

“The Reality of Work Zone Liability – PART I”

Greg Stefan – Arch Insurance Group

The scenario outlined below describes circumstances that are played out over and over again across the country on America’s interstate and roadway system. This scenario will be the basis of discussion to increase your understanding of potential liability for any entity involved in the construction, maintenance, and repair of roadways which involves disruption to the normal flow of traffic. Consider what you and your company would do at various stages in the scenario described below, as well as the adequacy of your internal policies and procedures. The goal of this article and subsequent articles is to help contractors involved in roadway construction improve management processes that lead to safer work zones for employees and the travelling public, while protecting company assets and mitigating subsequent General Liability claims.

Scenario

You are a general contractor on a Federal Aid Interstate widening/expansion project. The project involves the addition of an outside lane, resurfacing of existing lanes, and updates to utilities and structures. The project includes approximately 11 miles of roadway and the widening of six major bridge structures. As the general contractor, you will be self-performing approximately 70% of the work. Subcontracted activities include heavy earthwork, milling, traffic control device placement and initial lane closures, seeding, lighting and miscellaneous utilities. The project began on **January 1, 2006** and is scheduled to be completed in **January, 2008**.

It is 10:30 PM on a Saturday evening in May, 2006. A severe motor vehicle accident occurs within your work zone. A single vehicle is involved. You do not have any personnel who were on site at the time of the incident. You are first made aware of the incident when site supervision contacts you the following Monday morning, explaining that they had just been notified of the accident by local law enforcement that morning. At this time, you are not sure of the details of the incident and are awaiting further information. You learn that there was some media coverage of the accident Sunday morning in print and the local TV news indicating a severe accident had occurred; however, the details were very unclear.

You immediately confirm that site supervision has toured the entire project and the designated traffic control crew has made sure that all traffic control devices impacted or displaced during the crash have been replaced and that the maintenance of traffic plan is back in order. Your safety department personnel arrive on site late Monday morning to conduct their investigation.

Several days later you learn more details concerning the incident, once the police report and additional information are obtained from site supervision. Critical facts include the following:

- A passenger vehicle containing four occupants apparently lost control of their vehicle as they were proceeding through the work zone. The vehicle was travelling Northbound in the outside open lane of the existing roadway in advance of the outside lane closure at the start of your project.
- As the vehicle approached the outside lane closure that had been set up the week prior to the incident, the vehicle did not successfully navigate out of the outside lane and into the open center lane. The vehicle struck several traffic control drums and proceeded into the closed lane, where several hundred feet of the lane had been milled and sections removed for replacement.

- The vehicle appeared to have overcorrected while attempting to maneuver back onto the designated open center lane, and in doing so lost control of the vehicle and preceded into the center median. The vehicle flipped over several times before coming to rest.
- Emergency medical services and local law enforcement personnel arrived on scene within 15-20 minutes. The authorities were able to clear the roadway and get traffic moving again within two hours.
- Approximately one week after the incident, the following facts were learned concerning the injuries suffered by the vehicle occupants:
 - 22 yr-old male front passenger was pronounced dead at the scene of the accident from massive head trauma and internal injuries.
 - 23 yr-old male driver was life-flighted to the hospital with life-threatening injuries. He still remains in the hospital and it is feared he has some form of permanent brain and/or spinal damage – details unknown at this time.
 - 21 yr-old female right rear passenger was transported by ambulance to the hospital with critical injuries. She remains in the hospital. Unknown as to the extent of her injuries.
 - 22 yr-old female left rear passenger was transported by ambulance and subsequently released from the hospital the following week with various non-critical injuries.
 - All occupants were wearing appropriate seat restraints.

The police report was obtained one week after the incident and provided additional details and contributing factors:

- The driver was exceeding the posted speed limit (75 mph in a 65 mph zone) and failed to maintain control of his vehicle. He entered into a closed lane of traffic that was part of the work zone and appears to have overcorrected when trying to re-enter the open lanes.
- Alcohol may have been a contributing factor as the driver's BAC level just after the incident was 0.07, just under the legal limit.
- It appears there were problems with traffic control at the time of the accident. There were an inadequate number of reflective drums, and only a few advance warning signs were present.
- There were two witness statements taken by the police, from drivers of two different vehicles that stopped to assist after the accident occurred. Their statements confirm speeding of the driver as well as some confusion concerning the work zone lane closure.

Everything remains fairly quiet concerning this incident for several months. There is no further activity that has stemmed from the accident. During this time, your company's safety department becomes more involved in the project and sets up several work zone training sessions for supervisors who have let their certifications lapse. There are more frequent inspections performed on the project, and several improvements made to the maintenance of traffic plan after two more serious incidents occur over the next year – both which appear to be directly due to driver intoxication and driver error.

The project comes to completion as scheduled in January, 2008. Overall, the project was considered to be a success. Very few lost-time injuries. On time. Under budget. This project appears to have been a "money-maker" for the company.

May 19, 2008. Approximately two years after the fatality accident described above, you receive a Civil Citation indicating you have been sued by the spouse of the passenger who was killed in the motor vehicle accident. The spouse was also a passenger in the same vehicle and was seriously injured in the accident.

The civil citation specifies the following:

- The plaintiffs will show, that on May 27, 2006, due to road construction in the area, the outside lane of the interstate was closed. There was either no warning or inadequate warning that the outside lane was closed. The vehicle proceeded into the closed lane and the driver was not able to control the vehicle, resulting in a serious accident that claimed the life of plaintiff's spouse and caused serious lifelong injuries to plaintiff.
- The death of the plaintiff's spouse and serious injuries to the plaintiff were proximately caused by the negligence of the General Contractor in at least the following ways:
 - Failure to adequately warn the driver of the lane closure.
 - Using inadequate warning devices to warn of the outside lane being closed.
 - Failure to comply with known work zone safety standards, and to update the traffic control plan to suit the conditions of the roadway.
 - Other acts and omissions which may be added as discovery progresses.

You contact your General Liability Insurance carrier and provide a first report of this claim due to the lawsuit you just received – two years after the incident. Legal counsel is engaged and a full claim investigation proceeds.

