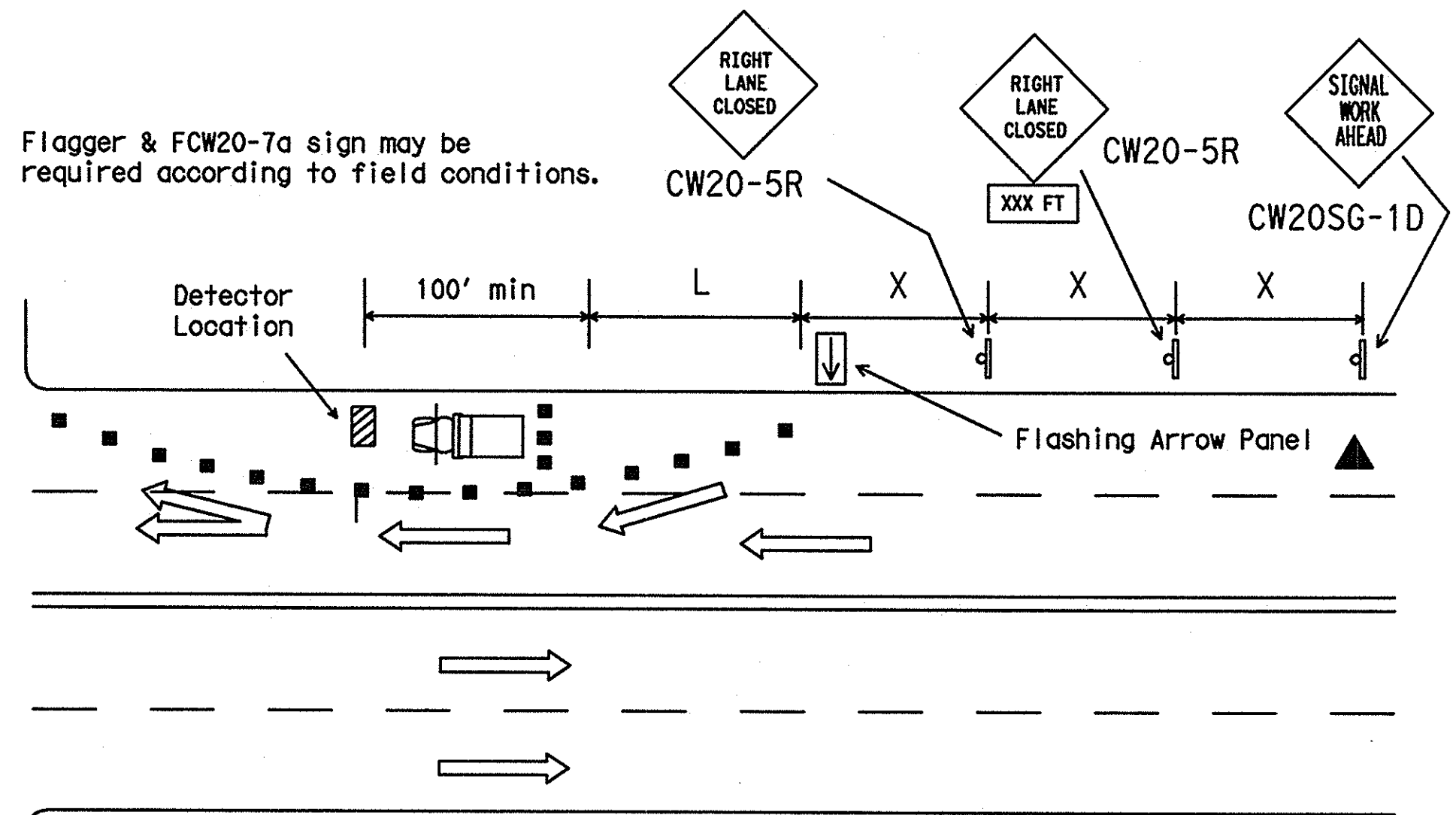
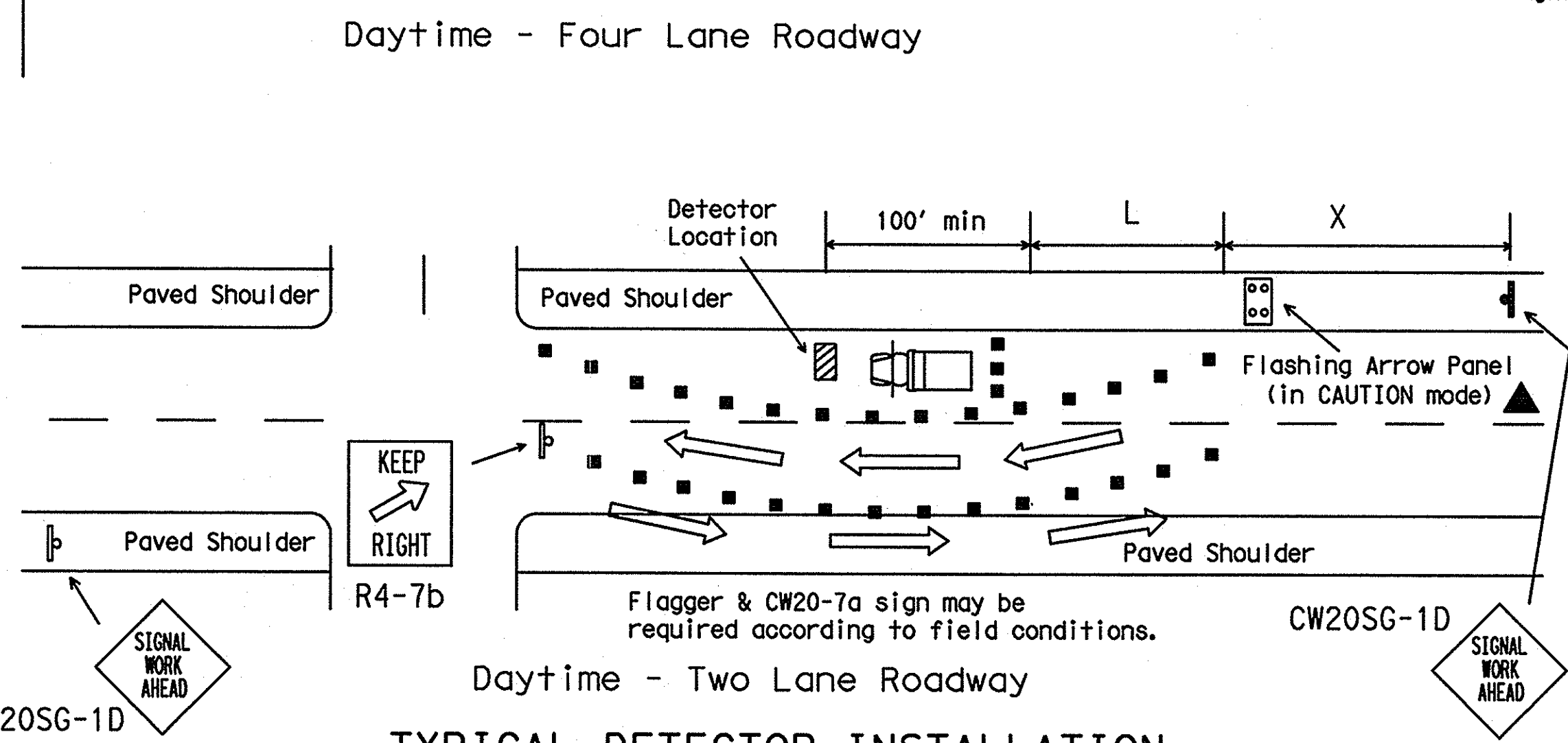


