

# AIMHigh

## Austin-area Incident Management for Highways



# TRAFFIC INCIDENT MANAGEMENT STRATEGIC PLAN

*Developed in cooperation with:*

- *Texas Department of Public Safety*
- *Travis County Sherriff's Department*
- *City of Austin Police Department*
- *City of Kyle Police Department*
- *City of Pflugerville Police Department*
- *City of Round Rock Police Department*
- *City of Austin Fire Department*
- *City of Georgetown Fire Department*
- *Austin-Travis County Emergency Medical Services*
- *Travis County Office of the Medical Examiner*
- *Texas Division of Emergency Management*
- *Travis County Office of Emergency Management*
- *Bastrop County Office of Emergency Management*
- *City of Austin Office of Emergency Management*
- *Capital Area Metropolitan Planning Organization*
- *Texas Department of Transportation*
- *City of Austin Traffic Signals*
- *City of Austin Watershed Protection*
- *Austin Towing Association*

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## PREFACE

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Since 2000, the greater Austin metropolitan area (Austin) has grown at one of the fastest rates in the country, expanding its population by 32 percent to just over 1.7 million.<sup>1</sup> Despite having a well developed network of existing highways and newly developed tollways intended to serve this population, the *2007 Urban Mobility Report*, published by the Texas Transportation Institute (TTI), estimates that travel demand resulting from this rapid growth will outpace roadway infrastructure by 30 to 40 percent.<sup>2</sup>

The effect of this disparity is already evident. Austin ranks highest among comparably sized urban areas with respect to annual travel delay (22.5 million hours annually), excess fuel consumption (15.5 million gallons), and congestion costs (\$422 million).<sup>2</sup> Associated impacts relate to increased air pollution, reduced safety levels, increased motorist frustration, and a general degradation in quality of life. These impacts extend beyond the City of Austin and Travis County to neighboring jurisdictions in Williamson, Hays, and Bastrop Counties.

More than half (56 percent) of Austin's congestion is attributable to incidents.<sup>2</sup> Incidents are non-recurring events on roadways that disrupt the smooth flow of traffic. Incidents typically include disabled vehicles or vehicle crashes but may also include debris on the road, flooding, or planned special events.

Incidents not only result in significant travel delay and associated impacts, but have direct and wide-ranging effects on safety. Motorists involved in incidents are at risk for resulting injury or death. In addition, secondary incidents—an incident that occurs as a result of an earlier incident and estimated to account for between 14 to 18 percent of total incidents<sup>3</sup>—may increase both the number and severity of injuries attributable to incidents. Responders to these incidents are also sometimes victims of secondary crashes. Texas currently leads the Nation in law enforcement officer fatalities and in Austin, more than 10 percent of officer fatalities result from being struck by a vehicle.<sup>4, 5</sup>

### ***Traffic Incident Management***

Traffic Incident Management (TIM) is a systematic, planned, and coordinated approach to detect, respond to, and remove traffic incidents and restore traffic capacity as safely and quickly as possible. Involving law enforcement, fire and rescue, emergency medical services, transportation, towing and recovery, and other personnel—TIM is considered to be one of the most effective tools for reducing delay and enhancing safety.

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<sup>1</sup> Austin Chamber of Commerce.

<http://www.austinchamber.com/DoBusiness/GreaterAustinProfile/population.html>

<sup>2</sup> Schrank, D. and T. Lomax. *2007 Urban Mobility Report*. Texas Transportation Institute, Texas A&M University System. September 2007.

<sup>3</sup> *National Conference on Traffic Incident Management*. Conference Proceedings. June 2002.

<sup>4</sup> *National Law Enforcement Officers Memorial Fund*. <http://www.nleomf.com/TheMemorial/Facts/state.htm>

<sup>5</sup> *The Officer Down Memorial Page, Inc.* <http://www.odmp.org/>

The *Austin-area Incident Management for Highways (AIMHigh) Project* was initiated in September 2004 to comprehensively improve existing TIM efforts in the greater Austin area. The *AIMHigh Project* is ongoing, but early efforts were conducted in three phases:

- During Phase I, incident characteristics in the greater Austin area were examined to estimate incident impacts and to direct the selection of TIM improvement strategies. Also, agency constituents from law enforcement, fire and rescue, emergency medical services, transportation, towing and recovery, and other—collectively recognized as the AIMHigh Team—were identified and asked to provide information regarding their role in the TIM process and related resources available for support.
- During Phase II, local TIM challenges were collectively identified by the AIMHigh Team. In response to these challenges, alternative incident management tools and strategies proven successful elsewhere in the Nation were evaluated for possible application in the greater Austin area.
- To ensure continued improvement in TIM, Phase III focused on developing an organizational framework and related procedures to support ongoing program activities, performance monitoring, and evaluation.

This three-phase process mimics actions recommended in the Federal Highway Administration's *Regional Traffic Incident Management Program Implementation Guide*.<sup>6</sup> Building upon these activities, the AIMHigh Team works directly with various coalition groups, the Greater Austin Chamber of Commerce, the Capital Area Metropolitan Planning Organization (CAMPO), and the Federal Highway Administration (FHWA) to move towards a more strategic, long-term TIM program for the region.

The *Austin-area Incident Management for Highways (AIMHigh) Traffic Incident Management Strategic Plan* is a product of these prior efforts, intended to direct long-term, sustainable TIM investment and development. Following this introductory information, this *Plan* describes the:

- (1) general mission, goals, and objectives for the AIMHigh Program;
- (2) current status of TIM operations in the greater Austin area—including key stakeholders, supporting resources, operational challenges, and recent improvements;
- (3) proposed tools and strategies to specifically address outstanding operational and institutional challenges and further enhance TIM operations;
- (4) associated implementation requirements for the proposed TIM tools and strategies, including identification of lead agencies and estimated initial and ongoing costs; and
- (5) next steps to ensure ongoing TIM improvements in the greater Austin area.

In the near term, the information contained in this *Plan* is intended to support integrated resource planning and budgeting across and among diverse participating agencies representing law enforcement, fire and rescue, emergency medical services, transportation, towing and recovery, and others with a focus on enhanced TIM operations. This *Plan* is also intended to guide individual or collective requests for external private, State, or Federal program support.

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<sup>6</sup> *Regional Traffic Incident Management Program Implementation Guide*. Federal Highway Administration. 2001.

## TRAFFIC INCIDENT MANAGEMENT MISSION, GOALS, AND OBJECTIVES FOR THE GREATER AUSTIN AREA

The mission, goals, and objectives for the greater Austin-area AIMHigh Program were crafted to be:

- (1) responsive to existing operational/institutional TIM-related challenges collectively identified by the AIMHigh Team,
- (2) supportive of local internal agency goals and objectives, and
- (3) consistent with National TIM directives and initiatives.

