SECTION 01 55 26

TRAFFIC CONTROL

PART I – GENERAL

1.1 SUMMARY

A. This Section sets forth the minimum requirements for traffic control during construction.

B. Related Sections:

1. Section 01 41 00 – Regulatory Requirements

2. Section 01 50 00 – Temporary Facilities and Controls

C. All traffic signs, barricades, delineators, flashing arrow signs, and other traffic control devices shall conform to the requirements of the latest edition of California Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD) and the requirements of the Caltrans Standard Specifications (CTSS), except as specified herein.

1.2 SCOPE OF WORK

A. The Contractor shall prepare Traffic Control Plans, and install, operate, maintain and remove traffic control in conformance with the requirements in this section. The required traffic control work shall be in place prior to the start of the construction work of the Contractor and/or any of the subcontractors. The Traffic Control Plans shall clearly depict the exact sequence of the construction operation(s), the construction to be performed and the traveled way that will be utilized by all movement of traffic and pedestrians during each phase of construction. Multiple phases of construction will require a separate traffic control plan for each different construction phase or operation for working and non-working hours. No typical Traffic Control Plans will be permitted except as approved by the Traffic Engineer.

B. The Contractor or subcontractor (having Contractor's Class A or Class C license issued by the State of California Contractors State License Board) may perform the Traffic Control work utilizing its own forces. If the Contractor chooses to hire a subcontractor solely to perform the Traffic Control work, subcontractor shall possess a current C-31 Construction Zone Traffic Control license issued by the California Contractors State License Board. If the Contractor hires a subcontractor to perform other work, the subcontractor may perform traffic control incidental to that work.

The Contractor or Subcontractor shall provide sufficient traffic crews as required by the City Representative to implement and maintain the traffic control work. The Contractor or Subcontractor shall provide flaggers as required by the City Representative and/or as shown on the approved Traffic Control Plans to control the vehicular traffic and to guide the pedestrians through the Construction area. Flaggers shall not perform non-traffic related duties. There shall be at least two (2) or more flaggers as required by the Traffic Engineer. The Traffic Crew shall be comprised of at least two (2) dedicated persons.

1. Traffic Crew

    a. Assist in re-striping and setting up all traffic signs and other traffic control devices in accordance with the approved Traffic Control Plans. The required traffic control work shall be in place prior to the start of the construction work of the General Contractor and/or any of the subcontractors.

    b. Be on site especially during nights, weekends, and holidays, if and as required by the City Representative in setting up and/or correcting the traffic control devices, during the Contractor's actual working hours or as directed by the City Representative.

C. The Contractor shall so conduct the operations as to cause the least possible obstruction and inconvenience to the public and area residents, and shall have under construction no greater length or amount of work, than set forth in the specifications, and that the Contractor can prosecute properly with due regard to the rights of the public and area residents. The Contractor shall ensure all streets and intersections remain open to traffic and maintain access to public and private properties to the greatest extent possible by constructing the work in stages.

D. The Contractor shall provide for the protection of the traveling public, pedestrians, and workers within the area covered by the limits of construction, at all times when the area is affected by the Contractor's construction facilities or activities.

E. The Contractor shall furnish, install, relocate to provide for lane shifting, remove, store, maintain (including covering and uncovering as required), move to new locations, replace when damaged or missing and dispose of all traffic signs and traffic control devices and features necessary for the safety and convenience of the general public and area residents. All workers and work shall be safeguarded, where and as required by conditions at the site of the work, and in addition to the requirements specified herein, including but not limited to the following:

1. Traffic signs and parking prohibition signs

2. Barricades with flashers

3. Delineators

4. High level warning devices

5. Solar powered flashing arrow signs

6. Pedestrian barricades

7. Removal of conflicting existing striping and pavement markings in traffic lanes and in parking areas and re-installation of the original striping and pavement markings after construction is completed

8. Temporary striping and reflective markers, overlay markers, for both construction and interim re-alignments of traffic lanes, crosswalks prior to final striping

9. Excavation plating/bridging, including any temporary plating and bridging required by the Contractor's operations

10. Temporary paving

11. Providing flaggers

12. Changeable Message Signs (CMS)

F. The Contractor shall provide traffic lanes and routing of vehicles, bicycles, and pedestrian traffic, as specified herein, in a manner that will be safe and will minimize traffic congestion and delays.

G. Temporary Pavement Markings

1. Temporary traffic delineation and pavement markings (lane lines, STOP bars, etc.) shall be furnished, installed, maintained, and removed by the Contractor. The Contractor shall furnish and install temporary pavement markings according to striping drawing(s) prior to opening the roadway to public traffic and/or instructed by the Traffic Engineer through the City Representative. The location of the temporary pavement lane lines shall be within 3 inches of the lines shown on the existing striping drawings.

2. Whenever the work causes obliteration of pavement markings (i.e., after removing the existing markings, grinding, paving, etc.), temporary pavement markings delineation shall be in place prior to opening the roadway to public traffic.

3. All work necessary, including any required lines or marks, to establish the alignment of temporary pavement markings shall be performed by the Contractor. When temporary pavement markings are required to be removed, all lines and marks used to establish the alignment of the temporary pavement markings shall be removed.

4. Surfaces to receive temporary pavement markings shall be dry and free of dirt and loose material. Temporary pavement markings shall not be applied over existing pavement markings or other temporary markings.

5. Temporary pavement markings shall be maintained at no additional cost during the duration of the project until superseded or replaced with permanent pavement markings. Temporary pavement markings shall be removed when, as determined by the Traffic Engineer through the City Representative, the temporary pavement markings conflict with the permanent pavement markings or with a new traffic pattern for the area and is no longer required for the direction of public traffic.

1.3 APPLICABLE CODES AND STANDARDS

A. In addition to compliance with this specification, the Contractor shall comply with all applicable requirements of the latest editions of the following:

1. California Vehicle Code

2. California Manual on Uniform Traffic Control Devices (MUTCD)

3. Caltrans Standard Specifications (CTSS) and Plans, Department of Transportation, State of California

4. City & County of San Francisco Municipal Transportation Code

5. Regulations for Working in San Francisco Streets ("Blue Book"), San Francisco Municipal Transportation Agency (SFMTA), City and County of San Francisco

   Free copies of the "Blue Book" can be obtained from the SFMTA at 1 South Van Ness Avenue, 7th Floor, San Francisco, California 94103 or online at:

   http://www.sfmta.com/services/streets-sidewalks/construction-regulations

6. Regulations for Excavating and Restoring Streets in San Francisco, San Francisco Public Works, City and County of San Francisco

7. Standard Specifications and Plans, San Francisco Public Works, City and County of San Francisco

8. Other Applicable Government Regulations

1.4 SUBMITTALS

A. The Contractor shall prepare and submit the following to the Traffic Engineer through the City Representative for review and approval before any major work is allowed in the streets:

1. Traffic Control Plans
2. Parking and Storage Plans
3. Material Specifications
4. Certification and Resume of Flaggers
5. Sign Inventory Form(s)

B. Traffic Control Plans

1. No work shall be allowed on City streets without SFMTA approved Traffic Control Plans. A separate set of Traffic Control Plans shall be required for both working and non-working hours. Traffic Control Plans shall be prepared by a licensed Engineer who has personal knowledge of the traffic conditions in the work areas, understands the impacts the work will have on vehicular, pedestrian, and other modes of transportation, and shall ensure Traffic Control Plans comply fully with CAMUTCD, Americans with Disabilities Act (ADA) requirements and all City requirements related to providing path of travel through construction zones.

2. Complete Traffic Control Plans shall be submitted to the Traffic Engineer through the City Representative for review and approval thirty (30) calendar days before embarking on any scope of work.

   a. The Contractor shall allow in the schedule twenty-one (21) calendar days for the City to review and respond to the Traffic Control Plans.
   b. If Traffic Engineer returns Traffic Control Plans with instructions to resubmit, the Contractor shall make corrections and revisions as necessary. The Contractor shall schedule fourteen (14) calendar days for the City to review and respond to the resubmitted plans starting from date of receipt.
   c. The Traffic Engineer may require additional days for the review of Traffic Control Plans at complex intersections and/or when contractor submits multiple Traffic Control Plan sets within the same review period. Examples of complex intersections include

near Caltrans right-of-way, freeway ramps and state highways, unusual intersection geometry, active rail, etc.

3. A submittal shall consist of six (6) copies on white paper or blue prints of each drawing.

   a. The Contractor shall use the existing striping plan(s), T-1, T-2,…, as a base to prepare the Traffic Control Plans.
   b. If existing striping plan is not available, the Contractor shall use the Street Reconstruction or paving plans as base plans to prepare the Traffic Control Plans.
   c. Drawing size shall be 17" X 11". The Traffic Control Plans shall be drawn to a scale of 1 inch = 50 feet (1:1200).
   d. Upon approval of the Traffic Engineer electronic submittals may be made in place of paper copies.
   e. The Traffic Control Plans shall be prepared, signed and stamped by a Civil Engineer or a Traffic Engineer (registered in the State of California) with the assistance and input of the Contractor's Superintendent. The Traffic Engineer may elect to reject and not review the submitted Traffic Control Plans if they are not signed and stamped.

4. If the alignment of the main changes after pot holing and the Contractor cannot follow the approved Traffic Control Plans, the Contractor shall submit four (4) copies of the proposed new alignment and Traffic Control Plan to the Traffic Engineer through the City Representative for review and approval. The Contractor shall prepare the Traffic Control Plans for grinding and paving, based on the Excavation Permit issued by the Bureau of Streets and Mapping of SF Public Works for each street.

5. Contractor shall prepare and submit four (4) copies of Traffic Control Plans for interim roadway conditions between partial and final sidewalk and roadway alignment changes to the Traffic Engineer through the City Representative for review and approval. Contractor shall maintain interim traffic configuration on affected roadway segments until the City has accepted the improvements plus 30 calendar days or the City has installed final striping and signing.

6. The Contractor shall submit Traffic Control Plans for the following work as applicable:

   a. Sewer Main Work
   b. Sewer Lateral Work
   c. Concrete Base Repair Work
   d. Grinding
   e. Paving

f. Curb Ramps
g. Curb and Sidewalk Work

7. Each Traffic Control Plan shall show the following minimum applicable information, as required by the Traffic Engineer through the City Representative:

a. Roadway and traffic lane layout (width of sidewalk, street and lanes, etc.); outline and dimensions of the work under construction (i.e., limits of excavation), location of construction barricades, location of trench protection devices, location of major construction equipment, and the ingress and egress routes of trucks hauling materials to and from the construction site.

b. Traffic detour plan, when applicable, should be included with Traffic Control Plan.

c. Sequence of construction and traffic lane transitions.

d. Taper lengths shall be called out and dimensioned.

e. Crosswalk and sidewalk closures.

f. Existing striping, pavement markings and traffic signs, and description of what is to be removed prior to installation of temporary striping and signage, and what will be restored after the construction is completed.

g. Location and spacing of "Tow-Away, No Stopping" signs.

h. Location and description of temporary striping, pavement markings, signs, and other traffic control devices necessary to provide and maintain the adequate number and width of traffic lanes specified herein, and to provide and maintain passage and protection for pedestrians.

i. Location and description of traffic control devices proposed for the protection of the work area, excavation, etc.

j. Other proposed changes and provisions for removal, relocation, or temporary installation of:

i. Traffic signs

ii. Transit stops

iii. Barricades

iv. Solar operated flashing arrow signs

v. Traffic signals

k. Accessible, safe path of travel for passengers using public transit, from/to loading platform to/from the sidewalk.

l. Location of detour signs for vehicular, truck, bicycle and pedestrian traffic.

m. Truck routes.

n. Location of above-ground flexible hoses used during the diversion of sewer mains as well as temporary pedestrian and bicycle ramps to eliminate tripping hazards.

o. Parklets and Shared Spaces with dimensions.

C. Parking and Storage Plans

1. The Contractor shall submit plans for materials storage and equipment parking, for each area of the work along with the respective Traffic Control Plans. The City has the option to reject the storage and equipment parking plans. Storage, stockpiling or placement of any equipment, materials or supplies within the area of any public street or alley, including the sidewalks thereof, will be allowed only with approved storage and parking plans approved by the Traffic Engineer through the City Representative.

2. A storage area that does not comply with City housekeeping, occupancy, and other specifications and standards may be revoked.

