

MAINTENANCE / UTILITY TRAFFIC CONTROL GUIDELINES



North Carolina Department of Transportation
Work Zone Traffic Control Section

Created as part of the NCDOT Implementation of the FHWA Final
Rule on Safety & Mobility 23 CFR 630 Subparts J & K

All employers working inside Highway Right of Way in North Carolina should be familiar with the information in this document and apply the knowledge and follow the practices contained in it.

Employers will provide this information to each employee working inside Highway Right of Way and discuss this information in a meeting with them on a regular basis. Each new employee will have this material discussed with them before beginning work for the first time in Highway Right of Way. Employers should keep records of these meetings to include, at a minimum, the name of the employees, the date of the material review, the specific material reviewed and the person who led the material review.

This information covers work zone safety knowledge for a wide range of job responsibilities. Employees working in any given job may not need to know all the information contained in this document. The employer will determine what elements of the NCDOT Maintenance/Utility Traffic Control Guidelines apply to each employee based on their job responsibilities. It is expected that as job responsibilities increase work zone safety knowledge levels will need to increase.

This document is intended to describe what knowledge workers should be familiar with before they perform tasks inside the Highway Right of Way, not as a stand-alone training program. One of the basic differences between the MUTCD Chapter 6H Typical Application Drawings and NCDOT Roadway Standard and Detail Drawings is MUTCD drawings generally apply to short duration and short-term stationary stand-alone work zones while NCDOT drawings generally apply to intermediate and long-term stationary work zones that have advance general warning signs posted at each end of the project. This document is intended to blend information contained in the MUTCD with that in the NCDOT Standard & Detail Drawings to provide one source for Work Zone Traffic Control inside the Highway Right of Way.

More information on this NCDOT Program can be found on the web-site at <https://connect.ncdot.gov/projects/WZTC/Pages/Training.aspx> and from the Work Zone Traffic Control Section through Steve Kite, PE at 919-662-4339.

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CHAPTER 1 – Summary of Maintenance/Utility Traffic Control Guidelines



1.1 Know when to call your Qualified Work Zone Supervisor or Designer

- Changing or Creating Temporary Traffic Control Plans (Designer).
- Creating Pedestrian and Worker Safety plans (Designer).
- Implement Pedestrian and Work safety plans in coordination with your **Qualified Work Zone Supervisor**.
- Installing temporary work zone traffic control for work in the center lane of 5 or 7 lane undivided highways and in the center lane of 3 or more lanes in one direction.
- Using any type of water filled, concrete, or guardrail barrier, or raised island to separate vehicle traffic from other traffic or workers.
- Using crash cushions.
- Ballasting of Truck Mounted Attenuators (TMA)s.
- When to remove, cover, or install “Black on White” highway regulatory signs such as “Speed Limit 55 MPH”.
- Using Changeable message signs, Highway Advisory Radios, or any other electronic means of implementing temporary work zone traffic control.
- To teach portions of the NCDOT Maintenance / Utility Traffic Control
- Guidelines to others in your company.
- When to implement use of Automated Flagger Assistance Devices (AFAD’s) and portable temporary traffic signals in temporary work zone traffic control.
- Night-time flagging.
- When to implement on-site and off-site traffic detours.
- When to implement a pilot car operation.
- Implementation of temporary work zone traffic control on Interstate Highways and ramps and freeways with Posted Speed limits 60 MPH or greater
- Implementation of temporary work zone traffic control at railroad grade crossings, signalized intersections including asphalt resurfacing through these intersections.
- When to implement the use of any other temporary traffic control device or method not discussed in the NCDOT Maintenance / Utility Traffic Control Guidelines such as screens to shield headlights, night lighting, and “Rolling Road Blocks”.
- Creating traffic control plans for Interstate or Multilane US Routes in or near a large municipality (200,000+) in population.

1.2 Administrative Issues

- When doing contract work or sub-contract work for others understand whether you are working under an encroachment agreement from NCDOT or other Agency or under a contract to perform work with NCDOT or other Agency.
- Your on-site Foreman or Supervisor should always have a copy of any encroachment agreement that may apply to your work or a set of plans and the contract document with them at all times. All the project specific restrictions, completion dates, and other requirements will be listed in the encroachment agreement or contract plans and documents.

1.3 Construction Staging (how you will do the work) comes first

- Know and understand the work you will be performing and what equipment, materials, and personnel will be needed to complete this work.
- Know and understand the space in which you will perform this work and any special conditions you will have to work under. VISIT the site before beginning the work.
- Once you know what work you are going to perform and where it is you can then use the information below and your Qualified Work Zone Supervisor to interpret the traffic control plans or select the Temporary Traffic Control to create the proper Temporary Traffic Control Work Zone to fit your needs. When creating traffic control plans for Interstate or Multilane US Routes in or near a large municipality (200,000 +) in population you will need a Designer.

1.4 Work Vehicle Warning Lights

(MUTCD Section 6C.04, 6F.81, 6F.83)

- Use warnings lights with at least 50% being amber in color attached to the vehicle as high as possible and in a manner such that they are not obscured by equipment or supplies. Vehicle hazard signals or lights may be used to supplement this requirement. This requirement applies to all work vehicles and equipment NOT inside a lane closure or behind barrier. This requirement does NOT apply to dump trucks but, is encouraged. (Effective date 7-1-2012)

1.5 Workers

1.5.1 Personal Protective Equipment (PPE) (MUTCD Section 6D.03)

- Wear long pants, shirts with sleeves, & work boots.
- Wear ANSI Class II safety vest or ANSI Class II safety shirt at a minimum. (An ANSI Class III may be worn in daylight)
- Recommend use of Class III safety vest for night work.
- Recommend wearing Orange cap or Orange hard hat or Orange hard hat cover when flagging Traffic.
- Recommend wearing Orange cap or Orange hard hat or Orange hard hat cover at all other times in work zone.
- Hearing and eye protection are also recommended.
- Company policy and/or contract stipulations may require the wearing of any and all of these items and other items not listed.

1.5.2 Location of Workers

- Park Vehicles -
 - Downstream of work site then walk back to work site. DO NOT park opposite the work zone.
 - Far enough off road to enable the worker access to the driver side storage boxes and have worker on grass side of white edge line or put all needed tools in storage boxes on the passenger side of truck.
- Body Position of workers -
 - Never turn your back on moving vehicles without a spotter.
 - Avoid stooping or bending over near the edge of pavement or in the pavement without a spotter.

1.5.3 Things that affect workers being seen by drivers

- Hills, curves, intersections & driveways, shade, trees, other signs, buildings and darkness are some of the things that can affect workers, signs and equipment being seen in a work zone. Vehicle size and type such as large trucks and school buses can block signs and flaggers from the view of other drivers. Locate your advance warning signs, traffic control devices and Flaggers to get a clear view of approaching traffic and approaching traffic a clear view of you and your devices. Weather, time of day, and seasons of the year can all limit driver sight and should be given consideration when setting up work zones.

1.6 The Basics of a “Tailgate Meeting” or “Safety Huddle” and how to hold one

- Be specific to the work being performed next.
- Talk about the work at hand.
- Remember this is not a general safety meeting.
- Go over the plan and make sure every worker knows their job.
- Make sure you have all the TTC devices you need to do this work.
- Discuss use of vehicle warning lights and PPE when doing this work.
- Describe the area you are working in and what to be aware of.
- Make sure all your folks can do the jobs you have assigned them & are properly trained for that job as required.
- Include all work personnel that will enter that work zone, even those that work for other companies, such as sub-contractor

