SUMMARY REPORT FOR PA-PITTSBURGH – OVERALL SCORE 70.5%

This TIM Capability Maturity Self-Assessment was completed by the following groups: Law Enforcement, Transportation, Towing and Recovery, Traffic Information Media

SECTION 1: STRATEGIC SCORE - 31.4%

<table>
<thead>
<tr>
<th>FORMAL TIM PROGRAMS</th>
<th>Score: 4</th>
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</thead>
<tbody>
<tr>
<td>1. Is there a formal TIM program that is supported by a multidiscipline, multi-agency team or task force, which meets regularly to discuss and plan for TIM activities?</td>
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<td>Comments:</td>
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<td>Score 1 if:</td>
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<tr>
<td>A TIM program has been established by a single agency, typically a DOT, and is limited to one or two key initiatives (i.e., Safety Service Patrol). Meetings and improvement discussions are not regularly conducted and when they do, not all disciplines are represented. Program leadership (agency/individual) is inconsistent and thus unclear to most agencies.</td>
<td>A multidisciplinary TIM program has been established. The program is supported by a committee, task force, team, or other group that meets on a semi-regular basis. TIM Program leadership (agency/individual) is clear. Work on TIM initiatives is typically completed by committee members on a volunteer basis, which does not always produce timely results. Most agencies and disciplines are represented and regularly participate.</td>
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**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

1a. How frequently does the team or task force meet? 3-4 times per year

2. Are all disciplines and agencies participating in on-going TIM enhancement activities/efforts?

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<tr>
<td>TIM agencies and disciplines typically interact while at the scene of an incident only. Agencies and individuals do not participate collectively in separate TIM enhancement activities and discussions. Some relationships exist among individual responders but have largely been established externally to TIM efforts. On-scene problems stem from lack of collaboration are frequent but not addressed.</td>
<td>Not all responding disciplines are represented during on-going TIM enhancements activities, efforts, or discussions.</td>
<td>There is consistent, routine participation from some key agencies/disciplines (e.g., DOT, metro fire departments, state police/patrol), but some disciplines are still missing.</td>
<td>There is strong, routine involvement from all disciplines and agencies which in turn lead to good working relationships. Collaboration and teamwork at incident scenes is consistently evident. The importance of collaboration and relationships is universally understood and promoted through training, planning, and program activities. All disciplines understand that they are an equal partner in TIM.</td>
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**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

1. Develop a comprehensive list of disciplines involved in TIM planning, coordination and response.
2. For each TIM discipline, identify agencies, organizations, and individuals that should be involved in TIM planning, coordination, response and enhancement activities.
3. Utilize executive/leadership level to reach out to agencies and organizations not participating.
4. Conduct one-on-one meetings with agencies and organizations that are not currently participating in TIM enhancement activities.
3. Is there a full-time position within at least one of the participating agencies with responsibility for coordinating the TIM program as their primary job function?

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<tr>
<td>No agency has assigned responsibility for coordinating the TIM program to a person or position.</td>
<td>Responsibility for coordinating the TIM program has been assigned to a position within a participating agency. However, TIM is just one of their many job responsibilities and they have limited time to dedicate to the program.</td>
<td>Responsibility for coordinating the TIM program has been assigned to a position within a participating agency and 50% or more of their time is dedicated to TIM.</td>
<td>There is a full-time position within one participating agency that is dedicated to coordinating the TIM program.</td>
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**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

- i. Identify an agency that is willing to assign responsibility for coordinating the TIM program to one of their employees or contractors.
- ii. Develop a formal job/position description that outlines the responsibilities of a TIM program coordinator. Document the TIM business case to support the need for the position.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

- iii. Fill and/or assign a part-time (50%) TIM program coordinator position to either agency or contractor staff.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

- iv. Fill and/or assign a full-time TIM program coordinator position to either agency or contractor staff.

4. Is planning to support TIM activities, including regular needs assessments, done across and among participating agencies.

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<tr>
<td>No planning specific to TIM takes place regionally. TIM needs are only considered on a reactive basis when problems occur.</td>
<td>Some local TIM planning may take place but is predominantly specific/unique to individual partner agency(ies) only. Some regional TIM planning is conducted, but typically on an ad-hoc basis and in reaction to an urgent need or problem. TIM needs are assessed on an infrequent (e.g., annual) basis with minimal follow-up.</td>
<td>TIM is noted or mentioned in regional transportation plans but only in the context of ongoing operations. Regional plans may integrate ongoing TIM components such as Safety Service Patrols and program support but little regular planning/programming for other enhancement strategies takes place. TIM needs are discussed on a more regular basis with input from most TIM stakeholders, but some needs may go unaddressed.</td>
<td>Regionally planning for TIM is routine and conducted by MPOs, COGs, Transportation Commissions, DOTs and public safety agencies. TIM needs are routinely and proactively discussed in a multidisciplinary setting and are directly linked with the regional planning process. There is a TIM line item in funding allocations to pay for TIM strategies to address identified needs.</td>
</tr>
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**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

- i. Conduct individual agency TIM planning.
- ii. Complete the FHWA TIM Self-Assessment annually in a multidisciplinary group setting as a means to identify/understand needs and gaps.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

- iii. Add a standing item to the TIM committee or task force agenda to discuss and assess TIM-related needs.
- iv. Conduct multidiscipline TIM planning and prioritize TIM enhancements.
- v. Integrate results of TIM after-action reviews (AARs) into needs identification/assessment activities.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

- vi. Establish a mechanism for tracking and prioritizing TIM needs, action items or strategies to address, and results. Make the tracking mechanism available to all TIM stakeholders for input and review.
- vii. Integrate all TIM needs/enhancement strategies into existing planning processes and documents, including the state's Strategic Highway Safety Plan (SHSP) and Transportation Improvement Plans (TIPs).
5. Are funds available for TIM activities?

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<td>No funds are specifically allocated for TIM on a regional basis. TIM is paid for exclusively and independently from the operating budgets of partner agencies. The region is routinely challenged to acquire funds for TIM enhancement initiatives.</td>
<td>The Safety Service Patrol program may have a dedicated funding source, but minimal funding is available for any other TIM enhancement activities. Partner agencies have little or no understanding of funds that are, or may be, available for TIM.</td>
<td>Some TIM elements/activities such as program or training support are funded annually. Little programming and budgeting takes place for other TIM enhancement activities, though a nominal amount of funding is sometimes available. There is a moderate understanding of available funding and the process for accessing it.</td>
<td>Through funding sources such as TIPs, STIPs, SHSP and Federal Programs, regular annual (fiscal year) budget allocations are made for the majority of TIM activities such as: Safety Service Patrols; training; TIM equipment and supplies; program management/support; and outreach/promotion. Funds are often allocated according to need and program priorities. Stakeholders have a good understanding of both available or potential funding sources for TIM activities (e.g., grants, Federal funds, etc.) and the process and requirements for requesting/accessing it.</td>
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**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

1. Identify the associated costs and benefits of needed TIM enhancements.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

2. Investigate and identify all TIM eligible funding sources and define the process for requesting funds.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

3. Allocate funding for priority TIM enhancements.

Do you have any additional comments on your scores in the *Formal TIM Programs* subsection?
### TIM Training and After-Action Reviews

#### 6. Have stakeholders in the region participated in a SHRP2 National TIM Responder Training Program, or equivalent, Train-the-Trainer (TtT) session and are they actively training others?

