Jennifer Symoun
Welcome to today's webinar on Work Zone Training Program Development and Implementation. My name is Jennifer Symoun, and I will moderate today's webinar.

Before I go any further, I want to let everybody know what the voiceover IP is not working, so you will have to call into the phone line for the audio portion of today's webinar. The phone number is showing on your screen.

Today's webinar is scheduled to last two hours. We will start with an introduction given by Tracy Scriba of the Federal Highway Administration (FHWA) Work Zone Mobility and Safety Program. Tracy will discuss why training is important, what is required of work zone training, some considerations to include when developing work zone training programs, and available work zone training resources. She will then be followed by a presentation from Marty Calawa of the FHWA New Hampshire Division Office. Marty will discuss New Hampshire’s Law Enforcement Officer Training. Then we will have a presentation given by David Rush of the Virginia Department of Transportation, followed by a presentation given by Barry Lacy of the Louisiana Department of Transportation and Development and Ron Whitaker, a retired Louisiana State Police Officer. These presentations will cover Louisiana’s and Virginia’s overall work zone training programs respectively.

If during the presentations you think of a question, please type it into the chat area. Please make sure you send your question to “Everyone.” Presenters will be unable to answer your questions during their presentations, but the questions typed into the chat box will be addressed following the presentations. If we run out of time and there are unanswered questions we will attempt to get written responses from the presenters that will be emailed to all attendees.

The PowerPoint presentations used during the webinar are available for download from the file download box in the lower right corner of your screen. The presentations will also be available online within the next few weeks, along with a recording and a transcript of today’s webinar. I will notify all attendees once these materials are posted online.

We’re now going to go ahead and get started with our first presentation, given by Tracy Scriba of the FHWA Work Zone Mobility and Safety Program.

As a reminder, if you have questions during the presentations please type them into the chat box and they will be addressed following each presentation. I’m now going to turn it over to Tracy Scriba to get started.

Tracy Scriba
As we are getting started, I want to thank everyone for joining us. During past webinars on different topics, we’ve had a number of questions related to training come up from participants. We thought that there seemed to be an interest in having a webinar on work zone training itself,
so that led us to prepare today's webinar. I'm going to give a bit of an introduction, and then we will hear how training is being implemented in the three states Jennifer mentioned.

I'm going to cover why to have training, what requirements are in the Work Zone Safety and Mobility Rule, specifically Subpart J, some considerations and resources, and then that will lead into the implementation component.

Why do we have training? We want to develop a knowledgeable workforce. We want to help personnel do their jobs safely and effectively. We want to help them be able to design, implement and maintain work zones that provide for the safe and efficient movement of traffic. We need to enable the work to get done in a quality way, so that is part of the knowledge on how to best manage traffic in a way that does allow for constructability. We want to ensure that the plans developed ahead of time are implemented appropriately in the field and that we can safely enforce traffic laws and respond to emergencies in work zones. That's not an all-encompassing list, but those are the types of things we want the workforce to know through work zone training.

Before we go forward, I want to make one point: we're focusing on training today, but certainly all the training in the world isn't useful if it's not implemented or if it's not used when people are developing the plans or they are out in the field on the job site. We're going to talk about training, but that is not the whole picture. In fact, recently, I drove past a work zone and it looked very well set up. I didn't see the plans, but it looked appropriately set up. The workers seemed to have all the appropriate PPE (personal protective equipment) on and all of that, and yet there was a worker leaning into traffic and talking on his cell phone because the job operation behind him was very noisy. If you looked at the work zone, it looked like everybody there had some training to be able to do their job correctly, but somebody leaning into traffic like that could easily get injured because they are not thinking for a moment. I just want to preface my remarks and all the remarks today that the training is important, but, of course, it has to be implemented to be effective.

What does the Work Zone Safety and Mobility Rule require with regard to training? There's a particular section in the Rule that does address training, and it talks about who must be trained and, in a general sense, a little bit about what the training needs to cover and how often it needs to be. Why do I say “a general sense?” A lot of agencies had good training efforts underway prior to when this regulation was published. We wanted to allow flexibility to enhance those practices as needed, so we put more of a framework in place through Subpart J rather than a prescriptive set of requirements.

Regarding the who needs to be trained, Subpart J mentions that training is necessary for personnel involved in the development, design, implementation, operation, inspection, and enforcement of work zone-related transportation management and traffic control. That sets the larger framework. Who might that apply to? These are some of the types of positions or personnel that would apply to. Some aspects could apply to some folks doing planning for projects and certainly to those doing design and those on the job performing duties such as law enforcement, flagging, construction, etc., and of course consultants that may be performing in a number of these roles on behalf of the transportation agency. There is a range of folks that the
training requirement applies to. It is also possible that some training would be appropriate for some that are up the management chain or for public information officers and such. Those would not so much be the primary type of audience, but some training or awareness could be useful.

What is required for the training? Basically, appropriate training is training that is relevant to the job decisions that the various individuals need to make. The training a flagger needs to know is not necessarily the same information that a design engineer needs to know. Some of the information might be the same, but there's also information that is different. For example, inspectors would need to know some of the same information, but some different types of information as well. The idea is to have training relevant to the decisions that the person makes, so the training is intended to be targeted, meaningful to the individuals that need to make those decisions, and useful for those individuals. I think a lot of us have had experiences where we have been in training courses where maybe part of it was relevant, but the other part we couldn't see how it applied to the role or the job we were in. The idea is to make training that is relevant to those being trained; it varies by position.

I pulled out a few examples, which are on the next few slides. These are examples for certain personnel but it's not an all-inclusive list of the type of information they would need to know. I did list some things on these slides that would be some of the types of information they would need. You have personnel out there who are actually installing traffic control devices and putting in lane closures at the job site. They need to be trained because if they don't set up those closures appropriately or put in the appropriate devices, it has a big effect on how safe the work zone is and how traffic flows through there from the motorist perspective, as well as an effect on how safe the workers are. What are some of the things they need to know? How do they protect themselves so they can work safely in traffic? What is the appropriate attire to be wearing so that they are seen? How do they set up the plans appropriately? They need to read the plans that were developed and know how to install the devices and in what appropriate order. These are some of the types of things that would be important. Looking at the last two bullets, it's also important to know to some degree what not to do. When devices become worn and are not effective anymore, they shouldn't be used and they shouldn't get put out there anymore. If you put in traffic control incorrectly, here are some of the things that could happen and here is why your job is important. There are some of the positives as well as the flip side that can be important to know in training.

For those who may be doing design of the TMP, here are some of the kinds of things they would need to know. What kinds of traffic issues and impacts do we expect on the project? Is it a significant project according to the agency’s definition? What are the issues we need to know to allow for constructability? How do we get the TMP approved, and if we need to change it, what happens? What agency policies apply, such as how the agency plans to use law enforcement or what are the design standards the agency uses? There are agency-specific policies that the individual would need to be aware of.

