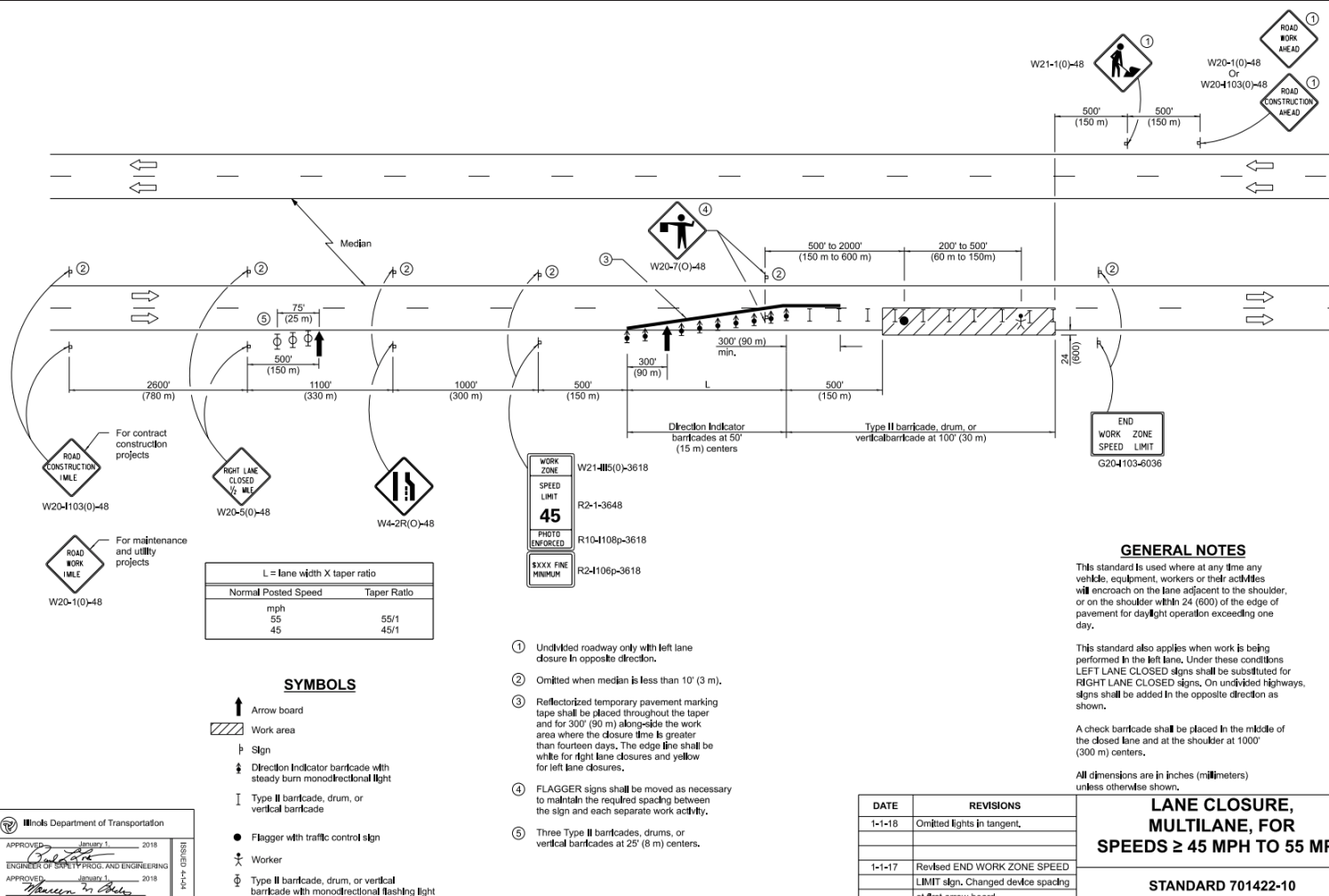


January 1, 2026



Please Note:

This booklet is based on the Illinois Department of Transportation's Highway Standards and Standard Specifications for Road and Bridge Construction, adopted January 1, 2022. Refer to your contract documents for the appropriate provisions that are in effect for each Specific Contract. If you have any questions or concerns, please contact the Bureau of Safety Programs and Engineering at (217) 782-3568.

FOR INFORMATIONAL USE ONLY



Illinois Department of Transportation

Additional copies of this book may be obtained from:

**State Safety Engineer
Illinois Department of Transportation
Bureau of Safety Programs and Engineering
2300 South Dirksen Parkway
Springfield, Illinois 62764
(217) 782-3568**

**Printed by the authority of the State of Illinois
February, 2026**

 **SEE ORANGE *SLOW DOWN* SAVE LIVES**

TABLE OF CONTENTS

Page

Traffic Control Deficiency Deduction	1
Public Convenience and Safety	1

<u>Standard</u>	<u>Application</u>	
701001-02	Off-Road Operations, 2L, 2W, More than 15' (4.5 m) Away	2
701006-05	Off-Road Operations, 2L, 2W, 15' (4.5 m) to 24" (600 mm) from Pavement Edge	4
701011-04	Off-Road Moving Operations, 2L, 2W, Day Only	6
701101-05	Off-Road Operations, Multilane, 15' (4.5 m) to 24" (600 mm) from Pavement Edge	8
701106-02	Off-Road Operations, Multilane, More Than 15' (4.5 m) Away	10
701201-05	Lane Closure, 2L, 2W, Day Only, for Speeds $\geq$ 45 MPH	12
701206-05	Lane Closure, 2L, 2W, Night Only, for Speeds $\geq$ 45 MPH	14
701301-04	Lane Closure, 2L, 2W, Short Time Operations	16
701306-04	Lane Closure, 2L, 2W, Slow Moving Operations Day Only, for Speeds $\geq$ 45 MPH	18
701311-03	Lane Closure, 2L, 2W, Moving Operations – Day Only	20
701316-14	Lane Closure, 2L, 2W, Bridge Repair for Speeds $>$ 45 MPH	22
701321-19	Lane Closure, 2L, 2W, Bridge Repair with Barrier	27
701326-04	Lane Closure, 2L, 2W, Pavement Widening, for Speeds $\geq$ 45 MPH	32
701331-05	Lane Closure, 2L, 2W, With Run-Around, for Speeds $\geq$ 45 MPH	34
701336-07	Lane Closure, 2L, 2W, Work Areas in Series, for Speeds $\geq$ 45 MPH	36
701400-12	Approach to Lane Closure, Freeway / Expressway	38
701401-13	Lane Closure, Freeway / Expressway	40
701402-12	Lane Closure, Freeway / Expressway, with Barrier	43
701406-13	Lane Closure, Freeway / Expressway, Day Operations Only	45
701411-09	Lane Closure, Multilane, at Entrance or Exit Ramp, for Speeds $\geq$ 45 MPH	48
701416-11	Lane Closure, Freeway / Expressway, with Crossover and Barrier	51
701421-08	Lane Closure, Multilane, Day Operations Only, for Speeds $\geq$ 45 MPH to 55 MPH	53
701422-10	Lane Closure, Multilane, for Speeds $\geq$ 45 MPH to 55 MPH	56
701423-10	Lane Closure, Multilane, with Barrier, for Speeds $\geq$ 45 MPH to 55 MPH	59
701426-09	Lane Closure, Multilane, Intermittent or Moving Operations, for Speeds $\geq$ 45 MPH	61
701427-05	Lane Closure, Multilane, Intermittent or Moving Operations, for Speeds $\leq$ 40 MPH	63
701428-01	Traffic Control Setup and Removal Freeway / Expressway	65
701431-13	Lane Closure, Multilane, Undivided with Crossover, for Speeds $\geq$ 45 MPH to 55 MPH	67
701446-11	Two Lane Closure, Freeway / Expressway	69
701451-05	Ramp Closure, Freeway / Expressway	71
701456-05	Partial Exit Ramp Closure, Freeway / Expressway	73
701501-06	Urban Lane Closure, 2L, 2W, Undivided	75
701502-09	Urban Lane Closure, 2L, 2W, Bi-Directional Left Turn Lane	77
701601-09	Urban Lane Closure, Multilane, 1W or 2W with Non Traversable Median	80
701602-10	Urban Lane Closure, Multilane, 2W with Bi-Directional Left Turn Lane	83
701606-10	Urban Single Lane Closure, Multilane, 2W with Mountable Median	88
701611-01	Urban Half Closure, Multilane, 2W with Mountable Median	90

701701-10	Urban Lane Closure, Multilane Intersection	92
701801-06	Sidewalk, Corner or Crosswalk Closure	94
701901-11	Traffic Control Devices	97
Section 702	Nighttime Work Zone Lighting	105
704001-08	Temporary Concrete Barrier	107
B.L.R. 17-4	Traffic Control Devices – Day Labor Construction	110
B.L.R. 18-6	Traffic Control Devices – Day Labor Maintenance	111
B.L.R. 21-9	Typical Application of Traffic Control Devices for Construction on Rural Local Highways	112
B.L.R. 22-7	Typical Application of Traffic Control Devices for Construction on Rural Local Highways (2-Lane 2-Way Rural Traffic) (Road Closed to Thru Traffic)	113
B.L.R. 25-1	Type 1A Barricade for Non-NHS Routes	114
720011-01	Metal Posts for Signs, Markers & Delineators	115
729001-01	Applications of Types A & B Metal Posts (For Signs & Markers)	116
780001-05	Typical Pavement Markings	117
Section 703	Short Term and Temporary Pavement Marking	120
781001-04	Typical Applications Raised Reflective Pavement Markers	123

Supplemental Specifications and Recurring Special Provisions

701	Work Zone traffic Control and Protection	125
781	Raised Reflective Pavement Markers	126
#13	Pavement and Shoulder Resurfacing	127
#18	Temporary Portable Bridge Traffic Signals	128
#19	Nighttime Inspection of Roadway Lighting	129
#26	Temporary Raised Pavement Markers	130
LRS3	Work Zone Traffic Control Surveillance	131
LRS4	Flaggers in Work Zones	131

BDE Special Provisions

Automated Flagger Assistance Device	133
Short Term and Temporary Pavement Markings	134
Speed Display Trailer	137
Temporary Concrete Barrier	138
Temporary Rumble Strips	138
Vehicle & Equipment Warning Lights	139
Work Zone Traffic Control Devices	140

Traffic Control Deficiency Deduction

Article 105.03

- (b) Traffic Control Deficiency Deduction. When the Engineer is notified, or determines a traffic control deficiency exists, he/she will notify and direct the Contractor to correct the deficiency within a specified time. The specified time, which begins upon notification to the Contractor, will be from 1/2 hour to 12 hours based upon the urgency of the situation and the nature of the deficiency. The Engineer shall be the sole judge.

A deficiency may be any lack of repair, maintenance, or non-compliance with the traffic control plan. A deficiency may also be applied to situations where corrective action is not an option such as the use of non-certified flaggers for short term operations; working with lane closures beyond the time allowed in the contract; or failure to perform required contract obligations such as traffic control surveillance.

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The daily monetary deduction will be \$2,500.00. For those deficiencies where corrective action was not an option, this monetary deduction will be immediate.

Public Convenience and Safety

Article 107.09

No broken pavement, open holes, trenches, barricades, cones, or drums will remain on or adjacent to the traveled way and all lanes shall be opened to traffic during any legal holiday period, except where major bridge construction and/or other roadway reconstruction (excluding patching and resurfacing) requiring overnight lane closures would make it impractical. The legal holidays will include:

New Year's Day
Easter
Memorial Day
Independence Day

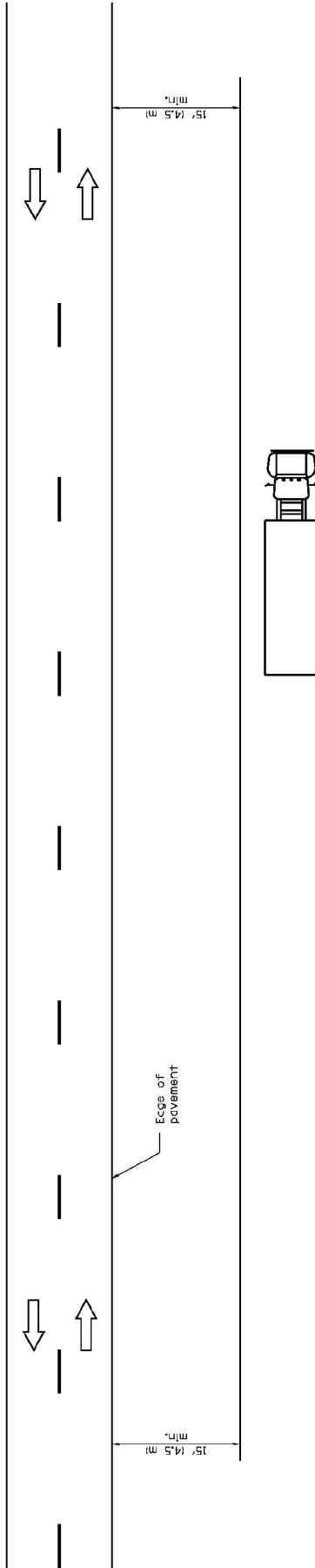
Labor Day
Thanksgiving Day
Christmas Day

The length of the holiday period shall vary as follows, depending on the day of the week the legal holiday falls on or is observed:

Day Holiday is Observed	Length of Holiday Period
Sunday	3 p.m. Friday – 11:59 p.m. Sunday
Monday	3 p.m. Friday – 11:59 p.m. Monday
Tuesday	3 p.m. Friday – 11:59 p.m. Tuesday
Wednesday	3 p.m. Tuesday – 11:59 p.m. Wednesday
Thursday	3 p.m. Wednesday – 11:59 p.m. Sunday
Friday	3 p.m. Thursday – 11:59 p.m. Sunday
Saturday	3 p.m. Thursday – 11:59 p.m. Sunday

(From Supplement Specifications.)

On weekends, excluding holidays, roadways with Average Daily Traffic of 25,000 or greater, all lanes shall be open to traffic from 3:00 PM Friday to midnight Sunday except where structure construction or major rehabilitation makes it impractical.



TYPICAL APPLICATIONS

- Landscaping work
- Utility work
- Fencing contracts and maintenance
- Cleaning culverts

GENERAL NOTES

This Standard is used where at all times all vehicles, equipment, workers or their activities are more than 15' (4.5 m) from the edge of pavement.

When the work operation requires that two or more work vehicles cross the 15' (4.5 m) clear zone in any one hour, traffic control shall be according to Standard 701006.

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
1-1-09	Switched units to English (metric).	
1-1-05	Revised title and notes.	
		STANDARD 701001-02

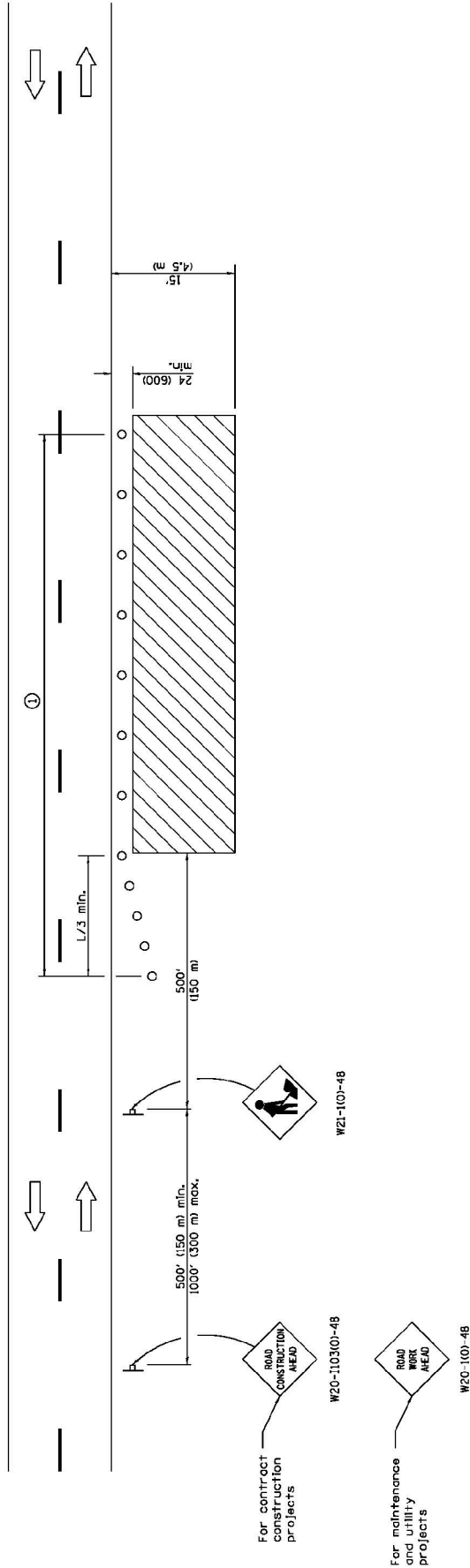
		ISSUED -1-1-97
APPROVED	JEROME J. 2009	
ENGINEER OF OPERATIONS		
APPROVED	JEROME J. 2009	
ENGINEER OF DESIGN AND ENVIRONMENT		

Standard 701001

General Information:

1. No special signing is required.
2. All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 2 garments. Other types of garments may be substituted for the vest as long as the garments have a manufacturer's tag identifying them as meeting the ANSI Class 2 requirement. [SS pg. 605 / 701.12]
3. When the work operation requires that two or more work vehicles cross the 15 ft. clear zone in any one hour, traffic control should be in conformance with STANDARD 701006. [Standard – General Notes]

FOR INFORMATIONAL USE ONLY



GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24' (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT	FORMULAS	
	English	(Metric)
40 mph (70 km/h) or less:	$L = \frac{WS^2}{60}$	$L = \frac{WS^2}{150}$
45 mph (80 km/h) or greater:	$L = (W)(S)$	$L = 0.65(W)(S)$

W = Width of offset in feet (meter).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

- When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers, for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

TYPICAL APPLICATIONS

Utility operations
 Culvert extensions
 Side slope changes
 Guardrail installation and maintenance
 Delineator installation
 Landscaping operations
 Shoulder repair
 Sign installation and maintenance

SYMBOLS

	Work area
	Sign
	Cone, drum or barricade

DATE		REVISIONS	
1-1-14		Revised worker's sign number to agree with current MJCU.	
1-1-13		Unlimited text 'WORKERS' sign.	

OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

STANDARD 701006-05

		ISSUED 1-1-97
APPROVED	JANUARY 1, 2014	
ENGINEER OF SAFETY ENGINEERING		
APPROVED	JANUARY 1, 2014	
ENGINEER OF DESIGN AND ENVIRONMENT		

Standard 701006

When the work operation requires four or more work vehicles enter through traffic lanes in a one hour period, a flagger shall be provided and a “FLAGGER” (W20-7) sign shall be substituted for the “WORKER” sign. [SS pg. 613 / 701.18(a)]

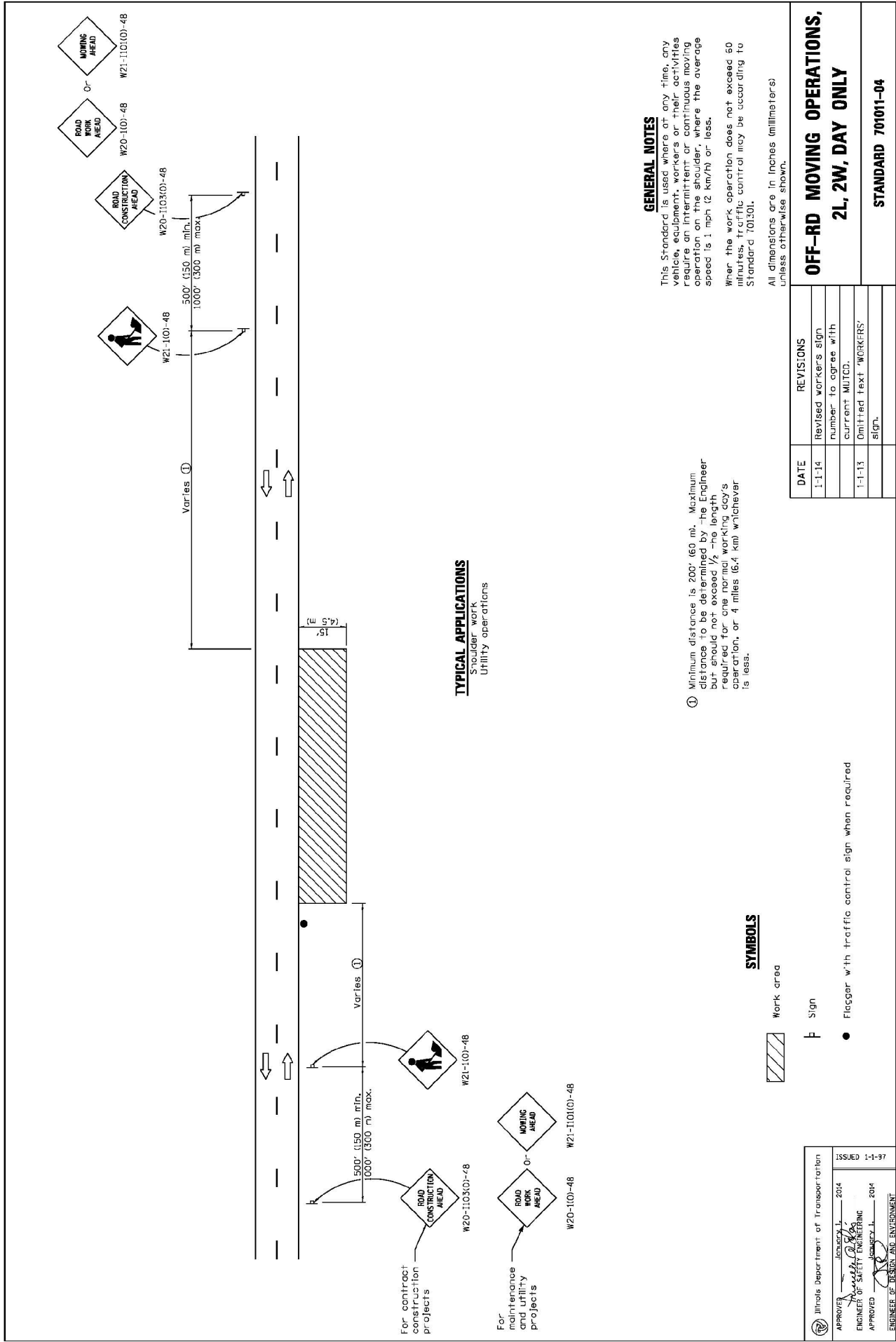
Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or turned from the view of motorists. [SS pg. 601 / 701.04]
2. All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 2 garments. Other types of garments may be substituted for the vest as long as the garments have a manufacturer's tag identifying them as meeting the ANSI Class 2 requirement. [SS pg. 605 / 701.12]
3. The Contractor shall keep all equipment, material, and vehicles off the pavement and shoulders on the side of the pavement which is open to traffic. ... At any location on existing pavements less than three lanes in width, the sequence of construction shall limit operations to one side of the pavement. [SS pg. 603 / 701.08]
4. Equipment Parking and Storage: [SS pg. 604 / 701.11]
5. Any unattended obstacle or excavation (not patching) in the work area which constitutes a hazard in the opinion of the Engineer, shall be delineated by devices at 50 ft. (15 m) centers. If the hazard exceed 250 ft. (75 m) in length, the spacing of devices may be increased to 100 ft. (30 m) [SS pg. 605 / 701.11]
6. Devices delineating isolated obstacles, excavations, or hazards at night. (Does not apply to patching.) Lights required: Flashing bi-directional lights. [SS pg. 609 / 701.16]
7. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 607 / 701.14]

General Information:

If the work operation does not exceed 60 minutes, traffic may be in conformance with STANDARD 701301.

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Standard 701011

When the work operation requires four or more work vehicles enter through traffic lanes in a one hour period, a flagger shall be provided and a “FLAGGER” (W20-7) sign shall be substituted for the “WORKER” sign. [SS pg. 613 / 701.18(a)]

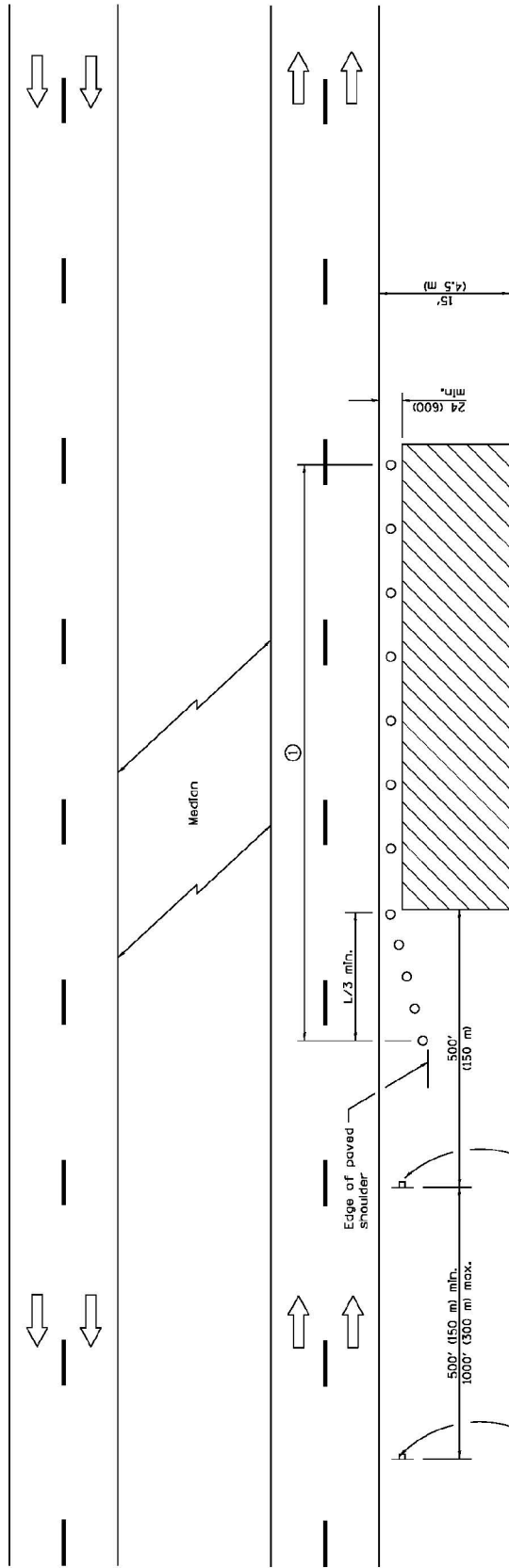
Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or turned from the view of motorists. [SS pg. 601 / 701.04]
2. All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 2 garments. Other types of garments may be substituted for the vest as long as the garments have a manufacturer's tag identifying them as meeting the ANSI Class 2 requirement. [SS pg. 605 / 701.12]
8. Equipment Parking and Storage: [SS pg. 604 / 701.11]
3. Any unattended obstacle or excavation (not patching) in the work area which constitutes a hazard in the opinion of the Engineer, shall be delineated by devices at 50 ft. (15 m) centers. If the hazard exceed 250 ft. (75 m) in length, the spacing of devices may be increased to 100 ft. (30 m) [SS pg. 605 / 701.11]
4. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 607 / 701.14]
5. Devices delineating isolated obstacles, excavations, or hazards at night. (Does not apply to patching.) Lights required: Flashing bi-directional lights.
6. [SS pg. 609 / 701.16]
7. Devices delineating obstacles, excavations, or hazards exceeding 100 ft. (30 m) in length at night. (Does not apply to widening.) Lights required: Steady burn bi-directional lights. [SS pg. 609 / 701.16]

General Information:

All signs are to be removed at the completion of the day's operations.

FOR INFORMATIONAL USE ONLY



For contract construction projects

For maintenance and utility projects

GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT

FORMULAS

English	Metric
40 mph (70 km/h) or less:	$L = \frac{WS^2}{150}$
45 mph (80 km/h) or greater:	$L = \frac{WS^2}{150}$

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

SYMBOLS

Work area
Sign
Cone, drum or barricade

OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

STANDARD 701101-05

DATE	REVISIONS
4-1-16	Corrected Typo in Title.
1-1-14	Revised workers sign number to agree with current MUTCD.

Illinois Department of Transportation APPROVED: <i>[Signature]</i> 2016 ENGINEER OF SAFETY ENGINEERING APPROVED: <i>[Signature]</i> 2016 ENGINEER OF DESIGN AND ENVIRONMENT		ISSUED: 1-1-97
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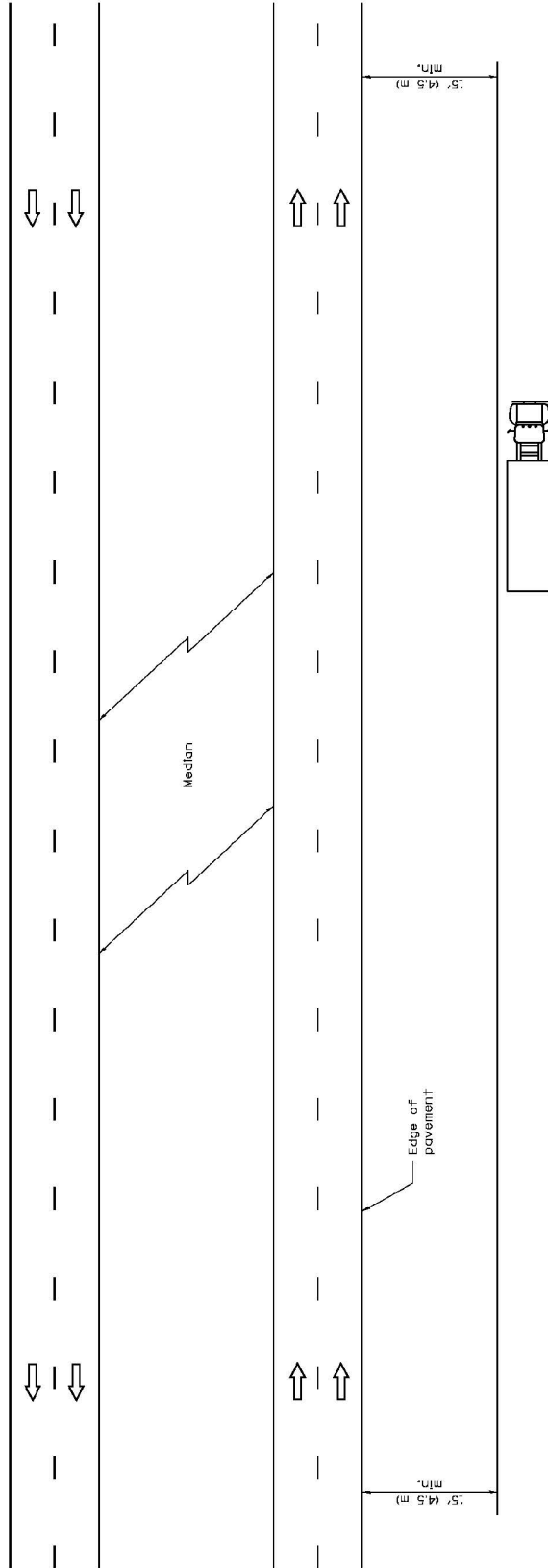
Standard 701101

When the work operation requires four or more work vehicles enter through traffic lanes in a one hour period, a flagger shall be provided and a “FLAGGER” (W20-7) sign shall be substituted for the “WORKER” sign [SS pg. 613 / 701.18(a)]

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or tuned from the view of the motorists. [SS pg. 601 / 701.04]
2. All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 2 garments. Other types of garments may be substituted for the vest as long as the garments have a manufacturer's tag identifying them as meeting the ANSI Class 2 requirement. [SS pg. 605 / 701.12]
3. Any unattended obstacle or excavation (not patching) in the work area which constitutes a hazard in the opinion of the Engineer, shall be delineated by devices at 50 ft. (15 m) centers. If the hazard exceeds 250 ft. (75 m) in length, the spacing of devices may be increased to 100 ft. (30 m). [SS pg. 605 / 701.11]
4. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 607 / 701.14]
5. Devices delineating isolated obstacles, excavations, or hazards at night. (Does not apply to patching.) Lights required: Flashing bi-directional lights. [SS pg. 609 / 701.16]
6. Devices delineating obstacles, excavations, or hazards exceeding 100 ft. (30 m) in length at night. (Does not apply to widening.) Lights required: Steady burn bi-directional lights. [SS pg. 609 / 701.16]

FOR INFORMATIONAL USE ONLY



GENERAL NOTES

This Standard is used where at all times all vehicles, equipment, workers or their activities are more than 15' (4.5 m) from the edge of pavement.

When the work operation requires that two or more work vehicles cross the 15' (4.5 m) clear zone in any one hour, traffic control shall be according to Standard 701101.

This Standard also applies to work performed in the median more than 15' (4.5 m) from either pavement.

All dimensions are in inches (millimeters) unless otherwise shown.

TYPICAL APPLICATIONS

Landscaping work
Utility work
Fencing contracts

Illinois Department of Transportation		ISSUED 1-1-97
APPROVED	JANUARY 1, 2018	
ENGINEER OF OPERATIONS	<i>[Signature]</i>	
APPROVED	JANUARY 1, 2018	
ENGINEER OF DESIGN AND ENVIRONMENT	<i>[Signature]</i>	

DATE	REVISIONS
1-1-05	Switched units to English (metric).
1-1-05	Revised title.

OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY

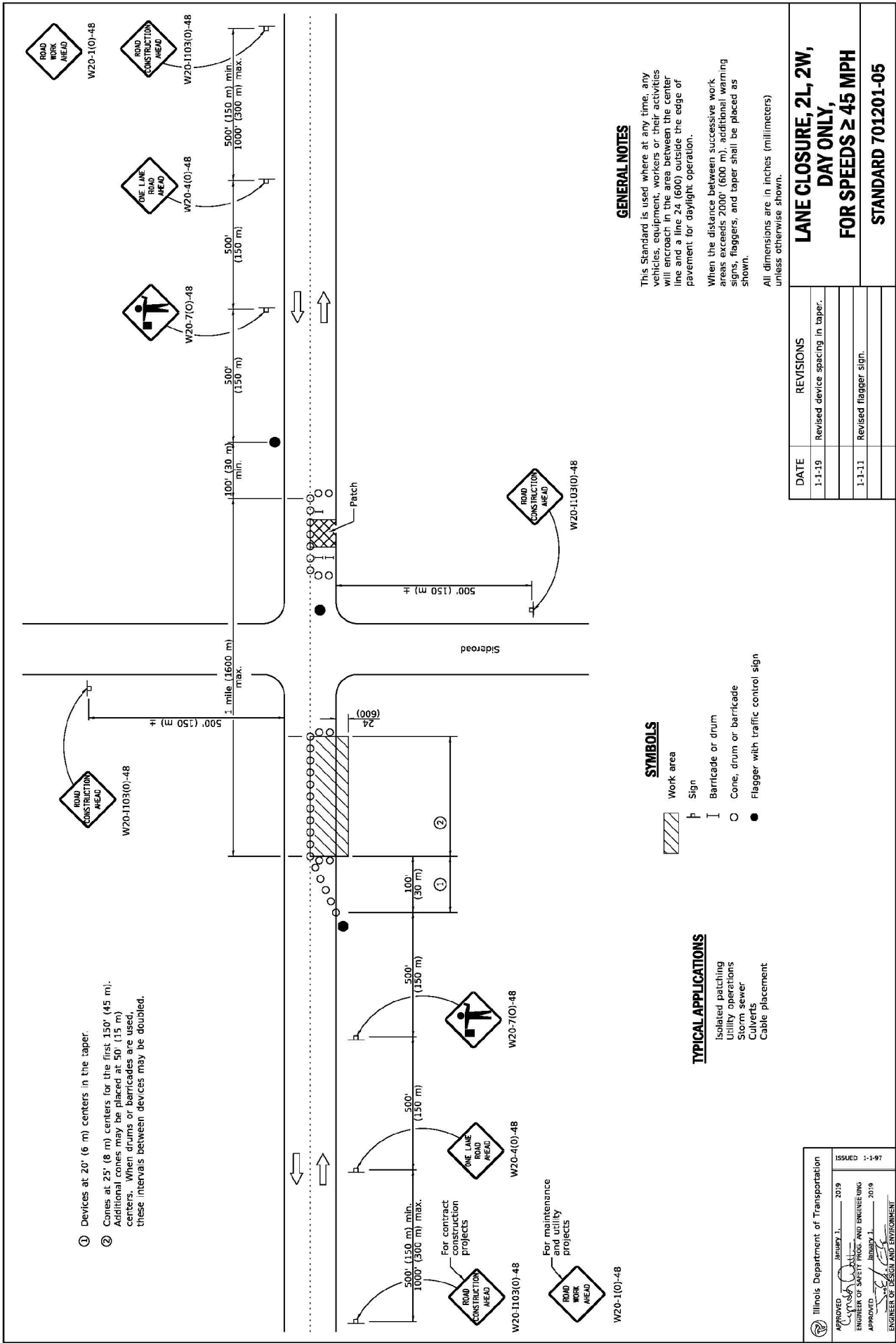
STANDARD 701106-02

Standard 701106

General Information:

1. No special signing required.
2. All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 2 garments. Other types of garments may be substituted for the vest as long as the garments have a manufacturer's tag identifying them as meeting the ANSI Class 2 requirement. [SS pg. 605 / 701.12]
4. When the work operation requires that two or more work vehicles cross the 15 ft. clear zone in any one hour, traffic control shall be in conformance with STANDARD 701101. [Standard – General Notes]
3. This standard also applies to work performed in the median more than 15 ft. (4.5 m) from either pavement. [Standard – General Notes]

FOR INFORMATIONAL USE ONLY



Standard 701201

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions, shall be removed, covered, or turned from the view of the motorists. [SS pg. 601 / 701.04]
2. All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 2 garments. Other types of garments may be substituted for the vest as long as the garments have a manufacturer's tag identifying them as meeting the ANSI Class 2 requirement. [SS pg. 605 / 701.12]
3. The Contractor shall keep all equipment, material, and vehicles off the pavement and shoulders on the side of the pavement which is open to traffic. ... At any location on existing pavements less than three lanes in width, the sequence of construction shall limit operations to one side of the pavement. [SS pg. 603 / 701.08]
4. The longitudinal placement of the flagger may be increased up to 100 ft. (30 m) from that shown on the plans to improve the visibility of the flagger. ... Flaggers will not be required when no work is being performed, unless there is a lane closure on two-lane, two-way pavement. [SS pg. 605 / 701.13]
5. Two Lane Highways. Two flaggers will be required for each separate operation where two-way traffic is maintained over one lane of pavement. Work operations controlled by flaggers shall be no more than 1 mile (1600 m) in length. Flaggers shall be in sight of each other or in direct communication at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies. [SS pg. 606 / 701.13(a)]
6. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 607 / 701.14]
7. Pavement patching: [SS pg. 611 - 612 / 701.17(e)]
8. No broken pavement, open holes, or partially filled patches shall remain overnight and all devices shall be removed before dark. If patches are not opened when required, additional traffic control shall be provided at no additional cost to the Department. [SS pg. 612 / 701.17(e) (2)b]

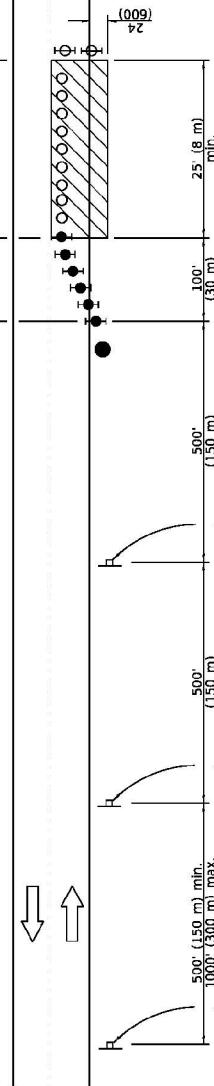
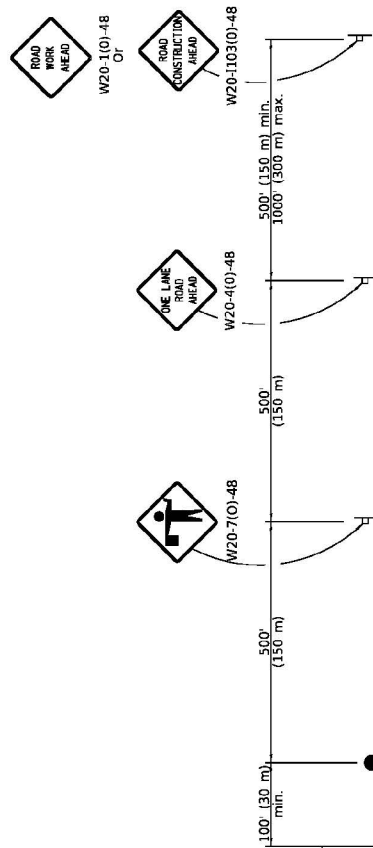
General Information:

1. At the completion of the day's operations, all materials, equipment, signs, cones, barricades, and drums are to be removed and the work area opened to traffic.
2. If the work operation does not exceed 60 minutes, traffic may be in conformance with STANDARD 701301.