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<td>No TtT session has been conducted in the region.</td>
<td>Yes, but less than 20% of the TtT participants have conducted any subsequent training sessions.</td>
<td>Yes, and between 20%-40% of the TtT participants have provided TIM training to others. There are a handful of very active trainers, but many trainers have only assisted with 1 or 2 training sessions.</td>
<td>Yes, and over 40% of the TtT participants have provided TIM training to others. The trainers remain active and are assisting with at least one training session quarterly.</td>
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</table>

#### Actions to progress from level 1 to 2
- i. Establish a TIM training implementation committee.
- ii. Conduct a TIM TtT session.

#### Actions to progress from level 2 to 3
- iii. Establish and document clear expectations for TtT participants (e.g., expected to instruct two TIM training sessions per year.)

#### Actions to progress from level 3 to 4
- iv. Identify a mechanism to regularly communicate with and engage TIM trainers (e.g., quarterly teleconferences or webinars, e-mail communications, etc.)
- v. Assign scheduling and coordination of TIM training sessions to an individual or group of individuals to ensure trainings are conducted on a regular basis.

#### 6a. Is there any other TIM-related supplemental or topic-specific training being provided?

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<td>Most training is being provided to individual agencies in a single discipline setting.</td>
<td>Some efforts have been made to support multidiscipline training. Many agencies are still focused on training just their own employees.</td>
<td>A multidiscipline setting has been used in over half of the training sessions provided.</td>
<td>The majority of training activities are taking place in a multidiscipline setting. Large agencies that are using in-service to train their employees have invited other disciplines to participate in the training.</td>
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</table>

#### Actions to progress from level 1 to 2
- i. Establish, or re-invigorate, a TIM training implementation committee.
- ii. Develop a local/regional distribution list that can be used by TIM trainers to assist with outreach efforts for scheduled TIM training sessions.

#### Actions to progress from level 2 to 3
- iii. Establish an online TIM training schedule/calendar that is shared with all TIM stakeholders and regularly updated.
- iv. Utilize local/regional TIM committees or task forces to promote awareness of available TIM training sessions.

#### Actions to progress from level 3 to 4
- v. Assign scheduling and coordination of TIM training sessions to an individual or group of individuals to ensure trainings are conducted on a regular basis in a multidiscipline setting.

#### 7. Is the SHRP2 TIM Responder Training being conducted in a multidiscipline setting?

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<td>Most training is being provided to individual agencies in a single discipline setting.</td>
<td>Some efforts have been made to support multidiscipline training. Many agencies are still focused on training just their own employees.</td>
<td>A multidiscipline setting has been used in over half of the training sessions provided.</td>
<td>The majority of training activities are taking place in a multidiscipline setting. Large agencies that are using in-service to train their employees have invited other disciplines to participate in the training.</td>
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#### Actions to progress from level 1 to 2
- i. Establish, or re-invigorate, a TIM training implementation committee.
- ii. Develop a prioritized outreach plan for approaching the local academies and technical colleges.
- iii. Utilize TIM training champions from the appropriate discipline to reach out to local academies and technical colleges that have been slow to incorporate the TIM training.

#### Actions to progress from level 2 to 3
- iv. Identify opportunities to make TIM training mandatory.

#### 8. Has the SHRP2 TIM Responder Training, or equivalent, been incorporated into the state or local academy and/or technical college curriculums?

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<tr>
<td>The SHRP2 TIM Responder Training, or equivalent, has not been incorporated into the state or local academy and/or technical college curriculums.</td>
<td>A limited number of academies and/or technical colleges have incorporated the SHRP2 TIM Responder Training, or equivalent, into their curriculums.</td>
<td>Over half of the state or local academies and/or technical colleges have incorporated the SHRP2 TIM Responder Training, or equivalent, into their curriculums.</td>
<td>The SHRP2 TIM Responder Training, or equivalent has been incorporated into the majority of state or local academy and/or technical college curriculums for all disciplines.</td>
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</table>

#### Actions to progress from level 1 to 2
- i. Identify all local academies and technical colleges that offer courses to TIM stakeholders.
- ii. Develop a prioritized outreach plan for approaching the local academies and technical colleges.

#### Actions to progress from level 2 to 3
- iii. Utilize TIM training champions from the appropriate discipline to reach out to local academies and technical colleges that have been slow to incorporate the TIM training.
- iv. Identify opportunities to make TIM training mandatory.
9. Does the TIM program conduct multidiscipline, multi-agency after-action reviews (AARs)?

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<tr>
<td>No AARs are conducted.</td>
<td>Some AARs are conducted internally by individual agencies. Multidiscipline AARs may be conducted occasionally, but only for very serious incidents where significant problems were encountered.</td>
<td>Routine AARs are conducted, but not all involved responders participate. AARs may only occur in the context of an established TIM committee or task force meeting, which may lead to delayed or ineffective discussion.</td>
<td>AARs are institutionalized and a formal AAR process exists that includes thresholds for conducting timely AARs and participation requirements. Results are documented, acted upon, and shared with all TIM stakeholders.</td>
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**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

- i. Document the value of conducting AARs and obtain TIM partner buy-in.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

- ii. Conduct AARs on a routine basis.
- iii. Establish criteria/thresholds for conducting AARs.
- iv. Develop a standard form for documenting results of AARs.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

- v. Develop and implement a formal multidiscipline AAR process that has been accepted as a standard operating practice by all TIM stakeholders.
- vi. Develop a mechanism for tracking and sharing AAR action items and results (and/or integrate with needs tracking).

Do you have any additional comments on your scores in the TIM Training and After-Action Reviews subsection?
### TIM PERFORMANCE MEASURES

<table>
<thead>
<tr>
<th>10. Is Roadway Clearance Time (RCT) measured and used by your agency? FHWA defines RCT as the “time between first recordable awareness of an incident by a responsible agency and first confirmation that all lanes are available for traffic flow.”</th>
<th>Score: 3</th>
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<tbody>
<tr>
<td>Score 1 if:</td>
<td>Score 2 if:</td>
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<tr>
<td>RCT is not typically measured</td>
<td>RCT is routinely measured.</td>
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#### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

- i. Recognize and communicate with TIM stakeholders the need for and value of routinely measuring RCT.
- ii. Adopt the FHWA standard definition for RCT.
- iii. Develop and implement methodologies to routinely collect and track RCT, including establishing a baseline for measurement.

#### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

- iv. Conduct trends analysis of RCT specific to facilities, incident types, lane closure types, regions with responder training, periods of operation by time and day, and other factors.
- v. Develop a mechanism for regularly reporting and sharing the RCT performance measure with TIM partners.

#### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

- vi. Routinely scan for new opportunities to improve the quality, accuracy, and geographic/temporal coverage for reporting RCT.
- vii. Develop varied levels of aggregation for this performance measure that target diverse needs among TIM stakeholders.
- viii. Develop and implement advanced TIM measures that are tied to system or region-wide goals for travel time reliability, congestion/delay and other outcomes.
- ix. Standardize and document processes for collecting, cleaning, analyzing, and reporting RCT.

### 11. Which of the following data collection and analysis practices best align with your region for RCT? | Score: 2 |
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<td>Score 1 if:</td>
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<tr>
<td>Data (crash reports, TMC, CAD) is present but not necessarily accessible or useful because it is not collected with a focus on performance measures.</td>
<td>Data is collected by a single agency (typically MPO or DOT), some data is linked or integrated, but only for a small subset of the broader set of incidents (for example, only for one urban interstate) because data collected by partner agencies are limited.</td>
</tr>
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#### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

- i. Identify data and collection requirements to support measuring RCT.
- ii. Increase accessibility to data already being collected by TIM partners.
- iii. Begin to link and integrate data within the measuring agency.
- iv. Develop and implement training within the measuring agency to accurately, quantitatively, and consistently report data needed to measure RCT.

#### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

- v. Collaborate with TIM stakeholders to expand data collection to reduce gaps in data collection documented in 18a and 18b.
- vi. Add fields to the state crash report to collect data for measuring RCT.
- vii. Confirm ability of transportation infrastructure systems/field devices, TMC/TOC software, and/or law enforcement computer-aided dispatch (CAD) systems to collect needed data.
- viii. Develop and implement training for TMC, dispatch, and responder communities to accurately, quantitatively, and consistently report data needed to measure RCT.

#### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

- ix. Integrate data sources (e.g., TMC/TOC ATMS integrated with law enforcement CAD, Crash Reports, and/or Safety Service Patrol Logs, etc.) to support performance measurement for system/region-wide transportation effectiveness.
- x. Where efficiencies can be achieved, automate processes for collecting, cleaning, analyzing, and reporting TIM measures.
- xi. Continue to expand data collection to reduce gaps in data collection documented in 18a and 18b.
### 12. Has the TIM program established performance targets for RCT?

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<tbody>
<tr>
<td>No RCT performance targets have been established.</td>
<td>Subjective or qualitative targets for RCT are established.</td>
<td>Quantitative, data-driven performance targets for RCT have been established.</td>
<td>Quantitative, data-driven performance targets for RCT have been established and progress is regularly reported and reviewed. Targets are modified as appropriate.</td>
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**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

- Recognize the need for and benefit from measuring RCT and establishing performance targets.
- Obtain executive buy-in for performance targets.
- Set and document qualitative, if not quantitative, performance targets.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

- Identify and obtain data to support quantitative estimation of RCT, and selection of performance targets.
- Obtain sufficient historic RCT to establish meaningful, quantitative performance targets. Consider utilizing categories (e.g., property damage only, fatality, Hazmat involved, etc.) to enhance usefulness of targets.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

- Develop a mechanism for regularly reporting and reviewing progress towards RCT performance targets.
- Tailor or expand RCT performance targets that meet needs among TIM partners both at the operational and executive levels.
- Identify TIM program enhancements as well as external factors that may affect RCT performance. Provide context when reporting RCT performance against targets that include TIM program and external factors (e.g., significant demand growth on facilities, change in responder workforce, or responder training).

### 13. How does your agency use RCT performance data to influence your TIM operations?

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<tr>
<td>Regional or local operations are rarely, if ever, modified or improved upon based on prior TIM performance. Status quo is generally acceptable to all agencies and disciplines.</td>
<td>Regional or local operations are inconsistently modified or improved upon based on this TIM performance measure.</td>
<td>Regional or local operations are occasionally modified or improved upon based on this TIM performance measure by a single agency or discipline.</td>
<td>Regional or local operations are regularly modified or improved upon based on this TIM performance measure by TIM program members across disciplines.</td>
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</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

- Acknowledge the value of using RCT performance to improve operations.
- Describe the strategic and tactical actions that may be enhanced through RCT performance data.
- Acquire decision maker buy-in to shift toward performance-based operational improvements using RCT performance.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

- Routinely review the RCT performance measure during agency TIM meetings to identify and implement operational improvements, and guide program priorities.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

- Routinely review the RCT performance measure during multi-agency TIM meetings to identify and implement operational improvements, and guide program priorities.
14. Is Incident Clearance Time (ICT) measured and used by your agency? FHWA defines ICT as the “time between the first recordable awareness of the incident and the time at which the last responder has left the scene.”

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<tr>
<td>ICT is not typically measured.</td>
<td>ICT is routinely measured.</td>
<td>ICT is routinely measured and reported.</td>
<td>ICT is routinely measured, reported, and tied to system or region-wide outcomes such as travel time reliability or congestion/delay.</td>
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</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

i. Recognize and communicate with TIM stakeholders the need for and value of routinely measuring ICT.

ii. Adopt the FHWA standard definition for ICT.

iii. Develop and implement methodologies to routinely collect and track ICT, including establishing a baseline for measurement.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

iv. Conduct trends analysis of ICT specific to facilities, incident types, lane closure types, regions with responder training, periods of operation by time and day, and other factors.

v. Develop a mechanism for regularly reporting and sharing the ICT performance measure with TIM partners.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

vi. Routinely scan for new opportunities to improve the quality, accuracy, and geographic/temporal coverage for reporting ICT.

vii. Develop varied levels of aggregation for this performance measure that target diverse needs among TIM stakeholders.

viii. Develop and implement advanced TIM measures that are tied to system or region-wide goals for travel time reliability, congestion/delay and other outcomes.

ix. Standardize and document processes for collecting, cleaning, analyzing, and reporting ICT.

15. Which of the following data collection and analysis practice best aligns with your region for ICT?

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<td>Data (crash reports, TMC, CAD) is present but not necessarily accessible or useful because it is not collected with a focus on performance measures.</td>
<td>Data is collected by a single agency (typically MPO or DOT), some data is linked or integrated, but only for a small subset of the broader set of incidents (for example, only for one urban interstate) because data collected by partner agencies are limited.</td>
<td>Data is collected among TIM partner agencies for a significant proportion of incidents in the region. Data collection reflects the intent for use in performance measurement. Efforts may be underway to broaden data collection and explore opportunities for data integration.</td>
<td>Data is purposefully collected and integrated to support performance-based operations and is collected and shared among partner agencies. Strong analysis and reporting capabilities in place, with regular reporting of TIM performance both internally and externally.</td>
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**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

i. Identify data and collection requirements to support measuring ICT.

ii. Increase accessibility to data already being collected by TIM partners.

iii. Begin to link and integrate data within the measuring agency.

iv. Develop and implement training within the measuring agency to accurately, quantitatively, and consistently report data needed to ICT.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

v. Collaborate with TIM stakeholders to expand data collection to reduce gaps in data collection documented in 22a and 22b.

vi. Add fields to the state crash report to collect data for measuring ICT.

vii. Confirm ability of transportation infrastructure systems/field devices, TMC/TOC software, law enforcement crash reports, towing operators, and other responders to collect data on time leaving the incident scene.

viii. Develop and implement training for TMC and responder communities to accurately, quantitatively, and consistently report data needed to measure ICT.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

ix. Integrate data sources (e.g., TMC/TOC ATMS integrated with law enforcement CAD, Crash Reports, and/or Safety Service Patrol Logs, etc.) to support performance measurement for system/region-wide transportation effectiveness.

x. Where efficiencies can be achieved, automate processes for collecting, cleaning, analyzing, and reporting TIM measures.

xi. Continue to expand data collection to reduce gaps in data collection documented in 22a and 22b.
### 16. Has the TIM program established performance targets for ICT?