Subpart J requires that both the agency and the contractor designate a responsible person for making sure the TMP is implemented and safety and mobility are appropriately accounted for on the job. Some of the types of things those individuals would need to know are the basics of a TMP. They need to know why is it that the TMP, and in particular the traffic control plan, were designed the way they were so that if something's not working, they can consider how to change
Moving on into what Subpart J says about “how often,” initially, the Rule became effective October 12, 2007. What was required at a minimum was that every State had some sort of training plan in place. We recognized that if they were going to be training additional individuals or needed to develop new training, then that might not happen by October 12, but they needed to have a plan in place and a reasonable timeline for implementing that plan. That was 4 ½ years ago, so these plans should have been well-implemented and a lot of this training, if not all of it, should have occurred. Things change over time: industry practices can change and agencies can change in terms of their policies and approaches, and certain issues or needs might come up that require training updates. That should be part of the process. On the topic of certification, the Rule does not require certification or establish certification at the national level; however, certain agencies require certification for certain personnel, such as flaggers or traffic control supervisors. Certification is something that would need to be checked at the State level to verify that if you do need certification, you have gotten it appropriately.

In terms of who can provide training, the Rule didn't limit who could provide training; it was more the agency that was responsible for ensuring that the training did occur. There is a range of agencies and associations that can provide training. Those could be engineering or transportation associations, contractor associations, FHWA and the National Highway Institute (NHI). The Local Technical Assistance Programs (LTAPs) are very much a source of training for a lot of localities. The State might have certain training that’s on its approved list, and that is something that can be established at the State level.

Moving into the latter part of what I was going to share with you before we move into the State presentations, what are some considerations in setting up a training program or revising it or providing training? Certainly one is what are the target audiences for the training? That is one key area, both within the State or agency and outside the State or agency. I mentioned consultants; that is one audience that may be doing a majority of the design work in some States. They would need to have awareness of work zone safety and mobility considerations so they can factor that into the design process, where appropriate. The different audiences may have different needs, and the training needs and core competencies that are desired and should be defined for different groups. What are programs or courses that would be considered to meet the need that is there? What is the best format for delivering the training? Some courses can be effective online and more broadly available and affordable from a time perspective and a monetary perspective, but there are other courses that wouldn't work well that way and definitely need to be a classroom type course where there’s on-the-job training or toolboxes. There are number of different ways that training can be delivered, and it may vary by content and audience.

Another consideration is where to specify training requirements, whether in the agency’s documents or in contract specifications or as part of pre-qualifications. In terms of delivering the training, is there a recordkeeping process, and who will be responsible for that to make sure the appropriate training has occurred for personnel working on the job site. Obviously, funding is always a consideration in delivering training. Who will be delivering the training is another consideration. One question I have heard from time to time from contractors is “I work in one
State and have been trained in that State, but is my training acceptable in other States or do I need to redo the training even if it is similar in another State?” That is something to consider when setting up a training program: will any training be accepted from other States for those contractor agencies or firms that work in multiple States?

To close, I want to mention a few training resources that are available. A number of these are available on the Federal Highway website at the bottom for training for work zones. There is a training compendium we developed, which I will show you on the next few slides. The work zone safety grants program has created a large amount of training, and some of that is available on our website and is also available through a link on our website to the other locations where that information is posted, and a number of these resources are posted in the work zone safety clearinghouse. NHI offers a number of courses for work zones, particularly in the traffic control area and inspector courses. As I mentioned earlier, certain associations and contractor organizations are another source. A number of years back, there was a “turning point” campaign put out by FHWA and ARTBA for new drivers, so that is available via a link on our website. Also, there is a national transportation training resource that lists a number of courses available, and competencies listed via the Transportation Curriculum Coordination Council; we did add information on different work zone competencies when that was updated last year. Lastly, the LTAPs, as I mentioned earlier, are a training source.

To give you an idea of what the training compendium is, it is something we developed that covers a number of topic areas. This is a page from our website. We broke training into a number of categories, like design of work zones, inspection of work zones, general work zone management. As you go down to the bottom, we've got short duration, traffic control, etc. In the links on the webpage, there's a set of courses in a table with basic information and who sponsors the training and things like that. Right above the bulleted list, there's a copy of the spreadsheet that has the information that can be downloaded as well.

Here is one of the pages; this is for inspection of work zones. There's a title of the course on the left and a brief description and the kind of a format – is it a classroom course or is it online. It shows how long the course is and who provides it, and is there a cost for it, target audience and contact information to get more information. We also have a column on the right indicating if the course maybe bridges a couple of areas. The first item says Kansas DOT, and we might have certain ones that are available from NHI, ATSSA, and others, so we have various providers listed in there. The colored tabs at the bottom are for different topic areas in the list, so you can access each of those on there.

Moving to implementation, after the Subpart J updates were published, a lot of States developed and enhanced their work zone training programs. As you can see in the graph, 65%, or 34 agencies, as of 2010, said they had made changes to their training, updated their training or developed new training in response to the publication of the Rule. A quarter to a third of agencies said they made significant changes to their training. It was good to see the number of training updates that happened.
I'm going to pass the microphone back to Jennifer to introduce the next presentations from the three States to share how they have implemented training programs in their States and give us some tips on what seems to have worked well and any changes they might have made over time.

**Jennifer Symoun**
Thank you, Tracy. We’re going to move onto our next presentation, but if you think of questions, type them into the chat box and we will get to them following this presentation.

Our next presentation will be given by Marty Calawa of the FHWA New Hampshire division office.

**Marty Calawa**
Good morning or good afternoon, depending on where you are. My name is Marty Calawa and I am the ITS/Safety Engineer for the FHWA New Hampshire division. Let me start off by stating that I am making this presentation on behalf of the New Hampshire Construction Bureau, who is having their annual construction school right now where they bring construction and field personnel into one location and spend several days training them. I was heavily involved in the development of this training, so I can speak to it knowledgeably.

Based on the Work Zone Safety and Mobility Rule, we now have to consider training all those who are associated with work zone activities. The list includes law enforcement. We had a lot of training, but law enforcement was new to us, so we had to think long and hard about it. The uniformed law enforcement policy components we had to have were when and how officers are used, the agreements and communications between them, how officers are going to be reimbursed, and of course the training, which was the 100-pound gorilla to tackle. We sat down and started thinking about this, and a few questions came to mind, like what do we tell them, what will be the content of the training course, and how do we go about getting this out to law enforcement officers? They are not a usual audience for us. Then, how do we track them: we have work zones all across the state and there are officers all across the state, so how do we track who has had the training and who hasn't?