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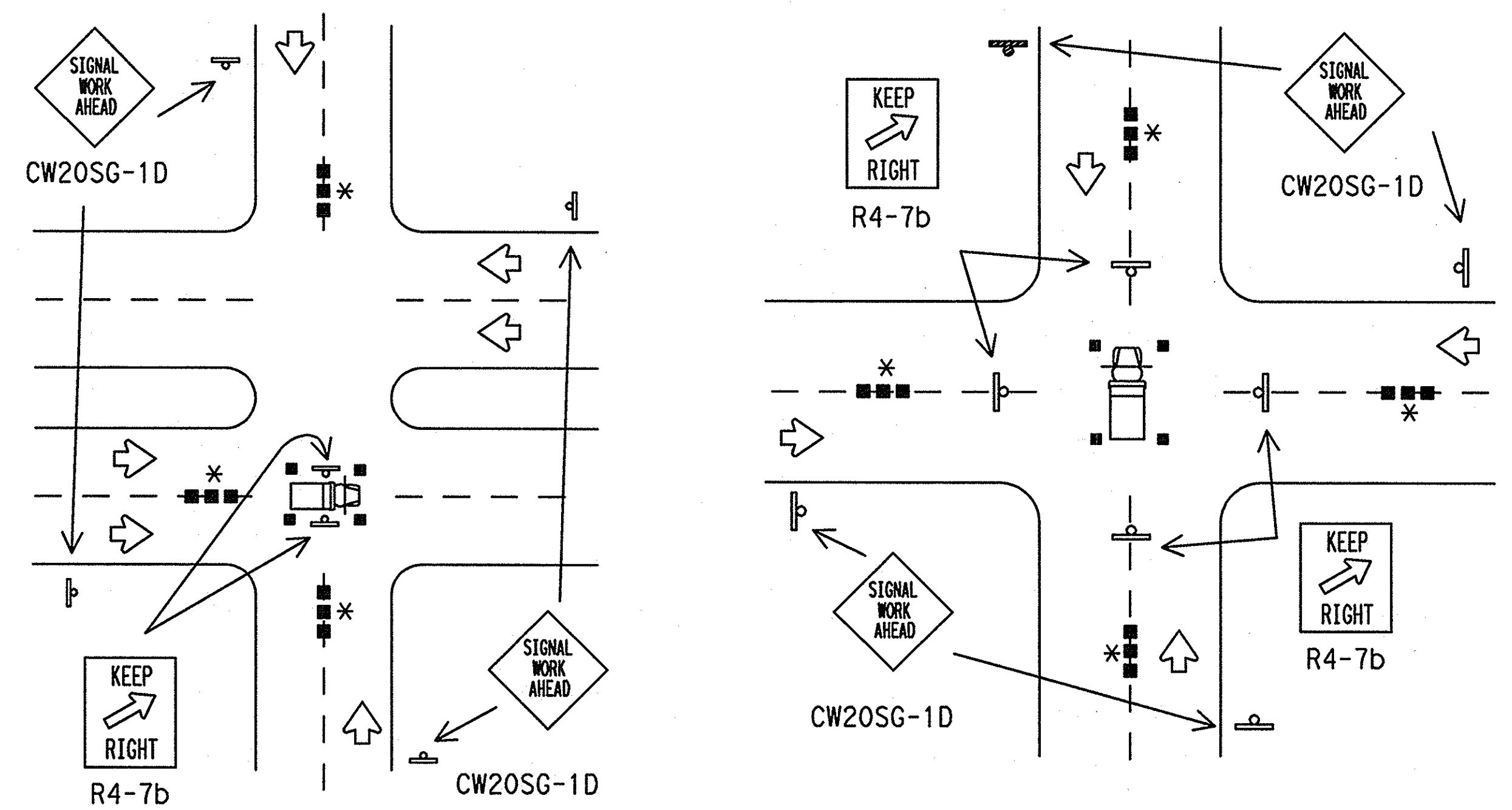


