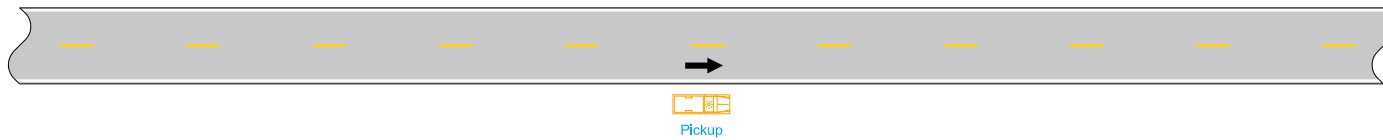


Do not allow work to interfere with the flow of traffic.

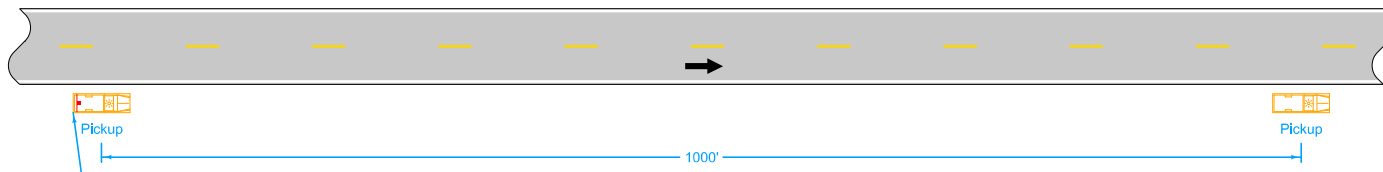
When parked, locate vehicles as far from the open traffic lane as possible. Entrances and driveways should be used whenever appropriate.

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

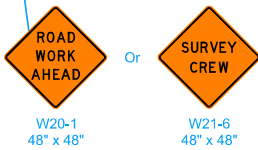
① For work lasting longer than one hour, refer to [TC-202](#) or [TC-402](#).



VEHICLE STOPPED ON SHOULDER FOR LESS THAN ONE HOUR ①



SLOW-MOVING OPERATION



| LEGEND | |
|--------|----------------------|
| | Traffic Sign |
| | Direction of Traffic |

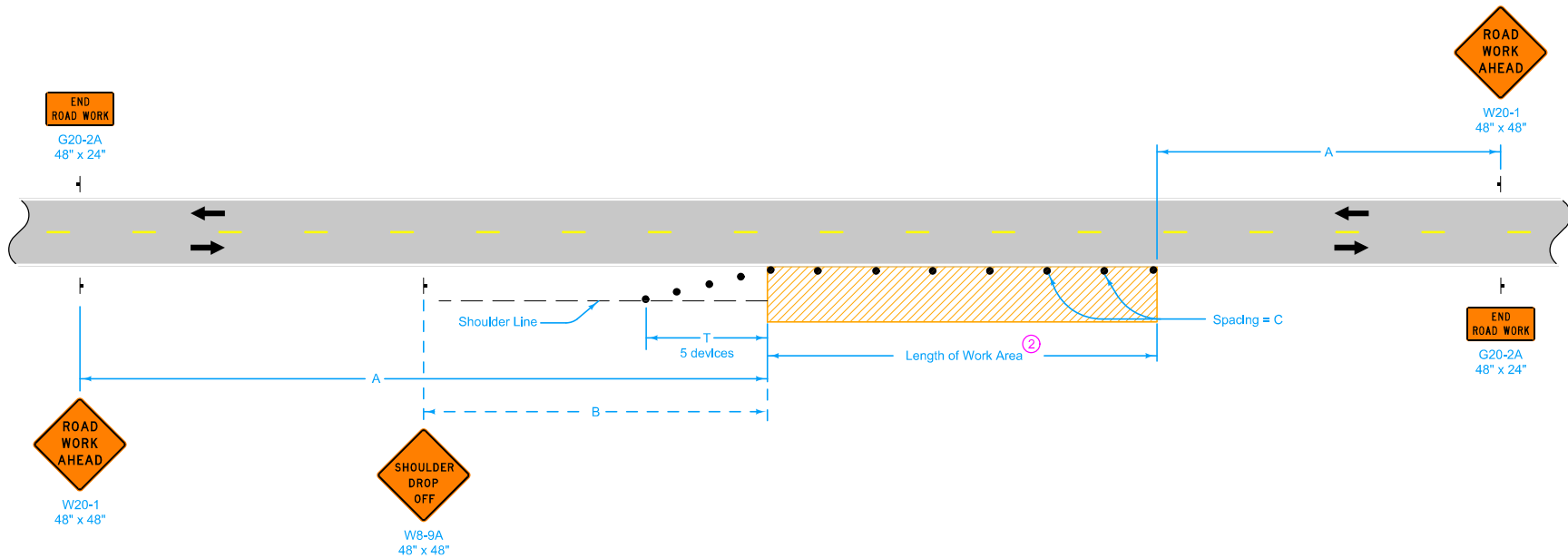
Possible Contract Item:
Traffic Control

| | |
|---------------------------|--------------|
| | REVISION |
| | 2 04-16-13 |
| STANDARD ROAD PLAN | TC-1 |
| SHEET 1 of 1 | |

REVISIONS: Modified note concerning amber Vehicle Warning Light.

Deanna Maifield
APPROVED BY DESIGN METHODS ENGINEER

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



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.L2 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.

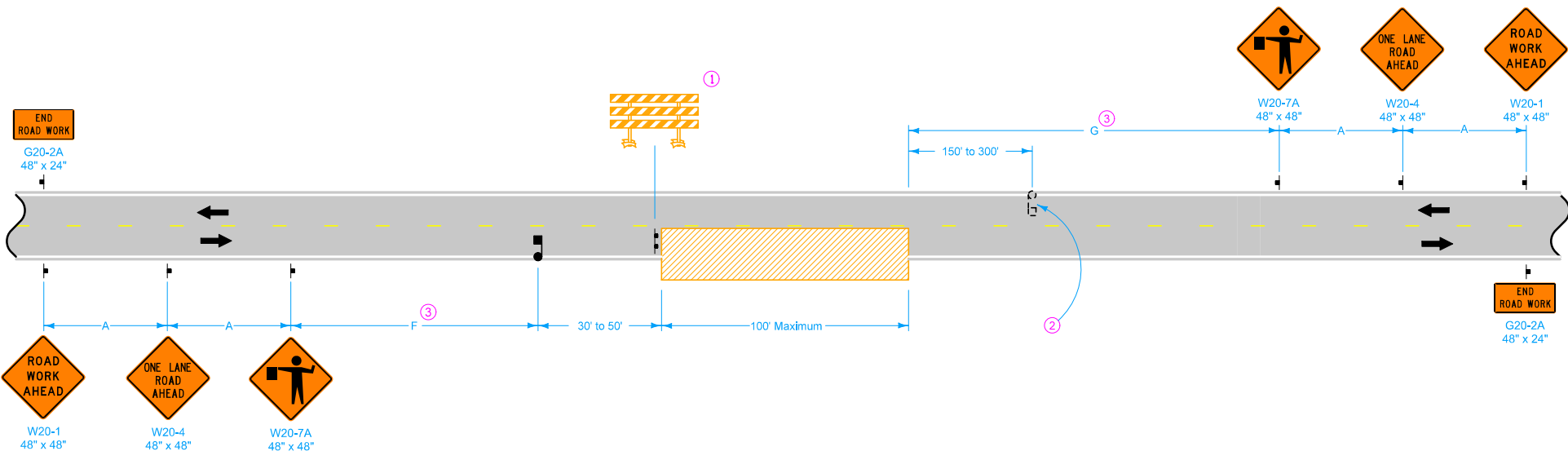
② For work areas less than 200 feet long, use channelizers spaced at 20 foot centers or use a vehicle with an amber revolving light or amber strobe light.

Possible Contract Item:
Traffic Control

| 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' |

| | |
|--|---------------|
| STANDARD ROAD PLAN | REVISION |
| | 8 04-21-15 |
| | TC-202 |
| SHEET 1 of 1 | |
| <small>REVISIONS: Modified general notes, changed title and replaced the DOT logo in the title block with the new version.</small> | |
| <small>APPROVED BY DESIGN METHODS ENGINEER</small> | |
| WORK WITHIN 15 FT OF TRAVELED WAY | |



LEGEND

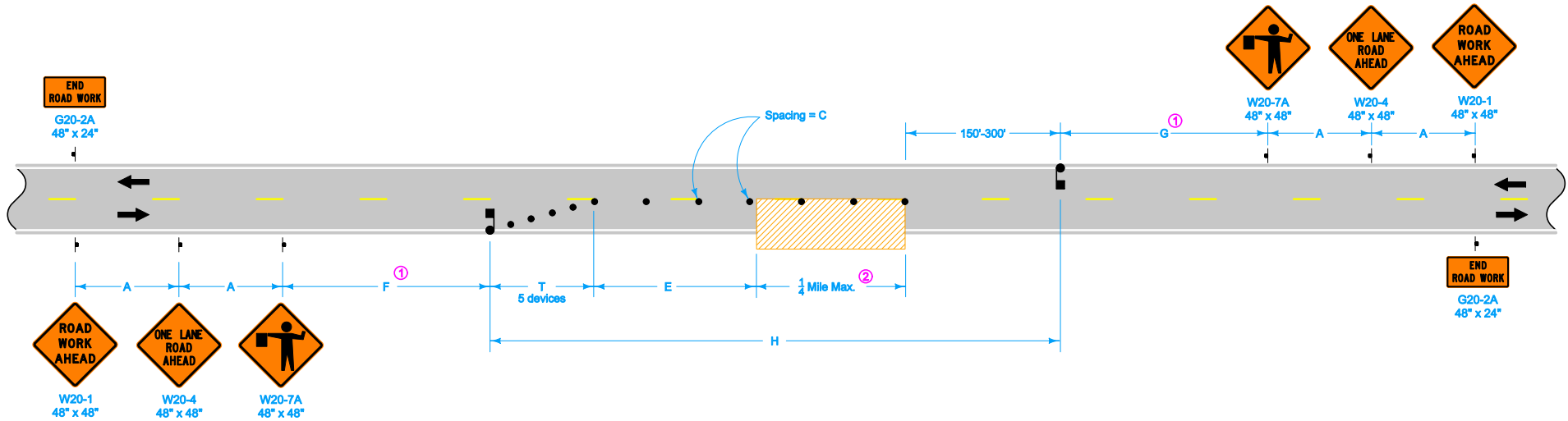
- Traffic Sign
- Flagger
- Work Area
- Type III Barricade
- Direction of Traffic

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

- 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 view of approaching traffic in the open lane is less than 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 Department of Transportation | REVISION |
| | 4 04-16-13 |
| STANDARD ROAD PLAN | TC-212 |
| REVISIONS: Modified circle note 1. | SHEET 1 of 1 |
| <small>APPROVED BY DESIGN METHODS ENGINEER</small> | |
| SPOT LOCATION LANE CLOSURE WITH FLAGGERS | |



LEGEND

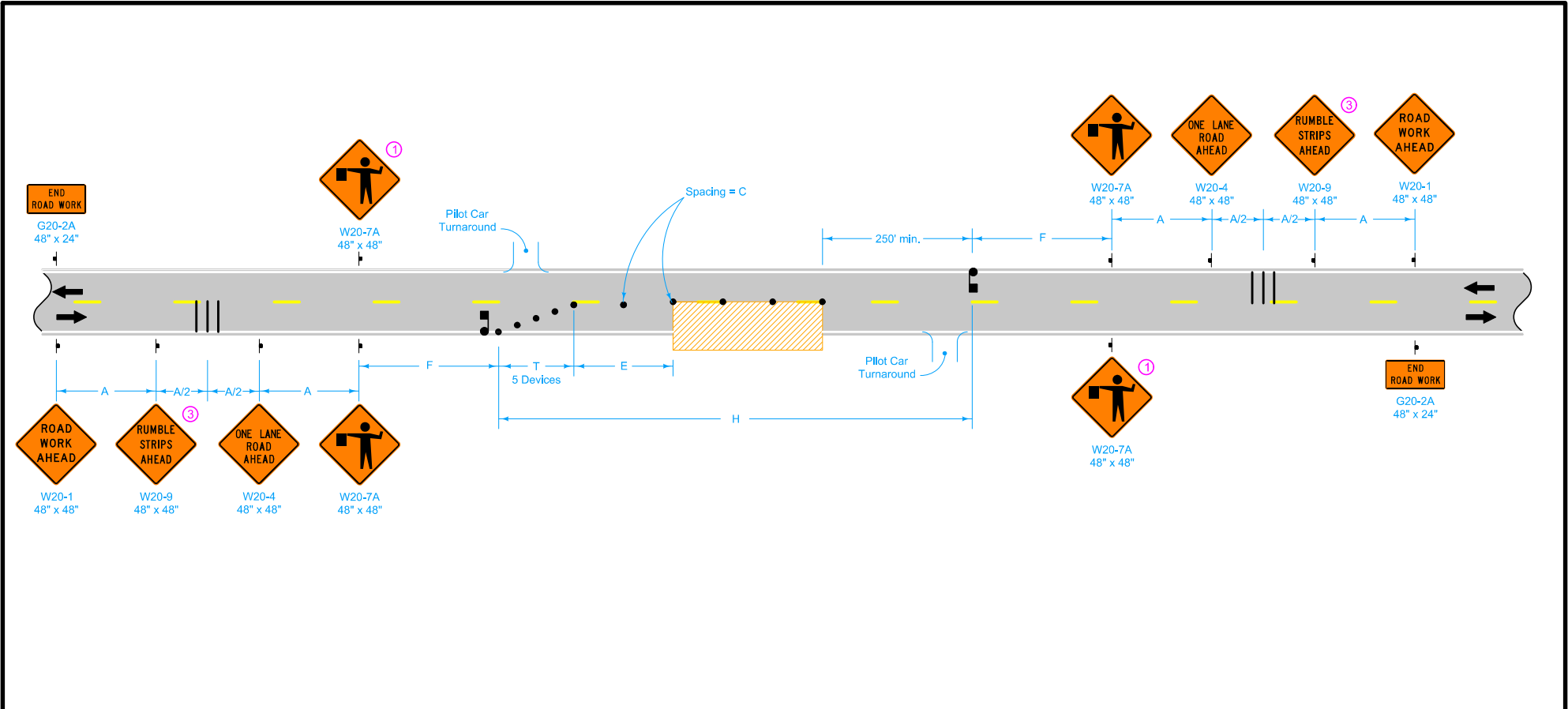
- Traffic Sign
- Flagger
- 42° Channelizer
- Work Area
- Direction of Traffic

| SPEED LIMIT (mph) | A | C | E | F and G Range ^① | 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' |

- 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 Department of Transportation STANDARD ROAD PLAN | REVISION |
| | 3 04-17-12 |
| | TC-213 |
| SHEET 1 of 1 | |
| REVISIONS: Removed "or Vertical Panel" from 42° Channelizer In Legend. | |
| APPROVED BY DESIGN METHODS ENGINEER | |
| LANE CLOSURE WITH FLAGGERS | |



LEGEND

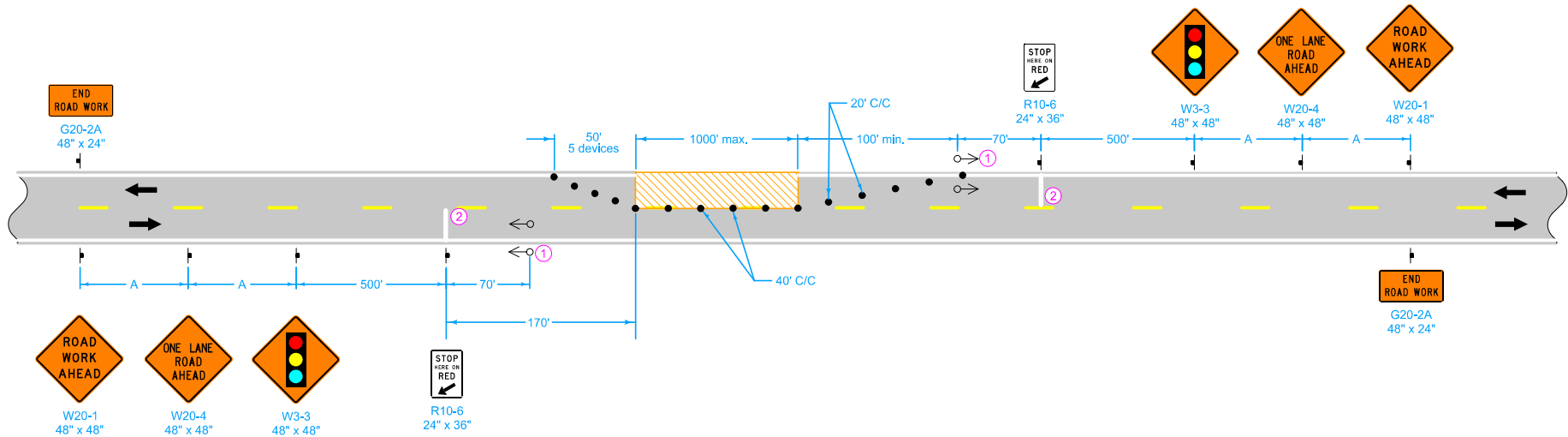
- Traffic Sign
- Flagger
- 42" Channelizer
- Work Area
- Direction of Traffic
- Portable Rumble Strip Panel

| SPEED LIMIT (mph) | ADT | A | C | E | F | H max. ^② | 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' |

- ^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 downstream 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.

Possible Contract Items:
 Flagger
 Pilot Car
 Traffic Control

| | |
|--|---------------------------|
| | REVISION |
| | 6 10-17-17 |
| | STANDARD ROAD PLAN |
| TC-214 | |
| SHEET 1 of 1 | |
| REVISIONS: Added rumble strips, 'Rumble Strips Ahead' sign, and circle note 3. | |
| <i>Brian Smith</i> APPROVED BY DESIGN METHODS ENGINEER | |
| LANE CLOSURE WITH FLAGGERS FOR USE WITH PILOT CAR | |



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

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

LEGEND

- Temporary Traffic Signal
- † Traffic Sign
- 42" Channelizer
- ▨ Work Area
- ← Direction of Traffic

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

IOWA DOT

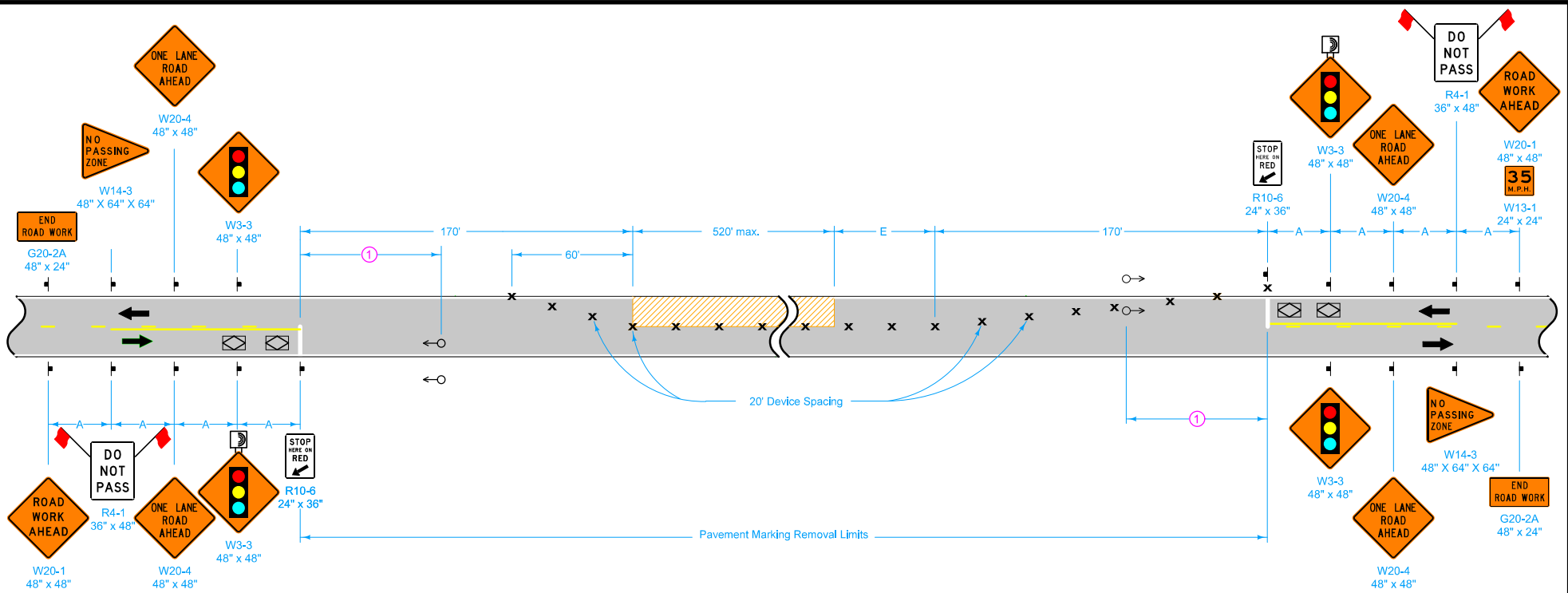
STANDARD ROAD PLAN

REVISIONS: Moved second standard note into circle note 1. Moved END ROAD WORK to match other standards.

APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE WITH SIGNALS (UP TO THREE DAYS)

| | | |
|---------------|---|----------|
| REVISION | 3 | 10-21-14 |
| TC-215 | | |
| SHEET 1 of 1 | | |



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' |

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

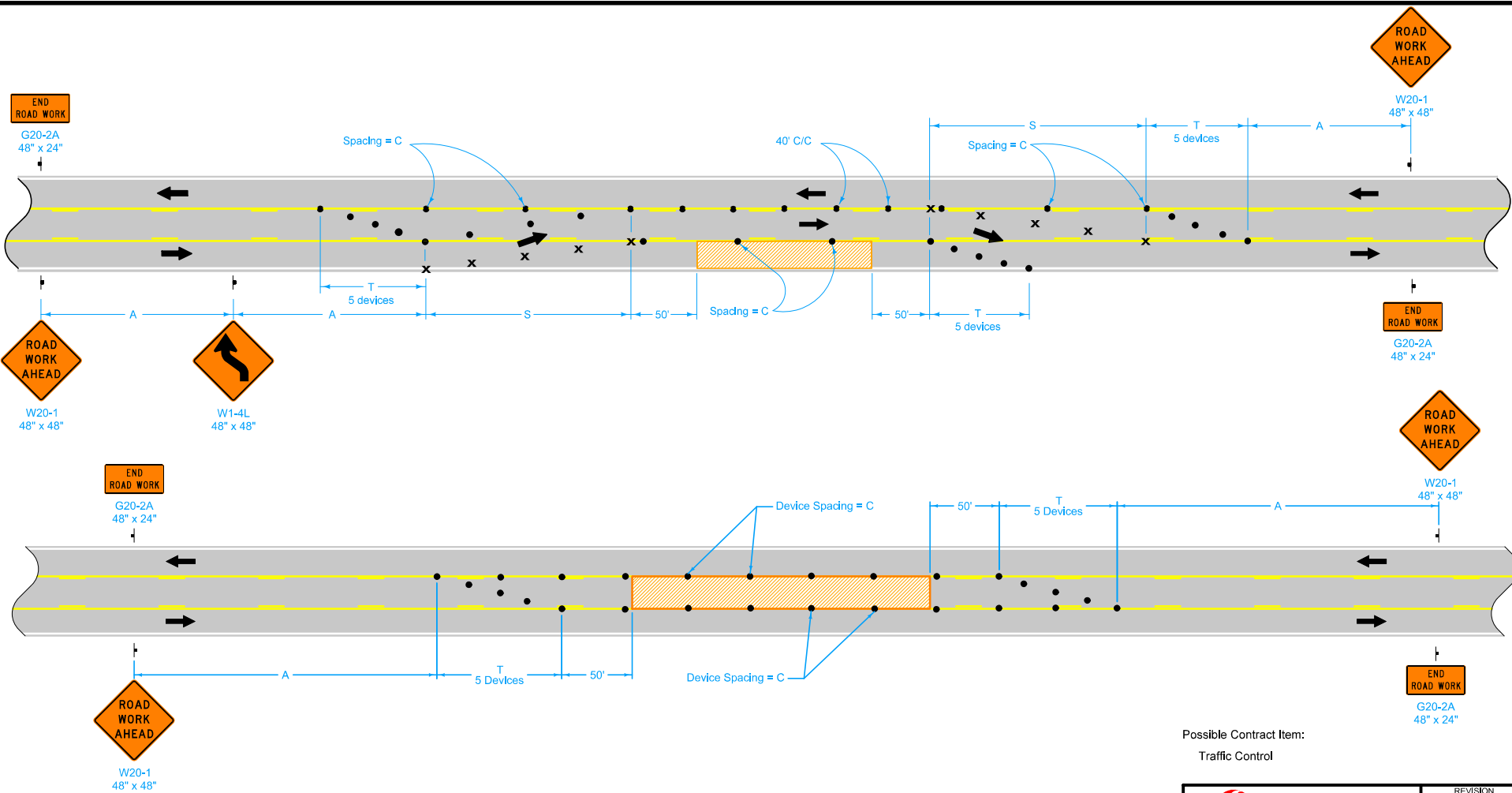
STANDARD ROAD PLAN

REVISIONS: Changed No Passing Zone sign size from 48" x 60" x 60" to 48" x 64" x 64".

Brian Smith
 APPROVED BY DESIGN METHODS ENGINEER

| | | |
|---------------|---|----------|
| REVISION | 7 | 10-18-16 |
| TC-216 | | |
| SHEET 1 of 1 | | |

LANE CLOSURE WITH 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' |

① Spacing = D for all drums.

Possible Contract Item:
Traffic Control

Iowa Department of Transportation

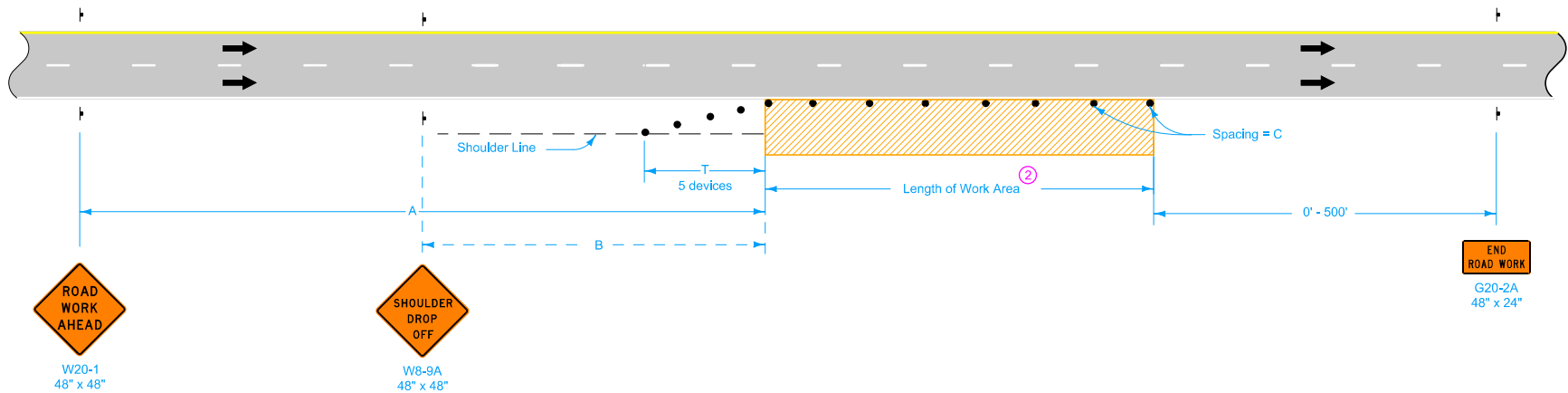
STANDARD ROAD PLAN

REVISIONS: Added Information from TC-030 and changed title.

Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

LANE CLOSURE INVOLVING TWLTL

| | | |
|---------------|---|----------|
| REVISION | 4 | 10-15-13 |
| TC-228 | | |
| SHEET 1 of 1 | | |



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.L2 of the Standard Specifications.

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

Possible Contract Item:
Traffic Control

LEGEND

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

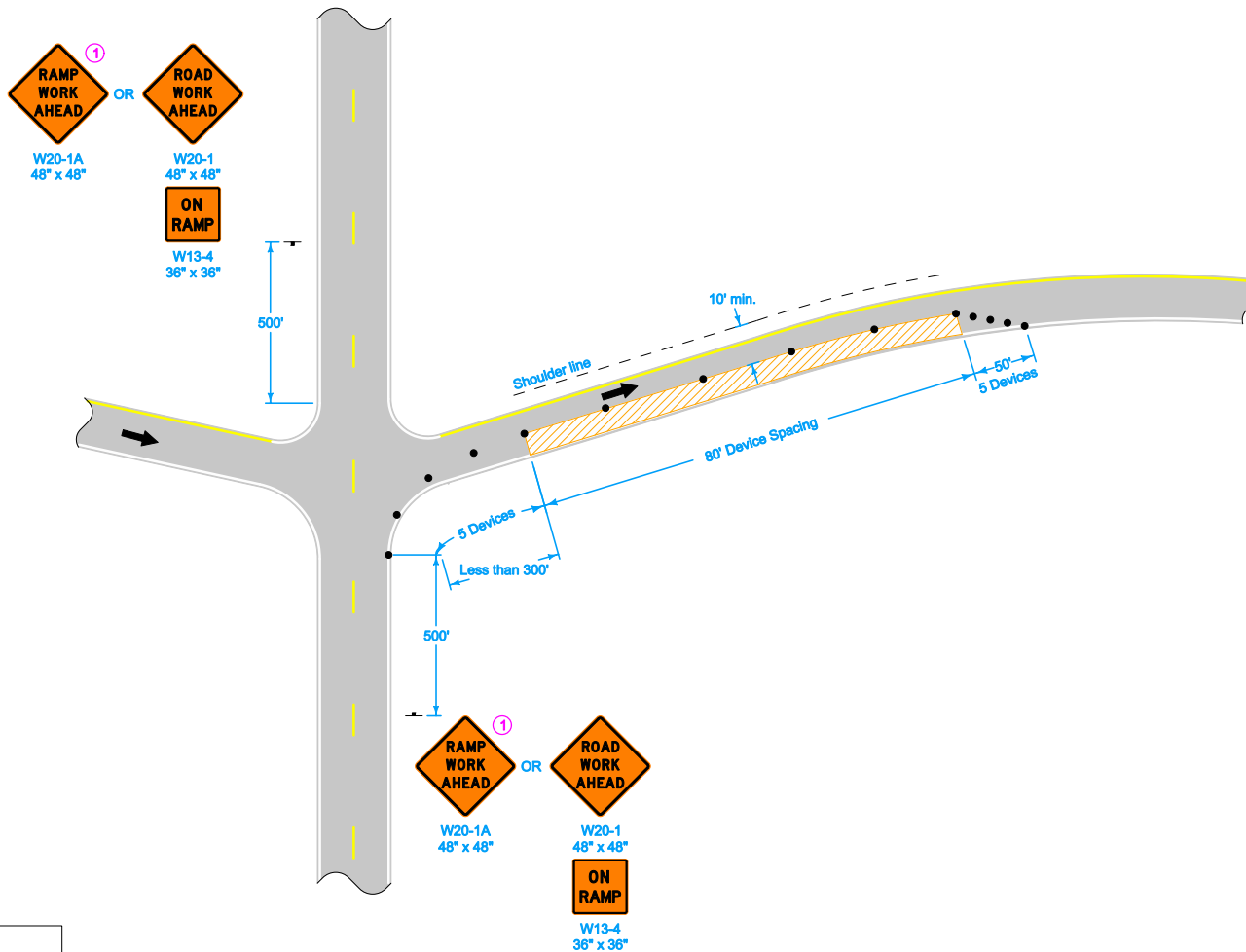
| SPEED LIMIT (mph) | A | B | C ^② | T |
|-------------------|-------|------|-------------------|------|
| 40 or less | 500' | 250' | 40' | 100' |
| 45 - 50 | 700' | 350' | 80' ^① | 200' |
| 55 - 60 | 1500' | 500' | 100' ^① | 200' |
| 65 - 70 | 1500' | 500' | 100' ^① | 230' |

