

Temporary Traffic Control and Enforcement of Traffic Laws in Closed Road Sections



Final Report June 2007

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16. Abstract Public travel by motor vehicles is often necessary in road and street sections that have been officially closed for construction, repair, and/or other reasons. This authorization is permitted in order to provide access to homes and businesses located beyond the point of closure. The MUTCD does address appropriate use of specific regulatory signs at the entrance to closed sections; however, direct guidance for temporary traffic control measures within these areas is not included but may be needed. Interpretation and enforcement of common practices may vary among transportation agencies. For example, some law enforcement officers in Iowa have indicated a concern regarding enforcement and jurisdiction of traffic laws in these areas because the Code of Iowa only appears to address violations on roadways open to "public travel." Enforcement of traffic laws in closed road sections is desirable to maintain safety for workers and for specifically authorized road users. In addition, occasional unauthorized entry by motor vehicles is experienced in closed road areas causing property damage. Citations beyond simple trespass may be advisable to provide better security for construction sites, reduce economic losses from damage to completed work, and create safer work zones.					
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TEMPORARY TRAFFIC CONTROL AND ENFORCEMENT OF TRAFFIC LAWS IN CLOSED ROAD SECTIONS

Final Report
June 2007

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EXECUTIVE SUMMARY

Improvements, major repairs, and other events on transportation facilities often require temporary closure of the road or street to general public travel. However, locally originating traffic on these roadways is frequently permitted in order to provide access to homes, farms, and businesses. While the Manual on Uniform Traffic Control Devices (MUTCD) provides excellent guidance for temporary traffic control in sections of work zones open to traffic, this reference offers little advice for local traffic inside closed roadway sections. In addition, state laws and agency roadway specifications may not definitively address either the issue of temporary traffic control or traffic law enforcement on roads and streets closed to general public access. When a road or street is officially closed, even temporarily, some confusion may exist regarding the level of traffic law enforcement since the facility is not open for use by the general public. In addition, the Code of Iowa includes liability protection for both the agency and contractor in closed road sections (except in cases of gross negligence), which could further confuse the issues of responsibility and authority of an agency. Pertinent sections of the Iowa Code relating to temporary road closure are discussed in this report, along with relevant sections from the laws of surrounding states.

Based on the issues described above, this research study was conducted to investigate temporary traffic control and law enforcement practices and policies in temporarily closed road sections by various agencies. The three primary objectives of the study were as follows:

1. Provide a synthesis of current practices and policies regarding temporary traffic control and enforcement of traffic laws in temporarily closed road sections
2. Evaluate the needs of state and local transportation agencies relating to possible modifications in enforcement practices for closed road sections
3. Recommend changes in temporary traffic control and enforcement policies and procedures to improve safety in road closure areas

This report presents the results of state law reviews; surveys of DOT staff in Iowa and other states, Iowa law enforcement officers, and local agency personnel; and expert panel discussions. The findings suggest that application of temporary traffic control, enforcement of traffic laws and safety in closed road or street sections could be improved through possible code revisions, better communication of best practices, implementation of surveillance and control technologies, and development of an expanded driver education program.

INTRODUCTION

Public travel by road users is often necessary in road and street sections that have been officially closed on a temporary basis for construction, repair, or other reasons. This authorization is necessary to provide access to homes, farms, and businesses located beyond the point of closure. The Manual on Uniform Traffic Control Devices (MUTCD) does address appropriate use of specific regulatory signs at the entrance to closed sections; however, direct guidance for temporary traffic control (TTC) measures and enforcement of traffic laws within these areas is not included but may be needed. Interpretation and application of common practices may vary among transportation agencies. For example, some law enforcement officers in Iowa have indicated a reluctance to enforce traffic laws in these areas because the Code of Iowa appears to address only violations on roadways open to “public travel.” TTC and enforcement of traffic laws in closed road sections is desirable to maintain safety for workers and authorized road users. In addition, occasional unauthorized entry by motor vehicles is experienced in closed road areas, resulting in property damage and potential liability for agencies and contractors. Citations beyond simple trespass may be advisable to provide better security for construction sites, reduce economic losses from damage to completed work, and create safer work zones.

As part of this study, a literature review was performed to identify existing research and/or other references for guidance in applying TTC and enforcement in closed road sections; however, very few studies addressing these issues were identified. For example, Elias and Herbsman (2000) published the results of a study suggesting that legislation and programs at state and federal levels are emphasizing a need for increased study of work zone issues. This need is especially acute as it relates to road closures since many transportation agencies shift resources from new infrastructure development to rehabilitation and remediation of existing infrastructure.

In addition, the literature search also examined specific references in current adjacent state laws that might address TTC and/or law enforcement in road sections closed to public travel. The research examined state laws in Iowa as well as the surrounding states of Kansas, Minnesota, Missouri, Nebraska, South Dakota, and Wisconsin. The primary methodology used was to perform keyword searches of each state’s legislative and Department of Transportation (DOT) web sites. The keyword method proved to be sufficient at locating most, if not all, state law/code provisions dealing with the topics of interest. A summary of the findings for each state is included in this report.

This study presents data collected directly from law enforcement officers, municipal and county engineers, and state DOT staff describing their opinions and personal experiences with TTC and law enforcement in closed road sections. The data was collected by use of surveys distributed both through the internet and during a focus group interview session with county engineers and staff on December 5, 2006. A comprehensive breakdown of the survey results and interview session findings is included.

An advisory committee was invited to contribute to the study by sharing experiences and offering suggestions for possible Iowa DOT specification revisions and Code modifications. The Advisory Committee included staff from the Iowa DOT, the Iowa Governor’s Traffic Safety Bureau, contractors, law enforcement officers, and city and county engineers. The committee met twice during the execution of the study—once near the initiation of research to discuss potential sources of information and later to discuss and respond to survey results and make suggestions for possible Code enhancements and Iowa DOT specification revisions. The results from the committee meetings are summarized in this report.

For the purposes of this study, “closed road or street” refers to those sections temporarily closed to full or partial use by the public during construction, maintenance, or other activities by official action of the agency or official having jurisdiction. This term as used herein does not include facilities that may have been closed and vacated from future public use entirely.

ADVISORY COMMITTEE

A panel of experienced and knowledgeable professionals was invited to participate in this project in order to assist researchers in identifying pertinent needs and valuable resources, provide guidance and opinions, and offer recommendations for mitigation of problems in closed road situations. Following is a listing of those professionals from a variety of disciplines and agencies.

- Mark Bortle Iowa Department of Transportation
- Dan Sprengeler Iowa Department of Transportation
- Brenda Boell Iowa Department of Transportation
- Bob Rushing Governor’s Traffic Safety Bureau (retired)
- Larry Clark Cherokee County Engineer
- Steve Thomassen Assistant Marshall County Engineer
- Jody Rhone City of Newton
- Sgt. John Williams Coralville Police Department
- Lt. Dru Toresdahl Story County Deputy Sheriff
- Mark Bare Nuckolls Concrete Services
- Tom Busta NES Traffic Safety

LITERATURE REVIEW AND EXISTING RESEARCH STUDIES

The Manual on Uniform Traffic Control Devices (MUTCD) is the major guidance document for traffic control in the United States. All states are required to adhere to the precepts therein as minimum standards, although higher standards can be adopted. Part 6, Temporary Traffic Control, addresses many issues involved in guiding and controlling traffic in work zones, and several sections are pertinent to closed roads and streets. For

example, Chapter 6A, General, includes the following requirements that could have pertinence in closed road sections:

The needs and control of all road users (motorists, bicyclists, and pedestrians, with the highway, including persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA), Title II, Paragraph 35.130) through a TTC zone shall be an essential part of highway construction, utility work, maintenance operations, and the management of traffic incidents.

TTC plans and devices shall be the responsibility of the authority of a public body or official having jurisdiction for guiding road users. There shall be adequate statutory authority for the implementation and enforcement of needed road user regulations, parking controls, speed zoning, and the management of traffic incidents. Such statutes shall provide sufficient flexibility in the application of TTC to meet the needs of changing conditions in the TTC zone. (MUTCD Chapter 6A)

Several recommendations in Chapter 6B, Fundamental Principles, should be considered in closed road situations, such as the need for developing general plans or guidelines to provide safety for all road users and workers in work zones, performing routine day and night inspections of TTC elements, and providing appropriate training for persons involved in work zone traffic control.

Chapter 6F, Temporary Traffic Control Zone Devices, describes and illustrates several signs that are commonly used for closed road situations, with some important stipulations. Section 6F.08, ROAD (STREET) CLOSED Sign (R-11-2), includes the following statement:

The ROAD (STREET) CLOSED sign shall not be used where road user flow is maintained or where the actual closure is some distance beyond the sign. (MUTCD Chapter 6F)

This chapter also describes other signs and applications for closed road situations in Section 6F.09, Local Traffic Only Signs (R-11-3a, R11-4). Advance warning signs for closures are described in Section 6F.19. Section 6F.63 describes and illustrates barricades that are recommended for use with road closures.

Chapter 6G, Type of Temporary Traffic Control Zone Activities, includes several recommendations and suggestions specific to traffic control in closed road sections, especially in Sections 6G.10, 6G.12, 6G.15, and 6G.16.

Chapter 6H, Typical Applications, presents illustrated recommendations for TTC in a wide variety of work zones, including road closures. Of particular note for this study are Figure 6H-7, Road Closure with Diversions (TA-7); Figure 6H-8, Road Closure with Off-Site Detour (TA-8); Figure 6H-9, Overlapping Routes with Detour (TA-9); Figure

6H-20, Detour for Closed Street (TA-20); Figure 6H-39, Median Crossover on Freeway (TA-39); and Figure 6H-40, Median Crossover for Entrance Ramp (TA-40). In addition, Figures 6H-28 and 6H-29 deal with sidewalk closures and special issues with pedestrians. All typical applications in the MUTCD include notes that must be considered.

Chapter 6I, Control of Traffic through Traffic Incident Management Areas, is a new addition to the MUTCD and includes several recommended procedures for dealing with traffic in these situations, which often can include temporary closure of roads and streets.

The issue of TTC and law enforcement in closed road sections has not been a highly researched topic. A review of the academic literature in the fields of civil engineering found no studies or existing research dealing with the topic specifically. However, some notable studies have been performed on the related topics of temporary traffic control, temporary road closures, and lane closures.

A field evaluation of late merge traffic control in work zones, which only dealt with two-to-one lane closure and not full road closure, was performed by Beacher (2005).

Zech (2005) performed an evaluation of rumble strips and police presence as speed control measures in highway work zones and concluded that police presence with rumble strips decreased vehicle speeds the most; however, the highway was open to full public travel during this study.

Pre-announced temporary closures were modeled by Tong (1998) to generate optimal routes for trips in road networks operating at capacity; however, the issue of traffic control enforcement was not mentioned.

A study of urban work zone traffic management by McGuinness (1997) in the City of Columbus, Ohio explored practices such as closing freeway ramps and approach roads to work areas to reduce excess demand, providing alternate routes, and using a traveler information program; however, the study did not address the issue of enforcement.

Interestingly, some studies might have relevance to TTC and enforcement in closed road sections because they primarily examined detection and surveillance on open roads. The subject of online object tracking for color video analysis was described by Lannizzotto (2002) as a possible use in traffic control because video sequences can track shapes, positions, and orientation of objects. Use of closed circuit television systems to monitor/detect urban traffic and as a control device was explored by Franklin (1999). Harrison and Lupton (1999) discussed the development of ARTEMIS (automatic road traffic event monitoring information system), a computer monitoring system that can detect traffic events and dispatch patrol cars.

However, no studies were found that specifically addressed the issue of temporary traffic control inside closed road sections and enforcement of traffic laws therein. Therefore,

this current study will make an important first step in analyzing the issues of TTC and enforcement of traffic laws in closed road sections.

CURRENT STATE LAWS AND DOT SPECIFICATIONS

Research Methodology

To identify current state laws and code provisions regarding TTC and enforcement in closed road sections, adjacent states' legislative and Department of Transportation web pages were searched systematically for keywords by utilizing the "search" function for those sites. The list of keywords was identified by the researchers as words, word arrangements, phrases, and acronyms having the most frequent appearances in TTC and law enforcement in closed road sections literature. The keywords utilized by the researchers are listed below.

- Tort liability
- Current road closure policies
- Current road closure practices
- TTC
- Temporary traffic control
- Temporary traffic control enforcement
- Closed road enforcement
- Enforcement of traffic laws
- Road closed to public
- No thru traffic
- Uniform traffic control devices
- Claims from road construction

Once a search returned a result or results, each code section was reviewed by a member of the research team to verify that it had relevance to the study. Useful results were copied and pasted into Word documents and the source was referenced. Each result was then categorized into one of the following topics: Access, Jurisdiction, Liability, Enforcement, Traffic Control, or Property Damage. The summary result of each state's web search follows, with full text code language included in Appendix A of this report.

Iowa

Permanent closing and vacation of a road or railroad crossing is addressed in Iowa Code Sections 306.10 and 306.11, where the procedure and responsibilities of agencies in control of the road are described.

Temporary closure for construction is addressed in Section 306.41 of the Iowa Code, stating in part, "Nothing herein shall be construed to prohibit or deny any person from gaining lawful access to the person's property or residence, nor shall it change or limit

liability to such persons.” This provision implies that access must be provided to private property owners and that the agency and/or contractor should not consider responsibility toward such persons as reduced. However, this only allows for access to property or residences by use of the closed road section, and does not apply to people visiting or passing through.

Jurisdiction over closed road sections is outlined in the Iowa Code as well.

The agency having jurisdiction and control over any highway in the state, or the chief engineer of said agency when delegated by such agency, may temporarily close sections of a highway by formal resolution entered upon the minutes of such agency when reasonably necessary because of construction, reconstruction, maintenance or natural disaster. (Iowa Code, Section 306.41)

This provision grants an agency power to temporarily close road sections; however, it does not define responsibilities for enforcement of traffic laws therein when the section is closed to public travel.

The Iowa Code also states that

the agency having jurisdiction over a section of highway closed in accordance with the provisions of this section, or the persons or contractors employed to carry out the construction, reconstruction, or maintenance of the closed section of highway, shall not be liable for any damages to any vehicle that enters the closed section of highway or the contents of such vehicle or for any injuries to any person that enters the closed section of highway, unless the damages are caused by *gross negligence* (emphasis ours) of the agency or contractor. (Iowa Code, Section 306.41)

This exemption from liability could result in some confusion regarding responsibilities toward authorized road users within a closed road area.

