

Welcome to the Training Part 1 for Law Enforcement Officers in Indiana Department of Transportation Work Zones. The Indiana Department of Transportation, or INDOT, in collaboration with Federal Highway and the Indiana State Police, has prepared this training course to satisfy the contractual training requirements for use of local Law Enforcement Officers in work zones. This training requirement is incorporated into contracts by the June 1, 2020 Recurring Special Provision (RSP) 801-R-672, Law Enforcement Officer for Work Zone Safety, available on INDOT's website which was collaboratively developed by INDOT and the Indiana State Police.

Training Agenda

- Module 1
 - Why use Law Enforcement in Work Zones
 - The Work Zone Team
 - Safety in Work Zones
- Module 2
 - Work Zone Basics
 - Law Enforcement Services
- Module 3
 - Best Practices
 - Resources



This training is comprised of three modules. The first module discusses why we as public servants must focus on work zone safety, why Law Enforcement is necessary, and who makes up the work zone safety team. It will also cover the basics of work zone safety.

Module two discusses the basics of work zones and the categories of law enforcement services that contribute to the safety of these areas.

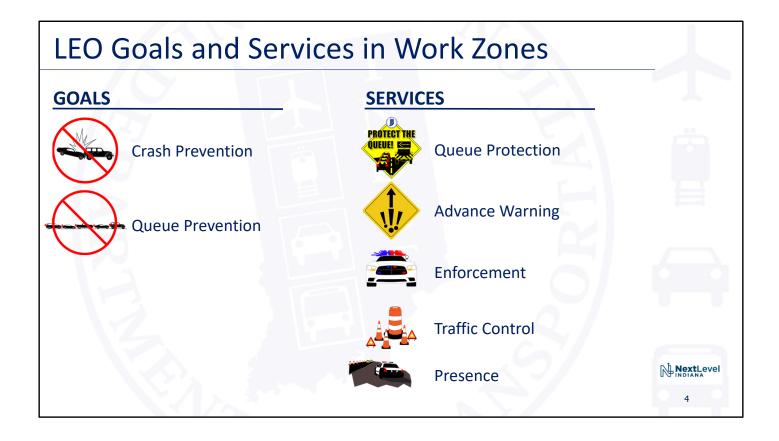
The final module explains some best practices seen on our highways to improve safety in work zones and lists some valuable resources that are available for those involved in work zone safety activities.

Module 1

- Why use Law Enforcement in Work Zones
- The Work Zone Team
- Safety in Work Zones



In this module, we will introduce you to the work zone team and in particular we will focus on why and how Law Enforcement Officers can improve work zones. At the end of the module, we will discuss safety issues faced by Law Enforcement Officers.



INDOT is committed to providing a safe environment for motorists, workers, and law enforcement in the work zone. Our goals are to prevent traffic crashes from happening and to prevent queues from developing. These goals are achieved by the presence of law enforcement and the services they provide in the work zone. The services at their disposal are queue protection, advance warning, enforcement, traffic control, and the officer's presence. These services are listed in priority order. Each of the goals and services will be discussed in further detail in this module. Let's move on to what your duties are in a work zone!

Law Enforcement Duties

Enforcement or Work Zone Services

- 1. Work Zone Services:
 - Queue Protection
 - Advance Warning
 - Traffic Control
 - Presence



- Speeding
- Reckless driving
- Incident management









Work Zone Services may incorporate aspects of enforcement

Communication with Work Zone team is essential







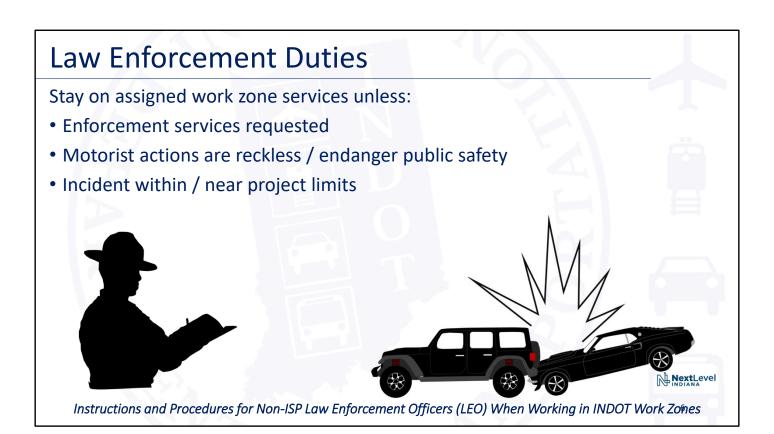


Law Enforcement Officer activities can be segregated into 2 main groupings, Enforcement and Work Zone Services.

Work zone services include queue protection, advance warning, other traffic control activities, and presence. Studies have demonstrated that your participation in a work zone results in lower speeds as well as improved speed harmony. Having drivers approach and navigate work zones at slower more synchronized speeds greatly improves safety. Your primary duty is to provide work zone services such as those listed above.

Enforcement activities are those routinely performed by law enforcement in the course of their normal duties such as ticketing for excessive speeds or responding to incidents.

You may be asked to determine the need for and perform enforcement services in addition to your assigned work zone services. Make sure that your daily mission is clearly communicated by your INDOT and contractor contacts. Don't be afraid to ask questions.



When you are serving in work zones, your primary duty will be described in the daily briefing held with highway agency staff and the contractor. While performing your traffic control activities, you may need to engage in enforcement duties as well. Enforcement duties are covered in more detail in module 2. In addition, part 2 of the Work Zone training for Law Enforcement Officers provides written guidelines.

Benefits of LEOs in Work Zones

• **lowa State University:** "Extra enforcement activities in work zones has proven beneficial in reducing speeds, ensuring compliance with traffic regulations, and improving safety for workers and motorists."







 Federal Highway Administration: "Work zone law enforcement can improve both traffic and worker safety by reducing speed, speed variability, and undesirable driving behaviors such as tailgating and unsafe lane changes."

NextLevel

Law enforcement has a big impact in keeping work zones safe. According to a study by Iowa State University, "Extra enforcement activities in work zones has proven beneficial in reducing speeds, ensuring compliance with traffic regulations, and improving safety for workers and motorists."

This study can be found at Iowa State University Digital Repository under the title of "Effectiveness of extra enforcement in construction and maintenance work zones".

http://lib.dr.iastate.edu/intrans_reports/171?utm_source=lib.dr.iastate.edu%2Fintrans_reports%2F171&utm_medium=PDF&utm_campaign=PDFCoverPages

The Federal Highway Administration stated that "Work zone law enforcement can improve both traffic and worker safety by reducing speed, speed variability, and undesirable driving behaviors such as tailgating and unsafe lane changes."

These guidelines are found in the document "Guidelines on Use of Law Enforcement in Work Zones". These guidelines can be download at www.workzonesafety.org

Never forget that you do make a difference!



There are dangers involved while working in work zones. Training will help to mitigate some of the issues that cause crashes. One of the biggest dangers is distracted drivers. Always be aware and follow proper procedures to protect yourself.