3. No construction equipment or materials shall be allowed to be stored on any sidewalk, street or property, except as shown on the approved Storage Plans for various phases of construction. A maximum storage area of 100 feet in length may be allowed per block. Only equipment and materials to be used within the next seven (7) days of work may be stored in this area. See Public Works Order 187005 for additional information.

4. Storage areas or office trailers may not be allowed within 25 feet of any intersection unless approved by the Traffic Engineer. It shall not block traffic control devices (STOP signs, signals, etc.), hydrants, bus stops, or driveways.

5. Storage, stockpiling, or placement shall not in any way obstruct any lane or passageway intended for vehicular or pedestrian traffic. Parallel parking strips are typically 7 to 8 feet wide.

6. Metered parking spaces may be occupied for equipment or material storage in the vicinity of the active construction area with the approval of the Traffic Engineer. A Special Traffic Permit and fees may apply.

7. If the Traffic Engineer through the City Representative determines that such storage, stockpiling, or placement causes a violation of the foregoing, of any law or order of any regulatory body having jurisdiction, and/or public complaint, the Contractor shall cease or modify the storage, stockpiling, or placement as necessary to comply with the specifications, laws, and orders. Any work performed to remove, relocate or modify the storage, stockpiling or placement of any equipment, materials or supplies shall be done at the Contractor's expense.

8. The Contractor shall provide its own yard for the storage of pipes, pipe fittings, steel bars, shoring, etc. The proposed areas for storage of materials or equipment shall be noted in the Traffic Control Plans.

9. The Contractor shall be responsible for ensuring that only Contractor's vehicles clearly identified with the name on each side of each vehicle, may be parked in the construction area.

10. Employees of the Contractor, subcontractors, and suppliers shall not park their vehicles within the active construction area when and where they are currently working and where public access is prohibited. The Contractor shall provide parking for its employees at a site which will not impact local public parking and transport employees between the parking area and the work.

D. Material Specifications

1. The Contractor shall submit the manufacturer's specification and data for the specific traffic control devices and materials, e.g., solar operated flashing arrow boards, temporary traffic tape, traffic water-filled barriers or approved equal, etc.

E. Certification and Resume of Flaggers

1. The flaggers shall have passed a Flagger Training Course conducted by the American Traffic Safety Services Association (herein after called ATSSA) or other Caltrans approved organizations. Refer to web page https://www.atssa.com/ or https://dot.ca.gov/programs/construction/safety-

traffic/safety-training-courses for flagger training courses. Training courses shall meet the following requirements:

a. Covers flagging requirements described in the California Manual on Uniform Traffic Control Devices (CA MUTCD), Part 6, "Temporary Traffic Control" and the Caltrans Flagging Instruction Handbook (PDF).

b. Demonstrate proper flagging equipment, signals, procedures and standard skills of a good flagger.

c. Covers standard flagger practices for various situations.

d. Discusses flagger station requirements and required temporary traffic control devices.

e. Be a minimum of 4 hours of in-person training (online not accepted).

f. Require that students demonstrate proper flagging procedures to become certified.

g. Include a written multiple-choice test and to successfully become certified, students must answer questions correctly with a passing score of 80% or better.

2. The flaggers shall have a minimum of one year experience utilizing manual traffic controls on similar construction projects within the last three years or have received their flagger certification within the last six months. Resumes shall be provided to document work experience as part of the flagger submittal.

3. The Contractor shall submit certificates and resumes (when required per above) of all flaggers for review and approval of the Traffic Engineer. The certificates of the flaggers shall be valid, current and show the expiration date. Both the contractor and flaggers are responsible for maintaining certification which shall be renewed as necessary to ensure validity for the duration of the contract.

F. Sign Inventory Form(s)

1. Sign Inventory Form(s) is/are to be submitted to the Traffic Engineer through the City Representative as part of the Traffic Control Plan prior to the start of any contract field work. This form is included at the end of this Section. Sign Inventory Forms are required for each intersection corner or other location that includes any sign relocation, sign removal, curb ramp work, pole or traffic signal work. Sign Inventory Forms shall accurately reflect all existing traffic control, street name, and other City signs at the required location(s).

1.5 QUALIFICATIONS

A. In addition to the license(s) requirement in Subsection 1.2.B above, the Contractor or subcontractor performing traffic control shall have a minimum of 5 years' experience in traffic control as a firm/company and shall be licensed by the California Contractors State License Board. Refer to Section 00 21 13 – Instructions to Bidders, "Bidder Qualifications" for bidding requirements.

B. The Contractor and/or subcontractor shall employ individuals with the following qualifications to perform the traffic control work:

1. Each Traffic Crew member shall have a minimum of one-year experience in Traffic Control on similar scale projects.

2. Each flagger shall have passed a Flagger Training Course given by ATSSA or other approved institution's course that meets the requirements in Subsection 1.4.E and is approved by the Traffic Engineer.

PART 2 – PRODUCTS

2.1 GENERAL

A. All traffic signs, barricades, delineators, flashing arrow signs, and other traffic control devices shall conform to the requirements of the latest edition of the California MUTCD. The California MUTCD is available online at:

http://www.dot.ca.gov/hq/traffops/engineering/mutcd/

B. All special construction traffic signs shall be reflectorized with black messages/symbols having 6" and/or 8" high series D letters on orange colored aluminum plate. The message and size of the letters shall be determined by the Traffic Engineer through the City Representative. Any changes on any signs shall be made with appropriate decals.

C. All barricades shall have flashers. For night time work when lanes are closed, the flashers shall be maintained in good operating condition at all times by the Contractor.

D. Any equipment that does not operate properly or any device that is not in good operating condition shall be removed from the job site immediately at the Contractor's expense.

E. The Contractor shall use Caltrans, CAMUTCD, or FHWA approved traffic control devices to separate traffic lanes and construction areas.

F. The Contractor shall provide ADA compliant accessible, safe paths of travel for pedestrians.

G. When circumstances require use of a barrier system refer to Subsection 2.6 BARRIERS.

2.2 DELINEATORS

A. Delineators for lane taper areas for the separation of traffic from other work shall be either reflectorized traffic cones minimum 28 inches high or reflectorized portable tubular delineators minimum 36 inches high, with orange posts and yellow/white reflectors. Reflector units shall be 3”x 12” minimum.

B. Delineators used during non-working hours shall be double-based or secured to the pavement.

2.3 NON-SKID METAL PLATING

A. Metal plating and any metal bridging shall be with non-skid and rust-inhibitive product and shall be Intergard 750HS (formerly 7300 Magna-Prime) Epoxy or equal, manufactured by Courtaulds Coatings (Division of International), 400 South 13th Street, Louisville, KY 40201-1439; Tel: (800) 332-6270; Fax: (800) 283-0508. This material shall be applied as directed by the manufacturer. Plating shall be installed and maintained in such a manner as to provide a non-skid surface with no edges or corners sticking up and with no bouncing or shifting. All non-skid plates shall have a friction factor of 0.35 or greater as measured by the California Department of Transportation Test 342.

2.4 CHANGEABLE MESSAGE SIGNS

NOT USED

2.5 BARRICADES

A. The Contractor shall furnish, install and maintain barricades to separate pedestrian areas and traffic areas as shown on the approved Traffic Control Plans.

B. Devices meeting CAMUTCD, Caltrans, and FHWA requirements for barricades and designed specifically to be used as barricades may be used as barricades. Neither barriers nor barrier systems shall be used as barricades in the San Francisco public right-of-way. Barricades used in the public right-of-way shall be deployed in conjunction with traffic control devices as established by CAMUTCD.

2.6 BARRIERS

A. All plastic barrier systems including, but not limited to Triton barrier systems, that are deployed as barriers shall be filled, connected/inter-locked and arrayed in unit quantities that comply with manufacturer's standards for use of these devices as barrier systems. Only devices meeting CAMUTCD, Caltrans, and FHWA requirements for use as barrier systems may be used as barrier systems. Minimum requirements for plastic barrier systems are:

1. Filling units with water or sand in accordance with manufacturer's requirements.

2. Physical connection systems and correct alignment in accordance with manufacturer requirements.

3. Meet or exceed manufacturer's established number of devices for posted speed limit where deployed.

4. Installation of end treatments (array) as required by manufacturer.

B. The installation layout of water filled barriers (or approved equal) shall be in accordance with the manufacturer's specifications. The water filled barriers (or approved equal) shall be filled with water or sand in accordance with the manufacturer's specifications. The water filled barriers (or approved equal) shall be inter-locked per manufacturers specifications.

C. The Contractor shall not substitute K-rails for water filled barriers (or approved equal). The use of water filled barriers (or approved equal) used in conjunction with K-rails is not permitted under any circumstance.

D. If K-rails are required for the work by Caltrans or the project the Contractor shall furnish, install, and maintain the Caltrans Standard K-rails used in the project, and shall follow CAMUTCD, Caltrans, FHWA, and manufacturer's requirements for their installation and use.

2.7 TAPE AND MARKERS FOR TEMPORARY STRIPING

A. Temporary Retroreflective Painted Pavement Striping and Markings

The Contractor shall use painted traffic striping and pavement markings on concrete base as instructed by the Traffic Engineer through the City Representative. Painted traffic striping and pavement markings shall be installed immediately after grinding and before fully opening the required lanes to traffic at the end of the work day. The materials and application shall comply with Section 84-3 of Caltrans Standard Specifications. The Traffic Engineer, through the City Representative, may request samples of materials.

B. Temporary Removable Pavement Tape

The Contractor shall use pavement tape after paving as instructed by the Traffic Engineer through the City Representative. The Contractor shall use any one of the following removable foil-backed tapes or approved equal:

1.	Swarco	Visa-Line
2.	Brite-Line	Series 100
3.	ATM	Series 200

C. Temporary Reflective Overlay Pavement Markers

The Contractor shall use overlay pavement markers on finished concrete streets and micro-surfaced streets as instructed by the Traffic Engineer through the City Representative. The Contractor shall use any one of the following or approved equal:

1.	Davidson Plastic	Model TOM (Standard) with Reflexite PC-1000 or WZ with Reflexite AC-1,000 sheeting
2.	Stimsonite	Model 300 “Temporary Overlay Markers”
3.	Hi-way Safety Inc.	Model 1280 / 1281 with Reflexite PC 1,000

2.8 TRAFFIC SIGNAL LOOPS

NOT USED

2.9 CONDUCTORS

A. General

1. Conductors for all traffic signals running between the traffic signal controller and the termination point shall be Type UF. The termination point is either a terminal block inside the terminal compartment of a traffic signal assembly or the signal head itself if no terminal compartment is used. Conductors within traffic signal framework shall be Type UF or THW and may be either solid or stranded provided that such framework contains a terminal compartment (otherwise Type UF wire shall terminate at the signal head). Conductors for street lighting shall be Type THW. Traffic signal service wire shall be THW; #8 and larger shall be stranded; #10 through # 14 shall be solid.

PART 3 – EXECUTION

3.1 VEHICULAR AND PEDESTRIAN TRAFFIC

A. Traffic Lane and Parking Requirements

1. The Contractor shall comply with all traffic lanes specified in the Traffic Lane Requirements table.

2. The Contractor shall maintain the required travelway for vehicles in any public street or way and a minimum width of 4 feet of clear sidewalk for pedestrians at all times.

3. The Contractor may be allowed to store materials and/or equipment for a limited time in the parking strip and/or portion of the sidewalk with written permission of the City Representative and SFMTA for use of the public right of way. The Contractor shall maintain adequate signing, barricades, lights, etc. at all times. Permission to store the materials shall be limited to unused materials during working hours or materials needed to resume the next seven (7) days of work. Refer to 1.4.C Parking and Storage Plans for more requirements.

4. No work shall interfere with the access of emergency vehicles including those of Police and Fire Departments and ambulances. Local access shall be maintained at all times, by providing a 12 foot wide lane on all roadways.

5. All existing traffic movements at the intersections shall be maintained by bridging and/or phasing.

6. Full Roadway is defined as the street from property line to property line, including sidewalks, parking strip and travel lanes. Exceptions are as noted below:

   a. Curb Ramps – Contractor may barricade off this area per approved traffic control plan for up to 4 days to allow for necessary demolition, pouring, and curing time and to provide safe pedestrian paths of travel. Refer to the Traffic Lane Requirements table for further details.

7. The Contractor shall provide the following tabulated lanes to satisfactorily accommodate vehicular and bicycle traffic. Vehicular/pedestrian access to properties along the project site shall be maintained at all times.

8. Tow-Away signs can have the posted hours shown as 0.5 (half) hour prior to the start of work with the exception that it shall not be earlier than 8:00 a.m.

