



January 05, 2023

**Addendum No. 2
BL001-24
Lenna Drive 2-Inch PVC Water Main Replacement**

The following addition/changes modify the Bid No. BL001-24 "Lenna Drive 2-Inch PVC Water Main Replacement" Contract Documents, dated November 2023, as first advertised on November 22, 2023.

I. Questions

- Q1. The .pdf copy of the Specifications does not have the first page of Section 01 22 15.11 (Measurement & Payment). Instead, the file contains the same first page as Section A-01 22 15.11 (Supplemental Measurement & Payment). Can 01 22 15.11-1 be provided?**
- A1. See attached section 01 22 15.11, page 1 through 16.
- Q2. STA 14+75 has a fire hydrant assembly and 8" gate valve callout. Is there an 8" gate valve at this location?**
- A2. Yes, a new gate valve is required at Sta 14+75 before the tee to the fire hydrant.
- Q3. Should bidders quote for non-sensitive (Sd1-NS) or sensitive (Sd1-S) silt fence?**
- A3. Silt fence shall be type Sd1-NS.
- Q4. What paving detail is required at STA 8+00.00?**
- A4. Paving detail C/CD-001 shall be used at Sta 8+00
- Q5. Should bidders quote Detail C/CD-001 for concrete driveway at STA 18+00.00?**
- A5. Concrete driveway repairs should be quoted per detail E/CD-001, to the dimensions shown on plan sheet.
- Q6. Do asphalt driveway replacements require the same binder and topping thickness as shown in roadway asphalt replacement?**
- A6. Asphalt driveways shall be repaired per detail C/CD-001.
- Q7. The asphalt quantities do not seem to match the details. Please confirm.**
- A7. Asphalt quantities shall equal to the asphalt quantities shown on the plan sheets.
- Q8. Please provide the pay item for which the bore at or about at Sta 12+00 should be included.**
- A8. Per specification section 01 22 15.10 item 32, the linear foot payment for ductile iron water line shall include free boring.

Q9. Please confirm 8" gate valve installation and its location at 14+75.

A9. Please see A2 above.

Q10. Will a pay item be added for free bore?

A10. No, please see A8 above.

Q11. Please provide the pay items for gravel driveway.

A11. Gravel driveway shall be paid under bid item no. 13, driveway cut and repair.

Q12. Can Instructions to Bidders, Contractor Affidavit and Agreement, Code of Ethics Affidavit, Bidder's Affidavit, Form of Non-Collusion Affidavit, Bid Bond, Sample Agreement, General Conditions, Supplementary Conditions, etc. be provided with the Bid Specifications?

A12. The front-end document package should have been sent to ALL vendors who purchased plans and specifications from AECOM. If you did not receive these documents upon purchase, please reach out to Zahid.Bashir@AECOM.com.

Q13. Please provide the plan holders list.

A13. See Attachment A2.

II. Attachments

A1. Section 01 22 15.11 Measurement and Payment Bid Water and Sewer Projects, Pages 1 through 16.

A2. BL001-24 Plan holders list.

Acknowledge receipt of this addendum on the firm information page of the request for proposal.

Sincerely,

Brittany Bryant, CPPB

Purchasing Associate III

SECTION 01 22 15.11

MEASUREMENT AND PAYMENT

BID WATER AND SEWER PROJECTS

PART 1 – GENERAL

1.1 SUMMARY

- A. This section defines the bid items of Work listed on the Bid Form and defines how payment shall be determined. Payment shall be made for each bid item based on the description in this section.
- B. Bid Prices included on the Bid Form shall be full compensation for all materials, labor, equipment, tools, construction equipment and machinery, heat, utilities, transportation, taxes, overhead, markup, incidentals and services necessary for the execution and completion of the Work in the Contract Documents to be performed under this Contract. For the Work described, the allowance and unit price, actual used and installed quantities of each bid item shall be measured in the field and certified by the Engineer and/or GCDWR upon completion of construction in the manner set forth for each item in this and other sections of the Specifications. Payment for all items listed on the Bid Form will constitute full compensation for all Work shown and specified to be performed.
- C. The Contractor shall assist and fully cooperate with GCDWR to determine proper measurement and payment for each item providing complete and reasonable backup documentation as requested by GCDWR to substantiate payment due.

1.2 BID ITEMS

The following items 1 through 38 comprise the Base Bid Total as listed on the Bid Form.

1. SPECIFICATION SECTION NO. 321216, UNIT PRICE FOR ASPHALT PAVING RESURFACING:
MEASUREMENT: The quantity to be paid under this item shall be the actual number of square yards of roadway or parking area pavement installed as shown on the Drawings or as directed by GCDWR. Pavement required as trench backfill as shown on the Drawings and Specifications for the minimum width trench for utility pipe construction is not included in this section, up to, but not including the final asphalt surface coarse (1½” maximum depth), but shall be included in the applicable bid item for utility pipe construction. This includes trench backfill and compaction, graded aggregate base, and paving to the bottom of the surface coarse of the utility pipe trench as shown on the Drawings. The final asphalt surface coarse is included in Asphalt Pavement Resurfacing. If asphalt pavement resurfacing is not specified or shown on the Drawings, then the final asphalt surface coarse will also be included in the applicable section for utility pipe construction.

PAYMENT: The Unit Prices Bid per square yard (SY) for roadway pavements and parking areas shall include permit fees, maintenance charges and inspection fees required by all road departments and the furnishing of all materials, labor, tools, and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR.

- a) Partial Depth Repair – Patching: Payment shall be the actual square yards of pavement repair, preparation, and resurfacing utilizing Partial Depth Repair – Patching.
- b) Asphalt Pavement Resurfacing: Payment shall be the actual square yards of pavement resurfacing as specified, shown on the Drawings, or directed by the Engineer. Pavement resurfacing shall include milling, tack coat, asphalt pavement surface, and roadway striping to the depth indicated in the Drawings and Specifications.
- c) Full Depth Pavement: Payment shall be the actual square yards of pavement utilizing Full Depth Pavement as shown on the Drawings, specified, or as directed by the Engineer. Included shall be the costs of graded aggregate base, asphalt base, binder, asphalt surface, roadway striping, tack coat, milling, and all associated costs of work necessary for furnishing Full Depth Pavement. Pavement depth and materials shall be as specified on the Drawings and Specifications.

2. SPECIFICATION SECTION NO. 347100, UNIT PRICE FOR DRIVEWAY CUT RESTORATION:

MEASUREMENT: The quantity to be paid under this item shall be the actual number of square yards of driveway pavement restored within the construction of trench crossing said driveways. The width of pavement measured for payment shall be the allowable payment width of excavation as indicated on the Drawings; except in the instance where entire sections or slabs have been removed under direction of the Engineer or GCDWR. Optional free bores used to cross driveways in lieu of open cutting driveway shall be paid by the square yard, as measured in feet by the width of the driveway at the centerline of the pipe times a length of ten (10) feet.

PAYMENT: The Unit Prices Bid per square yard (SY) of driveway pavement restored shall include the furnishing of all materials, labor, tools, and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR.

3. SPECIFICATION SECTION NO. 321613, UNIT PRICE FOR CURB/ COMBINATION CURB & GUTTER RESTORATION:

MEASUREMENT: The quantity to be paid under these items shall be the actual number of linear feet of curb and combination curb and gutter restored as specified, indicated on the Drawings, or as directed by GCDWR.

PAYMENT: The Unit Prices Bid per linear foot (LF) length for curbs/curbs and gutter shall include the furnishing of all materials, labor, tools, and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR.

4. SPECIFICATION SECTION NO. 321613, UNIT PRICE FOR SIDEWALK RESTORATION:

MEASUREMENT: The quantity to be paid under this item shall be the actual number of square yards of sidewalk restored in accordance with the Drawings, or as directed by GCDWR.

PAYMENT: The Unit Prices Bid per square yard (SY) of sidewalks shall include the furnishing of all materials, labor, tools, and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR.

5. SPECIFICATION NO. 330523.16, UNIT PRICE FOR UTILITY PIPE JACKING:

MEASUREMENT: The quantity to be paid under this item shall be the actual number of linear feet placed under the respective items uncased boring, jacked steel casing, or steel casing/open cut, as specified, as indicated on the Drawings, or as directed by GCDWR.

PAYMENT: The Unit Prices Bid per linear foot (LF) of uncased boring, jacked steel casing, or steel casing/open cut shall be in full compensation for all excavation, rock excavation, dewatering, sheeting, shoring, jacking/auguring operations, receiving pits, concrete, grout, sand and screenings, brick masonry, steel casing pipe, welding, backfill and all other materials, labor, tools, and equipment necessary for the proper completion of the Work as specified, as indicated on the Drawings, or as directed by GCDWR. The unit price for each shall further include full compensation for furnishing barricades, warning signals, and lights. The carrier pipe shall be paid separately under the item titled for the specific pipe material type.

6. SPECIFICATION NO. 330523.71, UNIT PRICE FOR STEEL TUNNEL LINER:

MEASUREMENT: The quantity to be paid under this item shall be the actual number of linear feet placed as shown on the Drawings or as directed by GCDWR. The length shall be measured along the axis of the tunnel between the existing faces of the masonry bulkheads.

PAYMENT: The Unit Prices Bid per linear foot (LF) of tunnel liner shall include earth excavation, rock excavation, tunneling operations, sheeting and shoring, lumber left in place, concrete, grout or sand fill, brick masonry, liner plates, bolts and other fasteners; furnishing the services of qualified representative of liner plate manufacturer; and the furnishing of all necessary tools, equipment, labor and materials to complete the Work.

7. SPECIFICATION NO. 329200, UNIT PRICE FOR PERMANENT SEEDING:
MEASUREMENT: The quantity to be paid under this item shall be the actual number of square yards of planted seed, complete; to include ground preparation, lime, fertilizer, seed, and mulch as specified, as indicated on the Drawings, or as directed by GCDWR.

PAYMENT: The Unit Prices Bid per square yard (SY) shall include all labor, materials, tools, and equipment necessary to complete the Work as specified.

8. SPECIFICATION NO. 329200, UNIT PRICE FOR SODDING:
MEASUREMENT: The quantity to be paid under this item shall be the actual number of square yards installed, complete; to include ground preparation, lime, fertilizer, and sod as specified, as indicated on the Drawings, or as directed by GCDWR.

PAYMENT: The Unit Prices Bid per square yard (SY) shall include all labor, materials, tools, and equipment necessary to complete the Work as specified.

9. SPECIFICATION NO. 329343, UNIT PRICE FOR TREE REPLACEMENT:
MEASUREMENT:

a.) Tree Replacement: The quantity to be paid under this item shall be the actual number of trees planted by type as shown on the Drawings or as directed by GCDWR.

b.) Tree Save Barrier Fence: The quantity to be paid under this item shall be the actual number of linear feet of tree save barrier fence installed as required by the Drawings, Specifications, or as directed by GCDWR.

PAYMENT:

a.) Tree Replacement: The Unit Prices Bid for each tree (EA) planted shall include all necessary tools, equipment, labor and materials to complete the Work.

b.) Tree Save Barrier Fence: The Unit Prices Bid per linear feet (LF) of tree save barrier fence installed shall be the actual number of linear feet installed. No payment shall be made for tree save barrier fence required to be reinstalled for any reason.

10. SPECIFICATION NO. 023219, UNIT PRICE FOR EXPLORATORY EXCAVATIONS:

MEASUREMENT: The quantity to be paid under this item shall be the actual number of exploratory excavations as verified by GCDWR. This item is to only be used when directed by GCDWR and is not to be used by the Contractor as a method of payment for locating utilities or valves required for the completion of the Work.

PAYMENT: The Unit Prices Bid for each (EA) exploratory excavation shall include all necessary labor, equipment, and materials required to perform exploratory excavations. The unit price shall further include full compensation for maintaining traffic, furnishing barricades, warning signals, lights, and flagmen. Any and all site restoration and clean-up work shall be included in the unit price. Topsoil removed from the immediate site and reused will not be considered for payment.

11. SPECIFICATION NO. 344116.10, UNIT PRICE FOR TRAFFIC CONTROL:
MEASUREMENT:

- a) Devices: The quantity to be paid under this item shall be lump sum for the construction, maintenance, and removal of temporary traffic control devices required for maintenance of traffic during construction.
- b) Police Officer: The quantity to be paid under this item shall be the actual number of hours (HR) worked by Police Officer(s) to direct traffic outside the immediate construction area.

PAYMENT:

- a) Devices: The Unit Prices Bid lump sum (LS) shall include the furnishing of all materials, tools, equipment, and labor, necessary to complete the Work as specified, as indicated on the Drawings, or as directed by the Engineer or GCDWR.
- b) Police Officer: The Unit Prices Bid per hour (HR) shall include the use of Police Officer(s) to direct traffic to be paid at the rate of \$55.00 per hour for the actual number of hours worked by Police Officer(s) (*with a two (2)-hour minimum*), necessary to complete the Work as specified, as indicated on the Drawings, or as directed by the Engineer or GCDWR. The \$55.00 per hour cost shall be a fully loaded cost. This cost shall also include all tools and equipment necessary to complete the Work.

12. SPECIFICATION NO. 312500, UNIT PRICE FOR EROSION AND SEDIMENTATION CONTROLS:

MEASUREMENT: The quantity to be paid under this item shall be as indicated for each Best Management Practice (BMP) actually installed as specified, as indicated on the Drawings, as directed by the Engineer, or as directed by GCDWR.

PAYMENT: The Unit Prices Bid shall include all labor, materials, tools, and equipment necessary for furnishing, placing, maintaining, and removing each BMP, as applicable; all costs for inspection, monitoring, and reporting on the erosion and sedimentation controls. There will be no separate payment for installation or maintenance of construction exit(s), interceptor, diversion, or perimeter dikes or ditches.

- a. Anionic Polyacrylamide – PAM (Pm): Payment shall be the actual number of gallons (GAL) of undiluted chemical utilized; or if (PAM) “logs” are utilized, payment shall be the actual number of (PAM) “logs” installed.

- b. Hay Bales (Sd1): Payment shall be for each (EA) hay bale actually installed.
 - c. Temporary Silt Fence Type 'A' (Sd1): Payment shall be the actual number of linear feet (LF) installed. No payment will be made for silt fence required to be reinstalled for any reason.
 - d. Temporary Silt Fence Type 'C' (Sd1): Payment shall be the actual number of linear feet (LF) installed. No payment will be made for silt fence required to be reinstalled for any reason.
 - e. Inlet Sediment Trap (Sd2): Payment shall be for each (EA) number of inlet sediment traps actually installed.
 - f. Slope Stabilization (Ss): Payment shall be for the square yards (SY) of matting or netting actually installed. No payment shall be made for maintenance of matting or netting.
 - g. Stone Check Dam (Cd-S): Payment for shall be for each (EA) stone check dam actually installed.
 - h. Riprap (St): Payment shall be for square yards (SY) actually installed.
 - i. Straw or Hay Mulch (Ds1): Payment shall be per ton (TN) actually installed at the coverage rates specified.
 - j. Temporary Seeding (Ds2): Payment shall be per square yard (SY) of actually planted seed at the coverage rates specified. No payment shall be made for reseeding or maintenance.
13. SPECIFICATION NO. 024211, UNIT PRICE FOR SITE RESTORATION AND REMOVAL OF CONSTRUCTION MATERIAL:
MEASUREMENT: The quantity to be paid under this item shall be lump sum for cleanup and removal of all junk, rubbish, trash, and construction debris.
PAYMENT: The Unit Prices Bid lump sum (LS) shall include all labor, tools, and equipment necessary to complete the Work as specified.
14. SPECIFICATION NO. 017839, UNIT PRICE FOR PROJECT RECORD DRAWINGS:
MEASUREMENT: The quantity to be paid under this item shall be all project record drawings of actual Work installed, complete as specified, submitted, and approved by GCDWR.
PAYMENT: The Unit Prices Bid lump sum (LS) shall include all labor, materials, tools, and equipment necessary to prepare and submit project record drawings of actual Work installed; complete as specified.

15. SPECIFICATION SECTION NO. 331113.05, UNIT PRICE FOR DUCTILE IRON PIPE (WATER):

MEASUREMENT: The quantity to be paid under this item shall be the actual number of linear feet of pipe, by size, furnished and installed or lowered in place.

PAYMENT: The Unit Prices Bid per linear foot (LF) shall include ductile iron pipe and fittings, clearing and grubbing, excavation, borrow, rock excavation, pipe bedding, furnishing and placing of pipe and fittings complete, including all thrust restraints, all concrete work, poly wrap; making all required connections to either active or inactive lines, including wet cut-ins and installation of new service lines where required, service connections; backfilling, testing, and sterilization, including and the furnishing of all labor, materials, tools, and equipment necessary for the proper completion of the Work as specified, as indicated on the Drawings, or as directed by GCDWR.

16. SPECIFICATION NO. 331216, UNIT PRICE FOR WATER UTILITY DISTRIBUTION VALVES:

MEASUREMENT: The quantity to be paid under this item shall be the actual number, size, and type of valves installed or relocated as shown on the Drawings or as directed by GCDWR.

PAYMENT: The Unit Prices Bid per each (EA) valve under this item shall be full compensation for the furnishings, testing, installing and painting of all valves, furnishing and installing valve markers, valve boxes with concrete collars, including pilot valves, sleeves, anchors, gauges, gearing, wrenches, lubricant, brackets, valve operating nut extensions, valve keys, the cutting and plugging of existing mains as required, and other accessories and appurtenances, and the furnishing of all detailed drawings, manuals, labor, superintendents, materials, tools and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR. All necessary earth excavation required for the installation of valves shall be included in this Unit Prices Bid item. The valves specifically included under other items of the contract will be included in the payments made under those items. No additional payment will be made for a valve installation on an existing live main requiring a Wet Cut-In.

17. SPECIFICATION SECTION NO. 331216.10, UNIT PRICE FOR AIR RELEASE AND VACUUM VALVES – WATER (NEW INSTALLATION):

MEASUREMENT: The quantity to be paid under this item shall be based on the actual number, size, and type of valves installed as shown on the Drawings, or as directed by GCDWR.

PAYMENT: The Unit Prices Bid per each (EA) air and vacuum valve under this item shall include the furnishing of all materials for properly constructing the installation complete; including: manhole base or vault, riser and slab top, frames and covers or hatch, concrete, excavation, bedding, foundation cushion, air and vacuum valve, isolation valve, galvanized steel piping, brass blow-off valve, double strap service saddle, rubber hose with quick disconnect, and the furnishing of all labor, tools, and equipment necessary to complete the Work as specified, as

indicated on the Drawings, or as directed by GCDWR. No additional payment will be made for a valve installation on an existing live main requiring a Wet Cut-In.

18. SPECIFICATION SECTION NO. 331216.10, UNIT PRICE FOR AIR RELEASE AND VACUUM VALVES – WATER (RELOCATED):

MEASUREMENT: The quantity to be paid under this item shall be based on the actual number, size, and type of valves relocated as shown on the Drawings or as directed by GCDWR.

PAYMENT: The Unit Prices Bid for each (EA) air and vacuum valve under this item shall be the furnishing of all materials for the proper relocation of an existing air release and vacuum valve utilizing all reusable components, and the furnishing of all labor, tools, and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR. No additional payment will be made for a valve installation on an existing live main requiring a Wet Cut-In.

19. SPECIFICATION NO. 330516.13, UNIT PRICE FOR PRECAST CONCRETE VAULTS:

MEASUREMENT: The quantity to be paid under this item shall be the actual number of precast concrete vaults installed as shown on the Drawings or as directed by GCDWR.

PAYMENT: The Unit Prices Bid per each (EA) precast concrete vault shall include all necessary tools, equipment, labor and materials to complete the Work.

20. SPECIFICATION SECTION NO. 330516.13, UNIT PRICE FOR ADJUSTING/MODIFYING VAULT TOPS:

MEASUREMENT: The quantity to be paid under this item shall be the actual number of vault tops adjusted, modified, or replaced as specified, as indicated on the Drawings, or as directed by GCDWR. Adjustments utilizing riser sections shall be paid per vertical foot of riser installed. All salvaged manhole frame and covers are to be returned to GCDWR

PAYMENT: The Unit Prices Bid for each (EA) vault top adjustment, modification, or replacement shall include all necessary tools, equipment, labor and materials to complete the Work.

21. SPECIFICATION NO. 331219, UNIT PRICE FOR WATER UTILITY DISTRIBUTION FIRE HYDRANTS:

MEASUREMENT: The quantity to be paid per each fire hydrant shall be the number actually installed as shown on the Drawings or as directed by GCDWR.

PAYMENT: The Unit Prices Bid for each (EA) fire hydrants shall include excavation, furnishing hydrants, placing to correct horizontal alignment and vertical elevation, connecting to existing main, backfill, testing, and shop and field painting of all fire hydrants; complete with all accessories, appurtenances,

restraint, gravel, concrete, and hydrant wrenches; and the furnishing of all labor, superintendents, materials, tools, and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR. Connecting pipe and fittings will be paid for under the bid item titled Ductile Iron Pipe: (Water). Gate valves will be paid under bid item titled Water Utility Distribution Valves.

22. SPECIFICATION NO. 331219.81, UNIT PRICE TO RELOCATE OR RECONNECT FIRE HYDRANTS

MEASUREMENT: The quantity to be paid under this item shall be based on the actual number of existing hydrants that have been relocated or reconnected as shown on the Drawings or as directed by GCDWR.

PAYMENT: The Unit Prices Bid for relocating or reconnecting each (EA) fire hydrant shall include excavation, disconnecting from, plugging and blocking, or connecting openings in existing mains, cleaning and reworking hydrants and valves removed from the existing water system, and relocating, setting, connecting all hydrants and gate valves to the new mains, complete with all accessories, appurtenances, restraint, gravel, concrete, and hydrant wrenches, and furnishing all labor, superintendents, equipment, materials, and tools necessary to complete the Work as specified, indicated on the Drawings, or as directed by GCDWR.

Gate valves will be paid under the bid item titled Water Utility Distribution Valves.

Additional ductile iron pipe and fittings will be provided and paid under the item titled Ductile Iron Pipe: (Water).

23. SPECIFICATION NO. 331219.81, UNIT PRICE TO ADJUST EXISTING FIRE HYDRANTS:

MEASUREMENT: The quantity to be paid under this item shall be the actual number of vertical feet of adjusted fire hydrants as specified, as indicated on the Drawings, or as directed by GCDWR.

PAYMENT: The Unit Prices Bid per vertical foot (VF) for each fire hydrant shall include excavation, backfill, adjusting gate valve, complete with all accessories, appurtenances, restraint, gravel, concrete, and hydrant wrenches, and furnishing all labor, superintendents, equipment, materials, tools, and equipment necessary to complete the Work specified.

Additional ductile iron pipe and fittings will be provided and paid under the item titled Ductile Iron Pipe: (Water).

24. SPECIFICATION SECTION 331219.81, UNIT PRICE FOR SALVAGE EXISTING FIRE HYDRANT:

MEASUREMENT: The quantities to be paid under this item shall be the actual number of existing fire hydrant(s) removed, transported, and delivered to a location specified by GCDWR.

PAYMENT: The Unit Prices Bid for each (EA) salvaging fire hydrant(s) shall include the furnishing of all materials, labor and equipment for excavation, bedding, disconnecting from, plugging and blocking, or connecting openings in existing mains, backfilling, landscape repairs, transporting and delivery of the complete fire hydrant(s) to a location specified by GCDWR. Removal of hydrant valves shall not be measured for payment under any other Bid Item.

25. SPECIFICATION NO. 331213, UNIT PRICE TO SALVAGE EXISTING METERS:

MEASUREMENT: The quantities to be paid under this item shall be the actual number of existing meters salvaged as indicated on the Drawings or as directed by GCDWR.

PAYMENT: The Unit Prices Bid for each (EA) salvage existing meter(s) under this item shall include the excavation, backfilling, landscape repairs, the furnishing of all labor, materials, tools, and equipment to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR. Payment shall include transporting and delivery of meter(s) to a location specified by GCDWR. Salvaging existing meter(s) shall not be measured for payment under any other Bid Item.

26. SPECIFICATION NO. 312300, UNIT PRICE FOR ADDITIONAL PIPE BEDDING:

MEASUREMENT: The quantity to be paid under this item shall be the actual number of cubic yards of additional bedding material placed as specified, or as directed by GCDWR and not shown on the Drawings,

PAYMENT: The Unit Prices Bid per cubic yard (CY) of additional bedding material include any additional permit fees, maintenance charges and inspection fees required by all road departments and the furnishing of all labor, materials, tools, traffic control and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR. Included shall be the cost of additional excavation beyond trench depth to provide firm foundation and any cost of furnishing necessary work beyond the limits of measurement as defined under these specifications. Payment will not be made when bedding material is used by the Contractor due to over excavation or for the Contractor's convenience.

27. SPECIFICATION SECTION NO. 333100, UNIT PRICE FOR SANITARY UTILITY SEWERAGE PIPING (GRAVITY PVC):

MEASUREMENT:

- a. Service connections shall be measured from the centerline of the main to the end of the house connection. Stubs placed in manholes shall be measured from the center of the manhole to the end of the stub, as indicated on the Drawings. Sewer connecting to existing stubs at manholes shall be measured from the end of the existing stub.
- b. The quantity to be paid for under this item shall be the number of linear feet

of each size of PVC pipe actually furnished and laid in accordance with the specifications, measured along a horizontal line after the pipe has been connected in place. Measurements shall be from center of manhole to center of manhole. No deductions or additions will be made for PVC Tee or Wye fittings, elbow bends or specials. No deductions will be made for manholes.

PAYMENT:

- a. The Unit Prices Bid per linear foot (LF) for service connections under this item shall include excavating, Tee or Wye fitting, plugs, mastic fillers, pipe bedding and other appurtenances for making connections to sewers, backfilling, electronic markers, testing and inspections, and the furnishing of all labor, materials, tools, and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR.
- b. The Unit Prices Bid per linear foot (LF) for the various sizes of PVC, pipe and specials under this item shall include clearing and grubbing, excavating, rock excavation, [pipe bedding, furnishing and placing of pipe complete with Tee or Wye fittings, elbow bends, jointing materials, mastic fillers, stoppers, concrete work, and other appurtenances; making connections to either active or inactive lines, all service connections, manhole repair for any damaged manholes in the course of the work, backfilling, graded aggregate base backfill when under paved roads, testing and inspections, and the furnishing of all labor, materials, tools, and equipment necessary to complete the Work as specified, as indicated on the Drawings, or directed by GCDWR.

28. SPECIFICATION SECTION NO. 333100, UNIT PRICE FOR SANITARY UTILITY SEWERAGE PIPING (GRAVITY DIP):

MEASUREMENT: The quantity to be paid under this item shall be the actual number of linear feet of pipe, by size, furnished and installed or lowered in place.

PAYMENT: The Unit Prices Bid per linear foot (LF) shall include ductile iron pipe and fittings, clearing and grubbing, as well as, the clearing and preparation of any areas used for storage or for fabrication of materials; television inspection of the existing sewer lines, cleaning of the existing sewer lines, manhole repair for any damaged manholes in the course of the work; excavation, borrow, rock excavation, pipe bedding, furnishing and placing of pipe and fittings complete, including all thrust restraints, or with jointing materials mastic fillers; all concrete work, poly wrap; making all required connections to either active or inactive lines, including service connections; backfilling as shown on the Drawings, testing, including furnishing of all labor, materials, tools, and equipment necessary for the proper completion of the Work as specified, as indicated on the Drawings, or as directed by GCDWR.

29. SPECIFICATION SECTION NO. 333100, UNIT PRICE FOR SANITARY UTILITY SEWERAGE PIPING (FORCE MAINS DIP):

MEASUREMENT:

- a. The quantity to be paid under this item shall be the number of linear feet of each size, actually furnished and laid in accordance with these specifications, measured along a horizontal line after the pipe has been connected in place. The number and size of wet cut-ins paid shall be the actual number installed.
- b. The number and size of plug valves shall be the actual number installed.