First let's talk about what we tell them. The good news is that FHWA had created a law enforcement officer training course entitled “Safe and Effective Use of Law Enforcement Personnel in Work Zones.” I'm assuming most or all of you have seen or heard of this. They went forward and created a multi-module training course that looked at best practices in the current use of police officers. They did a good job putting together a training course, but it was very generic. New Hampshire felt that was not going to work well by itself without some modifications.

The FHWA training course has these components, and you will find that New Hampshire's law enforcement course corresponds to this. We looked at the slides and started to adapt them for our own use. How did we do this? New Hampshire has a Work Zone Traffic Control Committee that handles all things related to work zone traffic control and traffic management. That committee created a subcommittee for police and flagger training, and we started looking at the different aspects of the Rule and components of the policy that we needed to have. First was the reimbursement. We were currently using officers so we had a reimbursement policy, but we did
change it because of issues we were having. We created policy and guidelines for use of police, which we never had. It was up to the engineer in the field to determine when and how to use police officers, and because there was no good guidance on that, it did vary from job site to job site. Last was the training. Training was tough because we hadn’t gone through it. We went through the FHWA training material for police officers slide-by-slide and decided what we wanted, what we didn't want, and where we needed to modify it or add to it to meet some of New Hampshire’s needs. We looked at the common police uses and issues we had so we could incorporate that and get to the common problems we were having with the police. At the end, we brought the police in to review and comment because we wanted their input so we didn't step on any toes or contradict particular standards of practice they had.

We put a little bit of a New Hampshire twist on this. We took out some of the pictures and put in our own so it looked local. We used different terminology; for instance, the engineer out in the field handling a construction project in New Hampshire is called a contract administrator. We changed it up a bit to be a little more local for the officers.

We had figured out what we were going to tell them, and next was how we were going to tell them. There are some 4,500 police officers in the State. We really don't know who is going to show up at a particular job site. If it is a local project, it may be local police, but our job sites change. Sometimes we go through different communities. Sometimes there will be a sheriff or State trooper, depending on the type of road system. We had to be able to account for a lot of officers and train a lot of them, so how would we reach them? Who does the training? It was very clear to us early on that engineers talking to police officers may not have the effect we want. Having police officers speak to police officers was a better choice. We thought about that and said there have to be mechanisms in place to train these officers. These officers are getting in-service training all the time. They have to be trained in all kinds of thing, from gun use to how to make an arrest. We wanted to piggyback on that. We asked, how are they being trained now? We found that there’s the Police Standards and Training Council in New Hampshire, and there’s probably something similar in other States. It is centrally located and there are a number of trainers there, but officers would have to travel to that location if they were going to be trained, and even though our State is small, it could still be hours away, which wasn't very practical.

The other thing we found out is there are some local police trainers in some of the larger police departments in the State where they have designated officers who are training officers and they will send people to Police Standards and Training to get trained on a particular topic and bring it back to their local department to train their peers. These were what we were calling in-person training, and there are some drawbacks to that. Some of the drawbacks include the fact that if you have quite a few different trainers out there, which we would end up having, the message is going to change slightly from trainer to trainer. They are not likely to follow the script exactly. The few times we sat in on the courses, we found that they were changing certain things and emphasizing certain things and not others, so that can be an issue.

Then we thought, wouldn't it be great if we had remote training? Remote training has some advantages. You get a consistent message because they are seeing exactly what you put forward. When I say remote training, it is online training, like a course you would pull up on the web and be able to take at your own pace. It would be easy to track; when the officers who take this
training register, they put in pertinent information, and when they pass the training, the date is recorded so we know when they took the training, who they are and what department they work for. It is easy for law enforcement officers to take. They can take this remotely. One of the big advantages is officers could take this type of training while they are at work, or if they're working a late shift and there's not much going on, they could take the course, and if something happens they could stop and go back to it later, right at the place they left off. That is a big advantage as well. Also, it is good for officers that have to travel quite a ways because they don't have to go anywhere to take this course. Last but not least, there is no DOT personnel time required. DOTs are strapped with their own requirements and they did not feel they had the capability to go out and train these officers themselves.

We’ll talk about remote training development, and I don't know how many States have something similar to New Hampshire, but we have the State Department of Information Technology. They have a lot of other names for that particular group, and it's very difficult to get something through them. They are short staffed as well. There are development costs for online training, and the timeframe for which they could do it, if they could do it, was going to be long. We said that is great, but in all likelihood it wouldn't work. That is when a local vendor of police online training approached us. They’d heard about us developing this course through some of the officers we talked to early on about it. This training vendor developed a number of online courses that required training for the officers, like FBI courses and some voluntary courses they can take. They said to us we’re trying to make inroads to more police officers and more departments, so what if we were to take your training and re-sculpt it to be an online training course, and we can do it for free, but we would charge a fee for the course. That seemed very reasonable to us, so we allowed them to do it. That training organization was the Response Network, and they did a great job with the training course that was developed. I'll go through the next few slides to give you a feel for that online training.

Here are a few screenshots of the modules. This is the course progress module. On the right, you can see the modules checked off in green are the ones I have completed. As you go down, you will see there is one that is a green triangle, and that is where I am at that moment. As you go down further, we see the red locks, like padlocks, which are modules I haven't yet progressed to, and you can't take the modules out of order. You have to pass a short, relatively easy quiz at the end of each module before you can move on.

Next is a screenshot of a typical screen you would see in the course, but it's a little busy. The way it comes off live is very understandable. The text pops up as a professional narrator talks through it. They mostly follow the text with a few added thoughts along the way. As you can see, we input some photos from New Hampshire; that was a State trooper vehicle that was hit to be more personal to the folks taking the training.

At the end of each module, there is a module recap, which is basically a quiz. The quiz is multiple-choice. It is relatively easy but it does make them have to pay attention. It gives immediate feedback. As you can see, when I answered this particular question, I got it right, and I got immediate feedback that I got it right.
The web-based training also has some graphics. The components of the work zone traffic control layout pop up on the screen as the narrator talks through it. This is a lane closure and the different components of that lane closure. On the bottom, you will note there is a control screen for the whole thing where they can pause, go back, and re-listen to a particular section if they missed something or they weren't sure what was said.

The training also has a full animation feature. This is just a screenshot, so I can't really play it, but what you would see is this is toward the end of the course where they have case scenarios where they show how the work zone is set up and where the police officer should be parking his car. This particular one is a case scenario for a lane closure with light traffic. The following would be the same lane closure but with heavy traffic and then what the police officer would need to do.

We've got our content, we've got the training course, we have determined how we can tell them about the training, and we have set that up. The next thing is how do we track it? In tracking, there are a couple of needs. We want to make sure we cover all the police officers trained, whether they did the in-person course or the online training course or what department they were or when they had it. We need to track all of them. The tracking mechanism has to be almost real-time. It has to be up-to-date and needs to be available around the State because we have work zones all around the State and officers all around the State. A number of work zones are working late at night or over the weekends, so we need the information to be available 24/7. The data needs to be searchable. We need to be able to find by the department or by the officer’s name and the date they were trained.

