

~~DEPARTMENT OF LABOR AND ECONOMIC GROWTH~~
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION SAFETY STANDARDS

Filed with the Secretary of State on April 29, 2013

These rules become effective immediately upon filing with the Secretary of State
unless adopted under sections 33, 44, or 45a(6) of 1969 PA 306.

Rules adopted under these sections become effective 7 days after filing with the Secretary of State.

(By authority conferred on the director of the department of ~~labor and economic growth~~ **licensing and regulatory affairs** by sections 19 and 21 of 1974 PA 154, **MCL 408.1019 and 408.1021**; and Executive Reorganization Order Nos. 1996-2, ~~2003-18~~ **2003-1**, 2008-4, and 2011-4, MCL ~~408.1019, 408.1021, 445.2001, 445.2011, 445.2025, and 445.2030~~)

R 408.42209, R 408.42213, R 408.42223, R 408.42225, and R 408.42238 of the Michigan Administrative Code are amended as follows:

PART 22. SIGNALS, SIGNS, TAGS, AND BARRICADES

R 408.42209 ~~Availability of documents.~~ **Adopted and referenced standards.**

Rule 2209. (1) **American National Standards Institute (ANSI) International Safety Equipment Association (ISEA) standard 107 "High-Visibility Safety Apparel and Headwear," 2004 edition**, is adopted by reference in these rules. This standard is available from Techstreet, 3916 Ranchero Drive, Ann Arbor, Michigan, 48108, USA, telephone number: 1-800-699-9277 or via the internet at website: www.techstreet.com; at a cost as of the time of adoption of these rules of \$36.00.

(2) The "Manual on Uniform Traffic Control Devices, Part 6: Temporary Traffic Control," 2011 Michigan/2009 Federal Edition is adopted by reference in these rules and is available at no cost from the Michigan Department of Transportation via the Internet at website: www.michigan.gov/mdot. The entire 2011 Michigan Manual on Uniform Traffic Control Devices (MMUTCD) may be purchased from the Michigan Department of Transportation, Cashiers Office, P.O. Box 30648, Lansing, Michigan 48909-8148; (517) 322-1676; at a cost of \$145.00 as of the time of adoption of these rules.

(3) The standards adopted in subrules (1) and (2) of this rule are also available for inspection at the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(4) Copies of the standards adopted in subrules (1) and (2) of this rule may be obtained from the publisher or may also be obtained from the Department of Licensing and Regulatory Affairs, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost stated in subrules (1) and (2) of this rule, plus \$20 for shipping and handling.

~~(4)~~ (5) The following Michigan occupational safety and health standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of ~~Labor and Economic Growth~~ **Licensing and Regulatory Affairs**, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at website: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, as of the time of adoption of these rules, is 4 cents per page.

(a) Construction Safety Standard Part 1 "General Rules," R 408.40101 to R 408.40134.

~~(a)~~ (b) Construction Safety Standard Part 6 "Personal Protective Equipment," R 408.40601 to R 408.40641 ~~et seq.~~

~~(b)~~ (c) Construction Safety Standard Part 10 "Lifting and Digging Equipment," R 408.41001a to R 408.41099a ~~et seq.~~

~~(c)~~ (d) Construction Safety Standard Part 13 "Mobile Equipment," R 408.41301 ~~et seq.~~

~~(d)~~ (e) Construction Safety Standard Part 27 "Blasting and Use of Explosives," R 408.42701 to R 408.42799 ~~et seq.~~

~~(e)~~ (f) Construction Safety Standard Part 30 "Telecommunications," R 408.43001 to R 408.43006 ~~et seq.~~

~~(f)~~ (g) Construction Safety Standard Part 45 "Fall Protection," R 408.44501 and R 408.44502 ~~et seq.~~

~~(2) Part 6: Temporary Traffic Control of the Manual on Uniform Traffic Control Devices for Streets and Highways, 2005 Michigan MUTCD/2003 Federal Edition, hereafter referred to as the 2005 MMUTCD, is adopted by reference in these rules and is available at no cost from the Michigan Department of Transportation via the internet at website: www.michigan.gov/mdot. The entire 2005 MMUTCD may be purchased from Michigan Technical University, Local Technical Assistance Program, Room 309 Dillman Building, 1400 Townsend Drive, Houghton, Michigan, 49931; (906) 487-2102; at a cost of \$135 at the time of publication of these rules.~~

R 408.42213 Definitions; E to T.

