

CIRCULAR LETTER

SECTION: 705.01 GUARDRAIL AND END TERMINALS

NUMBER: 705.05-01

DATE: FEBRUARY 28, 2020

SUBJECT: INSTALLATION OF GUARDRAIL AND END TERMINALS

**THIS CIRCULAR LETTER IS INTENDED FOR USE ON GUARDRAIL AND END
TERMINAL INSTALLATIONS. MAINTENANCE REPLACEMENT/ADJUSTMENT
INSTALLATIONS SHOULD USE CIRCULAR LETTER 705.05-02.**

Installation of new guardrail, guardrail end terminals, anchors, attenuators, and transitions, etc. shall be performed in accordance with the appropriate section(s) of the TDOT Standard Specifications, Special Provisions, the appropriate TDOT Roadway Standard Drawings, and/or Manufacturer's Shop Drawings.

INSPECTION

The TDOT inspector should complete the attached Daily Guardrail Installation Checklist. The Checklist must be signed by both the TDOT inspector and the guardrail installer.

INSTALLATION DECALS

Installation decals shall be applied to all guardrail end terminals. The decals should be placed on the guardrail end terminal in an area that is least likely to be damaged on impact, see example below:

RECOMMENDATION FOR TAGGING GUARDRAIL END TERMINALS



EXAMPLE OF LOCATION FOR END TERMINAL TAG LOCATION

TENNESSEE DEPARTMENT OF TRANSPORTATION										
TO REPORT DAMAGE CALL 615-350-4300										
INSTALLATION DATE						CONTRACT NUMBER				
MONTH						Q	R	S	T	U
1	2	3	4	5	6	0	1	2	3	4
YEAR						5	6	7	8	9
18	19	20	21	22		0	1	2	3	4

The above tag is an all-weather decal that will adhere to any material including metal and wood. A hole punch is used to specify the installation date and contract number. The design is similar to the tag used for highway signs fabricated by the Department of Transportation. The tag should be placed on the guardrail end terminal in an area that is not likely to be damaged on impact, similar to the example above. These tags will be installed on new guardrail end terminals on both new construction and on-call maintenance projects.

ALTERNATIVE INSTALLATIONS

This section is intended to address difficulties in the installation of guardrail due to field conditions. It may be necessary to elevate some issues to the Regional Project Development Divisions for further investigation and guidance. Use the following guidance if a field condition requires alternative placement and/or prevents the installation of line guardrail. Installation variances shall be documented in the Daily Guardrail Installation Checklist.

1. If underground structure or utility conflicts preventing the installation of guardrail posts to specified depth:
 - a) Omit a post as shown on standard drawing S-GRS-1.
 - b) Install guardrail post with concrete slab per standard S-GRS-3, if more than one post conflicts.
 - c) Allow a maximum of two additional block-outs on three consecutive posts if lateral offset is needed.

2. If rigid objects or utilities are located immediately behind the guardrail beam inside the deflection zone, reduce the deflection rates by adding additional guardrail posts. Refer to the table below for guidance on determining the reduction in deflection of single W-beam rail, based on post spacing.

Deflection Reduction based on post spacing			
	Post spacing		
	Full (6'-3")	½ spacing	¼ spacing
Deflection	3.5'	3'	2.5'

3. The fill slope shape plays significant role in the performance of the guardrail system. Refer to the standard drawing S-PL-6 for further guidance about roadside safety hardware placement.
 - a) Where possible, add 2' wide additional embankment behind the post to obtain proper embedment. A minimum of 36" embedment of posts must be maintained. Do not fill in ditches, streams, wetlands, or impact environmental features. All work shall be performed within Right of Way.
 - b) All slopes 6:1 or less minimum post length shall be 6 ft. All steeper slopes shall have a minimum post length of 8 ft.

4. If guardrail posts are installed in rock. Any post holes that are drilled in rock shall be documented on the Daily Guardrail Installation Checklist and payment shall be in accordance with the specifications.