Tracking those trained on the web-based training is easy because it is automatically done. When the officer’s registers for the course, they put in all their information, and when they complete the course, the data is included. It’s available on the vendor’s database, which is available to DOT personnel, and they can go on anytime to validate who has been trained. The in-person training is a little tougher; we are still struggling with that. It requires extra effort from the department. There is a certificate given out to the officers when they are trained, but realistically, are they going to bring that to the work zones or are they going to lose it? It is nice to have but not a great thing to verify that somebody has been trained. Presently, our State is looking at a State-owned database. As I stated, we are going to the State Department of Information Technology, and that's probably going to take time to get through.

Will officers take the training? It is required. As of April 1, 2013, if an officer has not had the training, they will not work in a work zone or be paid for working in a work zone. We felt strongly that if we didn't have a requirement, it wouldn't work. I heard a couple States at one point say that they may not have a requirement to work in the work zone. We feel strongly it is necessary. The training is required every 4 years. After they’ve had it for 4 years, they have to retake it. What have we heard? We've had some resistance and grumbling. We have been to the Police Chief Associations meeting and have presented this, and they are starting to come on board. It was kind of a long process, but I think they are seeing the benefits. The other aspect is that police officers work in work zone traffic control details voluntarily. It is extra pay for them, so we felt the training was a modest requirement.
With that, I will take any questions you might have. These websites are couple of demos of the online training. The vendor is interested in having other States look at the training. They'd be interested in adapting it to other States if interested or possibly making a generic one that could be used by anyone. If there is interest, I can hook you up with that individual who is the vendor.

**Jennifer Symoun**
We have two questions in here for you. Marty's presentation is available for download in the bottom right corner of the screen, so when you download it, it will have the slide with those two links on it as well as his email address.

Was there some sort of agreement between the New Hampshire DOT and the vendor, how was the fee determined, and did the New Hampshire DOT have any say?

**Marty Calawa**
Yes, there is an agreement. It is actually more of vocal agreement; I don't think we have signed anything. Because we had an in-person course the police can take for free, we felt having a vendor and having them charge a fee was not an outrageous requirement for taking the online course, given the advantages of taking the online course. I think the vendor has other police training, so there are a couple ways you can pay for the course. Your police department can actually pay a larger fee and then all the officers can have access to this course and other training courses. They would all be free after you pay the one fee to join. It might be an annual fee, or you can pay the $20 for this particular course per officer. How do we determine the fee? That was based on the vendor, and he had to price it where it to where it is enticing for them to want to take it. If he prices it out of the market so the officers choose to take the training in-person for free, then that’s fine, too.

**Jen Symoun**
Can then officer go back to the course for reference? You had said that the modules can only be entered in order, but if the next day they wanted to have another look at a module three, could they do so?

**Marty Calawa**
If they haven't finished the course, they can go back and look at any module they want until they are done. If they paid the fee, I believe that course will available to them for the whole year, so they could go back and take it a second time or something of that nature. I believe that they can do that.

**Jennifer Symoun**
We’re going to move on to a presentation given by David Rush of the Virginia Department of Transportation.

**David Rush**
Thank you very much. My name is David Rush and I’m the Work Zone Safety Program Manager for the Virginia Department of Transportation (VDOT). My presentation will focus on how we train VDOT staff, contractors, and others in Virginia in work zone traffic control training.
Prior to the issuance of the FHWA Final Rule requiring training personnel, although we were doing training in Virginia, it was sporadic. My staff and I would go around the State doing one-day training with Virginia Road Builder contractors and VDOT inspectors in a combined training course. We had three of our nine districts doing in-house training for all their maintenance personnel and construction inspectors. We also had ATSSA doing traffic control training for TCTs and TCSs throughout the State annually. Some of the biggest complaints on work zone safety training we've heard from contractors are the cost, the time away from work, and availability of training. They would complain that if it's not mandated, it must not be important. Fortunately, when the Final Rule came out, it gave us the stick we needed to come up with an appropriate training program.

What I have highlighted in orange are the areas we focused on: development, design, implementation, operation, inspection and enforcement of work zone traffic control. We appreciate that the Feds didn’t say this is exactly what you need to do, and we could develop our own program. We focused on job duties and responsibilities. The date of having something in place was October 12, 2007. For this challenge, like most State DOTs, we formed a committee. I was the chairman of our Work Zone Training Safety Committee. We tried to get input from a lot of areas, because work zone safety has a big impact. We had folks from the construction divisions, the maintenance divisions, local technical assistance working with municipalities, traffic engineering, and a representative from FHWA, because whatever we developed, we wanted it to be okay with them. We also worked with the road building industry and consulting industry on the training. The things the committee wanted to do fell into four areas. We wanted to use existing training if at all possible. We’ve had maintenance courses and construction inspection courses developed that we were using. We wanted to be flexible and not too regimented to allow for different things to be done by different folks. We wanted to be very sensitive to cost, and we wanted to come up with something that made sense. This was very important to the committee. The goal of the training program was to provide training personnel who could perform better in installing and managing work zones; increase safety for workers and motorists; and make a difference in what we were doing. The committee looked around to try to find out what other States were doing, and we came across a good program that the Florida DOT had. What I will be covering today from our Work Zone Safety Traffic Control Procedures is kind of the Florida program with a Virginia twist.

One of the things the committee looked at was we need to train the personnel, so how can we break that down? We looked at it like the life of a roadway. Before it's built, you have to have the design. Once the project is designed, it goes out to bid and you have it under construction. These days, a lot of construction is done under traffic. You have the construction element, and they look at different things than designers do. Once it's done and the road’s open for traffic, six months later you start making repairs to the new road.

From that, we came up with three distinct training courses. The first is the Basic Work Zone Traffic Control (WZTC) course that covers the fundamentals of work zone traffic controls. The idea is short-term maintenance operations, such as shoulder closures, lane closures, length of operations, and things like that. The course is one day in length and it covers the fundamentals of short-term operations, such as the component parts of temporary traffic control zones.
The second course we came up with was the Intermediate WZTC course. It is geared toward construction and construction inspection activities, covering long-term operations. There's more focus on traffic control devices used. It's a two-day course, and most of what is covered in the first day is what you get in the one-day Basic WZTC course—the fundamentals—then we add to that human factors; manuals and references; flagging operations; laying out, installing and removing TTC; types of TTC applications; and reviewing and documenting TTC. The textbook we use in this course is part six of the MUTCD. It is the document required to be used to build and maintain roadways in the state of Virginia.