Traffic Lane Requirements
Number and Width of Lanes for Through Traffic

STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
SEWER MAIN & LATERAL WORK (OPEN TRENCH)					
45TH AVENUE					
Sloat Blvd to Vicente St ⬆/⬇	8AM-5PM (M-F)	1@10'	1@10'	-	-
	Intersection Work/ Lateral Connections	1@11' ⬆/⬇		-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Cross Streets for 45TH Avenue					
Sloat Blvd *(MC) β	8AM-5PM (M-F)	-	-	Full Roadway	1@11' & 5' BL
	Intersection Work	-	-	Full Roadway	1@11' & 5' BL
	At Other Times	-	-	Full Roadway	Full Roadway
Wawona St	8AM-5PM (M-F)	-	-	1@10'	1@10'
	Intersection Work	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Vicente St β	At All Times	-	-	Full Roadway	Full Roadway
46TH AVENUE					
Sloat Blvd to Wawona St *(MC) © ⇧M/LA	8AM-5PM (M-F)	CLOSED© ⇧M/LA	1@12'	-	-
	Intersection Work	CLOSED© ⇧M/LA	1@12'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Cross Streets for 46TH Avenue					
Sloat Blvd *(MC) β	8AM-5PM (M-F)	-	-	Full Roadway	1@11' & 5' BL
	Intersection Work	-	-	Full Roadway	Full Roadway
	At Other Times	-	-	Full Roadway	Full Roadway
Wawona St (west of 46TH Ave) *(MM)	8AM-5PM (M-F)	-	-	1@12' track lane	1@10'
	Intersection Work	-	-	1@12' LT/RT ONLY	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
44TH Ave	At All Times	-	-	Full Roadway	Full Roadway
Wawona St (east of 46TH Ave) ©	8AM-5PM (M-F)	-	-	1@10'	1@10'
	Intersection Work	-	-	CLOSED ©	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway

STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
47TH AVENUE					
Sloat Blvd to Wawona St (MC)	8AM-5PM (M-F)	1@11'	1@11'	-	-
	Intersection Work	CLOSED ©	1@11'	-	-
	At Other Times	Full Roadway	Full Roadway		
Wawona St to Vicente St *(MC, MM) € ©	8AM-5PM (M-F)	1@11'	1@12' track lane	-	-
	Lateral Connections	CLOSED ©	1@12' track lane	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Vicente St to Taraval St ⬆/⬇	8AM-5PM (M-F)	1@11' ⬆/⬇		-	-
	Intersection Work/ Lateral Connections	1@11' ⬆/⬇		-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Cross Streets for 47TH Avenue					
Sloat Blvd *(MC) β	8AM-5PM (M-F)	-	-	Full Roadway	1@11' & 5' BL
	At Other Times	-	-	Full Roadway	Full Roadway
Wawona St (east of 47TH Ave) *(MM) €	8AM-5PM (M-F)	-	-	1@12'	1@11'
	At Other Times	-	-	Full Roadway	Full Roadway
Wawona St (west of 47TH Ave)	8AM-5PM (M-F)	-	-	1@11'	1@11'
	At Other Times	-	-	Full Roadway	Full Roadway
Cutler Ave	8AM-5PM (M-F)	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Vicente St (east of 47TH Ave) *(MM) β ∞ €	8AM-5PM (M-F)	-	-	1@10'	1@12' track lane
	At Other Times	-	-	Full Roadway	Full Roadway
Vicente St (west of 47TH Ave) β	8AM-5PM (M-F)	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Ulloa St	8AM-5PM (M-F)	-	-	1@10'	1@10'
	At Other Times			Full Roadway	Full Roadway
Taraval St	At All Times	-	-	Full Roadway	Full Roadway
SLOAT BOULEVARD					
44TH Ave to Lower Great Highway *(MC) β	8AM-5PM (M-F)	-	-	Full Roadway	1@11' & 5' BL
	At Other Times	-	-	Full Roadway	Full Roadway
Cross Street for Sloat Boulevard					
44TH Ave	At All Times	Full Roadway	Full Roadway	-	-

STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
45TH Ave ⬆/⬇	8AM-5PM (M-F)	1@10'	1@10'	-	-
	Intersection Work	1@11' ⬆/⬇		-	-
	At Other Times	Full Roadway	Full Roadway	-	-
46TH Ave *(MC) © ⇧ M/LA	8AM-5PM (M-F)	1@12'	1@12'	-	-
	Intersection Work	CLOSED © ⇧ M/LA	1@12'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
47TH Ave *(MC) ©	8AM-5PM (M-F)	1@12'	1@12'	-	-
	Intersection Work	CLOSED ©	1@11'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
ULLOA STREET					
46TH Ave to 47TH Ave	8AM-5PM (M-F)	-	-	1@10'	1@10'
	Intersection Work/ Lateral Connections	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Cross Streets for Ulloa St					
46TH Ave *(MC, MM)	At All Times	Full Roadway	Full Roadway	-	-
47TH Ave	8AM-5PM (M-F)	1@10'	1@10'	-	-
	Intersection Work/ Lateral Connections	Full Roadway	Full Roadway	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
VICENTE STREET					
@ Intersection of 45TH Ave, @ Intersection of 46TH Ave β ⬅/➡	8AM-5PM (M-F)	-	-	1@11'	1@11'
	Intersection Work/ Lateral Connections	-	-	1@12' ⬅/➡	
	At Other Times	-	-	Full Roadway	Full Roadway
46TH Ave to 47TH Ave *(MC, MM) β €	8AM-5PM (M-F)	-	-	1@12'	1@12'
	Intersection Work	-	-	1@12'	1@12'
	At Other Times	-	-	Full Roadway	Full Roadway
Cross Streets for Vicente St					
45TH Ave	At All Times	Full Roadway	Full Roadway	-	-
46TH Ave *(MC, MM) € © ⇧ M/LA	8AM-5PM (M-F)	1@11'	1@11'	-	-
	Intersection Work	CLOSED © ⇧ M/LA	1@12'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
47TH Ave *(MC, MM) € © ⇩ M/LA	8AM-5PM (M-F)	1@12'	1@12'	-	-
	Intersection Work	1@11'	CLOSED © ⇩ M/LA	-	-
	At Other Times	Full Roadway	Full Roadway	-	-

STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
WAWONA STREET					
44TH Ave to 45TH Ave ➡ ©	8AM-5PM (M-F)	-	-	1@10'	1@10'
	Intersection Work/ Lateral Connections	-	-	1@11' ➡	CLOSED ©
	At Other Times	-	-	Full Roadway	Full Roadway
@ 46TH Ave ⬅ ©	8AM-5PM (M-F)	-	-	CLOSED ©	1@11' ⬅
	Intersection Work/ Lateral Connections	-	-	1@11' ⬅/➡	
	At Other Times	-	-	Full Roadway	Full Roadway
Cross Streets for Wawona St					
44TH Ave	At All Times	Full Roadway	Full Roadway	-	-
45TH Ave	8AM-5PM (M-F)	1@10'	1@10'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
46TH Ave *(MM, MC) € ⬆ ©	8AM-5PM (M-F)	1@11'	1@11'	-	-
	Intersection Work	1@12' ⬆	CLOSED ©	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
SEWER LINING WORK					
46TH AVENUE					
Wawona St to Ulloa St *(MC, MM) ∞ €	Max 72 Hours Continuous ∞	1@11'	1@11'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Cross Streets for 46TH Ave					
Wawona St (east of 46TH Ave) ∞	Max 72 Hours Continuous ∞	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Wawona St (west of 46TH Ave) *(MM) ∞ €	Max 72 Hours Continuous ∞	-	-	1@11'	-
	At Other Times	-	-	Full Roadway	-
Vicente St (east of 46TH Ave) β ∞	Max 72 Hours Continuous ∞	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Vicente St (west of 46TH Ave) *(MM) β ∞	Max 72 Hours Continuous ∞	-	-	1@10'	1@12'
	At Other Times	-	-	Full Roadway	Full Roadway
Ulloa St	At All Times	-	-	Full Roadway	Full Roadway

STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
47TH AVENUE					
Sloat Blvd to Wawona St ∞	Max 72 Hours Continuous ∞	1@11'	1@11'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Wawona St to Vicente St *(MC, MM) ∞ €	Max 72 Hours Continuous ∞	1@11'	1@11'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Cross Streets for 47th Ave					
Sloat Blvd *(MC) β ∞	Max 72 Hours Continuous ∞	-	-	Full Roadway	2@11'
	At Other Times	-	-	Full Roadway	Full Roadway
Wawona St (east of 47th Ave) *(MM) ∞ €	Max 72 Hours Continuous ∞	-	-	1@11'	-
	At Other Times	-	-	Full Roadway	-
Wawona St (west of 47th Ave) ∞	Max 72 Hours Continuous ∞	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Cutler Ave ∞	Max 72 Hours Continuous ∞	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Vicente St (east of 47th Ave) *(MM) β ∞ €	Max 72 Hours Continuous ∞	-	-	1@11'	1@11'
	At Other Times	-	-	Full Roadway	Full Roadway
Vicente St (west of 47th Ave) β ∞	Max 72 Hours Continuous ∞	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
VICENTE STREET					
46TH Ave to 47TH Ave *(MM) β ∞ €	Max 72 Hours Continuous ∞	-	-	1@10'	1@12'
	At Other Times	-	-	Full Roadway	Full Roadway
Cross Streets for Vicente St					
46TH Ave (north of Vicente) *(MM) ∞	Max 72 Hours Continuous ∞	1@11'	1@11'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
46TH Ave (south of Vicente) *(MM)	At All Times	Full Roadway	Full Roadway	-	-

STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
47TH Ave (north of Vicente) ∞ ⬆ ©	Max 72 Hours Continuous ∞	1@10'⬆	CLOSED ©	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
47TH Ave (south of Vicente) *(MM) ∞	Max 72 Hours Continuous ∞	1@11'	1@11'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
WAWONA STREET					
46TH Ave to 47TH Ave *(MM) ∞	Max 72 Hours Continuous ∞	-	-	1@12'	-
	At Other Times	-	-	Full Roadway	Full Roadway
Cross Streets for Wawona St					
46TH Ave (north of Wawona) *(MM) ∞ ⬆ © €	Max 72 Hours Continuous ∞	1@12'⬆	CLOSED ©	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
46TH Ave (south of Wawona)	At All Times	Full Roadway	Full Roadway	-	-
47TH Ave (north of Wawona) *(MM) ∞ €	Max 72 Hours Continuous ∞	1@11'	1@11'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
47TH Ave (south of Wawona) ∞ ⬆/⬇	Max 72 Hours Continuous ∞	1@10' ⬆/⬇		-	-
	At Other Times	Full Roadway	Full Roadway	-	-
CONCRETE BASE REPAIR, GRINDING AND PAVING, AND ALL OTHER WORK					
45TH AVENUE					
Sloat Blvd to Vicente St	8AM-5PM (M-F)	1@10'	1@10'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Cross Streets for 45TH Avenue					
Sloat Blvd *(MC)	8AM-5PM (M-F)	-	-	Full Roadway	1@11' & 5' BL
	At Other Times	-	-	Full Roadway	Full Roadway
Wawona St	8AM-5PM (M-F)	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Vicente St β	At All Times	-	-	Full Roadway	Full Roadway

STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
46TH AVENUE					
Sloat Blvd to Wawona St *(MC) ©	8AM-5PM (M-F)	1@12'	CLOSED ©	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Cross Streets for 46TH Avenue					
Sloat Blvd *(MC) β	8AM-5PM (M-F)	-	-	Full Roadway	1@11' & 5' BL
	At Other Times	-	-	Full Roadway	Full Roadway
Wawona St (west of 46TH Ave) *(MM) €	8AM-5PM (M-F)	-	-	1@12' track lane	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Wawona St (east of 46TH Ave)	8AM-5PM (M-F)	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
47TH AVENUE					
Wawona St to Vicente St *(MC, MM) €	8AM-5PM (M-F)	1@10'	1@12' track lane	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Vicente St to Taraval St	8AM-5PM (M-F)	1@10'	1@10'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Cross Streets for 47TH Ave					
Wawona St *(MM) €	At All Times	-	-	Full Roadway	Full Roadway
Vicente St (east of 47TH Ave) *(MM) β €	8AM-5PM (M-F)	-	-	1@10'	1@12' track lane
	At Other Times	-	-	Full Roadway	Full Roadway
Vicente St (west of 47TH Ave) β	8AM-5PM (M-F)	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Ulloa St	8AM-5PM (M-F)	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway'
Taraval St	At All Times	-	-	Full Roadway	Full Roadway
SLOAT BOULEVARD					
44TH Ave to Lower Great Highway *(MC) β	8AM-5PM (M-F)	-	-	Full Roadway	1@11' & 5' BL
	At Other Times	-	-	Full Roadway	Full Roadway
Cross Street for Sloat Boulevard					
44TH Ave	At All Times	Full Roadway	Full Roadway	-	-

STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
45TH Ave	8AM-5PM (M-F)	1@10'	1@10'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
46TH Ave *(MC) ©	8AM-5PM (M-F)	1@12'	1@12'	-	-
	Intersection Work	1@12'	CLOSED ©	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
47TH Ave *(MC) ©	8AM-5PM (M-F)	1@12'	1@12'	-	-
	Intersection Work	CLOSED ©	1@12'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
ULLOA STREET					
46TH Ave to 47TH Ave	8AM-5PM (M-F)	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Cross Streets for Ulloa St					
46TH Ave *(MC, MM)	At All Times	Full Roadway	Full Roadway	-	-
47TH Ave	8AM-5PM (M-F)	1@10'	1@10'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
WAWONA STREET					
44TH Ave to 46TH Ave	8AM-5PM (M-F)	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
Cross Streets for Wawona St					
44TH Ave	At All Times	Full Roadway	Full Roadway	-	-
45TH Ave	8AM-5PM (M-F)	1@10'	1@10'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
46TH Ave *(MM, MC) €	8AM-5PM (M-F)	1@12'	1@10'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
CURB RAMP WORK					
45TH AVENUE AND WAWONA STREET Intersection					
45TH Ave	8AM-5PM (M-F)	1@10'	1@10'	-	-
	Concrete Curing	1@10'	1@10'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Wawona St	8AM-5PM (M-F)	-	-	1@12'	1@12'
	Concrete Curing	-	-	1@12'	1@12'
	At Other Times	-	-	Full Roadway	Full Roadway

STREET	TIME	NORTHBOUND	SOUTHBOUND	EASTBOUND	WESTBOUND
47TH AVENUE AND CUTLER AVENUE Intersection					
47TH Ave *(MM) €	8AM-5PM (M-F)	1@11'	1@12' track lane	-	-
	Concrete Curing	1@11'	1@12' track lane	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Cutler Ave	8AM-5PM (M-F)	-	-	1@10'	1@10'
	Concrete Curing	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
47TH AVENUE AND ULLOA STREET Intersection					
47TH Ave	8AM-5PM (M-F)	1@10'	1@10'	-	-
	Concrete Curing	1@10'	1@10'	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Ulloa St	8AM-5PM (M-F)	-	-	1@10'	1@10'
	Concrete Curing	-	-	1@10'	1@10'
	At Other Times	-	-	Full Roadway	Full Roadway
47TH AVENUE AND VICENTE STREET Intersection					
47TH Ave (NE, NW, & SW corner work) *(MC, MM) €	8AM-5PM (M-F)	1@12'	1@12' track lane	-	-
	Concrete Curing	1@12'	1@12' track lane	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
47TH Ave (SE corner work) *(MC, MM) € ©	8AM-5PM (M-F)	CLOSED ©	1@12' track lane	-	-
	Concrete Curing	1@12'	1@12' track lane	-	-
	At Other Times	Full Roadway	Full Roadway	-	-
Vicente St (east of 47th Ave) *(MM) β €	8AM-5PM (M-F)	-	-	1@12'	1@12' track lane
	Concrete Curing	-	-	1@12'	1@12' track lane
	At Other Times	-	-	Full Roadway	Full Roadway
Vicente St (west of 47th Ave) β	8AM-5PM (M-F)	-	-	1@12'	1@12'
	Concrete Curing	-	-	1@12'	1@12'
	At Other Times	-	-	Full Roadway	Full Roadway
Vicente St (east of 47th Ave - SE corner work) *(MM) β € ©	8AM-5PM (M-F)	-	-	CLOSED ©	1@12' track lane
	Concrete Curing	-	-	1@12'	1@12' track lane
	At Other Times	-	-	Full Roadway	Full Roadway
Vicente St (west of 47th Ave – NE, NW, & SW corner work) β €	8AM-5PM (M-F)	-	-	1@12'	1@12'
	Concrete Curing	-	-	1@12'	1@12'
	At Other Times	-	-	Full Roadway	Full Roadway

* The Contractor shall not prevent or delay the operation of mass transit vehicles at any time. MC = Motor Coach, MM = SFMTA Metro. See Subsection 3.3 MASS TRANSIT VEHICLES for more information.

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:

https://www.sfmta.com/maps/san-francisco-bike-network-map

The Contractor shall install "Bicyclists Allowed Use of Full Lane" signs, or other approved equal, on streets with bicycle lanes during construction.

© The Contractor may close this road to through traffic only during work hours. "Road Closed" signs shall be removed or covered during non-working hours. The Contractor shall set up detour signs in accordance with the approved traffic detour plans as deemed necessary. Local access must be maintained at all times.

⬆ The Contractor shall designate the lane for one way traffic heading northbound (or ⬇ southbound, ➡ eastbound, ⬅ westbound) as specified during construction hours only with flag person at each end of the intersection to control the flow of traffic. The Contractor shall set up construction signs according to the approved traffic detour plans as deemed necessary and shall install/remove or cover/uncover the signs on a daily basis. Local access must be maintained at all times. The Detour Plans for these blocks must include a detour route for SFMTA buses. See Subsection **Error! Reference source not found.** MASS TRANSIT VEHICLES for more information.

∞ For Sewer Lining work, the Contractor shall close off traffic directly above the work area and prevent vehicles from encroaching over the work area with barriers. Contractor is permitted to work **continuously for 72 hours**. See Subsection 3.2 SPECIAL INSTRUCTIONS for more information.

€ The Contractor is recommended and should complete the work during the time period when the Muni Metro L-Taraval Line is operating under bus substitution with trains not in operation. Contractor to coordinate with L-Taraval Improvement Project and apply for a Special Traffic Permit.

⇧ M/LA The Contractor shall designate the SB lane on the west side as counter flow lane for NB (for Muni and Local Access only) with a flag person at each end of the road segment to control the flow of traffic. This operation shall be restricted to one block at a time and only during working hours.

⇩ M/LA The Contractor shall designate the NB lane on the east side as counter flow lane for SB (for Muni and Local Access only) with a flag person at each end of the road segment to control the flow of traffic. This operation shall be restricted to one block at a time and only during working hours.

BL Bike Lane

3.2 SPECIAL INSTRUCTIONS

A. General

1. The Contractor shall not commence site work prior to receiving the City Representative's approval of the construction schedule. No work shall commence prior to the approval of applicable traffic control plan(s), parking and storage plan(s), sign inventory, and flagger certificates. **The Contractor shall possess a copy of the latest, approved Traffic Control Plans at the construction site, available for review by a City Representative at all times.** The Contractor will be levied damages, as specified in Section 00 73 02 – Contract Time and Liquidated Damages.

2. The Contractor shall use hot asphalt concrete to provide longitudinal and/or transverse transitions between the newly constructed concrete base, manhole, etc. and existing pavement (whenever the difference in the grade of the pavement and the concrete base, manhole, etc., exceeds 3/4 inch) by the end of the work shift or before opening the lanes to traffic. Refer to SF Public Works Excavation Code for requirements.

3. The Contractor shall be responsible for coordinating with SFMTA to keep trolley and coach buses in operation at all times during construction. See Subsection 3.3 MASS TRANSIT VEHICLES for more information.

4. The Contractor shall not close any cross streets at any time unless specified in this specification. If cross streets are permitted to close, Contractor shall not close more than one cross street within a 5 block length at the same time unless permitted by the Traffic Engineer.

5. The Contractor shall plate over trenches after working hours. See Subsection 2.3 NON-SKID METAL PLATING for more information.

6. The Contractor shall provide flaggers to control the traffic, as specified in the approved traffic control plan and/or directed by the Traffic Engineer through the City Representative. The number of flaggers required shall depend on the phase of work, traffic conditions, etc. The flaggers shall be provided as an incidental to the Traffic Control bid item.

7. The Contractor shall separate the construction area and staging areas from the traffic lanes by barricades, delineators, etc. The Contractor shall also separate the construction area and staging areas from the walkways in accordance with SF Public Works barricade regulations.

8. Contractor is responsible for taking inventory of SFMTA markings in the work area prior to working. These markings include yellow “Coach Stop”

bars, yellow circular markings, etc. Contractor shall notify the Chuck Silvera at the SFMTA Paint Shop at (415) 401-3164 two weeks prior to paving on each block so that Muni can restore the markings immediately after paving.

9. Coordination with Other Contractors:

   a. There may be other Contractors working in this area. The Contractor shall coordinate the work with other Contractors working in the area. The required number of lanes must still be provided, as specified in the Tables of Subsection 3.1 VEHICULAR AND PEDESTRIAN TRAFFIC.

   b. The Contractor shall ensure that the traffic detours for this project do not conflict with other construction work and/or other traffic detours.

10. No work is allowed in the streets or sidewalks in the area outlined in the "Holiday Season Restrictions" map in the blue book (downtown) or on any "business block" in the City of San Francisco from the day after Thanksgiving through January 1, between the hours of 7am to 10pm. A "business block" is defined as a block in which at least 50% of the linear frontage is devoted to business. Establishments in this category are retail stores, bars, restaurants, banks, service type businesses, non-residence type hotels, wholesale businesses or others as determined by the SFMTA.

11. Before commencing construction, it is the Contractor's responsibility to request for the latest copy of the list of TEMPORARY STREET CLOSURES FOR SPECIAL EVENTS in the City from the Traffic Engineer on a monthly basis through the duration of the project. The Contractor must get prior approval from the Traffic Engineer through the City Representative for work during San Francisco events and parades within the vicinity of project, such as, but not limited to, Chinese New Year's Parade, St. Patrick's Day Parade, Bay to Breakers, Cinco de Mayo Carnival, SF Marathon, SF Grand Prix, Fourth of July, Haight Street Fair, Fillmore Street Fair, Fleet Week, Oracle Week, and days in which similar events will take place as determined by the City Representative.

12. For locations where work must be halted for Holiday Moratorium or special events, all plates shall be removed at least one day before the Holiday Moratorium or special events mentioned above within the project area. All openings in the street and sidewalk must be closed by backfilling and paving, providing safe and adequate passage for vehicles and pedestrians. EXCEPTION: if the work is allowed at night per the traffic lane requirements in this specification and under the Holiday Moratorium guidelines of the Blue Book, plates may be left in place.

13. The pedestrian path shall be clear of any debris and meet all ADA requirements. Refer to drawing STR 7696 Rev. 3 Pedestrian Crosswalks through Construction Zones for details.

14. The Contractor shall not perform any operation to relocate, adjust, or otherwise disturb bicycle facilities installed in the work area. The contractor shall be responsible for coordinating with the Traffic Engineer and the SFMTA Bicycle Facility Managers to request the removal of these bicycle facilities that might be affected by work in the area. See Subsection 3.20 BICYCLE FACILITIES IN THE WORK AREA for more information.

15. The Contractor shall be responsible for coordinating with SF Public Works – Bureau of Street Use and Mapping to request the removal of any temporary sidewalk extensions that might be affected by work in the area. See Subsection 3.29 TEMPORARY SIDEWALK EXTENSIONS – PARKLETS for more information.

B. Grinding and Paving Work

The Contractor shall stage grinding and paving operation so that the following minimum requirements are met:

1. Grinding and/or paving work will be allowed up to two (2) consecutive blocks and two (2) consecutive intersections maximum at a time and all two (2) consecutive blocks and two (2) consecutive intersections must be paved within 120 hours from the start of grinding work, without exception. No further grinding of consecutive blocks or intersections may be started until the previously impacted blocks are paved. If one of the two (2) consecutive blocks is paved, grinding work on a third consecutive block may be allowed based upon the discretion of the City Representative.

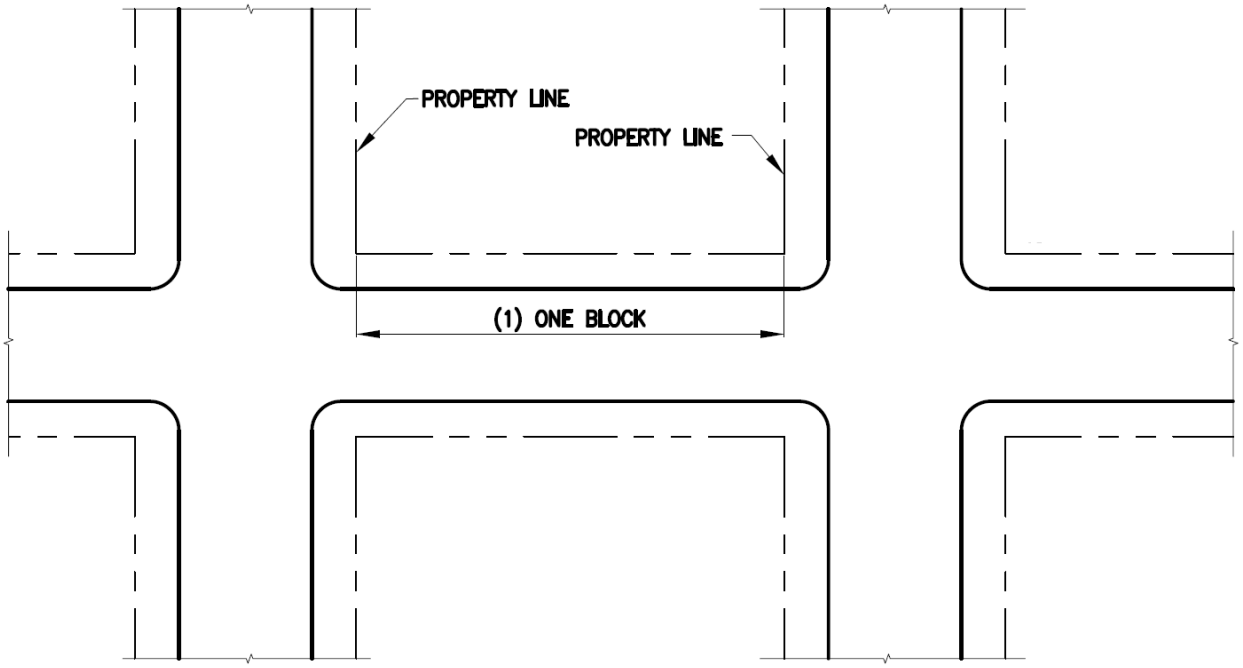


Figure 3.2B.1 – Length of one (1) block

2. Grinding is not permitted on Thursday or Friday unless paving will be satisfactorily completed before the end of the Saturday workday of the same week.

3. Cross streets shall not be closed at any time unless as specified in this specification.

4. Refer to Traffic Lane Requirements table for grinding and paving through intersections. For locations not addressed in the table, the cross street may be closed for up to a maximum of ten (10) minutes for residential streets and alleys. For streets and alleys that are neither residential nor listed in the table, the intersection work shall be phased. Following each closure, the roadway shall be kept open long enough to dissipate traffic.

    a. When temporarily closing the cross street as stated above, the Contractor shall set up "ROAD CLOSED TO THRU TRAFFIC" (R11-4) signs and post flaggers one (1) block in advance of work.

5. The Contractor shall grind or pave the full width of the roadway within a block by the end of a work shift.

6. The parking shall be restored in a particular section, as soon as the grinding/paving/concrete reconstruction work is completed.

7. The Contractor shall finish any sewer work, sidewalks, curb ramps, and concrete base repair work in the blocks before proceeding to grinding and paving operations on said blocks.

C. Concrete Base Repair Work

1. The Contractor shall be allowed to work on two (2) blocks and/or two (2) intersections on any one day not to exceed 1,200 linear feet for concrete base repair work.

D. Curb and Gutter, Curb Ramp, Sidewalk and Bulb-out Work

1. The Contractor shall be allowed to work at a maximum of three (3) intersections at any time if there are multiple curb ramps to be constructed along a street, except as otherwise noted in these specifications.

2. No crosswalk shall be allowed to be closed during curb ramp work except during demolition and concrete pouring of curb ramps in which Contractor may close only one crosswalk at a time and provide one flagger to guide pedestrians to the open crosswalk.

3. The Contractor shall separate the accessible, safe path of travel for pedestrians from traffic and the construction area of the curb ramps with traffic barricades as shown on drawing STR 7696 Rev. 3, Detail 6 Pedestrian Crosswalks through Construction Zones.

4. If the accessible, safe path of travel for pedestrians is provided on the sidewalk, the Contractor shall separate the construction area of the ramps from the accessible, safe path of travel with chain link fence or barricades, and construction area of the ramps from the traffic area with chain link fence and/or plastic orange colored fence with 2 x 4 inch boards to guide visually impaired persons.

5. For existing sidewalks 10 feet and wider, the Contractor shall phase curb and gutter, curb ramp, and sidewalk work to ensure a minimum 4 feet accessible, safe path of travel on the sidewalk. Once all curb and gutter and curb ramp are completed, the Contractor may route the pedestrian accessible, safe path of travel onto the street to complete the final sidewalk work.

6. The Contractor shall not construct the curb ramps on two (2) adjacent corners of the same street unless otherwise approved by the Traffic Engineer through the City Representative.

7. The Contractor may work on curb ramps at diagonally located corners at the same time unless otherwise approved by the Traffic Engineer through the City Representative and if roadway geometry and conditions permit.

8. The Contractor may work on curb ramps on corners on the same side of the one-way street to minimize impacts to traffic.

9. When working on curb ramps at mid-block, Contractor shall completely finish curb ramps on one side of the street prior to starting work on the other side of the street.

10. At intersections where there is bulb-out construction, Contractor shall complete all curb ramp work at corners without bulb-out work prior to starting work at corners with bulb-out work, unless otherwise approved by the Traffic Engineer through the City Representative.

11. The Contractor shall provide temporary curb ramps during construction and clearly mark the temporary crosswalks.

12. The Contractor shall submit a "Construction Schedule" showing a proposed sequence of operations, starting date, duration and work limit for each intersection where curb ramps are to be constructed.

13. The Contractor shall be allowed a maximum of fifteen (15) working days to complete all the required curb ramps at any intersection.

14. The Contractor shall maintain all crosswalks and STOP lines at all times while constructing the curb ramps, using temporary traffic tape if necessary.

E. Sewer Work

1. Sewer related work is allowed up to one (1) block and one (1) adjacent intersection at any one time. The Contractor is allowed to close one (1) crosswalk at any one time during the working hours of sewer main replacement work and/or sewer lining work as long as one (1) flagger is provided to direct pedestrians to the open crosswalks.

2. Sewer lining and mortaring is allowed up to one (1) block and the two (2) adjacent intersections at any one time.

3. If an existing accessible, 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 3/4 inch) before opening the lanes to traffic.

3.3 MASS TRANSIT VEHICLES

A. General

1. The City has a transit first policy. The Contractor shall not impede the operation of mass transit vehicles at any time.

2. The Contractor shall be familiar with transit routes that operate within the limits of the work.

3. The lanes made available for traffic shall be located so as to include an adequate and allowable travel path for the coach lines. The extreme touring range of the centerline of a trolley coach is 10 feet (3.1 m) from the centerline of the trolley wires. The Contractor shall provide a 45 foot (13.7 m) turning radius for SFMTA Transit vehicles.

4. The Contractor shall submit a bus stop relocation request at least ten (10) working days in advance of doing any work in existing passenger loading zones or transit layover hubs, where such work would interfere with passenger loading and unloading operations or operator layovers. The SFMTA may temporarily authorize the relocation of these zones. The Contractor shall provide and continuously maintain at least one sign at any bus stop that SFMTA has authorized to be closed or relocated. The SFMTA will supply the exact wording, size, and location of these signs. Unauthorized bus zone relocations or any other unauthorized use of the temporary bus stop signs will result in liquidated damages per Section 00 73 02. A bus stop relocation request may be submitted at the link below:

   https://www.sfmta.com/permits/muni-construction-support-and-clearance-permit

5. The Contractor shall provide trained flaggers as required to assist SFMTA Transit lines operating around the construction area.

6. The SFMTA overhead electric wires carry a minimum of 600 volts DC and have a 17 feet +/- vertical clearance from the roadway. The Contractor's attention is directed to Article 37 of General Order 95 of the Public Utilities Commission State of California. CAL OSHA regulations require that any equipment that moves vertically must maintain a 10 feet radial clearance, and any other equipment must maintain a 6 feet clearance

from Muni overhead electric wires. The Contractor shall observe these regulations during the entire duration of the construction work.

7. The Contractor shall obtain a clearance permit from the SFMTA prior to performing any work within 72 inches of the outside edge of SFMTA rail (the "Track Zone"). To acquire clearance to work, the Contractor must attend the clearance meeting for project review which is held at 10:00 AM every Tuesday. The Contractor will be required to submit a clearance permit to the Transit Management Center (TMC) no less than 72 hours in advance of any planned work via email to CentralManagers@sfmta.com. If the project requires electrical de-energization as well, an Electrical Work Plan must be completed and filed before filing for a clearance. A copy of the clearance permit shall be provided to the City Representative. For more information on how to obtain clearance and how to file, please visit the link below:

   https://www.sfmta.com/permits/muni-construction-support-and-clearance-permit

   If workers or equipment are within the Track Zone, or have the potential to swing or move into the Track Zone, the Contractor and its workers shall comply with the requirements of the SFMTA Roadway Worker Protection Program. With respect to requesting Roadway Worker Protection (RWP) training, the Contractor should email RoadwayWorkerProtection@sfmta.com for questions and to schedule training. Additional information regarding training requirements can be found at the link below:

   https://www.sfmta.com/permits/muni-construction-support-and-clearance-permit

8. The following streets have mass transit operations (MC = Motor Coach, MM = Muni Metro):

1.	46TH Avenue	18 – 46TH Avenue (MC) L – Taraval (MM)
2.	47TH Avenue	18 – 46TH Avenue (MC) L – Taraval (MM)
3.	Sloat Boulevard	23 – Monterey (MC)
4.	Vicente Street	18 – 46TH Avenue (MC) L – Taraval (MM)
5.	Wawona Street	L – Taraval (MM)

9. It is the Contractor's responsibility to verify SFMTA bus routes and to inform the transit agencies at least ten (10) working days in advance if the work is expected to interfere with their operations.

B. Maintaining Transit Service

1. The Muni overhead wires shall not be relocated or de-energized. Contractor shall use appropriate construction means and methods to meet all CAL OSHA rules and regulations. If the Contractor requests or requires the relocation and/or de-energization, the Contractor shall pay for all costs for de-energization and Muni Inspectors without reimbursement from the City. Muni may deny the request of the Contractor for overhead wire relocation and/or de-energization.

2. Payments to Muni for additional services above and/or beyond the scope of this contract shall be as follows:

   a. The estimated cost for overhead wire relocation $8,006. The estimated cost for overhead wire de-energization is $8,006 per day. The cost for a Muni Inspector is approximately $186 per hour with a minimum of four (4) hours per site. Multiple Muni Inspectors may be required when de-energizing any trolley wires. All fees subject to change.

   b. Any requests for de-energizing of overhead wires are subject to Muni's approval and availability of resources.

   c. If de-energization is requested, the Contractor shall pay for Muni Inspectors if required by Muni, bus substitution if required by Muni, as well as the cost for de-energization, without reimbursement from the City.

3. The Contractor shall submit a request to schedule the overhead wires relocation/overhead wires de-energization and/or any Muni Inspectors and services, at least ten (10) working days in advance of the work, using the link below:

   https://www.sfmta.com/permits/muni-construction-support-and-clearance-permit

   After submitting a request for support a unique case number will be assigned. The Contractor must have an "Approved" case and/or a valid clearance permit to proceed with any work near Muni operations.

4. Upon notification as required for the work, Muni will relocate/de-energize the affected overhead wires.

5. For cancellation of any scheduled overhead wires relocation/overhead wires de-energization and any other services, the Contractor shall provide

Muni with at least five (5) working days notice in advance of the scheduled work. Contractor shall pay Muni all required amounts for cancellations with less than five (5) working days advance notice. This cancellation cost will be borne by the Contractor and the City shall not reimburse the Contractor.

6. If Muni cannot provide the overhead wires relocation/overhead wires de-energization and/or other Muni services when the Contractor has scheduled the work, the City will give time extension only. No monetary compensation shall be made.