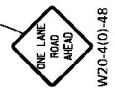
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① Barricades or drums at 20' (6 m) centers in the taper.

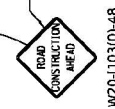
② Cones at 25' (8 m) centers for the first 150' (45 m). Additional cones may be placed at 50' (15 m) centers. When barricades or drums are used, these intervals between devices may be doubled.



W20-7(O)-48



W20-4(O)-48



W20-1(O)-48

For contract construction projects

For maintenance and utility projects

W20-1(O)-48

TYPICAL APPLICATIONS

Isolated patch
Installation of drainage structure
Utility operations

SYMBOLS

- Work area
- Sign
- Flagger with traffic control sign
- Cone, drum or barricade
- Barricade or drum with flashing light
- Barricade or drum with steady burning light

GENERAL NOTES

This Standard is used where at any time, any vehicle, equipment, workers or their activities will encroach in the area between the center line and a line 24' (600') from the edge of pavement for nighttime operation.

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-19	Revised device spacing in taper and added cones as an option.
1-1-18	Omitted steady burning lights in tangent.

LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS ≥ 45 MPH

STANDARD 701206-05

Illinois Department of Transportation

APPROVED: *[Signature]* 2019
ENGINEER OF SAFETY PROC. AND ENGINEERING

APPROVED: *[Signature]* 2019
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED: 1-1-97

Standard 701206

Various Specifications:

1. The Contractor shall keep all equipment, material, and vehicles off the pavement and shoulders on the side of the pavement which is open to traffic. ... At any location on existing pavements less than three lanes in width, the sequence of construction shall limit operations to one side of the pavement. [SS pg. 603 / 701.08]
2. The longitudinal placement of the flagger may be increased up to 100 ft. (30 m) from that shown on the plans to improve the visibility of the flagger. [SS pg. 605 / 701.13]
3. For nighttime flagging, flaggers shall be illuminated by an overhead light source providing a minimum vertical illuminance of 10 fc (108 lux) measured 1 ft. (300 mm) out from the flagger's chest. The bottom of any luminaire shall be a minimum of 10 ft. (3 m) above the pavement. Luminaire(s) shall be shielded to minimize glare to approaching traffic and trespass light to adjoining properties. [SS pg. 605 / 701.13]

Nighttime flaggers shall be equipped with a fluorescent orange or fluorescent orange and fluorescent yellow/green apparel meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 3 garments. [SS pg. 606 / 701.13]

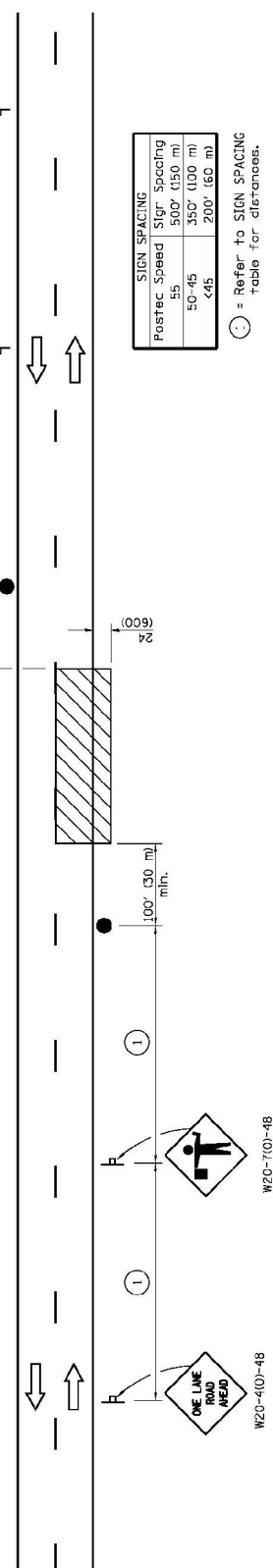
4. Flaggers shall be in sight of each other or in direct communication at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies. [SS pg. 606 / 701.13(a)]
5. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606 / 701.14]

First two warning signs on each approach to the work involving a nighttime lane closure. Lights required: Flashing mono-directional lights. [SS pg. 609 / 701.16]

General Information:

1. This standard may be used for bridge repair projects in lieu of STANDARD 701316 where the minimum passing sight distance (Section 3B-5 MUTCD) through the barricaded area is available from a point approximately 350 ft. (105 m) in advance of the first barricade in either direction, the maximum length of closure, including taper, is approximately 300 ft. (90 m) and the estimated ADT does not exceed 1,000.
2. When Standard 701206 is specified for bridge repair projects, the bridge rail and guardrail adjacent to the open traffic lane shall be delineated with guardrail/parapet markers at 25 ft. (7.6 m) centers.
3. Refer to Section 702 for Nighttime Work Zone Lighting. [SS pg. 622 / 702] and also pages 105-106 of this booklet.

FOR INFORMATIONAL USE ONLY



SIGN SPACING	
Postec Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
445	200' (60 m)

⊙ = Refer to SIGN SPACING table for distances.

All dimensions are in inches (millimeters) unless otherwise shown.

**LANE CLOSURE, 2L, 2W,
SHORT TIME OPERATIONS**

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to English (metric).

STANDARD 701301-04

SYMBOLS

- | | |
|---|---------------------------------------|
|  | Work area |
|  | Sign on portable or permanent support |
|  | Flagger with traffic control sign |

TYPICAL APPLICATIONS

- Marking patches
Field survey
String line
Utility operations
Cleaning up debris on pavement

Illinois Department of Transportation

ISSUED 1-1-97

APPROVED January 1, 2011
Amir Obeid
ENGINEER OF SAFETY ENGINEERING

APPROVED January 1, 2011
Jeffery H.

Standard 701301

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or turned from the view of motorists. [SS pg. 601 / 701.04]
2. All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 2 garments. Other types of garments may be substituted for the vest as long as the garments have a manufacturer's tag identifying them as meeting the ANSI Class 2 requirement. [SS pg. 605 / 701.12]
3. The Contractor shall keep all equipment, material, and vehicles off the pavement and shoulders on the side of the pavement which is open to traffic. ... At any location on existing pavements less than three lanes in width, the sequence of construction shall limit operations to one side of the pavement. [SS pg. 603 / 701.08]
4. The longitudinal placement of the flagger may be increased up to 100 ft. (30 m) from that shown on the plans to improve the visibility of the flagger. [SS pg. 605 / 701.13]
5. Flaggers shall be in sight of each other or in direct communication at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies. [SS pg. 606 / 701.13(a)]
6. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 607 / 701.14]

General Information:

During working hours, all vehicles and/or nonoperating equipment which are parked, two hours or less, shall be parked at least 8 ft (2.5 m) from the open traffic lane. For other periods of time during working and for all nonworking hours, all vehicles, materials, and equipment shall be parked or stored as follows.

- (a) When the project has adequate right-of-way, vehicles, materials, and equipment shall be located a minimum of 30 ft (9 m) from the pavement.
- (b) When adequate right-of-way does not exist, vehicles, materials, and equipment shall be located a minimum of 15 ft (4.5 m) from the edge of any pavement open to traffic.
- (c) Behind temporary concrete barrier, vehicles, materials, and equipment shall be located a minimum of 24 in. (600 mm) behind free standing barrier or a minimum of 6 in. (150 mm) behind barrier that is either pinned or restrained according to Article 704.04. The 24 in. or 6 in. measurement shall be from the base of the non-traffic side of the barrier.
- (d) Behind other man-made or natural barriers meeting the approval of the Engineer."

FOR INFORMATIONAL USE ONLY

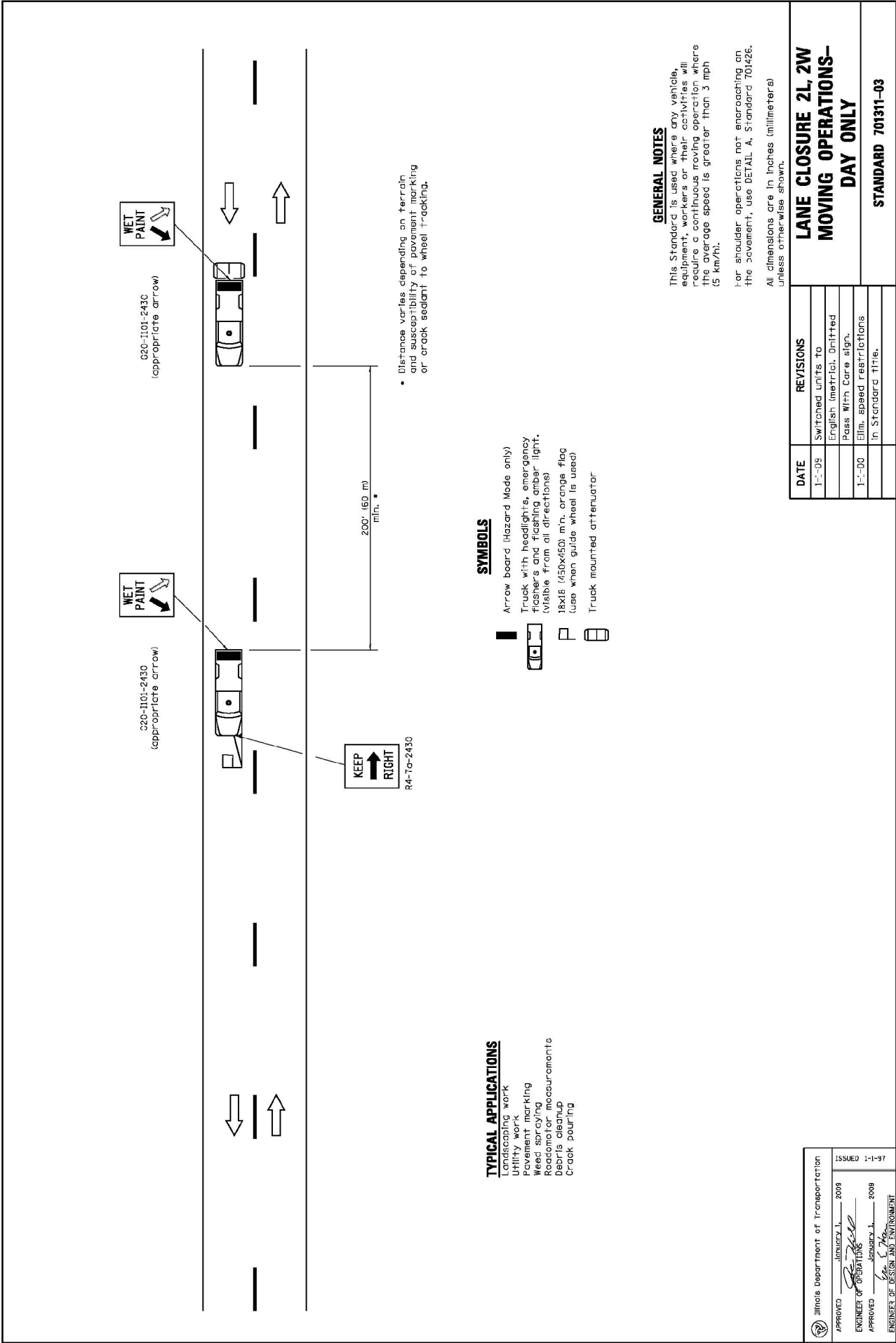
Standard 701306:

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions, shall be removed, covered, or turned from the view of the motorists. [SS pg. 601 / 701.04]
2. The Contractor shall keep all equipment, material, and vehicles off the pavement and shoulders on the side of the pavement which is open to traffic. ... At any location on existing pavements less than three lanes in width, the sequence of construction shall limit operations to one side of the pavement. [SS pg. 603 / 701.08]
3. The longitudinal placement of the flagger may be increased up to 100 ft. (30 m) from that shown on the plans to improve the visibility of the flagger. [SS pg. 605 / 701.13]
4. Work operations controlled by flaggers shall be no more than 1 mile (1600 m) in length. Flaggers shall be in sight of each other or in direct communications at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies. [SS pg. 606 / 701.13(a)]
5. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 607 / 701.14]
6. Where construction operations on two-lane roads open to traffic result in the removal or covering of any pavement striping indicating passing restrictions, "NO PASSING ZONES NOT STRIPED NEXT _ MILES" (G20-I100) signs shall be used. The contractor shall place the signs at the beginning of the unstriped area, just beyond each major intersection within the unstriped area and at other locations as directed by the engineer, to ensure a minimum spacing of 5 miles (8 km). The signs shall be placed just prior to removal or covering of the striping and shall remain in place until full no passing zone striping has been restored. [SS pg. 610 / 701.17(c)]
7. Prime or Tack Coat. "FRESH OIL" (W21-2) signs shall be erected when prime or tack and fine aggregate are applied to pavement that is open to traffic. The signs shall remain until tracking of the prime or tack ceases as directed by the Engineer. The signs shall be erected a minimum of 500 ft. (150 m) preceding the start of the prime or tack. [SS pg. 610 / 701.17(c)(1)]

Cold Milling. "ROUGH GROOVED SURFACE" (W8-I107) signs shall be erected when the road has been cold milled and opened to traffic. The signs shall be placed just prior to the cold milling operation and shall remain in place until the milled surface condition no longer exists. These signs shall be erected a minimum of 500 ft. (150 m) preceding the start of the milled pavement, just before each major intersection within the milled area, and at other locations as directed by the Engineer. The signs shall have an amber flashing light attached. [SS pg. 610 / 701.17(c)(2), and SS pg. 609 / 701.16]

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TYPICAL APPLICATIONS

- Landscaping work
- Utility work
- Pavement marking
- Weed spraying
- Roadometer measurements
- Debris cleanup
- Crack pouring

SYMBOLS

- Arrow board (Hazard Mode only)
- Truck with headlights, emergency flashers and flashing amber light (visible from all directions)
- 18x18 (450x450) mm orange flag (use when guide wheel is used)
- Truck mounted attenuator

GENERAL NOTES

This Standard is used where any vehicle, equipment, workers or their activities will require a continuous moving operation where the average speed is greater than 3 mph (5 km/h).

For shoulder operations not encroaching on the pavement, use DETAIL A, Standard 701426. All dimensions are in inches (millimeters) unless otherwise shown.

 Illinois Department of Transportation		ISSUED 1-1-97	
APPROVED	JANUARY 1, 2009		
ENGINEER OF OPERATIONS			
APPROVED	JANUARY 1, 2009		
ENGINEER OF DESIGN AND ENVIRONMENT			

LANE CLOSURE 2L, 2W MOVING OPERATIONS— DAY ONLY	
DATE	REVISIONS
1-1-09	Switched units to English (metric). Omitted Pass With Care sign.
1-1-00	Elim. speed restrictions
	In Standard title.
STANDARD 701311-03	

Standard 701311

Various Specifications:

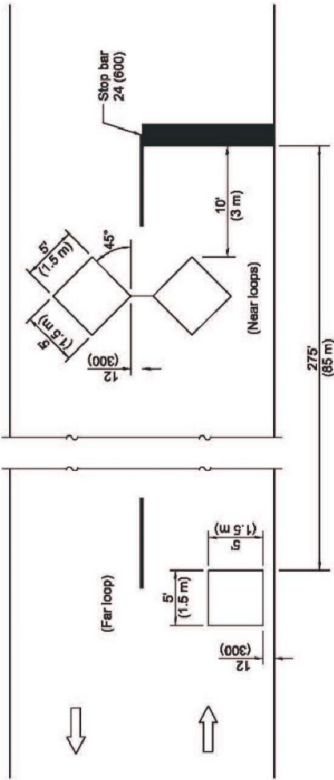
Truck Mounted/Trailer Mounted Attenuators (TMA). TMA host vehicles shall have the parking brake engaged when stationary. [SS pg. 608 / 701.15(h)]

Truck Mounted/Trailer Mounted Attenuators (TMA). The attenuator shall be either a NCHRP 350 or MASH approved unit for Test Level 3. Test Level 2 may be used as directed by the Engineer for normal posted speed less than or equal to 45 mph. [SS pg. 1171 / 1106.02(g)]

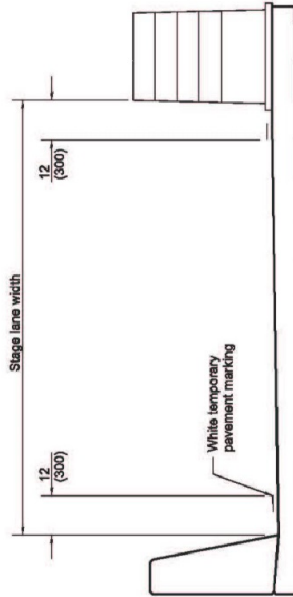
General Information:

During pavement marking operations, "WET PAINT" signs with the appropriate arrow(s) shall be mounted on the back of the striper and the following vehicle where necessary to reduce tracking.

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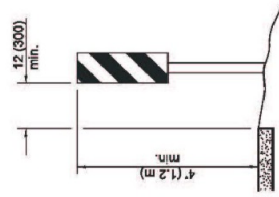
DETECTOR LOOPS



TEMPORARY PAVEMENT MARKING

TRAFFIC SIGNAL SEQUENCE									
	PHASE			A			B		
	INTERVAL			1	2	3	4	5	6
NORTHBOUND OR EASTBOUND				G	Y	R	R	R	R
SOUTHBOUND OR WESTBOUND				R	R	R	G	Y	R

ADVISORY SPEED LIMIT	
NORMAL POSTED SPEED	ADVISORY SPEED
55 - 45 mph	40 mph
40 mph	35 mph
35 - 30 mph	30 mph



VERTICAL PANELS

(Post mounted, one each side)

GENERAL NOTES

This Standard is used where, at any time any vehicle, equipment, workers or their activities will encroach on one lane of a bridge and traffic signs are required.

When traffic signals are not in operation, flaggers shall be used and traffic control devices shall conform to Standard 701201 or 701205.

Existing or temporary pavement markings shall be on both sides of open lane from stop bar to stop bar.

All dimensions are in inches (millimeters) unless otherwise shown.

LANE CLOSURE, 2L, 2W, BRIDGE REPAIR

(Sheet 2 of 2)

STANDARD 701316-14

Illinois Department of Transportation		ISSUED 1-1-97	
APPROVED	REVIEWED	2025	2025
ENGINEER OF SAFETY PROGRAMS	ENGINEER OF SAFETY PROGRAMS	2025	2025
APPROVED	REVIEWED	2025	2025
ENGINEER OF DESIGN AND ENVIRONMENT			

Standard 701316

The exact location of the signals, detector loops, stop bars, and signs shall be as directed by the Engineer. The locations shall also be adjusted as required for stage construction.
[SS pg. 613 / 701.18(b)]

The Engineer shall be notified at least 72 hours in advance of placing the signals in operation and at least one week prior to a traffic lane width reduction.

Any damage to the temporary traffic signals from any cause shall be repaired at no additional cost to the Department. If at any time the Contractor fails to perform any work deemed necessary by the Engineer to keep the temporary traffic signals in proper operating condition, the Department reserves the right to have other electrical Contractors perform the needed work, and the cost will be deducted from compensation due or which may become due the Contractor under the contract.

During daytime operations when workers are present, the Engineer may allow Type I or Type II barricades to be placed parallel to the centerline. Cones may be substituted for barricades at half the barricade spacing during the daytime operations.

Lane Closure on Two-Way, Two-Lane Rural Road. The Contractor shall furnish, install, maintain, and remove temporary traffic signals including a traffic actuated controller, a cabinet, detector amplifiers, and other associated equipment as listed below and on Standard 701316 for each location specified. The Contractor shall have available one spare controller and cabinet. The Contractor shall retain ownership of all traffic control equipment, miscellaneous accessories, and the installation methods shall be according to the following.

- a. **TRAFFIC SIGNAL HEADS:** Two signal heads shall be provided for each mainline approach and for each sideroad within the designated work area. When using incandescent signal heads, all lamps shall be new. When the signals are not operating, the signal head shall be hooded according to Article 880.03 and the "SIGNAL AHEAD" sign covered or removed. The left signal head shall be mounted at a height of 10 ft. (3.0 m) above the road surface measured to the bottom of the signal head. The right signal head shall be mounted at a height of 14 ft. (4.3 m) above the road surface. Back plates will be required on all signals.

The right signal head shall be aimed so the centers of the light beams of the indications are directed toward a point in the center of the approach lane 500 ft. (150 m) in advance of the signal. The left indication shall be aimed at a point in the center of the approach lane 100 ft. (30 m) in advance of the stop line.

- b. **LENSES:** All lenses shall be 12 in. (300 mm) nominal diameter.
- c. **WIRE AND CABLE:** The contractor shall supply all overhead and underground wiring for both signal circuits and loop detector lead-ins. The electric cable shall be aerially suspended, at a minimum height of 10 ft. (3.0 m) and as close to the right-of-way line as possible. When the electric cable crosses a roadway or entrance, it shall be aerially suspended, at a minimum height of 18 ft. (5.5 m), according to the local utility requirements, or placed in a trench with a minimum of 2 ft. (600 mm) of cover, or protected in a manner approved by the Engineer.

Standard 701316 – Continued

- d. MOUNTING: The controller shall be mounted on a post, pole, or temporary concrete foundation. The signal heads shall be mounted on 25 ft. (7.5 m) standard tubular steel posts or on a minimum Class 4 wood pole, when overhead wiring is used between signals. Alternative methods of mounting the cabinet or signal heads shall be approved by the Engineer. The supports shall be kept in a vertical position for the duration of the project.
- e. SERVICE INSTALLATION: The Contractor shall be responsible for the installation and cost of 110 V electrical service. When the service cable from the controller to the power source is suspended overhead, the line height shall not be less than 10 ft. (3.0 m) above the ground and located as close to the right-of-way lines as practicable. When the cable crosses a roadway or entrance, the cable shall be raised to a minimum height of 18 ft. (5.5 m) or pass under the pavement through a culvert opening. Portable power generating equipment may be used for a short period of time until local power is available, provided at least one person is present at all times at the site to ensure proper operation.

f. TRAFFIC SIGNAL CONTROLLER:

- 1. The controller shall be standard eight phase NEMA controller housed in a weather proof cabinet. The traffic signals shall dwell in All-Red. The long All-Red intervals shall be adjustable up to 99 seconds in one second increments. Long All-Red intervals shall be obtained by using a trail green feature or an equivalent, or by using dummy phases. The long All-Red interval shall be preempted if the previous movement is detected before the conflicting movement is detected and shall cause the previous movement to return to the green display with a minimum four second delay. When a conflict or failure is detected, the signal shall display a flashing All-Red. When an additional phase is used for a side road movement, only one long red interval shall be used between active phases on each side of the work area.

All devices used, in lieu of controller software to produce this sequence, shall be mounted within the cabinet but not within the controller. The Contractor shall provide an operational demonstration of the controller assembly for the Engineer subsequent to installation and prior to being placed into operation. The Contractor shall program the controller, trouble shoot, and correct any problems that arise, and verify the equipment is functions according to the contract. If any controller malfunction occurs during the time of operation or in the event of a power failure, the Contractor shall, without delay, provide flaggers for traffic control and immediately install a replacement controller to operate the signals.

- 2. When specified, the Department will furnish the traffic actuated controller. The controller, complete with loop detector-amplifiers and pole mount cabinet, shall be picked up and returned upon completion of the project to the location designated on the plans. The Contractor shall provide notice to the Department at least two weeks in advance of requiring the traffic actuated controller. The Contractor shall be responsible for maintenance of the controller and all related equipment within the controller cabinet. The controller shall be inspected by the Contractor and Engineer subsequent to installation and prior to being placed into operation. Any malfunction of the Department owned equipment revealed during the inspection by the Contractor shall be repaired and will be paid for

Standard 701316 - Continued

according to Article 109.04. The Contractor shall be responsible for any damage to the Department-owned equipment as a result of negligence or poor workmanship during installation at his/her expense. The Contractor shall provide all maintenance required, at his/her expense, to keep the Department-owned equipment functioning properly after being placed in operation.

- g. DETECTOR LOOPS: Three detector loops shall be installed on each approach as shown on the plan. The near detector loop shall be placed 12 in. (300 mm) from the centerline and the far loop shall be placed 12 in. (300 mm) from the edge line. Each loop shall be connected to a separate detector amplifier channel. Call delay feature shall be used for the loops nearest the stop lines and defeated during the green of that phase. An alternate method of detection may be used if it has been demonstrated and approved by the Department.

The loop detector lead-in cable shall be protected from construction and maintenance activities. In the event of detector loop failure, the Contractor shall have 48 hours to repair or replace the loops. Upon completion of the project, the detector loop shall be terminated in such a manner as to provide for future use.

[SS pg. 613 - 616 / 701.18(b)]

Various Specifications:

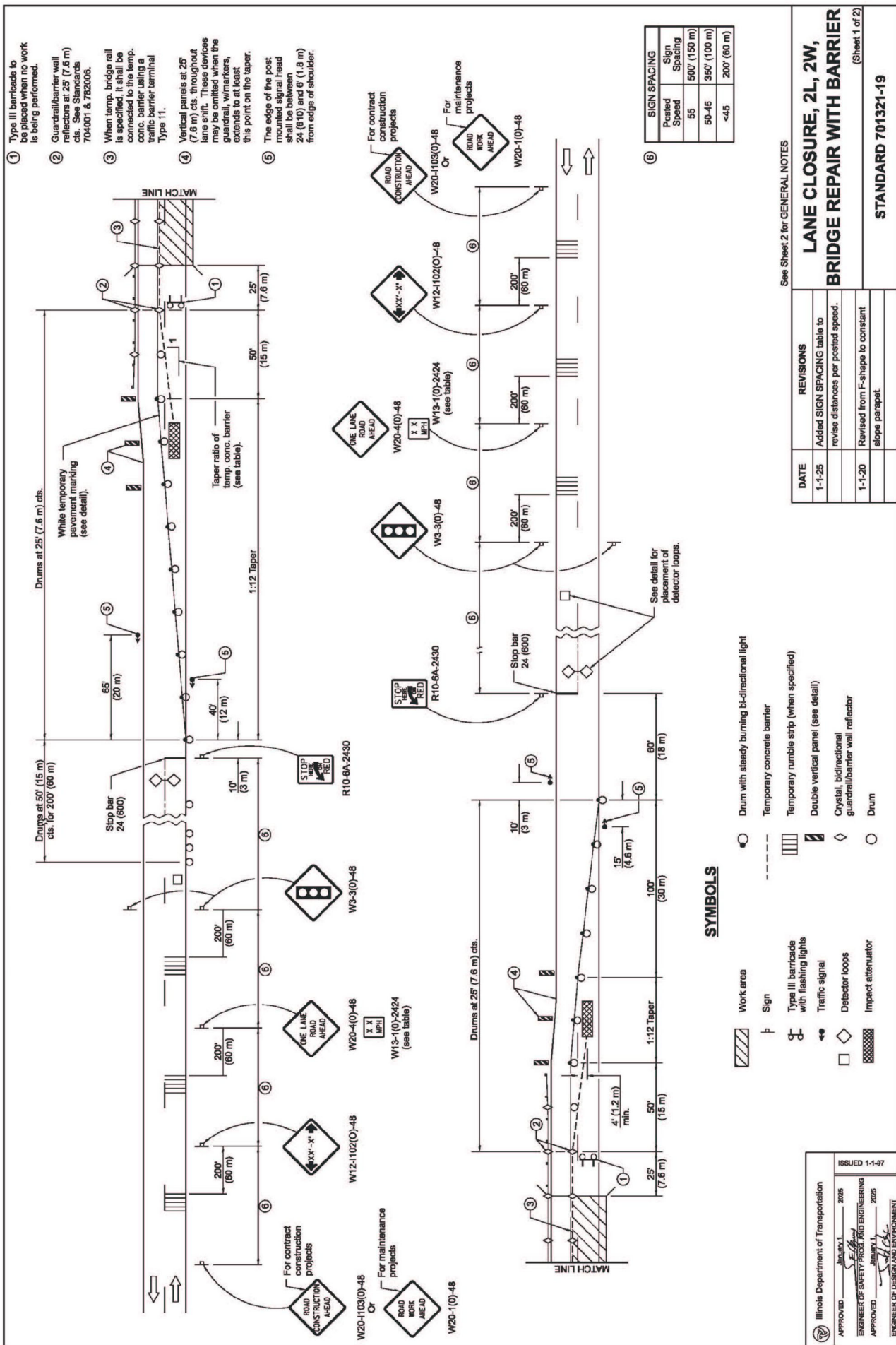
1. When work operations exceed four days, all signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. When approved by the Engineer, temporary sign supports may be used where posts are impractical. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the engineer. [SS pg. 606 / 701.14]
2. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
3. Devices in nighttime lane closure tapers on Standards 701316 and 701321. Lights Required: Steady burn bi-directional lights. [SS pg. 609 / 701.16]

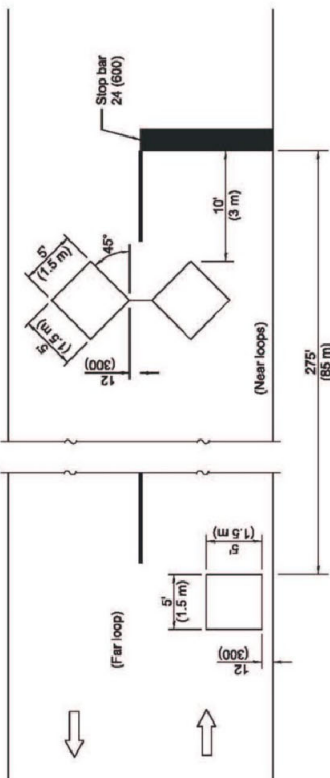
General Information:

Channelizing devices for nighttime lane closures on multi-lane roads. Lights Required: None.

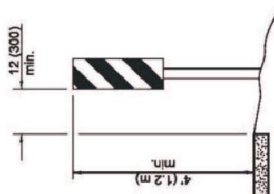
Temporary rumble strips conforming to Standard 701901 are recommended where poor alignment or restricted sight distance indicated potential operational problems.

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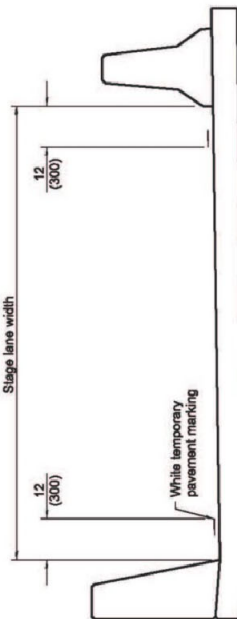


DETECTOR LOOPS



VERTICAL PANELS

(Post mounted, one each side)



TEMPORARY PAVEMENT MARKING

TRAFFIC SIGNAL SEQUENCE					
PHASE	1	2	3	4	5
NORTHBOUND OR EASTBOUND	G	Y	R	R	R
SOUTHBOUND OR WESTBOUND	R	R	R	G	Y

TEMPORARY CONCRETE BARRIER	
NORMAL POSTED SPEED	TAPER RATIO
40 mph AND ABOVE	12:1
BELOW 40 mph	8:1

ADVISORY SPEED LIMIT	
NORMAL POSTED SPEED	ADVISORY SPEED
55 - 45 mph	40 mph
40 mph	35 mph
35 - 30 mph	30 mph

GENERAL NOTES

This Standard is used where, at any time, any vehicle, equipment, or material is used on a highway or bridge. Traffic signals and a positive barrier are required.

Traffic signals shall be operational only when all traffic controls are in place. When traffic signals are not in operation, flaggers shall be used and traffic control shall conform to Standard 701201 or 701206.

Temporary concrete barrier shall be according to Standard 704001.

Existing or temporary pavement markings shall be on both sides of open lane from stop bar to stop bar.

All dimensions are in inches (millimeters) unless otherwise shown.

LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER

(Sheet 2 of 2)

STANDARD 701321-19

Illinois Department of Transportation		ISSUED 1-1-87
APPROVED	DESIGNED	2025
ENGINEER OF SAFETY	PRO ENGINEERING	
APPROVED	DESIGNED	2025
ENGINEER OF DESIGN AND ENVIRONMENT		

Standard 701321

Where the clear width through a work zone with temporary concrete barrier will be 16.0 ft. (4.88 m) or less, the Contractor shall notify the Engineer at least 21 days in advance of implementing the traffic control for that restriction. [SS pg. 601 – 701.06]

The exact location of the signals, detector loops, stop bars, and signs shall be as directed by the Engineer. The locations shall also be adjusted as required for stage construction. [SS pg. 613 - 616 / 701.18(b)]

The Engineer shall be notified at least 72 hours in advance of placing the signals in operation and at least one week prior to a traffic lane width reduction.

Any damage to the temporary traffic signals from any cause shall be repaired at no additional cost to the Department. If at any time the Contractor fails to perform any work deemed necessary by the Engineer to keep the temporary traffic signals in proper operating condition, the Department reserves the right to have other electrical Contractors perform the needed work, and the cost will be deducted from compensation due or which may become due the Contractor under the contract.

Lane Closure on Two-Way, Two-Lane Rural Road. The Contractor shall furnish, install, maintain, and remove temporary traffic signals including a traffic actuated controller, a cabinet detector amplifiers, and other associated equipment as listed below and on Standard 701321 for each location specified. The Contractor shall have available one spare controller and cabinet. The Contractor shall retain ownership of all traffic control equipment, miscellaneous accessories, and the installation methods shall be according to the following.

- a. **TRAFFIC SIGNAL HEADS:** Two signal heads shall be provided for each mainline approach and for each sideroad within the designated work area. When using incandescent signal heads, all lamps shall be new. When the signals are not operating, the signal head shall be hooded according to Article 880.03 and the "SIGNAL AHEAD" sign covered or removed. The left signal head shall be mounted at a height of 10 ft. (3.0 m) above the road surface measured to the bottom of the signal head. The right signal head shall be mounted at a height of 14 ft. (4.3 m) above the road surface. Back plates will be required on all signals.

The right signal head shall be aimed so the centers of the light beams of the indications are directed toward a point in the center of the approach lane 500 ft. (150 m) in advance of the signal. The left indication shall be aimed at a point in the center of the approach lane 100 ft. (30 m) in advance of the stop line.

- b. **LENSES:** All lenses shall be 12 in. (300 mm) nominal diameter.
- c. **WIRE AND CABLE:** The Contractor shall supply all overhead and underground wiring for both signal circuits and loop detector lead-ins. The electric cable shall be aerially suspended, at a minimum height of 10 ft. (3.0 m) and as close to the right-of-way line as possible. When the electric cable crosses a roadway or entrance, it shall be aerially suspended, at a minimum height of 18 ft. (5.5 m), according to the local utility requirements, or placed in a trench with a minimum of 2 ft. (600 mm) of cover, or protected in a manner approved by the Engineer.

Standard 701321 - Continued

- d. MOUNTING: The controller shall be mounted on a post, pole, or temporary concrete foundation. The signal heads shall be mounted on 25 ft. (7.5 m) standard tubular steel posts or on a minimum Class 4 wood pole, when overhead wiring is used between signals. Alternative methods of mounting the cabinet or signal heads shall be approved by the Engineer. The support shall be kept in a vertical position for the duration of the project.
- e. SERVICE INSTALLATION: The Contractor shall be responsible for the installation and cost of 110 V electrical service. When the service cable from the controller to the power source is suspended overhead, the line height shall not be less than 10 ft. (3.0 m) above the ground and located as close to the right-of-way lines as practicable. When the cable crosses a roadway or entrance, the cable shall be raised to a minimum height of 18 ft. (5.5 m) or pass under the pavement through a culvert opening. Portable power generating equipment may be used for a short period of time until local power is available, provided at least one person is present at all times at the site to ensure proper operation.
- f. TRAFFIC SIGNAL CONTROLLER:
 - 1. The controller shall be a standard eight phase NEMA controller housed in a weather proof cabinet. The traffic signals shall dwell in All-Red. The long All-Red intervals shall be adjustable up to 99 seconds in one second increments. Long All-Red intervals shall be obtained by using a trail green feature or an equivalent, or by using dummy phases. The long All-Red interval shall be preempted if the previous movement is detected before the conflicting movement is detected and shall cause the previous movement to return to the green display with a minimum four second delay. When a conflict or failure is detected, the signal shall display a flashing All-Red. When an additional phase is used for a side road movement, only one long red interval shall be used between active phases on each side of the work area.

All devices used, in lieu of controller software to produce this sequence, shall be mounted within the cabinet but not within the controller. The Contractor shall provide an operational demonstration of the controller assembly for the Engineer subsequent to installation and prior to being placed into operation. The Contractor shall program the controller, trouble shoot, and correct any problems that arise, and verify the equipment is functioning according to the contract. If any controller malfunction occurs during the time of operation or in the event of a power failure, the Contractor shall, without delay, provide flaggers for traffic control and immediately install a replacement controller to operate the signals.

- 2. When specified, the Department will furnish the traffic actuated controller. The controller, complete with loop detector-amplifiers and pole mount cabinet, shall be picked up and retuned upon completion of the project to the location designated on the plans. The Contractor shall provide notice to the Department at least two weeks in advance of requiring the traffic actuated controller. The Contractor shall be responsible for maintenance of the controller and all related equipment within the controller and all related equipment within the controller cabinet. The controller shall be inspected by the Contractor and Engineer subsequent to installation and prior to being placed into operation. Any malfunction of the Department owned equipment revealed during the inspection

Standard 701321 - Continued

by the Contractor shall be repaired and will be paid for according to Article 109.04. The Contractor shall be responsible for any damage to the Department-owned equipment as a result of negligence or poor workmanship during installation at his/her expense, to keep the Department –owned equipment functioning properly after being placed in operation.

- g. DETECTOR LOOPS: Three detector loops shall be installed on each approach as shown on the plans. The near detector loops shall be placed 12 in. (300 mm) from the centerline and the far loop shall be placed 12 in. (300 mm) from the edge line. Each loop shall be connected to a separate detector amplifier channel. Call delay feature shall be used for the loops nearest the stop lines and defeated during the green of that phase. An alternate method of detection may be used if it has been demonstrated and approved by the Department.

The loop detector lead-in cable shall be protected from construction and maintenance activities. In the event of detector loop failure, the Contractor shall have 48 hours to repair or replace the loops. Upon completion of the project, the detector loop shall be terminated in such a manner as to provide for future use.