Discussion

Similar scenarios are played out over and over again across the country. Over 1000 people were tragically killed in work zone accidents last year, with approximately 85% being motorists. There has been a 50% increase in work zone fatalities since 1997. Many of these fatalities result in litigation, with the owner, general contractor, and subcontractors named as defendants in these lawsuits.

How well would your company be able to defend itself against similar allegations? Would you be able to prove that your company was not negligent and the proximate cause of the accident? How well are you managing work zones liability exposures, inspections, documentation, and post-incident response?

This is the first of a series of articles designed to highlight the reality of work zone accidents and the subsequent potential liability ANY contractor working on a street and road project can face. The intent of these articles is NOT to place blame on the driver or travelling public; NOT to second-guess requirements established by the owner; but rather to discuss the realities of these types of incidents from a legal and claim mitigation standpoint.

Subsequent articles will highlight various aspects of work zone liability which tend to “stack the cards” against contractors in these litigation scenarios. The intent of these articles is to raise awareness and improve work zone management processes and procedures – all of which can lead to a safer work zone for both your employees and the travelling public. In those cases where a serious incident occurs and the contractors are truly not at fault, these processes and procedures can lead to significantly reduced legal judgments and total incurred claim dollars.

Primary topics of upcoming articles will include the following:

- Compliance with Standards and Written Plans
- Governmental and Legislative Issues
- Contractual issues
- Work Zone / Traffic Control Device Inspection, Correction, and Documentation Practices

“The Reality of Work Zone Liability – PART II”

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Introduction

Part I of this series of articles on the subject of Work Zone Liability described a motor vehicle accident that occurred within the boundaries of a Federal Aid Interstate widening and expansion project. The accident involved a single vehicle that lost control when the driver entered an established lane closure in the work zone. There were four occupants of the vehicle. Three of the occupants suffered severe injuries and the driver was killed as a result of the accident.

Approximately two years after the date of the accident a civil suit was filed which named the general contractor as the primary defendant in a bodily injury/fatality case. The suit was brought by the surviving spouse of the driver that was killed in the accident. Allegations of negligence on the part of the general contractor were focused on two primary issues: 1) inadequately warning the traveling public of the upcoming lane closure; and 2) lack of compliance with established temporary traffic control standards, specifications, and plans. The suit resulted in the contractor filing a general liability claim on their commercial liability insurance policy.

Part II of this series of articles is designed to lay a foundation concerning legal, regulatory, insurance, and legislative issues associated with many work zone liability cases. It is important for contractors to understand the potential liability they face whenever the normal flow of traffic is disrupted or changed due to construction and maintenance operations and how these issues can impact the outcome of a case.

The following topics will be discussed in this article:

- General Liability as it pertains to work zone accidents.
- Scope of work zone accidents in the United States.
- Legal and Legislative issues.
- Contractual issues.

Subsequent articles will build on this foundation and provide insights into proactive measures a contractor can implement to better manage work zone exposures and become more prepared in the event of a tragic accident. Future articles will describe applicable regulatory standards and temporary traffic control plans and specifications that are vital for the contractor to adhere to at all times. An emphasis will be made on the critical nature of the contractor being able to fully demonstrate consistent adherence to these standards and plans through meaningful documentation.

This information will help a contractor not only ensure a safer work zone for the traveling public and their employees, but also help prevent and mitigate general liability claims and litigation that may ensue when a member of the traveling public is involved in an accident within the contractor’s work zone.

General Liability Insurance

The topic of work zone liability as discussed in this article falls into the realm of commercial liability insurance. A common definition of Commercial General Liability Insurance is as follows:

“An insurance policy that covers claims arising from an insured’s liability due to damage or injury (caused by the insured’s negligence or acts of omission) during the performance of his or her duties or business.”

“Damage or Injury” as defined herein typically involves two distinct categories: *Property Damage* and *Bodily Injury*.

Property Damage - In the case of a work zone accident involving a member of the traveling public, property damage is typically associated with damage to the vehicle and contents of the vehicle (sometimes including towed trailers and equipment). Property Damage claims are often capped at a dollar amount based on the actual or replacement value of the vehicle and equipment. Although this type of property damage can result in significant monetary amounts to replace the vehicle and equipment, we are typically more concerned with liability associated with Bodily Injury.

Bodily Injury - In a serious work zone accident there is the potential for severe injuries and fatalities to occupants of the vehicles. In severe injury cases the potential dollar amounts associated with Bodily Injury claims will exceed the Property Damage component. Severe injuries often involve significant expenditures for immediate and ongoing medical treatment, rehabilitation, and lifetime care which can often exceed six figures alone. Add to this the potential dollar amounts associated with loss of past and future income; dependent care; past and future pain and suffering; loss of consortium (companionship); disability and disfigurement – and the resulting damages can easily reach multiple millions of dollars.

General Liability claims involving construction work zones are typically triggered by allegations of negligence on the part of any contractor involved in the construction activity, and the subsequent filing of a lawsuit against the contractor by the injured party or the survivors of a party that was killed in the incident.

Scope of Work Zone Accidents

To put the scope of potential liability associated with work zone accidents into perspective, we need to look at work zone traffic accident statistics.

The National Highway Traffic Safety Administration (NHTSA) maintains a sophisticated database concerning motor vehicle traffic crashes. Fatality data is obtained from the Fatality Analysis Reporting System (FARS) which is maintained by the NHTSA. Traffic fatality and injury data concerning accidents that have occurred within construction and maintenance zones across the United States reveal the following statistics:

- Between 2001 and 2005 the number of persons killed in motor vehicle crashes in work zones rose from 989 in 2001 to 1,074 in 2005 (an average of 1,068 fatalities per year).
- In 2006 there were 1,004 fatalities.
- In 2007 we saw the first dramatic drop in work zone fatalities to 835 fatalities, which is the lowest number since 1998.
- Approximately 85% of those killed in work zones are drivers or occupants. About 15% were non-motorists (pedestrians, workers, and bicyclists).
- In addition:
 - Approximately half of all fatal work zone crashes occurred during the day.
 - More than two times as many fatal work zone crashes occurred on weekdays as on weekends.
 - Fatal work zone crashes occurred most often in the summer and fall.
- In addition to fatalities, more than 40,000 people are injured each year as a result of motor vehicle crashes in work zones.