Enforcement of traffic laws in a closed roadway is not clearly stated. The Iowa Code Section 321.2 states,

The division of state patrol of the department of public safety shall enforce the provisions of this chapter relating to traffic on the public highways of the state, including those relating to the safe and legal operation of passenger cars, motorcycles, motor trucks and buses, and to see that proper safety rules are observed. (Iowa Code, Section 321.2)

This section, however, does not clearly state the application in temporarily closed road sections and might result in some confusion as to what authority exists for enforcement of traffic laws in closed road or street sections. This code section only addresses Iowa State Patrol responsibilities; additional code sections describe authority of other law

enforcement agencies, including Section 321.6, Reciprocal Enforcement-Patrol Beats; Section 321.236, Powers of Local Authorities; and Section 801.4, Criminal Procedure and Definitions (peace officer).

Responsibility for temporary traffic control in closed road areas is not specifically addressed in the Code. Section 321.253 states that

the department shall place and maintain such traffic-control devices, conforming to its manual and specifications, upon all primary highways as it shall deem necessary to indicate and to carry out the provisions of this chapter or to regulate, warn, or guide traffic. (Iowa Code, Section 321.253)

This section also states that “the department shall post signs informing motorists that the scheduled fine for committing a moving traffic violation in a road work zone is doubled.” These provisions do not address closed road sections directly, however.

In Section 321.256, the Iowa Code states that

no driver of a vehicle shall disobey the instructions of any official traffic-control device placed in accordance with the provision of this chapter, unless at the time otherwise directed by a peace officer subject to the exceptions granted the driver of an authorized emergency vehicle. (Iowa Code, Section 321.256)

This provision could be interpreted to authorize enforcement of traffic laws in closed road sections, provided that proper temporary traffic control procedures have been followed for the closure.

While malicious damage to property is covered elsewhere in Iowa law, Section 321.260 of the Code extensively addresses interference with official traffic control devices. Provisions in this section address damages, vandalism, and unlawful possession of traffic control devices, including penalties upon conviction. This section can be applied to closed road sections, but it does not address damages to contractors’ finished work.

Iowa Code Section 668.10 provides agencies with immunity from claims for failure to place, erect, or install a stop sign, traffic control device, or other regulatory sign as defined in the MUTCD. This provision also applies to temporary traffic control in work zones, including closed road sections. However, claims are not barred for the following:

- Failure to maintain regulatory traffic control devices (Section 668.10(1)).
- Signs that might “mislead or endanger” motorists (See *Hershberger v. Buena Vista County*, 391 N.W. 2d 217, 218-220, Iowa 1986)
- Failure to warn by “other than inanimate devices” under exigent (critical) situations (See case cited above)

The maintenance exception found in Section 668.10(1) is narrowly drafted, providing,

However, once a *regulatory* device has been placed, created, or installed, the state or municipality may be assigned a percentage of fault for its failure to maintain the device. (Iowa Code, Section 668.10[1])

More on this issue is presented under Litigation History and Case Law in this report.

The Standard Specifications for Highway and Bridge Construction promulgated by the Iowa Department of Transportation contain several provisions directly dealing with temporary traffic control during project work and detailing responsibilities of contractors and contracting agencies. Specifically, Article 1107.07, Safety, Health, Pollution, and Sanitation; Article 1107.08, Public Convenience and Safety; and Article 1107.09, Barricades and Warning Signs, all contain an enumeration of responsibilities and requirements for public safety and convenience as well as worker safety. Section 2528, Traffic Control in the Standard Specification, describes numerous traffic control devices and applications that might be required on projects and details compensation methods for that work. Although closed road applications are covered in several of these articles, specific requirements for temporary traffic control within closed areas is not specifically addressed.

Standard Road Plan TC-252 addresses temporary traffic control measures required for road closures, but does not directly address any TTC responsibilities for potential safety concerns within the area where public travel is permitted, although the MUTCD and other TCs in the standard road plans would require traffic control similar to an open roadway since limited public access is allowed.

The Office of Construction at the Iowa DOT maintains a Construction Manual that contains instructions to field inspection staff on various areas of construction where guidance beyond the Standard Specifications is needed. Chapter 5 of that manual is entitled Safety; information therein is presented on many aspects of that topic, including temporary traffic control and reporting of crashes that occur within work zones. However, temporary traffic control and law enforcement within closed road sections is not specifically addressed, although Section 5.41 does contain excellent advice for inspection staff regarding the use of Road Closed to Thru Traffic signs (R11-4).

Kansas

Regarding access to closed road sections, the Kansas Standard Specifications for Highway Construction, published by the Kansas DOT, states,

When it is necessary for residents living along the road to use the road which is closed to through traffic, suitable means (including the use of temporary surface material) shall be provided for their entrance or exit, but the general traveling public shall be excluded. (Kansas Standard Specifications, Section 821.03)

This provision definitively states that access must be provided to private property, but does not apply to general public travel. Also stated in the Kansas Standard Specifications is the following:

The contractor shall designate someone from his work force at the project level who will have the responsibility for signing and traffic control on the project, which person shall be available 24 hours a day to repair, replace, remove, relocate, clean and maintain any traffic control device required or as directed by the Engineer...Unless approved otherwise, all work shall be performed during daylight hours. Whenever practical, all vehicle equipment, tools, and materials, except necessary barricades and lights, shall be parked and/or stored off the right-of-way or far enough from the edge of pavement to provide clearance of at least 30 feet. (Kansas Standard Specifications, Section 821.03)

This section requires that contractors be responsible for all aspects of temporary traffic control for a project, including perhaps closed road sections. It is further stated that

the Contractor may develop an alternative Traffic Control Plan to be submitted to the Engineer for approval prior to its use...Traffic control shall be in accordance with FHWA MUTCD and supplied by contractor. (Kansas Standard Specifications, Section 821.03)

Minnesota

The Minnesota Traffic Engineering Manual (TEM) outlines information from the Minnesota Statutes (MSA) as it relates to traffic engineering. With regard to controlled access highways, the TEM states,

Section 169.305 of the [Minnesota] Statutes grants authority to the Mn/DOT and local authorities to prohibit incompatible traffic on controlled access highways under their respective jurisdictions. Such prohibitions and restrictions are effective only when appropriate signs are erected on the affected highway. (Minnesota Traffic Engineering Manual, Section 2-7.02)

This section may or may not apply to construction closures, however.

The Minnesota TEM also states,

Under MSA Section 169.06, Subd. 2, it is the sole responsibility of Mn/DOT to place and maintain all necessary traffic control devices on Trunk Highways although permission to do so may be granted to other authorities by Mn/DOT. (Minnesota Traffic Engineering Manual, Section 2-4.03.01)

Further, the TEM states,

Under MSA Section 169.06, Subd. 3, local authorities have both the right and the responsibility to place and maintain traffic control devices on streets and highways under their jurisdiction. (Minnesota Traffic Engineering Manual, Section 2-4.04.01)

Regarding liability, the Minnesota TEM says,

In order for Mn/DOT to be liable for a tort claim, three elements must be present:

- Mn/DOT must have a legal duty to the plaintiff to perform a particular task
- Mn/DOT must have been negligent in its duty to perform that task
- The damages incurred by the plaintiff were caused by the negligent performance of that duty (Minnesota Traffic Engineering Manual, Section 12-3.01)

Regarding property damage the Minnesota TEM states,

In order for Mn/DOT to have liability for damages, a claimant must prove:

- That Mn/DOT had a legal duty to use reasonable care towards the plaintiff,
- That the Mn/DOT breached that duty by falling below the standard of care thus committing an act of negligence,
- That damages (injuries, property damage, pain and suffering, loss of income, etc.) incurred by the plaintiff were caused by Mn/DOT negligence, and finally
- For the claimant to recover the damages suffered, the claimant must have had a percentage of fault that was less than or equal to the fault of the defendant (Minnesota Traffic Engineering Manual, Section 12-3.05)

Negligence is defined in Section 12-3.03 of the TEM as “the failure to do something which a ‘reasonable person’ would ordinarily do, or the doing of something which a reasonably prudent person would not do.”

Regarding enforcement, the Minnesota TEM states that “local authorities have virtually complete authority (with notable exceptions such as Speed Zoning and Experimental Devices) over all streets and highways under their jurisdiction” (Minnesota Traffic Engineering Manual, Section 2-3.02.01).

Minnesota law requires the development of Traffic Management Plans (TMP) for all work zones. The TEM describes TMPs as follows:

A Traffic Management Plan (TMP) is a plan of action which, when put into effect, details the procedures that Mn/DOT utilizes to assure that adequate provisions are made for the safety of motorists, pedestrians and workers...Mn/DOT needs a total commitment by all persons involved to insure that adequate consideration is given to proper traffic control for all operations. In order to assure that this commitment is met, it will require early involvement by all parties involved, such as pre-design, design, traffic, maintenance, and construction. Typical guidelines have been developed for the various stages...During the construction stage, the resident/project engineer will generally be the Mn/DOT person responsible for traffic control. The resident/project engineer may delegate this authority. This should be done at the pre-construction conference. (Minnesota Traffic Engineering Manual, Section 8-4.01.02)

According to the TEM, one of the goals of the pre-construction conference is to ensure that all affected agencies, such as state patrol, local police, fire departments, sheriff's office, hospital, ambulance service, local government, post office, school districts, etc., are informed of the scope of the project and how it may affect their individual needs and services (8-4.01.02).

Although closed road sections are not specifically mentioned, it could be assumed that the Traffic Management Plans would address those relevant perceived needs.

Missouri

The Missouri General Construction Manual states,

When law enforcement is specified in a construction contract, the contractor is responsible for coordinating with local law enforcement. The contractor's working hours and work schedule should be furnished to the agency providing the law enforcement (highway patrol, county sheriff, city police) so that enforcement hours can be coordinated. The engineer should review and approve the contractor's proposed law enforcement schedule. Supporting documentation should be provided by the enforcement agency. Verification will be performed by the contractor and MODOT prior to payment. (Missouri General Construction Manual, Section 616.4.4)

Similarly, as stated in the Missouri Standard Specifications for Highway Construction Manual,

When specified in the plans, law enforcement personnel and vehicles shall be provided within the work zone as directed by the engineer. Law enforcement personnel shall have jurisdiction to enforce all traffic laws in the area to be patrolled. (Missouri Standard Specifications for Highway Construction, Section 616.4.4)

Missouri law also requires that a Traffic Control Plan (TCP) be developed for every project. The Missouri DOT's Project Development Manual states,

The TCP is an integral part of the planning and design of a project. The scope of the TCP is determined by the complexity of the project and is developed by the designer in the district in cooperation with district construction, maintenance and traffic personnel. Typical traffic control set-ups shall be shown for each work activity within the work zone. A preliminary field check with district construction and traffic is recommended to ensure the TCP will be compatible with field conditions. (Missouri Project Development Manual, Section 8-04.1)

The Missouri General Construction Manual states,

The contractor shall provide written notice to the engineer of any pedestrian or vehicular accident when physical evidence or other information suggests an accident has occurred in the work zone. The contractor shall obtain and provide to the engineer copies of law enforcement accident reports for any accidents in the work zone. (Missouri General Construction Manual, Section 616.4.2.7)

Although not specifically stated, these provisions would presumably apply to closed road sections as well.

Nebraska

According to the Access Control Policy to the State Highway System, published by the Nebraska Department of Roads (NDOR),

The method of controlling access to roadways [in Nebraska] may be through police power, to a limited degree, or by acquisition of access rights in full or in part. Police power regulation has universally been held valid as a proper exercise of governmental function. The universal test has required that such controls be reasonable. Therefore, any exercise of the police power, as in matters of access control, where no payment of compensation is required, may not ordinarily limit, restrict, or otherwise reduce access below a point where such access is deemed reasonably necessary and adaptable to serve the owners' lands. Beyond this point, police power controls may not be used. When police power no longer provides the degree of control considered necessary for safe and efficient operation, it is then necessary to acquire private property, in the form of access rights, for public use by payment of just compensation. (Nebraska Access Control Policy to the State Highway System, Section 002)

It is further stated in the Nebraska Standard Specifications for Highway Construction manual that "the Contractor shall insure the orderly movement of traffic through or around the work at all times" (Section 107.07).

Regarding temporary traffic control within closed road sections, the Nebraska Standard Specifications for Highway Construction manual states,

All traffic control devices shall be located according to and meet all requirements prescribed in the MUTCD...When more than one Contractor is working on the project or when consecutive projects require protection and control of traffic, the Engineer shall determine and notify in writing the Contractor whose responsibility it shall be to provide the protection and control of traffic. (Nebraska Standard Specifications for Highway Construction, Section 422.01)

This provision makes it clear that the contractor is responsible for all TTC.

The Nebraska Standard Specifications manual further states,

The Contractor shall carry public liability insurance to indemnify the public for injuries or death sustained by reason of carrying on the work. In addition, the Contractor must also carry worker's compensation insurance in accordance with Nebraska statutory requirements. (Nebraska Standard Specifications for Highway Construction, Section 107.13)

Regarding property damage, the manual says, "The Contractor shall be responsible for all damage or injury to any property" (107.12). These Code sections may have application in closed road sections, but that intent is not clearly defined.

South Dakota

Regarding public access in work areas, the South Dakota Standard Specifications for Highway Construction manual states,

The Contractor shall conduct his work to minimize obstruction to traffic. The safety and convenience of the general public and the residents along the highway and the protection of persons and property shall be provided for by the Contractor. (South Dakota Standard Specifications for Highway Construction, Section 7.7)

Further, the Standard Specifications for Highway Construction manual states,

The Contractor shall bear the expense of maintaining traffic over the project undergoing improvement, constructing and maintaining approaches, crossings, intersections, and other features as may be necessary, without direct compensation, except as provided below. (South Dakota Standard Specifications for Highway Construction, Section 7.12)

These two sections make it the responsibility of the contractor to provide and maintain access within a project, which may include a closed road section.