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<tr>
<td>No ICT performance targets have been established.</td>
<td>Subjective or qualitative targets for ICT are established.</td>
<td>Quantitative, data-driven performance targets for ICT have been established.</td>
<td>Quantitative, data-driven performance targets for ICT have been established and progress is regularly reported and reviewed. Targets are modified as appropriate.</td>
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#### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

- i. Recognize the need for and benefit from measuring ICT and establishing performance targets.
- ii. Obtain executive buy-in for performance targets.
- iii. Set and document qualitative, if not quantitative, performance targets.
- iv. Identify and obtain data to support quantitative estimation of ICT, and selection of performance targets.
- v. Obtain sufficient historic ICT to establish meaningful, quantitative performance targets. Consider utilizing categories (e.g., property damage only, fatality, Hazmat involved, etc.) to enhance usefulness of targets.

#### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

- vi. Develop a mechanism for regularly reporting and reviewing progress towards ICT performance targets.
- vii. Tailor ICT performance targets that meet needs among TIM partners both at the operational and executive levels.
- viii. Develop, apply, and document methods for establishing performance targets for ICT, and the basis by which target modifications are to be considered.
- ix. Identify TIM program enhancements as well as external factors that may affect ICT performance. Provide context when reporting Incident Clearance Time performance against targets that include TIM program and external factors (e.g., significant demand growth on facilities, change in responder workforce, or responder training).

#### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

- i. Acknowledge the value of using ICT performance to improve operations.
- ii. Describe the strategic and tactical actions that may be enhanced through ICT performance data.
- iv. Routinely review the ICT performance measure during TIM meetings to identify and implement operational improvements, and guide program priorities.
- v. Routinely review the ICT performance measure during multi-agency TIM meetings to identify and implement operational improvements, and guide program priorities.

### 17. How does your agency use ICT performance data to influence your TIM operations?

<table>
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<tr>
<th>Score 1 if:</th>
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<th>Score 4 if:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional or local operations are rarely, if ever, modified or improved upon based on prior TIM performance. Status quo is generally acceptable to all agencies and disciplines.</td>
<td>Regional or local operations are inconsistently modified or improved upon based on this TIM performance measure.</td>
<td>Regional or local operations are occasionally modified or improved upon based on this TIM performance measure by a single agency or discipline.</td>
<td>Regional or local operations are regularly modified or improved upon based on this TIM performance measure by TIM program members across disciplines.</td>
</tr>
</tbody>
</table>

#### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

- i. Acknowledge the value of using ICT performance to improve operations.
- ii. Describe the strategic and tactical actions that may be enhanced through ICT performance data.

#### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

- iv. Routinely review the ICT performance measure during TIM meetings to identify and implement operational improvements, and guide program priorities.

#### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

- v. Routinely review the ICT performance measure during multi-agency TIM meetings to identify and implement operational improvements, and guide program priorities.
18. Is the number of Secondary Crashes being measured and used? FHWA defines Secondary Crashes as the “number of unplanned crashes beginning with the time of detection of the primary crash where a collision occurs either a) within the incident scene or b) within the queue, including the opposite direction, resulting from the original incident?

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<th>Score 1 if:</th>
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</thead>
<tbody>
<tr>
<td>Secondary Crashes are not typically measured.</td>
<td>Secondary Crashes are routinely measured.</td>
<td>Secondary Crashes are routinely measured and reported.</td>
<td>Secondary Crashes are routinely measured, reported, and tied to system or region-wide outcomes such as travel time reliability or congestion/delay.</td>
</tr>
</tbody>
</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

i. Recognize and communicate with TIM stakeholders the need for and value of routinely collecting Secondary Crash data.
ii. Adopt the FHWA standard definition for Secondary Crash.
iii. Include Secondary Crash reporting on the Statewide Traffic Crash Reporting Form or collect Secondary Crash data at the agency level where the state forms cannot be modified.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

iv. Working with law enforcement, train responders to consistently report Secondary Crashes.
v. Establishing a baseline for number of Secondary Crashes, and with sufficient historic data, conduct trends analyses specific to facilities, lane closure types, weather, and other factors.
vi. Develop a mechanism for regularly reporting and sharing the Secondary Crash related performance measure.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

vii. Routinely scan for new opportunities to improve the quality, accuracy, and geographic/temporal coverage for reporting Secondary Crash.
viii. Develop and implement advanced TIM measures that are tied to system or region-wide goals for safety, travel time reliability, congestion/delay and other outcomes.
ix. Standardize and document processes for collecting, cleaning, analyzing, and reporting Secondary Crash.

19. How is data for the number of Secondary Crashes collected?

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<tr>
<th>Score 1 if:</th>
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<th>Score 4 if:</th>
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</thead>
<tbody>
<tr>
<td>Data collection is limited, with TIM data available only as a bi-product of existing/separate data collection efforts (i.e., fields taken from crash reports) and manual review is required.</td>
<td>Data collection is occurring by a single agency and data is only being captured for a small percentage of the total number of crashes that occur in the area/region. May require some manual review, tallying or calculations.</td>
<td>Strong data collection systems are in place, but they are typically agency-specific. Data is being captured for a significant percentage of all crashes that occur in the area/region.</td>
<td>Robust, integrated data collection systems (e.g., TMC/TOC ATMS integrated with Law Enforcement CAD, Crash Reports, and/or Safety Service Patrol Logs, etc.) with automated reporting capabilities in place.</td>
</tr>
</tbody>
</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

i. Identify data and collection requirements to support measuring Secondary Crashes.
ii. Increase accessibility to data already being collected by TIM partners.
iii. Begin to link and integrate data within the agency.
iv. Develop and implement training within the agency to accurately and consistently report data needed to measure Secondary Crashes.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

v. Collaborate with TIM stakeholders to expand data collection to reduce gaps in data collection.
vi. Add fields to the state crash report to collect data for measuring Secondary Crashes.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

vii. Confirm ability of transportation infrastructure systems/field devices, TMC/TOC software, and/or law enforcement computer-aided dispatch (CAD) systems to collect needed data.
viii. Develop and implement training for TMC and responder communities to accurately and consistently report data needed to measure Secondary Crashes.
ix. Integrate data sources (e.g., TMC/TOC ATMS integrated with law enforcement CAD, Crash Reports, and/or Safety Service Patrol Logs, etc.) to support performance measurement for system/region-wide transportation effectiveness.
x. Where efficiencies can be achieved, automate processes for collecting, cleaning, analyzing, and reporting TIM measures.
x. Continue to expand data collection to reduce gaps in data collection.
20. Has the TIM program established performance targets for a reduction in the number of Secondary Crashes?

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<tr>
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<th>Score 4 if:</th>
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</thead>
<tbody>
<tr>
<td>No Secondary Crash reduction performance targets have been established.</td>
<td>Subjective or qualitative targets for Secondary Crash reduction are established.</td>
<td>Quantitative, data-driven performance targets for Secondary Crash reduction have been established.</td>
<td>Quantitative, data-driven performance targets for Secondary Crash reduction have been established and progress is regularly reported and reviewed. Targets are modified as appropriate.</td>
</tr>
</tbody>
</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

- Recognize the need for and benefit from measuring Secondary Crashes and establishing performance targets.
- Obtain executive buy-in for performance targets.
- Set and document qualitative, if not quantitative, performance targets.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

- Identify and obtain data to support quantitative measurement of secondary crashes.
- Obtain sufficient historic data to establish meaningful, quantitative performance targets. Consider utilizing categories (e.g., property damage only, fatality, Hazmat involved, etc.) to enhance usefulness of targets.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

- Develop a mechanism for regularly reporting and reviewing progress towards Secondary Crash performance targets.
- Develop, apply, and document methods for establishing Secondary Crash reduction targets, and the basis by which target modifications are to be considered.
- Identify TIM program enhancements as well as external factors that may affect secondary crash rates. Provide context when reporting secondary crash rates against targets that include TIM program and external factors (e.g., significant demand growth on facilities).

21. How does your agency use Secondary Crash performance data to influence your TIM operations?

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<thead>
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**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

- Acknowledge the value of using Secondary Crash data to improve operations.
- Describe the strategic and tactical actions that may be enhanced through Secondary Crash data.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

- Routinely review Secondary Crash performance data during TIM meetings to identify and implement operational improvements, and guide program priorities.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

- Routinely review Secondary Crash performance data during multi-agency TIM meetings to identify and implement operational improvements, and guide program priorities.

Do you have any additional comments on your scores in the TIM Performance Measures subsection?
## SECTION 2: TACTICAL SCORE - 32.5%

### TIM LAWS

<table>
<thead>
<tr>
<th>22. Is an Authority Removal Law in place?</th>
<th>Score: 4</th>
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</thead>
<tbody>
<tr>
<td>Score 1 if:</td>
<td>Score 2 if:</td>
</tr>
<tr>
<td>There is no Authority Removal Law in place.</td>
<td>An Authority Removal Law is in place, but it may not be complete or utilize ideal language.</td>
</tr>
</tbody>
</table>

### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

- i. Research existing Authority Removal Law legislation from other states.
- ii. Develop draft legislation for an Authority Removal Law.
- iii. Identify sponsor for introducing and ultimately enacting Authority Removal Law legislation in accordance with state processes.

### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

- iv. Review existing Authority Removal Law for applicability and effectiveness and draft revisions as appropriate.

### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

- v. Develop and distribute outreach/awareness materials, including sample policies/protocols/procedures, for the Authority Removal Law targeted at TIM stakeholders.
- vi. Integrate the Authority Removal Law into agency policies, protocols, and/or procedures.

<table>
<thead>
<tr>
<th>23. Is a Driver Removal Law in place?</th>
<th>Score: 4</th>
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<tbody>
<tr>
<td>Score 1 if:</td>
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<td>There is no Driver Removal Law in place.</td>
<td>A Driver Removal Law is in place, but it may not be complete or utilize ideal language.</td>
</tr>
</tbody>
</table>

### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

- i. Research existing Driver Removal Law legislation from other states.
- ii. Develop draft legislation for a Driver Removal Law.
- iii. Identify sponsor for introducing and ultimately enacting Driver Removal Law legislation in accordance with state processes.

### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

- iv. Review existing Driver Removal Law for applicability and effectiveness and draft revisions as appropriate.

### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

- v. Develop and distribute outreach/awareness materials, including sample policies/protocols/procedures, for the Driver Removal Law targeted at TIM stakeholders.
- vi. Integrate the Driver Removal Law into agency policies, protocols, and/or procedures.

<table>
<thead>
<tr>
<th>24. What activities are in place to outreach to and educate responders and the public about the TIM laws in place?</th>
<th>Score: 3</th>
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<tbody>
<tr>
<td>Score 1 if:</td>
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<tr>
<td>Minimal outreach/education occurring.</td>
<td>Outreach/education is occurring with the public but less attention is paid to ensuring that responders understand the TIM laws in place.</td>
</tr>
</tbody>
</table>

### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

- i. Identify relevant TIM-related information that should be shared and understood by the public and elected officials.

### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

- ii. Develop public outreach/education materials for the TIM-related safe, quick clearance laws, and other relevant TIM-related information, leveraging the FHWA TIM Outreach Toolkit.

### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

- iii. Develop a TIM outreach/education program plan.

Do you have any additional comments on your scores in the TIM Laws subsection?
## POLICIES AND PROCEDURES FOR INCIDENT RESPONSE AND CLEARANCE

### 25. Is there a Safety Service Patrol program in place for incident and emergency response?

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<thead>
<tr>
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<tbody>
<tr>
<td>There is no Safety Service Patrol program.</td>
<td>A baseline Safety Service Patrol program is in place that focuses on providing motorist assistance only (i.e., provides gasoline, changes flat tires, assists with minor repairs, etc.).</td>
<td>A mid-level Safety Service Patrol program is in place that, in addition to motorist assistance, provides incident response services and clearance resources. The patrol vehicles used typically have the ability to relocate vehicles out of travel lanes through use of push bumpers or tow straps, or through use of wrecker or flatbed vehicles.</td>
<td>There is sustained full-function Safety Service Patrol program in place that provides motorist assistance, performs clearance and recovery services, and assists with emergency traffic control and scene management. There is a comprehensive training program which includes classroom and hands-on training that all Safety Service Patrol operators must complete.</td>
</tr>
</tbody>
</table>

### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

1. Confirm and quantify the need for a Safety Service Patrol program and document the benefits of implementing or enhancing a Safety Service Patrol program, leveraging the FHWA Safety Service Patrol Benefit-Cost Tool.
2. Implement a baseline Safety Service Patrol program.

### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

3. Implement a mid-level Safety Service Patrol program.

### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

4. Implement a full-function Safety Service Patrol program.

### 26. What level of coverage does the Safety Service Patrol program provide?

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<tr>
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<tbody>
<tr>
<td>There is no Safety Service Patrol program.</td>
<td>The Safety Service Patrol program operates a small fleet that only covers a portion of major roadways (i.e., Interstates, limited access highways) identified as needing service based on traffic volumes and/or incident frequency. The frequency of coverage is over an hour (meaning a it takes a patrolling vehicle over an hour to make a loop around their coverage area).</td>
<td>The Safety Service Patrol program operates a medium fleet that provides coverage on most major roadways (i.e., Interstates, limited access highways) identified as needing service based on traffic volumes and/or incident frequency. The frequency of coverage is about 30 minutes.</td>
<td>The Safety Service Patrol program operates a large enough fleet to provide ample coverage on all major roadways (i.e., Interstates, limited access highways) identified as needing service based on traffic volumes and/or incident frequency.</td>
</tr>
</tbody>
</table>

### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

1. Establish a needs assessment process for identifying and prioritizing Safety Service Patrol coverage areas.

### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

2. Expand fleet to achieve a 30 minute frequency of coverage.

### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

3. Expand fleet and coverage to include all major roadways.

### 26a. If there is a Safety Service Patrol program, please provide details on lane miles covered, hours of operation, days of operation, services provided, number of vehicles, equipment on vehicles and any operator training.
27. Are temporary traffic control (TTC) devices (e.g., cones, advanced warning signs, etc.) pre-staged in the region to facilitate timely response?