5. If length of need is deficient. At some locations, length of need conditions may be evaluated to improve placement of the guardrail system. This may be accomplished by adjusting the existing guardrail to a total length of 200 ft. for posted speeds less than or equal to 45 mph or 300 ft. for posted speeds above 45 mph. If additional guidance is needed refer to Standard Drawing S-PL-1 to determine length of need. Another option is to install a buried in back slope terminal, if the roadway is in a cut section.

If the earth pad for a tangential GR end terminal is missing or deficient. Refer to Standard Drawings S-GRT-2R or 3P for minimum required earth pad dimensions. If an earth pad cannot be installed as shown on the referenced standard drawings due to extreme site conditions, apply best engineering practices.

The proposed solutions described above shall be implemented only when approved by the Project Supervisor.

For additional guidance refer to FHWA Roadside Hardware Policy and Guidance at http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/
https://safety.fhwa.dot.gov/roadway_dept/countermeasures/resources.cfm
https://safety.fhwa.dot.gov/roadway_dept/countermeasures/docs/PostBeamJan2016Safelogo.pdf
https://safety.fhwa.dot.gov/roadway_dept/countermeasures/docs/RoadTerminals_Nov2015Safelogo.pdf

Forms:

[DAILY GUARDRAIL INSTALLATION CHECKLIST \(GR only\)](#)
[DAILY GUARDRAIL INSTALLATION CHECKLIST \(MSKT\)](#)
[DAILY GUARDRAIL INSTALLATION CHECKLIST \(SoftStop\)](#)
[DAILY GUARDRAIL INSTALLATION CHECKLIST \(SGET\)](#)

CIRCULAR LETTER

SECTION: 705.01 GUARDRAIL AND END TERMINALS

NUMBER: 705.05-02

DATE: FEBRUARY 28, 2020

SUBJECT: MAINTENANCE REPLACEMENT/ADJUSTMENT GUARDRAIL AND END TERMINALS

THIS CIRCULAR LETTER IS INTENDED FOR USE ON MAINTENANCE REPLACEMENT/ADJUSTMENT CONTRACTS ONLY. OTHER INSTALLATIONS SHOULD USE CIRCULAR LETTER 705.05-01.

Replacement and adjustment of existing guardrail installations, guardrail end terminals, bridge transitions, and adjustment of guardrail height, etc., shall be performed in accordance with the appropriate section(s) of the TDOT Standard Specifications, Special Provisions, the appropriate TDOT Roadway Standard Drawings, and/or Manufacturer's Shop Drawings.

INSPECTION

The TDOT inspector should complete the attached Daily Guardrail Installation Checklist. The Checklist must be signed by both the TDOT inspector and the guardrail installer.

INSTALLATION DECALS

Installation decals shall be applied to all guardrail end terminals. The decals should be placed on the guardrail end terminal in an area that is least likely to be damaged on impact, see example below:

RECOMMENDATION FOR TAGGING GUARDRAIL END TERMINALS



EXAMPLE OF LOCATION FOR END TERMINAL TAG LOCATION

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TO REPORT DAMAGE CALL 615-350-4300										
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The above tag is an all-weather decal that will adhere to any material including metal and wood. A hole punch is used to specify the installation date and contract number. The design is similar to the tag used for highway signs fabricated by the Department of Transportation. The tag should be placed on the guardrail end terminal in an area that is not likely to be damaged on impact, similar to the example above. These tags will be installed on new guardrail end terminals on both new construction and on-call maintenance projects.

GUARDRAIL ADJUSTMENT

Minor adjustments to existing guardrail beam less than 50' shall be replacement in kind. If the damaged section is longer than 50' and/or includes guardrail end terminal, replace the section with 31" guardrail and transition back to 28" guardrail using the Standard Drawing S-GRS-4.

Replacement/Adjustment of guardrail sections should have a minimum height of 28 inches. To measure guardrail height, refer to Standard Drawing S-PL-6. Use the following table for adjustment height requirements:

Guardrail Height Adjustment Table

Guardrail Height (in)	Adjust the GR Block out	Final Guardrail Height
24"	4"	28"
25"	4"	29"
26"	2"	28"

ALTERNATIVE INSTALLATIONS

This section is intended to address difficulties in the installation of guardrail due to existing field conditions. It may be necessary to elevate some issues to the Regional Project Development Divisions for further investigation and guidance. Use the following guidance if a field condition requires alternative placement and/or prevents the installation of line guardrail. Installation variances shall be documented in the Daily Guardrail Installation Checklist.