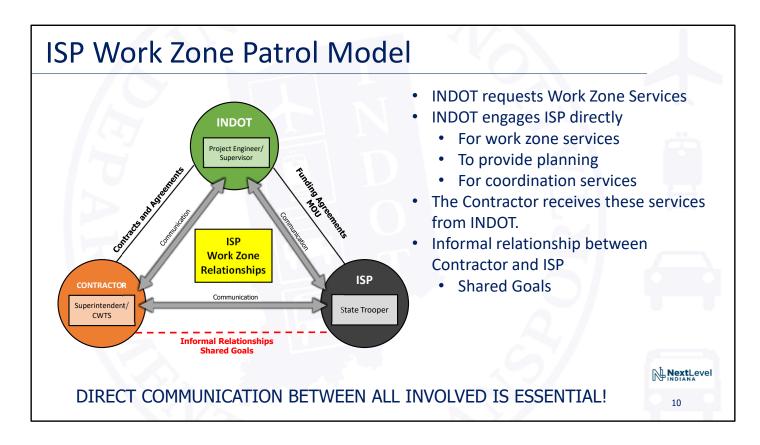
LEO Work Zone Patrol Model INDOT plans for the use of a LEO as a contract pay item. **INDOT** Prime Contractor directly engages the LEO Project Engineer • Contractor Coordinates with LEO Must have concurrence of Project Supervisor (PE/S) LEO provides work zone services INDOT pays Contractor for services LEO PE/S may direct LEO placement Work Zone Informal relationship between INDOT and Relationships **LEO** the LEO Enforceme · Shared Goals Remain **Contract or Employment Agreement** NextLevel DIRECT COMMUNICATION BETWEEN ALL INVOLVED IS ESSENTIAL!

INDOT and local highway agencies employ the Indiana State Police and other law enforcement agencies to provide work zone services. Throughout this presentation, we will use the abbreviation INDOT to represent the owner agency and LEO to represent non-state police Law Enforcement Officers. This training is for Law Enforcement Officers and this slide depicts the model for how Law Enforcement Officers, owner agencies, and contractors interact.

INDOT maintains a formal relationship with the contractor while the contractor obtains the services and maintains the formal relationship with the Law Enforcement Officer. In this model, requests are made by the INDOT project supervisor to provide Law Enforcement Officer services or they are approved by the INDOT project supervisor at the request of the contractor. INDOT pays the contractor directly so the contractor is responsible for coordination and delivery of the work zone support from the Law Enforcement Officer. INDOT retains final authority over the work zone services provided.

In this model, the relationship between INDOT and the contractor and between the contractor and the Law Enforcement Officer are structured while the relationship between INDOT and the Law Enforcement Officer is informal.

As the schematic suggests, communication between the team and each of the individuals involved – the INDOT project supervisor, the Contractor's Superintendent or Certified Worksite Traffic Supervisor, and the Law Enforcement Officer – remains essential.



Although both the Law Enforcement Officer and the Indiana State Police provide work zone services, there are distinctions. In the Indiana State Police Work Zone Patrol Model depicted in this slide, INDOT maintains direct relationships with both the contractor and Indiana State Police. In this model, requests are made of INDOT either prior to or during construction to provide Indiana State Police work zone support. As INDOT pays both the contractor and Indiana State Police directly, the INDOT Project supervisor is largely responsible for coordination and delivery of the work zone support from Indiana State Police.

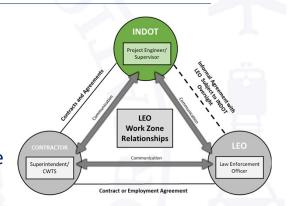
In this model, the relationship between INDOT and the contractor and between INDOT and Indiana State Police are structured while the relationship between the contractor and Indiana State Police is informal.

On interstate projects, both State Police and Local Law Enforcement Officers may be present. When this occurs, state police will perform enforcement actions or in the case of rolling slowdowns, direct the work zone services approach.

Again, communication between the team and each of the individuals involved is absolutely essential.

Work Zone Team: INDOT or Local Highway Agency

- Owns roadway facility
 - Acts as final authority
- Develops work zone Traffic Control Plan
- Hires contractor to perform construction
- Has project supervisor and inspection team on site, or hires a consultant to act in its place
- Allocates Law Enforcement resources
- Approves LEO utilization





We will now discuss each of the three main partners in the Law Enforcement Officer Work Zone Patrol Model. The first entity we'll talk about is the owner of the roadway.

The highway agency owns the facility and is responsible for it, whether that is a county, a city, or INDOT. The highway agency is the "final authority" on the project, and is responsible for the overall project, including implementation of the Traffic Control Plan. We will focus on INDOT projects, but these roles and relationships are the same if the owner is a local agency.

INDOT hires a contractor to perform construction. This is formalized in a contract between INDOT and the contractor.

INDOT will either have a project supervisor and inspection team on site or hire a consultant to perform these duties. The consultant would then act on behalf of INDOT and perform the same functions as INDOT. INDOT will have one designated person overseeing the project, typically called the Project Engineer, Project Supervisor, or Construction Project Manager.

INDOT allocates funds for enforcement resources, paid through the contractor.

All Law Enforcement Officer utilization being paid for under the contract between INDOT and contractor is at the INDOT's discretion.

Work Zone Team: Contractor Builds and maintains project Installs and maintains the work zone traffic control May provide inspection services Coordinates with the LEO May be responsible for hiring and paying LEOs Mediatal Contract of Employment Agreement

The second main partner in the Law Enforcement Officer Work Zone Patrol Model is the contractor.

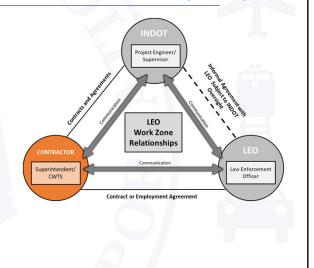
The contractor is hired by INDOT to construct the project. The contractor is also responsible for maintaining the project site by installing and maintaining the work zone traffic control for the project. The contractor is responsible for assessing the work zone daily to ensure traffic control is in good order and is in accordance with the Traffic Control Plan for the project.

The contractor also coordinates and communicates directly with the Law Enforcement Officer.

Work Zone Team: Contractor's Point of Contact (POC)

Contractor's Point of Contact (POC)

- Represents the Contractor in the field and is in charge of the traffic control for the project
- Is frequently also the project
 Superintendent, and is typically a
 Certified Worksite Traffic Supervisor
 (CWTS)
- Is responsible for setup, maintenance, removal, inspection and documentation of the work zone
- Traffic Control Technicians (TCT) members of team led by the CWTS





Let's discuss the Contractor's Point of Contact.

For every project, the contractor designates a Point of Contact. This is the person with whom the Law Enforcement Officer will coordinate on all aspects of the traffic control. This point of contact is often the superintendent for the project, but on larger projects, the superintendent may designate a properly trained separate point of contact for traffic control. He or she is also responsible for overseeing the Traffic Control Plan and is typically trained as a Certified Worksite Traffic Supervisor.

The Law Enforcement Officer should identify the contractor's Point of Contact and should establish a line of communication with this person. Again, this may be the superintendent, or a different person in charge of the traffic control. The point of contact documents all aspects related to the work zone and is responsible for inspecting the work zone during installation, operation, and removal.

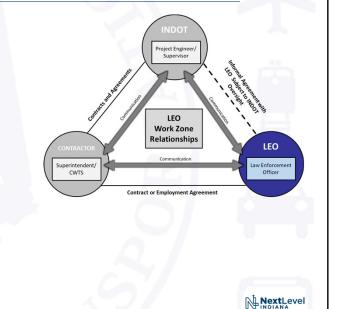
It is extremely important that the Law Enforcement Officer know their primary contacts in the field. This should include the Contractor's point of contact, the Contractor's Superintendent (if separate from the Point of Contact), and also the INDOT Project Supervisor. Traffic Control Technicians are field workers that report to the Contractor's point of contact. Law Enforcement Officers should also encourage two-way communication with Traffic Control Technicians.

