NOTE: USE THIS SPECIFICATION SECTION ONLY IF YOU ARE DOING WORK IN STREET RIGHT-OF-WAY OR A PARK BOULEVARD WHERE YOU NEED THE TRAFFIC CONTROL INFORMATION CONTAINED HEREIN. (DELETE THIS NOTE IF THIS SECTION IS USED)

PART 1 - GENERAL

1.01 SECTION INCLUDES:

A. This section combines the requirements of Standard Specifications Section 1-07.23 PUBLIC CONVENIENCE AND SAFETY (Specified in Article 1.02 - Construction under Traffic and Article 1.03 – Pedestrian Control and Protection) and Standard Specifications Division 1-10 TEMPORARY TRAFFIC CONTROL (Specified in Article 1.04 – Temporary Traffic Control.)

1.02 CONSTRUCTION UNDER TRAFFIC:

A. The Contractor shall be responsible for first aid; the safety, efficiency, and adequacy of the Contractor's plant, Equipment, and method of construction; and for any damage or injury resulting from the failure, improper maintenance, use or operation of such plant or Equipment or method of operation. See City of Seattle Standard Specifications (most recent edition).

B. Notifications Relative to Contractor’s Activities:

1. The Contractor shall plan and schedule Contractor work activities to conform to and allow time for notifications, approvals, reviews, and other conditions of the Contract Documents. The following notifications related to construction under traffic are specified in See City of Seattle Standard Specifications (most recent edition):

a. For Work That Partially or Completely Restricts Any Arterial, Street, Sidewalk, or Alley

b. Disruptions to, or service modification requests for, METRO transit service

c. Property access restrictions

d. Emergency Work for Pavement or Sidewalk Problems

C. The Contractor shall:

1. Conduct all operations with the least possible obstruction and inconvenience to the public.

2. Have under construction no greater length or amount of work than can be continuously and vigorously prosecuted properly with due regards to the rights of the public.

3. To the extent possible, finish each section before beginning work on the next.

4. Minimize the disruption of public traffic by:

a. Permitting traffic to pass through the Work with the least possible inconvenience or delay except in those areas where safety and lack of space requires detouring the traffic elsewhere.

b. Maintaining existing roads, Streets, sidewalks, bikeways, and paths that lie next to or inside the Project limits by keeping them open and in good, clean, and safe condition

at all times. Deficiencies caused by the Contractor's operation shall be repaired at the Contractor's expense. Deficiencies not caused by the Contractor's operations will be repaired by Owner forces at the Owner's expense. The Contractor shall also maintain roads, Streets, sidewalks, bikeways, and paths adjacent to the Project Site when they are affected by the Contractor's operations. Snow and ice, control debris including sand, on the Roadway will be cleaned up by Owner forces at no expense to the Contractor.

c. Removing or repairing any condition resulting from the Work or Contractor's operations that might impede traffic or create a hazard including the removal of deposits and debris that accumulates on the Roadway surface. At a minimum, removal of deposits and debris shall be on a daily basis. If daily removal is insufficient to keep the Streets clean, the Contractor shall perform removal operations on a more frequent basis. If the Engineer determines that a more frequent cleaning is impractical or if the Contractor fails to keep the Streets free from deposits and debris resulting from the Work, the Contractor shall, upon order of the Engineer, remove all clay or other deposits from the tires or between wheels before trucks or other Equipment are allowed to travel over paved Streets.

   1.) If the Contractor fails or refuses to clean the Streets, trucks, or Equipment as required by the Engineer, the Engineer may order the Work suspended at the Contractor's risk until compliance with the Contractor's obligation is assured. Alternately, the Engineer may order the Streets in question cleaned by others and such costs incurred by the Owner in achieving compliance with these Contract requirements, including cleaning of the Streets, shall be deducted from moneys due or to become due the Contractor on progress payments. The Contractor shall have no claim for delay or additional costs if the Engineer chooses to suspend the Contractor's Work until compliance is achieved.

d. Maintaining existing, permanent signs and not relocating or removing traffic control and Street name signs that interfere with construction until absolutely necessary; and installing and maintaining temporary pavement markings and striping on the Roadway using temporary pressure sensitive tape when necessary. The Contractor shall be responsible for scheduling when to renew striping and pavement marking, subject to the Engineer's approval.

e. Providing access at all times to emergency traffic such as police, fire, and disaster units.

f. Coordinating construction operations with all disposal firms and transit bus service that may be operating within the Project Site.

   1.) If METRO operates in the area of Work, the Contractor shall maintain the Project Site in such a manner that transit bus service, including access to bus zones, is safe and convenient.

   2.) Whenever it is necessary to modify METRO Transit Bus or Trolley Service, the Contractor shall make the notification in accordance with See City of Seattle Standard Specifications (most recent edition)

g. Providing safe and convenient access to transit bus zones affected by the Work at all times and maintaining the Project Site such that transit bus service is uninterrupted.

The Contractor shall be liable for any damages that may result from failure to provide reasonable access or coordination with affected transit authorities.

h. Keeping existing traffic signal and lighting systems in operation as the Work proceeds. (The Owner will continue the routine maintenance on such systems.

5. Protect the rights of abutting property owners by:

   a. Planning and conducting construction operations so that the least inconvenience as possible is caused to abutting property owners;

   b. Except during those urgent stages of construction when it is impractical to carry on the construction and maintain traffic simultaneously, maintaining ready and convenient access to driveways, houses, and buildings along the line of Work;

   c. The Contractor shall post signs and barricades advising Street closure at the nearest intersections away from the closed portion of the Street and on all cross-Streets. Street closings shall not exceed 2 blocks in length at any one time unless approved otherwise by the Engineer.

   d. When Street closure is required in the preparation of the Roadway for placement of asphalt pavement, concrete pavement, sewer excavation, or other construction that prohibits safe vehicular traffic, abutting property owners and tenants shall be notified per See City of Seattle Standard Specifications (most recent edition), of any restrictions that might affect access to their property.

   e. Providing temporary approaches to crossing or intersecting roads and keeping those approaches in good condition; and

   f. Providing another access before closing an existing one whenever the Contract calls for removing and replacing an abutting owner's access. The existing access shall not be closed until the replacement access facility is available; and

   g. Access to Private Properties

      1) The Contractor shall maintain access for local vehicular and pedestrian traffic to private properties along the line of Work except:

         a) During those urgent stages of construction when it is impractical to carry on the construction and maintain vehicular and pedestrian traffic simultaneously, or

         b) When Street closure is required because construction will prohibit safe vehicular traffic.

      2) If a Street or alley is to be closed, the Contractor shall notify all abutting property owners and tenants of the closures or of any other restrictions that may interfere with their access.

      3) Notification shall be at least 24 hours in advance for residential property, and at least 48 hours in advance for commercial property.

6. When traffic must pass through grading areas, the Contractor shall:

   a. Make cuts and fills that provide a smooth, even Roadbed;

b. Place, in advance of other grading work, enough fill at all Culverts and bridges to permit traffic to cross;

c. Make Roadway cuts and fills, if ordered by the Engineer, in partial-width lifts, alternating lifts from side to side to permit traffic to pass on the side opposite the Work;

d. Install Culverts on half the width of the Traveled Way, keeping the other half open to traffic and unobstructed until the first half is ready for use;

7. After rough grading or placing any subsequent layers:

   a. Prepare the final Roadbed to a smooth, even surface (free of humps and dips) suitable for use by public traffic; and

   b. Settle dust with water, or other dust palliative, as the Engineer may order.

8. If grading work is on or next to a Roadway in use, the Contractor shall finish the grade immediately after rough grading and place surfacing Materials as the Work proceeds.

9. Conduct all operations to minimize any drop-offs ("drop-off" is defined as abrupt changes in Roadway elevation) left exposed to traffic during non-working hours. Unless otherwise directed in the Traffic Control Plan, the Contractor shall also protect drop-offs left exposed to traffic during non-working hours as follows:

   a. Drop-offs up to 0.20 foot may remain exposed with appropriate warning signs alerting motorists of the condition.

   b. Drop-offs more than 0.20 foot that are in the Traveled Way or Auxiliary Lane will not be allowed unless motorists are informed about the danger of a drop-off immediately ahead of them with appropriate warning signs and protection is provided as indicated in the immediately following subparagraphs c.1) or c.2).

   c. Drop-offs with depths more than 0.20 foot, but no more than 0.50 foot, that are not within the Traveled Way will not be allowed unless motorists are informed about the danger of a drop-off immediately ahead of them with appropriate warning signs and further protected by having one of the following:

      1) Channeling devices (Type I barricades, plastic safety drums, or other devices 36 inches or more in height) placed along the traffic side of the drop-off and a new edge of pavement stripes placed a minimum of 3 feet from the drop-off on the traffic side. The “number” in feet of maximum spacing between the devices shall be the posted speed “number” in miles per hour. Signs, warning of pavement drop-off, shall be placed in advance of and throughout the drop-off treatment.

      2) Temporary concrete barrier or other approved barrier installed on the traffic side of the drop-off with 1 foot between the drop-off and the drop-off side of the barrier and a new edge of pavement stripe a minimum of 2 feet from the face of the traffic side of the barrier. An approved terminal, flare, or impact attenuator will be required at the beginning of the barrier facing oncoming traffic. For night use, the barrier shall have standard delineation such as paint, reflective tape, lane markers, or warning lights.

   d. Drop-offs more than 0.50 foot not within the Traveled Way or Auxiliary Lane shall be marked with appropriate warning signs and further protected as indicated in the

immediately preceding subparagraphs c.1) or c.2) if all of the following conditions are met:

1) The drop-off is less than 2 feet;

2) The total length throughout the Project is less than 1 mile;

3) The drop-off does not remain for more than three Working Days;

4) The drop-off is not present on any of the Holidays listed in See City of Seattle Standard Specifications (most recent edition); and

5) The drop-off is only on one side of the Roadway.

e. Drop-offs more than 0.50 foot that are not within the Traveled Way or Auxiliary Lane and are not otherwise covered by the immediately preceding subparagraph d.4) above shall be marked with appropriate warning signs and further protected as indicated in the immediately preceding subparagraph c.2).

10. Open trenches within the Traveled Way or Auxiliary Lane shall have a steel-plate cover placed and anchored over them. A wedge of suitable material, if required, shall be placed for a smooth transition between the Pavement Structure and the steel plate. Warning signs shall be used to alert motorists of the presence of the steel plates.

D. The Contractor shall be responsible for providing adequate safeguards, safety devices, and protective Equipment, and for taking any other needed actions to protect the life, health, and safety of the public, and to protect property in connection with the performance of the Work covered by the Contract. The Contractor shall perform any measures or actions the Engineer may deem necessary to protect the public and property. The responsibility and expense to provide this protection shall be the Contractor's except that which is to be furnished by the Owner as specified in other Sections of these Specifications:

1. Whatever other specific work the Contract indicates is to be furnished or performed by the Owner or Engineer.

E. Nothing contained in this Contract is intended to create any third-party beneficiary rights in favor of any person utilizing the Highway facilities being constructed or improved under this Contract.

1.03 PEDESTRIAN CONTROL AND PROTECTION:

A. When the Work area encroaches upon a sidewalk, walkway or crosswalk area, special consideration must be given to pedestrian safety. Maximum effort must be made to separate pedestrians from the Work area.

B. Protective barricades, fencing, and bridges, together with warning and guidance devices and signs, shall be utilized so that the passageway for pedestrians is safe and well defined. Whenever pedestrian walkways are provided across excavations, they shall be provided with suitable handrails. Footbridges shall be safe, strong, and free of bounce and sway, have a slip resistant coating, and be free of cracks, holes, and irregularities that could cause tripping. Ramps shall be provided at the entrance and exit of all raised footbridges, again to prevent tripping. Adequate illumination and reflectorization shall be provided during hours of darkness. All walkways shall be maintained at least 4 feet clear width except in areas of

unusually heavy pedestrian traffic such as business districts, where the minimum clear width shall be 8 feet.

C. Where walks are closed by construction, an alternate walkway shall be provided, preferably within the planting strip. Where it is necessary to divert pedestrians into the Roadway, barricading or channeling devices shall be provided to separate the pedestrian walkway from the adjacent vehicular traffic lane. At no time shall pedestrians be diverted into a portion of a Street used concurrently by moving vehicular traffic.

D. At locations where adjacent alternate walkways cannot be provided, appropriate signs shall be posted at the limits of construction and in advance of the closure at the nearest crosswalk or intersection to divert pedestrians across the Street.

E. Physical barricades shall be installed to prevent visually impaired people from inadvertently entering a closed area. Pedestrian walkways shall be wheelchair accessible at all times. Pedestrian access shall be maintained to all properties adjacent to the construction site.

1.04 TEMPORARY TRAFFIC CONTROL:

A. General:

1. Installation and maintenance of temporary traffic control for pedestrian and vehicular traffic within the public Right of Way shall be performed in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD) as supplemented by the current edition of The City of Seattle "Traffic Control Manual for In-Street Work" (hereinafter referred to as the "Seattle Traffic Control Manual") and such additional requirements as may be included in the Contract. The Manual on Uniform Traffic Control Devices for Streets and Highways" may be obtained from the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402. The City of Seattle "Traffic Control Manual for In-Street Work" may be obtained from the office of the SDOT, at 684-5087.

2. The Contractor shall:

a. Provide flaggers, signs, and other traffic control devices not otherwise specified as being furnished by the Engineer

b. Not work on or adjacent to any Traveled Way until all necessary signs and traffic control devices are in place

c. Unless the section of Street is to be completely closed to vehicular traffic, schedule and plan the Work to permit:

1) The maximum number of traffic lanes normally available to be opened in the direction of the heaviest flow of traffic during the peak hours

2) Maintain 2-way traffic at all times except on "one-way" Streets. Additional width for facilitating traffic flow may be obtained by requesting on-Street parking to be prohibited adjacent to the work area

3) Maintain traffic on a paved surface whenever possible. In the event that a graveled or dirt surface must be used as a detour, maintain a smooth surface and control dust

4) Clean up spillage from trucks on the pedestrian or driving surface adjacent to the work area. See City of Seattle Standard Specifications (most recent edition), and Article 1.02 of this Section.

5) Provide safe and protected pedestrian ways. See Article 1.02 of this Section.

6) Not park or place construction Equipment to create an unnecessary sight distance or other safety obstruction to vehicular or pedestrian traffic.

7) Maintain work area traffic control devices in a proper condition on an "around the clock" basis whether or not work is actively being pursued. In addition, the Contractor shall assure that tools and Equipment are properly stored and excavation bridging is secure and adequately covering excavation.

d. Erect and maintain all construction signs, warning signs, detour signs, and other traffic control devices necessary to warn and protect the public at all times from injury or damage resulting from the Contractor's operations.

e. Be liable for injuries and damages to persons and property suffered by reason of the Contractor's operations or any negligence in connection therewith.

f. Construct, maintain in a safe condition, keep open to traffic, and remove when no longer needed detours and temporary approaches that will accommodate traffic diverted from the Roadway, walkway or bridge during construction. On-site or off-site detours required or necessitated by the Work, including side Street crossings, temporary bridges, utilization of one or more lanes of the construction area for maintenance of through traffic, and related traffic control shall be the responsibility of the Contractor.

B. Traffic Control Management:

1. General:

a. All Projects in Street areas will be inspected with regard to type and placement of pedestrian and vehicular traffic control devices. Traffic control devices not meeting the requirements of the Seattle Traffic Control Manual shall be considered non-standard. Non-standard traffic control devices shall not be used unless specifically approved for use, in writing, by the Engineer.

b. The Contractor shall patrol the traffic control area as often as necessary, but at least daily, and reset all disturbed signs and traffic control devices. Signs and other traffic control devices shall be removed or covered during periods when they are not necessary.

c. Before beginning Work, the Contractor shall designate an individual or individuals to perform the duties of Traffic Control Manager (TCM) and Traffic Control Supervisor (TCS). These individuals shall be in continuous responsible charge of traffic control. A TCM and TCS are required on all Projects that require traffic control. The TCM can also perform the duties of the TCS. The Contractor shall identify no more than six alternate employees that can assume the duties of the assigned or primary TCM and TCS in case of the primary person's inability to perform. Such alternates shall be adequately trained and certified to the same degree as the primary TCM and TCS.

d. The Contractor shall maintain 24-hour telephone numbers at which the TCM and TCS can be contacted and be available upon the Engineer's request at other than normal working hours. The TCM and TCS shall have the appropriate personnel, Equipment, and material available at all times to correct any deficiency in the traffic control system. The Engineer will furnish the Contractor a similar list of the Engineer's employees and their telephone numbers.

2. Traffic Control Manager (TCM) - The duties of the TCM shall include:

   a. Discussing proposed traffic control measures and coordinating implementation of the Contractor-adopted traffic control plan(s) with the Engineer

   b. Coordinating all traffic control operations, including those of Subcontractors, Suppliers, and any adjacent construction or maintenance operations

   c. Coordinating the Project's activities (such as ramp closures, Road closures, and lane closures) with appropriate police, fire control agencies, city or county engineering, medical emergency agencies, school districts, disposal companies, and transit companies

   d. Overseeing all requirements of the Contract that contribute to the convenience, safety, and orderly movement of vehicular and pedestrian traffic

   e. Having the latest adopted edition of the Seattle Traffic Control Manual and applicable standards and Contract available at all times on the Project

   f. Attending all Project meetings where traffic management is discussed

   g. Review TCS's diaries daily and be responsible for knowing "field" traffic control operations.

3. Traffic Control Supervisor (TCS):

   a. A TCS shall be on the Project whenever traffic control labor is required or as authorized by the Engineer.

   b. The TCS shall personally perform all the duties of the TCS. During non-work periods, the TCS shall be able to be on the Job Site within a 45-minute period after notification by the Engineer.

   c. The TCS's duties shall include:

      1) Inspecting traffic control devices and nighttime lighting for proper location, installation, message, cleanliness, and effect on the traveling public. Traffic control devices shall be inspected each work shift except that Class A signs and nighttime lighting need to be checked only once a week. Traffic control devices left in place for 24 hours or more should also be inspected once during the non-working hours when they are initially set up (during daylight or darkness, whichever is opposite of the working hours).

      2) Preparing a daily traffic control diary, which shall be submitted to the Engineer no later than the end of the next Working Day to become a part of the Project records? The Contractor may use WSDOT Forms 421-040A and 421-040B or the Contractor's own form if it is approved by the Engineer. The TCS shall include in the diary such items as:

a) When signs and traffic control devices are installed and removed

b) Location and condition of signs and traffic control devices

c) Revisions to the traffic control plan

d) Lighting utilized at night

e) Observations of traffic conditions.

3) Ensuring that corrections are made if traffic control devices are not functioning as required. The TCS may make minor revisions to the traffic control plan to accommodate site conditions as long as the original intent of the traffic control plan is maintained and the revision has concurrence of the Engineer.

4) Attending traffic control coordinating meetings or coordination activities as authorized by the Engineer.

d. The TCS may perform the work described by the Bid item for "Maintenance and Protection of Traffic Control" as long as the duties of the TCS are accomplished. Possession of a current flagging card by the TCS is mandatory.

e. A reflective vest and a hard hat shall be worn by the TCS.

4. Contractor's Refusal or Failure to Act:

a. Upon failure or refusal of the Contractor to comply with the Engineer's Written Notice to:

1) Provide adequate flaggers,

2) Provide, erect, maintain, and remove, as applicable, barricades, signs, lights, on-site or off-site detours or detour bridges, or

3) Provide any work required by Article 1.02 and Article 1.03 of this section.

4) Follow the Engineer's order to do 1), 2), or 3), the Engineer shall have the option to do one or any combination of the following:

a) Suspend the Work without further notice to the Contractor or the Contractor's Surety until the Contractor complies with the Engineer's order (see Section 00700, Paragraph 1.08.K,

b) Immediately provide an off-duty uniformed police officer at no additional cost to the Owner, or

c) Provide, erect, maintain and remove barricades, signs and lights at no additional cost to the Owner, by the Owner's forces or by others, and

d) Deduct all costs related to items 1), 2), or 3) from any progress payments due or coming due the Contractor as provided in City of Seattle Standard Specifications (most recent edition).

b. The above options shall not bar the Owner from exercising other remedies because of the Contractor's failure or refusal to comply with a contractual obligation.

5. Traffic Control Plans:

a. Content and Submittal Requirements

1) Based on the Contractor's intended method of performing the Work, the Contractor shall develop, adopt, and submit to the Engineer a specific traffic

control plan or plans for protecting and controlling pedestrian and vehicle traffic during construction operations. A separate Traffic Control Plan is required for each work location within the Street Right of Way. Typical plans may be submitted for areas with identical traffic requirements. Typical plans shall be clearly labeled to indicate all locations the plan is to represent. Traffic control plans shall take into consideration any Street and lane closure or other restrictions that may be specified in the Contract.

2) Submittal shall be made at least 10 Working Days before planned implementation to allow for Engineer evaluation of the proposed vehicular and pedestrian routing, flagging, and placement of signing and other traffic control devices. The Contractor shall not begin Work in the Street Right of Way until an approved Traffic Control Plan for the specific location has been returned by the Engineer. Submittal shall be in accordance with Section 01330, except no more than two reproductions will be required for any Plan size.

3) Traffic Control Plans shall indicate:
   a) Vehicular and pedestrian traffic routing
   b). Proposed location of flaggers, barricades, lighting, signing, and other traffic control devices in relation to existing Roadway edges and lane markings
   c) Proposed number of working hours
   d) Arrangements for access to buildings within and immediately adjacent to construction site
   e) Arrangements for emergency exiting from buildings within and immediately adjacent to the Project Site
   f) Anticipated driveway blockage resulting from construction operations
   g) Restrictions to on-Street parking within immediate vicinity of site, including arrangements for hooding parking meters as necessary
   h) Arrangements for temporary passenger and commercial loading and unloading zones, and temporary bus stop zones
   i) Identification and description of temporary lateral relocations of trolley overhead wire system if necessary to maintain trolley service
   j) Routing of construction trucks
   k) Coordination in sequencing traffic control with scheduling of Work and work locations.

4) When the signing of a particular area will be provided as detailed on one or more of the figures included in the Seattle Traffic Control Manual without modification, the Contractor may reference the applicable figure number, shown in the manual, at the appropriate location on the Drawings. When this procedure is used, variable distances such as minimum length of taper shall be specified by the Contractor. The spacing proposed for barricades and cones shall also be specified.

5) If the Contractor's proposed pedestrian or traffic control measures differ from the traffic control requirements in the Seattle Traffic Control Manual, the Contractor's alternate traffic control plan shall detail the specific location of each necessary construction sign, flagger, and other traffic control device required.

The Contractor's alternate method for traffic and pedestrian control shall be developed in accordance with the same established standards for plan development demonstrated by the figures in the Seattle Traffic Control Manual. Acceptance of alternative traffic control measures shall be entirely at the discretion of the Engineer. The Contractor shall have no claim for an equitable adjustment:

a) For using alternative measures

b) If the proposed alternate measures are rejected or modified

c) If requests to use non-standard traffic control devices are rejected or modified.

6) The Contractor shall plan and schedule Contractor work activities to conform to and allow time for notifications, reviews, approvals, acceptance See City of Seattle Standard Specifications (most recent edition).

b. Conformance to Established Standards:

1) The condition of signs and traffic control devices shall be new or "acceptable" as defined in the book Quality Standards for Work Zone Traffic Control Devices, and will be accepted based on a visual inspection by the Engineer. The Engineer's decision on the condition of a sign or traffic control device shall be final. When a sign or traffic control device becomes classified as "unacceptable" it shall be removed from the Project and replaced with 12 hours.

2) The book, Quality Standards for Work Zone Traffic Control Devices, is available by writing to the American Traffic Safety Service Association, 5440 Jefferson Davis Highway, Fredericksburg, VA 22407, at (540)-898-5400, and Fax (540) 898-5510.

3) Requests to use non-standard traffic control devices shall be submitted with the traffic control plans or by submitting a modification to the traffic control plan.

c. Traffic Control Restrictions:

1) Project-Specific Street and Lane Closure Restrictions, if applicable, are specified in subparagraph 1.04.B.5.c.1 of this section.

2) In addition to the project-specific street and lane closure restrictions specified in subparagraph 1.04.B.5.c.1, the Project Manual traffic control plans shall be developed to comply with the following restrictions:

a) Arterial Paving:

(1) Arterial approaches to the Streets being paved shall remain open to vehicular traffic for their full Roadway widths except when paving across Arterial crossings. During such periods, the cross Streets may be closed for a minimum amount of time as approved by the Engineer. Prior to the closure of any Arterial cross Street the Contractor shall submit to the Engineer a traffic control plan for the location detailing the traffic controls to be used to reroute traffic. Traffic shall not be rerouted without approval of the traffic control plan by the Engineer.

(2) The Contractor shall have no claim because of the traffic control plan being rejected or modified by the Engineer.

b) Time of Work:

(1) Except as itemized in subparagraph 1.04.B.5.c.1 of this section, no work shall be scheduled in the traveled-way on arterial streets during "peak traffic hours" without written authorization from the Engineer. Unless otherwise specified "Peak Traffic Hours" are from 7:00 AM to 9:00 AM and from 4:00 PM to 6:00 PM with the following exceptions:

(a) For the Central Business District peak hours are from 6:00 AM to 9:00 AM and 3:00 PM to 6:00 PM

(b) For Aurora Avenue peak hours are from 6:00 AM to 9:00 AM and 3:00 PM to 7:00 PM.

(2) The Contractor shall discontinue Work if conflict exists with special events such as parades, sporting events, miscellaneous rallies, and large public meetings or with seasonal conditions, such as Christmas. Information concerning such events can usually be obtained from 684-5098.

(3) No construction activities will be allowed on any portion of a Project that lies within the Central Business District or the Pioneer Square area during the Christmas season, Thanksgiving Day through New Year's Day inclusive.

(4) The Central Business District is that area within the boundaries of Interstate 5 on the east, Seneca Street on the south, 1st Avenue on the west, Virginia Street and Denny Way (east of Fairview Avenue) on the north.

(5) The Pioneer Square Area is that area within the boundaries of Alaskan Way on the west, 2nd Avenue and 2nd Avenue South on the east, Columbia Street on the north and King Street on the south.

c) Parking:

(1) Where parking restricts traffic flow or is a hazard to through traffic or to the construction work, parking may be restricted either entirely or during the time when it creates a hazard. Parking restrictions may be requested by the Contractor and upon approval of the Engineer be established within construction and maintenance areas. In areas where parking meters are present, the Contractor shall apply to SDOT for installation of meter covers restricting such parking. Where no meters are present, the Contractor shall contact SDOT so that the Contractor may install "NO PARKING" (T-39) easel signs. Signs must be inspected by a parking enforcement officer or uniformed peace officer 24 hours prior to enforcement. See City of Seattle Standard Specifications (most recent edition) for notification requirements.

(2) "NO PARKING" signs shall conform in message, dimension and color as indicated in Part V of the "Seattle Traffic Control Manual". Spacing of signs shall be in accordance with Project Site conditions.

(3) "NO PARKING" (T-39) easel signs should be installed at an approximate interval of 50 feet to 75 feet, with a minimum of four units, per each full block. For partial block parking prohibition, R-101's or

T-39's should be installed at approximately 50-foot intervals with R-160 signs at the terminus as shown in Figure V-1 of the "Seattle Traffic Control Manual".

(4) The employees of the Contractor shall not park their private vehicles on the Street, at the Job Site, or in commercial areas where general parking has been prohibited for construction or safety purposes.

C. Flagging, Signs, and Other Traffic Control Devices:

1. Flagging:

a. General

1) Flaggers shall have a current certification (flagging card) from the State Department of Labor and Industries (WAC 296-155-305), except where the flagging job requires a uniformed off-duty peace officer. The Contractor shall furnish all personnel for flagging and for the setup and removal of all temporary traffic control devices and construction signs necessary to control traffic during construction operations. Prior to performing any traffic control work on the Project, these personnel should be trained with the video, “Safety in the Work Zone” produced jointly by WSDOT and Laborers’ International Union of North America. The video is available from WSDOT’s Engineering Publications Office, Transportation Building.

2) Pursuant to WAC 296-155-305, flaggers and spotters shall possess a current flagging card issued by the State of Washington Department of Labor and Industries. Current flagging cards from Oregon and Idaho are also acceptable. The flagging card shall be immediately available and shown to the Engineer upon request.

3) Workers engaged in flagging or traffic control shall wear reflective vests and hard hats. During hours of darkness, white coveralls or white or yellow rain gear shall also be worn. The vests and other apparel shall be in conformance with subparagraph 1.04.C.1.b of this section. During hours of darkness flagger stations shall be illuminated to ensure that flaggers can easily be seen without causing glare to the traveling public. The Contractor shall furnish the MUTCD standard Stop/Slow paddles (18 inches wide, letters 6 inches high and reflectorized) for the flagging operations.

b. High Visibility Apparel and Equipment:

1) The Contractor shall furnish for the use of flaggers, reflective vests and hard hats for the flagging and control of traffic. This equipment shall be used by the flaggers while actually flagging traffic. The Contractor shall also provide any such equipment used that is necessary or desirable to protect personnel engaged in other activities.

2) The Contractor shall require all personnel at the work site under their control (including Subcontractors and lower tier Subcontractors) to comply with the following:

a) To wear reflective vests, except that during daylight hours, orange clothing equivalent to "Ten Mile Cloth" or hunter orange may be worn in lieu of reflective vests

b) To wear white coveralls at night

c) Whenever rain gear is worn during hours of darkness, it shall be white or yellow.

d) The reflective vests shall always be the outermost garment.

3) Exceptions to the above requirements are:

a) When personnel are out of view of or not exposed to traffic

b) When personnel are inside a vehicle

c) Where it is obvious that such apparel is not needed for the employee's safety from traffic

4) Reflective vests shall have a minimum of 100 square inches of reflective surface distributed 30 percent on the front and 70 percent on the back. The retro-reflection value at an entrance angle of -4 degrees and an observation angle of 0.2 degrees shall be a minimum 500 candle power for the reflective surface of the vest. Reflective vests, hard hats, white coveralls, rain gear, and other apparel shall be furnished and maintained in a neat, clean, and presentable condition at no additional cost to the Owner.

2. Traffic Control Vehicles:

a. The traffic control vehicle shall be equipped with a roof or post-mount flashing amber light visible for 360 degrees. Truck and construction Equipment that encroaches onto the traveled Roadway for any reason shall also be equipped with flashing yellow warning lights. Unless one or more flagmen are present to control traffic, supplementary traffic control devices shall be placed to warn, slow down, and if necessary divert traffic around such Equipment.

3. Construction Signs:

a. General

1) The Contractor shall furnish, install and maintain all traffic control signs required by the Contract or a Contractor's approved traffic control plan. These include:

a) Temporary traffic control signs referenced in the Seattle Traffic Control Manual

b) Any permanent signs located in the construction area that are temporarily relocated, damaged or destroyed by the Contractor or a third party prior to the Physical Completion Date

2) When all or some of the necessary signs or traffic control devices are to be furnished by the Engineer, it will be so specified in the Contract.

3) The Contractor shall:

a) Provide the posts or supports

b) Erect and maintain signs in a clean, neat, and presentable condition until the Engineer approves their removal

c) Take these signs, posts, or supports down when the need for these signs has ceased. All posts and supports shall be removed from the Project and shall remain the property of the Contractor

d) Remove all non-applicable signs, or completely cover with metal or plywood, during periods when they are not needed

e) Return to the Engineer in good condition any Engineer-furnished signs. All such signs lost, stolen, damaged, or destroyed shall be replaced by the Contractor in kind at the Contractor's expense or their value will be deducted from the Contractor's payments.

4) All control signs necessary for nighttime traffic control shall be fully reflectorized.

5) Existing traffic control and Street name signs that interfere with construction shall be relocated or removed by the Contractor and temporarily stored in a safe place. All "STOP", "YIELD", and "ONE-WAY" signs shall be removed or relocated only upon approval of the Engineer. Existing signs shall not be removed until the Contractor has provided temporary measures sufficient to safeguard and direct traffic after the existing signs have been removed. Except as otherwise provided in the Contract, preservation and maintenance of traffic control and street name signs shall be the sole responsibility of the Contractor.

6) As Work progresses and as conditions permit, temporarily relocated or removed traffic and Street name signs shall be reset in their permanent location by the Contractor (see 600 series applicable Standard Plans regarding sign and post installation). Signs and other traffic control devices damaged or lost by the Contractor shall be replaced or repaired by the Contractor at no additional cost to the Owner. The option whether a sign can be repaired or shall be replaced shall be the Engineer's, and such decision shall be final and binding on the Contractor.

7) Traffic control signs, other than parking prohibition signs, which are required to be installed ahead of construction activities, shall be installed immediately before the construction activity begins. The Contractor may elect, as a matter of convenience in advance of the scheduled construction activity, to install and effectively cover the signs until the construction activity begins.

8) Construction signs shall be divided into two classes – Class A and Class B. In case of disputes, the Engineer will determine if a construction sign is considered as a Class A or B construction sign.

9) When Class A or B construction signs are required, the work to provide these signs shall be:

a) Furnishing, removing, and disposing of the posts or supports for the signs.

b) Initial acquisition from the Engineer and ultimate return to the Engineer of the required Engineer-furnished signs

c) Initial installation and subsequent removal of both Class A and B construction signs

d) All other incidentals necessary for providing Class A or B construction signs according to the approved traffic control plan(s)

b. Class A Signs:

1) Class A construction signs shall be installed where shown in the Contract. Class A construction signs are those signs that remain in service throughout the construction or during a major phase of the Work. They are mounted on posts, existing fixed Structures, or substantial supports of a semi-permanent nature. Sign and support installation for Class A signs shall be in accordance with the Contract Drawings or the applicable standard plans.

c. Class B Signs:

1) Class B construction signs are those signs that are placed and removed daily, or are used for short durations that may extend for one or more days. They are mounted on portable or temporary mountings. If it is necessary to add weight to the signs for stability, only a bag of sand that will rupture on impact shall be used. The bag of sand shall:

a) Be furnished by the Contractor

b) Have a maximum weight of 40 pounds

c) Be suspended no more than 1 foot from the ground

2) No separate Bid item will be provided in the Bid Form for Class B construction signs. Signs, posts, or supports that are lost, stolen, damaged, destroyed, or which the Engineer deems to be unacceptable, while their use is required on the Project, shall be replaced by the Contractor at no additional cost to the Owner.

3) Sign materials shall conform to the requirements of the City of Seattle Standard Specifications for Signing Materials and Fabrication.

4) Signs used during the hours of darkness shall be properly reflectorized (see the City of Seattle Standard Specifications for Signing Materials and Fabrication) except for parking and pedestrian prohibition signs. Paint impregnated with glass beads shall not be used. Where reflectorization is rendered ineffective due to extraneous light sources, the sign shall be illuminated either externally or internally. Where external illumination is used, the source shall be properly shielded to reduce glare. Street or Highway lighting shall not be considered adequate for illuminating signs. All reflectorized or illuminated signs should be checked by the Contractor during the hours of darkness to insure that they are functioning properly.

5) Signs shall be constructed from material that will not deteriorate abnormally under normal weather conditions. Sign blanks shall be weatherproof plywood or non-corrosive metal. Roll-up signs fabricated from vinyl-coated nylon or vinyl-coated nylon mesh may also be used. Only reflectorized signs shall be used at night.

4. Temporary Traffic Control Devices:

a. General:

1) Traffic control devices shall be installed so that they are readily visible to approaching traffic. Traffic control devices shall be placed such that they allow the driver to see from one device to the next and are in the same position on successive days unless changes in construction work dictate otherwise.

2) When the Bid Form includes the Bid item "Maintenance and Protection of Traffic Control", then this work shall include furnishing, installing, maintaining, relocating, and removing barricades, flashers, cones, traffic safety drums, and other temporary traffic control devices and work as specified in this subparagraph 1.04.C.4.

b. High Level Warning Device:

1) A "High Level Warning Device" shall be required for each separate work area in the Roadway. Device materials and usage shall conform to the Seattle Traffic Control Manual. A high level warning device shall be installed for all temporary work in the Roadway and as a supplement to warning signs. Depending on the situation, high level flags may be attached to a service vehicle or placed directly on the Roadway in advance of the obstruction. The device shall be placed in the middle of the closed lane and shall always be placed behind appropriate channeling devices. Normally, one unit should be used for each lane closed; however, additional units may be used if appropriate. A high level warning device should always be the first traffic control equipment to be placed as it will provide a degree of protection during the positioning of other devices.

c. Paint Lines and Legends:

1) When paint lines are obliterated due to construction activities or pavement restoration, temporary pressure-sensitive pavement marking tape, traffic buttons, or delineators shall be installed where designated by the Engineer. These temporary features shall be removed only upon installation of permanent traffic channelization.

2) Temporary centerline striping shall consist of placing strips of pressure- sensitive pavement marking tape at 10-15 foot intervals along the centerline. Temporary marking tape shall be placed in sets of two 12-inch strips of yellow 4-inch wide marking tape set 4 inches apart and parallel to the center line with each set of 1-foot double line spaced 10 to 15 feet along the center line of the Roadway. Additional temporary striping shall be installed wherever designated by the Engineer.

3) Temporary stop bars shall consist of a 12-inch wide stop bar made up of three parallel 4-inch strips of temporary pavement marking tape placed at locations designated by the Engineer. All other temporary pavement markings utilizing pavement-marking tape shall be designated by the Engineer.

4) Pressure-sensitive pavement marking tape used on the wearing course prior to installation of permanent lane markers, traffic buttons, or permanent paint striping shall be removed from the pavement current with, or immediately subsequent to, the installation of permanent pavement markings.

5) Temporary pavement markings shall be maintained in serviceable condition by the Contractor for the duration of time it is in use. Layout and marking in preparation for application and the application and removal of the temporary striping shall be the Contractor's responsibility. The Engineer will do the layout for permanent lane markings as specified in the City of Seattle Standard Specifications for Preliminary Spotting.

6) Temporary pavement marking tape shall meet the requirements of the City of Seattle Standard Specifications for Pressure Sensitive Tape.

d. Barricades and Channelization Devices:

1) The Contractor shall place and maintain necessary barricades, vertical barricades, drums, cones or other channeling devices as are needed to warn and alert drivers and pedestrians on or near the Traveled Way or construction area, and to guide and direct them safely past the construction area.

e. Lighting Devices:

1) Roadway and pedestrian illumination systems shall be maintained in operation for all Traveled Ways open to traffic. See the City of Seattle Standard Specifications for Illumination and Lighting Devices, Construction Requirements.

2) Barricades or drums used at night shall be equipped with approved yellow warning lights. The Contractor shall keep existing traffic signal systems and pedestrian and Street lighting systems in operation for the benefit and safety of the traveling public during progress of the Work, unless otherwise directed by the Engineer. The Owner will continue the routine maintenance of traffic signal, pedestrian and Street lighting systems. The Contractor shall be responsible for replacing missing or damaged signs and posts.

f. Speed and Parking Control:

1) In those areas where construction operations have changed Road conditions, such additional hazards as reduced lane width, open trenches, temporary Roadway, etc., may be considered as evidence of need for an alteration of the legal (or posted) speed limit. Requests for alteration of the legal speed limits on City Streets must be submitted to the Engineer. Costs related to speed limit revisions and parking control shall be borne by the Contractor and at no additional cost to the Owner.

5. Construction and Maintenance of Detours:

a. Unless otherwise approved, the Contractor shall maintain two-way traffic during construction. The Contractor shall build, maintain in a safe condition, keep open to traffic, and remove when no longer needed:

1) Detours and detour bridges that will accommodate traffic diverted from the Roadway or bridge during construction

2) Detour crossings of intersecting Streets

3) Temporary approaches

b. All on-site or off-site detours required or necessitated by the Work, including side Street crossings, temporary bridges over freshly placed concrete, utilization of one or more lanes of the construction area for maintenance of through traffic, and related traffic control shall be the responsibility of the Contractor.

c. Any detour proposed by the Contractor shall not be built until the Engineer approves. Surfacing and paving shall be consistent with traffic requirements.

D. Measurement:

1. Measurement for "Maintenance and Protection of Traffic Control" shall be part of the Lump Sum Base Bid price.

E. Payment:

1. Compensation for the costs necessary to complete the work described in Section 01558 will be made as part of the Lump Sum Base Bid price to include the following:

   a. Maintenance and Protection of Traffic Control

   b. Traffic Control Labor,

   c. Construction Signs Class A,

   d. Construction Signs Class B.

PART 2 - PRODUCTS

Not used.

PART 3 – EXECUTION

Not used.

END OF SECTION 01558