The South Dakota Standard Specifications manual also states that

the Contractor shall be responsible for all damage or injury to property, resulting from an act, omission, neglect, or misconduct in his manner or method of executing the work, or due to defective work or materials (South Dakota Standard Specifications for Highway Construction, Section 7.12)

The manual further declares that

the Contractor shall indemnify and save harmless the Department, its officers and employees, from all suits, actions, or claims of any character brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the said Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor. (South Dakota Standard Specifications for Highway Construction, Section 7.14)

This section clearly identifies responsibility, but not specifically how enforcement of traffic laws is to be carried out in closed road sections.

Wisconsin

The Wisconsin Department of Transportation (WisDOT) Facilities Development Manual states, “On any construction project, the method of construction the project and the method of handling traffic should be resolved early in the project development process” (Section 11-50-30). Guidelines are provided in the manual for determining the amount of law enforcement involvement desirable for a given project.

Wisconsin Code Section 107.8 states that a contractor must “notify the responsible fire department and police department at least 24 hours before closing a road, street, or highway.” Furthermore, Section 62.15 (11) of the Wisconsin Statutes provides that “any obstruction of a street due to construction requires barriers and lights to be erected by the contractor.”

Additionally, as required in Section 104.6.4 of the Wisconsin Facilities Development Manual,

If the contract provides that the road or portions of the road be closed to through traffic, furnish, erect, and maintain the traffic control devices at the project termini and at intersecting roads along the project the contract specifies or the

engineer directs. Also, furnish, erect, and maintain those traffic control devices within the project limits as may be required for the safe accommodation of local traffic as defined in 101.3. At all times conduct the work in a manner to provide safe, reasonably-direct, all-weather, 24-hour pedestrian and vehicular access to abutting properties along the highway being improved. (Wisconsin Facilities Development Manual, Section 104.6.4)

The contractor is responsible for furnishing and maintaining all TTC 24 hours a day. Regarding signage, Section 86.06 of the Wisconsin Statutes states

Any person who, without lawful authority, removes, takes down, alters the position of, destroys, passes over or beyond any barrier so erected, or travels with any vehicle upon any portion of a highway closed by barriers as in this section provided, or walks or travels in any manner upon the materials placed thereon as part of the repair or construction work, shall be liable to a fine of not less than \$10 nor more than \$100, or to imprisonment not less than 10 nor more than 60 days, or both, and in addition thereto shall be liable for all damages done to the highway, said damages to be recovered by such governmental agency. (Wisconsin Statutes, Section 86.06)

This provision sets penalties for unauthorized entry and damages in a closed road or street section.

LITIGATION HISTORY AND CASE LAW

The Iowa Department of Transportation maintains records of tort claims and lawsuits filed against that agency for alleged damages. All claims are categorized, including those originating from work zone activities. The categories noted do not include closed road incidents specifically, but the number of claims from work zone activities is low in relation to the total number filed.

While the Iowa State Code and Administrative Law are a major guidance for public agency operations and practice, litigation experience and court decisions establish precedence that can affect policies and procedures. In Iowa, the history of litigation involving road closure issues is not extensive, but some examples do exist. *Hershberger v. Buena Vista County*, 341 N.W. 2d 217, 218-220 (Iowa 1986), involved a claim regarding the alleged misuse of a warning sign and was not work zone related. However, the case did define limits for the traffic control device immunity provision of Code Section 668.10 and thus could have implications for future claims from work zone incidents.

Another case involving immunity was *Messerschmidt v. City of Sioux City*, 654 N.W.2d 879, 883 (Iowa 2002), where it was found that “when a regulatory device has been set up the state or municipality may be assigned a percentage of fault for its failure to maintain the device.” This ruling only relates to “regulatory devices” as it is written. Another

immunity case was *McLain v. State*, 563 N.W. 2d 600, 605 (Iowa 1997), which held that contractors and subcontractors, when complying with contract specifications, share in temporary traffic control device immunity with the state. In *Foster v. City of Council Bluffs*, 456 N.W. 2d 1, 2, (Iowa 1990), it was held that the city retained statutory immunity for failure to place, erect, or install traffic control devices. However, in *Kowalski v. State*, 447 N.W. 2d 146, 147-148 (Iowa Spp. 1989), the court found that the contractor can share liability of the highway authority for failure to place necessary traffic control devices for breach of duty of care imposed by common law, the contract, or the MUTCD. (Code Section 668.10(1) was not applicable in this case). Other cases where agency and/or contractor immunity was at issue included *Van Orsdall v. City of Des Moines*, 711 N.W. 2d 732 (Table), 2006 WL 126436 (Iowa App. 2006) and *Estate of Oswald v. Dubuque County*, 511 N.W. 2d 637, 639-640 (Iowa App. 1993).

Possibly the best example of a pertinent closed road case in Iowa was *Sechler v. State*, 340 N.W. 2d 759, 762-764 (Iowa 1983), which involved a motorcycle collision with an obstacle placed to reinforce a road closed barrier. The state did prevail in this case due to a finding of significant contributory negligence on the part of the plaintiff, but this case has legal significance because gross negligence was defined. This case might have significance should a claim be made for improper installation and/or maintenance of road closed signs and barricades by an agency and/or contractor.

Other court cases and Attorney General Opinions have found that agencies retain jurisdiction and have a responsibility to continue maintenance and enforcement on a roadway until it is “officially” permanently closed and vacated as described in Iowa Code Sections 306.10 and 306.11. These defined responsibilities would apply to temporarily closed roadways. See *Polk County v. Brown*, 149 N.W. 2d 314 (Iowa 1967) and 1980 Iowa Op. Atty. Gen. 639, 1980 WL 25953 (Iowa A.G.).

The Iowa DOT maintains a record of vehicle crashes that occur in work zones throughout each construction season—approximately 360 such crashes occur annually. Crashes are summarized by severity and location within the work area, but incidents in closed road sections are not noted specifically.

SURVEY RESULTS AND INTERVIEW SESSION FINDINGS

To determine the extent and severity of problems and issues associated with road closures, the research team created and distributed a survey at the Iowa County Engineers Association annual meeting and via the internet. Similar surveys were distributed to cities and selected Iowa DOT staff. The county engineers’ survey consisted of 16 questions intended to help the team gain a more detailed understanding of the problems and issues that arise in closed road sections. The survey form is included in Appendix B of this report. A summary of the survey responses is provided below; the results have been divided into groups by responding agency (e.g., municipal, county, state). Details of all survey data can be found in Appendix C.

The survey results from 34 responding municipalities found that 61% of respondents had experienced enforcement and/or traffic control problems in closed street sections, and 41% reported property damage resulting from unauthorized entry into these sections. The most commonly reported problem was damages to finished surfaces and slopes. Methods used by cities for addressing closed road sections included delegation or independent contracting and/or discussion at preconstruction meetings. Most respondents reported that any law enforcement used was reactive, after damage had already occurred. Solutions or suggestions for improvements offered by municipalities included improved signing and traffic control maintenance and improving contractor procedures and personnel training.

Survey results from 75 responding county engineers and staff showed that 90% of respondents had experienced enforcement and/or traffic control problems in closed road sections, with 54% reporting property damage resulting from unauthorized entry into those sections. The most commonly cited problems included damage to finished surfaces and slopes, theft of signs and barricades, low public awareness of important road work issues, and worker safety exposure. Mitigation strategies offered by the county engineers and staff were similar to those of municipalities, with an additional suggestion for a program to raise public awareness of issues.

The survey results from Iowa DOT staff indicated that 80% of respondents have experienced enforcement and/or traffic control problems in closed road sections, with 60% reporting damages resulting from unauthorized entry. The most commonly reported problems included damage to local property, risk management issues, and worker safety. To address concerns, preconstruction meetings were the preferred method of mitigation.

Law enforcement officers were surveyed with different questions than municipalities and counties. The law enforcement survey asked officers to identify the Iowa Code sections they felt were most appropriate for enforcement in closed road sections as well as those that should be clarified for better understanding. Officers were also asked if they had answered a call in a closed road section and, if so, whether a serious accident had occurred. The officers were also asked if they were aware of any specific occurrences of court cases involving an interpretation of Iowa Code in closed road sections. The survey questions and response data collected has been included in Appendix D.

The results of 180 law enforcement officer surveys revealed that 87% had responded to a call in closed road sections one or more times, with 29% reporting that those calls involved a serious accident. Officers identified the most appropriate sections of the Iowa Code as 306.41, 321.1, 321 (.228, .232, .252, .256, .260, .285 and .288), all of which have been included in Appendix E. The survey results indicate that most officers feel there are few problems with interpretation of the current Iowa Code; however, some modifications could better clarify the intent in the sections listed above.

A focus group interview session with county engineers and staff occurred on December 5, 2006 on the Iowa State University campus. In attendance were seven county engineers, one assistant county engineer, one county technician, and one representative from the

Office of Local Systems at the Iowa DOT. The session lasted approximately 90 minutes and was facilitated by Dr. Kelly Strong and Tom McDonald of the Center for Transportation Research and Education. The facilitators provided four questions to stimulate discussions among the group. The questions covered the following topics:

- Perceived liability exposure
- TTC and law enforcement for construction and their current levels of sufficiency
- Communication methods with and between contractors, enforcement agencies, emergency responders, local residents and businesses
- Opinions on modifying existing Iowa Code, Iowa DOT specifications, and MUTCD standards

The focus group questions, attendees and notes are included in Appendix F of this report.

The focus group consensus indicated that most concern for liability exposure or actual liability exposure involves signs and barricades. Barricades and protective fencing are often moved or vandalized, thus exposing finished work that may not be completely cured to vehicular traffic. Signs and warning lights that have been stolen, knocked down, or covered in dirt are sometimes not addressed in a timely manner, possibly exposing the agency to liability

Project communication methods for temporary road closures noted by the focus group included preconstruction conferences that involve local enforcement officers and the Iowa DOT. Advice for residents and businesses might be provided through letters, news media, and/or local radio segments; all have been utilized with success by the Iowa DOT and many local agencies. Coordination of postal delivery, school, or emergency routes must be planned in advance and implemented once the closure signs have been erected.

Suggested modifications to Iowa Code from the focus group included increasing fines and penalties for sign theft, removal, or damage. However, it was also stated that local magistrates and judges are often reluctant to impose the current penalties and fines. Another suggestion was to increase sign credibility by covering the road closure signs until the date of closure. Covering signs until needed improves message credibility. Road closed signs are sometimes installed before the route is actually impassible, which encourages drivers to ignore the signs and can later result in damages to newly constructed work from unauthorized entry. One participant suggested that increased penalties for contractor non-compliance with temporary traffic control requirements may be necessary in the Iowa DOT specifications, although those penalties have been significantly increased in recent years. A minimum response time for sign repair by contractors with penalties for delays may improve speed of response time for needed repairs.

ADVISORY COMMITTEE DISCUSSION AND SUGGESTIONS

Several experienced professionals from a variety of disciplines were invited to contribute to this research effort by sharing advice, opinions, and suggestions for needed improvement regarding the topic of closed road traffic control and enforcement. Committee members, who were listed previously in this report, met twice during the progress of this study.

Advisory committee members were provided with an overview of the project, summary of literature (including Code provisions), and survey summaries and were then asked to suggest ideas for possible Code, specification, and /or policy changes.

One member of the committee noted that road closure may not be a definitive issue and there may be “degrees of road closures” and varying types of risk depending on the location, service level of the road, etc. For instance, low volume roads may not need to be signed as extensively during construction as higher volume facilities. In addition to varying types of road closures, there are also instances where the situation may change during the project life cycle, and when drivers find that a road section is signed as closed but is usable (for example, paving complete but guardrail not yet installed), it becomes very difficult for the contractor and agency to restrict entry, which can increase potential liability exposure.

Technology solutions such as controlled access gates, surveillance cameras, and video logs can assist agencies and contractors in managing risk on closed road sections. Additionally, effective strategies used in some jurisdictions include specific assignment of a deputy to issue citations to unauthorized traffic; preconstruction conference planning; ongoing coordination and cooperation with law enforcement; working with contractors on best practices for preventing, repairing, and recovering any damages; and use of proper MUTCD TTC.

In addition to road closures for construction and maintenance, similar issues may exist for special event road closures, such as RAGBRAI, street festivals, parades, etc. Because those in charge of special event closures may not have access to TTC expertise, good practice may be unknown, thereby increasing exposure to safety concerns liability.

Section 306.41 may be the most relevant section of the Iowa Code pertaining to road closures. The liability waivers described in that section provide risk mitigation for agencies and contractors except in the case of gross negligence. Gross negligence might occur when an agency or contractor fails to follow good practice and TTC prescribed in the MUTCD and project specifications.

When entry is allowed for property owners and businesses, the proper signs are “Road Closed to Through Traffic” or “Local Traffic Only”. The definition of gross negligence is determined through the discretion of the court, but the requirement for agencies to follow the state manual is clearly stated in the Iowa Code. Liability exposure could occur

if the proper signing is not utilized as described in the MUTCD and project specifications.

Committee members surmised that, in the case of property damage (including damage to completed work), it can be difficult to determine and/or locate the responsible individual. In addition, since fines are minimal and the Code does not provide definitive guidelines, it is often deemed not worthwhile to prosecute violators.

The most common process for initiating temporary road or street closures is for the city council to adopt an ordinance or board of supervisors to approve a resolution describing the closure. The Iowa DOT relies on project documents and staff actions to authorize temporary closures. Proper temporary traffic control is designed by agencies responsible for the work to be accomplished. The MUTCD recommends that TTC be inspected regularly, but there is ambiguity on the exact frequency. Even so, frequent inspections are a common interpretation, especially for overnight closures.

Contractors or sub-contractors are generally required by the project documents to provide and maintain prescribed TTC, including timely inspections and repairs. This can be problematic at times, especially with frequent unauthorized entry and the need for weekend surveillance. Some contractors frequently hire local personnel to check signs and barricades typically after hours and on weekends to supplement their own inspections.

The committee noted that there is currently no standard form for documenting surveillance and some individuals have expressed opinions that logging requirements should be eliminated. The Iowa DOT has a documentation form, but not all contractors elect to use it. It is difficult to establish the credibility or performance effectiveness of a person hired to check signs and file logs. Also, the line of authority for needed sign repair is not always clear to everyone. A project contract involves the agency and prime contractor; however, it is common for sub-contractors to perform TTC, but the prime contractor is still responsible. Some county engineers want a minimum response time for needed sign repair and replacement, similar to that described in the Iowa DOT Standard Specifications, Article 2528.10A for incident response monitoring, applied to all temporary traffic control.