At the local level, improvements to TIM operations would concurrently achieve many individual agency goals and objectives for performance, as defined in respective strategic and budgetary plans. Supported goals generally relate to reduced incident duration, increased responder and motorist safety, reduced traffic delay and associated impacts, increased agency efficiency, and increased customer satisfaction.

### ***Mission***

*Implement an on-going traffic incident management program consisting of short- and long-term strategies to enhance existing and evolving traffic incident management organizational relationships, activities, and projects in the greater Austin area.*

### ***Goals and Objectives***

#### ***Goal 1: Reduce incident duration***

- Reduce roadway and incident clearance times
- Minimize occurrence and duration of lane closures
- Improve communications
- Standardize procedures and develop associated interagency agreements
- Coordinate regular debriefings
- Establish methods for measuring effectiveness

#### ***Goal 2: Improve safety of motorists and responders***

- Reduce incident occurrence and severity, including secondary incidents
- Provide/increase multidisciplinary responder training
- Improve traffic control and scene protection
- Establish methods for measuring effectiveness

#### ***Goal 3: Reduce motorist impacts***

- Reduce average travel time and associated delay, fuel consumption, emissions
- Reduce travel time variability (i.e., prevent unexpected delays)
- Provide updates to media and public
- Establish methods for measuring effectiveness

At the national level, the recently developed *National Unified Goal (NUG) for Traffic Incident Management*<sup>7</sup> focuses on: (1) responder safety; (2) safe, quick incident clearance; and (3) prompt, reliable, interoperable communications and suggests 18 different strategies for improving these aspects of TIM. In a related effort involving 11 states (including Texas), the FHWA *TIM Program-Level Performance Measurement Focus States Initiative*<sup>8</sup> defined 10 total and three favored candidate program-level TIM objectives related to roadway clearance, incident clearance, and secondary incidents in an effort to lend National consistency to TIM performance measurement and evaluation. Consistency with National TIM directives and initiatives will improve opportunities for Federal support of Austin-area TIM program enhancements.

<sup>7</sup> *National Unified Goal for Traffic Incident Management*. National Traffic Incident Management Coalition. November 2007. <http://www.transportation.org/sites/ntimc/docs/NUG%20Unified%20Goal-Nov07.pdf>

<sup>8</sup> Helman, D. *TIM Focus States Final Phase I Report*. Federal Highway Administration. August 2006.

## CURRENT STATUS OF TRAFFIC INCIDENT MANAGEMENT FOR THE GREATER AUSTIN AREA

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The status of TIM in the greater Austin area is characterized below through a description of key stakeholders, supporting incident management resources, perceived operational and institutional challenges, and progress to date regarding TIM program improvements.

### *Traffic Incident Management Stakeholders*

Traffic incident management personnel can be subdivided into two basic categories: emergency responders and support responders. Emergency responders are "first responders," trained to arrive on the scene and preserve human life until advanced medical care is available. Law enforcement, fire and rescue, and emergency medical service personnel fall into this category. Examples of support personnel include transportation, towing and recovery personnel, and the medical examiner. In the greater Austin area, the following public agencies and private industry associations were identified as key TIM stakeholders:

<i>Emergency Responders</i>	Texas Department of Public Safety (DPS) Travis County Sherriff's Department (TCSO) City of Austin Police Department (APD) City of Kyle Police Department (KPD) City of Pflugerville Police Department (PPD) City of Round Rock Police Department (RRPD) City of Austin Fire Department (AFD) City of Georgetown Fire Department (GFD) Austin-Travis County Emergency Medical Services (EMS) Texas Division of Emergency Management (DEM) Travis County Office of Emergency Management (OEM) Bastrop County Office of Emergency Management (OEM) City of Austin Office of Emergency Management (OEM)
<i>Support Responders</i>	Texas Department of Transportation (TxDOT) City of Austin Traffic Signals Austin Towing Association (ATA) City of Austin Watershed Protection Travis County Office of the Medical Examiner (TCME)

In the context of TIM, the overall mission and responsibilities of stakeholders in the greater Austin area is consistent with National observation:

### *Emergency Responders*

- Law enforcement personnel secure the incident scene, collect evidence, prevent secondary incidents, and protect the safety of the public at large and on-scene incident responders.
- Fire and rescue personnel provide first response emergency medical and rescue services.
- Emergency medical services personnel preserve life through prompt emergency treatment and rapid transport to hospital facilities.

*Support Responders*

- Transportation personnel serve public safety and preserve resources (including air quality and time) by restoring the flow of traffic as safely and as quickly as possible.
- Towing and recovery personnel remove and recover vehicles—from motorcycles to tractor trailers—that move along the roadway; assist the public with their vehicle needs; and clear the roadways to keep them passable and safe.
- Watershed protection personnel—either directly or through appropriate contracted personnel—ensure proper containment, cleanup, and disposal of toxic or hazardous materials that may containment water sources if left unchecked.
- Medical examiner personnel investigate sudden, unexpected, unexplained, suspicious, and violent deaths, including accidental deaths resulting from vehicle crashes.



Although much can and should be made of the differences among the types of personnel that respond to traffic incidents, a commonality is that all serve public safety and act to protect and preserve life, property, and natural resources.

***Traffic Incident Management Resources***

A variety of tools and strategies for detecting and verifying incidents, providing information to motorists, responding to an incident, managing an incident site, and clearing an incident are currently available to Austin area responders (see Table 1). Traffic incident management tools and strategies that are prevalent elsewhere in the Nation but not currently used in Austin include the following:

<i>Detecting and Verifying Incidents</i>	Supplemental location signing Portable detection/surveillance systems
<i>Providing Information to Motorists</i>	Telephone dial-in services Public education campaigns
<i>Managing an Incident Site</i>	Physical incident screens Portable intrusion detection/warning systems
<i>Clearing an Incident</i>	Crash investigation sites Photogrammetry crash investigation systems Responsive traffic signal control systems Traffic diversion plans

In general, few additional resource needs have been identified beyond what is currently used; specific needs for new/expanded resources are detailed later in this *Plan*. Instead, the coordination of existing resources leading to their more efficient and effective use was cited as a primary need for Austin area TIM efforts.

