

Traffic Lane Requirements Number and Width of Lanes for Through Traffic					
STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
During Sewer Construction					
Paul Ave. * between Bayshore Blvd. & San Bruno Ave. β	9AM – 4PM (M-F) 8AM – 6PM (S/S) At Other Times	- - -	- - -	1@11' 1@11' Full Roadway	1@11' 1@11' Full Roadway
Paul Ave. * east of Bayshore Blvd. *** β	9AM – 4PM (M-F) 8AM – 6PM (S/S) At Other Times	- - -	- - -	Road Closed Road Closed Full Roadway	1@12' 1@12' Full Roadway
San Bruno Ave. * β	9AM – 4PM (M-F) 8AM – 6PM (S/S) At Other Times	1@11' 1@11' Full Roadway	1@11' 1@11' Full Roadway	- - -	- - -
Bayshore Blvd.	9AM – 4PM (M-F) 8AM – 6PM (S/S) At Other Times	1@12' 1@12' Full Roadway	1@12' 1@12' Full Roadway	- - -	- - -
Wheat and Crane Streets	9AM – 4PM (M-F) 8AM – 6PM (S/S) At Other Times	- - -	1@10' 1@10' Full Roadway	- - -	- - -
Woolsey Street*	9AM – 4PM (M-F) 8AM – 6PM (S/S) At Other Times	- - -	- - -	1@14'± 1@14'± Full Roadway	1@14'± 1@14'± Full Roadway
Holyoke St. *	9AM – 4PM (M-F) 8AM – 6PM (S/S) At Other Times	1@14'± 1@14'± Full Roadway	1@14'± 1@14'± Full Roadway	- - -	- - -
Somerset & Colby Streets	9AM – 4PM (M-F) 8AM – 6PM (S/S) At Other Times	1@10'± 1@10'± Full Roadway	1@10'± 1@10'± Full Roadway	- - -	- - -
Salinas Ave.	9AM – 4PM (M-F) 8AM – 6PM (S/S) At Other Times	1@10'± 1@10'± Full Roadway	1@10'± 1@10'± Full Roadway	- - -	- - -
Carr and Keith Streets	9AM – 4PM (M-F) 8AM – 6PM (S/S) At Other Times	1@10'± 1@10'± Full Roadway	1@10'± 1@10'± Full Roadway	- - -	- - -

- * The Contractor shall not prevent or delay the operation of mass transit vehicles at any time. TC = Trolley Coach, MC = Motor Coach, MM = SFMTA Metro. See Subsection 3.3 MASS TRANSIT VEHICLES for more information.
- *** During sewer, concrete base, grinding and paving construction on Paul Ave. between Bayshore Blvd. and 3rd Street, Contractor may close Paul Ave. to all eastbound traffic. However, Contractor must inform and coordinate with Muni Operations, 10 working days in advance, to detour Muni Bus Line No. 29 eastbound on Paul Ave. via Bayshore Blvd. southbound and eastbound on Salinas Ave. during construction working hours.
- β The Contractor shall perform the appropriate measures to ensure the safety of bicyclists on ALL streets on which there is construction. Contractors shall pay special attention to streets that are on the Bicycle Route Network. See Blue Book Section 9: Bicycle Routes or on the internet at:
<http://www.sfmta.com/services/streets-sidewalks/construction-regulations>
- The Contractor shall install "Bicyclists Allowed Use of Full Lane" signs, or other approved equal, on streets with bicycle lanes during construction.
- † The Contractor shall designate the lane for two-way traffic with a flag person at each end of the two-way road segment to control the flow of traffic. This operation shall be restricted to one block at a time.

ABBREVIATIONS:

	MPH	MILES PER HOUR
ADA	MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
ADAAG	N	NORTH
AFAD	NB	NORTH-BOUND
AVE	NCHRP	NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM
CAL/OSHA	NS	NEAR SIDE
	NTS	NOT TO SCALE
CA MUTCD	OH	OVERHEAD
	OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
CALTRANS	PCMS	CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS
	PE	PROFESSIONAL ENGINEER
CHP	PED	PEDESTRIAN
CMS	PM	POST MILE OR AFTERNOON
COZEPP	RD	ROAD
	ROW	RIGHT OF WAY
CVC	RTE	RAILROAD ROUTE
	RW	ROADWAY
DOT	R/W	RIGHT OF WAY
E	S	SOUTH
EB	SB	SOUTH-BOUND
EP	ST	STATE ROUTE
ES	STD	STANDARD
ETW	SW	SIDEWALK
EXP	TA/NS	TOW AWAY / NO STOPPING
FAS	TC	TRAFFIC CONTROL
FWHA	TCP	TRAFFIC CONTROL PLAN
	TEMP	TEMPORARY
	TS	TRAFFIC SIGNAL
	TTC	TEMPORARY TRAFFIC CONTROL
FS	TYP	TYPICAL
FWY	UON	UNLESS OTHERWISE NOTED
LCD	W	WEST
LN	WB	WEST-BOUND
LOS		
MAX		

