

SECTION 01270 MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SUMMARY

- A. The Unit Price Work shall include CONTRACTOR provided labor, materials, equipment, overhead, profit, insurance, incidentals, etc. to cover the finished Work. Cost of all applicable taxes, permits, etc. shall be included in the cost of construction of this Project. Even though an item of the Work is included in the Contract Documents, if it is not both covered herein and specifically itemized on the Unit Price Schedule of Section 00330, Bid Form, payment for it shall not be separately made. Such Work shall be considered a necessary part of or incidental to its related Work. The CONTRACTOR shall be paid only for quantities installed and approved by Resident Project Representative (RPR). Measurement for payment on a unit price basis shall be as described below. Payment for each unit installed shall be made according to the unit price bid, as listed in the Bid Form. Only those items appearing in the Bid Form will be considered for payment on a unit price basis.
- B. Applications for payment shall be submitted in accordance with Section 01290, Applications for Payment, Section 00700 - General Conditions, Section 00800 - Supplementary Conditions, and Section 00514 - Agreement. Cost of all applicable taxes, permits, etc., shall be included in the cost of construction of this Project.

1.02 MEASUREMENT

- A. General: Measuring, and metering devices used to measure quantity of materials for the Work shall be suitable for purpose intended and conform to tolerances and specifications as specified in National Institute of Standards and Technology, Handbook 44.
- B. Where measurement of quantities depends on elevation of existing ground, elevations obtained during construction will be compared with those shown on Drawings. Variations of 1 foot or less will be ignored, and profiles shown on Drawings will be used for determining quantities.

- C. Units of measure shown on Unit Price Schedule included with Bid Form shall be as follows, unless specified otherwise.

Item	Method of Measurement
AC	Acre—Field Measure by OWNER
CY	Cubic Yard—Field Measure in-place by OWNER within limits specified or shown
EA	Each—Field Count by OWNER
LF	Linear Foot—Horizontal Field Measure by OWNER
LS	Lump Sum—by OWNER
SF	Square Foot – Field Measure by OWNER
SY	Square Yard—Field Measure by OWNER
VF	Vertical Feet—Field Measure by OWNER
WK	Week—by OWNER

D. Definitions:

1. Acre (AC): Field measured and calculated OWNER. Measurement shall be horizontal distances measured to the nearest foot, calculated in square feet, converted to acres, and rounded to the nearest acre by OWNER.
2. Cubic Yard (CY): Field measured and calculated by OWNER. In-place yards prior to excavation or after placement and compaction. Measured to the nearest 0.5 foot, calculated in cubic feet, converted to cubic yards, and rounded to the nearest cubic yard.
3. Each (EA): Field counted by the OWNER as installed and accepted.
4. Linear Foot (LF): Field measured horizontally by the OWNER.
5. Lump Sum (LS): Field verified by OWNER.
6. Square Foot (SF): Field measured and calculated by OWNER. Measurement shall be horizontal distances measured to the nearest 0.1 foot and calculated to the nearest square foot.
7. Square Yard (SY): Field measured and calculated by OWNER. Measurement shall be horizontal distances measured to the nearest 0.5 foot, calculated in square feet, converted to square yards, and rounded to the nearest square yard by the OWNER.
8. Vertical Foot (VF): Field measured by OWNER in accordance with Paragraph D.4.a.2, above.
9. Week (WK): Field determined by OWNER as seven consecutive 24-hour days, rounded to the nearest week. A 1-day allowance for equipment set up and relocation shall be allowed. Multiple location times shall be added together to determine total time in weeks.

1.03 STORED MATERIALS AND EQUIPMENT

- A. No applications shall be processed by Owner which includes amounts for stored materials. Owner shall not pay Contractor for stored materials.
1. For unit price contracts or components Contractor's application for payment shall be based upon installed units identified on the bid form.
 2. For lump sum price contracts or components Contractor's application for payment shall be based upon approved schedule of values.