**Table 1. Traffic Incident Management Resources Reported by Select AIMHigh Team Members**

RESOURCES		Travis County Sheriff's Office	Austin Police Department	City of Austin Fire Department	Austin-Travis Co. Emergency Medical Services	Texas Department of Transportation	City of Austin, Traffic Signals
<i>Detecting and Verifying Incidents</i>	Aerial Surveillance		•				
	Dedicated Roving Patrols	•	•				
	Cellular Phone Reporting		•	•			
	CB Radio Reporting/Fleet Agreements		•				
	Motorist Aid Call Boxes		•				
	Dedicated Incident Phone Lines	•	•	•			
	Vehicle Detectors/Incident Detection Algorithms					•	
<i>Providing Information to Motorists</i>	Closed-Circuit Television (CCTV)		•		•	•	•
	Cooperative Partnerships with Media	•	•			•	
	Pager Notification System for Media (e.g., AWACS)			•	•	•	
	Dynamic Message Signs (DMS)		•			•	
	Highway Advisory Radio (HAR)		•			•	
<i>Responding to an Incident</i>	Internet Websites	•	•			•	P
	Dedicated Roving Patrols	•	•				
	Tow Truck/Removal Crane Contracts	•	•				
	Emergency Vehicle Access	•					
	Traffic Signal Priority Systems		•	•	•		
	Global Positioning Systems (GPS) for Responders	•	P	P	•		
	Geographic Information Systems (GIS)	•	•	•	•		
	Personnel and Equipment Resource Lists	•	•	•		•	
	Equipment Storage Sites					•	
	Identification of Fire Hydrant Locations			•			
	Expert/Decision Support Systems		•			•	
<i>Managing an Incident Site</i>	Public Education (i.e., proper actions when emergency vehicle approaches)	•	•			•	
	Incident Command System/Command Post	•	•	•	•		
	Personnel Identification or Uniforms	•	•	•	•		
	Response Vehicle Parking Plans		•	•	•		
	Equipment Staging Area	•		•	•		
	Emergency or Flashing Lights Policies		•	•			
	Traffic Control Devices	•	•	•		•	
	Alternative Communication Devices		•	•	•	•	
	Cross-Installation of Conventional Radios		•		•	•	
	Trunked Radio Systems	•	•	•	•	•	
Expert/Decision Support Systems		•			•		
<i>Clearing an Incident</i>	Dedicated Roving Patrols	•	•				
	Push Bumpers	•	•				
	Abandoned Vehicle Policies	•	•				
	Sweeper					•	
	Front End Loader					•	
	Dump Truck					•	
	"Hold Harmless" Policies					•	
	Alternative Route Plans		•			•	
	Total Station Surveying Equipment	•	•				
	Cameras/Video Equipment	•	•			•	
Certification of Death by Qualified EMT				•			

P=planned

## ***Traffic Incident Management Challenges***

Traffic incident responders face a number of operational and institutional challenges in the performance of the TIM duties. In this *Plan*, these challenges are generally grouped as “primary” and “secondary” to reflect their perceived importance; no ranking of challenges was attempted within these two categories. Overarching challenges exist related to the concurrent performance monitoring and evaluation of TIM improvements.

### ***Primary Traffic Incident Management Challenges***

- **Compromised Responder Safety.** Responder safety is of primary concern to both public agencies and private industry. Despite efforts to ensure responder safety, serious injury or fatality incidents or “close calls” involving responders continue to occur.
- **Inconsistent Use or Misuse of Flashing/Emergency Lights.** Intended to enhance responder and motorist safety, the use of flashing lights in an inconsistent or inappropriate (i.e., overuse) manner can lead to motorist distraction, which in turn may compromise safety. In the greater Austin area, no consistent policy exists that defines appropriate use of flashing/emergency lights at the scene of an incident; responders instead operate within respective agency guidelines for flashing/emergency light use.
- **Inconsistent Quick Clearance Motivation for Responders.** Quick clearance is not a consistent goal among incident responders. Differences in quick clearance priorities are noted both between and within agencies.
- **Too Few Highway Emergency Response Operator (HERO) Service Patrols.** Too few HERO service patrols exist for the expected geographic coverage; larger response areas slow response times. Three vehicles were in operation along IH-35 at the onset of the *AIMHigh Project* but the program was fully discontinued by TxDOT in February 2008.
- **Interagency Field Communications: Incompatible Equipment.** Fire and law enforcement (e.g., public safety) personnel in Austin recently procured compatible radio systems to support direct field communications. Support agencies, such as TxDOT, do not have access to similar compatible radio systems.
- **Interagency Field Communications: Insufficient Procedural Training.** Select public safety personnel have not yet been effectively trained in the use of the new compatible radio systems and have not fully integrated this capability into their procedures (i.e., direct communications have been limited despite capability).
- **Inconsistent Dispatch Call Priority Systems.** Incident events are sometimes classified as different call priorities by fire and law enforcement dispatch in Austin; a Priority One call for AFD may be classified as a lower priority call for APD, resulting in significantly different arrival times to the scene.
- **Limited Towing and Recovery Dispatch.** The Austin Police Department is the only agency authorized to dispatch towing and recovery to the scene of an incident on roadways under their jurisdiction; most often this dispatch request is made after an officer arrives on the scene. Often first to arrive at the scene, AFD cannot request towing and recovery but must instead wait for an APD officer to arrive. This dispatch protocol may significantly extend the overall duration of an incident, particularly given the differences in call priorities and subsequent arrival times to the scene for AFD and APD.

## *Secondary Traffic Incident Management Challenges*

- **Excessive Lane Closures.** Excessive lane closures were identified as problematic; both in terms of the number of lanes closed and the duration of closures. Lane closures are largely initiated to ensure the safety of response personnel, but a balance is required to ensure adequate responder safety without adversely affecting the motoring public through secondary incident occurrence or excessive delay.
- **Confusion over Personnel Roles.** Confusion exists regarding the roles of certain personnel/agencies in TIM. For example, outside agency personnel were uncertain as to the role of retired APD personnel stationed at the Combined Transportation, Emergency and Communications Center (CTECC).
- **Sequential rather than Concurrent Performance of Duties.** Towing and recovery personnel are currently not allowed to initiate their activities until law enforcement fully completes their crash investigation. Sequential rather than concurrent performance of duties may unnecessarily extend the duration of an incident.
- **Inefficient/Ineffective Internal/External Communications.** Circuitous communications extend the incident duration and increase the potential for misinformation. Information is often unnecessarily routed through dispatchers rather than through direct personnel exchange.
  - **Uncertain After-hours Communications with TxDOT.** After-hours communication with TxDOT is reportedly reliant upon a single point of contact. Outside agency personnel reported some discomfort with just a single point of contact should that individual be unreachable when needed.
  - **Insufficient Towing and Recovery Dispatch Information.** Towing and recovery personnel often need more specific information when being dispatched, particularly whether or not the incident involves hazardous materials. Incomplete information could result in the initial dispatch of inappropriate equipment or personnel to the scene and further delay incident clearance.
- **Lengthy Heavy-duty Towing and Recovery Response.** Response times for towing and recovery agencies, particularly heavy-duty wreckers, are challenged by travel distances and associated congestion. Only three companies in Austin are classified as “heavy duty”; two north and one south of Austin. Despite these reported lengthy response times, APD currently has no way of tracking towing and recovery response times to the scene.
- **Lack of Towing and Recovery Training Accountability.** Adequate training for towing and recovery personnel is not assured as part of the current towing and recovery response contracts; instead these contracts focus on requirements related to equipment and resources, insurance provisions, etc. As a result, significant on-the-job training occurs which can degrade the success of TIM efforts.
- **Lack of Active Traffic Management.** Responsive traffic signal timing plans along parallel frontage roads are currently lacking. Effective traffic diversion off of the mainlines to the parallel routes is limited without an ability to effectively respond to the increased traffic demand.
- **Infrequent/Incomplete Incident Debriefings.** Incident debriefings occur too infrequently and with limited participation by TIM agencies. These events should be viewed as a training opportunity and be positive in experience.