C. TRANSIT SHELTER IN THE WORK AREA

1. If a transit shelter is located within the work area and could be subject to damage by construction, the Contractor shall contact through e-mail, Gail Stein at Gail.Stein@sfmta.com (415-646-2308), Margeaux Casillas at MargeauxCasillas@clearchannel.com (510-446-7200 extension 67259), and Ashley Kirchner at ashleykirchner.ncs@comcast.net (707-207-5209). Contractor must make request:

   a. At least 10 business days in advance of any sidewalk/roadway excavation under and/or around transit shelter such that Clear Channel's contractor can restore or add power infrastructure for the transit shelter;

   b. At least 10 business days prior to the date an existing shelter is requested to be removed; and

   c. At least 10 business days prior to the date a transit shelter is requested to be installed.

2. All transit shelter removals, modifications and installations MUST be performed by Clear Channel.

3. If the bus zone at the transit shelter needs to be relocated, Contractor can make a bus stop relocation request at the link below:

   https://www.sfmta.com/permits/muni-construction-support-and-clearance-permit

3.4 TRAFFIC CONTROL BY SAN FRANCISCO UNIFORMED OFFICERS

NOT USED

3.5 SPECIAL TRAFFIC PERMIT

A. The Contractor shall apply for a Special Traffic Permit from the SFMTA, if any deviation from the Traffic Lane Requirements table (time, width, etc.) of this Specification is requested. If SFMTA approves the issue of the Special Traffic Permit, the Contractor shall pay the required fee to SFMTA and obtain the necessary permit. Fees for the Special Traffic Permit are subject to change. The application for the Special Traffic Permit and current fees can be found here:

http://www.sfmta.com/services/streets-sidewalks/construction-regulations

SFMTA reserves the right to deny any request.

B. In case of an emergency, the Contractor shall declare emergency by contacting the City Representative and other relevant City agencies according to Section 12 "Emergency Procedure". Refer to "Regulations for Working in San Francisco Streets" (Blue Book).

C. Working on City streets beyond the terms set forth in the specifications, without a Special Traffic Permit and without emergency declaration, is in violation of the San Francisco Transportation Code Section 903. Violation of the Special Traffic Permit Ordinance shall result in fines of at least $500 in addition to possible liquidated damages.

D. Violation of the San Francisco Transportation Code Section 7.3.30 constitutes a misdemeanor. It reads as follows:

To obstruct traffic four or more times within one year without a Special Traffic Permit, or violate the terms of a Special Traffic Permit or the regulations set forth in Division II, Section 903. Each hour during which the obstruction continues shall constitute a separate offense. Any person and/or business entity violating this section may be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of at least $1,000, or imprisonment in the county jail not exceeding six months, or both.

E. The Contractor shall NOT be compensated for the cost of a Special Traffic Permit and/or any fine levied for any violations and/or shut down due to violations of project specifications and/or violations of the conditions of the Special Traffic Permit.

3.6 TEMPORARY PAVEMENT MARKINGS

A. After each day's work the Contractor shall furnish and install temporary pavement delineation, which shall be maintained by the Contractor until the permanent markings are installed.

B. Prior to construction the Contractor shall survey each street and inventory all existing pavement markings including marking type and material used. The

pavement markings shall include, but not be limited to traffic striping, crosswalks, stop bars, messages and raised pavement markers.

C. The temporary pavement markers shall be the same color as the markings they replace.

D. Surfaces on which temporary pavement delineation is to be applied shall be cleaned of all dirt and loose material and shall be dry when the pavement markers are applied.

E. Temporary pavement delineation shall be applied in accordance with the manufacturer's instructions.

F. The Contractor shall install temporary pavement markings, as specified below, after concrete base repair, after grinding, after paving, after sewer work, and before opening the street to public traffic. Any existing traffic striping and lane lines that are removed or damaged by the work activity shall be restored with temporary foil backed tapes.

G. The Contractor shall maintain all temporary pavement markings for 30 calendar days after the acceptance of the paving of any street. The SFMTA Paint Division will install permanent markings within 30 calendar days of the acceptance of the paving by the City Representative or will maintain the temporary pavement markings 30 days after pavement is accepted by the City Representative.

H. Temporary pavement tape dimensions and spacing shall be as follows:

1. Stop bar: One 4 inch wide stripe to mark 12 inch wide crosswalk or limit lines. Unless specified otherwise on the contract drawings, stop bars shall be aligned with the projections of the near side property lines and shall be extended from the curb to the yellow striping or center of the roadway.

2. Crosswalks:

a. Unless specified otherwise on the contract drawings, crosswalks shall be aligned with the projections of the near side property lines and face of curb and shall be extended from curb to curb.

b. Contractor shall use 4 inch wide stripes to mark transverse crosswalks.

c. For continental crosswalks, if Contractor removes less than half of a crosswalk, Contractor shall use two 4 inch wide stripes every 5 feet on center for the width of the crosswalk. If Contractor removes half or more of a crosswalk, Contractor shall use 4 inch wide stripes to mark as transverse crosswalk.

3. Striping across intersections and guide lines: for left and/or right turn lanes shall be two 4 inch wide stripes to mark 8 inch wide guidelines, unless otherwise specified by the Traffic Engineer.

4. Double yellow stripe centerline: shall be two 4 inch wide stripes, 3 inches apart, 2 feet long strips spaced at 24 feet center to center.

5. Lane lines: shall be 4 inch wide stripe, 2 feet long strip spaced at 24 feet center to center.

I. Temporary reflective pavement markings: may be used for short durations to provide markings on uneven, temporary pavement, exposed base and low volume streets with approval from the Traffic Engineer. Dimensions and spacing shall be as follows:

1. Double yellow stripe centerline shall be two markers, 3 inches apart, spaced at 24 feet center to center.

2. Lane line markers shall be spaced 24 feet center to center.

3.7 CROSSWALKS AND SIDEWALKS

A. All crosswalks shall be kept open at all times, unless a substitute temporary crosswalk is provided, or otherwise approved by the Traffic Engineer through the City Representative.

B. R9-3 and R9-3bP, “NO PED CROSSING” and “USE CROSSWALK (L/R)” signs shall be placed at each end of a temporarily closed crosswalk.

C. Whenever a temporary crosswalk is provided outside of the existing crosswalk, such temporary crosswalks shall be clearly defined by signs, striping, pedestrian bridges or plates. The minimum width of the temporary crosswalk shall be 10 feet measured between the outside edges of the striping tape. The Contractor shall provide access to mobility and visually impaired persons at all temporary and/or permanent crosswalks at all times by providing accessible temporary curb ramps.

D. No obstruction or openings of any kind shall be allowed in portions of sidewalks accessible to pedestrians.

E. Portions of sidewalk closed to pedestrians shall be delineated by a continuous line of pedestrian barriers. Barriers shall not have legs or other parts projecting into pedestrian ways and shall meet the requirements for visually impaired persons.

3.8 PERMANENT THERMOPLASTIC PAVEMENT MARKINGS

A. The SFMTA Paint Division will furnish and install all the permanent thermoplastic stripes and pavement markings (traffic stripes, crosswalk stripes,

stop bars, messages and raised pavement markers) at the locations shown on the traffic plans and in accordance with the latest edition of Caltrans Standard Specifications and Plans.

B. The Contractor shall notify the Traffic Engineer through the City Representative via email of the proposed schedule for repaving of each block at least seven (7) calendar days in advance and again once the paving is completed and accepted, so that SFMTA Paint Division can install permanent pavement markings.

3.9 PROHIBITION OF STOPPING

A. The Contractor may prohibit stopping in parking lanes where and when necessary to gain access to the work or to provide the required lanes, unless specified otherwise in this Section.

B. The Contractor shall use “Tow Away” signs in all construction zones as shown in SFPW Order No. 183160. The ordinance can be found at:

https://www.sfpublicworks.org/services/permits/public-works-orders

C. The Contractor shall register Tow-Zone at least 72 hours in advance of the effective date and time on the following website:

https://www.sfmta.com/permits/construction-tow-away-zones

The Contractor shall post the signs at least 72 hours in advance of the effective date and time. There is a Tow-Away sign fee per sign, which is subject to change.

D. "Tow-Away, No Stopping" signs may be attached to Type II barricades, placed at 20 feet centers. The Contractor shall post the signs only in the area where actual work is being done. Parking shall not be prohibited in the area where there is no construction activity. The information posted on the sign shall be in compliance with SFPW Order No. 183160.

E. The Contractor shall maintain the signs on a continual basis and shall replace damaged or missing signs daily, and shall remove the signs immediately after they are no longer needed.

F. When existing posted sign(s) need(s) to be revised (i.e., later start date, duration extension, etc.), the Contractor shall obtain new sign(s) to reflect the change(s) and replace the existing posted sign(s) at least 72 hours in advance of the proposed change(s). Refer to SFPW Order No. 183160.

G. When a vehicle is removed from a street at the request of the Contractor and a post-storage hearing determines that as a result of the Contractor's improper posting of the required signs, reasonable grounds did not exist for removal, the Contractor shall reimburse the City and County of San Francisco for the cost

incurred in storage and towing. The failure of the Contractor to provide reimbursement or to agree to assume all liability for any improper posting shall result in the SFMTA Parking Enforcement Divisions denial of any future requests by that Contractor for removal of vehicles in violation.

3.10 NIGHT TIME WORK

A. Contractor shall obtain a night noise permit for any work between the hours of 8:00 PM and 7:00 AM, as specified in Section 2908 of the Police Code. For more information on and how to apply to for a night noise permit, please visit the link below:
https://www.sfpublicworks.org/services/permits/night-noise
For any additional questions, please email bsmpermitdivision@sfdpw.org or call (628) 271-2000.

B. Contractor shall provide suitable temporary lighting to illuminate the construction area for safety and security purposes, as required by the City Representative. The Contractor shall submit the details of the temporary lighting to the City Representative for approval.

3.11 TREE TRIMMING

A. The Contractor shall contact the Bureau of Urban Forestry (BUF) of SF Public Works at (628) 652-8733, as per specification Section 01 11 00 Summary of Work ninety (90) calendar days prior to start of work if trees are in the City right-of-way and will be in conflict with the construction work, equipment, and/or with the traveling public during construction. The Contractor shall not detour any traffic onto the parking lane until all the tree branches are properly trimmed or the Contractor has made sure that these branches will not interfere with the traveling public.

3.12 TEMPORARY CONSTRUCTION AND TRAFFIC SIGNS

A. The signs and equipment shall conform to the requirements of the latest edition of California Department of Transportation's MUTCD. Unless otherwise shown on the plans or specified in this specification, the color of construction area warning and guide signs shall have black legend and border on orange background, except W10-1 or W47(CA) (Highway-Rail Grade Crossing Advance Warning) sign shall have black legend and border on yellow background.

B. The Contractor shall be familiar with the California MUTCD.

C. Before starting any work which will affect the normal flow of traffic, The Contractor shall furnish, install, and maintain temporary signs.

D. The Contractor shall as a minimum, furnish and make available to the site the following signs and equipment in sufficient quantities to maintain required traffic control, per the approved Traffic Control Plans and/or as directed by the Traffic Engineer through the City Representative:

1. Barricades, as required by Section 21,400 of the State of California Vehicle Code and as specified in the Latest Edition of the State of California's Department of Transportation's MUTCD, in sufficient amount to safeguard the public and the workers.

2. "TOW-AWAY, NO STOPPING" signs as herein specified.

3. Traffic cones and/or delineators and/or temporary reflectorized removable tape to delineate traffic lanes as required to guide and separate traffic movements.

4. High level warning flag units, in advance of traffic approaching the work, each displaying three (3) flags mounted at a height of 7 feet.

5. "ROAD WORK AHEAD" signs, Code W20-1, size 48"x48" placed in conspicuous locations, in advance of the work, facing approaching traffic.

6. "ROAD CLOSED" signs, Code R11-2, size 48"x30".

7. "ROAD CLOSED TO THRU TRAFFIC" signs, Code R11-4, 60"x30".

8. "ROAD CLOSED AHEAD" signs, Code W20-3, 48"x48".

9. "RIGHT/LEFT LANE CLOSED AHEAD" signs Code W20-5 (RT/LT), size 48"x48".

10. "FLAGGER SYMBOL" signs, code C9A (CA), size 48"x48".

11. "TWO WAY TRAFFIC SYMBOL" signs, Code W6-3, size 48"x48".

12. "ROUGH ROAD" signs, Code W8-8, size 36"x36".

13. "REVERSE TURN SYMBOL" signs, Code W1-3, size standard 36"x36".

14. "DETOUR AHEAD" signs, Code W20-2, size 48"x48".

15. "DETOUR" signs, Code M4-10 (RT/LT) and/or SC3 (CA), size 48"x18".