Considering the scope of injuries and fatalities that occur within work zones, one can easily surmise that many of these injuries and fatalities eventually migrate into lawsuits and general liability claims against the entities involved in the construction or maintenance project. Excluding the recent downturn in fatalities in 2007, the statistics have typically worsened each of the last 20 years. There is a fear that the trends will continue in the wrong direction as road congestion continues to increase with lack of a corresponding increase in available roadways. In simpler terms, we continue to see more and more vehicles traveling on essentially the same roadway system that was in place several years ago. This

congestion, coupled with the ongoing repair, maintenance, and expansion of existing roadways creates the potential for more and more work zone incidents.

(For a state by state listing of work zone fatalities for the past several years, utilize the following link: http://www.workzonesafety.org/crash_data/)

(To access a variety of resources and data associated with work zone safety, utilize the following link to access the home page of the National Work Zone Safety Information Clearinghouse: <http://www.workzonesafety.org/>)

Legal and Legislative Issues

There are several state legislated issues that often come into play when discussing work zone accidents and subsequent lawsuits. Each of these issues will be highlighted below:

Statute of Limitations – A general definition of Statute of Limitations, as it pertains to bodily injury suffered in a work zone accident, is as follows: *“The allowable length of time in which a law suit must be commenced by the injured party”*. In almost all cases, unless there is some special circumstance, the Statute of Limitations begins to run from the date of the occurrence that caused the injury. This is referred to as the date on which the cause of action accrued. In *most* states, the statute of limitations ranges between 1-3 years. (There are significant variations from jurisdiction to jurisdiction that further define critical elements of the permitted time frame and factors involved in filing a lawsuit that we will not discuss here in detail. Contractors should consult with legal counsel in the states in which they operate to gain a full understanding of these factors.)

Why is the Statute of Limitations an important concept to understand when discussing work zone cases? Consider the following:

- Why might the plaintiff’s attorney (injured party) wait until the Statute of Limitations is about to run out to file suit? What advantages might this provide for their case? (Consider the scenario described in Part I of this series of articles, where the lawsuit was filed almost two years after the date of the accident.)
 - Are critical witnesses and employees available for interview? Can you locate them? Are they no longer employed by your company? Are subcontractors who were involved in the project still in business?
 - How easily will witnesses and employees be able to recall specific details from the date of the accident, much less critical issues *prior* to the date of the accident?
 - What documentation do you still have available two years after an accident that relates to the project in question, and in particular to specific elements of the work zone traffic control plan?
 - Was a detailed accident investigation completed with adequate documentation to utilize in a courtroom to defend against allegations of negligence?
- As time passes, it often becomes more and more difficult to adequately defend allegations that may be made by the plaintiff. People cannot be located, documents cannot be found, and details from the date of the accident are no longer “fresh”. This will become a critical discussion point in the next article, where we begin to focus on processes and procedures that all contractors should consider to better manage this aspect of work zones.

Sovereign Immunity and Limitation of Liability for Governmental Agencies - The doctrine of “sovereign immunity” provides that governments and governmental entities are generally immune to suit by private parties, unless the government gives its consent to suit, which is typically accomplished through legislation. If a state government has granted consent to suit for bodily injury through legislation, *most* of these states have enacted a limitation of liability or “cap” as to the maximum dollar amount the state may be liable to the injured party. These caps vary dramatically from state to state and can have a significant impact on the liability exposure a contractor can face in a significant Bodily Injury lawsuit.

Limits of liability can range from \$50,000 per person to \$1,000,000 per person; and \$100,000 to \$5,000,000 per occurrence. There are some states, such as California, that permit certain types of claims to be filed against the state and governmental entities, but do not specify an actual dollar “cap” to these claims. In states such as this, the governmental agency is often exposed to potential high jury awards as no cap is specified.

Why is Limitation of Liability an important concept to understand when discussing work zone cases? Consider the following:

- Other than “private” roadway owners such as toll road authorities, most roadway projects involve a public owner such as the state DOT, city, county or municipality. Each of these public owners could be considered a governmental entity with a limitation of liability cap enacted by legislation.
- In the event of a significant work zone bodily injury or fatality case, the plaintiff (injured party) will often name in the lawsuit the owner, as well as any entity that could possibly be involved in critical aspects of the project that are found to be the proximate cause of the injury sustained. This may include the general contractor, prime contractors, as well as subcontractors.
- In a multi-million dollar case, if the owner has a very low limitation of liability and associated dollar “cap” they may be liable for, who will be left to “hold the bag” for the remainder of damages in a significant liability judgment? This will often fall directly to the contractors involved in the project, as they may have the “deepest pockets” available via insurance and company assets.
- On a positive note, a few states such as Texas and Florida have actually enacted Limitation of Liability statutes that are designed to protect *contractors* involved in DOT projects. The statutes center on the contractor being able to prove substantial compliance at the time of the accident with contracts documents, plans, and specifications pertinent to the accident. This issue will be discussed further in future articles.

Joint and Several Liability - The theory of Joint and Several Liability essentially states that each defendant in a legal action is responsible for the entire amount of damages that a plaintiff is seeking, regardless of their relative degree of responsibility for the damages involved. This is often referred to as the “deep pocket” rule because it has had the effect of turning lawsuits into all-out searches to find the most financially lucrative defendants. What this means is that Plaintiffs have the right to choose the defendant they wish to recover the damages from, who are oftentimes contractors with large amounts of insurance and assets.

Many states have enacted tort reform designed to replace joint and several liability with one of proportionate liability, where defendants are responsible only for their proportionate share of the damages in question. Some states have also established various “trigger” points where joint and several liability can still be enacted. These may be at points where a defendant is found to be more than 25% or 50% negligent, for example. In these cases, once a contractor reaches these percentage triggers, the doors are open for potential responsibility for the entire amount of damages. Alternatively, in some states if a plaintiff (injured party) is found to be more than 50% responsible, then there would be a bar to recovery for damages suffered by the plaintiff.

In the case of work zone incidents, joint and several liability can create enormous liability exposure for contractors. Consider the accident scenario discussed in Part I of this series. If the general contractor is found to be negligent or “at fault” for even a small percentage of the accident, there is the potential (depending on the state in question) that the contractor could be responsible for all damages.