### *Performance Measurement for Traffic Incident Management*

- **Limited Collection of/Access to Supporting Data.** Supporting data necessary to effectively characterize TIM performance is either not currently collected or collected sporadically as an open field entry on an incident report. Access to historic information entered in open fields is not supported by query methods and requires manual review of individual computer-aided dispatch (CAD) records.
- **Existing Data May Not Reflect TIM Events of Most Interest.** Data that is currently collected may not accurately reflect events of most interest during the management of an incident. For example, law enforcement personnel record their time “back in service”—often including enforcement or investigatory duties that take place off-site (i.e., if an officer pushes an involved vehicle to a nearby parking lot to gather victim and witness information)—as an indicator for incident clearance. A more meaningful TIM measure would be the time at which the primary roadway travel lanes were re-opened to traffic.
- **Inconsistent TIM/Internal Agency Performance Metrics.** Performance metrics to support TIM may differ in definition from existing internal agency performance metrics. For example, APD currently monitors and is working to improve response times to high-priority incidents (i.e., lane-blocking, injury/fatality incidents) while admittedly sacrificing response times to lower priority incidents. All-inclusive performance metrics—that consider a full range of lane-blocking, injury/fatality incidents to minor vehicle disablements—may reflect a higher incident response time/duration than that currently reported by APD.

### *Traffic Incident Management Progress to Date*

Members of the AIMHigh Team—serving as TIM “champions” within their respective agencies; keeping a balanced focus on procedural, communications, and resource-based improvements; and maintaining a mutually respectful rapport with other TIM responders—have collectively made significant progress in improving TIM operations in the greater Austin area.

In response to select previously identified TIM challenges, the AIMHigh Team has successfully identified, developed, and implemented a number of supporting tools or strategies including:

- responder safety apparel,
- multidisciplinary training programs,
- interagency agreements regarding fatality incident procedures,
- consistent dispatch call priority systems,
- fire hose ramps,
- heavy-duty push bumpers,
- a streamlined APD/TxDOT communications protocol,
- towing and recovery vehicle identification guides, and
- an incident debriefing protocol and database.

These TIM tools and strategies are more fully described below.

*Challenge Addressed: Compromised Responder Safety*

- **Responder Safety Apparel.** Approved by the American National Standards Institute (ANSI) and the International Safety Equipment Association (ISEA), breakaway safety vests use Velcro or snap shoulder, side, and center seams designed to quickly release under pressure preventing the “snag and drag” of field responders who come in contact with a passing vehicle. Breakaway safety vests to enhance responder safety represent a low cost tool that results in significant benefit with prevention of just a single injury. Breakaway safety vests are currently used by APD, AFD, and EMS personnel in Austin and are currently being tested for use by TxDOT.



*Challenge Addressed: Inconsistent Quick Clearance Motivation for Responders, Excessive Lane Closures, Confusion Over Personnel Roles, Sequential Rather Than Concurrent Performance of Duties, and Inefficient/Ineffective Internal/External Communications*

- **Multidisciplinary Training Programs.** Outside of the bimonthly AIMHigh Team meetings, multidisciplinary *Highway Safety* training was provided to an extended group of agency and industry participants through the Texas Engineering Extension Service (TEEX). On a more informal basis and involving fewer participants, an informational meeting involving personnel from APD, AFD, EMS and the TCME was held to discuss opportunities for improved operations in the event of a fatality incident. Significant perspective was gained by all participants regarding each agency’s role, procedures, and limitations.
- **Interagency Agreement Regarding Fatality Incident Procedures.** An interagency agreement between APD, AFD, EMS and the TCME was recently developed to clarify and institutionalize: communication protocols for requesting the ME investigator to the scene, opportunities for relocating the deceased prior to ME arrival so that the roadway may be reopened and secondary crashes prevented, and the needs of the ME investigator under these conditions to maintain the integrity of information required in the event of a fatality, with a focus on high-speed roadway operations. This agreement represents a low cost strategy that could significantly reduce the duration of incidents involving fatalities.



*Challenge Addressed: Inconsistent Dispatch Call Priority Systems*

- **Policy/Law Modifications.** Incident events are sometimes classified as different call priorities by fire and law enforcement dispatch, resulting in significantly different arrival times to the scene. The Austin police Department recently modified call priority classifications for their High Speed Enforcement Unit to better align with the call priorities of other response agencies in support TIM efforts.

*Challenge Addressed: Excessive Lane Closures*

- Fire Hose Ramps.** Fire hose ramps allow incident responders to keep traffic moving when a fire hose is deployed over traffic lanes. No fire hydrants exist along any of the high-speed corridors in Austin. Hence, when a fire-involved incident occurs on these routes, and limited tanker truck resources are expended, fire personnel must run hoses across the adjacent frontage roads to access water, preventing use of these routes to carry diverted traffic from the high speed roadway. Five sets of fire hose ramps (four sets to support operation and one spare set in case of damage) were purchased according to specifications received from the AFD. Their frequency of use, perceived benefit, and noted challenges are being documented to determine the effectiveness of fire hose ramps as a TIM tool. The evaluation aspect of this implementation can provide significant information for TIM programs elsewhere in the Nation.



- Heavy-duty Push Bumpers.** Many law enforcement vehicles in the greater Austin area are presently equipped with push bumpers. The Austin Police Department has experienced excessive vehicle damage with existing push bumpers and as such, recently purchased and installed a more heavy-duty product that will withstand the nature of use for TIM (i.e., pushing vehicles at an angle off of the roadway or pushing vehicles that have locked or damaged wheels). As a complementary exercise, information related to push bumper use by various law enforcement agencies in the greater Austin area was sought to investigate jurisdictional differences but little useful information was uncovered.

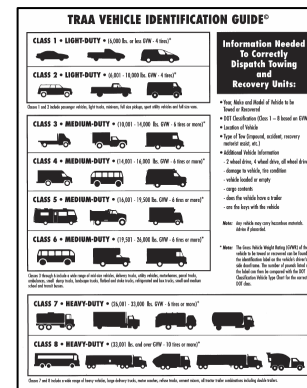


*Challenge Addressed: Inefficient/Ineffective Internal/External Communications - Uncertain After-Hours Communications with TxDOT*

- Streamlined APD/TxDOT Communications Protocol.** The Austin Police Department modified their internal procedures for requesting TxDOT assistance or resources. All requests continue to be coordinated through their Teletype system but as of 2006, a single number is called that is staffed 24/7. TxDOT resource requests are routed appropriately.