APPROACH SPEED (MPH)	TABLE A - MAXIMUM CHANNELIZER SPACING				
	TAPER (FT)	TANGENT (FT)	CONFLICT (FT)	1-LANE, 2-WAY	DOWN-STREAM (FT)
20	20	40	10	20	20
25	25	50	12	20	20
30	30	60	15	20	20
35	35	70	17	20	20
40	40	80	20	20	20
45	45	90	22	20	20
50	50	100	25	20	20
55	50	100	25	20	20
60	50	100	25	20	20
65	50	100	25	20	20
70	50	100	25	20	20
75	50	100	25	20	20

TABLE B MINIMUM TAPER LENGTH FOR WIDTH OF OFFSET = 12 FT					
APPROACH SPEED (MPH)	MERGING L (FT)	SHIFTING L/2 (FT)	SHOULDER L/3 (FT)	ONE LANE, TWO-WAY (FT)*	DOWN-STREAM (FT)*
20	80	40	27	50	50
25	125	63	42	50	50
30	180	90	60	50	50
35	245	123	82	50	50
40	320	160	107	50	50
45	540	270	180	50	50
50	600	300	200	50	50
55	660	330	220	50	50
60	720	360	240	50	50
65	780	390	260	50	50
70	840	420	280	50	50
75	900	450	300	50	50

* MAXIMUM TAPER LENGTH FOR ONE-LANE TWO WAY AND DOWNSTREAM TAPERS IS 100 FT

TABLE C - ADVANCE WARNING SIGN SPACING	
ROAD TYPE	SIGN SPACING (FT)
URBAN 25 MPH OR LESS	100
URBAN MORE THAN 25 MPH TO 40 MPH	250
URBAN MORE THAN 40 MPH	350
RURAL	500
EXPRESSWAY / FREEWAY	1,000 (CLOSEST TO WORK ZONE) 1,500 (SECOND) 2,640 (FIRST SIGN SEEN BY PUBLIC)

LEGEND

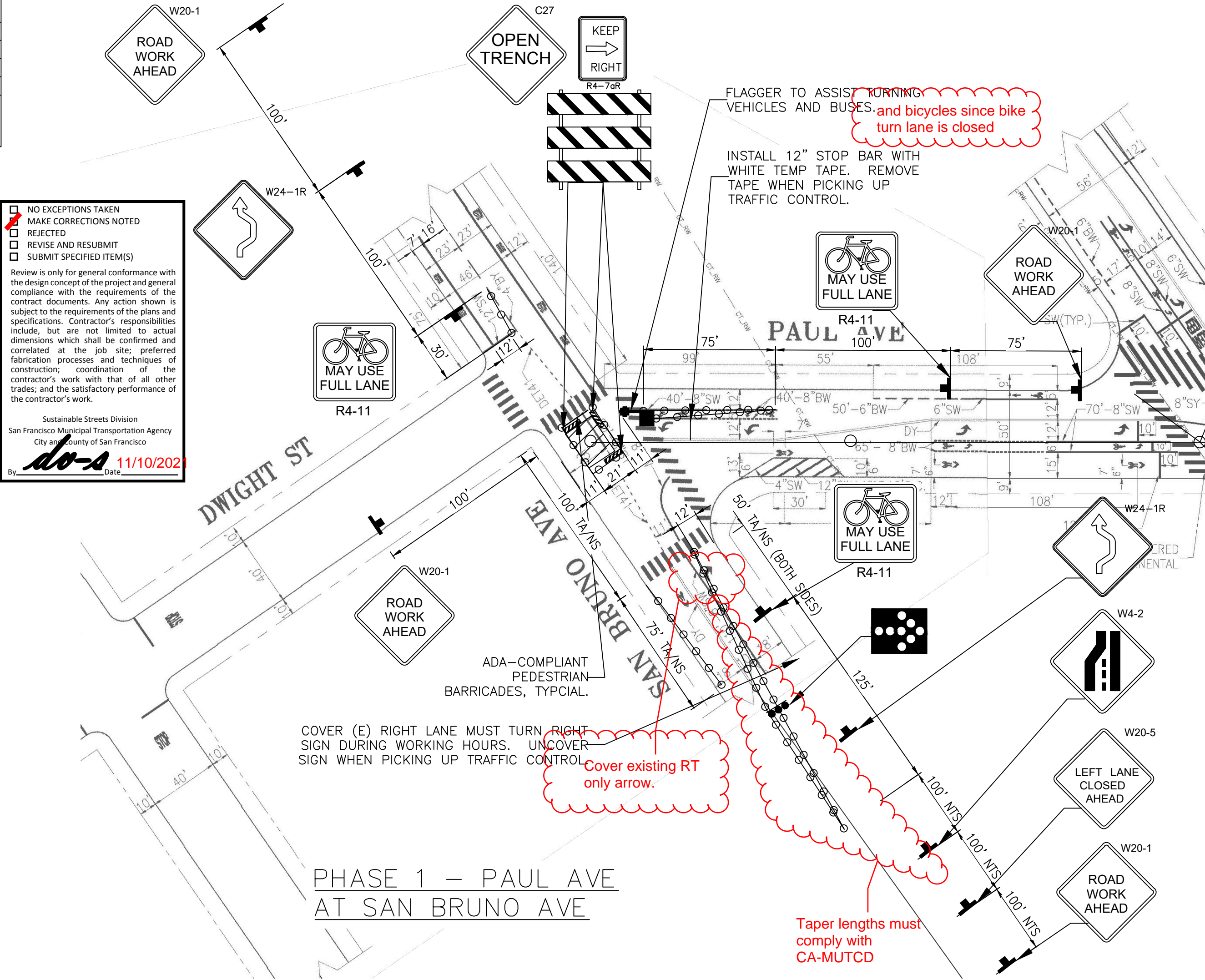
- WORK ZONE
- PAVEMENT MARKING
- BARRICADE (TYPE 1, 3, OR ADA AS NOTED)
- 28", 10# REFLECTIVE CONE
- 36" FIXED-MOUNT CHANNELIZER, ORANGE WITH WHITE RETRO-REFLECTOR, UON
- SIGN
- POST TEMP. TOW AWAY / NO STOPPING SIGNS
- PLAN VIEW FLASHING ARROW SIGN (FAS) OR CHANGEABLE MESSAGE SIGN (CMS)
- FLASHING ARROW SIGN
- SPEED RADAR TRAILER
- FLAGMAN
- UNIFORMED POLICE OFFICER
- WATER-FILLED LCD OR BARRIER AS NOTED
- ADA PLASTIC PEDESTRIAN BARRICADE / LCD
- CONCRETE K-RAIL BARRIER PER CALTRANS STANDARDS
- CRASH CUSHION, TL RATING AS NOTED
- TEMP PEDESTRIAN RAMP PER CALTRANS STD DRAWINGS T33 & T34
- TEMP STRIPING DETAIL PER CALTRANS STDs
- REMOVE CONFLICTING STRIPING