The Advanced course is geared toward those designing the roadways, whether it’s VDOT or consultants. Some of the things we highlight are design considerations, development of traffic control plans, maintenance of traffic plans and TMPs, nighttime work zones, and urban areas and other considerations. What we use in this two-day course includes the use of concrete barriers, pavement markings, closing roadways and multiple traffic phasing, and other things we really don't do in the one-day Basic course. It is more traffic-related than the Intermediate course.

These are our testing requirements for each of these courses. A passing score of 80% is what we require. Although we did develop the courses in English, we've had a few contractors who have personnel who learn better in Spanish and can have the courses converted into Spanish and submitted to us for review and approval.

Once a course is given, if somebody fails the test, they have to wait 24 hours before they take the test again. A second failure will require the person to go back and retake the course. Once an instructor conducts a work zone class, he turns in the roster with grades and evaluation sheets to the central office, and we review the rosters and evaluations and enter the information into an Access database. Once we do that, we create a work zone traffic control training card, which is really a verification card. We don't really call it a certification, but it is verification. We send the cards back to the instructor, who then sends them out to those who attended. Training is good for 4 years. If we do have changes in both the Federal safety program and our program, we require participants to come back in a classroom setting every 4 years. We feel like it's important enough to spend a day or two every 4 years to be refreshed. A lot of times, folks pick up bad habits and this gives them an opportunity to see what is new and to re-focus.

The training cards do show an expiration date. At the end of the month that they took the training class, we add 4 years to the date. In training procedures, we identified training required for personnel related to their job functions and duties. For example, we showed this chart for maintenance folks, contractors who are non-supervised personnel, utilities, and maintenance contract monitors that are required to take the basic training. Construction inspection units within VDOT or contractors at the supervisory level are required to take the intermediate course. We also have within VDOT regional work zone safety coordinators and traffic engineering staff and others that require the intermediate training. For designers of traffic control plans, we require them to go to the advanced training. Some of the positions do require ATSSA certification, such as Regional work zone safety coordinators. If an inspector or contractor or maintenance worker has a problem, they could call them at the District or Regional level and find out the right answer. If we have a fatality on a work zone, they would go out and do ATSSA re-construction.
reports and things like that. Some categories of work zones or significant projects will require a traffic control supervisor who is ATSSA certified. All these positions require ATSSA certification. With an agency of over 9,000 employees and thousands of contractors, is it necessary to require everybody to be trained? What the training committee looked at was if you can get one person on a crew who is trained and knows what they’re doing, they will share that knowledge with others. In our procedures, we developed minimum requirements of at least one maintenance person who has gone through and successfully passed the course. As far as construction inspectors, we require at least one per project. Within VDOT, all of the maintenance employees, field personnel and construction inspectors have been trained. This lays out the requirements.

I’ll talk a little bit about the delivery methods. It is an instructor-led course. They use a PowerPoint presentation, a training DVD that has videos, a pocket guide, and a handbook. We have developed VDOT materials to be used and our procedures also allow others that have training programs to submit to their courses to the Work Zone Safety Training Committee. One of the things we stress is that it needs to be Virginia-specific because we do have our own part six. We have higher requirements and we want the training courses to reflect what we require. To date, only ATSSA has met our training requirements and has been accepted as an alternate training option. They have tailored their TCT/TCS classes and traffic control design specialist course so it’s same as our advanced course.

Knowing that many large companies and municipalities that have personnel who can conduct training for them, we have established qualifications that prospective instructors must meet. One thing we specified was VDOT would only train VDOT personnel. It’s the responsibility of the contractor to get their folks trained. In our procedures, we developed the following instructor qualifications. To teach the basic course, somebody would have to complete the two-day intermediate or advanced course. They need to be flagger certified and have 2 years of experience in conducting training type courses. It can be any type of safety training, such as teaching Sunday school; it just needs to be somebody who would be comfortable standing up in front of a bunch of people and presenting material. Another qualification is they have at least 2 years of practical experience in highway design, construction, maintenance, or traffic operations. For the intermediate class, we raised the bar a little bit. One of the things we want to stress in the intermediate class is acceptable adjustments and modifications you can make to typical traffic control layouts. Anybody who wants to teach the intermediate course has to be ATSSA TCS certified, and the other requirements stay same. For the advanced course, the instructor has to be an ATSSA TCS or TCDS certified traffic control design specialist. Those are the requirements of prospective instructors. We have created an instructor application that lists the requirements folks need to meet. We ask for the ATSSA TCS number and we look for a couple of references, a description of their experience, and how they think they can meet the qualifications to become an instructor.

Everyone needs initial training. To date, the training committee has approved over 450 instructors. We have instructors throughout Virginia and in Maryland, Pennsylvania, North Carolina, Tennessee, Ohio, West Virginia, and New Hampshire. We have 30 companies that conduct training on a monthly basis. There is training on a weekly basis throughout the State of Virginia. One of the things to get the ball rolling on the VDOT side of the house was that they
required Districts and central office divisions to come up with a WZTC training champion. The responsibilities for that person would be to develop a training plan, identify employees that need the training, and coordinate the implementation of the training. Most of the people on this list are District construction engineers or District traffic engineers, and we had many assistant division administrators. It helped us establish the program and meet our goals.

By July 1, 2009, we wanted people working on our roadways to have the training: one per work crew, one per construction project, one per design team. We started putting in project advertisements and notifications that this training would be required, this is how you get the training, and this is when the training would have to be done. It also included utility and permit personnel; they have to list who has gotten work zone traffic control training on the form. Over 25,600 people have attended one of the three training classes.

Since many of these folks started in 2008 and it’s 2012, that means it’s time for them to be retrained. We require them to come to a classroom setting and listen to an improved instructor and get the course materials. Since we have recently updated VA Part 6 and have a new pocket guide, we just completed revising the PowerPoint materials we will be using new handout materials. One lesson learned is that when Florida developed the program, I think they had a consultant administer the program for them. It was probably a smart move, because it is time-consuming. We are in the process of outsourcing that part of the training program. Instead of training rosters coming into my office to be entered into the Access database and training cards made and sent out, we are going to turn that over to a third party. As far as the class evaluations, they will still come to my office, as will the instructor applications. We feel like we need to maintain control of that part of the program, but other areas we will outsource very shortly.

Another thing we do is place on an external website a list of everybody who has been trained. If somebody does lose their training card, you can access that website and it can be found.

The last slide shows a link to our work zone traffic and training procedures. If anybody's interested, it will be part of the PowerPoint presentation at the end. With that, I am finished, Jennifer.

Jennifer Symoun
Thank you, David. We’ll take a few questions that have been typed in for David. Did VDOT develop the course on their own, adapt it from an existing course, or use a consultant to develop the course?

David Rush
We developed all three on our own.