[SS pg. 613 – 616 / 701.18(b)]

Various Specifications:

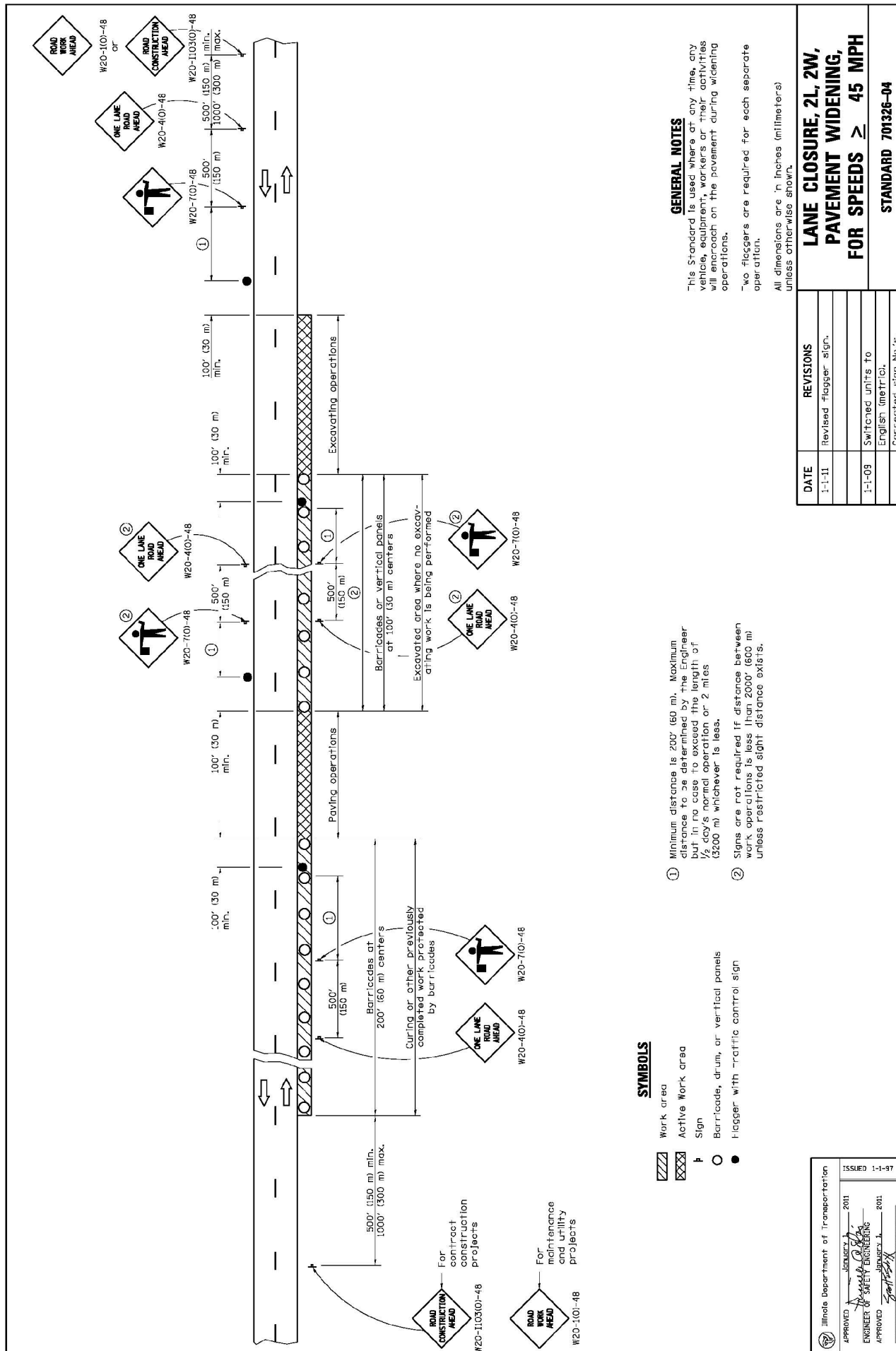
1. Existing pavement markings which conflict with the revised traffic pattern shall be removed according to Section 783. [SS pg. 601 / 701.04]
2. When work operations exceed four days, all signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. When approved by the Engineer, temporary sign supports may be used where posts are impractical. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the engineer. [SS pg. 606 - 607 / 701.14]
3. First two warning signs on each approach to the work involving a nighttime lane closure. Light Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
4. Devices in nighttime lane closure tapers on Standards 701316 and 701321. Lights Required: Steady burn bi-directional lights. [SS pg. 609 / 701.16]

General Information:

Channelizing devices for nighttime lane closures on multi-lane roads. Lights Required: None.

Temporary rumble strips conforming to Standard 701901 are recommended where poor alignment or restricted sight distance indicates potential operational problems.

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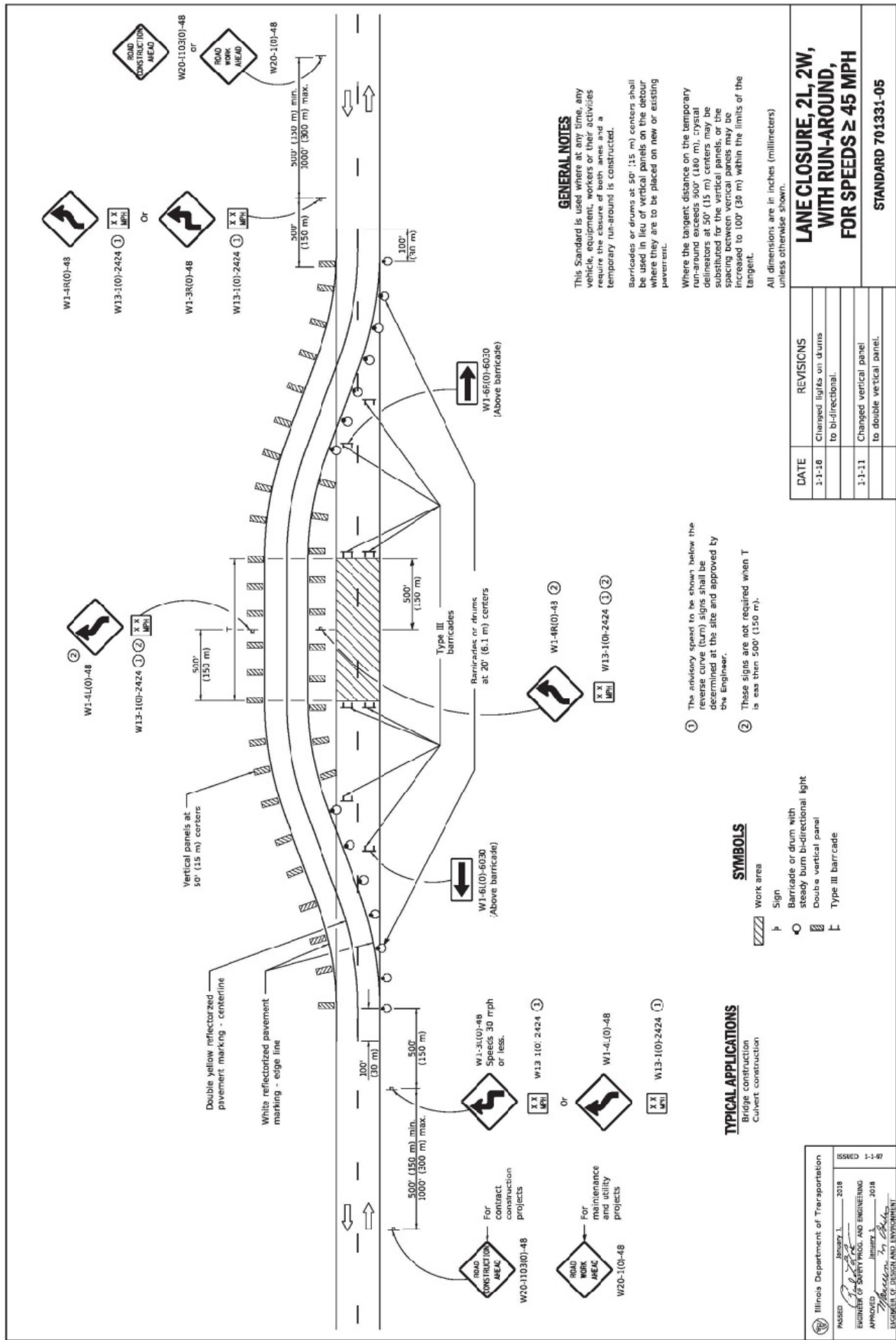
Standard 701326

No paving or excavating operations shall be performed at night unless authorized by the Engineer.
[SS pg. 616 / 701.18(c)]

Various Specifications:

1. The Contractor shall keep all equipment, material, and vehicles off the pavement and shoulders on the side of the pavement which is open to traffic. ... At any location on existing pavements less than three lanes in width, the sequence of construction shall limit operations to one side of the pavements. [SS pg. 603 / 701.08]
2. The longitudinal placement of the flagger may be increased up to 100 ft. (30 m) from that shown on the plans to improve the visibility of the flagger. [SS pg. 605 / 701.13]
3. Work operations controlled by flaggers shall be no more than 1 mile (1600 m) in length. Flaggers shall be in sight of each other or in direct communication at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies.
[SS pg. 606 / 701.13(a)]
4. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]

FOR INFORMATIONAL USE ONLY



Standard 701331

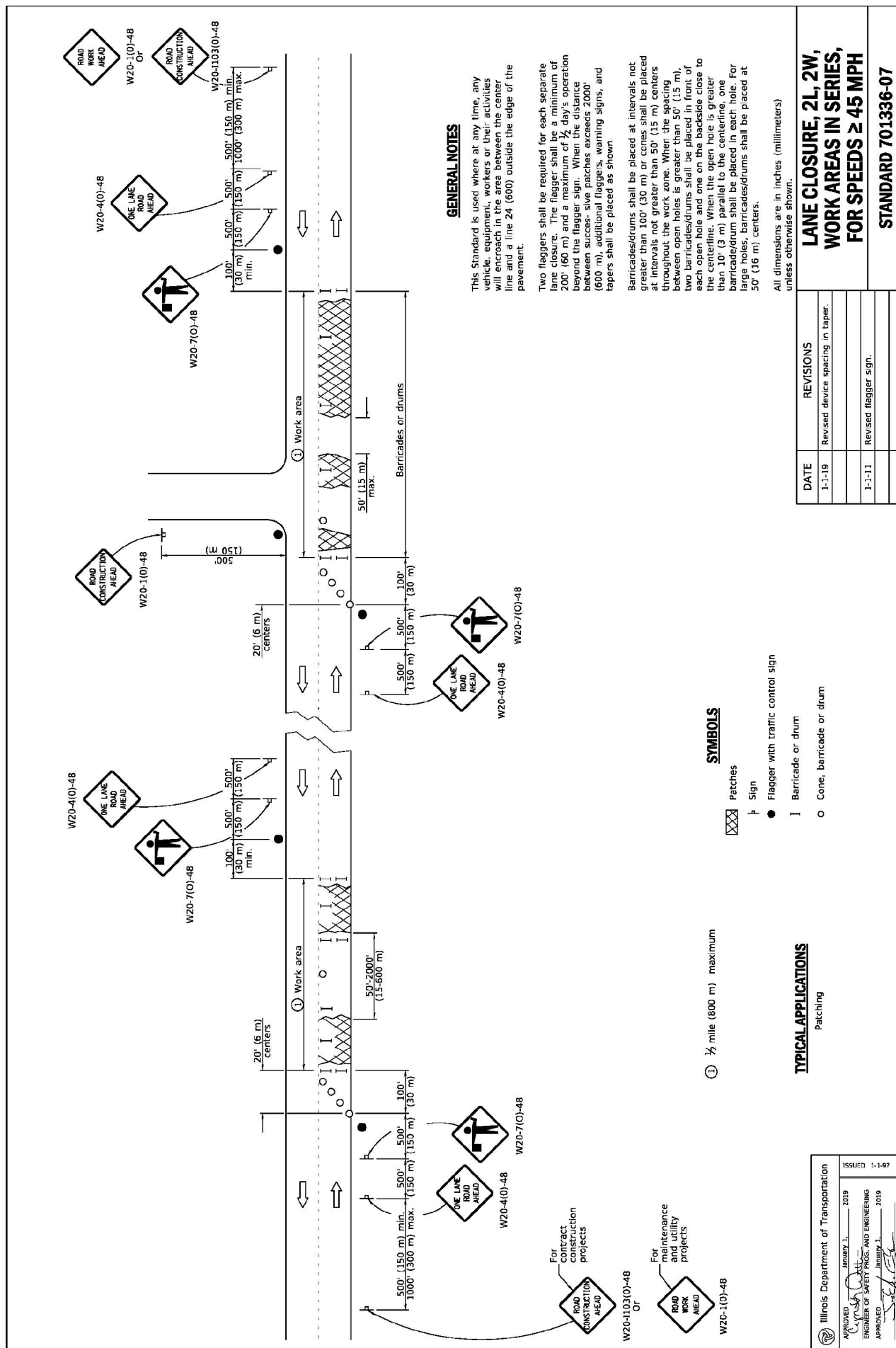
Various Specifications:

1. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
2. First two warning signs on each approach to the work involving a nighttime lane closure.
Lights Required: Flashing mono-directional lights.
[SS pg. 609 / 701.16]

General Information:

1. No passing zones shall be striped where sight distance restrictions warrant.
2. Edge and centerline pavement markings are required for this Standard.

FOR INFORMATIONAL USE ONLY



Standard 701336

Two flaggers shall be required for each separate construction operations. The flagger shall be a minimum of 200 ft. (60 m) and a maximum distance of ½ day's operation beyond the flagger sign. When the distance between successive patches exceeds 2000 ft. (600 m), additional flaggers warning signs, and tapers shall be placed as shown.

Barricades/drums shall be placed at intervals not greater than 100 ft. (30 m) or cones shall be placed at intervals not greater than 50 ft. (15 m) centers throughout the work zone.

When the spacing between open holes is greater than 50 ft. (15 m), two barricades/drums shall be placed in front of each open hole and one on the backside close to the centerline.

When the open hole is greater than 10 ft. (3 m) parallel to the centerline, one barricade/drum shall be placed in each hole. For larger holes, barricades/drums shall be placed at 50 ft. (16 m) centers.
[Standard – General Notes]

Various Specifications:

1. The longitudinal placement of the flagger may be increased up to 100 ft. (30 m) from that shown on the plans to improve the visibility of the flagger. [SS pg. 605 / 701.13]
2. Work operations controlled by flaggers shall be no more than 1 mile (1600 m) in length. Flaggers shall be in sight of each other or in direct communication at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies.
[SS pg.606 / 701.13(a)]
3. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. . . . Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606 / 701.14]
4. Pavement Patching: [SS pg. 611 - 612 / 701.17(e)]
5. No broken pavement, open holes, or partially filled patches shall remain overnight and all devices shall be removed before dark. If patches are not opened when required, additional traffic control shall be provided at no additional cost to the Department.
[SS pg. 612 / 701.17(e)(2)b]

FOR INFORMATIONAL USE ONLY

Standard 701400

Various Specifications:

First two warning signs on each approach to the work involving a nighttime lane closure.

Lights Required: Flashing mono-directional lights

[SS pg. 609 / 701.16]

General Information:

1. This Standard is to be used with Standards 701401, 701402, 701406, 701416, and 701446.
2. The message panel shall be a minimum of 7 ft (2.1 m) above the edge of pavement in urban areas and a minimum of 5 ft (1.5 m) above the edge of pavement in rural areas, present a level appearance, and be capable of displaying up to eight characters in each of three lines at a time. [SS pg. 1173 / 1106.02(i)]
3. When portable changeable message signs are shown on the Standard, this work will not be paid for separately but shall be considered as included in the cost of the Standard. [SS pg. 621 / 701.20(h)]
4. When speed display trailers are shown on the Standard, this work will not be paid for separately, but shall be considered as included in the cost of the Standard. [BDE special provision "Speed Display Trailer"].

FOR INFORMATIONAL USE ONLY

Standard 701401

The END WORK ZONE SPEED LIMIT sign shall be black on white. [Standard – Sign Code]

1. Multi-Lane Pavement Resurfacing: For the construction of binder course, surface course and shoulder resurfacing on multilane pavements, Standards 701401, 701406, 701421, 701422, or 701446 shall be used from the beginning of business on Monday to 4:30 p.m. on Friday. Only Standards 701406 and 701421 shall be used from 4:30 p.m. Friday to start of business on Monday. [SS pg. 616 / 701.18(d)(1)]
2. Shoulder Upgrading and Replacement: The following shall apply to shoulder pipe underdrain installation and/or shoulder reconstruction on existing multilane divided highways.

The Contractor shall close the adjacent lane of pavement according to the Standard within the limits of the construction zone:

- a. When required by the Contractor's operations; and,
- b. When no workers are present and the difference in elevation between the pavement and the shoulder and/or widening is greater than 12 in. (300).

During shoulder work on ramps, refer to standard 701456.

Standard 701401 and 701422 will only be measured for payment where the average depth of shoulder reconstruction required by the plans, exclusive of any trench for pipe underdrain installation, is in excess of 3 in. (75 mm). Where such shoulder reconstruction is 3 in. (75 mm) or less, no open trench greater than 3 in. (75 mm) deep will be permitted overnight. If, because of unforeseen circumstances, an open trench greater than 3 in. (75 mm) deep should occur overnight, the Contractor shall, at no additional cost to the Department, close the adjacent traffic lane according to Standards 701400 and 701401 or according to Standard 701422.

Excavations greater than 3 in. (75 mm) in depth between the pavement and shoulder, including any trenches within the shoulder area, shall be restricted to one shoulder in each direction of travel. In addition, shoulder drop-offs greater than 1 ½ in. (38 mm) caused by the Contractor's operations will not be permitted over the winter shutdown.

The Contractor shall schedule the work so the lane closure at any one-work area does not exceed five working days. The closure time may be exceeded for conditions beyond the Contractor's control, except if continual and persistent closures in excess of the five working days are made, the Engineer will initiate measures to delay or limit the daily production of the Contractor's operations.

All debris shall be removed from the shoulder and right-of-way prior to the removal of barricades, drums, or vertical panels. [SS pg. 616 - 617 / 701.18(d)(2)]

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions, shall be removed, covered, or turned from the view of the motorists. [SS pg. 601 / 701.04]

Standard 701401 - Continued

2. The longitudinal placement of the flagger may be increased up to 100 ft. (30 m) from that shown on the plans to improve the visibility of the flagger. [SS pg. 605 / 701.13]
3. Use of Flaggers and Spotters. [BDE Special Provision "Traffic Spotters"]
4. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
5. Work Zone Speed Limit Signs. Work zone speed limit sign assemblies shall be provided and located as shown on the plans. Two additional assemblies shall be placed 500 ft. (150 m) beyond the last entrance ramp for each interchange or sideroad.

All permanent "SPEED LIMIT" signs located within 500 ft. (150 m) in advance of the first work zone speed limit sign to the end of the work zone shall be removed or covered. This work shall be coordinated with the lane closures(s) by promptly establishing a posted work zone speed zone when the lane closures(s) are put into effect and promptly reinstating the posted speed zone when the lane closure(s) are removed.

The work zone speed limit signs and end work zone speed limit signs shown in advance of and at the end of the lane closure(s) shall be used for the entire duration of the closures(s).

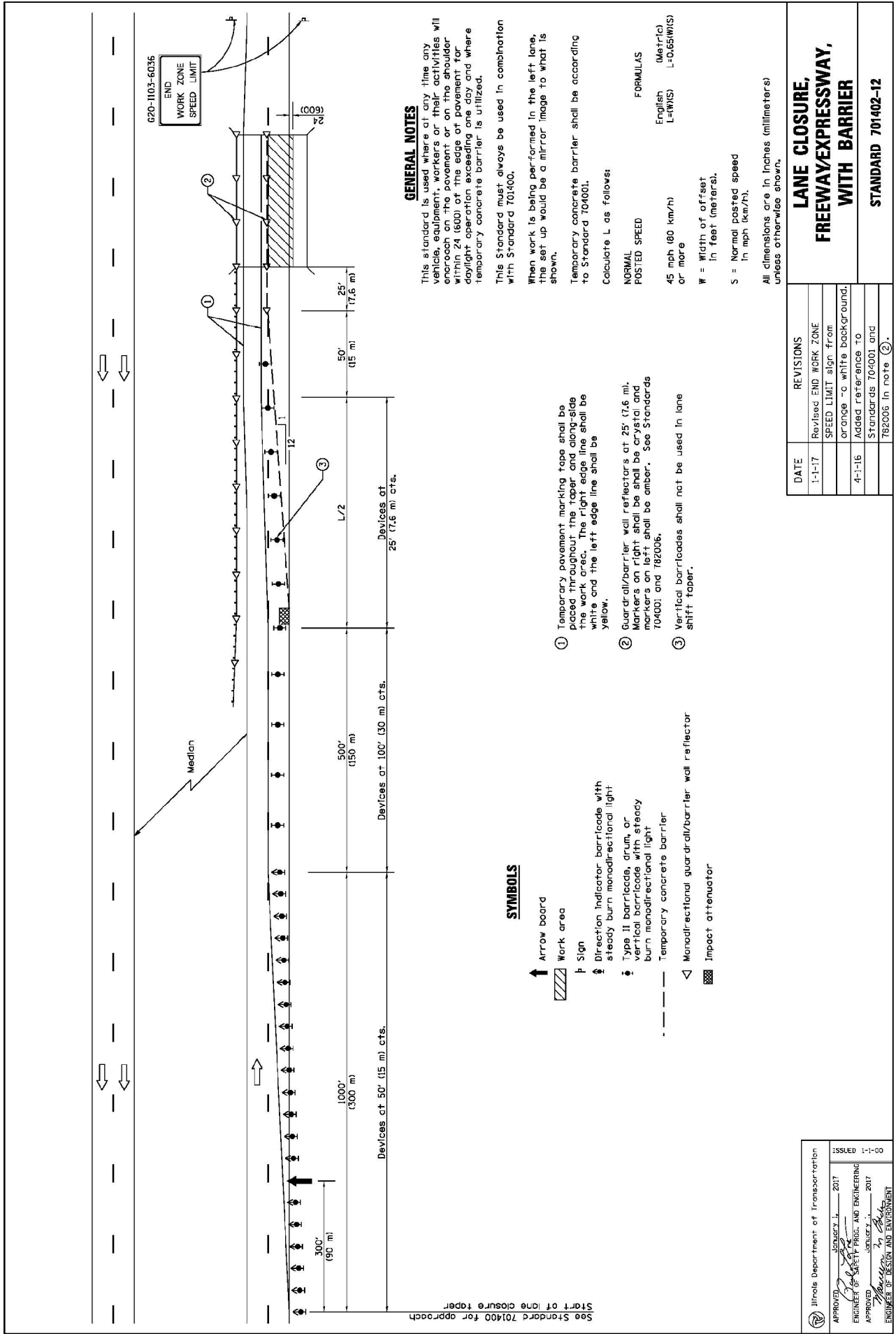
The work zone speed limit signs shown within the lane closure(s) shall only be used when workers are present in the closed lane adjacent to traffic. The sign assemblies shown within the lane closure(s) will not be required when the worker(s) are located behind a concrete barrier wall. [SS pg. 607 / 701.14(b)]

6. Channelizing devices for nighttime along lane shifts on multi-lane roads. Lights Required: Steady burn mono-directional lights [SS pg. 609 / 701.16]
7. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]
8. "ROUGH GROOVED SURFACE" signs. [SS pg. 610 / 701.17(c)(2)]
9. Pavement Patching: [SS pg. 611-612 / 701.17(e)]
10. Where posted speeds are greater than 40 mph cones shall be a minimum of 28 in. (700 mm) in height. [Standard 701901]

General Information:

This standard does not apply when work is being performed in the middle lane(s) of a six or more lane highway. Special plans will be required.

FOR INFORMATIONAL USE ONLY



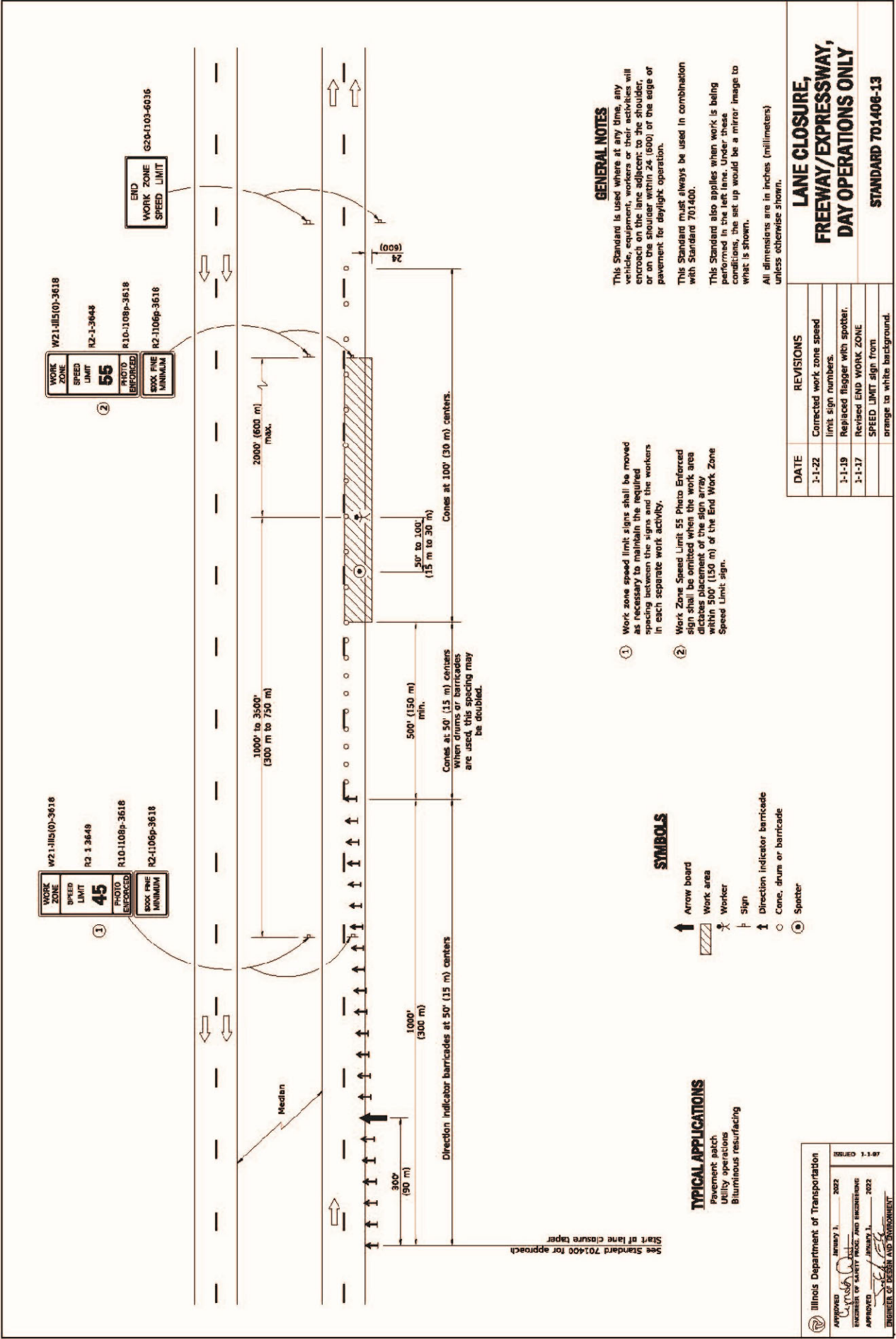
Standard 701402

The END WORK ZONE SPEED LIMIT sign shall be black on white. [Standard – Sign Code]

Various Specifications:

1. All existing pavement markings which conflict with the revised traffic pattern shall be removed according to Section 783. [SS pg. 601 / 701.04]
2. Where the clear width through a work zone with temporary concrete barrier will be 16.0 ft. (4.88 m) or less, the Contractor shall notify the Engineer at least 21 days in advance of implementing the traffic control for that restriction. [SS pg. 601 / 701.06]
3. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
4. Devices in nighttime lane closures tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]
5. Channelizing devices for nighttime along lane shifts on multilane roads. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]

FOR INFORMATIONAL USE ONLY



DATE		REVISIONS	
1-1-22		Connected work zone speed limit sign numbers.	
1-1-19		Replaced flagger with spotter.	
1-1-17		Revised END WORK ZONE SPEED LIMIT sign from orange to white background.	

APPROVED JANUARY 1, 2022 ENGINEER OF SAFETY APPROVED JANUARY 1, 2022 ENGINEER OF DESIGN AND ENVIRONMENT	ILLINOIS Department of Transportation JANUARY 1, 2022 TOLLEDO 1-1-87
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Standard 701406

The END WORK ZONE SPEED LIMIT sign shall be black on white. [Standard – Sign Code]

1. Multilane Pavement Resurfacing. For the construction of binder course, surface course and shoulder resurfacing on multilane pavements, this standard may be used at all times. [SS pg. 616 / 701.18(d)(1)]
2. Shoulder Upgrading and Replacement. The following shall apply to shoulder pipe underdrain installation and/or shoulder reconstruction on existing multilane divided highways.

The Contractor shall close the adjacent lane of pavement according to the Standard within the limits of the construction zone.

- a. When required by the contractor's operations; and,
- b. When no workers are present and the difference in elevation between the pavement and the shoulder and/or widening is greater than 12 in. (300 mm).

During shoulder work on ramps, refer to Standard 701456.

Excavations greater than 3 in. (75 mm) in depth between the pavement and shoulder, including any trenches within the shoulder area, shall be restricted to one shoulder in each direction of travel. In addition, shoulder drop-offs greater than 1 ½ in. (38 mm) caused by the Contractor's operations will not be permitted over the winter shutdown.

The Contractor shall schedule the work so the lane closure at any one work area, does not exceed five working days. The closure time may be exceeded for conditions beyond the Contractor's control, except if continual and persistent closures in excess of the five working days are made, the Engineer will initiate measures to delay or limit the daily production of the Contractor's operations.

All debris shall be removed from the shoulder and right-of-way prior to the removal of barricades, drums, or vertical panels. [SS pg. 616-617 / 701.18(d)(2)]

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions, shall be removed, covered, or turned from the view of the motorists. [SS pg. 601 / 701.04]
2. The longitudinal placement of the flagger may be increased up to 100 ft. (30 m) from that shown on the plans to improve the visibility of the flagger. [SS pg. 605 / 701.13]
3. Use of Flaggers and Spotters. [BDE Special Provision "Traffic Spotters"]
4. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 607 / 701.14]

Standard 701406 - Continued

5. Work Zone Speed Limit Signs. Work zone speed limit sign assemblies shall be provided and located as shown on the plans. Two additional assemblies shall be placed 500 ft. (150 m) beyond the last entrance ramp for each interchange or sideroad.

All permanent "SPEED LIMIT" signs located within 500 ft. (150 m) in advance of the first work zone speed limit sign to the end of the work zone shall be removed or covered. This work shall be coordinated with the lane closures(s) by promptly establishing a reduced posted speed zone when the lane closures(s) are put into effect and promptly reinstating the posted speed zone when the lane closure(s) are removed.

The work zone speed limit signs and end work zone speed limit signs shown in advance of and at the end of the lane closure(s) shall be used for the entire duration of the closures(s).

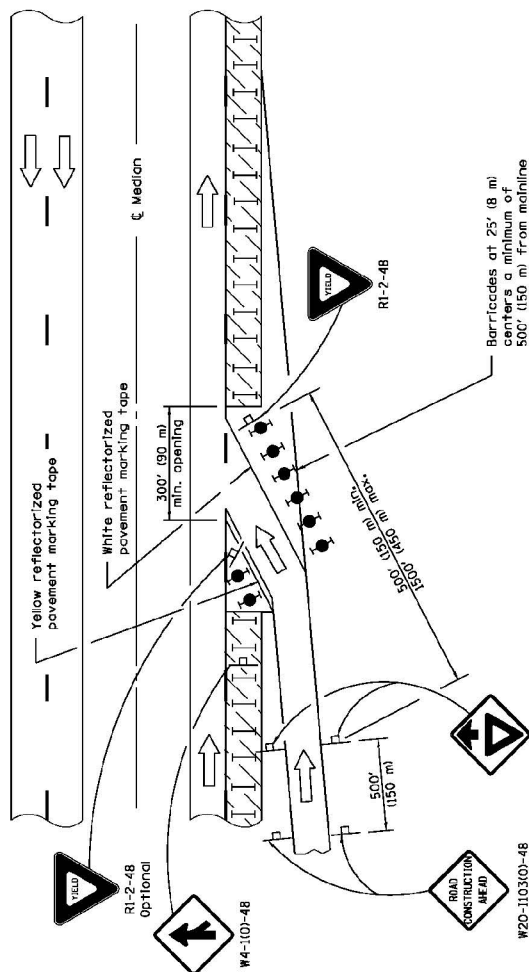
The work zone speed limit signs shown within the lane closure(s) shall only be used when workers are present in the closed lane adjacent to traffic. The sign assemblies shown within the lane closure(s) will not be required when the worker(s) are located behind a concrete barrier wall. [SS pg. 607 / 701.14(b)]

6. Cold Milling. "ROUGH GROOVED SURFACE" (W8-I107) signs shall be erected when the road has been cold milled and opened to traffic. The signs shall be placed just prior to the cold milling operation and shall remain in place until the milled surface condition no longer exists. These signs shall be erected a minimum of 500 ft. (150 m) preceding the start of the milled pavement, just before each major intersection within the milled area, and at other locations as directed by the Engineer. [SS pg. 610 / 701.17(c)(2)]
7. Where posted speeds are greater than 40 mph cones shall be a minimum of 28 in. (700 mm) in height. [Standard 701901]

General Information:

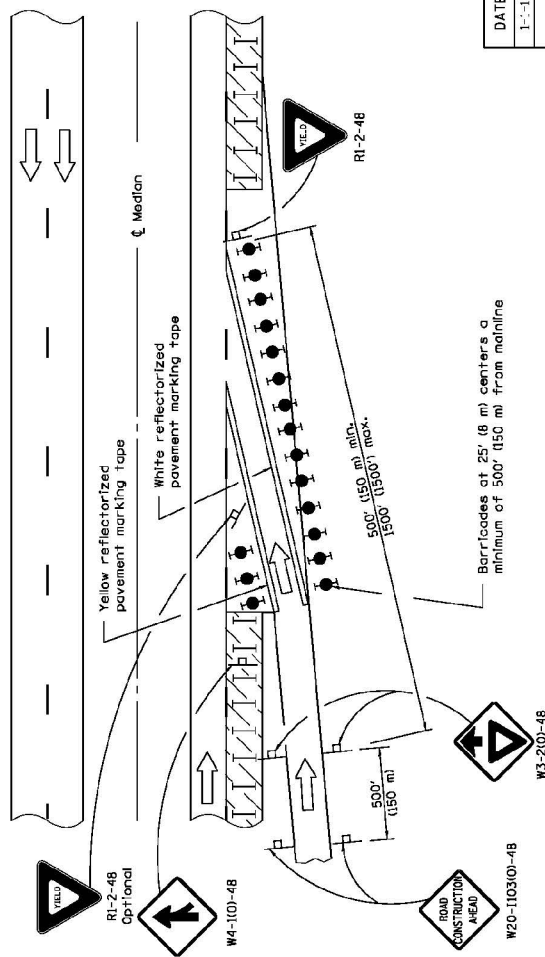
1. Equipment, materials, signs, cones, barricades, and drums are to be removed at the completion of the day's operations and the work area opened to traffic.
2. This standard does not apply when work is being performed in the middle lane(s) of a six or more lane highway. Special plans will be required.
3. Daylight operations. Lights Required: None

FOR INFORMATIONAL USE ONLY



APPLICATION NO. 1

Application No. 1 depicts a modified entrance ramp. This method shall be utilized whenever existing entrance tapers cannot be retained due to the close proximity of the work zone. The entrance location may be shifted, with the approval of the Engineer, to perform work in the entrance area. Application No. 2 shall be put into effect as soon as possible.



APPLICATION NO. 2

Application No. 2 depicts a shortening of the normal entrance ramp. This method shall be used whenever the existing geometrics can be retained. Consideration should be given to the entering motorists' line of sight, through, between, or over the delineation devices.

SYMBOLS

- Work area**
-  Sign
-  Type II barricades or drums with steady burning monodirectional light
-  Type II barricades or drums
-  Drums with steady burning monodirectional light

GENERAL NOTES

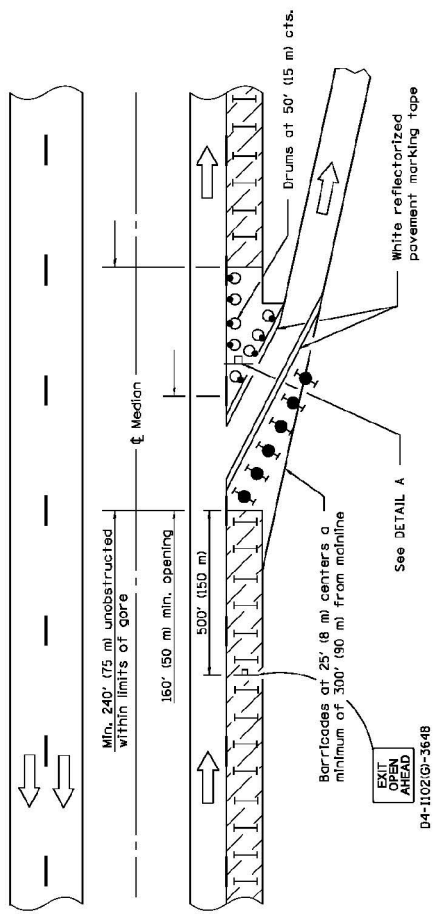
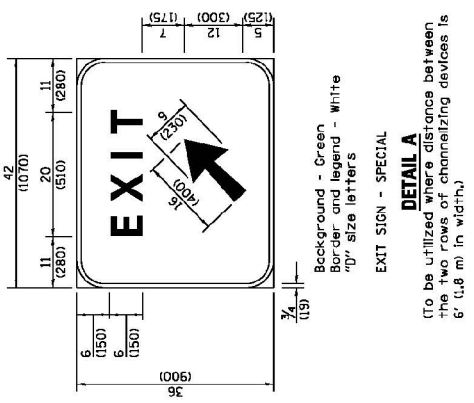
This Standard is used where, at any time any vehicles, equipment, workers or their activities require a lane closure in close proximity of an entrance or exit ramp and supplements other traffic control Standards for lane closures.

These applications also apply when work is being performed in the left lanes and the ramps enter and exit on the left. Under these conditions, the exit sign arrow and the Slide road symbol sign shall be changed.

DATE	REVISIONS
1--15	Revised gen. notes to limit App's 1 and 3 to five days, om't pvt. tape for ≤ 5 days,
1--12	Revised merge sign to agree with MU'CD. Dimensioned EXIT

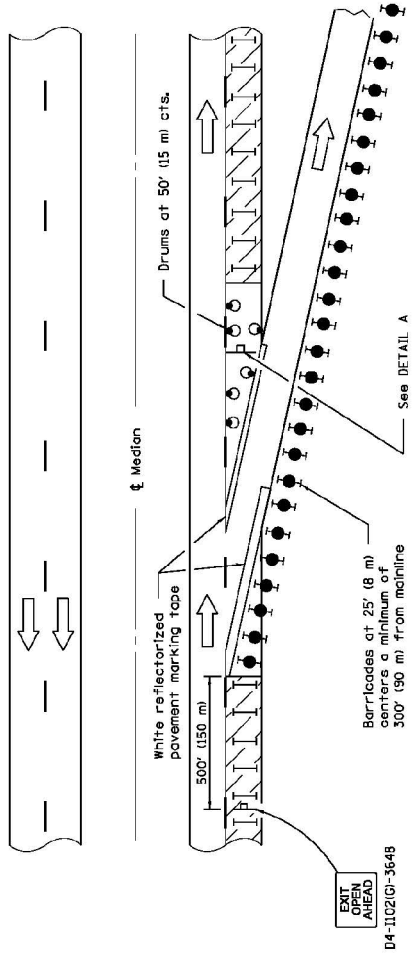
**LANE CLOSURE, MULTILANE,
AT ENTRANCE OR EXIT RAMP,
FOR SPEEDS > 45 MPH**

STANDARD 701411-09



APPLICATION NO. 3

Application No. 3 depicts a modified exit ramp. The channelizing devices shall provide a clearly defined path for the exiting motorists. The minimum dimensions shown shall be increased as soon as the progress of the work will permit. The open portion of the ramp may be shifted, with the approval of the Engineer, to perform work in stages on the area adjacent to the ramp exit. Application No. 4 shall be put into effect as soon as possible.



APPLICATION NO. 4

Application No. 4 depicts an extension of the normal exit ramp. This method shall be used whenever existing geometrics can be retained. Consideration should be given to the exiting motorist's line of sight through, between or over the delineation devices.

LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS $\geq$ 45 MPH
(Sheet 2 of 2)

STANDARD 701411-09

	Illinois Department of Transportation	
	APPROVED	JANUARY 1, 2015
	ENGINEER OF SAFETY ENGINEERING	JANUARY 1, 2015
	APPROVED	JANUARY 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT		ISSUED 1-1-97

Standard 701411

This Standard shall supplement mainline traffic controls for lane closures.

The channelizing devices shall clearly define a path for motorists entering or exiting the highway.

Raised reflectorized pavement markers at 25 ft. (8 m) centers may be used in lieu of tape where the pavement marking is to be placed adjacent to the barricades or drums.

[SS pg. 617 / 701.18(g)]

When work does not exceed 5 days, pavement marking tape may be omitted.

[Standard – General Notes]

Use of APPLICATION NO. 1 and APPLICATION NO. 3 shall be limited to five days per location.

[Standard – General Notes]

Various Specifications:

1. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
2. Daylight operations. Lights Required: None
3. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
4. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]
5. Channelizing devices for nighttime along lane shifts on multilane roads. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]

FOR INFORMATIONAL USE ONLY

Standard 701416

The END WORK ZONE SPEED LIMIT sign shall be black on white. [Standard – Sign Code]

A reflective solid edge line and yellow centerline for each direction of traffic shall be used when the closure time exceeds four days or when the normal posted speed outside the area of operations exceeds 50 mph. Reflectorized pavement marking tape shall be used for marking the edge lines and centerline on existing pavement. Either tape or reflectorized pavement marking paint may be used for markings on the paved crossovers. Raised reflective pavement markers at 25 ft. (8 m) centers shall be installed for additional delineation.

Vertical panels may be attached to concrete barriers where available space prohibits the use of drums. [SS pg. 617 / 701.18(e)]

Various Specifications:

1. All existing pavement markings which conflict with the revised traffic pattern shall be removed according to Section 783. [SS pg. 601 / 701.04]
2. Where the clear width through a work zone with temporary concrete barrier will be 16.0 ft. (4.88 m) or less, the Contractor shall notify the Engineer at least 21 days in advance of implementing the traffic control for that restriction. [SS pg. 601 / 701.06]
3. Work Zone Speed Limit Signs. Work zone speed limit sign assemblies shall be provided and located as shown on the plans. Two additional assemblies shall be placed 500 ft. (150 m) beyond the last entrance ramp for each interchange or sideroad.

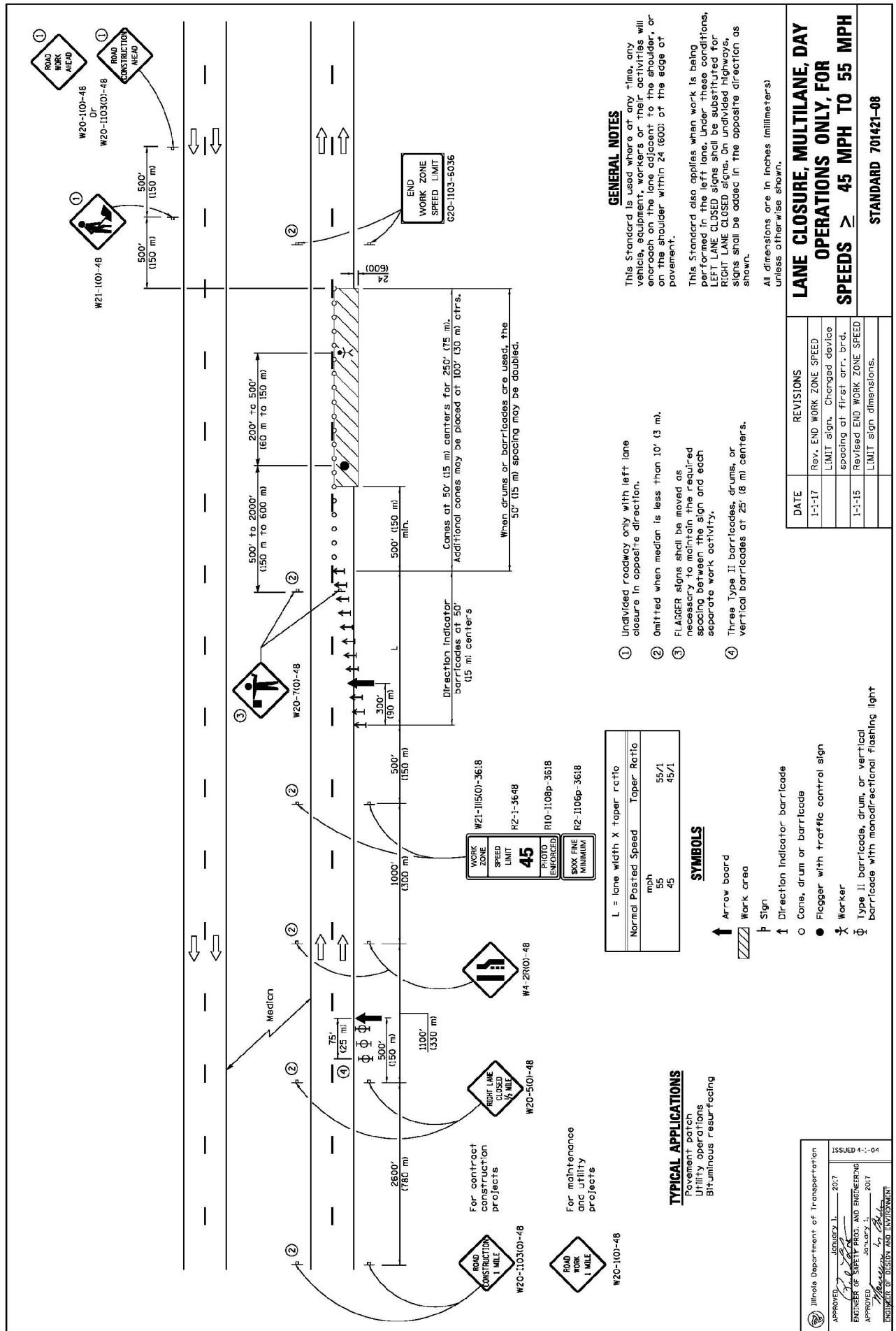
All permanent “SPEED LIMIT” signs located within 500 ft. (150 m) in advance of the first work zone speed limit sign to the end of the work zone shall be removed or covered. This work shall be coordinated with the lane closure(s) by promptly establishing a reduced posted speed zone when the lane closure(s) are put into effect and promptly reinstating the posted speed zone when the lane closure(s) are removed.

The work zone speed limit signs and end work zone speed limit signs shown in advance of and at the end of the lane closure(s) shall be used for the entire duration of the closures(s).

The work zone speed limit signs shown within the lane closure(s) shall only be used when workers are present in the closed lane adjacent to traffic. The sign assemblies shown within the lane closure(s) will not be required when the worker(s) are located behind a concrete barrier wall. [SS pg. 607 / 701.14(b)]

4. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]
5. Channelizing devices for nighttime along lane shifts on multilane roads. Lights Required: Steady burn mono-directional lights [SS pg. 609 / 701.16]

FOR INFORMATIONAL USE ONLY



Standard 701421

The END WORK ZONE SPEED LIMIT sign shall be black on white. [Standard – Sign Code]

1. Multilane Pavement Resurfacing. For the construction of binder course, surface course and shoulder resurfacing on multilane pavement, this standard may be used at all times. [SS pg. 616 / 701.18(d)(1)]
2. Shoulder Upgrading and Replacement: The following shall apply to shoulder pipe underdrain installation and/or shoulder reconstruction on existing multilane divided highways.

The Contractor shall close the adjacent lane of pavement according to the Standard within the limits of the construction zone.

- a. When required by the contractor's operations; and,
- b. When no workers are present and the difference in elevation between the pavement and the shoulder and/or widening is greater than 12 in. (300 mm).

During shoulder work on ramps, refer to Standard 701456.

Excavations greater than 3 in. (75 mm) in depth between the pavement and shoulder, including any trenches within the shoulder area, shall be restricted to one shoulder in each direction of travel. In addition, should drop-offs greater than 1 ½ in. (38 mm) caused by the Contractor's operations will not be permitted over the winter shutdown.

The Contractor shall schedule the work so the lane closure at any one work area does not exceed five working days. The closure time may be exceeded for conditions beyond the Contractor's control, except if continual and persistent closures in excess of the five working days are made, the Engineer will initiate measures to delay or limit the daily production of the Contractor's operations.

All debris shall be removed from the shoulder and right-of-way prior to the removal of barricades, drums or vertical panels. [SS pg. 616-617 / 701.18(d)(2)]

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or turned from the view of motorists. [SS pg. 601 / 701.04]
2. The longitudinal placement of the flagger may be increased up to 100 ft. (30 m) from that shown on the plans to improve the visibility of the flagger. [SS pg. 605 / 701.13]
3. One flagger will be required for each separate activity of an operation that requires frequent encroachment in a lane open to traffic. [SS pg. 606 / 701.13(b)]
4. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operations. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]

Standard 701421 - Continued

5. Work Zone Speed Limit Signs. Work zone speed limit sign assemblies shall be provided and located as shown on the plans. Two additional assemblies shall be placed 500 ft. (150 m) beyond the last entrance ramp for each interchange or sideroad.

All permanent "SPEED LIMIT" signs located within 500 ft. (150 m) in advance of the first work zone speed limit sign to the end of the work zone shall be removed or covered. This work shall be coordinated with the lane closures(s) by promptly establishing a reduced posted speed zone when the lane closures(s) are put into effect and promptly reinstating the posted speed zone when the lane closure(s) are removed..

The work zone speed limit signs and end work zone speed limit signs shown in advance of and at the end of the lane closure(s) shall be used for the entire duration of the closures(s).

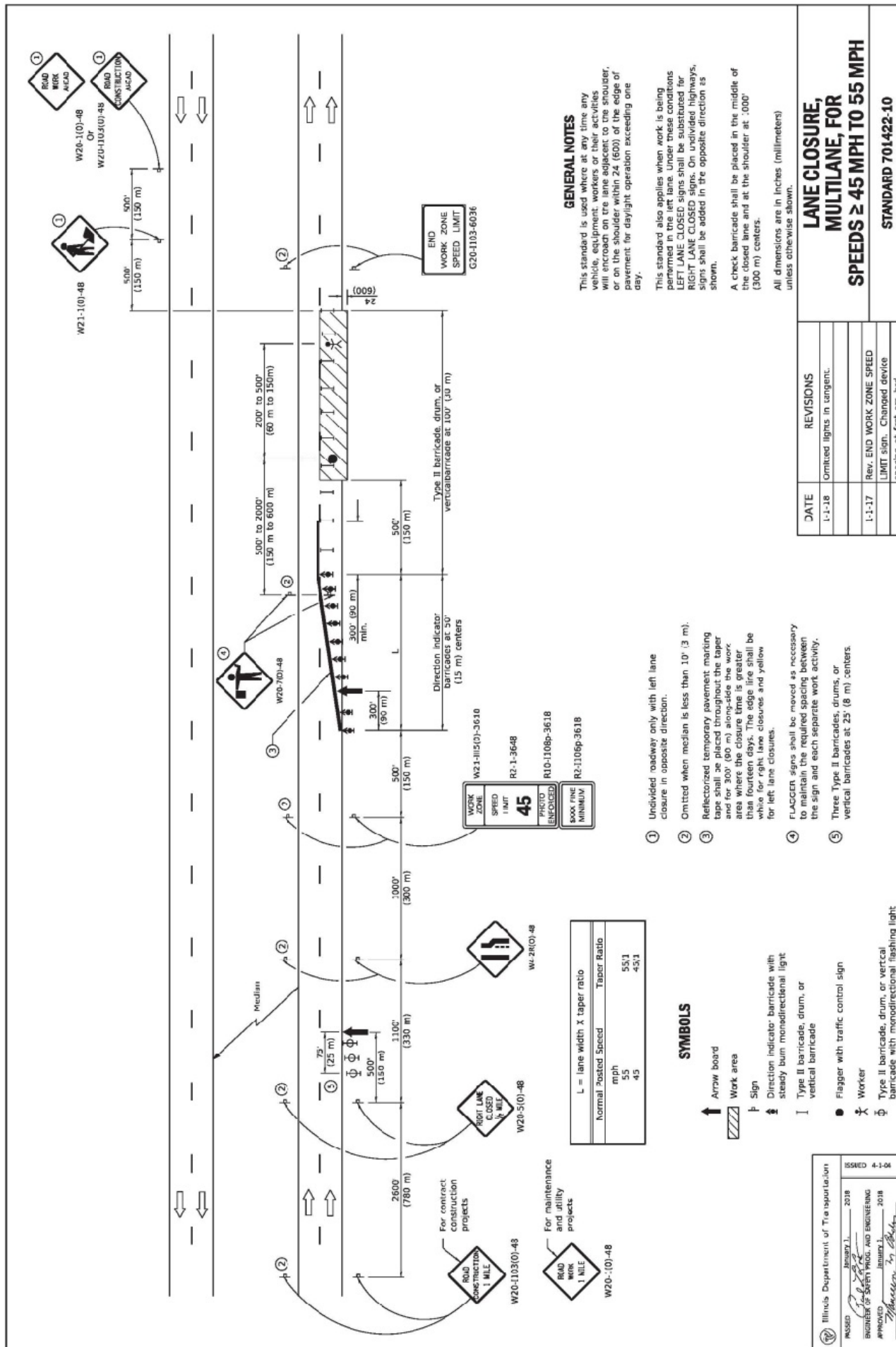
The work zone speed limit signs shown within the lane closure(s) shall only be used when workers are present in the closed lane adjacent to traffic. The sign assemblies shown within the lane closure(s) will not be required when the worker(s) are located behind a concrete barrier wall. [SS pg. 607 / 701.14(b)]

6. Cold Milling. "ROUGH GROOVED SURFACE" (W8-I107) signs shall be erected when the road has been cold milled and opened to traffic. The signs shall be placed just prior to the cold milling operation and shall remain in place until the milled surface condition no longer exists. These signs shall be erected a minimum of 500 ft. (150 m) preceding the start of the milled pavement, just before each major intersection within the milled area, and at other locations as directed by the Engineer. [SS pg. 610 / 701.17(c)(2)]
7. Pavement Patching. [SS pg. 611-612 / 701.17(e)]
8. Where posted speeds are greater than 40 mph cones shall be a minimum of 28 in. (700 mm) in height. [Standard 701901]

General Information:

1. Equipment, materials, signs, cones, barricades, and drums are to be removed at the completion of the day's operations and the work area opened to traffic.
2. This standard does not apply when work is being performed in the middle lane(s) of a six or more lane highway. Special plans will be required.

FOR INFORMATIONAL USE ONLY



Standard 701422

The END WORK ZONE SPEED LIMIT sign shall be black on white. [Standard – Sign Code]

1. Multilane Pavement Resurfacing: For the construction of binder course, surface course and shoulder resurfacing on multilane pavements, Standard 701422 shall be used for the beginning of business on Monday to 4:30 p.m. on Friday. Only Standards 701406 and 701421 shall be used from 4:30 p.m. Friday to start of business on Monday.
[SS pg. 616 / 701.18(d)(1)]
2. Shoulder Upgrading and Replacement: The following shall apply to shoulder pipe underdrain installation and/or shoulder reconstruction on existing multilane divided highways.

The Contractor shall close the adjacent lane of pavement according to the Standard within the limits of the construction zone.

- a. When required by the contractor's operations; and,
- b. When no workers are present and the difference in elevation between the pavement and the shoulder and/or widening is greater than 12 in. (300 mm).

During shoulder work on ramps, refer to standard 701456.

Standards 701401 and 701422 will only be measured for payment where the average depth of shoulder reconstruction required by the plans, exclusive of any trench for pipe underdrain installation, is in excess of 3 in. (75 mm). Where such shoulder reconstruction is 3 in. (75 mm) or less, no open trench greater than 3 in. (75 mm) deep will be permitted overnight. If, because of unforeseen circumstances, an open trench greater than 3 in. (75 mm) deep should occur overnight, the Contractor shall, at no additional cost to the Department, close the adjacent traffic lane according to Standard 701422.

Excavations greater than 3 in. (75 mm) in depth between the pavement and shoulder, including any trenches within the shoulder area, shall be restricted to one shoulder in each direction of travel. In addition, shoulder drop-offs greater than 1 ½ in. (38 mm) caused by the Contractor's operations will not be permitted over the winter shutdown.

The Contractor shall schedule the work so the lane closure at any one work area does not exceed five working days. The closure time may be exceeded for conditions beyond the Contractor's control, except if continual and persistent closures in excess of the five working days are made, the Engineer will initiate measures to delay or limit the daily productions of the Contractor's operations.

All debris shall be removed from the shoulder and right-of-way prior to the removal of barricades, drums or vertical panels. [SS pg. 616-617 / 701.18(d)(2)]

Standard 701422 - Continued

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or turned from the view of motorists. [SS pg. 601 / 701.04]
2. The longitudinal placement of the flagger may be increased up to 100 ft. (30 m) from that shown on the plans to improve the visibility of the flagger. [SS pg. 605 / 701.13]
3. One flagger will be required for each separate activity of an operation that requires frequent encroachment in a lane open to traffic. [SS pg. 606 / 701.13(b)]
4. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 607 / 701.14]
5. Work Zone Speed Limit Signs. Work zone speed limit sign assemblies shall be provided and located as shown on the plans. Two additional assemblies shall be placed 500 ft. (150 m) beyond the last entrance ramp for each interchange or sideroad.

All permanent "SPEED LIMIT" signs located within 500 ft. (150 m) in advance of the first work zone speed limit sign to the end of the work zone shall be removed or covered. This work shall be coordinated with the lane closures(s) by promptly establishing a reduced posted speed zone when the lane closures(s) are put into effect and promptly reinstating the posted speed zone when the lane closure(s) are removed.

The work zone speed limit signs and end work zone speed limit signs shown in advance of and at the end of the lane closure(s) shall be used for the entire duration of the closures(s).

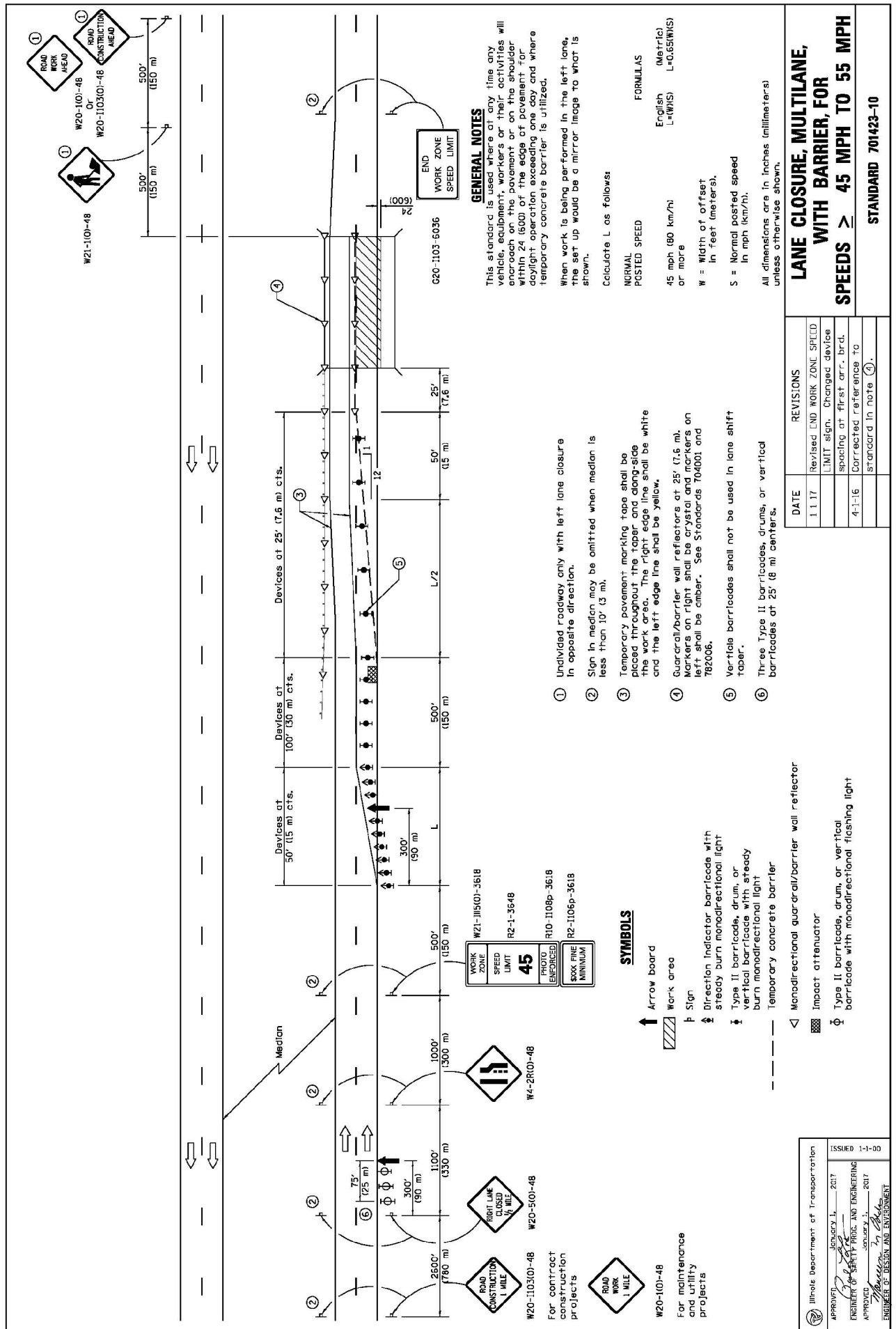
The work zone speed limit signs shown within the lane closure(s) shall only be used when workers are present in the closed lane adjacent to traffic. The sign assemblies shown within the lane closure(s) will not be required when the worker(s) are located behind a concrete barrier wall. [SS pg. 607 / 701.14(b)]

6. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
7. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]

General Information:

1. This standard does not apply when work is being performed in the middle lane(s) of a six or more lane highway. Special plans will be required.
2. Channelizing devices for nighttime lane closures on multi-lane roads. Lights Required: None.

FOR INFORMATIONAL USE ONLY



Standard 701423

The END WORK ZONE SPEED LIMIT sign shall be black on white. [Standard – Sign Code]

Various Specifications:

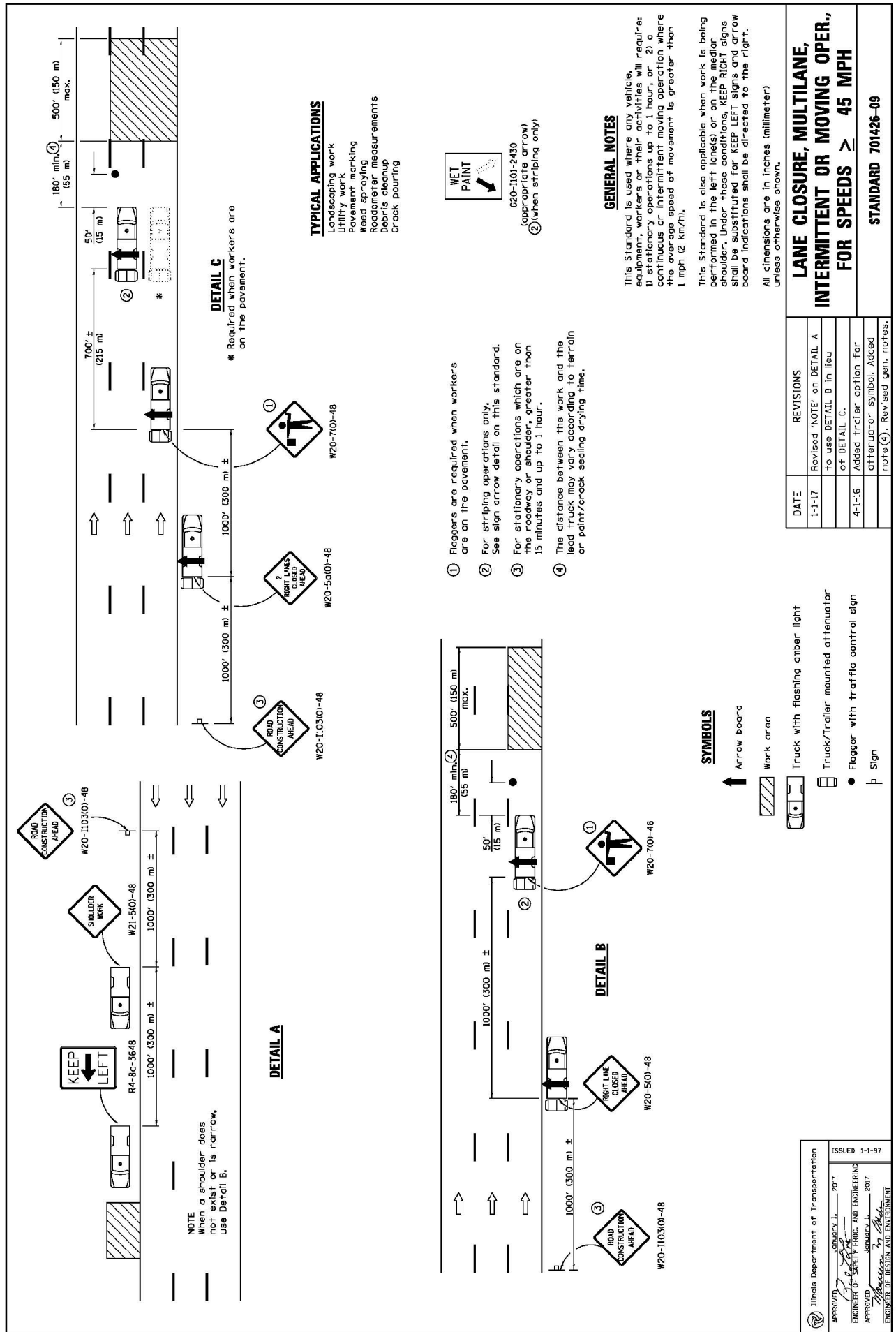
1. All existing pavement markings which conflict with the revised traffic pattern shall be removed according to Section 783. [SS pg. 601 / 701.04]
2. Where the clear width through a work zone with temporary concrete barrier will be 16.0 ft. (4.88 m) or less, the Contractor shall notify the Engineer at least 21 days in advance of implementing the traffic control for that restriction. [SS pg. 601 / 701.06]
3. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
6. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
7. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]
8. Channelizing devices for nighttime along lane shifts on multilane roads. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]
9. Work Zone Speed Limit Signs. Work zone speed limit sign assemblies shall be provided and located as shown on the plans. Two additional assemblies shall be placed 500 ft. (150 m) beyond the last entrance ramp for each interchange or sideroad.

All permanent "SPEED LIMIT" signs located within 500 ft. (150 m) in advance of the first work zone speed limit sign to the end of the work zone shall be removed or covered. This work shall be coordinated with the lane closure(s) by promptly establishing a reduced posted speed zone when the lane closure(s) are put into effect and promptly reinstating the posted speed zone when the lane closure(s) are removed.

The work zone speed limit signs and end work zone speed limit signs shown in advance of and at the end of the lane closure(s) shall be used for the entire duration of the closures(s).

The work zone speed limit signs shown within the lane closure(s) shall only be used when workers are present in the closed lane adjacent to traffic. The sign assemblies shown within the lane closure(s) will not be required when the worker(s) are located behind a concrete barrier wall. [SS pg. 607 / 701.14(b)]

FOR INFORMATIONAL USE ONLY



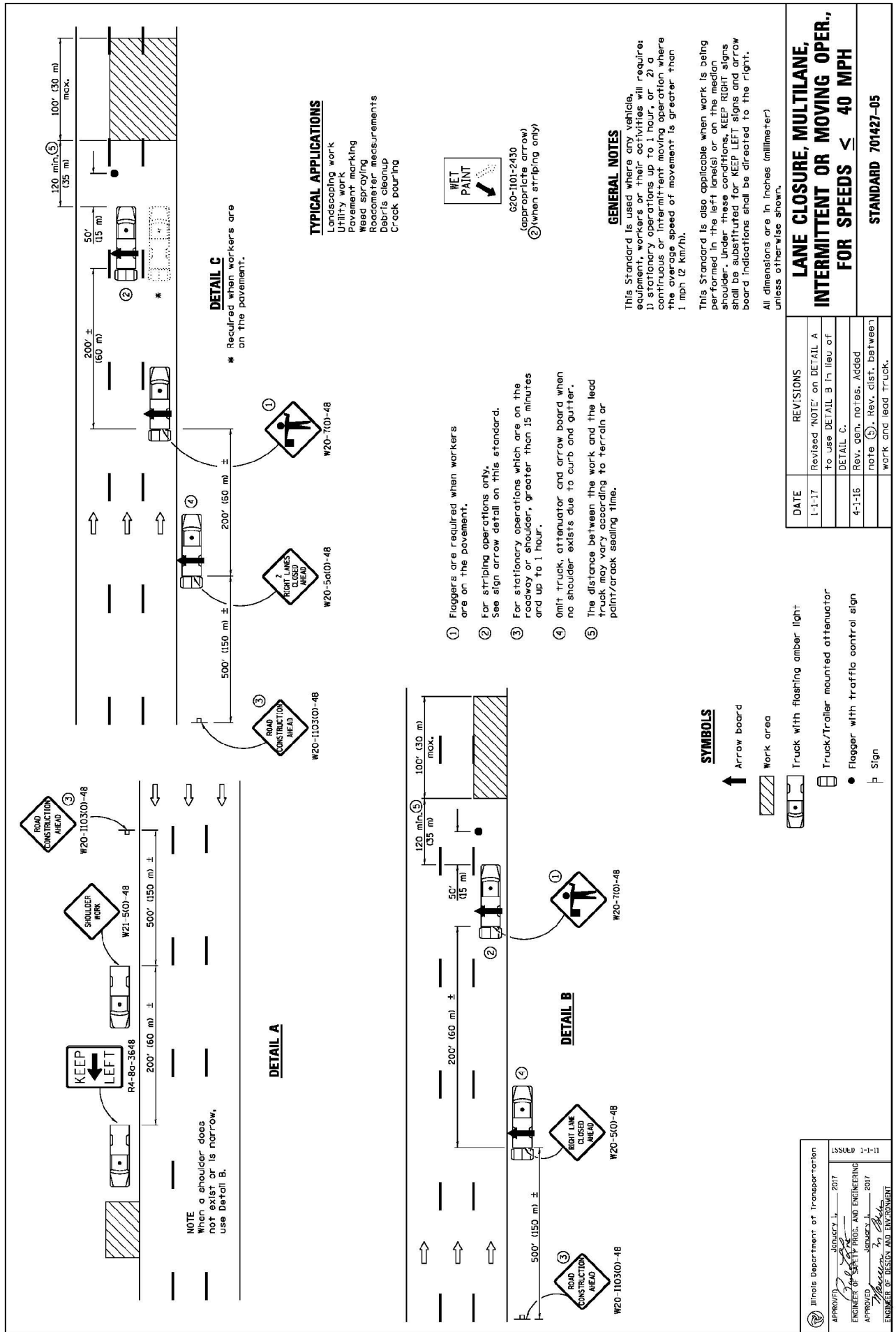
Standard 701426

The truck mounted/trailer mounted attenuator shown on the shoulder is required.

Various Specifications:

1. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 607 / 701.14]
2. Truck Mounted/Trailer Mounted Attenuators (TMA). TMA host vehicles shall have the parking brake engaged when stationary [SS pg. 608 / 701.15(h)]

FOR INFORMATIONAL USE ONLY



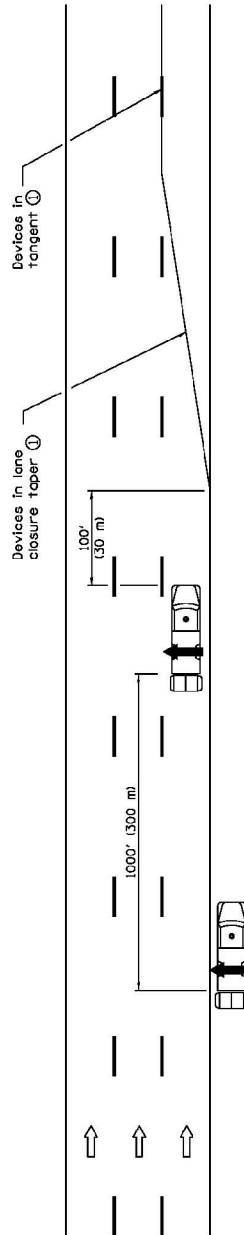
Standard 701427

The truck mounted /trailer mounted attenuator shown on the shoulder is required.

Various Specifications:

1. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 607 / 701.14]
2. Truck Mounted/Trailer Mounted Attenuators (TMA). TMA host vehicles shall have the parking brake engaged when stationary [SS pg. 608 / 701.15(h)]
3. Truck Mounted/Trailer Mounted Attenuators (TMA). The attenuator shall be either a NCHRP 350 or MASH approved unit for Test Level 3. Test Level 2 may be used as directed by the Engineer for normal posted speed less than or equal to 45 mph. [SS pg. 1171 / 1106.02(g)]

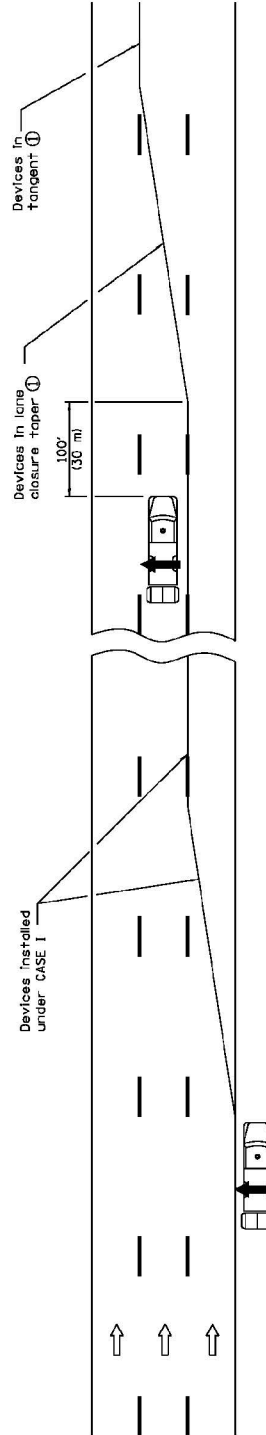
FOR INFORMATIONAL USE ONLY



① See plans or appropriate Standard for delintheating devices, spacing and length of taper/tangent.

CASE I

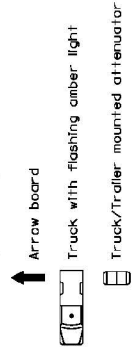
CASE 1 depicts the setup of delaminating devices for a single outside lane closure.



CASE II

CASE II depicts the setup of delineating devices for a two lane closure. The single lane closure device setup as depicted in CASE I shall be performed prior to the setup for the second lane closure.

SYMBOLS



GENERAL NOTES

GENERAL NOTES

This Standard is used for setup and removal of lane closures on freeways/expressways having ADT greater than 25,000.

Trucks with arrow boards and truck-mounted-attenuators shall be in place as shown for the set-up and removal of the lane closure taper(s) and the first 100' (30 m) of channelizing devices in the tangent(s).

This Standard is also applicable when work is being performed in the left lane(s) or on the median shoulder. Under these conditions arrow board indications shall be directed to the right.

All dimensions are in inches (millimeter) unless otherwise shown.

DATE	REVISIONS
4-1-16	Added trailer option for attenuator symbol.
1-1-14	New Standard.

TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY

STANDARD 701428-01

Standard 701428

This standard is to be used when the ADT is greater than 25,000. [Standard – General Notes]

The truck mounted/trailer mounted attenuator shown on the shoulder is required.

When the shoulder width will not allow placement of the shoulder truck and provide 9 ft. (3.0 m) of unobstructed lane width in the lane being closed, the shoulder truck shall not be used. [SS pg. 618 / 701.18(j)]

Various Specifications:

1. Truck Mounted/Trailer Mounted Attenuators (TMA). TMA host vehicles shall have the parking brake engaged when stationary [SS pg. 608 / 701.15(h)]

FOR INFORMATIONAL USE ONLY

Standard 701431

The END WORK ZONE SPEED LIMIT sign shall be black on white. [Standard – Sign Code]

Reflective solid edge lines and a double yellow centerline shall be used when the closure time exceeds four days or when the normal posted speed outside the area of operations exceeds 50 mph. Reflectorized pavement marking tape shall be used for marking the centerline and edge lines on the existing pavement. Raised reflective pavement markers at 25 ft. (8 m) centers shall be installed under good weather conditions to supplement the pavement marking tape. [SS pg. 617 / 701.18(f)]

Devices no greater than 24 in. (600 mm) wide, maybe used in place of tubular markers when the two-way operation is to be in place four days or less. [Supplemental Specification “Tubular Markers” / 1106.02(f)]

Various Specifications:

1. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
2. Work Zone Speed Limit Signs. Work zone speed limit sign assemblies shall be provided and located as shown on the plans. Two additional assemblies shall be place 500 ft. (150 m) beyond the last entrance ramp for each interchange or sideroad.

All permanent “SPEED LIMIT” signs located within 500 ft. (150 m) in advance of the first work zone speed limit sign to the end of the work zone shall be removed or covered. This work shall be coordinated with the lane closures(s) by promptly establishing a reduced posted speed zone when the lane closures(s) are put into effect and promptly reinstating the posted speed zone when the lane closure(s) are removed.

The work zone speed limit signs and end work zone speed limit signs shown in advance of and at the end of the lane closure(s) shall be used for the entire duration of the closures(s).

The work zone speed limit signs shown within the lane closure(s) shall only be used when workers are present in the closed lane adjacent to traffic. The sign assemblies shown within the lane closure(s) will not be required when the worker(s) are located behind a concrete barrier wall. [SS pg. 607 / 701.14(b)]

3. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
4. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]
5. Channelizing devices for nighttime along lane shifts on multilane roads. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]

FOR INFORMATIONAL USE ONLY

Standard 701446

The END WORK ZONE SPEED LIMIT sign shall be black on white. [Standard – Sign Code]

Various Specifications:

1. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
2. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
3. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]
4. Channelizing devices for nighttime along lane shifts on multilane roads. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]

General Information:

This Standard is to be used when two lanes are to be closed on a freeway/expressway. Specifications applicable to Standards 701401 shall be applicable to this Standard.

FOR INFORMATIONAL USE ONLY

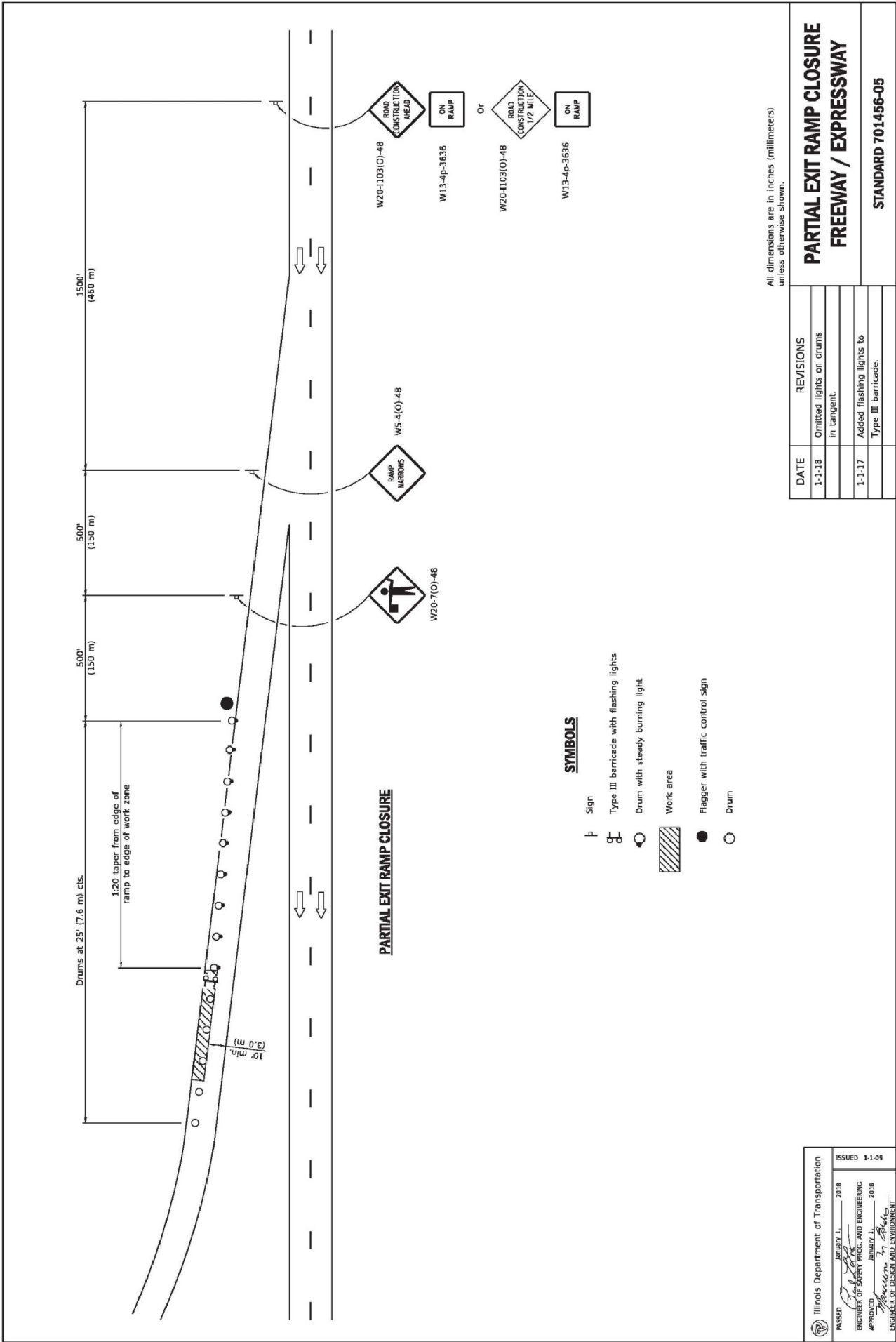
Standard 701451

Only one interchange at a time may have ramps closed and only one exit ramp and one entrance ramp may be closed at a time. [SS pg. 618 / 701.18(i)]

Various Specifications:

1. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
2. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]

FOR INFORMATIONAL USE ONLY



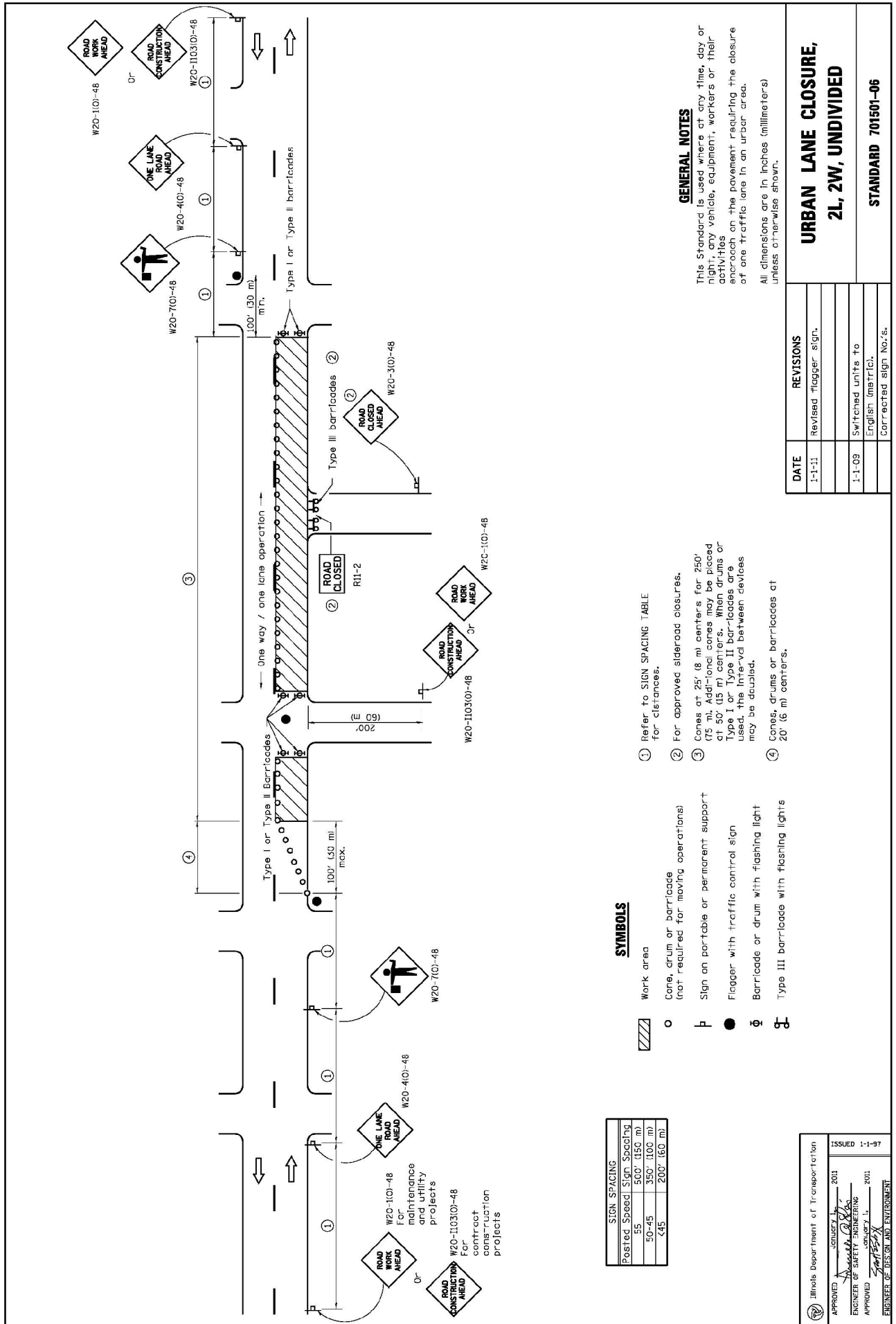
Standard 701456

On ramps, drop-offs at the edge of pavement greater than 1 1/2 in. (38 mm) caused by the Contractor's operations will be allowed only on one side of the ramp at a time. [SS pg. 603 / 701.07(d)]

Various Specifications:

1. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
2. No broken pavement, open holes, or partially filled patches shall remain overnight and all devices shall be removed before dark. [SS pg. 612 / 701.17 (e)(2)b]
3. Cleaning Up. Prior to opening the pavement to traffic, the entire right-of-way adjacent to the patching operations shall be cleared of all materials caused by the Contractor's operations, and the backfill along the shoulder edge of the pavement shall be compacted. [SS pg. 612 / 701.17(e)(3)a]

FOR INFORMATIONAL USE ONLY



Standard 701501

On two-lane/two-way roadways, construction operations shall be confined to one traffic lane leaving the opposite lane open to traffic. [SS pg. 618 / 701.18 (h)(2)]

“NO PARKING” (R8-3) signs shall be installed throughout the work area.

When the work area is in the parking lane “ROAD CONSTRUCTION AHEAD” (W20-I103) signs shall be installed 200 ft. (60 m) in advance of the work area and the area shall be delineated with cones and barricades. [SS pg. 617 / 701.18 (h)(1)]

Various Specifications:

1. Flaggers shall be in sight of each other or in direct communication at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies.

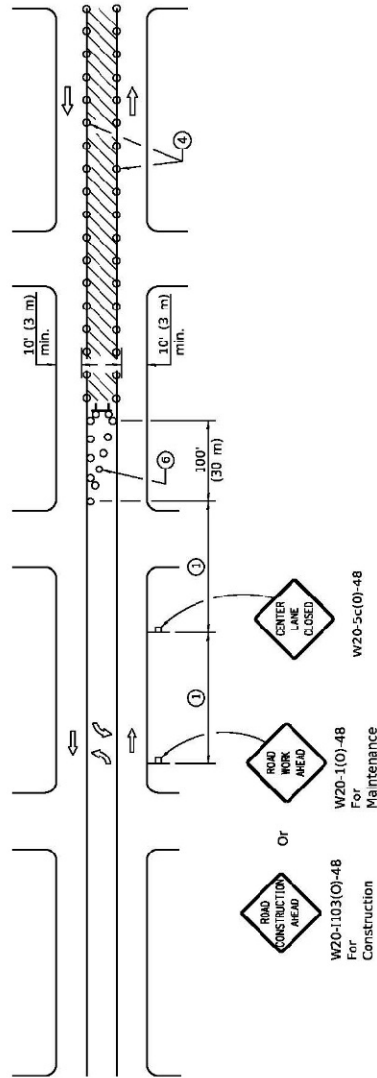
The engineer will determine when a side road or entrance shall be closed to traffic. A flagger will be required at each side road or entrance remaining open to traffic within the operation where two-way traffic is maintained on one lane of pavement. [SS pg. 606 / 701.13(a)]

2. Flaggers will not be required when no work is being performed, unless there is a lane closure on a two-lane, two-way pavement. [SS pg. 606 / 701.13]
3. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operations. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
4. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]

General Information:

1. In lieu of utilizing flaggers during nonworking hours with one lane closed, one direction of traffic may be detoured over an approved route.
2. Channelizing devices for nighttime lane closures on multi-lane roads.
Lights Required: None

FOR INFORMATIONAL USE ONLY



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

CASE I

(Signs required for both directions)

- 1 Refer to SIGN SPACING TABLE for distances.
- 2 Required for speeds > 40 mph (70 km/h).
- 3 Required if work exceeds 500' (164 m) or 1 block.
- 4 Cones at 25' (8 m) centers for 250' (75 m) on approach. Additional cones may be placed at 50' (15 m) centers. When drums or type I or II barricades are used, the interval between devices may be doubled.
- 5 For approved streetroad closures.
- 6 Cones, drums or barricades at 20' (6 m) centers in taper.
- 7 Use flagger sign only when flagger is present.

SYMBOLS

- Work area
- Barricade or drum with flashing light
- Flagger with traffic control sign
- Cone, drum or barricade
- Sign on portable or permanent support
- Type III barricade with flashing lights

GENERAL NOTES

This Standard is used to close one lane of an urban two lane, two way roadway with a bidirectional turn lane.

Case I applies when no workers are present. When workers are present, two lanes shall be closed and traffic control shall be according to Standard 701501.

Calculate L as follows:

SPEED LIMIT

FORMULAS
English (Metric)
 $L = \frac{WS^2}{60}$
 $L = \frac{WS^2}{150}$

40 mph (70 km/h)

or less:

45 mph (80 km/h)

or greater:

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

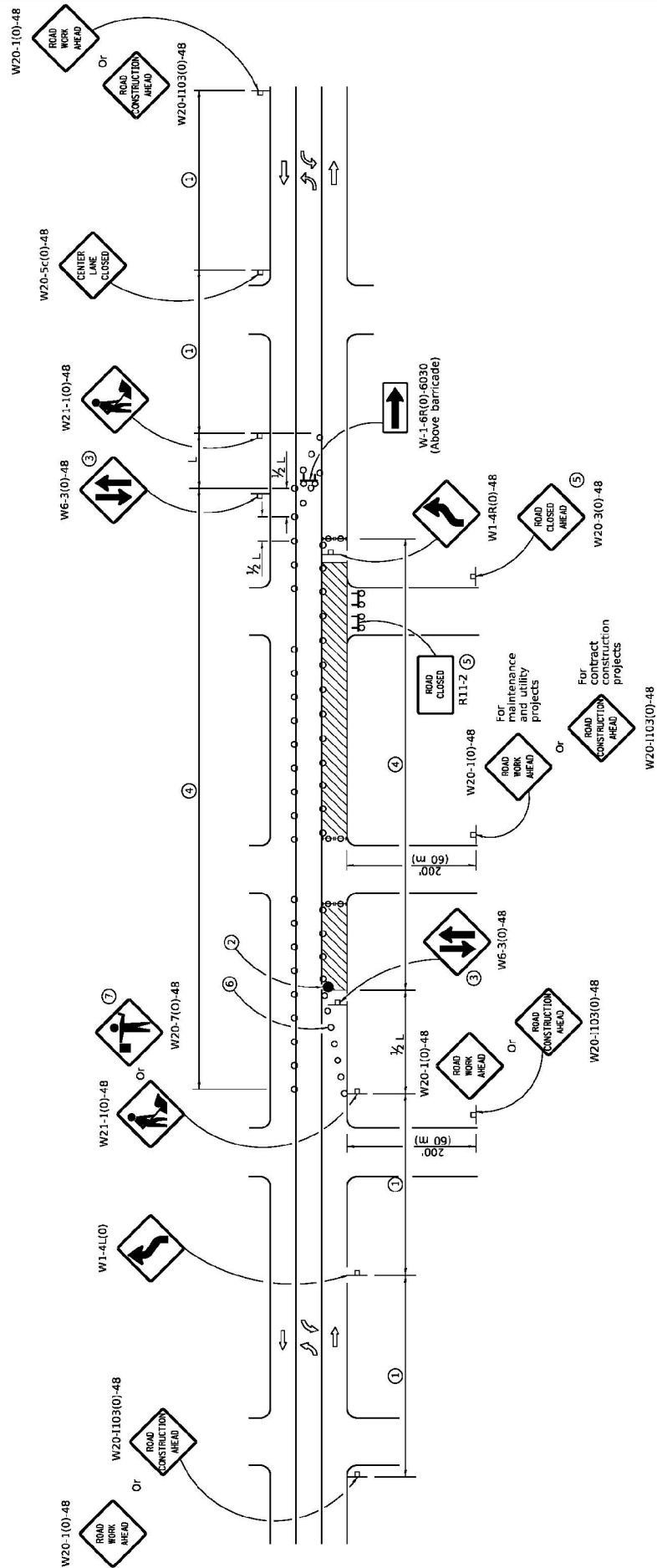
All dimensions are in inches (millimeters) unless otherwise shown.

REVISIONS	
DATE	REVISIONS
1-1-19	Revised to allow cones at night.
1-1-18	Corrected sign number for TWO WAY TRAFFIC sign for CASE II.

URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE

STANDARD 701502-09

Illinois Department of Transportation	
APPROVED	ISSUED 1-1-01
January 1, 2019	
ENGINEER OF SAFETY PROC. AND ENGINEERING	
APPROVED	
January 1, 2019	
ENGINEER OF DESIGN AND ENVIRONMENT	



**URBAN LANE CLOSURE,
2L, 2W, WITH BIDIRECTIONAL
LEFT TURN LANE**

STANDARD 701502-09

Standard 701502

“NO PARKING” (R8-3) signs shall be installed throughout the work area.

When the work area is in the parking lane “ROAD CONSTRUCTION AHEAD” (W20-I103) signs shall be installed 200 ft. (60 m) in advance of the work area and the area shall be delineated with cones and barricades.

Reflectorized temporary pavement marking tape shall be placed throughout the taper and alongside the adjacent work area where the closure time exceeds 14 days. The edge line shall be yellow for left lane closures. [SS pg. 617 / 701.18(h)(1)]

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or turned from the view of motorists. [SS pg. 601 / 701.04]
2. Flaggers shall be in sight of each other or in direct communication at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies. [SS pg. 606 / 701.13(a)]
3. Flaggers will not be required when no work is being performed, unless there is a lane closure on two-lane, two-way pavement. [SS pg. 606 / 701.13]
4. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
5. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
6. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]

General Information:

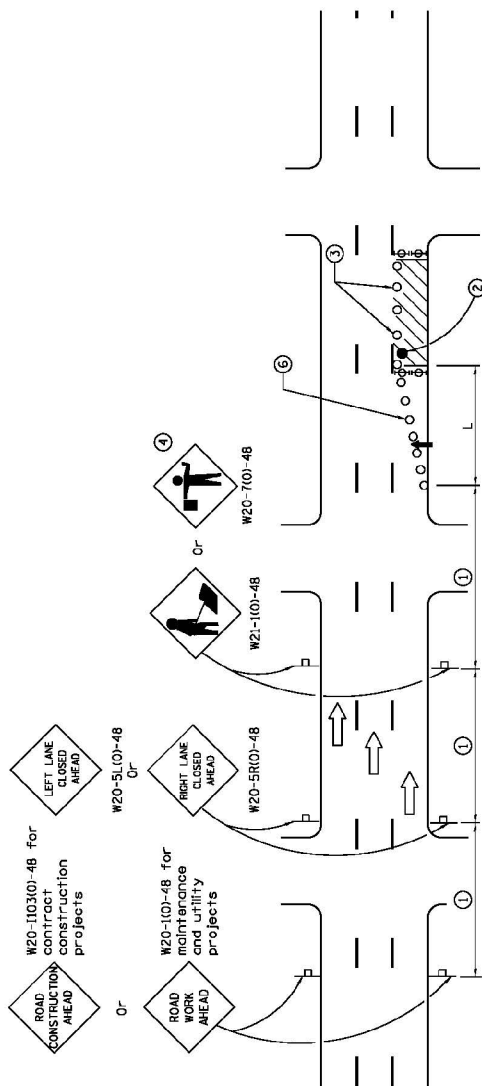
When necessary, additional flaggers should be positioned so as to regulate side street traffic.

Case I only applies when no workers are present. When workers are present, Standard 701501 shall be used. [Standard – General Notes]

Channelizing devices for nighttime lane closures on multi-lane roads. Lights Required: None.

Channelizing devices for nighttime lane closures on multi-lane roads separating opposing directions of traffic. Lights Required: None.

FOR INFORMATIONAL USE ONLY



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

SYMBOLS

- ↑ Arrow board
- Cone, drum or barricade
- ▬ Sign on portable or permanent support
- ▨ Work area
- ⚡ Barricade or drum with flashing light
- ⚡ Type III barricade with flashing lights
- Flagger with traffic control sign.

- 1 Refer to SIGN SPACING TABLE for distances.
- 2 Required for speeds > 40 MPH
- 3 Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.
- 4 Use flagger sign only when flagger is present.
- 5 For approved sliderod closures.
- 6 Cones, drums or barricades at 20' (6 m) in taper.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement during shoulder operations or where construction requires lane closures in urban areas.

Calculate L as follows:

SPEED LIMIT	FORMULAS	
	English	(Metric)
40 mph (70 km/h) or less:	$L = \frac{WS^2}{60}$	$L = \frac{WS^2}{150}$
45 mph (80 km/h) or greater:	$L = (WS)$	$L = (0.65WS)$

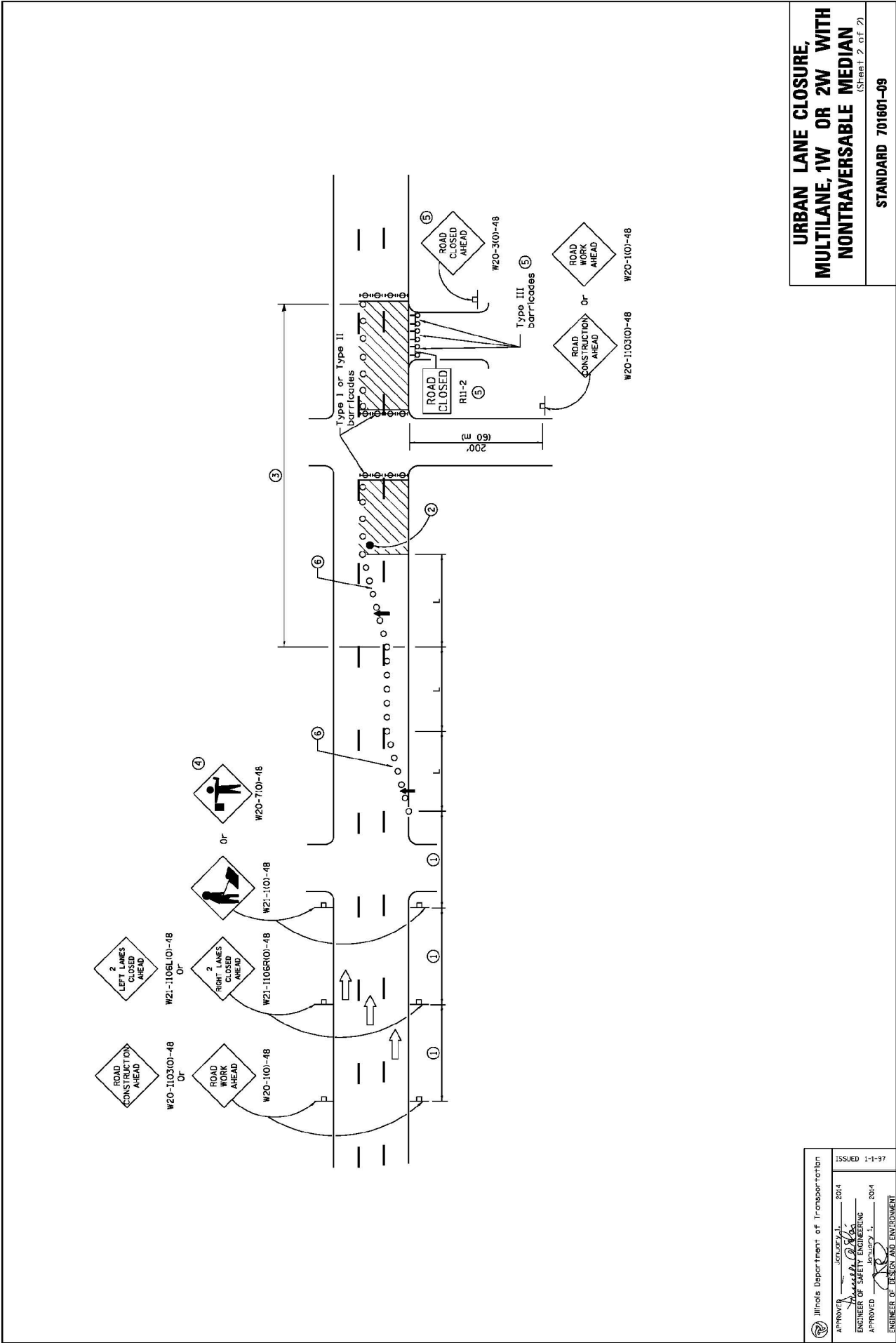
W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN	
DATE	REVISIONS
1-1-14	Revised workers sign number to agree with current MUTCD.
1-1-13	Omitted text 'WORKERS' sign.
STANDARD 701801-09	

Illinois Department of Transportation	
APPROVED	January 1, 2014
ENGINEER OF SAFETY ENGINEERING	
APPROVED	January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT	



**URBAN LANE CLOSURE,
MULTILANE, 1W OR 2W WITH
NONTRAVERSABLE MEDIAN**
(Sheet 2 of 2)

STANDARD 701601-09

Illinois Department of Transportation APPROVED: <i>[Signature]</i> 2014 ENGINEER OF SAFETY ENGINEERING APPROVED: <i>[Signature]</i> 2014 ENGINEER OF DESIGN AND ENVIRONMENT	ISSUED 1-1-97

Standard 701601

“NO PARKING” (R8-3) signs shall be installed throughout the work area.

When the work area is in the parking lane “ROAD CONSTRUCTION AHEAD” (W20-I103) signs shall be installed 200 ft. (60 m) in advance of the work area and the area shall be delineated with cones and barricades.

Reflectorized temporary pavement marking tape shall be placed throughout the taper and alongside the adjacent work area where the closure time exceeds 14 days. The edge line shall be yellow for left lane closures. [SS pg. 617 / 701.18(h)(1)]

Various Specifications:

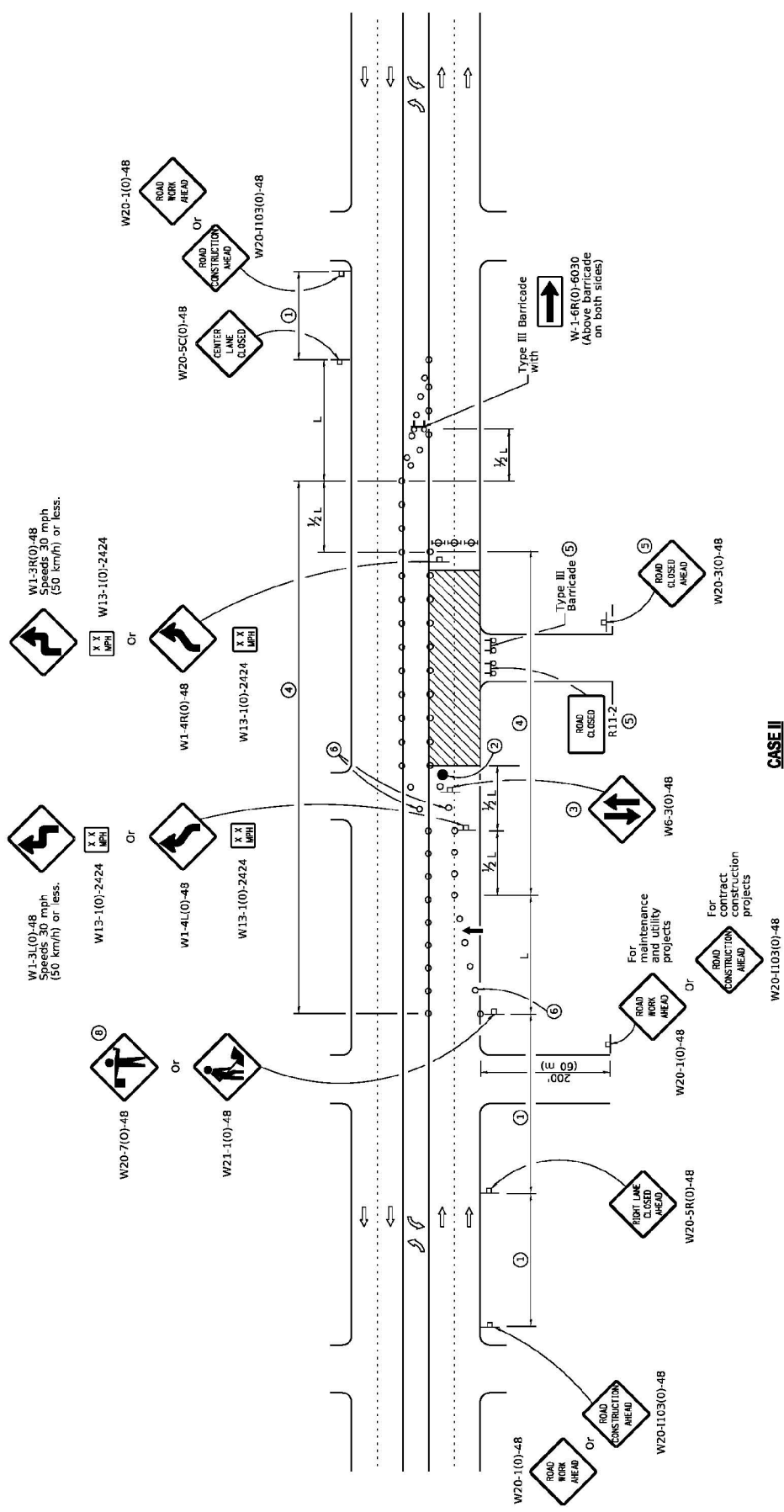
1. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
2. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
3. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]

General Information:

This standard does not apply when work is being performed in the middle lane(s) of a six or more lane highway. Special plans approved by the Engineer will be required.

Channelizing devices for nighttime lane closures on multi-lane roads. Lights Required: None.

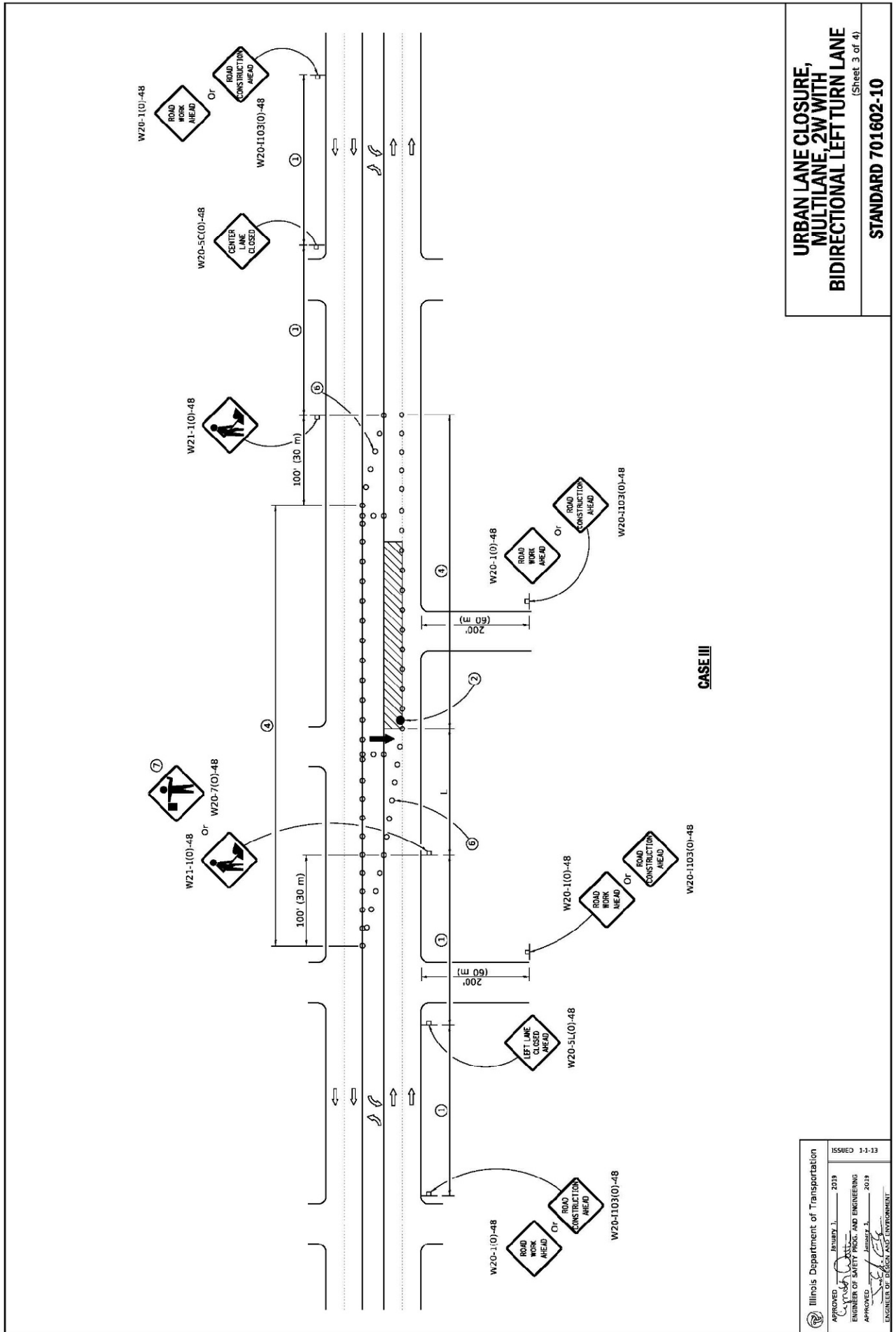
FOR INFORMATIONAL USE ONLY

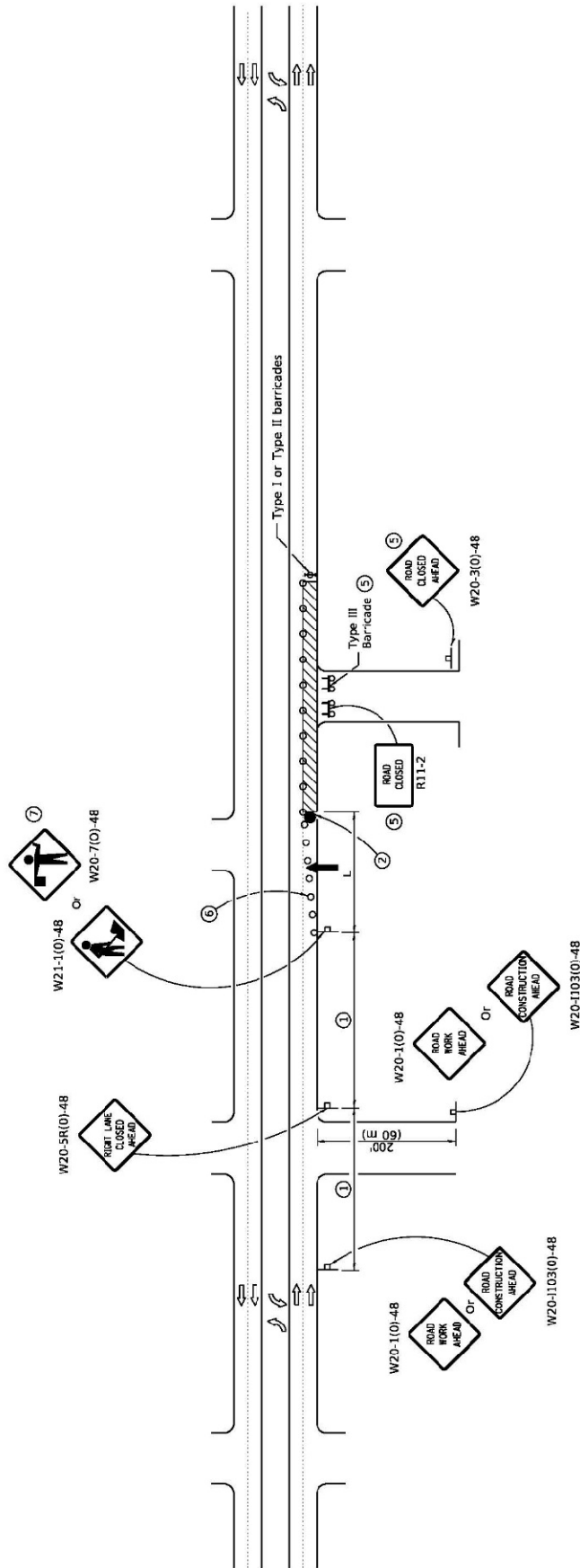


**URBAN LANE CLOSURE,
MULTILANE, 2W WITH
BIDIRECTIONAL LEFT TURN LANE**
(Sheet 2 of 4)

STANDARD 701602-10

Illinois Department of Transportation APPROVED: <i>[Signature]</i> January 1, 2019 ENGINEER OF SAFETY PROG. AND ENGINEERING APPROVED: <i>[Signature]</i> January 1, 2019 ENGINEER OF DESIGN AND ENVIRONMENT		ISSUED 1-1-13
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CASE IV

Illinois Department of Transportation APPROVED: <i>[Signature]</i> 2019 ENGINEER OF SAFETY PROGRAM AND ENGINEERING APPROVED: <i>[Signature]</i> 2019 ENGINEER OF DESIGN AND ENVIRONMENT		ISSUED: 1-1-13
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URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE (Sheet 4 of 4)	STANDARD 701602-10
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Standard 701602

“NO PARKING” (R8-3) signs shall be installed throughout the work area.

When the work area is in the parking lane “ROAD CONSTRUCTION AHEAD” (W20-I103) signs shall be installed 200 ft. (60 m) in advance of the work area and the area shall be delineated with cones and barricades.

Reflectorized temporary pavement marking tape shall be placed throughout the taper and alongside the adjacent work area where the closure time exceeds 14 days. The edge line shall be yellow for left lane closures. [SS pg. 617 / 701.18(h)(1)]

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or turned from the view of motorists. [SS pg. 601 / 701.04]
2. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
3. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]

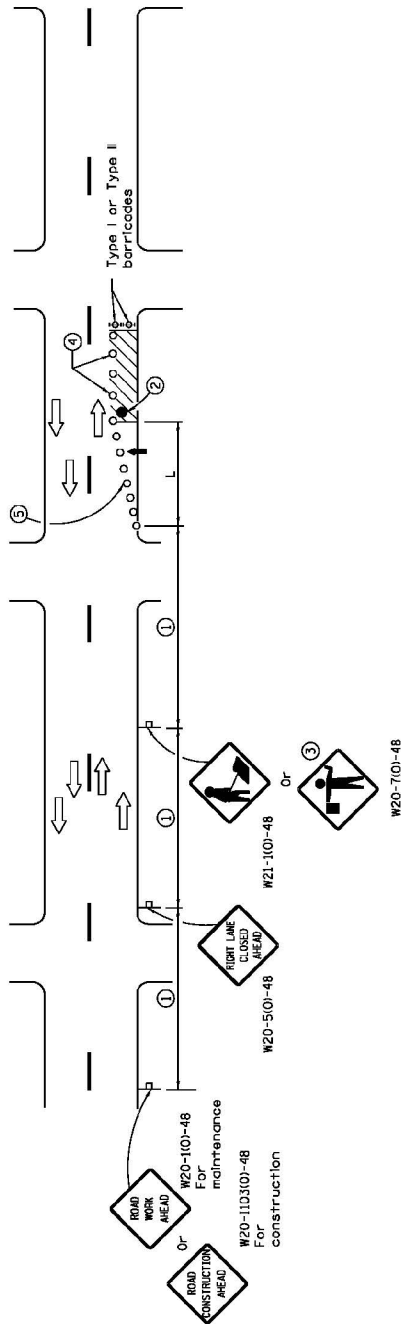
General Information:

When necessary, additional flaggers should be positioned so as to regulate side street traffic.

Channelizing devices for nighttime lane closures on multi-lane roads. Lights Required: None

Channelizing devices for nighttime lane closures on multi-lane roads separating opposing directions of traffic. Lights Required: None

FOR INFORMATIONAL USE ONLY



GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

Calculate L as follows:

SPEED LIMIT	FORMULAS	
	English	(Metric)
40 mph (70 km/h) or less	$L = \frac{WS^2}{60}$	$L = \frac{WS^2}{150}$
45 mph (80 km/h) or greater	$L = \frac{WS(S)}{60}$	$L = \frac{WS(S)}{150}$

W = Width of offset in feet (meters).

S = Normal posted speed in mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

① Refer to SIGN SPACING TABLE for distances.

② Required for speeds > 40 mph.

③ Use flagger sign only when flagger is present.

④ Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

⑤ Cones, drums or barricades at 20' (6 m) centers in taper.

SYMBOLS

- ↑ Arrow board
- Cone, drum or barricade
- ▮ Sign on portable or permanent support
- ▨ Work area
- ⦿ Barricade or drum with flashing light
- Flagger with traffic control sign.

SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

REVISIONS	
DATE	REVISIONS
1-1-15	Renamed standard. Moved case on Sheet 2 to new Highway Standard.
1-1-14	Revised worker's sign number to agree with current MUTCD.

URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN	
STANDARD 701606-10	

Illinois Department of Transportation	
APPROVED	ISSUED 1-1-97
ENGINEER OF SAFETY ENGINEERING	
APPROVED	
ENGINEER OF DESIGN AND ENVIRONMENT	

Standard 701606

“NO PARKING” (R8-3) signs shall be installed throughout the work area.

When the work area is in the parking lane “ROAD CONSTRUCTION AHEAD” (W20-I103) signs shall be installed 200 ft. (60 m) in advance of the work area and the area shall be delineated with cones and barricades.