NOTES:

- WORK SCOPE: SEWER MAIN INSTALLATION
- WORK HOURS: SEE CHART
- PROVIDE FULL ROADWAY DURING NON-WORKING HOURS, UNLESS OTHERWISE NOTED.
- PROVIDE LOCAL ACCESS AT ALL TIMES.
- CONTRACTOR IS ALLOWED TO CLOSE 1 CROSSWALK AT ANY ONE TIME DURING WORKING HOURS AS LONG AS 1 FLAGPERSON IS PROVIDED TO DIRECT PEDESTRIANS TO THE OPEN CROSSWALKS.
- SEE CONTRACT SPECIFICATION SECTION 01 55 26 FOR ADDITIONAL NOTES
- ALL TRAFFIC CONTROL SHALL FOLLOW THE CA MUTCD, LATEST EDITION
- ALL TRAFFIC CONTROL DEVICES SHALL BE RETROREFLECTIVE AND CRASHWORTHY AS DEFINED IN THE CA MUTCD.
- FLAGGER STATIONS SHALL BE ILLUMINATED DURING HOURS OF DARKNESS
- MOUNT 2 ORANGE FLAGS ABOVE EACH SIGN. SEE TABLE 6F-1 IN CHAPTER 6 OF THE CA MUTCD FOR SIGN SIZES. MINIMUM SIGN HEIGHT FOR TEMPORARY SIGNS IS 1' FROM THE GROUND TO THE BOTTOM OF THE SIGN. IF A SIGN WILL BE IN PLACE FOR MORE THAN 3 DAYS, MINIMUM SIGN HEIGHT IS 7'.
- CONTRACTOR TO VERIFY ACCURACY OF EXISTING STRIPING PRIOR TO START OF WORK.
- IF TRENCH PLATES ARE USED, PLACE A W8-24 "STEEL PLATE AHEAD" SIGN IN ADVANCE.
- A C27 "OPEN TRENCH" SIGN SHALL BE USED IN ADVANCE OF OPEN TRENCHES IN/OR ADJACENT TO THE ROADWAY. ALL OPEN TRENCHES

SHALL BE CLEARLY DELINEATED AND BARRICADED DURING WORKING HOURS AND FILLED OR PLATED DURING NON-WORKING HOURS.

- IF A STEP OR RIDGE IN THE PAVEMENT EXCEEDS $\frac{3}{8}$ " PARALLEL TO THE DIRECTION OF TRAVEL OR $\frac{3}{8}$ " PERPENDICULAR TO THE DIRECTION OF TRAVEL, POST A C46(CA) "UNEVEN PAVEMENT" SIGN (OR W8-11 "UNEVEN LANE" SIGN IF ALONG A LANE LINE). IF THE STEP EXCEEDS 3", DO NOT RE-OPEN THE ROADWAY UNTIL CORRECTED.
- NOTIFY RESIDENTS, BUSINESSES, AND PROPERTY OWNERS WITH DATES AND TIMES THAT THEIR ACCESS WILL BE AFFECTED 2 WEEKS PRIOR TO START OF WORK.
- IF AN EXISTING SAFE PATH OF TRAVEL IS OBSTRUCTED BY A FLEXIBLE HOSE FOR SEWER DIVERSION, THE CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN RAMPS OVER THE HOSES. IF THE FLEXIBLE HOSE IS LOCATED WITHIN A BIKE PATH, BIKE LANE, OR A STREET DESIGNATED AS AN OFFICIAL BIKE ROUTE, THE CONTRACTOR SHALL PROVIDE LONGITUDINAL AND/OR TRANSVERSE TRANSITIONS WITH A SLOPE OF 1:18 BETWEEN THE HOSE AND EXISTING PAVEMENT WHENEVER THE DIFFERENCE IN THE GRADE OF THE PAVEMENT AND THE HOSE EXCEEDS $\frac{3}{8}$ ", BEFORE OPENING THE LANES TO TRAFFIC.
- CONTRACTOR SHALL DELINEATE A 5' (4' MINIMUM) SAFE PATH OF TRAVEL FOR PEDESTRIANS USING PLASTIC ADA-COMPLIANT PEDESTRIAN BARRICADES WITH A DETECTABLE AND CONTINUOUS TOE-BOARD. THE BOTTOM OF THE TOE BOARD SHALL BE NO MORE THAN 2" ABOVE GRADE AND THE TOP SHALL BE AT LEAST 6" ABOVE GRADE. THE SAFE PATH OF TRAVEL SHALL CONSIST OF A HARD, SMOOTH, CONTINUOUS SURFACE WITH A MAXIMUM SLOPE OF 5% AND CROSS SLOPE OF 2%. SURFACE DISCONTINUITIES MUST NOT EXCEED $\frac{3}{8}$ " AND VERTICAL DISCONTINUITIES BETWEEN $\frac{3}{8}$ " AND $\frac{3}{4}$ " MUST BE BEVELED AT A MAXIMUM OF 2:1 OR FLATTER. REFER TO THE CALTRANS TEMPORARY PEDESTRIAN ACCESS ROUTES HANDBOOK FOR ADDITIONAL DETAILS.
- TEMPORARY CURB RAMPS MUST NOT HAVE SURFACE DISCONTINUITIES. THE LONGITUDINAL SLOPE MUST BE NO GREATER THAN 8.3%. EDGE PROTECTION MUST BE AT LEAST 2" HIGH ON EACH SIDE IF IT DOES NOT HAVE FLARES AND THE RISE IS GREATER THAN 6". A DETECTABLE WARNING SURFACE MUST BE USED. REFER TO CALTRANS STANDARD PLANS T33 AND T34 FOR ADDITIONAL DETAILS.



IF THIS SHEET IS NOT 24"x36" , IT IS
A REDUCED PRINT - SCALE ACCORDINGLY

0 50 100 150
1" = 50' GRAPHIC SCALE

Revisions			
No.	Revisions	By	Date



BAY-CON INFRASTRUCTURE
PO BOX 1342
SAN MATEO CA 94401
(415) 580-1441 OFFICE
(415) 329-3240 FAX
INFO@BAY-CON.COM

Key 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
do-a 11/17/2021

This document is the property of the engineer and is not to be used without engineer's written permission. Satellite imagery provided by Google Earth and Europa. Technologies.

Engineer Of Record:
PHIL MIESZKOWSKI, PE



DESIGN DOCUMENTS
TEMPORARY TRAFFIC CONTROL

Client
MICHAEL O'SHAUGHNESSY CONSTRUCTION
Owner
SAN FRANCISCO PUBLIC WORKS
Project
SFPW 1000015860 PAUL AVE, WOOLSEY ST AND SALINAS AVE PAVEMENT RENOVATION AND SEWER REPLACEMENT

Sheet Title
TEMPORARY TRAFFIC CONTROL PLAN FOR SEWER MAIN INSTALLATION ON PAUL AVE, WOOLSEY ST, AND SALINAS AVE - SHEET 1 OF 15

BGI Job 137

Drwn By PM

Chckd By PM

Issue Date 11/01/2021

Sheet

TCP-001