16. "Street Name" signs, with 6" Upper Case series "D" black letters on orange plate, size 48"x18".

17. "NO PED CROSSING SYMBOL" signs, Code R9-3a, size 18"x18".

18. "USE CROSSWALK (RIGHT OR LEFT ARROW)" signs, R9-3b (RT/LT), size 18"x12", (used with R9-3a signs).

19. "SIDEWALK CLOSED" signs, R9-9.

20. "SIDEWALK CLOSED / Left or Right Arrow / USE OTHER SIDE" signs, R9-10.

21. "SIDEWALK CLOSED AHEAD / Left or Right Arrow / CROSS HERE" signs, R9-11.

22. "SIDEWALK CLOSED / Left or Right Arrow / CROSS HERE" signs, R9-11a.

23. "MAY USE FULL LANE" signs, R4-11.

24. "SAN FRANCISCO BIKE LOGO ROUTE" signs with bike route number and "↙BIKE LANE", Code Ca-SG45 (modified), 12"x24", black and reflective orange.

25. "SAN FRANCISCO BIKE LOGO ROUTE" signs with bike route number and "↑DETOUR", or "←DETOUR", or "DETOUR→" Code Ca-SG45 (modified), 12"x26" black and reflective orange.

26. Flashing arrow signs, Type II conforming to the latest Caltrans Standard Specifications, except as modified herein, placed as shown on the approved Traffic Control Plan. The Contractor shall use solar powered flashing arrow signs.

27. Miscellaneous signs, size 48"x48" or larger, with 6" and/or 8" series "D" black letters on orange plate.

28. Changeable Message Signs (CMS), if specified in the bid schedule, shall be portable. The sign shall be capable of 24-hour operation via solar power to minimize complaints of odor and noise, etc. from local residents and businesses.

29. SFMTA temporary Bus Stop Signs, 12"x24", shall be placed as directed by the SFMTA through the City Representative. The SFMTA Superintendent at (415) 701-5376 will determine the exact wording and location of these signs through the City Representative. Unauthorized bus zone relocations or any other unauthorized use of the temporary bus stop signs will result in liquidated damages per Section 00 73 02.

E. All signs installed by the Contractor shall employ the use of Type III Graffiti proof sheeting on aluminum signs and Type IV for roll-up signs. This sheeting shall meet the latest Caltrans requirements.

F. The actual number and type of signs to be placed shall be as shown on the approved traffic control plans or as directed by the Traffic Engineer through the City Representative.

G. All signs and/or temporary striping shall be reflectorized. Signs shall be installed so that the bottom of the sign is at least 7 feet above the sidewalk or pavement or as directed by the Traffic Engineer through the City Representative.

3.13 TRAFFIC CONTROL

A. Traffic Coordination with Others

1. In order to maintain a continuous flow of traffic, the Contractor shall coordinate the traffic control work with subcontractors and other contractors, working in the same adjacent area. This includes truck traffic hauling materials, equipment, etc.

2. All proposed traffic control changes shall be subject to approval of the Traffic Engineer through the City Representative.

B. Traffic Control Flaggers

1. Flaggers, flagging procedures, flagger stations, and flagger control, shall conform to latest edition of the MUTCD.

2. The Contractor shall ensure that flaggers are trained in the proper fundamentals of flagging traffic before being assigned as flaggers.

3. The flaggers shall be used in each situation when the Contractor's equipment and/or vehicle backs up into a travel lane, intermittently occupies a traffic lane, enters from the work area into a traffic lane, and/or where required for traffic control, as directed by the City Representative.

3.14 MAINTENANCE OF TRAFFIC

A. The Contractor shall cause the least possible interference with traffic. The Contractor shall not obstruct or close any roadway to vehicular or pedestrian traffic, except in the immediate vicinity of the work, and then only to the extent allowed.

B. Those parts of streets, access roads, and sidewalks that are occupied by the Contractor shall be immediately vacated and returned to public use when use thereof is no longer necessary for the prosecution of the work.

C. The Contractor shall not impede at any time, free access to public and private properties, including those properties fronting or streets allowed or stipulated by this specification and approved traffic control plans. The Contractor shall provide for such local access by phasing operations, bridging, or employing other procedures approved by the City Representative.

Exception: For work that will require impeding access, the Contractor shall coordinate and work with each affected property or business owner, or responsible building or business manager with presence of City Representative.

D. Access to fire hydrants shall not be impaired by the Contractor. No debris, materials, or equipment shall be placed within ten (10) feet of any fire hydrant.

3.15 DIVERTING OF VEHICULAR TRAFFIC

A. When closing one or more lanes to vehicular traffic or diverting such traffic from its normal path, the Contractor shall clearly delineate temporary centerlines separating two-way traffic and dividing lines for other temporary traffic lanes by employing cones, barricades, flags, reflectors, or other approved methods or devices.

B. Placing of devices shall commence sufficiently in advance of the obstruction or other cause of the diverting of traffic to minimize congestion and shall enable traffic to enter, traverse, and leave the site of the work without abrupt or unwarranted changes in direction. Unless otherwise specified or approved, each temporary traffic lane shall be not less than ten (10) feet clear width.

C. When a detour is necessary for full or partial roadway closure, all detour signs needed for the required traffic control must be in place before the roadway can be closed for construction. Failure to comply with this requirement shall result in liquidated damages associated with improper lane closure.

D. High rise warning flag units, each displaying three flags mounted at the height of (7) feet, to provide advance warning for traffic approaching the work, will be required in all cases where motorists' visibility of the work is limited or obscured.

3.16 RELOCATION AND REMOVAL OF EXISTING PERMANENT TRAFFIC CONTROL AND SIGNS

A. The Contractor shall be familiar with all existing permanent traffic signs and other traffic control devices within and adjacent to the project limit. The Contractor

shall survey the site thoroughly to get all pertinent information of the signs in the construction area, including, but not limited to sign type, message, location, orientation, number of faces (double sided or single sided), and reflectivity. The Contractor shall pay particular attention to the signs that will likely be damaged, removed, or relocated during construction. The Contractor shall submit a Sign Inventory Form for each affected intersection, block, or location. This form is included at the end of this Section.

B. The Contractor shall temporarily relocate all traffic control, street name, and other City signs, as required for the prosecution of the work and to prevent interference with traffic signal installations, and shall satisfactorily maintain such signs in place at all times. The Contractor shall similarly relocate or remove and salvage as City property, the standards for such signs. The Contractor shall salvage standards in their entirety and shall remove any concrete therefrom.

C. The temporary relocation of each "STOP" or other traffic regulatory sign shall be done immediately upon its removal and to a location as close as possible to the original position of such sign or where directed by the City Representative.

D. The Contractor shall remove and salvage as City property existing "STOP" or other signs superseded by installed traffic signals immediately upon being notified by the City Representative that such signals will remain in operation.

E. The Contractor shall permanently relocate traffic control and other signs and standards to the locations shown on the plan or as directed by the Traffic Engineer through the City Representative. Signs to be removed or salvaged are to be delivered by the Contractor, with a copy of the Sign Inventory Form(s), to the SFMTA Sign Shop at 1508 Bancroft Avenue, San Francisco telephone (415) 554-9785. Each sign shall be tagged and labeled providing such information as location and the direction sign was facing prior to its removal.

F. The Contractor shall notify the Traffic Engineer through the City Representative at least five (5) working days before the Contractor reinstalls the permanent signs which were temporarily removed due to construction. The reinstalled signs will be inspected by the Sign Shop personnel at no cost to the Contractor. The Contractor shall provide the Sign Shop with a copy of the approved Sign Inventory Form along with a contact name, and phone number.

G. If new materials (sign, pole, frame, mounting equipment, etc.) and adjustments are needed during the Sign Shop personnel's inspection, the associated cost shall be borne by the Contractor. The Sign Shop shall bill the Contractor to recover all costs incurred.

3.17 WORKING AROUND PARKING METERS

A. The Contractor shall notify the Traffic Engineer through the City Representative, at least 10 working days before starting any work that may impact parking meters so that arrangements may be made by the City to have the meter heads or multi-space meters removed at no cost to the Contractor. Meter head and multi-space meters removal shall only be done by the SFMTA Meter Shop, unless otherwise authorized by the Traffic Engineer. It is the Contractor's responsibility to remove and dispose of meter posts after meter heads have been removed.

B. Parking meters and related infrastructure damaged or loosened by the Contractor's operations will be repaired or replaced as necessary by the City; however, all expenses in connection therewith shall be borne by the Contractor.

3.18 WORKING AROUND PARKING STALL OR ROADWAY SENSORS

A. If parking stall or roadway sensors are located within the work area and could be damaged or affected, the Contractor is responsible for the removal and safe handling of these decommissioned sensors. The Contractor shall contact Steve Counts (Stephen.Counts@sfmta.com, 415-550-2779) to coordinate the drop-off of the sensors at the SFMTA Meter Shop at 1508 Bancroft Avenue, San Francisco, CA 94124.

B. Wireless detectors shall never be punctured, cut, ground, or removed from solid core. These actions may result in leakage or release of battery contents, explosion, or fire.

3.19 TRAFFIC SIGNAL WIRELESS OR WIRED LOOP DETECTORS IN THE WORK AREAS

A. The Contractor is responsible for making sure the vehicle detection systems (wireless or wired loop detectors and their related components) are not damaged. If the vehicle detection systems are within the work area and could be damaged or affected, the Contractor shall obtain a copy of the wireless or wired loop detector plan from the Traffic Engineer and notify the SFMTA Signal Shop through the Traffic Engineer, minimum ten (10) working days before starting work to have them removed or disconnected, as applicable. There are currently vehicle detection systems at the following intersections:

1. Wireless Detector – 45TH Avenue at Sloat Boulevard
2. Wireless Detector – 47TH Avenue at Sloat Boulevard

B. In the event the Contractor removes or damages the existing vehicle detection system during construction, the Contractor shall immediately contact the Traffic Engineer through the City Representative. The Traffic Engineer will coordinate the installation of the new vehicle detection system to be installed by the SFMTA Signal Shop to current standards at the Contractor's sole expense if damaged.

C. Once the work has been completed by the Contractor and the final paving has been approved by the City Representative, the Contractor shall notify the SFMTA Signal Shop thru the Traffic Engineer and the detectors will be re-installed.

D. Wireless detectors shall never be punctured, cut, ground, or removed from solid core. These actions may result in leakage or release of battery contents, explosion, or fire. Additional safety information can be found in the Safe Sensor Handling Instructions datasheet at http://www.sensysnetworks.com/products/sensor.

3.20 BICYCLE FACILITIES IN THE WORK AREA

A. Bicycle facilities may refer to but is not limited to any of the following:

1. Bicycle Racks – Usually but not always constructed of round or square metal tubing in the shape of a hoop or inverted U.
2. Bicycle Sharing Stations – Automated electronic bicycle parking facility that dispenses bicycles for public hire. Comprised of multiple components including a group of bicycle docks, a payment kiosk with solar mast, and map panel/display case.
3. Bicycle Lockers – Enclosed, secure individual bicycle storage lockers accessed by key or cardkey.
4. Bicycle Counters – Loops or other bicycle detection devices installed in the pavement. “Bicycle barometers” are a type of bicycle counter that is connected to a power source and includes a display which is mounted onto the sidewalk.

B. If bicycle racks are located within the work area and could be subject to damage by construction, the Contractor is responsible for coordinating its removal with the SFMTA Bicycle Parking Manager at bikeparking@sfmta.com through the City Representative, ten (10) working days before starting work.

C. If bicycle sharing stations or bicycle lockers are located within the work area and could be subject to damage by construction, the Contractor is responsible for coordinating its removal with the SFMTA Bicycle Sharing Manager at bikeshare@sfmta.com through the City Representative at least thirty (30) working days before starting work.

D. If bicycle counters are located within the work area and could be subject to damage by construction, the Contractor is responsible for coordinating its removal with the SFMTA Bicycle Counter Manager at bikecounters@sfmta.com through the City Representative, thirty (30) working days before starting work.

E. In the event the Contractor removes or damages the existing bicycle facilities during construction, the Contractor shall immediately contact the Traffic Engineer and the SFMTA Bicycle Facility Managers through the City Representative, to

coordinate the re-installation of the bicycle facility at the Contractor's sole expense.

F. Once the work has been completed by the Contractor and the final paving has been approved by the City Representative, the Contractor shall notify the Traffic Engineer and the SFMTA Bicycle Facility Managers through the City Representative, and the bicycle facility will be re-installed.

3.21 EXISTING TRAFFIC SIGNAL SHUTDOWN AND MAINTENANCE

A. Where it is necessary to shut down existing traffic signals at any intersection, the Contractor shall notify the Traffic Engineer through the City Representative, SFMTA Signal Shop (Fax # 415-282-7681), and SFPD Traffic Bureau ten (10) working days in advance of the start of each shutdown. It is the responsibility of the Contractor to make arrangements to have police officer(s) on duty to control traffic. Notification shall be written and shall also include a contact name and number to be used in case of emergency. If the Contractor fails to provide notice as detailed above, liquidated damages shall be assessed per Section 00 73 02.

B. The Contractor shall similarly notify the Bureau of Light, Heat, and Power (BLHP) at (415) 227-8513 a minimum of ten (10) working days in advance of any work on existing street light equipment. Disconnection of any existing or temporary streetlights will not be permitted until the new equipment has been approved, tested, and properly adjusted by BLHP.

C. The operation and interconnected functioning of existing traffic signals shall not be disturbed before 9:00 a.m. The traffic signals shall be returned to normal working conditions before 3:00 p.m. of the same day.

D. All work and expenses for maintenance of existing traffic signal and streetlights in operation shall be done as incidental work to this contract.

E. Many traffic signals are interconnected via 12-conductor cable, twisted wire pairs, or fiber optic cable to provide signal coordination. Coordination of the traffic signals shall be maintained every day between the hours of 7-9 AM and 3-7 PM. During all other times, the Contractor shall make every effort to maintain the existing coordination. Failure to ensure traffic signal interconnect is operational between the peak periods of 7-9 AM or 3-7 PM will result in liquidated damages being assessed per Section 00 73 02.

3.22 TRAFFIC SIGNAL LOOPS INSTALLATION

A. The Contractors shall lay out the loop installation, with paint, and notify the Traffic Engineer through the City Representative at least two (2) working days in advance, before the scheduled date of slot cutting. The slots for the loops shall be cut only after the approval of the Traffic Engineer.

B. Residue material resulting from slot cutting operations shall not be allowed to flow across sidewalk or traffic lanes, and shall be removed from the pavement surface.

C. The depth of the cut shall be 4.0 to 4.5 inches except when noted otherwise on the contract plans and drawings. The width of the saw cut shall be minimum 1/2 inch. Each corner shall be core drilled. The Contractor shall core drill the point where the curb line and road surface meet. The Contractor is advised that City streets are generally 2 to 4 inch asphalt concrete wearing surface on an 8 to 12 inch concrete base.

D. The Contractor shall submit for approval a schedule of installation, for all phases of saw cutting. The City Representative shall verify the following:

1. Layout of loops and home runs prior to saw cut.

2. Depth and width of the saw cut for the loop.

E. Contractor shall notify the City Representative not less than 24 hours prior to cleaning of pavement cuts, installation of loop wires and installation of loop sealant. Failure to notify the City Representative will result in this work being rejected.

3.23 INSTALLATION OF CONDUCTORS

A. General

1. Each conduit that contains traffic signal conductors shall include one bare #6 AWG copper stranded conductor that is bonded at each end.

2. The installation of any conductors in conduits shall not take place until the Contractor has demonstrated to the City Representative's satisfaction and approval that the Contractor has employed all means necessary, or required, to clean and prepare the conduits for the installation of conductors therein.

3. If the existing grouping, taping, or lacing of conductors is disturbed in the course of work, the Contractor shall regroup, tape, or lace as applicable.

4. All conductors terminating in a metallic enclosure shall terminate on a terminal board equipped with screw-type or box-type terminals fabricated from copper or copper-alloy material.

5. Conductors terminating in screw type termination shall be equipped with self-insulated self-locking spade-type terminals.

6. Conductors terminating on box-type terminals shall be connected directly without using spade-type pressure terminals attached to the conductor ends.

7. Ends of all unused conductors shall be individually taped prior to intersection turn-on or switchover.

B. Conductor Color Codes, Labels, and Grouping

1. Conductor labeling material shall be Panduit Write-on, Self Laminating Labels (Catalog #PLD-2) or equal. Labeling and grouping requirements apply to all new and all existing conductors to remain at a given intersection. Old nylon tags shall be removed from all existing conductors to remain.

2. Wires shall be sized, color-coded and labeled in accordance with the following schedule:

CIRCUIT	AWG	PHASE	BASE COLOR	STRIPE	LABEL
Spare Signal Wire	#14	N/A	Black	None	None
12-Conductor Cable	#14	N/A	Black (jacket)	None	*see below
Detector Cable	#14	all	Black (jacket)	None	Per plans
Service (AC+)	#8	N/A	Black	None	None
Service (AC neutral)	#8	N/A	White	None	None

* Install labels on 12-Conductor Cable near each conduit end. For example, a single cable in a pull box requires two labels – one label near each conduit end. 12-Conductor Cable labels shall identify where cable is headed, i.e., north, south, east, west, controller, etc.

3. In all pull boxes and controller cabinets, all traffic signal conductors shall be grouped by signal head with electrical tape and labeled by signal head number as designated on plan sheets.

4. In all pull boxes, all conductors running between the same two conduits shall be further grouped and wrapped in at least one location with electrical tape near the center of the slack.

5. In the controller cabinet, all conductors shall be further grouped and labeled by phase in an orderly manner.

C. Splicing

1. Not Applicable.

D. 12 Conductor Interconnect

1. Not Applicable.

E. Red Light Camera

1. Not Applicable.

3.24 RED LIGHT CAMERA DETECTOR LOOPS AND SENSORS IN THE WORK AREA

NOT USED

3.25 TRUCK ROUTES

A. The Contractor shall ensure that all trucks and equipment associated with the project travel only on the truck routes designated by the local agencies. The Contractor shall not permit any trucks, or equipment associated with this project to be driven on non-truck route local streets except to use the shortest route to and from the project sites. In the event truck routes are not designated by a local agency, the Contractors shall use the local arterials to the project sites.

B. The Contractor is solely responsible for all permits and costs required to operate extralegal size, weight, or load vehicles associated with this project.

3.26 PEDESTRIAN MONITORS

NOT USED

3.27 COMMUTER SHUTTLE BUS STOP IN THE WORK AREA

A. If a Commuter Shuttle Bus Stop space is located within the work area and could be subjected to damage by construction, the Contractor is responsible for coordinating its removal with the Commuter Shuttle Bus Stop Manager at 415-701-5494 through the Traffic Engineer ten (10) working days before starting work.

B. In the event the Contractor removes or damages the existing Commuter Shuttle Bus Stop during construction, the Contractor shall immediately contact the Commuter Shuttle Bus Stop Manager at 415-701-5494 through the Traffic Engineer, to coordinate the re-installation of the Commuter Shuttle Bus Stop at the Contractor's sole expense.

C. Once the work has been completed by the Contractor and the final paving has been approved by the Traffic Engineer, the Contractor shall notify the Commuter

Shuttle Bus Stop Manager at 415-701-5494 through the Traffic Engineer, and the Commuter Shuttle Bus Stop will be re-installed.

3.28 CAR SHARE IN THE WORK AREA

A. If a car share space is located within the work area and could be subjected to damage by construction, the Contractor is responsible for coordinating its removal with the Car Share Manager at 415-701-4213 through the Traffic Engineer ten (10) working days before starting work.

B. In the event the Contractor removes or damages the existing car share space during construction, the Contractor shall immediately contact the Car Share Manager at 415-701-4213 through the Traffic Engineer, to coordinate the re-installation of the car share space at the Contractor's sole expense.

C. Once the work has been completed by the Contractor and the final paving has been approved by the Traffic Engineer, the Contractor shall notify the Car Share Manager at 415-701-4213 through the Traffic Engineer, and the car share space will be re-installed.

3.29 TEMPORARY SIDEWALK EXTENSIONS – PARKLETS

A. If a temporary sidewalk extension, parklet, is located within the work area and could be impacted by construction or may need to be re-located for traffic control, the Contractor is responsible for coordinating its removal with the San Francisco's Parklet Program Manager at parklets@sfdpw.org through the City Representative at least thirty (30) working days before starting work.

B. In the event the Contractor removes or damages the existing parklet during construction, the Contractor shall immediately contact the Traffic Engineer and the Parklet Program Manager through the City Representative, to coordinate the repair or re-installation of the parklet at the Contractor's sole expense.

C. Once the work has been completed by the Contractor and the final paving has been approved by the City Representative, the Contractor shall notify the Traffic Engineer and the Parklet Program Manager through the City Representative, and the parklet will be re-installed.

3.30 SHARED SPACES AND SLOW STREETS

A. Prior to beginning construction, the Contractor shall identify all locations of pending and approved Shared Spaces outdoor dining structures within the project limits. Shared Spaces locations can be viewed on the Shared Spaces Dashboard website:

https://sfgov.maps.arcgis.com/apps/opsdashboard/index.html#/b1e37820230a4017ae53d645a96c774b

B. If a Shared Spaces outdoor dining structure is located within the work area and could be impacted by construction or may need to be re-located for traffic control, the Contractor is responsible for coordinating with the permittee and the Shared Spaces permitting group at SharedSpacesPermit@sfdpw.org.

C. Prior to beginning construction, the Contractor shall identify all locations of Slow Streets within the project limits. Slow Streets are closed to thru vehicular traffic and local access must be maintained at all times. The Contractor is strongly discouraged from using a Slow Street as a detour route, and it should only be considered when there are no other feasible options. Slow Streets can be viewed on the website below:

https://www.sfmta.com/projects/slow-streets-program

D. Slow Streets have devices (signs, barricades, delineators, etc.) that close the street to all but local traffic, pedestrians and bicycles. When working on a Slow Street with movable devices, the Contractor shall temporarily remove the existing devices, install construction zone traffic control per the approved Traffic Control Plan and restore Slow Street devices at the end of the work day. When devices are affixed to the roadway, Contractor shall notify the Traffic Engineer through the City Representative at least 10 Days prior to start of work to coordinate the removal of the devices. The Contractor is responsible for safeguarding the Slow Streets devices.

PART 4 – MEASUREMENT, PAYMENT, AND LIQUIDATED DAMAGES

See Section 01 20 00 - Price & Payment Procedures
See Section 00 73 02 - Contract Time and Liquidated Damages

4.1 REPORTS FOR LIQUIDATED DAMAGES AND DEDUCTION OF LIQUIDATED DAMAGES

A. The City Representative shall furnish the Contractor with the weekly progress report showing the date, period of time of violation, and the assessed liquidated damages. The Contractor shall be allowed 15 days from the issuance of the weekly progress report showing the liquidated damages in which to file a written protest setting forth in what respect the Contractor differs from the City Representative and any extenuating circumstances; otherwise the decision of the City Representative shall be deemed to have been accepted by the Contractor as correct.

B. The amount of liquidated damages and cost of remedial actions shall be deducted from the progressive and/or final payment made to the Contractor.

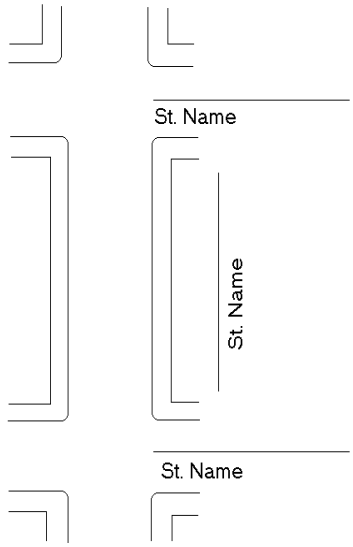
END OF SECTION 01 55 26

SIGN INVENTORY FORM

Date: _____

Contract: _____

Location: _____



Sign Type	Location x' from property line of Cross St	Side of St	Double sided Single sided	Sign Description	Pole Type (1-5)	Comments

Contractor's Signature _____

Sign Type:	R-1 (Stop Sign), R-17 (No Left Turn), etc.
Location:	Sign R-24: Park Parallel is 23' south from the property line of 9th St
Side of Street:	ES – east side, WS – west side, NS – north side, SS – south side
Double sided/Single sided:	DS or SS
Sign Description:	No Left Turn, One Way (L or R), Tow Away No Stopping Anytime (TANSAT), etc. For street name signs specify name (i.e. Main St) & color (B/W - black/white or G/W - green/white)
Pole Type:	1=Sign Post, 2=Signal Pole, 3=Street Light Pole, 4=Muni Pole, 5=Other