Jennifer Symoun
Is the training done in-house?

David Rush
Training is only done in-house. VDOT only trains VDOT employees. Contractors are responsible for either going to one of our providers or asking somebody who can meet instructor qualifications to become an instructor and train their folks.
Jennifer Symoun
Those are all of the questions we have for you right now. We will move on to the next presentation. Our final presentation will be given by Barry Lacy of the Louisiana Department of Transportation Development (DOTD), and Ron Whittaker, retired from the Louisiana State Police.

Barry Lacy
Welcome from Louisiana. My name is Barry Lacy and I’ve worked for DOTD for 21 years I’ve also worked construction, so I have a good handle of what goes on in the State.

Why is temporary traffic control important? Bad things happen, people die, people are injured, money is lost, and you and your company can be sued.

How did we get here? Our contractors were saying there were inconsistent plans, different things going on, and here is what they wanted, and we wanted the same thing. We wanted everybody on the same page. They wanted clear and concise information. There were a lot of notes on the plans that said “at the discretion of the PE,” and we thought that was a bad idea because different PEs have different priorities. They wanted a clear set of bid documents. They didn't want guesswork on work zone safety; they didn't want to guess on the number of devices somebody wanted and what was determined night work, etc. We also wanted to get up to speed on current standards to minimize exposure in court.

These are the DOTD people that work construction inspection in the field. We thought everybody needs to take a flagger course, both technicians and engineers, to get everybody on the same page. The technician course (TCT course) teaches the basics of temporary work zone traffic control. We thought everybody should take that, also. When it came to the supervisor course, which is on advanced traffic control techniques, we thought all upper level technicians and engineers should take that. We have developed it to be Louisiana-specific, and that will be available very soon.

ATSSA is our preferred source of training. The TCS refresher course will be ready soon, and when it's ready, it will be implemented soon. We do track training records and can maintain them very well. Certification is not required, only course completion, because some venues have certification and some don't, so we decided you just need to take the course and pass it. You do have to pass the refresher course every 4 years.

Here are the latest numbers we have. This is DOTD and contractors: 2,041 have taken flagger, 2,552 have taken technician, and 2,114 have taken supervisor.

We decided to write a spec called Traffic Control Management. We decided to keep it as a separate pay item. With everything, there is a learning curve. In 2004, the average cost was about $177 a day. Over the next couple of years, it went down to $148 a day as people got used to the spec and what we expected out of it. As of 2007 on, it is part of our temporary signs and barricades, so we decided not to track it directly.
Let’s go through the requirements of what we expect out of our technicians, which goes into requirements of the contractor’s TCS. They have to have three things on the job at all times: a set of all contract documents relating to traffic control or traffic staging; a current copy of the MUTCD; and a current copy of Louisiana Work Zone Traffic Control Details.

It goes into authorization. The contractor has to submit to the engineer the TCSs and TCTs to be used on the job site. Some contractors like to use ATSSA, but AGC is also acceptable, plus any other course that contractors can justify. They also have to take a refresher course every 4 years, whether it’s Louisiana-specific or not.

Here are some of the duties they have to perform out there. A lot of times, the TCS has other duties, but he has to be readily available at all times to perform TCS duties as required in the contract. We also say a minimum of one TCT is required on-site during working hours. Someone has to be out there at all times in charge of traffic control, whether it’s a TCT or TCS. Some other TCS duties include responsible for the training of flagging personnel and ensuring that all flagging done on the project is in compliance with the MUTCD and the Louisiana Work Zone Traffic Control Details. As far as police, we say it’s okay when police are used as flaggers as long as they meet the flagger requirements and are being used only as flaggers, not as police. We have a couple of contractors that like to use police as both flaggers and police, but we don’t want you to be a flagger unless you’re only a flagger.

When we show up at the job site and put all the devices out there, we’re required to compose a work zone letter with the crashworthiness of all the devices. We also make the TCS maintain a traffic control diary. He writes down all the information online with the site manager and electronically signs it daily. We don’t want someone filling in 30 days of traffic control diaries at the end of the month. We do this because it’s subject to Louisiana’s revised statute on “Filing or Maintaining False Public Records.” We had a couple of contractors that failed to read the spec, and a failure to submit the diary, which is part of the spec, is a fine of $150 a day. Here is a snapshot of what the diary looks like and what information is required. As with anything, there is a learning curve with the traffic control diaries. For example, one of our contractors thought this was an acceptable diary entry.

For inspection of traffic control, the TCS will be responsible for the inspection of all traffic control devices every calendar day. Inspection may be delegated to the TCT, except on high profile, high speed, or ADT roadways. We want the TCS doing that. We also want them to use the ATSSA pamphlet on “Quality Guidelines for Work Zone Traffic Control Devices” to evaluate the condition of the traffic control devices and determine if they’re acceptable for use. Since 2005, we have given out 600 of these pamphlets to DOTD personnel and 200 pamphlets to 70 different contractors.

Continuing on with inspection of traffic control, the TCS has to inspect on weekends, holidays, or other non-work days at least once per day. Every day a traffic control device is out there that the contractor installed, the TCS has to go check it out. The TCS also has to inspect once a week during nighttime periods.
Failure to comply: here’s what we’re going to do if we don’t see what we want to get out of the contractor. If we see something bad going on, the Project Engineer, Work Zone Engineer (which is me), or Statewide Traffic Control Specialist may suspend all or part of the contractor’s operation(s) for failure to comply with the approved “Traffic Control Plan” or failure to correct unsafe traffic conditions within a reasonable period of time. Notification of suspension is given to the contractor in writing. Serious deficiencies can mean a complete shutdown of the contractor’s operations until we can figure out what’s going on. We don’t like for that to happen, but it has happened, and I’m sure it has happened to everybody in the country. This is the next step that we take.

Speaking of deficiencies, here’s what we do out there. We grade our PEs and contractors. We have things to look at in five categories. If it’s a major deficiency, it’s two points; if it’s minor, it’s one point; and a zero is a perfect score. We take a lot of pictures and put everything in writing to make sure they listen to what we say. One of the things we look at is signs. A major deficiency is signs that are not clipped in properly, are applied incorrectly, are not telling the truth, or are covered up. Some minor things might be incorrect spacing, incorrect sheeting, or incorrect size of the signs or posts. The picture on the right is incorrect spacing of the signs. Here are some covered signs. You can see right through the one in burlap at night, and the one of the right shows a vest covering up the sign.

Another category that we look at is barricades. Here, a major deficiency might be that it’s not crashworthy, and a minor might be that the chevrons are painted in the wrong direction, as in the picture.

Another category we look at is flagging operations. We make sure that the flaggers are trained properly, so a major issue is if the flagger is not qualified, is in the wrong location, or doesn’t have a vest on. Some minor deficiencies could be if the pole is too short or the sign is too small. The picture on the left is the correct procedure; the one of the right is not.