1.04 ITEMS NOT CONSIDERED AS PAY ITEMS

- A. Unless explicitly stated in this Contract Document, the following items are not considered as pay items:
1. **Clearing and Grubbing** (Section 02230)
 2. **Finish Grading** (Section 02310)
 3. **Control Blasting** (Section 02311)
 4. **General Excavation** (Section 02315)
 5. **Excavation, Bedding, and Backfill for Utilities** (Section 02321)
 6. **Waterlines – Disinfection and Testing** (Section 02516)
 7. **Sanitary Sewers – Air Testing Guidelines** (Section 02533)
 8. **Concrete for Utility Lines** (Section 03303)
 9. **Storage, Handling, and Transportation of Plastic Pipe** (Section 15101)
 10. **Tracer Wire Installation for Non-Electrically Conductive Pipe** (Section 15105)
 11. **Static Electric Discharge Procedure for Polyethylene Pipe** (Section 15265)
 12. **Natural Gas Polyethylene Pipe Joining Procedures** (Section 15350)
- B. **Unclassified excavation** for utilities is not a pay item unless explicitly stated in this Contract Document. Unclassified excavation shall be considered and designated a necessary part of the construction for trench depths as defined by the individual unit price for the line installation and as required by the Project Drawings. Unit prices bid for utilities with which unclassified excavation is connected shall be full compensation for this item.
- C. **Rock Excavation** is not a pay item unless explicitly stated in this Contract Document. Rock excavation shall be considered and designated a necessary part of the construction, and unit prices bid for items which rock excavation is connected shall be full compensation for this item.
- D. Payment will not be made for rejected or unused products. Payment will not be made for the following:

1. Loading, hauling, and disposing of rejected material.
2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
3. Rejected loads of material, including material rejected after it has been placed by reason of failure of Contractor to conform to provisions of Contract Documents.
4. Material not unloaded from transporting vehicle.
5. Defective Work not accepted by Owner.
6. Material remaining on hand after completion of Work.

1.05 BID ITEM PAYMENT

- A. Payment for unit price items covers all the labor, materials, overhead, and services necessary to furnish and install the following items.
- B. Payment for the bid items will be as follows:

Pay Item No. 1000 Mobilization to the job site is a lump sum pay item. One time cost to include all CONTRACTOR- incurred mobilization costs associated with such site. **Payment for Mobilization is Limited to Unit Price Bid or 8.25 % of Project Bid Total, whichever is less.** Demobilization is not a pay item and shall be considered a necessary part of the work and the cost of such included herein. If the CONTRACTOR had to pull all men and equipment off the job at the request of the OWNER and subsequently had to re-mobilize then CONTRACTOR would be paid the lump sum price for mobilization a second time or the actual reasonable cost of re-mobilization, whichever is less.

Pay Item No. 1005a – Erosion Prevention and Sediment Control – Type A Silt Fence is a linear foot unit price pay item. Unit price item includes material, labor, installation complete, and all measures and controls required per Section 01570 and shall include, but are not limited to, those shown on the plans. All measures shall be monitored and maintained per specifications and shall not be removed until all associated permits or approvals have been obtained.

Pay Item No. 1005f - Erosion and Pollution Control - Grate Inlet Protection is a per each unit price pay item. Unit price item includes all material, labor, and installation complete. See Section 01570, Erosion Control. All measures shall be monitored and maintained per specifications and shall not be removed until all associated permits or approvals have been obtained.

Pay Item No. 1005i – 8” Sediment Filter Tube is a linear foot (LF) pay item and includes all material, labor, and installation complete. All measures shall be monitored and maintained per specifications and shall not be removed until all associated permits or approvals have been obtained.

Pay Item No. 1010c - Traffic Control – Work Zone Traffic Control & Control Plan is a lump sum pay item. Lump sum payment shall be full compensation for the furnishing of equipment (including signage, barricades, etc.), labor, and incidentals as required to perform traffic control as necessitated by the work for the project duration including a Traffic Control Plan (TCP). Payments for this lump sum item will be made based on percentage of work complete for the entire project.

Pay Item No. 1015 - Pre-Construction Site Video Recording is a lump sum pay item. Video recording shall include all materials, equipment, and labor to record the gas route at the beginning of the project as specified in Section 01380.

Pay Item No(s). 4000a-g - MDPE Gas Main Installation -Open Cut exclusive of road boring, includes trench excavation providing no less than required minimum cover up to 8' maximum trench depth, pipe, fittings, bedding, testing and purging, complete per section 15720. Gas Main Installations are linear foot pay items. The quantities of pipe in place for which payment will be allowed shall be expressed in linear feet of gas main in terms of the horizontal length of each pipe installed in place as measured along the centerline of the trench with no deductions for valves or fittings where depth is measured from the top of the pipe to the proposed/finished grade. Such payment shall be full compensation for installing gas main including pipe bedding, excavation, backfill per Section 15720, tracer wire, and all other work necessary for and incidental to completion of the work. **The CONTRACTOR will furnish all gas line materials required for the gas line installation including tracer wire.**

Pay Item No(s). 4005a-y.1. - Polyethylene Gas Tee & Valve Installation (complete all labor and installation for tie-ups including installation of tees, couplings, reducers, valves and valve boxes and other fittings as required by section 15720) are per each pay items only when the valve installation is not included as part of a gas main tie-in or gas service connection. Unit prices bids for each shall be full compensation for this item and for all labor to complete the installation including bedding, valve box installation, pipe connections, backfill as required, and necessary equipment as required to complete the item in accordance with the Drawings and Specifications. **The CONTRACTOR will furnish all gas line materials required for the gas valve installation.**

Pay Item No(s). 4010a-q.2.- Tie-ins to Existing Gas Main / New Mains Tie-Ins & Valve Assemblies (complete all labor and installation for tie-ups including installation of tees, couplings, reducers, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test, & tracer wire, valves and valve boxes and other fittings and bypasses as required by section 15720.) Gas main tie-ins to existing / new mains are per each pay items. Unit price bids for each tie-in shall be full compensation for each specific tie-in including all labor, installation of all

fittings, valves, reducers, couplings, and incidentals as required to complete the tie in. **The CONTRACTOR will furnish all gas line materials required for the gas main tie-ins.**

Pay Item No(s). 4015a-e - Gas Valve Installation are per each pay items only when the valve installation is not included as part of a gas main tie-in or gas service connection. Unit prices bids for each shall be full compensation for this item and for all labor to complete the installation including bedding, valve box installation, pipe connections, backfill as required, and necessary equipment as required to complete the item in accordance with the Drawings and Specifications. **The CONTRACTOR will furnish all gas line materials required for the gas valve installation.**

Pay Item No(s). 4020a-e - Gas Services Reconnection – Short Side Service: **The following unit prices will be utilized for the reconnection/interception of existing services where the point of connections is on the same side of the road as the gas main including pipe from the main to the property line/ back of KUB easement or edge of pavement/curb, tapping tee, valve, valve box, EFV, couplings, tracer wire, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test and NGUS as required by Section 15345.** Gas Services Installation are per each pay items and shall be full compensation for this item and for all labor to complete the installation including pipe connections, pipe, fittings, valves, valve boxes, EFV, backfill, restoration as required, and necessary equipment as required to complete the item in accordance with the Drawings and Specifications. **The CONTRACTOR will furnish all gas line materials required for Gas Service Reconnection – Short Side Service installation.**

Pay Item No(s). 4025a-e - Gas Services Reconnection – Long Side Service: **The following unit prices will be utilized for the reconnection/interception of existing services where the point of connection is on the opposite side of the road from the gas main including road bore, pipe from the main to the long side property line, tapping tee, valve, valve box, EFV, couplings, tracer wire, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test and NGUS as required by Section 15345.** Gas Services Installation are per each pay items and shall be full compensation for this item and for all labor to complete the installation including road bore, pipe, pipe connections, fittings, valves, valve boxes, EFV, backfill, restoration as required, and necessary equipment as required to complete the item in accordance with the Drawings and Specifications 15345. **The CONTRACTOR will furnish all gas line materials required for Gas Service Reconnection – Long Side Service installation.**

Pay Item No(s). 4030a-o - Gas Service Installation – Short Side Service: **The following unit prices will be utilized for the installation/full replacement of**

new or existing services for properties on the same side of the road as the gas main including 150' of pipe from the gas main to the meter location, tapping tee, valve, valve box, EFV, riser, couplings, tracer wire, tracer wire clip, riser protective sleeve backfill, asphalt/concrete restoration, cleanup/restoration, pressure test and NGUS as required by Section 15345. Gas Service Installation – Short Side Service is a per each pay item and shall be full compensation for this item and for all labor to complete the installation including connections, pipe, fittings, valves, valve boxes, EFV, backfill, restoration, and necessary equipment as required to complete the item in accordance with the Drawings and Specifications 15345. The CONTRACTOR will furnish all gas line materials required for Gas Service Installation – Short Side Service.

