Traffic Control

TC

SECTION

Traffic Control

TC

NO.	DATE	TITLE
		Two-Lane and Multi-Lane Roadways
TC-1	10-15-19	Work Not Affecting Traffic (Two-Lane or Multi-Lane)
TC-61	04-15-25	Two-Lane, Two-way Operation
TC-62	10-15-24	Permanent Two-Lane to Four-Lane Divided Transition.
TC-63	04-18-23	Lane Closure at Two-Lane to Four-Lane Transition.
TC-64	04-18-23	Lane Closure at Two-Lane to Four-Lane Transition with Flagger
TC-81	04-18-23	Restricted Width Signing (Less Than 15.5 Feet)
		Two-Lane Roadways
TC-202	04-18-23	Work Within 15 ft of Traveled Way
TC-203	04-18-23	Aerial Seeding Operations
TC-211	10-15-19	Lane Closure on Low Volume Roadway
TC-212	04-18-23	Spot Location Lane Closure with Flaggers
TC-213	04-18-23	Lane Closure with Flaggers
TC-214	04-18-23	Lane Closure with Flaggers for use with Pilot Car
TC-215	04-16-24	Lane Closure with Signals (Up to Three Days)
TC-216	04-18-23	Lane Closure with Signals
TC-217	04-18-23	Lane Closure with Signals and TBR
TC-218	04-18-23	Lane Closure with Pilot Car and Flagger Operated Signals
TC-228	04-18-23	Lane Closure Involving TWLTL
TC-231	04-18-23	Slow Moving Vehicle Operating in the Traffic Lane
TC-232	10-21-14	Shoulder Rumble Strip Operations
TC-233	10-17-17	Pavement Marking Operations Two-Lane
TC-234	04-18-23	Strip Sealing Operations
TC-235	04-18-23	Edge Rut Repair
TC-251	04-18-23	Temporary Road Closure
TC-252	04-21-20	Routes Closed to Traffic

Traffic Control

NO.	DATE	TITLE
TC-253	04-18-23	Paved On-Site Detour
TC-271	04-18-23	Signalized Equipment Crossing
TC-272	04-18-23	Unsignalized Equipment Crossing
TC-273	10-15-19	Construction Site Entrance
TC-282	10-15-19	Uneven Lanes
TC-283	04-18-23	Surveying Operations
TC-284	10-15-19	No Centerline Markings on Non-Primary Roadways
		Multi-Lane Roadways
TC-402	04-18-23	Work Within 15 ft of Traveled Way
TC-403	04-18-23	Aerial Seeding Operations
TC-415	04-18-23	Stort Term Lane Closure with TMA
TC-416	10-15-19	Partial Lane Closure on Ramps
TC-417	04-21-20	Ramp Closure
TC-418	04-18-23	Lane Closure on Divided Highway
TC-419	04-18-23	Lane Closure on Undivided Highway
TC-420	10-16-18	Lane Closure at Ramps
TC-421	04-15-25	Lane Closure with TBR
TC-422	04-18-23	Closure of Two Adjacent Lanes on Divided Highway
TC-423	04-18-23	Closure of Two Adjacent Lanes on Undivided Highway
TC-429	04-18-23	Closure of Continuous Two-Way Left Turn Lane and Adjacent Lane
TC-431	04-15-25	Slow Moving Vehicle Operating in the Traffic Lane
TC-432	10-17-17	Shoulder Rumble Strip Operations
TC-433	10-17-17	Pavement Marking Operations
TC-435	04-18-23	Multi-Line Closure For Mobile Operation 50 mph or Greater
TC-451	04-18-23	Temporary Road Closure on Divided Highway
TC-454	04-18-23	Temporary Detour Using Ramps on Divided Highway
TC-482	04-19-22	Uneven Lanes

SECTION

Traffic Control

TC

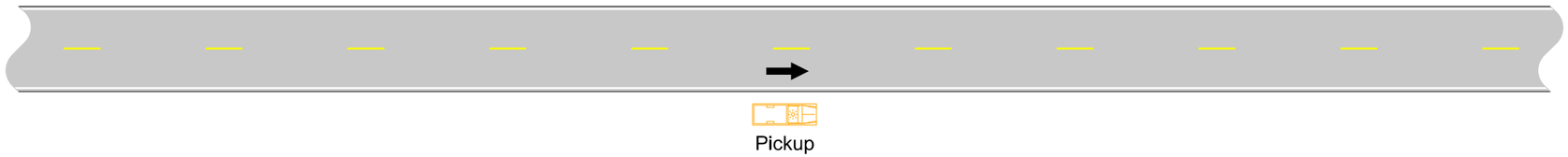
NO.	DATE	TITLE
TC-601	10-15-19	Pedestrian Detour
TC-602	10-15-19	Sidewalk Diversion

Do not allow work to interfere with the flow of traffic.

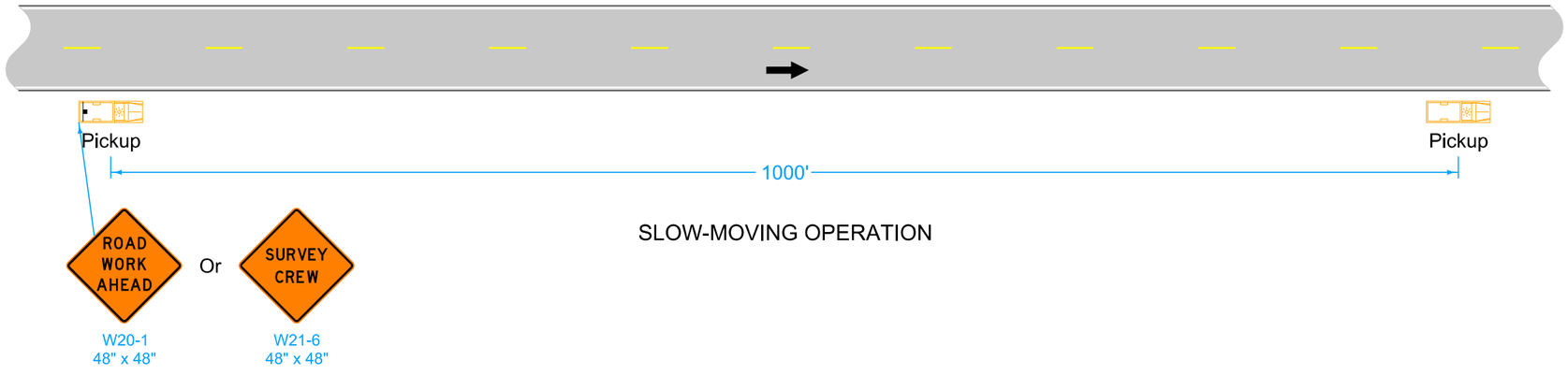
When parked, locate vehicles as far from the open traffic lane as possible. Entrances and driveways should be used whenever appropriate.

Equip all vehicles with an amber revolving light or amber strobe light.

(1) For work lasting longer than one hour, refer to TC-202 or TC-402.



VEHICLE STOPPED ON SHOULDER FOR LESS THAN ONE HOUR (1)



SLOW-MOVING OPERATION

LEGEND
- Traffic Sign
- Direction of Traffic

Possible Contract Item:
Traffic Control

IOWA DOT

REVISION	
3	10-15-19

STANDARD ROAD PLAN

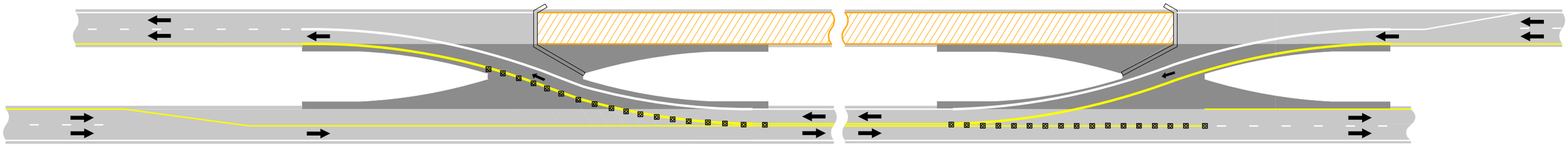
TC-1

SHEET 1 of 1

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

WORK NOT AFFECTING TRAFFIC (TWO-LANE OR MULTI-LANE)



See Sheets 2 and 4 for Details

See Sheets 3 and 4 for Details

OVERVIEW OF CROSSOVER

Place Two-Way Traffic symbol and DO NOT PASS signs alternately on both sides of the roadway at a maximum of one-half mile intervals for both directions of travel. Always have signs in sight of motorists.

Possible Contract Items:

- Painted Symbols and Legends
- Pavement Marking Items
- Pavement Marking Removed
- Safety Closures
- Temporary Floodlighting
- Temporary Lane Separator System
- Traffic Control

Possible Tabulations:

108-13A, 108-22, 108-27, 108-29, 108-30, 108-33, 108-35

IOWA DOT

STANDARD ROAD PLAN

REVISION	
19	04-15-25

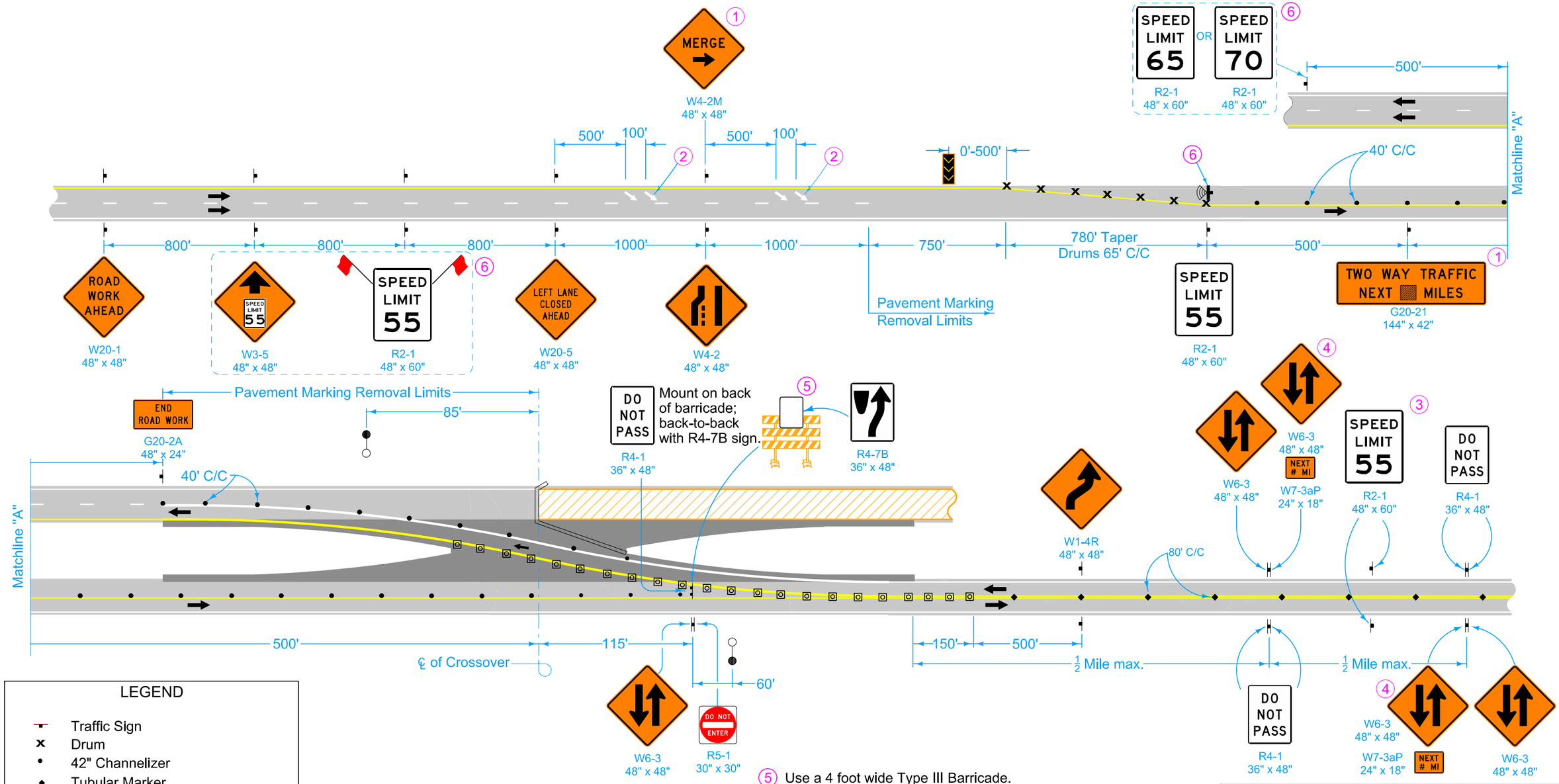
TC-61

SHEET 1 of 6

REVISIONS: Adjusted positioning of W7-3aP on page 3.

APPROVED BY DESIGN METHODS ENGINEER

TWO-LANE, TWO WAY OPERATION



LEGEND

- Traffic Sign
- Drum
- 42" Channelizer
- Tubular Marker
- Speed Feedback Sign
- Arrow Board
- Safety Closure (Refer to TC-252)
- Temporary Floodlighting
- Work Area
- Direction of Traffic
- Detour Pavement
- Temporary Lane Separator System

See sheet 4 for supplemental drawings.

1. Refer to SI-881 for sign details.
2. Refer to PM-111 for arrow details.
3. Space Speed Limit signs at one-mile intervals.
4. Install an additional supplemental plaque with the message NEXT X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length of two-lane traffic. Round X to the nearest whole-mile increment.
5. Use a 4 foot wide Type III Barricade.
6. For roadways with a posted speed limit of 60 mph or greater before road work:

   Place SPEED LIMIT AHEAD sign and SPEED LIMIT 55 sign prior to the lane closure as shown. Place SPEED LIMIT 65 or 70 beyond the work area as shown.

   Remove or cover all existing signs that conflict with 55 mph speed limit while 55 mph speed limit is in effect.

   Place Speed Feedback Sign at the end of the merge taper.

IOWA DOT

STANDARD ROAD PLAN

REVISION
19 | 04-15-25

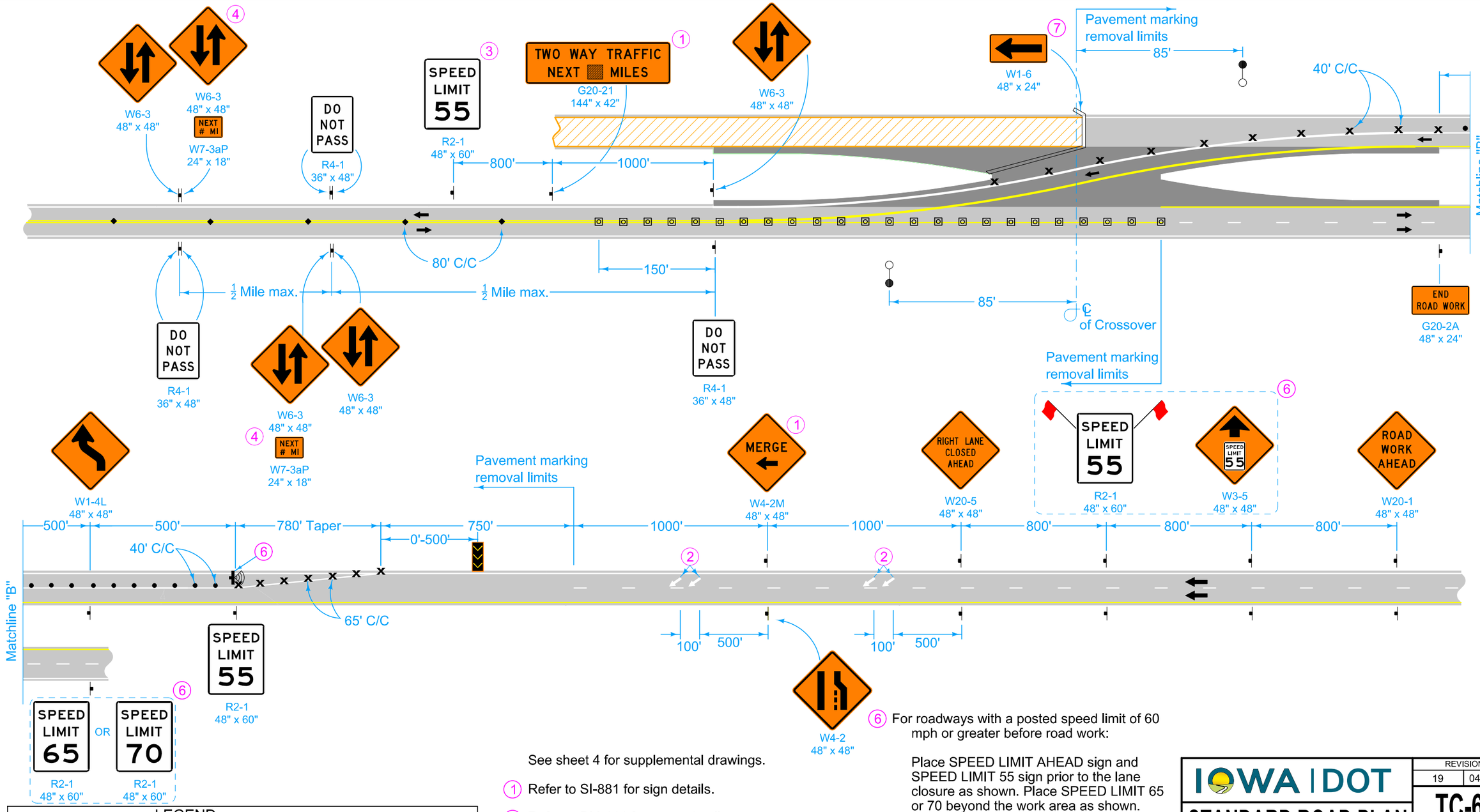
TC-61

SHEET 2 of 6

REVISIONS: Adjusted positioning of W7-3aP on page 3.

APPROVED BY DESIGN METHODS ENGINEER

TWO-LANE, TWO WAY OPERATION



LEGEND

- Traffic Sign
- Drum
- 42" Channelizer
- Tubular Marker
- Temporary Lane Separator System
- Speed Feedback Sign
- Arrow Board
- Safety Closure (Refer to TC-252)
- Temporary Floodlighting
- Work Area
- Direction of Traffic
- Detour Pavement

See sheet 4 for supplemental drawings.

(1) Refer to SI-881 for sign details.

(2) Refer to PM-111 for arrow details.

(3) Space Speed Limit signs at one-mile intervals.

(4) Install an additional supplemental plaque with the message NEXT X MILES on the Two-Way Traffic symbol sign assembly on the right side of the roadway to inform motorists of the remaining length of two-lane traffic. Round X to the nearest whole-mile increment.

(6) For roadways with a posted speed limit of 60 mph or greater before road work:

Place SPEED LIMIT AHEAD sign and SPEED LIMIT 55 sign prior to the lane closure as shown. Place SPEED LIMIT 65 or 70 beyond the work area as shown.

Remove or cover all existing signs that conflict with 55 mph speed limit while 55 mph speed limit is in effect.

Place Speed Feedback Sign at the end of the merge taper.

(7) Add below R11-2 already included in Safety Closure.

IOWA DOT

STANDARD ROAD PLAN

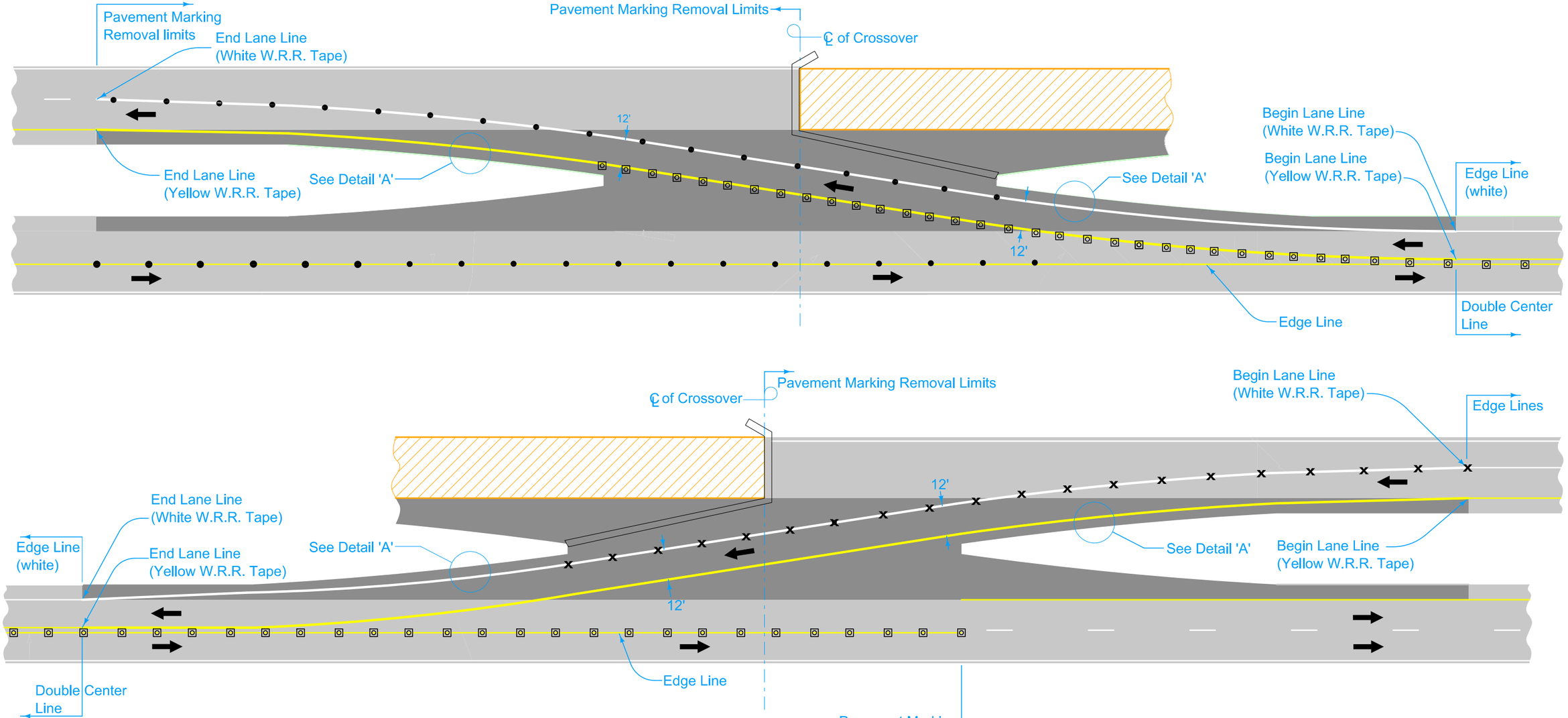
REVISION	
19	04-15-25

TC-61

REVISIONS: Adjusted positioning of W7-3aP on page 3.

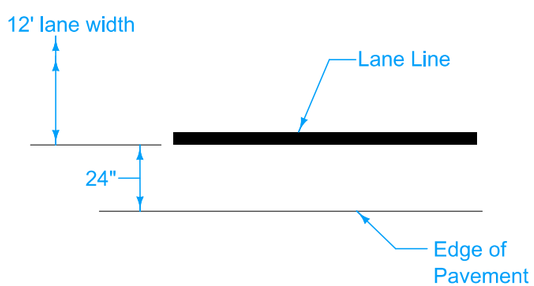
APPROVED BY DESIGN METHODS ENGINEER

TWO-LANE, TWO WAY OPERATION



LEGEND

- × Drum
- • 42" Channelizer
- Work Area
- Direction of Traffic
- Detour Pavement
- Safety Closure (Refer to TC-252)
- Temporary Lane Separator System



DETAIL 'A'

(8) Details shown hereon are intended to provide additional information to the requirements shown on sheets 2 and 3.

SUPPLEMENTAL CROSSOVER DRAWINGS (8)

IOWA DOT

STANDARD ROAD PLAN

REVISION 19 04-15-25

TC-61

SHEET 4 of 6

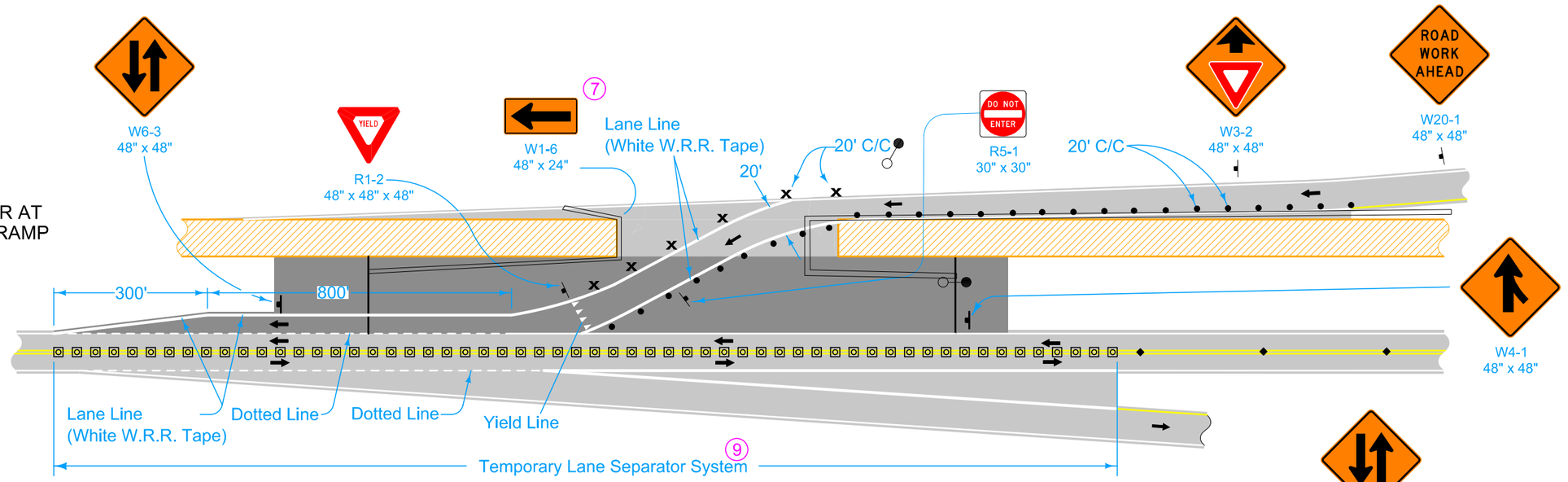
REVISIONS: Adjusted positioning of W7-3aP on page 3.

APPROVED BY DESIGN METHODS ENGINEER

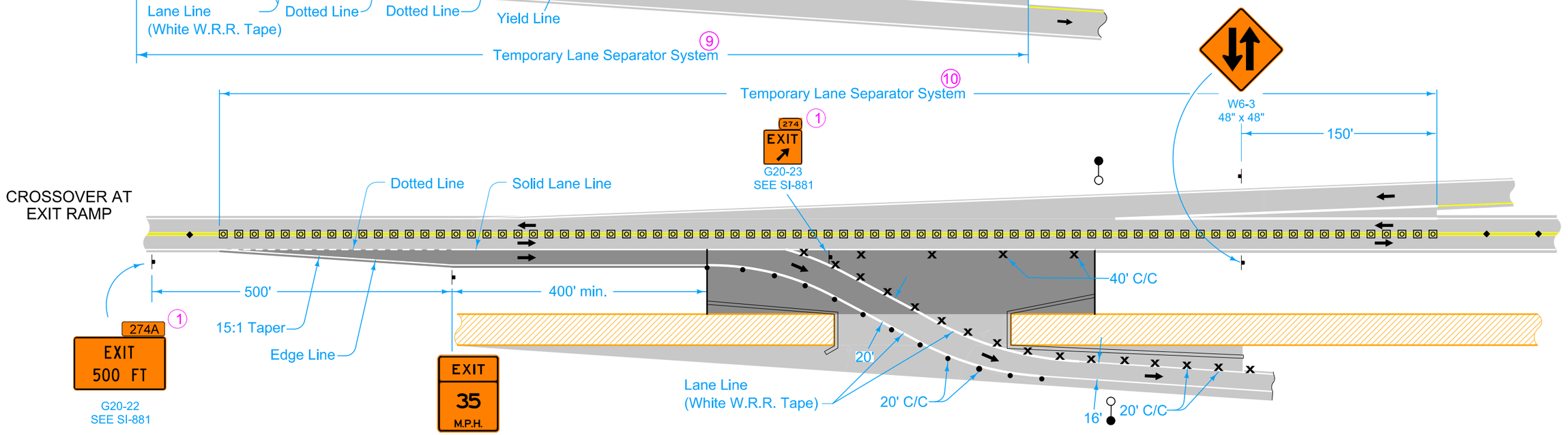
TWO-LANE, TWO WAY OPERATION

RAMP LOCATIONS

CROSSOVER AT ENTRANCE RAMP

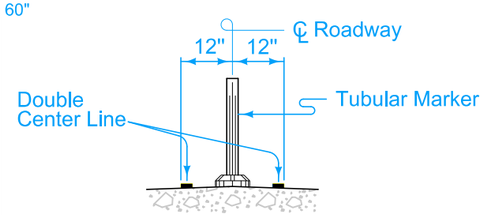


CROSSOVER AT EXIT RAMP



LEGEND

- Traffic Sign
- 42" Channelizer
- Drum
- Tubular Marker
- Temporary Floodlighting
- Temporary Lane Separator System
- Work Area
- Detour Pavement
- Direction of Traffic
- Safety Closure (Refer to TC-252)



PLACEMENT OF
DOUBLE YELLOW CENTERLINE

(1) Refer to SI-881 for sign details.

(7) Add below R11-2 already included in Safety Closure.

(9) Place TLSS from start of ramp gore to end of temporary ramp crossover.

(10) Place TLSS from start of full width decel lane to end of ramp gore.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
19	04-15-25

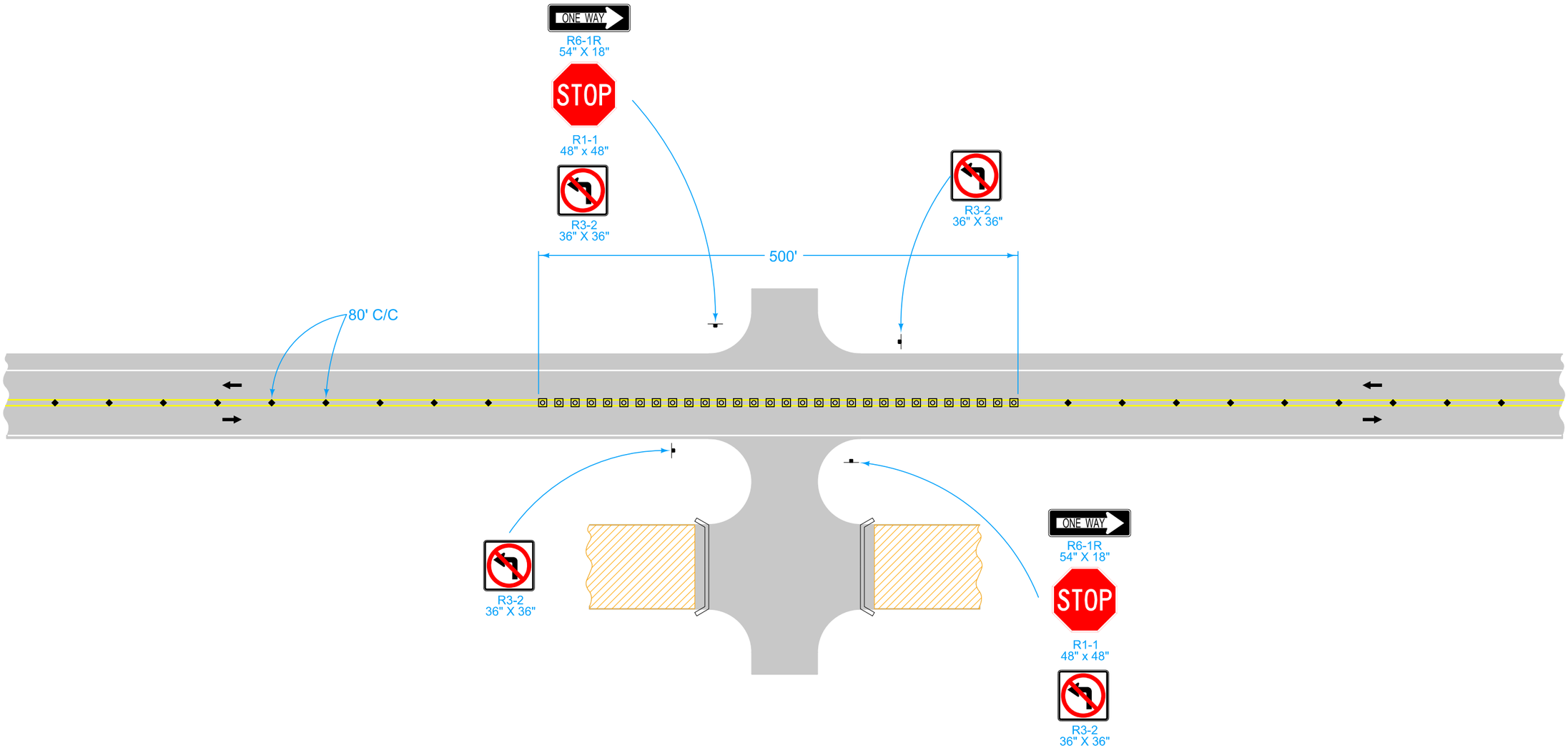
TC-61

SHEET 5 of 6

REVISIONS: Adjusted positioning of W7-3aP on page 3.

APPROVED BY DESIGN METHODS ENGINEER

TWO-LANE, TWO WAY OPERATION



Traffic Control for At-Grade Intersections
(Right-In, Right-Out)

LEGEND

- Traffic Sign
- Tubular Marker
- Direction of Traffic
- Temporary Lane Separator System
- Work Area
- Safety Closure (Refer to TC-252)

IOWA DOT

STANDARD ROAD PLAN

REVISION	
19	04-15-25

TC-61

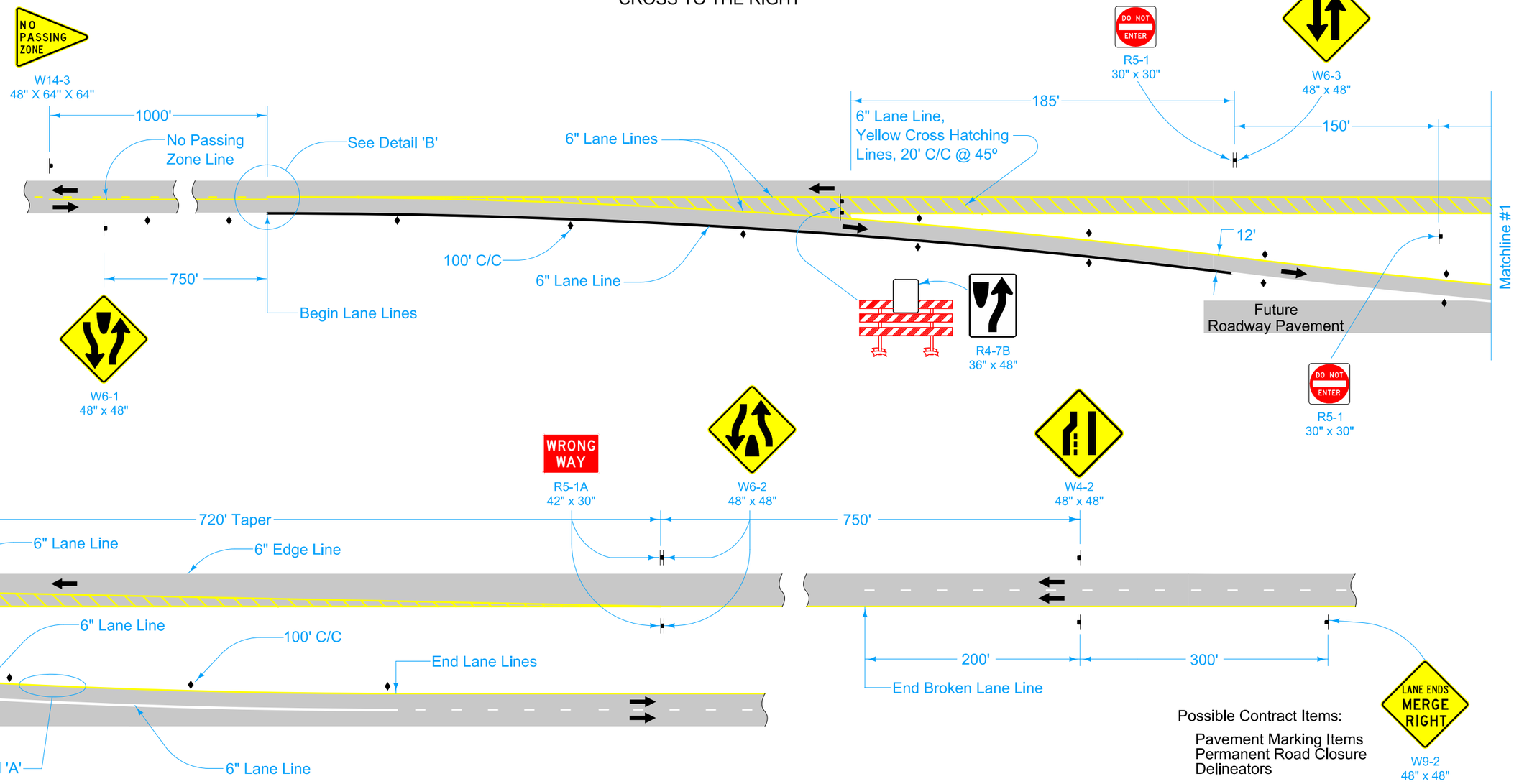
SHEET 6 of 6

REVISIONS: Adjusted positioning of W7-3aP on page 3.

APPROVED BY DESIGN METHODS ENGINEER

TWO-LANE, TWO WAY OPERATION

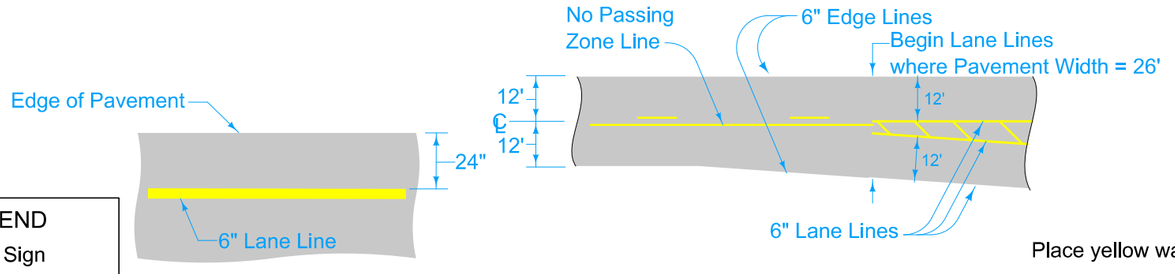
CROSS TO THE RIGHT



Possible Contract Items:

Pavement Marking Items
Permanent Road Closure
Delineators

Possible Tabulations: 102-4, 108-22



DETAIL 'A'
TYPICAL Lane LINE PLACEMENT

DETAIL 'B'
BEGINNING OF PAINTED MEDIAN

LEGEND
- Traffic Sign
- Type III Barricade
- Delineator
- Direction of Traffic

Place yellow warning signs with black legend and symbols.

Place Type III barricades complying with Section 2B.67 of the MUTCD.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
11	10-15-24

TC-62

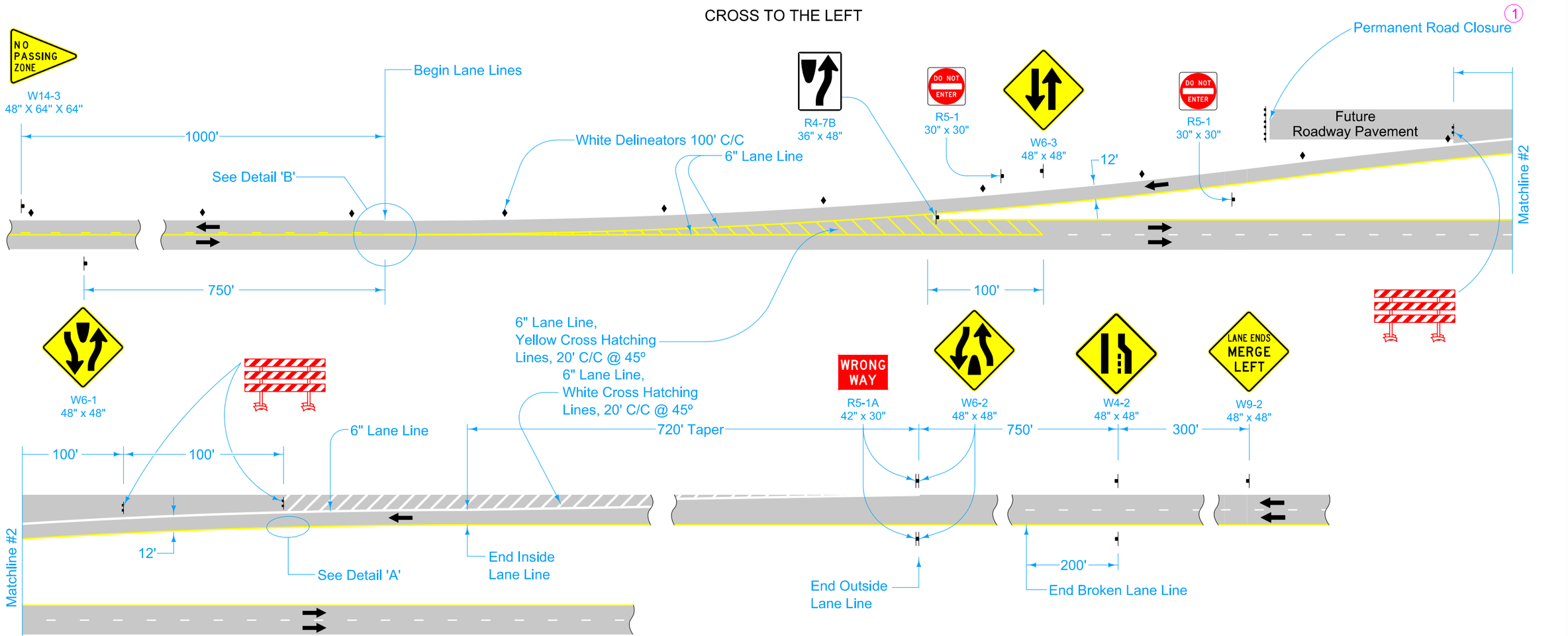
SHEET 1 of 2

REVISIONS: Removed line width dimension on page 1, Modified Channelizing Line to Lane Line.