Rule 2213. (1) "Exit sign" means a sign used to designate a point of discharge from a room or building.

(2) "Handhold" means an affixed device or designated place where a person riding on a moving vehicle or on equipment to perform work can stabilize his or her position by gripping with his or her free hand or hands.

(3) "Out of order tag" means a tag used to indicate a machine is malfunctioning.

(4) "Safety instruction sign" means a sign used for general instruction or suggestion relative to safety.

(5) "Sign" means a board, sheet, poster, or placard displayed to convey information or direction either temporarily or permanently.

(6) "Signal" means a specific use of hands or a visual or audible device, such as a flashing light or horn, to warn of a possible or existing hazard.

(7) "Tag" means a piece of material, usually paper, metal, or plastic, attached to a piece of equipment or structure for the purpose of identification, instruction, or classification.

(8) "Traffic control devices" means all signs, signals, markings, and devices placed or erected for the purpose of regulating, warning, and guiding vehicular traffic and for providing employee protection in a work zone.

(9) "Traffic regulator" means a person who has been trained, properly attired, and equipped to regulate traffic flow to provide employee protection in a work zone.

(10) "Work zone" means a portion of a street or highway that meets any of the following:

(a) Is between a "work zone begins" sign and an "end road work" sign.

(b) For construction, maintenance, or utility work activities conducted by a work crew and more than 1 moving vehicle, is between a "begin work convoy" sign and an "end work convoy" sign.

(c) For construction, maintenance, surveying, or utility work activities conducted by a work crew and 1 moving or stationary vehicle exhibiting a rotating beacon or strobe light, is between either of the following points:

(i) A point that is 150 feet behind the rear of the vehicle or that is the point from which the beacon or strobe light is first visible on the street or highway behind the vehicle, whichever is closer to the vehicle.

(ii) A point that is 150 feet in front of the front of the vehicle or that is the point from which the beacon or strobe light is first visible on the street or highway in front of the vehicle, whichever is closer to the vehicle.

R 408.42223 Traffic control.

Rule 2223. (1) Traffic control devices shall be installed and maintained as prescribed in Part 6 of the ~~2005~~ **2011** MMUTCD, which is adopted by reference in R 408.42209.

(2) An employer shall ensure that all operations have routine inspections of traffic control elements for acceptable levels of operation. When traffic exposures are such that signs, signals, or barricades do not provide the necessary protection on, or adjacent to, a highway or street, traffic regulators or other appropriate traffic controls shall be provided. Modification of traffic controls, such as additional signs or devices, or a change in work operations, shall be determined by a qualified person who is responsible for the project traffic control.

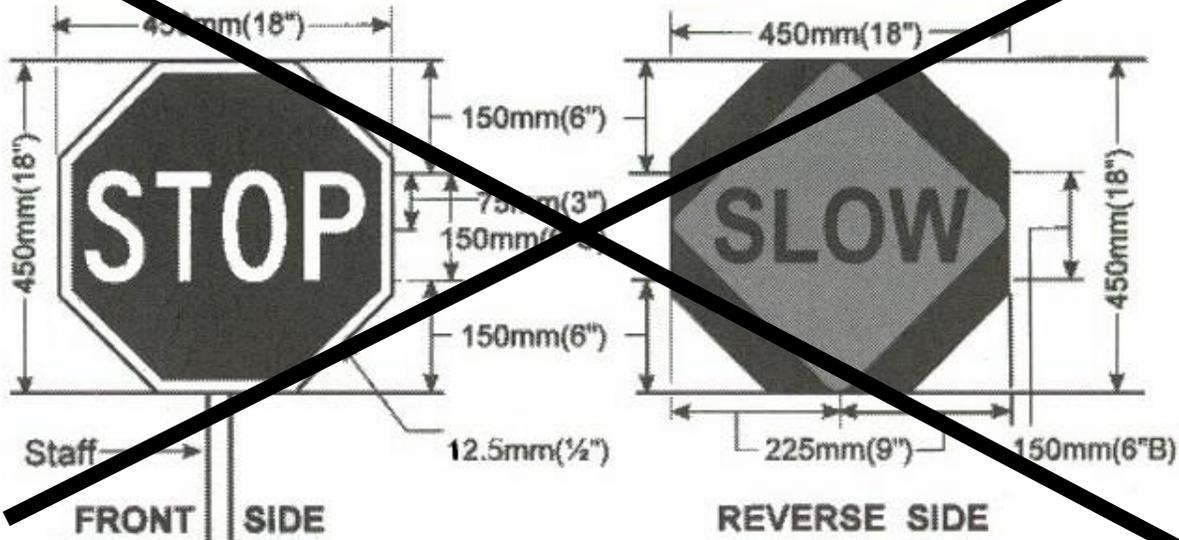
(3) Signaling directions by traffic regulators shall conform to the provisions of Part 6 of the ~~2005~~ **2011** MMUTCD, which is adopted by reference in R 408.42209.