PAYMENT:

- a. The Unit Prices Bid per linear foot (LF) for the various sizes of pipe and fittings under this item shall include: clearing and grubbing, excavation, borrow, rock excavation, pipe bedding, furnishing and placing of pipe and fittings complete, including all thrust restraints, all concrete work, poly wrap, painting of non-potable pipe lines, installation of Carsonite markers for non-potable pipe lines, and other appurtenances making all required connections, backfilling, graded aggregate base backfill when under paved roads, testing, and inspections and the furnishing of all labor, materials, tools, and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR.
- b. The Unit Prices Bid for each (EA) wet cut-in shall be full compensation for all necessary tools, equipment, labor, pumping, disposal, material and fittings to complete the Work.
- c. The Unit Prices Bid for each (EA) plug valve shall be full compensation for all necessary tools, equipment, labor, material and fittings, valve boxes and valve markers, and related appurtenances to complete the Work. Installation of plug valves on existing force mains containing sewage shall also include payment for one (1) wet cut-in.

30. SPECIFICATION NO. 331113.07, UNIT PRICE FOR STEEL PIPE:

MEASUREMENT: The quantity to be paid under this item shall be the actual number of linear feet of pipe, by size, furnished and installed.

PAYMENT: The Unit Prices Bid per linear foot (LF) shall include steel pipe, clearing and grubbing, excavation, borrow, rock excavation, pipe bedding, poly wrap, welding; making all required connections to either active or inactive lines; backfilling, testing and sterilization, and the furnishing of all labor, materials, tools, and equipment necessary for the proper completion of the Work as specified, as indicated on the Drawings, or as directed by GCDWR.

31. SPECIFICATION SECTION NO. 330516.13, UNIT PRICE FOR PRECAST CONCRETE UTILITY STRUCTURES:

MEASUREMENT:

- a. Standard diameter (48") manholes to be paid under this item shall be the total number of vertical feet of manhole base, riser(s), and cone or slab top placed, as measured between the inside invert of the downstream sewer pipe to the top of the ring and cover. All measurements shall be to the nearest one-tenth (0.1) foot.

- b. Large diameter (60", 72", 84" and 96") manholes to be paid under this item shall be the actual number installed of each size base - including the reducer slab. The vertical feet of 48" manhole riser(s) and cone or slab top placed, as measured between the top of the reducer slab to the top of the ring and cover, shall be paid under Standard diameter (48") manholes.
- c. Frames and covers to be paid under this item for "traffic" and "bolt down" type frames and covers shall be the actual number of manhole frames and covers installed, including all necessary tools, labor and equipment required to complete the Work.
- d. Outside drops to be paid under this item shall be the actual number of outside drops installed. Payment for the manhole shall be paid under the items for manholes described above in items a. or b.
- e. Cores to be paid under this item shall be the actual number of manhole cores made, complete with a flexible manhole boot installed, including all necessary tools, labor and equipment required to complete the Work in accordance with these specifications.
- f. Adjustment of frame and cover to be paid under this item shall be the actual number of frames and covers adjusted.

PAYMENT:

- a. The Unit Prices Bid per vertical foot (VF) of Standard Diameter (48") manhole shall be the total number of vertical feet installed of manhole base, riser(s), and cone or slab top placed, as measured between the inside invert of the downstream sewer pipe to the top of the ring and cover. All measurements shall be to the nearest one-tenth (0.1) foot.
- b. The Unit Prices Bid for each (EA) Large Diameter (60", 72", 84" and 96") manhole shall be the actual number installed of each size base - including the reducer slab. The vertical feet of (48") manhole riser(s) and cone or slab top placed, as measured between the top of the reducer slab to the top of the ring and cover, shall be paid under Standard Diameter (48") manhole item described above in item a.
- c. The Unit Prices Bid for each (EA) frame and cover for "traffic" and "bolt down" type shall be the actual number of manhole frame and cover installed, including all necessary tools, labor and equipment required to complete the Work.
- d. The Unit Prices Bid for each (EA) outside drop shall be the actual number of outside drops installed. Payment for the manhole shall be paid under the items for manholes described above in items a. or b.
- e. The Unit Prices Bid for each (EA) core shall be the actual number of manhole cores made, complete, with a flexible manhole boot installed; including all necessary tools, labor and equipment required to complete the Work in accordance with these specifications.
- f. The Unit Prices Bid for each (EA) adjustment of frame and cover shall be the actual number of frame and cover adjusted.

32. SPECIFICATION SECTION NO. 330130.71, UNIT PRICE FOR MANHOLE INVERT REHABILITATION:

MEASUREMENT: The quantity to be paid under this item shall be the actual number of manhole inverts rebuilt.