Reflectorized temporary pavement marking tape shall be placed throughout the taper and alongside the adjacent work area where the closure time exceeds 14 days. The edge line shall be yellow for left lane closures. [SS pg. 617 / 701.18(h)(1)]

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or turned from the view of the motorists. [SS pg. 601 / 701.04]
2. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
3. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
4. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]

General Information:

This standard does not apply when work is being performed in the middle lane(s) the highway. Special plans approved by the Engineer will be required.

Channelizing devices for nighttime lane closures on multi-lane roads. Lights Required: None.

FOR INFORMATIONAL USE ONLY

Standard 701611

Reflective pavement markings shall be used when the closure time exceeds four days. The double yellow centerline shall be used in the two-way traffic area in addition to barricades or drums. Single yellow left edge line shall be used to outline the barricade island. White right edge line shall be used along the barricades delineating the work area. [SS pg. 618 / 701.18(h)(3)]

“NO PARKING” (R8-3) signs shall be installed throughout the work area.

When the work area is in the parking lane “ROAD CONSTRUCTION AHEAD” (W20-I103) signs shall be installed 200 ft. (60 m) in advance of the work area and the area shall be delineated with cones and barricades.

Reflectorized temporary pavement marking tape shall be placed throughout the taper and alongside the adjacent work area where the closure time exceeds 14 days. The edge line shall be yellow for left lane closures. [SS pg. 617 / 701.18(h)(1)]

Various Specifications:

1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or turned from the view of the motorists. [SS pg. 601 / 701.04]
2. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
3. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
4. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]

General Information:

This standard does not apply when work is being performed in the middle lane(s) of a six or more lane highway. Special plans approved by the Engineer will be required.

Channelizing devices for nighttime lane closures on multi-lane roads. Lights Required: None.

Channelizing devices for nighttime lane closures on multi-lane roads separating opposing directions of traffic. Lights Required: None.

FOR INFORMATIONAL USE ONLY

Standard 701701

“NO PARKING” (R8-3) signs shall be installed throughout the work area.

When the work area is in the parking lane “ROAD CONSTRUCTION AHEAD” (W20-I103) signs shall be installed 200 ft. (60 m) in advance of the work area and the area shall be delineated with cones and barricades.

Reflectorized temporary pavement marking tape shall be placed throughout the taper and alongside the adjacent work area where the closure time exceeds 14 days. The edge line shall be yellow for left lane closures. [SS pg. 617 / 701.18(h)(1)]

Various Specifications:

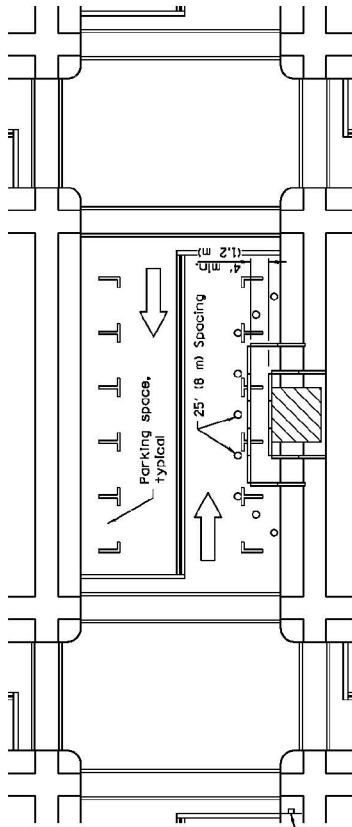
1. The traffic control shall remain in place only as long as needed and shall be removed when directed by the Engineer. Signs that do not apply to current conditions shall be removed, covered, or turned from the view of the motorists. [SS pg. 601 / 701.04]
2. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. ... Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer. [SS pg. 606-607 / 701.14]
3. First two warning signs on each approach to the work involving a nighttime lane closure. Lights Required: Flashing mono-directional lights. [SS pg. 609 / 701.16]
4. Devices in nighttime lane closure tapers. Lights Required: Steady burn mono-directional lights. [SS pg. 609 / 701.16]

General Information:

Channelizing devices for nighttime lane closures on multi-lane roads. Lights Required: None.

FOR INFORMATIONAL USE ONLY

① Unit whenever duplicated by road work traffic control.

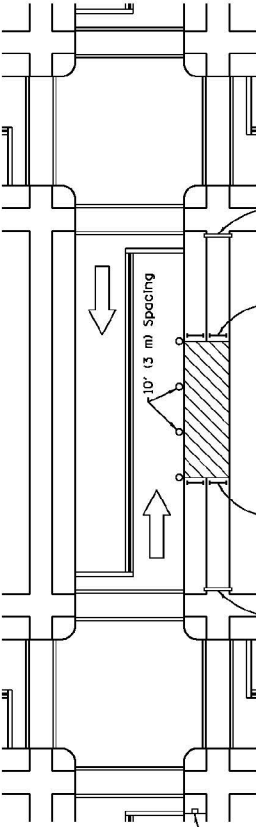


W20-1103X01-48 for contract construction projects

or

W20-1101-48 for maintenance and utility projects

SIDEWALK DIVERSION



W20-1103X01-48 for contract construction projects

or

W20-1101-48 for maintenance and utility projects

SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade

GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type II barricades and R11-2-4830 signs shall be positioned as shown in ROAD CLOSED TO ALL TRAFFIC detail on Standard 701901.

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
4-1-16	Unfitted orange safety fence from standard as this is covered in the std. spec.
1-1-12	Added SIDEWALK DIVERSION. Modified appearance of plan views. Renamed Std.

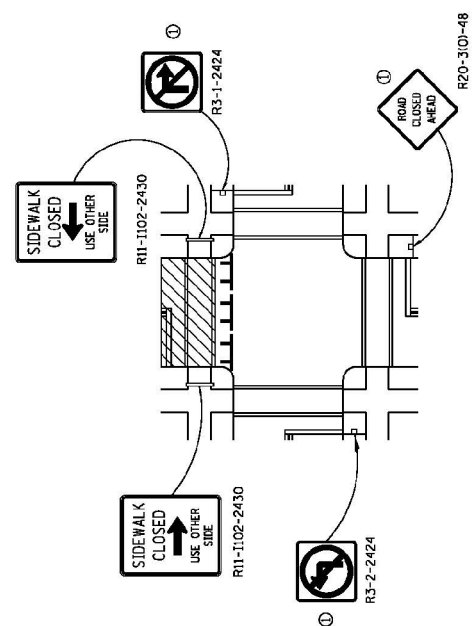
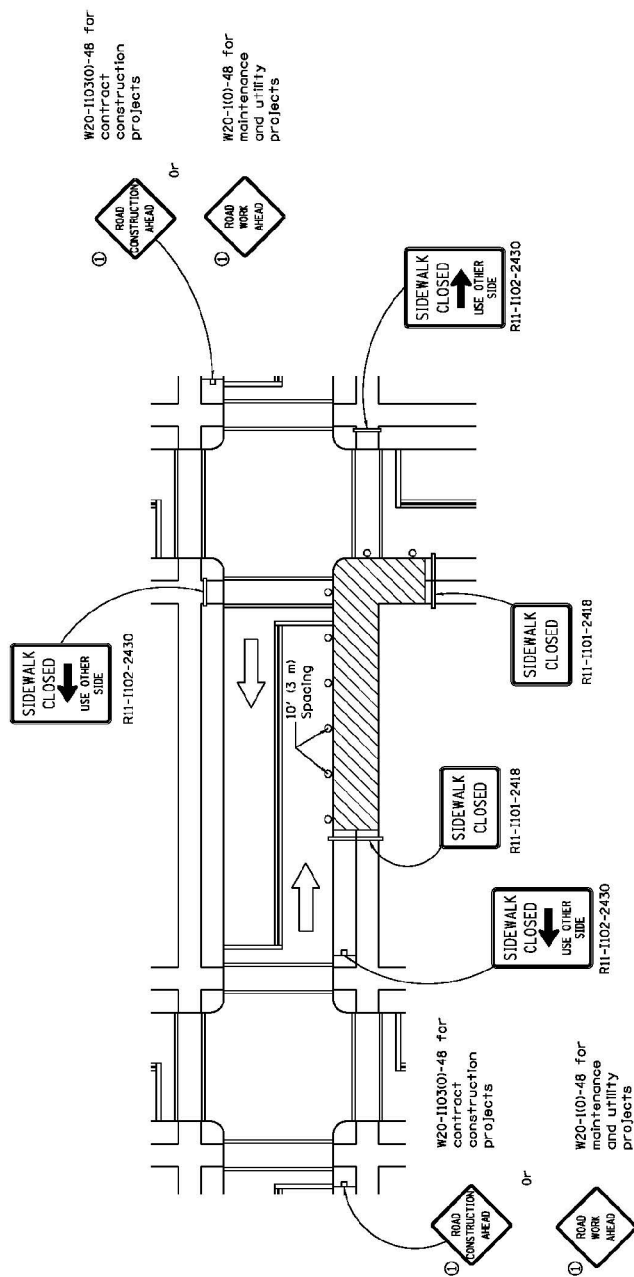
SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 1 of 2)

STANDARD 701801-06

	APPROVED	APR 1 2016
	ENGINEER OF SAFETY ENGINEERING	
	APPROVED	APR 1 2016
	ENGINEER OF DESIGN AND ENVIRONMENT	

ISSUED 1-1-97

**SIDEWALK, CORNER OR
CROSSWALK CLOSURE**

(Sheet 2 of 2)

STANDARD 701801-06

Standard 701801

“NO PARKING” (R8-3) signs shall be installed throughout the work area. [SS pg. 617 / 701.18(h)(1)]

Where a temporary walkway encroaches on an existing parking lane, the lane shall be closed with cones, barricades, or drums.

Where a temporary walkway encroaches on a travel lane, the lane shall be closed according to Standards 701501, 701601, or 701606.

All walkways shall be clearly identified, protected from motor vehicle traffic and free of any obstructions and hazards, such as holes, debris, construction equipment, and stored materials.

All hazards near or adjacent to walkways shall be clearly delineated.

When barricades are impractical to use or do not provide enough protection, orange safety fence shall be used to close off an area, with the approval of the Engineer. [SS pg. 618 / 701.18(h)(4)]

Detectable Pedestrian Channelizing Barricade. Detectable pedestrian channelizing barricades are cane detectable and visible to persons having low vision. These barricades are used to channelize pedestrian traffic. [SS pg. 609 / 701.15(l)]

Various Specifications:

1. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. [SS pg. 606 / 701.14]
2. The top and bottom panels shall have alternating white and orange stripes sloping 45 degrees on both sides.

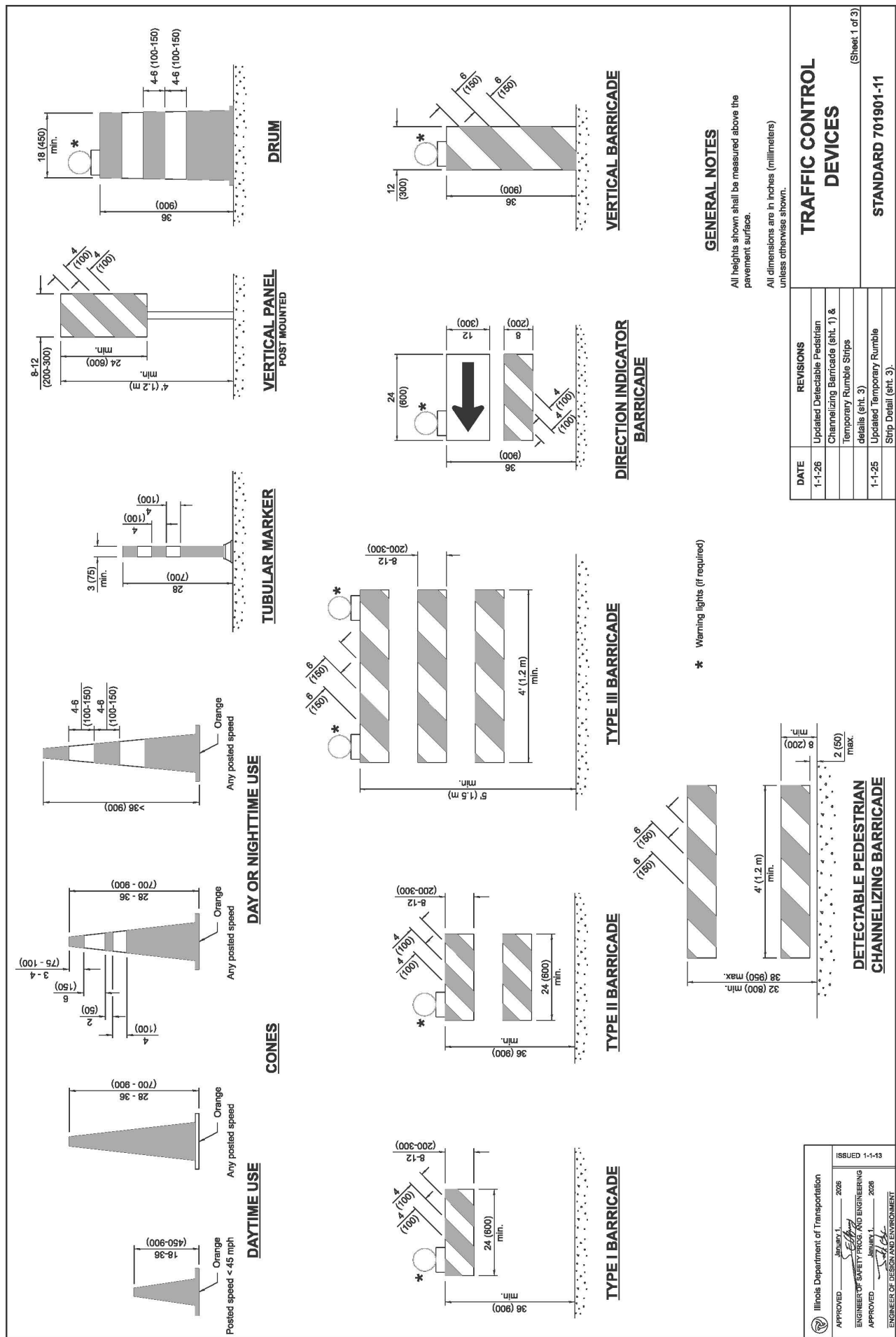
The top and bottom rails shall be continuous to allow for detection for hand trailing and cane trailing, respectively

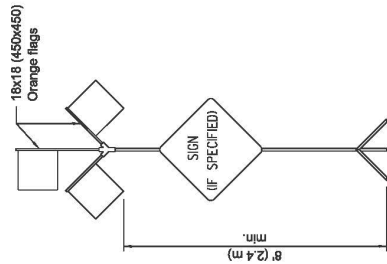
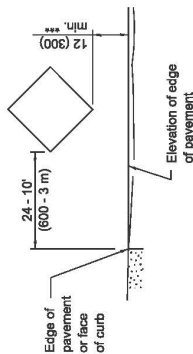
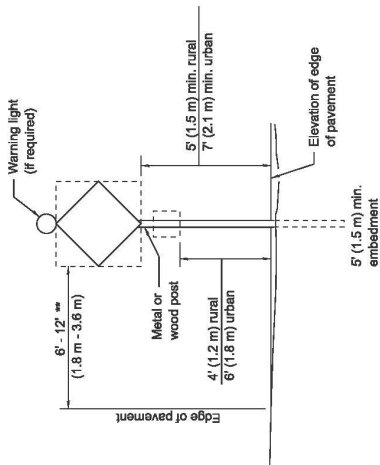
The faces of the barricade rails shall be vertical. [SS pg. 1174 / 1106.02(m)]

General Information:

Channelizing devices for nighttime lane closures on two-lane roads. Lights Required: None

FOR INFORMATIONAL USE ONLY





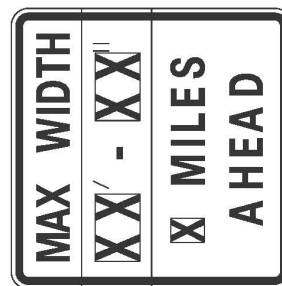
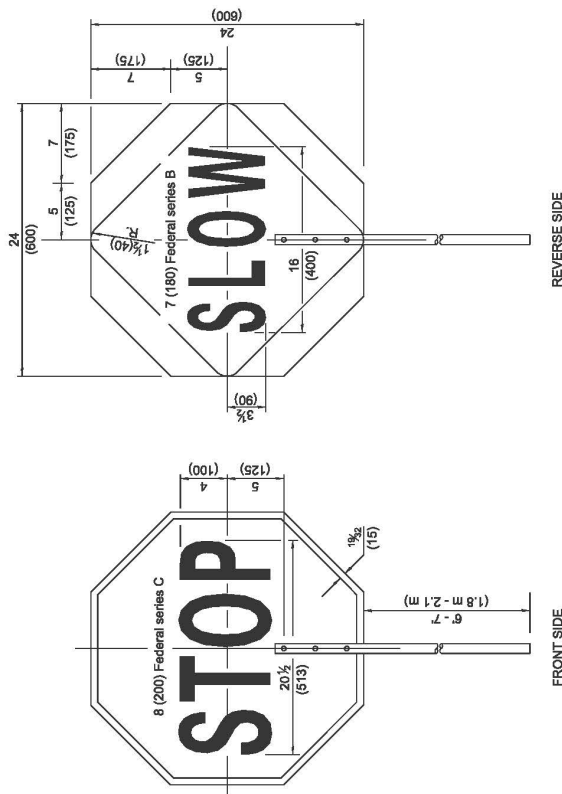
SIGNS ON TEMPORARY SUPPORTS

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.

POST MOUNTED SIGNS

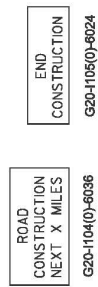
*** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.

HIGH LEVEL WARNING DEVICE



WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.



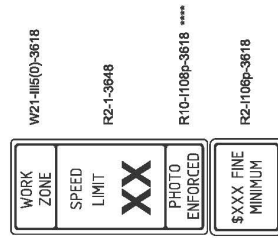
This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

WORK LIMIT SIGNING



Sign assembly as shown on Standards
or as allowed by District Operations.



This sign shall be used when the above sign assembly is used.

HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

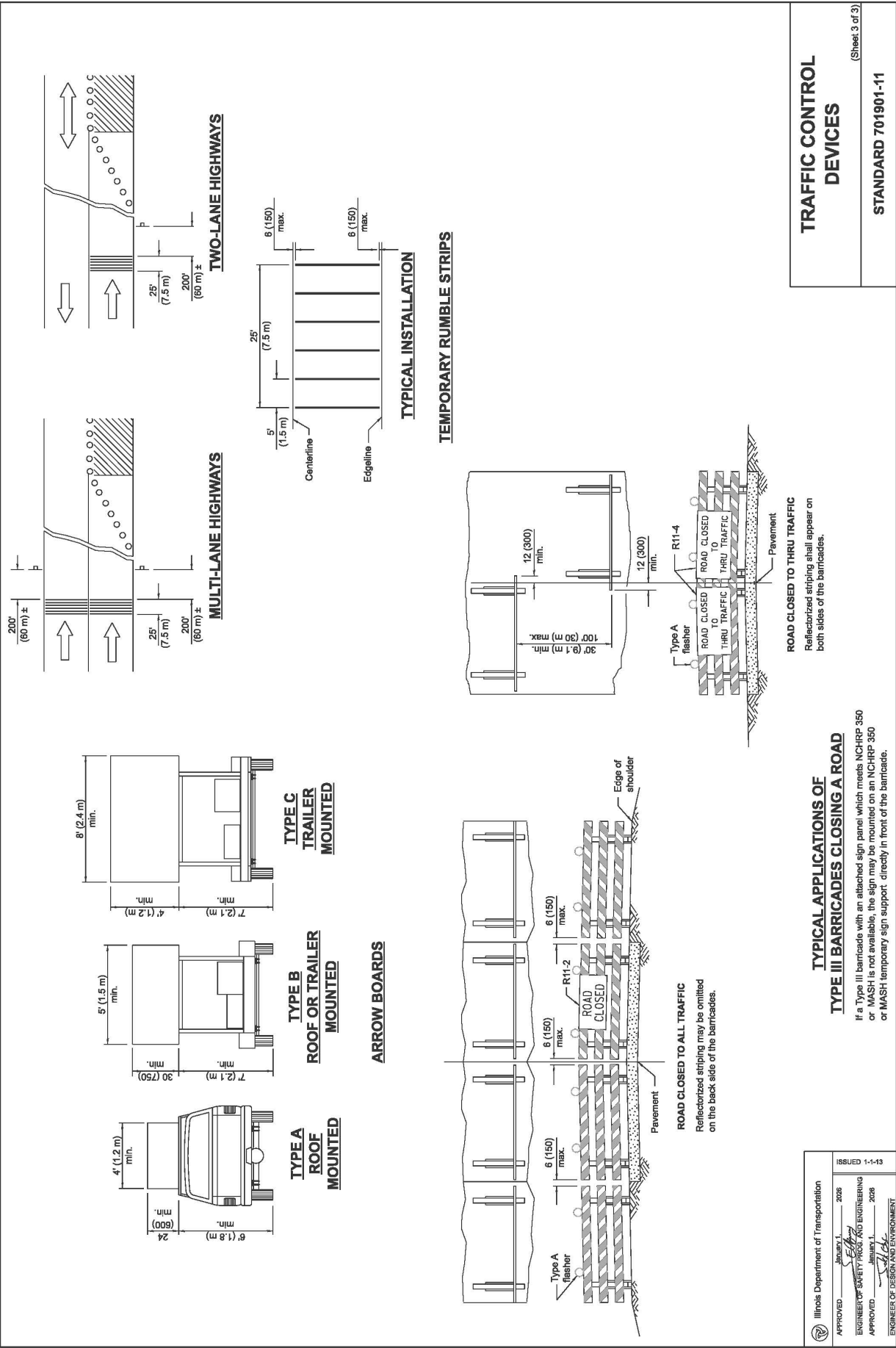
**** R10-108p shall only be used along roadways under the jurisdiction of the State.

TRAFFIC CONTROL DEVICES

FLAGGER TRAFFIC CONTROL SIGN

STANDARD 701901-11

(Sheet 2 of 3)



Standard 701901

701.15 Traffic Control Devices. For devices that must meet FHWA crashworthiness standards, the Contractor shall provide a manufacturer's self-certification letter for each Category 1 device and a FHWA acceptance letter for each Category 2 and Category 3 device used on the contract. The letter(s) shall state the device has been accepted by FHWA for its respective category and test level, and shall include a detailed drawing of the device. The set-up and use of certified/accepted devices shall be the same as that described in the letter.

All devices shall be kept clean. Any device which has become ineffective due to damage or defacement shall be replaced.

Devices having angled striping shall be oriented with the striped sloping down toward the side on which traffic will pass. Lights on devices shall be mounted on the side of the device on which traffic shall pass and shall not obscure any reflectorized portion of the device.

Where more than one type of device is permissible, only one type of device shall be used within that individual run of devices or lane closure taper.

Additional requirements for the use of specific devices are as follows.

- a. Cones. Cones are used to channelize traffic. Cones used to channelize traffic at night shall be reflectorized; however, cones shall not be used in nighttime lane closure tapers or nighttime lane shifts.
[SS pg. 608 / 701.15(a)]
- b. Type I, II, and III Barricades. Type I and Type II barricades are used to channelize traffic; to delineate unattended obstacles, patches, excavations, drop-offs, and other hazards; and as check barricades.

Type I barricades are for use on roads with normal posted speeds of 40 mph or less. However, they may be used on higher speed roads provided the reflective area of the upper rail is at least 2 sq. ft. (0.18 sq m).

Type III barricades are used to close lanes and to close roads.

- c. Vertical Barricades. Vertical barricades are used to channelize traffic, as well as to delineate unattended obstacles, patches excavations, drop-offs, and other hazards. Vertical barricades shall not be used in lane closure tapers or as check barricades.
- d. Vertical Panels. Vertical panels are used to channelize traffic and to delineate unattended excavations and drop-offs.
- e. Direction Indicator Barricades. Direction indicator barricades are used in lane closure tapers.

Standard 701901 - Continued

- f. Drums. Drums are used to channelize traffic and to delineate unattended obstacles, patches, excavations, drop-offs, and other hazards.
- g. Tubular Markers. Tubular markers are used to channelize traffic. They shall only be used when specified.
- h. Truck Mounted/Trailer Mounted Attenuators (TMA). TMA host vehicles shall have the parking brake engaged when stationary.
- i. Arrow Boards. Arrow boards are used to warn motorists of an upcoming lane closure. Arrow boards shall not be used to direct passing moves into lanes used by opposing traffic or to shift traffic without having a lane change.

On roads with normal posted speeds of 45 mph and above, Type C units shall be used for all operations 24 hours or more in duration, and Type B units may be used for operations less than 24 hours in duration. On roads with normal posted speed less than 45 mph, Type A, B, or C units may be used for all operations.

- j. Portable Changeable Message Signs. The Contractor shall supply the modem, the cellular phone, and the necessary software to run the sign from a remote computer at a location designated by the Engineer. The Contractor shall promptly program and/or reprogram the computer to provide the messages as directed by the Engineer.

The Contractor shall provide all preventive maintenance efforts deemed necessary to achieve uninterrupted service. If service is interrupted for any cause and not restored within 24 hours, the Engineer will cause such work to be performed as may be necessary to provide this service and the cost of such work will be deducted from compensation due or which may become due to the Contractor under the contract.

- k. Temporary Ruble Strips. Temporary rumble strips be placed snugly against one another and attached to the pavement with an adhesive meeting the recommendations of the rumble strip manufacturer.
- l. Detectable Pedestrian Channelizing Barricade. Detectable pedestrian channelizing barricades are cane detectable and visible to persons having low vision. These barricades are used to channelize pedestrian traffic. [SS pg. 607-609 / 701.15]

Standard 701901 - Continued

701.14 Signs. When work operations exceed four days, signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. When approved by the Engineer, temporary sign supports may be used where posts are impractical. When post mounting is not required, either temporary sign supports or sign trailers may be used.

Post mounted signs shall be a “breakaway” design. The signs shall be within five degrees of vertical. Two posts shall be used for signs greater than 16 sq. ft. (1.5 sq m) in area or where the height between the sign and the ground exceeds 7 ft. (2.1 m).

Signs on temporary supports shall meet the requirements of NCHRP Report 350 or MASH. Documentation of meeting the requirements shall be the FHWA letter stating acceptance of the sign support system for the required test level. The signs shall be supported within 20 degrees of vertical. Weights used to stabilize signs shall be attached to the sign support as per the manufacturer’s specifications.

Sign trailers, when erected, shall have their tires resting on the ground or elevated a maximum of 6 in. (150 mm) above the ground. Weights used to stabilize the trailer shall be sandbags mounted a maximum of 12 in. (300 mm) above the ground. To prevent wind induced rolling of the trailer, the wheels shall be chocked with sandbags or the trailer tongue may be pinned. The pinning method shall be designated to give way in the event of a vehicular impact and shall meet the approval of the Engineer.

The sign trailer shall only be attached to its tow vehicle when the sign is actually being moved. The tow vehicle, when not attached to the trailer, shall be parked according to Article 701.11.

Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 100 ft. (30 m) to avoid obstacles, hazards, or to improve sight distance, when approved by the Engineer.

- a) “ROAD CONSTRUCTION AHEAD” Signs. “ROAD CONSTRUCTION AHEAD” (W20-I103) signs shall be erected on all side roads located within the limits of the mainline “ROAD CONSTRUCTION AHEAD” signs.
- b) Work Zone Speed Limit Signs. Work zone speed limit signs assemblies shall be provided and located as shown on the plans. Two additional assemblies shall be placed 500 ft. (150 m) beyond the last entrance ramp for each interchange or sideroad.

All permanent “SPEED LIMIT” signs located within 500 ft. (150 m) in advance of the first work zone speed limit sign to the end of the work zone shall be removed or covered. This work shall be coordinated with the lane closures(s) by promptly establishing a reduced posted speed zone when the lane closures(s) are put into effect and promptly reinstating the posted speed zone when the lane closure(s) are removed.

The work zone speed limit signs and end work zone speed limit signs shown in advance of and at the end of the lane closure(s) shall be used for the entire duration of the closure(s).

The work zone speed limit signs shown within the lane closure(s) shall only be used when workers are present in the closed lane adjacent to traffic. The sign assemblies shown within the lane closure(s) will not be required when worker(s) are located behind a concrete barrier wall.

Standard 701901 – Continued

701.16 Lights. Lights shall be used on devices as required in the traffic control plan and the following table.

Circumstance	Lights Required
First two warning signs on each approach to the work involving a nighttime lane closure and "ROUGH GROOVED SURFACE" (W8-I107) signs	Flashing mono-directional lights
Devices delineating isolated obstacles, excavations, or hazards at night (Does not apply to patching)	Flashing bi-directional lights
Devices delineating obstacles, excavations, or hazards exceeding 100 ft (30 m) in length at night (Does not apply to widening)	Steady burn bi-directional lights
Channelizing devices for nighttime along lane shifts on multilane roads	Steady burn mono-directional lights
Channelizing devices for night time along lane shifts on two lane roads	Steady burn bi-directional lights
Devices in nighttime lane closure tapers on Standards 701316 and 701321	Steady burn bi-directional lights
Devices in nighttime lane closure tapers	Steady burn mono-directional lights

Batteries for the lights shall be replaced on a group basis at such times as may be specified by the Engineer. [SS pg. 609 / 701.16]

1106.02 Devices. Work zone traffic control devices and combinations of devices shall meet FHWA crashworthiness standards for their respective categories. The categories are as follows.

Category 1 includes small, lightweight, channelizing, and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, flexible delineators, and plastic drums with no attachments. Category 1 devices shall be crash tested and accepted or may be self-certified by the manufacturer.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include drums and vertical panels with lights, barricades, and portable sign supports. Category 2 devices shall be crash tested and accepted for Test Level 3.

Standard 701901 - Continued

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1

or 2. Category 3 devices shall be crash tested and accepted for either Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as arrow boards, changeable message signs, temporary traffic signals, and area lighting supports. Currently, there is no implementation date set for this category and it is exempt from the NCHRP 350 or MASH compliance requirement.

The Contractor shall provide a manufacturer's self-certification letter for each Category 1 device and an FHWA acceptance letter for each Category 2 and Category 3 device used on the contract. The letters shall state the device meets FHWA crashworthiness standards for its respective category and test level, and shall include a detailed drawing of the device. The set-up and use of certified/accepted devices shall be the same as that described in the letter.

1106.01 Signs. Sign faces shall be according to the MUTCD and Section 1091, except as modified herein.

At the time of manufacturing, the retroreflective prismatic sheeting shall meet or exceed the minimum coefficient of retroreflection specified in Article 1091.03 for the sheeting type required by the Department's Fabrications of Highway Signs Policy. Orange signs shall be fluorescent orange in color.

Sign sheeting shall be mounted on materials such as aluminum, rigid plastic, or exterior grade plywood. Signs utilizing a base of fabric, fiberboard, or other highly flexible or frangible material will not be permitted, except signs having a reflective sheeting face bonded to a durable plastic or fabric base will be permitted, (a) in work zones with posted speeds above 45 mph (70 km/hr) when workers are present to maintain the devices and (b) in all work zones having posted speeds of 45 mph (70 km/hr) or less.

Specific requirements for various signs shall be as follows.

- (a) Work Zone Speed Limit Signs. Work zone speed limit sign assemblies shall be as shown on the plans. The individual signs that make up an assembly may be combined on a single panel.
- (b) Flagger Traffic Control Paddle. The "STOP" face shall consist of white letters and border on a red background. The "SLOW" face shall consist of black letters and border on a fluorescent orange background. Areas outside sign borders shall be light blue or black.

The staff may consist of two sections joined by a coupling.

Various Specifications:

1. Lights shall meet be maintained so as to be visible on a clear night from a distance of 3000 ft. (900 m). [SS pg. 1170 / 1106.02]

FOR INFORMATIONAL USE ONLY

Section 702. NIGHTTIME WORK ZONE LIGHTING

702.01 Description. This work shall consist of furnishing, installing, maintaining, moving, and removing lighting for nighttime work zones. Nighttime shall be defined as occurring shortly before sunset until after sunrise.

702.02 Materials. The lighting shall consist of mobile and/or stationary lighting systems as required herein for the specific type of construction. Mobile lighting systems shall consist of luminaires attached to construction equipment or moveable carts. Stationary lighting systems shall consist of roadway luminaires mounted on temporary poles or trailer mounted light towers at fixed locations. Some lighting systems, such as balloon lights, may be adapted to both mobile and stationary applications.

702.03 Equipment. The Contractor shall furnish an illuminance meter for use by the Engineer. The meter shall have a digital display calibrated to NIST standards, shall be cosine and color corrected, and shall have an accuracy of $\pm$ five percent. The sensor shall have a level indicator to ensure measurements are taken in a horizontal plane.

CONSTRUCTION REQUIREMENTS

702.04 General. At the preconstruction conference, the Contractor shall submit the type(s) of lighting system to be used and the locations of all devices.

Before nighttime construction may begin, the lighting system shall be demonstrated as being operational.

702.05 Nighttime Flagging. The requirements for nighttime flagging shall be according to Article 701.13 of the Standard Specifications and the glare control requirements contained herein.

702.06 Lighting System Design. The lighting system shall be designed to meet the following.

- (a) **Lighting Levels.** The lighting system shall provide a minimum of 5 foot candles (54 lux) throughout the work area. For mobile operations, the work area shall be defined as 25 ft. (9 m) in front of and behind moving equipment. For stationary operations, the work area shall be defined as the entire area where work is being performed.

Lighting levels will be measured with an illuminance meter. Readings will be taken in a horizontal plane 3 ft. (1 m) above the pavement or ground surface.

- (b) **Glare Control.** The lighting system shall be designed and operated so as to avoid glare that interferes with traffic, workers, or inspection personnel. Lighting systems with flood, spot, or stadium type luminaires shall be aimed downward at the work and rotated outward no greater than 30 degrees from nadir (straight down). Balloon lights shall be positioned at least 12 ft. (3.6 m) above the roadway.

As a large component of glare, the headlights of construction vehicles and equipment shall not be operated within the work zone except as allowed for specific construction operations. Headlights shall never be used when facing oncoming traffic.

Section 702 - Continued

- (c) Light Trespass. The lighting system shall be designed to effectively light the work area without spilling over to adjoining property. When, in the opinion of the Engineer, the lighting is disturbing adjoining property, the Contractor shall modify the lighting arrangement or add hardware to shield the light trespass.

702.07 Construction Operations. The lighting design required above shall be provided at any location where construction equipment is operating or workers are present on foot. When multiple operations are being carried on simultaneously, lighting shall be provided at each separate work area.

The lighting requirements for specific construction operations shall be as follows.

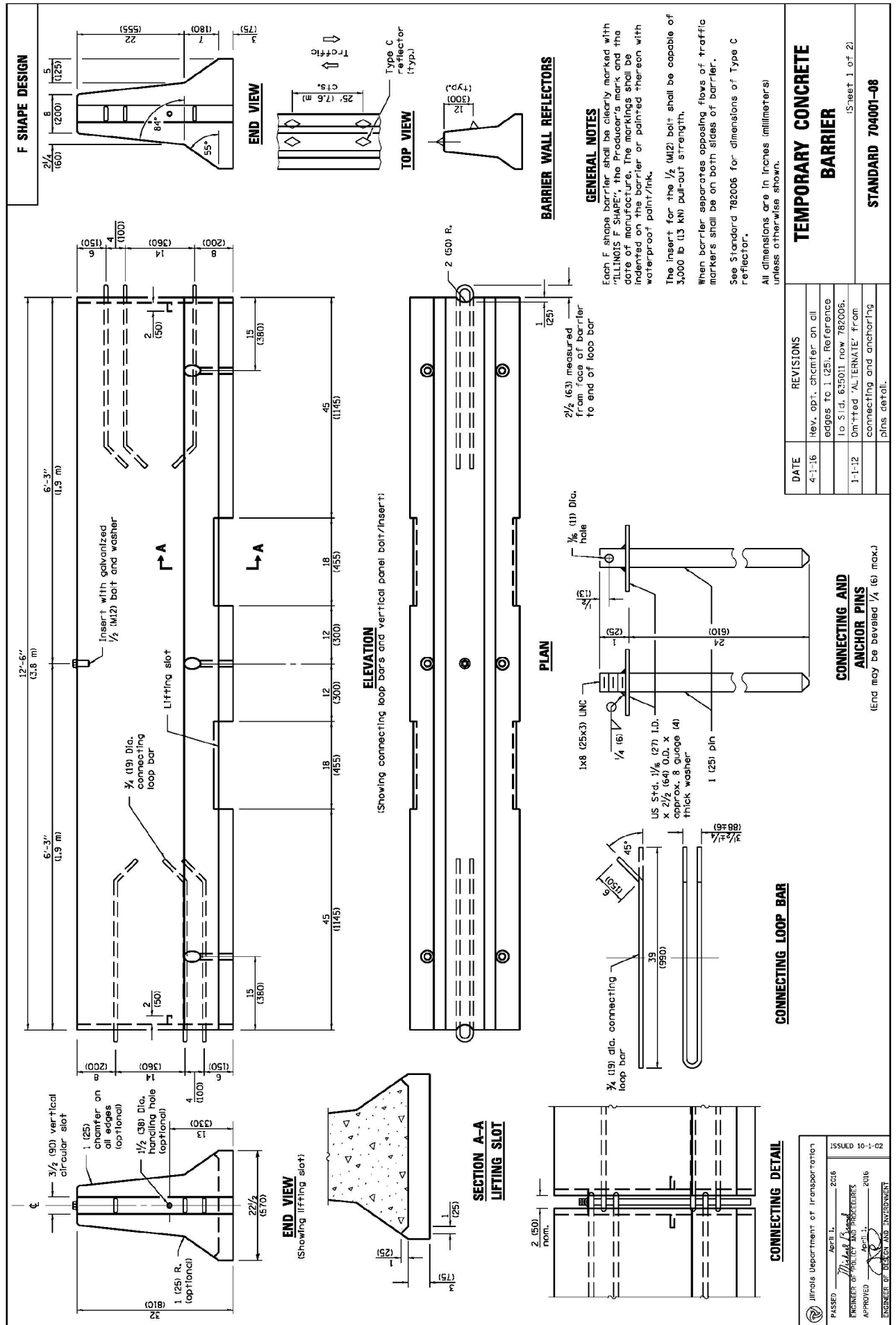
- (a) Installation or Removal of Work Zone Traffic Control. The required lighting level shall be provided at each truck and piece of equipment used during the installation or removal of work zone traffic control. Headlights may be operated in the work zone.
- (b) Milling and Paving. The required lighting level shall be provided by mounting a minimum of one balloon light to each piece of mobile construction equipment used in the work zone. This would include milling machines, mechanical sweepers, material transfer devices, spreading and finishing machines, and rollers; but not include trucks used to transport materials and personnel or other vehicles that are continuously moving in and out of the work zone. The headlights of construction equipment shall not be operated within the work zone.
- (c) Patching. The required lighting level shall be provided at each patching location where work is being performed.
- (d) Pavement Marking and Raised Reflective Pavement Marker Removal/Installation. The striping truck and the attenuator/arrow board trucks may be operated by headlights alone; however, additional lighting may be necessary for the operator of the striping truck to perform the work.