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<tbody>
<tr>
<td>There are no pre-staged TTC devices.</td>
<td>The need to pre-stage TTC devices has been identified. Some limited TTC devices have been pre-placed but may not be available to all TIM stakeholders and are not consistently deployed.</td>
<td>Some TTC devices have been pre-staged at high-frequency incident locations. Most TIM stakeholders are aware that the TTC devices are available but may not be able or aware of how to access them.</td>
<td>A needs assessment has been completed to identify where pre-staged TTC devices are required and TTC devices are available at those locations. All TIM stakeholders are aware of where the TTC devices are staged and have the ability to, or know the process to, access them.</td>
</tr>
</tbody>
</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

i. Identify and prioritize potential locations for pre-staging TTC devices. Identify the type and quantity of TTC devices desired for each potential location.

ii. Pre-stage TTC devices at high priority locations.

iii. Expand deployment of TTC devices to all locations identified during the needs assessment.

iv. Develop a procedure that identifies the location of all pre-staged equipment and the process for accessing the equipment, and distribute to all TIM stakeholders.

v. Routinely inventory pre-staged TTC devices and replace missing and inoperable units.

28. Do towing and recovery procedures/rotation list policies deploy resources based on type/severity of incident?

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<tbody>
<tr>
<td>The tow procedures/rotation list policies were created with little consideration given to supporting a timely response with proper equipment.</td>
<td>Some consideration has been given to the type/severity of incident and the tow procedures/rotation list is separated into heavy- and light-duty tow providers.</td>
<td>The tow procedures/rotation list deploys resources based on the severity of the incident but does not always take into consideration the proximity of the towing provider.</td>
<td>The tow procedures/rotation list was established to support safe, quick clearance. The rotation policy deploys resources based on the severity of the incident and proximity to facilitate a proper and quick response.</td>
</tr>
</tbody>
</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

i. Gather and review towing and recovery procedures/rotation list policies. Identify needs and/or best practices.

ii. Create two separate tow rotation lists, one for light-duty and one for heavy-duty.

iii. Provide training to both communication center dispatchers and law enforcement officers to ensure a clear understanding of what information tow professionals need to respond.

iv. Update tow rotation list policies to support deployment of resources based on both the severity and proximity of the incident.

29. Do towing and recovery procedures/rotation list policies include company/operator qualifications, equipment requirements, and/or training requirements?

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</thead>
<tbody>
<tr>
<td>The capabilities of the towing agency are not documented or considered as part of the tow procedures/rotation list.</td>
<td>There are minimal equipment requirements but there is no follow-up or verification of the information provided. There are no training requirements.</td>
<td>The tow procedures/rotation list has an application process that requires a summary of equipment capabilities. There is an initial check of this information but follow-up activities are not consistently completed. New operators are required to complete training, but veteran towers are often grandfathered in and do not need to complete training.</td>
<td>The tow procedures/rotation list has a comprehensive application process. Detailed, specific equipment requirements are verified and reviewed annually at a minimum. All drivers are required to complete application towing certifications and participate in the National TIM Responder Training Program.</td>
</tr>
</tbody>
</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

i. Gather and review towing and recovery procedures/rotation list policies. Identify needs and/or best practices.

ii. Establish minimum equipment requirements for towing and recovery procedures/rotation list policies.

iii. Develop and implement a tow rotation list application process with specific equipment, operator capability, and training requirements.

iv. Conduct regular equipment inspections to ensure tow rotation list requirements are being met.

v. Establish specific training requirements for tow operators, including completion of the SHRP2 TIM responder training course.
### Do towing and recovery procedures/rotation list policies include penalties for non-compliance of response criteria?

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<tbody>
<tr>
<td>The tow procedures/rotation list policy does not include any penalties.</td>
<td>Requirements are in place but not routinely enforced. Penalties are identified but not clearly understood by enforcement agencies.</td>
<td>Penalties are clearly identified but are not uniformly enforced.</td>
<td>Penalties are very clearly identified and communicated to towing and recovery companies. Compliance is monitored on a daily basis and penalties are strictly enforced.</td>
</tr>
</tbody>
</table>

**Actions to progress from level 1 to 2**

- i. Gather and review towing and recovery procedures/rotation list policies. Identify needs and/or best practices.
- ii. Integrate penalties for non-compliance of response criteria into towing and recovery rotation list policies.

**Actions to progress from level 2 to 3**

- iii. Summarize penalties and educate both towing and recovery providers, as well as those that utilize the rotation lists.

**Actions to progress from level 3 to 4**

- iv. Routinely and consistently enforce penalties.

### For incidents involving a fatality, is there a procedure in place for early notification and timely response of the Medical Examiner?

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<tbody>
<tr>
<td>There is not a procedure in place for early notification and timely response of the Medical Examiner.</td>
<td>A procedure is in place for response but it does not take into consideration early notification.</td>
<td>A procedure is in place but not all response agencies or Medical Examiners are aware of it so there are still delays in the response.</td>
<td>A procedure is in place that is understood by both those requesting the Medical Examiner and the Medical Examiner’s office. It is regularly reviewed and updated.</td>
</tr>
</tbody>
</table>

**Actions to progress from level 1 to 2**

- i. Gather and review existing procedures and determine if there are any legislative requirements related to Medical Examiner/Coroner notification and response. Identify needs and/or best practices.

**Actions to progress from level 2 to 3**

- ii. Develop and document a standard procedure for Medical Examiner/Coroner early notification and response.

**Actions to progress from level 3 to 4**

- iii. Reach out to all Medical Examiners/Coroners to review the procedure and reinforce the importance of safe, quick clearance.
- iv. Distribute the procedure to all TIM stakeholders.
- v. Regularly review and update the procedure.

### For incidents involving a fatality, is there a procedure for the removal of the deceased prior to Medical Examiner arrival?

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<tr>
<td>There is not a procedure in place for removal of the deceased prior to the arrival of the Medical Examiner.</td>
<td>Some Medical Examiners have approved a procedure for the removal of the deceased but use is inconsistent and many agencies are not aware this may be an option.</td>
<td>A standard procedure is in place but not all response agencies or Medical Examiners are aware of it.</td>
<td>A procedure is in place for removal of the deceased prior to the arrival of the Medical Examiner. The procedure is understood by response agencies, the Medical Examiner and the Medical Examiner’s office. The procedure is regularly reviewed and updated.</td>
</tr>
</tbody>
</table>

**Actions to progress from level 1 to 2**

- i. Gather and review existing procedures related to the removal of the deceased prior to Medical Examiner/Coroner arrival. Identify needs and/or best practices.

**Actions to progress from level 2 to 3**

- ii. Develop and document a standard procedure for the removal of deceased prior to Medical Examiner/Coroner arrival.

**Actions to progress from level 3 to 4**

- iii. Reach out to all Medical Examiners/Coroners to review the procedures and obtain their approval.
- iv. Distribute the procedure to all TIM stakeholders.
- v. Regularly review and update the procedure.
33. Are there procedures in place for expedited crash investigations?

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<th>Score 4 if:</th>
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<tbody>
<tr>
<td>There is no procedure in place to support expedited crash investigations.</td>
<td>Some individual agencies have procedures for expedited crash investigation, but there is no consistency across agencies.</td>
<td>A standard procedure for expedited crash investigations has been created, but not all TIM stakeholders are aware of it.</td>
<td>A procedure is in place for expedited crash investigations. The procedure is understood by the majority of TIM stakeholders. The procedure is regularly reviewed and updated.</td>
</tr>
</tbody>
</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

i. Gather and review existing procedures related to expedited crash investigations. Identify needs and/or best practices.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

ii. Develop and document a standard procedure/guideline for expedited crash investigations.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

iii. Distribute the standard procedure/guideline to all TIM stakeholders.
iv. Promote uniform and consistent procedure/guideline use through multi-agency training and exercises.
v. Regularly review and update the procedure/guideline.

Do you have any additional comments on your scores in the **Policies and Procedures for Incident Response and Clearance** subsection?
### RESPONDER AND MOTORIST SAFETY

#### 34. Do TIM responders routinely utilize temporary traffic control devices to provide traffic control for the three incident classifications (minor, intermediate, major) in compliance with the MUTCD?

<table>
<thead>
<tr>
<th>Score 1 if:</th>
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<tr>
<td>Use of temporary traffic control devices is inconsistent and varies greatly from agency to agency.</td>
<td>Temporary traffic control devices are regularly utilized at major incidents where transportation agencies (i.e., DOT, county maintenance) are on-scene. Use of temporary traffic control devices at intermediate level incidents remains inconsistent.</td>
<td>TIM stakeholders carry and regularly deploy temporary traffic control devices at most incident scenes.</td>
<td>All TIM stakeholders carry and regularly deploy temporary traffic control devices for all types of incidents. Temporary traffic control is compliant with the MUTCD.</td>
</tr>
</tbody>
</table>

#### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

1. Document procedure for requesting highway (e.g. DOT, county, contractor, other) maintenance assistance with traffic control at major incident scenes.

#### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

2. Equip TIM response vehicles with appropriate temporary traffic control devices.

#### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

3. Promote TIM stakeholder participation in the SHRP2 National TIM Responder Training Program.

#### 35. Do TIM responders routinely utilize traffic control procedures to provide back of traffic queue warning to approaching motorists?

<table>
<thead>
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<th>Score 4 if:</th>
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<tbody>
<tr>
<td>Back of traffic queue warning is rarely provided.</td>
<td>Back of traffic queue warning may be provided depending on which agencies respond.</td>
<td>Back of traffic queue warning is considered and deployed at major and intermediate incidents as resources allow.</td>
<td>Providing back of traffic queue warning is considered a priority. A policy/procedure for providing back of traffic queue warning has been established and training is regularly conducted.</td>
</tr>
</tbody>
</table>

#### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

1. Gather and review existing procedures/guidelines related to providing back of traffic queue warning to approaching motorists. Identify needs and/or best practices.

#### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

2. Develop and document a standard procedure/guideline for providing back of traffic queue warning to approaching motorists.

#### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

3. Promote uniform and consistent procedure/guideline use through multi-agency training and exercises.

4. Regularly review and update the procedure/guideline.

#### 36. Is there a mutually understood procedure/guideline in place for safe vehicle positioning?

<table>
<thead>
<tr>
<th>Score 1 if:</th>
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<th>Score 3 if:</th>
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</thead>
<tbody>
<tr>
<td>There is no procedure/guideline in place for safe vehicle positioning.</td>
<td>Individual agencies have procedures/guidelines regarding the positioning of vehicles but these are not consistent or shared with other agencies.</td>
<td>A standard procedure/guideline is in place regarding the safe positioning of vehicles. Many, but not all response agencies are aware of the procedure/ guideline</td>
<td>A procedure/guideline is in place for the safe positioning of vehicles and it is consistent with National TIM Responder Training Program. The procedure/guideline is understood by all TIM stakeholders. The procedure/guideline is regularly reviewed and updated.</td>
</tr>
</tbody>
</table>

#### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

1. Gather and review existing procedures/guidelines related to safe vehicle positioning. Identify needs and/or best practices.

#### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

2. Develop and document a standard procedure/guideline/visor card for safe vehicle positioning that is consistent with the SHRP2 National TIM Responder Training Program.

#### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

3. Distribute the standard procedure/ guideline/visor card to all TIM stakeholders.

4. Promote uniform and consistent procedure/guideline/visor card use through multi-agency training and exercises.

5. Regularly review and update the procedure/guideline/visor card.
### 37. Are there mutually understood procedures/guidelines in place for use of emergency-vehicle lighting?

<table>
<thead>
<tr>
<th>Score 1 if:</th>
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<th>Score 4 if:</th>
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</thead>
<tbody>
<tr>
<td>There is no procedure/guideline in place for use of emergency-vehicle lighting.</td>
<td>Individual agencies have procedures/guidelines regarding the use of emergency-vehicle lighting but these are not consistent or shared with other agencies.</td>
<td>A standard procedure/guideline is in place regarding the use of emergency-vehicle lighting. Many, but not all response agencies are aware of the procedure/guideline.</td>
<td>A procedure/guideline is in place for the use of emergency-vehicle lighting and it is consistent the National TIM Responder Training Program. The procedure/guideline is understood by all TIM stakeholders. The procedure/guideline is regularly reviewed and updated.</td>
</tr>
</tbody>
</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**
- i. Gather and review existing procedures/guidelines related to use of emergency-vehicle lighting. Identify needs and/or best practices.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**
- ii. Develop and document a standard procedure/guideline for emergency-vehicle lighting that is consistent with the SHRP2 National TIM Responder Training Program.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**
- iii. Distribute the standard procedure/guideline to all TIM stakeholders.
- iv. Promote uniform and consistent procedure/guideline use through multi-agency training and exercises.
- v. Regularly review and update the procedure/guideline.

### 38. Are TIM responders following high-visibility safety apparel requirements as outlined in the MUTCD?

<table>
<thead>
<tr>
<th>Score 1 if:</th>
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<tbody>
<tr>
<td>TIM responders are not following high-visibility safety apparel requirements.</td>
<td>Some TIM responders are following high-visibility safety apparel requirements, but use is inconsistent.</td>
<td>Most responders are following high-visibility safety apparel requirements.</td>
<td>High-visibility safety apparel requirements are followed by all TIM responders. While on-scene, responders will remind individuals without high-visibility safety apparel about requirements.</td>
</tr>
</tbody>
</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**
- i. Develop a standard policy for high-visibility safety apparel requirements as outlined in the MUTCD.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**
- ii. Distribute the policy to all TIM stakeholders.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**
- iii. Promote TIM stakeholder participation in the SHRP2 National TIM Responder Training Program.

Do you have any additional comments on your scores in the **Responder and Motorists Safety** subsection?
### SECTION 3: SUPPORT SCORE - 6.7%

#### DATA COLLECTION/INTEGRATION/SHARING

39. Is TIM video captured via TMCs and/or public safety CAD systems and is it shared with other disciplines for real-time operational purposes?

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<tbody>
<tr>
<td>No TIM video is collected and shared.</td>
<td>Some TIM response agencies can access DOT video but only via methods available to the public (e.g. 5-1-1, websites, etc.). No video originating from public safety CAD systems is shared with DOTs or there is strong reluctance to do so.</td>
<td>TIM related video is collected by DOT and public safety agencies and is shared by some, but not all, responding agencies. Some agencies are not aware of video sharing capabilities or don't routinely utilize video for operations.</td>
<td>TIM related [data/video] is routinely and automatically shared among all responding agencies and is fully integrated into public safety CAD and DOT traffic management systems. [Data/Video] is routinely used to tailor response and for other operational purposes.</td>
</tr>
</tbody>
</table>

#### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

1. Identify existing TIM-related video sources.

2. Develop and maintain regional ITS architectures that identify video sources and sharing requirements.

3. Establish functional requirements for video sharing.

4. Perform video sharing design and implementation according to functional requirements.

#### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

5. Engage public safety agencies that use CAD and request sharing of information with the TMC.

6. Obtain access to public-facing, dedicated media, or "view only" screens that describe current/active traffic-related CAD events in near real-time.

7. Formally request that public safety agencies provide dedicated hardware, software, or remote access to CAD systems.

8. Obtain remote access to public safety CAD systems from the TMC operator position.

9. Work with public safety information system staff to identify the technical requirements of data sharing with the TMC system.

10. Create a technical document that outlines the structure, schema, and transmission methodology for data moving between public safety CAD and TMC software.

11. Create a MOU or data sharing agreement between agencies to support CAD integration.

12. Engage CAD and TMC IT staff to create coding necessary for movement of data between systems.

13. Successfully demonstrate CAD integration with no more than 5 minutes delay from the time of CAD entry to receipt by the TMC system.

#### ACTIONS TO PROGRESS FROM LEVEL 3 TO 4

39a. Describe the level of public safety Computer Aided Dispatch (CAD) integration with TMC/TOC software and systems.

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<tbody>
<tr>
<td>Public safety agencies pass information to the TMC/TOC via telephone or email and there is little or no use of public safety agency CAD information, data, or screens by the TMC/TOC.</td>
<td>Public safety agency CAD information is viewed by TMC/TOC personnel on a public-facing web page or similar mechanism; requires retyping to input into TMC/TOC software.</td>
<td>Public safety agency CAD information is viewed by TMC/TOC personnel on a dedicated computer system or monitor; requires retyping or cut-paste operations to input into TMC/TOC software.</td>
<td>Public safety agency CAD electronically transmits event data to the TMC/TOC software and can populate data fields (at a minimum date, time, location, and type event).</td>
</tr>
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</table>

#### ACTIONS TO PROGRESS FROM LEVEL 1 TO 2

i. Identify existing TIM-related video sources.

ii. Develop and maintain regional ITS architectures that identify video sources and sharing requirements.

iii. Establish functional requirements for video sharing.

iv. Perform video sharing design and implementation according to functional requirements.

#### ACTIONS TO PROGRESS FROM LEVEL 2 TO 3

v. Engage public safety agencies that use CAD and request sharing of information with the TMC.

vi. Obtain access to public-facing, dedicated media, or "view only" screens that describe current/active traffic-related CAD events in near real-time.

vii. Formally request that public safety agencies provide dedicated hardware, software, or remote access to CAD systems.

viii. Obtain remote access to public safety CAD systems from the TMC operator position.

ix. Work with public safety information system staff to identify the technical requirements of data sharing with the TMC system.

x. Create a technical document that outlines the structure, schema, and transmission methodology for data moving between public safety CAD and TMC software.

xi. Create a MOU or data sharing agreement between agencies to support CAD integration.

xii. Engage CAD and TMC IT staff to create coding necessary for movement of data between systems.

xiii. Successfully demonstrate CAD integration with no more than 5 minutes delay from the time of CAD entry to receipt by the TMC system.
### 40. Are there policies or procedures in place for signal timing changes to support traffic management during incident response?

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<tbody>
<tr>
<td>There is no policy in place for adjusting signal timings to support traffic management during incident response.</td>
<td>Individual agencies have policies regarding the adjustment of signal timings to support incident management during incident response, but there is no consistency.</td>
<td>A standard policy is in place regarding the adjustment of signal timings during incident response but not all agencies are aware of it.</td>
<td>A policy is in place for the adjustment of signal timings during incident response. The policy is understood by all response partners and responsibilities are widely known. The policy is regularly reviewed and updated.</td>
</tr>
</tbody>
</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

i. Gather and review existing policies/ procedures for signal timing changes to support traffic management during incident conditions. Identify needs and/or best practices.

### 41. Are there pre-planned detour and/or alternate routes identified and shared between TIM stakeholders?

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<th>Score 4 if:</th>
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</thead>
<tbody>
<tr>
<td>There are no pre-planned detour and/or alternate routes identified. Detour planning typically occurs on-scene and is based on responders' knowledge of the area.</td>
<td>Some pre-planned detour and/or alternate routes have been identified for major corridors. Agencies have developed guides that they utilize but these are not readily distributed to all impacted TIM stakeholders.</td>
<td>Pre-planned detour and/or alternate routes have been identified for major corridors and this information has been conveyed to some impacted TIM stakeholders. Basic guides have been developed but are not widely distributed or reviewed.</td>
<td>There are pre-planned detour and/or alternate routes identified and this information is conveyed to all impacted TIM stakeholders. Comprehensive, interactive guides have been developed. These guides are accessible via the web and are reviewed and updated regularly.</td>
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</table>

**ACTIONS TO PROGRESS FROM LEVEL 1 TO 2**

i. Identify and prioritize corridors that would benefit from having pre-planned alternate routes.
ii. Gather and review any existing pre-planned alternate routes.
iii. Document pre-planned alternate routes for major corridors.
iv. Distribute pre-planned alternate routes to those agencies impacted by the routes.

**ACTIONS TO PROGRESS FROM LEVEL 2 TO 3**

ii. Develop and document a standard policy/ procedure for adjusting signal timing to support traffic management during incident conditions.

**ACTIONS TO PROGRESS FROM LEVEL 3 TO 4**

iii. Distribute the standard policy/procedure to appropriate TIM stakeholders.
iv. Promote uniform and consistent policy/procedure use through multi-agency training and exercises.
v. Regularly review and update the policy/ procedure.

Do you have any additional comments on your scores in the Support section?