(4) A hand-held paddle sign shall have 2 faces and it shall be attached to a staff of suitable design that will allow the entire unit to be held and controlled by 1 traffic regulator. The bottom of the sign shall be a minimum of 6 feet (~~1.8 meters~~) above the roadway surface. The sign shall be fastened to the staff so that no part of the legend is obscured. The portion of the staff within the sign face shall match the sign colors. The sign shall not be less than 18 by 18 inches (~~450 millimeters x 450 millimeters~~) and the letters shall have a minimum height of 6 inches (~~150 millimeters~~). All letters and spacing between letters shall be as prescribed in Part 6 of the ~~2005~~ **2011** MMUTCD, which is adopted by reference in R 408.42209. The legend shall be optically centered horizontally on the sign. One side of the sign shall display a "STOP" face and the other side shall display the message "SLOW," except that if it is necessary for 1 traffic regulator to stop 2 directions of traffic at the same time, then a "STOP" face shall be used on each side of the sign. The "STOP" face shall have a red background with white letters and border. The "SLOW" face shall have an orange background with black letters and border. The shape of the sign shall be octagonal and the portions of the sign other than the diamond-shaped "SLOW" face shall be black. When the sign paddle is used during hours of darkness, the red and white of the "STOP" face and the orange of the "SLOW" face shall be reflectorized. Sheet metal or other light semi-rigid material may be used for mounting the "STOP" and "SLOW" faces.

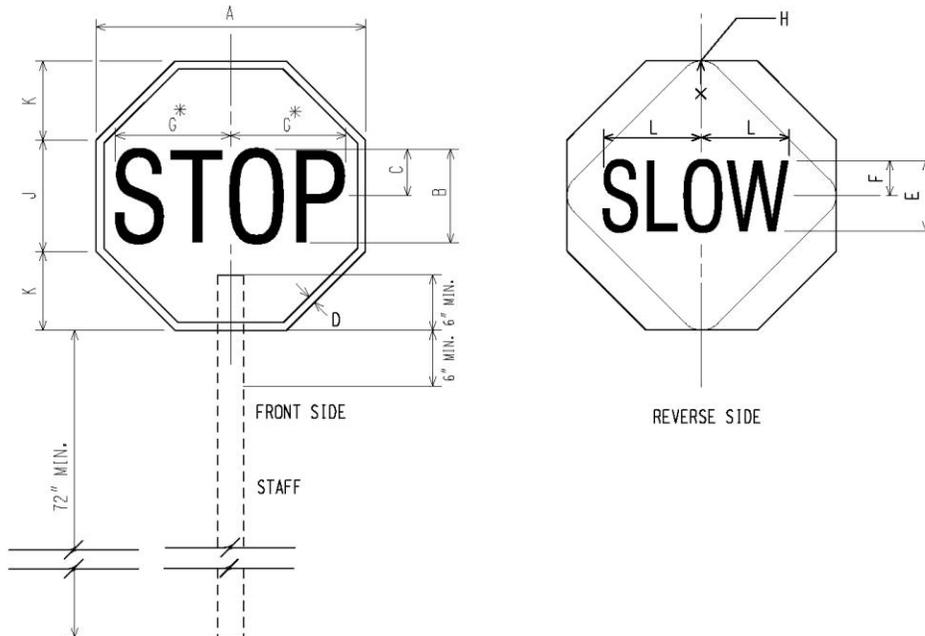
(5) If signaling by a traffic regulator is necessary on construction operations that are not within a public right-of-way, then a hand-held paddle sign as specified in subrule (4) of this rule shall be used.