Posted Speed	Formula	Minimum Desirable Taper Lengths X*			Suggested Maximum Spacing of Device		Minimum Sign Spacing X Distance
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent	
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60' - 75'	120'
35		205'	225'	245'	35'	70' - 90'	160'
40		265'	295'	320'	40'	80' - 100'	240'
45	L=WS	450'	495'	540'	45'	90' - 110'	320'
50		500'	550'	600'	50'	100' - 125'	400'
55		550'	605'	660'	55'	110' - 140'	500'
60		600'	660'	720'	60'	120' - 150'	600'
65		650'	715'	780'	65'	130' - 165'	700'
70	700'	770'	840'	70'	140' - 175'	800'	
75	750'	825'	900'	75'	150' - 185'	900'	

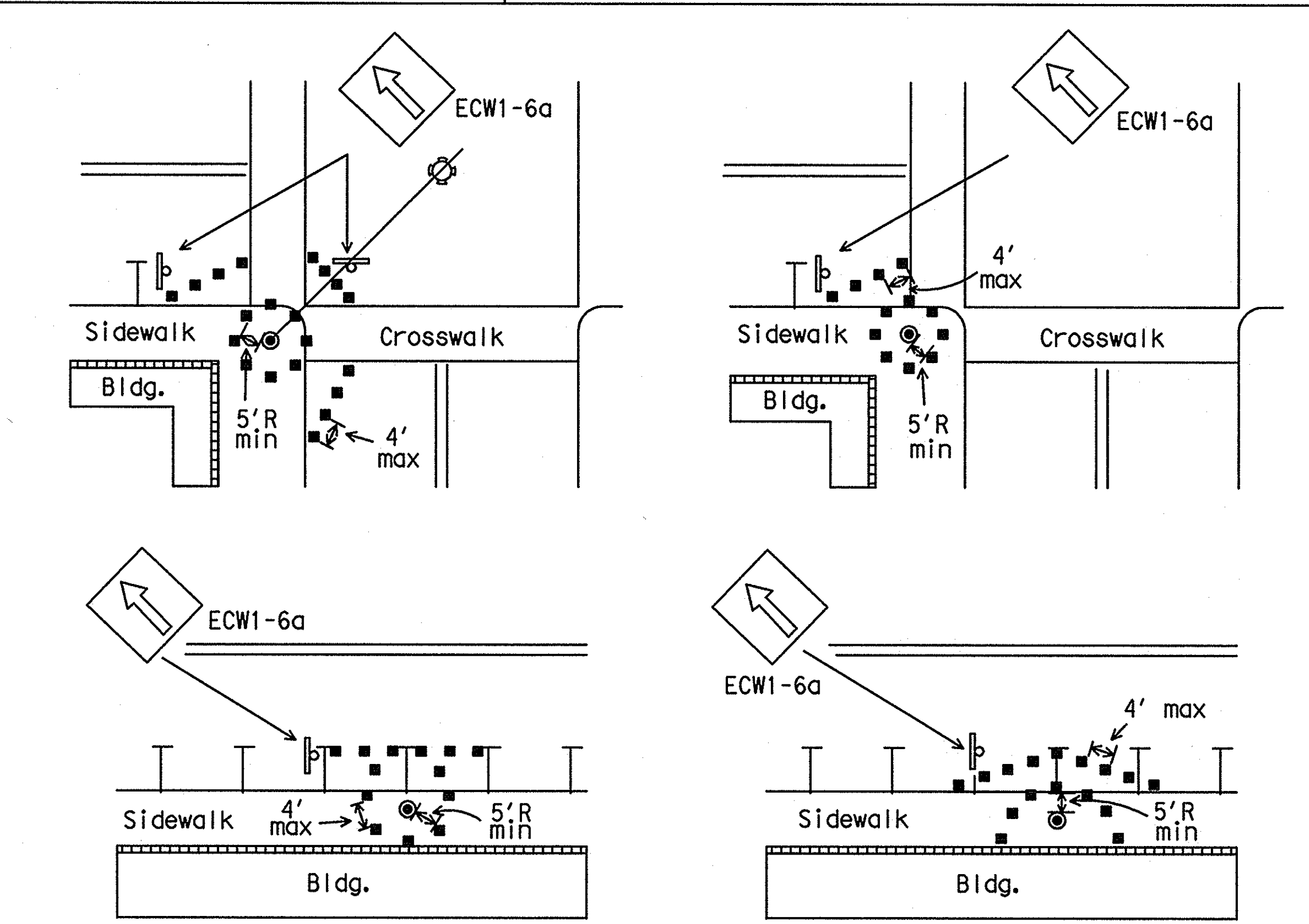
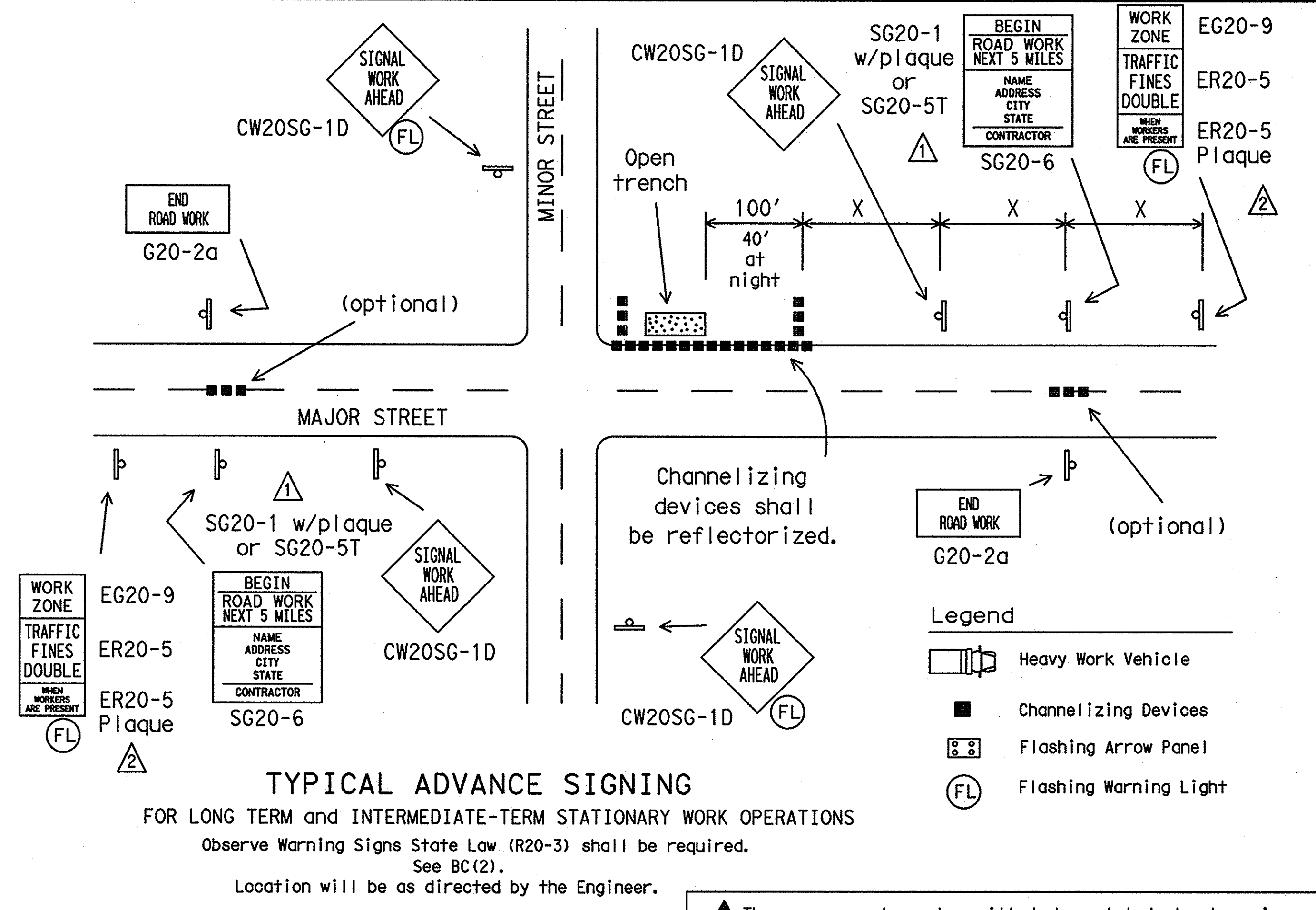
\*Taper lengths have been rounded off.  
L=Length of Taper (FT.) W=Width of Offset (FT.) S=Posted Speed (MPH)