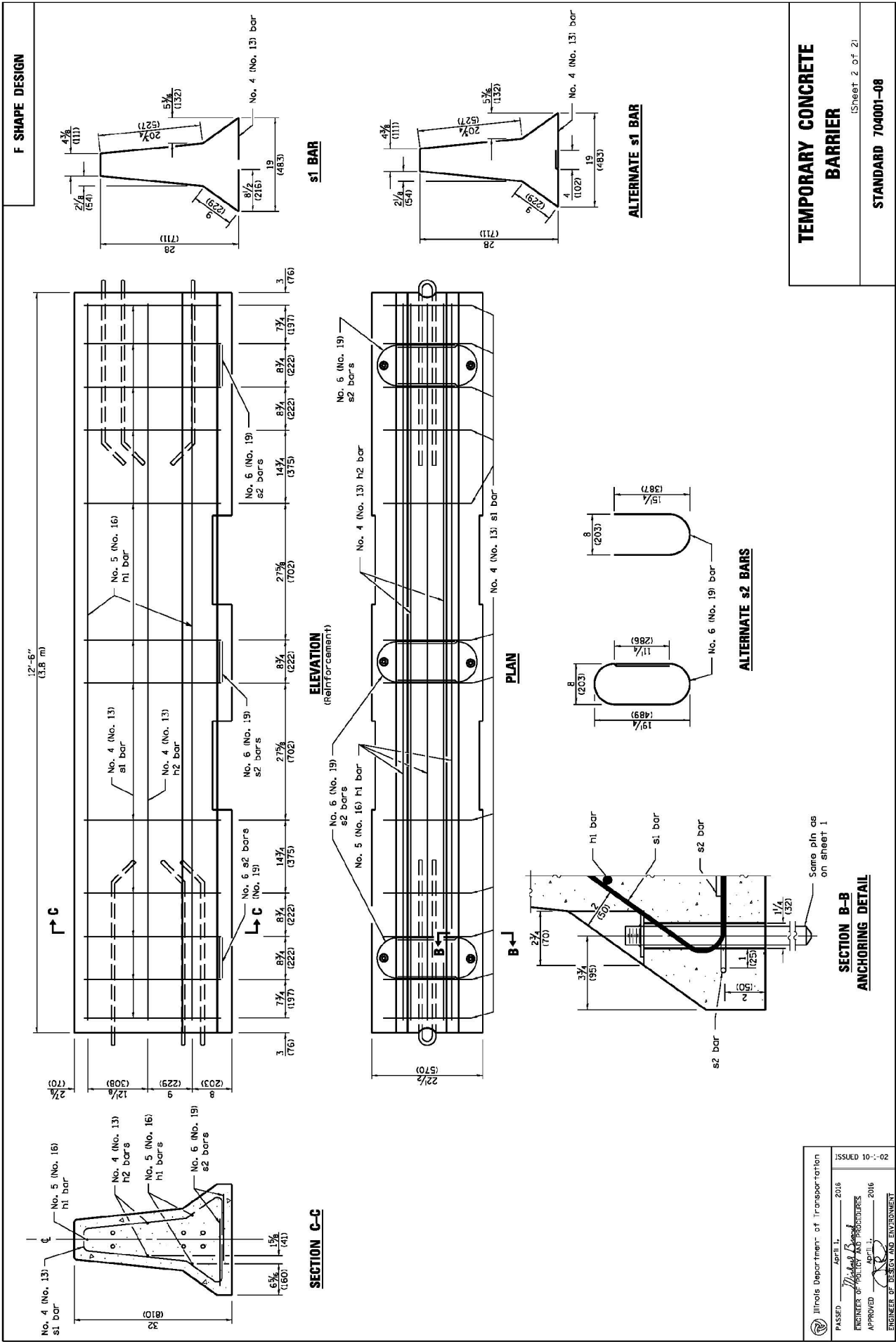
For raised reflective pavement marker removal and installation and other pavement marking operations where workers are on foot, the required lighting level shall be provided at each truck and piece of equipment.

- (e) Layout, Testing, and Inspection. The required lighting level shall be provided for each active area of construction layout, material testing, and inspection. The work area shall be defined as 15 ft. (7.6 m) in front and back of the individual(s) performing the tasks.

702.08 Basis of Payment. This work will be paid for at the contract lump sum price for NIGHTTIME WORK ZONE LIGHTING.

FOR INFORMATIONAL USE ONLY





Standard 704001

704.01 Description. This work shall consist of furnishing, placing, maintaining, relocating, and removing precast concrete barrier at temporary locations.

704.03 General. Precast concrete barrier shall be the F shape as detailed on the plans.

704.04 Installation. The barriers shall be seated on bare, clean pavement or paved shoulder and pinned together in a smooth, continuous line at the exact locations provided by the Engineer.

Except on bridge decks, or where alternate anchoring details are shown on the plans, the barrier unit at each end of an installation shall be anchored to the pavement or paved shoulder using six anchor pins and protected with an impact attenuator as shown on the plans. When pinning of additional barrier units within the installation is specified, three anchor pins shall be installed in the traffic side holes of the required barriers.

Where both pinned and unpinned barrier units are used in a continuous installation, a transition shall be provided between them. The transition from pinned to unpinned barrier shall consist of two anchor pins installed in the end holes on the traffic side of the first barrier beyond the pinned section and one anchor pin installed in the middle hole on the traffic side of the second barrier beyond the pinned section. The third barrier beyond the pinned section shall then be unpinned.

Barriers located on bridge decks shall be restrained as shown on the plans. Anchor pins shall not be installed through bridge decks, unless otherwise noted.

Barriers or attachments damaged during transportation or handling, or by traffic during the life of the installation, shall be repaired or replaced. The Engineer will be the sole judge in determining which units or attachments require repair or replacement.

The barriers shall be removed when no longer required by the contract. After removal, all anchoring holes in the pavement or paved shoulder shall be filled with a rapid hardening mortar or concrete. Only enough water to permit placement and consolidation by rodding shall be used and the material shall be struck-off flush.

704.05 Method of Measurement. This work will be measured for payment in feet (meters) in place along the centerline of the barrier. When the barrier is relocated within the limits of the jobsite, the relocated barrier will be measured for payment in feet (meters) in place along the centerline of the barrier.

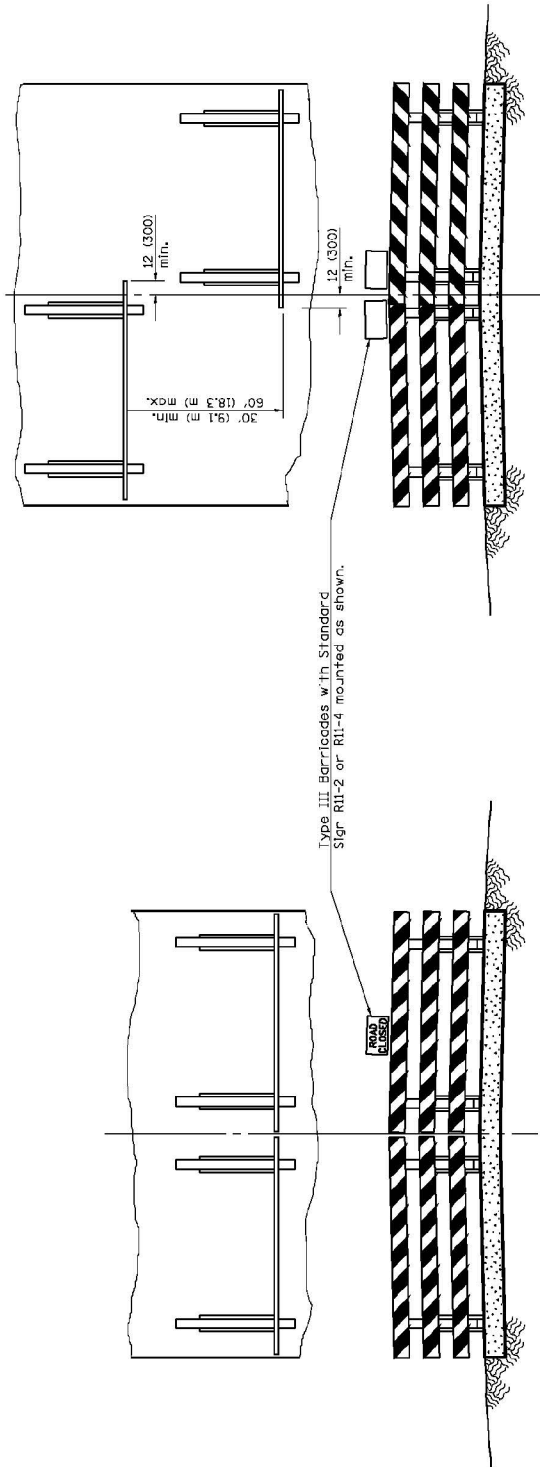
Anchor pins, except for the six anchor pins for the barrier unit at each end of an installation, will be measured for payment as each, per anchor pin installed.

704.06 Basis of Payment. When the Contractor furnishes the barrier, this work will be paid for at the contract unit price per foot (meter) for TEMPORARY CONCRETE BARRIER or RELOCATE TEMPORARY CONCRETE BARRIER.

When the Department furnishes the barrier, this work will be paid for at the contract unit price per foot (meter) for TEMPORARY CONCRETE BARRIER, STATE OWNED, or RELOCATED TEMPORARY CONCRETE BARRIER, STATE OWNED.

Impact attenuators will be paid for separately.

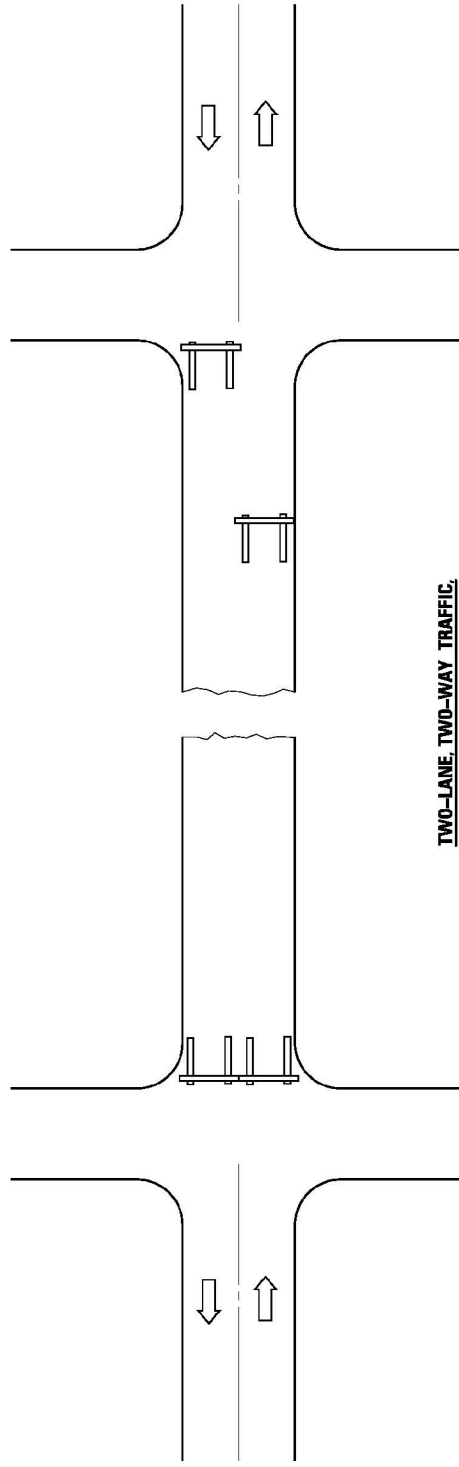
FOR INFORMATIONAL USE ONLY



Type III Barricades with Standard Sign R11-2 or R11-4 mounted as shown.

Resident traffic and day labor force's equipment to use road shoulder for passing barricade.

Use when shoulders are too narrow for passage of traffic.



**TWO-LANE, TWO-WAY TRAFFIC,
RURAL OPERATIONS EXCEEDING
ONE DAYLIGHT PERIOD**

GENERAL NOTES

Type III barricades to be width of pavement only. ReflectORIZED striping shall appear on both sides of barricades. Barricades shall be positioned so that stripes appear toward the side on which traffic is to pass.

Although not shown, advance warning signs with minimum dimensions of 36x36 (900x900) and black legends on orange reflectORIZED backgrounds shall be utilized where needed.

This case is for use on rural local roads where the local authority considers this protection to be appropriate for the specific job conditions.

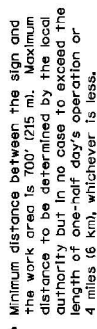
All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-99	Switched units to English (metric).
1-1-98	Rev. "R11-1" to "R11-2".
	Rev. 4th General Note.

TRAFFIC CONTROL DEVICES – DAY LABOR CONSTRUCTION

STANDARD B.L.R. 17-4

APPROVED	ISSUED 1-1-97
ENGINEER OF LOCAL ROADS AND STREETS	
ENGINEER OF DESIGN AND ENVIRONMENT	



SYMBOLS

Work dred

Design with 18x18 (450x450) min.
orange flag attached.

TYPICAL APPLICATIONS

**MOWING
SPREADING AGGREGATE
WEED SPRAYING
SURFACE MAINTENANCE
BITUMINOUS RESURFACING
CRACK POURING
SHOULDER REPAIR
CLEANING DITCHES**

GENERAL NOTES

Maintenance operations shall be confined to one traffic lane, leaving the opposite lane open to traffic. At least 500' (150 m) of both traffic lanes shall be available for traffic movement between work areas at intervals not greater than 1000' (300 m).

When operations are on the pavement and stationary or moving at a speed less than 4 mph (6.4 km/h), a ONE LANE AHEAD, or other appropriate design, shall be installed in each direction between the ROAD WORK AHEAD sign and the work area. The distance between this sign and the work area shall be a minimum of 400' (120 m) but in no case shall it exceed the length of one-half day's operation or 4 miles (6 km), whichever is less. The distance between the two signs shall be approximately 400' (120 m).

All signs are to be removed at completion of the day's operation.

Any unattended obstacle, excavation, or pavement drop off greater than 3 (75) in the work area shall be protected by Type I or Type II barricades with flashing lights.

Longitudinal dimensions may be adjusted slightly to fit field conditions.

All vehicles, equipment, men, and their activities are restricted at all times to one side of the payment.

Flashing lights or rotating beacons are required for all maintenance vehicles while in operation.

Applicable operations illustrated in Standard 701301 may be used when operations do not exceed 15 minutes on the pavement or 60 minutes on the shoulder respectively.

All warning signs shall have minimum dimensions of 36x36 (900x900) and have black legend on an orange reflectorized background.

When fluorescent signs are used, orange flags are not required.

This case is for use on rural local roads where the local authority considers this protection to be appropriate for the specific job conditions.

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISONS
1-1-15	Corrected RWA sign number.
1 1 09	Switched units to English (metric). Moved
	one General Note.

**TRAFFIC CONTROL DEVICES—
DAY LABOR MAINTENANCE**

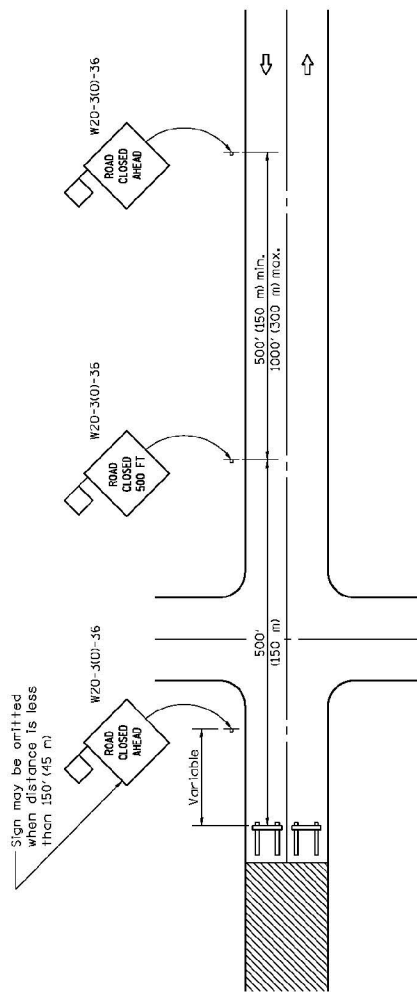
STANDARD B.L.R. 18-6

Illinois Department of Transportation

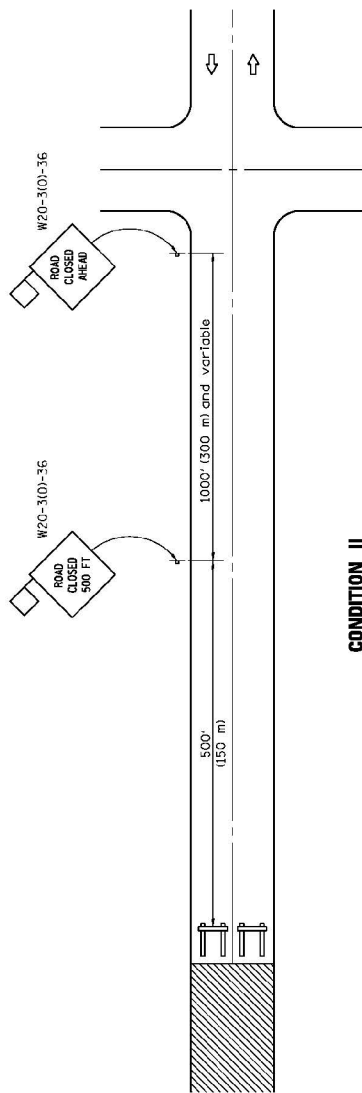
ISSUED 1-1-97

APPROVED _____ JANUARY 1, 2015
Joseph K. Kiser
ENGINEER OF LOCAL ROADS AND STREETS

APPROVED _____ JANUARY 1, 2015
[Signature]
ENGINEER OF DESIGN AND ENVIRONMENT



CONDITION I
When distance from closure to crossroad is less than 500' (450 m)



CONDITION II
When distance from closure to crossroad is greater than 1500' (450 m)

SYMBOLS

Work area



Type III Barricade



Sign with 18x18 (450x450) min. orange flag attached



GENERAL NOTES

Type III Barricades and R11-2-430 signs shall be positioned as shown in "Road Closed to All Traffic" detail on Highway Standard 70190.

Two Type A Low Intensity Flashing Lights shall be used on each approach in advance of the work area during hours of darkness. One light shall be installed above the barricades and the other above the first advance warning sign.

All warning signs shall have minimum dimensions of 35 x 36 (900 x 900) and have a black legend on an orange reflectorized background.

When fluorescent signs are used, orange flags are not required.

Longitudinal dimensions may be adjusted to fit field conditions.

When the distance between the barricade and the intersection is between 1500' (450 m) and 2000' (600 m), the advance sign shall be placed at the intersection. When the distance between the barricade and the intersection is over 2000' (600 m), an additional sign shall be placed at the intersection. The additional sign shall give the distance to the barricade in miles or fractions of a mile.

All dimensions are in inches (millimeters) unless otherwise shown.

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS	
DATE	REVISIONS
1-1-12	Omitted two notes from GENERAL NOTES.
1-1-09	Switched units to English (metric).

STANDARD B.L.R. 21-9

APPROVED	JANUARY 1, 2012
ENGINEER OF LOCAL ROADS AND STREETS	
APPROVED	JANUARY 1, 2012
ENGINEER OF DESIGN AND ENVIRONMENT	

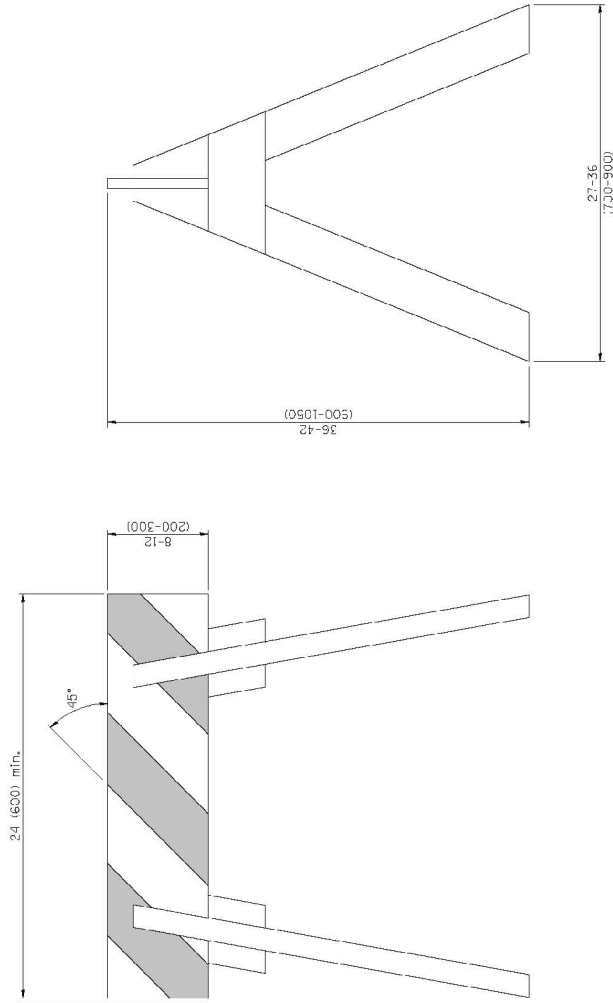
APPROACH TRAFFIC
DOES NOT STOP



Dimensions are in inches (millimeters) unless otherwise shown.

STANDARD B.L.R. 22-7

 Illinois Department of Transportation	APPROVED	JANUARY 11, 2012	ISSUED	1-1-97
	 ENGINEER OF LOCAL ROADS AND STREETS			
	APPROVED	JANUARY 11, 2012		
	 ENGINEER OF DESIGN AND ENVIRONMENT			



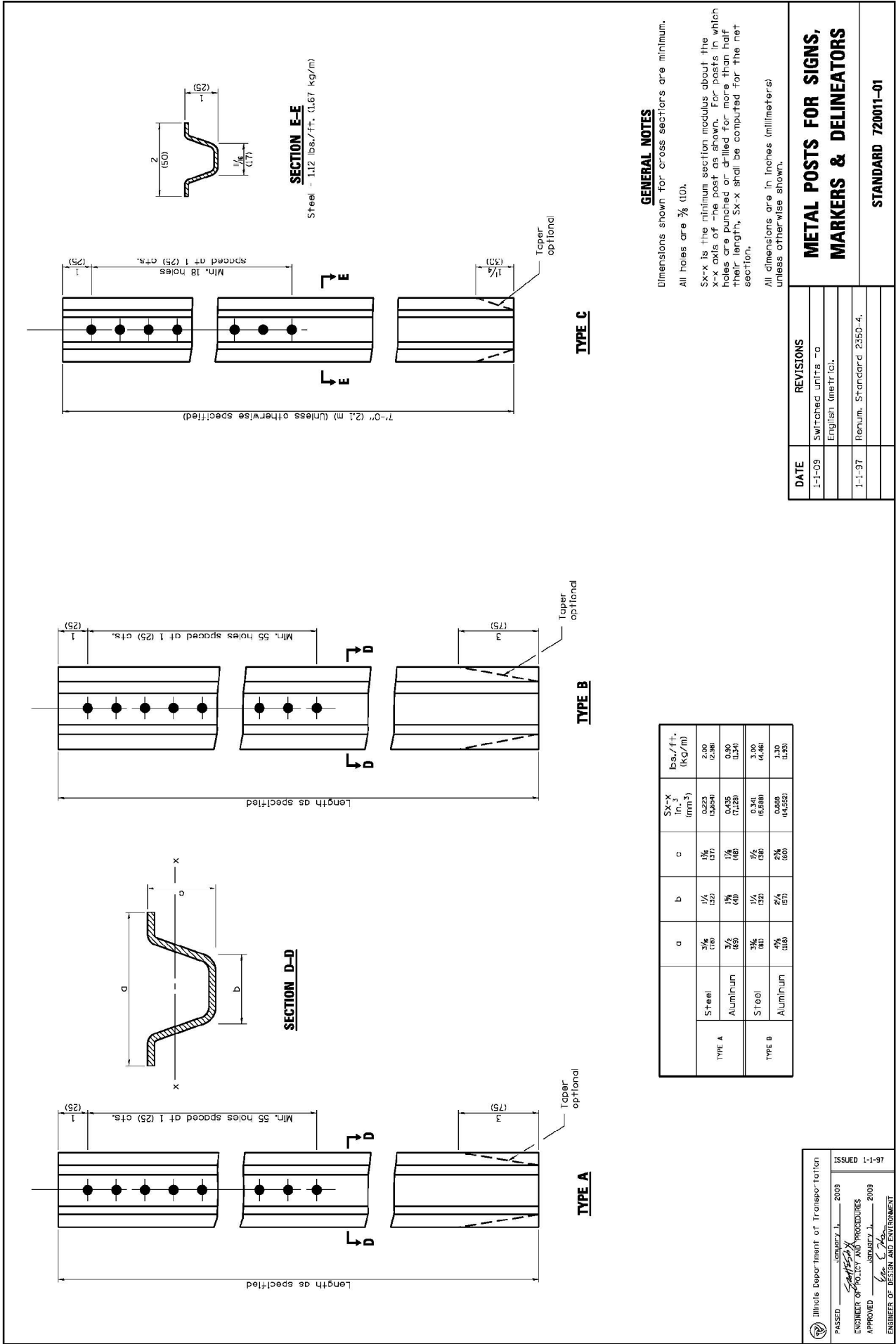
All dimensions are in inches (millimeters) unless otherwise shown.

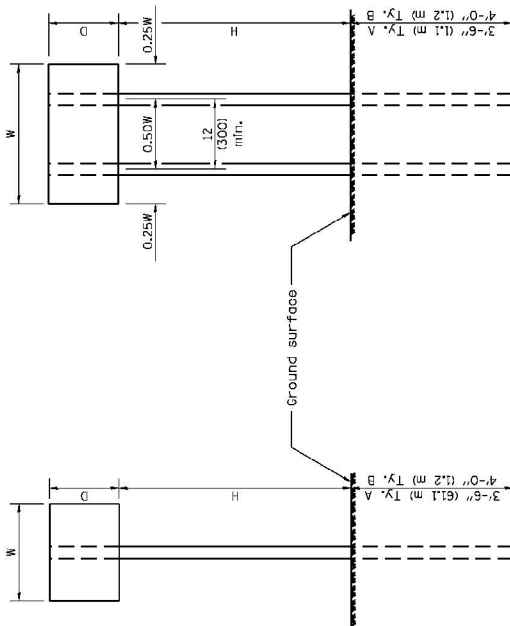
TYPE 1A BARRICADE FOR NON-NHS ROUTES

STANDARD B.L.R. 25-1

DATE	REVISIONS
1-1-09	Switched units to English (metric).
1-1-03	New standard from 702001-02

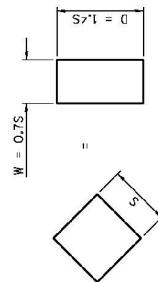
APPROVED JAMES L. JENSEN JUNE 1, 2009 CHIEF OF LOCAL ROADS AND STREETS APPROVED JAMES L. JENSEN JUNE 1, 2009 CHIEF OF DESIGN AND ENVIRONMENT	ISSUED 1-1-03
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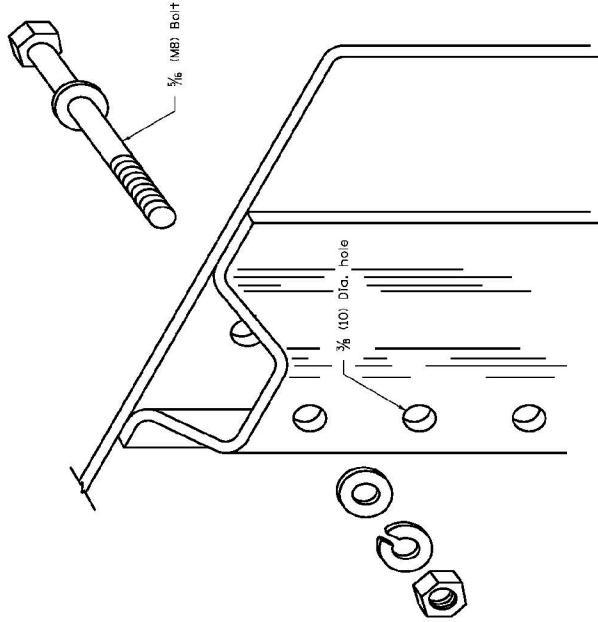
ONE POST INSTALLATION

TWO POST INSTALLATION



For diamond shaped sign with side S as shown, use required post size for a sign with $W = 0.75$ and $D = 1.4S$.

SIGN DEPTH (D)	H	NO. AND TYPE OF POST FOR SIGN WIDTH (W)					
		12 (300)	18 (450)	24 (600)	30 (750)	36 (900)	
18 (450)	5'-0" (1.5 m)	A	A	A	A	A	A
	5'-6" (1.7 m)	A	A	A	A	A	A
	5'-0" (1.5 m)	A	A	A	A	A	B
	5'-6" (1.7 m)	A	A	A	A	A	B
	7'-0" (2.1 m)	A	A	A	A	A	B
	7'-6" (2.3 m)	A	A	A	A	A	B
24 (600)	5'-0" (1.5 m)	A	A	A	A	A	B
	5'-6" (1.7 m)	A	A	A	A	A	B
	7'-0" (2.1 m)	A	A	A	A	A	B
	7'-6" (2.3 m)	A	A	A	A	A	B
	9'-0" (2.7 m)	A	A	A	A	A	B
	9'-6" (2.9 m)	A	A	A	A	A	B
30 (750)	5'-0" (1.5 m)	A	A	A	A	A	B
	5'-6" (1.7 m)	A	A	A	A	A	B
	7'-0" (2.1 m)	A	A	A	A	A	B
	7'-6" (2.3 m)	A	A	A	A	A	B
	9'-0" (2.7 m)	A	A	A	A	A	B
	9'-6" (2.9 m)	A	A	A	A	A	B
36 (900)	5'-0" (1.5 m)	A	A	A	A	A	B
	5'-6" (1.7 m)	A	A	A	A	A	B
	7'-0" (2.1 m)	A	A	A	A	A	B
	7'-6" (2.3 m)	A	A	A	A	A	B
	9'-0" (2.7 m)	A	A	A	A	A	B
	9'-6" (2.9 m)	A	A	A	A	A	B



DETAIL OF MOUNTING SIGN TO POST

NOTE: Minimum of 2 bolts per post required.

GENERAL NOTES

DESIGN: Current AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals.

LOADING: for 60 mph (95 km/h) wind velocity with 30% gust factor, normal to sign.

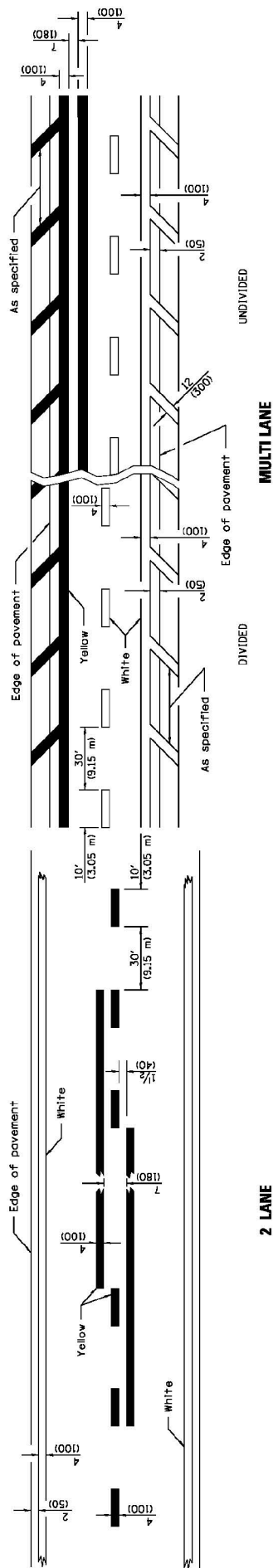
SOIL PRESSURE: Minimum allowable soil pressure 1.25 tsf (120 kPa).

See Standard 720011 for details of Types A and B posts.

All dimensions are in inches (millimeters) unless otherwise shown.

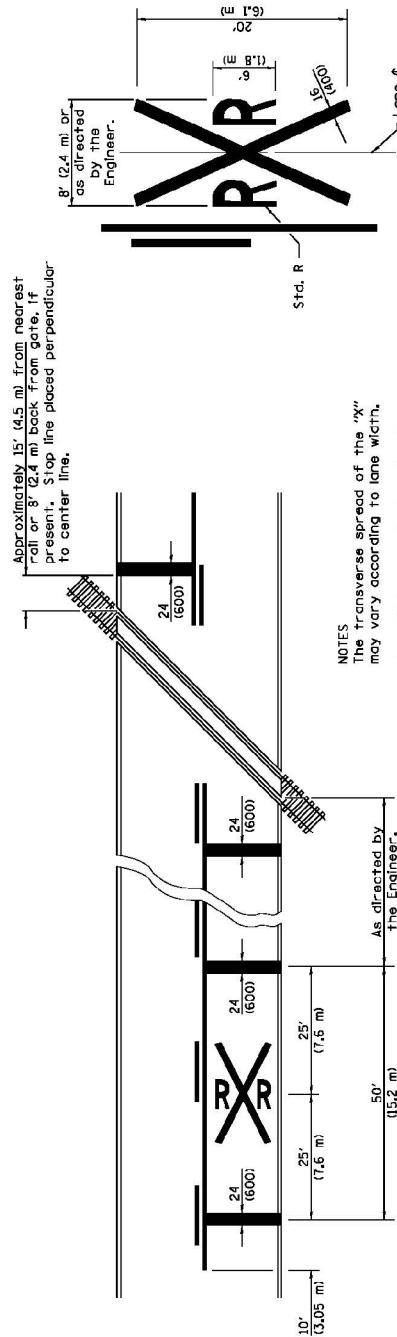
DATE	REVISIONS	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
1-1-09	Switched units to English (metric).	
1-1-97	Renum. Standard 2363-2.	
		STANDARD 720001-01

ILLINOIS Department of Transportation	ISSUED 1-1-97
PASSED	JANUARY 1, 2003
ENGINEER OF POLICY AND PROCEDURES	
APPROVED	JANUARY 1, 2003
ENGINEER OF DESIGN AND ENVIRONMENT	



LANE AND EDGE LINES

2 LANE



NOTES
The transverse spread of the "X" may vary according to lane width.

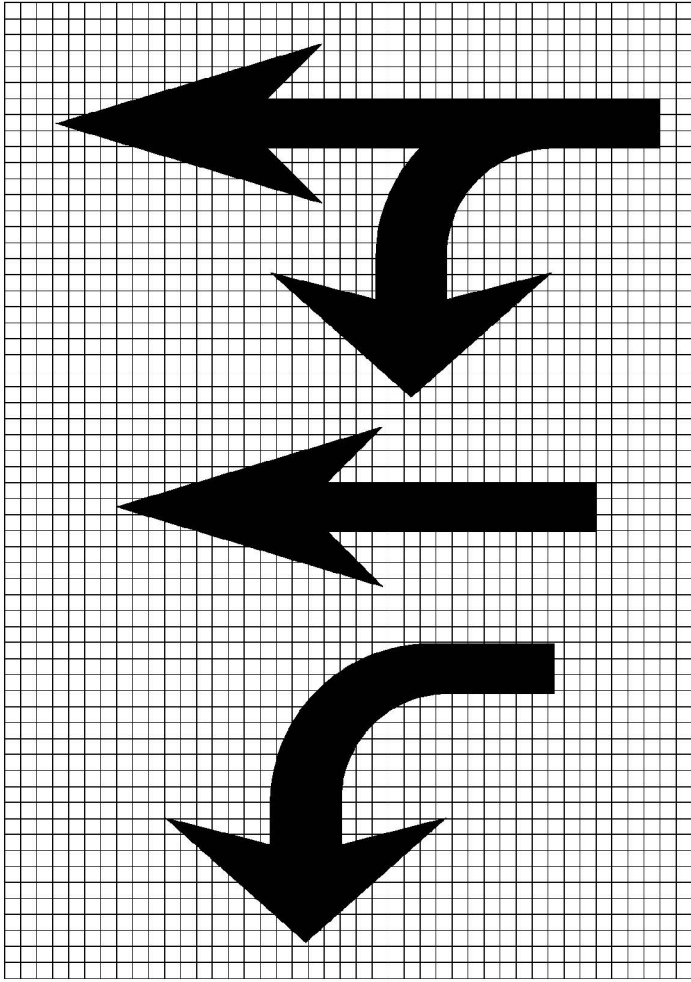
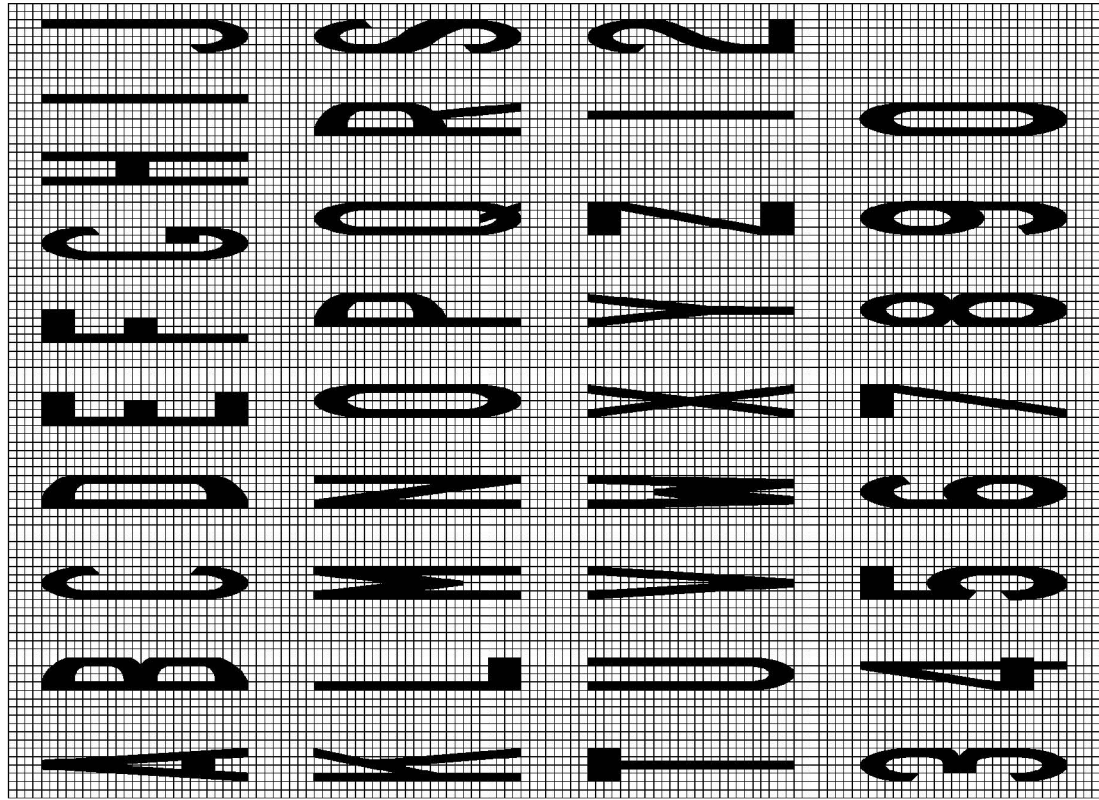
On multi-lane roads, the stop lines shall extend across all approach lanes and separate RXR symbols shall be placed adjacent to each other in each lane.

When the pavement marking symbol is used, a portion of the symbol should be located directly adjacent to the Advance Warning Sign (W10-1) as placed by Table 2C-4, Condition B of the MUTCD.

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

DATE	REVISIONS
1-1-15	Added symbols. Revised bike symbol. Revised note for stop line at RR crossing.
1-1-14	Added bike symbol. Renamed 'LANE DROP ARROW' detail to 'LANE-REDUCTION ARROW'.

All dimensions are in inches (millimeters) unless otherwise shown.



a	a

Legend Height	Arrow Size	a
5' (1.5 m)	Small	2.9 (74)
8' (2.4 m)	Large	3.8 (96)

The space between adjacent letters or numerals should be approximately 3 (75) for 5' (1.5 m) legend and 4 (100) for 8' (2.4 m) legend.