1. If underground structure or utility conflicts preventing the installation of guardrail posts to specified depth:
 - a) Omit a post as shown on standard drawing S-GRS-1.
 - b) Install guardrail post with concrete slab per standard S-GRS-3, if more than one post conflicts.
 - c) Allow a maximum of two additional block-outs on three consecutive posts if lateral offset is needed.

2. If rigid objects or utilities are located immediately behind the guardrail beam inside the deflection zone, reduce the deflection rates by adding additional guardrail posts. Refer to the table below for guidance on determining the reduction in deflection of single W-beam rail, based on post spacing.

Deflection Reduction based on post spacing			
	Post spacing		
	Full (6'-3")	½ spacing	¼ spacing
Deflection	3.5'	3'	2.5'

3. If anchors attaching guardrail to concrete bridge parapet wall are damaged: If existing anchors cannot be reused due to excessive damage, relocation of attachment is required. New attachment may be accomplished by using hex head ½" diameter bolts embedded 5" into existing concrete. If the existing rail will not allow such installation, new holes shall be drilled through the existing parapet wall. Care shall be taken to ensure that excessive damage does not occur to the back of the parapet wall when drilling. Excessive damage shall be repaired at the contractor's expense using approved concrete patching materials or possible removal and replacement of damaged parapet wall section. Bolts shall be placed completely through the wall with galvanized bearing plates on the back as referenced in Standard Drawing SBR-2-134 or using epoxy systems, such as Hilti 500 (refer to QPL miscellaneous section for approved alternative systems).
4. The fill slope shape plays significant role in the performance of the guardrail system. Refer to the standard drawing S-PL-6 for further guidance about roadside safety hardware placement.
 - a) Where possible, add 2' wide additional embankment behind the post to obtain proper embedment. A minimum of 36" embedment of posts must be maintained. Do not fill in ditches, streams, wetlands, or impact environmental features. All work shall be performed within Right of Way.
 - b) All slopes 6:1 or less minimum post length shall be 6 ft. All steeper slopes shall have a minimum post length of 8 ft.
5. If guardrail posts are installed in rock. Any post holes that are drilled in rock shall be documented on the Daily Guardrail Installation Checklist and payment shall be in accordance with the specifications.
6. If length of need is deficient. At some locations, length of need conditions may be evaluated to improve placement of the guardrail system. This may be accomplished by adjusting the existing guardrail to a total length of 200 ft. for posted speeds less than or equal to 45 mph or 300 ft. for posted speeds above 45 mph. If additional guidance is needed refer to Standard Drawing S-PL-1 to determine length of need. Another option is to install a buried in back slope terminal, if the roadway is in a cut section.

If the earth pad for a tangential GR end terminal is missing or deficient. Refer to Standard Drawings S-GRT-2R or 3P for minimum required earth pad dimensions. If an earth pad cannot be installed as shown on the referenced standard drawings due to extreme site conditions, apply best engineering practices.

The proposed solutions described above shall be implemented only when approved by the Project Supervisor.

ADDITIONAL GUIDANCE

For additional guidance refer to FHWA Roadside Hardware Policy and Guidance at

http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/

https://safety.fhwa.dot.gov/roadway_dept/countermeasures/resources.cfm

https://safety.fhwa.dot.gov/roadway_dept/countermeasures/docs/PostBeamJan2016Safelogo.pdf

https://safety.fhwa.dot.gov/roadway_dept/countermeasures/docs/RoadTerminals_Nov2015Safelogo.pdf

Forms:

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[DAILY GUARDRAIL INSTALLATION CHECKLIST \(SoftStop\)](#)

[DAILY GUARDRAIL INSTALLATION CHECKLIST \(SGET\)](#)

CIRCULAR LETTER

SECTION: 712.04
NUMBER: 712.04-01
SUBJECT: REDUCTION OF SPEED LIMIT IN ACTIVE CONSTRUCTION ZONES
DATE: JULY 2, 2018

In order to enhance safety for both the motoring public and construction personnel, the Department will permit, upon written request and written approval by the State Traffic Engineer, the Contractor to erect signs for reduced speed limits as warranted by the Traffic Engineering Office's *Guidance on Setting Speed Limits*. The TDOT Project Supervisor shall first review the guidelines to determine if the reduction in speed is warranted before forwarding the request to the Regional Traffic Engineer, who will then review and forward the request to the State Traffic Engineer for processing if they agree the reduced speed is warranted.

The intent is to allow a reduction of the legal speed limit for the shortest period warranted in the area of active construction work as outlined in the guidelines. The reduced speed limit signs are to be furnished, erected, maintained, removed, and covered as needed at the contractor's expense. They are to be used only for the immediate area impacted by construction. Any damage to existing speed limit signs will require the Contractors to replace these signs at their expense.

There are two types of regulatory work zone speed limits. A Variable Work Zone Reduction allows for the regulatory limit to be lowered as needed based on conditions that are temporary in nature and change frequently during the life of the project (i.e. workers present). This type of reduction is only authorized while the qualifying conditions are present. When qualifying conditions are not present, failure to cover short-term speed limit signs will result in traffic control inspection non-compliance.

The second type is the Continuous Work Zone Reduction, which allows for the regulatory limit to be lowered as needed based on conditions that are longer in duration (ie. lane shifts). This type of reduction is authorized for 24 hour continuous posting, but may resort to a variable if the conditions change.

[Speed Limit Reduction Request Form](#)



Speed Limit Reduction Request Form

Contract #: _____ Project #: _____

County: _____ Route #: _____

Project Limits: _____

TDOT Supervisor: _____ Estimated Completion Date: _____

Prime Contractor: _____

Reduction Request Type: Variable or Continuous Existing Speed Limit: _____

Requested Speed Limit: _____ (Note: Work zone speed limit reductions larger than 10 MPH are undesirable and should be avoided except where required by restricted geometrics or other work zone features that cannot be modified.)

Description of work/ reason for requested reduction (identify condition and factors from Guidelines):

- Does the Construction activity occur within 10 FT of the edge of the travel way? _____
- Are workers present for extended periods within 10 FT of the traveled way unprotected by barriers? _____
- Are barriers or pavement edge drop-offs present within 2 FT of traveled way? _____
- Are lane widths being reduced? _____ If yes, to what width? _____
- Is traffic being shifted in the work zone? _____

TDOT Operations Project Supervisor
Approval Signature

TDOT Reg. Traffic Engineer Approval Signature

CIRCULAR LETTER

SECTION: 712.04 TEMPORARY TRAFFIC CONTROL - GENERAL
NUMBER: 712.04-02
SUBJECT: REVIEW AND APPROVAL OF PROPOSED TRAFFIC CONTROL PRIOR TO MAJOR DISRUPTIONS OF EXISTING TRAFFIC PATTERNS
DATE: FEBRUARY 1, 1994

Anytime proposed construction requires major disruption to existing traffic patterns, the Regional Traffic Engineer is to be consulted. The Regional Traffic Engineer should be provided details on the proposed disruption, including but not limited to advance warning, possible alternate routes, type of disruption, time and length of disruption, Contract Plans, etc. The Regional Traffic Engineer should review, modify if needed, and approved the proposed plan prior to implementation. The Regional Traffic Engineer's guidance is crucial to minimize negative impacts and to maximize safety for the public.

Such major disruptions could include closures of interstate, primary, major arterials and/or secondary highways; lane closures on urban interstates or major arterials; and any other disruptions deemed appropriate.

CIRCULAR LETTER

SECTION: 712.04 TEMPORARY TRAFFIC CONTROL
NUMBER: 712.04-04
SUBJECT: GUIDELINES FOR LAW ENFORCEMENT USE ON TDOT PROJECTS
DATE: FEBRUARY 5, 2021

Definition of Terms

Uniformed Law Enforcement Officer: (Uniformed State Commissioned Police Officer or Tennessee Highway Patrol Trooper) A law enforcement officer, with a marked law enforcement vehicle equipped with blue lights, having the authority to write traffic tickets and make arrests at the project site.