Always be sure of your communication channels. If you aren't sure, ask for clarification.

Work Zone Team: Law Enforcement Officers (LEOs)

As described earlier, the LEO can provide queue protection, advance warning, enforcement, or traffic control – whatever is needed at the time.

- Trained in basic work zone operations and safety (e.g. this training)
- Obtain names and numbers of owner (or designated consultant) contact, and of contractor POC and other personnel
- Attend the project's pre-construction conference, if possible
- Make daily contact with POC



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The Law Enforcement Officer, YOU, are the third key partner, together with INDOT and the contractor, forming the work zone safety team.

As stated earlier, the Law Enforcement Officer may provide many services such as queue protection, advance warning, traffic control, or presence. The nature of the work will dictate the type of service needed at the time of your work zone responsibilities.

All Law Enforcement Officers working in highway work zones must be trained in a course similar to this one.

It is also recommended that you attend the pre-construction conference, which is discussed next in this lesson. However, even if you are not able to attend this meeting, the Law Enforcement Officer must be trained and develop a list of INDOT and contractor contacts. The Law Enforcement Officer needs to coordinate activities with their point of contact at the beginning of every shift.

Communication

PCC

- Preconstruction conference (PCC)
- Pre-shift Briefing
- Provides a daily work zone briefing to LEOs at the beginning of each shift or special enforcement activity
- Briefs LEOs on their tasks, hours of operation, what to do, what not to do, and other aspects related to the work zone
- Provides answers to LEOs questions



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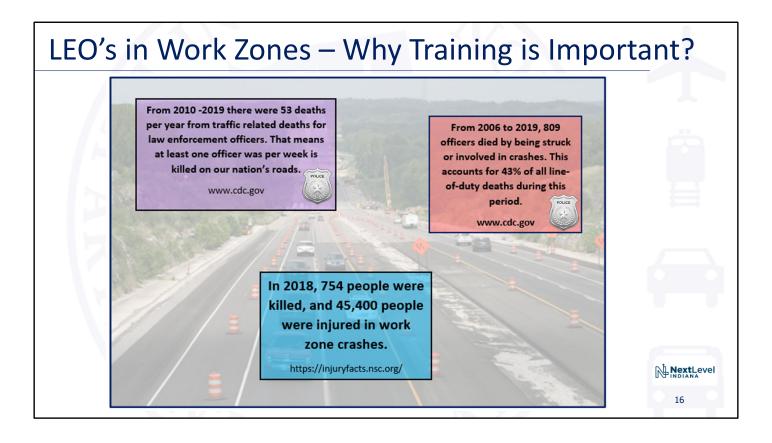
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Communication is key to a successful work zone.

The first communication opportunity is at the preconstruction conference, often referred to as the 'precon'. INDOT, the contractor, and the Law Enforcement Officers establish lines of communication at the precon as this meeting takes place before work begins. Also, roles and responsibilities, procedures, schedule, the traffic control plan, and incident management are discussed. If possible, at least one Law Enforcement Officer or representative should participate. At a minimum, Law Enforcement Officers should meet with the INDOT point of contact and familiarize themselves with the nature of the work zone they are to work.

When arriving on site, it is important for the Law Enforcement Officer to receive information about the work zone. INDOT Project Staff and Contractor Staff should provide a daily work zone briefing to Law Enforcement Officers prior to the beginning of each shift or special enforcement activity. INDOT Project Staff and Contractor Staff should brief Law Enforcement Officers on their tasks, hours of operation, what to do, what not to do, and other aspects related to the work zone. At times, you may be relieving Law Enforcement Officers from a previous shift. These Law Enforcement Officers may also be an additional source of information. However, they should not be the only source. Briefings should be conducted away from moving traffic and preferably before the shift starts. You should ask questions freely and always express your concerns openly.



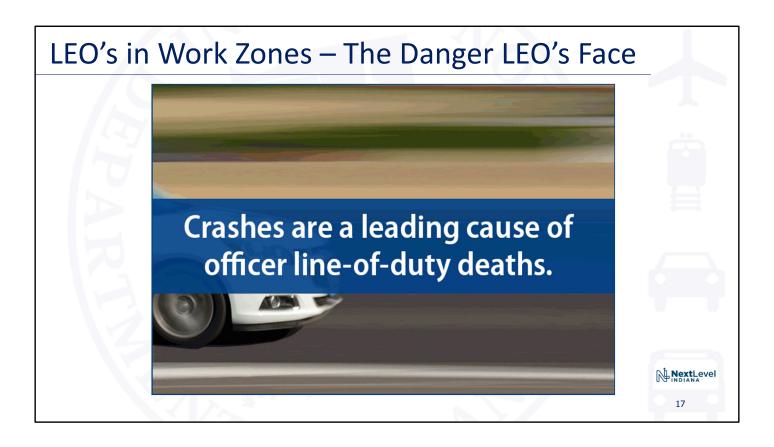


The Indiana Department of Transportation values Indiana Law Enforcement and is committed to your safety. Too many Law Enforcement Officers have been lost each year in traffic deaths that could have been prevented had motorists been paying attention.

From 2006 to 2019, 809 Law Enforcement Officers were either struck by vehicles or involved in crashes. This accounted for 43% of all line-of-duty deaths.

An average of 53 officers died each year in a traffic related death from 2010 to 2019. This is a little over one person per week. Police are not the only people at risk in work zones. In 2018 alone, 754 people were killed with another 45,400 people injured in work zone crashes.

With your help, we can lower these numbers and keep you safe!



Remember: Crashes are a leading cause of officer line-of-duty deaths.

Buckle up, Slow down, Focus, and Remain Calm!

LEO Safety

Safety of everyone – the public, workers, inspectors, and LEOs – is of prime importance

YOUR SAFETY IS CRITICAL AND SHOULD NEVER BE COMPROMISED. YOUR BADGE DOES NOT PROTECT YOU FROM TRAFFIC.

ALWAYS WATCH YOUR BACK.



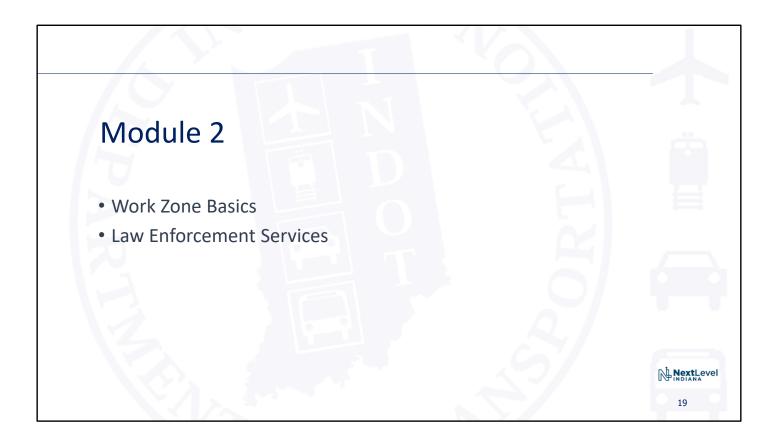
Our goal is for everyone to make it home safely. This includes the motoring public, the workers, inspectors, and you, the Law Enforcement Officer.