LETTER AND ARROW GRID SCALE

Illinois Department of Transportation

APPROVED _____ 2015
 ENGINEER OF OPERATIONS

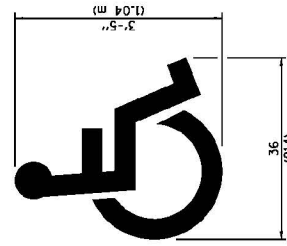
ISSUED 1-1-97

APPROVED _____ 2015
 ENGINEER OF DESIGN AND ENVIRONMENT

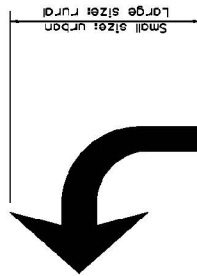
TYPICAL PAVEMENT MARKINGS

(Sheet 2 of 3)

STANDARD 780001-05



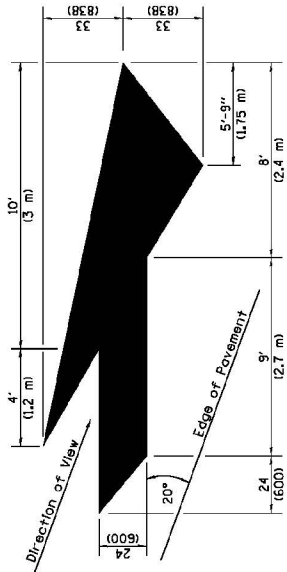
**INTERNATIONAL
SYMBOL OF
ACCESSIBILITY**



20' (6 m): urban
50' (15 m): rural
(Between arrow
and word or
between words)

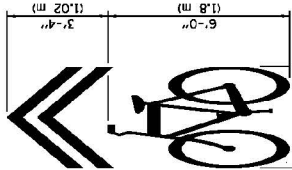
ONLY

6' (1.8 m): urban
8' (2.4 m): rural

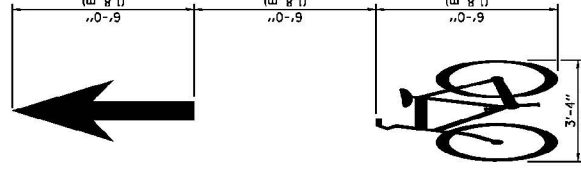


LANE-REDUCTION ARROW

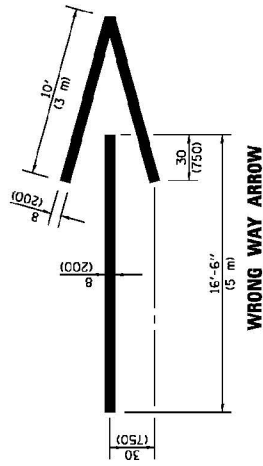
Right lane-reduction arrow shown.
Use mirror image for left lane.



**SHARED LANE
SYMBOL**



BIKE SYMBOL
(arrow is optional.)



WRONG WAY ARROW

TYPICAL PAVEMENT MARKINGS	
STANDARD 780001-05	

Illinois Department of Transportation	
APPROVED	ISSUED 1-1-97
DESIGNED BY	2015
ENGINEER OF OPERATIONS	
APPROVED	2015
ENGINEER OF DESIGN AND ENVIRONMENT	

SECTION 703. SHORT TERM AND TEMPORARY PAVEMENT MARKINGS

703.01 Description. This work shall consist of furnishing, installing, maintaining, and removing short term and temporary pavement markings.

703.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Pavement Marking Tape	1095.06
(b) Paint Pavement Markings	1095.02

CONSTRUCTION REQUIREMENTS

703.03 General. Short term pavement markings shall consist of abbreviated patterns for edge, lane, and centerline markings. Within a specified time limit, short term pavement markings shall either be resurfaced or replaced and replaced with the full pavement marking patterns indicated on the plans with either a temporary material paid for as temporary pavement marking or with permanent material. Within the conditions as specified, the Contractor may be required to place all or a part of the quantities shown on the plans for short term pavement markings and temporary pavement markings.

The surface to which the pavement marking is to be applied shall be clean and dry. Pavement marking tape shall be applied to the prepared surface according to the manufacturer's recommendations or by a method approved by the Engineer. Painted lines shall be installed according to Section 780, except hand-operated stripers may be used for all applications of short term and temporary pavement marking.

703.04 Short Term Pavement Markings. Before the lane is opened to traffic, appropriate short term pavement markings shall be installed between all lanes open to traffic. Centerline or lane line markings shall consist of an abbreviated pattern of single stripes 4 ft. (1.2 m) in length and a minimum of 4 in. (100 mm) wide at a maximum spacing of 40 ft. (12 m) between stripes. Centerlines on two-lane highways shall be yellow and lane lines separating two or more lanes of traffic moving in the same direction shall be white. Edge line markings shall consist of 4 ft. (1.2 m) stripes on 100 ft. (30 m) centers installed at approximately a 45 degree diagonal pointing in the direction of traffic. Edge line markings will only be required on multilane divided highways and other highways with a paved shoulder greater than 4 ft. (1.2 m) wide. Markings on the final wearing surface shall be transversely offset from the permanent pavement marking location as directed by the Engineer. Markings shall be removed within five days after the permanent pavement markings are installed.

The short term pavement markings shall be removed and replaced with the required full standard pavement markings consisting of either temporary or permanent pavement marking as soon as possible. Except as indicated below, temporary pavement marking or the permanent pavement markings shall be installed for no passing zones within three calendar days and for all other markings within 14 calendar days, respectively, after the completion of any intermediate or final surface treatment. This time restriction shall begin at the completion of each intermediate or final lift on resurfacing projects.

Section 703 - Continued

If the existing markings are obliterated by milling or any other surface treatment, the time restriction shall begin when the entire surface has been treated. These restrictions may be delayed by the Engineer whenever the Contractor cannot apply pavement markings due to unanticipated inclement weather (other than winter shutdown on the project), strike activities, or other circumstances beyond the Contractor's control as determined by the Engineer. In these cases, the required full standard temporary or permanent markings shall be installed as soon as construction activities are resumed. Prior to winter shutdown, standard edge lines, lane lines, centerlines, no passing zones, and any other necessary markings as determined by the Engineer shall be installed on any intermediate or final surface remaining open to traffic during the winter shutdown period.

703.05 Temporary Pavement Marking. When any intermediate course cannot be overlaid or if the final surface cannot be permanently marked within the time restrictions listed above, the full standard markings shall be installed with temporary pavement marking. The temporary markings shall be of the same color and dimensions as shown on the plans for the permanent markings, or as directed by the Engineer.

Type I marking tape or paint shall be used at the option of the Contractor, except paint shall not be applied to the final wearing surface unless authorized by the Engineer for late season applications where tape adhesion would be a problem. Type III marking tape shall be used on the final wearing surface when the temporary pavement marking will conflict with the permanent pavement marking such as on tapers, crossovers and lane shifts.

Except during winter shutdown periods, temporary pavement marking showing deterioration for any reason within seven days after placement, shall be replaced by the Contractor. Temporary pavement markings which are in conflict with subsequently established pavement markings, or which interfere with the permanent pavement markings, shall be removed. Marking tape or paint placed on the final wearing course shall be transversely offset from the permanent pavement marking planned location as directed by the Engineer. All remaining temporary pavement marking tape or paint shall be removed within five working days after placement of the permanent pavement marking. When edge lines or channelizing lines are required, they shall be continuous. When continuous sections of tape are used, they shall be cut completely through at intervals of approximately 25 ft. (8 m).

Instead of pavement markings, no passing zones on two-lane and three-lane roads may be identified by either the pennant "NO PASSING ZONE" (W14-3) warning sign or both the "DO NOT PASS" (R4-1) and "PASS WITH CARE" (R4-2) regulatory signs in conjunction with short term markings for periods of time up to three calendar days after an intermediate or final lift is completed on resurfacing projects.

These signs may also be used in lieu of pavement markings on low volume roads until it is practical and possible to install the permanent pavement markings.

If, in the traffic control plan, the road is specified as low volume, it is exempt from the requirements regarding no passing zone pavement markings.

Section 703 - Continued

703.06 Method of Measurement. Short term pavement markings and temporary pavement markings of the various line widths will be measured for payment in feet (meters) in place and accepted. Double yellow lines will be measured as two separate lines.

The replacement of temporary pavement markings of the various line widths during winter shutdown periods will be measured for payment in feet (meters) as specified above, except only those pavement markings directed by the Engineer to be replaced will be measured for payment.

Letters and symbols used in conjunction with temporary pavement marking conforming to the sizes and dimensions specified will be measured for payment in square feet (square meters) according to the areas listed in Table 1, Section 780.

Short term and temporary pavement marking removal will be measured for payment in square feet (square meters).

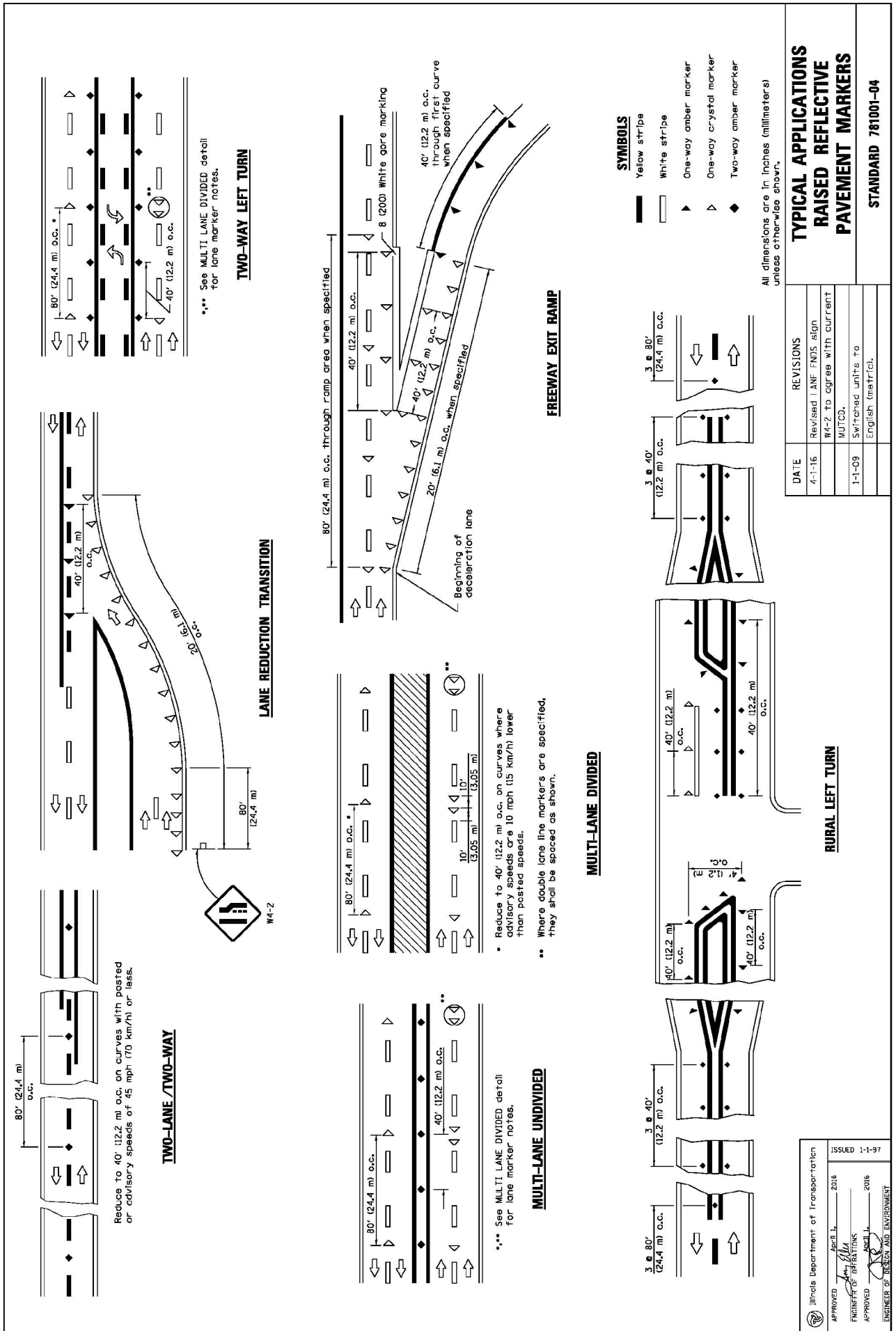
703.07 Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for SHORT TERM PAVEMENT MARKING or for TEMPORARY PAVEMENT MARKING of the line width specified, and at the contract unit price per square foot (square meter) for TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS.

Removal of short term pavement markings will be paid for at the contract unit price per square foot (square meter) for SHORT TERM PAVEMENT MARKING REMOVAL. Removal of temporary pavement marking will be paid for according to Article 783.06

When temporary pavement marking is shown on the Standard, the cost of the temporary pavement marking will be included in the cost of the Standard.

When Pavement Marking Tape, Type III is specified in the contract other than on a Standard, the work will be paid for at the contract unit price per foot (meter) for PAVEMENT MARKING TAPE, TYPE III of the line width specified and at the contract unit price per square feet (square meter) for PAVEMENT MARKING TAPE, TYPE III - LETTERS AND SYMBOLS.

FOR INFORMATIONAL USE ONLY



Supplemental Specifications and Recurring Special Provisions

Check Sheets

Adopted January 1, 2026

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 701. WORK ZONE TRAFFIC CONTROL AND PROTECTION

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

701.12 Personal Protective Equipment. Revise this Article to read:

“701.12 Personal Protective Equipment. All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107 Type R Performance Class 2 high-visibility safety apparel. Other types of garments may be substituted for the vest as long as the garments have a manufacturer’s tag identifying them as meeting the ANSI/ISEA 107 Type R Performance Class 2 requirement.”

701.13 Flaggers. Revise this Article to read:

“701.13 Flaggers and Spotters. Flaggers shall be certified by an agency approved by the Department. While on the job site, each flagger shall have in his/her possession a current driver’s license and a current flagger certification I.D. card. For non-drivers, the Illinois Identification Card issued by the Secretary of State will meet the requirement for a current driver’s license. This certification requirement may be waived by the Engineer for emergency situations that arise due to actions beyond the Contractor’s control where flagging is needed to maintain safe traffic control on a temporary basis. Spotters are defined as certified flaggers that provide support to workers by monitoring traffic.

Flaggers and spotters shall be stationed to the satisfaction of the Engineer and be equipped with a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107 for Type R Performance Class 2 high-visibility safety apparel. Flaggers shall be equipped with a stop/slow traffic control sign. Spotters shall be equipped with a loud warning device. The warning sound shall be identifiable by workers so they can take evasive action when necessary. Other types of garments may be substituted for the vest as long as the garments have a manufacturer’s tag identifying them as meeting the ANSI Class 2 requirement. The longitudinal placement of the flagger may be increased up to 100 ft (30 m) from that shown on the plans to improve the visibility of the flagger. Flaggers shall not encroach on the open lane of traffic unless traffic has been stopped. Spotters shall not encroach on the open lane of traffic, nor interact with or control the flow of traffic.

For nighttime flagging, flaggers shall be illuminated by an overhead light source providing a minimum vertical illuminance of 10 fc (108 lux) measured 1 ft (300 mm) out from the flagger’s chest. The bottom of any luminaire shall be a minimum of 10 ft (3 m) above the pavement. Luminaire(s) shall be shielded to minimize glare to approaching traffic and trespass light to adjoining properties. Nighttime flaggers shall be equipped with fluorescent orange or fluorescent orange and fluorescent yellow/green apparel meeting the requirements of ANSI/ISEA 107 for Type R Performance Class 3 high-visibility safety apparel.

Flaggers and spotters shall be provided per the traffic control plan and as follows.

- (a) Two-Lane Highways. Two flaggers will be required for each separate operation where two-way traffic is maintained over one lane of pavement. Work operations controlled by flaggers shall be no more than 1 mile (1600 m) in length. Flaggers shall be in sight of each other or in direct communication at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies.

The Engineer will determine when a side road or entrance shall be closed to traffic. A flagger will be required at each side road or entrance remaining open to traffic within the operation where two-way traffic is maintained on one lane of pavement. The flagger shall be positioned as shown on the plans or as directed by the Engineer.

- (b) Multi-Lane Highways. At all times where traffic is restricted to less than the normal number of lanes on a multilane pavement with a posted speed limit greater than 40 mph and the workers are present, but not separated from the traffic by physical barriers, a flagger or spotter shall be furnished as shown on the plans. Flaggers shall warn and direct traffic. Spotters shall monitor traffic conditions and warn workers of errant approaching vehicles or other hazardous conditions as they occur. One flagger will be required for each separate activity of an operation that requires frequent encroachment in a lane open to traffic. One spotter will be required for each separate activity with workers near the edge of the open lane or with their backs facing traffic.

Flaggers will not be required when no work is being performed, unless there is a lane closure on two-lane, two-way pavement.”

State of Illinois
Department of Transportation

SUPPLEMENTAL SPECIFICATION
FOR
SECTION 781. RAISED REFLECTIVE PAVEMENT MARKERS

This Supplemental Specification amends the provisions of the Standard Specifications for Road and Bridge Construction, adopted January 1, 2022 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

781.05 Basis of Payment. Revise the first sentence of this Article to read:

“This work will be paid for at the contract unit price per each for RAISED REFLECTIVE PAVEMENT MARKER, TEMPORARY RAISED REFLECTIVE PAVEMENT MARKER, or REPLACEMENT REFLECTOR.”

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
PAVEMENT AND SHOULDER RESURFACING

Effective: February 1, 2000
Revised: January 1, 2023

Revise Article 406.10 of the Standard Specifications to read:

“406.10 Resurfacing Sequence. The resurfacing operations shall satisfy the following requirements:

- (a) Before paving in a lane, the adjacent lane and its paved shoulder shall be at the same elevation.
- (b) Each lift of resurfacing shall be completed, including paved shoulders, before the next lift is begun.
- (c) Elevation differences between lanes shall be eliminated within twelve calendar days.”

Revise the first sentence of the eleventh paragraph of Article 406.13 of the Standard Specifications to read:

“When a HMA binder and surface course mixture is used on shoulders and is placed simultaneously with the traffic lane as specified in Section 482, the quantity of HMA placed on the traffic lane that will be paid for will be limited to a calculated tonnage based upon actual mat width and length, plan thickness or a revised thickness authorized by the Engineer, and design mix weight per inch (millimeter) of thickness.”

Delete the twelfth paragraph of Article 406.13 of the Standard Specifications.

Revise the fourth paragraph of Article 482.05 of the Standard Specifications to read:

“On pavement and shoulder resurfacing projects, the resurfacing sequence shall be according to Article 406.10. When the HMA binder and surface course option is used, the shoulders may be placed, at the Contractor’s option, simultaneously with the adjacent traffic lane for both courses, provided the specified density, thickness and cross slope of both the pavement and shoulder can be satisfactorily obtained.”

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
TEMPORARY PORTABLE BRIDGE TRAFFIC SIGNALS

Effective: August 1, 2003
Revised: January 1, 2007

Description. At the Contractor's option, temporary portable bridge traffic signals may be used in place of temporary bridge traffic signals. Work shall be according to Article 701.18(b) of the Standard Specifications, except as follows:

Materials. Materials shall be according to the following.

Item	Article/Section
(a) Traffic Signal Head	1078
(b) Electric Cable.....	1076.04
(c) Controller	1073
(d) Controller Cabinet.....	1074.03
(e) Detector Loop	1079

CONSTRUCTION REQUIREMENTS

General. The temporary portable bridge traffic signals shall be trailer-mounted units. The trailer-mounted units shall be set up securely and level. Each unit shall be self-contained and consist of two signal heads. The left signal head shall be mounted on a mast arm capable of extending over the travel lane. Each unit shall contain a solar cell system to facilitate battery charging. There shall be a minimum of 12 days backup reserve battery supply and the units shall be capable of operating with a 120 V power supply from a generator or electrical service.

All signal heads located over the travel lane shall be mounted at a minimum height of 17 ft. (5 m) from the bottom of the signal back plate to the top of the road surface. All far right signal heads located outside the travel lane shall be mounted at a minimum height of 8 ft. (2.4 m) from the bottom of the signal back plate to the top of the adjacent travel lane surface.

The long all red intervals for the traffic signal controller shall be adjustable up to 250 seconds in one-second increments.

As an alternative to detector loops, temporary portable bridge traffic signals may be equipped with microwave sensors or other approved methods of vehicle detection and traffic actuation. All portable traffic signal units shall be interconnected using hardwire communication cable or radio communication equipment. If radio communication is used, a site analysis shall be completed to ensure that there is no interference present that would affect the traffic signal operation. The radio equipment shall meet all applicable FCC requirements.

The temporary portable bridge traffic signal system shall meet the physical display and operational requirements of conventional traffic signals as specified in Part IV of the Manual on

Uniform Traffic Control Devices (MUTCD). The signal system shall be designed to continuously operate over an ambient temperature range between -30 °F (-34 °C) and 120 °F (48 °C).

When not being utilized to inform and direct traffic, portable signals shall be treated as non-operating equipment according to Article 701.11 of the Standard Specifications.

Basis of Payment. This work will be paid for according to Article 701.20(c) of the Standard Specifications.

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
NIGHT TIME INSPECTION OF ROADWAY LIGHTING

Effective: May 1, 1996

The Contractor shall provide traffic control and protection for the night time inspection of the roadway lighting as shown in the contract. Any fixtures found not to be aimed to provide optimum lighting on the roadway during the night time inspection shall be re-aimed to optimum during the inspection. Any work necessary for re-aiming will not be paid for separately but, shall be included in the cost of the highway lighting bid items.

State of Illinois
Department of Transportation

SPECIAL PROVISION
FOR
TEMPORARY RAISED PAVEMENT MARKERS

Effective: January 1, 2009
Revised: January 1, 2014

Description. This work shall consist of furnishing and installing temporary raised pavement markers on preventive maintenance projects requiring cape seals or bituminous surface treatments.

Materials. The marker body shall be approximately 0.06 in. (1.5 mm) thick polyurethane formed in an "L" shape. The base of the marker shall be approximately 4 in. (100 mm) wide by 1.125 in. (28 mm) long with a solid 0.125 in. (3.2 mm) thick butyl rubber adhesive pad protected with a release paper. The vertical portion of the marker shall be approximately 4 in. (100 mm) wide by 2 in. (50 mm) high.

A cube-corner micro-prism reflective tape material shall be placed horizontally along both sides at the top of the vertical section of the marker. The reflective material shall be recessed in an "I-Beam" design to protect the reflective material from aggregate. A clear flexible polyvinyl chloride plastic cover is to be attached to the vertical section of the marker with a heavy duty staple to cover the reflective material during surfacing operations. The flexible raised pavement marker shall be readily visible at night when viewed with high beam automobile headlamps from a distance of at least 300 ft. (90 m).

Construction Requirements

Application. The temporary markers shall be installed at the centerline or lane line(s) prior to application of any surface treatment which would cover the existing pavement markings. Temporary markers shall also be applied at edge lines when specified on the plans.

For temporary replacement of skip dash markings, an abbreviated pattern of two markers spaced 4 ft. (1.2 m) apart with a maximum spacing of 40 ft. (12 m) between sets of markers shall be used. For temporary replacement of solid lines, one marker shall be placed every 5 ft. (1.5 m). The marker color and location shall match the existing line color and location.

Basis of Payment. This work will be paid for at the contract unit price per each for TEMPORARY RAISED PAVEMENT MARKER.

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION
FOR
WORK ZONE TRAFFIC CONTROL SURVEILLANCE

Effective: January 1, 1999
Revised: January 1, 2018

Revise Article 701.10 of the Standard Specifications to read:

“The Contractor shall conduct inspections of the worksite at a frequency that will allow for the timely replacement of any traffic control device that has become displaced, worn, or damaged. A sufficient quantity of replacement devices, based on vulnerability to damage, shall be readily available to meet this requirement.”

Delete Article 701.20(g) of the Standard Specifications.

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION
FOR
FLAGGERS IN WORK ZONES

Effective: January 1, 1999
Revised: January 1, 2007

Revise the last paragraph of Article 701.13 of the Standard Specifications to read:

“Flaggers are required only when workers are present.”

Bureau of Design & Environment Special Provisions

January 1, 2026

AUTOMATED FLAGGER ASSISTANCE DEVICES (BDE)

Effective: January 1, 2008

Revised: April 1, 2023

Description. This work shall consist of furnishing and operating automated flagger assistance devices (AFADs) as part of the work zone traffic control and protection for two-lane highways where two-way traffic is maintained over one lane of pavement in segments where no sideroads or entrances require deployment of additional flaggers. Use of these devices shall be at the option of the Contractor.

Equipment. AFADs shall be the STOP/SLOW or Red/Yellow Lens type mounted on a trailer or moveable cart meeting the requirements of the MUTCD and NCHRP 350 or MASH 2016, Category 4.

General. AFADs shall be placed at each end of the traffic control, where a flagger is shown on the plans. The AFAD shall be setup within five degrees of vertical.

Flagger symbol signs as shown on the plans shall be replaced with "BE PREPARED TO STOP" signs when the AFAD is in operation.

Personal communication devices shall not be used to operate the AFAD.

Flagging Requirements. Flaggers and flagging requirements shall be according to Article 701.13 of the Standard Specifications and the following.

Each AFAD shall be operated by a flagger trained to operate the specific AFAD to be deployed. A minimum of two flaggers shall be on site at all times during operation. Each flagger shall be positioned outside the lane of traffic and near each AFAD's location.

Flagging equipment required for traditional flagging shall be available near each AFAD location in the event of AFAD equipment malfunction/failure.

For nighttime flagging, the AFAD and flagger shall be illuminated according to Article 701.13 of the Standard Specifications.

When not in use, AFADs will be considered non-operating equipment and shall be stored according to Article 701.11 of the Standard Specifications.

Basis of Payment. This work will not be paid for separately but shall be considered as included in the cost of the various traffic control items included in the contract.

80192

Short Term and Temporary Pavement Markings (BDE)

Effective: April 1, 2024

Revised: April 2, 2024

Revise Article 701.02(d) of the Standard Specifications to read:

“(d) Pavement Marking Tapes (Note 3) 1095.06”

Add the following Note to the end of Article 701.02 of the Standard Specifications:

“Note 3. White or yellow pavement marking tape that is to remain in place longer than 14 days shall be Type IV tape.”

Revise Article 703.02(c) of the Standard Specifications to read:

“(c) Pavement Marking Tapes (Note 1) 1095.06”

Add the following Note to the end of Article 703.02 of the Standard Specifications:

“Note 1. White or yellow pavement marking tape that is to remain in place longer than 14 days shall be Type IV tape.”

Revise Article 1095.06 of the Standard Specifications to read:

“1095.06 Pavement Marking Tapes. Type I white or yellow marking tape shall consist of glass spheres embedded into a binder on a foil backing that is precoated with a pressure sensitive adhesive. The spheres shall be of uniform gradation and distributed evenly over the surface of the tape.

Type IV tape shall consist of white or yellow tape with wet reflective media incorporated to provide immediate and continuing retroreflection in wet and dry conditions. The wet retroreflective media shall be bonded to a durable polyurethane surface. The patterned surface shall have approximately 40 ± 10 percent of the surface area raised and presenting a near vertical face to traffic from any direction. The channels between the raised areas shall be substantially free of exposed reflective elements or particles.

Blackout tape shall consist of a matte black, non-reflective, patterned surface that is precoated with a pressure sensitive adhesive.

- (a) Color. The white and yellow markings shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degrees circumferential/zero degree geometry, illuminant D65, and two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

Color	Daylight Reflectance %Y
White	65 min.
Yellow *	36 - 59

*Shall match Aerospace Material Specification Standard 595 33538 (Orange Yellow) and the chromaticity limits as follows.

x	0.490	0.475	0.485	0.530
y	0.470	0.438	0.425	0.456

- (b) Retroreflectivity. The white and yellow markings shall be retroreflective. Reflective values measured in accordance with the photometric testing procedure of ASTM D 4061 shall not be less than those listed in the table below. The coefficient of retroreflected luminance, R_L , shall be expressed as average millicandelas/footcandle/sq ft (millicandelas/lux/sq m), measured on a 3.0 x 0.5 ft (900 mm x 150 mm) panel at 86 degree entrance angle.

Coefficient of Retroreflected Luminance, R_L , Dry					
Type I			Type IV		
Observation Angle	White	Yellow	Observation Angle	White	Yellow
0.2°	2700	2400	0.2°	1300	1200
0.5°	2250	2000	0.5°	1100	1000

Wet retroreflectance shall be measured for Type IV under wet conditions according to ASTM E 2177 and meet the following.

Wet Retroreflectance, Initial R_L	
Color	R_L 1.05/88.76
White	300
Yellow	200

- (c) Skid Resistance. The surface of Type IV and blackout markings shall provide a minimum skid resistance of 45 BPN when tested according to ASTM E 303.
- (d) Application. The pavement marking tape shall have a precoated pressure sensitive adhesive and shall require no activation procedures. Test pieces of the tape shall be applied according to the manufacturer's instructions and tested according to ASTM D 1000, Method A, except that a stiff, short bristle roller brush and heavy hand pressure will be substituted for the weighted rubber roller in applying the test pieces to the metal test panel. Material tested as directed above shall show a minimum adhesion value of 750 g/in. (30 g/mm) width at the temperatures specified in ASTM D 1000. The adhesive shall be resistant to oils, acids, solvents, and water, and shall not leave objectionable stains or residue after removal. The material shall be flexible and conformable to the texture of the pavement.
- (e) Durability. Type IV and blackout tape shall be capable of performing for the duration of a normal construction season and shall then be capable of being removed intact or in large sections at pavement temperatures above 40 °F (4 °C) either manually or with a roll-up device without the use of sandblasting, solvents, or grinding. The Contractor shall provide a manufacturer's certification that the material meets the requirements for being removed after the following minimum traffic exposure based on transverse test decks with rolling traffic.
- (1) Time in place - 400 days
 - (2) ADT per lane - 9,000 (28 percent trucks)
 - (3) Axle hits - 10,000,000 minimum

Samples of the material applied to standard specimen plates will be measured for thickness and tested for durability in accordance with ASTM D 4060, using a CS-17 wheel and 1000-

gram load, and shall meet the following criteria showing no significant change in color after being tested for the number of cycles indicated.

Test	Type I	Type IV	Blackout
Minimum Initial Thickness, mils (mm)	20 (0.51)	65 (1.65) ^{1/} 20 (0.51) ^{2/}	65 (1.65) ^{1/} 20 (0.51) ^{2/}
Durability (cycles)	5,000	1,500	1,500

1/ Measured at the thickest point of the patterned surface.

2/ Measured at the thinnest point of the patterned surface.

The pavement marking tape, when applied according to the manufacturer's recommended procedures, shall be weather resistant and shall show no appreciable fading, lifting, or shrinkage during the useful life of the marking. The tape, as applied, shall be of good appearance, free of cracks, and edges shall be true, straight, and unbroken.

(f) Sampling and Inspection.

- (1) Sample. Prior to approval and use of Type IV pavement marking tape, the manufacturer shall submit a notarized certification from an independent laboratory, together with the results of all tests, stating that the material meets the requirements as set forth herein. The independent laboratory test report shall state the lot tested, the manufacturer's name, and the date of manufacture.

After initial approval by the Department, samples and certification by the manufacturer shall be submitted for each subsequent batch of Type IV tape used. The manufacturer shall submit a certification stating that the material meets the requirements as set forth herein and is essentially identical to the material sent for qualification. The certification shall state the lot tested, the manufacturer's name, and the date of manufacture.

- (2) Inspection. The Contractor shall provide a manufacturer's certification to the Engineer stating the material meets all requirements of this specification. All material samples for acceptance tests shall be taken or witnessed by a representative of the Bureau of Materials and shall be submitted to the Engineer of Materials, 126 East Ash Street, Springfield, Illinois 62704-4766 at least 30 days in advance of the pavement marking operations."

80457

Speed Display Trailer (BDE)

Effective: April 2, 2014

Revised: January 1, 2022

Revise the last paragraph of Article 701.11 of the Standard Specifications to read:

“When not being utilized to inform and direct traffic, sign trailers, speed display trailers, arrow boards, and portable changeable message boards shall be treated as nonoperating equipment.”

Add the following to Article 701.15 of the Standard Specifications:

“(m) Speed Display Trailer. A speed display trailer is used to enhance safety of the traveling public and workers in work zones by alerting drivers of their speed, thus deterring them from driving above the posted work zone speed limit.”

Add the following to Article 701.20 of the Standard Specifications:

“(k) When speed display trailers are shown on the Standard, this work will not be paid for separately but shall be considered as included in the cost of the Standard.

For all other speed display trailers, this work will be paid for at the contract unit price per calendar month or fraction thereof for each trailer as SPEED DISPLAY TRAILER.”

Add the following to Article 1106.02 of the Standard Specifications:

“(o) Speed Display Trailer. The speed display trailer shall consist of a LED speed indicator display with self-contained, one-direction radar mounted on an orange see-through trailer. The height of the display and radar shall be such that it will function and be visible when located behind concrete barrier.

The speed measurement shall be by radar and provide a minimum detection distance of 1000 ft (300 m). The radar shall have an accuracy of ± 1 mile per hour.

The speed indicator display shall face approaching traffic and shall have a sign legend of “YOUR SPEED” immediately above or below the speed display. The sign letters shall be between 5 and 8 in. (125 and 200 mm) in height. The digital speed display shall show two digits (00 to 99) in mph. The color of the changeable message legend shall be a yellow legend on a black background. The minimum height of the numerals shall be 18 in. (450 mm), and the nominal legibility distance shall be at least 750 ft (250 m).

The speed indicator display shall be equipped with a violation alert that flashes the displayed detected speed when the work zone posted speed limit is exceeded. The speed indicator shall have a maximum speed cutoff. On roadway facilities with a normal posted speed limit greater than or equal to 45 mph, the detected speeds of vehicles traveling more than 25 mph over the work zone speed limit shall not be displayed. On facilities with normal posted speed limit of less than 45 mph, the detected speeds of vehicles traveling more than 15 mph over the work zone speeds limit shall not be displayed. On any roadway facility if detected speeds are less than 25 mph, they shall not be displayed. The display shall include automatic dimming for nighttime operation.

The speed indicator measurement and display functions shall be equipped with the power supply capable of providing 24 hours of uninterrupted service.”

80340

TEMPORARY CONCRETE BARRIER (BDE)

Effective: January 1, 2026

Add the following to Article 704.02 of the Standard Specifications:

“(f) Type C Reflector.....1097.02(c)”

80481

TEMPORARY RUMBLE STRIPS (BDE)

Effective: April 1, 2025

Revise Article 701.15(k) of the Standard Specifications to read:

“(k) Temporary Rumble Strips. Temporary rumble strips provide an audible and tactile warning to alert motorists of an approaching work zone or change in driving pattern or highway condition. The number and spacing of temporary rumble strips installed per set shall be as shown in Standard 701901. Temporary rumble strips shall be applied to the pavement according to the manufacturer’s recommendations.

Breakage or significant permanent deformation of the strip shall constitute failure. Compaction or slipping of material that reduces the effectiveness of the audible or vibration warnings shall constitute failure.

Upon completion of the project, or as directed by the Engineer, temporary rumble strips shall be entirely removed using a method that does not permanently damage the pavement surface.”

Revise Article 701.19(e) of the Standard Specifications to read:

“(e) Temporary rumble strips will be measured as each, where each is defined as a set of six temporary rumble strips across a single lane of pavement, and each set of temporary rumble strips will be measured for payment once per location.”

Revise Article 1106.03 of the Standard Specifications to read:

“**1106.03 Temporary Rumble Strips.** Temporary rumble strips shall be black or white. Temporary rumble strips shall be constructed of a flexible, pliant, impact-resistant material capable of supporting a load of 6000 lb (2700 kg). Temporary rumble strips shall be 1/4 in. (6 mm) to 1 in. (25 mm) thick and 4 in. (100 mm) to 6 in. (150 mm) wide. Temporary rumble strips shall be weather

resistant and, through normal traffic wear, show no appreciable fading, lifting, tearing, rollback, or other signs of poor adhesion.”

80466

VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE)

Effective: November 1, 2021

Revised: November 1, 2022

Add the following paragraph after the first paragraph of Article 701.08 of the Standard Specifications:

“The Contractor shall equip all vehicles and equipment with high-intensity oscillating, rotating, or flashing, amber or amber-and-white, warning lights which are visible from all directions. In accordance with 625 ILCS 5/12-215, the lights may only be in operation while the vehicle or equipment is engaged in construction operations.”

80439

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020

Revised: January 1, 2026

Add the following to Article 701.03 of the Standard Specifications:

“(q) Temporary Sign Supports 1106.02”

Revise Article 701.03(p) of the Standard Specifications to read:

“(p) Detectable Pedestrian Channelizing Barricades 1106.02(m)”

Revise the third paragraph of Article 701.14 of the Standard Specifications to read:

“For temporary sign supports, the Contractor shall provide a FHWA eligibility letter for each device used on the contract. The letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device. The signs shall be supported within 20 degrees of vertical. Weights used to stabilize signs shall be attached to the sign support per the manufacturer’s specifications.”

Revise the first paragraph of Article 701.15 of the Standard Specifications to read:

“**701.15 Traffic Control Devices.** For devices that must meet crashworthiness standards, the Contractor shall provide a manufacturer’s self-certification or a FHWA eligibility letter for each Category 1 device and a FHWA eligibility letter for each Category 2 and Category 3 device used on the contract. The self-certification or letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device.”

Revise the first six paragraphs of Article 1106.02 of the Standard Specifications to read:

“**1106.02 Devices.** Work zone traffic control devices and combinations of devices shall meet crashworthiness standards for their respective categories. The categories are as follows.

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, plastic drums, and delineators, with no attachments (e.g. lights). Category 1 devices shall be MASH compliant.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include vertical panels with lights, barricades, temporary sign supports, and Category 1 devices with attachments (e.g. drums with lights). Category 2 devices shall be MASH compliant.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1 or 2. Category 3 devices manufactured after December 31, 2019 shall be MASH compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350, may be used on contracts let before December 31, 2029. Category 3 devices shall be crash tested for Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as sign supports, speed feedback displays, arrow boards, changeable message signs, temporary traffic signals, and area lighting supports. It is preferable for Category 4 devices manufactured after December 31, 2019 to be MASH-16 compliant; however, there are currently no crash tested devices in this category, so it remains exempt from the NCHRP 350 or MASH compliance requirement.

For each type of device, when no more than one MASH compliant is available, an NCHRP 350 compliant device may be used, even if manufactured after December 31, 2019.”

Revise the first paragraph of Section 1106.02(a) of the Standard Specifications to read:

- “(a) Lights. Lights shall meet the requirements of Chapter 13 of the “Equipment and Materials Standards of the Institute of Transportation Engineers,” 1998, Institute of Transportation Engineers, and shall be visible on a clear night from a distance of 3000 ft (900 m). Lights are classified as follows.”

Revise Articles 1106.02(g), 1106.02(k), 1106.02(l), and 1106.02(m) of the Standard Specifications to read:

- “(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be approved for use at Test Level 3. Test Level 2 may be used for normal posted speeds less than or equal to 45 mph.

- (k) Temporary Water Filled Barrier. The water filled barrier shall be a lightweight plastic shell designed to accept water ballast and be on the Department’s qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings.

- (l) Movable Traffic Barrier. The movable traffic barrier shall be on the Department’s qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings. The barrier shall be capable of being moved on and off the roadway on a daily basis.

- (m) Detectable Pedestrian Channelizing Barricades. The top panel or handrail shall be continuous and there should be at least a 2 in. (50 mm) gap between the hand trailing edge and its support. When visible to vehicular traffic, the top rail shall have alternating white and orange retroreflective stripes sloping at 45 degrees. The bottom panel shall be continuous and have alternating white and orange retroreflective stripes sloping at 45 degrees. Barricade stripes shall be 6 in. (150 mm) in width. The predominant color for other barricade components shall be white, orange, or silver.”