^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.

| | |
|---|--------------------------|
| STANDARD ROAD PLAN | REVISION 8 04-21-15 |
| | TC-402 |
| | SHEET 1 of 1 |
| REVISIONS: Modified general notes, changed title and replaced the DOT logo in the title block with the new version. | |
| <small>APPROVED BY DESIGN METHODS ENGINEER</small> | |
| WORK WITHIN 15 FT OF TRAVELED WAY | |

① Refer to SI-881 for sign details.

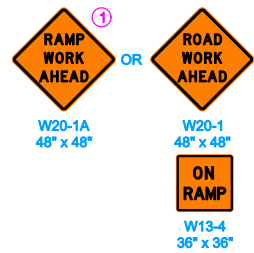
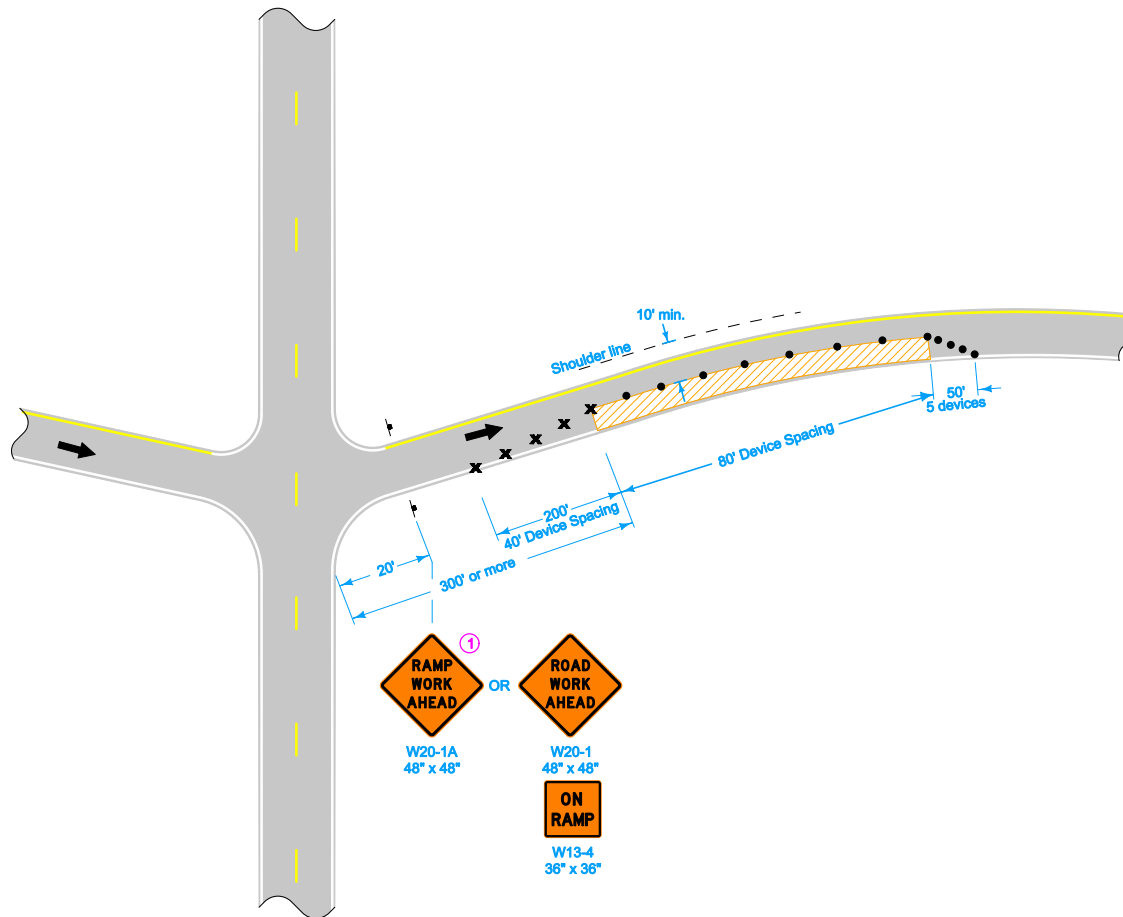


| LEGEND | |
|--------|----------------------|
| | Traffic Sign |
| | 42" Channelizer |
| | Direction of Traffic |
| | Work Area |

Possible Contract Item:
Traffic Control

| | | |
|--|--|--|
| | REVISION 2 04-17-12 | |
| | STANDARD ROAD PLAN TC-416 SHEET 1 of 4 | |
| REVISIONS: Removed "or Vertical Panel" from 42" Channelizer In Legend. | | |
| APPROVED BY DESIGN METHODS ENGINEER <i>Deanna Maifeld</i> | | |
| PARTIAL LANE CLOSURE ON RAMP | | |

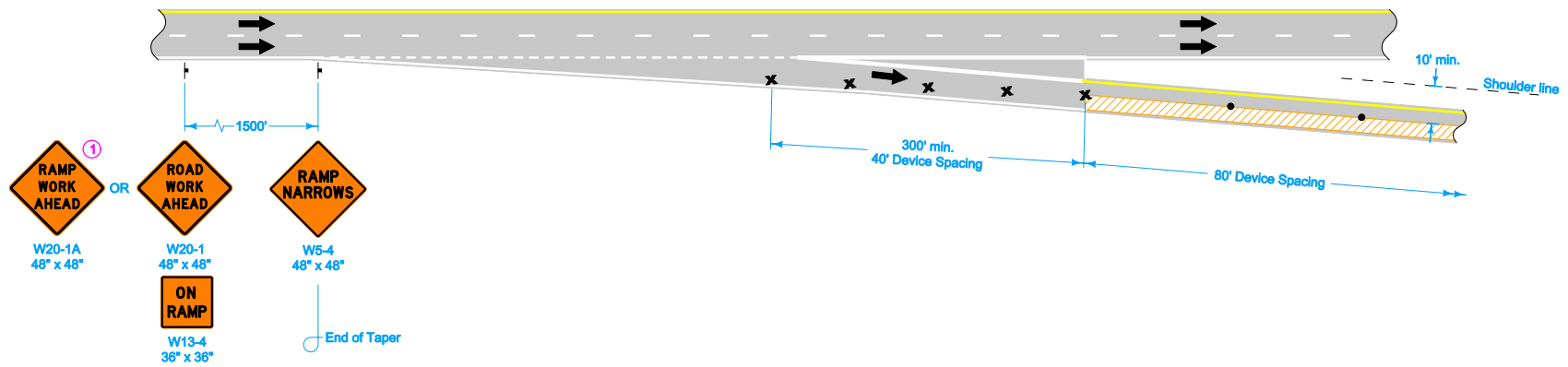
① Refer to SI-881 for sign details.



| LEGEND | |
|--------|----------------------|
| x | Drum |
| ⊢ | Traffic Sign |
| • | 42" Channelizer |
| ← | Direction of Traffic |
| | Work Area |

| | |
|--|---------------|
| | REVISION |
| | 2 04-17-12 |
| STANDARD ROAD PLAN | TC-416 |
| SHEET 2 of 4 | |
| REVISIONS: Removed "or Vertical Panel" from 42" Channelizer In Legend. | |
| <i>Deanna Maifeld</i> APPROVED BY DESIGN METHODS ENGINEER | |
| PARTIAL LANE CLOSURE ON RAMP | |

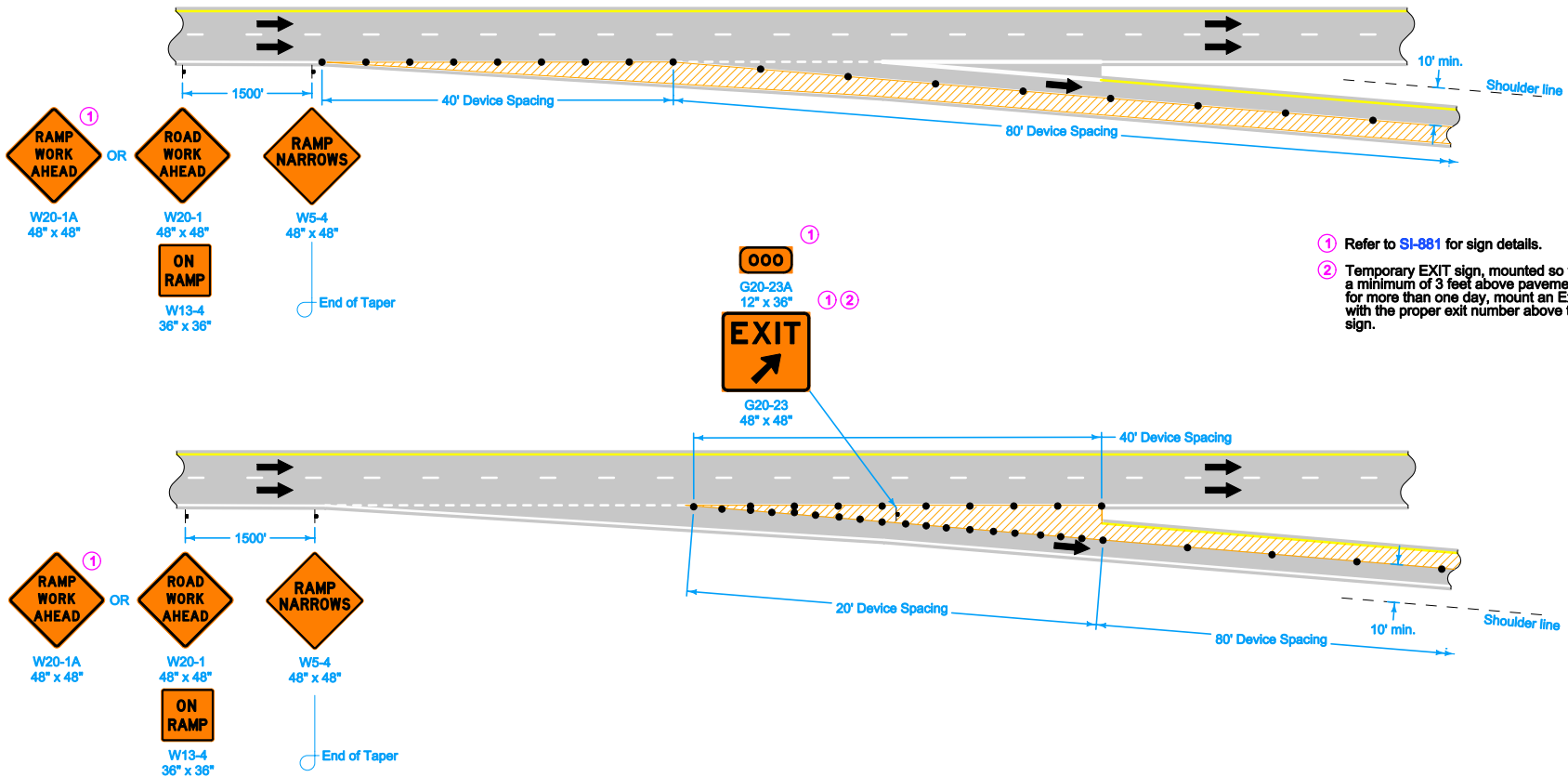
① Refer to SI-881 for sign details.



- ① RAMP WORK AHEAD
W20-1A
48" x 48"
- OR
- ROAD WORK AHEAD
W20-1
48" x 48"
- ON RAMP
W13-4
36" x 36"
- RAMP NARROWS
W5-4
48" x 48"
- End of Taper

| LEGEND | |
|--------|----------------------|
| x | Drum |
| ↑ | Traffic Sign |
| • | 42" Channelizer |
| ← | Direction of Traffic |
| | Work Area |

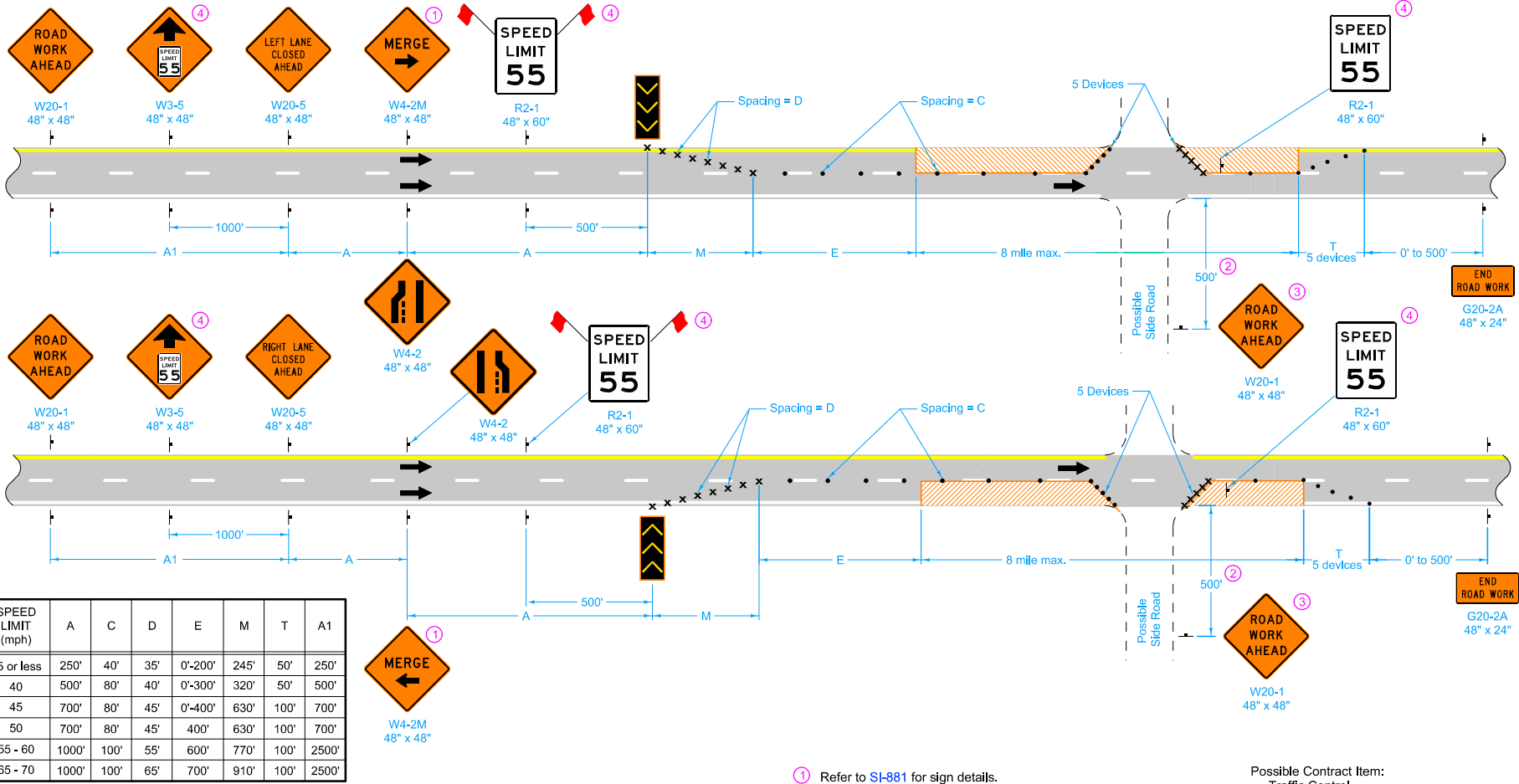
| | |
|---|---------------|
| | REVISION |
| | 2 04-17-12 |
| STANDARD ROAD PLAN | TC-416 |
| SHEET 3 of 4 | |
| <small>REVISIONS: Removed "or Vertical Panel" from 42" Channelizer In Legend.</small> | |
| <i>Deanna Maifeld</i> <small>APPROVED BY DESIGN METHODS ENGINEER</small> | |
| PARTIAL LANE CLOSURE ON RAMP | |



- 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 Department of Transportation | REVISION |
| | 2 04-17-12 |
| STANDARD ROAD PLAN | TC-416 |
| SHEET 4 of 4 | |
| REVISIONS: Removed "or Vertical Panel" from 42" Channelizer In Legend. | |
| <i>Deanna Maifeld</i> APPROVED BY DESIGN METHODS ENGINEER | |
| PARTIAL LANE CLOSURE ON RAMPS | |



LEGEND

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

When the Average Daily Traffic (ADT) exceeds 20,000 vehicles per day or when a traffic queue extends beyond the advanced signing, place RIGHT/LEFT LANE CLOSED 4 MILES and RIGHT/LEFT LANE CLOSED 2 MILES signs (W20-5) on both sides of the roadway 4 miles and 2 miles in advance of the lane closure, respectively, as appropriate.

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 AHEAD signs and 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.

Possible Contract Item:
Traffic Control

STANDARD ROAD PLAN

REVISIONS: Added W3-5 signs and changed the order of sign layouts.

Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

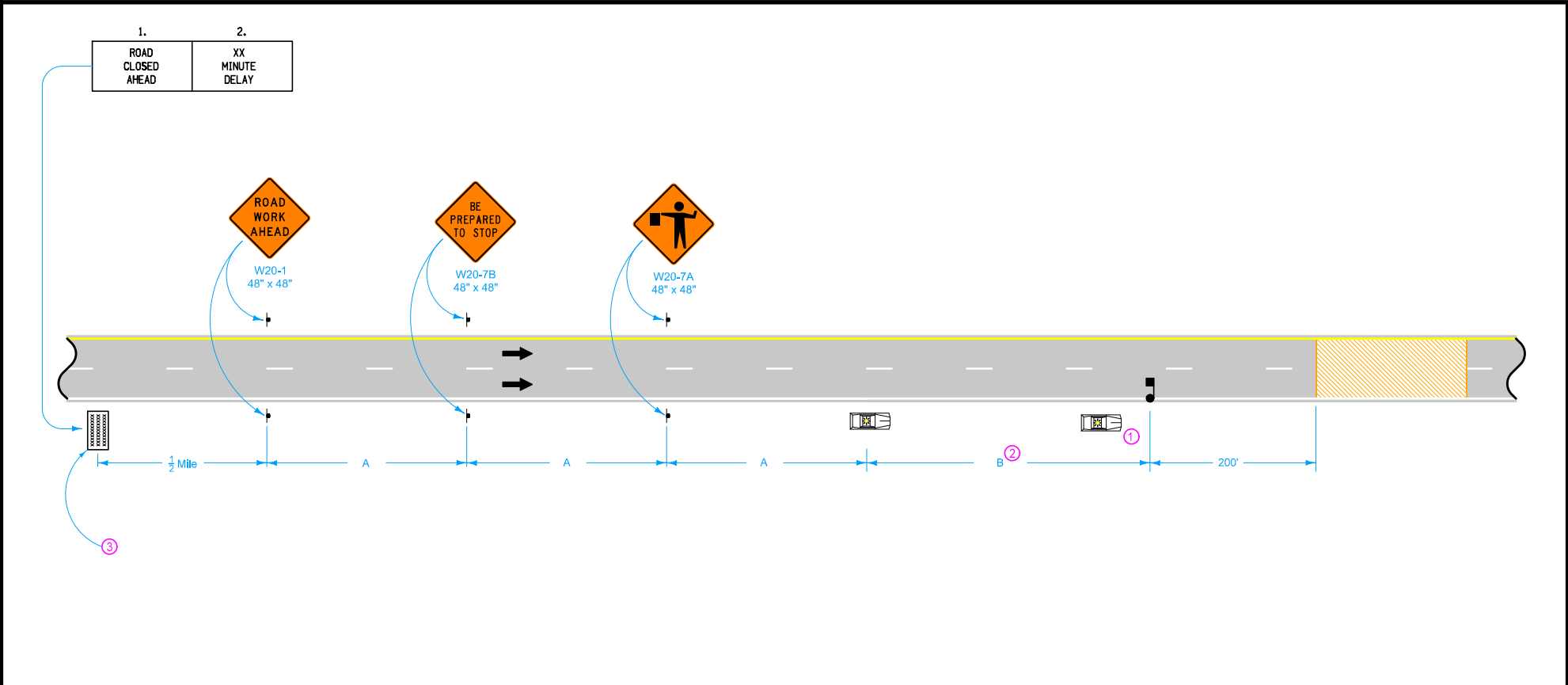
LANE CLOSURE ON DIVIDED HIGHWAY

REVISION

9 04-17-18

TC-418

SHEET 1 of 1



LEGEND

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

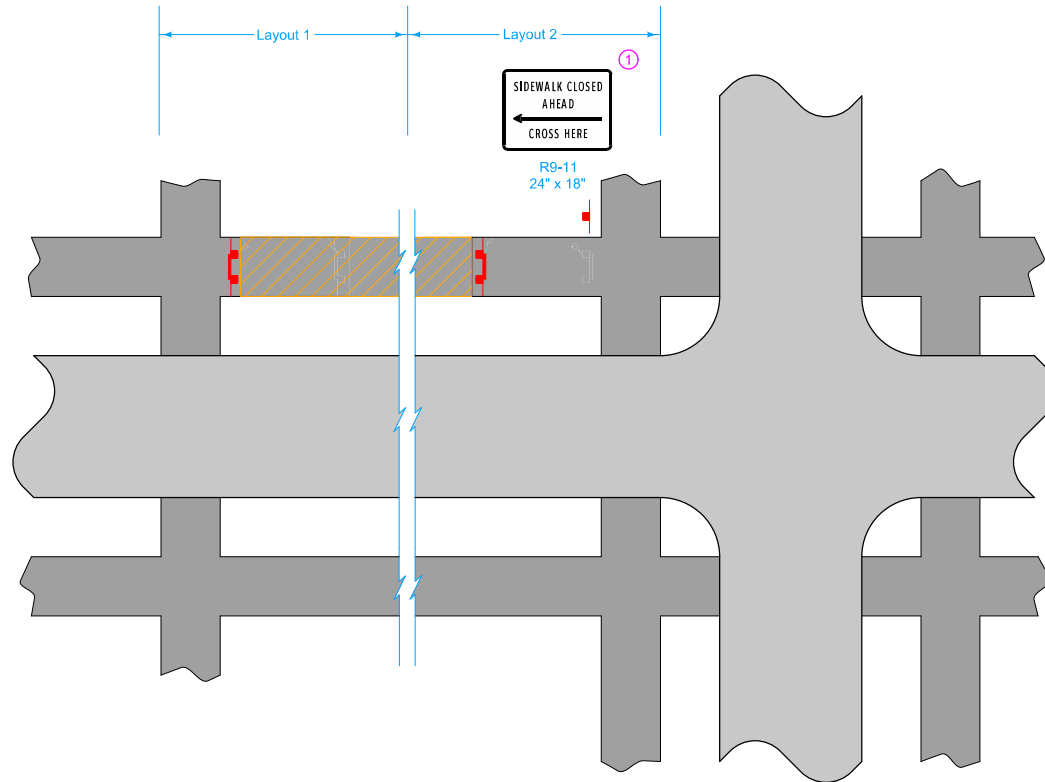
| SPEED LIMIT (mph) | A | B |
|-------------------|-------|-------|
| 35 or less | 250' | 250' |
| 40 - 45 | 350' | 350' |
| 50 or greater | 1000' | 2500' |

- 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

| | | |
|--|---------------|----------|
| | REVISION | |
| | 7 | 04-21-15 |
| STANDARD ROAD PLAN | TC-451 | |
| REVISIONS: Corrected typo in title. | | |
| | | |
| APPROVED BY DESIGN METHODS ENGINEER | | |
| TEMPORARY ROAD CLOSURE ON DIVIDED HIGHWAY | | |

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



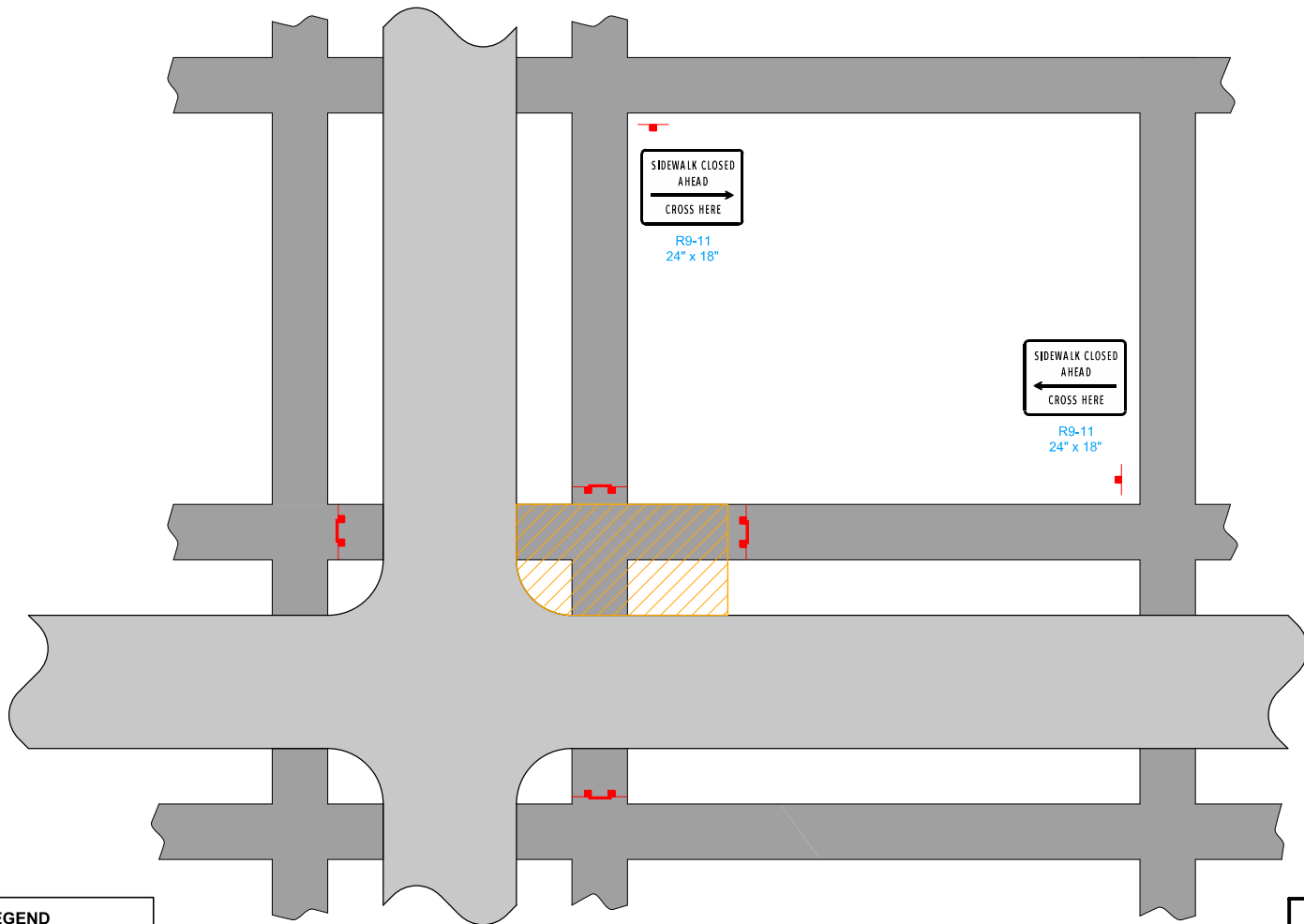
MID-BLOCK CLOSURE

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






Possible Contract Item:
Traffic Control


Possible Tabulation:
113-2

| | |
|--|---------------|
| | REVISION |
| | NEW 10-18-11 |
| STANDARD ROAD PLAN | TC-601 |
| REVISIONS: New | SHEET 1 of 2 |
| <small>APPROVED BY DESIGN METHODS ENGINEER</small> | |
| PEDESTRIAN DETOUR | |

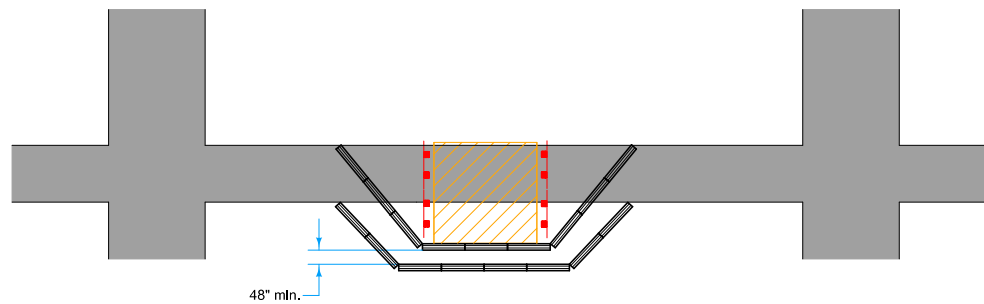


CLOSURE AT INTERSECTION

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

| | |
|---|---------------|
|  Iowa Department of Transportation | REVISION |
| | NEW 10-18-11 |
| STANDARD ROAD PLAN | TC-601 |
| REVISIONS: New | SHEET 2 of 2 |
| <i>Deanna Mifflin</i> 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 Channelizers installed will be measured in feet. Payment will be at the contract price per linear foot.




48" min.

Possible Contract Items:
 Pedestrian Channelizer
 Temporary Barrier Rail
 Maintenance of Pedestrian Traffic

Possible Tabulation:
 113-3

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

| | | |
|---|---------------|----------|
|  Iowa Department of Transportation | REVISION | |
| | NEW | 10-18-11 |
| STANDARD ROAD PLAN | TC-602 | |
| REVISIONS: New | SHEET 1 of 1 | |
| <i>Deanna Miffield</i> <small>APPROVED BY DESIGN METHODS ENGINEER</small> | | |
| SIDEWALK DIVERSION | | |