(6) The paddle sign shall be as follows:

Detail of Paddle Sign



*NOTE: The dimensions shown for the sign are minimum. Proportionately larger paddle signs may be used.



R1-1a

*SPACING REDUCED 40%

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MINIMUM	18	6 C	3	.5	6 B	3	7.75	1.5	7.5	5.25	6.25
SPECIAL	24	8 C	4	.62	8 B	3.5	10	1.5	9.87	7.06	8.25

Note: "Special" sign dimensions are recommended for single traffic regulator operations.

(7) In periods of darkness, appropriate lighting shall be used to illuminate the traffic regulator and the traffic regulator station. The lighting shall be as is required in Part 6 of the MMUTCD, which is adopted by reference in R 408.42209 Construction Safety Standard Part 1 General Rules, R 408.40133, as referenced in R 408.42209. Appropriate lighting means lighting that illuminates the traffic regulator so that he or she is visible to oncoming traffic and does not impair either the traffic regulator's or motorists' visibility due to blinding or shadowing.

(8) An employer shall provide, and a traffic regulator shall wear, a vest, a shirt, or a jacket that is fluorescent orange, yellow, strong yellow-green, or a combination of these colors and shall contain retro reflective material that is orange, yellow, white, silver, or strong yellow-green. A traffic regulator's vest, shirt, or jacket shall be clearly visible at 360 degrees

through the full range of body motion day and night. **An employer shall provide, and a traffic regulator shall wear, high-visibility safety apparel that meets the Performance Class 2 or 3 requirements of the ANSI/ISEA 107, "High-Visibility Safety Apparel and Headwear," 2004 edition, (see Section 1A.11), which is adopted by reference in R 408.42209, or equivalent revisions, and labeled as meeting the ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. See Appendix.**

(9) An employer shall require that the garment is inspected before each use for all of the following:

- (a) Wear.
- (b) Damage.
- (c) Fading.
- (d) Reflectivity.
- (e) Other deterioration.

Defective garments shall be reported to the employer and the employer shall either repair or replace the garment.

(10) A traffic regulator shall also wear head, eye, and foot protection as prescribed in Construction Safety Standard Part 6 Personal Protective Equipment, **as referenced in R 408.42209.** ~~R 408.40601 et seq.~~

~~—(11) If vehicular traffic violates traffic laws and creates a hazard to employees performing construction operations, then an employer shall notify the appropriate law enforcement agencies of the unit of government exercising authority over the roadway for the enforcement of applicable speed limits and other traffic laws.~~

R 408.42225 Placement, removal, relocation, and use of traffic control devices from a moving vehicle; handholds.

Rule 2225. ~~Construction and maintenance operations from a moving vehicle.~~ (1) Construction and maintenance operations that require placement, relocation, or removal of pavement markings, or traffic control devices such as drums, barricades, cones, or signs, shall provide protection to an employee by any of the following methods:

(a) Use of a seat and a seatbelt **that shall be worn.**

(b) A standard guardrail system as prescribed in Construction Safety Standard Part 45 Fall Protection, R 408.44501, **as referenced in R 408.42209**, which adopts C.F.R. §1926.502 et seq. by reference.

(c) A guardrail as described in subdivision (b) of this subrule may be modified **by removing a section of the guardrail at the point of operation to facilitate the handling of traffic control devices, such as barrels, cones, or pavement markers. A hand hold shall be provided.** ~~as follows for the following operations as specified in paragraphs (i) and (ii) of this subdivision. These rules apply~~ **This rule shall apply** only to the placement, removal, relocation, and use of traffic control devices from a moving vehicle **within the work zone.**, and do not apply to the transportation of an employee or employees outside of the construction influence area (CIA) or from point to point within the CIA. Transportation of an employee or employees outside of the CIA or from point to point within the CIA shall be as required in C.F.R. §1926.601(b)(8) and (b)(9), which is adopted by reference in Construction Safety Standard Part 13 Mobile Equipment, R 408.41301 et seq.

