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TRAFFIC CONTROL PLAN
19TH AVE (STATE ROUTE 1) COMBINED CITY PROJECT
TRENCHING WORK PLAN - LINCOLN WAY AT WINSTON DR, SAN FRANCISCO

REGISTERED PROFESSIONAL ENGINEER
CRYSTAL J. MIKS
C 62709
EXP. 6/30/22
CIVIL
STATE OF CALIFORNIA

- [x] NO EXCEPTIONS TAKEN
- [ ] MAKE CORRECTIONS NOTED
- [ ] REJECTED
- [ ] REVISE AND RESUBMIT
- [ ] SUBMIT SPECIFIED ITEM(S)

Review is only for general conformance with the design concept of the project and general compliance with the requirements of the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor's responsibilities include, but are not limited to actual dimensions which shall be confirmed and correlated at the job site; preferred fabrication processes and techniques of construction; coordination of the contractor's work with that of all other trades; and the satisfactory performance of the contractor's work.

Sustainable Streets Division
San Francisco Municipal Transportation Agency
City and County of San Francisco

By _____ Date 2/11/2021

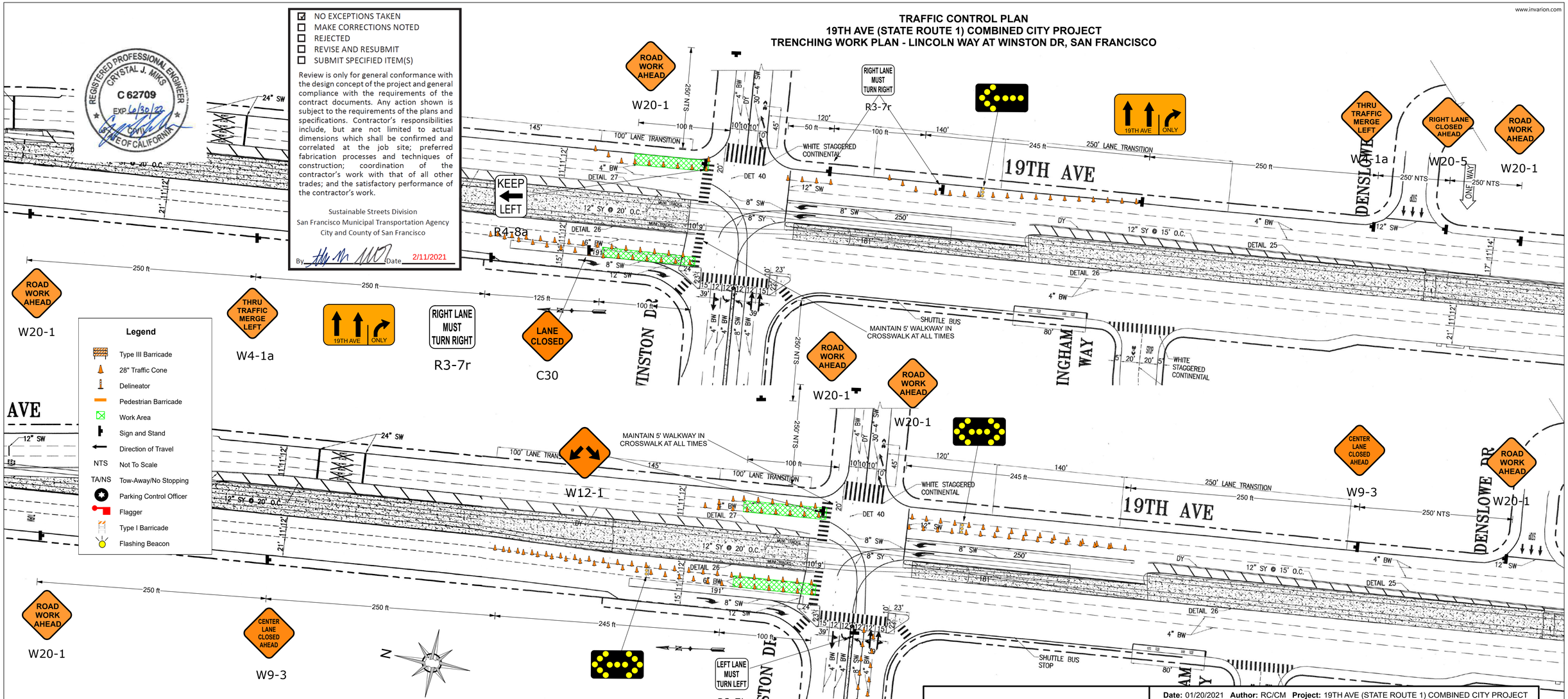


Table 6F-101(CA). Maximum Spacing of Channelizing Devices

Speed (mph)	Maximum Channelizing Devices Spacing		
	Taper* (feet)	Tangent (feet)	Conflict** (feet)
20	20	40	10
25	25	50	12
30	30	60	15
35	35	70	17
40	40	80	20
45	45	90	22
50	50	100	25
55	50	100	25
60	50	100	25
65	50	100	25
70	50	100	25
75	50	100	25

* Maximum channelizing device spacing for all speeds on one-lane/two-way tapers is 20 feet.
Maximum channelizing device spacing for all speeds on downstream tapers is 20 feet.
All other tapers are as shown.