APPROVED BY DESIGN METHODS ENGINEER

PERMANENT TWO-LANE TO FOUR-LANE DIVIDED TRANSITION

CROSS TO THE LEFT



1 See SI-181 for details.

LEGEND

- Traffic Sign
- Type III Barricade
- Delineator
- Direction of Traffic

IOWA DOT

STANDARD ROAD PLAN

REVISION 11 10-15-24

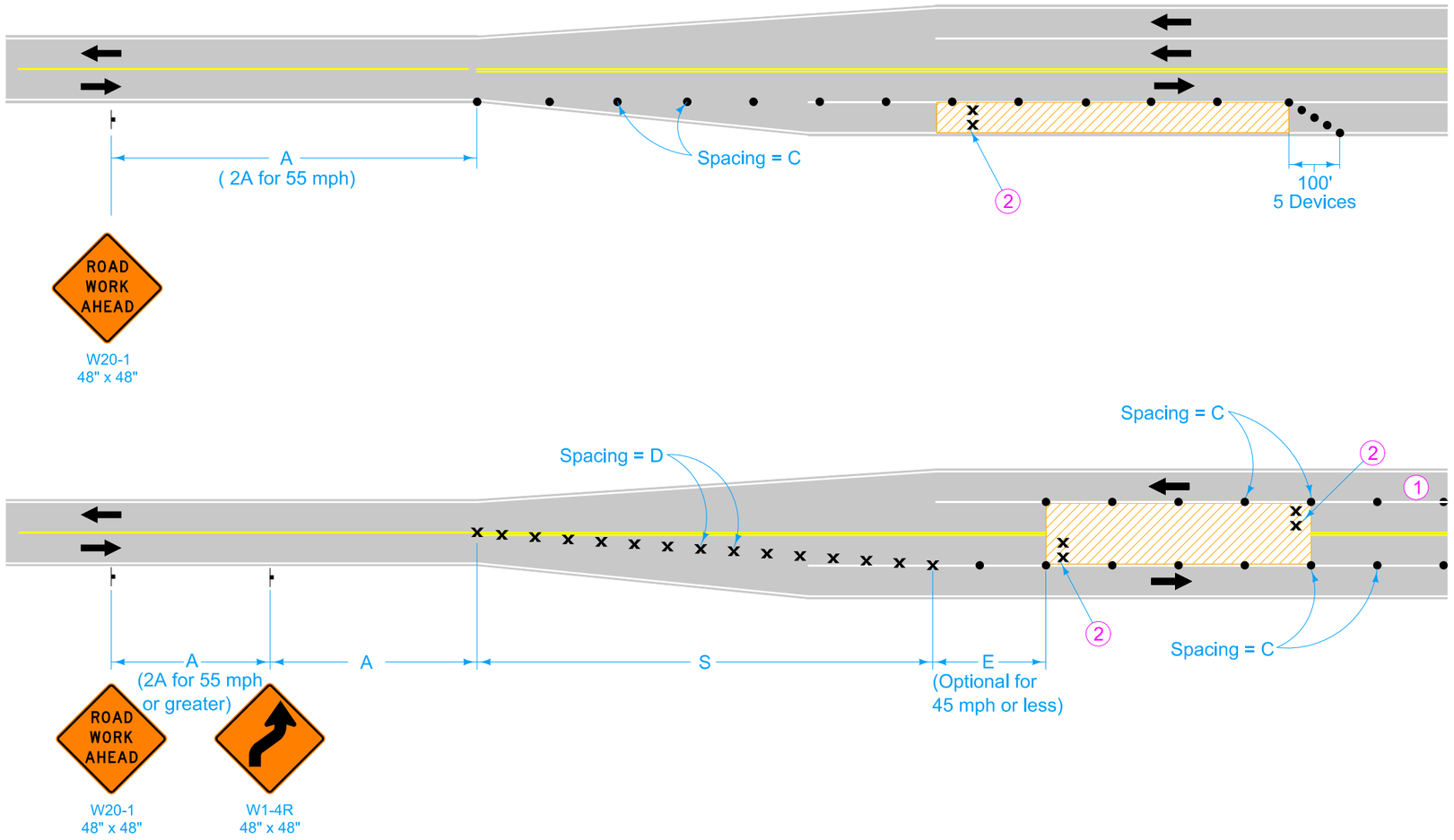
TC-62

SHEET 2 of 2

REVISIONS: Removed line width dimension on page 1, Modified Channelizing Line to Lane Line.

APPROVED BY DESIGN METHODS ENGINEER

PERMANENT TWO-LANE TO FOUR-LANE DIVIDED TRANSITION



LEGEND

- Traffic Sign
- 42" Channelizer
- Drum
- Work Area
- Direction of Traffic

SPEED LIMIT (mph)*	A	C	D	E	S
25 or less	100'	40'	25'	0'-200'	100'
30 - 35	250'	40'	30'	0'-200'	120'
40 - 50	350'	80'	40'	0'-400'	280'
55 or greater	500'	100'	50'	200'-400'	350'

* Speed Limit refers to regulatory speed limit before road work.

(1) Refer to TC-419 for lane closure details.

(2) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
4	4-18-23

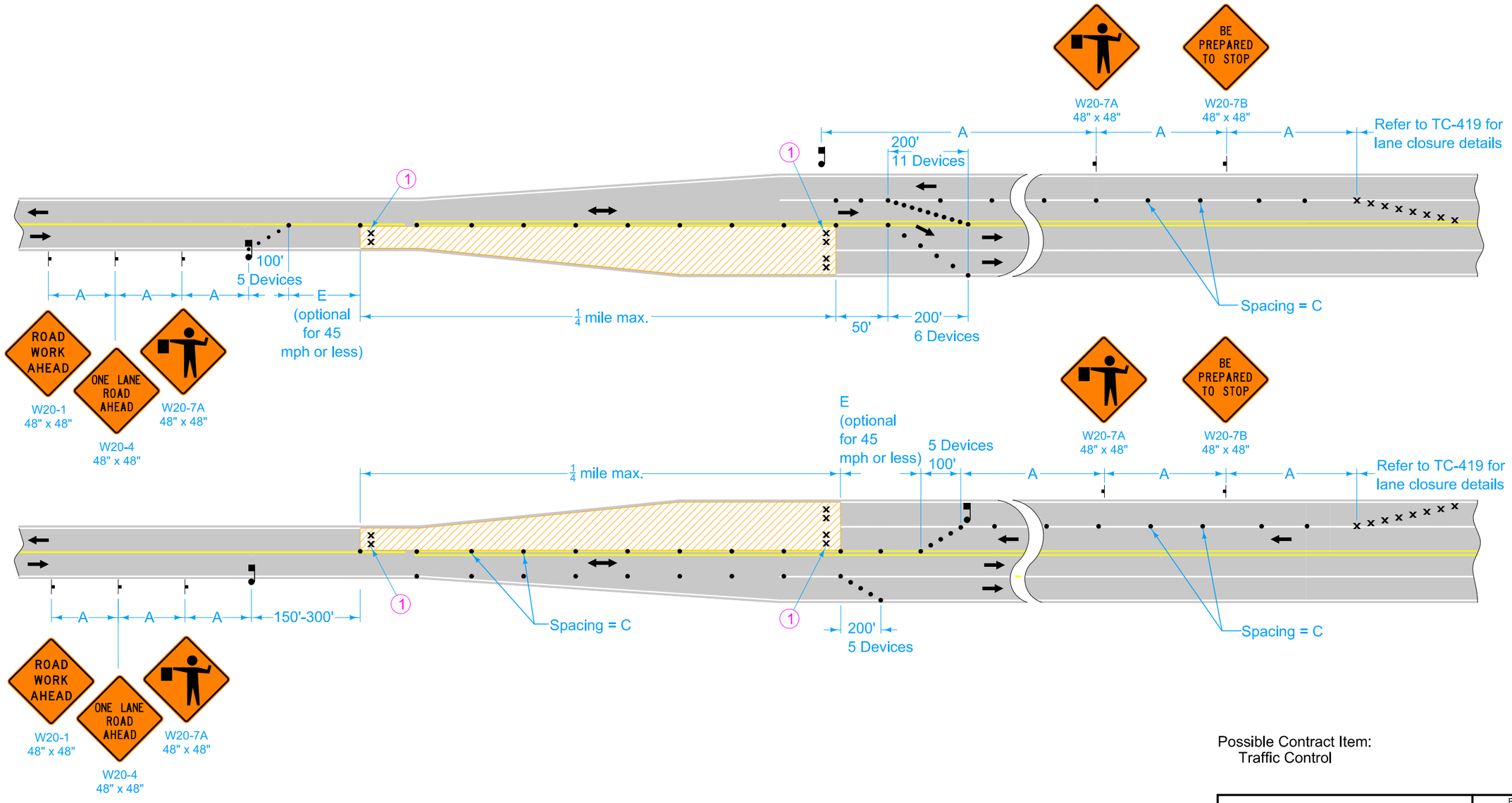
TC-63

SHEET 1 of 1

REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE AT
TWO-LANE TO FOUR-LANE TRANSITION



Possible Contract Item:
Traffic Control

LEGEND

- Flagger
- Traffic Sign
- 42' Channelizer
- Drum
- Work Area
- Direction of Traffic

SPEED LIMIT (mph)*	A	C	E
25 or less	100'	40'	0'-200'
30 - 35	250'	40'	0'-200'
40 - 50	350'	80'	0'-200'
55 or greater	500'	100'	200'-300'

* Speed Limit refers to regulatory speed limit before road work.

(1) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
3	4-18-23

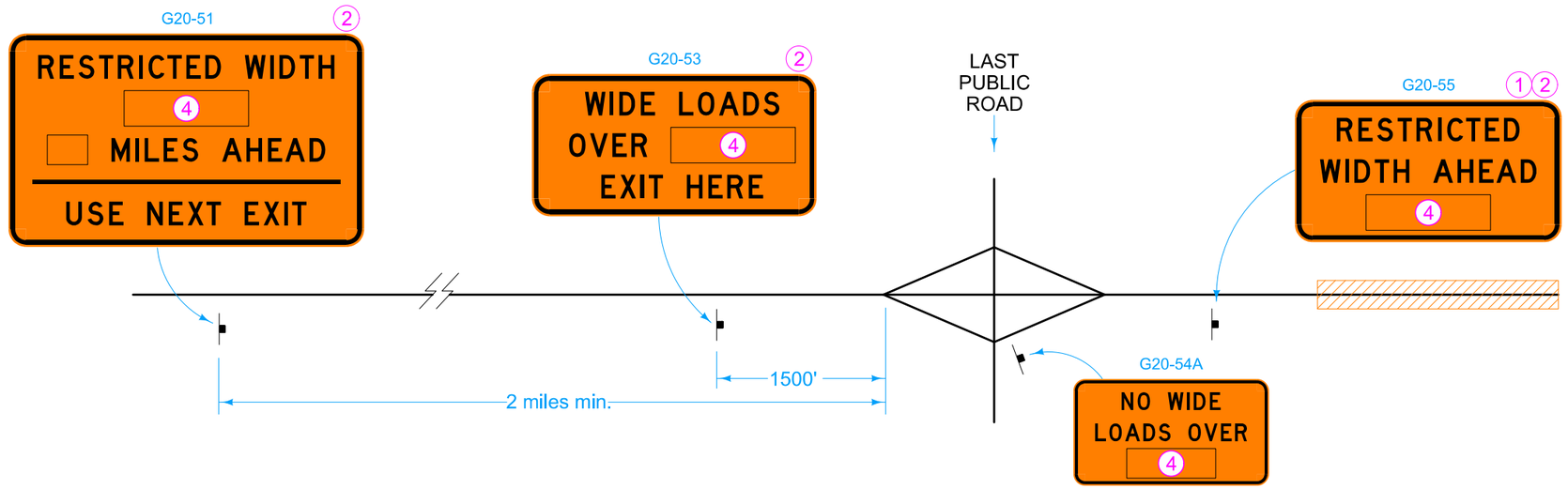
TC-64

SHEET 1 of 1

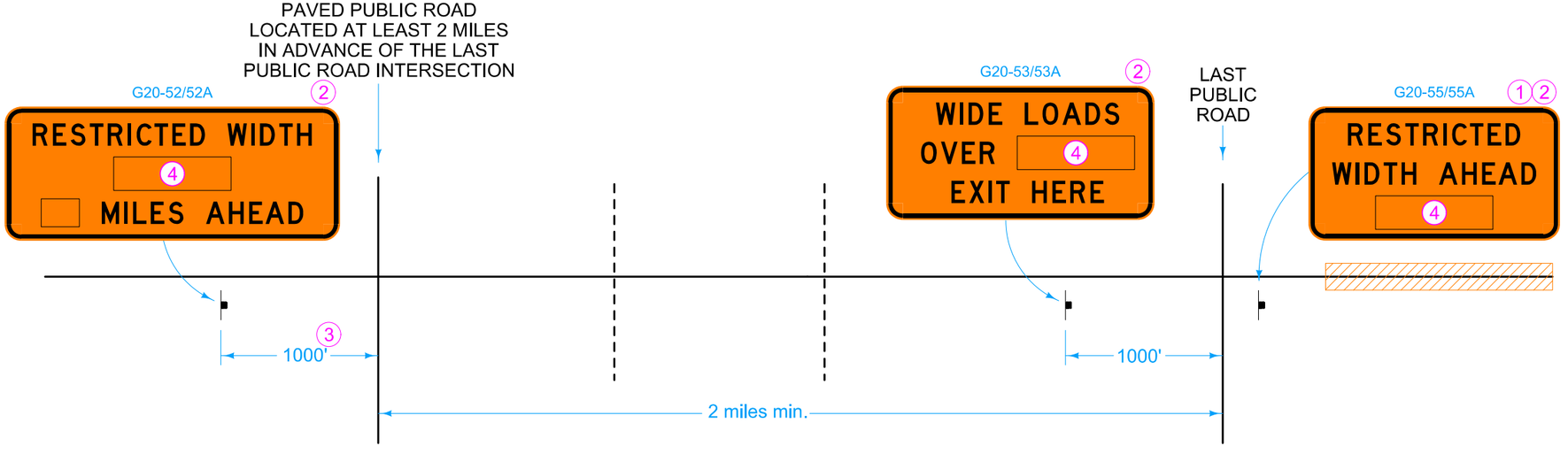
REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE AT TWO-LANE TO FOUR-LANE TRANSITION WITH FLAGGER



WHERE AN INTERCHANGE IS LOCATED AT THE LAST PUBLIC ROAD
PRIOR TO AREA OF RESTRICTED WIDTH



WHERE AN AT-GRADE INTERSECTION IS LOCATED AT THE LAST PUBLIC ROAD
PRIOR TO AREA OF RESTRICTED WIDTH

LEGEND
- Area of Restricted Width
- Traffic Sign

Coordinate signing in conjunction with other traffic control in the area.

Exact sign locations will be as approved by the Engineer.

For multi-lane divided roadways, use larger sign sizes. For two-lane highways, use small sign sizes.

See SI-882 for sign details.

Place restricted width signing when the available width between two fixed objects, such as concrete barriers,is reduced to less than 15 feet 6 inches. Width restriction signing will not be required for narrow lanes created by non-fixed devices, such as channelizers or pavement markings.

1. Place after ROAD WORK AHEAD sign.
2. For divided highways, install two signs at each location: One each on right and left shoulders.
3. When this paved road intersection has an interchange, measure the distance from the beginning of the exit ramp taper.
4. Dimension on G20-58/58A panel equals 1 foot less than narrowest measurement.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
3	04-18-23

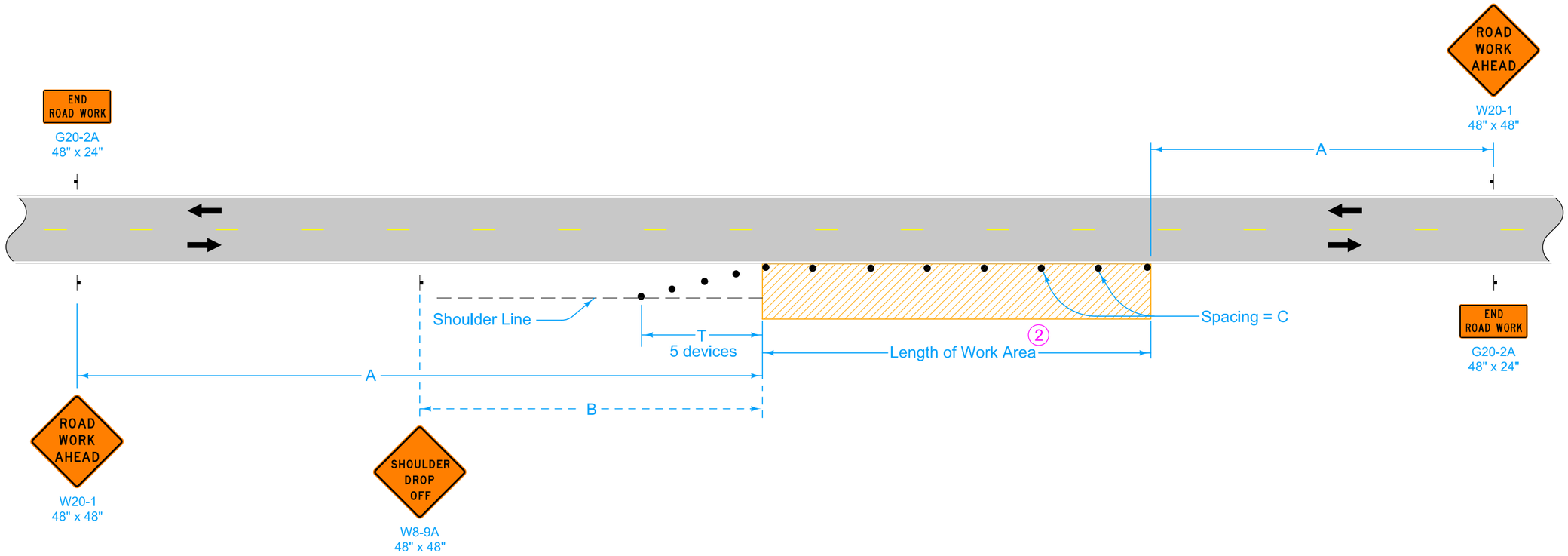
TC-81

SHEET 1 of 1

REVISIONS: Added note clarifying when standard is needed to be used.
Changed title from 14.5' to 15.5'.

APPROVED BY DESIGN METHODS ENGINEER

RESTRICTED WIDTH SIGNING
(LESS THAN 15.5 FEET)



LEGEND

- Traffic Sign
- 42" Channelizer
- Work Area
- Direction of Traffic

SPEED LIMIT (mph)*	A	B	C (2)	T
35 or less	500'	250'	40'	100'
40 - 45	700'	350'	80' (1)	200'
50 or greater	1000'	500'	100' (1)	200'

* Speed Limit refers to regulatory speed limit before road work.

When a pavement edge drop-off exists, install a SHOULDER DROP-OFF sign.

No pavement edge drop-offs greater than pavement depth will be allowed during non-working hours.

Shoulder edge drop-offs shall be mitigated according to Article 1107.08.K2 of the Standard Specifications.

For work lasting less than one hour, refer to TC-1.

(1) When the length of a pavement edge drop-off is 1000 feet or less, the temporary fillet requirement of Article 1107.08 of the Standard Specifications does not apply. Reduce channelizer spacing to 40 feet.

(2) For work areas less than 200 feet long, use channelizers spaced at 20 foot centers or use a vehicle with an amber revolving light or amber strobe light.

Possible Contract Item:
Traffic Control

IOWA DOT

REVISION
10 | 4-18-23

STANDARD ROAD PLAN

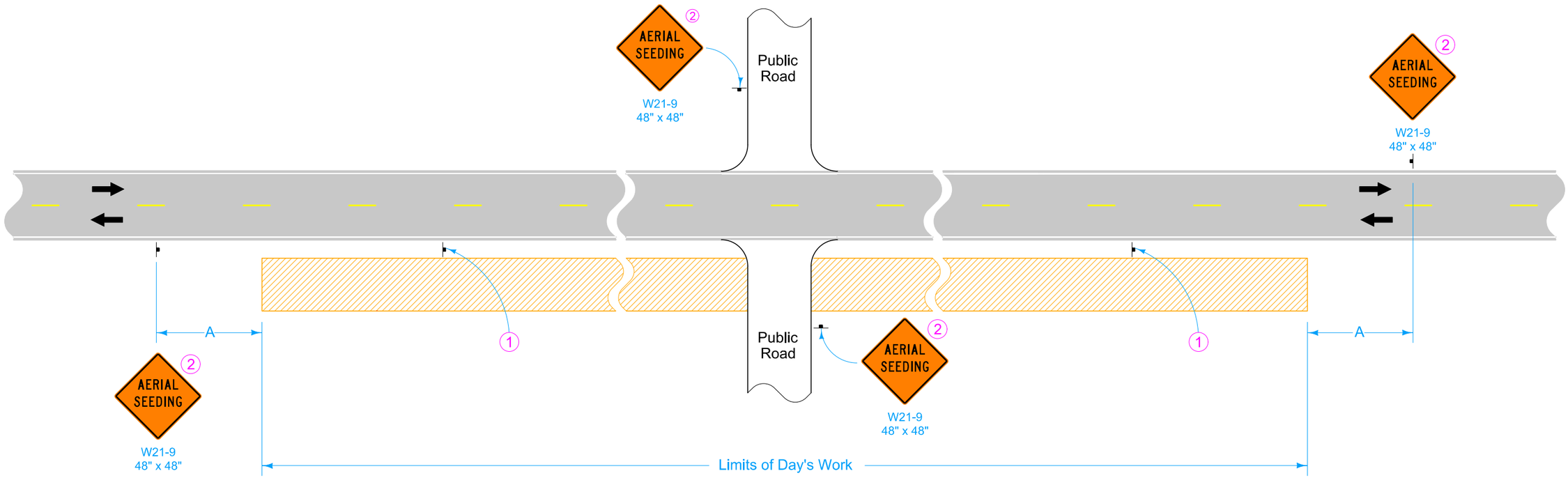
TC-202

SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

WORK WITHIN 15 FT OF TRAVELED WAY



1. Place AERIAL SEEDING signs along the mainline at a maximum spacing of 3 miles.
2. Refer to SI-881 for sign details.

Possible Contract Item:
Traffic Control

LEGEND

- Traffic Sign
- Work Area
- Direction of Traffic

SPEED LIMIT (mph)*	A
35 or less	250'
40 - 45	350'
50 or greater	500'

* Speed Limit refers to regulatory speed limit before road work.

IOWA DOT

STANDARD ROAD PLAN

REVISION: 5 — 4-18-23

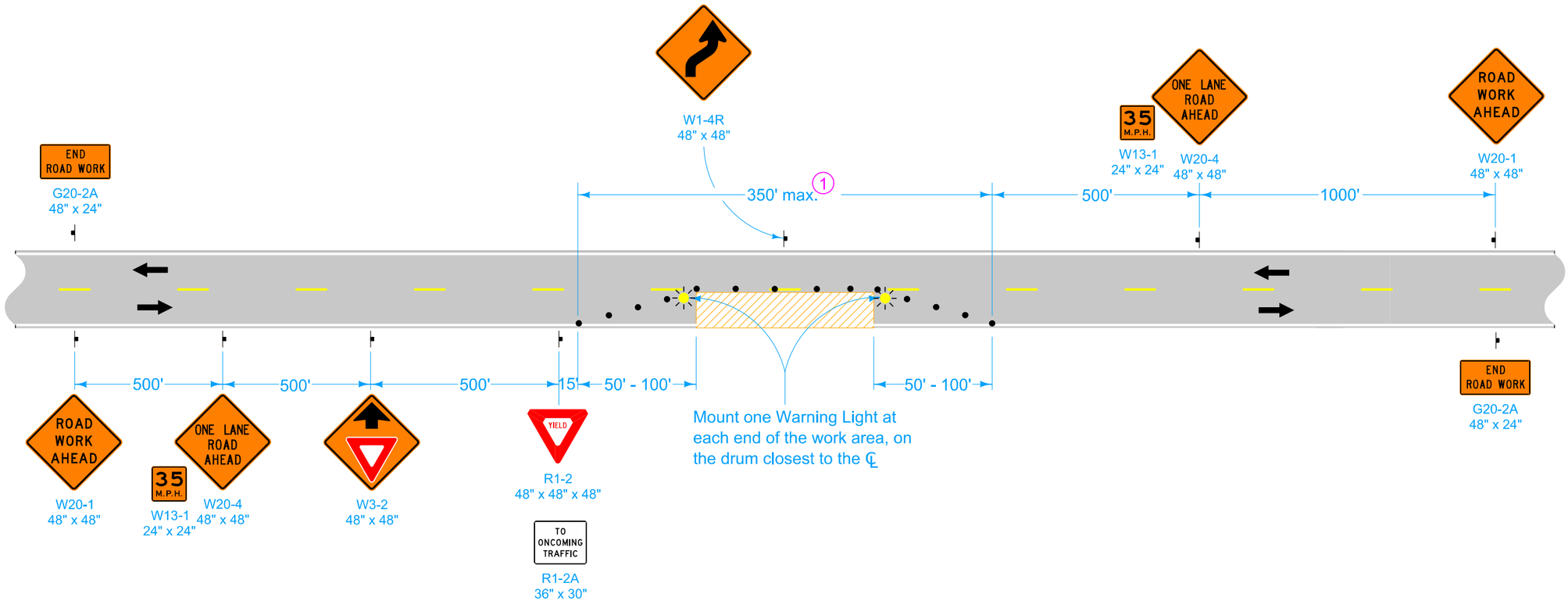
TC-203

SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

AERIAL SEEDING OPERATIONS



LEGEND

- Type 'A' Warning Light
- Traffic Sign
- Work Area
- Direction of Traffic
- 42" Channelizer

Do not use this layout when ADT exceeds 2000 vehicles.

Locate this layout at least 2,500 feet from any other work site layout.

Full-depth openings during non-working hours will not be allowed. Temporary
plating, planking or filling may be necessary. Vehicles, unattended equipment,
materials or stock-piled waste are not permitted between the shoulder lines during non-working hours.

For bridge deck overlay projects: The night before overlay operations begin, a bridge deck finishing machine and necessary materials may be placed on the roadway.

(1) Do not use this layout if a No Passing Zone for the closed lane is located within this area.

Possible Contract Item:

Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION 3 10-15-19

TC-211

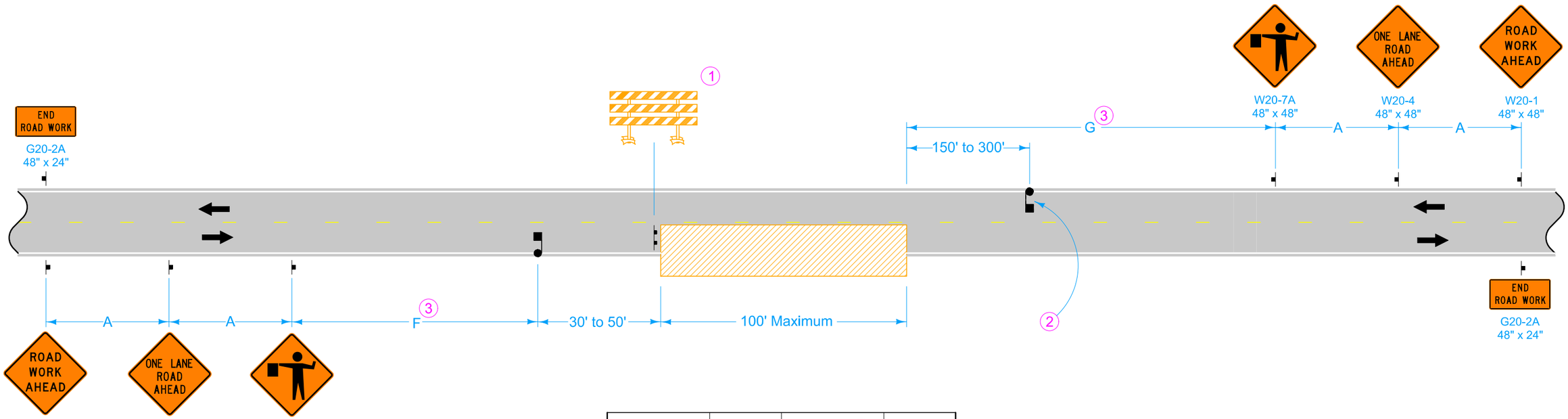
SHEET 1 of 1

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE ON LOW VOLUME ROADWAY

DO NOT USE ON PRIMARY ROADWAYS



SPEED LIMIT (mph)*	A	F and G (3) Range	F + G Max.
35 or less	250'	250'-3250'	3500'
40 - 45	350'	350'-3350'	3700'
50 or greater	500'	500'-3500'	4000'

* Speed Limit refers to regulatory speed limit before road work.

LEGEND
- Traffic Sign
- Flagger
- Work Area
- Type III Barricade
- Direction of Traffic

Use only during daylight hours. Typical applications include:
- Pavment repair
- Bridge repair when signals are not required.
- Guardrail connections at bridge.
- Secondary road intersections with Primary road.
- Sawing for ful depth patch
- Joint sealing
- PR joints
- Surface patching
- Crack sealing

No parking on opposite shoulder within 500 feet of work area.

Ensure traffic in the open lane flows freely. Stop the first vehicle in the closed lane from the postion shown, then cross the traffic lane to stop other vehicles.

(1) A vehicle with an amber revolving light or amber strobe light may be substituted for the Type III barricade.

(2) Provide a second flagger if:

The flagger's veiw of approaching traffic in the open lane is less than $\frac{1}{4}$ mile or the work site is in an area of restricted sight distance, such as a No Passing zone, or

Excessive traffic delays are encountered.

(3) F and G distances are to remain as near minimum values as work permits. However, to be able to move the work area without moving the advance signing, F and G distances may be varied within the limits of the table. Maximum movement can be achieved by setting one F or G value at the minimum and the other value at its maximum.

Possible Contract Items:
- Flaggers
- Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	4-18-23

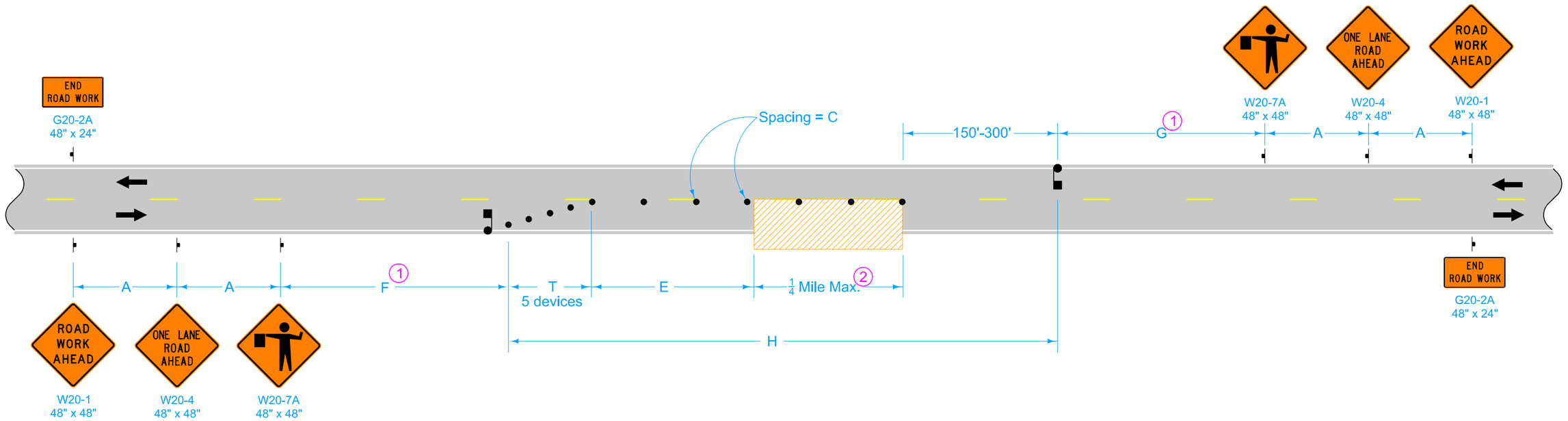
TC-212

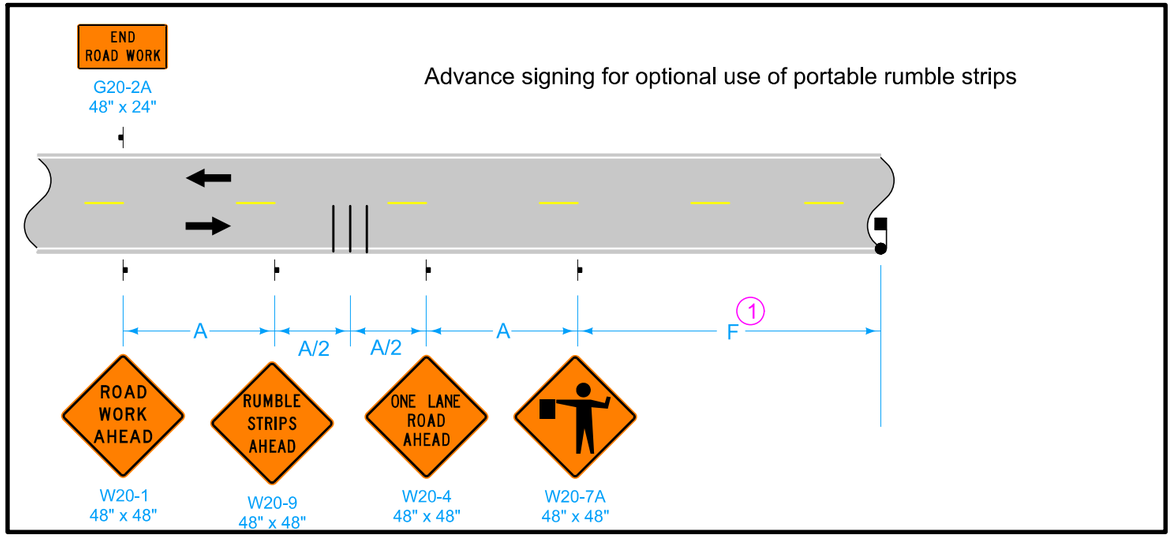
SHEET 1 of 1

REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

SPOT LOCATION LANE CLOSURE WITH FLAGGERS





LEGEND

- Traffic Sign
- Flagger
- 42" Channelizer
- Work Area
- Direction of Traffic
- Portable rumble strips

SPEED LIMIT (mph)*	A	C	E	F and G (1) Range	F + G Max.	H Max.	T
35 or less	250'	40'	0'-200'	500'-3000'	3500'	2000'	50'
40 - 45	350'	80'	0'-200'	700'-3000'	3700'	2000'	100'
50 or greater	500'	100'	200'-300'	1000'-3000'	4000'	2000'	100'

* Speed Limit refers to regulatory speed limit before road work.

(1) Keep F and G distances as near to minimum values as work permits. However, to allow advancement of the work area without moving signs, F and G distances may be varied within the limits of the table. Maximum movement can be achieved by setting one F or G value at the minimum and the other value at its maximum.

(2) If length of work area exceeds 1/4 mile, use TC-214.

Possible Contract Items:
Flaggers
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION 6 4-18-23

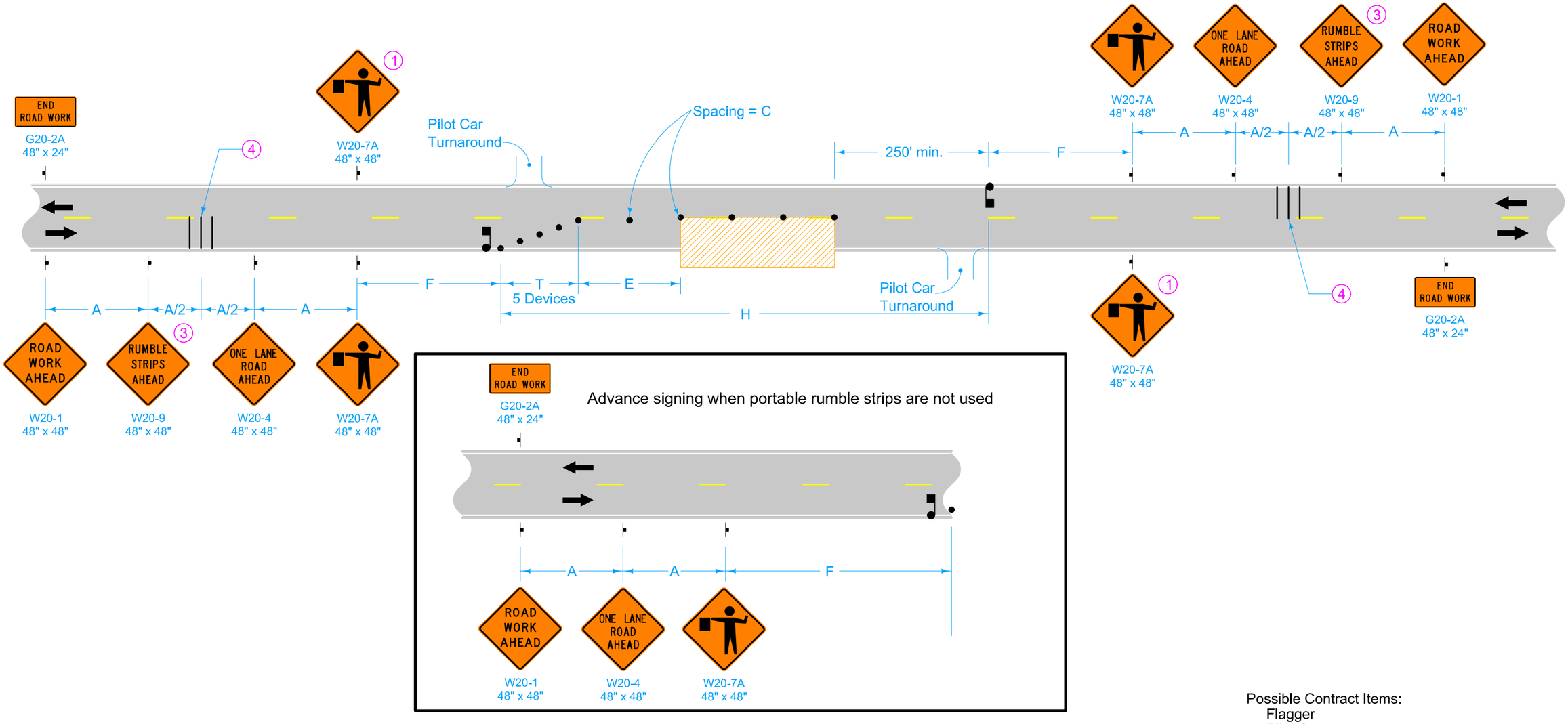
TC-213

SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE WITH FLAGGERS



LEGEND

- Traffic Sign
- Flagger
- 42" Channelizer
- Work Area
- Direction of Traffic
- (4) Portable Rumble Strip Panel

SPEED LIMIT (mph)*	ADT	A	C	E	F	H (2) max.	T
35 or less	up to 2,500	250'	40'	0'-200'	500'	2.5 mi.	50'
	2,500 - 5,000	250'	40'	0'-200'	500'	2.0 mi.	50'
	more than 5,000	500'	40'	0'-200'	1000'	1.5 mi.	50'
40 - 45	up to 2,500	350'	80'	0'-200'	700'	2.5 mi.	100'
	2,500 - 5,000	350'	80'	0'-200'	700'	2.0 mi.	100'
	more than 5,000	700'	80'	0'-200'	1400'	1.5 mi.	100'
50 or greater	up to 2,500	500'	160'	200'-300'	1000'	2.5 mi.	100'
	2,500 - 5,000	500'	160'	200'-300'	1000'	2.0 mi.	100'
	more than 5,000	1000'	160'	200'-300'	2000'	1.5 mi.	100'

* Speed Limit refers to regulatory speed limit before road work.

(1) Sign optional for ADT less than 5,000.

(2) In rural areas, as work activity nears the downstream limits of dimension H, the lane closure may be extended up to 1.0 mile beyond the maximum distance, H, shown in the table. After the traffic control devices have been placed to extend the closure and after work activity has progressed, the advanced signing and devices at the beginning of the traffic control zone should be moved down stream so that the H distance is once again within the limits shown in the table. This one-mile extension will not be allowed during any peak traffic hours listed in the contract documents.

(3) Refer to SI-881 for sign details.

(4) For traffic control zones lasting more than 2 hours, place temporary Portable Rumble Strip Panel.