~~—(i) For continuous moving operations, the top rail of a guardrail may be removed at the point of operation when a handhold is provided and is used and only during continuous moving operations for the placement, removal, or relocation of traffic control devices, such as cones, tubular devices, or pavement markings.~~

~~—(ii) For intermittent stopping operations, a section of guardrail may be removed at the point of operation when a handhold is provided and is used when intermittent stopping of the vehicle is required for the placement, removal, or relocation of traffic control devices, such as drums, signs, or pavement markings. The handhold shall be used by employees at all times when the vehicle is in motion and it shall be located so that the employee is positioned a minimum of 48 inches (1.2 meters) in distance from the area from the railing that has been removed.~~

(d) When placing or removing traffic control devices from a lower work platform, any combination of top rails, mid rails, side rails, seats, toe boards, or other combination of equivalent safeguards provided to the employee shall be used. A handhold shall be provided.

(e) Use of a positioning fall protection system that prevents the employee from falling from the vehicle. A handhold shall be provided.

~~(d)~~ **(f)** Use of other means that will provide equivalent fall protection for an employee may be used. Such a system shall be performance oriented and shall be designed so that it does not create a greater hazard to the employee.

(2) A handhold shall be oriented and a size to promote gripping by wrapping fingers around not less than 270 degrees (3 sides) of the device or place designated. The handhold shall be capable of withstanding not less than 200 pounds of force in any direction and be free from rough edges, slippery surfaces, or hazardous projections. The handhold shall be in place and identified as such before employees are permitted to perform their assigned tasks while riding on moving vehicles.

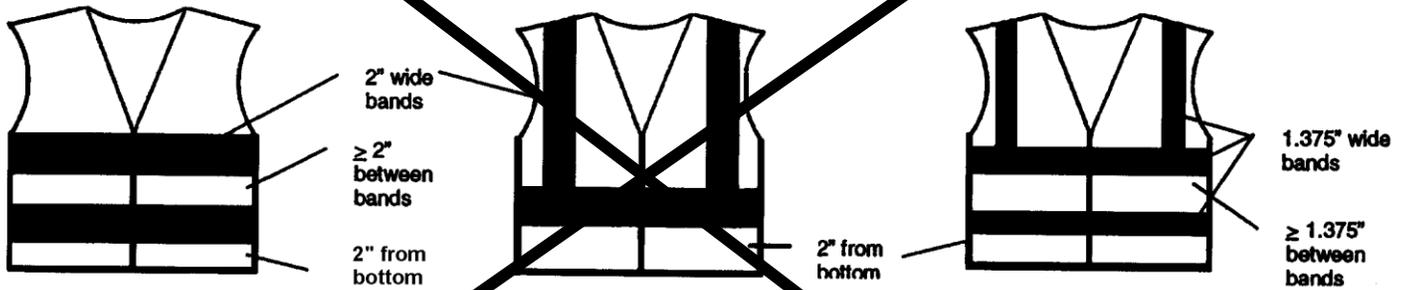
R 408.42238 Signs for blasting and use of explosives.

Rule 2238. Where blasting and the use of explosives takes place, signs shall be as prescribed in Construction Safety Standard Part 27 Blasting and Use of Explosives, **as referenced in R 408.42209.** ~~R 408.42701 et seq.~~

APPENDIX

Retroreflective Placement for Vests (Class 1 or Class 2)

1. Shall provide 360° visibility (ex. encircle the torso).
2. Horizontal bands must be placed at least 2 inches from the bottom edge of the garment.
3. Multiple horizontal or vertical bands must be separated by a distance at least equal to the width of the band.
4. Horizontal gaps in retroreflective and background materials shall be ≤ 2 inches.



Examples of Class 2 Vests

Retroreflective Placement for Jackets (Class 1, Class 2, or Class 3)

Same as vest placement (1-4) plus . . .

5. Sleeve placement (optional) - Horizontal bands:
 - Lower band shall be at least 2 inches from the bottom of the sleeve.
 - Upper band placed between elbow and shoulder at the same height as torso band.