PAYMENT: The Unit Prices Bid for each (EA) manhole invert rehabilitation shall include all necessary tools, equipment, labor and materials to complete the Work.

33. SPECIFICATION SECTION NO. 330130.72, UNIT PRICE FOR RELINING SEWERS:

MEASUREMENT: The quantity to be paid under this item shall be the number of linear feet of each size actually furnished, and measured along the horizontal line, after the liner has been sealed in the connecting manholes. Measurement shall be from center of manhole to center of manhole.

PAYMENT: The Unit Prices Bid per linear foot (LF) for each size liner installation shall include the access to the site, clearing of the site of the Work, as well as the clearing and preparation of any areas used for storage or for fabrication of materials; television inspection of the existing sewer lines, cleaning of the existing sewer lines, manhole repair for any damaged manholes in the course of the work, excavation, bedding material, furnishing and installing of pipe lining complete with jointing materials, mastic fillers, and other appurtenances; making connections to manhole and other sewers, reopening of service connections, testing, and inspections; and the furnishing of all labor, materials, tools, and equipment necessary to complete the work. The unit price shall further include full compensation for furnishing barricades, warning signals, and lights.

34. SPECIFICATION SECTION NO. 330130.73, UNIT PRICE FOR PIPE BURSTING:

MEASUREMENT:

- a. The quantity to be paid under this item shall be the number of linear feet of each size actually furnished and installed, as measured along the horizontal line between connecting manholes. Measurement shall be from center of manhole to center of manhole.
- b. The number of service connections to be paid shall be the actual number installed.

PAYMENT:

- a. The Unit Prices Bid per linear foot (LF) for each size of pipe bursting under this item shall include the access to the site, clearing of the site of the Work, as well as the clearing and preparation of any areas used for storage or for fabrication of materials; television inspection of the existing sewer lines, cleaning of the existing sewer lines, manhole repair for any damaged manholes in the course of the work, excavation, furnishing and installing of pipe complete with jointing materials mastic fillers, and other appurtenances, backfilling, testing, and inspections, and the furnishing of all labor, materials, tools, and equipment necessary to complete the Work.

- b. The Unit Prices Bid per linear foot (LF) for connections to manhole and other sewers, locating and reconnecting house service connections, backfilling, testing, and inspections, and the furnishing of all labor, materials, tools, and equipment necessary to complete the Work.
35. SPECIFICATION SECTION NO. 331216.12, UNIT PRICE FOR AIR AND VACUUM VALVES – SEWER (NEW INSTALLATION):
MEASUREMENT: The quantity to be paid under this item shall be the actual number, size, and type of valves installed as shown on the Drawings, or as directed by GCDWR.

PAYMENT: The Unit Prices Bid per each air and vacuum valve under this item shall include the furnishing of all materials for properly constructing the installation complete; including: manhole base or vault, riser and slab top, frames and covers or hatch, concrete, excavation, bedding foundation cushion, air and vacuum valve, isolation valve, galvanized steel piping, brass blow-off valve, double strap service saddle, rubber hose with quick disconnect, and the furnishing of all labor, tools, and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR.
36. SPECIFICATION SECTION NO. 331216.12, UNIT PRICE FOR AIR AND VACUUM VALVES – SEWER (RELOCATED):
MEASUREMENT: The quantity to be paid under this item shall be the actual number, size, and type of valves relocated as shown on the Drawings, or as directed by GCDWR.

PAYMENT: The Unit Prices Bid for each air and vacuum valve under this item shall be the furnishing of all materials for the proper relocation of an existing air release and vacuum valve utilizing all reusable components, and the furnishing of all labor, tools, and equipment necessary to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR.
37. SPECIFICATION NO. 330130.74, UNIT PRICE FOR BYPASS PUMPING:
MEASUREMENT: The quantity to be paid under this item shall be the actual number of hours of bypass pump run time during pumping operations.

PAYMENT: The Unit Prices Bid shall include all labor, materials, tools, equipment and monitoring personnel required to complete the Work as specified.
38. SPECIFICATION SECTION NO. 024119.81, UNIT PRICE FOR SEPTIC TANK DEMOLITION:
MEASUREMENT: The quantity to be paid under this item shall be the actual number of septic tanks authorized by GCDWR to be demolished. There will be no additional payment for backfilling, pumping, and disposal of septic tank contents.

PAYMENT: The Unit Prices Bid for each septic tank demolition shall include all necessary tools, equipment, labor and materials to complete the Work as specified, as indicated on the Drawings, or as directed by GCDWR.

END OF SECTION 01 22 15.11

LENNA DRIVE - GWINNETTE COUNTY - BID TENDER PACKAGE - PLAN TAKERS

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