# TRAFFIC CONTROL PLAN
# 19TH AVE (STATE ROUTE 1) COMBINED CITY PROJECT
# SOUTHBOUND 19TH AVE - TWO LANE CLOSURE ALTERNATE ROUTE PLAN

☑ 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 MCT DP Date 02/18/2021

REGISTERED PROFESSIONAL ENGINEER
CRYSTAL J. MIKS
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EXP. 6/30/22
CIVIL
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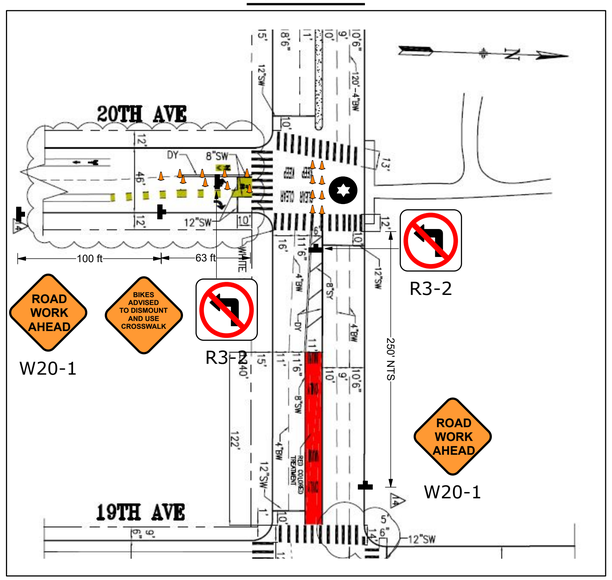
## DETAIL "A"




## DETAIL "B"

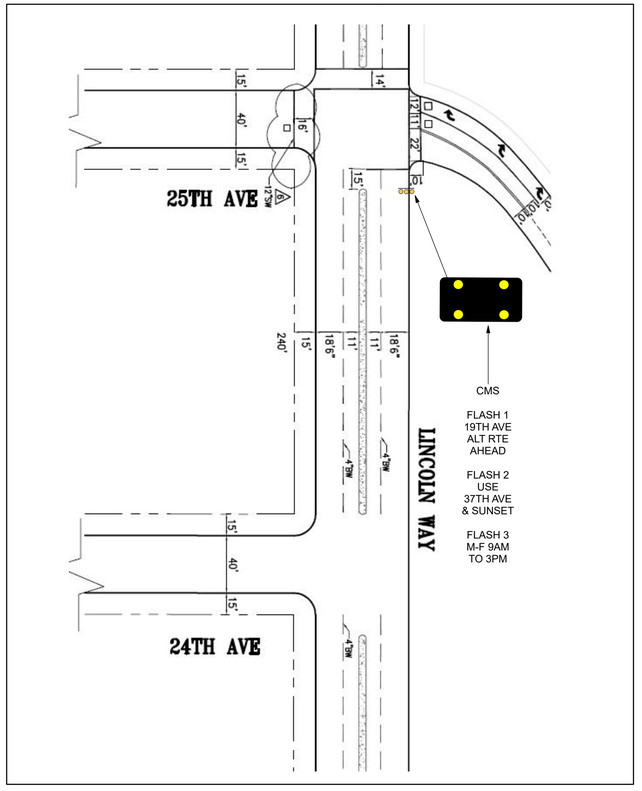



**Table 6F-101(CA). Maximum Spacing of Channelizing Devices**

| 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 ~~slow speeds~~ - 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 speeds~~ - more than 40 mph*** | 350 feet | 350 feet | 350 feet |
| Rural | 500 feet | 500 feet | 500 feet |
| Expressway / Freeway | 1,000 feet | 1,000 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'

## Legend

- Type III Barricade
- 28" Traffic Cone
- Delineator
- Pedestrian Barricade
- Work Area
- Sign and Stand
- Direction of Travel
- NTS — Not To Scale
- TA/NS — Tow-Away/No Stopping
- Parking Control Officer
- Flagger
- Type I Barricade
- Flashing Beacon

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**Date:** 02/18/2021 **Author:** RC/CM **Project:** 19TH AVE (STATE ROUTE 1) COMBINED CITY PROJECT
**Client:** JMB CONSTRUCTION **Location:** SAN FRANCISCO **TCP:** 116
**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.