We take a look at message signs and arrow boards. A major deficiency is the wrong message or a misapplication of the taper, flagger, etc. Minor deficiencies include no delineation or using them as arrow boards. In Louisiana, we love our Saints, but this is an inappropriate work zone message. It was put out when we won the Super Bowl. Here is an example of trying to use the message board as an arrow board, which you are not supposed to do.

The last category is miscellaneous. For example, if the ballast is tied to a movable stand, which is not crashworthy; if equipment is parked in a clear zone; if the incorrect flare is used for concrete barriers; if the taper is too short; or if the TMAs are not being moved as the work zone moves down the highway. Those are major. Some minor things are wrong speed limits or lights, or an unkempt roadway. The picture on the bottom is what we require if we shut down a lane on a four lane divided highway. Right past the buffer space, we put a TMA. In the picture on the left, we saw the TMA truck parked correctly, but there is another truck directly behind him.

We collect information on these deficiencies and say are they doing a good job or are they not? With the failure to comply part, we wrote in that we reserve the right to revoke or de-certify you for gross negligence of your duties. I write a letter and mention that certification is a privilege,
you've presented a safety hazard to the workers and the public, and you’ve violated procedures and practices of the MUTCD. I take pictures and I send it to AGC or ATSSA or whoever certified these people and suggest that they de-certify them. If that happens, the TCS has to retake the course and is subject to a 90 day probationary period, and that’s happened about 12 different times.

The last thing we look at is protecting blunt ends when you remove a guardrail. The old method was to put up Type III barricades and Test Level-3 devices. Option one is to remove and replace the same day. Option two is if you take it down and can't put it back up, you have to put in a Test Level-3 or MASH approved device until the new guardrail is installed. If you have a non-NHS route with shoulders less than 8 feet wide, you can put up a Test Level-2 device. New guardrail should be installed within 7 days.

Here is the speech I usually give to our guys and my contracting people. Here is the bottom line: take pride in your work zone. Have you workers wear appropriate safety garments, which will command more respect from the traveling public. Establish a work zone that any driver, young or old, can navigate easily. Temporary traffic control sets the tone for the entire project. If it’s incorrect, the motorists won’t respect you and you can expect sloppy inspection and construction. Temporary traffic control is your controlling work item each and every day, and if your TCS is off the job, they can't let you work out there.

Jennifer Symoun
Okay, I will bring up the next presentation by Ron Whittaker.

Ron Whittaker
My name is Ron Whittaker and I am a retired State Trooper from Louisiana. I had almost 29 years of service before I retired. As a road trooper for 9 years, I’ve worked in construction zones and as a supervisor for 13 years—6 as a sergeant, 7 as a superintendent – I’ve supervised troopers who worked in work zones. As a troop commander, I had the opportunity to work with DOTD to help revise how troopers work in work zones. Since I've retired, I've gone on to work with DOTD in the Highway Safety section, where Barry and I have developed and I teach an updated work zone safety for law enforcement officers course, so it gives me a broad and unique perspective in dealing with this issue.

The impetus for this updated work zone course was the fact we had several fatal crashes in work zones with strikingly similar circumstances. In each crash, the trooper had been hired to work in the work zone on a paid, off-duty detail. However, in each crash, the trooper was not where he or she should have been. The trooper was up near the construction workers at the request or, in some cases, the insistence of the contractor, and the contractor immediately denied any responsibility for the crash. We asked ourselves why would troopers do that and we found three reasons. First, there was a contradiction in training due to a fatal crash in which a Louisiana State trooper was killed in a work zone related crash. The State police reaction to that crash was that they didn't want to have a trooper located at the queue, period. Secondly, the contractor wanted the trooper near his construction workers for added protection. It's a great idea for construction workers, but not for approaching motorists. In Louisiana, for example, over a 3 year period, we found that 90% of fatalities in work zones were vehicle occupants, not construction workers.
Third and most important is the fact that troopers realize very quickly that it is much safer for them to be located by the construction crew. If they are up there, they’re going to be in front of the crash or the truck, and the traffic is typically much slower there. When the contractor asked them to go up by the construction crew, they didn’t get much of an argument for the troopers.

We had two emphasis areas when we developed this updated course: first, where the police officer unit should be located and why; and secondly, what exactly the police officers’ duties and responsibilities are. To accomplish that, we focused on three key areas. First is a critical safety point, which is approximately a ¼ mile prior to the queue. The critical safety point is where the police officers’ vehicles should be located to give approaching motorists, who are often at a fairly high speed, the time to see the police car and its emergency lights, realize something is going on, look ahead and recognize that traffic is stopped or slowed, and safely stop themselves. There should always be a police officer at the critical safety point. There’s never a situation where that is not the case. The second thing we concentrate on is we show them how the work zone should be set up and why it should be set up that way. We want the police officers to be able to recognize if it is set up correctly and, if not, to be able to address the issue. As was mentioned earlier, we teach them to drive through the work zone. If the work zone is confusing to them as a police officer, it's going to be confusing to approaching motorists, and obviously we don’t want the motorists to be confused. The third thing we emphasize is as a police officer, safety is their responsibility. They cannot abdicate their responsibility to another department or agency. They are responsible for the safety of the work zone. To facilitate that, we established a formal chain of command. If a police officer has concerns with a safety issue – for example, if someone tries to put them somewhere other than at the critical safety point – the first point of contact would be the contractor. If he does not get it resolved to his satisfaction, they should contact the project engineer from DOTD. If it’s still not satisfactorily resolved, they should check with Glen Morgan, who’s our safety officer. We give them his cell phone number, and they can contact him 24/7. If all that fails, they should contact their State police supervisors, who have also been through the training.

This shows where a vehicle would typically be located. This is the position where the vehicle should be if the traffic is free flowing and not beginning to back up or queue. Also, we recommend that police officers either be on the right shoulder or the median if it is safe, but we also recommend that they face traffic.

This diagram shows traffic that is beginning to back up in a queue. The top picture shows that the queue is now past the roadwork one-mile sign and the police cars have backed up with the queue to stay far enough downstream that they are approximately ¼ mile prior to the queue, and that gives approaching motorists adequate advanced warning.

A couple aspects of training that I think are worth considering are that there's no risk management principle that simply states “if it is predictable, it is preventable.” Certainly, work zone crashes are predictable and preventable. We know we are going to have crashes in the work zone; we know why we’re going to have them and we know, for the most part, where they’re going to occur. That is why the updated course concentrates heavily on what we believe the largest problem is: the critical safety point. I would recommend considering hiring a police officer or retired police officer to conduct the training.
The last thing I would ask you to consider is this question: are work zone crashes underreported? The answer is they probably are. In Louisiana, for example, the Crash Report Manual instructs police officers that a work zone crash is one “where the first harmful event occurs within the boundaries of the work zone.” The last sentence in that block of instruction tells them “crashes involving vehicles slowed or stopped because of the work zone should not be included unless the vehicles had actually entered the work zone when the first harmful event occurred.” If officers do that, that crashes that occur prior to the initial advanced warning sign are not included in our statistical data. If that's the case, we are not getting an accurate picture of how serious the problem is. That’s the case in Louisiana, and I suspect we are not unique in that.