** Use on intermediate and short-term projects for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizing devices.

Table 6C-3(CA). Taper Length Criteria for Temporary Traffic Control Zones (for 12 feet Offset Width)

Speed* S (mph)	Minimum Taper Length** for Width of Offset 12 feet (W)			
	Merging L (feet)	Shifting L/2 (feet)	Shoulder L/3 (feet)	Down Stream (feet)***
20	80	40	27	50
25	125	63	42	50
30	180	90	60	50
35	245	123	82	50
40	320	160	107	50
45	540	270	180	50
50	600	300	200	50
55	660	330	220	50
60	720	360	240	50
65	780	390	260	50
70	840	420	280	50
75	900	450	300	50

* - Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.

** - For other offsets use the following merging taper length formula for L:
For speeds of 40 mph or less, L=WS²/60
For speeds of 45 mph or more, L=WS

Where: L = taper length in feet
W = width of offset in feet
S = posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

*** - Maximum downstream taper length is 100 feet. See Section 6C.08.

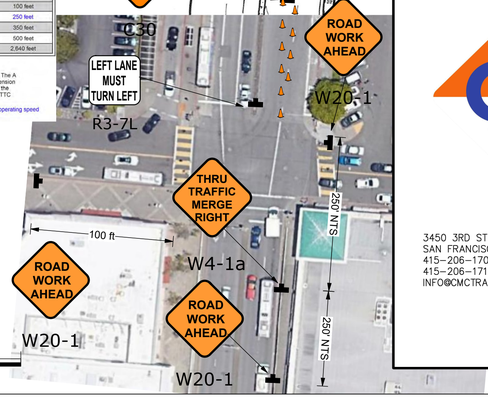
Table 6C-1. Recommended Advance Warning Sign ~~Minimum~~ Spacing

Road Type	Distance Between Signs**		
	A	B	C
Urban ~~low speed~~ - 25 mph or less***	100 feet	100 feet	100 feet
Urban - more than 25 mph to 40 mph***	250 feet	250 feet	250 feet
Urban ~~high speed~~ - more than 40 mph***	350 feet	350 feet	350 feet
Rural	500 feet	500 feet	500 feet
Expressway / Freeway	1,000 feet	1,500 feet	2,640 feet

* ~~speed category to be determined by the highway agency~~

** The column headings A, B, and C are the dimensions shown in Figures 6H-1 through 6H-46. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The 'first sign' is the sign in a three-sign series that is closest to the TTC zone. The 'third sign' is the sign that is furthest upstream from the TTC zone.)

*** Posted speed limit, off-peak 85th-percentile speed prior to work starting, or other anticipated operating speed in mph.



Plan Scale
1" = 50'

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Date: 01/20/2021 **Author:** RC/CM **Project:** 19TH AVE (STATE ROUTE 1) COMBINED CITY PROJECT
Client: JMB CONSTRUCTION **Location:** SAN FRANCISCO **TCP:** 114
CMC Job #: 2530 **REV:** 1

Comments:

1) WORK HOURS: SEE TRAFFIC LANE REQUIREMENTS TABLE

2) CONTRACTOR TO VERIFY EXISTING STRIPING IS ACCURATE PRIOR TO START OF WORK.

3) ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF CA MUTCD.

4) ALL TRAFFIC CONTROL DEVICES SHALL BE RETROREFLECTIVE IF SETUP DURING HOURS OF DARKNESS.

5) MAINTAIN LOCAL ACCESS TO BUSINESSES AND RESIDENTS AT ALL TIME.

6) THE CONTRACTOR SHALL NOT PREVENT OR DELAY THE OPERATION OF MASS TRANSIT VEHICLES AT ANY TIME.

7) THE CONTRACTOR SHALL PERFORM THE APPROPRIATE MEASURES TO ENSURE THE SAFETY OF BICYCLISTS ON ALL STREET ON WHICH THERE IS CONSTRUCTION.

8) PROVIDE FULL ROADWAY AND PLATE ALL OPEN TRENCHES DURING NON-WORKING HOURS. PLACE W8-24 "STEEL PLATE AHEAD" SIGNS IN ADVANCE OF TRENCH PLATES.

9) DO NOT OPEN ROADWAY WITH STEPS / RIDGES IN THE PAVEMENT SURFACE >3".
IF STEP / RIDGE IN THE ROADWAY IS PARALLEL TO THE DIRECTION OF TRAVEL AT LANE LINES AND IS >3/8" AND <3" USE W8-11 UNEVEN LANES SIGN.
IF STEP / RIDGE IN THE ROADWAY IS PERPENDICULAR TO THE DIRECTION OF TRAVEL OR PARALLEL, BUT NOT ON LANE LINES AND IS >3/4" AND <3" USE C46 (CA) UNEVEN PAVEMENT SIGN.

10) THE OPEN TRENCH (C27(CA)) SIGN SHALL BE USED IN ADVANCE OF OPEN TRENCHES IN/OR ADJACENT TO ROADWAY.