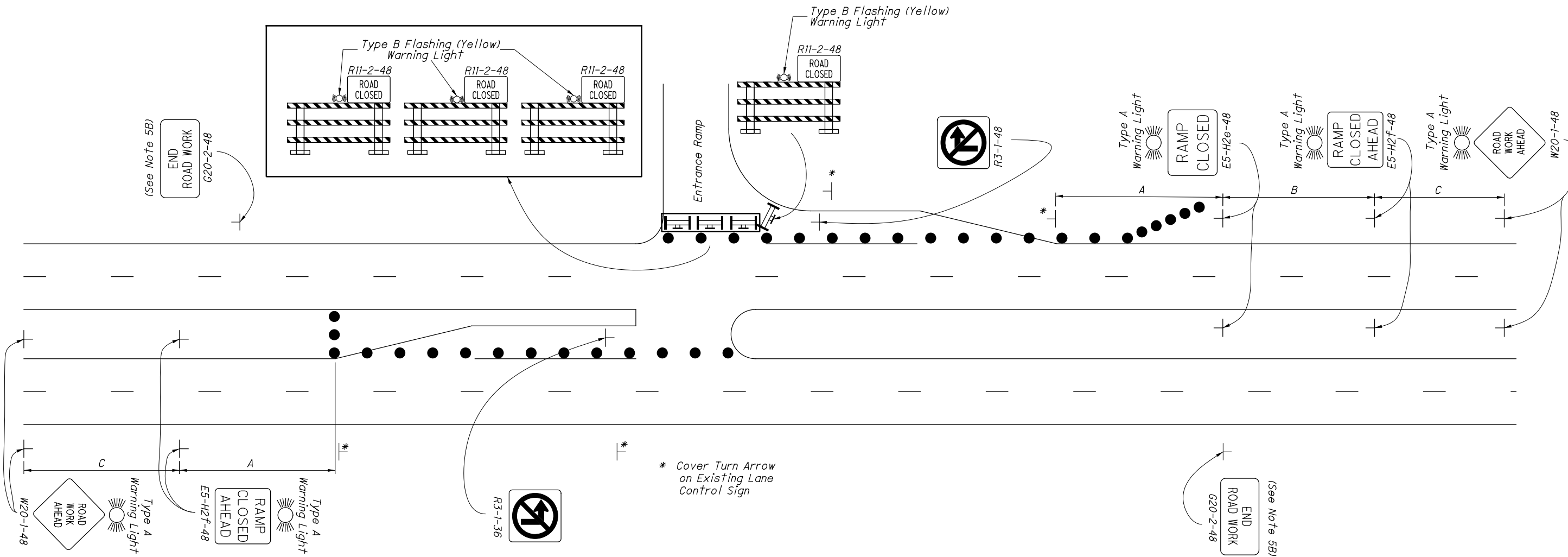


WITH DEDICATED TURN LANE



(See Note 5B)
END
ROAD WORK
G20-2-48

(See Note 5B)
END
ROAD WORK
G20-2-48

* Cover Turn Arrow
on Existing Lane
Control Sign

TABLE I (SIGN SPACING)

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
	A	B	C
URBAN (≤ 40 MPH)	100	100	100
URBAN (≥ 45 MPH)	350	350	350
MAJOR CONVENTIONAL	500	500	500
FREEWAY & EXPRESSWAY	1000	1500	2640

TABLE II

SPEED LIMIT (MPH)	MERGING TAPER RATE MINIMUM	SHOULDER TAPER RATE MINIMUM	MAXIMUM DRUM SPACING (FT)		BUFFER (D) (FT) MINIMUM
			TAPER SEC.	TANGENT SEC.	
25	11:1	4:1	25	20	155
30	15:1	5:1	30	20	200
35	21:1	7:1	35	20	250
40	27:1	9:1	40	20	305
45	45:1	15:1	45	20	360
50	50:1	17:1	50	20	425
55	55:1	19:1	55	20	495
60	60:1	20:1	60	20	570
65	65:1	22:1	65	20	645
70	70:1	24:1	70	20	730

For areas without a dedicated turn lane, the closure set-up is as shown on this sheet.

For areas with drop lanes, see Sheet 2.

If the directions of traffic are separated by a two-way left turn lane or any other traversable pavement, omit the temporary sign(s) shown in the median.

LEGEND

DRUMS/CONES ● ● ●

TYPE III BARRICADE WITH SIGN

THIS DRAWING REPLACES MT-98.30 DATED 07-21-2017.

SD NUMBER
MT-98.30

STANDARD ROADWAY CONSTRUCTION DRAWING
**INTERSECTION ENTRANCE RAMP
AND TURN BAY CLOSURES**

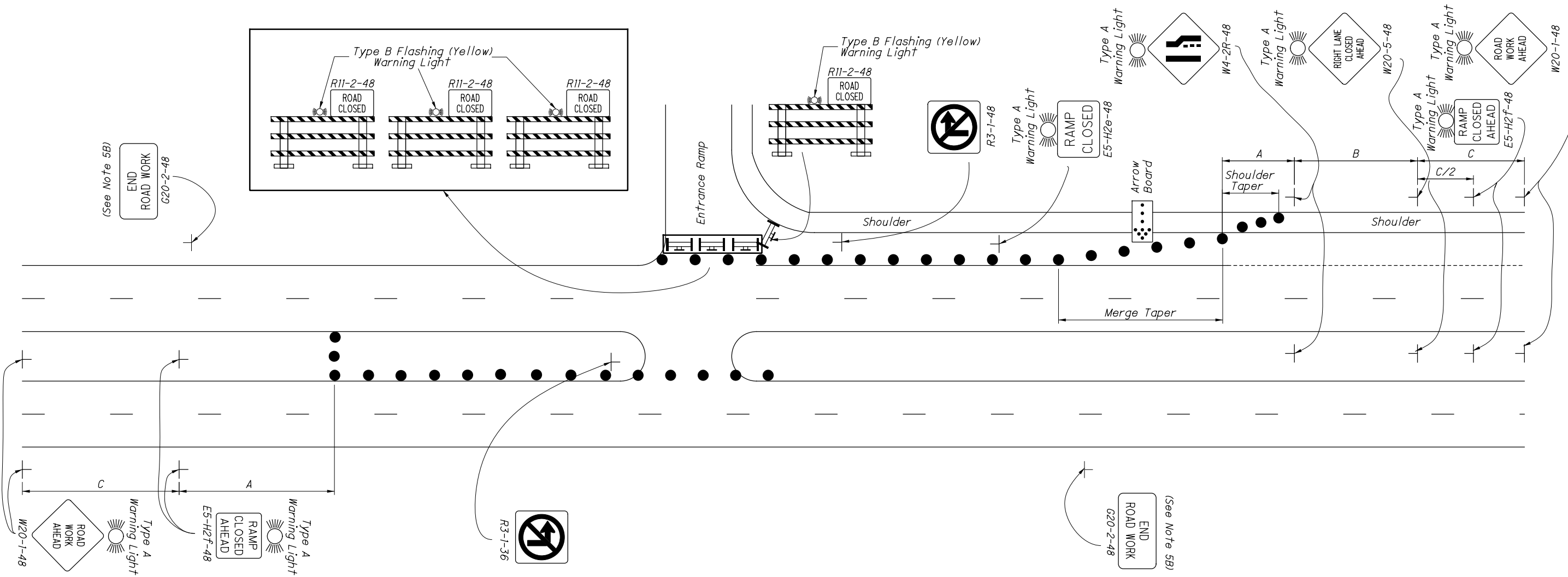
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David L. Holstein

REVISION DATE
07-19-2019

WITH DROP LANE



(See Note 5B)

END ROAD WORK AHEAD G20-2-48

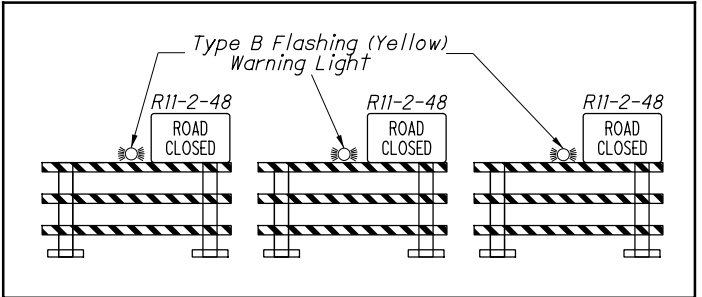


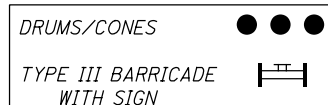
TABLE I (SIGN SPACING)

ROAD TYPE	DISTANCE BETWEEN SIGNS (FT)		
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URBAN (< 40 MPH)	100	100	100
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MAJOR CONVENTIONAL	500	500	500
FREEWAY & EXPRESSWAY	1000	1500	2640

TABLE II

SPEED LIMIT (MPH)	MERGING TAPER RATE MINIMUM	SHOULDER TAPER RATE MINIMUM	MAXIMUM DRUM SPACING (FT)		BUFFER (D) (FT) MINIMUM
			TAPER SEC.	TANGENT SEC.	
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65	65:1	22:1	65	20	645
70	70:1	24:1	70	20	730

LEGEND



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STANDARD ROADWAY CONSTRUCTION DRAWING
INTERSECTION ENTRANCE RAMP AND TURN BAY CLOSURES

SD NUMBER
MT-98.30

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STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR
David L. Holstein

REVISION DATE
07-19-2019

NOTES:

DESIGN SPEED

- 1. The design speed used for taper rates should typically be the permanent legal speed. However, on construction projects for which the speed limit is reduced, the reduced speed may be used in determining the taper rate when the taper is not the first active construction area within the project.

TAPERS

- 2A. The minimum acceptable length for the merge taper shall be determined by multiplying the width of offset by the merge taper rate. The merge taper rate is provided in Table II.
- 2B. The minimum acceptable length for the shoulder taper shall be determined by multiplying the width of the shoulder by the shoulder taper rate. The shoulder taper rate is provided in Table II.

SIGN SPACING

- 3A. The work zone sign spacings shown in Table I are minimums. Maximum spacing should not be greater than 1.5 times the distances shown in Table I.
- 3B. Sign spacing should be adjusted to avoid conflict with existing signs. Minimum spacing to existing signs shall be 200' for speeds of 45 mph or less and a minimum of 400' for speeds 50 mph or greater.

ADJUSTMENTS FOR SIGHT DISTANCE

- 4. The location of the merging taper and the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment.

BASIC SIGNING

- 5A. ROAD WORK AHEAD (W20-1) signs shall be provided on entrance ramps or roadways entering the work limits.
- 5B. END ROAD WORK (G20-2) signs are only required for ramp closures of more than 3 days. It is intended that these signs be placed on the main roadway intersecting the entrance ramp.
- 5C. Overlapping of signing for adjacent projects should be avoided where the messages could be confusing. Any W20-1 or G20-2 signs which falls within the limits of another traffic control zone shall be omitted or covered during the period when both projects are active.
- 5D. On multi-lane divided roadways without a dual left turn lane, work zone signs shall be added in the median.

SIGNING DETAILS

- 6A. The Advisory Speed (W13-1P) plaque shall be used when specified in the plan.
- 6B. When the approach speed limit is 40 mph or less, 36" warning signs may be used.
- 6C. The distance plaque W16-3aP (or W16-2aP if the distance shown is in feet) shall indicate the distance to the beginning of the merging taper. Distances less than 1 mile may be expressed in feet. The plaque may be omitted if Extra Advance Sign Groups are not used.
- 6D. Place a CLOSED (W20-H15a) overlay diagonally across all overhead guide signs pertaining to the closed entrance ramp when the entrance is expected to be closed for more than 3 days.

- 6E. Provide detour signing to direct to alternate routes as determined by the Engineer or as specified in the plans. With the prior approval from the Engineer, Portable Changeable Message Signs may be used when the entrance ramp is expected to be closed for 3 days or less.
- 6F. Notice of Closure Signs (W20-H14) shall be erected by the Contractor at least one week in advance of the scheduled road or ramp closure. The signs shall be erected on the right-hand side of the road/ramp facing traffic. They shall be placed so as not to interfere with the visibility of any other traffic control signs. The signs may be erected anywhere on ramps as long as they are visible to the motorists using the ramp and well in advance of the merge area to avoid distracting motorists.

PAVEMENT MARKINGS / RPMs

- 7A. If the construction operation requires a lane closure for more than 1 day, the existing conflicting reflectors shall be removed from the raised pavement markers (RPMs).
- 7B. Additionally, if a lane closure of greater than 3 days is required, the following shall be performed:
 - a) The appropriate color work zone edge lines shall be applied along the taper and tangent sections.
 - b) The existing conflicting pavement markings shall be removed or covered per CMS 614.11G.
 - c) Work zone dotted lines, 3' in length separated by 9' gaps, shall be provided to identify the merge.
- 7C. Work zone pavement markings which would conflict with final traffic lanes shall be removable tape (CMS 740.06, Type I) unless the area will be resurfaced prior to project completion.
- 7D. After completion of the work, pavement markings other than CMS 740.06, Type I shall be removed in accordance with CMS 614.11 I. The original markings and raised pavement marker reflectors shall be restored at no additional cost unless separately itemized in the plans.

ARROW BOARD

- 8. The arrow board shall be chosen from the ODOT approved list and follow the guidelines in Supplemental Specifications 821 and 921.

FLASHING WARNING LIGHTS

- 9. Type A flashing warning lights shown on the ROAD WORK AHEAD (W20-1), RAMP CLOSED (E5-H2e), RAMP CLOSED AHEAD (E5-H2f) and LANE CLOSED AHEAD (W20-5) signs are required whenever a night lane closure is necessary.

DRUMS / CONES

- 10A. The maximum drum spacing along tapers and along tangent sections shall be as shown in Table II. A minimum of 5 drums shall be used to close the upstream shoulder. The downstream taper drum spacing shall be approximately 20'.
- 10B. Cones may be substituted for drums as follows:
 - a) Use of cones is permissible for either daytime operation or for nighttime operation, but shall not be used continuously, day and night. Upon completion of work within the work period, the cones shall be removed. They may again be placed on the highway in order to resume work in the following such work period.
 - b) Cones used for daytime traffic control shall have a minimum height of 28".
 - c) Cones used for nighttime traffic control shall have a minimum height of 42".
 - d) Use of cones at night shall be prohibited along tapers.
 - e) Cone spacing shall match the drum spacing in Table II.
 - f) Where cones are substituted for drums along tangents, intermixing of channelizing devices within the same run will not be permitted. Either cones shall be used for the entire length of the tangent section, or drums shall be used for the entire length.
- 10C. Provisions shall be made to stabilize the cones and drums to prevent them from blowing over.
- 10D. Drums shall not encroach into the opposing lane of traffic. If drums encroach into the opposing lane, the lane shall be closed.

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STANDARD ROADWAY CONSTRUCTION DRAWING

INTERSECTION ENTRANCE RAMP AND TURN BAY CLOSURES

SD NUMBER

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