TYPICAL DETECTOR INSTALLATION  
OR OTHER WORK OPERATIONS THAT ARE SHORT TERM OR SHORT DURATION  
Nighttime Channelizing Devices shall be reflectorized.



TYPICAL HANGING SIGNAL INSTALLATIONS  
OR OTHER WORK OPERATIONS THAT ARE SHORT TERM OR SHORT DURATION  
\* Advance warning channelizing devices are optional.



Channelizing devices should not be placed closer than 5 foot radius (minimum) to signal poles.  
Parking may be eliminated by placing channelizing devices in spaces.  
If pedestrian walkways are blocked, refer to the Texas Manual on Uniform Traffic Control Devices (TMUTCD) Part 6.

TYPICAL RESTRICTED PEDESTRIAN MOVEMENTS  
FOR ALL WORK OPERATIONS REGARDLESS OF WORK DURATION

- The arrow panel may be omitted when stated elsewhere in the plans.
- Typical channelizing device is the 28" cone.
- Plastic drums or vertical panels may be used if approved by the Engineer.
- For several closely adjoining projects, advance signing may not be required in advance of each intersection, but only in advance of the intersections at the project limits.
- See details elsewhere in the plans for advance signing requirements.
- Advance signs shall be in place when signal construction operations are in progress.
- The contractor shall remove advance signs when no construction operations are underway.
- Obstructions or hazards at the work area shall be clearly marked and delineated at all times.
- All holes, trenches or other hazardous areas shall be adequately protected by lights or other protective devices.
- Trenches shall be covered or surrounded with orange plastic construction fence as directed by the Engineer.
- Flagger and FCW20-7a sign may be required according to field conditions.
- Vehicles parked in roadway shall be equipped with two strobes.
- High level flags at corners of vehicle may also be used.
- Work operations that require work vehicle in traveled way 20 minutes or less may use cones, high level flags and strobes as advance warning devices.
- Cones should only be placed around vehicle.
- Flaggers may be used on high speed rural intersections.

RECORD DRAWINGS  
(July 2013)  
INFORMATION PROVIDED BY:  
Rogers-O'Brien Construction Company

Texas Department of Transportation  
Traffic Operations Division

TRAFFIC SIGNAL  
INSTALLATION  
TYPICAL DETAILS

SHEET 1 OF 2 WZ (BTS-1) -03

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2-98	4-98	10-99	3-03				
REVISIONS		CULT	SECT	JU9			HIGHWAY
		DIST	COUNTY				SHEET NO.

DATE: FILE: