

SECTION 01 20 00 (REV. 4)

PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Procedures for preparation and submittal of Progress Payment Requests.
- B. Related Sections:
 - 1. Section 00 72 00 – General Conditions, Article 9, Payments and Completion
 - 2. Section 00 41 00 – Bid Form
 - 3. Section 01 29 73 – Schedule of Values
 - 4. Section 01 32 16 – Construction Progress Schedule - CPM

1.2 SCOPE

- A. Payment for the various items of the Schedule of Bid Prices, as further specified herein, shall include all compensation to be received by Contractor for furnishing all tools, equipment, supplies, and manufactured products, and for all labor, operations, overhead and profit, applicable taxes, and incidentals appurtenant to the items of Work being described, as necessary to complete the various items of work as specified and as shown on the Drawings. No separate payment will be made for any item that is not specifically set forth in the Schedule of Bid Prices, and all costs therefore shall be included in the prices named in the Schedule of Bid Prices for the various appurtenant items of Work.
- B. Contract Prices shall be deemed to include all bonds and insurance, all appurtenances necessary to complete the required Work, including all costs for compliance with the regulations of public agencies having jurisdiction, including Health and Safety Requirements of the California Division of Industrial Safety and the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA), and including all costs for loss or damage arising from the Work, or from action of the elements, for any unforeseen difficulties which may be encountered, and for all risks of every description connected with the prosecution of the Work until Project Completion, also for all expenses incurred in consequence of the suspension or discontinuance of the Work as provided in the Contract.
- C. Except as otherwise expressly stipulated in the Contract Documents, no payment shall be made for materials stored on or off site, and for materials not yet incorporated into the Work on site.
- D. Neither the payment of any estimate nor of any retained percentage shall relieve Contractor of its obligation to make good all defective work or material.

1.3 BASIS OF PAYMENT

- A. Unit Price Work
 - 1. The City shall determine the quantities of Work to be paid for any item for which a unit price is fixed in the Contract.
 - 2. Unless otherwise provided, determination of the number of units of Work so completed shall be based, as far as practicable, on the actual measurement or count made by the City Representative of the Work satisfactorily completed within the prescribed limits.
 - 3. Measurement and computations shall be made by methods as the City may

- consider appropriate for the class of Work measured.
4. Should the actual quantities of Work performed under any unit price be greater or less than the estimated quantity stipulated on the Schedule of Bid Prices, or if an item of Work is deleted, the final Contract cost shall be adjusted by Change Order to reflect the actual quantities and actual costs including fixed costs for unit price items.
- B. Lump Sum: When the estimated quantity for specific portions of Work is not indicated on the Schedule of Bid Prices and unit is designated as lump sum, payment will be on a lump sum basis for Work satisfactorily completed as set forth in the Specifications and shown on the Drawings.
- C. Monthly payment requests shall be based upon information developed at monthly Application for Payment meetings and shall be prepared by Contractor. The approved Schedule of Values will be the basis for Contractor's payment requests.
1. No partial progress payment shall be made to Contractor until all cost information requested by the City is submitted and reviewed.
 2. Submission of a progress schedule update in accordance with Section 01 32 16 for the same period of the progress payment application shall be a condition precedent to making the progress payment application.

1.4 APPLICATION AND SCHEDULE PROCEDURES

- A. On the 25th of each month submit an itemized Application of Payment to the City Representative by email with all required supporting documents attached in PDF format or in other Windows file formats (except Certified Payrolls) covering the Work completed as of the date of the Application for Payment.
1. Submit a progress schedule update with each Application for Payment.
 2. List each authorized Change Order executed prior to date of submission by Change Order Number and description, as for original items of work.
 3. When the City requires substantiating data, Contractor shall submit suitable information with cover letter identifying Application of Payment number and date, line item by number and description.
 4. Submit Certified Payrolls through the City's internet-based Project Reporting System. Refer to Paragraph 9.03M of the General Conditions.
 5. Specify the desired Method of Payment, either electronic funds transfer or check.
- B. Progress payments for the work performed under this Contract will be made in the manner described in Paragraph 9.03 of the General Conditions.
1. Progress payments will be based upon progress estimates by Contractor and verified by the City of the actual physical progress of the work, utilizing the Schedule of Values approved by the City.
 2. Progress payments will be made on a monthly basis and no mid-monthly payments will be made regardless of the value of the work and material incorporated prior thereto.
 3. Contractor shall certify its estimate of the quantities of the work completed, contained in the monthly progress payment estimate, by signing each such estimate prior to its submission.
 4. Contractor shall submit Project Record Drawings as specified below under article "Project Record Drawings."
 5. The City will make final determination if agreement cannot be reached on Contractor's progress payment request.
- C. The City shall issue payments to Contractor through the City's electronic payment system. Contractor acknowledges and agrees to receive payment electronically through this system. Contractor shall not be entitled to any additional cost or charge under this Contract for using or failing to use the electronic payment system. Nor shall Contractor

be entitled to any additional cost or charge for delays or failures of the electronic payment system to complete a payment transaction.

- D. Pursuant to California Public Contract Code Section 22300, Contractor may substitute securities for any money withheld by the City to insure performance under the Contract. Said securities shall be in a form and of a type acceptable to the City.
1. At the request and expense of Contractor, securities equivalent to the amount withheld shall be deposited with City Controller or with a state or federally chartered bank as the escrow agent, who shall return such securities to Contractor upon satisfactory completion of the Contract.
 2. Securities eligible for investment under Public Contract Code Section 22300 shall be limited to those listed in Section 16420 of the Government Code and to bank or savings and loan certificates of deposit.
 3. Contractor shall enter into escrow agreement with City Controller for in-lieu construction payment retention provided by City, specifying amount of securities to be deposited, terms and conditions of conversion into cash in case of Contractor's default, and termination of escrow upon completion of Contract.
 4. Contractor shall be beneficial owner of securities substituted for monies withheld and shall receive any interest thereon.

1.5 PROGRESS ESTIMATES

- A. Upon receiving Contractor's monthly progress payment application, the City will review progress breakdown and make adjustments to percent of completion of each item of Work.
1. Monthly progress payments will be made based on the total value of Work items completed or partially completed, as determined by the City with participation of Contractor.
 2. Accumulated retainage will be shown as separate item in payment summary.
- B. After approving the finalized Progress Payment Report, the City will commence payment processing electronically. The payments will be made in accordance with Contractor's specified Method of Payment.

1.6 PROJECT RECORD DRAWINGS

- A. If requested by the City Representative, submit original and one (1) copy of the Project Record Drawings (As-Builts) with the monthly progress payments to the City Representative in the field for review. The original Record Drawings will be returned to the Contractor within fourteen (14) calendar days of submittal. The Contractor shall update the Record Drawings based on the City Representative's comments and resubmit the drawings for record. If the Record Drawings are not kept current or not furnished when specified herein, Progress Payments and if necessary the Final Payment will be withheld.

1.7 ELECTRONIC CERTIFIED PAYROLLS

- A. In accordance with the requirements of Paragraph 9.03M of the General Conditions, Contractor shall submit certified payrolls to the City electronically via the City-selected Project Reporting System ("PRS"), an internet-based program. This submittal is required for Progress Payments as specified in this Section 01 20 00 - Price and Payment Procedures. In addition to data relating to weekly payroll information, the Contractor, Subcontractors and Suppliers shall enter in appropriate fields of the PRS information regarding new hires, including name and date hired of each new employee.

PART 2 – PAYMENT SCHEDULE

2.1 Bid Item No. G-1: TRAFFIC ROUTING WORK (EXCEPT SEWER)

- A. The contract lump sum price paid for traffic control work includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals (including traffic water-filled barriers and flag persons) and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing, and disposing of the components of the traffic control work as shown on the plans; and doing all other work as specified in this Section 01 55 26 and applicable standards as referenced therein as specified in the applicable portions of the DPW Standard Specifications, and as directed by the City Representative. The traffic control work satisfactorily performed will be paid for at the lump sum price bid therefore prorated over the duration of field construction, proportionally to the percentage of field construction completed to date.

2.2 Bid Item No. G-2: TRAFFIC CONTROL SUPERVISOR PROVIDED BY TRAFFIC CONTROL SUB CONTRACTOR

- A. All work and material necessary to provide Traffic Supervisors as specified in Specifications Section 01 55 26 on weekdays, weekends, nights, and/or holidays will be paid at the unit bid price therefore. Subparagraphs 6.08B and 6.08C of the General Conditions do not apply to this Bid Item. This Bid Item will be measured for payment per hour of labor furnished. Quantities may vary by more than 25%. The Traffic Supervisors shall be employees of the Traffic Control Sub-Contractor not directly employed by the General Contractor.

2.3 Bid Item No. G-3: TEMPORARY PAVEMENT MARKINGS

- A. All temporary tape traffic stripes and pavement markings including arrows, and word messages will be measured by linear feet as shown on the plans and/or as installed in the field. Four-inch (4") broken traffic stripes will be measured in linear feet including the gaps.
- B. The four inch stripe will be the basis of measurement of wider temporary pavement markings such as 12-inches stop bars, 8-inches stripe, etc., and the total length will be measured as a four-inch stripe.
- C. Temporary overlay pavement markers will be measured by the unit from the actual count layout in the field or ordered by the City Representative.
- D. The contract unit price paid for temporary Traffic stripe, pavement markings and temporary overlay pavement markers shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing, replacing, maintaining, replacing, and removing temporary traffic stripes, markings, and markers.
- E. Temporary stripe and temporary overlay markers furnished and satisfactorily installed will be paid for at the Contract unit prices for the computed quantities as determined by the measurement method specified above. Quantities may vary by more than 25%. No additional compensation will be paid in maintaining all temporary traffic stripes, and pavement markings.

2.4 Bid Item No. G-4: FURNISH AND INSTALL CHANGEABLE MESSAGE SIGNS

- A. Changeable Message Signs (CMS) furnished and satisfactorily installed, maintained and

operated, will be paid for at the Contract unit price as shown on the Contract Bid Schedule. No other compensation will be paid in maintaining and operating the Changeable Message Signs, including all Incidental Work as specified in Section 01 55 26 Traffic Control.

2.5 Bid Item No. G-5: MOBILIZATION FOR PAVING WORK (MAXIMUM 3% OF THE SUM OF BID ITEMS G-1, R-1 THROUGH R-25, EXCLUDING ALL ALLOWANCES)

A. Refer to Section 01 21 53 - Mobilization/Demobilization Items.

2.6 Bid Item No. G-6: DEMOBILIZATION FOR PAVING WORK (MAXIMUM 3% OF THE SUM OF BID ITEMS G-1, R-1 THROUGH R-25, EXCLUDING ALL ALLOWANCES)

A. Refer to Section 01 21 53 - Mobilization/Demobilization Items.

2.7 Bid Item No. G-7: ALLOWANCE FOR UNIFORMED OFF-DUTY SAN FRANCISCO POLICE OFFICERS, AS REQUIRED BY THE CITY REPRESENTATIVE

A. Refer to Section 01 21 00 – Allowances.

2.8 Bid Item No. G-8: ALLOWANCE FOR PARTNERING FACILITATION AND RELATED COSTS

A. Refer to Section 01 21 00 – Allowances.

2.9 Bid Item No. G-9: ALLOWANCE FOR AS-NEEDED TRANSIT SUPPORT PROVIDED BY CONTRACTOR

A. Refer to Section 01 21 00 – Allowances.

2.10 Bid Item No. G-10: ALLOWANCE FOR AS-NEEDED OVERHEAD CONTACT SYSTEM (OCS) ISOLATION SUPPORT PROVIDED BY THE CONTRACTOR

A. Refer to Section 01 21 00 - Allowances.

2.11 Bid Item No. G-11: ALLOWANCE FOR AS-NEEDED TREE AND HEDGE TRIMMING

A. Refer to Section 01 21 00 – Allowances.

2.12 Bid Item No. CS-1: TRANSPORTATION OF SURPLUS CALIFORNIA CLASS I (NON-RCRA) HAZARDOUS WASTE (SOILS) TO A CLASS I DISPOSAL FACILITY

This Bid Item shall include all work described as follows:

- A. The transportation of surplus California Class I (non-RCRA) hazardous waste (soils) to a California Class I landfill or out-of-state equivalent for disposal. Any excavated and surplus existing soil or excavated and unsuitable existing soil for reuse as backfill or other hazardous materials, found to be California Class I (non-RCRA) hazardous waste shall be disposed of at a permitted a California Class I landfill or out-of-state equivalent.
- B. Handling and transportation of existing soil within the project site or to the Contractor's intermediate staging area is incidental work and not covered by this bid item.
- C. Transportation costs shall include all transportation, and other incidentals such as

compliance with transportation regulations, scheduling, staging, loading and unloading times and fees, covering of trucks, preparation of hazardous waste manifests, multiple handling and loading, tractor and truck stand-by and idle times, transportation round trip times and rates, load charges, and delays or demurrage due to such scheduling.

- D. Payment for this Bid Item will be made at the Contract Unit Price per US short ton as indicated in the Schedule of Bid Prices. For payment, the Contractor shall submit a copy of the fully signed hazardous waste manifests forms, as well as the weight tickets. If the final quantity varies by more or less than 25% of the estimated quantity specified, and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices shall apply to work under this bid item.
- E. Asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound or deleterious matter shall be excavated separately from the soil layer and shall not be include in this bid item. The Contractor shall remove such materials prior to the transportation and disposal of soils.
- F. The removal, management, transportation, and disposal of asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound, or deleterious matter shall be incidental to its respective bid items.
- G. Soils of different waste disposal classification shall be segregated when excavated, managed, transported, and disposed separately with no mixing of the different types of wastes.

2.13 Bid Item No. CS-2: DISPOSAL OF SURPLUS CALIFORNIA CLASS I (NON-RCRA) HAZARDOUS WASTE (SOILS) TO A CLASS I DISPOSAL FACILITY

This Bid Item shall include all work described as follows:

- A. The disposal of surplus California Class I (non-RCRA) hazardous waste (soils) to a California Class I landfill or out-of-state equivalent. Any excavated and surplus existing soil or excavated and unsuitable existing soil for reuse as backfill or other hazardous materials, found to be California Class I (non-RCRA) hazardous waste shall be disposed of at a permitted California Class I landfill or out-of-state equivalent.
- B. Disposal costs shall include all disposal costs such as the waste approval process, preparation of waste acceptance forms, weighing of the material, loading and unloading times, dump fees and taxes, profiling costs, landfill fees, and other incidentals.
- C. Dump fees and taxes shall include (as applicable) all tipping fees, gate fees, county and local taxes, landfill recovery fee, landfill environmental & surcharge fee, and the CA Board of Equalization (BOE) Hazardous Waste Land Disposal fee. The CA Board of Equalization (BOE) Hazardous Waste generator fee (if applicable) will be paid by the City and is not to be included in this bid item.
- D. Payment for this Bid Item will be made at the Contract Unit Price per US short ton as indicated in the Schedule of Bid Prices. For payment, the Contractor shall submit a copy of the fully signed hazardous waste manifests forms, as well as the weight tickets. If the final quantity varies by more or less than 25% of the estimated quantity specified, and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices shall apply to work under this bid item.
- E. Asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound or deleterious matter shall be excavated separately from the soil layer and shall not be included in this bid item. The Contractor shall remove such materials prior to the transportation and disposal of soils.

- F. The removal, management, transportation, and disposal of asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound, or deleterious matter shall be incidental to its respective bid items.
- G. Soils of different waste disposal classification shall be segregated when excavated, managed, transported, and disposed separately with no mixing of the different types of wastes.

2.14 Bid Item No. CS-3: TRANSPORTATION OF SURPLUS NON-HAZARDOUS SOILS (CLASS II & III) CALIFORNIA DESIGNATED WASTE (SOILS) TO A CLASS II & III DISPOSAL FACILITY

This Bid Item shall include all work described as follows:

- A. Transportation of surplus non-hazardous soils (Class II & III) California Designated Waste (soils) at a permitted and certified landfill or an out-of-state equivalent. Any excavated and surplus existing soil or excavated and unsuitable existing soil for reuse as backfill or other hazardous materials, found to be non-hazardous soils (Class II & III) California Designated Waste shall be disposed of at permitted California Class II & II landfill or out-of-state equivalent.
- B. Handling and transportation of existing soil within the project site or to a Contractor's intermediate staging area is incidental work and not covered by this bid item.
- C. Transportation costs shall include all handling, transportation, and other incidentals such as compliance with transportation regulations, scheduling, staging, loading and unloading times and fees, covering of trucks, preparation of non-hazardous waste manifests, multiple handling and loading, tractor and truck stand-by and idle times, transportation round trip times and rates, load charges, and delays or demurrage due to such scheduling.
- D. Payment for this Bid Item will be made at the Contract Unit Price per US short ton as indicated in the Schedule of Bid Prices. For payment, the Contractor shall submit a copy of the fully signed non-hazardous waste manifests forms, as well as the weight tickets. If the final quantity varies by more or less than 25% of the estimated quantity specified, and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices shall apply to work under this bid item.
- E. Asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound or deleterious matter shall be excavated separately from the soil layer and shall not be included in this bid item. The Contractor shall remove such materials prior to the transportation and disposal of soils.
- F. The removal, management, transportation, and disposal of asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound, or deleterious matter shall be incidental to its respective bid items.
- G. Soils of different waste disposal classification shall be segregated when excavated, managed, transported, and disposed separately with no mixing of the different types of wastes.

2.15 Bid Item No. CS-4: DISPOSAL OF SURPLUS NON-HAZARDOUS SOILS (CLASS II & III) CALIFORNIA DESIGNATED WASTE (SOILS) TO A CLASS II & III DISPOSAL FACILITY

This Bid Item shall include all work described as follows:

- A. Disposal of surplus non-hazardous soils (Class II & III) California Designated Waste

(soils) at a permitted landfill or an out-of-state equivalent. Any excavated and surplus existing soil or excavated and unsuitable existing soil for reuse as backfill or other materials, found to be non-hazardous soils (Class II & III) California Designated Waste shall be disposed of at a permitted California Class II & III landfill or out-of-state equivalent.

- B. Disposal costs shall include all disposal costs such as the waste approval process, preparation of waste acceptance forms, weighing of the material, loading and unloading times, dump fees and taxes, profiling costs, landfill fees, and other incidentals. Dump fees and taxes shall include (as applicable) all tipping fees, gate fees, county and local taxes, landfill recovery fee, and landfill environmental & surcharge fee.
- C. Payment for this Bid Item will be made at the Contract Unit Price per US short ton as indicated in the Schedule of Bid Prices. For payment, the Contractor shall submit a copy of the fully signed non-hazardous waste manifests forms, as well as the weight tickets. If the final quantity varies by more or less than 25% of the estimated quantity specified, and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices shall apply to work under this bid item.
- D. Asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound or deleterious matter shall be excavated separately from the soil layer and shall not be included in this bid item. The Contractor shall remove such materials prior to the transportation and disposal of soils.
- E. The removal, management, transportation, and disposal of asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound, or deleterious matter shall be incidental to its respective bid items.
- F. Soils of different waste disposal classification shall be segregated when excavated, managed, transported, and disposed separately with no mixing of the different types of wastes.

2.16 Bid Item No. CS-5: ALLOWANCE TO PERFORM NECESSARY WORK DUE TO UNFORESEEN ENVIRONMENTAL CONDITIONS

- A. Refer to Section 01 21 00 – Allowances.

2.17 Bid Item No. CS-6: ALLOWANCE FOR HAZARDOUS MATERIALS ABATEMENT

- A. Refer to Section 01 21 00 – Allowances.

2.18 Bid Item No. R-1: FULL DEPTH PLANING PER 2-INCH DEPTH OF CUT

- A. Full Depth Planing Per 2-Inch Depth of Cut shall be measured for payment as follows:
 - 1. Full depth planing per 2-inch depth of cut will be measured by square foot of roadway surface completed in place.
 - 2. Areas will be determined by the limits shown on the drawings unless otherwise directed by the Engineer.
 - 3. No deductions will be made from the Contractor's payment for the inlet or other casting area itself.
 - 4. General Conditions Section 6.08, B & C shall not apply to Bid Item "Full Depth Planing Per 2-Inch Depth of Cut".

- B. Full depth planing per 2-inch depth of cut, as specified in Section 32 01 16.71, will be paid for at the Contract unit price stated in the bid schedule for the computed quantities as determined by the measurement method specified above.

2.19 Bid Item No. R-2: HOT MIX ASPHALT (Type A ½-Inch Maximum with Medium Grading)

- A. Hot Mix Asphalt paving shall be measured for payment as follows:
 - 1. Furnish a certified daily summary weight sheet in addition to either a public weighmaster certificate or a private weighmaster's certificate showing the number of tons of hot mix asphalt placed.
 - 2. Obtain the signature of the City Representative on the load tag for each load dumped on the job site and incorporated into the work. Payment will be made only on duplicate load slips delivered to the City Representative at the time of signature and delivery.
- B. Hot Mix Asphalt (Type A, ½-Inch Medium Grading) installed and all necessary and/or required equipment and labor to install including trucking, as specified in Section 32 12 16, will be paid for at the Contract unit price stated in the bid schedule for the computed quantities as determined by the measurement method specified above.

2.20 Bid Item No. R-3: 10-INCH THICK CONCRETE PAVEMENT

- A. 10-Inch Thick Concrete Pavement will be measured for payment by the square foot to the limits indicated on the plans, and will be paid for at the contract unit price.
- B. Saw cutting, removal, and disposal of existing concrete base / pavement, excavating, backfilling, preparation of subgrade to proper grade, compacting , and adjustment of manhole and catch basin frames and castings to new grade shall be considered as Incidental Work.
- C. The City Representative may determine exact locations of concrete base work and may increase or decrease measurements shown on the Drawings or establish new concrete base work in the field.
- D. When concrete pavement is to be thickened at an edge in order to match the depth of a thicker adjacent pavement section, the thickened portion of the pavement shall be considered as Incidental Work.

2.21 Bid Item No. R-4: 10-INCH THICK CONCRETE BASE

- A. 10-Inch Thick Concrete Base will be measured for payment by the actual area in square feet measured to the limits indicated on the Drawings, as specified in Section 32 13 13, and will be paid for at the Contract unit price per square foot stated in the Schedule of Bid Prices.
- B. Saw cutting, removal and disposal of existing roadway base (concrete/asphalt/other), excavating, backfilling, preparation of subgrade to proper grade, compacting, and adjustment of manhole and catch basin frames and castings to new grade will be considered as Incidental Work.
- C. The City Representative may determine exact locations of concrete base work and may increase or decrease measurements shown on the Drawings or establish new concrete base work in the field.

- D. When concrete base is to be thickened at an edge in order to match the depth of a thicker adjacent pavement section, the thickened portion of the pavement shall be considered as Incidental Work.

2.22 Bid Item No. R-5: 10-INCH THICK CONCRETE PARKING STRIP OR GUTTER

- A. 10-Inch Thick Concrete Parking Strip or Gutter will be measured for payment by the actual area in square feet measured to the limits indicated on the Drawings, and will be paid for at the Contract unit price per square foot stated in the Schedule of Bid Prices.
- B. Saw cutting, removal and disposal of existing roadway base (concrete/asphalt/other), excavating, backfilling, preparation of subgrade to proper grade, compacting, and adjustment of manhole and catch basin frames and castings to new grade will be considered as Incidental Work.
- C. The City Representative may determine exact locations of concrete parking strip or gutter work and may increase or decrease measurements shown on the Drawings or establish new concrete parking strip or gutter work in the field.
- D. When concrete parking strip or gutter is to be thickened at an edge in order to match the depth of a thicker adjacent pavement section, the thickened portion of the pavement shall be considered as Incidental Work.

2.23 Bid Item No. R-6: 10-INCH THICK CONCRETE PAVEMENT FOR RAISED CROSSWALKS

- A. 10-Inch Thick Concrete Pavement for raised crosswalks will be measured for payment by the square foot to the limits indicated on the plans, and will be paid for at the contract unit price.
- B. Saw cutting, removal, and disposal of existing concrete base / pavement, excavating, backfilling, preparation of subgrade to proper grade, compacting, and adjustment of manhole and catch basin frames and castings to new grade shall be considered as Incidental Work.
- C. The City Representative may determine exact locations of concrete base work and may increase or decrease measurements shown on the Drawings or establish new concrete base work in the field.
- D. When concrete pavement is to be thickened at an edge in order to match the depth of a thicker adjacent pavement section, the thickened portion of the pavement shall be considered as Incidental Work.

2.24 Bid Item No. R-7: 10-INCH THICK CONCRETE BUS PAD (6,000 PSI) (PER SFPW STANDARD PLAN 96,607, REV. 2)

- A. 10-Inch Thick Concrete Bus Pad will be measured for payment by the actual area in square feet of concrete bus pad constructed, measured to the limits along the face of curb by the width shown on the Drawings, as specified in Section 32 13 13, and will be paid for at the Contract unit price per square foot stated in the Schedule of Bid Prices.
- B. Concrete bus pad shall be constructed in accordance with SFPW Standard Plan 96,607, Revision 2.
- C. Saw cutting, removal and disposal of existing roadway base (concrete/asphalt/other), furnishing, placement and installation of dowel bars, compacting, and adjustment of manhole and catch basin frames and castings to new grade will be considered as

Incidental Work.

- D. When concrete bus pad is to be thickened at an edge in order to match the depth of a thicker adjacent pavement section, the thickened portion of the pavement shall be considered as Incidental Work.

2.25 Bid Item No. R-8: AGGREGATE BASE CLASS II FOR BUS PAD

- A. Aggregate Base Class II will be measured for payment by the actual cubic yards of aggregate base installed as indicated on the Drawings and/or as directed by the City Representative as specified in Section 32 11 23, and will be paid for at the Contract unit price per cubic yard stated in the Schedule of Bid Prices.
- B. Saw cutting, removal and disposal of existing roadway base (concrete/asphalt/other), removal and disposal of existing subgrade, backfilling, preparation of subgrade to proper grade, furnishing, and compacting shall be considered as Incidental Work.

2.26 Bid Item No. R-9: 3½-INCH THICK CONCRETE SIDEWALK

- A. 3½-Inch Thick Concrete Sidewalk will be measured for payment by the square foot to the limits indicated on the plans, as specified in Section 32 13 13, will be paid for at the Contract unit price per square foot stated in the Schedule of Bid Prices.
- B. Saw cutting and removal of existing concrete sidewalk, excavating, backfilling, preparing of subgrade to proper grade, compacting, removing tree roots as directed by the Bureau of Urban Forestry (BUF), installing reinforced steel bars in accordance with SFPW Standard Plan 96,608 revision 1, adjusting utility boxes in the sidewalk to finish grade, salvaging and reinstalling sidewalk plaques, grouting under and around street light poles and/or traffic signal poles shall be considered as Incidental Work. Waterproofing required for sub-sidewalk basements shall be installed as Incidental Work.
- C. Restoration of building corners and stairways where the sidewalk elevation is lowered exposing the unpainted and unfinished building façade, including all Work and materials needed to match the existing surface in material and color, shall be considered as Incidental Work.
- D. When concrete sidewalk is to be thickened at an edge in order to match the depth of a thicker adjacent pavement section or at the end of a sidewalk, the thickened portion of the pavement shall be considered as Incidental Work. Thickened concrete sidewalk at driveways shall be considered as Incidental Work.

2.27 Bid Item No. R-10: COMBINED 6-INCH WIDE CONCRETE CURB AND 2-FOOT WIDE CONCRETE GUTTER

- A. Combined 6-Inch Wide Concrete Curb and 2-Foot Wide Concrete Gutter, including dropped curbs for curb ramps will be measured for payment by the actual length in linear feet measured to the limits along the face of curb indicated on the Drawings, as specified in Section 32 13 13, and will be paid for at the Contract unit price per linear foot stated in the Schedule of Bid Prices, even if the 6-Inch Wide Concrete Curb is poured separately.
- B. Saw Cutting, removal and disposal of existing pavement and concrete curb, excavating, backfilling, survey work, form work, preparation of subgrade to proper grade, compacting, abandoning of existing catch basin, and adjustment of manhole and catch basin frames and castings to new grade as shown on the Drawings shall be considered as Incidental Work.

- C. The City Representative may determine exact locations of combined curb and gutter work, and may increase or decrease measurements shown on the Drawings or establish new combined curb and gutter work in the field.

2.28 Bid Item No. R-11: COMBINED 6-INCH WIDE CONCRETE CURB AND 1-FOOT WIDE CONCRETE GUTTER

- A. Combined 6-Inch Wide Concrete Curb and 1-Foot Wide Concrete Gutter, including dropped curbs for curb ramps will be measured for payment by the actual length in linear feet measured to the limits along the face of curb indicated on the Drawings, as specified in Section 32 13 13, and will be paid for at the Contract unit price per linear foot stated in the Schedule of Bid Prices, even if the 6-Inch Wide Concrete Curb is poured separately.
- B. Saw Cutting, removal and disposal of existing pavement and concrete curb, excavating, backfilling, survey work, form work, preparation of subgrade to proper grade, compacting, abandoning of existing catch basin, and adjustment of manhole and catch basin frames and castings to new grade as shown on the Drawings shall be considered as Incidental Work.
- C. The City Representative may determine exact locations of combined curb and gutter work, and may increase or decrease measurements shown on the Drawings or establish new combined curb and gutter work in the field.

2.29 Bid Item No. R-12: 4-INCH OR 6-INCH WIDE CONCRETE CURB

- A. 6-Inch Wide Concrete Curb, including dropped curbs at driveways will be measured for payment by the actual length in linear feet of concrete curb measured along the face of curb indicated on the Drawings, as specified in Section 32 13 13, will be paid for at the Contract unit price per linear foot stated in the Schedule of Bid Prices.
- B. 4-Inch Wide Concrete Curb, constructed at the back of sidewalk to keep existing landscape in-place, will be measured for payment by the actual length in linear feet of concrete curb measured along the face of curb indicated on the Drawings, and will be paid for at the Contract unit price per linear foot stated in the Schedule of Bid Prices.
- C. Saw cutting, removal, and disposal of existing concrete curb, excavating, backfilling, form work, preparation of subgrade to proper grade, and compacting will be considered as Incidental Work. This Bid Item will not include the curb in combined curb and gutter.
- D. The City Representative may determine exact locations of curb work, and may increase or decrease measurements shown on the Drawings or establish new curb work in the field.

2.30 Bid Item No. R-13: 8-INCH WIDE CONCRETE CURB

- A. 8-Inch Wide Concrete Curb, including dropped curbs at driveways will be measured for payment by the actual length in linear feet of concrete curb measured along the face of curb indicated on the Drawings, as specified in Section 32 13 13, will be paid for at the Contract unit price per linear foot stated in the Schedule of Bid Prices.
- B. Saw cutting, removal, and disposal of existing concrete curb, excavating, backfilling, form work, preparation of subgrade to proper grade, and compacting will be considered as Incidental Work. This Bid Item will not include the curb in combined curb and gutter.
- C. The City Representative may determine exact locations of curb work, and may increase

or decrease measurements shown on the Drawings or establish new curb work in the field.

2.31 Bid Item No. R-14: RESET EXISTING GRANITE CURB (CONTINGENCY BID ITEM)**

- A. Reset Existing Granite Curb will be measured for payment by the linear foot along the face of curb, and will be paid for at the Contract unit price. The bid item shall include removal of the existing granite curb slabs, cleaning of granite, excavation, backfill and compaction of subgrade and resetting granite to proper grade.
- B. The City Representative may determine exact locations of existing granite curb to be reset, and may increase or decrease measurements shown on the Drawings or establish additional sections of existing granite curb to be reset in the field.

2.32 Bid Item No. R-15: CONCRETE CURB RAMP WITH CONCRETE DETECTABLE SURFACE TILES

- A. Concrete Curb Ramp will be measured for payment by the number of each concrete curb ramp constructed, which includes the ramp, wings, warning bands, and cutting and installing concrete detectable surface tiles, as specified in Sections 32 13 13 and 32 17 34, will be paid for at the Contract unit price each stated in the Schedule of Bid Prices.
- B. Saw cutting, removal and disposal of existing concrete sidewalk, curb and curb ramps for the construction and/or reconstruction of curb ramps, excavating, backfilling, survey work, form work, preparation of subgrade to proper grade, compacting, adjusting and/or tilting of catch basin frame and grating, relocating chain link fence, adjusting and/or rotating utility boxes in the sidewalk and/or gutter to finish grade, grouting under and around street light poles and/or traffic signal poles will be considered as Incidental Work.
- C. Providing existing elevations at gutter conforms on the as-built drawings will be considered as Incidental Work.

2.33 Bid Item No. R-16: CONCRETE CAST-IN-PLACE DETECTABLE SURFACE TILES

- A. Concrete Cast-In-Place Detectable Surface Tiles will be measured for payment by the actual area in square feet of concrete detectable surface tiles satisfactorily cut and installed, measured to the limits indicated on the Drawings and/or as directed by the City Representative, and will be paid for at the Contract unit price per square foot stated in the Schedule of Bid Prices.
- B. Saw cutting, removal and disposal of existing pavement (asphalt/concrete/other), pavement base (asphalt/concrete/aggregate/other), subgrade materials (sand/soil/aggregate/other), sidewalk, island, subsurface facilities, curb and curb ramp(s), vegetation, sand, and objectionable material for concrete tile installation, excavating, backfilling, survey work, form work, preparation of subgrade to proper grade, compacting, adjusting and/or tilting of catchbasin frame and grating, abandoning existing catchbasins, relocating chain link fence, adjusting and/or rotating utility boxes and sewer vents in the sidewalk and/or gutter to finish grade, relocating City utility pull boxes within reach of available slack in the wires, as required, demolition and grouting under and around all standards and poles, all Work required to relocate a street sign and street sign pole and all necessary coordination with the MTA to verify that the proposed new sign and sign pole location is acceptable, moving and reinstalling mail boxes, reconstructing asphalt concrete sidewalk, as required, and waterproofing of subsidewalk basements/facilities, as required, shall be considered as Incidental Work.

- C. All adjusted, rotated or relocated utility pull boxes shall not straddle any change in plane or material.
 - D. All detectable surface tiles that are adjacent to one another should have domes that align correctly per DPW Standard Plans and as specified in 32 17 33 – Cast-In-Place Detectable Surface Tiles.
 - E. Providing existing elevations at gutter conforms on the as-built drawings will be considered as Incidental Work.
- 2.34 Bid Item No. R-17: BRICK CISTERN IDENTIFICATION RING TYPE II (PER SFDPW STANDARD PLAN 87,179)
- A. Construction of Brick Cistern Identification Ring will be measured for payment by the number of brick rings satisfactorily constructed. The unit price shall include all work and materials necessary for constructing the ring including layout, demolition, preparation work, concrete base, concrete footing, mortar, and finishing.
- 2.35 Bid Item No. R-18: PULL BOX TYPE I WITH FIBERLYTE LID AND BOLTDOWN SCREW (CONTINGENCY BID ITEM)**
- A. Payment for furnishing and installing Pull Box Type I, including pavement restoration at pull box location and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place.
 - B. Removal and disposal of the existing pull box, and setting the new pull box to finished grade shall be considered as Incidental Work.
- 2.36 Bid Item No. R-19: PULL BOX TYPE III WITH FIBERLYTE LID AND BOLTDOWN SCREW (CONTINGENCY BID ITEM)**
- A. Payment for furnishing and installing Pull Box Type III, including pavement restoration at pull box location and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place.
 - B. Removal and disposal of the existing pull box, and setting the new pull box to finished grade shall be considered as Incidental Work.
- 2.37 Bid Item No. R-20: ADJUST CITY-OWNED MANHOLE FRAME AND COVER AND CATCH BASIN FRAME AND GRATE TO GRADE (CONTINGENCY BID ITEM)**
- A. At locations of street resurfacing, the number and locations of manhole frames and catch basin and castings to be adjusted in the field will be as determined by a joint inspection of the Contractor and the City Representative before the start of milling operation.
 - B. Adjustment of existing manhole frames and catch basin and castings will be measured for each casting satisfactorily adjusted. Refer to Section 32 17 53.
 - C. At locations of street base, parking strip, gutter, sidewalk, catch basin, manhole, and curb ramp construction/reconstruction, adjustment of manhole frames and catch basin and castings to new grade will be considered to be Incidental Work, and the number of frames and castings to be adjusted will not be measured for payment.
 - D. This Bid Item will be paid for at the Contract unit price each stated in the Schedule of Bid Prices for the computed quantities as determined by the measurement method specified

above.

2.38 Bid Item No. R-21: ADJUST CITY-OWNED HYDRANT AND WATER MAIN VALVE BOX CASTING COVER TO GRADE (CONTINGENCY BID ITEM)**

- A. At locations of street resurfacing, the number and locations of hydrant and water main valve box castings to be adjusted in the field will be as determined by a joint inspection of the Contractor and the City Representative before the start of milling operation.
- B. Adjustment of existing hydrant and water main valve box castings will be measured for each casting satisfactorily adjusted. Refer to Section 32 17 53.
- C. At locations of street base, parking strip, gutter, sidewalk, and curb ramp construction/reconstruction, adjustment of hydrant and water main valve box casting to new grade will be considered to be Incidental Work, and the number of castings to be adjusted will not be measured for payment.
- D. This Bid Item will be paid at the Contract unit price each stated in the Schedule of Bid Prices for the computed quantities as determined by the measurement method specified above.

2.39 Bid Item No. R-22: METAL HANDRAIL

- A. Measurement and Payment to furnish and install metal handrail at existing traffic island on Geneva Avenue and Moscow St\South Hill Blvd\Munich St will be made at the unit price by the linear foot, as measured in horizontal length, as named in the Schedule of Bid Prices, which shall constitute full compensation to furnish and install hot dipped galvanized metal railing including, but not limited to, attachments and all appurtenant work required for a complete installation in accordance with drawings and as specified in these specifications.

2.40 Bid Item No. R-23: CONCRETE STAIRS

- A. Concrete Stair at existing traffic island on Geneva Avenue and Moscow St\South Hill Blvd\Munich St will be measured for payment by the Lump Sum. Payments for this bid item will be made at the Contract Unit Price, as named in the Schedule of Bid Prices. Payment for this Bid Item shall constitute full compensation for furnishing all labor, materials, tools, equipment, testing and inspection, and incidentals required for installing and removing temporary formwork, furnishing, and placing reinforcing steel and concrete, furnishing and installing stair nosing, and all Incidental Work as required to complete the Work in accordance with the Contract Drawings.

2.41 Bid Item No. R-24: TEMPORARY TREE PROTECTION (CONTINGENCY BID ITEM**)

- A. Temporary Tree Guard will be measured for payment by the number of each temporary tree guard installed at locations indicated on plans, as specified in Section 01 56 39 – Temporary Tree and Plant Protection, and will be paid for at the Contract unit price per each as stated in the Schedule of Bid Prices.
- B. Temporary tree guard will include full compensation for furnishing all labor, materials, equipment, and all other work necessary for providing temporary tree guards for existing trees and specified oversight where excavation is occurring within specified limits described in Section 01 56 39 – Temporary Tree and Plant Protection.
- C. General Provisions, Section 9.04.B and 9.04.C, do not apply to this Bid Item. Quantities

may vary by more or less than 25%. The unused portion of this Bid Item shall be credited to the City.

2.42 Bid Item No. R-25: EXCAVATION AND BACKFILL SUPPORT FOR SAN FRANCISCO WATER DEPARTMENT (SFWD)

- A. The Contractor shall excavate and restore trenches as required for San Francisco Public Utilities Commission (SFPUC) – City Distribution Division (CDD) crews to relocate service connections.
- B. SFPUC-CDD foreman or inspector will mark limits of excavation as required by SFPUC-CDD crews to complete subsurface plumbing work.
- C. Contractor shall furnish steel plates to cover trenches while no work is being done within the trenches and provide traffic control to accommodate the work by SFPUC-CDD crews.
- D. Additional Excavation and Backfill for SFPUC-CDD will be measured for payment by the actual volume in cubic yards of material excavated at locations directed by the City Representative.
- E. Additional Excavation and Backfill for SFPUC-CDD will be paid for at the Contract unit price bid per cubic yard stated in the Schedule of Bid Prices; and will include all necessary, related and incidental Work.

2.43 Bid Item No. R-26: ALLOWANCE TO PERFORM NECESSARY WORK DUE TO UNFORESEEN CONDITIONS RELATED TO ROADWAY WORK

- A. Refer to Section 01 21 00 – Allowances.

2.44 Bid Item No. SW-1: TRAFFIC ROUTING FOR SEWER WORK AND DRAINAGE WORK

- A. The contract lump sum price paid for traffic routing work includes full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing and disposing of the components of the traffic routing work as shown on the plans; and doing all other work as specified in this Section 01 55 26 and applicable standards as referenced therein as specified in the applicable portions of the DPW Standard Specifications, and as directed by the City Representative. Traffic routing work, satisfactorily performed, as specified, will be paid for at the lump sum price bid therefor, prorated over the duration of field construction, proportionally to the percentage of field construction completed to date.

2.45 Bid Item No. SW-2: TRENCH AND EXCAVATION SUPPORT FOR SEWER WORK AND DRAINAGE WORK

- A. Trench and excavation support work, as specified, including adequate sheeting, shoring and bracing, dewatering (if necessary), etc., or equivalent method for the protection of life and limb, and conforming to applicable safety orders of OSHA and the State of California Division of Industrial Safety, will be paid for at the lump sum price bid therefor.

2.46 Bid Item No. SW-3: STANDARD CONCRETE MANHOLE FOR 12-INCH TO 24-INCH DIAMETER SEWERS WITH FRAME AND COVER (PER SFDPW STANDARD PLAN 87,181)

- A. Concrete manhole with new frame and cover will be measured for payment by the number of each manhole satisfactorily constructed, complete in place, as specified in Section 33

33 00 and will be paid for at the unit price bid therefor.

2.47 Bid Item No. SW-4: MANHOLE FRAME AND COVER WITH NON-SLIP COATING

- A. Concrete manhole new frame and cover will be measured for payment by the number of each frame and cover satisfactorily installed, complete in place, as specified in Std Plan 87,190, will be paid for at the unit price bid therefore.
- B. Cover shall be sent into manufacturer for non slip coating. Contact "SLIPNOT metal safety/flooring" at 800-754-7668, or use approved equivalent.

2.48 Bid Item No. SW-5: CLEAN AND MORTAR EXISTING BRICK OR CONCRETE MANHOLE

- A. Cleaning and mortaring existing manhole with 1-inch thick Calcium Aluminate Cementitious (CAC) Structural Rehabilitation Coating by the number of each satisfactorily completed in place as specified in Section 33 33 00 and 33 01 30.63 will be paid for at the unit price bid therefor.

2.49 Bid Item No. SW-6: CLEAN AND TELEWISE EXISTING MAIN SEWERS PRIOR TO LINING WORK

- A. Cleaning and televising main sewer prior to lining satisfactory performed, including all incidental work, will be paid for at the unit price bid therefor.

