

SECTION 01 20 00

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.
 - 2. Section 01 32 16 – Construction Progress Schedule.

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

- A. The contract lump sum price paid for traffic routing 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 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. The traffic routing 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: FURNISH AND INSTALL TEMPORARY TRAFFIC STRIPING TAPE

- 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.

2.3 **Bid Item No. G-3: 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 Routing Work.

2.4 **Bid Item No. G-4: NOT USED** (Addendum No. 1)

2.5 **Bid Item No. G-5: NOT USED** (Addendum No. 1)

2.6 **Bid Item No. G-6: ALLOWANCE FOR UNIFORMED SAN FRANCISCO POLICE DEPARTMENT (SFPD) OFFICERS FOR TRAFFIC CONTROL, AS REQUIRED BY THE ENGINEER**

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

2.7 **BID ITEM G-7: SOILS OFF-HAUL TRANSPORTATION OF SURPLUS CALIFORNIA CLASS I (NON-RCRA) HAZARDOUS WASTE (SOILS) TO A CLASS I DISPOSAL FACILITY (CONTINGENCY BID ITEM)****

- 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.

2.8 BID ITEM G-8: SOILS OFF-HAUL DISPOSAL OF SURPLUS CALIFORNIA CLASS I (NON-RCRA) HAZARDOUS WASTE (SOILS) TO A CLASS I DISPOSAL FACILITY (CONTINGENCY BID ITEM)**

- 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 a 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 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.

2.9 BID ITEM G-9: SOILS OFF-HAUL TRANSPORTATION OF SURPLUS NON-HAZARDOUS SOILS (CLASS II & III) CALIFORNIA DESIGNATED WASTE (SOILS) TO A CLASS II & III DISPOSAL FACILITY

- 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 a permitted a 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 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.

2.10 BID ITEM G-10: SOILS OFF-HAUL DISPOSAL OF SURPLUS NON-HAZARDOUS SOILS (CLASS II & III) CALIFORNIA DESIGNATED WASTE (SOILS) TO A CLASS II & III DISPOSAL FACILITY

- 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 a 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 include 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.
- 2.11 Bid Item No. G-11: MOBILIZATION (MAXIMUM 3% OF THE SUM OF BID ITEMS EXCLUDING ALLOWANCES, MOBILIZATION, AND DEMOBILIZATION BID ITEMS)
- A. Refer to Section 01 21 53 – Mobilization/Demobilization Items.
- 2.12 Bid Item No. G-12: DEMOBILIZATION (MAXIMUM 2% OF THE SUM OF BID ITEMS EXCLUDING ALLOWANCES, MOBILIZATION, AND DEMOBILIZATION BID ITEMS)
- A. Refer to Section 01 21 53 – Mobilization/Demobilization Items
- 2.13 Bid Item No. G-13: ALLOWANCE FOR CITY'S SHARE OF PARTNERING FACILITATION AND RELATED COSTS
- A. Refer to Section 01 21 00 – Allowances.
- 2.14 Bid Item No. G-14: ALLOWANCE FOR UNFORSEEN ENVIRONMENTAL CONDITIONS
- A. Refer to Section 01 21 00 – Allowances.
- 2.15 Bid Item No. G-15: ALLOWANCE FOR GRAFFITI REMOVAL
- A. Refer to Section 01 21 00 – Allowances.
- 2.16 Bid Item No. G-16: ALLOWANCE FOR CERTIFIED BIOLOGIST AND QUALIFIED ARBORIST
- A. Refer to Section 01 21 00 – Allowances.
- 2.17 Bid Item No. CR-1: FULL DEPTH PLANING PER 3-INCH DEPTH OF CUT
- A. Full Depth Planing Per 3-Inch Depth of Cut shall be measured for payment as follows:
 - 1. Full depth planing per 3-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 3-Inch Depth of Cut".
- B. Full depth planing per 3-inch depth of cut 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.
- 2.18 Bid Item No. CR-2: HOT MIX ASPHALT CONCRETE (Type A ½-Inch Maximum with Medium Grading)
- A. Hot Mix Asphalt Concrete 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 asphalt concrete 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 Concrete (Type A, ½-Inch Medium Grading) installed and all necessary and/or required equipment and labor to install including trucking 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. CR-3: 9-INCH THICK JOINTED PLAIN CONCRETE PAVEMENT WITH RAPID SETTING CONCRETE (JPCP-RSC) BASE
- A. 9-Inch Thick Concrete Base 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) , traffic islands or medians, excavating, backfilling, preparation of subgrade to proper grade, compacting, installation of dowels and tie bars, 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.
- 2.20 Bid Item No. CR-4: 12-INCH THICK CLASS II AGGREGATE BASE
- A. Aggregate Base Class II will be measured for payment by the actual cubic yard of aggregate base installed as indicated on the Drawings and/or as directed by the City Representative in accordance with Caltrans Standard Specifications, and will be paid for at the Contract unit price per cubic yard stated in the Schedule of Bid Prices.

- B. Removal and disposal of existing pavement (concrete/asphalt/other), pavement base (concrete/asphalt/aggregate/other), subgrade (sand/soil/aggregate/other) material, traffic islands and medians for aggregate base installation, furnishing, preparation of subgrade to the proper grade, installing, compacting, and all other related and necessary Work to complete the aggregate base construction shall be considered as Incidental Work.
- C. The maximum aggregate base course lift thickness shall be 6-inches.

2.21 Bid Item No. CR-5: 10-INCH THICK JOINTED PLAIN CONCRETE PAVEMENT (JPCP) BUS PAD

- 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 shown 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 pavement (concrete/asphalt/other), traffic island, median, excavating, backfilling, preparation of subgrade to proper grade, compacting, installation of dowels and tie bars, and adjustment of manhole and catch basin frames and castings to finished grade will be considered as Incidental Work.
- C. The City Representative may determine exact locations of concrete bus pad work, and may increase or decrease measurements shown on the Drawings or establish new concrete bus pad work in the field.
- D. When the new 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 will be considered as Incidental Work.

2.22 Bid Item No. CR-6: 6-INCH CLASS II AGGREGATE SUBBASE FOR BUS PAD, SIDEWALK, CURB, GUTTER AND PARKING STRIP

- A. Class II Aggregate Subbase will be measured for payment by the actual cubic yard of aggregate base installed as indicated on the Drawings and/or as directed by the City Representative in accordance with Caltrans Standard Specifications, and will be paid for at the Contract unit price per cubic yard stated in the Schedule of Bid Prices.
- B. Removal and disposal of existing pavement (concrete/asphalt/aggregate/other, traffic island, median (concrete/asphalt/other), pavement base), subgrade (sand/soil/aggregate/other) material, traffic islands and medians for aggregate base installation, furnishing, preparation of subgrade to the proper grade, installing, compacting, and all other related and necessary Work to complete the aggregate base construction shall be considered as Incidental Work.
- C. The maximum aggregate subbase course lift thickness shall be 6-inches.

2.23 Bid Item No. CR-7: 3 ½-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 will be paid for at the contract unit price.

- B. Saw cutting and removal of existing concrete sidewalk, traffic islands, medians, 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 SFDPW Standard Plan 96,608, 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, and the moving and reinstalling of mail boxes shall be considered as Incidental Work. Waterproofing required for sub-sidewalk basements shall be installed as incidental work.
- C. Only concrete sidewalk shown on the Drawings will be measured for payment. Concrete sidewalk required for pavement work for trench restorations not shown on the Drawings shall be considered to be Incidental Work.
- D. 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.
- E. 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

2.24 Bid Item No. CR-8: 4-INCH THICK CONCRETE SIDEWALK

- A. 4-Inch Thick Concrete Sidewalk will be measured for payment by the square foot to the limits indicated on the plans will be paid for at the contract unit price.
- 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 SFDPW Standard Plan 96,608, 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, and the moving and reinstalling of mail boxes shall be considered as Incidental Work. Waterproofing required for sub-sidewalk basements shall be installed as incidental work.
- C. Only concrete sidewalk shown on the Drawings will be measured for payment. Concrete sidewalk required for pavement work for trench restorations not shown on the Drawings shall be considered to be Incidental Work.
- D. 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.
- E. 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

2.25 Bid Item No. CR-9: 6-INCH THICK CONCRETE SIDEWALK

- A. 6-Inch Thick Concrete Sidewalk will be measured for payment by the square foot to the limits indicated on the plans will be paid for at the contract unit price.

- 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 SFDPW Standard Plan 96,608, 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, and the moving and reinstalling of mail boxes shall be considered as Incidental Work. Waterproofing required for sub-sidewalk basements shall be installed as incidental work.
- C. Only concrete sidewalk shown on the Drawings will be measured for payment. Concrete sidewalk required for pavement work for trench restorations not shown on the Drawings shall be considered to be Incidental Work.
- D. 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.
- E. 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

2.26 Bid Item No. CR-10: 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, and 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, traffic islands, medians, 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.

2.27 Bid Item No. CR-11: 12-INCH THICK CONCRETE PARKING STRIP OR GUTTER

- A. 12-Inch Thick Concrete Parking Strip or Gutter 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. Saw cutting, removal, and disposal of existing concrete parking strip or gutter, traffic islands, medians, excavating, backfilling, preparation of subgrade to proper grade, compacting and installation of dowels and tie bars for parking strips shall be considered as Incidental Work.

- B. 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.

2.28 Bid Item No. CR-12: 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, 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, traffic islands, medians, 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 and the moving and reinstalling of mail boxes will be considered as Incidental Work.
- C. Providing existing elevations at gutter conforms on the as-built drawings will be considered as Incidental Work.

2.29 Bid Item No. CR-13: ADJUST CITY-OWNED MANHOLE AND CATCH BASIN FRAME AND CASTING 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.
- 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.

2.30 Bid Item No. CR-14: ADJUST CITY-OWNED HYDRANT AND WATERMAIN 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 – Adjustment of Frames and Castings.

- 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 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.

2.31 **Bid Item No. CR-15: 8-INCH THICK REINFORCED SIDEWALK FOR BUS SHELTER FOUNDATIONS**

- A. Bus Shelter Foundation will be measured for payment by the number of each bus shelter foundation constructed that are indicated on the Drawings, and will be paid for at the Contract unit price per each bus shelter foundation stated in the Schedule of Bid Prices
- B. Saw cutting and removal of existing concrete sidewalk, pavement, 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, 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, and the moving and reinstalling of mail boxes shall be considered as Incidental Work. Waterproofing required for sub-sidewalk basements shall be installed as incidental work.
- C. Contractor to coordinate with MTA and Clear Channel prior to installation for final location.

2.32 **Bid Item No. CR-16: IRVING STREET CONCRETE PAVING WITH INTEGRAL COLOR**

- A. **Measurement and payment for 3½-inch thick concrete paving with integral color will be measured for payment by the square feet of successfully installed concrete paving with integral color and will be paid at the contract unit price. Mixing of concrete, placement of concrete, preparation of subbase, scoring, tooling, and placement of other miscellaneous joints, and all other appurtenant work required for a complete installation shall be considered as Incidental Work. (Addendum No. 1)**

2.33 **Bid Item No. CR-17: 2-INCH THICK ASPHALT CONCRETE PATHWAY PAVEMENT OVER 4-INCH AGGREGATE BASE**

- A. 2-Inch thick asphalt concrete pathway pavement over 4-inch thick aggregate base will be measured for payment by the actual area in square feet of sidewalk constructed, 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. The areas of poles, standards, other fixtures, and of boxed out locations for manhole and other castings and facilities regardless of ownership, will not be deducted from the areas of measurement.
- B. This bid items includes labor and materials for installing both asphalt concrete and aggregate base below.

- C. Saw cutting, removal and disposal of existing concrete sidewalk or curbs (concrete/asphalt/other); excavating including off-hauling and disposal of excess soil and materials; backfilling; preparation of subgrade to proper grade, compacting; adjustment of manhole frames and castings to new grade; adjustment of utility boxes and/ or sewer vents in the sidewalk to finish grade; grouting under and around street light poles and/ or traffic signal poles; and the moving and reinstalling of mail boxes, will be considered as Incidental Work.
 - D. Restoration of landscaping adjacent to pathway that is damaged or disturbed during construction of the pathway shall be restored to original condition as Incidental Work.
 - E. Restoration of building corners, stairways, and existing vertical elements 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.
 - F. The City Representative may determine exact locations of pathway work, and may increase or decrease measurements shown on the Drawings or establish new pathway work in the field.
- 2.34 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.
- 2.35 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") LA 3-section, 12-inch Vehicle Signal Face with Type 1 LED Red Left Arrow, Yellow Left Arrow, and Green Left Arrow 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.
- 2.36 Bid Item No. E-3: (5S12"GYRA) 5-SECTION, 12-INCH VEHICLE SIGNAL FACE WITH TYPE 1 LED RED, YELLOW, GREEN, AND YELLOW RIGHT ARROW AND GREEN RIGHT ARROW
- A. Payment for furnishing and installing (5S12") GYRA 5-section, 12-inch Vehicle Signal Face with Type 1 LED Red, Yellow, Green, and Yellow Right Arrow and Green Right Arrow 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.
- 2.37 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.

2.38 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.

2.39 Bid Item No. E-6: (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.

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

- A. Payment for furnishing and installing (SV-2-TA-SF) Two-Way Post Side Mounted Vehicle Signal Mounting with Terminal Compartment in Configuration "A" San Francisco Standard 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.

2.41 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.

2.42 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.

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

2.45 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) 550-2736 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.

2.46 Bid Item No. E-12: (SP-1) ONE-WAY 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.

2.47 Bid Item No. E-13: (TP-1) ONE-WAY 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.

2.48 Bid Item No. E-14: PEDESTRIAN PUSH BUTTON ASSEMBLY POST (5') WITH CONCRETE FOUNDATION

- A. Payment for furnishing and installing Pedestrian Push Button Assembly Post (5') 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

2.49 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.

2.50 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.

2.52 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.

2.53 Bid Item No. E-18: TYPE 16-2-100 POLE WITH 20-FOOT SIGNAL MAST ARM, MAS MOUNTING, AND CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 16-2-100 with 20-Foot Signal Mast Arm, MAS Mounting, 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 and 26 56 19.

2.54 Bid Item No. E-19: TYPE 17-2-100 POLE WITH 20-FOOT SIGNAL MAST ARM, MAS MOUNTING, 8-FOOT LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 17-2-100 with 20-foot Signal Mast Arm, MAS Mounting, 8-foot luminaire arm, LED luminaire, 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 and 26 56 19.

2.55 Bid Item No. E-20: TYPE 19-2-100 POLE WITH 20-FOOT SIGNAL MAST ARM, MAS MOUNTING, 8-FOOT LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 19-2-100 with 20-foot Signal Mast Arm, MAS Mounting, 8-foot luminaire arm, LED luminaire, 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 and 26 56 19.

2.56 Bid Item No. E-21: TYPE 19-2-100 POLE WITH 25-FOOT SIGNAL MAST ARM, MAS MOUNTING, 8-FOOT LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 19-2-100 with 25-foot Signal Mast Arm, MAS Mounting, 8-foot luminaire arm, LED luminaire, 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 and 26 56 19.

2.57 Bid Item No. E-22: TYPE 26-3-100 POLE WITH 45-FOOT SIGNAL MAST ARM, MAS MOUNTING, 8-FOOT LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION

- A. Payment for furnishing and installing Type 26-3-100 with 45-foot Signal Mast Arm, MAS Mounting, 8-foot luminaire arm, LED luminaire, 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 and 26 56 19.

- 2.59 Bid Item No. E-23: TYPE 26-4-100 POLE WITH 45-FOOT SIGNAL MAST ARM, MAS MOUNTING, 8-FOOT LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION
- A. Payment for furnishing and installing Type 26-4-100 with 45-foot Signal Mast Arm, MAS Mounting, 8-foot luminaire arm, LED luminaire, 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 and 26 56 19.
- 2.60 Bid Item No. E-24: CALTRANS TYPE 15TS STREET LIGHT POLE WITH 8-FOOT LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION
- A. Payment for furnishing and installing Caltrans Type 15TS street light pole with 8-foot luminaire arm, LED luminaire, 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.
- 2.61 Bid Item No. E-25: CALTRANS TYPE 21TS STREET LIGHT POLE WITH 8-FOOT LUMINAIRE ARM, LED LUMINAIRE, AND CONCRETE FOUNDATION
- A. Payment for furnishing and installing Caltrans Type 21TS street light pole with 8-foot luminaire arm, LED luminaire, 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.
- 2.62 Bid Item No. E-26: SPARE FOR CALTRANS TYPE 15TS STREET LIGHT POLE WITH 8-FOOT LUMINAIRE ARM, AND LED LUMINAIRE
- A. Payment for furnishing spare 15TS street light including fixture, lamp, ballast/LED driver, arms, pole, base, bolt circle, and control. Deliver to BLHP yard will be made at the contract unit price. Refer to Specification Section 26 56 19.
- 2.63 Bid Item No. E-27: RELOCATION OF EXISTING TYPE 19A-3-100 POLE WITH 25-FOOT SIGNAL MAST ARM, MAS MOUNTING, 8-FOOT LUMINAIRE ARM, AND LED LUMINAIRE TO ADJACENT LOCATION
- A. Payment for relocating existing Type 19A-3-100 with 25-foot Signal Mast Arm, MAS Mounting, 8-foot luminaire arm, and LED luminaire to adjacent location, including but not limited to furnishing, concrete foundation work, excavation, backfill, compaction, sidewalk restoration, temporary traffic signal and lighting, 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 26 56 19.

2.65 Bid Item No. E-28: RELOCATION OF EXISTING TYPE 19-2-100 POLE WITH 25-FOOT SIGNAL MAST ARM, MAS MOUNTING, 8-FOOT LUMINAIRE ARM, AND LED LUMINAIRE TO ADJACENT LOCATION

- A. Payment for relocating existing Type 19-2-100 with 25-foot Signal Mast Arm, MAS Mounting, 8-foot luminaire arm, and LED luminaire to adjacent location, including but not limited to furnishing, concrete foundation work, excavation, backfill, compaction, sidewalk restoration, temporary traffic signal and lighting, 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 26 56 19.

2.66 Bid Item No. E-29: RELOCATION OF EXISTING TYPE 19-2-100 POLE WITH 25-FOOT SIGNAL MAST ARM, MAS MOUNTING, 12-FOOT LUMINAIRE ARM, AND LED LUMINAIRE TO ADJACENT LOCATION

- A. Payment for relocating existing Type 19-2-100 with 25-foot Signal Mast Arm, MAS Mounting, 12-foot luminaire arm, and LED luminaire to adjacent location, including but not limited to furnishing, concrete foundation work, excavation, backfill, compaction, sidewalk restoration, temporary traffic signal and lighting, 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 26 56 19.

2.67 Bid Item No. E-30: RELOCATION OF EXISTING TYPE 19-2-100 POLE WITH 30-FOOT SIGNAL MAST ARM, MAS MOUNTING, 8-FOOT LUMINAIRE ARM, AND LED LUMINAIRE TO ADJACENT LOCATION

- A. Payment for relocating existing Type 19-2-100 with 30-foot Signal Mast Arm, MAS Mounting, 8-foot luminaire arm, and LED luminaire to adjacent location, including but not limited to furnishing, concrete foundation work, excavation, backfill, compaction, sidewalk restoration, temporary traffic signal and lighting, 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 26 56 19.

2.68 Bid Item No. E-31: RELOCATION OF EXISTING TYPE 19-4-100 POLE WITH 25-FOOT SIGNAL MAST ARM, MAS MOUNTING, 8-FOOT LUMINAIRE ARM, AND LED LUMINAIRE TO ADJACENT LOCATION

- A. Payment for relocating existing Type 19-4-100 with 25-foot Signal Mast Arm, MAS Mounting, 8-foot luminaire arm, and LED luminaire to adjacent location, including but not limited to furnishing, concrete foundation work, excavation, backfill, compaction, sidewalk restoration, temporary traffic signal and lighting, 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 26 56 19.

2.69 Bid Item No. E-32: RELOCATION OF EXISTING TYPE 24-3-100 POLE WITH 35-FOOT SIGNAL MAST ARM, MAS MOUNTING, 8-FOOT LUMINAIRE ARM, AND LED LUMINAIRE TO ADJACENT LOCATION

- A. Payment for relocating existing Type 24-3-100 with 35-foot Signal Mast Arm, MAS Mounting, 8-foot luminaire arm, and LED luminaire to adjacent location, including but not limited to furnishing, concrete foundation work, excavation, backfill, compaction, sidewalk restoration, temporary traffic signal and lighting, 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 26 56 19.

2.70 Bid Item No. E-33: RELOCATION OF EXISTING TYPE 24-4-100 POLE WITH 35' SIGNAL MAST ARM, MAS MOUNTING, 8' LUMINAIRE ARM, AND LED LUMINAIRE TO ADJACENT LOCATION

- A. Payment for relocating existing Type 24-4-100 with 35-foot Signal Mast Arm, MAS Mounting, 8-foot luminaire arm, and LED luminaire to adjacent location, including but not limited to furnishing, concrete foundation work, excavation, backfill, compaction, sidewalk restoration, temporary traffic signal and lighting, 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 26 56 19.

2.71 Bid Item No. E-34: RELOCATION OF EXISTING TYPE 24-4-100 POLE WITH 35-FOOT SIGNAL MAST ARM, MAS MOUNTING, 15-FOOT LUMINAIRE ARM, LED LUMINAIRE TO ADJACENT LOCATION

- A. Payment for relocating existing Type 24-4-100 with 35-foot Signal Mast Arm, MAS Mounting, 15-foot luminaire arm, and LED luminaire to adjacent location, including but not limited to furnishing, concrete foundation work, excavation, backfill, compaction, sidewalk restoration, temporary traffic signal and lighting, 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 26 56 19.

2.72 Bid Item No. E-35: PULL BOX TYPE I

- 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. Refer to Specification Section 26 05 00.

2.73 Bid Item No. E-36: 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.

2.74 Bid Item No. E-37: 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.

2.75 Bid Item No. E-38: 1-1" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SIDEWALK TRENCH

- A. Payment for furnishing and installing 1-1" PVC Schedule 80 Conduit (Underground) in 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.

2.76 Bid Item No. E-39: 1-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN SIDEWALK TRENCH

- A. Payment for furnishing and installing 1-2" PVC Schedule 80 Conduit (Underground) in 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.

2.77 Bid Item No. E-40: 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN THE 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.

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

- A. Payment for furnishing and installing 1-3" PVC Schedule 80 Conduit (Underground) in 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.

2.79 Bid Item No. E-42: 1-3" AND 1-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN THE 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.

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

- 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.

2.81 Bid Item No. E-44: 1-2" GRS CONDUIT AND 2-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN THE 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 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.

2.82 Bid Item No. E-45: 1-2" GRS CONDUIT AND 3-2" PVC SCHEDULE 80 CONDUIT (UNDERGROUND) IN THE 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 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.

2.83 Bid Item No. E-46: 1-2" GRS CONDUIT (UNDERGROUND) IN SIDEWALK TRENCH

- A. Payment for furnishing and installing 1-2" GRS Conduit (Underground) in 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.

2.84 Bid Item No. E-47: 2-2" GRS CONDUIT (UNDERGROUND) IN THE SAME ROADWAY T-TRENCH

- A. Payment for furnishing and installing 2-2" GRS Conduit (Underground) in the same roadway t-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.

2.85 Bid Item No. E-48: 3-2" GRS CONDUIT (UNDERGROUND) IN THE SAME ROADWAY T-TRENCH

- A. Payment for furnishing and installing 3-2" GRS Conduit (Underground) in the same roadway t-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.

2.86 Bid Item No. E-49: 6-2" GRS CONDUIT (UNDERGROUND) IN THE SAME ROADWAY T-TRENCH

- A. Payment for furnishing and installing 6-2" GRS Conduit (Underground) in the same roadway t-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.

2.87 Bid Item No. E-50: 2-2" HDPE SCHEDULE 80 CONDUIT (UNDERGROUND) IN THE SAME SIDEWALK TRENCH

- 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.

2.89 Bid Item No. E-51: CONSTRUCT STANDARD 332L (ITS) TRAFFIC SIGNAL CABINET CONCRETE FOUNDATION

- A. Payment for furnishing and installing Standard 332L (ITS) Traffic Signal Cabinet 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. Refer to Specification Section 34 41 13 and contract plans.

2.90 Bid Item No. E-52: LABOR COST ONLY TO INSTALL CITY-FURNISHED 2070 INTERSECTION CONTROLLER 332L (ITS) CABINET ASSEMBLY WITH 12-CONDUCTOR INTERCONNECT COMPONENTS

- A. Payment for installing City Furnished type 2070 intersection controller 332L(ITS) NEMA TS2-Type 1 cabinet assembly w/ 12-Conductor Interconnect Components 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. Contractor shall contact one of the SFMTA Traffic Signal Shop supervisors at (415) 550-2736 at least two (2) working days prior to proposed delivery date. Measured for payment per cabinet assembly satisfactorily installed in place. Refer to Specification Section 34 41 13.

2.91 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 ground rods, fuses, pull tape, pole caps, knockout seals, relocatable and adjustable pull boxes, adjust existing pole elevations, trenching under MUNI tracks, PG&E distribution boxes, and PG&E service conduits will be made at the lump sum price bid therefor. PG&E distribution boxes and service conduits shall be provided to meet the latest edition of the PG&E Electric and Gas Service Requirements (also known as the "Green Book"). Refer to Specification Sections 26 05 00 and 34 41 13.

2.92 Bid Item No. M-2: REMOVE AND SALVAGE AS CITY'S PROPERTY

- A. Payment for removal, transportation to City Yard, and salvage as City's property certain existing signal poles, vehicle signal heads and mountings, and street light poles, and all incidental and related work will made at the lump sum price bid therefor. Refer to Specification Sections 26 56 19 and 34 41 13.

2.93 Bid Item No. M-3: REMOVE AS CONTRACTOR'S PROPERTY

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

2.94 Bid Item No. SW-1: TRENCH AND EXCAVATION SUPPORT 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.

2.95 Bid Item No. SW-2: 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 30 00 – Sanitary Sewerage Utilities and will be paid for at the unit price bid therefor. This item includes the construction of the 4-foot offset manhole according to detail in SW drawings.

2.96 Bid Item No. SW-3: CONCRETE MANHOLE FOR 5 FOOT OFFSET MANHOLE

- 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 30 00 – Sanitary Sewerage Utilities and according to detail in SW drawings and will be paid for at the unit price bid therefor.

2.97 Bid Item No. SW-4: STANDARD CONCRETE MANHOLE FOR 27-INCH TO 48-INCH DIAMETER SEWERS WITH FRAME AND COVER (PER SFDPW STANDARD PLAN 87,182)

- 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.

2.98 Bid Item No. SW-5: ANGLED BOX MANHOLE FOR 27-INCH TO 48-INCH DIAMETER SEWERS WITH FRAME AND COVER (PER SFDPW STANDARD PLAN 87,182)

- A. Angled box 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.

2.99 Bid Item No. SW-6: CLEAN AND MORTAR EXISTING MANHOLE

- A. Cleaning and mortaring existing manhole with 1-inch thick single component microsilica enhanced fiber reinforced wet spray mortar will be measured for payment by the number of each satisfactorily completed in place as specified in Section 33 33 00 – Sanitary Sewerage Utilities and will be paid for at the unit price bid therefor.

2.100 Bid Item No. SW-7: CLEAN AND TELEWISE EXISTING MAIN SEWERS PRIOR TO LINING WORK

- A. Cleaning and televising existing main sewers prior to lining work, satisfactorily performed, as specified in Section 33 33 00 – Sanitary Sewerage Utilities and Section 33 01 30.73 – Cured In Place Liner Pipe, including all incidental work will be paid for at the lump sum price bid therefor.

2.101 Bid Item No. SW-8: BYPASSING MAIN SEWER FLOW RELATED TO LINING WORK

- A. Bypassing main sewer flow related to lining work satisfactorily performed, as specified in Section 33 33 00 – Sanitary Sewerage Utilities and Section 33 01 30.73 – Cured In Place Liner Pipe, including all incidental work shall be paid for at the lump sum price bid therefor.

- 2.102 Bid Item No. SW-9: CONCRETE CATCH BASIN WITH NEW FRAME AND GRATING (PER SFDPW STANDARD PLAN 87,188)
- A. Concrete catch basin with new frame and grating (including cast iron trap) as specified on the Contract Drawings shall be measured for payment by the number of each catch basin satisfactorily constructed, complete in place, as specified in Section 33 30 00 – Sanitary Sewerage Utilities, and will be paid for at the unit price bid.
 - B. Removal of traffic loop detector system to be abandoned in place as necessary shall be included as incidental work.
- 2.103 Bid Item No. SW-10: CONCRETE CATCH BASIN WITH CURB INLET (PER SFDPW STANDARD PLAN 87,187) AND INLET PROTECTION BAR
- A. Concrete catch basin with new frame and grating, cast iron trap, curb inlet and inlet protection bar as specified on the Contract Drawings shall be measured for payment by the number of each catch basin satisfactorily constructed, complete in place, as specified in Section 33 30 00 – Sanitary Sewerage Utilities, and will be paid for at the unit price bid.
 - B. Removal of traffic loop detector system to be abandoned in place as necessary shall be included as incidental work.
- 2.104 Bid Item No. SW-11, SW-12, SW-14, SW-16, SW-17, SW-18 & SW-19: 8-INCH, 12-INCH, 15-INCH, 18-INCH, 21-INCH, 24-INCH & 30-INCH DIAMETER VCP SEWER ON CRUSHED ROCK BEDDING
- A. VCP sewer 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 30 00 – Sanitary Sewerage Utilities, and will be paid for at the price bid per linear foot.
- 2.105 Bid Item No. SW-13 & SW-15: 12-INCH & 15-INCH DIAMETER VCP SEWER ON CRUSHED ROCK BEDDING (AT CONCRETE PARKING STRIP)
- A. VCP sewer 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 – Sanitary Sewerage Utilities, and will be paid for at the price bid per linear foot. A detail survey of the existing concrete parking strip, gutter, sidewalk, and driveways shall be completed and submitted to the City and shall be incidental to this bid item at no additional cost to the City.
 - B. Restoration of concrete parking strip, curb, sidewalk, and driveways and any related incidental work to the restoration of concrete parking strip, curb, sidewalk, and driveways shall be paid under separate bid items.
- 2.106 Bid Item No. SW-20: LINE EXISTING 6-INCH AND 8-INCH DIAMETER SIDE SEWER WITH CURED-IN-PLACE LINER (CIPL)
- A. Lining of existing side sewer with Cured-In-Place Liner will be measured horizontally along the centerline for payment by the number to each linear foot satisfactorily lined, complete in place, as specified in Section 33 31 30.73 – Cured in Place Liner Pipe and will be paid for at the price bid per linear foot.

- 2.107 Bid Item No. SW-21, SW-22, SW-23, SW-24, SW-25 & SW-26: LINE EXISTING 8-INCH, 12-INCH, 15-INCH, 18-INCH, 21-INCH DIAMETER & 2-FEET X 3-FEET CONCRETE SEWER CURED-IN-PLACE LINER (CIPL)
- A. Lining of existing sewer with Cured-In-Place Liner will be measured horizontally along the centerline for payment by the number to each linear foot satisfactorily lined, complete in place, as specified in Section 33 31 30.73 – Cured in Place Liner Pipe and will be paid for at the price bid per linear foot.
- 2.108 Bid Item No. SW-27: REMOVE OBSTRUCTION BY INTERNAL REAMING FROM EXISTING SEWER PRIOR TO LINING WORK
- A. Removal of obstructions through reaming process for existing sewer prior to lining work, satisfactorily performed, as specified in Sections 33 31 30.73 – Cured in Place Liner Pipe and 33 30 00 – Sanitary Sewerage Utilities, including all incidental work will be paid for at the lump sum price bid therefor.
- 2.109 Bid Item No. SW-28: INTERNALLY RE-INSTATE SIDE SEWERS AND CULVERTS IN LINED MAIN SEWER (CONTINGENCY BID ITEM)**
- A. Internally reinstating connections in lined main sewers will be measured for payment by the number of each satisfactory side sewer and culvert connection, complete in place, as specified in Section 33 01 30.70 – Cured-In-Place Liner Pipe and Contract Drawings, including all Incidental Work and will be paid for 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.
- 2.110 Bid Item No. SW-29: 10-INCH DIAMETER VCP CULVERT WITHIN SEWER WORK LIMITS (CONTINGENCY BID ITEM)**
- A. 10-Inch diameter VCP culvert within sewer work limits will be measured horizontally along the centerline as specified in Section 306.07 of SFDPW Standard Specifications for payment by the number of each linear foot satisfactorily constructed, complete in place, as specified in Section 33 30 00 – Sanitary Sewerage Utilities and will be paid for at the price bid per linear foot.
- 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.
- 2.111 Bid Item No. SW-30: 10-INCH DIAMETER DIP CULVERT WITHIN SEWER WORK LIMITS (CONTINGENCY BID ITEM)**
- A. 10-Inch diameter DIP culvert within sewer work limits will be measured horizontally along the centerline as specified in Section 308.074 of SFDPW Standard Specifications for payment by the number of each linear foot satisfactorily constructed, complete in place, as specified in Section 33 30 00 – Sanitary Sewerage Utilities and will be paid for at the price bid per linear foot.
- 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.

2.112 Bid Item No. SW-31: 10-INCH DIAMETER VCP CULVERT OUTSIDE SEWER WORK LIMITS BUT WITHIN CONTRACT LIMITS (CONTINGENCY BID ITEM)**

- A. 10-Inch diameter VCP culvert outside sewer work limits but within contract limits will be measured horizontally along the centerline as specified in Section 306.07 of SFDPW Standard Specifications for payment by the number of each linear foot satisfactorily constructed, complete in place, as specified in Section 33 30 00 – Sanitary Sewerage Utilities and will be paid for at the price bid per linear foot.
- B. Mobilization/demobilization, traffic routing, earthwork, restoration of T-trench, and restoration of concrete parking strip, sidewalk, curb, gutter and all other related 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.

2.113 Bid Item No. SW-32: TELEVISION INSPECTION OF EXISTING 6-INCH OR 8-INCH DIAMETER SIDE SEWERS WITHIN SEWER WORK LIMITS (CONTINGENCY BID ITEM)**

- A. Television inspection of existing side sewer located within limits of open-cut excavation replacement and trenchless rehabilitation limits by inserting camera into side sewer from within the main sewer trench or main sewer, the air vent, or a flow bypass pit at locations where an air vent may not be available, will be measured for payment by the number of each side sewer satisfactorily televised, as specified in Section 33 33 00 – Sanitary Sewerage Utilities, 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.

2.114 Bid Item No. SW-33: TELEVISION INSPECTION OF EXISTING 6-INCH OR 8-INCH DIAMETER SIDE SEWERS OUTSIDE SEWER WORK LIMITS BUT WITHIN CONTRACT LIMITS (CONTINGENCY BID ITEM)**

- A. Television inspection of existing side sewer outside of sewer work limits by inserting camera into side sewer from within the main sewer, the air vent, or a flow bypass pit at locations where an air vent may not be available, will be measured for payment by the number of each side sewer satisfactorily televised, as specified in Section 33 33 00 – Sanitary Sewerage Utilities, 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.

2.115 Bid Item No. SW-34: TELEVISION INSPECTION OF EXISTING 10-INCH DIAMETER CULVERTS WITHIN SEWER WORK LIMITS (CONTINGENCY BID ITEM)**

- A. Television inspection of existing culverts within sewer work limits will be measured for payment by the number of each side sewer satisfactorily televised, as specified in Section 33 30 00 – Sanitary Sewerage Utilities, 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.

2.116 Bid Item No. SW-35: TELEVISION INSPECTION OF EXISTING 10-INCH DIAMETER CULVERTS OUTSIDE SEWER WORK LIMITS BUT WITHIN CONTRACT LIMITS (CONTINGENCY BID ITEM)**

- A. Television inspection of existing culverts outside sewer work limits but within contract limits will be measured for payment by the number of each side sewer satisfactorily televised, as specified in Section 33 30 00 – Sanitary Sewerage Utilities, 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.

2.117 Bid Item No. SW-36: 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 to VCP main sewer, complete in place, as specified in Section 33 30 00 – Sanitary Sewerage Utilities, including all Incidental Work and will be paid for 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.

2.118 Bid Item No. SW-37: REPLACEMENT OR CONSTRUCTION OF 6-INCH OR 8-INCH DIAMETER SIDE SEWER WITHIN SEWER WORK LIMITS (CONTINGENCY BID ITEM)**

- A. VCP side sewer replacement within 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 30 00 – Sanitary Sewerage Utilities and will be paid for at the price bid per linear foot.
- 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.

2.119 Bid Item No. SW-38: REPLACEMENT OR CONSTRUCTION OF 6-INCH OR 8-INCH DIAMETER SIDE SEWER OUTSIDE SEWER WORK LIMITS BUT WITHIN CONTRACT LIMITS (CONTINGENCY BID ITEM)**

- A. VCP side sewer replacement outside sewer work limits but within 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 30 00 – Sanitary Sewerage Utilities and will be paid for at the price bid per linear foot.
- B. Mobilization/demobilization, traffic routing, earthwork, restoration of T-trench, and restoration of concrete parking strip, sidewalk, curb, gutter and all other related 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.
- 2.120 Bid Item No. SW-39: STANDARD SIDE SEWER AIR VENT AND TRAP ASSEMBLY, INCLUDING 4-INCH DIAMETER CIP BUILDING SEWER EXTENSION (CONTINGENCY BID ITEM)**
- A. Side sewer vent, trap assembly and extension of 4-inch CIP building sewer extension will be measured for payment by the number of each satisfactorily constructed per SFPW Standard Plan 87,196 and Contract Drawings, complete in place, as specified in Section 33 30 00 – Sanitary Sewerage Utilities 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.
- 2.121 Bid Item No. SW-40: POST-CONSTRUCTION TELEVISION INSPECTION OF NEWLY CONSTRUCTED MAIN SEWERS AND REHABILITATED MAIN SEWERS
- A. Post construction television inspection of newly constructed main sewers and rehabilitated main sewers, satisfactorily performed, as specified in Section 33 30 00 – Sanitary Sewerage Utilities including all incidental work will be paid for at the lump sum price bid therefor.
- 2.122 Bid Item No. SW-41: 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 30 00 – Sanitary Sewerage Utilities, including all Incidental Work will be paid for at the unit bid price.
- 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.
- 2.123 Bid Item No. SW-42: CAST IRON WATER TRAP FOR CATCH BASIN INCLUDING CLEANOUT CAP (PER SFPW 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 30 00 – Sanitary Sewerage Utilities, 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.

2.125 **Bid Item No. SW-43: RECONSTRUCT PAVEMENT OUTSIDE OF SEWER T-TRENCH AND OUTSIDE BASE REPAIR LIMITS SHOWN ON R-DRAWINGS WITH 9-INCH THICK CONCRETE BASE PER EXCAVATION REGULATIONS AS DIRECTED BY THE CITY REPRESENTATIVE (CONTINGENCY BID ITEM)****

- A. 9-inch thick concrete base will be measured for payment by the square foot outside the sewer T-trench limit as required per “Regulations for Excavation and Restoring Streets in San Francisco” and outside base repair work limits per L and C drawings or as directed by the City Representative, 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, and restoration of ACWS shall be considered as Incidental Work.
- B. Reconstruction of pavement outside of original restoration limits shall include trenches related to E, SW, WD and AW Bid Items.
- 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. (*Addendum No. 1*)

2.126 **Bid Item No. SW-44: EXPLORATORY POTHoles (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.

2.128 Bid Item No. SW-45: CONTROL DENSITY FILL BEDDING MATERIAL FOR WATER MAIN AND AWSS FACILITIES ENCOUNTERED WITHIN THE SEWER TRENCH PRIOR TO BACKFILL (CONTINGENCY BID ITEM)**

- A. Control Density Fill (CDF) bedding material, as directed by City Distribution Division (CDD) Inspector, will be measured for payment by the number of cubic yard, satisfactorily used, as specified in Section 01 41 28 – Protection of Existing Water and AWSS Facilities and 31 23 33 – Trenching and Backfilling, including all incidental work, and shall be paid for under this bid item.
- 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

2.129 Bid Item No. SW-46: PLUG AND FILL EXISTING SEWER WITH SLURRY GROUT AS INDICATED ON CONTRACT PLANS (CONTINGENCY BID ITEM)**

- A. Plug and fill existing sewers with slurry grout shall be measured for payment by the number of each cubic yard satisfactorily used, as specified in Section 302.04 and 302.06 of SFDPW Standard Specifications and shall be paid for at the Contract Unit Price.
- B. The final quantity may vary by more than 25% of the estimated quantity specified and General Conditions Section 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.

2.130 Bid Item No. SW-47: ALLOWANCE FOR DESIGN OF STRUCTURAL SUPPORT FOR SFWD FACILITIES LOCATED WITHIN SEWER TRENCH

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

2.131 Bid Item No. SW-48: ALLOWANCE TO PERFORM NECESSARY WORK DUE TO REPLACEMENT OF EXISTING WATER FACILITIES CROSSING SEWER TRENCH BY SFWD

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

2.132 Bid Item No. SW-49: ALLOWANCE TO PERFORM NECESSARY WORK DUE TO UNFORESEEN CONDITIONS RELATED TO SEWER WORK

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

THE FOLLOWING WORK SHALL BE DONE AS INCIDENTAL WORK TO SEWER WORK:

1. Investigating, locating by dye-testing, abandoning inactive side sewers, if any, and rodding of side sewers.
2. Investigate and confirm, through video launch from the main sewer, if side sewers connected to the main sewer are active or abandoned prior to lining the main sewer and internally reinstating the side sewer connections. Side sewers that are determined to be abandoned will not require reinstatement.
3. Investigate and confirm, through video launch from the main sewer, if side sewers connected to the main sewer are active or abandoned prior to construction of the main sewer from Vicente Street to Ulloa Street (West Side).
4. The channelization of the cunette of new manholes and existing manholes.

5. Connections of sewer to reinforced concrete sewers and structures as shown in Detail 1, 2 & 3 on SW-G5 Drawing.
6. Connection of culvert to reinforced concrete sewer as shown on Detail 4 of SW-G-5 Drawing.
7. Accessing side sewers where no air vent access is available when bypassing side sewers during main sewer lining work.
8. Bypassing of side sewers during main sewer lining work.
9. Connections to and between sewers, structures and culverts.
10. Construction of knock out walls as shown in SW-Drawing
11. Cleaning existing sewers by flushing with high velocity hydro-cleaning equipment prior to excavation and removal.
12. Removing existing sewers and structures.
13. Removal of CDF as part of main sewer replacement as required.
14. Removal of abandoned catch basins and restoration of roadway as necessary.
15. Cleaning of existing catch basins and storm water inlets to remain located within the project limit and to be remained.
16. Furnishing and installing cleanout caps for cast iron water traps in existing catch basins to be remained.
17. Extension of side sewer connections to the new pipes within the main sewer trench.
18. Saw-cutting, removing and disposing of existing pavement, concrete parking strip, gutter and sidewalk.
19. Street excavation, backfilling and compaction, satisfactorily performed.
20. Restoration of excavation in the landscaped areas, including backfilling and compaction.
21. Detailed survey of existing parking strip, concrete curb and concrete sidewalk and driveways in the areas where main sewer replacement work is located under the parking strip to ensure restoration of parking strip, concrete curb and concrete sidewalk and driveways matches and conforms to existing grades and elevations shall be completed and submitted to the City.
22. Restoration of T-trench with temporary hot patch ACWS and grinding off of temporary hot patch ACWS prior to final restoration of T-trench if necessary.
23. Restoration of T-trench for all streets as detailed on SW-Drawing, concrete base, parking strip, concrete curb, concrete sidewalk, median islands and landscaping within the sewer trench unless otherwise noted.
24. Installation of detection warning tape as detailed on SW-Drawing for trench restoration.
25. 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.
26. All cost of work in the remaining portions of Section 31 23 33, 32 12 66, 33 01 30.73, 33 30 00 and 33 30 10 and shall be included as Incidental Work in the items of the bid schedule to which such work is appurtenant.
27. 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.
28. Prior to plugging and filling, provide a television inspection of existing sewer to locate active side sewers.
29. Plug and fill existing sewer with slurry grout as indicated on contract plans.
30. Preparation of subgrade for paving to proper grade, including excavation, backfilling, and compacting shall be considered Incidental to the pavement restoration work.
31. Spray paint to be provided by Contractor to the City Representative to make all necessary markings at the project site.

32. Bypassing side sewer, culvert, and storm drain line flow for all sewer work, if necessary.
33. Preserving Survey Monuments per City Order No. 187,005.
34. Re-establishing City Survey Monuments per City Order No. 187,005, if disturbed, and for which a bid item has not been provided.
35. Furnishing and installing AASHTO M288, Class 2, Non-Woven Geotextile Fabric.
36. Furnishing of television inspection DVD and log of existing side sewers and culverts.
37. Furnishing of post-construction television inspection DVD and logs for newly constructed and rehabilitated main sewers, side sewers and culverts.
38. Furnishing of As-Built Drawings of the newly constructed and rehabilitated sewers.
39. Supporting 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.

2.133 Bid Item No. WD-1A: EXCAVATION AND BACKFILL FOR 8-INCH AND SMALLER PIPE TRENCH

- A. Under this Item, the Contractor shall saw cut, excavate pipe trench to the dimensions specified in the Contract documents for 4-, 6-, and 8-inch ductile iron pipe; furnish and install buried warning and identification tape; support and work around City utility facilities; remove abandoned utilities in conflict with the installation of the new main; store suitable excavated material to be used for trench backfill; compact backfill materials; remove and dispose of concrete street base and pavement.
- B. Subgrade backfill material underlying the Pavement section requires 1 ft of Class II Aggregate Base as incidental work.
- C. Payment shall be made at the unit bid price per linear foot of trench excavated and backfilled and shall include all necessary, related and incidental work. Measurements shall be made along the longer side of the pipe trench with the deductions for intersecting trenches.
- D. Supporting, working around and protecting of all utility facilities owned and operated by the City and County of San Francisco are considered as incidental work per provisions of the Contract Requirements Section 00 73 20 – Existing Utility Facilities and Section 00 73 21 – Utility Crossings Specifications.

2.134 Bid Item No. WD-1B: EXCAVATION AND BACKFILL FOR 12-INCH PIPE TRENCH

Bid Item No. WD-1C: EXCAVATION AND BACKFILL FOR 16-INCH PIPE TRENCH

- A. Under this Item, the Contractor shall saw cut, excavate pipe trench to the dimensions specified in the Contract documents to install 12-, and 16-inch ductile iron pipe; furnish and install buried warning and identification tape; support and work around City utility facilities; remove abandoned utilities in conflict with the installation of the new main; store suitable excavated material to be used for trench backfill; place backfill materials; compact backfill materials; remove and dispose of concrete street base and pavement.
- B. Subgrade backfill material underlying the Pavement section requires 1 ft of Class II Aggregate Base as incidental work.
- C. Payment shall be made at the unit bid price per linear foot of trench excavated and backfilled and shall include all necessary, related and incidental work. Measurements shall be made along the longer side of the pipe trench with the deductions for intersecting trenches.

- D. Supporting, working around and protecting of all utility facilities owned and operated by the City and County of San Francisco are considered as incidental work per provisions of the Contract Requirements Section 00 73 20 – “Existing Utility Facilities” and Section 00 73 21 – “Utility Crossings Specifications”.

2.135 Bid Item No. WD-1D: EXCAVATION AND BACKFILL FOR 36-INCH PIPE TRENCH

- A. Under this Item, the Contractor shall saw cut, excavate pipe trench to the dimensions specified in the Contract documents to install 36-inch ductile iron pipe; furnish and install buried warning and identification tape; support and work around City utility facilities; remove abandoned utilities in conflict with the installation of the new main; store suitable excavated material to be used for trench backfill; place backfill materials; and remove and dispose of pavement.
- B. Subgrade backfill material underlying the Pavement section requires 1 ft of Class II Aggregate Base as incidental work.
- C. Payment shall be made at the unit bid price per linear foot of trench excavated and backfilled and shall include all necessary, related and incidental work. Measurements shall be made along the longer side of the pipe trench with the deductions for intersecting trenches.
- D. Supporting, working around and protecting of all utility facilities owned and operated by the City and County of San Francisco are considered as incidental work per provisions of the Contract Requirements Section 00 73 20 – “Existing Utility Facilities” and Section 00 73 21 – “Utility Crossings Specifications”.

2.136 Bid Item No. WD-2: ADDITIONAL EXCAVATION AND BACKFILL

- A. Under this Item, the Contractor shall perform additional excavation and place backfill material as specified in Section 31 23 36 – Excavation and Backfill or as required by the City Representative. Additional excavation and backfill is earthwork that is not covered by other excavation and backfill bid items in the bid schedule.
- B. Subgrade backfill material underlying the Pavement section requires 1 ft of Class II Aggregate Base as incidental work.
- C. The volume to be paid for will be measured as the number of cubic yards of material excavated at locations directed by the City Representative and will not include any excavation properly classified as trench excavation or excavation paid for by other bid items.
- D. Payment for additional excavation and backfill will be paid for at the bid price per cubic yard and shall include all necessary, related and incidental work.

2.137 Bid Item No. WD-3: REMOVAL AND INSTALLATION OF METER BOX

- A. Under this Item, the Contractor shall remove and install meter boxes, including excavation and disposal of existing meter-boxes, sidewalk pavement and other materials; setting of new meter boxes to grade; furnishing and placing backfill material; and all other work required to remove and install new meter boxes.

- B. Payment shall be made at the unit bid price for each meter box removed and installed and shall include all necessary, related and incidental work. The removal of sidewalk required for meter box removal and installation shall be measured and paid for under Bid Item No. WD-2 – Additional Excavation and Backfill. The sidewalk restoration shall be measured and paid for under Bid Item No. WD-9 – Pavement Restoration.

2.138 Bid Item No. WD-4A: INSTALLATION OF CITY-FURNISHED 4-, 6- AND 8-INCH DUCTILE IRON TYTON JOINT PIPE WITH CONTRACTOR FURNISH AND INSTALL OF POLYETHYLENE ENCASEMENT

- A. Under this Item, the Contractor shall load, haul and install 4-, 6- and 8-inch pipes; make restrained joints; place anchors; furnish and install polyethylene encasement tube over ductile iron pipeline installed by the Contractor and SFWD personnel; perform satisfactory hydrostatic test; and return surplus pipe to the yard of the SFWD, all as shown on the plans or as directed by the City Representative.
- B. Payment shall be made at the unit bid price per linear foot of pipe installed by the Contractor as measured along the crest of the pipes as laid and shall include all necessary incidental and related work. The length of fittings installed under Bid Item No. WD-5A – Installation of City Furnished 4-, 6- and 8- Inch Ductile Iron Tyton Joint Pipe Fittings with Contractor Furnish and Install of Polyethylene Encasement will not be included in the payment under this item.

2.139 Bid Item No. WD-4B: INSTALLATION OF CITY-FURNISHED 12-INCH DUCTILE IRON FLEX-RING JOINT PIPE WITH CONTRACTOR FURNISH AND INSTALL OF POLYETHYLENE ENCASEMENT

BID Item No. WD-4C: INSTALLATION OF CITY-FURNISHED 16-INCH DUCTILE IRON FLEX-RING JOINT PIPE WITH CONTRACTOR FURNISH AND INSTALL OF POLYETHYLENE ENCASEMENT

- A. Under this Item, the Contractor shall load, haul and install 12- and 16-inch pipes; make restrained joints; place anchors; furnish and install polyethylene encasement tube over ductile iron pipeline installed by the Contractor and SFWD personnel; perform satisfactory hydrostatic test; and return surplus pipe to the yard of the SFWD, all as shown on the plans or as directed by the City Representative.
- B. Payment shall be made at the unit bid price per linear foot of pipe installed by the Contractor as measured along the crest of the pipes as laid and shall include all necessary incidental and related work. The length of fittings installed under Bid Item No. WD-5B – Installation of City Furnished 12- and 16- inch Ductile Iron Flex-Ring Joint Pipe Fittings with Contractor Furnish and Install of Polyethylene Encasement will not be included in the payment under this item.

2.140 Bid Item No. WD-4D: FURNISH AND INSTALL 36-INCH HDSS DUCTILE IRON PIPE WITH POLYETHYLENE ENCASEMENT

- A. Under this Item, the Contractor shall furnish, load, haul and install HDSS 36-inch pipes; make restrained joints; side blow off; place anchors; furnish and install polyethylene encasement tube over ductile iron pipeline installed by the Contractor and SFWD personnel; perform satisfactory hydrostatic test; and return surplus pipe to the yard of the SFWD, all as shown on the plans or as directed by the City Representative.

- B. Payment shall be made at the unit bid price per linear foot of pipe installed by the Contractor as measured along the crest of the pipes as laid and shall include all necessary incidental and related work. The length of fittings installed under Bid Item No. WD-5C – Furnish and Installation of 36-Inch Ductile Iron HDSS Joint Fittings with Contractor Furnish and install Polyethylene Encasement and Megalug 1136 series .

2.141 Bid Item No. WD-5A: INSTALLATION OF CITY-FURNISHED 4-, 6- AND 8- INCH DUCTILE IRON TYTON JOINT PIPE FITTINGS WITH CONTRACTOR FURNISH AND INSTALL OF POLYETHYLENE ENCASEMENT

- A. Under this Item, the Contractor shall load, haul, install, restrain, and protect Tyton joint fittings, valves, joint restraints and all other appurtenances to be incorporated in the work; furnish and install polyethylene encasement tube over ductile iron pipe fittings installed by the Contractor and SFWD personnel; and return surplus pipe fittings to the yard of the SFWD, all as shown on the plans or as directed by the City Representative. Epoxy coated valves and fittings shall not be encased with polyethylene.
- B. Payment shall be made at the unit bid price per pound of fittings installed, and shall include all necessary, related and incidental work. The total to be paid for will be the number of pounds of fittings, and other appurtenances, all as weighed on the scales at the Yard of the San Francisco Water Department or as computed from a table of standard weights for the class and make of the materials installed.

2.142 Bid Item No. WD-5B: INSTALLATION OF CITY FURNISHED 12- AND 16-INCH DUCTILE IRON FLEX-RING JOINT PIPE FITTINGS WITH CONTRACTOR FURNISH AND INSTALL OF POLYETHYLENE ENCASEMENT

- A. Under this Item, the Contractor shall load, haul, install, restrain, and protect Flex-Ring joint fittings, valves, joint restraints and all other appurtenances to be incorporated in the work; furnish and install polyethylene encasement tube over ductile iron pipe fittings installed by the Contractor and SFWD personnel; and return surplus pipe fittings to the yard of the SFWD, all as shown on the plans or as directed by the City Representative. Epoxy coated valves and fittings shall not be encased with polyethylene.
- B. Payment shall be made at the unit bid price per pound of fittings installed, and shall include all necessary, related and incidental work. The total to be paid for will be the number of pounds of fittings, and other appurtenances, all as weighed on the scales at the Yard of the San Francisco Water Department or as computed from a table of standard weights for the class and make of the materials installed.

2.143 Bid Item No. WD-5C: FURNISH AND INSTALL 36-INCH DUCTILE IRON AWWA C153 MECHANICAL JOINT FITTINGS WITH WEDGE ACTION RESTRAINING GLANDS AND POLYETHYLENE ENCASEMENT

- A. Under this Item, the Contractor shall load, haul, install, restrain, and protect HDSS joint fittings, valves, joint restraints and all other appurtenances to be incorporated in the work; furnish and install polyethylene encasement tube over ductile iron pipe fittings installed by the Contractor and SFWD personnel; and return surplus pipe fittings to the yard of the SFWD, all as shown on the plans or as directed by the City Representative. A dismantling joint is also needed to connect to the existing gate valve. Epoxy coated valves and fittings shall not be encased with polyethylene.

- B. Payment shall be made at the unit bid price per pound of fittings installed, and shall include all necessary, related and incidental work. The total to be paid for will be the number of pounds of fittings, gate valves and other appurtenances, all as weighed on the scales at the Yard of the San Francisco Water Department or as computed from a table of standard weights for the class and make of the materials installed.

2.144 Bid Item No. WD-6A: INSTALLATION OF 4- AND 6-INCH DUCTILE IRON GATE VALVES

Bid Item No. WD-6B: INSTALLATION OF 8-INCH DUCTILE IRON GATE VALVES

Bid Item No. WD-6C: INSTALLATION OF 12-INCH DUCTILE IRON GATE VALVES

Bid Item No. WD-6D: INSTALLATION OF 16-INCH DUCTILE IRON GATE VALVES

- A. Under this Item, the Contractor shall load, haul and install 4-, 6-, 8-, 12-inch, and 16-inch ductile iron Tyton joint gate valves with restraining gaskets at the locations as shown on the plans or as directed by the City Representative.
- B. Payment shall be made at the unit bid price per each gate valve installed including valve box and cover and shall include additional restraints as required, all necessary, related and incidental work.

2.145 Bid Item No. WD-7: INSTALLATION OF 2-INCH AIR VALVE / BLOW OFF ASSEMBLY

- A. Under this Item, the Contractor shall load, haul and install 2-inch air valve / blow off assemblies at the locations as shown on the plans or as directed by the City Representative.
- B. Payment shall be made at the unit bid price per each gate valve installed including valve box and cover and shall include all necessary, related and incidental work. The installation of screw taps for 2-inch air valve / blow off shall be paid under Bid Item No. WD-10 - Installation of Screw Taps and Services Saddles.

2.146 Bid Item No. WD-8: TRENCH SHORING AND BRACING PER ALL APPLICABLE SAFETY ORDERS (CONTINGENCY BID ITEM)**

- A. Under this item, the Contractor shall furnish, install and maintain an approved shoring system for excavation of five (5) feet or more in depth, including all incidental and related work thereto.
- B. Installation and removal of shoring system in excavations less than 5 feet in depth required for Water Department crews to install connections will be considered as incidental work and shall be included in the bid price under the appropriate bid items for excavation and backfill.
- C. This is a contingency bid item. Since it is possible that none, some or additional quantity specified in this item may be used, General Conditions Sections 6.08B and C do not apply for work under this bid item.
- D. Payment will be paid for at the bid price per square foot of actual shoring material installed against the sides of the excavation and shall include all necessary, related and incidental work.

2.148 Bid Item No. WD-9: PAVEMENT RESTORATION

- A. Under this item, the Contractor shall restore roadway pavement, sidewalk, and other roadway structures that have been removed for trenching (Bid Item WD-1A, WD-1B, WD-1C, WD-1D, WD-11A and WD-11B), additional excavation and backfill (Bid Item WD-2) and shall include the restoration of concrete parking strip slabs, concrete pavement slabs, concrete curb, concrete sidewalk, T-Trench restoration, median islands and landscaping within the water trench unless otherwise noted, installation of detection warning tape as detailed on WD-Drawing for trench restoration, asphalt concrete wearing surface and sidewalk removed or damaged during installation of meter boxes.
- B. Restoration of T-trench with temporary hot patch ACWS and grinding off of temporary hot patch ACWS prior to final restoration of T-trench if necessary
- C. Measurement for payment of restored pavement will be based upon the limits of the pavement removed as specified or as directed by the City Representative. The Contractor at his own expense shall replace pavement removed or damaged outside of the pay limits, including that removed by trimming the edges of the excavation.

2.149 Bid Item No. WD-10: INSTALLATION OF SCREW TAPS AND SERVICE SADDLES
(Addendum No. 1)

- A. Under this Item, the Contractor shall drill, tap and install all screw taps, saddles, and risers as shown on drawings or as required by the City Representative.
- B. Payment shall be made at the unit bid price per each screw tap installed, and shall include all necessary, related and incidental work.
- C. The number and sizes of screw taps as shown on the Bid Sheet are approximate only. The City Representative will determine the actual amount and size in the field. The Contractor shall not make any claims for any extra payments due to these changes.

2.150 Bid Item No. WD-11A: NOT USED (Addendum No. 1)**2.151 Bid Item No. WD-11B: SUPPORT FOR INSTALLATION OF SERVICE PIPE – OPEN CUT**
(Addendum No. 1)

- A. Under this Item, the Contractor shall remove pavement, excavate 1-foot wide service trench, backfill, and compact to support SFWD installation of service pipe and fittings.
- B. Payment shall be made at the unit bid price per linear foot of service trench excavated and backfilled and shall include pavement restoration and all necessary, related and incidental work except milling and filling.
- C. The total length to be paid for will be the number of feet of service trench excavated and backfilled as measured horizontally between the screw tap in the main and the stop cock at the service meter inlet.
- D. The length and sizes of service pipes as shown on the Bid Sheet are approximate only. The City Representative will determine the actual length and size in the field. The Contractor shall not make any additional claims for extra payment due to these changes.

2.153 Bid Item No. WD-12: REMOVAL OF SFWD – OWNED VALVE BOXES AND COVERS

- A. Under this item, the Contractor shall remove all existing SFWD valve boxes and return all existing SFWD valve covers that are to be abandoned in this contract or as indicated by the City Representative.
- B. Payment shall be made at the unit bid price per each valve box and cover removed, regardless of the size of each valve box and cover, and shall include the pavement saw cutting, backfilling, roadway restoration and all necessary, related and incidental work

2.154 Bid Item No. WD-13: REPAIR AND REPLACEMENT OF SIDE SEWER (CONTINGENCY BID ITEM)**

- A. Under this Item, the Contractor shall remove, repair, relocate or replace side sewers during the installation of the water main, as required by the City Representative.
- B. This is a contingency bid item. Since it is possible that none, some, or additional quantity specified in this item may be used, General Conditions Sections 6.08 B and C do not apply for work under this bid item.
- C. Payment shall be made at the unit bid price per linear foot of side sewer repaired and replaced, and shall include side sewer connection, excavation, backfill, and pavement restoration, and all necessary, related and incidental work, but exclude shoring work. Shoring work will be paid for under Bid Item No. WD-8 - Trench Shoring and Bracing Per all applicable Safety Orders.

2.155 Bid Item No. WD-14: FURNISH AND INSTALL CORROSION WORK FOR 36-INCH DUCTILE IRON PIPE

- A. Under this item, work shall include, but not limited to furnishing and installing all corrosion protection work and pipe joint bonding at the 36-inch pipeline and the related apparatus. It also includes the miscellaneous corrosion work and the complete CP Activation Report as shown in the CP Drawings and as specified in Sections 26 42 40 and 26 42 60.
- B. Payment for all corrosion control work as shown on Drawings and the Specifications will be paid for at the lump sum price bid. The bid shall include all material, labor, equipment, and other incidentals as necessary for a completion of the work under the Contract. In addition, payment for lump sum items will be paid for in prorated portions of the Lump Sum bid price based on the percentage of work completed within the billing period in the approved Schedule of Values and as accepted by the City Representative.

2.156 Bid Item No. WD-15: FURNISH AND INSTALL 36-INCH DIAMETER BUTTERFLY VALVE WITH DISMANTLING JOINT

- A. Under these items will include contractor shall furnish and install 36-inch diameter butterfly valve with dismantling joint. The valve assemblies shall include all necessary, related and incidental work.
- B. Payment under these items shall be at a unit price bid that include protective coating and lining. Refer to the section of Butterfly Valves.

- 2.158 Bid Item No. WD-16A: FURNISH AND INSTALL 16-INCH GATE VALVE WITH MECHANICAL JOINT AND MEGALUG 1116 SERIES AND ACCESSORIES
- A. Under this Item, the Contractor shall furnish and install 16-inch gate valves with mechanical joint and Megalug 1116 series and accessories at the locations as shown on the plans or as directed by the City Representative.
 - B. Payment shall be made at the unit bid price per each gate valve installed including valve box and cover and shall include additional restraints as required, all necessary, related and incidental work.
- 2.159 Bid Item No. WD-16B: FURNISH AND INSTALL 16-INCH TAPPING GATE VALVE WITH MEGALUG 1116 SERIES AND ACCESSORIES
- A. Under this Item, the Contractor shall furnish and install 16-inch Tapping gate valves with Megalug 1116 series and accessories at the locations as shown on the plans or as directed by the City Representative.
 - B. Payment shall be made at the unit bid price per each gate valve installed including valve box and cover and shall include additional restraints as required, all necessary, related and incidental work.
- 2.160 Bid Item No. WD-16C: FURNISH AND INSTALL 8-INCH AIR RELEASE AND VACUUM BREAK VALVE ASSEMBLY AND 6-INCH BLOW OFF
- A. Under this Item, the Contractor shall furnish and install one 8-inch air release and vacuum breaker valves with 6-inch blow off, ductile iron pipes and appurtenances as shown on the Plans. City will furnish flanged gate valves, valve boxes, covers, and enclosure. Contractor shall cut pipe risers to suit field condition. Contractor shall furnish 8-inch air release & vacuum breaker valves, ductile iron flanged pipes and flanged fittings and all other materials, except materials specified to be furnished by the City for construction.
 - B. Payment shall be made at the unit bid price per each air release & vacuum valve, blow off and appurtenances installed and shall include all necessary, related and incidental work.
- 2.161 Bid Item No. WD-17: INSTALLATION OF 54-INCH X 36-INCH STEEL TEE CONNECTION WITH 24-INCH DIRECT BURIED MANHOLE AND 36-INCH GATE VALVE. FURNISH AND INSTALL 36-INCH DISMANTLING JOINT SMITH BLAIR 975 AND ACCESSORIES
- A. Under this item work shall include, but not limit to installation of 54-inch by 36-inch steel tee with manhole and 36-inch gate valve that were fabricated under Project WD-2817, furnishing and installation of 36-inch coated and lined steel pipe with flanges, insulated flange joints, dismantling joint, butt straps and with dismantling joint Smith Blair 975 and accessories. Work shall also include potholing, excavation, shoring, connecting to existing pipe, saw cutting, backfill, soil removal, pavement restoration (may not needed), testing, night work and all supportive work, all accessories and all materials required to complete the installation.
 - B. Payment of this item shall include all necessary permit fees including excavation fee and night time work permit fees, etc, traffic control, coordination with city departments. Payment shall be made as lump sum price bid per satisfactorily performed, completed in place as specified and shall include all necessary, related and incidental work.

2.162 Bid Item No. WD-18: FURNISH AND INSTALL 5-FEET ID REINFORCED CONCRETE MANHOLE RISER, ACCESSORIES, ALUMINUM FRAMES AND COVER ASSEMBLIES AT 36-INCH PIPELINE

- A. Under this item, the Contractor shall furnish and install standard reinforced concrete manhole riser and its assemblies, which includes aluminum cover and frames at locations shown and in accordance with the Drawings to be used as pipe stand or box at pipeline appurtenances as shown on the Drawings and as ordered by the City Representative.
- B. Under this item, the Contractor shall furnish and install the access manhole appurtenances such as blind flanges with eyebolt for lifting, gaskets, nuts, bolts, protective lining and coating and all incidental work at the locations indicated on Drawings or as directed by the City Representative.
- C. Payment for this item shall be paid under the unit bid price for installing each assembly, which includes all works satisfactorily installed, completed in place as specified, including all incidental work.

2.163 Bid Item No. WD-19: FURNISH ASTM A36 STEEL PLATE (6 FT X 8 FT X 3/8 INCH)

- A. Under this item, the Contractor shall furnish ASTM A36 steel plate and installed as directed by the City Representative.
- B. Payment shall be made at the unit bid price per each steel plate and shall include additional restraints as required, all necessary, related and incidental work.

2.164 **Bid Item No. WD-20: FURNISH AND INSTALL FLEX-RING GROOVE RING ON 12-INCH FIELD-CUT DUCTILE IRON PIPE (CONDITIONAL BID ITEM)****

- A. **Under this item, the Contractor shall furnish all labor, material and equipment necessary to install Field Flex-Ring groove rings on 12-inch field-cut ductile iron pipe.**
- B. **This is a conditional bid item. Since it is possible that none, some or additional quantity specified in this item may be used, General Conditions Sections 6.08 B and C do not apply for work under this bid item.**
- C. **Payment shall be made at the unit bid price per each Flex-Ring groove ring installed and shall include all necessary, related and incidental work. (Addendum No. 1)**

2.165 **Bid Item No. WD-21: NOT USED** (Addendum No 1)

2.166 Bid Item No. WD-22: STERN GROVE LOCATION RESTORATION FOR CONCRETE WALL, TREE RELOCATION AND PAVEMENT WORK

- A. Under this item, the Contractor shall include, but not limited to full compensation for furnishing all labor, material, equipment, and incidental work necessary to have wall restoration, and tree protection during the construction. Placement of fencing, wood timbers, staking of perimeter, and traffic routing, pruning, temporary irrigation for tree shall be considered incidental work.
- B. Payment shall be made at the unit bid price per each adjustment and relocation, all necessary, related and incidental work

2.167 Bid Item No. WD-23: ALLOWANCE FOR WATER DEPARTMENT NIGHT WORK SUPPORT FOR BETTERMENT WORK AND WORKING OUTSIDE NORMAL WORK HOURS

A. Refer to Section 01 21 00 – Allowances.

2.168 Bid Item No. WD-24: ALLOWANCE FOR UNFORESEEN CONDITIONS RELATED TO WATER WORK

A. Refer to Section 01 21 00 – Allowances.

2.169 BID ITEM NO. AW-1.1: ALLOWANCE FOR MISCELLANEOUS AWSS ITEMS

A. Refer to Section 01 21 00 – Allowances.

2.170 BID ITEM NO. AW-15.1: AWSS WORK - LOCATION NO. 15 - REMOVAL WORK

A. Payment for SFWD AWSS removal work on 19th Avenue at Ulloa Street as shown on drawing MA-15.1, including removal as the Contractor's property, and removing and salvaging, the existing ductile iron piping and fittings; and all required trenching, dewatering and excavation for removal work; backfilling of excavations, roadway and sidewalk restoration where not required for new work installation; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.171 BID ITEM NO. AW-15.2: AWSS WORK - LOCATION NO. 15 - NEW WORK - MATERIALS

A. Payment for SFWD AWSS new work materials on 19th Avenue at Ulloa Street as shown on drawing MA-15.2, including furnishing all required ductile iron pipe and fittings; hydrant lateral; gate valves; cast-in-place reinforced concrete equipment pad; materials including for concrete work; and all required materials to restore the excavation, roadway and sidewalks; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.172 BID ITEM NO. AW-15.3: AWSS WORK - LOCATION NO. 15 - NEW WORK - INSTALLATION

A. Payment for SFWD AWSS new work labor and equipment to install and test AWSS facilities on 19th Avenue at Ulloa Street as shown on drawing MA-15.2, including installing all materials; concrete work; all required trenching, excavation and backfilling for new work; and roadway and sidewalk restoration; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.173 BID ITEM NO. AW-15.4: AWSS SETTLEMENT MONITORING WORK - LOCATION NO. 15

A. Payment for SFWD AWSS settlement monitoring on 19th Avenue at Ulloa Street as shown on drawing MA-15.4, 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; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.174 BID ITEM NO. AW-17.4: AWSS SETTLEMENT MONITORING WORK - LOCATION NO. 17

- A. Payment for SFWD AWSS settlement monitoring on 19th Avenue and Santiago Street as shown on drawing MA-17.4, 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; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.175 BID ITEM NO. AW-19.4: AWSS SETTLEMENT MONITORING WORK - LOCATION NO. 19

- A. Payment for SFWD AWSS settlement monitoring on 19th Avenue at Rivera Street as shown on drawing MA-19.4, 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; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.176 BID ITEM NO. AW-22.1: AWSS WORK - LOCATION NO. 22 - REMOVAL WORK

- A. Payment for SFWD AWSS removal work on 19th Avenue at Ortega Street as shown on drawing MA-22.1, including removal as the Contractor's property, and removing and salvaging, the existing ductile iron piping, fittings and gate valve; melting all lead joints; reinforced concrete valve vault; and all required trenching, dewatering and excavation for removal work; backfilling of excavations, roadway and sidewalk restoration where not required for new work installation; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.177 BID ITEM NO. AW-22.2: AWSS WORK-LOCATION NO. 22 - NEW WORK - MATERIALS

- A. Payment for SFWD AWSS new work materials on 19th Avenue at Ortega Street as shown on drawing MA-22.2, including furnishing all required ductile iron pipe and fittings; gate valve; cast-in-place reinforced concrete valve vault; materials including for concrete work; and all required materials to restore the excavation, roadway and sidewalks; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.178 BID ITEM NO. AW-22.3: AWSS WORK - LOCATION NO. 22 - NEW WORK - INSTALLATION

- A. Payment for SFWD AWSS new work labor and equipment to install and test AWSS facilities on 19th Avenue at Ortega Street as shown on drawing MA-22.2, including installing all materials; concrete work; all required trenching, excavation and backfilling for new work; and roadway and sidewalk restoration; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.179 BID ITEM NO. AW-24.1: AWSS WORK - LOCATION NO. 24 - REMOVAL WORK

- A. Payment for SFWD AWSS removal work on 19th Avenue at Noriega Street as shown on drawing MA-24.1, including removal as the Contractor's property, and removing and salvaging, the existing cast iron and ductile iron piping and fittings; hydrant lateral; melting all lead joints; and all required trenching, dewatering and excavation for removal work; backfilling of excavations, roadway and sidewalk restoration where not required for new work installation; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.180 BID ITEM NO. AW-24.2: AWSS WORK-LOCATION NO. 24 - NEW WORK - MATERIALS

- A. Payment for SFWD AWSS new work materials on 19th Avenue at Noriega Street as shown on drawing MA-24.2, including furnishing all required ductile iron pipe and fittings; hydrant lateral; materials including for concrete work; and all required materials to restore the excavation, roadway and sidewalks; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.181 BID ITEM NO. AW-24.3: AWSS WORK - LOCATION NO. 24 - NEW WORK - INSTALLATION

- A. Payment for SFWD AWSS new work labor and equipment to install and test AWSS facilities on 19th Avenue at Noriega Street as shown on drawing MA-24.2, including installing all materials; concrete work; all required trenching, excavation and backfilling for new work; and roadway and sidewalk restoration; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.182 BID ITEM NO. AW-24.4: AWSS SETTLEMENT MONITORING WORK - LOCATION NO. 24

- A. Payment for SFWD AWSS settlement monitoring on 19th Avenue at Noriega Street as shown on drawing MA-24.4, 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; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.183 BID ITEM NO. AW-26.1: AWSS WORK - LOCATION NO. 26 - REMOVAL WORK

- A. Payment for SFWD AWSS removal work on 19th Avenue and Lawton Street as shown on drawing MA-26.1, including removal as the Contractor's property, and removing and salvaging, the existing ductile iron and cast iron piping and fittings; hydrant lateral; melting all lead joints; and all required trenching, dewatering and excavation for removal work; backfilling of excavations, roadway and sidewalk restoration where not required for new work installation; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.184 BID ITEM NO. AW-26.2: AWSS WORK - LOCATION NO. 26 - NEW WORK - MATERIALS

- A. Payment for SFWD AWSS new work materials on 19th Avenue and Lawton Street as shown on drawing MA-26.2, including furnishing all required ductile iron pipe and fittings; hydrant lateral; materials including for concrete work; and all required materials to restore the excavation, roadway and sidewalks; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.185 BID ITEM NO. AW-26.3: AWSS WORK - LOCATION NO. 26 - NEW WORK - INSTALLATION

- A. Payment for SFWD AWSS new work labor and equipment to install and test AWSS facilities on 19th Avenue and Lawton Street as shown on drawing MA-26.3, including installing all materials; concrete work; all required trenching, excavation and backfilling for new work; and roadway and sidewalk restoration; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.186 BID ITEM NO. AW-27.1: AWSS WORK - LOCATION NO. 27 - REMOVAL WORK

- A. Payment for SFWD AWSS removal work on 19th Avenue at Kirkham Street as shown on drawing MA-27.1, including removal as the Contractor's property, and removing and salvaging, the existing ductile iron and cast iron piping and fittings; hydrant lateral; melting all lead joints; and all required trenching, dewatering and excavation for removal work; backfilling of excavations, roadway and sidewalk restoration where not required for new work installation; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.187 BID ITEM NO. AW-27.2: AWSS WORK - LOCATION NO. 27 - NEW WORK - MATERIALS

- A. Payment for SFWD AWSS new work materials on 19th Avenue at Kirkham Street as shown on drawing MA-27.2, including furnishing all required ductile iron pipe and fittings; hydrant lateral; gate valves; cast-in-place reinforced concrete equipment pads; materials including for concrete work; and all required materials to restore the excavation, roadway and sidewalks; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.188 BID ITEM NO. AW-27.3: AWSS WORK - LOCATION NO. 27 - NEW WORK - INSTALLATION

- A. Payment for SFWD AWSS new work labor and equipment to install and test AWSS facilities on 19th Avenue at Kirkham Street as shown on drawing MA-27.2, including installing all materials; concrete work; all required trenching, excavation and backfilling for new work; and roadway and sidewalk restoration; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.189 BID ITEM NO. AW-27.4: AWSS SETTLEMENT MONITORING WORK - LOCATION NO. 27

- A. Payment for SFWD AWSS settlement monitoring on 19th Avenue at Kirkham Street as shown on drawing MA-27.4, 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; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.190 BID ITEM NO. AW-28.1: AWSS WORK - LOCATION NO. 28 - REMOVAL WORK

- A. Payment for SFWD AWSS removal work on 19th Avenue, mid-block between Judah and Kirkham Streets, as shown on drawing MA-28.1, including removal as the Contractor's property, and removing and salvaging, the existing ductile iron piping and fittings; and all required trenching, dewatering and excavation for removal work; backfilling of excavations, roadway and sidewalk restoration where not required for new work installation; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.191 BID ITEM NO. AW-28.2: AWSS WORK - LOCATION NO. 28 - NEW WORK - MATERIALS

- A. Payment for SFWD AWSS new work materials on 19th Avenue, mid-block between Judah and Kirkham Streets, as shown on drawing MA-28.2, including furnishing all required ductile iron pipe and fittings; materials including for concrete work; and all required materials to restore the excavation, roadway and sidewalks; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.192 BID ITEM NO. AW-28.3: AWSS WORK - LOCATION NO. 28 - NEW WORK - INSTALLATION

- A. Payment for SFWD AWSS new work labor and equipment to install and test AWSS facilities on 19th Avenue, mid-block between Judah and Kirkham Streets, as shown on drawing MA-28.2, including installing all materials; concrete work; all required trenching, excavation and backfilling for new work; and roadway and sidewalk restoration; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.193 BID ITEM NO. AW-29.1: AWSS WORK - LOCATION NO. 29 - REMOVAL WORK

- A. Payment for SFWD AWSS removal work on 19th Avenue, from Judah Street to mid-block between Irving and Judah Streets, as shown on drawing MA-29.1, including removal as the Contractor's property, and removing and salvaging, the existing ductile iron and cast iron piping and fittings; hydrant lateral; melting all lead joints; and all required trenching, dewatering and excavation for removal work; backfilling of excavations, roadway and sidewalk restoration where not required for new work installation; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.194 BID ITEM NO. AW-29.2: AWSS WORK-LOCATION NO. 29 - NEW WORK - MATERIALS

- A. Payment for SFWD AWSS new work materials on 19th Avenue, from Judah Street to mid-block between Irving and Judah Streets, as shown on drawing MA-29.2, including furnishing all required ductile iron pipe and fittings; hydrant laterals; materials including for concrete work; and all required materials to restore the excavation, roadway and sidewalks; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.195 BID ITEM NO. AW-29.3: AWSS WORK - LOCATION NO. 29 - NEW WORK - INSTALLATION

- A. Payment for SFWD AWSS new work labor and equipment to install and test AWSS facilities on 19th Avenue, from Judah Street to mid-block between Irving and Judah Streets, as shown on drawing MA-29.2, including installing all materials; concrete work; all required trenching, excavation and backfilling for new work; and roadway and sidewalk restoration; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.196 BID ITEM NO. AW-30.1: AWSS WORK - LOCATION NO. 30 - REMOVAL WORK

- A. Payment for SFWD AWSS removal work on 19th Avenue, from Irving Street to mid-block between Irving and Judah Streets, as shown on drawing MA-30.1, including removal as the Contractor's property, and removing and salvaging, the existing ductile iron piping and fittings; and all required trenching, dewatering and excavation for removal work; backfilling of excavations, roadway and sidewalk restoration where not required for new work installation; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.197 BID ITEM NO. AW-30.2: AWSS WORK - LOCATION NO. 30 - NEW WORK - MATERIALS

- A. Payment for SFWD AWSS new work materials on 19th Avenue, from Irving Street to mid-block between Irving and Judah Streets, as shown on drawing MA-30.2, including furnishing all required ductile iron pipe and fittings; materials including for concrete work; and all required materials to restore the excavation, roadway and sidewalks; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

2.198 BID ITEM NO. AW-30.3: AWSS WORK - LOCATION NO. 30 - NEW WORK - INSTALLATION

- A. Payment for SFWD AWSS new work labor and equipment to install and test AWSS facilities on 19th Avenue, from Irving Street to mid-block between Irving and Judah Streets, as shown on drawing MA-30.2, including installing all materials; concrete work; all required trenching, excavation and backfilling for new work; and roadway and sidewalk restoration; all as shown on the Plans and Specifications; will be made at the Lump Sum price bid therefore.

****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 adjustment 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 deletable Bid Items to fulfill the LBE subcontracting participation goal. However, Bidder shall calculate its proposed LBE subcontracting participation using the Total Bid Price (Base Bid), which includes contingency bid items and all other items that contribute to the base bid amount.

PART 3 - EXECUTION (Not Used)

END OF SECTION