INDOT Project Staff and Contractor Staff are never to place Law Enforcement Officers contrary to established procedures and cannot place Law Enforcement Officers in extremely hazardous locations. If you are asked to perform an action that you feel is unsafe, you should discuss with the work zone team and resolve your concern prior to your shift starting. A good place for this discussion is at the daily briefing. Always express your concerns openly.

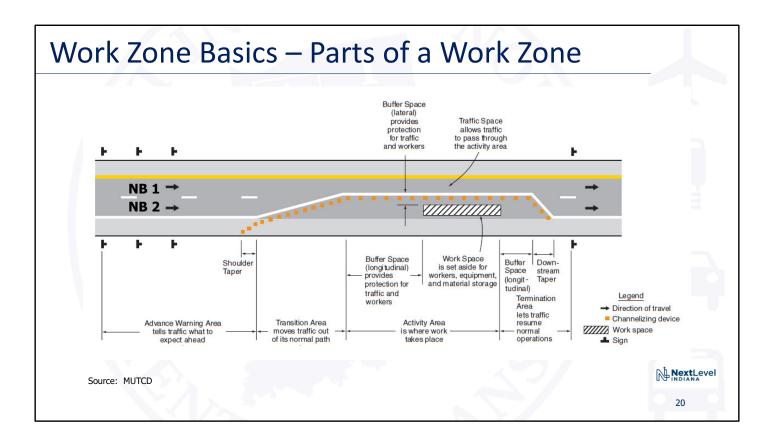
Your safety is critical and should never be compromised.

The fact that you are a Law Enforcement Officer will not protect you from a crash with an approaching errant vehicle. The authority that you represent will not stop that motorist. Always position yourself in the safest location possible and never assume that a motorist will stop just because you are a Law Enforcement Officer. The badge you wear will not protect you!

Don't forget that anyone working in or near live traffic is in danger. Always watch your back and be vigilant about your safety.



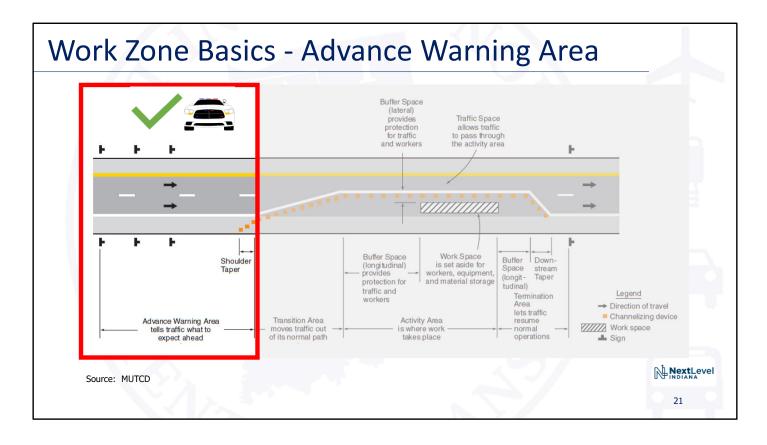
In this module, we will review and define the areas of a work zone and discuss work zone services that Law Enforcement Officers provide.



Let's explore each part of a typical work zone. This example is a right lane closure on a four-lane divided highway where work is progressing in Lane 2. Prior to the work area, all traffic merges into Lane 1.

The typical work zone has four areas:

- 1. The Advance Warning Area
- 2. The Transition Area
- 3. The Activity Area
- 4. The Termination Area

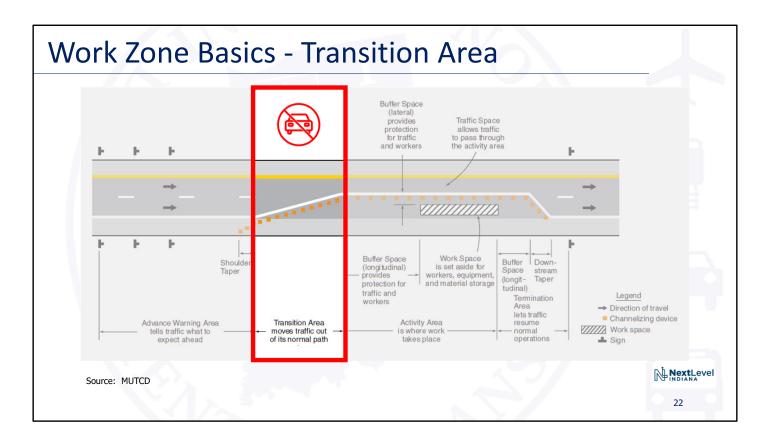


The Advance Warning Area tells traffic what to expect ahead and often includes Speed Limit reductions to slow motorists before the work zone. Without the advance warning area, drivers would be surprised, which could lead to erratic maneuvers and crashes. Proper warning allows drivers time to understand the situation ahead and the required actions they must take. Every work zone should have an advance warning area.

The Advance Warning Area typically provides messaging that:

- Alerts and warns the motorists about a situation ahead, such as "Road Construction Ahead"
- b. Informs the motorist about what the situation is, such "Right Lane Closed"
- c. Instructs the motorist on the required action, in this case, "Merge Left"

The advance warning area provides many options for positioning your patrol vehicle. This is an optimal place for Law enforcement officer parking.

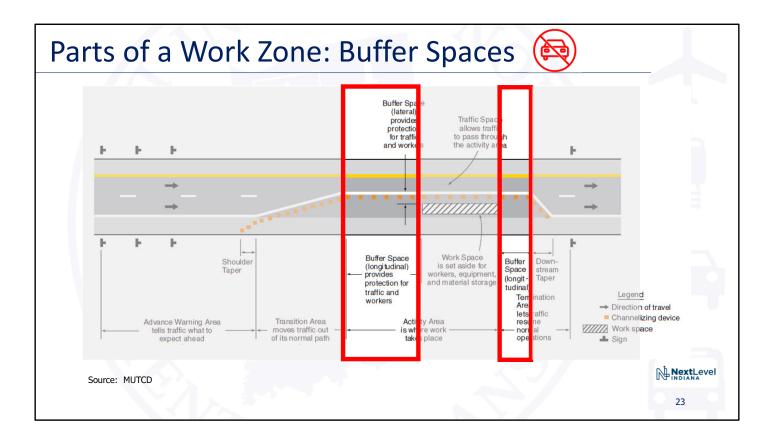


Motorists transition into the work zone in the transition area. Here, the roadway characteristics often change from permanent configuration to the temporary work zone configuration. Transition areas are dangerous areas as this is where motorists make their decisions and execute maneuvers.

Law Enforcement Officers must never park their vehicles in this space on either side of the road.

At high speeds, motorists have less time to make their decisions and maneuvers. The time a driver needs to perceive, analyze, and react to a situation is called perception-reaction time. Under normal every day familiar conditions perception-reaction time is 2.5 seconds. In a work zone, the perception-reaction time is typically twice as long, approximately 5-7 seconds. This is because drivers need more time to analyze an unfamiliar situation. Also, there is more visual information to analyze: signs, cones, vehicles entering the roadway, and other unfamiliar things. This means that a motorist travelling at 60 miles per hour could travel up to 400 feet further than normal before taking the action required.