This issue highlights several topics that will be discussed in future articles. Regardless of the liability statutes that are in effect in the state where the project is taking place, one of the primary objectives in defending a work zone liability case against a contractor is to be able to lower the potential % of fault that is placed on the contractor. This objective relates directly to the ability of the contractor to demonstrate and prove compliance with traffic control standards, plans, and specifications. This ability is often directly proportional to documentation processes that have been successfully implemented by the contractor.

Contractual Issues

There are a significant number of contractual issues that have relevance to the subject of work zone liability; however, two specific issues are summarized below for the purposes of this discussion:

1. Contracts between the Owner and General Contractor generally require the contractor to “defend, hold harmless, and indemnify” the Owner. This indemnification obligation is then typically passed down to any subcontractors engaged by the general contractor via the subcontract agreement. Depending on the state in question, the extent of liability that is being assumed by the General Contractor and lower tier subcontractors can vary substantially. Broad Form indemnity agreements can require that the lower tier entity indemnify the higher tier entity for not only the lower tier’s negligence, but also for the higher tier entity’s sole negligence. This type of indemnity agreement is not permitted in many jurisdictions. Intermediate and Limited Form indemnity agreements are much more common and do not include indemnification for the higher tier’s sole negligence.
2. Contracts between the Owner and General Contractor also generally require the general contractor to name the Owner, Architect, Engineer, etc. as “additional insureds” on the contractor’s general liability policy. This requirement is then often passed down to any lower tier subcontractors via the subcontract agreement. In simple terms, this means that the higher tier entity (Owner) is now protected directly by the general liability insurance coverage that the lower tier (General Contractor) has been required to obtain. Insurance requirements and minimum acceptable limits of insurance are typically required within the same contract with the Owner.

What does this mean in the case of a work zone accident involving substantial property damage and bodily injury?

- The Owner, such as the State DOT, will often be named in a lawsuit initiated by an injured party. Due to the contract provisions discussed above, the Owner will “tender” or “hand down” the suit to the General Contractor and their insurance carrier who may have to respond on behalf of the Owner. Depending on the state in question, the Owner may also have further liability protection due to limitation of liability statutes that have been enacted (as discussed above) regardless of the level of “fault” that may be alleged against the Owner.
- If the Owner is not named in a lawsuit, the General Contractor is often the primary party named in the suit. The General Contractor will then “tender” the suit to any lower tier subcontractors who may have some potential involvement in aspects of the project that could be factors in the accident. This could involve a variety of subcontractors (milling, traffic control, striping, utility, trucking, etc.). This process can occur as long as the General Contractor has executed an appropriate subcontract with the various subcontractors.
- When the dust clears, the contractors involved in the construction or maintenance project are often the entities that are forced to deal with lawsuits and subsequent general liability claims.

Summary Discussion

As evidenced by the discussion in this article, there is a very real exposure to significant liability for any contractor involved in roadway construction and maintenance activities. Motor vehicle accidents within work zones continue to occur across the country. Lawsuits and subsequent out of court settlements or jury verdicts can easily reach from the hundreds of thousands of dollars to millions of dollars. Even in those cases where the contractor “wins” the suit, the dollars spent in properly defending a work zone case can be exorbitant.

“The Reality of Work Zone Liability – PART III”

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Introduction

Part I of this series on the subject of Work Zone Liability described a motor vehicle accident that occurred within the boundaries of a Federal Aid Interstate widening and expansion project. The accident involved a single vehicle that lost control when the driver entered an established lane closure. Three of the occupants suffered severe injuries and the driver was killed as a result of the accident. Two years after the date of the accident, a civil suit was filed naming the GC as the primary defendant in a bodily injury/fatality case.

Part II of this series established a foundation concerning various legal, regulatory, insurance, and legislative issues typically associated with work zone liability cases. This information reinforced the critical reasons why contractors need to better understand and manage the potential liability they face whenever the normal flow of traffic is disrupted or changed due to construction, repair, and maintenance operations.

This installment of the series focuses on the following key issues:

1. Critical nature of documentation.
2. Owner mandated vs. contractor mandated documentation.
3. Limitation of Liability Statutes designed to protect contractors.
4. *Pre-incident* work zone inspection and documentation policies/procedures.

Work zone inspection and documentation processes are *not* intended strictly to help a contractor manage potential litigation. An effective process will help ensure that temporary traffic control plans and associated devices are properly designed, installed, and maintained – all of which are critical for the protection of the traveling public and the entire workforce involved in the project. However; there are serious traffic accidents that occur in construction work zones every day, as illustrated in Part I of this series. When these accidents occur, we have to take care of the injured parties and their families as best as possible, but we also need to be prepared to deal with the potential liability and subsequent litigation that may take place.

This article will focus on the liability a contractor may face once an incident occurs, but is not intended to diminish the overall intent of work zone management – to make sure the traveling public successfully negotiates the construction work zone while maintaining the safety of all workers associated with the project.

Critical Nature of Documentation

As the adage goes...*“If you didn’t document it, it didn’t happen.”* This single phrase sums up the nature of this discussion. It holds true for several aspects of general construction operations, as well as various types of claims that a contractor can face. It is particularly true in regard to bodily injury and fatality cases associated with construction work zones.

Part I of this series highlighted typical allegations of negligence that are often made against contractors involved in work zone activity. Many of these allegations relate to improper or inadequate traffic control device placement and maintenance; inadequate warning signage for the traveling public about upcoming hazards; and lack of adherence to established work zone standards, traffic control plans, and contract specifications. Part II of this series also highlighted the fact that lawsuits are often not filed until several months or years after the date of the incident, often up to the Statute of Limitations in that state (2-3 years in most cases).

These factors alone reinforce why quality documentation created both during the course of construction and immediately after an incident, are vital to the successful defense of allegations made against the contractor once a lawsuit has been filed. Two to three years after an incident has occurred, project personnel may not be able to recall specific details as well as immediately after an incident. Construction personnel may no longer be available for testimony due to changes in employers and geographic location. Subcontractors, suppliers, and other entities that were involved in the project at the time of the incident, may no longer be in business. Lastly, the project will be at a substantially different stage of completion once the lawsuit has been filed, when physical characteristics associated with the accident scene are no longer available for investigation.

Because of these factors, detailed documentation may be the only true defense a contractor has against allegations of negligence. Documentation may come in the form of: written supervisor logs and diaries; traffic control device orders and service calls; inspection reports from the DOT or other authority having jurisdiction; internal inspection and correction reports; contract documents and specifications; traffic control plans; employee training and certification records; accident investigation reports; police reports; witness statements; and photos or videos.

Primary concerns with work zone documentation that I've identified over the past several years include:

- Lack of adequate documentation *in any format* to successfully defend allegations of negligence by the contractor.
- Documentation that is not accurate or detailed enough to “stand on its own” in a court of law.
- Falsified documentation or “pencil whipped” documentation that is actually completed after an incident or physically completed after a significant amount of time has passed from the actual date indicated on the document.
- Documentation that illustrates deficiencies in work zone traffic control without corresponding documentation to demonstrate what the contractor did to correct these deficiencies and when.
- Lack of consistency in documentation from state to state, project to project, and supervisor to supervisor, which often stems from inadequate training and periodic auditing of project documentation.
- Inability to identify and retrieve critical documentation after an incident, which relates directly to labeling, storage, and data backup procedures.
- Contractors that comply *only* with Owner-mandated documentation, rather than implementing their own internal documentation process that is appropriate and reasonable for the project in question.
- Documentation that is developed only *after* the accident has occurred, rather than a combination of documentation developed during the course of construction and *after* an accident.

The last bullet point is a very important one. Many contractors respond very well to accidents and conduct extensive investigations to generate necessary documentation. Reconstruction experts and legal teams are often brought in immediately to help document the scene, collect witness statements, preserve evidence, and maintain legal protection of the entire process. This is a VERY important step and will be discussed in more detail in the final part of this series. However; documentation that is developed *after* an accident may prove to be a fraction as valuable as ongoing documentation during the course of construction.

Why? Review the accident described in Part I of this series and consider other work zone accidents your company may have experienced, particularly severe accidents that involved multiple vehicles or heavy trucks. Serious accidents such as this often involve substantial disruption to the work zone and associated traffic control, which may make it nearly impossible to “prove” what the work zone looked like prior to the accident. Consider the following:

- Traffic control devices that were displaced, damaged, or destroyed by the traveling public involved in the accident.
- Signage that may have been struck or moved by vehicles or contractor equipment.

- Devices that may have been moved by law enforcement or emergency service responders in order to access the crash scene.
- Striping and lane markings that may have been obliterated due to vehicle fires, chemical or fuel loss, etc.

All of these factors can create a situation where it is very difficult to accurately determine what the driver saw as s/he passed through the work zone. As discussed earlier, many allegations of negligence against the contractor relate directly to ineffective or inadequate signage and traffic control devices. If the accident itself caused significant changes to the work zone and associated traffic control devices, then the ability for the contractor to illustrate the condition of the work zone during the course of construction *prior to the accident will be critical.*

Documentation required during the course of construction is a proverbial “pain in the neck.” Construction managers and supervisors are held to task for so many aspects of their jobs that the work zone documentation piece sometimes falls to the back burner because it is often not of an *immediate* need. People, equipment, materials, and processes need to be in place NOW, while some documentation can be completed later. This often leads to failed execution of the intended inspection and documentation process throughout the project.

Contractors involved in roadway construction and other types of construction that disrupt the normal flow of traffic need to remember that potential liability associated with these operations is one of the largest loss exposures they may face. There have been out of court settlements and jury awards in work zone cases that easily exceed \$1-5 million and sometimes reach beyond the \$25 million mark. Even if insurance is in place to provide coverage for these catastrophic claims, a history of severe work zone losses will negatively impact the contractor for years to come.

Owner Mandated vs. Contractor Mandated Documentation

There are two distinct ends of the spectrum concerning the approach contractors take toward work zone documentation during the course of construction:

1. Contractors who comply *only* with specific work zone inspection requirements that may be mandated by the Owner and/or built into contract specifications and regulations for the state in question.
2. Contractors who have developed and implemented formal, specific internal policies and procedures for ongoing inspections and documentation of work zones and maintenance of temporary traffic control. These procedures often involve the combination of written, photo, and video documentation that is used consistently on a predetermined frequency.

From my experience, the vast majority of contractors fall to the end of the spectrum described in #1 above. However; there are a large number of contractors who are in the process of moving to the end of the spectrum described in #2, and a very select group of contractors who have truly become “best in class” in regard to proactive policies and procedures concerning work zone liability management and documentation.

This select group of contractors has the ability to better defend against allegations of negligence by being able to “prove” compliance with temporary traffic control standards, specifications, and contract requirements pertinent to temporary traffic control. Additionally, they can demonstrate a consistent and methodical management approach to ensure the safety of the traveling public to the best of their ability. This has been proven successful only when adequate documentation is in place.

Unfortunately, a common catalyst for the movement of more and more contractors to the #2 side of the spectrum has been the occurrence of severe work zone liability claims in their recent history. Contractors have learned the hard way through dealing with these types of claims that the time and effort it takes to

implement appropriate policies and procedures up front can be worth several millions of dollars in savings in a single work zone general liability claim.

A principal concern with contractors taking the approach as described in #1 is that there is a tremendous amount of variation from state to state as to specific documentation that is required of the contractor by the Owner. Most public work – municipal, city, county, or state – typically defaults to documentation requirements that are imposed by the State Department of Transportation (DOT). State DOT traffic control inspection requirements range from no specific written inspection requirements being placed on the contractor, to very specific forms and specific frequency that the contractor has to submit to the DOT.

In those states where the DOT does not mandate work zone traffic control inspections during the course of construction, many contractors do exactly that – nothing. For example, California’s DOT (Caltrans) does not require a specific format and frequency of documentation of work zone traffic control inspections to be conducted by the contractor. With no specific process mandated by the Owner and built into contract requirements, many contractors do not implement their own course of construction work zone documentation process. This creates a very large gap in documentation necessary to successfully defend a severe liability case once an accident occurs.

Even in those states where specific inspection forms and frequency of inspections are mandated by the DOT, this still may not provide for adequate documentation in a severe bodily injury or fatality case.

For example, the State of Texas Department of Transportation (TXDOT) requires the use of Form 599 – “Traffic Control Devices Inspection Checklist.” The TXDOT process typically involves joint inspections that are conducted by TXDOT staff and the “contractor responsible person” (CRP) who documents the inspection on Form 599. This inspection process requires two inspections per month at approximate two-week intervals. The form is designed to identify deficiencies and the date the deficiencies were corrected by the contractor. (See copy of Form 599 below)

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**INSTRUCTIONS FOR COMPLETING FORM 599
“TRAFFIC CONTROL DEVICES INSPECTION CHECKLIST”**

The following instruction outlines the method for handling Form 599, “Traffic Control Devices Inspection Checklist.”

1. At least two inspections per month (one daytime and one nighttime at approximately two-week intervals) are required per contract. The first monthly night inspection should be performed as soon as possible after initial set-up.
2. Conduct the inspection on all traffic control devices (barricades, traffic control signs, etc.) and record the inspection on Form 599. The contractor responsible person (CRP) should be given the opportunity to accompany department staff on these inspections. If any deficiencies are found during the inspection, place a note in the appropriate column in Section II, “List of Deficiencies,” on the form. Items that are corrected during the inspection should also be noted as such in Section II of the form.
3. After the inspection, have the CRP sign and date the form. Provide a copy to the CRP to inform contractor of remaining corrective action needed.
4. When the deficiencies have been corrected by the contractor, the department responsible person (DRP) or appropriate department project staff should be promptly notified by the contractor as to the time each deficiency was corrected so that Form 599 can be completed. Record the date and time of the corrections. Perform necessary field verifications of the corrections and initial.
5. Have the CRP or contractors representative sign the form when all deficiencies have been satisfactorily corrected. A copy of the completed form may be provided to the Contractor upon request.
6. One completed copy for the Contractor is satisfactory when corrective actions occur in the same day or when there are no corrective actions required.
7. This form is not complete and is not to be filed until all deficiencies have been corrected.
8. Immediately upon completion of Form 599, file the form and related documentation separate from the project files in a folder boldly labeled “DO NOT DISCLOSE – EXCEPTED FROM DISCLOSURE BY 23 USC §409.” The separation may be made by filing at the district or the area office. Destroy copies of the form. Immediately forward request for copies of the form to the Office of General Counsel. Denial of release of copies may be disallowed if an Attorney General opinion is not obtained.



Do Not Disclose – Excepted From Disclosure by 23 USC §409
Traffic Control Devices
Inspection Checklist

Project _____
 Contractor _____

Night Day

Section I Review Items	Section II List of Deficiencies													RECOMMENDED CORRECTIVE ACTION	DATE & TIME CONTRACTOR MADE CORRECTION	VERIFIED BY (INITIALS)			
	Type of Device			Reason for Deficiency					Location										
Advance Signs and Barricades Color Size Position Reflectivity Signs Within Project Color Size Position Reflectivity Barricades Within Project Color Size Position Reflectivity Pavement Markings Color Position Reflectivity Warning Lights In Conformance to Standards Delineation of Transitions and Detours In Conformance to Plans	SIGN	BARRICADE	WARNING LIGHTS	PAVEMENT MARKING	DELINEATION	BARRIER	OTHER	NON-REFLECTIVE	NON-STANDARD COLOR	NON-STANDARD SIZE	IMPROPERLY USED OR LOCATED	MISSING	DIRTY	OTHER	APPROXIMATE LOCATION OR STATION				
Section III Actions																			
Contractor Notified of Deficiencies Date _____																			
Contractor Completed Correcting Noted Deficiencies Date _____																			
Section IV Comments Attach Additional Pages for Comments <input type="checkbox"/> Yes <input type="checkbox"/> No																			
All Items Inspected are in compliance with the exceptions noted in the list of Deficiencies. Inspection made by: _____ Inspector Signature _____ Date _____ Received by: _____ Contractor Signature _____ Date _____										Corrections have been made as noted. Deficiencies corrected: _____ Inspector Signature _____ Date _____ Contractor: _____ Contractor Signature _____ Date _____									

A significant concern with this type of documented inspection process is the potential number of days that could lapse from the date of the latest documented inspection to the date of the incident. For example, if Form 599 is used on March 1st and a serious accident occurs on March 13th, the relationship of work zone conditions on the 1st to the conditions on the 13th could be substantially different. The accuracy and pertinence of the latest inspection document to the accident in question may be strongly challenged during litigation.

As another example, the State of Florida Department of Transportation (FDOT) requires the use of Form 700-010-08 – “Maintenance of Traffic Review Report.” This is one of the more formal and detailed reports mandated by a State DOT. FDOT requires a designated work zone supervisor (WTS) to complete and submit this form to the Department for the initial first drive through inspection of each phase of work, as well as on a weekly basis thereafter. The weekly form is intended to summarize the findings from daily inspections conducted by the WTS; however, there is not a specific requirement for the format and content of the daily inspections. This can create a gap in documentation when a serious incident occurs, particularly when the date the weekly form was completed falls up to six days from the date of the actual accident. If the contractor has not maintained additional daily inspection documentation, then the same concern with lack of current documentation can occur, as outlined above with the TXDOT process. (See copy of Form 700-010-08 on the following page).

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC (MOT) REVIEW REPORT

700-01048
 CONSTRUCTION
 11/05
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Evaluation: Initial _____ Comprehensive Weekly Report _____

A) Report No.: _____ B) Contract No.: _____ C) Fin No.: _____
 D) Federal Aid Project No.: _____ E) Project Administrator: _____
 F) Week of Contractor Review: _____ G) Date of Department / Representative Review: _____
 H) Current Project Phase: 1, 2, 3, etc. _____ I) Project Location: _____
 J) Areas to be Reviewed:

AREA NO.1 - TRAFFIC CONTROL PLAN	Y	*N	N/A	DC	REMARKS
A. TCPI/ALTERNATE TCP/MODIFICATIONS APPROVED					
B. SIGNED & MARKED ACCORDING TO PLAN					
C. SIDE STREETS SIGNED PROPERLY					
D. SPEED LIMIT REDUCTION NECESSARY WITH SIGN LOCATED PROPERLY					
E. NEEDED TURN LANES IN PLACE					
AREA NO. 2 - GENERAL	Y	*N	N/A	DC	REMARKS
A. SIGNS CORRECT HEIGHT & OFFSET					
B. SIDEWALK CLOSED/SCHOOL MARKING/ CROSSWALK SIGNS PLACED PROPERLY					
C. DRIVEWAY & MEDIAN ACCESS ADEQUATE					
D. SIGNAL TIMING/PHASING ADEQUATE					
E. SUFFICIENT WARNING SIGNS IN PLACE					
F. EXISTING SIGNS NOT IN USE REMOVED OR COVERED					
G. SUFFICIENT DEVICES TO GUIDE TRAFFIC THROUGH THE WORK AREA					
H. ROADWAY SURFACE MAINTAINED SATISFACTORILY					
I. MESSAGE BOARDS CONVEY CONCISE MESSAGE TO MOTORISTS					
AREA NO. 3 - NIGHT WORK	Y	*N	N/A	DC	REMARKS
A. LIGHTING PLAN APPROVED					
B. VARIABLE MESSAGE SIGN WARNING LIGHTED WORK ZONE AHEAD					
C. EQUIPMENT HAS FLASHING LIGHTS AND/OR REFLECTIVE SHEETING					
D. PILOT VEHICLE WITH FLASHING LIGHTS AND MESSAGE BOARD					
E. LIGHTING AIMED NOT TO IMPEDE TRAFFIC					
AREA NO. 4 - CLEAR ZONE/HAZARDS	Y	*N	N/A	DC	REMARKS
A. NO EQUIPMENT/MATERIALS/HAZARDS STORED IN CLEAR ZONE					
B. NO UNPROTECTED DROP-OFFS >3'					
AREA NO. 5 - TEMPORARY PAVEMENT MARKINGS	Y	*N	N/A	DC	REMARKS
A. CORRECT APPLICATIONS AND WIDTH					
B. REFLECTIVITY CONDITION SATISFACTORY (TAPE/PAINT/MESSAGES)					
C. CONFLICTING MARKINGS AND PAVEMENT DEBRIS REMOVED					
AREA NO. 6 - TEMPORARY BARRIER WALL	Y	*N	N/A	DC	REMARKS
A. IS WALL CONNECTED AND ANCHORED PER APPROPRIATE RDWY OR STRUCTURES INDEX					
B. IS TRANSITION PER INDEX					
C. HAS PROPER END TREATMENT BEEN INSTALLED CORRECTLY					
D. PROPER POSITION AND LIGHTS MAINTAINED					

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AREA NO. 7 - FLAGGERS	Y	*N	N/A	DC	REMARKS																		
A. LIST OF TRAINED FLAGGERS SUBMITTED TO PROJECT ADMINISTRATOR BEFORE CONSTRUCTION BEGINS																							
B. FLAGGER AHEAD SIGN INSTALLED PROPERLY																							
C. FLAGGER WEARING APPROVED SAFETY VEST/USING PROPER STOP/SLOW PADDLE																							
AREA NO. 8 - LANE CLOSURES	Y	*N	N/A	DC	REMARKS																		
A. PROPER TRANSITION, SIGHT DISTANCE and BUFFER LENGTHS																							
B. PROPER DEVICE SPACING AND VISIBILITY																							
C. PAVEMENT MARKINGS PLACED CORRECTLY																							
D. PROPER MERGING																							
AREA NO. 9 - DETOURS	Y	*N	N/A	DC	REMARKS																		
A. PROPER SIGNING AND PAVEMENT MARKING																							
AREA NO. 10 PEDESTRIAN/BICYCLIST ACCOMMODATIONS	Y	*N	N/A	DC	REMARKS																		
A. SEPARATED FROM WORK OPERATIONS AND TRAFFIC																							
B. PROPER SIGNING WITH PROPER TRAVEL PATHS																							
AREA NO. 11 - BUSINESS ACCOMMODATIONS	Y	*N	N/A	DC	REMARKS																		
A. VEHICLE AND PEDESTRIAN ENTRANCES MAINTAINED WITH PROPER DEVICES, SIGNING AND VISIBILITY																							
AREA NO. 12 - TRAFFIC CONTROL DEVICES																							
TYPE	VISIBLE			BEING USED			DEVICES CLEAN			SPACED PROPERLY			NOT MIXED			WORKING (%)	REFL			COLOR			REMARKS/DATE CORRECTED
	Y	*N	N/A	Y	*N	N/A	Y	*N	N/A	Y	*N	N/A	Y	*N	N/A		Y	*N	N/A	Y	*N	N/A	
CONES																							
DRUMS																							
LIGHTS (A,B, & C)																							
FLAGS																							
SIGNS																							
RPMs																							
ARROW BOARD																							
VMS																							
PADDLE																							
BARRICADES																							

K) I certify that to the best of my knowledge and belief that the information recorded on this inspection report is accurate.

Print Name of Contractor's WTS: _____
 Signature: _____

A false statement of omission made in connection with this certification is sufficient cause for suspension, revocation, or denial of qualification to bid, and a determination of non-responsibility, and may subject the person and/or entity making the false statement to any and all civil and criminal penalties available pursuant to applicable Federal and State Law.

Limitation of Liability Statutes

The TXDOT and FDOT inspection requirements outlined above were selected as examples for this article because both of these states have implemented very similar legislation referred to as “Limitation of Liability Statutes.” These statutes are designed to provide potential liability protection for contractors working for the Department of Transportation. The legislation applies only to DOT projects, but demonstrates a critical point being made in this article concerning any type of project involving temporary traffic control – *the frequency and accuracy of ongoing work zone inspection documentation will have a direct bearing on the successful outcome of a liability suit and subsequent claim.*

Both state limitation of liability statutes contain similar language as outlined below:

*“A contractor who constructs or repairs a highway, road, or street for the Department of Transportation is **not liable to a claimant** for personal injury, property damage, or death arising from the performance of the construction or repair **if, at the time** of the personal injury, property damage, or death, **the contractor is in compliance** with contract documents material to the condition or defect that was the proximate cause of the personal injury, property damage, or death.”*

A critical aspect of this legislation, which relates directly to the key message of this article, is that the contractor needs to be able to *prove* that they are in compliance *at the time* of the incident. The ability to prove compliance is directly related to the quality and type of documentation that is developed as close to the actual time of the incident as possible. This includes documentation developed prior to and immediately after an accident.

Even in states where this type of legislation is not in place, the same concepts apply toward a contractor who is trying to defend against allegations of negligence in a civil lawsuit. It all comes down to the ability to prove substantial compliance with contract documents, plans, specifications, and regulations that are material to the conditions that were the proximate cause of the incident, at the time of the incident.

Pre-Incident Inspection and Documentation

This discussion demonstrates that some method of formalized ongoing inspection and associated documentation during the course of construction may be critical to successfully overcome allegations of negligence. The contractor needs to determine the level of documentation that may be required for various types of projects based on several factors, such as:

- Scope and duration of the project.
- Speed and average daily traffic count.
- Amount of work involving a change or modification in existing traffic lanes.
- Prior accident history for the stretch of roadway.
- Potential extra-litigious environments.

Some projects may be more hazardous than others and require a very sophisticated documentation process. However, all projects involving temporary traffic control have the potential for serious work zone incidents to occur. The contractor needs to determine what is realistic to implement based on these factors.

Work zone documentation generally falls into three categories: written; photo; and video.

Written documentation is often the most common. At a baseline level, this often involves required inspection forms mandated by the Owner as previously discussed. If the Owner does not require specific documentation, then many contractors may rely on traffic control supervisor logbooks to capture critical work zone information. The next stage may be the development of an internal inspection form that is required to be used on a weekly or daily basis. The final stage of written documentation typically involves

a combination of all of these elements to verify that at least daily, some form of inspection and correction is taking place.

Regardless of the type of written documentation used, the frequency, quality, and accuracy of the documentation will become the most important aspects to focus on. Inspection documentation is designed to demonstrate a pattern of proactive work zone management. This pattern generally focuses on identification of deficiencies that may exist on the project, and the subsequent correction of these deficiencies to ensure that the traffic control plan is maintained as best as possible. If a contractor can demonstrate consistency and quality in documentation of this nature, their chances of success in litigation will increase.

As the saying goes, *"a picture is worth a thousand words."* The use of photo and video documentation can be an extremely useful addition to written documentation processes. Photos and video can capture a great deal of information to demonstrate critical aspects of the project where we often see most accidents occur. For example, the advance warning and transition areas of a typical work zone are often focused on in litigation. Advance warning involves signage and other devices to warn the traveling public of the upcoming hazards. Transition areas are often tapers that close lanes and merge or shift traffic into a different travel lane. Since these areas are so critical, the use of photo and video to demonstrate that the appropriate signage and traffic control devices were in place, can be invaluable in litigation.

Review the accident described in Part I of this series. The vehicle involved in the accident entered a closed lane of traffic and proceeded to lose control of the vehicle as they attempted to enter the open lanes of the roadway. The allegations made against the GC focused on inadequate advance warning and lack of compliance with the traffic control plan.

Consider the position the contractor would be in to defend these allegations of negligence if the following was in place prior to the date of the accident:

1. Designated traffic control crews maintain daily inspection logs that consistently demonstrate replacement or realignment of traffic control devices to remain in compliance with the traffic control plan.
2. Field supervisor logbooks indicate weekly formal traffic control inspections they have conducted, and highlight improvements and corrections that were made at various stages of the project.
3. Once the outside lane closure was established, video was taken of the entire stretch of road beginning at the first advance warning sign through the lane closure transition to the end of the project. The video has a date and time stamp and clearly demonstrates that appropriate signage and traffic control was in place. Video of this nature was taken at least once per day, to include weekends and holidays. A video is available that illustrates appropriate signage and traffic control was in place at the end of the shift on the date of the accident, approximately 4.5 hours prior to the accident.
4. There are also still photos of several portions of the project that consistently demonstrate compliance with the traffic control plan.

Now, consider the position the contractor would be in if they worked in a state with no mandated inspection process. The contractor had not implemented their own formalized process for work zone inspection documentation. There are a few supervisor log entries concerning traffic control, but the entries are unclear as to the location on the project where the corrections that were made. There are no photos or video available. The designated traffic control supervisor in charge of the project parted ways with the contractor one year earlier and cannot be located. Field supervision is not able to provide adequate verbal testimony to convince a jury that the traffic control was adequate.

The approach a contractor takes to documentation can literally mean the difference of several million dollars in a serious bodily injury or fatality case.

Several critical issues to consider when developing your own inspection and documentation process include:

- Proper training in documentation techniques for field supervisors and designated traffic control personnel. Make sure that your personnel understand how this documentation may be used. Train them in what to document, how often, and to what level of detail.
- Adequate detail concerning the deficiencies in question, and particularly in the corrections that were made. The documentation needs to be able to “stand on its own” in a court of law, especially if the individual who made the documentation is no longer available for testimony.
- Proper date and time stamp for all documentation, so it is very clear as to when the documentation was generated.
- Appropriate labels for photos to clearly illustrate the specific project location, station number, direction of travel, etc.
- Photos and video of a level of quality that can be easily reviewed.
- Photos and video that capture corrected deficiencies and an accurate traffic control plan, rather than only capturing deficiencies. If a deficiency is captured, there should be a correction captured.
- Labeling and storage requirements so that documentation is safely maintained for an adequate number of years and can be retrieved if needed 2-3 years down the road.
- Backup of all data.
- Periodic auditing to ensure the intent of your work zone inspection program is being fully executed in the field.

Summary Discussion

Work zone liability is a very real exposure to severe loss. A contractor who proactively manages the work zone and can prove consistent compliance with plans, specifications, and traffic control requirements will be much better prepared to manage associated litigation. Documentation is the key to success. This article could not adequately address all aspects of documentation that may be necessary. A contractor needs to assess their current practices and determine where potential gaps exist. Insurance, legal, and other industry resources should be utilized to assist in this type of gap analysis and development of appropriate solutions.

Please remember - The intent of these articles is to raise awareness and improve work zone management processes and procedures – all of which can lead to a safer work zone for both your employees and the travelling public. In those cases where a serious incident occurs and the contractors are truly not at fault, these processes and procedures can lead to significantly reduced legal judgments and total incurred claim dollars.

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