Introduction

These guidelines were developed to provide guidance addressing the use of uniformed law enforcement on Federal-aid highway projects in accordance with the Federal Highway Administration's (FHWA) ruling on Temporary Traffic Control Devices (23 CFR 630 Subpart K). Specifically, these guidelines address:

- 1) General nature of law enforcement services to be provided
- 2) Conditions where law enforcement in work zones may be needed or beneficial
- 3) Determining need and priority for law enforcement services based on project-specific factors and characteristics
- 4) Provision of Uniformed Law Enforcement officers and project-level communications
- 5) Compensation of law enforcement services
- 6) Required documentation
- 7) Officer training requirements

General Nature of Law Enforcement Services

The primary function of the Uniformed Law Enforcement officer is to enforce regulatory speeds and coordinate the removal of vehicles with the Tennessee Department of Safety and/or other law enforcement agencies having jurisdiction through the work zone. Authorization to move a vehicle involved in a traffic accident is retained exclusively by law enforcement officers.

Uniformed Law Enforcement officers may also be used:

- 1) When a new phase of traffic control must be implemented to provide brief stoppage of traffic to allow Contractors to re-align traffic control devices, erect new signs, apply new pavement markings and/or prepare the highway for traffic.
- 2) In areas where excessive speeding or crashes are common.
- 3) On high-speed roadways to position law enforcement in advance of traffic queues to alert approaching motorists of stopped traffic.
- 4) To mitigate safety and congestion impacts by improving the driver behavior and alertness of the work zone.

Note: In no case shall Uniformed Law Enforcement officers be used to replace flaggers.

Determining Need and Priority for Project-Specific Services

In general, the need for law enforcement is greatest on projects with high traffic speeds and volumes, and where the work zone is expected to result in substantial disruption to or changes in normal traffic flow patterns. Conditions should be examined on a per-project basis to determine the need for or potential benefit of law enforcement. Project factors and characteristics used to determine need may include, but are not limited to:

- 1) Project scope and duration.
- 2) Anticipated traffic speeds through the work zone.
- 3) Anticipated traffic volume.
- 4) Vehicle mix.
- 5) Type of work (as related to worker exposure and crash risks).
- 6) Distance between traffic and workers, and extent of worker exposure.
- 7) Escape paths available for workers to avoid a vehicle intrusion into the workspace.
- 8) Time of day (e.g., night work).
- 9) Work area restrictions (including impact on worker exposure).
- 10) Consequences from/to road users resulting from roadway departure.
- 11) Potential hazard to workers and road users presented by device itself and during device placement and removal.
- 12) Geometrics that may increase crash risks (e.g., poor sight distance, sharp curves).
- 13) Access to/from workspace.
- 14) Roadway classification.
- 15) Impacts on project cost and duration.

Provision of Uniformed Law Enforcement Officers

Upon the approval of the Regional Safety Coordinator or Regional Operations Engineer, Uniformed Law Enforcement Officers may be provided as follows:

- 1) THP Troopers may be used as established by a Memorandum of Agreement (MOA) between TDOT and TDOS. When a Project Supervisor determines the need for a THP Trooper in a work zone, they will submit the State Trooper Request form* to the Regional Safety Coordinator or Regional Operations Engineer, who will make the request to the THP Sergeant who schedules each THP Trooper. The date, time, location, and type of work on the TDOT project must be conveyed to the Sergeant. All requests to provide the THP should be received at least forty-eight (48) hours in advance of the requested time of service. It is the responsibility of the on-site TDOT Inspector to meet with the officer upon arrival to obtain information for documenting the officer's work hours and for providing information to the officer regarding the work to be performed.

When the THP is scheduled to work and the work is canceled, or the schedule is changed, the contractor is responsible for notifying the THP and the Project Engineer at least two (2) hours prior to the scheduled time of work. The Project Engineer should immediately notify the Regional Safety Coordinator or Regional Operations Engineer.