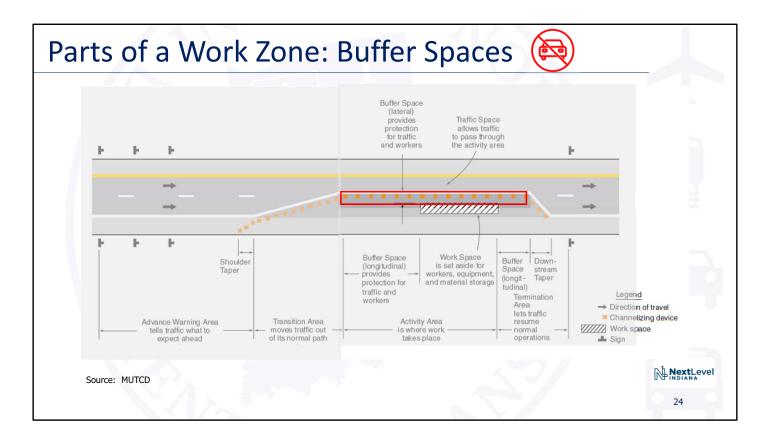
Due to the longer perception-reaction time, placement of a Law Enforcement Officer within the transition area is not only dangerous to the officer but can also increase the likelihood of queuing or produce other adverse outcomes. Again, you must never park within the transition area.



There are two types of buffer spaces in work areas, the first is longitudinal.

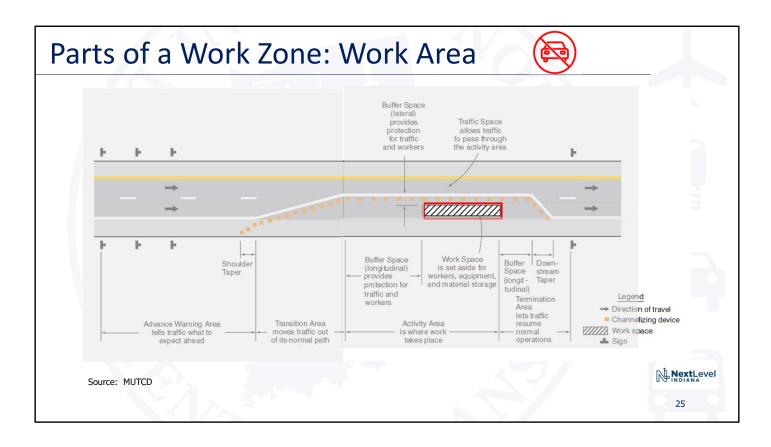
The longitudinal Buffer Space separates the Transition Area from the Work Space. It allows errant motorists who drive through the taper to recover before reaching the work zone and injuring workers. A patrol vehicle parked in the buffer space would not allow for that recovery period and would likely be struck by the errant motorist. Buffer spaces must be empty or they will not serve their intended purpose.

Although these areas may be convenient for placing your patrol vehicle, never park in longitudinal buffer spaces.

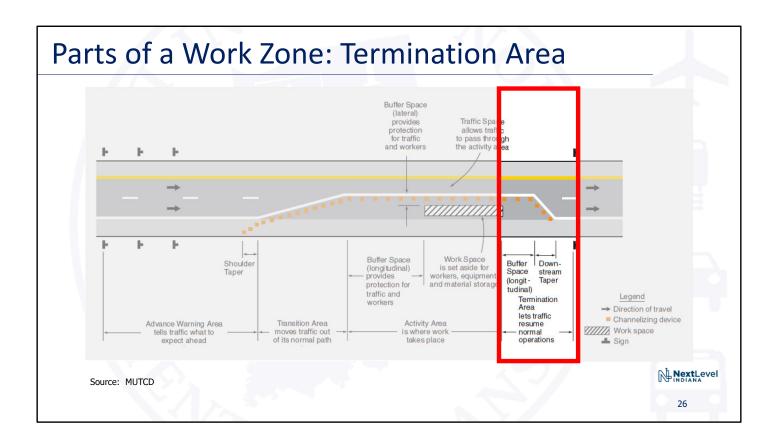


In addition to longitudinal buffer spaces, some projects may feature a Lateral Buffer Space. The Lateral Buffer Space provides a separation between the Work Space and the Traffic Space. Again, a buffer space should always be empty and must stay that way.

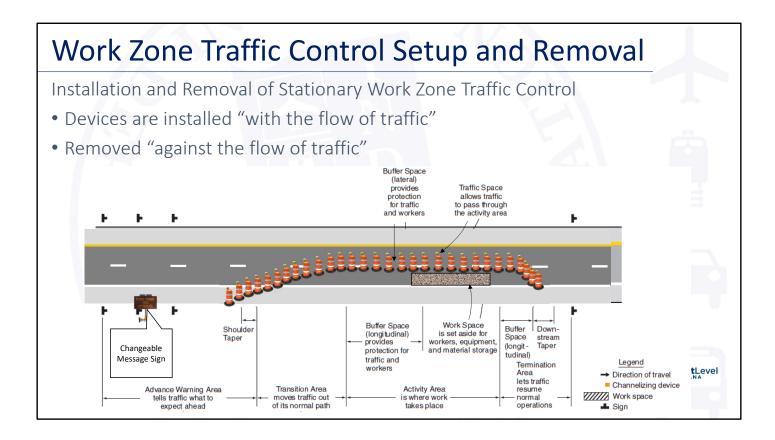
Never park in lateral buffer spaces.



The work Area, or Work Space, is where construction work is taking place. Avoid intruding into the work area.



The Termination Area is where the work zone ends and traffic transitions back to the permanent roadway condition. Normally posted speed limits resume at the end of the termination area. This is typically delineated with "End Construction" Signs or posted regulatory speed.



Generally, devices are installed with the flow of traffic, the downstream direction and removed against the flow of traffic, the upstream direction.

This way, the advance warning area is activated first and removed last, providing protection to the workers installing the devices by giving motorists guidance.

Utilization of law enforcement officers in traffic control setup and removal is directed by the contractor. Since these operations are dynamic, it is important to establish a clear expectation on placement of the officer. As a rule of thumb, the Law Enforcement Officer will be placed in the advance warning area with lights flashing and will likely need to relocate as installation progresses.

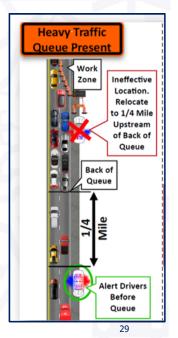


These are the Services that you will be asked to provide in a work zone. These are listed in order of importance. Let's discuss these in more detail!

LEO Services: Queue Protection



- This is the number one priority for any law enforcement officer.
- This activity occurs when traffic is actively slowing, and a queue is present.
- Position the law enforcement officer approximately 1/4
 mile in advance of the queue and adjust your position
 continuously to maintain a ¼ mile distance in advance of
 the queue as it lengthens and dissipates.
- If an arrow board is in use, position your vehicle on same side of road as arrow board unless there is a safety or logistical reason not to do so.



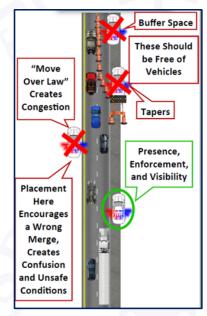
The MOST important service that you will provide is protecting the queue. Queue protection is crucial as many fatalities occur at the back of a queue. Law enforcement is positioned where they will be able to alert drivers by their presence before motorists become part of the queue. We recommend that your vehicle be positioned against, or facing traffic, with warning lights on, approximately one quarter mile in advance of the queue. When facing traffic, you should not use headlights as this can blind oncoming motorists.

Facing traffic will allow you to safely move your vehicle ahead of the queue as it builds. You always need to stay one quarter mile in advance of the queue. If an arrow board is in use, position your vehicle on the same side of road as the arrow board unless there is a safety or logistical reason not to do so. Ensure that you do not become a traffic hazard.

When no queue is present, it is appropriate to move to the next highest service.

LEO Services: Advance Warning

- This is the second highest priority.
- Law enforcement is placed in advance of a work area:
 - To advise motorists that a work zone is present
 - The risk of queueing is significant
 - Aspects of the work zone require additional awareness
 - When construction activities place workers or motorists in uniquely dangerous situations
- Do not park within the taper or buffer space.
- Recommended to park facing the same direction as traffic in a visible location in advance of the operation you are protecting.
- If an arrow board is in use, position your vehicle on same side of road as it unless there is a safety or logistical reason not to do so.
- If your presence is causing issues with motorists, contact the Contractor and the Engineer for guidance.

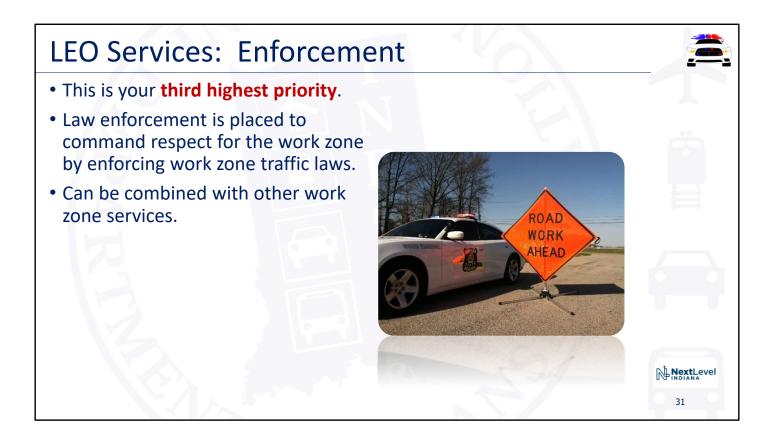


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Advance Warning is an ancillary activity to protecting the queue where your vehicle maintains a position in advance of the work area similar to queue protection. This is the second highest priority for officers. Advance Warning should be used to advise motorists that: a work zone is present, the risk of queueing is significant, they need to pay special attention ahead, or construction activities may include uniquely dangerous situations. Advance Warning can be used anytime but should be used when placing or removing traffic control devices or ad directed by the Engineer.

While providing advance warning, you should not park within the taper or buffer space in the work zone. We recommend that you park facing the same direction as traffic with warning lights on in a visible location in advance of the operation you are protecting. If an arrow board is used, position your vehicle on the same side of the road unless there is a safety or logistical reason not to do so.

If you feel that your presence is causing issues with motorists, please contact the contractor and the engineer for guidance.



Enforcement is the third highest priority. Enforcement activity should occur when queueing is unlikely or when motorists not complying with traffic laws are presenting a clear danger to the motoring public. This activity can be done in conjunction with queue protection, advance warning, presence, and other traffic control services.

Enforcement can be a distinctly scheduled activity. However, the Law Enforcement Officer may determine, while performing another service, that enforcement is necessary. Frequently, the position of the patrol vehicle during the advance warning activity is conducive to enforcement. INDOT leaves this to the discretion of the Law Enforcement Officer.

LEO Services: Traffic Control



- This is the fourth highest priority.
- Law enforcement is strategically utilized to assist with traffic control (including ramp closures, detour management, or ramp restrictions.
- Traffic control is typically done as a support role to prevent traffic from accessing an active work zone.
- May be used to direct traffic or keep it moving
- This activity should be coordinated closely with INDOT Project Supervisors.





Traffic control is typically done as a support role to prevent traffic from accessing an active work zone. You may be used in a multitude of situations such as ramp restrictions or closures or detour management.

Officers should control traffic according to the requirements of the work zone. This type of activity should be coordinated closely with INDOT's Project Supervisor.

LEO Services: Presence



- Of all services, this is the lowest priority.
- Alerts motorist that workers are present from a position near the work site.
- This is a deterrent activity towards speeding and aggressive driving
- Advanced Warning should be considered as an alternative unless worker safety or a specific construction activity necessitates this procedure.
- Potential Issues:
 - Longer queuing and higher traffic impacts





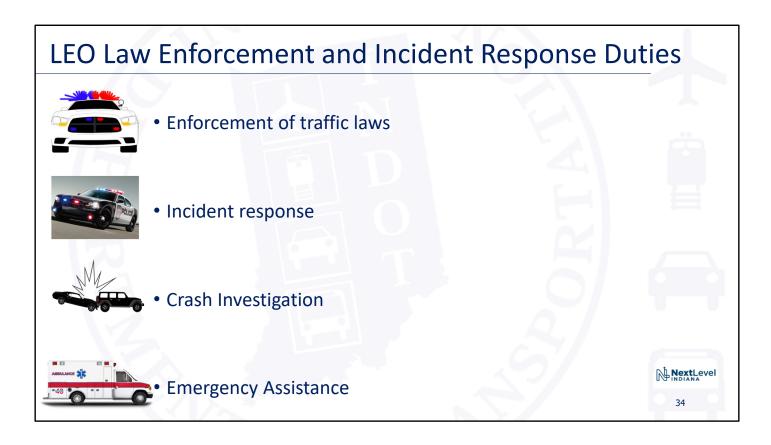
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Presence is active management from a stationary position near the work area. It is used to alert traffic that workers are present. Presence can deter speeding and aggressive driving. This is a non-enforcement activity and is used to protect workers from motorists. It is important to note that officers are not enforcing speed limits at this point, just deterring speeding through their presence alone.

In order to provide the active management requested, Law Enforcement Officers must be alert and aware of their surroundings. Avoid doing paperwork or other activities that may distract you while on presence duty.

Providing police presence in a work zone may create negative outcomes. When you position your patrol vehicle close to the work area, your visibility may be decreased leading to reduced effectiveness or sudden decelerations in the traffic stream. These effects can cause longer queuing and higher traffic impacts. If you feel that your presence is having a negative impact on traffic, immediately notify the contractor and discuss with the work zone team to remedy the situation.

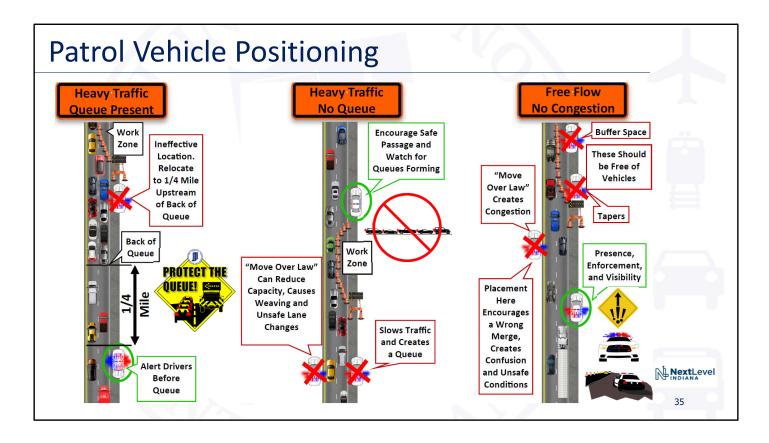
A better alternative to presence services is Advance Warning Services which provide protection to both the motorists and workers. Presence should be the last work zone service considered and implemented only when other work zone services will not provide the desired outcome.