2.50 Bid Item No. SW-7: REMOVE OBSTRUCTION REQUIRING INTERNAL REAMING FROM EXISTING SEWER PRIOR TO LINING WORK

- A. Cleanly cutting and removing segment of side sewer or culvert that protrudes beyond the inner wall of sewer main and other obstructions requiring internal reaming prior to the lining work, satisfactorily complete, as specified in Section 33 31 30.73 including all incidental work will be paid for at the unit price bid under this item.

2.51 Bid Item No. SW-8: BYPASSING MAIN SEWER FLOW RELATED TO MORTARING WORK

- A. Bypassing main sewer flow satisfactorily performed, as specified in Section 33 33 00 and 33 01 30.73 including all incidental work will be paid for at the lump sum price bid therefor.

2.52 Bid Item No. SW-9: BYPASSING SIDE SEWER AND CULVERT FLOW RELATED TO MORTARING WORK (CONTINGENCY BID ITEM)**

- A. Bypassing side sewer and culvert flow satisfactory performed, as specified in Section 33 33 00 and 33 01 30.73 including all incidental work will be paid for at the unit price bid therefor.
- B. If side sewer vent cannot be accessed for flow bypassing, Contractor may use the pothole bid item near curb to access pipe. Contractor can insert camera at this time to inspect the side sewer. The side sewer replacement bid item is available to repair side sewer segments removed to bypass flow.
- C. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.53 Bid Item No. SW-10: BYPASSING SIDE SEWER AND CULVERT FLOW RELATED TO LINING WORK (CONTINGENCY BID ITEM)**

- A. Bypassing side sewer and culvert flow satisfactory performed, as specified in Section 33 33 00 and 33 01 30.73 including all incidental work will be paid for at the unit price bid therefor.
- B. If side sewer vent cannot be accessed for flow bypassing, Contractor may use the pothole bid item near curb to access pipe. Contractor can insert camera at this time to inspect the side sewer. The side sewer replacement bid item is available to repair side sewer segments removed to bypass flow.
- C. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.54 Bid Item No. SW-11: LINE EXISTING 18-INCH INSIDE DIAMETER PIPE WITH CURED-IN-PLACE-LINER (CIPL)

- A. Lining of sewer mains with Cured-In-Place-Liner (CIPL) will be measured horizontally along the centerline for payment by the number of each linear foot satisfactorily lined, complete in place, as specified in Section 33 33 00 and 33 01 30.73 will be paid for at the price bid per linear foot.

2.55 Bid Item No. SW-12: INTERNALLY REINSTATE CONNECTIONS TO NEWLY LINED MAIN SEWERS (CONTINGENCY BID ITEM)**

- A. Internally reinstating connections in lined main sewers will be measured for payment by the number of each connection (regardless of size) satisfactory reinstated, as specified in Section 33 33 00 and 33 01 30.73, including all incidental work and will be paid for at the unit price bid therefor.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.56 Bid Item No. SW-13: MINIMUM 1-INCH THICK LAYER OF CAC COATING SYSTEM FOR EXISTING 3'X4'-6" RC SEWER OR 2'-6"X3'-9" RC SEWER

- A. Spray mortaring existing sewer will be measured horizontally along the centerline for payment by the number to each linear foot satisfactorily sprayed, complete in place, as specified in Section 33 33 00 and 33 01 30.63 and will be paid for at the price bid per linear foot.

2.57 Bid Item No. SW-14, SW-15 & SW-16: 12-INCH, 15-INCH AND 18-INCH DIAMETER VCP SEWER ON CRUSHED ROCK BEDDING WRAPPED IN GEOTEXTILE FABRIC

- A. VCP sewer on crushed bedding wrapped in geotextile fabric will be measured horizontally along the centerline as specified in Section 305.08 of SFDPW Standard Specifications for payment by the number of each linear foot satisfactorily constructed, complete in place, as specified in Section 33 33 00 will be paid for at the price bid per linear foot.

2.58 Bid Item No. SW-17: 10-INCH DIAMETER VCP CULVERT (CONTINGENCY BID ITEM)**

- A. VCP culvert replacement or construction located within the contract limits will be measured horizontally along the centerline as specified in Section 307.07 of SFDPW Standard Specifications for payment by the number of each linear foot satisfactorily constructed, completed in place, as specified in Section 33 33 00 and will be paid for at the price bid per linear foot.
- B. Mobilization, traffic routing work, earthwork, and restoration of T-trench related to this work shall be done as Incidental Work to this bid item.
- C. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.59 Bid Item No. SW-18: PLUG AND FILL EXISTING SEWERS WITH SLURRY GROUT (CONTINGENCY BID ITEM)**

- A. Plug and fill existing sewers with slurry grout will be measured for payment by the number to each cubic yard satisfactory placed, as specified in section 302.04 and 302.06 of the SFDPW Standard Specifications, including all Incidental Work will be paid for at the unit price bid therefor.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.60 Bid Item No. SW-19: 4-INCH OR 6-INCH CIP SIDE SEWER EXTENSION (CONTINGENCY BID ITEM)**

- A. 4-Inch or 6-Inch CIP Side sewer extension located within the contract limits will be measured horizontally along the centerline for payment by the number of each linear foot satisfactorily constructed, completed in place, and will be paid for at the price bid per linear foot.
- B. Mobilization, traffic routing work, earthwork, and restoration of sidewalk related to this work shall be done as Incidental Work to this bid item.
- C. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.61 Bid Item No. SW-20: STANDARD SIDE SEWER VENT AND AIR TRAP ASSEMBLY (PER SFDPW STANDARD PLAN 87,196) INCLUDING PERMITS FROM DBI

- A. Standard side sewer trap and air trap assembly including obtaining permits from DBI will be measured for payment of each satisfactorily constructed, completed in place, as specified in Section 33 33 00 and will be paid for at the unit price bid therefor.

2.62 Bid Item No. SW-21: CONCRETE CATCH BASIN WITHOUT CURB INLET AND WITH NEW FRAME AND GRATING (PER SFDPW STANDARD PLAN 87,188)

- A. Concrete catch basin with new frame, grating, and cast iron water trap per SFDPW standard plan 87,188 will be measured for payment by the number of each satisfactorily constructed, complete in place, as specified in Section 33 33 00 and will be paid for at the

unit price bid therefor.

- 2.63 Bid Item No. SW-22: CONCRETE CATCH BASIN WITH CURB INLET AND WITH NEW FRAME AND GRATING (PER SFDPW STANDARD PLAN 87,187), AND WITH HORIZONTAL PROTECTION BAR
- A. Concrete catch basin with curb inlet, new frame, grating, horizontal protection bar and cast iron water trap per SFDPW standard plan 87,187 will be measured for payment by the number of each satisfactorily constructed, complete in place, as specified in Section 33 33 00 and will be paid for at the unit price bid therefor.
- 2.64 Bid Item No. SW-23: 6-INCH OR 8-INCH DIAMETER SIDE SEWER CONNECTION TO VCP MAIN SEWER (CONTINGENCY BID ITEM)**
- A. Side sewer connections will be measured for payment by the number of each satisfactory side sewer connection, complete in place, as specified in Section 33 33 00, including all incidental work will be paid for at the unit price bid therefor.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.
- 2.65 Bid Item No. SW-24: 6-INCH OR 8-INCH DIAMETER SIDE SEWER CONNECTION TO RCP MAIN SEWER (CONTINGENCY BID ITEM)**
- A. Side sewer connections will be measured for payment by the number of each satisfactory side sewer connection, complete in place, as specified in Section 33 33 00, including all incidental work will be paid for at the unit price bid therefor.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.
- 2.66 Bid Item No. SW-25: CONSTRUCTION OR REPLACEMENT OF 6-INCH OR 8-INCH DIAMETER SIDE SEWER LOCATED WITHIN LIMITS OF MAIN SEWER WORK (CONTINGENCY BID ITEM)**
- A. VCP side sewer construction or replacement located within main sewer work limits will be measured horizontally along the centerline as specified in Section 307.07 of SFDPW Standard Specifications for payment by the number of each linear foot satisfactorily constructed, completed in place, as specified in Section 33 33 00 and will be paid for at the price bid per linear foot.
- B. Mobilization, traffic routing work, earthwork, and restoration of T-trench related to this work shall be done as incidental work to this bid item.
- C. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

- 2.67 Bid Item No. SW-26: CONSTRUCTION OR REPLACEMENT OF 6-INCH OR 8-INCH DIAMETER SIDE SEWER LOCATED OUTSIDE THE LIMITS OF MAIN SEWER WORK BUT WITHIN CONTRACT LIMITS (CONTINGENCY BID ITEM)**
- A. VCP side sewer construction or replacement located within contract limits, but outside the limits of main sewer work will be measured horizontally along the centerline as specified in Section 307.07 of SFDPW Standard Specifications for payment by the number of each linear foot satisfactorily constructed, completed in place, as specified in Section 33 33 00 and will be paid for at the price bid per linear foot.
 - B. Mobilization, traffic routing work, earthwork, and restoration of T-trench related to this work shall be done as Incidental Work to this bid item.
 - C. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.
- 2.68 Bid Item No. SW-27: TELEVISION INSPECTION OF EXISTING 6-INCH OR 8-INCH DIAMETER SIDE SEWER AND 10-INCH DIAMETER CULVERT LOCATED WITHIN LIMITS OF MAIN SEWER WORK (CONTINGENCY BID ITEM)**
- A. Television inspection of existing side sewer and culverts located within main sewer work limits will be measured for payment by the number of each side sewer or culvert satisfactorily televised, as specified in Section 33 33 00, including all incidental work and will be paid for at the unit price bid therefor.
 - B. If the camera cannot be inserted through the existing side sewer vent or where vent does not exist, Contractor shall insert the camera into side sewer from main sewer trench. For accessing sewers to be lined, Contractor may need to deploy camera into side sewer internally from inside the main sewer.
- 2.69 Bid Item No. SW-28: TELEVISION INSPECTION OF EXISTING 6-INCH OR 8-INCH DIAMETER SIDE SEWER AND 10-INCH DIAMETER CULVERT LOCATED OUTSIDE THE LIMITS OF MAIN SEWER WORK BUT WITHIN CONTRACT LIMITS (CONTINGENCY BID ITEM)**
- A. Television inspection of existing side sewer and culverts located within the contract limits, but outside the limits of main sewer work will be measured for payment by the number of each side sewer and culvert satisfactorily televised, as specified in Section 33 33 00, including all incidental work and will be paid for at the unit price bid therefor.
 - B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.
- 2.70 Bid Item No. SW-29: POST-CONSTRUCTION TELEVISION INSPECTION OF NEWLY CONSTRUCTED AND REHABILITATED MAIN SEWERS
- A. Post-construction television inspection of newly constructed and rehabilitated main sewers conducted in accordance with National Association of Sewer Service Companies (NASSCO) Pipeline Assessment & Certification Program (PACP), as specified in Section 33 33 00, including all incidental work will be paid for at the unit price bid therefor.

2.71 Bid Item No. SW-30: POST-CONSTRUCTION TELEVISION INSPECTION OF NEWLY CONSTRUCTED SIDE SEWERS AND CULVERTS (CONTINGENCY BID ITEM)**

- A. Post-construction television inspection of newly constructed side sewers and culverts satisfactorily performed, as specified in Section 33 33 00, including all Incidental Work will be paid for at the unit price bid therefor.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.72 Bid Item No. SW-31: CAST IRON WATER TRAP FOR EXISTING CATCH BASIN INCLUDING CLEANOUT CAP (PER SFDPW STANDARD PLAN 87,194) (CONTINGENCY BID ITEM)

- A. Cast iron water trap will be measured for payment by the number of each cast iron water trap, satisfactorily furnished and installed, as specified in Section 33 33 00, including all Incidental Work will be paid for at the unit price bid therefor.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.73 Bid Item No. SW-32: RECONSTRUCT PAVEMENT OUTSIDE OF SEWER T-TRENCH LIMIT AND OUTSIDE OF CONCRETE BASE WORK UNDER R-DRAWING WITH 10-INCH THICK CONCRETE BASE NECESSARY PER EXCAVATION CODE AS DIRECTED BY THE CITY REPRESENTATIVE (CONTINGENCY BID ITEM)**

- A. 10-inch thick concrete base will be measured for payment by the square foot outside the sewer trench limit and outside of limits shown on R-drawings as required per "Regulations for Excavation and Restoring Streets in San Francisco" or as directed by the City Representative, and will be paid for at the price bid per square foot. Saw-cutting and removal of existing concrete base, excavating, backfilling, preparation of subgrade to the proper grade, and compacting shall be considered as Incidental Work.
- B. Temporary ACWS prior to final paving is incidental to this item.
- C. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.74 Bid Item No. SW-33: CONTROL DENSITY FILL BEDDING MATERIAL FOR SFWD FACILITIES ENCOUNTERED WITHIN THE SEWER TRENCH PRIOR TO BACKFILL (CONTINGENCY BID ITEM)**

- A. Control Density Fill (CDF) bedding material, as directed by City Representative, will be measured for payment by the number of cubic yard, satisfactorily placed, as specified in Sections 01 41 28 and 31 23 33, including all incidental work will be paid for at the unit price bid therefor.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.75 Bid Item No. SW-34: DESIGN OF STRUCTURAL SUPPORT FOR SFWD FACILITIES ENCOUNTERED WITHIN SEWER TRENCH

- A. Structural support for San Francisco Water Department (SFWD) facilities encountered within the sewer trench, as specified in Section 01 41 28, including design and submittal, construction work and incidental work, will be paid for at the lump sum price bid therefor, prorated by the number of crossings supported under this bid item.

2.76 Bid Item No. SW-35: AWSS AND WATER DEPARTMENT FACILITIES SETTLEMENT REFERENCE AND MONITORING POINTS, AND STRUCTURAL SUPPORT

- A. Payment for SFWD AWSS settlement monitoring and support work, including installing, removing and monitoring by surveying methods, the Settlement Reference Points (SRP) and Settlement Monitoring Points (SMP). The work shall include taking initial and final surveys, and surveys at intervals during the construction as required in the specifications, of all points shown to be installed, and supporting the existing AWSS facilities where required per the specifications; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefor.

