

Unforeseen Consequences

by Joe McMahon, P.E., CEO



At this writing, the devastation from Hurricane Katrina has been unfolding. Each day, even each hour,

seems to bring some new tragedy. The full impact may not be known for years.

We have also marked the fourth anniversary of 9/11 and last year, four hurricanes hit Florida causing incomprehensible destruction. Their impact is still being felt in many ways.

It is disheartening when the 24/7 media focus replaces outstanding reporting during and immediately after these disasters with "experts" second-guessing every aspect of the preparation and response. More disappointing is mean-spirited finger-pointing of those seeking personal or political gain from the sufferings of so many of our neighbors.

Uplifting, however, are the heroic efforts of those who take action and save lives. Further, the national and international response of neighbors helping neighbors reminds us of the common bond of our humanity. This must continue through the rebuilding process. We must not forget.

Despite the best efforts of well-intentional folks, however, lessons learned from prior disasters, are universally insufficient to adequately prepare for the future. No two events are alike. By their definition, we cannot be fully prepared. What the disasters have

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McMahon Expands Its Traffic Data Collection Services

by Rod Plourde, Ph.D., P.E., President

While my newsletter articles are not intended to "sell" our services to our readers, I am deviating from this approach for this issue because we are quite excited about the expanded traffic data collection services we will be offering to both our clients and our industry colleagues.

Beginning in the Mid-Atlantic Region, McMahon Associates has always had in-house field traffic data collection capability, and as we have grown, we have greatly expanded these capabilities for our clients. Both in terms of field personnel and the latest state-of-the-art equipment, we have provided traffic count services ranging from manual traffic turning movement counts for a single intersection to roadside origin-destination surveys where we have fielded and managed over 30 traffic count personnel at one time.

This October, we announced in the Mid-Atlantic region, that we will be offering these same services to our industry colleagues, as their needs may dictate. At the same time, we will be implementing a comparable service in South Florida, serving both the east and west coasts.

Services included

What will the services include? The entire menu of traffic data collection, including automatic traffic recorder counts, manual (but electronic!) intersection turning movement counts, vehicle classification counts, inventories of roadway/intersection geometric and traffic control characteristics, speed studies, parking accumulation and occupancy studies, and transit ridership/boarding count studies.

Why are we doing it? Because we have the experienced staff and modern equipment to provide the quality data collection services for our industry colleagues that we require and expect for our own clients. We also have sufficient depth, with pools of experienced count personnel, to undertake large assignments or multiple assignments. Stay tuned for further information on these expanded services. For more immediate information, please contact Joe DeSantis, P.E., PTOE, in our Mid-Atlantic region at (215) 283-9444 or Tom Hall in our Florida region at (954) 771-0776.

The St Louis Cathedral on Jackson Square in the French Quarters of New Orleans was originally built in 1727. It has since been rebuilt after a fire in 1788, narrowly escaped another fire just 6 years later, and expanded beginning in 1849 incorporating its original structure. This picture was taken August 13, 2005. The cathedral is still standing following the devastation of Katrina.



Did You Know?

The first form of "transportation" known to mankind was walking.

In 1861 Edward Payson Weston walked 478 miles from Boston to Washington D.C. Because Weston had bet against Lincoln, he was to walk in 10 consecutive days to Lincoln's Inauguration. He made the trip in 10 days and a few hours, missing Lincoln being sworn in, but still able to attend the Inauguration Ball that night.

Today that trip can be made by car in as little as 7 hours and 50 minutes or train in 6 hours and 44 minutes. At McMahon, we continue to improve infrastructures to decrease transportation time and increasing the quality of travel.

OUR SERVICES

- Land Survey
- Transportation Planning
- Traffic Impact Studies
- Highway and Intersection Design
- Structural Design
- ITS/Traffic Signal Design
- Highway Access Permitting
- Geographic Information Systems
- Construction Inspection and Consultation

For more information, please contact **McMahon Associates** at any of the following locations:

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ON THE WEB

www.mcmtrans.com

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Fitchburg Commuter Line Eligible to Receive Federal Funding

by *Danielle Desmarais, E.I.T., Senior Project Engineer*

As highlighted in previous newsletter articles, McMahon Associates completed a study of potential service improvements along the Fitchburg Commuter Rail Line for the Massachusetts Bay Transportation Authority (MBTA). We examined three alternative improvement strategies, evaluated the potential ridership benefits of each alternative, and determined the capital investment and operating cost associated with each alternative.

Based on the findings of the alternatives analysis, McMahon Associates recently developed an Improvement Implementation Plan that focused on the broad goals of improving travel time, passenger comfort and service reliability while meeting ridership demands, and improving the overall quality of service on the line. The total cost of full implementation of the Fitchburg Commuter Rail Line Improvement Implementation Plan is estimated at approximately \$300 million.

New Starts funding

Congressman John W. Olver (D-1st District) recently announced that Congress has passed,



The North Leominster Station is one of 18 stations along the Fitchburg Commuter Rail Line.

and the President has signed, a \$286 billion authorizing bill called "SAFETEA-LU", to fund the nation's highways, bridges, mass transit systems, and bicycle pathways through 2009, and that the surface transportation reauthorization bill contains language making the Fitchburg Commuter Line eligible to receive federal New Starts funding.

As highlighted in Congressman Olver's recent press release, the Federal Transit Administration's New

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Road Safety Audits: Journey Towards Safer Highways

by *Joseph M. Fiocco, P.E., PTOE*

According to the Federal Highway Administration, a Road Safety Audit (RSA) is a formal safety performance examination of a road or intersection, existing or future, by an independent audit team. RSAs are a low cost method of identifying features of a roadway that can contribute to higher crash rates and/or a greater potential for resulting injuries. Costs for a typical audit will range from \$5,000 to 25,000, not much compared to the multi-million dollar price tag on most road construction projects.

The RSA is a process that examines a roadway segment or roadway construction project and formally reports on safety issues using an independent, qualified, and experienced team. To appreciate the RSA's value and uniqueness, one must understand its elements. The process ensures that safety is an integral part of a project by conducting a detailed safety analysis at any or all of the following five stages: feasibility, pre-

liminary design, final design, pre-opening (construction), and in-service (existing roads). Audits are conducted by a team of experts from all disciplines of highway engineering, with assistance from experts in fields of human factors, law enforcement, and risk management. Audit teams are independent from those involved with the design to ensure that it remains resistant to constraints, like time and money. Field reviews are conducted to identify safety concerns which routine plan reviews cannot. Comprehensive checklists are used to prompt thought and raise multi-modal safety concerns for all road users including pedestrians, bicyclists, trucks, buses, emergency vehicles, and railroads.

Teams do not evaluate the project manager as the term "audit" may imply. They evaluate the roadway's crash potential and proactively attempt to prevent crashes from occurring.

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How to Create and Implement a Successful Traffic Calming Program

by John J. Maliff, AICP, Senior Technician

A neighborhood traffic calming program will redirect cut-through traffic back onto the major thoroughfares, thereby improving public safety and encourage a more active street life. The benefits include increased safety and the creation of a sense of neighborhood. Traffic calming involves making physical changes to a roadway that are designed to alter driver behavior and improve safety for children, pedestrians, and bicyclists. The primary purpose is to reduce speed and volume on neighborhood roadways.

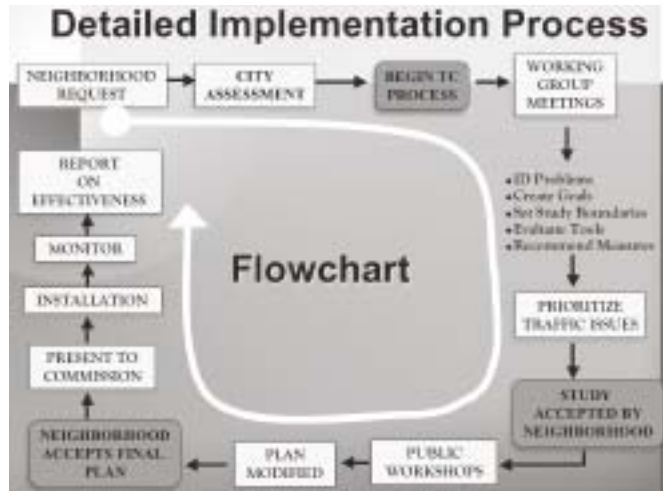
A properly implemented traffic calming program involves more than adding traffic calming treatments to neighborhood roadways. A successful program must include knowledge, planning, public involvement, agency coordination, and data collection and analysis.

Because the police and fire departments are responsible for timely responses to emergencies, it is important to include them in the planning stages and gain their support. Traffic calming, if done improperly, can adversely affect their response times.

Prior to beginning the process, a City should have a policy/procedure manual in place that provides guidelines for developing a traffic calming program. In addition to the policy/procedure manual, the City should establish policies and ordinances to support the program. Finally, the City needs to ensure that sufficient funding is in place, which usually can be established by passing a bond, or another form of funding. Now, the City is ready to begin the process.

Neighborhood Committee work

The first level involves an educational cam-



aign. Neighborhood committees need to be formed and meetings held to teach the participants about traffic calming. Problem areas should be determined and data for speeding, stop sign running, and cut-through traffic must be collected and analyzed. Once the reported problem locations have been verified, based on the data, the neighborhood committees should be made aware of the various traffic calming treatments that are available. A tool kit of traffic calming treatments is provided below:

- chokers
- chicanes
- directional restrictions
- roadway narrowing
- street closures
- mid-block median islands
- speed humps or cushions
- gateway signs
- roundabouts
- textured crosswalks
- traffic control devices

The neighborhood committee determines the traffic calming treatments they want to use for each

problem area. Once the preliminary plan has been developed, we move on to Level 2.

Involving the public

The second level involves public workshops where the general public is invited to learn about the preliminary traffic plan. Public notices of each meeting and, if necessary, mailings to residents must be conducted prior to every meeting. The residents are asked to fill out a questionnaire and provide their comments and recommendations. The information they provide is analyzed and adjustments to the preliminary plan are made. The public workshop process may consist of sev-

eral meetings, to ensure that as many residents as possible are included. Be sure to hold the workshops when residents are at home. For example, do not hold public workshops during summer vacation or around the major holidays. This will ensure all residents have a fair opportunity to be involved. When a final traffic calming plan has been drafted, it is presented to the City Commission for approval. Once the plan has been approved, construction can begin.

Following-up

It is important to note that even after the plan has been approved and implemented, a good follow-up program will help ensure continued success. Data should be collected to indicate that the speeds of vehicles have been reduced in the neighborhood, or that cut-through traffic has been significantly reduced. A follow-up report should be written that describes how the traffic calming plan has improved traffic and safety in the neighborhood. This information is vital to the City because it provides proof that the funds spent for the traffic calming program actually resulted in measurable improvements.

New Projects

NEW ENGLAND

- Industrial Building Site Access Design, Auburn, MA
- 121 Portland Street Mixed-Use Development Traffic Access Study, Boston, MA
- Wal-Mart Super Center Roadway Improvement Design, Leicester, MA

MID-ATLANTIC

- Design Open-End Contract for Pennsylvania Turnpike Commission
- IKEA Parking/Circulation Study, Hicksville, Long Island, NY
- Christ Home Expansion Traffic Study, Warminster, Bucks County, PA

FLORIDA

- Isles of Athena Development of Regional Impact for Northport Land Investment, LLP, Sarasota County, FL
- Isles of Athena Interchange Justification Report for Northport Land Investment, LLP, Sarasota County, FL
- Lakes of DeSoto Development of Regional Impact for Charlee, LLC, DeSoto County, FL

Unforeseen Consequences

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shown is that we cannot totally rely on government to help us, and when it can, it may have limited resources. Some people will always be incapable of being prepared. Everyone who prepares well means one less person to rely on government. So, it is irresponsible not to prepare if you can.

For each of us, the lesson is that we need to be better prepared. This applies to individuals, families, and businesses as well. Pre-planning should include rehearsals and effective actions. At McMahon, our hurricane-prone Florida operations now benefit from such pre-planning. We have generators to supply power, water, batteries, portable radios, and other incidentals. However, we will still need to re-evaluate these plans and improve them.

In the face of tragedies such as Katrina, I am pleased and proud to report the heartfelt generosity of our employees' contributions to the American Red Cross Hurricane Katrina Disaster Relief Fund. With the company match, McMahon Associates, Inc. and its employees are sending The American Red Cross a total in donations of \$5,000! Like other Americans, we will also continue to help the rebuilding process.

New England Regional News (continued from page 2)

Starts program is the federal government's primary financial resource for supporting locally planned, implemented, and operated major transit capital investments. From heavy to light rail and from commuter rail to bus rapid transit systems, the New Starts program has helped to make possible hundreds of new or extended transit fixed guide way systems across the country. These rail and bus investments, in turn, have improved the mobility of

millions of Americans, have helped to reduce congestion and improve air quality in the areas they serve, and have fostered the development of viable, safer and more livable communities.

The New Starts project, like all transportation investments in metropolitan areas, must emerge from a regional, multi-modal transportation planning process that involves local officials, community members, and decision makers.

Mid Atlantic Regional News (continued from page 2)

Audits also attempt to anticipate potential problems based on human factors. They are not intended to reactively resolve existing crash problems. A formal audit report is generated by the team for follow-up by the project manager or responsible agency.

International origins

The RSA is still relatively new to the United States. It has its origins in the United Kingdom and has been further developed and is being used in other countries, including Australia, New Zealand, and Canada. I've had the pleasure of being involved in two successful pilot safety audit projects in the Delaware Valley. In 1997, the Pennsylvania Department of Transportation began conducting safety audits in District 6-0 and District 10-0 as part of their pilot program. These districts were chosen because they represented both rural and urban locations. The success of the pilot led to a statewide implementation in 2000. The South

Jersey Transportation Planning Organization (SJTPO) conducted two audits as part of a pilot safety audit program in 2004, which led to ten subsequent audits in southern New Jersey. RSAs are a relatively inexpensive way for road agencies to take proactive measures at reducing the amount of death and injury. According to the National Highway Traffic Safety Administration (NHTSA), 42,636 people were killed in the United States as a result of motor vehicle crashes in 2004. The World Health Organization (WHO) estimates the worldwide death total from motor vehicle crashes is 1.26 million per year. The RSA will identify safety concerns on the road and in some cases recommend specific action, but will not, in and of itself, reduce crashes; follow-up action will be required. The audit process is an important first step in the long, but worthwhile, journey towards safer highways.

More information about RSAs can be found at the following web site: www.roadwaysafetyaudits.org.

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