- 2) When THP Troopers are not available, or the Regional Safety Coordinator or Regional Operations Engineer determines that the project would benefit from the use of County or Municipal Police, a Uniformed Police Officer is available through the use of the Non-Bid Item 712-08.01. This item is added to the contract by

contacting the Headquarters Finance Division. The Uniformed Police Officer shall be provided in accordance with the Standard Specifications.

Compensation

THP Troopers: In accordance with the MOA, THP Troopers shall only be paid for the actual hours of service provided to TDOT; therefore, Troopers shall not be paid for time driving to and from the project site. Time charges are calculated from the time of arrival at the work site to the time of departure from the work site. If work is discontinued for weather or other unforeseen reasons, Troopers may elect to stop work and receive payment for the hours worked or continue to monitor/patrol the project until total of (2) hours for the shift have been accumulated. It is imperative that the project inspector accurately document the Trooper's hours. This documentation will be used by the Regional Safety Coordinator or Regional Operations Engineer to verify invoices received from the Department of Safety.

THP Troopers arriving at the work site without being notified of cancellation or schedule changes shall be allowed to monitor/patrol the project for a maximum of (2) hours. Additionally, the contractor shall be charged liquidated damages equaling the THP pay rate for the hours of service, up to a maximum of two (2) hours of work.

Uniformed Police Officer: Uniformed Police Officers shall be provided by the contractor and compensation made by the Department meeting 712.09. No compensation will be made for drive time.

Required Documentation

The attached form shall be used to document the THP Trooper's hours and shall be submitted weekly to the Regional Safety Coordinator or Regional Operations Engineer with a copy placed in the project files.

When Uniformed Police officers are used, the hours worked shall be documented in SiteManager. The construction inspector shall note the beginning and ending time of work; total hours worked, and type of work done by the Uniformed Police Officer.

Officer Training Requirements

All Uniformed Law Enforcement Officers shall have POST certified training and shall have an additional 4 hours of FHWA approved work zone training. Copies of each officer's record of training shall be provided to the District Supervisor and placed in the project file.

All Uniformed Law Enforcement Officers working on TDOT projects shall have training from a Peace Officer Standards and Training (POST) certified police training academy in the State of Tennessee. These academies are as follows:

- a. Tennessee Law Enforcement Training Academy (3025 Lebanon Rd., Nashville, TN 37214-2217)
- b. Tennessee Department of Safety THP Training Academy (275 Stewarts Ferry Pike, Nashville, TN 38124)
- c. Blount Co. Sheriff's Office Law Enforcement Training Academy (940 E. Lamar Alexander Pkwy., Maryville, TN 37804)
- d. Chattanooga Police Department Training Academy (3200 Amnicola Hwy., Chattanooga, TN 37406)

- e. Cleveland State Community College Police Training Academy (P.O. Box 3570, Cleveland, TN 37329-3570)
- f. Knox Co. Sheriff's Office Regional Training Academy (4900 Maloneyville Rd., Knoxville, TN 37921)
- g. Knoxville Police Department Training Academy (220 Carrick St., Suite 202, Knoxville, TN 37921)
- h. Memphis Police Academy (4371 O.K. Roberson Rd., Memphis, TN 38128)
- i. Metro Nashville Police Department Training Department (2715 Tucker Rd., Nashville, TN 37218)
- j. Shelby Co. Sheriff's Office Training Academy (993 Dovecrest, Memphis, TN 38134)
- k. Walter State Community College Regional Law Enforcement Academy (215 North College St., Greenville, TN 37743)

The course currently approved is "Safe and Effective Use of Law Enforcement personnel in Work Zones" from the FHWA. This course is subject to change periodically to reflect changes in the industry and State practices. Record of this training shall be submitted to the District Supervisor for inclusion in the project files.

LINK TO FORMS:

[State Trooper Hours](#)

[State Trooper Request](#)

CIRCULAR LETTER

SECTION: 712.07 MAINTENANCE
NUMBER: 712.07-01
SUBJECT: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND CHECKLIST FOR TRAFFIC CONTROL DEVICES
DATE: OCTOBER 2, 2015

All construction warning signs are to be placed in accordance with the Manual on Uniform Traffic Control Devices for Highway Construction and Maintenance Operations.

Construction signs should be erected no closer than 50 feet from an existing sign. Construction signs may be moved plus or minus 100 feet from the Plans location in order to avoid conflicts with existing signs, driveways and side streets. The Regional Traffic Engineer should be contacted if these criteria cannot be met.

At the beginning of work on a project, the construction signs and other traffic control devices are to be placed in accordance with the MUTCD and, thereafter, properly maintained and changed as conditions on the project change.

To direct traffic through construction projects safely and expeditiously, it is imperative that adequate and proper signing be maintained for the full duration of the project. Such maintenance includes the cleaning, repositioning, temporary covering, removing of foliage or other needs as warranted. It should be noted that the MUTCD illustrates minimum desirable standards for normal situations. Additional protection must be provided when special complexities and hazards exist.

To be effective, signing must be credulous. To maintain credibility the signing must convey to the motorist exactly what can be expected on the road ahead. This cannot be accomplished with contradictory or improper signing. Signs should be removed or covered when they are not applicable. If a driver observes a sign several times such as "Right Lane Closed" or "Flagmen Ahead", but as he proceeds he finds the situation conveyed by the message to be nonexistent, he will be much more apt to disregard it in the future. In addition, when a series of signs encroach into the area of another series of signs, only the signs conveying the appropriate message should be displayed. For example, if a series of lane closure signs encroach into the advance warning signs, the advance warning signs should be covered or removed until their need is warranted again.

It is important that the responsibility for inspecting the signing be clearly defined. This responsibility may be assigned to one individual on a region wide basis or on a project basis by the designation of a staff member by the Project Engineer.

Signing should be inspected at least once a week or more often if conditions warrant. Inspections should be made periodically during hours of darkness.

[MUTCD CHECKLIST: WORK ZONE TRAFFIC CONTROL INSPECTION FORM](#)

CIRCULAR LETTER

SECTION: 712.09 METHOD OF PAYMENT
NUMBER: 712.09-01
SUBJECT: PAYMENT FOR PORTABLE BARRIER RAIL
DATE: JUNE 15, 2010

There has been confusion and inconsistency, from one region to another, regarding payment for the movement of portable barrier rail.

This letter is being issued in order to promote more uniformity throughout the state. The Standard Specifications seem quite clear on the matter, but it's not that simple in the field. The Specs declare that there will be only one payment per site. Each side of a median divided road and each bridge on a project is a separate site. Generally, the thinking is that moving the barrier across the roadway is not another site, thus one payment. But, when the contractor has to pick up the rail, put it on a low boy and move it to another location, then this constitutes another site.

The Contractor has the option of creating a traffic control plan and a plan for construction phasing. If these plans are approved by the Project Supervisor, the contractor is obliged to follow this plan unless he is instructed to do differently at some juncture by the Project Supervisor. If the Project Supervisor directs the contractor to load up and move to another site as mentioned before, that is, not per his approved construction phasing plan or traffic control plan, then the contractor is entitled to payment. The Project Supervisor is cautioned to avoid moving median barrier rail unless there is a real need because there is a cost involved.

Payment amount for relocations due to safety of work zone or traffic, as established in the traffic control plans or as directed by the Project Supervisor, laterally up to 10 ft., shall be paid at ten percent (10%) of the interconnected portable barrier bid amount unless a separate item is in the proposal.

Judgments will still have to be made in the field, but this may help clarify some of these decisions.

CIRCULAR LETTER

SECTION: 713.04 CONSTRUCTION METHODS AND REQUIREMENTS
NUMBER: 713.04-01
SUBJECT: ERECTION OF PERMANENT SIGNS
DATE: JANUARY 1, 2010

Desirable lateral and vertical clearances are indicated in **Section 2A.16** Standardization of Location of the MUTCD (2009 Edition).

Circumstances at some locations prohibit strict compliance with MUTCD. In those situations the signs should be located to maximize both visibility and safety.