Remote sensing for damage to important signs may be another option for promoting more effective TTC. A sensor could send a signal to law enforcement dispatchers, who could contact the contractor's representative to replace or reset the device.

It was noted that a surveillance system may not be difficult to implement and may help solve some of the problems with TTC inspections, documentation, identification of trespassers and vandals, etc. Construction companies frequently make use of daily video logs to manage project risk for non-public projects, but privacy and other guidelines may be different for publicly funded improvements. Night vision cameras could be used to help identify unauthorized individuals or vehicles entering closed road sections or vandalizing signs and barricades. For continuous surveillance, a stationary camera might

be helpful as a complement to a video log of all of a project's TTC. For small projects (i.e. structure replacement), it may be possible to use entire scene cameras; for larger projects, the cameras could be focused on specific points of entry to the project.

The feasibility of a surveillance system should be further investigated. In spite of some legal issues needing resolution, the use of video surveillance is generally increasing. In Alaska, law enforcement must record all interviews and courts are increasingly accepting the use of video logs as evidence. Unless identification of violators can be ascertained with certainty, the use of surveillance camera images as evidence may be problematic. However, the known presence of video surveillance on a project may very well be a deterrent for unlawful activities.

Another area warranting further investigation is the penalty for citations in closed road sections. Stiffer penalties, enforcement, and consistent prosecution of perpetrators may help reduce the problems currently experienced in closed road sections.

Committee members noted several Iowa Code sections where clarification of application in temporarily closed road sections might be beneficial. Sections 321.260 and 321.285 were specifically mentioned. Language could be added to the Code clarifying that the statutes listed in Section 321.228 also apply to temporarily closed roadways. This would provide a clearer definition of "highway" that would include these closed sections. Clarification of certain Iowa Code sections could help improve consistency between jurisdictions. However, it was noted that even if infractions are provable, rulings are applied by a local judge or magistrate, and thus penalties for similar offenses vary widely across the state. Trespassing is a common citation and this can be applied to unauthorized entry whether on foot, in a car, or in an off-road vehicle. The process used in Linn County, described later, appears to be effective and could serve as a model for enforcement of authorized entry to closed road sections.

One county engineer on the committee estimated over \$1 million in costs due to vandalism over the years (not just in closed roads). A recommendation from this study is to gather information for the estimated cost of damages due to unauthorized entry in closed road sections. These data could be used in conjunction with a technology feasibility study mentioned earlier to compare costs and benefits.

The committee also suggested adding language to the Standard Specifications indicating that the contractor is responsible for communicating and coordinating access issues with the public. Performance in TTC compliance is included in the standard contractor evaluation criteria.

Another suggestion from the advisory committee was to include pertinent work zone traffic control issues, including closed road requirements, in driver education programs. Public awareness of these important issues could prove beneficial in reducing crashes and violations in work zones; better supported and more informative driver education may be an effective way of raising public awareness. The committee did conclude that increased

contractor training and worker education might not be worthwhile in reducing loss and liability exposure.

The committee recognized that the ultimate responsibility for safety in closed road sections must rest with the agency in charge. However, contractors must fulfill their obligations to provide and maintain quality TTC for all work zones areas, including closed roads and streets. Communication and cooperation between agencies and contractors is mandatory in this effort.

CONCLUSIONS

To conduct this research study, information was gathered from many sources using several different methods. A literature review identified the few existing studies or references with specific relevance to the subject topic of law enforcement and temporary traffic control for closed road/street sections. A review of state Codes and Department of Transportation specifications from Iowa and selected surrounding states identified some useful information and this was supplemented with data and comments received from survey responses from various transportation and law enforcement agencies. Personal interviews with county engineers/staff as well as expert opinions and guidance from an advisory committee were also a part of this study and proved very beneficial. From these sources, the following conclusions can be drawn:

- Allowing limited public traffic on road or street sections that have been “officially” closed on a temporary basis for construction, maintenance, or other special events is not uncommon in most agencies. In general, state Codes prohibit denial of lawful access to property without just compensation.
- Many state laws and Department of Transportation specifications contain similar language describing contractor responsibilities for protecting public and worker safety and minimizing inconvenience, including maintaining acceptable access to property. However, among the states in this study, only Wisconsin specifically addresses installation and maintenance of TTC for public traffic allowed in closed road/street sections.
- Requirements and guidance for application of temporary traffic control (TTC) for public travel in closed road/street sections is minimal in state DOT specifications and the Manual on Uniform Traffic Control Devices (MUTCD).
- Many public agencies have experienced problems with unauthorized traffic in closed road/street sections, with the most serious commonly cited problems including damages to contractor work, theft, and vandalism. Significant and costly damages to finished work have occurred for many agencies.
- Most law enforcement officers do not feel the current Iowa Code reduces their authority to issue citations for traffic violations in temporarily closed road/street sections, but some modifications in certain sections to provide clarification would be beneficial.
- Many local agencies in particular would recommend strengthening current

specifications to better clarify contractor responsibilities for TTC in closed road areas and increasing penalties for non-performance.

- Some counties receive good support from the sheriff's office in monitoring the security of closed road sections and issuance of citations for unlawful entry.
- Public awareness of temporary traffic control requirements and procedures for work zones in general and closed road sections in particular could be improved.
- The current Iowa Code contains several provisions and penalties for violations of established traffic control as well as theft/vandalism of traffic control devices, but enforcement and application of penalties vary widely across the state.
- Although the Code of Iowa provides liability protection to contractors and agencies for damages incurred in temporarily closed sections, potential liability may occur if provisions of the MUTCD and project specifications are not followed for TTC, particularly proper use of the Road Closed sign (R11-2).

RECOMMENDATIONS

To address concerns and problems identified with law enforcement and temporary traffic control in closed road and street sections, the following recommendations are offered:

- Amend the Manual on Uniform Traffic Control Devices (MUTCD) Part 6, Temporary Traffic Control, to describe recommended TTC for closed road/street sections where only local public travel is allowed.
- All agencies should ascertain that staff are familiar and comply with MUTCD requirements for the use of Road (Street) Closed signs, especially as described in Section 6F.08.
- Add language to state DOT specifications to require adequate TTC and protection for equipment in temporarily closed road/street sections where public travel is allowed. The TTC should closely replicate the expectations for open roadways (e.g., obstacles and hazards should be adequately delineated and/or protected, especially for nighttime hours). Similar desired language is currently found in the Iowa DOT Construction Manual, Section 5.41.
- Agencies should strive to develop cooperative working relationships between transportation and law enforcement agencies to assure that temporary traffic control (TTC) is properly designed, deployed, maintained, and enforced in work zones. This topic should be included in agenda issues for pre-construction conferences.
- Investigate the feasibility of technology solutions to control vandalism and unauthorized travel in closed road sections, including surveillance cameras.
- Provide information and data for driver education programs addressing safe travel through work zones, with a segment on authorized travel in closed road and street sections. This information could be furnished to driver education instructors or provided on a video for viewing at driver licensing stations.

- Revise appropriate sections of the Iowa Code to better clarify intent for enforcement in closed road/street sections, specifically Section 306.41 and 321.1 (78) to expand the definition of “Street” or “Highway” to include temporarily closed road/street sections open to local traffic only.
- Develop best practice guidelines for temporary traffic control in closed road/street sections for distribution to state, county, and municipal transportation and traffic managers. The guidelines should include a description of the regulatory process for official establishment of closures as well as suggestions for effective temporary control of authorized traffic during construction and maintenance activities or special events.
- For the purpose of future research, the Iowa DOT should consider characterizing crashes that occur in and tort claims arising from incidents that occur inside of closed road/street sections. Current databases do not include information with this specificity.
- Conduct a survey of state and local agencies to obtain an approximation of the actual cost of theft, vandalism and damages from both authorized and unauthorized traffic in closed road/street sections. Publish the results for better agency and public appreciation for the scope of concern.

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APPENDIX A. FULL TEXT RESULTS OF KEYWORD SEARCHES FOR EACH STATE

Iowa

Access

Nothing herein shall be construed to prohibit or deny any person from gaining lawful access to the person's property or residence, nor shall it change or limit liability to such persons. (Iowa Code, Section 306.41)

Jurisdiction

The agency having jurisdiction and control over any highway in the state, or the chief engineer of said agency when delegated by such agency, may temporarily close sections of a highway by formal resolution entered upon the minutes of such agency when reasonably necessary because of construction, reconstruction, maintenance or natural disaster. (Iowa Code, Section 306.41)

Liability

No driver of a vehicle shall disobey the instructions of any official traffic-control device placed in accordance with the provisions of this chapter, unless at the time otherwise directed by a peace officer subject to the exceptions granted the driver of an authorized emergency vehicle. (Iowa Code, Section 321.256)

The agency having jurisdiction over a section of highway closed in accordance with the provisions of this section, or the persons or contractors employed to carry out the construction, reconstruction, or maintenance of the closed section of highway, shall not be liable for any damages to any vehicle that enters the closed section of highway or the contents of such vehicle or for any injuries to any person that enters the closed section of highway, unless the damages are caused by gross negligence of the agency or contractor. (Iowa Code, Section 306.41)

Nothing herein shall be construed to prohibit or deny any person from gaining lawful access to the person's property or residence, nor shall it change or limit liability to such persons. (Iowa Code, Section 306.41)

Enforcement

The division of state patrol of the department of public safety shall enforce the provisions of this chapter relating to traffic on the public highways of the state, including those relating to the safe and legal operation of passenger cars, motorcycles, motor trucks and buses, and to see that proper safety rules are observed. (Iowa Code, Section 321.2)

Traffic Control

The department shall place and maintain such traffic-control devices, conforming to its manual and specifications, upon all primary highways as it shall deem necessary to indicate and to carry out the provisions of this chapter or to regulate, warn, or guide traffic. (Iowa Code, Section 321.253)

The department shall post signs informing motorists that the scheduled fine for committing a moving traffic violation in a road work zone is doubled. (Iowa Code, Section 321.253)

Property Damage

[Nothing found under this topic]

Kansas

Access

When it is necessary for residents living along the road to use the road which is closed to through traffic, suitable means (including the use of temporary surface material) shall be provided for their entrance or exit, but the general traveling public shall be excluded. (Kansas Standard Specifications for Highway Construction, Section 821.03)

Jurisdiction

The contractor shall designate someone from his work force at the project level who will have the responsibility for signing and traffic control on the project, which person shall be available 24 hours a day to repair, replace, remove, relocate, clean and maintain any traffic control device required or as directed by the Engineer. (Kansas Standard Specifications for Highway Construction, Section 821.03)

Liability

Unless approved otherwise, all work shall be performed during daylight hours. Whenever practical, all vehicle equipment, tools, and materials, except necessary barricades and lights, shall be parked and/or stored off the right-of-way or far enough from the edge of pavement to provide clearance of at least 30 feet. (Kansas Standard Specifications for Highway Construction, Section 821.03)

Enforcement

[Nothing under this topic]

Traffic Control

The Contractor may develop an alternative Traffic Control Plan to be submitted to the Engineer for approval prior to its use...Traffic control shall be in accordance with FHWA MUTCD and supplied by contractor (Kansas Standard Specifications for Highway Construction, Section 821.03)

Property Damage

[Nothing under this topic]

Minnesota

Access

Section 169.305 of the Statutes grants authority to Mn/DOT and local authorities to prohibit “incompatible” traffic on controlled access highways under their respective jurisdictions...Such prohibitions and restrictions are effective only when appropriate signs are erected on the affected highway. (Minnesota Traffic Engineering Manual, Section 2-7.02)

Jurisdiction

Under MSA 169.06, Subd. 2, it is the sole responsibility of Mn/DOT to place and maintain all necessary traffic control devices on Trunk Highways although permission to do so may be granted to other authorities by Mn/DOT. (Minnesota Traffic Engineering Manual, Section 2-4.03.01).

Under MSA 169.06, Subd. 3, local authorities have both the right and the responsibility to place and maintain traffic control devices on streets and highways under their jurisdiction. (Minnesota Traffic Engineering Manual, Section 2-4.04.01)

Liability

In order for Mn/DOT to be liable for a tort claim, three elements must be present:

- Mn/DOT must have a legal duty to the plaintiff to perform a particular task;
- Mn/DOT must have been negligent in its duty to perform that task;
- The damages incurred by the plaintiff were caused by the negligent performance of that duty. (Minnesota Traffic Engineering Manual, Section 12-3.01)

Negligence is defined as the failure to do something which a “reasonable person” would ordinarily do, or the doing of something which a reasonably prudent person would not do. (Minnesota Traffic Engineering Manual, Section 12-3.03)

Enforcement

[L]ocal authorities have virtually complete authority (with notable exceptions such as Speed Zoning and Experimental Devices) over all streets and highways under their jurisdiction (county state-aid highways, county highways municipal state-aid streets and town roads). (Minnesota Traffic Engineering Manual, Section 2-3.02.01)

Traffic Control

The Traffic Management Plan (TMP) is a plan of action which, when put into effect, details the procedures that Mn/DOT utilizes to assure that adequate provisions are made for the safety of motorists, pedestrians and workers...Mn/DOT needs a total commitment by all persons involved to insure that adequate consideration is given to proper traffic control for all operations. In order to assure that this commitment is met, it will require early involvement by all parties involved, such as pre-design, design, traffic, maintenance, and construction. Typical guidelines have been developed for the various stages. (Minnesota Traffic Engineering Manual, Section 8-4.01.02)

During the construction stage, the resident/project engineer will generally be the MN/DOT person responsible for traffic control. The resident/project engineer may delegate this authority. This should be done at the pre-construction conference...The responsible person should have the following duties:

1. Develop a familiarity with the MN MUTCD, the contract plans and special provisions, the current Minnesota Standard Specifications for Highway Construction and its supplements.
2. Coordinate Mn/DOT personnel assigned to the project relative to proper techniques of traffic safety and traffic operations prior to beginning construction and specifically how they relate to the TCP. The District Traffic Engineer and others shall be available to assist in this task.
3. Ensure that all affected agencies such as State Patrol, local Police, fire departments, sheriff's office, hospital, ambulance services, local government, post office, school districts, etc., are informed of the scope of the project and how it may affect their individual needs and services. This public relations work is extremely critical in the case of a total detouring of traffic. The District Public Affairs Coordinator and the Office of Communications may be of help in this responsibility. (Minnesota Traffic Engineering Manual, Section 8-4.01.02)

Property Damage

In order for Mn/DOT to have liability for damages, a claimant must prove:

