→	☐	Local Partners contacted
☒	Need Intrastate Partners	→	☐	Intrastate Partners contacted
☒	Need State Partners	→	☐	State Partners contacted
☒	Need Federal Partners	→	☐	Federal Partners contacted
☐	Need Functional Partners	→	☐	Functional Partners contacted
☐	Need Interstate Partners	→	☐	Interstate Partners contacted
☐	Need International Partners	→	☐	International Partners contacted
☐	Develop an initial list of project-specific questions for the initial meeting with partners.			

3. Notify Partner Agency POCs	
☐	Create project-specific mailing list with email addresses
☐	Send "heads up" email to POCs to identify project and obtain agreement to participate – identify suspense date
☐	Track receipts and follow up via telephone for any that do not respond
☐	Update mailing list of participants for future emails

4. Initial Meeting	
☐	Identify date, time and location for initial meeting
☐	Schedule/reserve the location
☐	Establish agenda
☐	Develop handouts – background information, draft charter
☐	Send email invitation at least 3 weeks prior to meeting – include agenda and read-aheads
☐	Track responses and follow up via telephone for any that do not respond within 1 week
☐	Identify 1 or 2 people from your office to take minutes.
☐	Conduct meeting, asking questions and receiving answers and other input. *(Once you establish a dialogue, you will be able to refine your questions and focus in on specific measures that can be incorporated into the project.)*
☐	After the meeting, prepare and distribute meeting minutes.

NOTE: You can use Checklist 4 for follow-on meetings. You need to ensure that you maintain the project-specific partner listing as an up-to-date roster so all partners are kept informed of meetings, receive progress reports and are able to contribute to the planning process.

5. Post Project Activity – this is a critical part of the overall process	
☐	Conduct a post-project after action review with all partners to identify lessons learned and any best practices. *(Incorporate lessons learned and best practices into your next project. Share this information with peers in other organizations.)*

Return to Contents

APPENDIX C – EXAMPLE TABLE FOR LISTING PARTNER POINTS OF CONTACT (POC)

This is a downloadable Microsoft Excel 97-2003 chart that should be downloaded and used on your local computer. [Downloadable Excel File]

The chart should be used in two stages:
- First, the chart should be completed for all possible partners down to the lowest level that would be needed on a day-to-day basis to provide a quick and easy reference document; ensure you update the chart on a routine basis.

- Second, for specific projects, the project planner should tailor the chart for that project and include county/parish/municipality and other POCs as appropriate.

The project planner(s) should feel free to add/delete rows as necessary to develop the most complete list of partners.

CAVEAT: The chart should be marked For Official Use Only (FOUO) – and maintained appropriately – when filled in because it will identify government officials and contain contact information.

Return to Contents