CIM Overview Report June 2009

Safety and Security: A Transportation System That Can Get You There and Back, and "Outta Here"

Introduction

Do you worry about your, and your loved ones', safety and security throughout the various facets of your daily life? We have become aware of exotic dangers, such as severe flooding, disease outbreaks, or terrorist attacks. Frequent messages about better preparedness have made us more alert about potential threats of natural or human-caused disasters. However, most of us get in our cars without much thought for the dangers of our daily trips. And yet, one of the most common, real risks facing most of us are transportation related, including deaths and injuries resulting from accidents and issues relating to how well the transportation system functions in an emergency.

Increased awareness of the role of a transportation system in a disaster, such as the aftermath of Hurricane Katrina, has made security of a transportation system an important consideration. Experiences in New Orleans highlighted the need to determine availability of evacuation routes and to assess transportation of non-drivers out of vulnerable areas.

Flooded I-10/I-610 interchange and surrounding area of northwest New Orleans and Metairie, Louisiana in 2006

Crashes: The Great Danger

It turns out that traveling poses a great danger to those involved as drivers, passengers, and other users of roadways.

What makes traffic and traveling so dangerous? In an ideal world, drivers would execute every road maneuver with precision and ease. Truth is, some drivers are too brash, others too conservative, and some are downright clueless. They can all turn a pleasant day on the roadway into a surreal nightmare in the blink of an eye. And it's not just "them." Everyone is guilty of making common driving mistakes that can endanger us all, such as swerving, speeding, eating, talking on a cell phone, or typing text messages. For the top 10 driving mistakes, see http://editorial.autos.msn.com/article.aspx?cp-documentid=1010601&page=0

Every year, the Office of Highway Safety publishes the Idaho Traffic Collisions data report about traffic collisions. Deaths and injuries resulting from traffic crashes are a serious public health concern. For example, in Idaho during the years 2000 - 2005, 68% of all unintentional injury deaths among children 0-19 years of age were transportation related. Almost 77% of those were as a driver or passenger in a motor vehicle.

The following table shows some additional statistics from 2007:

Idaho Traffic Crashes 2007

	Total crashes	Serious injuries	Deaths
Motorists	26,452	1,806	252
Bicyclists	321	35	2
Pedestrians	259	65	17

For more information about the report see http://itd.idaho.gov/ohs/2007data/Analysis2007.pdf. Specific transportation safety concerns also include highway-rail crossings, intersections, roadway departure and entrance, and work zones.

Some examples of innovations to reduce traffic accidents and to better manage incidents include case studies about access management strategies to better "regulate" roadway departure and entrance, emergency transit operations planning, enhancement of accident surveillance, and uniform emergency responders' communication system. For more details about these case studies see http://tsp.trb.org/assets/FTA-AMPO%20Innovation%20Case%20Studies.pdf

What Else Can Go Wrong?

Some fairly common events can present a challenge to a transportation system's ability to move people, goods, and vehicles. For example, a snow storm can effectively yield roads impassable, at least for a few hours. Some other potential "threats" in the Treasure Valley include severe weather, fires, dam failures, floods, landslides, and earthquakes.

Ways to respond to some of these potential threats are often built into general operations, such as snow removal. Other threats are addressed in emergency preparedness and response plans. Human-caused disasters or threats also require attention, for example by limiting access to dams and other potential targets of sabotage.

A local example of a disaster is the Oregon Trail fire of 2008 that destroyed ten homes and forced dozens of families to evacuate from the path of the fast-moving

fire. Getting out of the area proved difficult because of the street design and lack of connectivity. With the influx of emergency vehicles and on-lookers, leaving a cul-de-sac wasn't always easy.

A fire on the bench in southeast Boise that includes Columbia Village destroyed 10 homes.

Idaho Statesman
http://www.idahostatesman.com/397/gallery/483988-a484023 t3.html

Being Prepared

All emergency preparedness and emergency response planning should specifically consider people with special needs, including those with physical and mental disabilities, low incomes, inability to speak the local language, and socially marginalized groups such as homeless populations. We need to identify: Who cannot drive themselves out of harm's way, where do they live, and how can they be kept safe in an emergency?

The following steps can help a community become better prepared for disasters and emergencies:

- Anticipate potential problems from, and responses to the failure of, transportation links during a disaster
- Identify who will do what during a disaster
- Prioritize transportation resources, such as emergency, service, freight, general traffic
- Design critical transportation system components to be failsafe, self-correcting, repairable, redundant and autonomous
- Establish communication systems

Being prepared for an emergency, as a citizen or a community, is imperative. Designing our roads to handle emergencies is an important part of the transportation and emergency planning process. Preventing emergencies before they occur provides the greatest security – from enforcing traffic laws to help prevent accidents to designing roadways that best accommodate the flow of traffic. Keeping our transportation system safe and working for us helps make those real risks a little less risky.