- That MN/DOT had a legal duty to use reasonable care towards the plaintiff,
- That the MN/DOT breached that duty by failing below the standard of care

- thus committing an act of negligence,
- That damages (injuries, property damage, pain and suffering, loss of income, etc.) incurred by the plaintiff were caused by MN/DOT negligence, and finally
 - For the claimant to recover the damages suffered, the claimant must have had a percentage of fault that was less than or equal to the fault of the defendant. (Minnesota Traffic Engineering Manual, Section 12-3.05)

Missouri

Access

[Nothing under this topic]

Jurisdiction

[Nothing under this topic]

Liability

[Nothing under this topic]

Enforcement

When law enforcement is specified in the contract, the contractor is responsible for coordinating with local law enforcement. The contractor's working hours and work schedule should be furnished to the agency providing the law enforcement (highway patrol, county sheriff, city police) so that enforcement hours can be coordinated. The engineer should review and approve the contractor's proposed law enforcement schedule. Supporting documentation should be provided by the enforcement agency. Verification will be performed by the contractor and MoDOT prior to payment. (Missouri General Construction Manual, Section 616.4.4)

When specified in the plans, law enforcement personnel and vehicles shall be provided within the work zone as directed by the engineer. Law enforcement personnel shall have jurisdiction to enforce all traffic laws in the area to be patrolled. (Missouri Standard Specifications for Highway Construction, Section 616.4.4)

Traffic Control

A Traffic Control Plan (TCP) is developed for every project. The TCP is an integral part of the planning and design of a project. The scope of the TCP is determined by the complexity of the project and is developed by the designer in the district in cooperation with district construction, maintenance and traffic personnel. Typical traffic control set-ups shall be shown for each work activity within the work zone. A preliminary field

check with district construction and traffic is recommended to ensure the TCP will be compatible with field conditions. (Missouri Department of Transportation Project Development Manual, Section 8-04.1)

Property Damage

The contractor shall provide written notice to the engineer of any pedestrian or vehicular accident when physical evidence or other information suggests an accident has occurred in the work zone. The contractor shall obtain and provide to the engineer copies of law enforcement accident reports for any accidents in the work zone. (Missouri Standard Specifications for Highway Construction, Section 616.4.2.7)

Nebraska

Access

The method of controlling access may be through police power, to a limited degree, or by acquisition of access rights in full or in part.

Police power regulation has universally been held valid as a proper exercise of governmental function. The universal test has required that such controls be reasonable. Therefore, any exercise of the police power, as in matters of access control, where no payment of compensation is required, may not ordinarily limit, restrict, or otherwise reduce access below a point where such access is deemed reasonably necessary and adaptable to serve the owners' lands. Beyond this point, police power controls may not be used.

When police power no longer provides the degree of control considered necessary for safe and efficient operation, it is then necessary to acquire private property, in the form of access rights, for public use by payment of just compensation. (Nebraska Department of Roads Access Control Policy to the State Highway System, Section 002)

Jurisdiction & Enforcement

The Contractor shall keep fully informed of and observe and comply with all of the following which affect those engaged or employed on the work or affect the conduct of the work:

- (1) Federal and State laws.
- (2) Local laws and ordinances.
- (3) Orders and decrees of bodies or tribunals having any jurisdiction or authority.
(Nebraska Standard Specifications for Highway Construction, Section 107.01.1.a)

Liability

The Contractor shall insure the orderly movement of traffic through or around the work at all times. (Nebraska Standard Specifications for Highway Construction, Section 107.07.1)

The Contractor shall carry public liability insurance to indemnify the public for injuries or death sustained by reason of carrying on the work. In addition, the Contractor must also carry worker's compensation insurance in accordance with Nebraska statutory requirements. (Nebraska Standard Specifications for Highway Construction, Section 107.13.1.a)

Traffic Control

All traffic control devices shall be located according to and meet all requirements prescribed in the MUTCD. Failure of the Contractor to erect and maintain traffic protective devices shall be reason to temporarily suspend their work in accordance with Subsection 108.06. (Nebraska Standard Specifications for Highway Construction, Section 422.01.2.a)

When more than one Contractor is working on the project or when consecutive projects require protection and control of traffic, the Engineer shall determine and notify in writing the Contractor whose responsibility it shall be to provide the protection and control of traffic. (Nebraska Standard Specifications for Highway Construction, Section 422.01.2.n)

Property Damage

The Contractor shall indemnify and save harmless the Department and all of its representatives from any and all actions or claims brought because of injuries or damages to persons or property caused by the actions or omissions of the Contractor or the Contractor's employees or agents. (Nebraska Standard Specifications for Highway Construction, Section 107.12.1)

The Contractor shall be responsible for all damage or injury to any property during the prosecution of the work, resulting from any act, omission, neglect, or misconduct, in the manner or method of executing said work satisfactorily, or due to the non-execution of said work or at any time due to defective work or materials and said responsibility shall continue until the work shall have been completed and accepted. (Nebraska Standard Specifications for Highway Construction, Section 107.12.2)

Prior to beginning any work, the Contractor is required to meet with all involved local governmental entities and advise them of any intentions to use their local roads. The Contractor shall be responsible for resolving claims concerning damage to local roads

caused by his/her operation. (Nebraska Standard Specifications for Highway Construction, Section 107.12.3)

South Dakota

Access

The Contractor shall conduct his work to minimize obstruction to traffic. The safety and convenience of the general public and the residents along the highway and the protection of persons and property shall be provided for by the Contractor as specified under Section 4.4. (South Dakota Standard Specifications for Roads and Bridges, Section 7.7)

Jurisdiction

[Nothing under this topic]

Liability

The Contractor shall keep fully informed of and comply with all Federal, State and local laws, ordinances and regulations, and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which may affect those engaged or employed on the work, or which may affect the conduct of the work. The Contractor shall protect and indemnify the Department and its representatives against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor, Subcontractors, Suppliers of materials or services or their employees. (South Dakota Standard Specifications for Roads and Bridges, Section 7.1)

The Contractor shall indemnify and save harmless the Department, its officers and employees, from all suits, actions, or claims of any character brought because of any injuries or damage received or sustained by any person, persons, or property on account of the operations of the said Contractor; or on account of or in consequence of any neglect in safeguarding the work; or through use of unacceptable materials in constructing the work; or because of any act or omission, neglect, or misconduct of said Contractor; or because of any claims or amounts recovered from any infringements of patent, trademark, or copyright; or from any claims or amounts arising or recovered under the "Workmen's Compensation Act", or any other law, ordinance, order, or decree; and so much of the money due the said Contractor under and by virtue of his contract as may be considered necessary by the Department for such purpose may be retained for the use of the State; or in case no money is due, his surety may be held until such suit or suits, action or actions, claim or claims for injuries or damages as aforesaid shall have been settled and suitable evidence to that effect furnished to the Department; money due the Contractor will not be withheld when the Contractor produces satisfactory evidence that adequate public liability and property damage insurance is in force. (South Dakota Standard Specifications for Roads and Bridges, Section 7.14)

The Contractor shall procure and maintain at the Contractor's own expense, during duration of the Contract, insurance liability for damages imposed by law with insurance companies authorized to do business in the State. The insurance shall cover all operations under the Contract, whether performed by the Contractor or by Subcontractors. Before commencing the work, the Contractor shall furnish certificates of insurance, certifying that the policies will not be changed or cancelled until 30 days written notice has been given to the Department.

The certificates of insurance shall provide evidence that sufficient liability insurance is carried to protect the public from injuries sustained by reason of pursuing the work, and that Worker's Compensation Insurance meets the requirements of the South Dakota Workmen's Compensation Law. (South Dakota Standard Specifications for Roads and Bridges, Section 7.15)

The Department of Transportation, or their authorized representatives are acting solely as agents and representatives of the Department when carrying out and exercising the power or authority granted to them under the Contract. There shall not be any liability on them either personally or as employees of the Department (South Dakota Standard Specifications for Roads and Bridges, Section 7.19)

Enforcement

[Nothing under this topic]

Traffic Control

The Contractor shall bear the expense of maintaining traffic over the project undergoing improvement, constructing and maintaining approaches, crossings, intersections, and other features as may be necessary, without direct compensation, except as provided below:

Prior to written suspension due to unfavorable weather or conditions not the fault of the Contractor, the Contractor shall prepare the project as directed by the Engineer to provide for the accommodation of traffic during the anticipated period of suspension.

During the suspension and until an order for resumption of construction operations is issued, the maintenance of the project for traffic, to the extent specified in writing by the Engineer, will be by and at the expense of the Department. (South Dakota Standard Specifications for Roads and Bridges, Section 4.4)

Property Damage

The Contractor shall be responsible for the preservation of public and private property and shall not disturb, damage or move land monuments and property marks until the

Engineer has witnessed or referenced their location.

The Contractor shall be responsible for all damage or injury to property, resulting from an act, omission, neglect, or misconduct in his manner or method of executing the work, or due to defective work or materials. The Contractor's responsibility will not be released until completion of the project and final acceptance by the Department.

The Contractor shall be responsible for any direct or indirect damage or injury to public or private property resulting from or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the nonexecution of the work. The Contractor shall restore the property to a condition similar or equal to that existing before such damage or injury occurred by repairing, rebuilding, or restoring and making good such damage or injury as directed by the Engineer and at the expense of the Contractor (South Dakota Standard Specifications for Roads and Bridges, Section 7.12)

Wisconsin

Access

Notify the responsible fire department and police department at least 24 hours before closing a road, street, or highway. (Wisconsin Standard Specifications, Section 107.8(4))

All contractors doing any work which shall in any manner obstruct the streets or sidewalks shall put up and maintain barriers and lights to prevent accidents, and be liable for all damages caused by failure so to do. All contracts shall contain a provision covering this liability, and also a provision making the contractor liable for all damages caused by the negligent digging up of streets, alleys or public grounds, or which may result from the contractor's carelessness in the prosecution of such work. (Wisconsin Statute 62.15[11])

When any portion of the state trunk highway system is impassable or dangerous to travel or when it shall be deemed necessary because of construction or maintenance work or for other reasons to suspend all or part of the travel thereon, the department may route such travel over a detour around such portion of the state trunk highway system. (Wisconsin Statute 84.02[10] [b])

Jurisdiction

If the contract provides, or if the engineer orders, that the road or portions of the road be closed to all traffic, furnish, erect, and maintain the traffic control devices at the project termini and at intersecting roads along the project the contract specifies or as the engineer directs. (Wisconsin Standard Specifications, Section 104.6.3(1))

Never close a public road or portion of a public road without the engineer's specific written permission. If the contract specifies, or if the engineer orders, that a road or a portion of road is to be closed, notify the engineer at the earliest possible date of when

the closure is needed so the department can make arrangements to close the road and provide detours. (Wisconsin Standard Specifications, Section 104.6.3(2))

If the contract provides that the road or portions of the road be closed to through traffic, furnish, erect, and maintain the traffic control devices at the project termini and at intersecting roads along the project the contract specifies or the engineer directs. Also, furnish, erect, and maintain those traffic control devices within the project limits as may be required for the safe accommodation of local traffic as defined in 101.3. At all times conduct the work in a manner to provide safe, reasonably-direct, all-weather, 24-hour pedestrian and vehicular access to abutting properties along the highway being improved. (Wisconsin Standard Specifications, Section 104.6.4(1))

Liability

The contractor and the contractor's insurer shall defend, indemnify, and save harmless the following entities:

1. The state, its officers, agents, and employees. In this context, agents exclude consulting firms, Wisconsin counties and municipalities, and their respective officers and employees.
2. The county, town, or municipality in which the improvement is made, each of them separately or jointly, and their officers, agents, and employees.

(Wisconsin Standard Specifications, Section 107.12(1))

Defend, indemnify, and save harmless all entities in 107.12 (1) from all suits, actions, or claims of any character brought because of one or more of the following:

1. Injuries or damages received or sustained by a person, persons, or property resulting from the contractor's operations
2. Neglect in safeguarding the work
3. Use of unacceptable materials in constructing the work
4. Acts or omissions, neglect, or misconduct of the contractor
5. Claims or amounts recovered for an infringement by the contractor of patent, trademark, or copyright
6. Claims or amounts arising or recovered under the workers compensation act, relating to the contractor's employees
7. The contractor's noncompliance with a law, ordinance, order, or decree relating to the contract

(Wisconsin Standard Specifications, Section 107.12(2))

The contractor shall not bear the expense for damage to the work caused by abnormal and unforeseeable occurrences beyond the control of, and without the fault or negligence of, the contractor. These abnormal and unforeseeable occurrences include but are not limited to the following:

1. Cataclysmic phenomena of nature
2. Acts of the public enemy
3. Acts of government authorities

(Wisconsin Standard Specifications, Section 107.14(2))

Enforcement

On any construction project, the method of constructing the project and the method of handling traffic should be resolved early in the project development process. The following guidelines are presented to assist the designer in identifying when specialized law enforcement techniques might be warranted. Use of law enforcement officials for periods of time greater than 1 day requires coordination with the enforcement agency and approval by Central Office Design.

1. Length of potential hazard. Relatively long projects (greater than 5 miles (8 km)) with continuous construction activities should be considered for law enforcement. Long projects with isolated construction sites (e.g. bridge deck repairs) or intermittent construction activities do not warrant this treatment. Construction should be over extended lengths of the project and for extended periods of time.

...Proposed use of law enforcement techniques shall be included in the Design Study Report and described in the project Plan Letter and Special Provisions. (Wisconsin Facilities Development Manual, Procedure 11-50-30)

Traffic Control

Layout signs according to the FHWA Manual of Standard Highway Signs or the department's Sign Plate Book, unless the plans show otherwise. (Wisconsin Standard Specifications, Section 643.2.9(1))

Provide the sign size the contract specifies. If the contract does not specify the size, provide the size the MUTCD specifies for higher-speed locations or a larger size, except the engineer may allow smaller signs if space is limited and the MUTCD allows. (Wisconsin Standard Specifications, Section 643.2.9(2))

Under the Traffic Control Surveillance and Maintenance bid items, provide personnel to inspect and maintain the traffic control devices, furnished, and installed, in proper condition. (Wisconsin Standard Specifications, Section 643.3.2(1))

Inspection and maintenance includes all traffic control signs or devices included in the contract, including those on detour routes. Begin when the first traffic control sign or device is put into operation and end when the last traffic control sign or device is removed from operation. (Wisconsin Standard Specifications, Section 643.3.2(3))

Make the control specialist, or other contractor designated person, available 24 hours per day, 7 days per week to clean, repair, or replace traffic control devices not performing as intended throughout the period traffic control signs and devices are operating under this contract. Provide to the engineer, the County Sheriff, and the State Patrol Region Headquarters responsible for that county the telephone number to contact the control specialist or other contractor designated person. Ensure that the control specialist, or other designated person, is able to reach any location within the contract limits, or on detour routes, within 2 hours of being contacted, and can promptly accomplish the necessary cleaning, repair, or replacement. (Wisconsin Standard Specifications, Section

643.3.2(8))

Whenever any highway is impassable or unsafe for travel or during the construction or repair of any such highway and until it is ready for traffic the authorities in charge of the maintenance or construction thereof may keep it closed by maintaining barriers at each end of the closed portion. (Wisconsin Statue 86.06(1))

Property Damage

Any person who, without lawful authority, removes, takes down, alters the position of, destroys, passes over or beyond any barrier so erected, or travels with any vehicle upon any portion of a highway closed by barriers as in this section provided, or walks or travels in any manner upon the materials placed thereon as part of the repair or construction work, shall be liable to a fine of not less than \$10 nor more than \$100, or to imprisonment not less than 10 nor more than 60 days, or both, and in addition thereto shall be liable for all damages done to the highway, said damages to be recovered by such governmental agency. (Wisconsin Statue 86.06(2))

**APPENDIX B. SURVEY: LOCAL ACCESS TO CLOSED ROADS AND STREETS
(IOWA DOT, CITIES AND COUNTY ENGINEERS & STAFF)**

- 1) Have you experienced problems with traffic control and/or law enforcement on roads temporarily closed for construction or other activities but open for local access?
 - Yes
 - No

- 2) As part of project planning, how are access issues managed on temporary road/street closures?
 - Not considered
 - Contractual assignment or delegation
 - Permitting for authorized local traffic
 - Pre-construction meeting
 - Other: _____
 - Other: _____

- 3) As part of project planning, how are enforcement issues managed on temporary closures?
 - Not considered
 - Contractual assignment or delegation
 - Pre-construction meeting
 - Other: _____
 - Other: _____

- 4) What types of property damage have occurred on closed roads/streets in your jurisdiction due to inadequate traffic control or enforcement of closed road access?
 - None
 - Driver's property
 - Resident's property
 - Contractor's equipment or material
 - Completed work
 - Agency equipment
 - Construction work-in-progress
 - Other: _____
 - Other: _____

- 5) Are you aware of any damage in your jurisdiction to construction in place due to *authorized* local traffic on a road/street that is closed to public access?

Yes

No

If yes, what affect did it have on the project? _____

6) Are you aware of any damage in your jurisdiction to construction in place due to *unauthorized* local traffic on a road/street that is closed to public access?

Yes

No

If yes, what affect did it have on the project? _____

7) Which of the following at risk behaviors have occurred on closed road/street sections within your jurisdiction? Please check all that apply and provide comments if desired.

Willful vandalism _____

Drag racing _____

4-wheeling _____

Dirt biking _____

Hunting _____

Other: _____

Other: _____

Other: _____

8) Have you ever temporarily closed roads/streets during winter due to two-season construction?

Yes

No

If so, have you encountered any road closure issues specific to 2-season closures?

9a) In your opinion, is worker safety during construction on closed road/street sections compromised by the inability to effectively enforce traffic laws?

Yes

No

If so, what are the actions that compromise safety?

9b) In your opinion, is worker safety during construction on closed road/street sections compromised by failure of contractor to follow standard practices for closures?

Yes

No

If so, what are the actions that compromise safety?

9c) In your opinion, is worker safety during construction on closed road/street sections compromised by local access traffic for area residents and businesses?

Yes

No

If so, what actions compromise safety?

10) In your opinion, are the standard agency procedures for temporarily closing roads/streets followed closely when a decision is made to close a road section for construction?

Yes

No

11) In your opinion, are the specifications for traffic control in temporarily closed road sections followed closely by the contractor or other construction site personnel?

Yes

No

12) In your opinion, do local residents and businesses put pressure on agency and/or construction site personnel to “bend the rules” for temporary road/street closures in order to improve local access conditions?

Yes

No

13) Do you use full closure for maintenance operations in your jurisdiction?

Yes

No

If so, what are the reasons for using full closure during maintenance?

14) Are there any other problems that you have experienced within your jurisdiction relating to temporary road/street closures for construction?

APPENDIX C. SUMMARY RESULTS TO SURVEY: LOCAL ACCESS TO CLOSED ROADS/STREETS

		Municipalities n=34	Counties n=43	State n=7	Online County n=32	Online Out-of State n=2
Question	Answers	# or %	# or %	# or %	# or %	# or %
1	Yes	61%	93%	80%	84%	50%
	No	39%	7%	20%	16%	50%
2	Not considered		2		1	
	Contractual assignment or delegation	16	13	2	6	
	Permitting for authorized local traffic		11	1	5	
	Pre-construction meeting	28	21	2	25	1
	Other					
3	Not considered	10	11	2	16	
	Contractual assignment or delegation	5	7		3	
	Permitting for authorized local traffic					
	Pre-construction meeting	17	16	1	10	2
	Other					1
4	None	12	4		5	1
	Driver's property	11	18	2	12	1
	Residents property	7	11	1	3	
	Contractor's equipment or material	8	19	3	15	1
	Completed work	8	18	3	11	1
	Agency equipment	1	4	1	3	
	Construction work-in-progress	11	19	3	17	1
		Other				
5	Yes	18%	14%	20%	6%	
	No	82%	86%	80%	94%	100%
6	Yes	41%	55%	60%	52%	
	No	59%	45%	40%	48%	100%

		Municipalities	Counties	State	Online County	Online Out-of State
Question	Answers	# or %	# or %	# or %	# or %	# or %
7	Willful vandalism	14	33	4	20	2
	Drag racing	2	7	1	3	1
	4 wheeling	5	17	4	11	1
	Dirt biking	4	3	1	4	1
	Hunting		3	1	3	1
	Other		7	1	4	1
8	Yes	12%	45%	60%	44%	100%
	No	88%	55%	40%	56%	
9a	Yes	30%	60%	100%	62%	50%
	No	70%	40%		38%	50%
9b	Yes	42%	44%	40%	32%	50%
	No	58%	56%	60%	68%	50%
9c	Yes	33%	40%	40%	38%	50%
	No	67%	60%	60%	62%	50%
10	Yes	85%	82%	100%	100%	100%
	No	15%	18%			
11	Yes	71%	65%	80%	80%	100%
	No	29%	35%	20%	20%	
12	Yes	68%	75%	80%	68%	100%
	No	32%	25%	20%	32%	
13	Yes	26%	51%		47%	100%
	No	74%	49%	100%	53%	

APPENDIX D. SURVEY: TEMPORARY TRAFFIC CONTROL AND LAW ENFORCEMENT IN CLOSED ROAD SECTIONS (LAW ENFORCEMENT)

The Center for Transportation Research and Education (CTRE) and Iowa State University have undertaken a research study of temporary traffic control and law enforcement in road sections closed to traffic. Your opinions and recommendations would be a valuable asset to a meaningful conclusion of this project.

Please provide the following information based on your experience and knowledge as a law enforcement officer.

1. Do your responsibilities occasionally require you to work in road or street sections that have been officially or unofficially closed to through traffic?

YES ____ NO ____

2. Have you ever investigated a serious crash or incident in a closed road section?

YES ____ NO ____

3. Do you have concerns or challenges about your authority to issue citations, enforce moving violations or other laws in closed roadway sections?

YES ____ NO ____

4. Would modification or clarification of the Iowa Code make your job of enforcement in closed road sections more effective?

YES ____ NO ____

5. If you answered yes to question numbers 3 or 4, what Code section(s) should be modified?

6. Have you had any experience or knowledge of a police enforcement action being negated or challenged due to the action having been taken on a road not open to normal traffic use.

YES ____ NO ____

If so, please explain

<u>Summary of Responses to Law Enforcement Survey</u>		
Question	Yes	No
1: Do your responsibilities occasionally require you to work in road or street sections that have been officially or unofficially closed to through traffic?	157	23
2: Have you ever investigated a serious crash or incident in a closed road section?	52	128
3: Do you have concerns or challenges about your authority to issue citations, enforce moving violations or enforce other laws in closed roadway sections?	23	157
4: Would modification or clarification of the Iowa Code make your job of enforcement in closed road sections more effective?	45	135
5: If you answered yes to question numbers 3 or 4, what Code section(s) should be modified?	Question 5 (word document)	
6: Have you had experience of a police enforcement action be negated or challenged due to the action having been taken on a road not open to normal traffic use?	9	171
	Question 6 (word document)	

Total Number of Surveys: 180

APPENDIX E. SELECTED IOWA CODE ARTICLES WITH POSSIBLE RELEVANCE TO CLOSED ROAD/STREET ISSUES

306.10 Power to Establish, Alter or Vacate.

In the construction, improvement, operation or maintenance of any highway, or highway system, the agency which has control and jurisdiction over such highway or highway system, shall have power, on its own motion, to alter or vacate and close any such highway or railroad crossing thereon, and to establish new highways or railroad crossing thereon which are or are intended to become a part of the highway system over which said agency has jurisdiction and control.

[C73, § 937, 954; C97, § 1496, 1509; S13, § 1509; C24, § 4577, 4593, 4732; C27, 31, § 4577, 4593, 4755-b27, 4755-d2; C35, § 4577, 4593, 4631-e1, 4755-b27, 4755-d2; C39, § 4577, 4593, 4631.1, 4755.23, 4755.37; C46, 50, § 306.18, 306.34, 308.2, 313.25, 313.46; C54, 58, 62, 66, § 306.4; C71, 73, 75, 77, 79, 81, § 306.10]

306.11 Hearing--Place--Date.

In proceeding to the vacation and closing of a road, part thereof, or railroad crossing, the agency in control of the road, or road system, shall fix a date for a hearing on the vacation and closing in the county where the road, or part thereof, or crossing, is located, and if located in more than one county, then in a county in which any part of the road or crossing is located. If the road to be vacated or changed is a secondary road located in more than one county, the boards of supervisors of the counties, acting jointly, shall fix a date for a hearing on the vacation or change in either or any of the counties where the road, or part thereof, is located. If the proposed vacation is of part of a road right-of-way held by easement and will not change the existing traveled portion of the road or deny access to the road by adjoining landowners, a hearing is not required.

[C31, 35, § 4755-d2, 4755-d3; C39, § 4755.37, 4755.38; C46, 50, § 313.46, 313.47; C54, 58, 62, 66, § 306.5; C71, 73, 75, 77, 79, 81, § 306.11]

2000 Acts, ch 1074, §1; 2000 Acts, ch 1232, §65

Referred to in § 306.12, 306A.6

306.41 Temporary Closings for Construction

The agency having jurisdiction and control over any highway in the state, or the chief engineer of said agency when delegated by such agency, may temporarily close sections of a highway by formal resolution entered upon the minutes of such agency when reasonably necessary because of construction, reconstruction, maintenance or natural disaster and shall cause to be erected "road closed" signs and partial or total barricades in the roadway at each end of the closed highway section and on the closed highway where that highway is intersected by other highways

if such intersection remains open. Any numbered road closed for over forty-eight hours shall have a designated detour route. The agency having jurisdiction over a section of highway closed in accordance with the provisions of this section, or the persons or contractors employed to carry out the construction, reconstruction, or maintenance of the closed section of highway, shall not be liable for any damages to any vehicle that enters the closed section of highway or the contents of such vehicle or for any injuries to any person that enters the closed section of highway, unless the damages are caused by gross negligence of the agency or contractor.

Nothing herein shall be construed to prohibit or deny any person from gaining lawful access to the person's property or residence, nor shall it change or limit liability to such persons.

[C71, 73, 75, 77, 79, 81, § 306.41]

321.1 Definitions of Words and Phrases

The following words and phrases when used in this chapter shall, for the purpose of this chapter, have the meanings respectively ascribed to them.

46. "Official traffic-control devices" means all signs, signals, markings, and devices not inconsistent with this chapter placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning, or guiding traffic.
65. "Roadway" means that portion of a highway improved, designed, or ordinarily used for vehicular travel.
66. "Road work zone" means the portion of a highway which is identified by posted or moving signs as the site of construction, maintenance, survey, or utility work. The zone starts upon meeting the first sign identifying the zone and continues until a posted or moving sign indicates that the work zone has ended.
78. "Street" or "highway" means the entire width between property lines of every way or place of whatever nature when any part thereof is open to the use of the public, as a matter of right, for purposes of vehicular traffic.
84. "Traffic" means pedestrians, ridden or herded animals, vehicles, streetcars, and other conveyances either singly or together while using any highway for purposes of travel.
90. "Vehicle" means every device in, upon, or by which any person property is or may be transported or drawn upon a highway.
"Vehicle" does not include:
 - a. Any device moved by human power.
 - b. Any device used exclusively upon stationary rails or tracks.
 - c. Any integral part of a truck tractor or road tractor which is mounted on the frame of the truck tractor or road tractor immediately behind the cab and which may be used to transport persons and property but which cannot be drawn upon the highway by the truck tractor or another motor vehicle.
 - d. Any steering axle, dolly, auxiliary axle, or other integral part of another vehicle which in and of itself is incapable of commercially transporting any person or property but is used primarily to support another vehicle.

321.2 Department

The state department of transportation shall administer and the provisions of this chapter. The division of state patrol of the department of public safety shall enforce the provisions of this chapter relating to traffic on the public highways of the state, including those relating to the safe and legal operation of passenger cars, motorcycles, motor trucks and buses, and to see that proper safety rules are observed.

The state department of transportation and the department of public safety shall cooperate to insure the proper and adequate enforcement of the provisions of this chapter.

[C24, 27, 31, 35, § 4863; C39, § 5000.02; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 321.2]

98 Acts, ch 1074, §20; 2005 Acts, ch 35, §31

321.228 Provisions Refer to Highways—Exceptions

The provisions of this chapter relating to the operation of vehicles refer exclusively to the operation of vehicles upon highways except:

1. Where a different place is specifically referred to in a given section.
2. The provisions of sections 321.261 to 321.273 and sections 321.277 and 321.280 shall apply upon highways and elsewhere throughout the state.

[C39, § 5017.01; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 321.228]

86 Acts, ch 1220, § 35; 98 Acts, ch 1178, § 2

321.232 Radar Jamming Devices—Penalty

1. A person shall not sell, operate or possess a radar jamming device, except as otherwise provided in this section, when the device is in a vehicle operated on the highways of this state or the device is held for sale in this state.
2. This section does not apply to radar speed measuring devices purchased by, held for purchase for, or operated by peace officers using the devices in their official duties.
3. A radar jamming device may be seized by a peace officer subject to forfeiture as provided by chapter 809 or 809A. 4. For the purposes of this section "radar jamming device" means any mechanism designed or used to transmit radio waves in the electromagnetic wave spectrum to interfere with the reception of those emitted from a device used by peace officers of this state to measure the speed of motor vehicles on the highways of this state and which is not designed for two-way transmission and cannot transmit in plain language.

[81 Acts, ch 109, § 1]

96 Acts, ch 1133, § 41 Referred to in § 805.8A(14g) For applicable scheduled fines, see §805.8A, subsection 14, paragraph g

321.233 Road Workers Exempted

This chapter, except sections 321.277 and 321.280, does not apply to persons and motor vehicles and other equipment while actually engaged in work upon the surface of a highway officially closed to traffic but does apply to such persons and vehicles when traveling to or from such work. The minimum speed restriction of section 321.285, subsection 6, and the provisions of sections 321.297, 321.298, and 321.323 do not apply to road workers operating maintenance equipment on behalf of any state or local authority while engaged in road maintenance, road blading, snow and ice control and removal, and granular resurfacing work on a highway, whether or not the highway is closed to traffic.

[C39, § 5017.06; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 321.233; 82 Acts, ch 1154, § 1]

85 Acts, ch 167, § 1; 86 Acts, ch 1220, § 36; 90 Acts, ch 1230, §64; 97 Acts, ch 104, §18

321.252 Department to Adopt Sign Manual

The department shall adopt a manual and specifications for a uniform system of traffic-control devices consistent with the provisions of this chapter for use upon highways within this state. Such uniform system shall correlate with and so far as possible conform to the system then current as approved by the American association of state highway and transportation officials. The department shall include in its manual of traffic- control devices, specifications for a uniform system of highway signs for the purpose of guiding traffic to organized off-highway permanent camps, and camp areas, operated by recognized and established civic, religious, and nonprofit charitable organizations and to for- profit campgrounds and ski areas. The department shall purchase, install, and maintain the signs upon the prepayment of the costs by the organization or owner.

The department shall also establish criteria for guiding traffic on all fully controlled-access, divided, multilaned highways including interstate highways to each tourist attraction which is located within thirty miles of the highway and receives fifteen thousand or more visitors annually. Nothing in this unnumbered paragraph shall be construed to prohibit the department from erecting signs to guide traffic on these highways to tourist attractions which are located more than thirty miles from the highway or which receive fewer than fifteen thousand visitors annually.

The department shall establish, by rule, in cooperation with a tourist signing committee, the standards for tourist-oriented directional signs and shall annually review the list of attractions for which signing is in place. The rules shall conform to national standards for tourist-oriented

directional signs adopted under 23 U.S.C. § 131(q) and to the manual of uniform traffic-control devices. The tourist signing committee shall be made up of the directors or their designees of the departments of economic development, agriculture and land stewardship, natural resources, cultural affairs, and transportation, the chairperson or the chairperson's designee of the Iowa travel council, and a member of the outdoor advertising association of Iowa. The director or the director's designee of the department of economic development shall be the chairperson of the committee. The department of transportation shall be responsible for calling and setting the date of the meetings of the committee which meetings shall be based upon the amount of activity relating to signs. However, the committee shall meet at least once a month. However, a tourist attraction is not subject to a minimum number of visitors annually to qualify for tourist-oriented directional signing. The rules shall not be applicable to directional signs relating to historic sites on land owned or managed by state agencies, as provided in section 321.253A. The rules shall include but are not limited to the following:

1. Criteria for eligibility for signing.
2. Criteria for limiting or excluding businesses, activities, services, and sites that maintain signs that do not conform to the requirements of chapter 306B, chapter 306C, division II, or other statutes or administrative rules regulating outdoor advertising.
3. Provisions for a fee schedule to cover the direct and indirect costs of sign manufacture, erection, and maintenance, and related administrative costs.
4. Provisions specifying maximum distances to eligible businesses, activities, services, and sites. Tourist-oriented directional signs may be placed on highways within the maximum travel distance that have the greatest traffic count per day, if sufficient space is available. If an adjacent landowner complains to the department about the placement of a tourist-oriented directional sign, the department shall attempt to reach an agreement with the landowner for relocating the sign. If possible, the sign shall be relocated from the place of objection. If the sign must be located on an objectionable place, it shall be located on the least objectionable place possible.
5. Provisions for trailblazing to facilities that are not on the crossroad. Appropriate trailblazing shall be installed over the most desirable routes on lesser traveled primary highways, secondary roads, and city streets leading to the tourist attraction.
6. Criteria for determining when to permit advance signing.
7. Provisions specifying conditions under which the time of operation of a business, activity, service, or site is shown.
8. Provisions for masking or removing signs during off seasons for businesses, activities, services, and sites operated on a seasonal basis. Faded signs shall be replaced and the commercial vendor charged for the cost of replacement based upon the fee schedule adopted.
9. Provisions specifying the maximum number of signs permitted per intersection.
10. Provisions for determining what businesses, activities, services, or sites are signed when there are more applicants than the maximum number of signs permitted.

11. Provisions for removing signs when businesses, activities, services, or sites cease to meet minimum requirements for participation and related costs. Local authorities shall adhere to the specifications for such signs as established by the department, and shall purchase, install, and maintain such signs in their respective jurisdictions upon prepayment by the organization of the cost of such purchase, installation, and maintenance. The department shall include in its manual of traffic-control devices specifications for a uniform system of traffic-control devices in legally established school zones.

[C24, 27, § 4627; C31, 35, § 4627, 5079-d7; C39, § 5019.01; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 321.252]

86 Acts, ch 1060, § 1, 2; 90 Acts, ch 1183, § 4 Referred to in § 321.342, 668.10

321.253 Department to Erect Signs

The department shall place and maintain such traffic-control devices, conforming to its manual and specifications, upon all primary highways as it shall deem necessary to indicate and to carry out the provisions of this chapter or to regulate, warn, or guide traffic. Whenever practical, said devices or signs shall be purchased from the director of the Iowa department of corrections.

The department shall post signs informing motorists that the scheduled fine for committing a moving traffic violation in a road work zone is doubled.

[C24, 27, § 4627; C31, 35, § 4627, 5079-d7; C39, § 5019.02; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 321.253]

83 Acts, ch 96, § 157, 159, 160; 93 Acts, ch 114, § 2; 97 Acts, ch 104, §19

Analogous provisions, § 321.345

321.256 Obedience to Official Traffic-Control Devices

No driver of a vehicle shall disobey the instructions of any official traffic-control device placed in accordance with the provisions of this chapter, unless at the time otherwise directed by a peace officer subject to the exceptions granted the driver of an authorized emergency vehicle.

[C39, § 5019.05; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 321.256] Referred to in § 805.8A(8) For applicable scheduled fine, see §805.8A, subsection 8.

321.260 Interference with Devices, Signs, or Signals—Unlawful Possession—Traffic Signal Preemption Devices

1. a. A person who willfully and intentionally, without lawful authority, attempts to or in fact alters, defaces, injures, knocks down, or removes an official traffic-control device, an authorized warning sign or signal or barricade, whether temporary or permanent, a railroad sign or signal, an inscription, shield, or insignia on any of such devices, signs, signals, or barricades, or any other part thereof, shall, upon conviction, be guilty of a simple misdemeanor and shall be required to make restitution to the affected jurisdiction. In addition to any other penalties, the punishment imposed for a violation of this subsection shall include assessment of a fine of not less than two hundred fifty dollars.

b. A person who is convicted under paragraph "a" of an act relating to a stop sign or a yield sign may be required to complete community service in addition to making restitution to the affected jurisdiction.

2. It shall be unlawful for any person to have in the person's possession any official traffic-control device except by legal right or authority. Any person convicted of unauthorized possession of any official traffic-control device shall upon conviction be guilty of a simple misdemeanor. In addition to any other penalties, the punishment imposed for a violation of this subsection shall include assessment of a fine of not less than two hundred fifty dollars.

3. a. A person shall not sell, own, possess, or use a traffic signal preemption device except as permitted in connection with the lawful operation of an authorized emergency vehicle as defined in section 321.1 or as otherwise authorized by the jurisdiction owning and operating an official traffic control signal. A person who is convicted of the unauthorized sale, ownership, possession, or use of a traffic signal preemption device is guilty of a simple misdemeanor. In addition to any other penalties, the punishment imposed for a violation under this subsection shall include assessment of a fine of not less than two hundred fifty dollars, and if the violation involves the unauthorized use of a traffic signal preemption device, the person may also be required to complete community service.

b. For purposes of this subsection, "traffic signal preemption device" means a device that, when activated, is capable of changing an official traffic control signal to green out of sequence.

[C39, § 5019.09; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 321.260]

90 Acts, ch 1064, §1; 91 Acts, ch 131, §1; 99 Acts, ch 153, §3, 4; 2005 Acts, ch 63, §1

321.285 Speed Restrictions

Any person driving a motor vehicle on a highway shall drive the same at a careful and prudent speed not greater than nor less than is reasonable and proper, having due regard to the traffic, surface, and width of the highway and of any other conditions then existing, and no person shall drive any vehicle upon a highway at a speed greater than will permit the person to bring it to a stop within the assured clear distance ahead, such driver having the right to assume, however, that all persons using said highway will observe the law.

The following shall be the lawful speed except as provided by this section, or except as posted pursuant to sections 262.68, 321.236, subsection 5, section 321.288, subsection 6, sections 321.289, 321.290, 321.293, 321.295, and 461A.36, and any speed in excess thereof shall be unlawful:

1. Twenty miles per hour in any business district.
2. Twenty-five miles per hour in any residence or school district.
3. Forty-five miles per hour in any suburban district. Each school district as defined in subsection 70 of section 321.1 shall be marked by distinctive signs as provided by the current manual of uniform traffic control devices adopted by the department and placed on the highway at the limits of such school district.
4. Notwithstanding any other speed restrictions, the speed limit for all vehicular traffic shall be fifty-five miles per hour.
5. Reasonable and proper, but not greater than fifty-five miles per hour at any time between sunrise and sunset, and not greater than fifty miles per hour at any time between sunset and sunrise, on secondary roads unless such roads are surfaced with concrete or asphalt or a combination of both, in which case the speed limits shall be the same as provided in subsection 4 of this section. When the board of supervisors of any county shall determine upon the basis of an engineering and traffic investigation that the speed limit on any secondary road is greater than is reasonable and proper under the conditions found to exist at any intersection or other place or upon any part of a secondary road, the board shall determine and declare a reasonable and proper speed limit at the intersection or other part of the secondary road. The speed limits as determined by the board of supervisors shall be effective when appropriate signs giving notice of the speed limits are erected by the board of supervisors at the intersection or other place or part of the highway.
6. a. Notwithstanding any other speed restrictions, the speed limit for all vehicular traffic on fully controlled-access, divided, multilaned highways is sixty-five miles per hour. However, the speed limit for all vehicular traffic on highways that are part of the interstate road system, as defined in section 306.3, is seventy miles per hour. The department may establish a speed limit of sixty-five miles per hour on certain divided, multilaned highways not otherwise described in this paragraph.
 - b. The department, on its own motion or in response to a recommendation of a metropolitan or regional planning commission or council of governments, may establish a lower speed limit on a highway described in this subsection.
 - c. For the purposes of this subsection, "fully controlled-access highway" means a highway that gives preference to through traffic by providing access connections with selected public roads only and by prohibiting crossings at grade or direct private driveway connections.
 - d. A minimum speed may be established by the department on the highways referred to in this subsection if warranted by engineering and traffic investigations.
 - e. Any kind of vehicle, implement, or conveyance incapable of attaining and maintaining a speed of forty miles per hour shall be prohibited from using the interstate road system.

[S13, § 1571-m19, -m20; C24, 27, 31, 35, § 5029, 5030; C39, § 5023.01; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 321.285]

87 Acts, ch 120, §2; 93 Acts, ch 47, § 3--7; 94 Acts, ch 1173, §15; 96 Acts, ch 1126, § 5; 96

Acts, ch 1191, § 1; 2005 Acts, ch 165, §1

Referred to in § 321.233, 321.236, 321.291, 321.292, 321.293, 331.362, 805.8A(5a, 10)

Speed limits at regents institutions, see § 262.68 For applicable scheduled fines, see §805.8A, subsections 5 and 10

321.288 Control of Vehicle—Reduced Speed

A person operating a motor vehicle shall have the vehicle under control at all times and shall reduce the speed to a reasonable and proper rate:

1. When approaching and passing a person walking in the traveled portion of the public highway.
2. When approaching and passing an animal which is being led, ridden, or driven upon a public highway.
3. When approaching and traversing a crossing or intersection of public highways, or a bridge, sharp turn, curve, or steep descent, in a public highway.
4. When approaching and passing an emergency warning device displayed in accordance with rules adopted under section 321.449, or an emergency vehicle displaying a revolving or flashing light.
5. When approaching and passing a slow moving vehicle displaying a reflective device or alternative reflective device as provided by section 321.383.
6. When approaching and passing through a sign-posted road work zone upon the public highway.

[S13, § 1571-m18; C24, 27, 31, 35, § 5031; C39, § 5023.04; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 321.288]

85 Acts, ch 167, §2; 87 Acts, ch 170, §7; 89 Acts, ch 296, §33; 97 Acts, ch 104, §20; 99 Acts, ch 102, §1

Referred to in § 321.285, 805.8A(6c)

For applicable scheduled fine, see §805.8A, subsection 6, paragraph c

668.10 Governmental Exemptions

In any action brought pursuant to this chapter, the state or a municipality shall not be assigned a percentage of fault for any of the following:

1. The failure to place, erect, or install a stop sign, traffic control device, or other regulatory sign as defined in the uniform manual for traffic control devices adopted pursuant to section 321.252. However, once a regulatory device has been placed, created or installed, the state or municipality may be assigned a percentage of fault for its failure to maintain the device.
2. The failure to remove natural or unnatural accumulations of snow or ice, or to place sand, salt, or other abrasive material on a highway, road, or street if the state or

- municipality establishes that it has complied with its policy or level of service for snow and ice removal or placing sand, salt or other abrasive material on its highways, roads, or streets.
3. For contribution unless the party claiming contribution has given the state or municipality notice of the claim pursuant to sections 669.13 and 670.5.84 Acts, ch 1293, § 10

670.4 Claims Exempted

The liability imposed by section 670.2 shall have no application to any claim enumerated in this section. As to any such claim, a municipality shall be liable only to the extent liability may be imposed by the express statute dealing with such claims and, in the absence of such express statute, the municipality shall be immune from liability.

1. Any claim by an employee of the municipality which is covered by the Iowa workers' compensation law.
2. Any claim in connection with the assessment or collection of taxes.
3. Any claim based upon an act or omission of an officer or employee of the municipality, exercising due care, in the execution of a statute, ordinance, or regulation whether the statute, ordinance or regulation is valid, or based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of the municipality or an officer or employee of the municipality, whether or not the discretion is abused.
4. Any claim against a municipality as to which the municipality is immune from liability by the provisions of any other statute or where the action based upon such claim has been barred or abated by operation of statute or rule of civil procedure.
5. Any claim for punitive damages.
6. Any claim for damages caused by a municipality's failure to discover a latent defect in the course of an inspection.
7. Any claim based upon or arising out of a claim of negligent design or specification, negligent adoption of design or specification, or negligent construction or reconstruction of a highway, secondary road, or street as defined in section 321.1, subsection 78, that was constructed or reconstructed in accordance with a generally recognized engineering or safety standard, criteria, or design theory in existence at the time of the construction or reconstruction. A claim under this chapter shall not be allowed for failure to upgrade, improve, or alter any aspect of an existing highway, secondary road, or street, to new, changed, or altered design standards. In respect to highways and roads, sealcoating, asphaltting, patching, resurfacing, ditching, draining, repairing, graveling, rocking, blading, or maintaining an existing highway or road does not constitute reconstruction. This subsection shall not apply to claims based upon gross negligence.
8. Any claim based upon or arising out of a claim of negligent design or specification, negligent adoption of design or specification, or negligent construction or reconstruction of a public improvement as defined in section 384.37, subsection 19, or other public facility that was constructed or reconstructed in accordance with a generally recognized engineering or safety standard, criteria, or design theory in existence at the time of the construction or reconstruction. A claim under this chapter

shall not be allowed for failure to upgrade, improve, or alter any aspect of an existing public improvement or other public facility to new, changed, or altered design standards. This subsection shall not apply to claims based upon gross negligence.

This subsection takes effect July 1, 1984, and applies to all cases tried or retried on or after July 1, 1984.

9. Any claim based upon an act or omission by an officer or employee of the municipality or the municipality's governing body, in the granting, suspension, or revocation of a license or permit, where the damage was caused by the person to whom the license or permit was issued, unless the act of the officer or employee constitutes actual malice or a criminal offense.
10. Any claim based upon an act or omission of an officer or employee of the municipality, whether by issuance of permit, inspection, investigation, or otherwise, and whether the statute, ordinance, or regulation is valid, if the damage was caused by a third party, event, or property not under the supervision or control of the municipality, unless the act or omission of the officer or employee constitutes actual malice or a criminal offense.
11. A claim based upon or arising out of an act or omission in connection with an emergency response including but not limited to acts or omissions in connection with emergency response communications services.
12. A claim relating to a swimming pool or spa as defined in section 135I.1 which has been inspected by a municipality or the state in accordance with chapter 135I, or a swimming pool or spa inspection program which has been certified by the state in accordance with that chapter, whether or not owned or operated by a municipality, unless the claim is based upon an act or omission of an officer or employee of the municipality and the act or omission constitutes actual malice or a criminal offense.
13. A claim based on an act or omission by a county or city pursuant to section 717.2A or chapter 717B relating to either of the following:
 - a. Rescuing neglected livestock or another animal by a law enforcement officer.
 - b. Maintaining or disposing of neglected livestock or another animal by a county or city.
14. Any claim based upon or arising out of a claim of negligent design or specification, negligent adoption of design or specification, or negligent construction or reconstruction of a public facility designed for purposes of skateboarding, in-line skating, bicycling, unicycling, scootering, river rafting, canoeing, or kayaking that was constructed or reconstructed, reasonably and in good faith, in accordance with generally recognized engineering or safety standards or design theories in existence at the time of the construction or reconstruction.
15. Any claim based upon or arising out of an act or omission of an officer or employee of the municipality or the municipality's governing body by a person skateboarding, in-line skating, bicycling, unicycling, scootering, river rafting, canoeing, or kayaking on public property when the person knew or reasonably should have known that the skateboarding, in-line skating, bicycling, unicycling, scootering, river rafting, canoeing, or kayaking created a substantial risk of injury to the person and was voluntarily in the place of risk. The exemption from liability contained in this subsection shall only apply to claims for injuries or damage resulting from the risks inherent in the activities of skateboarding, in-line skating, bicycling, unicycling, scootering, river rafting, canoeing, or kayaking.

The remedy against the municipality provided by section 670.2 shall hereafter be exclusive of any other civil action or proceeding by reason of the same subject matter against the officer, employee or agent whose act or omission gave rise to the claim, or the officer's, employee's, or agent's estate.

This section does not expand any existing cause of action or create any new cause of action against a municipality.

[C71, 73, 75, 77, 79, 81, § 613A.4; 82 Acts, ch 1018, § 4, 5]

83 Acts, ch 198, § 24--27, 29; 86 Acts, ch 1211, § 33; 88 Acts, ch 1177, §9, 10; 89 Acts, ch 291, §8 C93, § 670.4 94 Acts, ch 1103, §6; 98 Acts, ch 1159, § 1; 2003 Acts, ch 162, §2

Referred to in § 670.7, 670.12

Execution of chapter 89B exempt; see § 89B.6

Legislative intent that subsection 7 not apply to areas of litigation other than highway or road construction or reconstruction; applicability of rule of exclusion; see 83 Acts, ch 198, § 27

716.1 Criminal Mischief Defined

Any damage, defacing, alteration, or destruction of property is criminal mischief when done intentionally by one who has no right to so act.

[C51, § 2679, 2681--2683, 2686--2688, 2690, 2715, 2753; R60, § 1766, 4319, 4321--4323, 4326--4328, 4330--4332, 4357, 4403; C73, § 1564, 3897--3899, 3978, 3980--3982, 3985--3987, 3989--3992, 4021, 4082; C97, § 588, 2466, 4800--4806, 4808, 4809, 4812, 4822--4828, 5054; S13, § 1989-a15, 4808, 4822, 4823, 4830-a, -b, -c; SS15, § 2900-e; C24, 27, 31, 35, 39, § 13080, 13082, 13083, 13085, 13088--13091, 13093--13099, 13102, 13107, 13112--13117, 13122, 13124; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, § 714.1, 714.3--714.5, 714.8--714.11, 714.14--714.20, 714.23, 714.28, 716.1--716.6, 716.9, 716.12; C79, 81, § 716.1]

2002 Acts, ch 1049, §1

Referred to in § 717A.3

716.5 Criminal Mischief in the Third Degree

Criminal mischief is criminal mischief in the third degree if the cost of replacing, repairing, or restoring the property so damaged, defaced, altered, or destroyed exceeds five hundred dollars, but does not exceed one thousand dollars, or if the property is a deed, will, commercial paper or any civil or criminal process or other instrument having legal effect, or if the act consists of rendering substantially less effective than before any light, signal, obstruction, barricade, or

guard which has been placed or erected for the purpose of enclosing any unsafe or dangerous place or of alerting persons to an unsafe or dangerous condition. Criminal mischief in the third degree is an aggravated misdemeanor.

A person commits criminal mischief in the third degree who does either of the following:

1. Intentionally disinters human remains from a burial site without lawful authority.
2. Intentionally disinters human remains that have state and national significance from an historical or scientific standpoint for the inspiration and benefit of the United States without the permission of the state archaeologist.

[C51, § 2638, 2714, 2746; R60, § 4265, 4356, 4396; C73, § 3929, 4017, 4075; C97, § 4865, 4945, 5043; C24, 27, 31, 35, 39, § 13050, 13100, 13148; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, § 713.5, 714.21, 718.10; C79, 81, § 716.5]

83 Acts, ch 99, § 1; 92 Acts, ch 1060, § 10

Referred to in § 716.6A, 717A.3

718.4 Harassment of Public Officers and Employees

Any person who willfully prevents or attempts to prevent any public officer or employee from performing the officer's or employee's duty commits a simple misdemeanor.

[C79, 81, § 718.4]

APPENDIX F. TEMPORARY TRAFFIC CONTROL AND LAW ENFORCEMENT IN CLOSED ROAD SECTIONS: FOCUS GROUP INTERVIEW QUESTIONS

- 1) In your opinion, do you think traffic enforcement in temporary road closures for construction is sufficient?
- 2) Do you have concerns about liability exposure within temporary closed road sections during construction?
- 3) How do you communicate expectations for traffic control and risk mitigation to contractors, traffic enforcement agencies, local residents and businesses, and emergency service personnel during temporary road closures due to construction?
- 4) In your opinion, are the Iowa Code, Iowa DOT specifications (1107.08, 1107.09, 2518, 2528), and the MUTCD clear and effective in maintaining the safety of the public, workers, and property in temporary closed road sections?

Interview Session with County Engineers and Staff

Focus Group Interview Report
December 5, 2006 - Scheman Building

An approximate 90 minute interview was conducted on this date in advance of the annual County Engineers Conference. Kelly Strong and Tom McDonald conducted the question and answer session.

Participating were:

Brian Keierleber - Buchanan County Engineer
Christy Van Buskirk - Keokuk County Engineer
Mark Nahra - Delaware County Engineer
Jon Ites - Buena Vista County Engineer
Jerry Nusbaum - Mahaska County Engineer
Dennis Clarke - Black Hawk County Assistant
Brad Ketels - Linn County Assistant
Jon Singelstad - Monona County Engineer
Steve Thomassen - Assistant Marshall County Engineer
Brenda Boell - Office of Local Systems, Iowa DOT

Dennis Clarke indicated that there is sometimes a problem with credibility of road closed signing with drivers, at least initially. He also stated that Black Hawk deputies issue citations for violators. They used to refer to Road Standard 26A for TTC, but it is no longer approved by the Iowa DOT.

Flaggers are an effective means of keeping traffic away from paving crews, and some projects (such as full width resurfacing and rubblizing) allow for full closure. Night guards and extra patrols would be needed for adequate enforcement, but there are not enough resources for this.

Linn County deputies also issue citations for unauthorized entry.

However, there are insufficient deputies to watch all construction areas, other priorities demand

attention. Can use DOT weight enforcement officers occasionally. Black Hawk County invites DOT officers to pre-construction conferences.

Most counties indicated they invite the local sheriff to pre-construction conference, but many do not respond.

Marshall County places asphalt overlays full width but does not sign for the resultant drop-off along the pavement edge.

Marshall County has had problems with railroad company closures of local roads for crossing maintenance using inadequate closure signing and barricades.

Delaware County has experienced problems keeping vehicles out of closed road sections and suggested the use of Bridge Out signs when appropriate.

Several counties indicated problems with people removing barricades and fencing, entering the closed area, and not replacing the closure devices. Liability concerns were raised for subsequent entry if injury occurred.

Delaware County has used guards at the ends of new portland cement concrete pavement sections until cure time is completed, paid with local funding. This has proven effective at eliminating entry by unauthorized vehicles.

Local law enforcement is sometimes put in the difficult situation of trying to identify and determine which travelers are “local.”

Some counties opined that use of the FHWA “safety edge” could result in problems with maintenance of the granular shoulder in preventing future edge drop-off. Nothing in a manual of good practice on edge filler for new paving. Drop-offs can expose agency to liability. Bevels can help, but could be prone to edge rutting later.

Liability concerns and experience include:

- edge drop-off
- sign vandalism, stealing warning lights
- fence and barricade removal and/vandalism
- damage to work in place

Some participants advocate higher fines and penalties for sign theft, removal or damage. This creates a major liability and it can be hard to prove the signs were stolen or removed by third parties. Railroads don't have very good signage systems for closures. Signs removed or stolen on weekends present a special problem because they can go undetected for 1-3 days.

Most of the participating counties indicated they meet with and/or advise local residents and businesses of upcoming road closures using letters, news media, local radio, etc. These contacts are sometimes facilitated through right of way negotiations. Mail routes, emergency access, and school transportation are all coordinated. If ROW issues are involved, the process is much more formal. Communication with large agri-businesses that are affected is virtually constant.

The County Engineer Service Bureau has a good check list reference for road closures. They may even provide notice to some affected parties and can help with re-routing for emergency call centers

Pedestrian and bicyclist safety can be compromised on closed road sections, and signage doesn't always have the desired impact for them.

It was recommended that inappropriate signing be covered or removed, and that road closed signs be covered until actual closing date. Credible signing must be used at all times or public will learn to ignore the warnings. Traffic control logs are "worthless" and should be scrapped, or at least contractor should not be allowed to subcontract this work along with signage.

It was noted that response by contractors to vandalism or other signing/barricade damage is not always satisfactory and some counties are concerned with their resultant liability after notice has been given. It was suggested that stronger penalties in the specifications are needed.

Perhaps minimum response times for sign repair by contractors needs to be included in the specifications with penalties attached for delays. Some counties (Marshall) re-set the traffic control devices for short term until a contractor representative arrives.

Would video surveillance be effective at work sites? Some skepticism was offered due to possibility of vandalism to cameras and problems with secure installation.

The Iowa Code currently includes significant penalties for traffic control device theft and vandalism, but some local magistrates and judges are often reluctant to impose.

Damage to equipment and unfinished work from unauthorized entry is not uncommon in the counties. Assessing the "loss of useful life" to new pavement can be problematic.

An education and outreach program delivered to the schools may be effective in informing young people about the risks and penalties for sign theft and damage; however, some feel this activity may not be worthwhile in reducing potential loss or liability exposure. It may be more effective to provide support and information materials/data to driver education instructors.