While performing your traffic control activities, you will need to be mindful of how motorists are responding to the work zone. You may be requested to enforce speed limits in order to maintain the impact of your presence within the zone. While providing work zone services, you should take the appropriate enforcement action against erratic drivers or drivers with excessive speeds that present a clear danger to construction workers and other motorists. Enforcement in these situations relies upon the judgement of the officer but should be discussed at the next daily briefing.

At all times, if you are present in the work zone and a crash occurs, **you must respond**. Upon responding, you should assess the situation. For property damage only crashes, move vehicles from the roadway onto the shoulder beyond the work area or to the next interchange and complete the crash report. For more complex crashes, such as multiple vehicle property damage incidents, injury crashes, fatal crashes, or crashes closing lanes, you should contact the appropriate law enforcement agency with jurisdiction for assistance. If the crash is on the interstate, this is the Indiana State Police.

These guidelines are listed in INDOT's Instructions and Procedures for NON-ISP Law Enforcement when working in INDOT Work Zones and constitute Part 2 of the Law Enforcement Officer training.



Optimal locations to park your patrol vehicle will depend on the traffic conditions and the Service being provided to the work zone.

When queues are present, position your patrol vehicle one quarter mile in advance of the queue. This may be in the work zone advance warning area or the queue may even precede the work zone's advance warning area. Monitor the queue and reposition to maintain one quarter mile advance notice. Stay on the same side of the roadway or the same shoulder that is being closed which is where the arrow board is positioned. This aligns with the Indiana Move Over Law.

When traffic is heavy, but there is no queue present, position you patrol vehicle downstream of the work zone in the termination area with your emergency lights off. In heavy traffic situations, your presence ahead of the work zone could deteriorate traffic flow and could actually create a queue as drivers react to your patrol vehicle presence. Placing your patrol vehicle in the termination area helps to prevent queues from forming due to your presence alone. When positioned here, it is important to constantly monitor traffic flow visually and through the Delta Speed website. You should then notify your point of contact to determine if queues are likely to develop and if advance warning activity would better promote safe travel through the work zone. If traffic begins to queue, you will need to respond and provide queue protection. Again, stay on the same side of the road as the closed shoulder or lane.

When traffic is flowing freely and there is no congestion, place your patrol vehicle in the advance warning area of the work zone. Place your patrol vehicle on the shoulder or median between the second and third sign, again on the same side of the road as the closed lane or shoulder. In free-flow traffic conditions, you should be performing advance warning, enforcement, and presence services.

Patrol Vehicle Positioning – Traffic Facing

- Can clearly see what is happening
- Have a large field of view
- Are more alert
- Protected by engine of patrol car and air bag
- Position is dynamic
- Driver door exits to shoulder when not in median





While it may seem unconventional, there are many reasons to consider positioning your patrol vehicle facing traffic. First, you can clearly see what is happening and you have a larger field of view. The engine and the air bag of the patrol car protects you instead of the gas tank and trunk. Facing traffic allows your position to be dynamic. You can change and adapt your position quickly to meet the needs of the situation. If a queue builds to the point where the signs are no longer effective, you can move upstream of the queue and your presence can alert motorists and result in reduced speeds. This reduced speed would reduce the frequency and minimize the severity of an end of queue crash.

Another potential benefit is when you are parked on the outside of a divided highway or interstate, your door and exit is away from traffic. This can provide for a safe escape.

Patrol Vehicle Positioning – Use of Lights

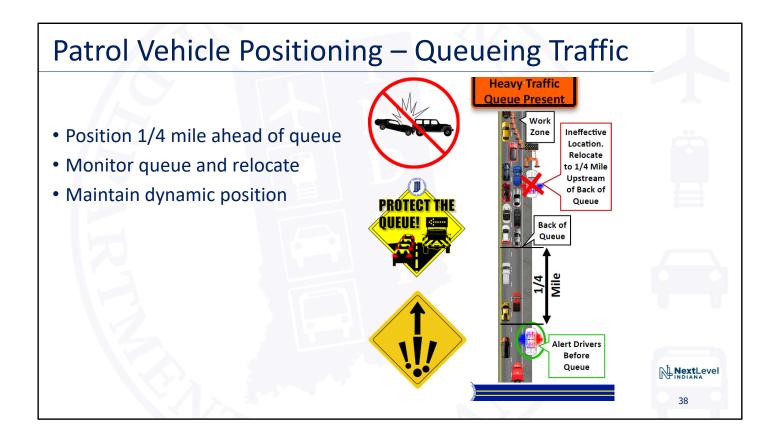
Headlights can blind drivers and be distracting

- When facing traffic, DO NOT use headlights
- Consider turning headlights off during nighttime work zone

Emergency Lights provide visibility



When performing work zone services, you want to be visible and recognized as a Law Enforcement Officer. Your emergency lights accomplish this. Use of headlights may be distracting or actually blind oncoming motorists. It is imperative that headlights never be on when you are facing oncoming traffic. When not positioned facing traffic, you should consider use of your emergency lights only, even at night.



Remember, your job is to keep an eye on traffic and position yourself where you can effectively help lower speeds of vehicles approaching the end of the queue. Use your best judgment to stay ahead of queuing traffic beyond the advance warning signs.

Stay far enough ahead of stopped traffic to give fast-moving cars plenty of time to stop. A quarter mile is enough distance to give drivers time to react and stop, avoiding rear end crashes.

Patrol Vehicle Positioning – Special Situations

- Moving Operations (Mobile Operations)
 - The work zone moves continuously Example: Striping operation
 - May use truck-mounted attenuators (TMA) to protect workers
 Unlike patrol vehicles, TMAs are designed for impacts
- Rolling Slowdowns



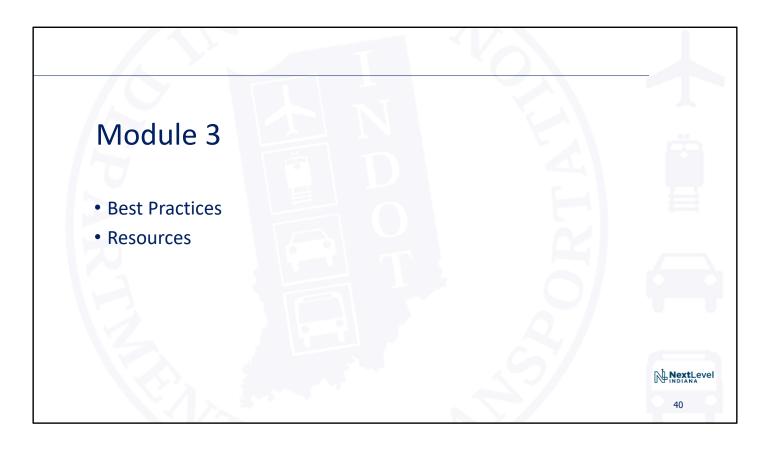




These special situations require additional coordination with the contractor and INDOT or the local highway agency.

Moving operations or mobile operations are those that move continuously. Paving, placing pavement markings, placing rumble strips and milling are common mobile operations where the work crew is moving either continuously or intermittently. Since the work zone is moving, so should you. Your initial placement should be discussed during the daily briefing.

Rolling slowdowns are another use of Law Enforcement Officers in work zones. Directions and instructions for Law Enforcement Officers are developed well in advance of the activity and involve multiple officers. Rolling slowdowns on the interstate are directed by the Indiana State Police in coordination with the contractor.