Pay Item No(s). 4035a-o - Gas Service Installation – Long Side Service: The following unit prices will be utilized for the installation/full replacement of new or existing services for properties on the opposite side of the road as the gas main including the road bore, bore pipe, up to 150' of pipe from the long side property line to the meter location, tapping tee, valve, valve box, EFV, riser, couplings, tracer wire, tracer wire clip, riser protective sleeve, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test and NGUS as required by Section 15345. Gas Service Installation – Long Side Service is a per each pay item and shall be full compensation for this item and for all labor to complete the installation including the road bore, bore pipe, connections, pipe, fittings, valves, valve boxes, EFV, backfill, restoration, and necessary equipment as required to complete the item in accordance with the Drawings and Specifications 15345. The CONTRACTOR will furnish all gas line materials required for Gas Service Installation – Long Side Service.

Pay Item No(s). 4040a-d - Gas Services Installation (in Excess of 150' of Pipe): Gas Services Installation: The following linear foot price pay items will be utilized for the reconnection/interception of existing services or the installation of new services in excess of 150' of pipe, including pipe, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test, tracer wire, and NGUS as required by Section 15345.

Pay Item No(s). 4045a-c – Riser Installation are per each unit price pay items per specifications in section 15345, paragraph 3.8.1. – 3.8.18.

Pay Item No. 4050a – Condemn Existing Gas Facilities is a lump sum price pay item which includes, but is not limited to, the disconnecting, purging and sealing of existing facilities as indicated on the drawings, removal of valve boxes no longer in service and any above ground appurtenances, backfill, asphalt/concrete restoration, & cleanup/restoration. Lump sum bid shall be full compensation for this item and for all labor, line purging and sealing, installation of caps, crushed stone backfill as required, and necessary equipment required to

complete the condemnation of existing gas facilities including any above ground appurtenances as directed by the Drawings and the Resident Project Representative.

Pay Item No(s). 4055a,c,e,g & i - Gas Main Bore are lump sum pay items relative to the locations shown on the plans. Lump sum prices for Boring shall be full compensation for this item and for all labor, incidental materials and casing if utilized, and equipment required to complete the bore. The unit price for boring is considered payment under unclassified excavation. Additional costs incurred for rock boring will be at the CONTRACTOR's expense. The lump sum price for boring shall include installation of all MDPE gas mains, size and number as required and all other incidental items as required to complete the bore(s) and associated Work. Method of boring shall be at the CONTRACTOR's discretion as long as the installation meets the requirements of the Contract Documents.

Pay Item No(s). 4055b,d,f,h, & j - Gas Main Bore are per each unit price pay items relative to the locations shown on the plans. Unit price for Boring shall be full compensation for these items and for all labor, incidental materials and casing if utilized, and equipment required to complete the bore. The per each unit price for boring is considered payment under unclassified excavation. Additional costs incurred for rock boring will be at the CONTRACTOR's expense. The per each price for boring shall include installation of all MDPE gas mains, size and number as required and all other incidental items as required to complete the bore(s) and associated Work. Method of boring shall be at the CONTRACTOR's discretion as long as the installation meets the requirements of the Contract Documents.

Pay Item No. 4060a – e – Creek Crossing is a lump sum pay item. In accordance with ARAP, including surface/bank restoration & stabilization, and environmental protection of waterway is a pay item based on lump sum for designated location from the edges of the creek banks. Any additional footages will be paid in accordance with Pay Item 4000 of this Measurement and Payment Section.

Pay Item No. 4065a - b – Temporary Gas Main Bypass is a per each unit price pay item. Unit price bid for each bypass shall be full compensation for all labor, bypass line, fittings, valves, reducers, couplings, NGUS and incidentals as required to install the bypass to insure continuity of gas service to customers in accordance with the Drawings and Specifications 15720 or as directed by the Owner. **The CONTRACTOR will furnish all gas line materials required for the gas main bypasses.**

Pay Item No(s). 4070a - d – Uncover, Expose, Recover, Restore. Payment unit is per each location. Payment includes labor and material to uncover, expose, recover or restore gas mains, valves, service connections at the main, etc. to verify that they have been installed to KUB Standards and Specifications. This work shall also include but not be limited to dewatering as needed, cleaning of

gas mains and all appurtenances for inspection, installation and maintenance of erosion control devices, installation of barricades, caution tape, traffic control, proper backfill and compaction and restoration of surface to match pre-existing conditions. KUB will make payment on this item for work performed in accordance with specifications when the associated inspection of the exposed uncovered service reveals no defective work regarding the scope of Work. Should there be multiple services off of one gas service tap the payment for this item will be for the one gas service tap verified. Additionally, if there are multiple valves at a single location, KUB will make one payment for location, not payments for the number of valves to be verified at the excavated location.

Pay item 6005a - Pavement Repair (Installed by Contractor): Permanent Patching, Base Course + Surface Course (to be installed as directed) is a linear foot unit price pay item. Unit price item includes excavation of temporary pavement repair, excavation of stone base as needed, material (Base Grade B or B-M and Surface Course Grade D), compaction, cleanup, striping (if needed), milling (as directed), and straight line truing of existing surface as needed. See KUB Standards Section 02321 General Excavation, Bedding and Backfill for Utilities; Section 02740 Pavement Repair; and Section 1740 Surface Restoration Special Provisions. Pay item 6005a shall be paid exclusive of Pay Item Nos. 6005b and 6005c and shall not be priced in combination with pay items 6005b or 6005c for any area(s) of work (payment for any given unit of measure shall be made for either Item Nos. 6005a, 6005b, or 6005c). Payment for this unit price item will be made based on the length of trenches, to the limits of excavation, including manhole excavations, as specified in the bid documents OR as approved in writing by OWNER.

Pay item 6005b - Pavement Repair (Installed by Contractor): Permanent Patching, Base Course is a linear foot unit price pay item. Unit price item includes excavation of temporary pavement repair, excavation of stone base as needed, material (Base Grade B or B-M), compaction, cleanup, striping (if needed), milling (if needed), and straight line truing of existing surface as needed. See KUB Standards Section 02321 General Excavation, Bedding and Backfill for Utilities; Section 02740 Pavement Repair; Section 02770 Concrete for Utilities and Concrete Pavement Construction; and Section 1740 Surface Restoration Special Provisions. Pay item 6005b shall be paid exclusive of Pay Item Nos. 6005a and 6005c and shall not be priced in combination with pay items 6005a or 6005c for any area(s) of work (payment for any given unit of measure shall be made for either Item Nos. 6005a, 6005b or 6005c). Payment for this unit price item will be made based on the length of trenches, to the limits of excavation, including manhole excavations, as specified in the bid documents OR as approved in writing by OWNER.

Pay Item No. 6005c - Pavement Repair (Installed by Contractor): Permanent Patching, Portland Cement Concrete Pavement is a linear foot unit price pay item. Unit price item includes excavation of temporary pavement repair, excavation of stone base as needed, additional compacted stone base as needed, dowelling to existing slab and rebar installation, as required, forming as needed, material (Portland Cement Concrete Pavement), Placement, finishing, and curing, cleanup, striping (if needed), milling (if needed), and straight line truing of existing surface as needed. See KUB Standards Section 02321 General Excavation, Bedding and Backfill for Utilities; Section 02740 Pavement Repair; Section 02770 Concrete for Utilities and Concrete Pavement Construction; and Section 1740 Surface Restoration Special Provisions. Pay item 6005c shall be paid exclusive of Pay Item Nos. 6005a and 6005b and shall not be priced in combination with pay items 6005a or 6005b for any area(s) of work (payment for any given unit of measure shall be made for either Item Nos. 6005a, 6005b or 6005c). Payment for this unit price item will be made based on the length of trenches, to the limits of excavation, including manhole excavations, as specified in the bid documents OR as approved in writing by OWNER.