*Challenge Addressed: Inefficient/Ineffective Internal/External Communications – Insufficient Towing and Recovery Dispatch Information*

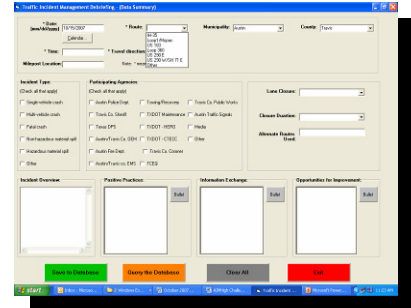
- Towing and Recovery Vehicle Identification Guides.** Available as 8½” x 11” laminated cards, Towing and Recovery Association of America (TRAA) Vehicle Identification Guides help to prevent inappropriate equipment/personnel dispatch, which in turn, reduces overall incident duration resulting from sequential, redundant response. An initial 250 cards were provided by the Austin Towing Association; an additional 1000 cards were provided by TxDOT. These cards were distributed to law enforcement, fire and rescue, EMS, and transportation personnel in the greater Austin area. The TRAA Vehicle Identification Guide



represents a low cost tool to enhance awareness among responders, as well as encourage consistent protocol for callout.

*Challenge Addressed: Infrequent/Incomplete Incident Debriefings*

- Incident Debriefing Protocol and Database.** Major incident debriefings typically involve only those response personnel who directly participated in the subject incident. To take advantage of the information exchanged as part of the incident debriefing process with the AIMHigh Team and the larger TIM community, an incident debriefing database has been developed and is currently being refined. The database consists of an easy to use information entry screen for individual incidents and a search-and-retrieve database for all historic major incident debriefings. A companion protocol to routinely schedule and conduct incident debriefings for incidents lasting longer than four hours was developed. The Austin Police Department will be responsible for scheduling and coordinating these debriefings and maintaining this database once fully developed.



Development of a debriefing database for major incidents will encourage essential information exchange among the larger TIM community. Also, the procedural determination that incident debriefings should automatically be scheduled for incidents lasting longer than four hours will help to institutionalize efforts focused on improving TIM for major incidents.

ID	Date	Time	Location	Type	Status	Description
10110101	9/21	10:50	URS 590 E	Vehicle	Completed	Vehicle involved in collision with guardrail on northbound side of URS 590 E. Driver of vehicle involved in collision was transported to hospital. No injuries reported.
10110102	9/21	11:00	URS 590 E	Vehicle	Completed	Vehicle involved in collision with guardrail on northbound side of URS 590 E. Driver of vehicle involved in collision was transported to hospital. No injuries reported.
10110103	9/21	11:05	URS 590 E	Vehicle	Completed	Vehicle involved in collision with guardrail on northbound side of URS 590 E. Driver of vehicle involved in collision was transported to hospital. No injuries reported.
10110104	9/21	11:10	URS 590 E	Vehicle	Completed	Vehicle involved in collision with guardrail on northbound side of URS 590 E. Driver of vehicle involved in collision was transported to hospital. No injuries reported.
10110105	9/21	11:15	URS 590 E	Vehicle	Completed	Vehicle involved in collision with guardrail on northbound side of URS 590 E. Driver of vehicle involved in collision was transported to hospital. No injuries reported.

A number of additional tools and strategies have been identified as potentially benefiting Austin area TIM activities but are not yet fully implemented. These tools and strategies are described more fully in **Recommended Traffic Incident Management Tools and Strategies for the Greater Austin Area** later in this *Plan*.

## RECOMMENDED TRAFFIC INCIDENT MANAGEMENT TOOLS AND STRATEGIES FOR THE GREATER AUSTIN AREA



In response to the operational and institutional TIM challenges and available supporting resources identified previously and consistent with National TIM directives and initiatives, a number of incident management tools and strategies were identified and evaluated by the AIMHigh Team for possible implementation in the greater Austin area. The most promising tools and strategies for Austin are summarized below, categorized as “short-term” and “long-term” to indicate the respective level of effort required for implementation and by their response to primary and secondary local challenges.

As detailed earlier in this *Plan*, the AIMHigh Team has made significant progress in implementing various tools and strategies to improve TIM operations in the greater Austin area. The remainder of this *Plan* considers only those challenges that remain either partially or wholly outstanding.

In response to these outstanding challenges, the AIMHigh Team has identified the following TIM tools or strategies as priorities for possible implementation:

<i>Short-term</i>	<p><b>Primary Challenges</b></p> <ul style="list-style-type: none"> <li>On-scene Traffic Control Devices</li> <li>Flashing/Emergency Lights Policy</li> <li>Multidisciplinary Training Programs</li> <li>Intra-agency Training Programs</li> </ul> <p><b>Secondary Challenges</b></p> <ul style="list-style-type: none"> <li>Photogrammetry Crash Investigation Systems</li> <li>Toll Road Use Policy</li> <li>Non-cargo Vehicle Fluid Discharge Mitigation Guidelines</li> <li>TxDOT Resource Request Guide</li> </ul>
<i>Long-term</i>	<p><b>Primary Challenges</b></p> <ul style="list-style-type: none"> <li>Incident Investigation Sites</li> <li>Public Education Campaign</li> <li>Expanded Dedicated Service Patrol Program</li> <li>Interoperability Among Radio Systems</li> <li>Towing Dispatch Policy/Law Modification</li> <li>Expanded Instant Tow Dispatch</li> </ul> <p><b>Secondary Challenges</b></p> <ul style="list-style-type: none"> <li>Modified Towing and Recovery Contracts</li> <li>Responsive Traffic Signal Timing Plans</li> <li>Traffic Diversion Plans</li> </ul>

### *Short-term Traffic Incident Management Tools/Strategies*

Many of the short-term tools and strategies identified—including those that require additional multidisciplinary training or only minor development effort (e.g., interagency agreements)—may be addressed within the scope of the *AIMHigh Project*. Others will require external support for implementation.

#### *Challenge Addressed: Compromised Responder Safety*

- **On-scene Traffic Control Devices.** On-scene traffic control devices thought to be of most benefit to local TIM operations include portable dynamic message signs, physical incident screens, and portable intrusion detection/warning systems.

Dynamic message signs (DMS) can provide approaching motorists with real-time advance warning of conditions ahead and/or guidance regarding diversion. A limited number of portable trailer- or truck-mounted DMSs are available to Austin area incident responders. An increased number of available units would help to ensure ready accessibility and expedited arrival at an incident scene when required.