Possible Contract Items:
Flagger
Pilot Car
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION 10 4-18-23

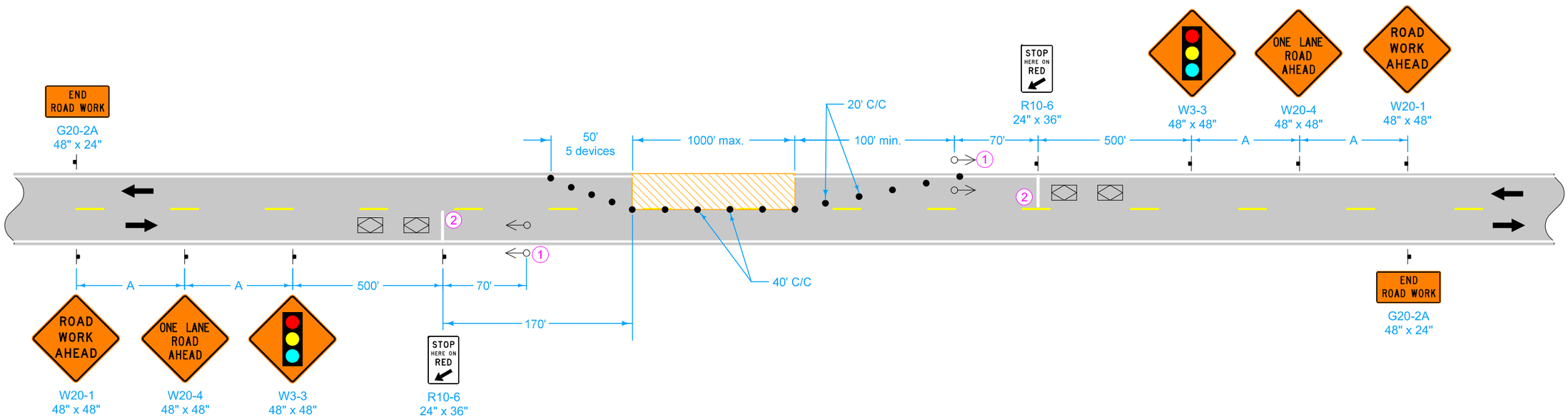
TC-214

SHEET 1 of 1

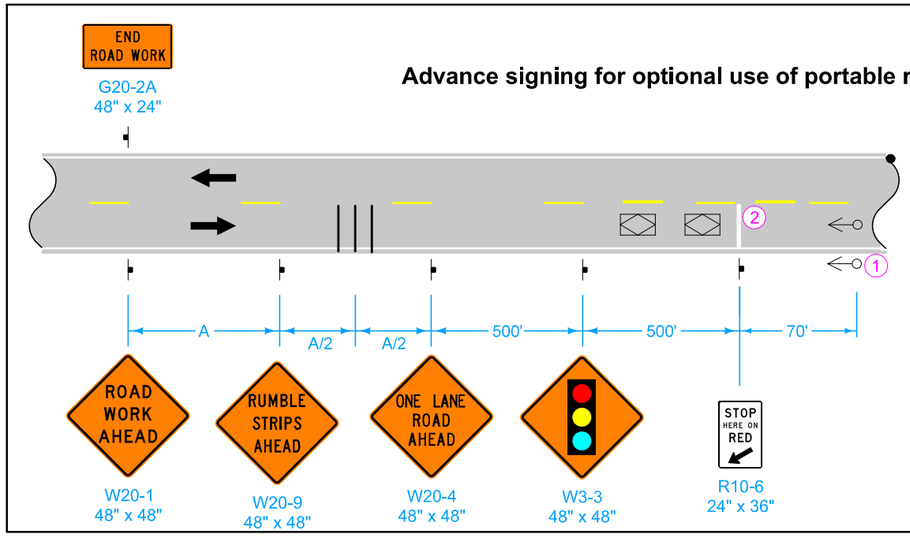
REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE WITH FLAGGERS FOR USE WITH PILOT CAR



Advance signing for optional use of portable rumble strips



LEGEND

- Vehicle Detection Area
- Temporary Traffic Signal
- Traffic Sign
- 42" Channelizer
- Work Area
- Direction of Traffic
- Portable rumble strips

TIMING FOR ACTUATED SIGNALS
Recommended Settings (secs)

Initial = 12.0
Extension = 2.5
Max. Green = 45.0
Yellow = 4.0
All Red = (see table)

Distance between stop lines	All Red* (secs)	Distance between stop lines	All Red* (secs)
450'	9 - 15	950'	19 - 33
550'	11 - 19	1050'	21 - 36
650'	13 - 22	1150'	23 - 39
750'	15 - 26	1250'	25 - 43
850'	17 - 29	1350'	27 - 46

* All Red values based on operating speeds between 20 mph and 35 mph

SPEED LIMIT (mph)*	A
35 or less	250'
40-45	350'
50 or greater	500'

* Speed Limit refers to regulatory speed limit before road work.

This layout is for conditions lasting up to three calendar days. For situations lasting longer than three days refer to TC-216.

(1) For Temporary Traffic Signals, meet the requirements of Section 2528.03 of the Standard Specifications except for the following:
In lieu of a trailer or span-wire mounted system, signal heads may be located on the shoulders, one on each side of the roadway. Mount shoulder signal heads a minimum of 8 feet from the bottom of the signal head to the top of the ground surface.

(2) 24-inch stop lines required during nighttime operation.

Possible Contract Items:
- Pavement Marking Items
- Pavement Markings Removed
- Temporary Traffic Signals
- Traffic Control

Possible Tabulations:
- 108-22
- 108-28

IOWA DOT

STANDARD ROAD PLAN

REVISION	
6	4-16-24

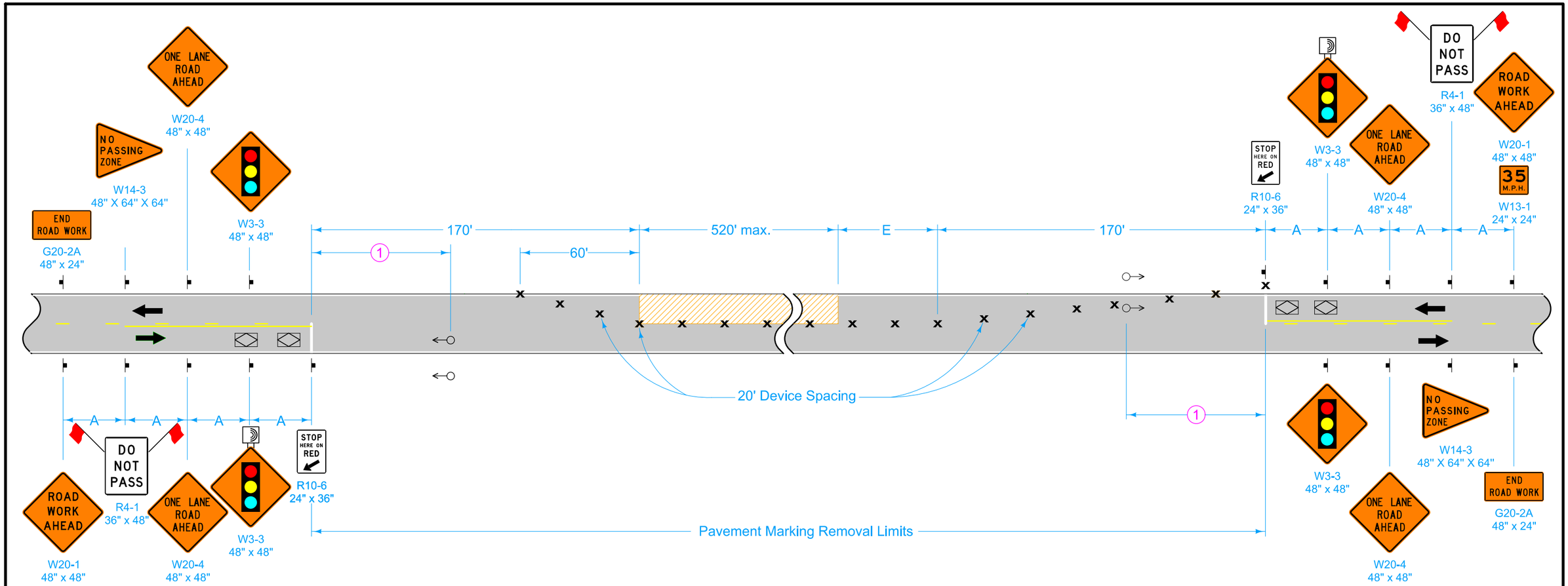
TC-215

SHEET 1 of 1

REVISIONS: Added option for portable rumble strips.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE WITH SIGNALS (UP TO THREE DAYS)



LEGEND

- Vehicle Detection Area
- Traffic Sign
- Drum
- Type 'B' High-Intensity Flashing Warning Light
- Work Area
- Temporary Traffic Signal
- Direction of Traffic

TIMING FOR ACTUATED SIGNALS

Recommended Settings, secs.
- Initial = 12.0
- Extension = 2.5
- Maximum Green = 45.0
- Yellow = 5.0
- All Red = (see table)

Distance Between Stop Lines	All Red (secs.)*
1050'	20.4-35.7
950'	18.5-32.3
850'	17-30
750'	15-27
650'	14-23
550'	12-20

* Range of values are based on operating speeds between 20 and 35 mph

SPEED LIMIT (mph)*	A	E
35 or less	250'	0'-50'
40 - 45	350'	0'-100'
50 or greater	500'	100'

* Speed Limit refers to regulatory speed limit before road work.

No drop-offs greater than pavement depth will be allowed during non-working hours.

No vehicles, unattended equipment, materials or stock-piled waste are permitted between the shoulder lines during non-working hours.

(1) Locate signal heads 70 to 100 feet beyond stop bar. Adjust location of signal heads as field conditions warrant.

Possible Contract Items:
- Pavement Marking Items
- Pavement Markings Removed
- Temporary Traffic Signals
- Traffic Control

Possible Tabulations:
- 108-22
- 108-28

IOWA DOT

STANDARD ROAD PLAN

REVISION 8 4-18-23

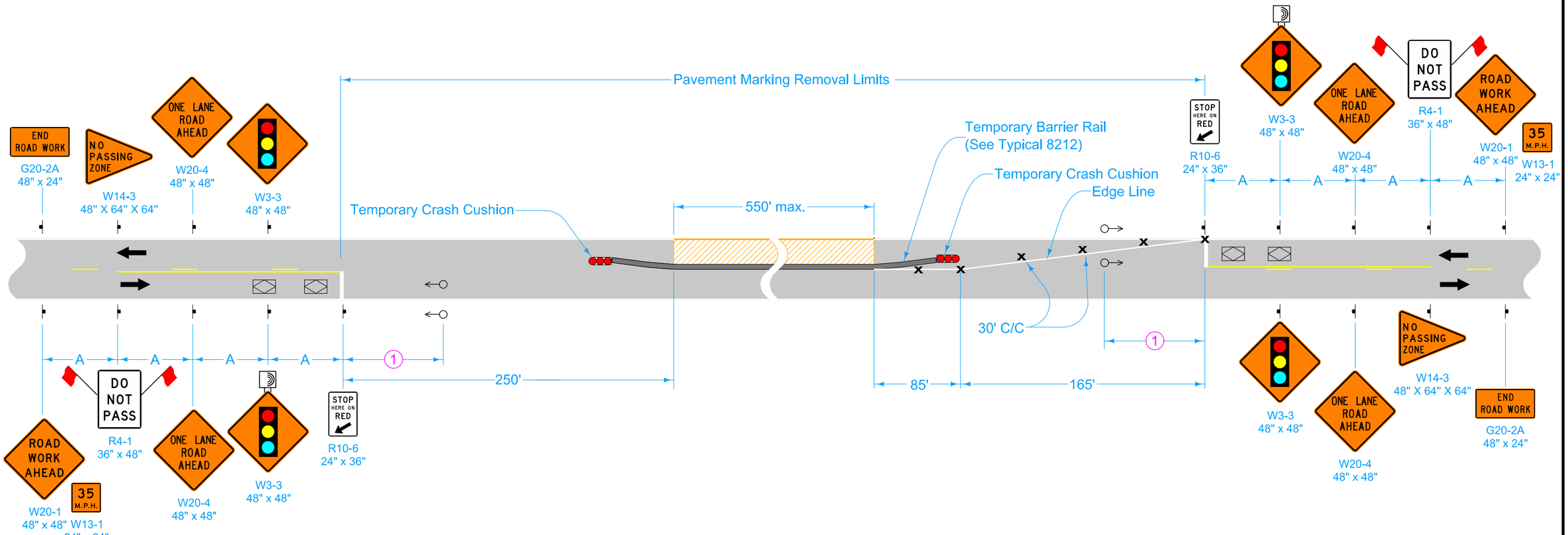
TC-216

SHEET 1 of 1

REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE WITH SIGNALS



LEGEND

- Vehicle Detection Area
- Temporary Crash Cushion
- Direction of Traffic
- Traffic Sign
- Drum
- Type 'B' High-Intensity Flashing Warning Light
- Work Area
- Temporary Traffic Signal

TIMING FOR ACTUATED SIGNALS
Recommended Settings, secs.
Initial = 12.0
Extension = 2.5
Maximum Green = 45.0
Yellow = 5.0
All Red = (see table)

Distance Between Stop Lines	All Red (secs.)*
1050'	20.4-35.7
950'	18.5-32.3
850'	17-30
750'	15-27
650'	14-23
550'	12-20

* Range of values are based on operating speeds between 20 and 35 mph

SPEED LIMIT (mph)*	A
35 or less	250'
40 - 45	350'
50 or greater	500'

* Speed Limit refers to regulatory speed limit before road work.

Place Concrete Barrier Markers at 10 ft C/C on bridge rail.

(1) Locate signal heads 70 to 100 feet beyond stop bar. Adjust location of signal heads as field conditions warrant.

Possible Contract Items:
- Pavement Marking Items
- Pavement Markings Removed
- Temporary Barrier Rail
- Temporary Crash Cushions
- Temporary Traffic Signals
- Traffic Control

Possible Tabulations:
- 108-22
- 108-28
- 108-30
- 108-33

IOWA DOT

REVISION
9 | 4-18-23

STANDARD ROAD PLAN

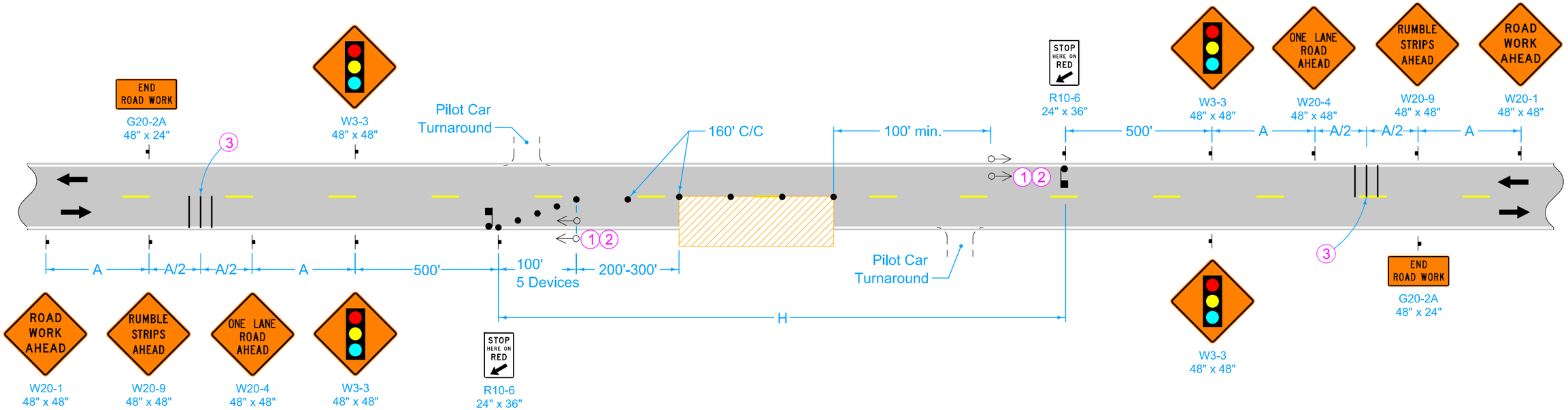
TC-217

SHEET 1 of 1

REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE WITH SIGNALS AND TBR



LEGEND

- Flagger
- Temporary Traffic Signal
- Traffic Sign
- 42" Channelizer
- Work Area
- Direction of Traffic
- Portable Rumble Strip Panel (3)

SPEED LIMIT (mph)*	ADT	A	H
50 or greater	up to 2,500	500'	2.5 mi.
	2,500 - 5,000	500'	2.0 mi.
	more than 5,000	1000'	1.5 mi.

* Speed Limit refers to regulatory speed limit before road work.

No detection area required.

Timing for Push-button Actuated Signals
Initial Green = 15 sec.
Green Ext. = 2.5 sec.
Yellow = 4.0 sec.

Install push-button actuated traffic signals.
Program signals to rest in RED.
GREEN and GREEN EXTENSION only are initiated by flagger.

(1) For Temporary Traffic Signals, meet the requirements of Section 2528.03 of the Standard Specifications except for the following:
In lieu of a trailor or span-wire mounted system, signal heads may be located on the shoulders, one on each side of the roadway. Mount shoulder signal heads a minimum of 8 feet from the bottom of the signal head to the top of the ground surface.

(2) Locate signal heads 70 to 100 feet beyond "STOP HERE ON RED" sign. Adjust location of signal heads as field conditions warrant.

(3) For traffic control zones lasting more than 2 hours, place temporary Portable Rumble Strip Panel.

Possible Contract Items:
Flagger
Pilot Car
Temporary Traffic Signal
Traffic Control

Possible Tabulations:
108-27
108-28

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	4-18-23

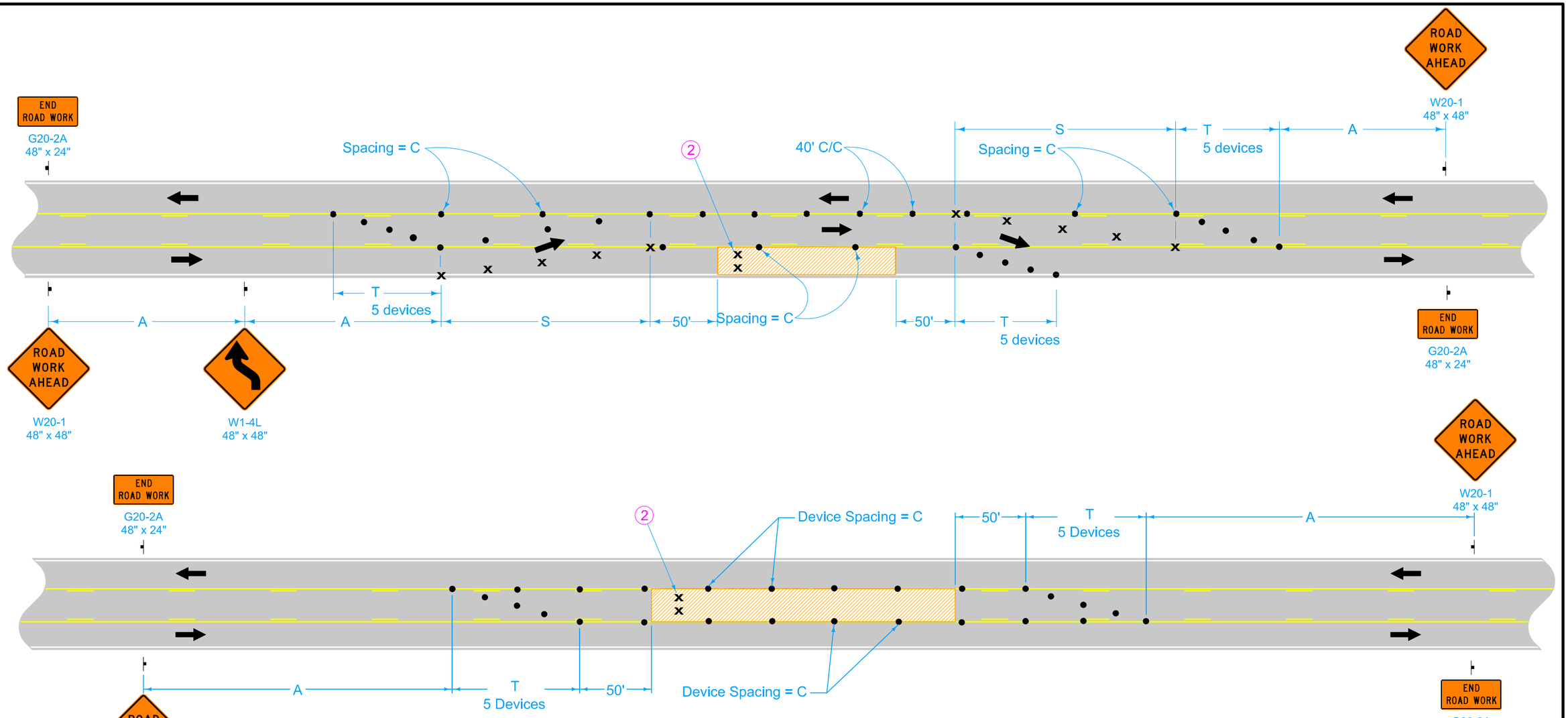
TC-218

SHEET 1 of 1

REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE WITH PILOT CAR AND FLAGGER OPERATED SIGNALS



LEGEND

- 42" Channelizer
- × Drum (1)
- Traffic Sign
- Work Area
- Direction of Traffic

SPEED LIMIT (mph)*	A	C	D	S	T
25 or less	100'	40'	25'	100'	50'
30 - 35	250'	40'	30'	120'	50'
40 - 45	350'	80'	40'	280'	100'
50 or greater	500'	100'	50'	350'	100'

* Speed Limit refers to regulatory speed limit before road work.

(1) Spacing = D for drums placed in tapers.

(2) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

Possible Contract Item:

Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION 6 4-18-23

TC-228

SHEET 1 of 1

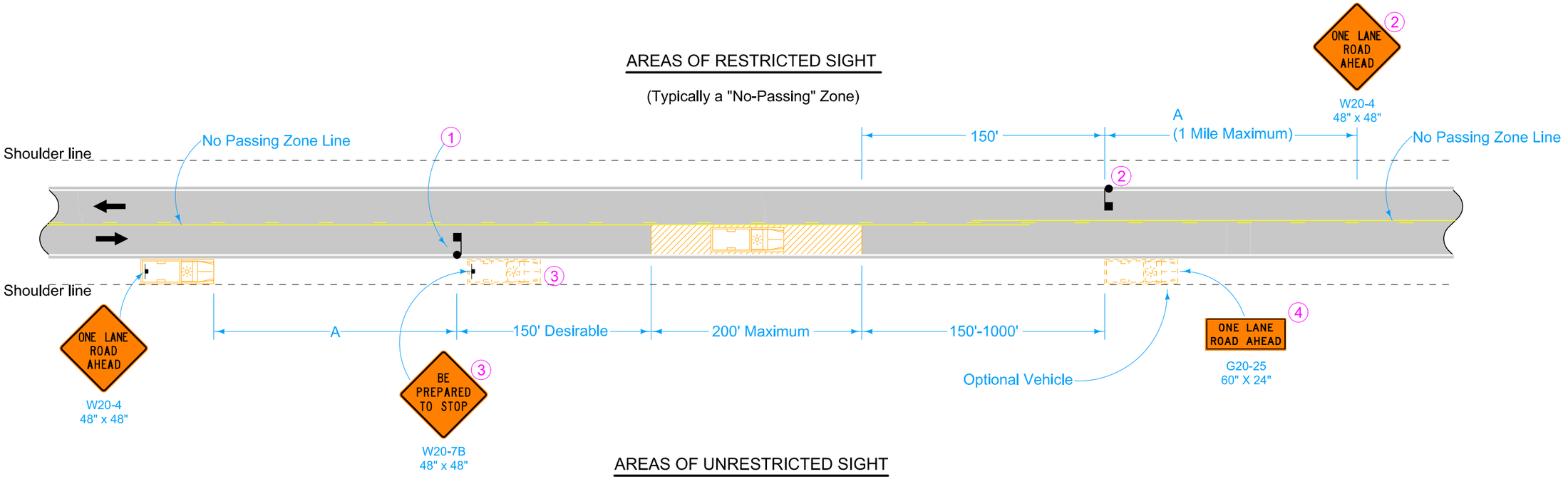
REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

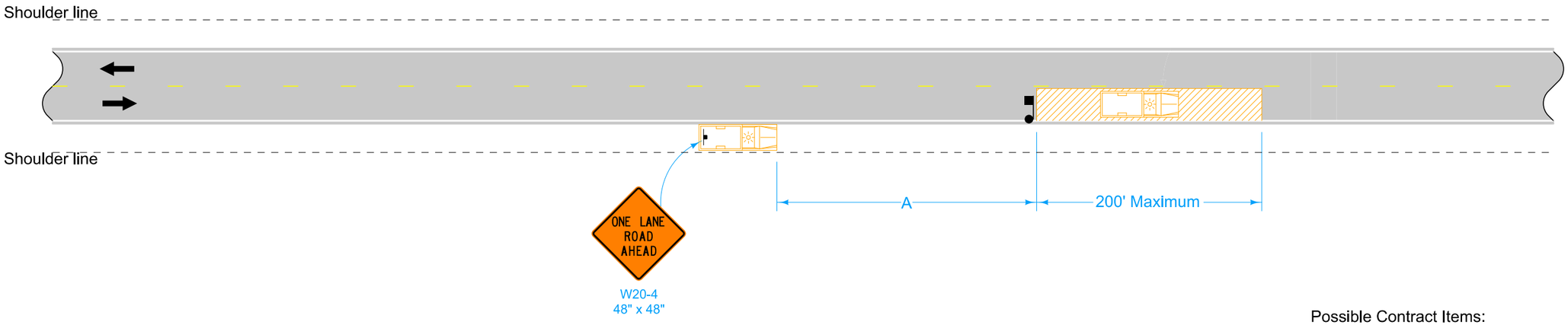
LANE CLOSURE INVOLVING TWLTL

AREAS OF RESTRICTED SIGHT

(Typically a "No-Passing" Zone)



AREAS OF UNRESTRICTED SIGHT



This layout is intended for use with slow-moving operations or with operations involving stops not to exceed 15 minutes. For stops exceeding 15 minutes or in heavy traffic situations, use TC-213.

Equip all vehicles with an amber revolving light or an amber strobe light.

1. When a stop is made in an area of restricted sight distance, use a flagger to hold traffic in the closed lane and allow traffic to pass when conditions are safe.
2. When a stop is made or work proceeds in an area where sight distance is restricted from either direction and is anticipated to be more than 5 minutes, a second flagger and ONE LANE ROAD AHEAD sign is required.
3. This vehicle and sign may be used in lieu of a flagger for Falling Weight Deflectometer tests.
4. Refer to SI-881 for sign details.

Possible Contract Items:
- Flaggers
- Traffic Control

LEGEND
- Direction of Traffic
- Flagger
- Traffic Sign
- Work Area
- Work Vehicle

SPEED LIMIT (mph)*	A min.
25 or less	200'
30-35	300'
40-45	500'
50 or greater	1000'

* Speed Limit refers to regulatory speed limit before road work.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
4	4-18-23

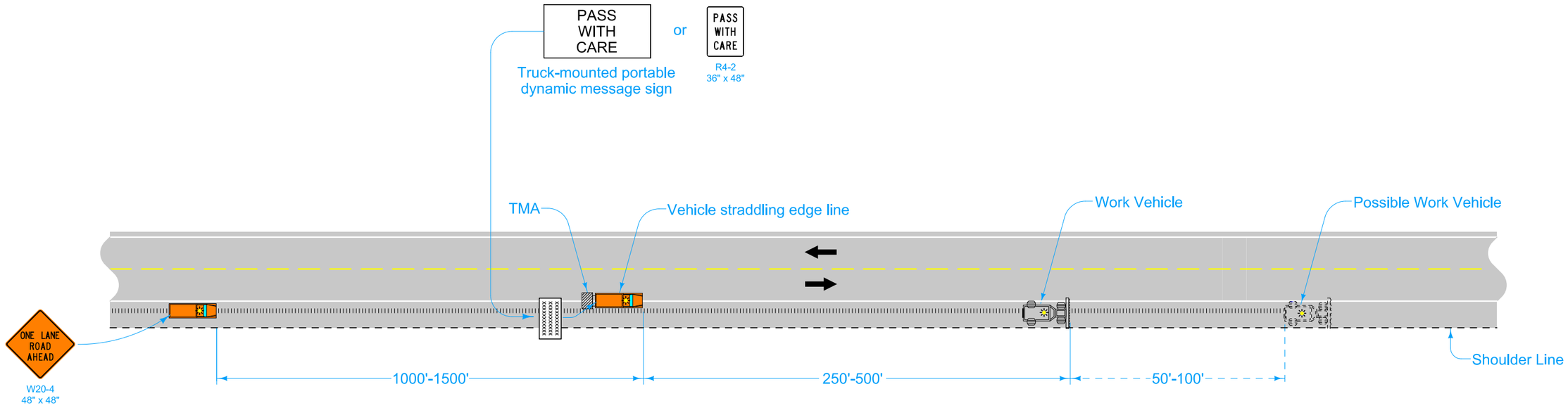
TC-231

SHEET 1 of 1

REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

SLOW MOVING VEHICLE OPERATING IN THE TRAFFIC LANE



LEGEND

- Traffic Sign
- Truck Mounted Attenuator (TMA)
- Direction of Traffic

When fog sealing the milled rumble strips, place a 48" X 48" FRESH OIL sign (W21-2) at the beginning of the work area. Place additional FRESH OIL signs after each intersection and periodically through the work area so that signs are no more than 2 miles apart.

Operators should adjust their spacing, as necessary, to keep adjacent vehicles within view.

Equip all vehicles with an amber revolving light or amber strobe light.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
4	10-21-14

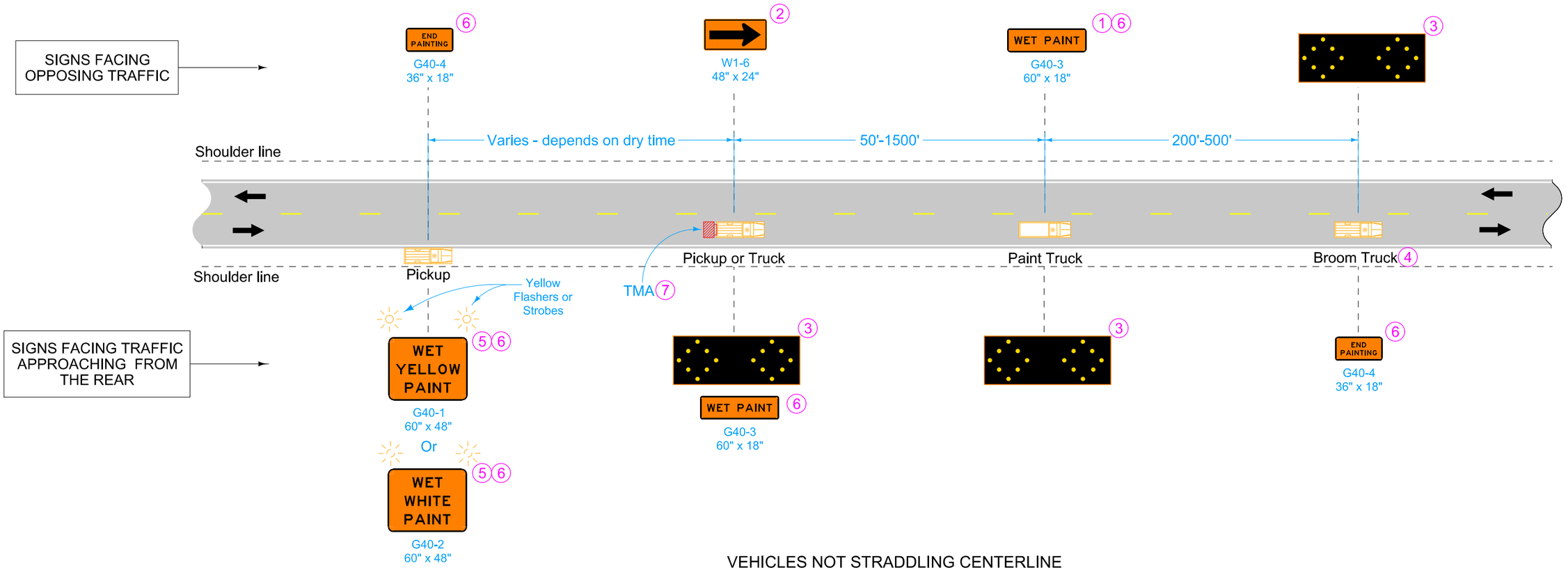
TC-232

SHEET 1 of 1

REVISIONS: Changed "changeable message sign" to "portable dynamic message sign".

APPROVED BY DESIGN METHODS ENGINEER

SHOULDER RUMBLE STRIP OPERATIONS



LEGEND

- Direction of Traffic
- Truck-Mounted Attenuator (TMA)

VEHICLES NOT STRADDLING CENTERLINE

This layout may be used when painting edgeline or centerline markings.

Equip all vehicles with an amber revolving light or amber strobe light.

Possible Contract Item:
Traffic Control

1. Use this sign when painting centerline markings.
2. Optional Fluorescent Yellow Green (FYG) sign background may be used.
3. This arrow board may be operated in a four-corner caution mode.
4. Move this vehicle to the shoulder to accommodate passing traffic.
5. A vehicle mounted Portable Dynamic Message Sign (PDMS) may be used in lieu of this sign.
6. Refer to SI-881 for sign details.
7. TMA required for speed limits of 55 mph or greater and ADT greater than 3,000.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	10-17-17

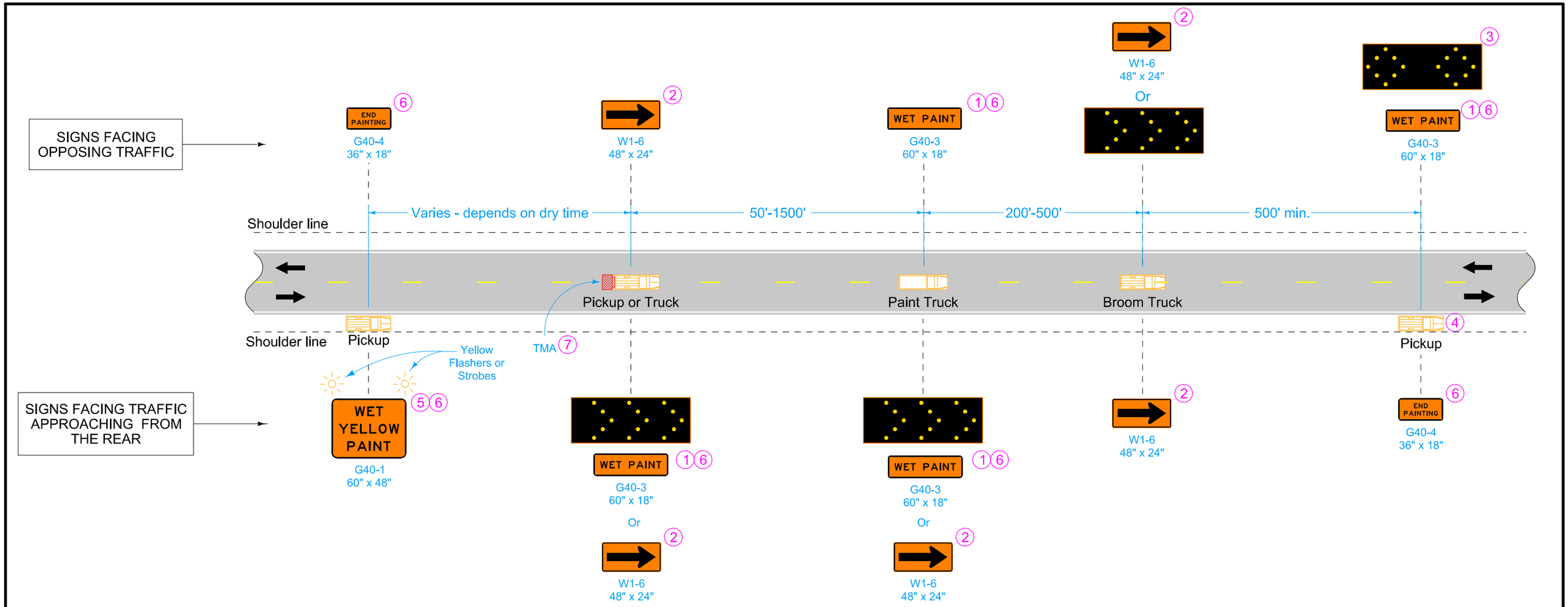
TC-233

SHEET 1 of 2

REVISIONS: Added Circle Note 7.

APPROVED BY DESIGN METHODS ENGINEER

PAVEMENT MARKING OPERATIONS
TWO-LANE



VEHICLES STRADDLING CENTERLINE

LEGEND

- Direction of Traffic
- Truck-Mounted Attenuator (TMA)

1. Use this sign when painting centerline markings.
2. Optional Fluorescent Yellow Green (FYG) sign background may be used.
3. This arrow board may be operated in a four-corner caution mode.
4. Move this vehicle to the shoulder to accommodate passing traffic.
5. A vehicle mounted Portable Dynamic Message Sign (PDMS) may be used in lieu of this sign.
6. Refer to SI-881 for sign details.
7. TMA required for speed limits of 55 mph or greater and ADT greater than 3,000.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	10-17-17

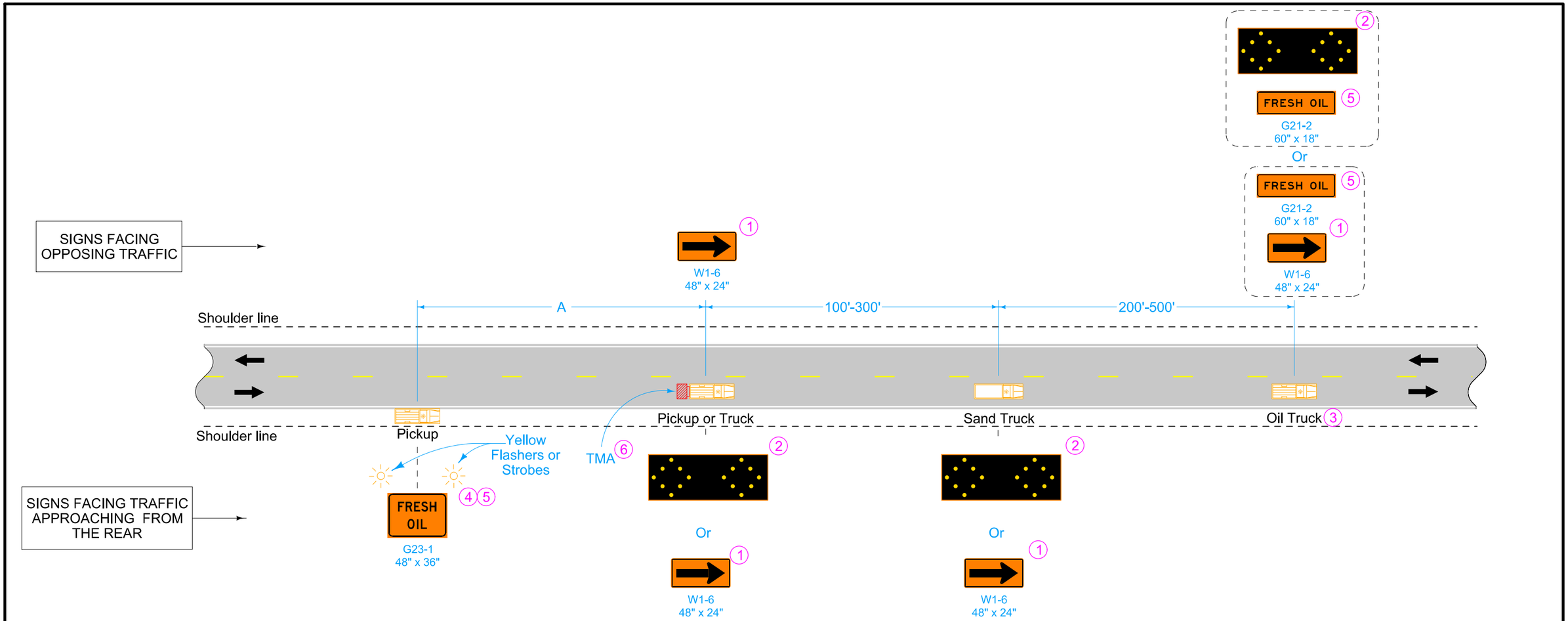
TC-233

SHEET 2 of 2

REVISIONS: Added Circle Note 7.

APPROVED BY DESIGN METHODS ENGINEER

PAVEMENT MARKING OPERATIONS TWO-LANE



VEHICLES NOT STRADDLING CENTERLINE

LEGEND

- Direction of Traffic
- Truck-Mounted Attenuator (TMA)

SPEED LIMIT (mph)*	A min.
25 or less	200'
30 - 35	300'
40 - 45	500'
50 or greater	1000'

* Speed Limit refers to regulatory speed limit before road work.

Equip all vehicles with an amber revolving light or amber strobe light.