Pay Item No. 6005d - Pavement Repair (Installed by Contractor): Pavement Cutback is a linear foot unit price pay item. Unit price item includes full depth excavation of required cutback along **both** trench walls as directed by OWNER, excavation of stone base as needed, material (Base Grade B or B-M), compaction, cleanup, milling (if needed), straight line truing of existing surface, as needed, and warranty repairs during warranty period. CONTRACTOR shall be relieved of responsibility if cutbacks are topped by OWNER or other entity prior to expiration of warranty. See KUB Standards Section 02321 General Excavation, Bedding and Backfill for Utilities; Section 02740 Pavement Repair; Section 02770 Concrete for Utilities and Concrete Pavement Construction; and Section 1740 Surface Restoration Special Provisions. Payment for this unit price item shall be made only upon prior written approval of Owner and shall be made based on the length of trenches, as specified in the bid documents OR as approved in writing by OWNER and shall include cutbacks on both sides of the trench for a given trench length measurement.

Pay Item No(s). 6010 a,b,c & e - Removal and Replacement are square yard unit price pay items. Unit price items include excavation, removal and disposal of material, replacement material to duplicate material type and specification, depth, width, and length of removed materials, cleanup, and 30 days of maintenance. Compensation will be by square yard of repair for Owner approved areas surrounding the work. See Section 02321, Excavation, Bedding, and Backfill for Utilities, Section 02770, Concrete for Utilities and Concrete Pavement Construction, and Section 02740, Pavement Repair.

Pay Item No(s). 6010d & f - Removal and Replacement are linear foot unit price pay items. Unit price items include excavation, removal and disposal of material, replacement material to duplicate material type and specification, depth, width, and length of removed materials, cleanup, and 30 days of maintenance. Compensation will be per linear foot of repair for Owner approved areas surrounding the work. See Section 02321, Excavation, Bedding, and Backfill for Utilities, Section 02770, Concrete for Utilities and Concrete Pavement Construction, and Section 02740, Pavement Repair.

Pay Item No. 6010g – Removal and Replacement, Pipeline Marker Installation is a per each marker unit price pay item. Unit price bid for each pipeline marker shall be full compensation for each installed pipeline marker. Pipeline markers shall be provided by the OWNER.

Pay Item No. 6025 – Seeding is a square yard unit price pay item. Unit price bid for site restoration, lawn repair, landscape repair, etc., shall be full compensation for this item and for all labor, materials, water and equipment required to complete the restoration to its original or better condition. Item includes topsoil, reseeding per property owner’s preference and as directed by the OWNER to match existing condition, maintenance for 60 days or until re-established; maintenance includes water, fertilizer, and mowing. Re-establish at no additional compensation. See Section 02920, Seeding.

Pay Item No. 6030 - Sodding is a square yard unit price pay item. Unit price item includes topsoil, sodding per property owner’s preference and as directed by the Resident Project Representative to match property owner’s existing condition, maintenance for 60 days or until re-established; maintenance includes water, fertilizer, and mowing. Re-establish at no additional compensation. See Section 02925, Sodding.

Pay Item No. 6035 - Sodding is a square foot unit price pay item. Unit price item includes top soil, sodding per property owner’s preference and as directed by the Resident Project Representative to match property owner’s existing condition, or until re-established; maintenance includes water, fertilizer, and mowing. Re-establish at no additional compensation. Sod installation to be installed per manufacturer’s recommendations. See Section 02925, Sodding.

Pay Item No. 6040 - Riprap is a per ton unit price pay item. Unit price item includes geotextile, base, and riprap material, placement and cleanup. See Section 02372, Geotextiles and Section 02371, Riprap.

Pay Item No. 6045 - Cleanup Restoration & Closeout is a lump sum price pay item. Lump sum price bid for site restoration, lawn repair, landscape repair, etc., shall be full compensation for this item and for all labor, materials, water and equipment required to complete the restoration to its original or better condition.