In this module, we will review best practices and describe resources available to you.

Best Practices – Before the Assignment

- Familiarize yourself with the project
- Identify your POC
- Request traffic control plans (TCP)



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Before construction starts, a pre-construction conference is held. Often times, law enforcement is not invited to this meeting as work assignments are not usually done by this point. However, if you are invited, plan to attend this meeting. This will allow you to familiarize yourself with the project location, schedule, duration, and other important project details. At this time, you may also identify your point of contact for both INDOT and the contractor. You will also determine which will be your primary contact for assignments. You should request a copy of the traffic control plans.

This is a good time to express any safety concerns you have and to ask any other questions you may have. If you are not at the meeting, your concerns can be brought to your point of contact. This can help to alleviate problems once construction activities are underway. Make sure you know your point of contact before you arrive on the jobsite.

Best Practices – Communication

- Report to your POC at beginning of shift
- Daily Briefing
- Seek clarifications
- Reinforce teamwork
- Maintain radio contact with local dispatch if in your jurisdiction and monitor ISP District Mutual Aid Channel
- If out of your jurisdiction, maintain contact with ISP District through the County Mutual Aid Channel
- Provide feedback





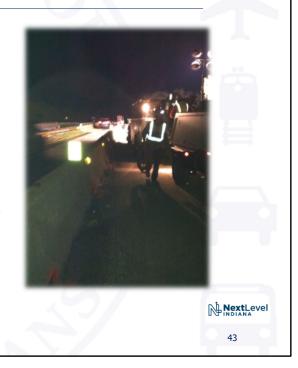
Staying in communication is crucial. Report to your point of contact at the beginning of your shift. You should discuss the daily operations, the schedule, your location, contact information, enforcement areas, and concerns about your safety. Make sure you fully understand the work zone and your role. Be sure to seek clarifications where needed. Remember that the work zone team is jointly responsible, so reinforce teamwork through open communications. Determine a reliable form of communication with your point of contact during your shift. You also serve as the conduit to state and other local law enforcement in the area, so remain in radio contact with your local dispatch as well as Indiana State Police dispatch through the Mutual Aid Channel.

It is important to notify Indiana State Police Regional Dispatch when you arrive at the work zone and when you leave for the day. If you are working within your jurisdiction, maintain radio contact with your local dispatch and also monitor the Mutual Aid Channel for service calls by Indiana State Police Dispatch. If you are NOT in your jurisdiction, maintain contact with Indiana State Police through the County Mutual Aid Channel.

Do not hesitate to communicate before, during, and after your assignment and provide feedback on your concerns, as well as safety or operational issues you have noticed.

Best Practices – Know the Zone

- Drive through work zone in both directions
- Become familiar with the work zone and daily operations
- Determine safe places to investigate crashes
- Identify hazardous conditions



The more information you have about the work zone, the better. You should drive through the work zone, both directions, to become familiar with the work zone and the contractor's planned activities. During your drive through, note signs in the advance warning area. Anticipate congestion and think ahead to identify possible relocating procedures.

You should also identify safe crash investigation sites and initial response plans. Finally, your drive through may help you identify hazardous conditions you should be aware of. If you identify problematic issues, make sure to communicate them to your point of contact.

Best Practices - Be Visible

- Use Emergency Lights
- Wear reflective vest when outside the patrol vehicle
- Identify the safest, visible position





Visibility is important. Use the emergency lights on your patrol car.

If you need to be outside of your vehicle for any reason, make sure you wear a retroreflective vest, day, or night. Even though you may think that you are clearly visible during the day, vests must be worn. They provide enhanced visibility, even during the day. American National Standards Institute, or ANSI Class 2 vests are required.

Visibility can be greatly impacted by carefully selecting your vehicle location. Be aware that roadway curves impact a motorist's ability to see you. Select the highpoint of a vertical curve and avoid positions within sharply curving roadways. Once positioned, check your sight distance to verify that you are easily observed from a distance.



Even if you are visible, you must be alert, paying constant attention to traffic. Keep your eyes open and constantly scanning the traffic stream. It takes a little over 1 second for an errant vehicle travelling at 60 miles per hour to travel 100 feet, crashes happen quickly and you are always at risk when working next to traffic.

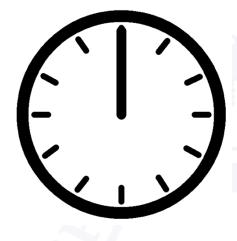
Ask yourself: What would I do if a car is heading my way?

Determine an escape route. Avoid getting blocked by guardrails or other pieces of equipment on the work site.

Best Practices- Arrival & Departure

Abide by the 15-Minute Rule

- Arrive 15 minutes before
- Stay 15 minutes after



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It is recommended that you arrive early so that you have time to gather as much information as possible, drive through the work zone, and coordinate with your point of contact.

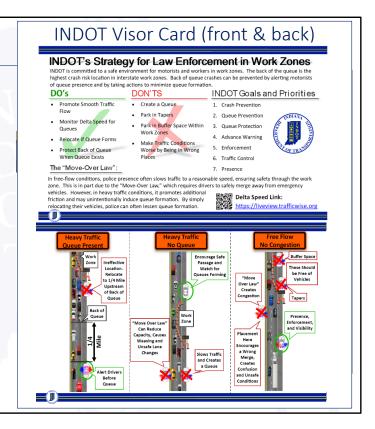
As both a best practice and a courtesy, it is recommended that you follow the 15-Minute Rule. This means that you arrive 15 minutes before your shift or before traffic control devices are being placed, moved, or taken down, and stay 15 minutes after these changes have taken place to ensure the new traffic control change is working properly.

Other Resources

- INDOT Visor Card
- LEO Recurring Special Provision (RSP) 801-R-672
- Instructions and Procedures for Non-ISP LEOs When Working in INDOT Work Zones"
- National Work Zone Safety Information Clearing House: www.workzonesafety.org

INDOT Law Enforcement Officers for Work Zone Safety Website can be found at:

www.in.gov/indot/3980.htm



There are many resources that can help Law Enforcement Officers to do their job safely. All documents are housed at INDOT's website, in.gov/INDOT/3980.htm entitled Law Enforcement Officers for Work Zone Safety, shown at the bottom of this slide.

The INDOT Visor card pictured, reinforces many of the concepts provided in this training and can be kept your vehicle for quick reference. This card also has the QR scan code for the Delta Speed website. If you do not have one of these cards, you can download or view it from the INDOT Law Enforcement Officers for Work Zone Safety Website. This card was updated in February of 2021 to coordinate with principals taught in this training. If you have an older visor card, please replace it with the new version.

The Law Enforcement Officer Recurring Special Provision (RSP) 801-R-672 is a special provision used to obtain law enforcement to support a work zone on a contract. This is the document that requires all local law enforcement to attend this training before working. This can be found on the INDOT Law Enforcement Officers for Work Zone Safety website. It is recommended to review this document every six months.

The "Instructions and Procedures for Non-ISP Law Enforcement Officers When Working in INDOT Work Zones" document is for non-Indiana State Police personnel. It provides the procedures that you agree to follow while working in a work zone. You will need to sign this document and provide a copy to the Project Engineer before starting a Work Zone Support Detail on each contract you work.

A wealth of work zone safety information, including recommendations for Law Enforcement can be found at www.workzonesafety.org

Please take time to review all the resources that are available to you.



This concludes the Law Enforcement Officers in INDOT Work Zones training. Thank you for attending.