1. Optional Fluorescent Yellow Green (FYG) sign background may be used.
2. This arrow display may be operated in a four-corner caution mode.
3. Move this vehicle to the shoulder to accommodate passing traffic.
4. A vehicle mounted Portable Dynamic Message Sign (PDMS) may be used in lieu of this sign.
5. Refer to SI-881 for sign details.
6. TMA required for speed limits of 55 mph or greater and ADT greater than 3,000.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION 4 4-18-23

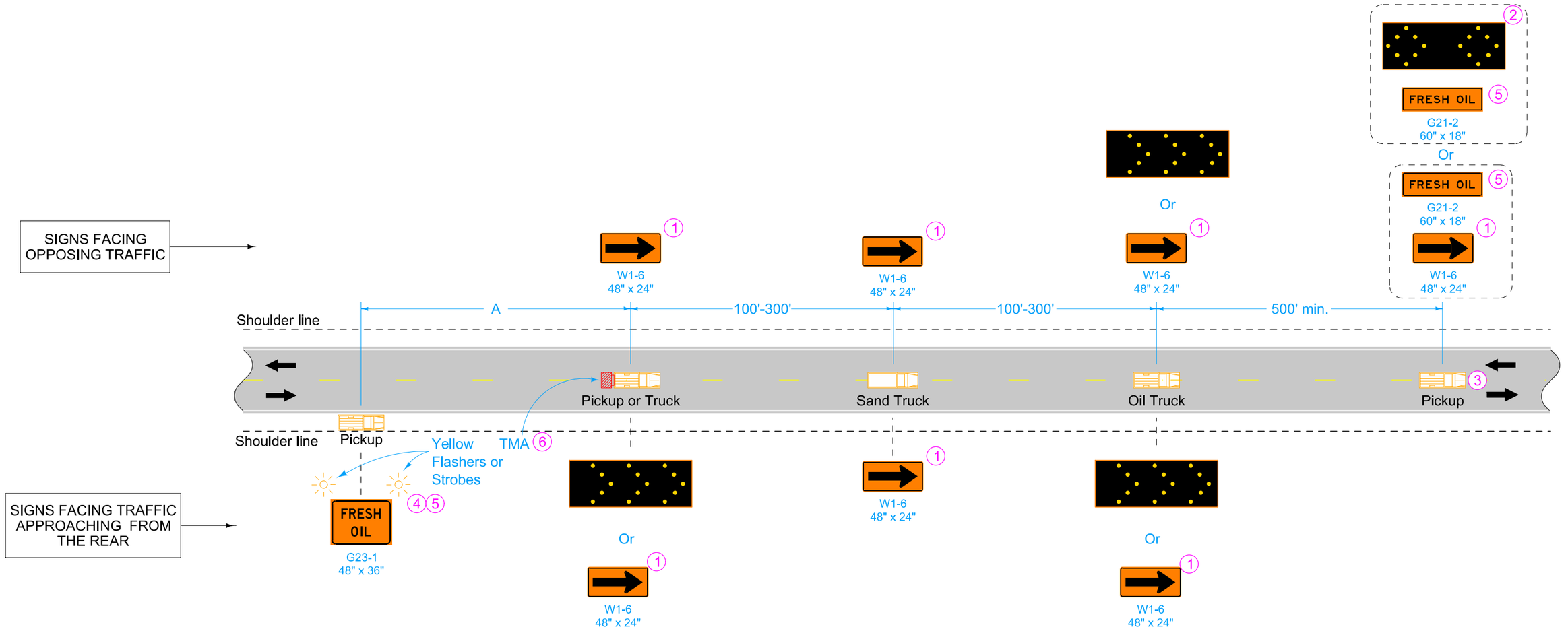
TC-234

SHEET 1 of 2

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

STRIP SEALING OPERATIONS



VEHICLES STRADDLING CENTERLINE

LEGEND

- Direction of Traffic
- Truck-Mounted Attenuator (TMA)

SPEED LIMIT (mph)*	A min.
25 or less	200'
30 - 35	300'
40 - 45	500'
50 or greater	1000'

* Speed Limit refers to regulatory speed limit before road work.

1. Optional Fluorescent Yellow Green (FYG) sign background may be used.
2. This arrow display may be operated in a four-corner caution mode.
3. Move this vehicle to the shoulder to accommodate passing traffic.
4. A vehicle mounted Portable Dynamic Message Sign (PDMS) may be used in lieu of this sign.
5. Refer to SI-881 for sign details.
6. TMA required for speed limits of 55 mph or greater and ADT greater than 3,000.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
4	4-18-23

TC-234

SHEET 2 of 2

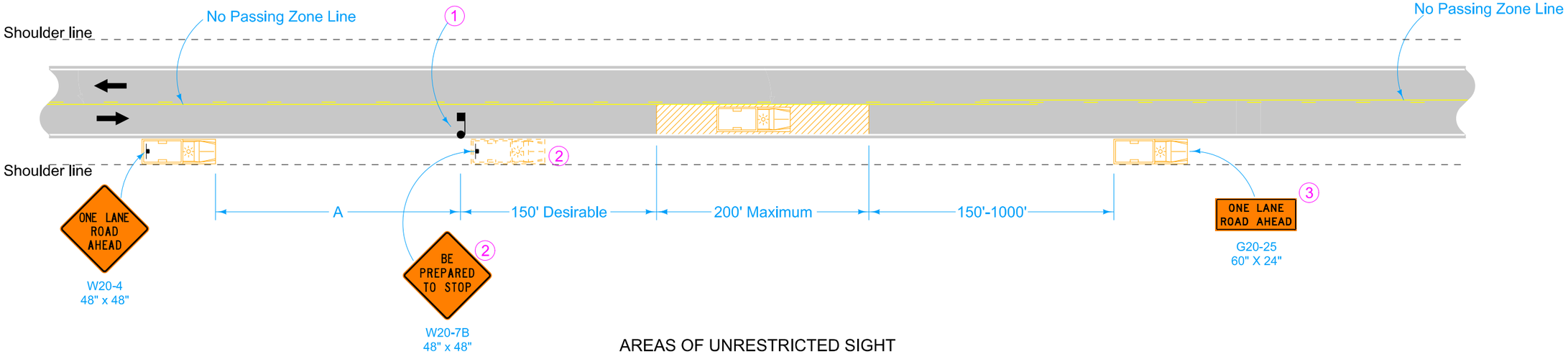
REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

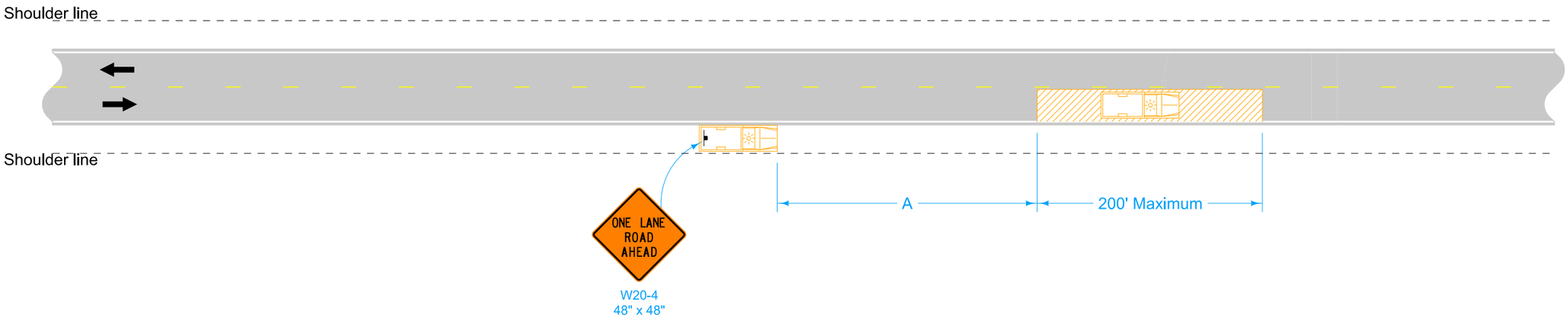
STRIP SEALING OPERATIONS

AREAS OF RESTRICTED SIGHT

(Typically a "No-Passing" Zone)



AREAS OF UNRESTRICTED SIGHT



LEGEND

- Direction of Traffic
- Flagger
- Traffic Sign
- Work Area
- Work Vehicle

SPEED LIMIT (mph)*	A min.
25 or less	200'
30-35	300'
40-45	500'
50 or greater	1000'

* Speed Limit refers to regulatory speed limit before road work.

For stops exceeding 15 minutes or in heavy traffic situations, use TC-213.

Equip all vehicles with an amber revolving light or an amber strobe light.

1. When a stop is made in an area of restricted sight distance, use a flagger to hold traffic in the closed lane and allow to pass when conditions are safe.
2. This vehicle and sign may be used in lieu of a flagger.
3. Refer to SI-881 for sign details.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
2	4-18-23

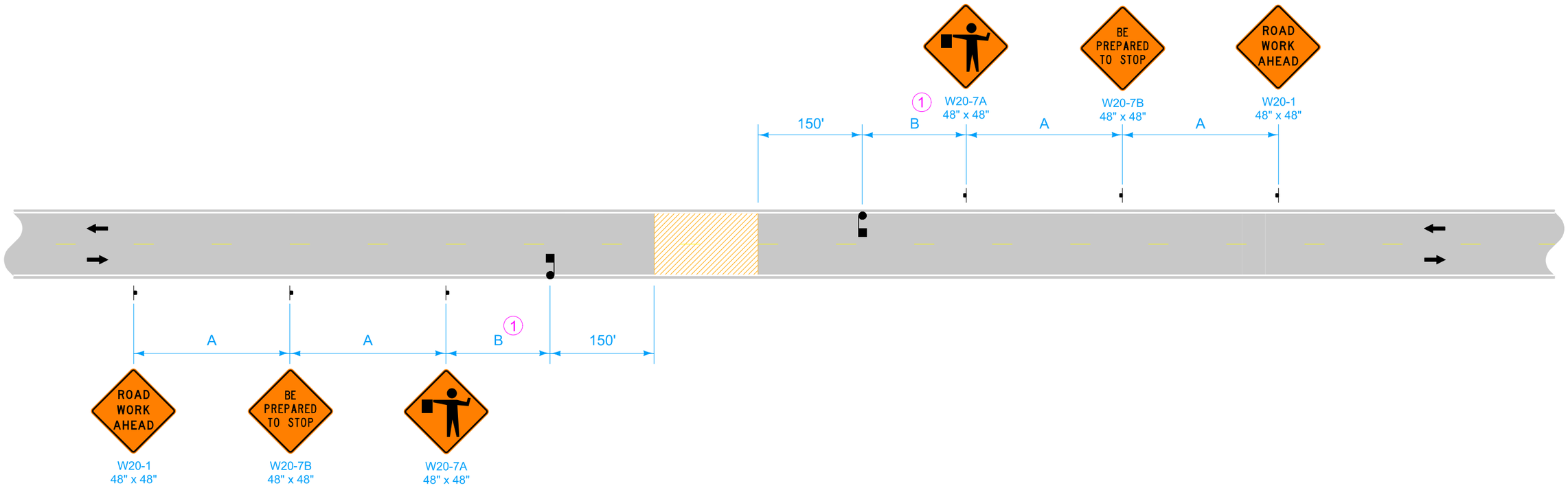
TC-235

SHEET 1 of 1

REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

EDGE RUT REPAIR



Possible Contract Item:

Traffic Control
Flaggers

LEGEND

- Traffic Sign
- Work Area
- Flagger
- Direction of Traffic

SPEED LIMIT (mph)*	A	B (1) (minimum)
35 or less	250'	250'
40 - 45	350'	350'
50 or greater	500'	500'

* Speed Limit refers to regulatory speed limit before road work.

This layout is intended for a preplanned closure of 20 minutes or less.

(1) The Engineer will determine the storage length, B, necessary to accommodate stopped traffic during the closure.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
4	4-18-23

TC-251

SHEET 1 of 1

REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

TEMPORARY ROAD CLOSURE

SIGN PLACEMENT ON
TYPE III BARRICADES

Typical Sign Placement

Sign Placement with
Supplemental Sign

Possible Contract Items:
- Traffic Control
- Safety Closures
- Portable Dynamic Message Sign

Possible Tablulation:
- 108-13A

IOWA | DOT

REVISION

6	04-21-20

STANDARD ROAD PLAN

TC-252

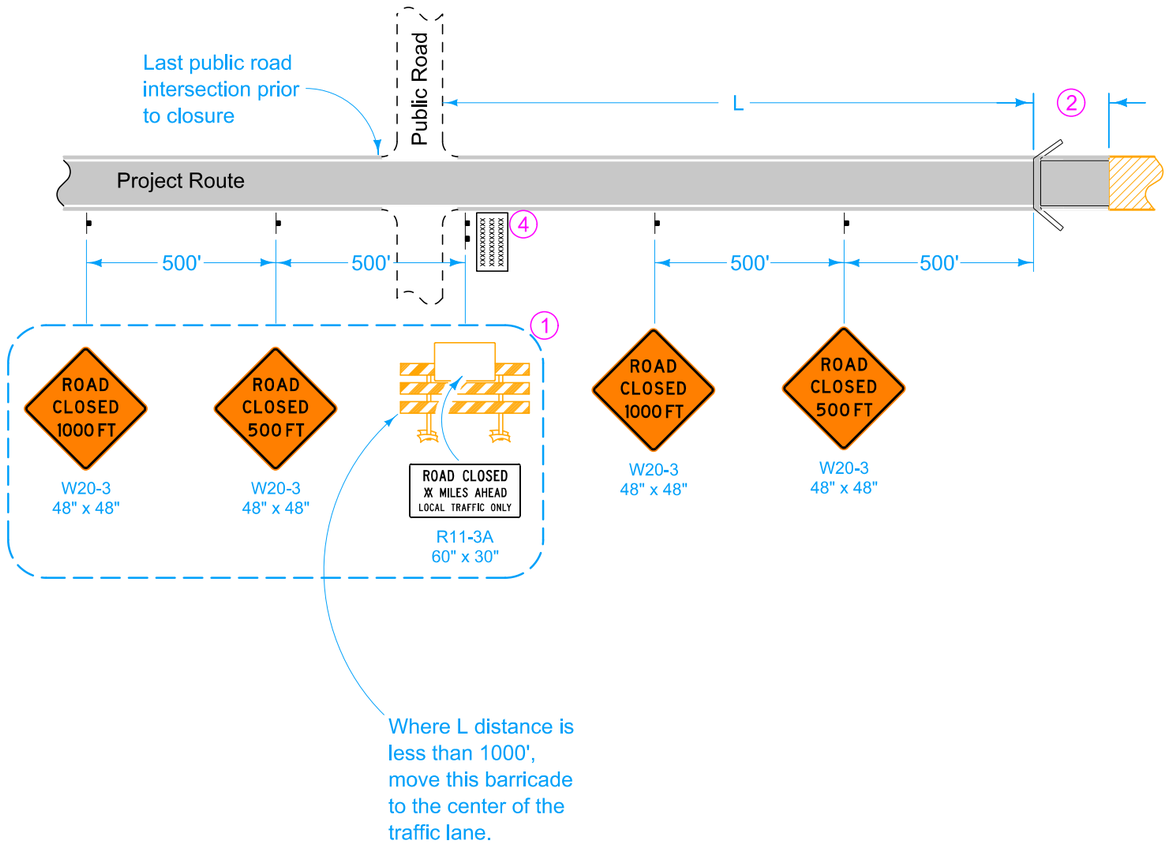
SHEET 1 of 3

REVISIONS: Added Portable Dynamic Message Sign and new note 4 on Sheet 2.

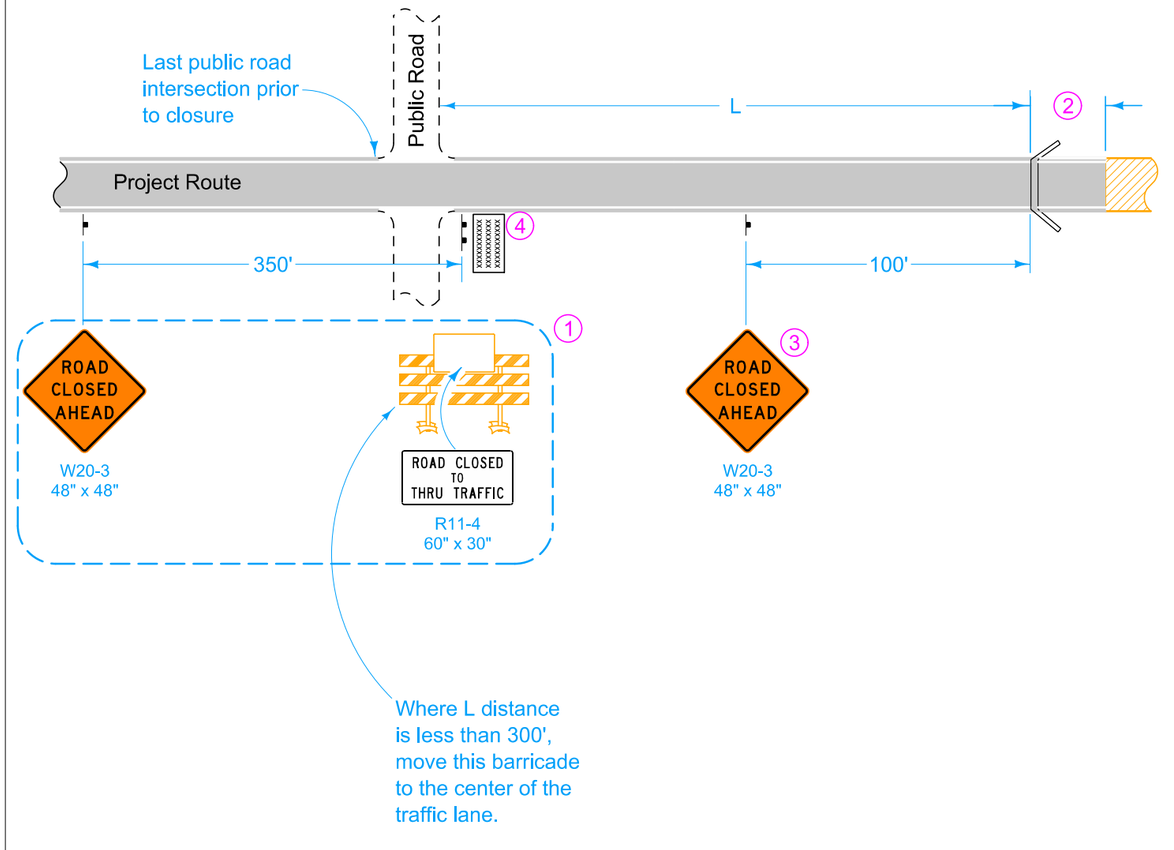
APPROVED BY DESIGN METHODS ENGINEER

ROUTES CLOSED TO TRAFFIC

SITUATION 1 (RURAL)
Project Route Closure



SITUATION 1 (URBAN)
Project Route Closure



LEGEND

- Traffic Sign
- Type III Barricade
- Portable Dynamic Message Sign
- Work Area
- Road Closure

(1) In situation 1, if the intersection is the point of detour these signs and barricade will become the responsibility of the contracting authority and may be modified by the contracting authority to fit detour signing.

(2) When possible, a 100' buffer is desirable.

(3) When L is less than 300 feet, omit the ROAD CLOSED AHEAD sign.

(4) Place for 7 calendar days prior to closure. The Engineer will determine the message to display. Remove when road is closed. Use of Portable Dynamic Message Sign is optional on non-primary roadways.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
6	04-21-20

TC-252

SHEET 2 of 3

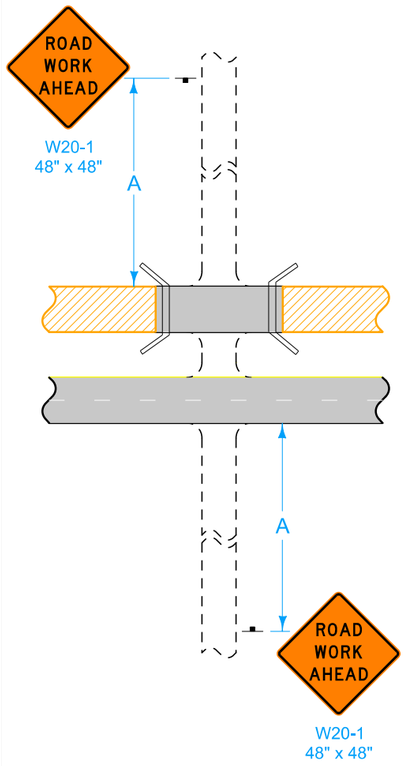
REVISIONS: Added Portable Dynamic Message Sign and new note 4 on Sheet 2.

APPROVED BY DESIGN METHODS ENGINEER

ROUTES CLOSED TO TRAFFIC

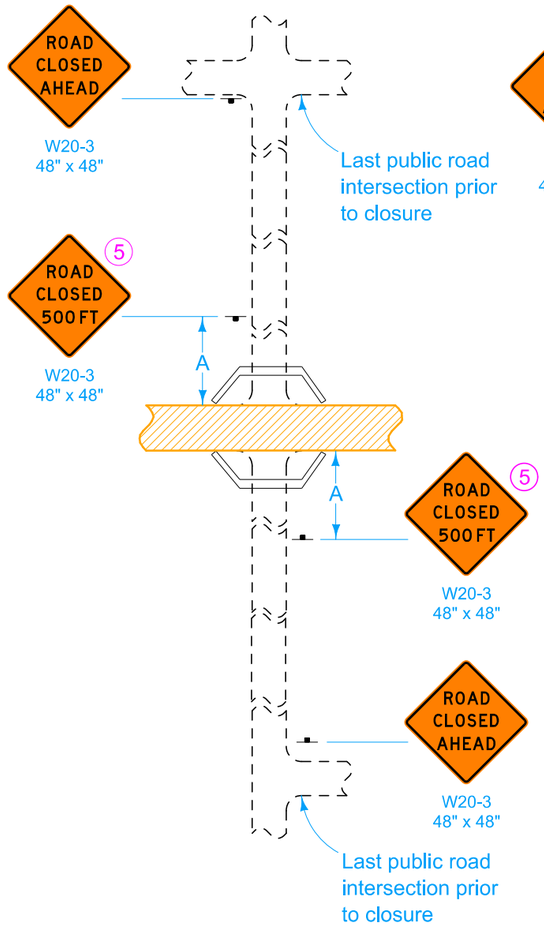
SITUATION 2

Public cross-traffic maintained.
No access to project.



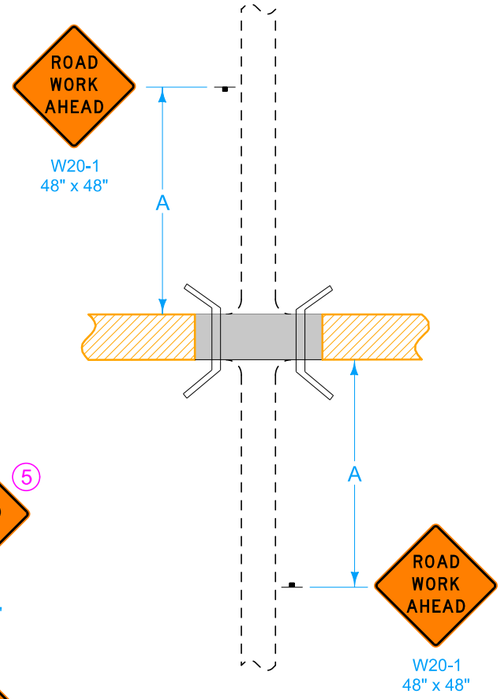
SITUATION 3

No access to project
(Applicable to T-intersections)



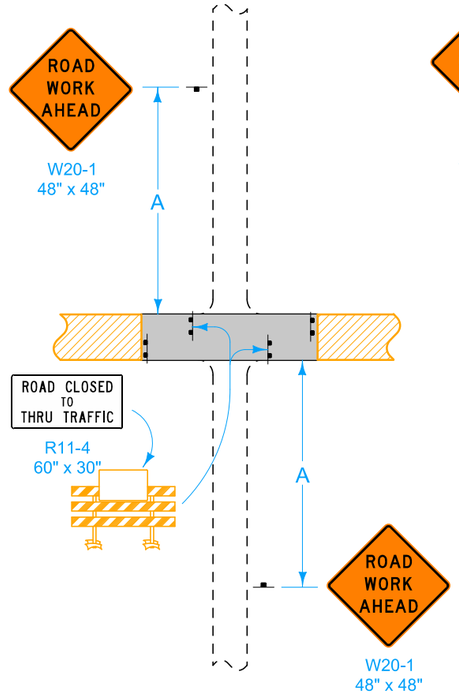
SITUATION 4

Public cross-traffic maintained.
No access to project.



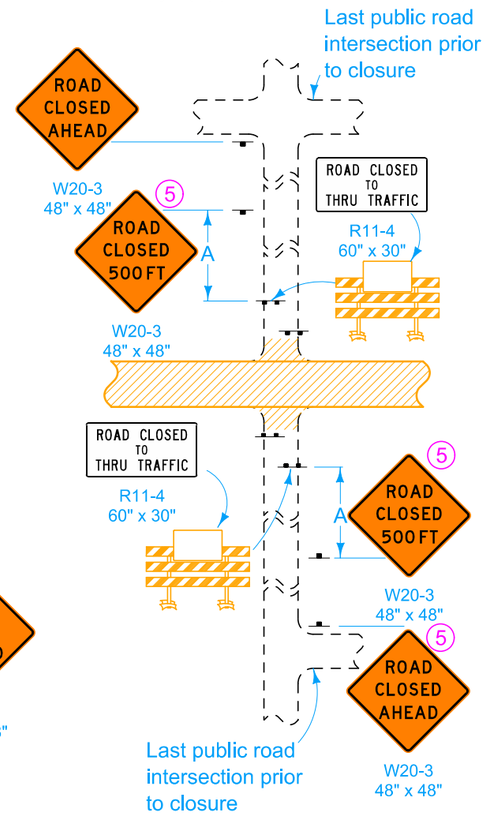
SITUATION 5

Public cross-traffic maintained.
Contractor and resident access.



SITUATION 6

No public access. Contractor and resident access only. (Applicable to T-intersections)



During suspension of work, (such as over winter):

- Use Situation 2 on two-lane to four-lane projects.
- Situation 5 is preferred where cross-traffic is maintained.

LEGEND

- Traffic Sign
- Type III Barricade
- Work Area
- Road Closure

Location	A
Urban	200'
Rural	500'

(5) When the distance between the last public road intersection and the ROAD CLOSED or ROAD CLOSED TO THRU TRAFFIC barricade is less than 1,000 feet, omit the ROAD CLOSED 500 FT sign.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
6	04-21-20

TC-252

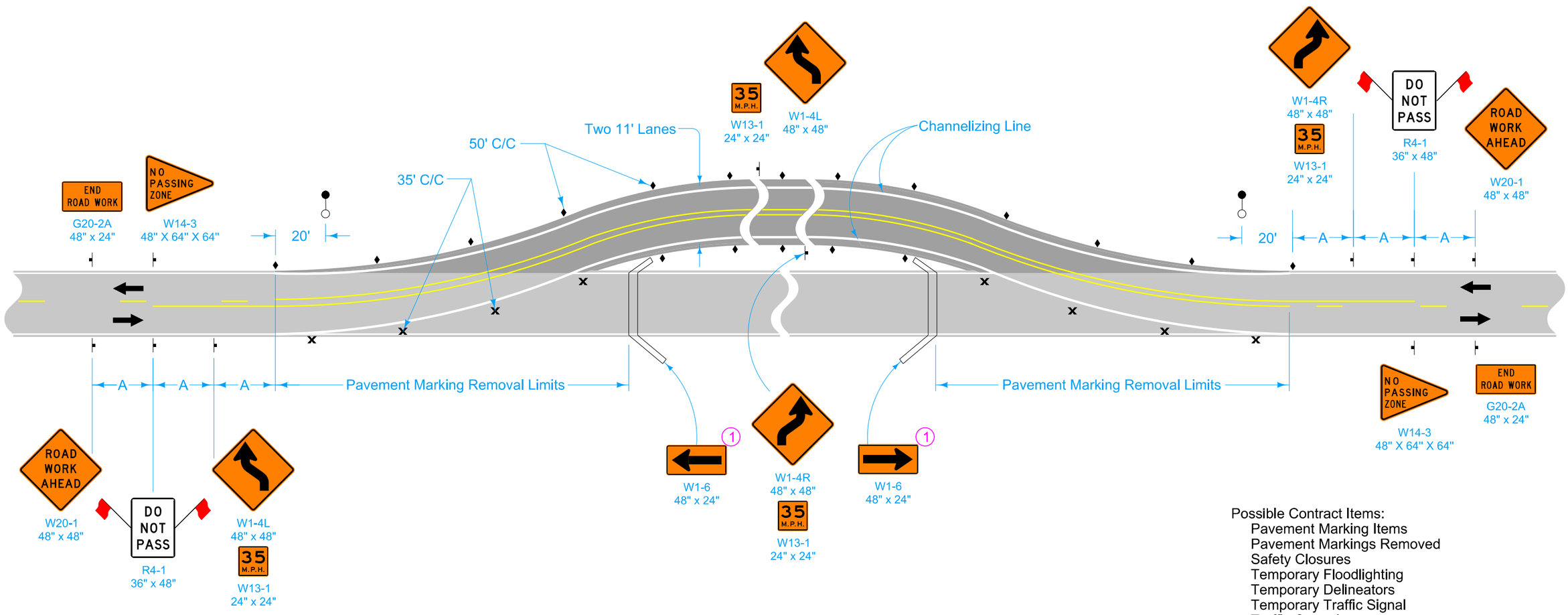
SHEET 3 of 3

REVISIONS: Added Portable Dynamic Message Sign and new note 4 on Sheet 2.

APPROVED BY DESIGN METHODS ENGINEER

ROUTES CLOSED TO TRAFFIC

TWO-LANE DETOUR



Possible Contract Items:
- Pavement Marking Items
- Pavement Markings Removed
- Safety Closures
- Temporary Floodlighting
- Temporary Delineators
- Temporary Traffic Signal
- Traffic Control

Possible Tabulations:
- 108-13A
- 108-22
- 108-27
- 108-28

LEGEND
- Direction of Traffic
- Drum
- Single White Delineators (mount back to back)
- Road Closure
- Temporary Floodlighting
- Traffic Sign

SPEED LIMIT (mph)*	A
35 or less	250'
40 - 45	350'
50 or greater	500'

* Speed Limit refers to regulatory speed limit before road work.

The Engineer may change the advisory speed. If reduced below 35 mph, the Reverse Curve signs (W1-4L and W1-4R) change to Reverse Turn signs (W1-3La and W1-3Ra).

(1) Add below ROAD CLOSED (R11-2) sign already included in Safety Closure.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
12	4-18-23

TC-253

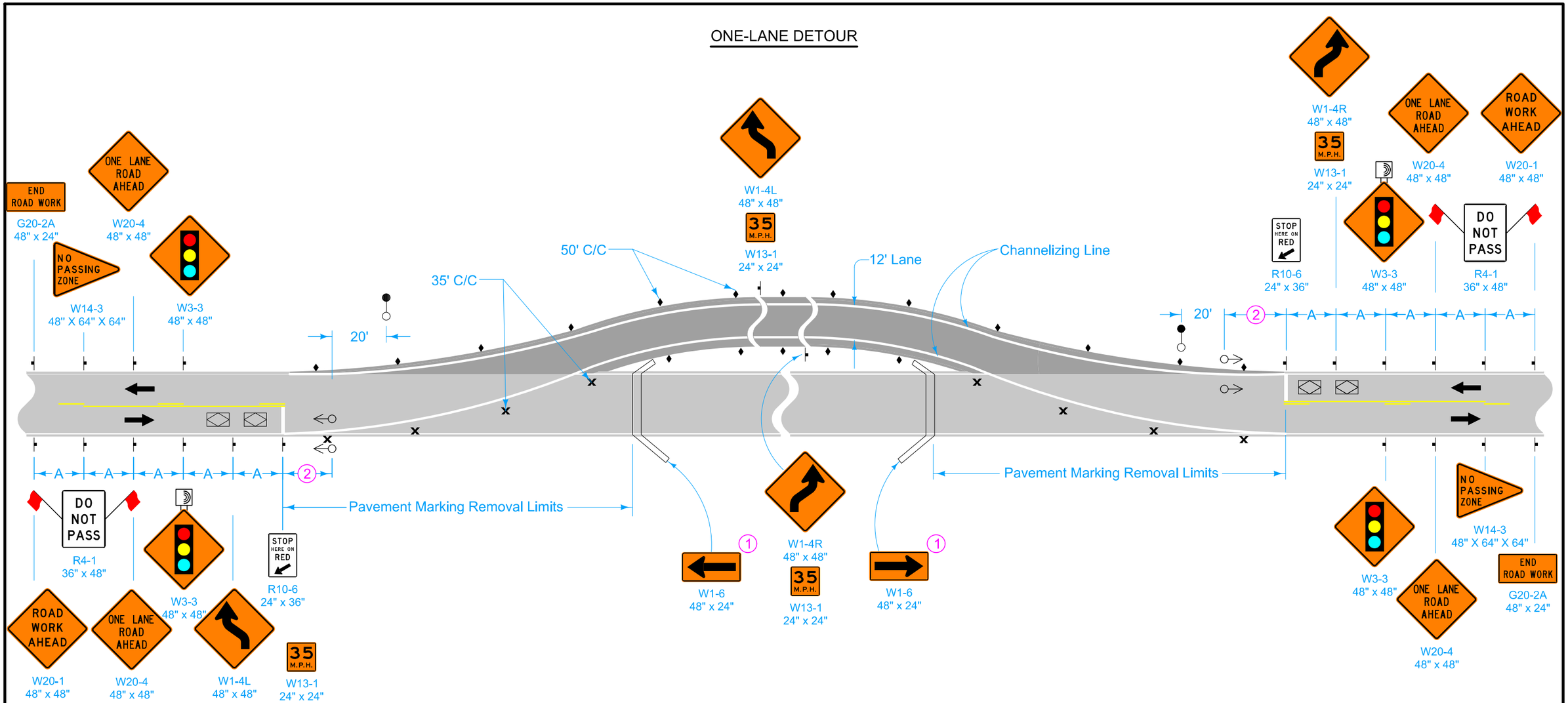
SHEET 1 of 2

REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

PAVED ON-SITE DETOUR

ONE-LANE DETOUR



LEGEND

- Direction of Traffic
- x — Drum
- Single White Delineators (mount back to back)
- Road Closure
- Temporary Floodlighting
- Temporary Traffic Signal
- Traffic Sign
- Type 'B' High-Intensity Flashing Warning Light
- Vehicle Detection Area

(1) Add below ROAD CLOSED (R11-2) sign already included in Safety Closure.

(2) Locate signal heads 70 to 100 feet beyond stop bar. Adjust location of signal heads as field conditions warrant.

TIMING FOR ACTUATED SIGNALS
Recommended Settings, secs.
Initial = 12.0
Extension = 2.5
Maximum Green = 45.0
Yellow = 3.0
All Red = (see table)

Distance Between Stop Lines	All Red (secs.)*	Distance Between Stop Lines	All Red (secs.)*
400'	10	900'	21
500'	12	1000'	23
600'	14	1100'	25
700'	16	1200'	28
800'	19	1300'	30

* Range of values are based on an operating speed of 30 mph

SPEED LIMIT (mph)*	A
35 or less	250'
40 - 45	350'
50 or greater	500'

* Speed Limit refers to regulatory speed limit before road work.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
12	4-18-23

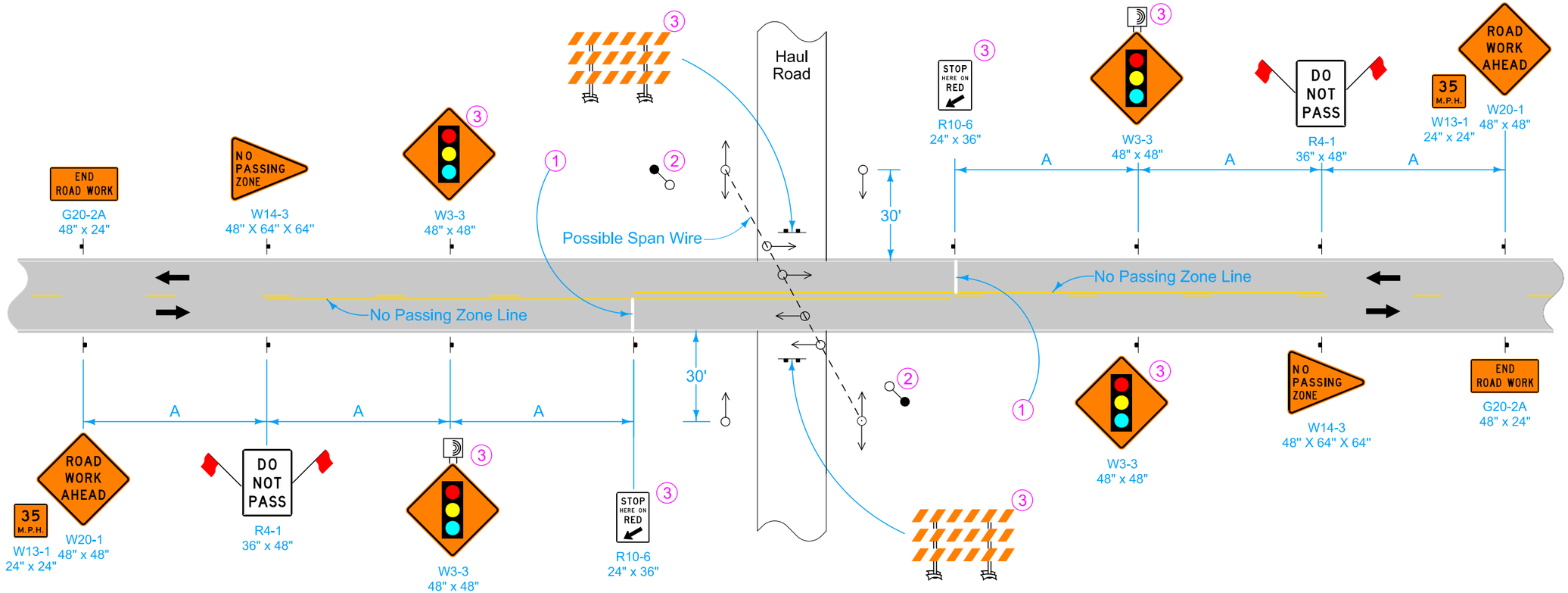
TC-253

SHEET 2 of 2

REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

PAVED ON-SITE DETOUR



SPEED LIMIT (mph)*	A
35 or less	250'
40 - 45	350'
50 or greater	500'

* Speed Limit refers to regulatory speed limit before road work.

LEGEND

- Traffic Sign
- Type III Barricade
- Temporary Floodlighting
- Type 'B' Warning Light
- Temporary Traffic Signal
- Direction of Traffic

No detection area required.

Set signal timing as follows: For traffic from all directions, set the yellow indication at approximately 5 seconds and the all-red clearance interval at approximately 2 seconds. Set the minimum green interval on the main road at 20 seconds. Set the green interval for haul road traffic at 12 seconds but may be extended up to a maximum of 30 seconds.

(1) Locate the stop bars 70 feet in advance of each lane's nearest signal head.

(2) Required only if haul road is used during nighttime hours.

(3) When the equipment crossing is not in use, place Type III Barricades as shown, and cover SIGNAL AHEAD and STOP HERE ON RED signs.

Possible Contract Items:
- Pavement Marking Items
- Pavement Markings Removed
- Traffic Control
- Temporary Floodlighting
- Temporary Traffic Signals

Possible Tabulations:
- 108-22
- 108-27
- 108-28

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	4-18-23

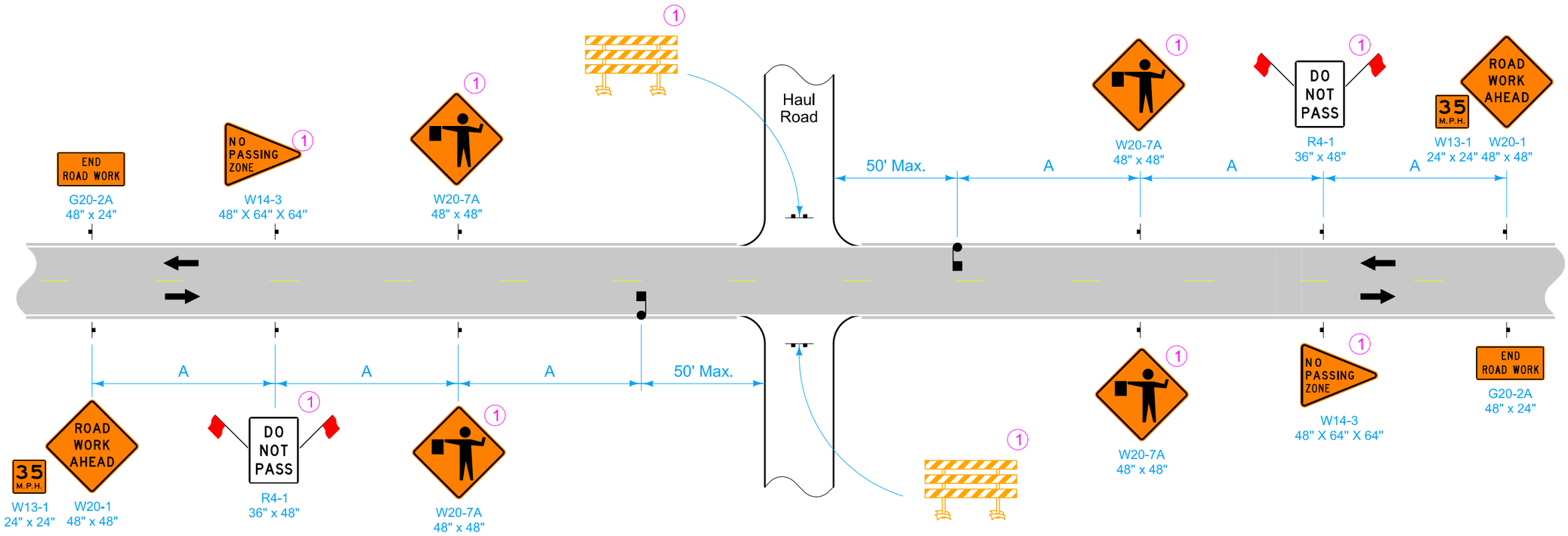
TC-271

SHEET 1 of 1

REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

SIGNALIZED EQUIPMENT CROSSING



Possible Contract Items:

Traffic Control
Flaggers

1 During nighttime hours or when the haul road is not in use, Type III Barricades shall be placed as shown and DO NOT PASS, NO PASSING ZONE and Flagger Symbol signs shall be covered or removed.

LEGEND

- Traffic Sign
- Type III Barricade
- Flagger
- Direction of Traffic

SPEED LIMIT (mph)*	A
35 or less	250'
40 - 45	350'
50 or greater	500'

* Speed Limit refers to regulatory speed limit before road work.

IOWA DOT

REVISION 4 4-18-23

STANDARD ROAD PLAN

TC-272

SHEET 1 of 1

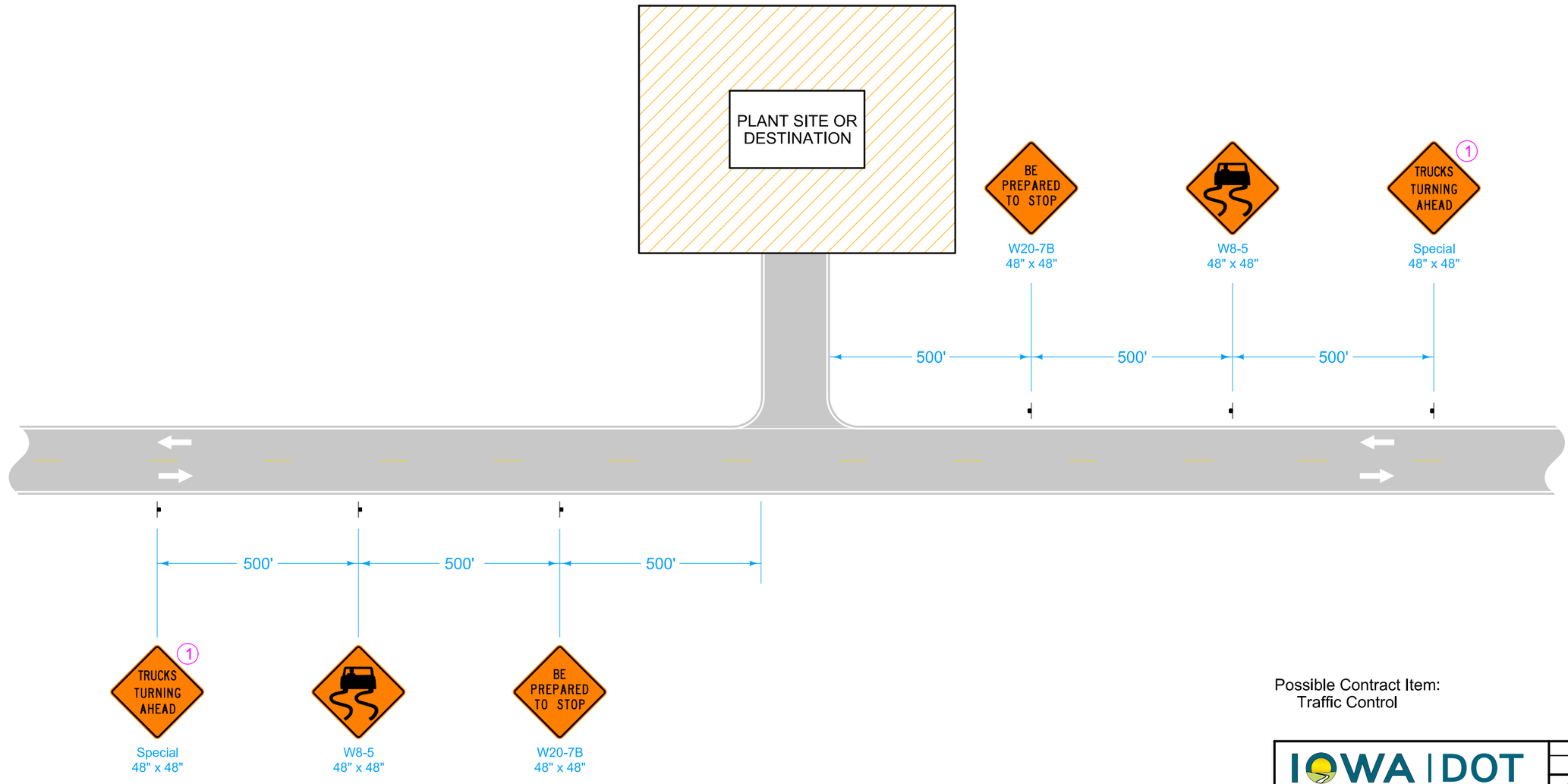
REVISIONS: Added speed limit note. Formatted speed limit table.

APPROVED BY DESIGN METHODS ENGINEER

UNSIGNALIZED EQUIPMENT CROSSING

Construction traffic shall yield the right-of-way to mainline traffic.

(1) Refer to SI-881 for details.



LEGEND

- Traffic Sign
- Direction of Traffic

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
2	10-15-19

TC-273

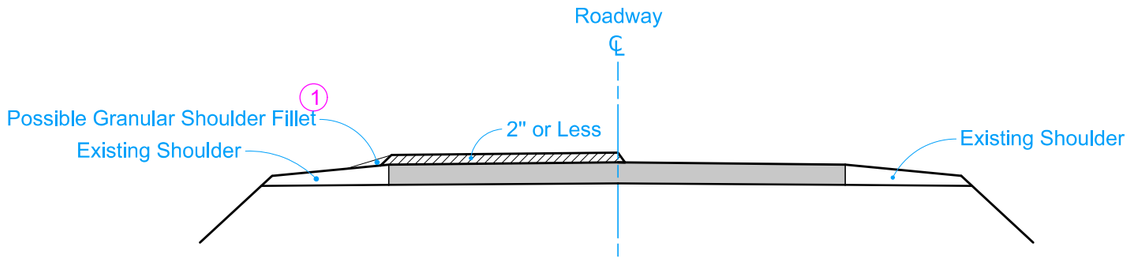
SHEET 1 of 1

REVISIONS: New logo.

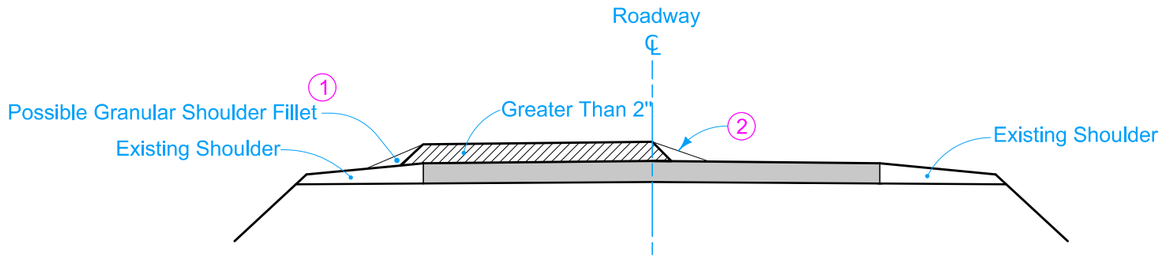
APPROVED BY DESIGN METHODS ENGINEER

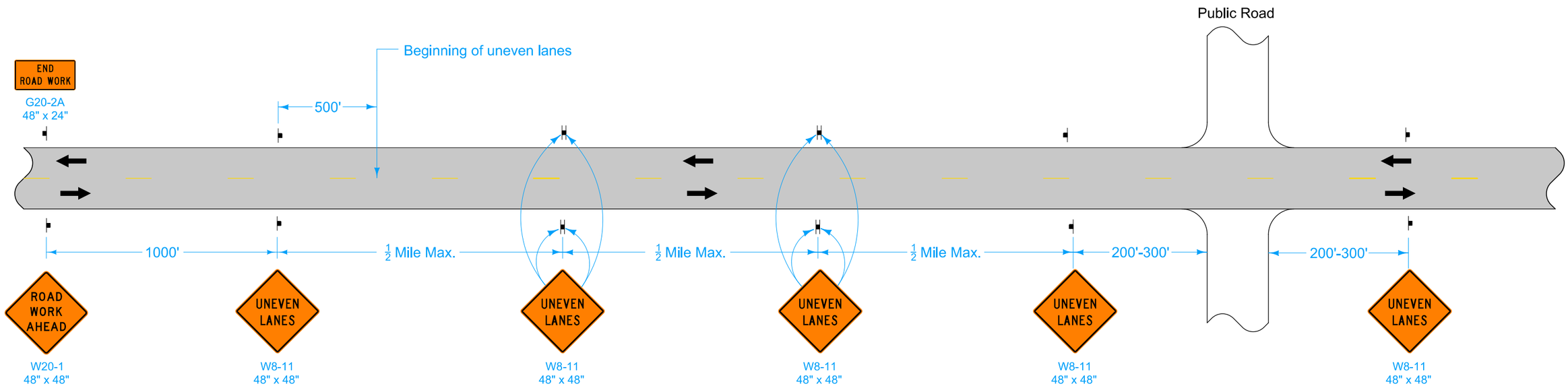
CONSTRUCTION SITE ENTRANCE

DESIGN LIFT THICKNESSES 2" OR LESS



DESIGN LIFT THICKNESSES GREATER THAN 2" (WITH ℄ FILLET)





LEGEND

- Direction of Traffic
- Traffic Sign

1. Shoulder Fillet: Refer to Section 1107 of the Standard Specifications and Safety Edge specifications.
2. Centerline fillet may be notched wedge, Safety Edge, or a temporary 3:1 HMA fillet.

Possible Contract Items:
Pavement Marking Items
Traffic Control

Possible Tabulation:
108-22

IOWA DOT

STANDARD ROAD PLAN

REVISION	
4	10-15-19

TC-282

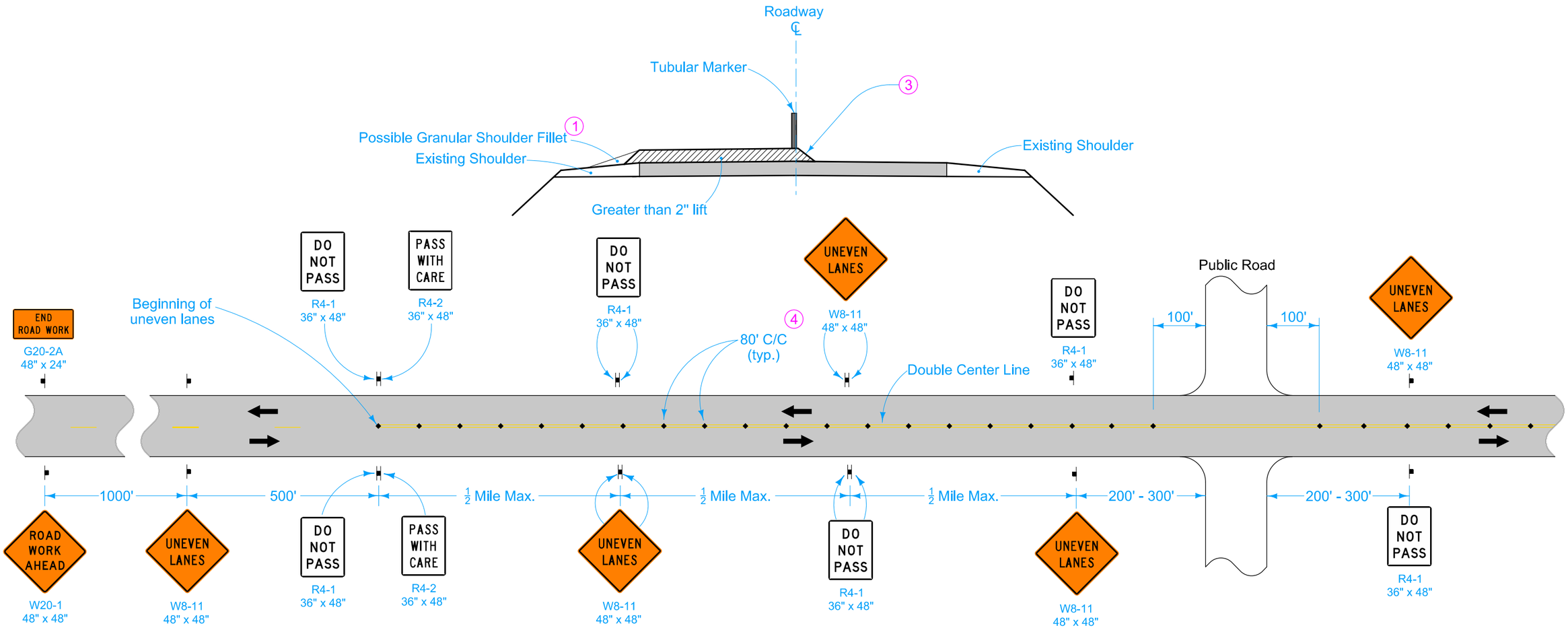
SHEET 1 of 3

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

UNEVEN LANES

DESIGN LIFT THICKNESSES GREATER THAN 2" (WITHOUT ℄ FILLET)



LEGEND

- Direction of Traffic
- Traffic Sign
- Tubular Marker

"No-Passing" zones shall not exceed 2.5 miles for ADT less than 2500 vpd or 2.0 miles for ADT from 2500 to 5000 vpd.

(1) Shoulder Fillet: Refer to Section 1107 of the Standard Specifications and Safety Edge specifications.

(3) Typical 1:1 taper.

(4) Spacing = 40 feet where horizontal curve radius is less than 1000 feet.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
4	10-15-19

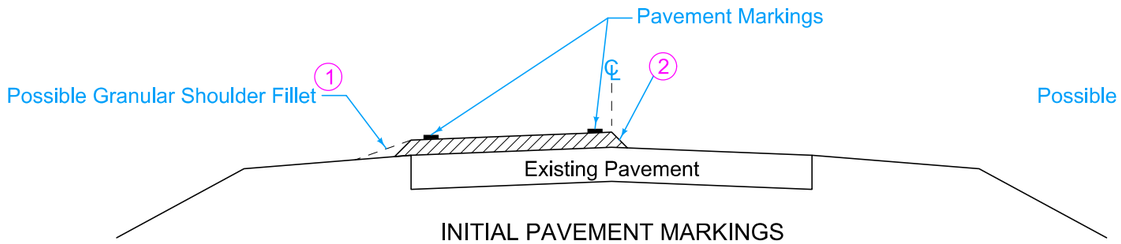
TC-282

SHEET 2 of 3

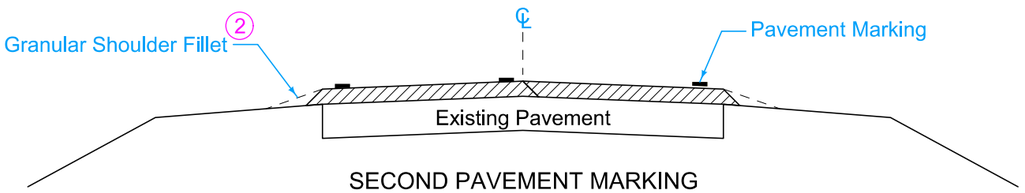
REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

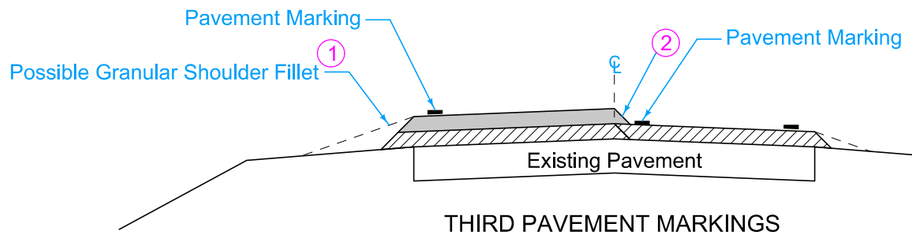
UNEVEN LANES



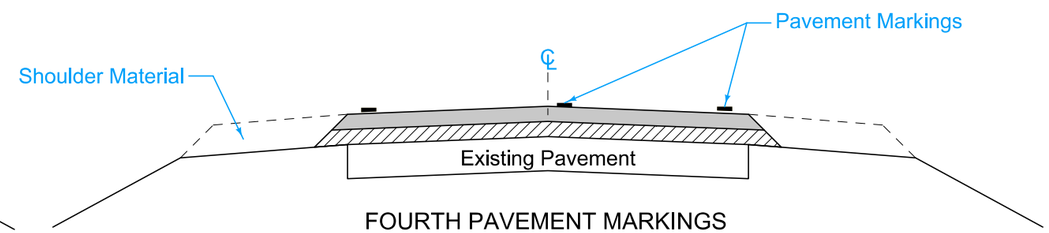
INITIAL PAVEMENT MARKINGS



SECOND PAVEMENT MARKING



THIRD PAVEMENT MARKINGS



FOURTH PAVEMENT MARKINGS

PAVEMENT MARKING SEQUENCE

LEGEND

Surface Course

Intermediate Course

(1) Shoulder Fillet: Refer to Standard Specification 1107 and Safety Edge specifications.

(2) Centerline fillet may be notched wedge, Safety Edge, or a temporary 3:1 HMA fillet.

IOWA DOT

REVISION 4 10-15-19

STANDARD ROAD PLAN

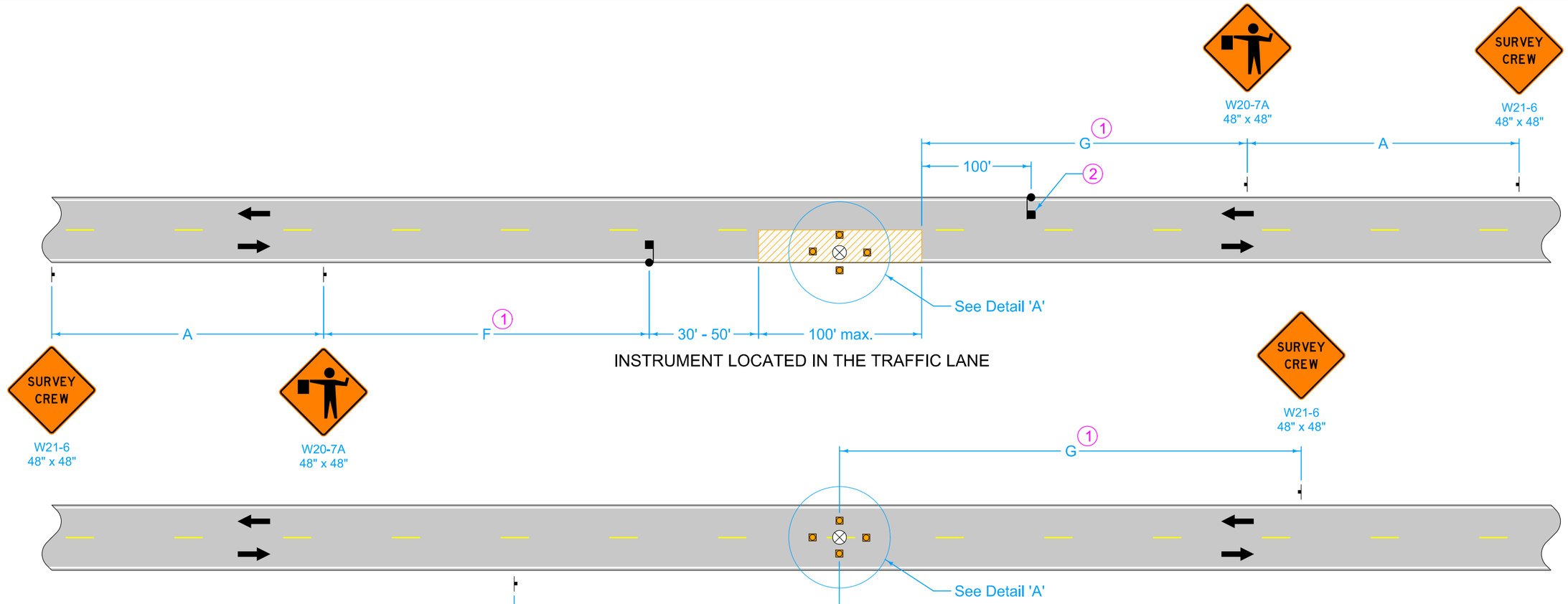
TC-282

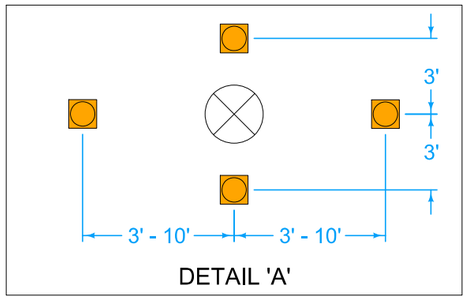
SHEET 3 of 3

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

UNEVEN LANES





DETAIL 'A'

LEGEND

- Traffic Sign
- Instrument Person
- Cone
- Work Area
- Flagger
- Direction of Traffic

SPEED LIMIT (mph)*	A	WITH LANE CLOSURE F and G (1)	WITHOUT LANE CLOSURE F and G (1)	F + G MAXIMUM
35 or less	250'	250' - 3250'	500' - 3000'	3500'
40 - 45	350'	350' - 3350'	700' - 3000'	3700'
50 or greater	500'	500' - 3500'	1000' - 3000'	4000'

* Speed Limit refers to regulatory speed limit before road work.

When another person is required outside of the signing setup (e.g. for a survey target), a separate signing setup may be necessary unless the traffic lane can be vacated to accommodate traffic.

(1) Keep F and G distances as near to minimum values as work permits. However, to be able to move the work area without moving the advance signing, F and G values may be varied within the limits of the table. Maximum movement can be achieved by setting one F or G value at the minimum and the other value at its maximum.

(2) Use a second flagger if:

- The flagger's view of approaching traffic in the open lane is less than a quarter mile or the work site is in an area of restricted sight distance (such as a "No-Passing" zone); or
- Excessive traffic delays are encountered.

Possible Contract Items:
Flaggers
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
4	4-18-23

TC-283

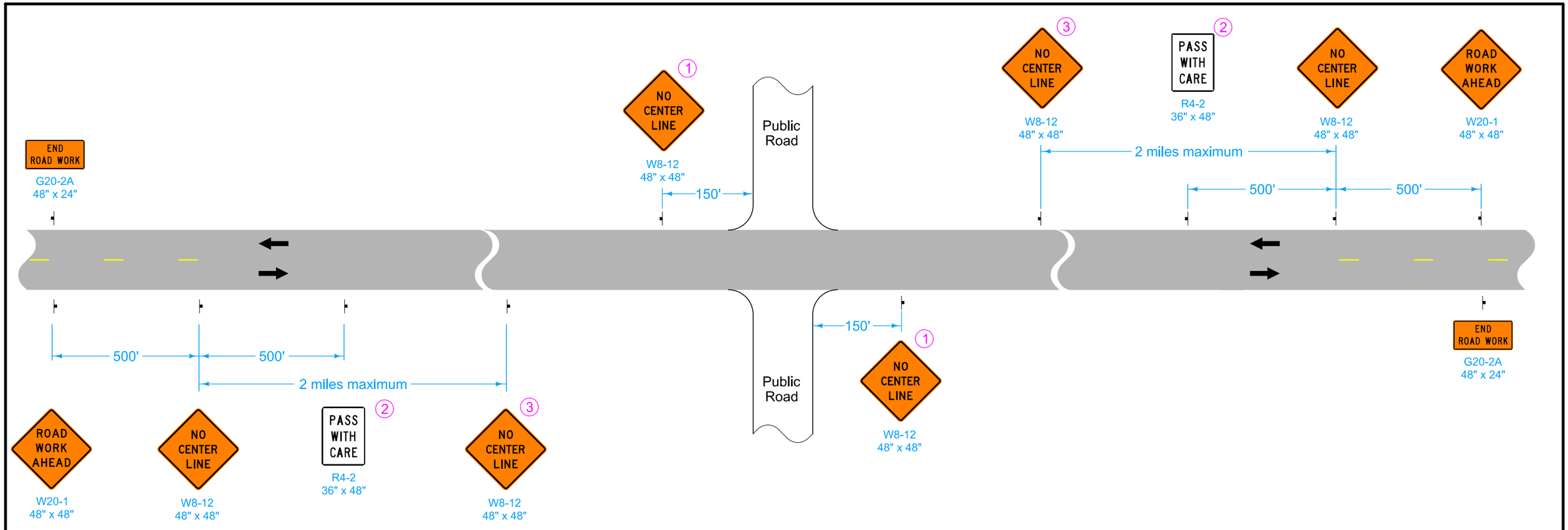
SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

SURVEYING OPERATIONS

DO NOT USE ON PRIMARY ROADWAYS



LEGEND

- Traffic Sign
- Direction of Traffic

(1) Place "NO CENTERLINE" (W8-12) signs at intersections where the speed limit is 35 mph or greater.

(2) Place additional "PASS WITH CARE" (R4-2) signs at the downstream end of No Passing Zones.

(3) Place additional "NO CENTERLINE" (W8-12) signs at 2 mile intervals.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
1	10-15-19

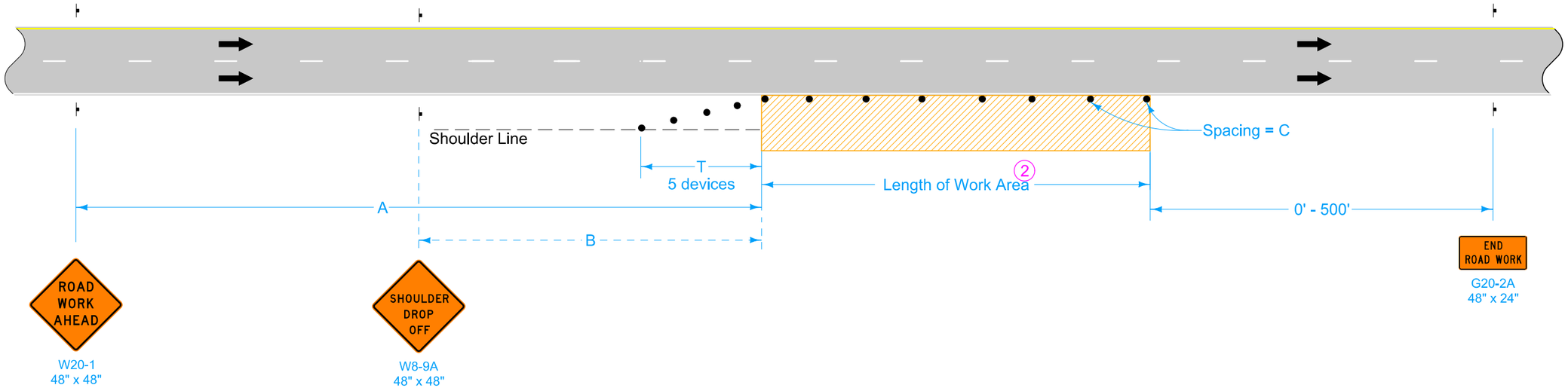
TC-284

SHEET 1 of 1

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

NO CENTERLINE MARKINGS ON NON-PRIMARY ROADWAYS



LEGEND

- Traffic Sign
- 42" Channelizer
- Work Area
- Direction of Traffic

SPEED LIMIT (mph)*	A	B	C (2)	T
40 or less	500'	250'	40'	100'
45 - 50	700'	350'	80' (1)	200'
55 - 60	1500'	500'	100' (1)	200'
65 - 70	1500'	500'	100' (1)	230'

* Speed Limit refers to regulatory speed limit before road work.

When a pavement edge drop-off exists, install a SHOULDER DROP-OFF sign.

No pavement edge drop-offs greater than pavement depth will be allowed during non-working hours.

Shoulder edge drop-offs shall be mitigated according to Article 1107.08.K2 of the Standard Specifications.

For work lasting less than one hour, refer to TC-1.

(1) When the length of a pavement edge drop-off is 1000 feet or less, the temporary fillet requirement of Article 1107.08 of the Standard Specifications does not apply. Reduce channelizer spacing to 40 feet.

(2) For work areas less than 200 feet long, use channelizers spaced at 20 foot centers or use a vehicle with an amber revolving light or amber strobe light.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION 10 4-18-23

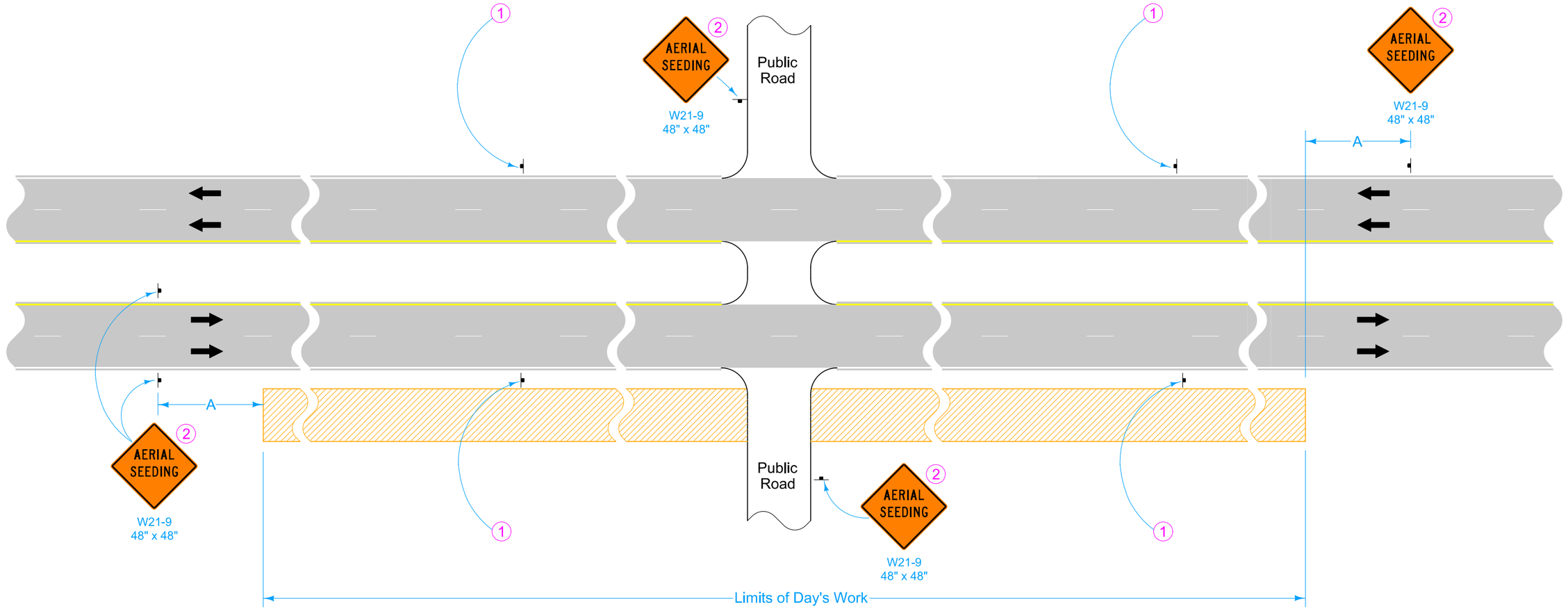
TC-402

SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

WORK WITHIN 15 FT OF TRAVELED WAY



1. Place AERIAL SEEDING signs along the mainline at a maximum spacing of 3 miles.
2. Refer to SI-881 for sign details.

Possible Contract Item:
Traffic Control

LEGEND

- Traffic Sign
- Work Area
- Direction of Traffic

SPEED LIMIT (mph)*	A
35 or less	250'
40 - 45	500'
50 or greater	500'

* Speed Limit refers to regulatory speed limit before road work.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
5	4-18-23

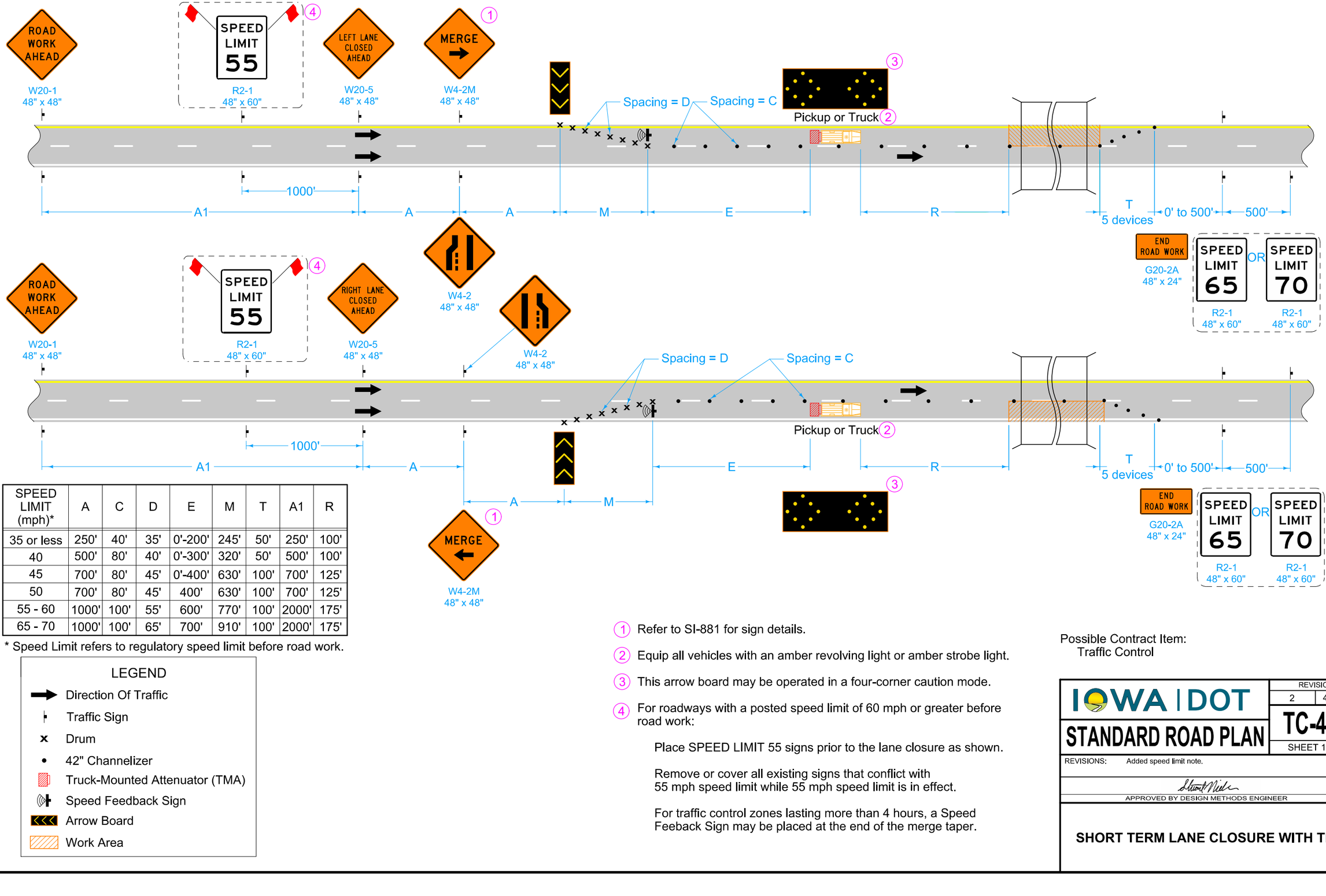
TC-403

SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

AERIAL SEEDING OPERATIONS



SPEED LIMIT (mph)*	A	C	D	E	M	T	A1	R
35 or less	250'	40'	35'	0'-200'	245'	50'	250'	100'
40	500'	80'	40'	0'-300'	320'	50'	500'	100'
45	700'	80'	45'	0'-400'	630'	100'	700'	125'
50	700'	80'	45'	400'	630'	100'	700'	125'
55 - 60	1000'	100'	55'	600'	770'	100'	2000'	175'
65 - 70	1000'	100'	65'	700'	910'	100'	2000'	175'

* Speed Limit refers to regulatory speed limit before road work.

LEGEND

- Direction Of Traffic
- Traffic Sign
- Drum
- 42" Channelizer
- Truck-Mounted Attenuator (TMA)
- Speed Feedback Sign
- Arrow Board
- Work Area

(1) Refer to SI-881 for sign details.

(2) Equip all vehicles with an amber revolving light or amber strobe light.

(3) This arrow board may be operated in a four-corner caution mode.

(4) For roadways with a posted speed limit of 60 mph or greater before road work:

Place SPEED LIMIT 55 signs prior to the lane closure as shown.

Remove or cover all existing signs that conflict with 55 mph speed limit while 55 mph speed limit is in effect.

For traffic control zones lasting more than 4 hours, a Speed Feeback Sign may be placed at the end of the merge taper.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION
2 | 4-18-23

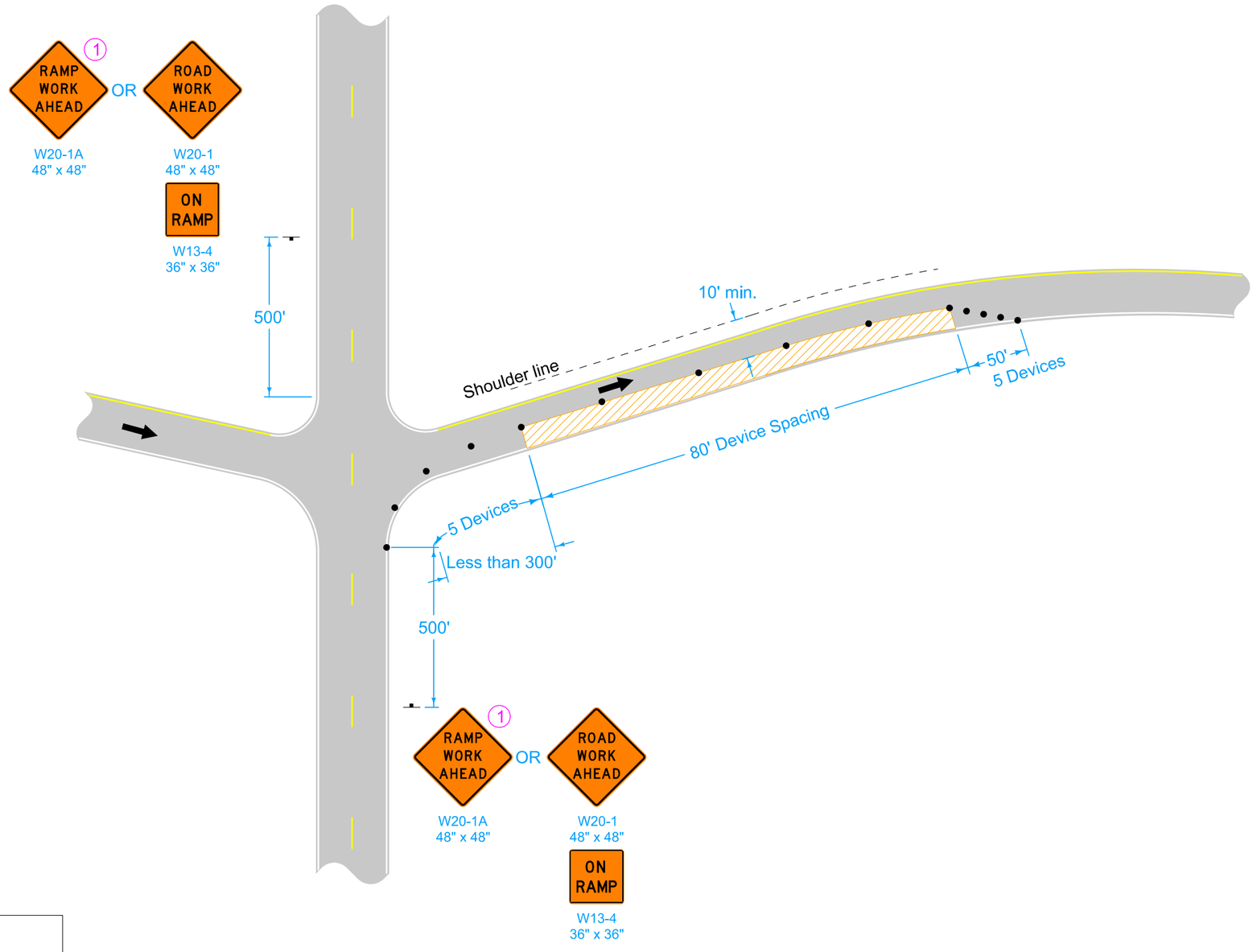
TC-415

SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

SHORT TERM LANE CLOSURE WITH TMA



1 Refer to SI-881 for sign details.

LEGEND

- Traffic Sign
- 42" Channelizer
- Direction of Traffic
- Work Area

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
3	10-15-19

TC-416

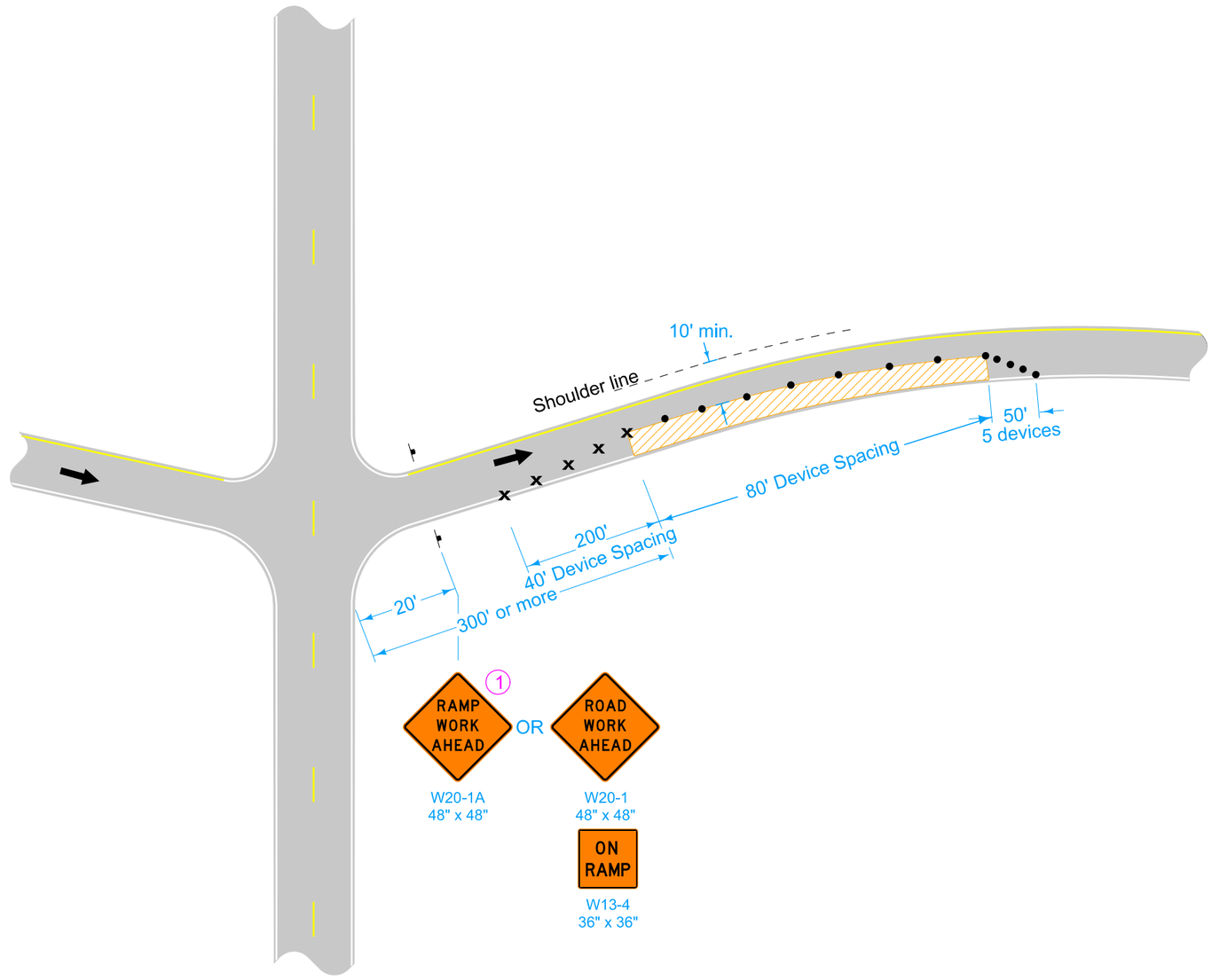
SHEET 1 of 4

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

PARTIAL LANE CLOSURE ON RAMPS

(1) Refer to SI-881 for sign details.



LEGEND

- × Drum
- Traffic Sign
- • 42" Channelizer
- Direction of Traffic
- Work Area

IOWA DOT

STANDARD ROAD PLAN

REVISION	
3	10-15-19

TC-416

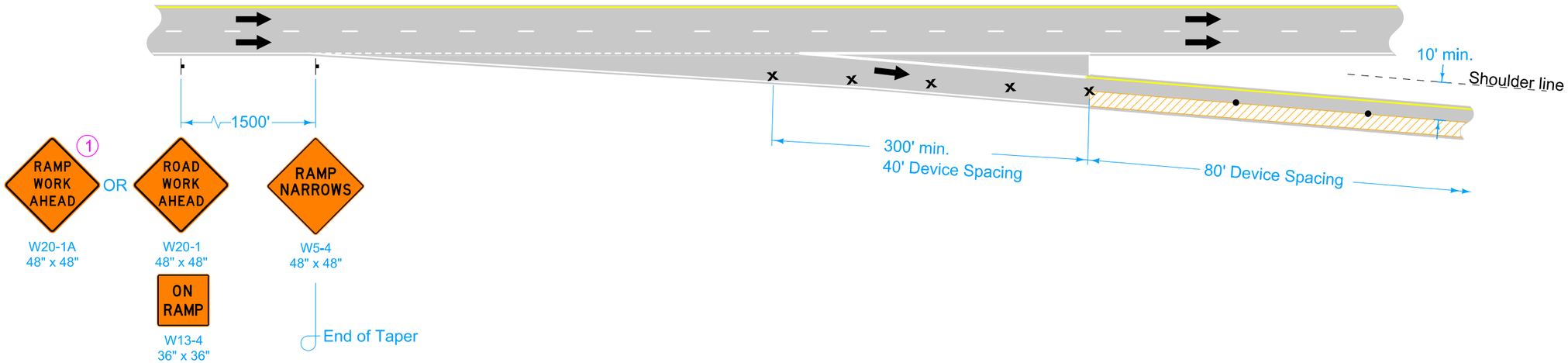
SHEET 2 of 4

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

PARTIAL LANE CLOSURE ON RAMPS

(1) Refer to SI-881 for sign details.



LEGEND

- x — Drum
- Traffic Sign
- • — 42" Channelizer
- Direction of Traffic
- Work Area

IOWA DOT

STANDARD ROAD PLAN

REVISION	
3	10-15-19

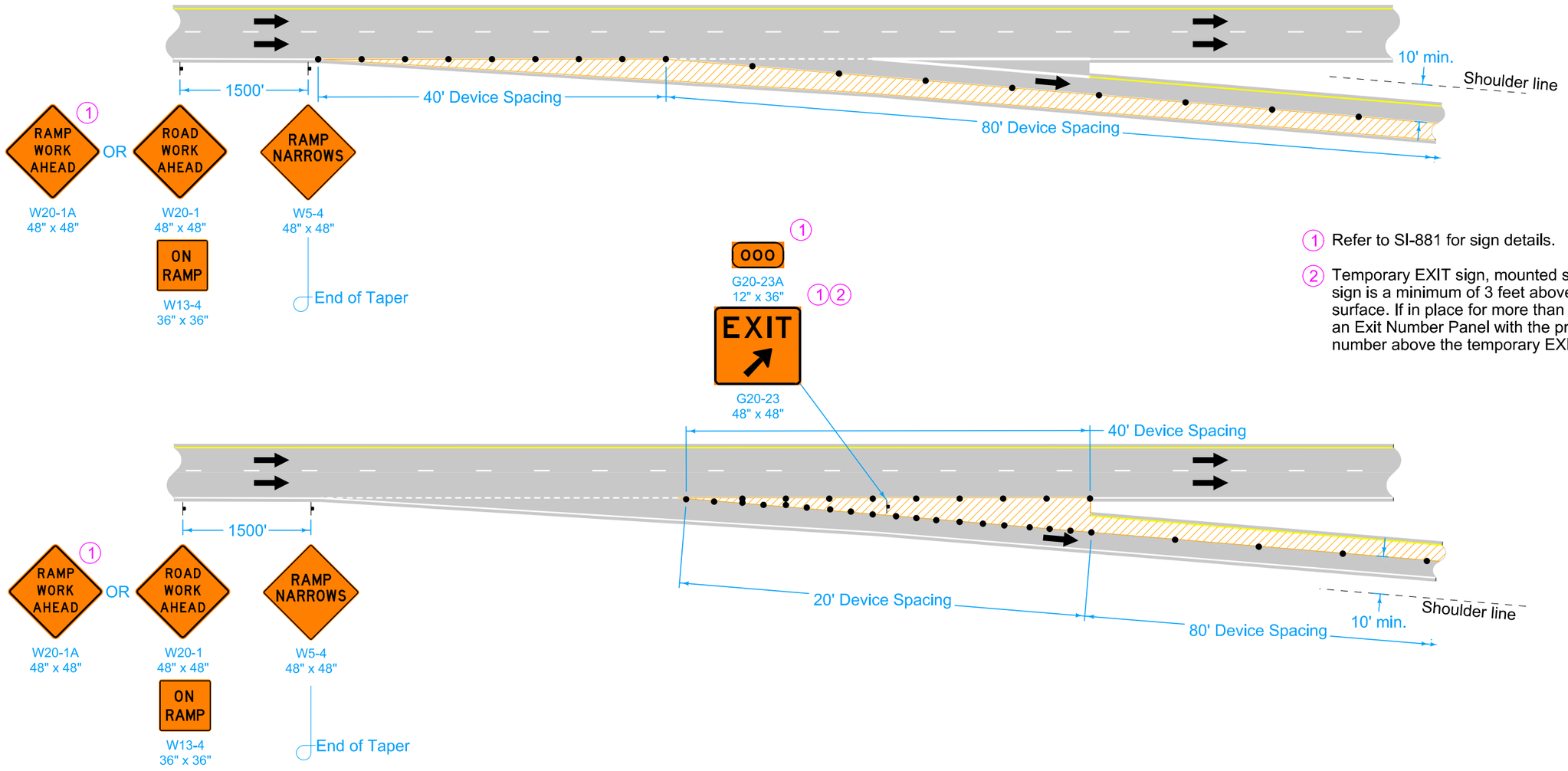
TC-416

SHEET 3 of 4

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

PARTIAL LANE CLOSURE ON RAMPS



1. Refer to SI-881 for sign details.
2. Temporary EXIT sign, mounted so that bottom of sign is a minimum of 3 feet above pavement surface. If in place for more than one day, mount an Exit Number Panel with the proper exit number above the temporary EXIT sign.

LEGEND

- Traffic Sign
- 42" Channelizer
- Direction of Traffic
- Work Area

IOWA DOT

STANDARD ROAD PLAN

REVISION	
3	10-15-19

TC-416

SHEET 4 of 4

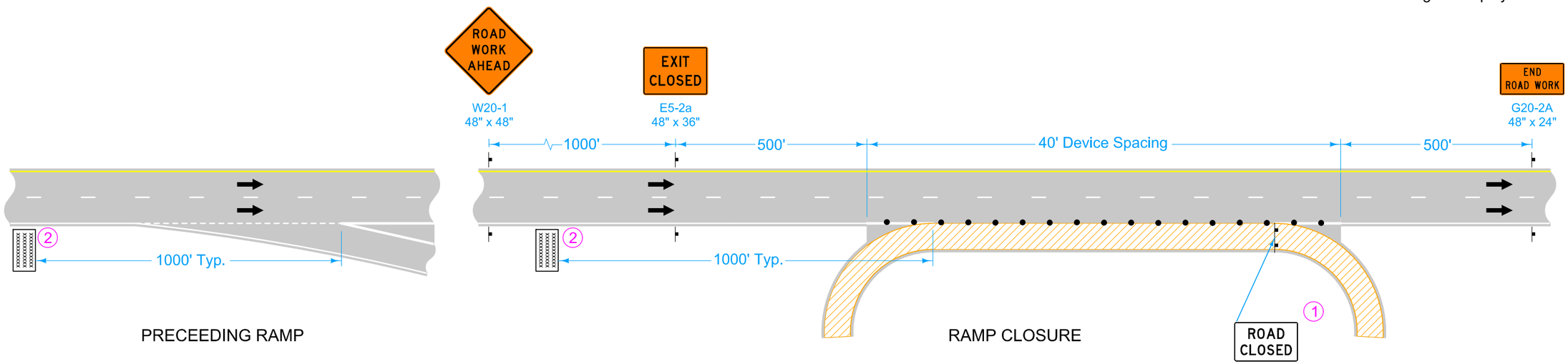
REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

PARTIAL LANE CLOSURE ON RAMPS

(1) A vehicle with an amber revolving light or amber strobe light may be substituted for the Type III barricade.

(2) Place Portable Dynamic Message Sign 3 calendar days prior to ramp closure. Leave in place until ramp is re-opened. The Engineer will determine the message to display.



Possible Contract Items:
- Safety Closure
- Traffic Control
- Portable Dynamic Message Sign

Possible Tabulation:
- 108-13A

LEGEND

- Type III Barricade
- Traffic Sign
- 42" Channelizer
- Direction of Traffic
- Work Area
- Portable Dynamic Message Sign

IOWA DOT

REVISION 5 04-21-20

STANDARD ROAD PLAN

TC-417

SHEET 1 of 3

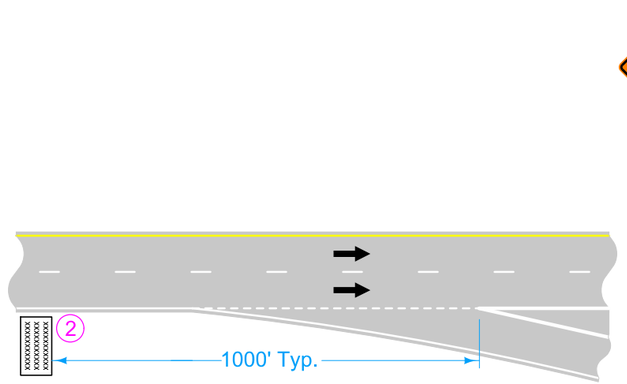
REVISIONS: Added Portable Dynamic Message Signs and new note 2. Retitled standard.

APPROVED BY DESIGN METHODS ENGINEER

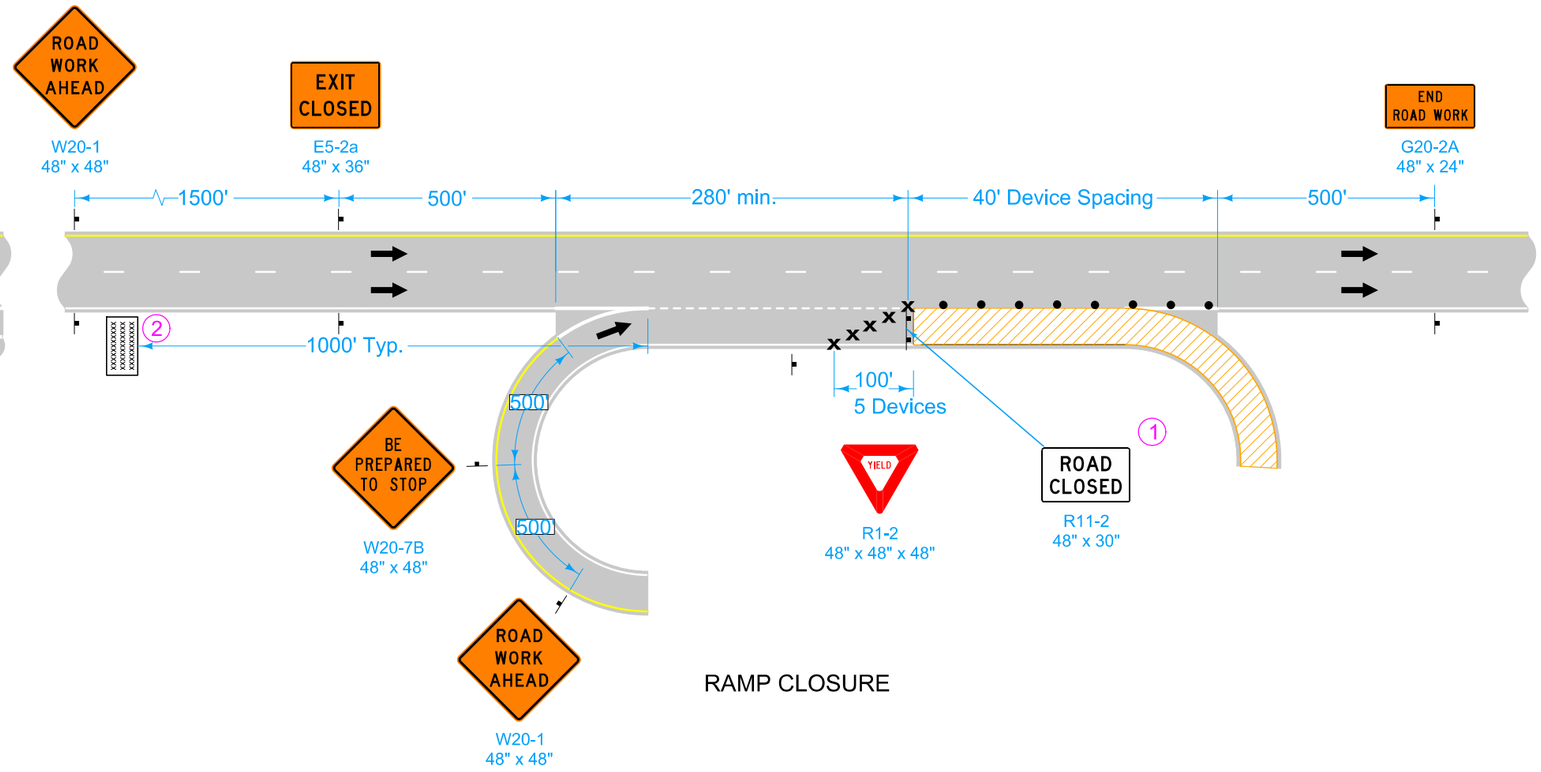
EXIT RAMP CLOSURE

1. A vehicle with an amber revolving light or amber strobe light may be substituted for the Type III barricade.

2. Place Portable Dynamic Message Sign 3 calendar days prior to ramp closure. Leave in place until ramp is re-opened. The Engineer will determine the message to display.



PRECEEDING RAMP



RAMP CLOSURE

LEGEND

- Type III Barricade
- Traffic Sign
- x Drum
- • 42" Channelizer
- Direction of Traffic
- Work Area
- Portable Dynamic Message Sign

IOWA DOT

STANDARD ROAD PLAN

REVISION	
5	04-21-20

TC-417

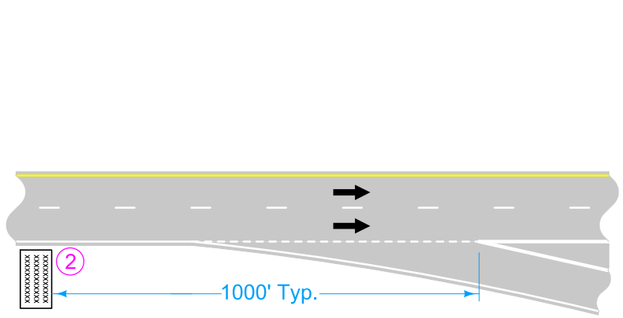
SHEET 2 of 3

REVISIONS: Added Portable Dynamic Message Signs and new note 2. Retitled standard.

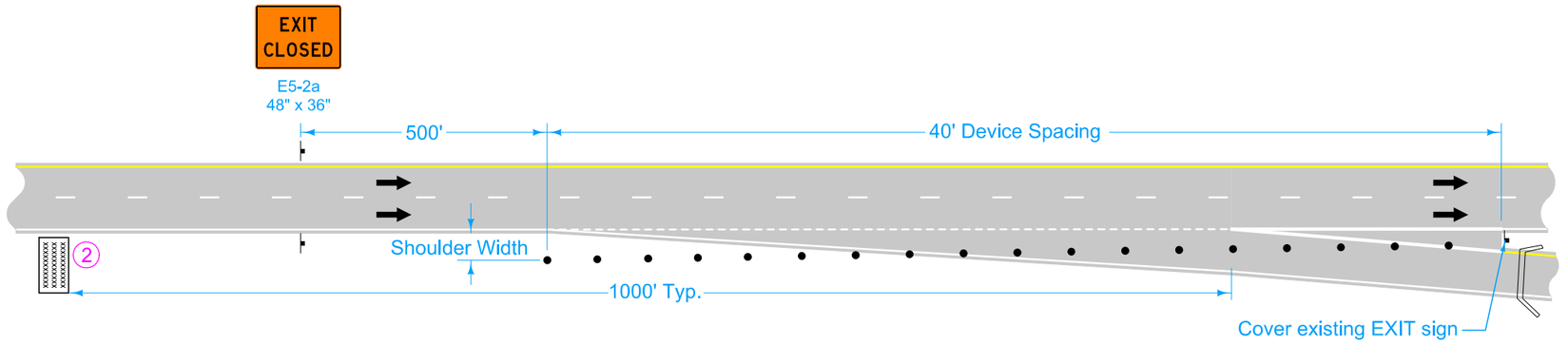
APPROVED BY DESIGN METHODS ENGINEER

EXIT RAMP CLOSURE

(2) Place Portable Dynamic Message Sign 3 calendar days prior to ramp closure. Leave in place until ramp is re-opened. The Engineer will determine the message to display.



PRECEEDING RAMP



RAMP CLOSURE

LEGEND

- Road Closure
- Traffic Sign
- 42" Channelizer
- Direction of Traffic
- Portable Dynamic Message Sign

IOWA DOT

STANDARD ROAD PLAN

REVISION	
5	04-21-20

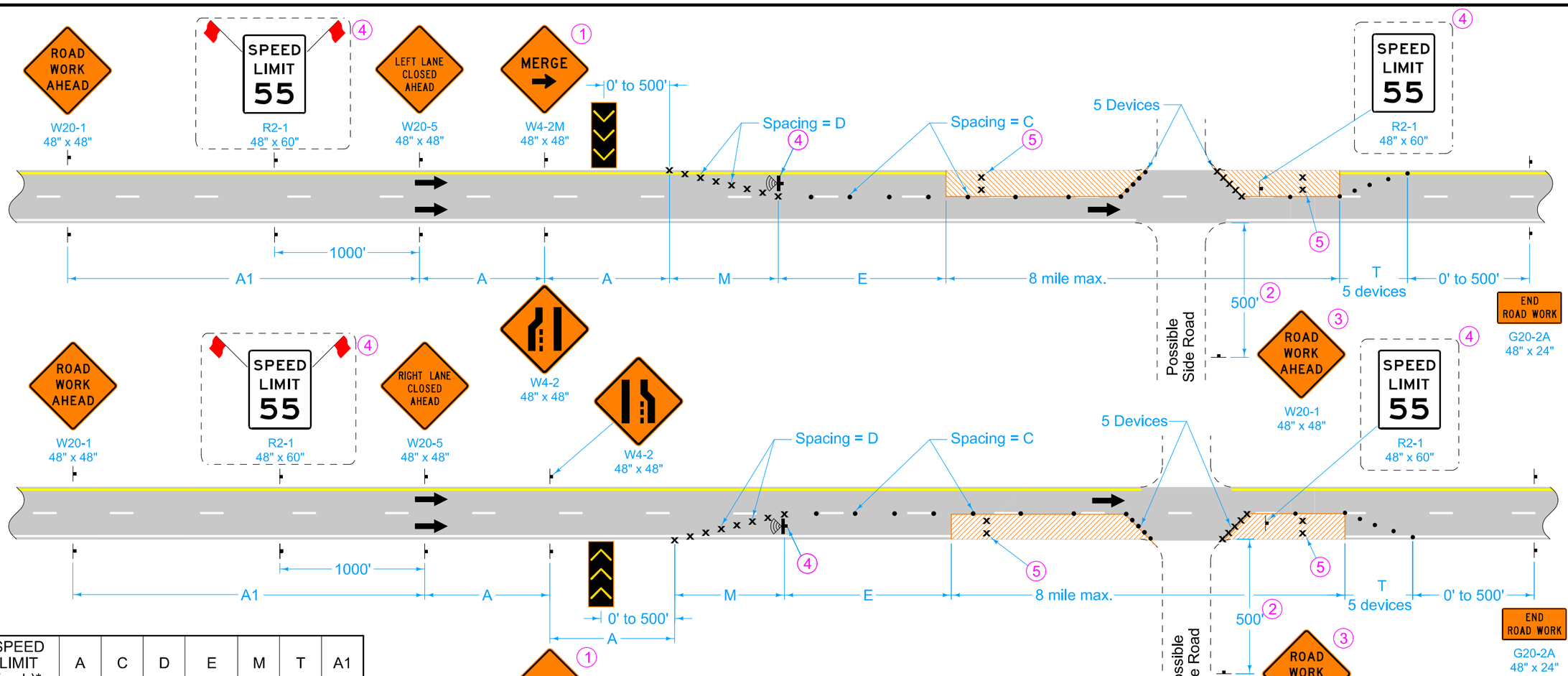
TC-417

SHEET 3 of 3

REVISIONS: Added Portable Dynamic Message Signs and new note 2. Retitled standard.

APPROVED BY DESIGN METHODS ENGINEER

EXIT RAMP CLOSURE



SPEED LIMIT (mph)*	A	C	D	E	M	T	A1
35 or less	250'	40'	35'	0'-200'	245'	50'	250'
40	500'	80'	40'	0'-300'	320'	50'	500'
45	700'	80'	45'	0'-400'	630'	100'	700'
50	700'	80'	45'	400'	630'	100'	700'
55 - 60	1000'	100'	55'	600'	770'	100'	2000'
65 - 70	1000'	100'	65'	700'	910'	100'	2000'

* Speed Limit refers to regulatory speed limit before road work.

LEGEND

- Direction Of Traffic
- Traffic Sign
- Drum
- 42" Channelizer
- Speed Feedback Sign
- Arrow Board
- Work Area

Where there is a lane line drop-off or rise, do not allow traffic to cross over the drop-off or rise, except for ramp locations where a BUMP (W8-1) sign is placed.

Lane line drop-offs greater than a nominal 4 inches are not allowed during non-working hours.

(1) Refer to SI-881 for sign details.

(2) Where side road speed limit is 40 mph or less, a distance of 200 feet is allowed.

(3) Place a ROAD WORK AHEAD sign on the opposite side of the intersection in a similar location.

(4) For roadways with a posted speed limit of 60 mph or greater before road work:

Place SPEED LIMIT 55 signs prior to the lane closure as shown.

When the length of closure is greater than 1 mile, install SPEED LIMIT 55 signs in the closed lane at 1-mile intervals.

Remove or cover all existing signs that conflict with 55 mph speed limit while 55 mph speed limit is in effect.

For traffic control zones lasting more than 4 hours, place a Speed Feedback Sign at the end of the merge taper.

(5) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION 15 4-18-23

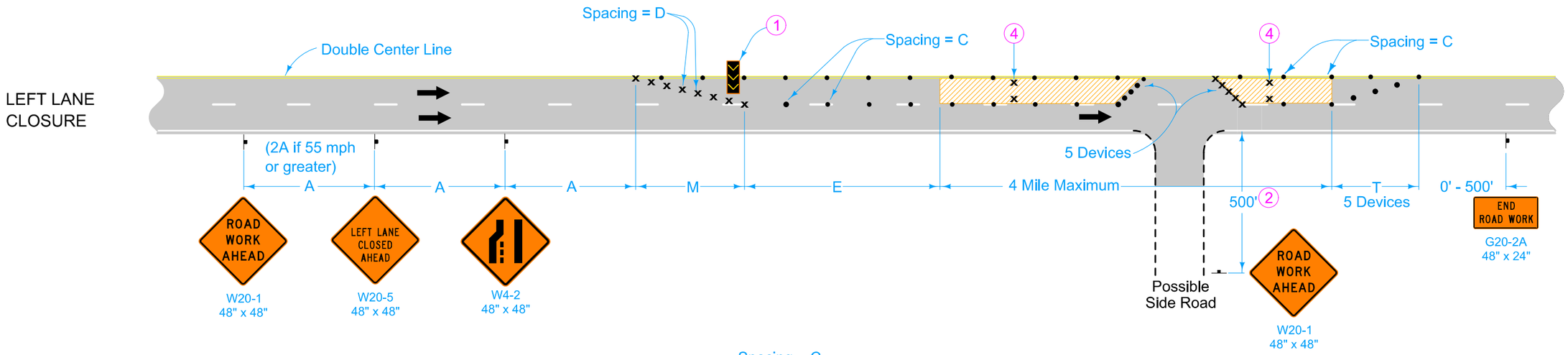
TC-418

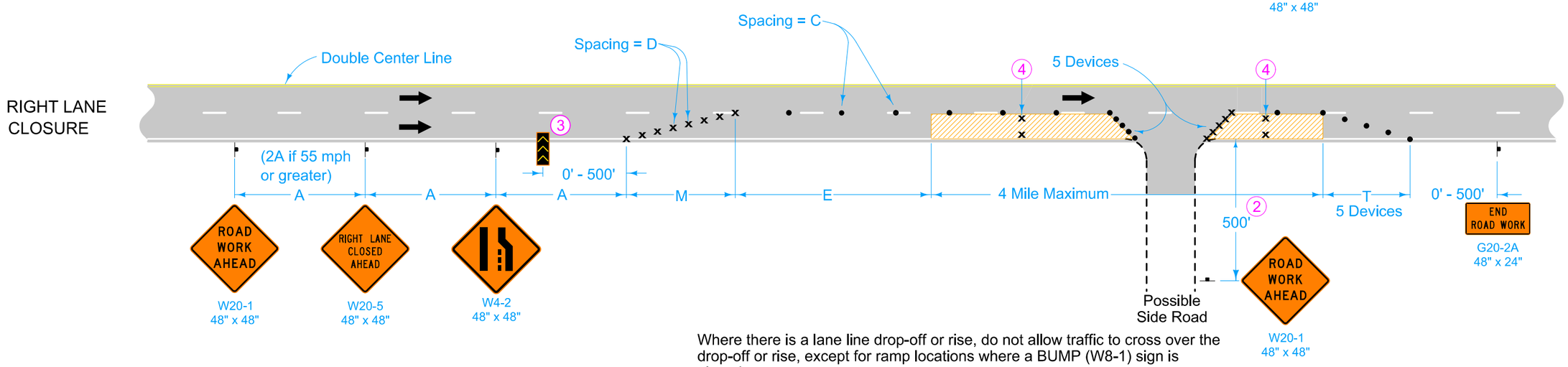
SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE ON DIVIDED HIGHWAY





LEGEND

- Traffic Sign
- Drum
- 42" Channelizer
- Arrow Board
- Work Area
- Direction of Traffic

SPEED LIMIT (mph)*	A	C	D	E	M	T
35 or less	250'	40'	35'	0'-200'	245'	50'
40	500'	80'	40'	0'-300'	320'	50'
45	700'	80'	45'	0'-400'	630'	100'
50	700'	80'	45'	400'	630'	100'
55 - 60	1000'	100'	55'	600'	770'	100'

* Speed Limit refers to regulatory speed limit before road work.

Where there is a lane line drop-off or rise, do not allow traffic to cross over the drop-off or rise, except for ramp locations where a BUMP (W8-1) sign is placed.

Lane line drop-offs greater than a nominal 4 inches are not allowed during non-working hours.

(1) Place arrow board within the closed lane behind the drums and as close to the beginning of the taper as practical.

(2) Where side road speed limit is 40 mph or less, a distance of 200 feet is allowed.

(3) When there is no shoulder, place arrow board within the closed lane behind the drums and as close to the beginning of the taper as practical.

(4) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations, in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

Possible Contract Item:

Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
9	4-18-23

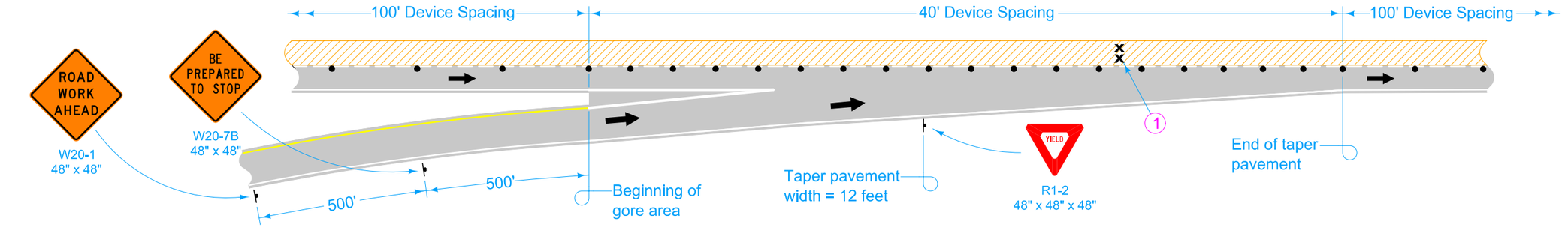
TC-419

SHEET 1 of 1

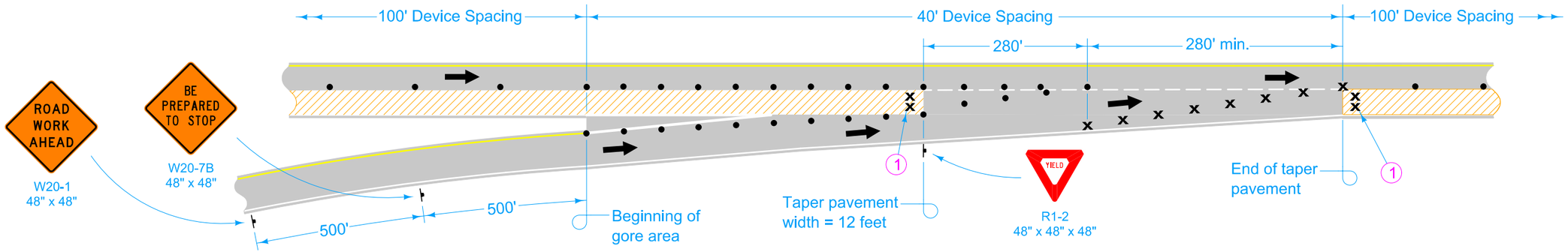
REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

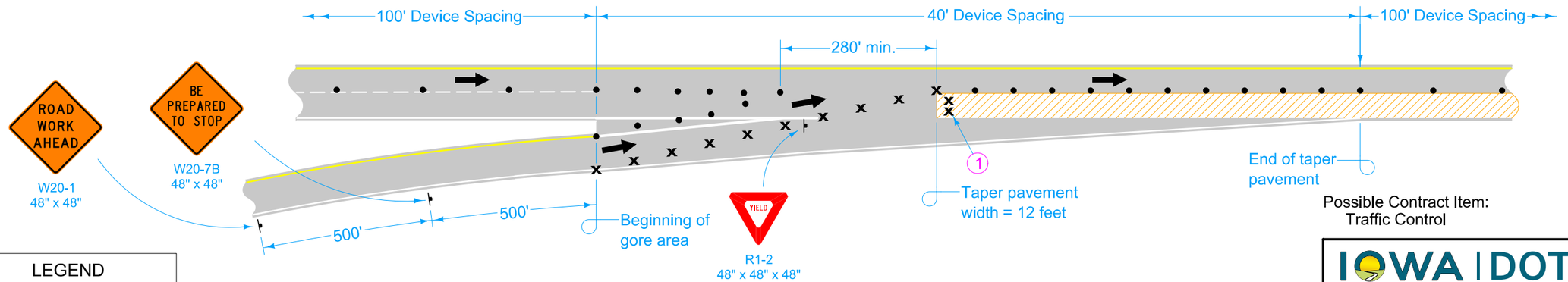
LANE CLOSURE ON UNDIVIDED HIGHWAY



LEFT LANE CLOSURE THROUGH ENTRANCE RAMP



RIGHT LANE CLOSURE THROUGH ENTRANCE RAMP



STAGING THROUGH ENTRANCE RAMP

LEGEND

- Drum
- Traffic Sign
- 42" Channelizer
- Direction of Traffic
- Work Area

(1) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	10-16-18

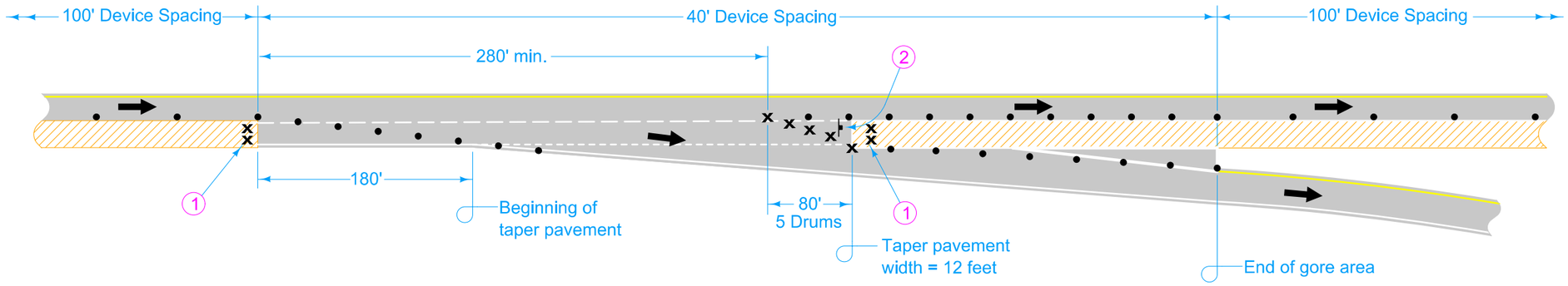
TC-420

SHEET 1 of 5

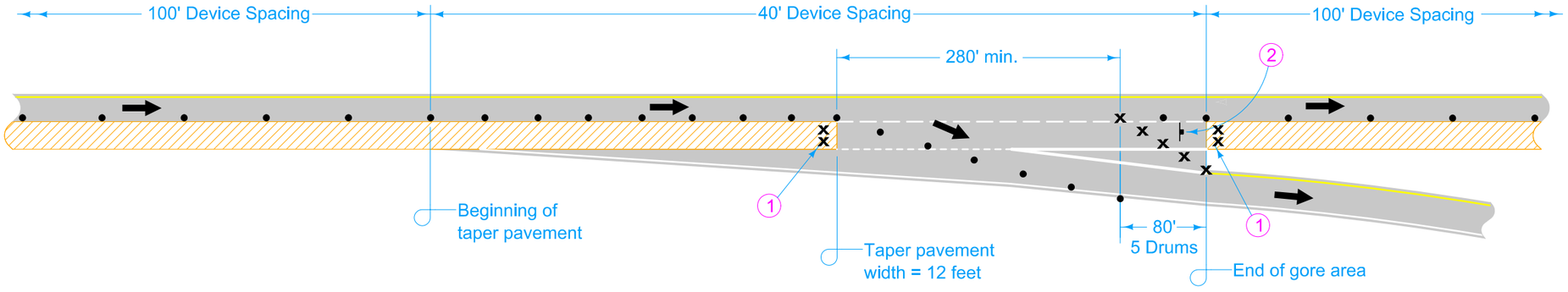
REVISIONS: Added drums in work area and modified circle notes. Added Type III Barricade to Legend on Sheet 4.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE AT RAMPS



RIGHT LANE CLOSURE THROUGH EXIT RAMP



STAGING THROUGH EXIT RAMP

LEGEND

- Drum
- Traffic Sign
- 42" Channelizer
- Direction of Traffic
- Work Area

(1) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

(2) Temporary EXIT sign, mounted so that bottom of sign is a minimum of 3 feet above pavement surface. If in place for more than one day, mount an Exit Number Panel with the proper exit number above the temporary EXIT sign. See SI-881 for details.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	10-16-18

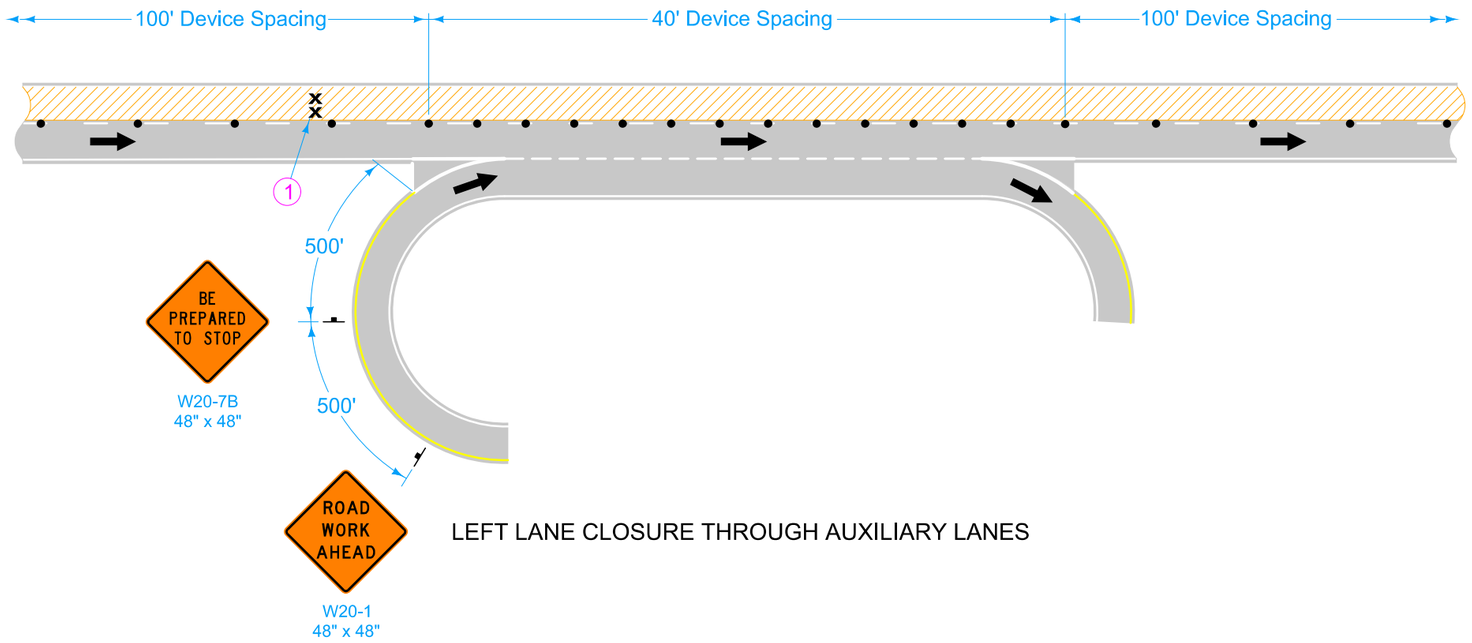
TC-420

SHEET 2 of 5

REVISIONS: Added drums in work area and modified circle notes. Added Type III Barricade to Legend on Sheet 4.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE AT RAMPS



LEFT LANE CLOSURE THROUGH AUXILIARY LANES

LEGEND

- Drum
- Traffic Sign
- 42" Channelizer
- Direction of Traffic
- Work Area

(1) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

IOWA DOT

STANDARD ROAD PLAN

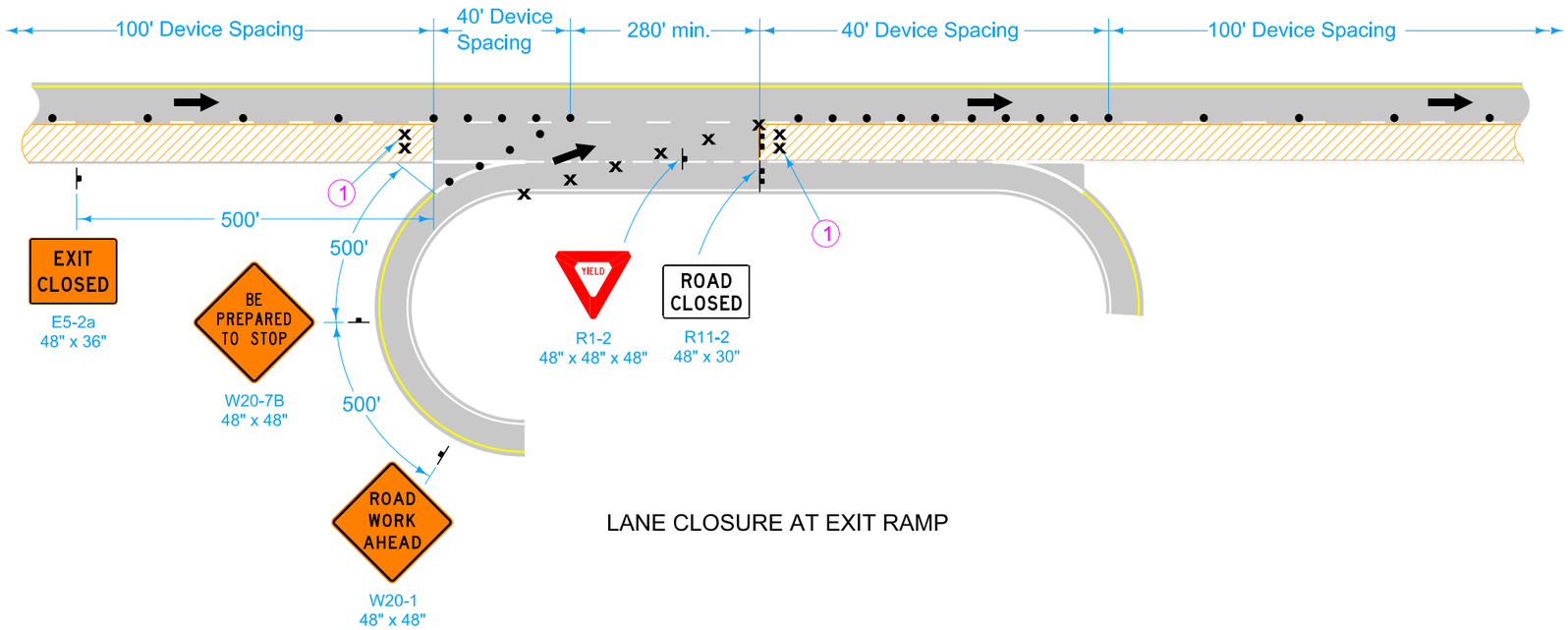
REVISION	
7	10-16-18

TC-420

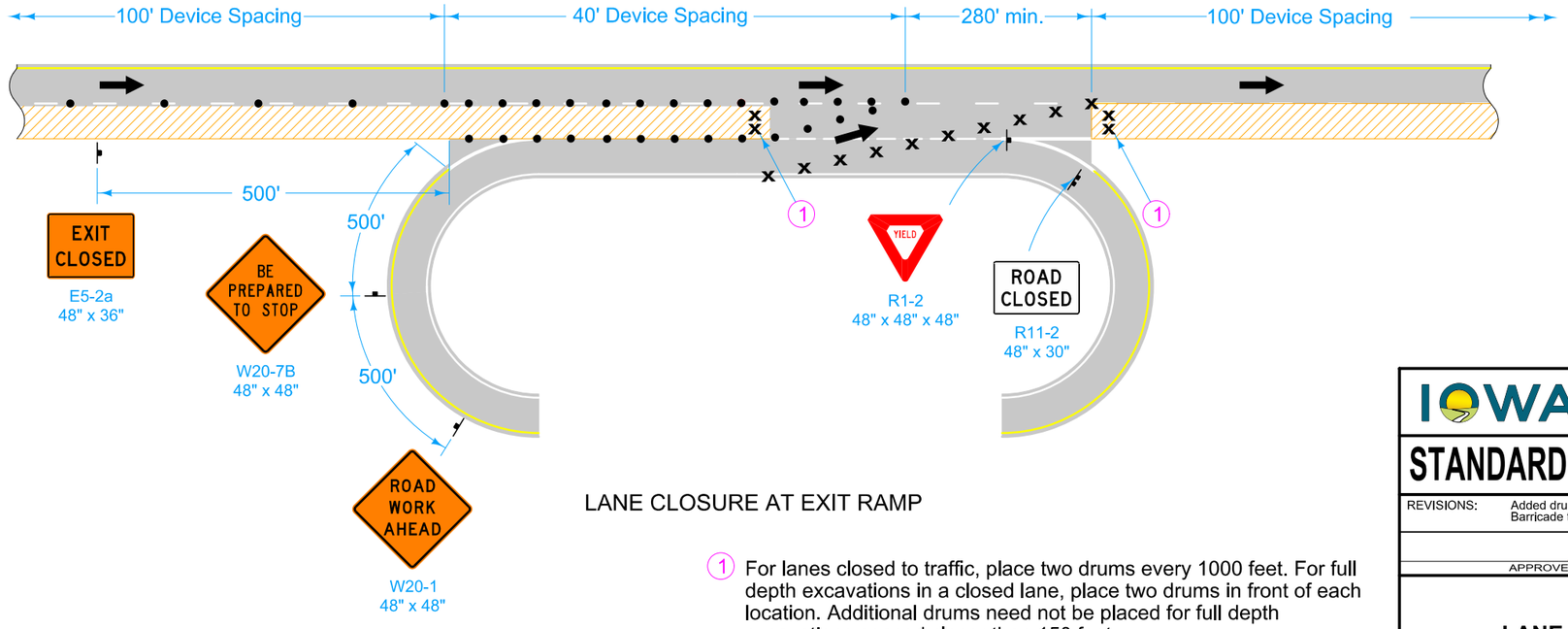
REVISIONS: Added drums in work area and modified circle notes. Added Type III Barricade to Legend on Sheet 4.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE AT RAMPS



LANE CLOSURE AT EXIT RAMP



LANE CLOSURE AT EXIT RAMP

LEGEND

- Type III Barricade
- Drum
- Traffic Sign
- 42" Channelizer
- Direction of Traffic
- Work Area

(1) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	10-16-18

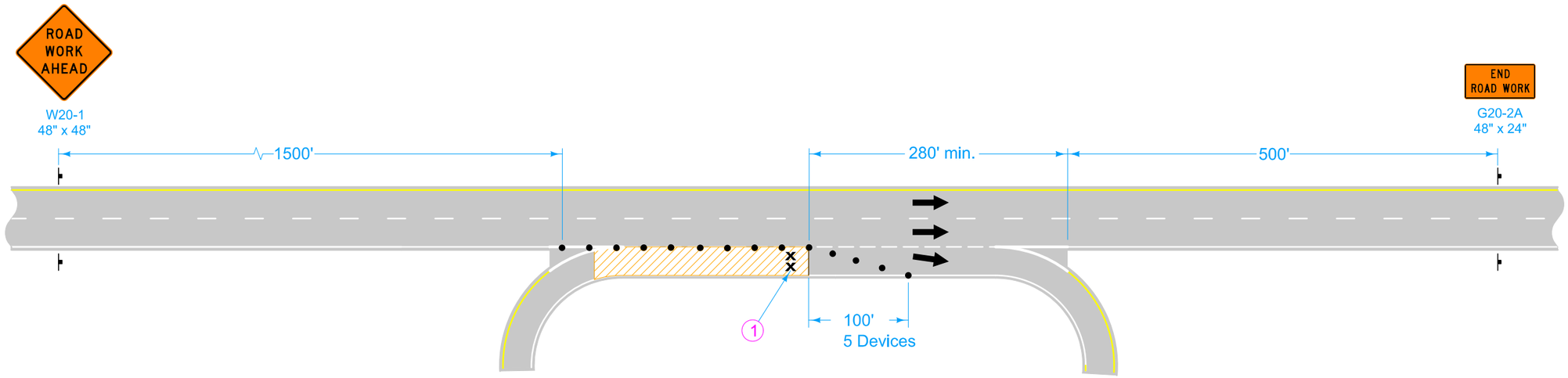
TC-420

SHEET 4 of 5

REVISIONS: Added drums in work area and modified circle notes. Added Type III Barricade to Legend on Sheet 4.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE AT RAMPS



LANE CLOSURE AT EXIT RAMP

LEGEND

- x — Drum
- Traffic Sign
- • — 42" Channelizer
- Direction of Traffic
- Work Area

(1) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	10-16-18

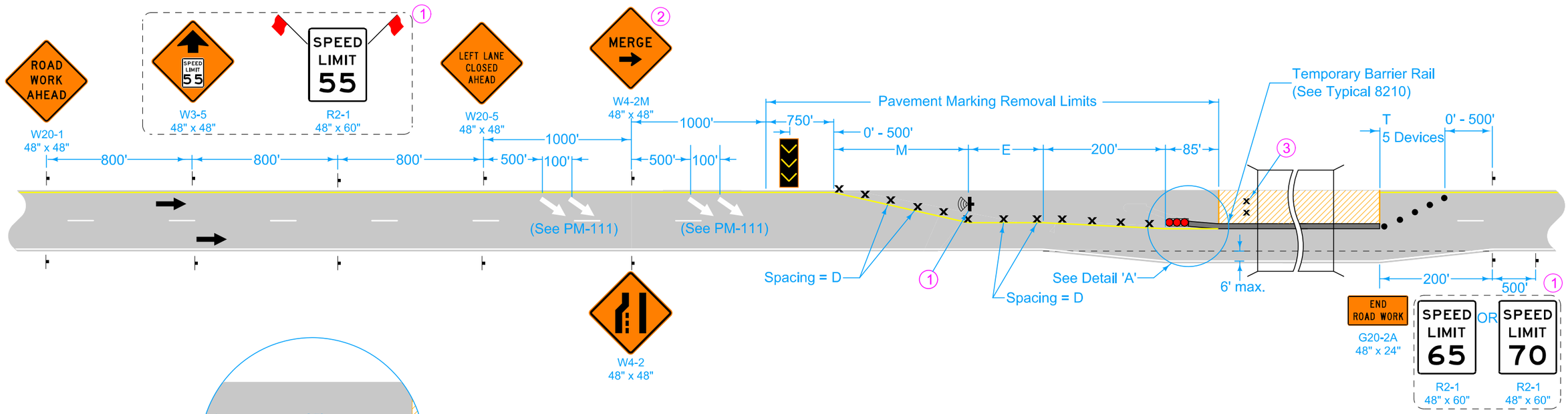
TC-420

SHEET 5 of 5

REVISIONS: Added drums in work area and modified circle notes. Added Type III Barricade to Legend on Sheet 4.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE AT RAMPS



DETAIL 'A'

SPEED LIMIT (mph)*	D	E	M	T
45 - 50	45'	300'	630'	100'
55 - 60	55'	400'	770'	100'
65 - 70	65'	500'	910'	100'

* Speed Limit refers to regulatory speed limit before road work.

Place Concrete Barrier Markers at 10 ft C/C on bridge rail.

LEGEND

- Traffic Sign
- Drum
- 42" Channelizer
- Speed Feedback Sign
- Arrow Board
- Temporary Crash Cushion
- Work Area
- Direction of Traffic

(1) For roadways with a posted speed limit of 60 mph or greater before road work:

Place SPEED LIMIT AHEAD sign and SPEED LIMIT 55 sign prior to the lane closure as shown. Place SPEED LIMIT65 or 70 beyond the work area as shown.

For traffic control zones lasting more than 4 hours, place a Speed Feedback Sign at the end of the merge taper.

(2) Refer to SI-881 for sign details.

(3) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

Possible Contract Items:
- Painted Symbols and Legends
- Pavement Marking Items
- Pavement Markings Removed
- Symbols and Legends Removed
- Temporary Barrier Rail
- Temporary Crash Cushions

Possible Tabulations:
- 108-22
- 108-29
- 108-30
- 108-33

IOWA DOT

STANDARD ROAD PLAN

REVISION 21 4-15-25

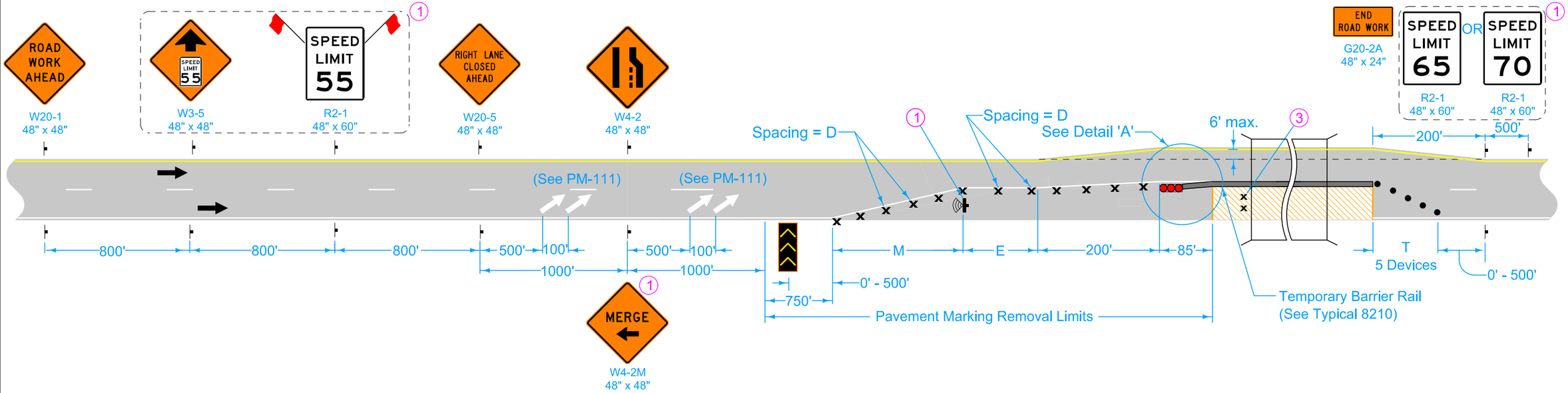
TC-421

SHEET 1 of 2

REVISIONS: Added 200' dimension to exit taper.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE WITH TBR



LEGEND

- Traffic Sign
- Drum
- 42" Channelizer
- Speed Feedback Sign
- Arrow Board
- Temporary Crash Cushion
- Work Area
- Direction of Traffic

(1) For roadways with a posted speed limit of 60 mph or greater before road work:

Place SPEED LIMIT AHEAD sign and SPEED LIMIT 55 sign prior to the lane closure as shown. Place SPEED LIMIT 65 or 70 beyond the work area as shown.

For traffic control zones lasting more than 4 hours, place a Speed Feedback Sign at the end of the merge taper.

(2) Refer to SI-881 for sign details.

(3) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
21	4-15-25

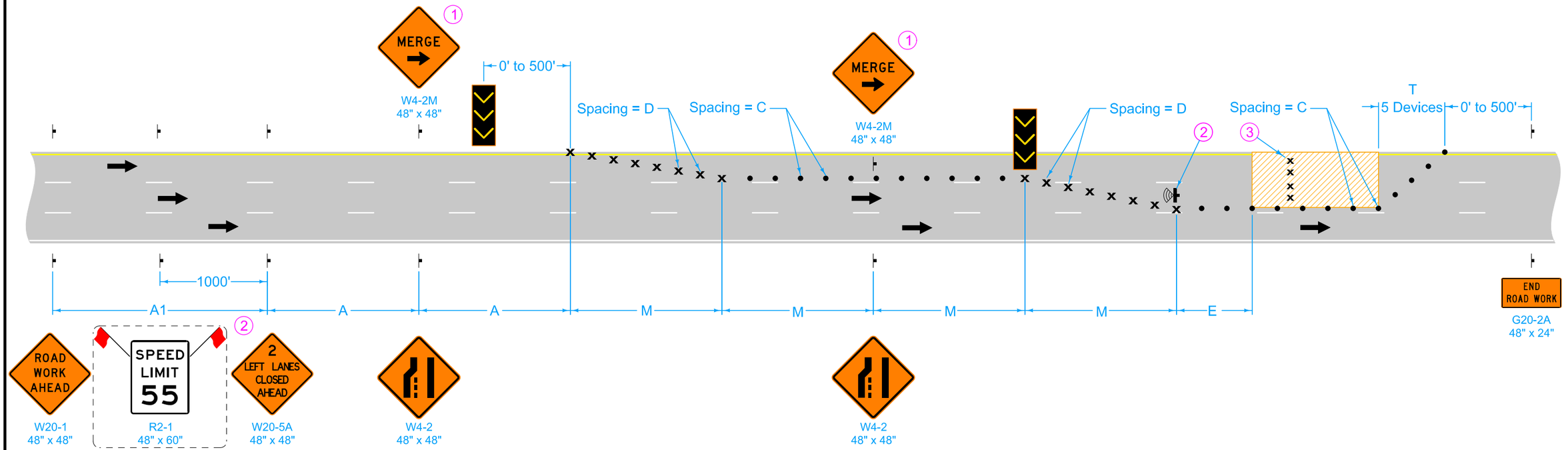
TC-421

SHEET 2 of 2

REVISIONS: Added 200' dimension to exit taper.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE WITH TBR



LEGEND

- Direction Of Traffic
- Traffic Sign
- Drum
- 42" Channelizer
- Speed Feedback Sign
- Arrow Board
- Work Area

SPEED LIMIT (mph)*	A	C	D	E	M	T	A1
35 or less	250'	40'	35'	0'-200'	245'	50'	250'
40	500'	80'	40'	0'-300'	320'	50'	500'
45	700'	80'	45'	0'-400'	630'	100'	700'
50	700'	80'	45'	400'	630'	100'	700'
55 - 60	1000'	100'	55'	600'	770'	100'	2000'
65 - 70	1000'	100'	65'	700'	910'	100'	2000'

* Speed Limit refers to regulatory speed limit before road work.

Where there is a lane line drop-off or rise, do not allow traffic to cross over the drop-off or rise, except for ramp locations where a BUMP (W8-1) sign is placed.

Lane line drop-offs greater than a nominal 4 inches are not allowed during non-working hours.

(1) Refer to SI-881 for sign details.

(2) For roadways with a posted speed limit of 60 mph or greater before road work:

Place SPEED LIMIT 55 signs prior to the lane closure as shown.

When the length of closure is greater than 1 mile, install SPEED LIMIT 55 signs in the closed lane at 1-mile intervals.

Remove or cover all existing signs that conflict with 55 mph speed limit while 55 mph speed limit is in effect.

For traffic control zones lasting more than 4 hours, place a Speed Feedback Sign at the end of the merge taper.

(3) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION
15 | 4-18-23

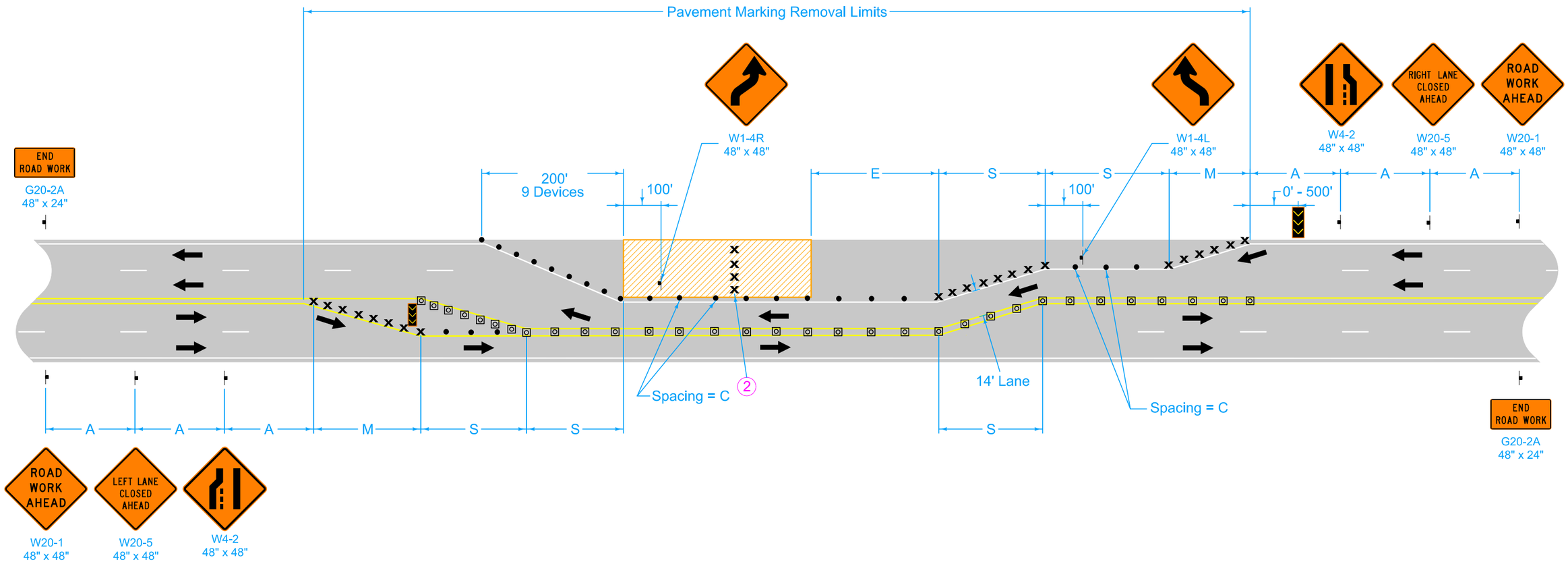
TC-422

SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

CLOSURE OF TWO ADJACENT LANES ON DIVIDED HIGHWAY



LEGEND

- Traffic Sign
- Drum (1)
- 42" Channelizer
- Arrow Board
- Work Area
- Direction of Traffic
- Temporary Lane Separator System (3)

SPEED LIMIT (mph)*	A	C	D	E	M	S
35 or less	250'	40'	35'	0'-200'	245'	140'
40	500'	80'	40'	0'-300'	320'	160'
45	700'	80'	45'	0'-400'	630'	315'
50	700'	80'	45'	400'	630'	315'
55 - 60	1000'	100'	55'	600'	770'	385'

* Speed Limit refers to regulatory speed limit before road work.

For traffic control zones in place for 3 calendar days or less, place arrow boards, devices and signs as shown. For traffic control zones in place for 4 calendar days or more, also remove permanent pavement markings and place temporary pavement markings as shown.

When this layout is used during nighttime hours and the width of existing traffic lanes is 11 feet or less, use tubular markers to separate two-way two-lane traffic.

(1) Spacing = D for drums placed in tapers.

(2) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

(3) For work zones in place more than 3 calendar days, use TLSS. For work zones in place for 3 calendar days or less, 42" channelizers spaced at 40" c/c may be substituted for TLSS.

Possible Contract Items:
- Pavement Marking Items
- Pavement Markings Removed
- Traffic Control
- Temporary Lane Separator System

Possible Tabulation:
- 108-22

IOWA DOT

STANDARD ROAD PLAN

REVISION
11 | 4-18-23

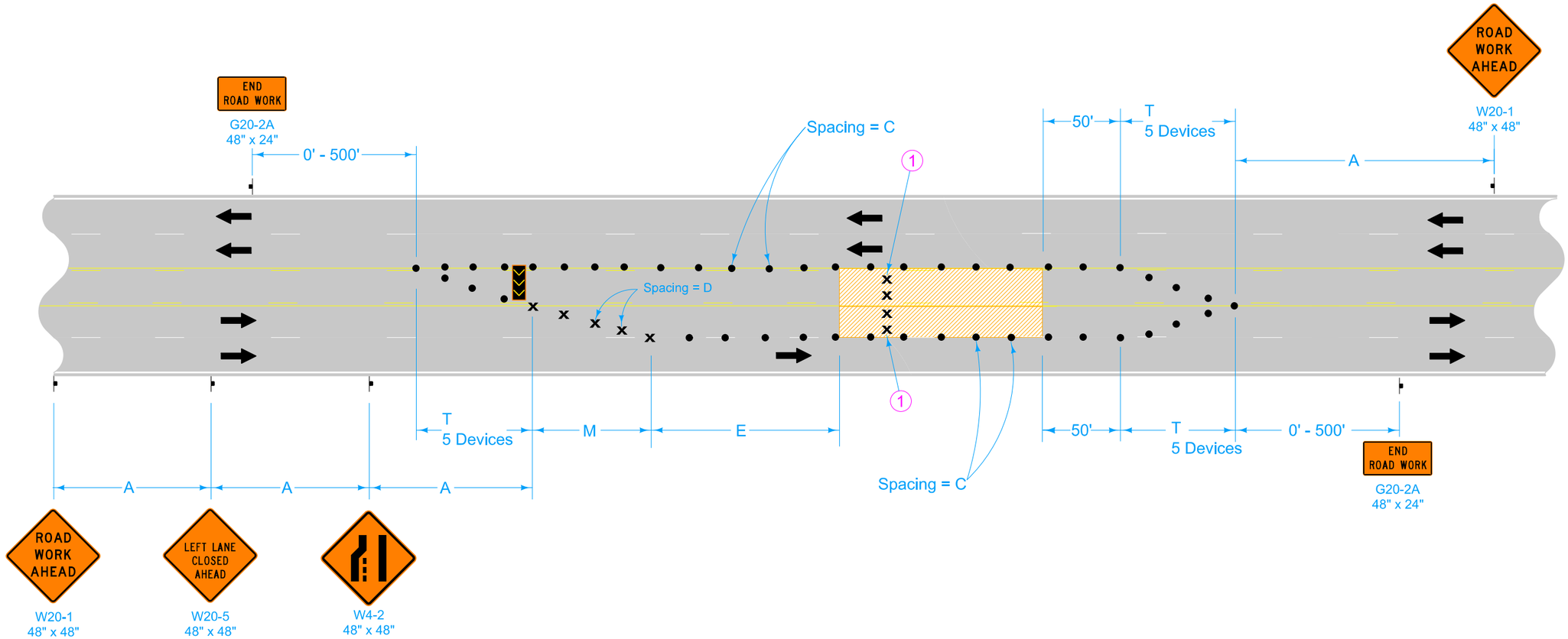
TC-423

SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

CLOSURE OF TWO ADJACENT LANES ON UNDIVIDED HIGHWAY



LEGEND

- 42" Channelizer
- Drum
- Traffic Sign
- Work Area
- Direction of Traffic
- Arrow Board

SPEED LIMIT (mph)*	A	C	D	E	M	T
35 or less	250'	40'	35'	0'-200'	245'	50'
40	500'	80'	40'	0'-300'	320'	50'
45	700'	80'	45'	0'-400'	630'	100'
50	700'	80'	45'	400'	630'	100'
55 - 60	1000'	100'	55'	600'	770'	100'

* Speed Limit refers to regulatory speed limit before road work.

(1) For lanes closed to traffic, place two drums every 1000 feet. For full depth excavations in a closed lane, place two drums in front of each location. Additional drums need not be placed for full depth excavations spaced closer than 150 feet.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	4-18-23

TC-429

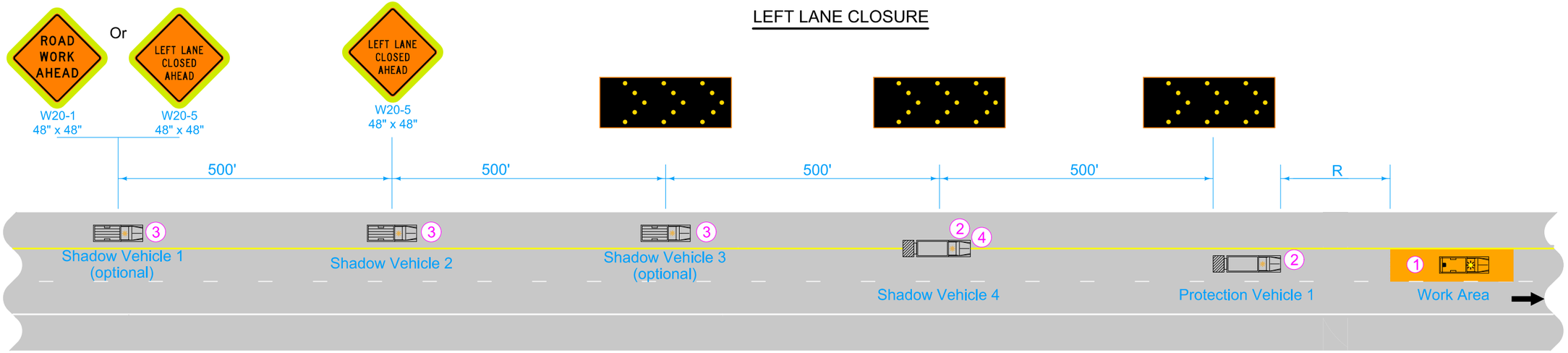
SHEET 1 of 1

REVISIONS: Added speed limit note.

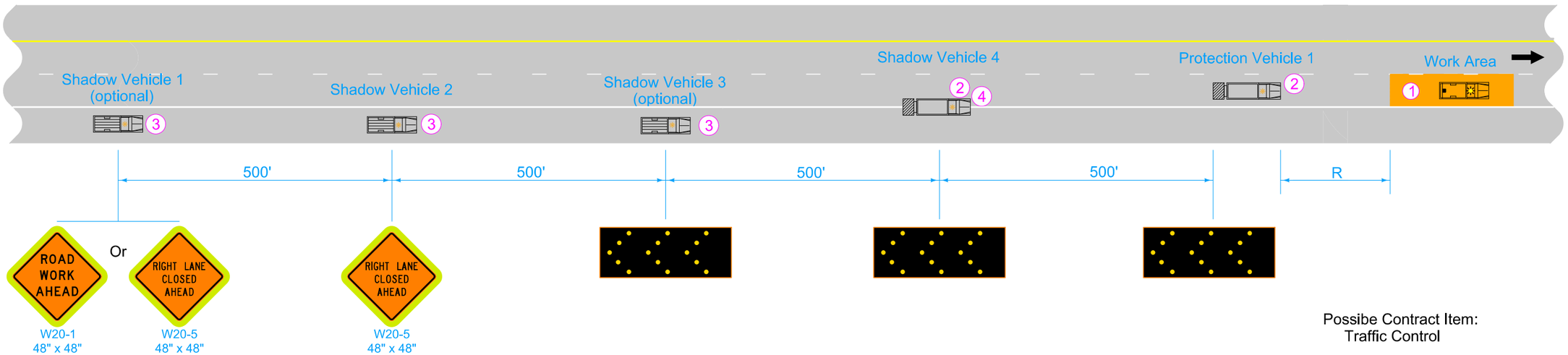
APPROVED BY DESIGN METHODS ENGINEER

CLOSURE OF CONTINUOUS TWO-WAY LEFT-TURN LANE AND ADJACENT LANE

55 MPH OR GREATER
LEFT LANE CLOSURE



RIGHT LANE CLOSURE



LEGEND

- Arrow Board
- Truck-Mounted Attenuator (TMA)
- Direction of Traffic
- Work Area

Equip all vehicles with an amber revolving light or amber strobe light. Fluorescent yellow green (FYG) sign background is required around all static signs.

This layout is intended for use with operations moving at least 500 feet within every 30-minute timeframe. For operations not meeting this criteria, use TC-415, TC-418, or TC-419.

Roll Ahead Distance (R)			
9900 to 22,000 lbs. GVW		Over 22,000 lbs. GVW	
Stationary	Moving 15 mph Max	Stationary	Moving 15 mph Max
200'	240'	160'	200'

(1) Keep work area as small as possible to safely accommodate the work taking place.

(2) Audible Warning System recommended. Iowa DOT maintenance crews see appendix A for times when an Audible Warning System is required.

(3) Shadow vehicles 1, 2, and 3 may encroach into the travel lane when the shoulder is too narrow to drive on. Iowa DOT maintenance operations will use dump trucks/heavy duty vehicles for shadow vehicles 1, 2, and 3 when shoulder width and strength allow.

(4) Adjust the lateral position of Shadow Vehicle 4 to create a taper unless doing so would negatively impact the work being performed.

Possibe Contract Item:
Traffic Control

IOWA DOT

REVISION
12 | 04-15-25

STANDARD ROAD PLAN

TC-431

SHEET 1 of 2

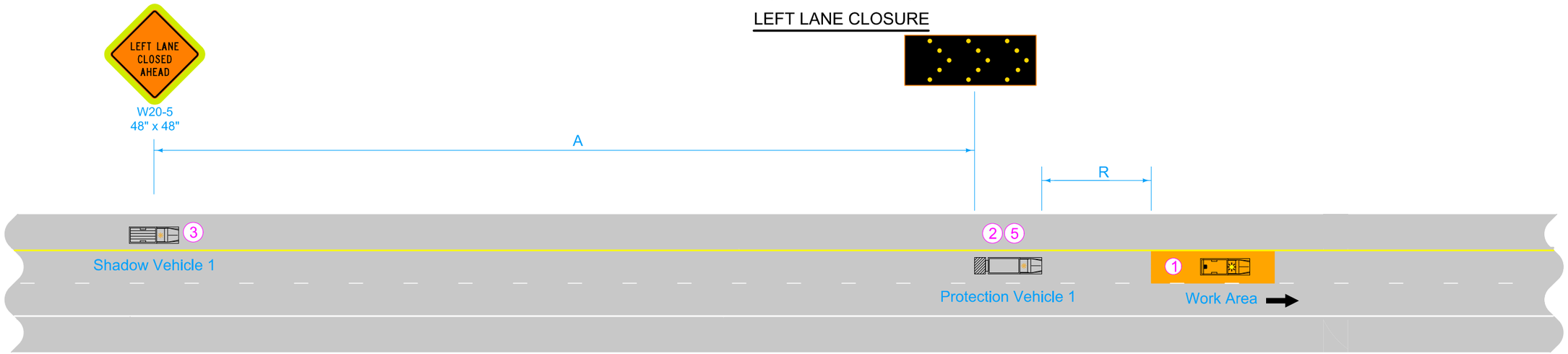
REVISIONS: Removed interim.

APPROVED BY DESIGN METHODS ENGINEER

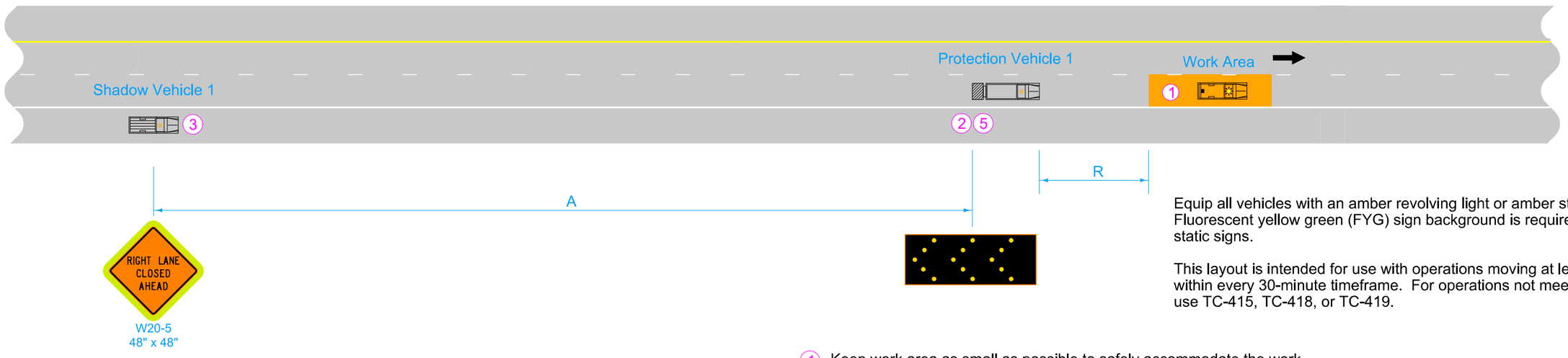
SLOW MOVING VEHICLE OPERATING IN THE TRAFFIC LANE

50 MPH OR LESS

LEFT LANE CLOSURE



RIGHT LANE CLOSURE



Equip all vehicles with an amber revolving light or amber strobe light. Fluorescent yellow green (FYG) sign background is required around all static signs.

This layout is intended for use with operations moving at least 500 feet within every 30-minute timeframe. For operations not meeting this criteria, use TC-415, TC-418, or TC-419.

LEGEND

- Arrow Board
- Truck-Mounted Attenuator (TMA)
- Direction of Traffic
- Work Area

SPEED LIMIT (mph)*	Vehicle Spacing	Roll Ahead Distance (R)			
		9900 to 22,000 lbs. GVW		Over 22,000 lbs. GVW	
	A	Stationary	Moving 15 mph Max	Stationary	Moving 15 mph Max
25-40	500'	100'	100'	75'	100'
45	750'	125'	175'	100'	150'
50	1500'	200'	240'	160'	200'

* Speed Limit refers to regulatory speed limit before road work.

(1) Keep work area as small as possible to safely accommodate the work taking place.

(2) Audible Warning System recommended. Iowa DOT Maintenance crews, see Appendix A for times when an Audible Warning System is required.

(3) Shadow vehicles 1 and 2 may encroach into the travel lane when the shoulder is too narrow to drive on. Iowa DOT maintenance operations will use dump trucks/heavy duty vehicles for shadow vehicles 1 and 2 when shoulder width and strength allow.

(5) TMA recommended for speed limits of 30 mph or more.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
12	04-15-25

TC-431

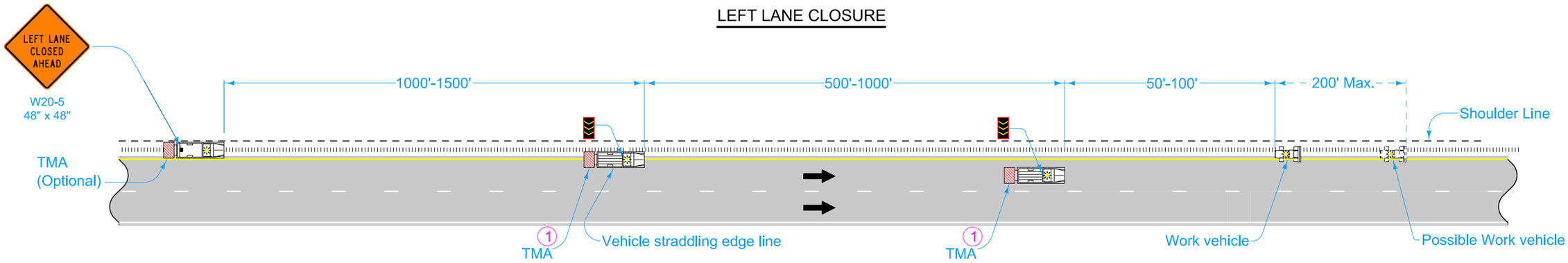
SHEET 2 of 2

REVISIONS: Removed interim.

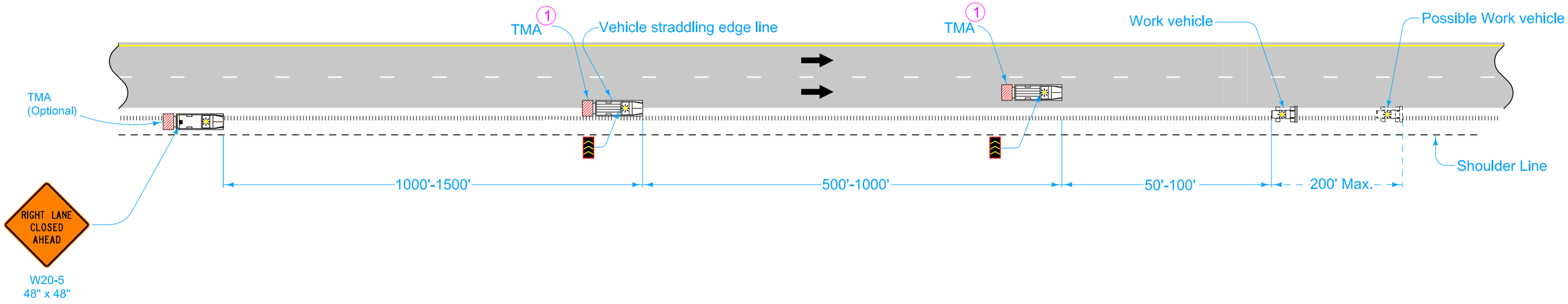
APPROVED BY DESIGN METHODS ENGINEER

SLOW MOVING VEHICLE OPERATING IN THE TRAFFIC LANE

LEFT LANE CLOSURE



RIGHT LANE CLOSURE



LEGEND

- Traffic Sign
- Arrow Board
- Truck Mounted Attenuator (TMA)
- Direction of Traffic

Equip all vehicles with an amber revolving light or amber strobe light.

When fog sealing the milled rumble strips, place a 48" X 48" FRESH OIL sign (W21-2) at the beginning of the work area. Place additional FRESH OIL signs after each intersection and periodically through the work area so that signs are no more than 2 miles apart.

Operators should adjust their spacing, as necessary, to keep adjacent vehicles within view.

(1) TMA required for speed limits of 55 mph or greater.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
5	10-17-17

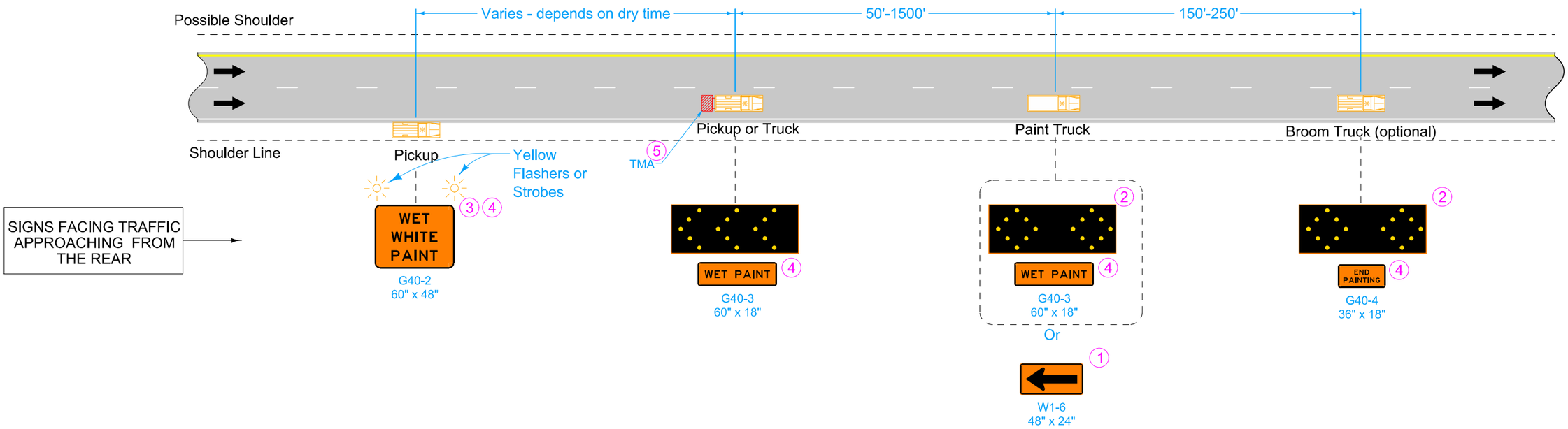
TC-432

SHEET 1 of 1

REVISIONS: Added Circle Note 1.

APPROVED BY DESIGN METHODS ENGINEER

SHOULDER RUMBLE STRIP OPERATIONS



OUTSIDE EDGELINE OR LANELINE - DIVIDED OR UNDIVIDED

LEGEND

- Direction of Traffic
- Truck-Mounted Attenuator (TMA)

Equip all vehicles with an amber revolving light or amber strobe light.

1. Optional Fluorescent Yellow Green (FYG) sign background may be used.
2. This arrow board may be operated in a four-corner caution mode.
3. A vehicle mounted Portable Dynamic Message Sign (PDMS) may be used in lieu of this sign.
4. Refer to SI-881 for sign details.
5. TMA required for speed limits of 55 mph or greater.

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION 7 10-17-17

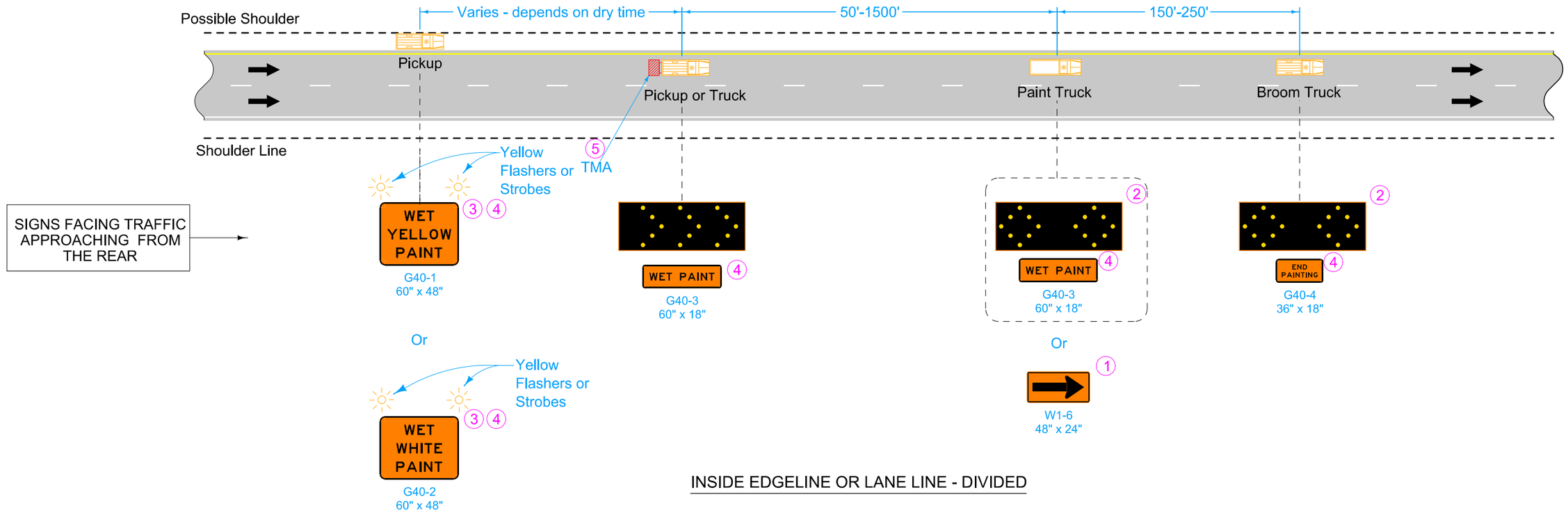
TC-433

SHEET 1 of 3

REVISIONS: Added Circle Note 5.

APPROVED BY DESIGN METHODS ENGINEER

PAVEMENT MARKING OPERATIONS



INSIDE EDGELINE OR LANE LINE - DIVIDED

LEGEND

- Direction of Traffic
- Truck-Mounted Attenuator (TMA)

1. Optional Fluorescent Yellow Green (FYG) sign background may be used.
2. This arrow board may be operated in a four-corner caution mode.
3. A vehicle mounted Portable Dynamic Message Sign (PDMS) may be used in lieu of this sign.
4. Refer to SI-881 for sign details.
5. TMA required for speed limits of 55 mph or greater.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	10-17-17

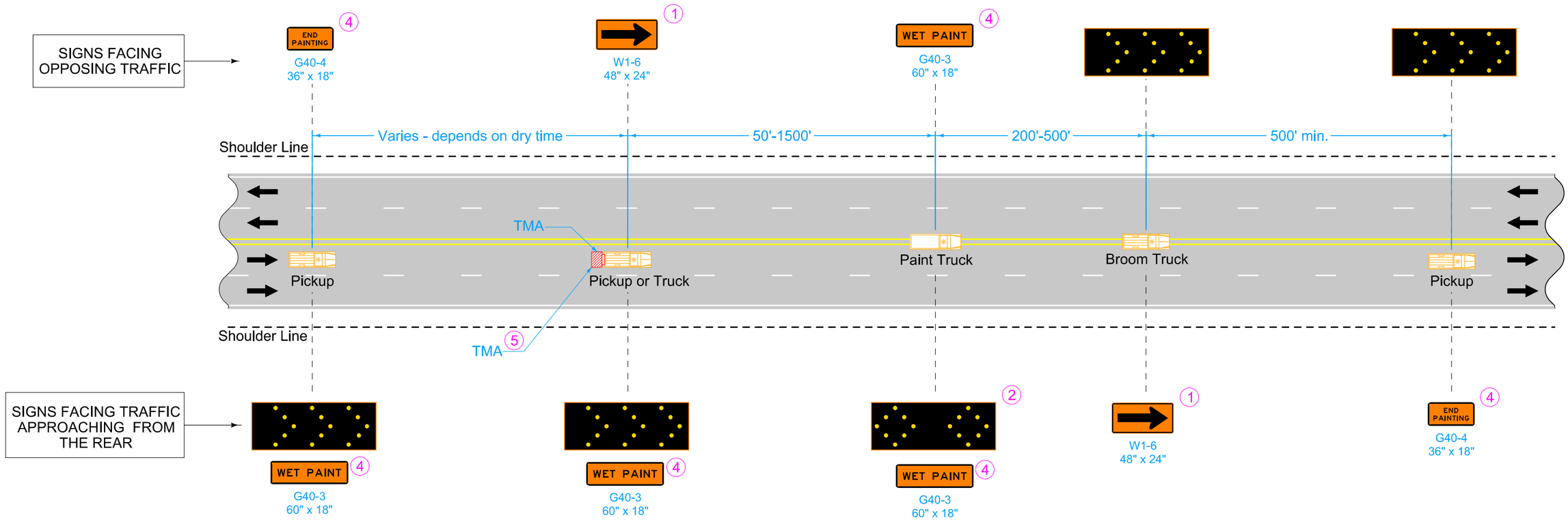
TC-433

SHEET 2 of 3

REVISIONS: Added Circle Note 5.

APPROVED BY DESIGN METHODS ENGINEER

PAVEMENT MARKING OPERATIONS



CENTERLINE - UNDIVIDED ONLY

LEGEND

- Direction of Traffic
- Truck-Mounted Attenuator (TMA)

1. Optional Fluorescent Yellow Green (FYG) sign background may be used.
2. This arrow board may be operated in a four-corner caution mode.
4. Refer to SI-881 for sign details.
5. TMA required for speed limits of 55 mph or greater.

IOWA DOT

STANDARD ROAD PLAN

REVISION	
7	10-17-17

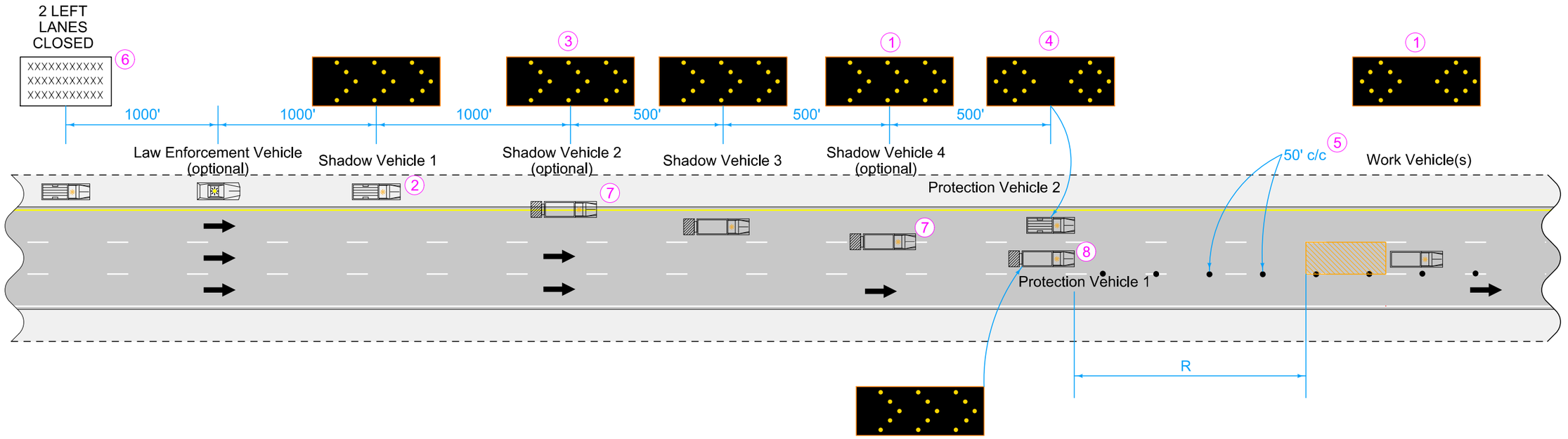
TC-433

SHEET 3 of 3

REVISIONS: Added Circle Note 5.

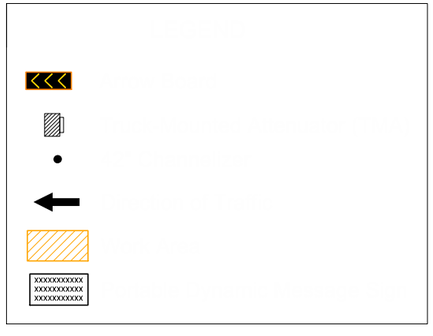
APPROVED BY DESIGN METHODS ENGINEER

PAVEMENT MARKING OPERATIONS



SPEED LIMIT (mph)*	Roll Ahead Distance (R)			
	9900 to 22,000 lbs. GVW		Over 22,000 lbs. GVW	
	Stationary	Moving 15 mph Max	Stationary	Moving 15 mph Max
50 or greater	200'	240'	160'	200'

* Speed Limit refers to regulatory speed limit before road work.



For lane closures longer than one hour at a location, use TC-422.

On roadways with 3 lanes in each direction, close the left lane and the center lane to avoid conflicts with right side ramps. Lane closure pairings should be adjusted to fit site conditions.

On roadways with four lanes in each direction, close the left and left center lanes together and the right and right center lanes together.

Consider ramps closures when closing lanes adjacent to ramps.

1. Arrow boards are optional
2. Shadow vehicle 1 may be omitted when the shoulder is too narrow to drive on
3. Arrow board optional unless shadow vehicle 1 is omitted
4. Arrow board optional unless shadow vehicle 4 is omitted
5. Channelizing devices may be omitted for stops not exceeding 15 minutes
6. Truck-mounted or mini PDMS may be used in lieu of a full-sized PDMS
7. Audible warning system recommended
8. Audible warning system recommended if optional shadow vehicles 2 and 4 are omitted

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
1	4-18-23

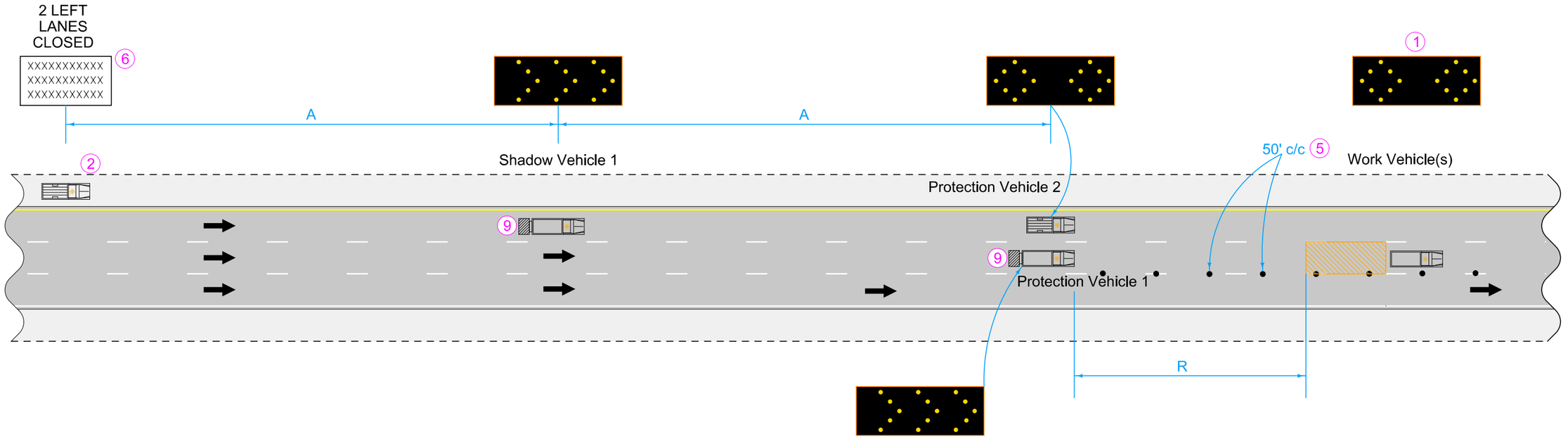
TC-435

SHEET 1 of 2

REVISIONS: Added speed limit note.

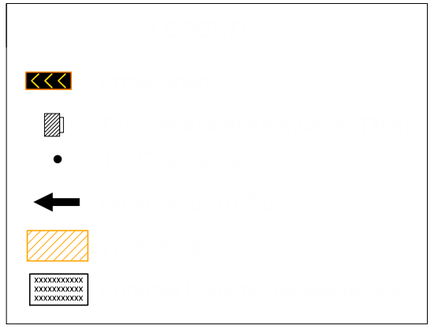
APPROVED BY DESIGN METHODS ENGINEER

MULTI-LANE CLOSURE FOR MOBILE OPERATION
50 mph or greater



SPEED LIMIT (mph)*	Vehicle Spacing A	Roll Ahead Distance (R)			
		9900 to 22,000 lbs. GVW		Over 22,000 lbs. GVW	
		Stationary	Moving 15 mph Max	Stationary	Moving 15 mph Max
25-40	250'	100'	100'	75'	100'
45	500'	125'	175'	100'	150'

* Speed Limit refers to regulatory speed limit before road work.



For lane closures longer than one hour at a location, use TC-422.

On roadways with 3 lanes in each direction, close the left lane and the center lane to avoid conflicts with right side ramps. Lane closure pairings should be adjusted to fit site conditions.

On roadways with four lanes in each direction, close the left and left center lanes together and the right and right center lanes together.

(1) Arrow boards are optional

(2) Shadow vehicle 1 may be omitted when the shoulder is too narrow to drive on

(5) Channelizing devices may be omitted for stops not exceeding 15 minutes

(6) Truck-mounted or mini PDMS may be used in lieu of a full-sized PDMS

(9) TMA are optional for speeds of 30 mph or less

Possible Contract Item:
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
1	4-18-23

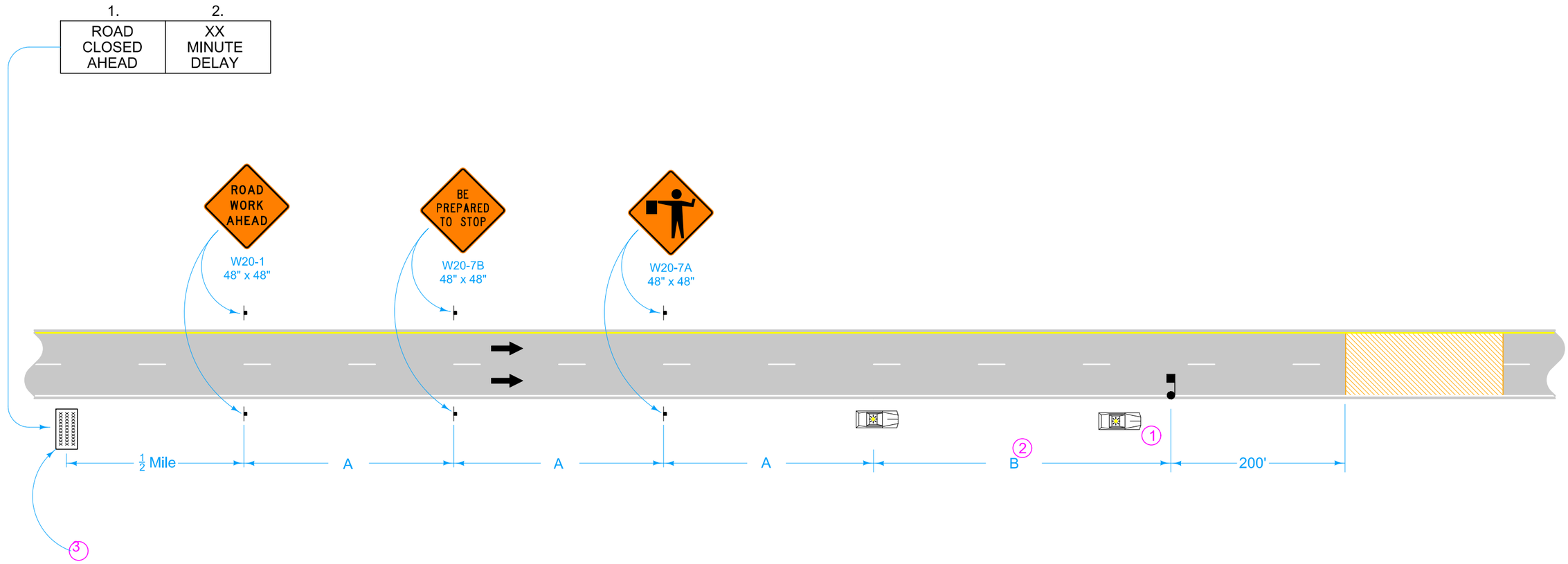
TC-435

SHEET 2 of 2

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

MULTI-LANE CLOSURE FOR MOBILE OPERATION 45 mph or less



LEGEND

- Traffic Sign
- Law Enforcement Vehicle
- Flagger
- Portable Dynamic Message Sign
- Work Area
- Direction of Traffic

SPEED LIMIT (mph)*	A	B
35 or less	250'	250'
40 - 45	350'	350'
50 or greater	1000'	2500'

* Speed Limit refers to regulatory speed limit before road work.

This layout is intended for a preplanned closure of 20 minutes or less.

1. A vehicle with an amber revolving light or amber strobe light may be substituted for leading law enforcement vehicle.
2. This distance may be increased to provide adequate storage for stopped vehicles.
3. Optional for speed limits less than 55 mph.

Possible Contract Items:

Flaggers
Portable Dynamic Message Sign
Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
8	4-18-23

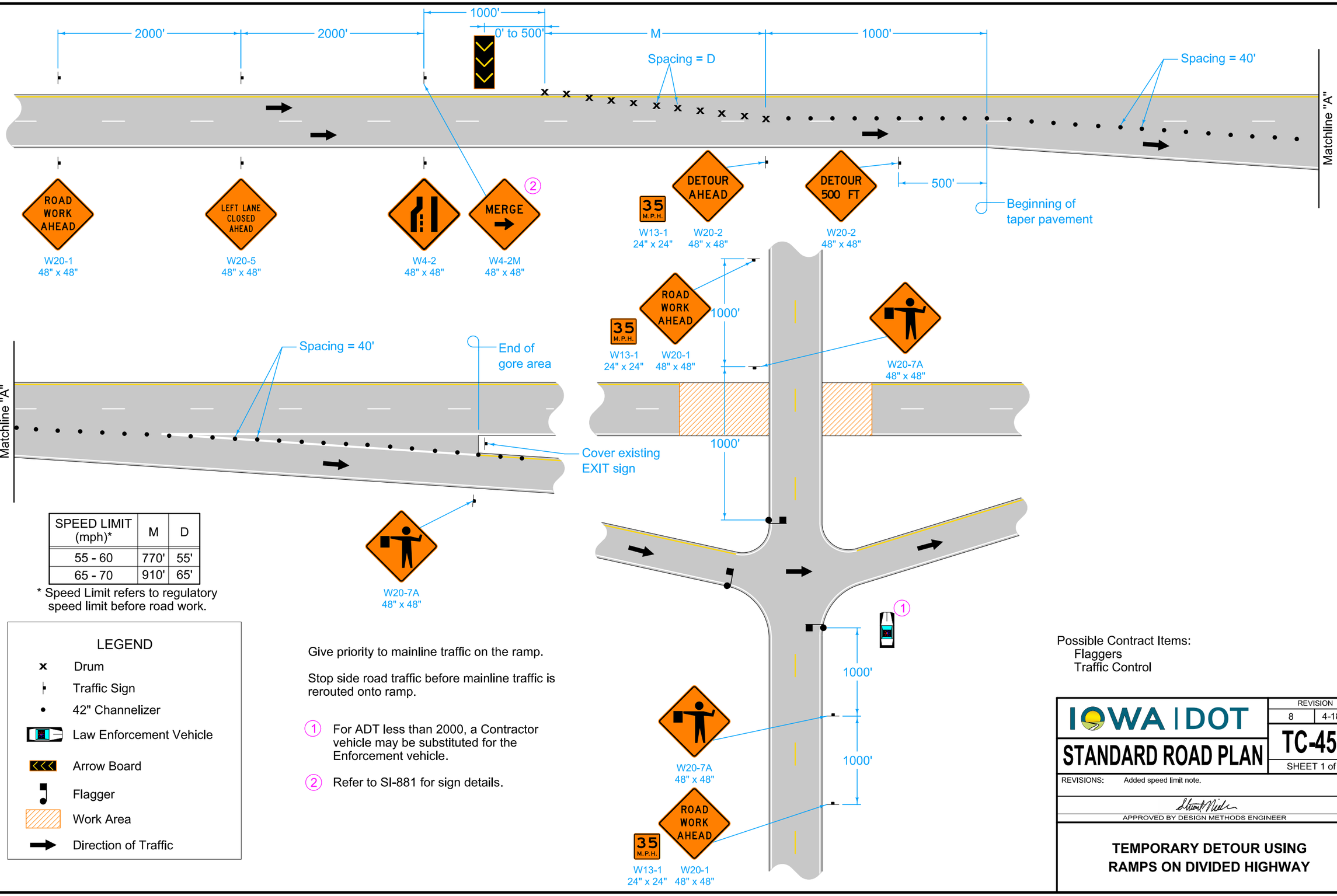
TC-451

SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

TEMPORARY ROAD CLOSURE ON DIVIDED HIGHWAY



SPEED LIMIT (mph)*	M	D
55 - 60	770'	55'
65 - 70	910'	65'

* Speed Limit refers to regulatory speed limit before road work.

LEGEND

- Drum
- Traffic Sign
- 42" Channelizer
- Law Enforcement Vehicle
- Arrow Board
- Flagger
- Work Area
- Direction of Traffic

Give priority to mainline traffic on the ramp.

Stop side road traffic before mainline traffic is rerouted onto ramp.

(1) For ADT less than 2000, a Contractor vehicle may be substituted for the Enforcement vehicle.

(2) Refer to SI-881 for sign details.

Possible Contract Items:
- Flaggers
- Traffic Control

IOWA DOT

STANDARD ROAD PLAN

REVISION	
8	4-18-23

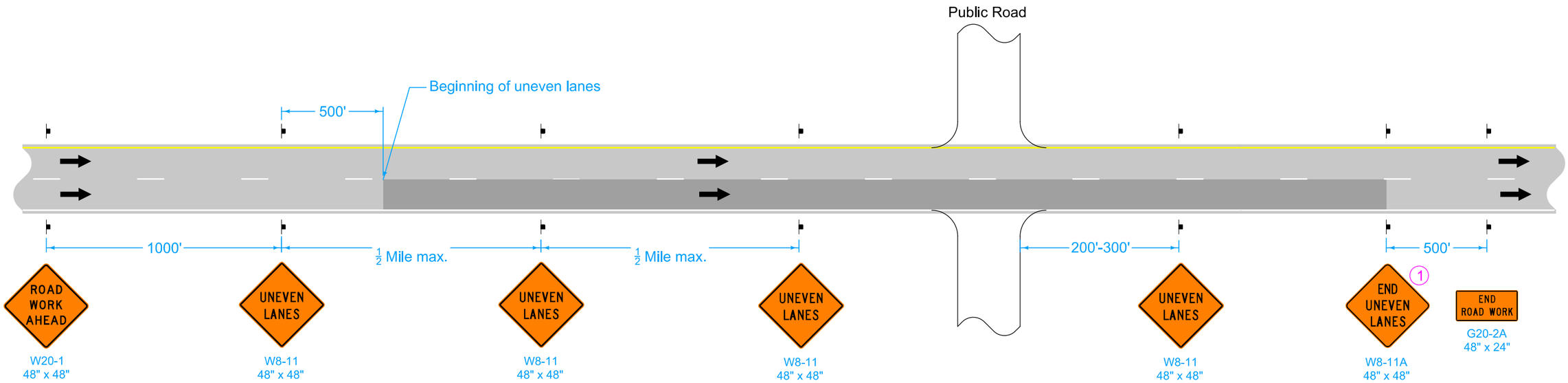
TC-454

SHEET 1 of 1

REVISIONS: Added speed limit note.

APPROVED BY DESIGN METHODS ENGINEER

TEMPORARY DETOUR USING RAMPS ON DIVIDED HIGHWAY



LEGEND

Direction of Traffic

Traffic Sign

(1) Refer to SI-881 for sign details.

Possible Contract Items:
- Pavement Marking Items
- Traffic Control

Possible Tabulation:
- 108-22

IOWA DOT

STANDARD ROAD PLAN

REVISION	
2	04-19-22

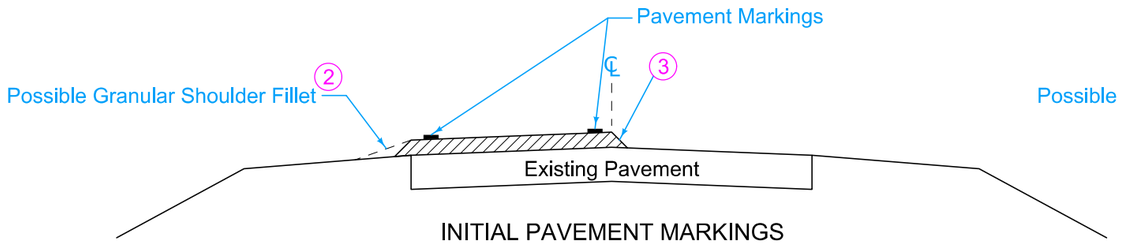
TC-482

SHEET 1 of 2

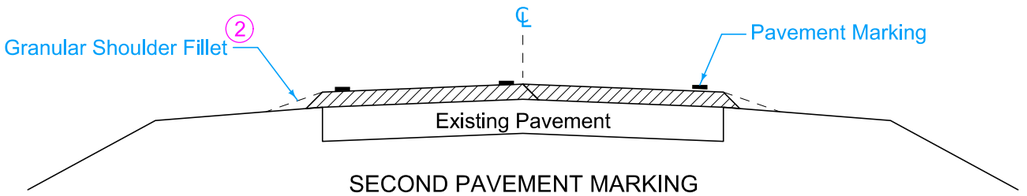
REVISIONS: Added public side road.

APPROVED BY DESIGN METHODS ENGINEER

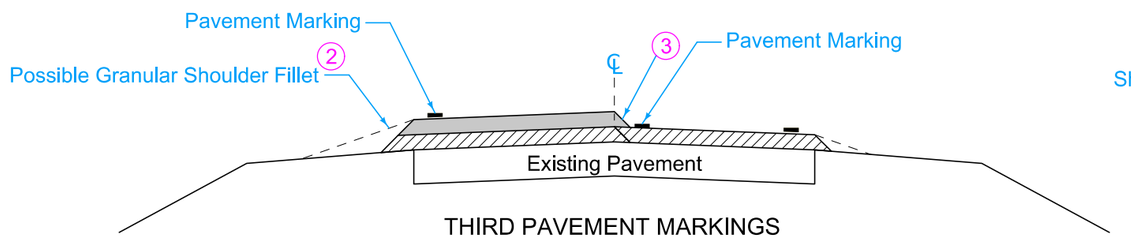
UNEVEN LANES



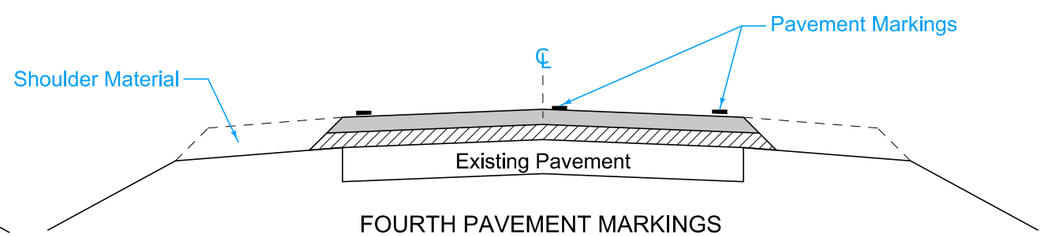
INITIAL PAVEMENT MARKINGS



SECOND PAVEMENT MARKING



THIRD PAVEMENT MARKINGS



FOURTH PAVEMENT MARKINGS

PAVEMENT MARKING SEQUENCE

LEGEND

Surface Course

Intermediate Course

(2) Shoulder Fillet: Refer to Section 1107 of the Standard Specifications and Safety Edge specifications.

(3) Centerline fillet may be notched wedge, Safety Edge, or a temporary 3:1 HMA fillet.

IOWA DOT

STANDARD ROAD PLAN

REVISION 2 04-19-22

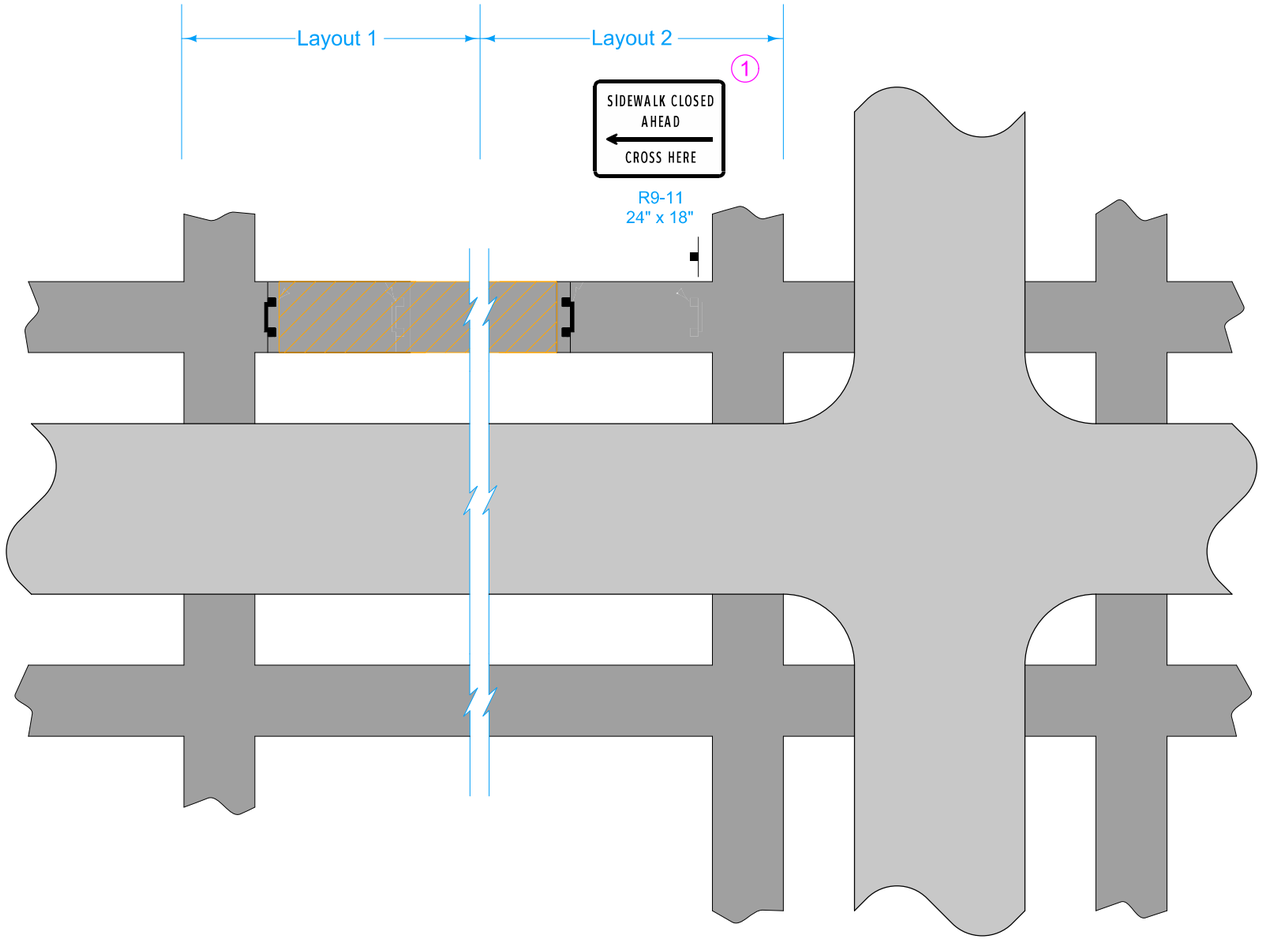
TC-482

SHEET 2 of 2

REVISIONS: Added public side road.

APPROVED BY DESIGN METHODS ENGINEER

UNEVEN LANES



1 Omit "SIDEWALK CLOSED AHEAD CROSS HERE" (R9-11) sign when closure is at sidewalk intersection as shown in layout 1.

Possible Contract Item:
Traffic Control

Possible Tabulation:
113-2

LEGEND

- Roadway
- Sidewalk
- Sign
- Pedestrian Path Closure
- Work Area

MID-BLOCK CLOSURE

IOWA DOT

STANDARD ROAD PLAN

REVISION	
1	10-15-19

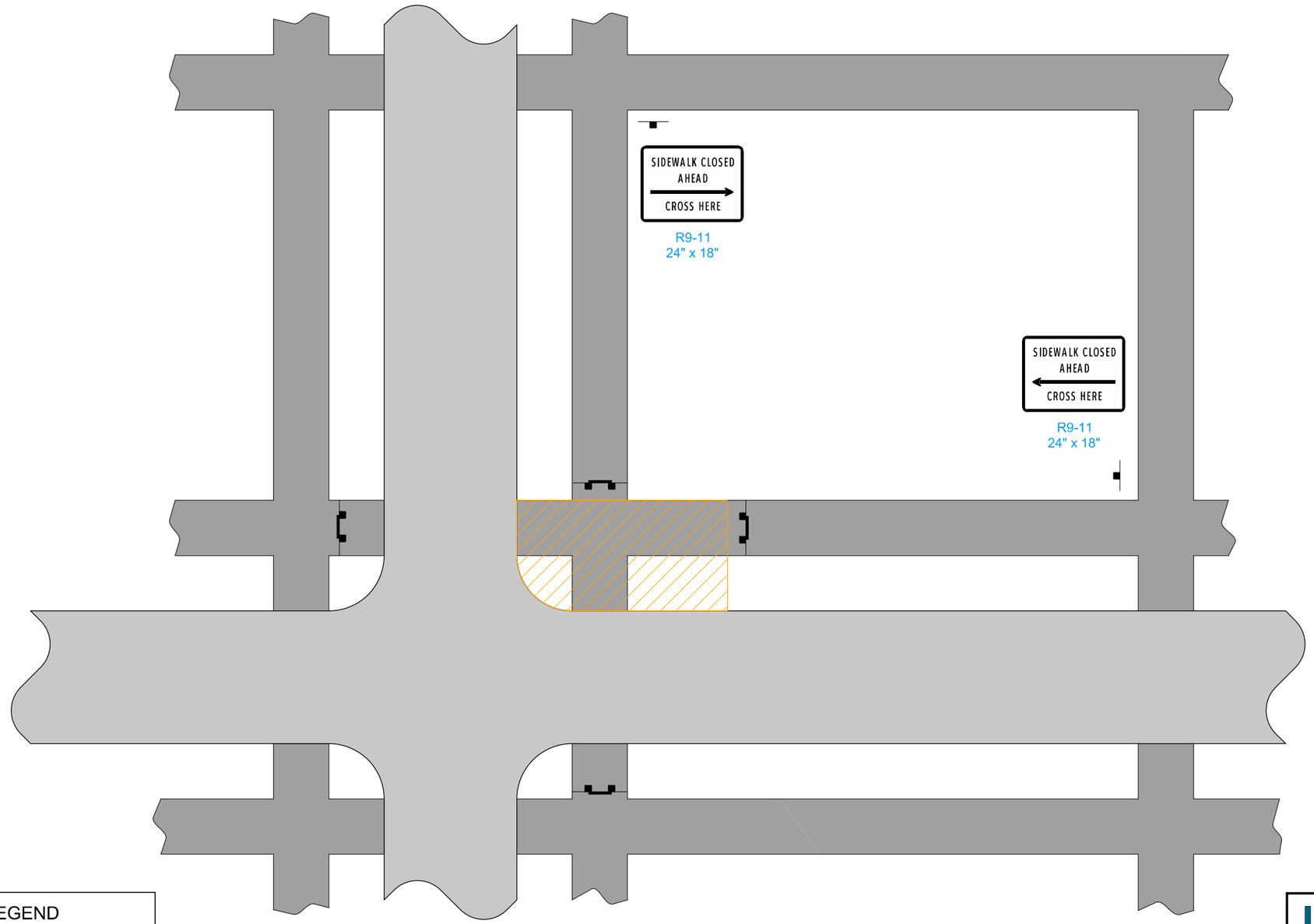
TC-601

SHEET 1 of 2

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

PEDESTRIAN DETOUR



LEGEND

- Roadway
- Sidewalk
- Sign
- Pedestrian Path Closure
- Work Area

CLOSURE AT INTERSECTION

IOWA | DOT

STANDARD ROAD PLAN

REVISION	
1	10-15-19

TC-601

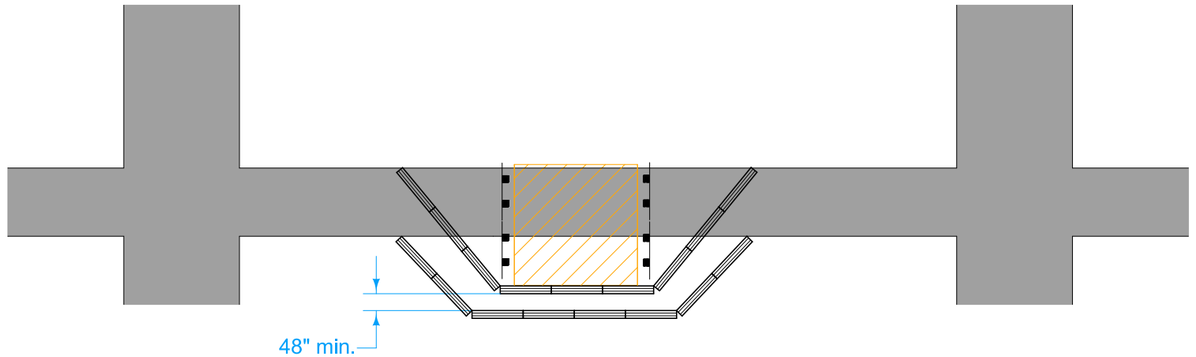
SHEET 2 of 2

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

PEDESTRIAN DETOUR

Acceptable materials and construction method for Pedestrian Channelizer will be defined in the contract documents. When Temporary Barrier Rail is specified as the Pedestrian Channelizer, Section 2528 of the Standard Specifications applies. For other types of Pedestrian Channelizers, the length of Pedestrian Channelizer installed will be measured in feet. Payment will be at the contract price per linear foot.



LEGEND

- Sidewalk
- Direction of Traffic
- Work Area
- Type III Barricade
- Pedestrian Channelizer

Possible Contract Items:

Pedestrian Channelizer
Temporary Barrier Rail
Maintenance of Pedestrian Traffic

Possible Tabulation:

113-3

IOWA DOT

STANDARD ROAD PLAN

REVISION	
1	10-15-19

TC-602

SHEET 1 of 1

REVISIONS: New logo.

APPROVED BY DESIGN METHODS ENGINEER

SIDEWALK DIVERSION