Payments for this lump sum item will be made based on percentage of work complete for the entire project. **It is highly recommended that the CONTRACTOR photograph existing conditions at the Site prior to commencing with the Work.**

Pay Item No. 6050 - Visual Barrier Fence for Tree Critical Root Zone is a linear foot (LF) unit price pay item. Unit price items include material, labor, installation, and maintenance of highly visible safety fence to provide a visual barrier of the critical root zone for trees that are to be preserved. Silt fence may be utilized provided it is a different color than silt fence utilized for erosion control methods thus enabling OWNER to quickly determine which fence should be TDEC compliant. Contractor must avoid damage to trees that are to be preserved. Damage may include, but is not limited to bark damage, broken branches, parking or operating of vehicles or heavy equipment within the tree's critical root zone without protection measures, storing equipment or materials (including fill dirt) within the tree's critical root zone, and spilling harmful substances within the tree's critical root zone. If any tree not designated for removal is damaged during construction, Contractor must notify KUB or its Resident Project Representative within one business day. The Contractor shall be required to repair the damage to the tree as directed by KUB. Repair to damaged trees may include, but is not limited to corrective pruning of branches or roots in accordance with ANSI A300 standards, tree removal, stump removal, and/or tree planting.

Pay Item No. 8000a Safety Barrier Fence is a linear foot unit price pay item. Unit price item includes all material, labor, and maintenance for a complete installation. All fencing shall be monitored and maintained and shall not be removed until directed by the Owner.

Pay Item No. 8000b Clean Backfill Material for Steel Pipe Bedding is a pay item. The quantities for clean backfill material for which payment will be allowed shall be expressed in linear feet. Full compensation for this item includes all labor, materials, and equipment required to complete the item in accordance with the Specifications.

Pay Item No. 8000c Rock Shield Installation is a linear foot pay item. When directed by KUB, the Contractor shall install rock shield (supplied by Contractor) in areas that warrant protection from rock excavation prior to lowering the steel gas main into the trench.

Pay Item No. 8000d Test Station and Anode Installation is a per each unit price pay item. Unit price for anode bed and testing station shall be full compensation for all labor and materials in accordance with the Drawings and Specifications. This item includes the installation of test stations and anodes provided by the Contractor at locations to be determined by Owner's Representative.

Pay Item No. 8000e Temporary Guying of Power Pole is a per each unit price pay item. Unit price shall include removing existing guy wire, installing and removing temporary guy wires as needed, and replacing permanent guy wires.

Pay Item No. 8100a - f – Special Tie-Ins (complete all labor and installation for tie-ups including installation of tees, couplings, reducers, backfill, asphalt/concrete restoration, cleanup/restoration, pressure test, & tracer wire, valves and valve boxes and other fittings and bypasses as required by section 15320.) Gas main tie-ins to existing / new mains are per each pay items. Unit price bids for each tie-in shall be full compensation for each specific tie-in including all labor, installation of all fittings, valves, reducers, couplings, and incidentals as required to complete the tie in. **The CONTRACTOR will furnish all gas line materials required for the gas main tie-ins.**

Pay Item No. 9000a – Special Items for Box Culvert Crossing – 12” Steel Casing Pipe, Epoxy Coated (Schedule 40) is a linear foot pay item. The quantities of steel casing pipe in place for which payment will be allowed shall be expressed in linear feet of steel casing pipe and shall be full compensation for this item and for all labor, materials, and equipment required to complete the item in accordance with the Drawings and Specifications.

Pay Item No. 9000b – Special Items for Box Culvert Crossing – 12” Steel Casing Pipe End Seals is a per each pay item. Unit prices bid for casing end seals shall be full compensation for this item and for all labor, materials, and equipment required to complete the item in accordance with the manufacturer’s recommendations and the Drawings and Specifications.

Pay Item No. 9000c – Special Items for Box Culvert Crossing – 12” Steel Casing Pipe Spacers is a per each pay item. Unit prices bid for casing spacers shall be full compensation for this item and for all labor, materials, and equipment required to complete the item in accordance with the manufacturer’s recommendations and the Drawings and Specifications.

Pay Item No. 9000d – Class A Concrete for Encasement of 12” Steel Casing Pipe is a per cubic yard pay item. The quantity of concrete for encasement in place for which payment will be allowed shall be expressed in cubic yards of concrete and shall be full compensation for this item and for all labor, materials, and equipment required to complete the item in accordance with the Drawings and Specifications. The quantity for which payment will be made shall be calculated from the neat lines as shown in the contract drawings and additional measurements made in the field by the resident project representative from KUB. Concrete for encasement will **NOT** be paid in accordance with the concrete plant ticket(s).

END OF SECTION