I’m going to put my contact information up here. If you have any questions, I would be glad to answer them. If not, feel free to contact me off-line and I will try to explain what we’re doing or offer any suggestions.

Jennifer Symoun
Thank you, Barry and Ron. We'll take some questions for you, and some of these could probably be answered by Virginia or Louisiana. Are your flaggers allowed to direct traffic?

Barry Lacy
No. That’s for the policemen and that’s why we try to distinguish their duties.

Jennifer Symoun
For Marty and David, I would assume the answer is the same on your end as well?

Marty Calawa
For me, it is also true. We typically use flaggers for stopping and releasing traffic in one-lane, two-way traffic control.

David Rush
It’s the same in Virginia.

Jennifer Symoun
Barry, is there a TCS on all projects, regardless of their size or type of work? Is the TCS sometimes a person with other responsibilities on the project?

Barry Lacy
When we wrote the spec, we wrote that we want somebody, either a TCT or a TCS, there at all times. The way it was written is that the TCS has more advanced knowledge. He can float around in an area and work several jobs in the same area, and he can delegate some responsibilities to the TCT. In case something happens, the TCT can call the TCS in case he can't take care of the problem himself and have the advance knowledge of the TCS very near on-hand. It's one or the other, but realize that the TCS can float around to different jobs, and typically, yes, the TCT and/or the TCS is an operator or foreman doing other duties but he has to step up and take care of equipment when we ask him to.
Jennifer Symoun
How do you pay for your TCS – per each, per day, per hour?

Barry Lacy
That is included in our separate assignment barricades item. It’s all lump-sum items and indirect costs.

Jennifer Symoun
Are law enforcement personnel or just State personnel used to enforce an initial shut-down of a work site?

Barry Lacy
In Louisiana, there are written laws that we can't shut down roadways for the most part. When setting up cones or shutting down a lane on the interstate, a lot of companies will hire a trooper to help set up the cones, and then we use the same guy as our queue guy. We won't shut down roadways, but we use them to slow traffic and help us set up and remove the work zone.

Marty Calawa
In New Hampshire, between the first warning sign and the end of work sign, the DOT has full control of the highway. If there was any shutdown, it would be them. They do use police officers, but officers within the work zone do not have responsibility in that manner.

Jennifer Symoun
I think the question may have been getting more to the point of improper traffic control in a work zone. I don’t know if you would ever completely shut down the work site because of it, but I think the question might have been getting towards who enforces it when you send the letter that says there was something improper going on.

Marty Calawa
In New Hampshire, the DOT determines it and they have shut down work zones. They don't shut down the road, but they would close up the work zone and have the contractor go if they are failing to meet the standards.

David Rush
That is the same with Virginia.

Barry Lacy
If a work zone is not compliant, our guys are in control, not the police. We could put the contractor at fault, remove the job site or shut the job site down, but we typically don't need the police to do that.

Jennifer Symoun
Do have a copy of the checklist you mentioned that you can share?

Barry Lacy
Yes. I just put a few examples of each category, but we have a complete one.
Jennifer Symoun
If you want to send it to me, I can send it out to everybody.

Barry Lacy
Sure.

Jennifer Symoun
What is the impact on budget and resources to provide State police at all work zones?

Barry Lacy
If we think it’s a good idea to have the guy at the back of the queue, they get paid $40 an hour and $25 for the use of their car for the day. Other local agencies and sheriff offices may not have that policy. If the contractor on a country road wants to have these guys there, we’d never pay for that. We just think it's a good idea to reimburse the contractors for high-speed roadways with a queue backing up.

Jennifer Symoun
Would a flagging job be considered a project that needs a TCT on the job as well?

Barry Lacy
Anytime you have a sign on a project, which is typically every project, you must have somebody in charge of traffic control, whether it’s a TCT or TCS. Somebody out there has to have information and the proper training to work that job.

Jennifer Symoun
When a railroad is working at a crossing on their own Right-of-Way how do you enforce this requirement?

Barry Lacy
When we cross a road, the contractor has to pay the flagger that works for the railroad company. If they are working within 25 feet of the railroad, that is a railroad requirement, not ours.

Marty Calawa
I think that is pretty much standard everywhere.

Jennifer Symoun
I'm going to go back to a question that was asked earlier. I will put this out to all of our presenters. Should utilities be prohibited from accessing the Right-of-Way if they cannot show TMP training?

Barry Lacy
Since we only have 5 minutes left on the webinar, I don't think there's enough time to talk about that. I'm sure everybody has seen bad things that utility companies do. They have permits that say they’re supposed to respect and follow everything in the MUTCD, and they don't. If
something happens, they pull up their cones and take off. We don't have any enforcement. It's a constant battle out there.

**David Rush**
In Virginia, they are supposed to have a trained person out there. We don't have any incident management training required, but for planned activities you are supposed to have a basic trained person.

**Jennifer Symoun**
Do any of you provide maintenance of traffic training online?

**Mary Calawa**
We don't; I think everything is on-hand. The only thing you can take online is flagger training with an ATSSA course online.

**David Rush**
We have no online training.

**Jennifer Symoun**
For Louisiana, does your TCS have access to Site Manager?

**Barry Lacy**
Yes, it is required when he does his traffic control diaries. He has to click on something that says he swears he’s done it correctly and what I’ve documented is what actually happened.

**Jennifer Symoun**
Going back to the question about when a railroads crossing at its own right-of-way, the person type in a clarification: this doesn't apply to jobs under State contract; it is where the railroad is working on their own.

**Barry Lacy**
That would be like a permit, and I don't believe we are there yet. They work on roads all the time. We just try to tell them maybe when they can or can't shut down a roadway. We try to coordinate the best we can with them, realizing the railroads are hard cookies to talk to.

**Jennifer Symoun**
I think those are all the questions and we are about out of time, so we will close out for today. I want to thank all of our presenters for great presentations today. Thank you everybody who attended and thank you for dealing with the audio issues. We will have that taken care of by the next webinar. We will be announcing the next webinar once it is ready. Once it’s open for registration, I’ll send out an announcement to everyone who registered for today’s webinar. The recording and presentations from today's webinar will be available online in about two weeks, and I will send out an e-mail to everybody who registered once they are available. With that, we will close out for today. Have a good rest of the day.