2.77 Bid Item No. SW-36: EXPLORATORY HOLES OR POTHoles RELATED TO SEWER WORK (CONTINGENCY BID ITEM)**

- A. After utility facilities have been field marked, Contractor shall pothole to locate possible conflicts prior to installing the new sewer facilities as incidental work and shall only be compensated for additional potholes needed to 1) determine a new sewer alignment to avoid utility conflicts encountered through exploratory holes or to 2) locate underground facilities marked in the field that were not identified within the utility occupancy reference drawings.
- B. Exploring holes or potholes for sewer work and as instructed by the City Representative will be measured for payment by the cubic yard. Exploring hole or pothole dimensions is typically 4-feet by 4-feet by 6-feet, but may vary in size.
- C. This Bid Item includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, required for demolition, excavation, earthwork, importing of backfill material as required, testing, restoration of existing surfaces, including concrete pavement and asphalt wearing course, and all incidental work required for providing test pits or potholes.
- D. Payment for this Bid Item will be made at the Contract Unit Price per cubic yard satisfactorily completed, as indicated in the Schedule of Bid Prices.
- E. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.78 Bid Item No. SW-37: MOBILIZATION FOR SEWER AND DRAINAGE WORK (MAXIMUM 3% of the Sum of Bid Items SW-1 Through SW-36)

- A. Mobilization and demobilization will be paid based on the entire contract, not individual locations.
- B. Under mobilization, when the City Representative is satisfied that the Contractor is diligently pursuing commencement of work as stipulated in Section 01 21 53 will be paid 100% of the amount set aside in the Schedule of Bid Price.

- C. Any extension of the Contract Time that may be granted will not of itself constitute grounds for a claim for additional payment under this Bid Item.
- D. Sections 01 35 45, 01 57 13, 01 57 19, 02 81 00 and 31 23 19 related to this work shall be done as Incidental Work to this bid item and as necessary.

2.79 Bid Item No. SW-38: DEMOBILIZATION FOR SEWER AND DRAINAGE WORK (MAXIMUM 2% of the Sum of Bid Items SW-1 Through SW-36)

- A. Demobilization will be paid based on the entire contract, not individual locations.
- B. Under demobilization, when the City Representative is satisfied that the Contractor is diligently pursuing commencement of work including submittal of final documents (as-built drawings and post construction TV inspection DVDs) will be paid the amount under this Bid Item.
- C. Any extension of the Contract Time that may be granted will not of itself constitute grounds for a claim for additional payment under this Bid Item.

2.80 Bid Item No. SW-39: ALLOWANCE TO PERFORM NECESSARY WORK DUE TO UNFORESEEN CONDITIONS RELATED TO SEWER WORK AND DRAINAGE WORK

- A. Refer to Section 01 21 00 – Allowances.

THE FOLLOWING WORK SHALL BE DONE AS INCIDENTAL WORK:

1. Investigating, locating by dye-testing, abandoning inactive side sewers, if any, and rodding of side sewers.
2. The channelization of cunette within the bottom of new and existing manholes.
3. Temporary pavement within sewer trench.
4. Connections to and between sewers, structures and culverts.
5. Cleaning existing sewers by flushing with high velocity hydro-cleaning equipment prior to excavation and removal.
6. Cleaning and disposing of waste materials inside existing catch basins and storm water inlets that are located within the contract limits and will remain.
7. Furnishing and installing cleanout caps for new cast iron water traps in existing catch basins to be remained.
8. Prior to plugging and filling, provide a television inspection of existing sewer to locate active side sewers.
9. Plug existing side sewers and culverts, abandoning and/or removing existing manholes and catch basins.
10. Extension of side sewer connections to the new pipe within the main sewer trench.
11. Saw-cutting, removing and disposing of existing pavement.
12. Street excavation, backfilling and compaction, satisfactorily performed.
13. Restoration of excavation in landscaped areas, including backfilling and compaction.
14. Restoration of t-trench with temporary hot patch ACWS prior to final pavement renovation.
15. Restoration of concrete base (T-trench restoration for all streets as detailed on SW-Drawings), parking strip, concrete curb, concrete sidewalk, brick crosswalk, median islands and landscaping within the sewer trench.
16. Saw-cutting of concrete roadways for sewer trench.

17. Placement of temporary ACWS within limits of sewer trench located within existing concrete roadways.
18. Removal of temporary ACWS within concrete roadways prior to final pavement renovation.
19. Restoration of pavement, speed bump, parking strip, curb, sidewalk, landscaping and driveway damaged by the Contractor or caused to be damaged due to the Contractor's defective shoring system will be done by the Contractor at own expense.
20. Furnishing and installing detectable warning tape as detailed on SW-Drawing for trench restoration.
21. All cost of work in the remaining portions of Sections 31 23 33 and 33 33 00 shall be included as Incidental Work in the items of the bid schedule to which such work is appurtenant.
22. At locations of street base reconstruction, base repair, or concrete street reconstruction, adjustment of castings to new grade will be considered to be Incidental Work and the number of castings to be adjusted will not be measured for the payment.
23. Preparation of subgrade for paving to proper grade, including excavation, backfilling, and compacting shall be considered Incidental to the pavement restoration work.
24. Spray paint to be provided by Contractor to the City Representative to make all necessary markings at the project site.
25. Preserving Survey Monuments per City Order No. 187,005.
26. Re-establishing City Survey Monuments per City Order No. 187,005, if disturbed, and for which a bid item has not been provided.
27. Furnishing and installing AASHTO M288, Class 2, Non-Woven Geotextile Fabric.
28. Furnishing of television inspection DVD and log of existing side sewers and culverts within contract limits.
29. Furnishing of post-construction television inspection DVD and log for newly constructed main sewers, side sewers and culverts.
30. Furnishing of As-Built Drawings of the newly constructed and mortar rehabilitated sewers.
31. Protecting and working around existing governmental utilities, including but not limited to, San Francisco Water Department (SFWD), Auxiliary Water Supply System (AWSS), etc., encountered within the limits of the sewer trench.
32. Pre-excavation profiling of exploratory pits.
33. Handling and transport of excavated materials on site.
34. Furnishing and installing VCP stubs for future connections at newly constructed manholes.
35. Installation of 12-Inch to 8-Inch reducer.

2.81 Bid Item No. S-1: CAST-IN-DRILLED-HOLE (CIDH) CONCRETE DRILLED PIER CITY STANDARD STREET LIGHT POLE FOUNDATION OUTSIDE OF SUB-SIDEWALK BASEMENT REQUIRING 10 FT DEEP PIER (PER 1/ST-2.01)

- A. Measurement and Payment for the furnishing and installing of the completed pole foundation will be made at the unit price, as named in the Schedule of Bid Prices, which shall constitute full compensation for drilling, furnishing temporary casing to prevent quick soil conditions or caving of the hole, de-watering of hole, demolition of existing abandoned sub-sidewalk basement walls interfering with the pole foundation location, fabrication and delivery of reinforcement, installation of reinforcement, concrete pour, minor grading, furnishing and installation of anchor bolts as required, repair of sidewalk, structural special inspections and testing, and all appurtenant work as required to complete work in accordance with Contract Drawings and as specified. See Contract Drawings and Specifications for information regarding the required special inspections

and testing.

2.82 Bid Item No. S-2: CAST-IN-DRILLED-HOLE (CIDH) CONCRETE DRILLED PIER CUSTOM TRAFFIC SIGNAL MAST ARM POLE FOUNDATION OUTSIDE OF SUB-SIDEWALK BASEMENT REQUIRING 16 FT DEEP PIER (PER 1/ST-3.03)

- A. Measurement and Payment for the furnishing and installing of the completed pole foundation will be made at the unit price, as named in the Schedule of Bid Prices, which shall constitute full compensation for drilling, furnishing temporary casing to prevent quick soil conditions or caving of the hole, de-watering of hole, demolition of existing abandoned sub-sidewalk basement walls interfering with the pole foundation location, fabrication and delivery of reinforcement, installation of reinforcement, concrete pour, minor grading, furnishing and installation of anchor bolts as required, repair of sidewalk, structural special inspections and testing, and all appurtenant work as required to complete work in accordance with Contract Drawings and as specified. See Contract Drawings and Specifications for information regarding the required special inspections and testing, including those required for the custom signal mast arm and pole at the intersection of Mission Street and Geneva Avenue.

2.83 Bid Item No. S-3: BUS SHELTER MAT SLAB FOUNDATION (PER ST-5.01)

- A. Measurement and Payment for the furnishing and installing of the completed mat slab foundation will be made at the unit price, as named in the Schedule of Bid Prices, which shall constitute full compensation for excavation, soil compaction, furnishing, installing, and removal of form work, temporary shoring adjacent to sub-sidewalk basement, fabrication and delivery of reinforcement, installation of reinforcement, concrete pour, grading, furnishing and installation of anchor bolts as required, repair of sidewalk, troweling and finish of the exposed surface of the slab, structural special inspections and testing, and all appurtenant work as required to complete work in accordance with Contract Drawings and as specified. See Contract Drawings and Specifications for information regarding the required special inspections and testing.

2.84 Bid Item No. BR-1: CLEAN EXPANSION JOINT

- A. Cleaning expansion joints will be measured for payment by the linear foot at the locations and to the limits indicated in the plans and will be paid for at the contract unit price as stated in the bid schedule.
- B. The contract price paid per linear foot for clean expansion joint shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in cleaning expansion joints, complete in place, as shown on the plans, as specified in 03 15 23 "Clean and Seal Expansion Joints", and as directed by the City Representative.

2.85 Bid Item No. BR-2: SEAL EXPANSION JOINT (MR 1")

- A. Sealing expansion joints (MR 1") will be measured for payment by the linear foot at the locations and to the limits indicated in the plans and will be paid for at the contract unit price as stated in the bid schedule.
- B. The contract price paid per linear foot for seal expansion joint (MR 1") shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in sealing expansion joints, complete in place, as shown on the plans, as specified in 03 15 23 "Clean and Seal Expansion Joints", and as directed by

the City Representative.

2.86 Bid Item No. BR-3: REMOVE AND REPAIR UNSOUND CONCRETE

- A. Removing and repairing unsound concrete will be measured for payment by the square foot at the locations and to the limits indicated in the plans and will be paid for at the contract unit price as stated in the bid schedule.
- B. The contract price paid per square foot for remove and repair unsound concrete shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in removing and repairing unsound concrete, complete in place, as shown on the plans, as specified in 03 01 30 "Cast-in-Place Concrete Maintenance", and as directed by the City Representative.
- C. Remove and repair unsound concrete includes the Contractor performing visual and chain dragging inspection of the concrete bridge deck to identify and confirm locations and areas of deficiencies. Additional repair areas discovered during the inspection will be paid for at the contract unit price per square foot.
- D. Reinforcing steel damaged and rendered useless by the Contractor's operations during the removal of unsound concrete shall be repaired or replaced by the Contractor at the Contractor's expense.

2.87 Bid Item No. BR-4: CLEAN BRIDGE DECK

- A. Clean bridge deck will be measured and paid for by the square foot of deck surface cleaned.
- B. The contract price paid per square foot for clean bridge deck includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in cleaning the bridge deck, including removing traffic striping, complete in place, as shown on the plans, as specified in 03 01 33 "Bridge Deck Methacrylate Resin Treatment", and as directed by the City Representative.

2.88 Bid Item No. BR-5: FURNISH HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) RESIN TREATMENT MATERIAL

- A. Furnishing high molecular weight methacrylate (HMWM) resin treatment material will be measured for payment by the gallon of mixed HMWM resin actually placed and will be paid for at the contract unit price as stated in the bid schedule. No payment will be made for materials wasted or not incorporated in the work.
- B. The contract price paid for furnish high molecular weight methacrylate (HMWM) resin treatment material shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to furnish HMWM resin treatment material to the site of the work ready for application, as specified in 03 01 33 "Bridge Deck Methacrylate Resin Treatment", and as directed by the City Representative.

2.89 Bid Item No. BR-6: TREAT BRIDGE DECK WITH HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) RESIN

- A. Treating bridge deck with high molecular weight methacrylate (HMWM) resin will be measured for payment by the square foot based on the dimensions shown on the plans and will be paid for at the contract unit price as stated in the bid schedule.

- B. The contract price paid per square foot for treat bridge deck with HMWM resin shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in preparing and applying bridge deck HMWM resin treatment, including sand and absorbent material, as shown on the plans, as specified in 03 01 33 "Bridge Deck Methacrylate Resin Treatment", and as specified by the City Representative.
- C. Full compensation for providing traffic control for the City Representative to perform inspections and testing shall be considered as included in the contract price paid for treat bridge deck with HMWM resin and no additional compensation will be allowed therefor.

2.90 Bid Item No. BR-7: REMOVE ASPHALT CONCRETE

- A. Remove asphalt concrete will be measured for payment by the square foot of roadway surface completed in place and will be paid for at the contract unit price as stated in the bid schedule.
- B. The contract price paid per square foot for remove asphalt concrete shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing and disposing of asphalt concrete, as shown by the limits on the plans, as specified in the project specifications, and as specified by the City Representative.

2.91 Bid Item No. BR-8: ALLOWANCE TO REMOVE AND REPAIR UNSOUND CONCRETE AT MISSION O.C. (BR. NO. 34-0012Y)

- A. Refer to Section 01 21 00 - Allowances.