Physical incident screens offer some degree of responder protection by reducing distraction of passing motorists and improving delineation of the incident scene. The AIMHigh Team recently reviewed a system used by the California Department of Transportation but felt that the unique design was too cumbersome and would not significantly enhance current practice of using response vehicles to block the incident scene. Other designs may prove more effective.



Appropriate for longer duration incidents, portable intrusion detection/warning systems utilize sensors to detect errant or excessive speed vehicles and an audible warning device to alert responders; no physical protection is provided. The Austin Police Department is currently investigating portable intrusion detection/warning systems from various manufacturers.

#### *Challenge Addressed: Inconsistent Use/Misuse of Flashing/Emergency Lights*

- **Flashing/Emergency Lights Policy.** Local efforts to guide the use of flashing/emergency lights at the scene of an incident are awaiting results of a cooperative U.S. Fire Administration/Society of Automotive Engineers emergency vehicle warning lighting study; information published to date on this topic is speculative and often conflicting. General “good practice” principles—that include reducing the number, intensity and motion of lights at a scene, limiting forward-facing lights, using no or low-beam headlights for illumination, etc.—were previously shared with to the AIMHigh Team but no formal multi-agency policy has yet been developed. In the greater Austin area, responders operate within respective agency guidelines for flashing/emergency light use.



*Challenge Addressed: Inconsistent Quick Clearance Motivation for Responders, Excessive Lane Closures, Confusion Over Personnel Roles, Sequential Rather Than Concurrent Performance of Duties, and Inefficient/Ineffective Internal/External Communications*

- **Multidisciplinary Training Programs.** Multidisciplinary training programs or opportunities help to ensure a consistent level of training among all incident responders and current knowledge of the state-of-the-practice. Potential sources for training include TEEK, FHWA, and the National Highway Institute (NHI). In addition to traditional training methods, opportunities exist for “virtual” TIM training that utilizes three-dimensional, multi-player computer gaming simulation technology and distance-based learning technologies to introduce and reinforce effective TIM practices.

*Challenge Addressed: Interagency Field Communications – Insufficient Procedural Training*

- **Intra-agency Training Programs.** Issues related to insufficient training for field communications equipment or other deficiencies should largely be addressed through individual agency or association efforts.

*Challenge Addressed: Excessive Lane Closures*

- **Photogrammetry Crash Investigation Systems.** Traditional methods of collecting physical evidence at an incident scene (i.e., base-tape, coordinate, or triangulation method) can be time consuming and personnel intensive, resulting in unnecessary delay to the motoring public and responder risk. Two technology-based strategies for speeding incident investigation include total station surveying equipment (TSSE) and photogrammetry. The Austin police Department currently utilizes a limited number of TSSE units. Comparatively, photogrammetry systems—which capture the necessary data through photos taken at the incident scene and subsequent off-site analysis and interpretation—are offered at a lower cost and further minimize the duration of roadway closures. The Austin Police Department is currently investigating photogrammetry crash investigation systems from various manufacturers.
- **Toll Road Use Policy.** The use of and/or temporary toll suspension on Austin area toll roads exists as a possible operational strategy during major incidents on non-toll facilities. This operational strategy is most often invoked during large-scale evacuations but some States also suspend tolls during major incidents. Similar policies or guidelines direct the use of high occupancy vehicle (HOV) lanes during major incidents; CAMPO is in the process of developing guidelines to direct the use of the Austin area's managed lanes under these same circumstances. Similar guidelines that define if and under what specific circumstances (i.e., full mainline road closure for more than four hours) temporary toll suspension occurs are required for area toll roads. These guidelines should be consistent across each facility; can be supported through cooperative agreements; should be clearly communicated to area incident responders; should be clearly communicated to en-route motorists via DMS located at critical toll access/mainline diversion points, media broadcasts, etc.; and should adequately balance concerns for public safety and delay with the basic intent of the toll road system related to valued time savings and predictability.



- **Non-cargo Vehicle Fluid Discharge Mitigation Guidelines.** The State of Florida’s *Guidelines for the Mitigation of Accidental Discharges of Motor Vehicle Fluids (Non-cargo)* serves as a procedural model for mitigating accidental discharges of motor vehicle fluids that occur as a result of an incident. Spilled vehicle fluids including crank-case engine oil, diesel fuel, transmission or hydraulic fluids, etc., are generally not considered hazardous wastes. Efforts to mitigate the impacts of motor vehicle fluid spills can include “plugging” the leak at the source, containing any spilled material through diking or soil berming, and providing quick clean-up using absorbent materials. Expanded availability and use of plugs, absorbents, etc. for incident responders—in conjunction with a consistent set of guidelines—will encourage prompt intervention that will, in turn, limit congestion impacts, the risk of secondary incidents, and the amount of time spilled fluids are in contact with the pavement.

*Challenge Addressed: Confusion Over Personnel Roles*

- **TxDOT Resource Request Guide.** To alleviate expressed confusion over when TxDOT personnel should be notified and dispatched to an incident scene, what types of resources TxDOT can provide, and whether a TxDOT supervisor is required to report to the incident scene, a guide describing TxDOT’s dispatch protocol and resources—similar to the TRAA Vehicle Identification Guide—can be developed and distributed to outside agency personnel.

### ***Long-term Traffic Incident Management Tools/Strategies***

Other identified TIM tools and strategies require significantly more resources and support for development. Sources outside of the *AIMHigh Project* will be sought to support implementation of these longer-term strategies.

*Challenge Addressed: Compromised Responder Safety and Excessive Lane Closures*

- **Incident Investigation Sites.** Incident investigation sites provide a safe refuge off the main roadway where further investigation or documentation can take place. Incident investigation sites should be easily accessible, adequately signed, be lit, and provide enough space to accommodate multiple vehicles or a large truck. A cost-effective option for developing incident investigation sites is to utilize existing right-of-way and/or combine site purposes. For example, TxDOT right-of-way currently used to stockpile materials or equipment may dually support incident investigation activities if appropriately located near the main roadway.
- **Public Education Campaigns.** Existing State legislation requires motorists to yield when approached by an emergency vehicle in transit, move over/slow down when approaching an incident scene, and move their vehicle so that it is not blocking traffic if involved in a minor incident (i.e., steer it/clear it). Because the effectiveness of these laws is highly dependent upon appropriate motorist action, public education campaigns may prove effective in enhancing the level of public compliance and cooperation. Public education efforts (i.e., public service announcements, brochures, websites, etc.) could be performed concurrently and in partnership with the automobile insurance industry, increasing the overall cost-effectiveness of these efforts. Increased public compliance with these laws would not only enhance motorist and responder safety but also reduce the response burden on law enforcement and other first responders.

*Challenge Addressed: Too Few HERO Service Patrols*

- **Expanded Dedicated Service Patrol Program.** Service patrol programs have been cited to be one of the most publicly visible and cost-effective TIM tools/strategies with reported benefit-cost ratios ranging from 2:1 to 42:1. Service patrol programs offer a cost-effective strategy for clearing minor incidents and enhancing safety by providing enhanced scene protection and traffic control. Across the United States, both the number of programs and the size and services of existing programs continue to increase. The HERO Patrol Program—discontinued by TxDOT in February 2008—is currently being re-established along IH-35 using start-up funding available through the *American Reinvestment and Recovery Act (ARRA) of 2009*. To continue the HERO Program beyond the two-year ARRA funding term and expand its geographic scope, a transition to a public-private sponsorship structure is required. Private sponsorship opportunities—such as those available through State Farm Insurance—often require a demonstrated local public commitment to the program. Collective public-private support of the HERO Patrol Program would lead to reduced secondary crashes; increased responder safety; reduced delay, fuel consumption, and emissions; increased public satisfaction; and increased agency efficiency (by allowing public safety responders to focus on duties for which they are uniquely trained and reducing their overall time in service at an incident).

*Challenge Addressed: Interagency Field Communications – Incompatible equipment*

- **Interoperability Among Radio Systems.** Communications issues related to incompatible equipment are most acute between emergency and support responders, although some incompatibilities exist between emergency responders in different jurisdictions. A significant public investment in compatible radio systems is not recommended. However, less costly “patches” or comparable alternative strategies may effectively support necessary communications.

*Challenge Addressed: Limited Towing and Recovery Dispatch*

- **Towing Dispatch Policy/Law Modifications.** The existing efficiency of towing operations in the greater Austin area is challenged by current policy that limits dispatch authority to APD. Modification of the existing policy—or modification of operational procedures under the existing policy—would encourage the early dispatch of tow operators to an incident scene.
- **Expanded Instant Tow Dispatch.** Instant tow dispatch procedures—currently used as part of APD’s *Rush Hour Rapid Response Program*—allow APD to dispatch tow operators using CTECC camera images rather than traveling to the scene to verify dispatch. Expanded use of instant tow dispatch procedures during more hours of the day could provide significant benefit. Earlier dispatch of towing and recovery personnel improves access to the scene, significantly reduces clearance times for minor incidents not requiring APD response, and reduces overall incident duration resulting from sequential APD officer/tow operator response. Instead, APD personnel shortages have put the existing program at risk for being discontinued.



*Challenge Addressed: Lengthy Routine and Heavy-duty Towing and Recovery Response and Lack of Towing and Recovery Training Accountability*

- **Modified Towing and Recovery Contracts.** During the *Rush Hour Rapid Response Program*, allowable towing and recovery personnel response time requirements are reduced from 45 minutes to 20 minutes. To meet these response time limits, towers are assigned to zones on a rotational basis between the hours of 6 and 9 AM and 4 and 7 PM. Given the tremendous and continued growth in traffic in the greater Austin area, zone-based towing and recovery response procedures, similar to those defined in the current *Rush Hour Rapid Response Program*, could be considered for more hours of the day or even 24/7, but with stricter limits on allowable response times and a mechanism for documenting observed response times. Zone-based contracts would be particularly effective in ensuring swift response of heavy-duty towing and recovery equipment that have limited availability in the region. Implementation of these tools and strategies in support of more effective and efficient towing operations relies less on capital or personnel resources and more on top-down agency support within APD, the agency responsible for negotiating the towing and recovery contracts. The Austin Towing Association has already expressed their support of these tools/strategies.

Issues related to a lack of training accountability for towing and recovery personnel are largely being addressed through individual agency or association efforts. For example, the TRAA, in partnership with Wreckmaster™ and others, has actively promoted towing and recovery personnel certification based on a required level of training. To take advantage of these National training initiatives, local towing and recovery response contracts could be modified to include training-related requirements.

*Challenge Addressed: Lack of Active Traffic Management*

- **Responsive Traffic Signal Timing Plans.** Incident management efforts in the greater Austin area could be significantly enhanced through more active management of traffic. Current operations suggest that alternate routes along high speed roadways are underutilized when an incident occurs. To make better use of these alternate routes, responsive traffic signal timing plans along the parallel routes are required to accommodate unexpectedly high volumes of directional traffic. Supporting technologies, such as responsive lane assignment signs, may further enhance the effectiveness of the responsive traffic signal timing plans.
- **Traffic Diversion Plans.** Concurrent with the development of responsive traffic signal timing plans along alternate routes, effective companion traffic diversion plans are required. Use of DMS and lane control signals, in combination with media partnerships, should be well-planned to effectively divert traffic to the alternate routes and back again, downstream of the incident. This diversion plan should also be well coordinated with on-site law enforcement officers who are performing positive traffic control at the scene and at critical points (i.e., intersections, ramps) upstream of the incident. The success of this effort is dependent upon strong partnerships between the City and State transportation and local law enforcement agencies.



## TRAFFIC INCIDENT MANAGEMENT IMPLEMENTATION REQUIREMENTS FOR THE GREATER AUSTIN AREA

Traffic incident management implementation requirements for the potential tools or strategies identified previously are summarized in Table 2. For each of the potential tools or strategies, the responsible agency or entity, the estimated initial and ongoing annual costs, and recommended near term actions are provided.

The estimated first year and ongoing costs are aggregate values often based on National experience and are intended only to provide a general order of magnitude for anticipated costs. More exact costs specific to implementation in the greater Austin area should be determined as priorities for implementation are established.

**Table 2. Traffic Incident Management Implementation Requirements**

Potential Tools/Strategies		Lead Agency/Entity	Estimated Year One Cost	Estimated Annual Cost	Recommended Near-term Actions
<b>SHORT-TERM (Up to one year)</b>					
<b>Primary</b>					
On-scene Traffic Control Devices	Physical Incident Screens	TxDOT/Law Enforcement	\$15 per lineal foot <sup>9</sup>	Negligible	Characterize needs/identify funds
	Intrusion Detection/Warning Systems		\$880-4,000 <sup>10</sup> per system		
	Portable Dynamic Message Signs		\$18,000-24,000 per sign <sup>11</sup>	\$600-1,800 <sup>11</sup>	
Flashing/Emergency Lights Policy		All	Negligible	Negligible	Monitor National research
Multidisciplinary Training Programs		All	Negligible-\$6,400 per event <sup>12</sup>	Negligible-\$6,400 per event <sup>12</sup>	Investigate virtual and traditional training methods
Intra-agency Training Programs		All	Negligible	Negligible	Encourage internal training
<b>Secondary</b>					
Photogrammetry Crash Investigation System		Law Enforcement	\$4,500 <sup>13</sup>	\$675-950 per new trainee <sup>13</sup>	Characterize needs/identify funds
Toll Road Use Policy	Policy	All	Negligible	Negligible	Characterize historic road closures
	Dynamic Message Signs	TxDOT/Toll Authorities	\$42,000 per sign <sup>11</sup>	\$2,000 <sup>11</sup>	Characterize needs/identify funds
Non-cargo Vehicle Fluid Discharge Mitigation Guidelines		All	Negligible	Negligible	Investigate alternatives to mitigating vehicle fluid spills
TxDOT Resource Request Guide		TxDOT	\$500 <sup>14</sup>	Negligible	Assimilate information
<b>LONG-TERM (Over one year)</b>					
<b>Primary</b>					
Incident Investigation Sites		TxDOT	Variable	Variable	Identify potential existing/ multi-use sites
Public Education Campaign	Mailers/Flyers	All/CTRMA	\$1-2 per mailer <sup>9</sup>	\$1-2 per mailer <sup>9</sup>	Characterize needs/identify funds
	Radio Commercial		\$800 per minute <sup>9</sup>	\$800/minute <sup>9</sup>	
	Television Commercial (Local)		\$4,000+ <sup>9</sup>	\$4,000+ <sup>9</sup>	

**Table 2. Traffic Incident Management Implementation Requirements (Continued)**

Potential Tools/Strategies		Lead Agency/Entity	Estimated Year One Cost	Estimated Annual Cost	Recommended Near-term Actions
<b>LONG-TERM (Over one year)</b>					
<b>Primary</b>					
Expanded Dedicated Service Patrols	IH-35	All	\$1.4 mil <sup>15</sup>	\$1.4 mil <sup>15</sup>	Seek public/private funds
	All High-speed Roadways		\$3.85 mil <sup>16</sup>	\$3.85 mil <sup>16</sup>	
Interoperability Among Radio Systems		All	Negligible	Negligible	Characterize needs
Towing Dispatch Policy/Law Modifications		APD/Towing and Recovery	Negligible	Negligible	Encourage modifications
Expanded Instant Tow Dispatch		APD/Towing and Recovery	\$125,000-181,000 <sup>17</sup>	\$125,000-181,000 <sup>17</sup>	Characterize needs/identify funds
<b>Secondary</b>					
Modified Towing and Recovery Contracts		Law Enforcement/Towing and Recovery	Negligible	Negligible	Characterize needs
Responsive Traffic Signal Timing Plans		City Traffic Signals	\$29,300-80,100 per intersection <sup>11</sup>	\$600-2,300 per intersection <sup>11</sup>	Characterize needs/identify funds
Traffic Diversion Plans		TxDOT/City Traffic Signals	Negligible-\$217,000 <sup>18</sup>	Negligible	Characterize needs/identify funds

<sup>9</sup> Copp, Robert. Transportation Management Plans Effectiveness Study Handouts. [http://ops.fhwa.dot.gov/wz/workshops/accessible/Copp\\_Handouts.htm](http://ops.fhwa.dot.gov/wz/workshops/accessible/Copp_Handouts.htm)

<sup>10</sup> Hatzi, Peter. *SHRP Work Zone Safety Intrusion Alarms*. Presentation. Office of Technology Applications.

<sup>11</sup> *Intelligent Transportation Systems (ITS) Costs Database*. Research and Innovative Technology Administration (RITA). <http://www.itscosts.its.dot.gov/its/benecost.nsf/CostHome>.

<sup>12</sup> National Highway Institute (NHI) Webpage. <http://www.nhi.fhwa.dot.gov/training>. \$320 per person x 20 persons.

<sup>13</sup> Conner, Scott and Kevin Balke. *Use of Photogrammetry for Investigation of Traffic Incident Scenes*. Texas Department of Transportation. 2000.

<sup>14</sup> Estimated production costs for 1,000-1,250 cards.

<sup>15</sup> Estimated costs based on \$35/vehicle-hour + administration for eight vehicles in operation from 6 AM to 10 PM. Monday through Friday.

<sup>16</sup> Estimated costs based on \$35/vehicle-hour + administration for 22 vehicles in operation from 6 AM to 10 PM. Monday through Friday.

<sup>17</sup> Estimated costs based on minimum Officer and maximum Sergeant salary range ([www.ci.austin.tx.us/police](http://www.ci.austin.tx.us/police)) for two additional personnel.

<sup>18</sup> *Incident Management-Alternative Route Plan Project*. City/County Association of Governments of San Mateo County. 2007.

## ENSURING ONGOING TRAFFIC INCIDENT MANAGEMENT IMPROVEMENT FOR THE GREATER AUSTIN AREA

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To ensure a consistent and ongoing level of motivation for improving TIM in the greater Austin area, an organizational framework was constructed comprising the various agency constituents identified in at the onset of the *AIMHigh Project*. The framework provides for equal and active participation from each constituent, encouraging multi-agency/multidisciplinary decision-making. In addition, the framework is agency-focused, rather than individual-focused; as agency personnel change, a new agency contact will be named for replacement. In several instances to date, personnel turnover has occurred but replacement personnel were successfully identified to take their place, maintaining the overall level of agency participation.

To avoid losing momentum in TIM efforts, the AIMHigh Team holds ongoing bimonthly meetings with a standard agenda to facilitate productive group discussion. To encourage participation by a more consistent group of responders from the various agencies, regular meeting days and dates are identified (i.e., the third Thursday of every other month); room scheduling or holiday conflicts sometimes require meetings to be held earlier in the month or on an alternate day of the week.

Ongoing meetings, in part, include informal debriefings for recent incidents including the incident chronology and characteristics, any positive or negative aspects observed, and opportunities for improvement. In addition, AIMHigh Team members are asked to provide updates regarding ongoing implementation efforts during these meetings to ensure continued progress. Also, because many of the TIM challenges identified previously relate to multidisciplinary training efforts, these meetings serve as an important forum for targeted information exchange.

### *Next Steps*

The *Austin-area Incident Management for Highways (AIMHigh) Traffic Incident Management Strategic Plan* presented here is intended to build upon the efforts of the AIMHigh Team to date and to direct future long-term sustainable TIM program investment and development. This *Plan* will be periodically updated to reflect implementation progress. In addition, this *Plan* will be periodically reviewed to ensure continued responsiveness to perceived TIM challenges, support of local internal agency goals, and consistency with National TIM directives and initiatives. Through demonstrated performance improvements resulting from “grass roots” efforts, the AIMHigh Team will support efforts to elevate the level of awareness of TIM needs and anticipated benefits in the region to facilitate longer-term, more significant improvements in traffic incident management.

In the near term, the information contained in this *Plan* is intended to support integrated resource planning and budgeting across and among diverse participating agencies representing law enforcement, fire and rescue, emergency medical services, transportation, towing and recovery, and others with a focus on enhanced TIM operations. This *Plan* is also intended to guide individual or collective requests for external private, State, or Federal program support.