2.92 Bid Item No. E-1: (3S12") 3-SECTION, 12-INCH VEHICLE SIGNAL FACE WITH TYPE 1 LED RED, YELLOW, AND GREEN

- A. Payment for furnishing and installing (3S12") 3-section, 12-inch Vehicle Signal Face with Type 1 LED Red, Yellow, and Green with visors and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal face satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.93 Bid Item No. E-2: (3S12"LA) 3-SECTION, 12-INCH VEHICLE SIGNAL FACE WITH TYPE 1 LED RED LEFT ARROW, YELLOW LEFT ARROW, AND GREEN LEFT ARROW

- A. Payment for furnishing and installing (3S12") 3-section, 12-inch Vehicle Signal Face with Type 1 LED Red Left Arrow, Yellow Left Arrow, and Green Left Arrow with visors and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal face satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.94 Bid Item No. E-3: (3S12") 3-SECTION, 12-INCH BICYCLE SIGNAL FACE WITH TYPE 1 LED RED, YELLOW, AND GREEN

- A. Payment for furnishing and installing (3S12") 3-section, 12-inch Bicycle Signal Face with Type 1 LED Red, Yellow, and Green with visors and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal face satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.95 Bid Item No. E-4: (TV-1-T) ONE-WAY POST TOP-MOUNTED VEHICLE SIGNAL MOUNTING WITH TERMINAL COMPARTMENT

- A. Payment for furnishing and installing (TV-1-T) One-way Post Top Mounted Vehicle Signal Mounting with Terminal Compartment and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.96 Bid Item No. E-5: (SV-1-T) ONE-WAY POST SIDE-MOUNTED VEHICLE SIGNAL MOUNTING WITH TERMINAL COMPARTMENT

- A. Payment for furnishing and installing (SV-1-T) One-way Post Side Mounted Vehicle Signal Mounting with Terminal Compartment and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.97 Bid Item No. E-6: (TV-2-T) TWO-WAY POST TOP-MOUNTED VEHICLE SIGNAL MOUNTING WITH TERMINAL COMPARTMENT

- A. Payment for furnishing and installing (TV-2-T) Two-way Post Top Mounted Vehicle Signal Mounting with Terminal Compartment and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.98 Bid Item No. E-7: (SV-2-TA) TWO-WAY POST SIDE-MOUNTED VEHICLE SIGNAL MOUNTING WITH TERMINAL COMPARTMENT IN CONFIGURATION A

- A. Payment for furnishing and installing (SV-2-TA) Two-way Post Side Mounted Vehicle Signal Mounting with Terminal Compartment, in configuration "A" and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.99 Bid Item No. E-8: (SV-3-TA) THREE-WAY POST SIDE-MOUNTED VEHICLE SIGNAL MOUNTING WITH TERMINAL COMPARTMENT IN CONFIGURATION A

- A. Payment for furnishing and installing (SV-3-TA) Three-way Post Side Mounted Vehicle Signal Mounting with Terminal Compartment, in configuration "A" and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.100 Bid Item No. E-9: SIGNAL BACK PLATE

- A. Payment for furnishing and installing Signal Back Plate and all incidental and related work will be made at the unit price bid therefor. Measured for payment per back plate satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.101 Bid Item No. E-10: (1S-COUNT HOUSING) ONE-SECTION LED PEDESTRIAN COUNTDOWN SIGNAL HOUSING

- A. Payment for furnishing and installing (1S-COUNT Housing) one-section LED pedestrian countdown signal housing and all incidental and related work will be made at the unit

price bid therefor. Measured for payment per signal housing satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.102 Bid Item No. E-11: LABOR COST ONLY TO INSTALL CITY FURNISHED (1S-COUNT MODULE) ONE-SECTION LED PEDESTRIAN COUNTDOWN SIGNAL MODULE

- A. Payment for installing City Furnished LED pedestrian countdown signal module and all incidental and related work will be made at the unit price bid therefor. Work includes pickup of the module from the SFMTA Traffic Signal Shop, installation of the module in field, connection of field wires, and all incidental work required to provide a fully functional installation. Contractor shall contact one of the SFMTA Traffic Signal Shop supervisors at (415) 401-3700 at least two (2) working days prior to proposed delivery date. Measured for payment per module satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.103 Bid Item No. E-12: (SP-1) ONE-WAY POST SIDE-MOUNTED PEDESTRIAN SIGNAL MOUNTING

- A. Payment for furnishing and installing (SP-1) One-way Post Side Mounted Pedestrian Signal Mounting and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pedestrian signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.104 Bid Item No. E-13: (SP-1)(22" OR 26" OR 12"-SF OR 22"-SF) ONE-WAY POST SIDE-MOUNTED PEDESTRIAN SIGNAL MOUNTING WITH 22-INCH NIPPLES; OR 26-INCH NIPPLES OR 12-INCH NIPPLES, SAN FRANCISCO STANDARD; OR 22-INCH NIPPLES, SAN FRANCISCO STANDARD

- A. Payment for furnishing and installing (SP-1)(22" OR 26" OR 12"-SF OR 22"-SF) One-way Post Side Mounted Pedestrian Signal Mounting with 22-inch nipples; or 26-inch nipples; or 12-inch nipples, San Francisco Standard; or 22-inch nipples, San Francisco Standard and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pedestrian signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.105 Bid Item No. E-14: (TP-1) ONE-WAY POST TOP-MOUNTED PEDESTRIAN SIGNAL MOUNTING

- A. Payment for furnishing and installing (TP-1) One-way Post Top Mounted Pedestrian Signal Mounting and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pedestrian signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.106 Bid Item No. E-15: TYPE 1-A POLE (7') WITH CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 1-A Pole (7') with concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.107 Bid Item No. E-16: TYPE 1-A POLE (10') WITH CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 1-A Pole (10') with concrete foundation work,

excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.108 Bid Item No. E-17: TYPE 1-A POLE (13') WITH CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 1-A Pole (13') with concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.109 Bid Item No. E-18: TYPE 1-A POLE (15') WITH CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 1-A Pole (15') with concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.110 Bid Item No. E-19: CITY STANDARD STEEL STREET LIGHT POLE (28.5') WITH 6' LUMINAIRE ARM AND LED LUMINAIRE (See Structural Bid Item for Foundation)

- A. Payment for furnishing and installing City standard steel street light pole (28.5') with 6-foot luminaire arm, LED luminaire, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 26 56 19. See Structural bid item for foundation.

2.111 BID ITEM NO. E-20: TYPE 16-2-100 POLE WITH 8' SIGNAL MAST ARM, MAC MOUNTING, AND CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 16-2-100 Pole with 8-foot Signal Mast Arm, MAC Mounting, and concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification 34 41 13.

2.112 BID ITEM NO. E-21: TYPE 17-2-100 POLE WITH 8' SIGNAL MAST ARM, MAC MOUNTING, 6' LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 17-2-100 Pole with 8-foot Signal Mast Arm, MAC Mounting, 6-foot Luminaire Arm, LED Luminaire, and concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 26 56 19 and 34 41 13.

2.113 BID ITEM NO. E-22: TYPE 17-3-100 POLE WITH 20' SIGNAL MAST ARM, MAC MOUNTING, 6' LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 17-3-100 Pole with 20-foot Signal Mast Arm, MAC Mounting, 6-foot Luminaire Arm, LED Luminaire, and concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 26 56 19 and 34 41 13.

- 2.114 BID ITEM NO. E-23: TYPE 24-4-100 POLE WITH CUSTOM 30-FOOT HORIZONTAL SIGNAL MAST ARM AND MAC MOUNTING (See Structural Bid Item for Foundation, Special Inspection, and Required Testing)
- A. Payment for furnishing and installing Type 24-4-100 pole (Reference the 2018 Caltrans Standard Plan ES-7F, Dated May 31, 2018) with custom 30-foot Horizontal Signal Mast Arm, MAC mounting, and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 34 41 13, and 05 12 00. See Structural drawings, specifications, and bid item description for foundation, special inspection, and required testing.
 - B. Note: Special inspection and testing by an independent agency is required. All full-penetration welds on the poles will need magnetic particle testing (MT) and/or ultrasonic testing (UT) along the full length of the weld.
- 2.115 BID ITEM NO. E-24: TYPE 24-4-100 POLE WITH CUSTOM 30-FOOT HORIZONTAL SIGNAL MAST ARM AND MAC MOUNTING, 6' LUMINAIRE ARM, LED LUMINAIRE (see Structural bid item for foundation, special inspection, and required testing)
- A. Payment for furnishing and installing Type 24-4-100 pole (Reference the 2018 Caltrans Standard Plan ES-7F, Dated May 31, 2018) with custom 30-foot Horizontal Signal Mast Arm, MAC mounting, 6-foot luminaire arm, LED luminaire, and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 26 56 19 and 34 41 13, and 05 12 00. See Structural drawings, specifications, and bid item description for foundation, special inspection, and required testing.
 - B. Note: Special inspection and testing by an independent agency is required. All full-penetration welds on the poles will need magnetic particle testing (MT) and/or ultrasonic testing (UT) along the full length of the weld.
- 2.116 BID ITEM NO. E-25: TYPE 23-3-100 POLE WITH 35' SIGNAL MAST ARM, MAC MOUNTING, AND CONCRETE FOUNDATION
- A. Payment for furnishing and installing Type 23-3-100 Pole with 35-foot Signal Mast Arm, MAC Mounting, and concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification 34 41 13.
- 2.117 BID ITEM NO. E-26: TYPE 24-3-100 POLE WITH 35' SIGNAL MAST ARM, MAC MOUNTING, 6' LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION
- A. Payment for furnishing and installing Type 24-3-100 Pole with 35-foot Signal Mast Arm, MAC Mounting, 6-foot Luminaire Arm, LED Luminaire, and concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 26 56 19 and 34 41 13.
- 2.118 Bid Item No. E-27: PEDESTRIAN PUSH BUTTON (PPB) POLE AND CONCRETE FOUNDATION
- A. Payment for furnishing and installing pedestrian push button pole and concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per

pole unit satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.119 Bid Item No. E-28: GUARD POSTS (BOLLARDS)

- A. Payment for furnishing and installing guard posts (bollards) with excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to San Francisco Public Works Standard Plan 87,178.

2.120 Bid Item No. E-29: REPLACE EXISTING STREET LIGHT FIXTURE WITH NEW STREET LIGHT FIXTURE

- A. Payment for removing as contractor's property existing light fixture and furnishing and installing new LED Fixture, ballast/LED driver and control on existing pole. Measured for payment per LED fixture satisfactorily installed in place. Refer to Specification Section 26 56 19 and fixture schedule.

2.121 Bid Item No. E-30: NOT USED

2.122 Bid Item No. E-31: PULL BOX TYPE I (STREET LIGHTING)

- A. Payment for furnishing and installing Pull Box Type I (Street Lighting), including pavement restoration at pull box location and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.123 Bid Item No. E-32: PULL BOX TYPE III

- A. Payment for furnishing and installing Pull Box Type III, including pavement restoration at pull box location and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.124 Bid Item No. E-33: PULL BOX TYPE 36X

- A. Payment for furnishing and installing Pull Box Type 36X, including pavement restoration at pull box location and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.125 Bid Item No. E-34: PULL BOX TYPE 48X

- A. Payment for furnishing and installing Pull Box Type 48X, including pavement restoration at pull box location and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.126 Bid Item No. E-35: 1-1" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SIDEWALK

- A. Payment for furnishing and installing 1-1" PVC Schedule 80 Conduit (Underground) in Sidewalk including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for

payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.127 Bid Item No. E-36: 1-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SIDEWALK

- A. Payment for furnishing and installing 1-2" PVC Schedule 80 Conduit (Underground) in Sidewalk including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.128 Bid Item No. E-37: 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH

- A. Payment for furnishing and installing 2-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.129 Bid Item No. E-38: 3-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH

- A. Payment for furnishing and installing 3-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.130 Bid Item No. E-39: 1-3" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SIDEWALK

- A. Payment for furnishing and installing 1-3" PVC Schedule 80 Conduit (Underground) in Sidewalk including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.131 Bid Item No. E-40: 1-3" and 1-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH

- A. Payment for furnishing and installing 1-3" and 1-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.132 Bid Item No. E-41: 1-3" and 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH

- A. Payment for furnishing and installing 1-3" and 2-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to

Specification Section 26 05 00.

2.133 Bid Item No. E-42: 1-2" GRS CONDUIT (UNDERGROUND) IN SIDEWALK

- A. Payment for furnishing and installing 1-2" GRS Conduit (Underground) in sidewalk including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.134 Bid Item No. E-43: 1-2" GRS CONDUIT and 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH

- A. Payment for furnishing and installing 1-2" GRS Conduit and 2-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.135 Bid Item No. E-44: 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME ROADWAY "T" TRENCH

- A. Payment for furnishing and installing 2-2" PVC Schedule 80 Conduit (Underground) in the same Roadway "T" trench. Work shall include the removal and restoration of roadway surfaces for trenches to include saw cutting existing pavement, ACWS and concrete base excavation, temporary plating, preparing subgrade as needed, backfill and compaction, and restoring street and pavement to include placing concrete and milling and filing the ACWS surface asphalt concrete, as well as all related and incidental work. This bid item shall also include removal and restoration of affected concrete parking strip. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.136 Bid Item No. E-45: 1-2" GRS CONDUIT and 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME ROADWAY "T" TRENCH

- A. Payment for furnishing and installing 1-2" GRS Conduit and 2-2" PVC Schedule 80 Conduit (Underground) in the same Roadway "T" trench. Work shall include the removal and restoration of roadway surfaces for trenches to include saw cutting existing pavement, ACWS and concrete base excavation, temporary plating, preparing subgrade as needed, backfill and compaction, and restoring street and pavement to include placing concrete and milling and filing the ACWS surface asphalt concrete, as well as all related and incidental work. This bid item shall also include removal and restoration of affected concrete parking strip. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.137 Bid Item No. E-46: 1-2" GRS CONDUIT and 3-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME ROADWAY "T" TRENCH

- A. Payment for furnishing and installing 1-2" GRS Conduit and 3-2" PVC Schedule 80 Conduit (Underground) in the same Roadway "T" trench. Work shall include the removal and restoration of roadway surfaces for trenches to include saw cutting existing pavement, ACWS and concrete base excavation, temporary plating, preparing subgrade as needed, backfill and compaction, and restoring street and pavement to include placing concrete and milling and filing the ACWS surface asphalt concrete, as well as all related and incidental work. This bid item shall also include removal and restoration of affected

concrete parking strip. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.138 Bid Item No. E-47: 1-2" GRS CONDUIT and 4-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME ROADWAY "T" TRENCH

- A. Payment for furnishing and installing 1-2" GRS Conduit and 4-2" PVC Schedule 80 Conduit (Underground) in the same Roadway "T" trench. Work shall include the removal and restoration of roadway surfaces for trenches to include saw cutting existing pavement, ACWS and concrete base excavation, temporary plating, preparing subgrade as needed, backfill and compaction, and restoring street and pavement to include placing concrete and milling and filing the ACWS surface asphalt concrete, as well as all related and incidental work. This bid item shall also include removal and restoration of affected concrete parking strip. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.139 Bid Item No. E-48: 4-2" HDPE SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH

- A. Payment for furnishing and installing 4-2" HDPE Schedule 80 Conduit (Underground) in the same Sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.140 Bid Item No. E-49: 4-2" HDPE SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME ROADWAY "T" TRENCH

- A. Payment for furnishing and installing 4-2" HDPE Schedule 80 Conduit (Underground) in the same Roadway "T" trench. Work shall include the removal and restoration of roadway surfaces for trenches to include saw cutting existing pavement, ACWS and concrete base excavation, temporary plating, preparing subgrade as needed, backfill and compaction, and restoring street and pavement to include placing concrete and milling and filing the ACWS surface asphalt concrete, as well as all related and incidental work. This bid item shall also include removal and restoration of affected concrete parking strip. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.141 Bid Item No. E-50: GRS CONDUIT (EXTERNAL ON POLE) INCLUDING CONDULET, CONNECTORS, AND STRAPS

- A. Payment for furnishing and installing Galvanized Rigid Steel Conduit (external on pole) including conduit, connectors, straps, excavation, backfill, compaction, pavement restoration, and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.142 Bid Item No. E-51: CONSTRUCT MODIFIED "352i-ATC" TRAFFIC SIGNAL CONTROLLER CONCRETE FOUNDATION

- A. Payment for furnishing and installing modified "352i-ATC" traffic signal concrete controller concrete foundation and all incidental work will be paid at the respective Unit Prices bid therefor. Excavation, backfill and compaction shall be considered incidental to this work. Surface restoration to match existing, if not in contract, shall be considered incidental to

the work of this Bid Item. Measured for payment per foundation satisfactorily furnished, and installed in place. Refer to Specification Section 34 41 13 and contract plans.

2.143 Bid Item No. E-52: NOT USED

2.144 Bid Item No. E-53: LABOR COST ONLY TO INSTALL CITY FURNISHED 2070 INTERSECTION CONTROLLER ASSEMBLY

- A. Payment for installing City Furnished type 2070 intersection controller “352i-ATC” or “MSF65-ATC” NEMA TS2-Type 1 cabinet assembly shall be made at the unit bid price therefor. Work includes pickup of cabinet from the SFMTA Traffic Signal Shop, installation of cabinet in field, termination of field wires in cabinet, testing, and all incidental work required to provide a fully functional installation. Measured for payment per cabinet assembly satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.145 Bid Item No. E-54: 12-CONDUCTOR CABLE

- A. Payment for furnishing and installing 12-conductor cable and all incidental and related work will be made at the unit price bid thereof. Measured for payment per linear foot of cable satisfactorily installed. Refer to Specification Section 26 05 00.

2.146 Bid Item No. E-55: CONSTRUCT “350i-ATC” TRAFFIC SIGNAL CONTROLLER CONCRETE FOUNDATION (PCO #02)

- A. **Payment for furnishing and installing “350i-ATC” traffic signal concrete controller concrete foundation and all incidental work will be paid at the respective Unit Prices bid therefor. Excavation, backfill and compaction shall be considered incidental to this work. Surface restoration to match existing, if not in contract, shall be considered incidental to the work of this Bid Item. Measured for payment per foundation satisfactorily furnished and installed in place. Refer to Specification Section 34 41 13, STR-8404 ATC Cabinet Foundation Detail, and contract plans.**

2.147 Bid Item No. M-1: MISCELLANEOUS ELECTRICAL WORK

- A. Payment for furnishing and installing all wiring work, all miscellaneous electrical work including work to furnish and install conduits, ground rods, fuses, pull tape, pole caps, knockout seals, junction boxes, relocatable and adjustable pull boxes, maintaining existing street lights and traffic signals, provide temporary street lights and traffic signals, tree trimming, and PG&E distribution boxes will be made at the Lump Sum price bid therefor. PG&E distribution boxes shall be provided to meet the 2020-2021 edition of the PG&E Electric and Gas Service Requirements (also known as the “Green Book”). Refer to Specification Sections 34 41 13 and 26 05 00.

2.148 Bid Item No. M-2: REMOVE AND SALVAGE AS CITY’S PROPERTY

- A. Payment for removal, transportation to City Yards, and salvage as City’s property certain existing signal poles, street light poles, and controller cabinets and all incidental and related work will be made at the Lump Sum price bid therefor. Refer to Specification Sections 34 41 13 and 26 56 19.

2.149 Bid Item No. M-3: REMOVE AS CONTRACTOR’S PROPERTY

- A. Payment for removal and disposal as Contractor's property certain existing pole and controller concrete foundations, pull boxes, signal heads and mountings, wires, and conduits will be made at the Lump Sum price bid therefor. Refer to Specification Sections 34 41 13 and 26 56 19.
- 2.150 Bid Item No. M-4: EXPLORATORY HOLES OR POTHoles RELATED TO ELECTRICAL WORK (CONTINGENCY BID ITEM)**
- A. Exploring holes or potholes as instructed by the City Representative will be measured for payment by the individual hole. Exploring hole or pothole dimensions shall be 4-feet by 4- feet by 10- feet. Holes sized smaller or larger will be prorated accordingly.
- B. This Bid item includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, required for demolition, excavation, earthwork, importing of backfill material as required, testing, restoration of existing surfaces, including concrete pavement and asphalt wearing course, and all incidental work required for providing test pits or potholes.
- C. Payment for this Bid Item will be made at the Contract Unit price per individual unit satisfactorily completed as indicated in the Schedule of Bid Prices.
- D. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.
- 2.151 Bid Item No. M-5: MOBILIZATION (MAXIMUM 5% OF THE TOTAL SUM OF THE BID ITEMS E-1 THROUGH M-4)
- A. Refer to Section 01 21 53 - Mobilization/Demobilization Items.
- 2.152 Bid Item No. M-6: ALLOWANCE TO PERFORM NECESSARY WORK DUE TO UNFORESEEN CONDITIONS RELATED TO ELECTRICAL WORK
- A. Refer to Section 01 21 00 – Allowances.
- 2.153 Bid Item No. E-1A: (3S12") 3-SECTION, 12-INCH VEHICLE SIGNAL FACE WITH TYPE 1 LED RED, YELLOW, AND GREEN
- A. Payment for furnishing and installing (3S12") 3-section, 12-inch Vehicle Signal Face with Type 1 LED Red, Yellow, and Green with visors and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal face satisfactorily installed in place. Refer to Specification Section 34 41 13.
- 2.154 Bid Item No. E-2A: (3S12"LA) 3-SECTION, 12-INCH VEHICLE SIGNAL FACE WITH TYPE 1 LED RED LEFT ARROW, YELLOW LEFT ARROW, AND GREEN LEFT ARROW (PCO #02)
- A. **Payment for furnishing and installing (3S12") 3-section, 12-inch Vehicle Signal Face with Type 1 LED Red Left Arrow, Yellow Left Arrow, and Green Left Arrow with visors and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal face satisfactorily installed in place. Refer to Specification Section 34 41 13.**
- 2.155 Bid Item No. E-3A: NOT USED

2.156 Bid Item No. E-4A: (TV-1-T) ONE-WAY POST TOP-MOUNTED VEHICLE SIGNAL MOUNTING WITH TERMINAL COMPARTMENT

- A. Payment for furnishing and installing (TV-1-T) One-way Post Top Mounted Vehicle Signal Mounting with Terminal Compartment and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.157 Bid Item No. E-5A: (SV-1-T) ONE-WAY POST SIDE-MOUNTED VEHICLE SIGNAL MOUNTING WITH TERMINAL COMPARTMENT

- A. Payment for furnishing and installing (SV-1-T) One-way Post Side Mounted Vehicle Signal Mounting with Terminal Compartment and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.158 Bid Item No. E-6A: (TV-2-T) TWO-WAY POST TOP-MOUNTED VEHICLE SIGNAL MOUNTING WITH TERMINAL COMPARTMENT

- A. Payment for furnishing and installing (TV-2-T) Two-way Post Top Mounted Vehicle Signal Mounting with Terminal Compartment and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.159 Bid Item No. E-6B: (TV-2-T-SFA) TWO-WAY POST TOP-MOUNTED VEHICLE SIGNAL MOUNTING WITH TERMINAL COMPARTMENT IN CONFIGURATION SFA (PCO #07)

- A. **Payment for furnishing and installing (TV-2-T-SFA) Two-way Post Top Mounted Vehicle Signal Mounting with Terminal Compartment, in configuration "SFA" and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.**

2.160 Bid Item No. E-7A: (SV-2-TA) TWO-WAY POST SIDE-MOUNTED VEHICLE SIGNAL MOUNTING WITH TERMINAL COMPARTMENT IN CONFIGURATION A

- A. Payment for furnishing and installing (SV-2-TA) Two-way Post Side Mounted Vehicle Signal Mounting with Terminal Compartment, in configuration "A" and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.161 Bid Item No. E-7B: (SV-2-TC) TWO-WAY POST SIDE-MOUNTED VEHICLE SIGNAL MOUNTING WITH TERMINAL COMPARTMENT IN CONFIGURATION C (PCO #07)

- A. **Payment for furnishing and installing (SV-2-TC) Two-way Post Side Mounted Vehicle Signal Mounting with Terminal Compartment, in configuration "C" and all incidental and related work will be made at the unit price bid therefor. Measured for payment per vehicle signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.**

2.162 Bid Item No. E-8A: NOT USED

2.163 Bid Item No. E-9A: SIGNAL BACK PLATE

- A. Payment for furnishing and installing Signal Back Plate and all incidental and related work will be made at the unit price bid therefor. Measured for payment per back plate satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.164 Bid Item No. E-10A: (1S-COUNT HOUSING) ONE-SECTION LED PEDESTRIAN COUNTDOWN SIGNAL HOUSING

- A. Payment for furnishing and installing (1S-COUNT Housing) one-section LED pedestrian countdown signal housing and all incidental and related work will be made at the unit price bid therefor. Measured for payment per signal housing satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.165 Bid Item No. E-11A: LABOR COST ONLY TO INSTALL CITY FURNISHED (1S-COUNT MODULE) ONE-SECTION LED PEDESTRIAN COUNTDOWN SIGNAL MODULE

- A. Payment for installing City Furnished LED pedestrian countdown signal module and all incidental and related work will be made at the unit price bid therefor. Work includes pickup of the module from the SFMTA Traffic Signal Shop, installation of the module in field, connection of field wires, and all incidental work required to provide a fully functional installation. Contractor shall contact one of the SFMTA Traffic Signal Shop supervisors at (415) 401-3700 at least two (2) working days prior to proposed delivery date. Measured for payment per module satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.166 Bid Item No. E-12A: (SP-1) ONE-WAY POST SIDE-MOUNTED PEDESTRIAN SIGNAL MOUNTING

- A. Payment for furnishing and installing (SP-1) One-way Post Side Mounted Pedestrian Signal Mounting and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pedestrian signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.167 Bid Item No. E-13A: (SP-1)(22" OR 26" OR 12"-SF OR 22"-SF) ONE-WAY POST SIDE-MOUNTED PEDESTRIAN SIGNAL MOUNTING WITH 22-INCH NIPPLES; OR 26-INCH NIPPLES OR 12-INCH NIPPLES, SAN FRANCISCO STANDARD; OR 22-INCH NIPPLES, SAN FRANCISCO STANDARD

- A. Payment for furnishing and installing (SP-1)(22" OR 26" OR 12"-SF OR 22"-SF) One-way Post Side Mounted Pedestrian Signal Mounting with 22-inch nipples; or 26-inch nipples; or 12-inch nipples, San Francisco Standard; or 22-inch nipples, San Francisco Standard and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pedestrian signal mounting satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.168 Bid Item No. E-14A: NOT USED

2.169 Bid Item No. E-15A: NOT USED

2.170 Bid Item No. E-16A: TYPE 1-A POLE (10') WITH CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 1-A Pole (10') with concrete foundation work,

excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.171 Bid Item No. E-17A: TYPE 1-A POLE (13') WITH CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 1-A Pole (13') with concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.172 Bid Item No. E-18A: NOT USED

2.173 Bid Item No. E-19A: CITY STANDARD STEEL STREET LIGHT POLE (28.5') WITH 6' LUMINAIRE ARM AND LED LUMINAIRE (See Structural Bid Item for Foundation)

- A. Payment for furnishing and installing City standard steel street light pole (28.5') with 6-foot luminaire arm, LED luminaire, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 26 56 19. See Structural bid item for foundation.

2.174 BID ITEM NO. E-20A: TYPE 16-2-100 POLE WITH 8' SIGNAL MAST ARM, MAC MOUNTING, AND CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 16-2-100 Pole with 8-foot Signal Mast Arm, MAC Mounting, and concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification 34 41 13.

2.175 BID ITEM NO. E-21A: NOT USED

2.176 BID ITEM NO. E-22A: TYPE 17-3-100 POLE WITH 20' SIGNAL MAST ARM, MAC MOUNTING, 6' LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 17-3-100 Pole with 20-foot Signal Mast Arm, MAC Mounting, 6-foot Luminaire Arm, LED Luminaire, and concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 26 56 19 and 34 41 13.

2.177 BID ITEM NO. E-23A: NOT USED

2.178 BID ITEM NO. E-24A: NOT USED

2.179 BID ITEM NO. E-25A: TYPE 23-3-100 POLE WITH 35' SIGNAL MAST ARM, MAC MOUNTING, AND CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 23-3-100 Pole with 35-foot Signal Mast Arm, MAC Mounting, and concrete foundation work, excavation, backfill, compaction, sidewalk

restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification 34 41 13.

2.180 BID ITEM NO. E-26A: NOT USED

2.181 BID ITEM NO. E-27A: NOT USED

2.182 BID ITEM NO. E-28A: NOT USED

2.183 **BID ITEM NO. E-29A: REPLACE EXISTING STREET LIGHT FIXTURE WITH NEW STREET LIGHT FIXTURE OR INSTALL CLAMP-ON LIGHT FIXTURE (PCO #7)**

- A. Payment for removing as contractor's property existing light fixture and furnishing and installing new LED Fixture, or furnishing and installing clamp-on LED fixture (if no removal of existing street light fixture), ballast/LED driver and control on existing pole. Measured for payment per LED fixture satisfactorily installed in place. Refer to Specification Section 26 56 19 and fixture schedule.

2.184 Bid Item No. E-30A: TYPE 16-2-100 CONCRETE FOUNDATION WITHOUT POLE

- A. Payment for furnishing Type 16-2-100 concrete foundation work and relocating the existing 16-2-100 pole with 8-foot signal mast arm to this new foundation, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification 34 41 13.

2.185 **BID ITEM NO. E-30B: TYPE 19-2-100 POLE WITH 25' SIGNAL MAST ARM, MAC MOUNTING, 6' LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION (PCO #02)**

- A. Payment for furnishing and installing Type 19-2-100 Pole with 25-foot Signal Mast Arm, MAC Mounting, 6-foot Luminaire Arm, LED Luminaire, and concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification Section 26 56 19 and 34 41 13.

2.186 **BID ITEM NO. E-30C: TYPE 27-3-100 POLE WITH 45' SIGNAL MAST ARM, MAC MOUNTING, AND CONCRETE FOUNDATION (PCO #02)**

- A. Payment for furnishing and installing Type 27-3-100 Pole with 45-foot Signal Mast Arm, MAC Mounting, and concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification 34 41 13.

2.187 **BID ITEM NO. E-30D: INSTALL TEMPORARY SIGNALS FOR POLE AND FOUNDATION (GENEVA/PRAGUE POLE 5) (PCO #07)**

- A. Detail per PCO.

2.188 **BID ITEM NO. E-30E: INSTALL CONCRETE FLAG AROUND POLE BASE (GENEVA/PRAGUE POLE 4) (PCO #07)**

- A. Detail per PCO.

2.189 **BID ITEM NO. E-30F: TYPE 16-2-100 POLE WITH 10' SIGNAL MAST ARM, MAC MOUNTING, AND CONCRETE FOUNDATION (PCO #07)**

- A. Payment for furnishing and installing Type 16-2-100 Pole with 10-foot Signal Mast Arm, MAC Mounting, and concrete foundation work, excavation, backfill, compaction, sidewalk restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pole unit satisfactorily installed in place. Refer to Specification 34 41 13.

2.190 **Bid Item No. E-31A: PULL BOX TYPE I (STREET LIGHTING)**

- A. Payment for furnishing and installing Pull Box Type I (Street Lighting), including pavement restoration at pull box location and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.191 **Bid Item No. E-32: PULL BOX TYPE III**

- A. Payment for furnishing and installing Pull Box Type III, including pavement restoration at pull box location and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.192 **Bid Item No. E-32A: PULL BOX TYPE III (PCO #07)**

- A. Payment for furnishing and installing Pull Box Type III, including pavement restoration at pull box location and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.193 **Bid Item No. E-33A: PULL BOX TYPE 36X (PCO #07)**

- A. Payment for furnishing and installing Pull Box Type 36X, including pavement restoration at pull box location and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.194 **Bid Item No. E-33A: PULL BOX TYPE 36X**

- A. Payment for furnishing and installing Pull Box Type 36X, including pavement restoration at pull box location and all incidental and related work will be made at the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.195 **Bid Item No. E-34A: PULL BOX TYPE 48X (PCO #07)**

- A. Payment for furnishing and installing Pull Box Type 48X, including pavement restoration at pull box location and all incidental and related work will be made at

the unit price bid therefor. Measured for payment per pull box satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.196 Bid Item No. E-35A: NOT USED

2.197 Bid Item No. E-36A: 1-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SIDEWALK

- A. Payment for furnishing and installing 1-2" PVC Schedule 80 Conduit (Underground) in Sidewalk including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.198 Bid Item No. E-37A: 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH

- A. Payment for furnishing and installing 2-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.199 Bid Item No. E-38A: 3-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH

- A. Payment for furnishing and installing 3-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.200 Bid Item No. E-39A: NOT USED

2.201 Bid Item No. E-40A: 1-3" and 1-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH

- A. Payment for furnishing and installing 1-3" and 1-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.202 Bid Item No. E-41A: 1-3" and 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH (PCO #07)

- A. Payment for furnishing and installing 1-3" and 2-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.203 Bid Item No. E-42A: 1-2" GRS CONDUIT (UNDERGROUND) IN SIDEWALK

- A. Payment for furnishing and installing 1-2" GRS Conduit (Underground) in sidewalk including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.
- 2.204 Bid Item No. E-43A: 1-2" GRS CONDUIT and 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH
- A. Payment for furnishing and installing 1-2" GRS Conduit and 2-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.
- 2.205 Bid Item No. E-44A: 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME ROADWAY "T" TRENCH
- A. Payment for furnishing and installing 2-2" PVC Schedule 80 Conduit (Underground) in the same Roadway "T" trench. Work shall include the removal and restoration of roadway surfaces for trenches to include saw cutting existing pavement, ACWS and concrete base excavation, temporary plating, preparing subgrade as needed, backfill and compaction, and restoring street and pavement to include placing concrete and milling and filing the ACWS surface asphalt concrete, as well as all related and incidental work. This bid item shall also include removal and restoration of affected concrete parking strip. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.
- 2.206 Bid Item No. E-45A: 1-2" GRS CONDUIT and 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME ROADWAY "T" TRENCH
- A. Payment for furnishing and installing 1-2" GRS Conduit and 2-2" PVC Schedule 80 Conduit (Underground) in the same Roadway "T" trench. Work shall include the removal and restoration of roadway surfaces for trenches to include saw cutting existing pavement, ACWS and concrete base excavation, temporary plating, preparing subgrade as needed, backfill and compaction, and restoring street and pavement to include placing concrete and milling and filing the ACWS surface asphalt concrete, as well as all related and incidental work. This bid item shall also include removal and restoration of affected concrete parking strip. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.
- 2.207 Bid Item No. E-46A: NOT USED
- 2.208 Bid Item No. E-47A: NOT USED
- 2.209 Bid Item No. E-48A: 4-2" HDPE SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH
- A. Payment for furnishing and installing 4-2" HDPE Schedule 80 Conduit (Underground) in the same Sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.210 Bid Item No. E-49A: NOT USED

2.211 Bid Item No. E-50A: GRS CONDUIT (EXTERNAL ON POLE) INCLUDING CONDULET, CONNECTORS, AND STRAPS

- A. Payment for furnishing and installing Galvanized Rigid Steel Conduit (external on pole) including conduit, connectors, straps, excavation, backfill, compaction, pavement restoration, and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.212 Bid Item No. E-50B: 1-1.5" GRS CONDUIT (UNDERGROUND) IN SIDEWALK (PCO #02)

- A. Payment for furnishing and installing 1-1.5" GRS Conduit (Underground) in sidewalk including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.213 Bid Item No. E-50C: 3-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME ROADWAY "T" TRENCH (PCO #07)

- A. Payment for furnishing and installing 3-2" PVC Schedule 80 Conduit (Underground) in the same Roadway "T" trench. Work shall include the removal and restoration of roadway surfaces for trenches to include saw cutting existing pavement, ACWS and concrete base excavation, temporary plating, preparing subgrade as needed, backfill and compaction, and restoring street and pavement to include placing concrete and milling and filing the ACWS surface asphalt concrete, as well as all related and incidental work. This bid item shall also include removal and restoration of affected concrete parking strip. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.214 Bid Item No. E-50D: 1-3" and 3-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH (PCO #07)

- A. Payment for furnishing and installing 1-3" and 3-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.215 Bid Item No. E-50E: 1-2" GRS CONDUIT and 1-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH (PCO #07)

- A. Payment for furnishing and installing 1-2" GRS Conduit and 1-2" PVC Schedule 80 Conduit (Underground) in the same sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.

2.216 Bid Item No. E-50F: 1-2" GRS CONDUIT and 1-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME ROADWAY "T" TRENCH (PCO #07)

- A. Payment for furnishing and installing 1-2" GRS Conduit and 1-2" PVC Schedule 80 Conduit (Underground) in the same Roadway "T" trench. Work shall include the removal and restoration of roadway surfaces for trenches to include saw cutting existing pavement, ACWS and concrete base excavation, temporary plating, preparing subgrade as needed, backfill and compaction, and restoring street and pavement to include placing concrete and milling and filing the ACWS surface asphalt concrete, as well as all related and incidental work. This bid item shall also include removal and restoration of affected concrete parking strip. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.**
- 2.217 **Bid Item No. E-50G: 2-2" HDPE SCHEDULE 80 CONDUIT (UNDERGROUND) IN SAME SIDEWALK TRENCH (PCO #07)**
- A. Payment for furnishing and installing 2-2" HDPE Schedule 80 Conduit (Underground) in the same Sidewalk trench including excavation, backfill, compaction, pavement restoration and all incidental and related work will be made at the unit price bid therefor. Measured for payment per linear foot satisfactorily installed in place. Refer to Specification Section 26 05 00.**
- 2.218 **Bid Item No. E-51A: CONSTRUCT MODIFIED "352i-ATC" TRAFFIC SIGNAL CONTROLLER CONCRETE FOUNDATION**
- A. Payment for furnishing and installing modified "352i-ATC" traffic signal concrete controller concrete foundation and all incidental work will be paid at the respective Unit Prices bid therefor. Excavation, backfill and compaction shall be considered incidental to this work. Surface restoration to match existing, if not in contract, shall be considered incidental to the work of this Bid Item. Measured for payment per foundation satisfactorily furnished, and installed in place. Refer to Specification Section 34 41 13 and contract plans.**
- 2.219 **Bid Item No. E-52A: CONSTRUCT STANDARD "MSF65-ATC" TRAFFIC SIGNAL CONTROLLER CONCRETE FOUNDATION**
- A. Payment for furnishing and installing standard "MSF65-ATC" traffic signal concrete controller concrete foundation and all incidental work will be paid at the respective Unit Prices bid therefor. Excavation, backfill and compaction shall be considered incidental to this work. Surface restoration to match existing, if not in contract, shall be considered incidental to the work of this Bid Item. Measured for payment per foundation satisfactorily furnished and installed in place. Refer to Specification Section 34 41 13 and contract plans.**
- 2.220 **Bid Item No. E-53A: LABOR COST ONLY TO INSTALL CITY FURNISHED 2070 INTERSECTION CONTROLLER ASSEMBLY**
- A. Payment for installing City Furnished type 2070 intersection controller "352i-ATC" or "MSF65-ATC" NEMA TS2-Type 1 cabinet assembly shall be made at the unit bid price therefor. Work includes pickup of cabinet from the SFMTA Traffic Signal Shop, installation of cabinet in field, termination of field wires in cabinet, testing, and all incidental work required to provide a fully functional installation. Measured for payment per cabinet assembly satisfactorily installed in place. Refer to Specification Section 34 41 13.**
- 2.221 **Bid Item No. E-54A: 12-CONDUCTOR CABLE**

- A. Payment for furnishing and installing 12-conductor cable and all incidental and related work will be made at the unit price bid thereof. Measured for payment per linear foot of cable satisfactorily installed. Refer to Specification Section 26 05 00.

2.222 **Bid Item No. E-55A: CONSTRUCT MODIFIED “350i-ATC” TRAFFIC SIGNAL CONTROLLER CONCRETE FOUNDATION (PCO #07)**

- A. **Payment for furnishing and installing modified “350i-ATC” traffic signal concrete controller concrete foundation and all incidental work will be paid at the respective Unit Prices bid therefor. Excavation, backfill and compaction shall be considered incidental to this work. Surface restoration to match existing, if not in contract, shall be considered incidental to the work of this Bid Item. Measured for payment per foundation satisfactorily furnished, and installed in place. Refer to Specification Section 34 41 13 and contract plans.**

2.223 **Bid Item No. M-1A: MISCELLANEOUS ELECTRICAL WORK**

- A. Payment for furnishing and installing all wiring work, all miscellaneous electrical work including work to furnish and install conduits, ground rods, fuses, pull tape, pole caps, knockout seals, junction boxes, relocatable and adjustable pull boxes, maintaining existing street lights and traffic signals, provide temporary street lights and traffic signals, tree trimming, and PG&E distribution boxes will be made at the Lump Sum price bid therefor. PG&E distribution boxes shall be provided to meet the 2020-2021 edition of the PG&E Electric and Gas Service Requirements (also known as the “Green Book”). Refer to Specification Sections 34 41 13 and 26 05 00.

2.224 **Bid Item No. M-2A: REMOVE AND SALVAGE AS CITY’S PROPERTY**

- A. Payment for removal, transportation to City Yards, and salvage as City's property certain existing signal poles, street light poles, and controller cabinets and all incidental and related work will be made at the Lump Sum price bid therefor. Refer to Specification Sections 34 41 13 and 26 56 19.

2.225 **Bid Item No. M-3A: REMOVE AS CONTRACTOR’S PROPERTY**

- A. Payment for removal and disposal as Contractor's property certain existing pole and controller concrete foundations, pull boxes, signal heads and mountings, wires, and conduits will be made at the Lump Sum price bid therefor. Refer to Specification Sections 34 41 13 and 26 56 19.

2.226 **Bid Item No. M-4A: EXPLORATORY HOLES OR POTHoles RELATED TO ELECTRICAL WORK (CONTINGENCY BID ITEM)****

- A. Exploring holes or potholes as instructed by the City Representative will be measured for payment by the individual hole. Exploring hole or pothole dimensions shall be 4-feet by 4– feet by 10- feet. Holes sized smaller or larger will be prorated accordingly.
- B. This Bid item includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, required for demolition, excavation, earthwork, importing of backfill material as required, testing, restoration of existing surfaces, including concrete pavement and asphalt wearing course, and all incidental work required for providing test pits or potholes.
- C. Payment for this Bid Item will be made at the Contract Unit price per individual unit

satisfactorily completed as indicated in the Schedule of Bid Prices.

- D. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Document 00 72 00, Article 6.08 B & C with respect to adjustment of unit bid prices do not apply to work under this bid item.

2.227 Bid Item No. M-5A: MOBILIZATION (MAXIMUM 5% OF THE TOTAL SUM OF THE BID ITEMS E-1A THROUGH M-4A)

- A. Refer to Section 01 21 53 - Mobilization/Demobilization Items.

2.228 Bid Item No. M-6A: ALLOWANCE TO PERFORM NECESSARY WORK DUE TO UNFORESEEN CONDITIONS RELATED TO ELECTRICAL WORK

- A. Refer to Section 01 21 00 – Allowances.

2.229 **Bid Item SHARED: ALLOWANCE FOR PARTNERING REQUIREMENTS (PCO #07)**

- A. Refer to Section 01 21 00 – Allowances**

****Contingency Bid items:** For contingency Bid Items, it is possible that none, some, all or more of the estimated quantity provided on the Schedule of Bid Prices will be used. No adjust in unit price will be made, and subparagraphs 6.08B and 6.08C of the General Conditions shall not apply regardless of actual quantities encountered. Bidder shall not use Contingency Bid Items, allowances, or Alternate Bid items to fulfill the LBE subcontracting participation goal. However, Bidder shall calculate its proposed LBE subcontracting participation percentage using the Total Bid Price (Base Bid) as the denominator, which includes contingency bid items and all other items that contribute to the base bid amount. Refer to CMD Attachment 1 Part III, for more details.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION