

DOCUMENT 00405

MEASUREMENT AND PAYMENT

A. MEASUREMENT AND PAYMENT:

1. Measurement of completed Work Items shall be made in individual unit price or as a lump sum item.
2. Payment for completed Work items shall be made at the unit price or lump sum bid price as contained in the "Bid Proposal", for the item. Payment will include all costs associated in furnishing labor, tools, equipment, materials, testing, etc.

Payment shall be for completed Work, as specified, and as indicated in the Contract Documents or on the Drawings.

B. BID ITEM – DESCRIPTION OF WORK AND PAYMENT:

Bid Item 1. Mobilization.

Mobilization shall include the costs for all preparatory work and operations, such as movement of personnel, supplies and incidental items to the project site; establishment of all facilities necessary for work on the project; furnishing, erecting and maintaining construction signs and barricades, preparing employee notification boards; daily sweeping/cleaning roadways and/or project site; and all other work and operations which must be performed or costs incurred prior to beginning work on the project or during work on the project.

Includes the costs associated with obtaining and submitting all bonds and insurance forms required by the Owner.

The contractor shall ensure that all trees and vegetation within the project area are protected from any damage. Trees and shrubs shall be pruned by a licensed tree specialist as required.

Payment includes all costs associated for the Contractor to locate all underground utilities, contacting Blue Stakes and coordinating with all utilities prior to laying pipe within 200 feet of said utilities which may be exposed, damaged or crossed as shown on the drawings or as identified by Blue Stakes marking. Payment includes all cost associated for the Contractor to coordinate with the utility company to move or support the utility as necessary.

Utilities to be located will include, but not limited to, existing storm drain systems, existing irrigation systems (piped and ditches), existing natural gas main

lines and service lines, existing telephone cables, fiber optic lines, existing water lines and existing power lines. Includes the placement of steel traffic plates as required for coordination with the utility companies.

No additional payment shall be made for “downtime” associated with delays required to coordinate and resolve utility conflicts, utility relocation, and project design modifications as required.

The contractor shall obtain all right-of-access permission to enter upon private property to perform the necessary work and shall restore all private property to pre-construction conditions or better.

The contractor shall assume the sole and complete responsibility for the job site conditions during the course of construction of the project, including the safety of all persons and property. This requirement shall apply continuously and not be limited to normal working hours. This requirement includes maintaining reasonable daily access to the individual residences and business during the daily construction period and unrestricted access during non-work times, including evenings, weekends and holidays.

Payment shall be at a lump sum bid price and shall be paid as follows: Payment of 75% with the 1st payment request and the remaining 25% with the final payment request.

Bid Item 2. Traffic Control.

Traffic control & flagging shall include all costs associated with the construction of the waterline improvement project. The contractor shall provide qualified personnel & equipment to perform all required traffic control around the site as per the Manual on Uniform Traffic Control Devices for Streets & Highways (MUTCD) specifications. The roadway is to remain open to local traffic at all times, with at least one (1) roadway lane available for traffic.

Payment shall be at a lump sum bid price and shall be paid as follows: Payment of 75% with the 1st payment request and the remaining 25% with the final payment request.

Bid Item 3. Storm Water Pollution Prevention Plan (SWPPP).

The contractor shall include all costs associated with storm water pollution prevention plans (SWPPP), obtaining permits from the State of Utah (Notice of Intent and Notice of Termination), installation of best management practices (BMP's) required by the SWPPP, maintaining the SWPPP and all other items associated with the SWPPP throughout the duration of the project. The SWPPP provided within the documents are for suggestion only, and the contractor is responsible for developing and maintaining his own plan. The Contractor shall

assume all responsibility and liability associated with his SWPPP.

Shall include all work required to maintain environmental control (24-hours) as required. Shall include all work required to maintain dust control (24-hours) as required.

Payment shall be at a lump sum bid price and shall be paid as follows: Payment of 75% with the 1st payment request and the remaining 25% with the final payment request.

Bid Item 4. Saw cutting, removal and disposal of asphalt surfacing.

Includes all related asphalt, saw-cutting asphalt (asphalt depths may vary); and removing and disposing of asphalt, payment of all disposal fees; and all other appurtenant work, complete.

Includes staking the HAFB Mag markers located in the pavement being removed, salvaging or acquiring new markers, and replacing the markers after the pavement has been replaced.

Payment shall be at a lump sum of asphalt surfacing saw cut, removed, and disposed, complete.

Bid Item 5. Removal and disposal of existing curb and gutter.

Includes all related earthwork; saw-cutting existing curb and gutter, as required and as directed by the City and or Engineer; breaking up and removing of existing concrete curb and gutter to the limits indicated; removing and disposing of curb and gutter pieces and sections; complete removing and disposing of excess and unsuitable materials to provide proper connections to new work; payment of all disposal fees; and all other appurtenant work, complete.

Payment shall be at a unit bid price for each linear foot of curb and gutter removed and disposed, complete.

Bid Item 6. Removal and disposal of existing concrete flatwork 4-inch thick.

Includes all related earthwork; saw-cutting concrete, as required; removing and disposing of concrete flatwork, including sidewalks and concrete in park strips (thickness may vary); removing and disposing of excess and unsuitable material to provide proper connections to the new work; and all other appurtenant work, complete.

- a. Saw cutting as required to remove the concrete flatwork, while protecting abutting improvements, is included in this pay item.

- b. The City and/or Engineer will mark all concrete flatwork to be removed.
- c. Contractor and Engineer shall field measure all concrete flatwork to be removed prior to removal.
- d. Four-inch-thick concrete is the existing sidewalk, concrete areas in the planter strip, etc.

Payment shall be at the unit bid price for each square foot of concrete flatwork, 4 inch removed and disposed of, complete.

Bid Item 7. Removal and disposal of existing concrete flatwork 6-inch thick.

Includes all related earthwork; saw-cutting concrete, as required; removing and disposing of concrete flatwork, including concrete driveway sections, driveway approaches, concrete in park strips (thicknesses may vary); removing and disposing of excess and unsuitable material to provide proper connections to the new work; and all other appurtenant work, complete.

- a. Saw cutting as required to remove the concrete flatwork, while protecting abutting improvements, is included in this pay item.
- b. The City and/or Engineer will mark all concrete flatwork to be removed.
- c. Contractor and Engineer shall field measure all concrete flatwork to be removed prior to removal.

Payment shall be at the unit bid price for each square foot of concrete flatwork 6 inches removed and disposed of, complete.

Bid Item 8. Removal and disposal of existing concrete waterway.

Includes all related earthwork; saw-cutting concrete; removing and disposing of concrete waterway; removing and disposing of roadbase and debris, excess and unsuitable material to provide proper connections to the proposed work; and all other appurtenant work, complete.

Payment shall be at the unit bid price of each square foot of the concrete waterway removed and disposed of, complete.

Bid Item 9. Remove and salvage fire hydrant.

Includes all related earthwork including excavating, backfilling and compacting; removing and salvaging of the existing fire hydrant; returning salvaged hydrants

to the City; removing and disposing of piping; capping and sealing abandoned pipes or supply pipeline; removing and disposing of excess and unsuitable materials to provide proper connections to the new work; and all other appurtenant work, complete.

Payment shall be by the unit bid price for each fire hydrant removed and salvaged, complete.

Bid Item 10. Furnish and install 8-inch diameter C-900 DR-18 pvc culinary waterline.

Includes all related earthwork; excavating trenches to the required depths; backfilling and compacting materials in trenches including pipe bedding and trench backfill; dewatering as required; furnishing and installing C-900, DR-18 pvc culinary waterline piping, installing detectable wire and location marking tape, installing fittings, (tees, bends, sleeves, reducers, caps, plugs and restrained joint fittings not specified in other bid items), and accessories; pressure testing of new waterline; chlorinating, disinfecting, and flushing of the new waterline; and all other appurtenant work, complete.

- a. Excavated trench materials shall be required to be re-used as backfill if the materials meet specifications and are approved by the Engineer.
- b. Includes locating utilities to determine conflicts and installing waterline to avoid said conflict.
- c. Includes all related costs to locate all utilities ahead of the construction and to provide support for the utility during the installation of the waterline.
- d. Bedding and trench fill material are paid under the bid items to furnish those materials.

Payment shall be by the unit bid price for each linear foot of 8-inch diameter culinary waterline furnished and installed, complete.

Bid Item 11. Furnish and install 8-inch gate valve.

Includes furnishing and installing an 8-inch gate valve with restrained joints, valve box and cover, thrust blocks and all appurtenances as noted on drawings.

Payment shall be by the unit bid price for each 8-inch gate valve furnished and installed, complete.

- Bid Item 12. Furnish and install 8-inch diameter 45-degree bend.**
Bid Item 13. Furnish and install 8-inch diameter 22.5-degree bend.
Bid Item 14. Furnish and install 8-inch diameter 11.25-degree bend.

Includes all related earthwork; excavating, backfilling, and compacting materials in trenches; pipe bedding and trench backfill; dewatering as required; furnishing and installing restrained joint fittings, concrete thrust blocks and accessories, and all other appurtenant work, complete.

- a. Excavated trench materials may be re-used as backfill if the materials meet specifications.
- b. Waterline pipe, bedding and trench backfill shall be paid in the appropriate bid item.

Payment shall be by the unit bid price for each 8-inch diameter 45, 22.5, and 11.25 degree bend respectively furnished and installed, complete.

Bid Item 15. Furnish and install fire hydrant.

Includes all related earthwork including excavating, backfilling and compacting; furnishing and installing the new fire hydrant, 6-inch diameter C-900 pvc DR-18 piping from mainline to the fire hydrant, 6-inch diameter gate valve, valve box and cover, restrained joint fittings, 8"x8"x6"-Tee, drainage rock and concrete thrust blocks; connecting the 6-inch diameter supply line to the new waterline with appropriate fittings; concrete slab for breakaway fire hydrant per detail; and all other appurtenant work, complete.

Bedding and trench fill materials are paid under the bid items to furnish those materials.

Payment shall be by the unit bid price for each fire hydrant furnished and installed, complete.

Bid Item 16. Furnish and install a fire hydrant at Sta. 16+07.

Includes all related earthwork including excavating, backfilling and compacting; furnishing and installing the new fire hydrant, 8" to 6" reducer, 6-inch diameter C-900 pvc DR-18 piping from mainline to the fire hydrant, 6-inch diameter gate valve, valve box and cover, restrained joint fittings, 8" bend at the mainline as needed (to be paid under bend bid item), drainage rock and concrete thrust blocks; connecting the 6-inch diameter supply line to the new waterline with appropriate fittings; concrete slab for breakaway fire hydrant per detail; and all other appurtenant work, complete.

This fire hydrant is located at the end of the cul-de-sac at Sta. 16+07.

Bedding and trench fill materials are paid under the bid items to furnish those materials.

Payment shall be by the unit bid price for fire hydrant at Sta. 16+07 furnished and installed, complete.

Bid Item 17 through 21. Construct waterline connections.

Includes all related earthwork including excavating, backfilling, and compacting; locating existing pipes; saw-cutting pipes as required; furnishing and installing all associated piping, pipe fittings (bends, tees, crosses, sleeves, reducers, etc.), restrained joint fittings and concrete thrust blocks; disconnecting waterline and fittings, capping and abandoning waterlines, removing old valve boxes & valves and fill with concrete, road base and asphalt as required; and all other appurtenant work, complete.

Bedding and trench fill material is still paid under the bid items to furnish the materials.

Includes 24 – hour (minimum) **mandatory notification** to the affected residences and businesses prior to the water shutoff.

Bid Item 17. Waterline connection at Sta: 0+09.04 RT 5.00'.

Connect the new 8-inch waterline to the existing 8-inch waterline. Install all mechanical joints, restraints, and thrust blocks as required to make the connection per the drawings, and all other appurtenant (2) fittings, complete.

Payment shall be at a lump sum bid price, complete.

Bid Item 18. Waterline connection at Sta: 3+11.93 RT 3.50'.

Connect new 8-inch waterline; install one (1) 8" x 8" x 8" tee; (3) 8" gate valves (to be paid under the appropriate bid item). Install all mechanical joints, restraints, and thrust blocks as required to make the connection per the drawings, and all other appurtenant fittings, complete.

Payment shall be at a lump sum bid price, complete.

Bid Item 19. Waterline connection at Sta: 3+16.85 LT 62.39'.

Connect the new 8-inch waterline to the existing (2) 6-inch waterline. Install all mechanical joints, 8"x6" reducer, restraints, and thrust blocks as required to

make the connection per the drawings, and all other appurtenant fittings, complete.

Payment shall be at a lump sum bid price, complete.

Bid Item 20. Waterline connection at Sta: 12+09.49 RT 5.44'.

Connect new 8-inch waterline; install one (1) 8" x 8" x 8" tee; (3) 8" gate valves (to be paid under the appropriate Bid Item). Install all mechanical joints, restraints, and thrust blocks as required to make the connection per the drawings, and all other appurtenant fittings, complete.

Payment shall be at a lump sum bid price, complete.

Bid Item 21. Waterline connection at Sta: 12+32.28 LT 43.78'.

Connect the new 8-inch waterline to the existing 6-inch waterline. Install all mechanical joints, 8"x6" reducer, restraints, and thrust blocks as required to make the connection per the drawings, and all other appurtenant (2) fittings, complete.

Payment shall be at a lump sum bid price, complete.

Bid Item 22. Furnish and install 3/4" water service lateral piping.

Bid Item 23. Furnish and install 1" water service lateral piping.

Bid Item 24. Furnish and install 2" water service lateral piping.

Includes all related earthwork; excavating trenches to the required depths; backfilling and compacting materials in trenches including pipe bedding and trench backfill; installing detectable wire and location marking tape, dewatering as required; furnishing and installing 3/4" or 1" or 2" cts blue poly DR-9 waterline piping, fittings, and accessories; from the new water main to the water meter; removing and disposing of the old water service lateral piping; and all other appurtenant work, as directed by the City and or Engineer, complete.

- a. Excavated trench materials shall be required to be reused as backfill if the materials meet specifications and is approved by the City and or Engineer.
- b. Includes all associated work to notify of water shut-down, flush, and or repair the existing culinary water residential/commercial service facilities, as required, complete. Includes all necessary labor and material to flush and clear all debris that may collect in faucet aerators of the private property owners, or the pressure reducing valve screens or similar equipment items.

- c. The 1-inch services are in the cul-de-sac.
- d. The 2-inch service is located by the church.
- e. Excavated trench materials shall be reused if they meet specifications and are approved by the Engineer and the City.

Payment shall be by the unit bid price for each linear foot of ¾" or 1" or 2" cts blue poly DR-9 water service lateral piping furnished and installed, complete.

Bid Item 25. Furnish and install 3/4" water meter assembly.

Bid Item 26. Furnish and install 1" water meter assembly.

Bid Item 27. Furnish and install 2" water meter assembly.

Includes all labor and materials to salvage and replace the existing water meter and parts, including: setter/yoke, angle dual check valve, locking angle meter valve, and expansion nut with new water meter components as per the drawings and specifications.

- a. The 1-inch services are located at Sta. 15+53, Sta. 15+71 and Sta. 15+81.
- b. The 2-inch service is located at Sta. 0+52.

Payment shall be by the unit bid price for each ¾" or 1" or 2" water meter assembly furnished and installed, complete.

Bid Item 28. Reconnection of 3/4" culinary water service lateral.

Bid Item 29. Reconnection of 1" culinary water service lateral at Sta. 15+68.

Bid Item 30. Reconnection of 2" culinary water service lateral at Sta. 0+51.

Includes all related earthwork including excavating, backfilling and compacting; furnishing and installing new double strap brass saddle and corporation stop, installing the corporation stop on the new saddle; disconnecting the existing service laterals from the existing water main; connecting the new water service lateral pipe to the new corporation stop and the meter; disassembling and reconnecting the water meter as required; removing and reinstalling the meter box new or old as required, and all other appurtenant work, complete.

Contractor to reinstall the existing meter. Contractor is responsible to protect existing meter from damage. If damaged contractor shall replace meter at no cost.

Includes all necessary labor to flush and clear debris that may collect in faucet aerators of the private property owners or the pressure reducing valve screens or similar equipment items.

- a. The 1-inch services are located at Sta. 15+53, Sta. 15+71 and Sta. 15+81
- b. The 2-inch service is located at Sta. 0+52.
- c. Excavated trench materials shall be reused if they meet specifications and are approved by the Engineer and the City.

Payment shall be by the unit bid price for each $\frac{3}{4}$ " or 1" or 2" culinary water service lateral connection made, complete.

Bid Item 31. Furnish the meter box for 3/4" service.

Bid Item 32. Furnish the meter box for 1" service.

Bid Item 33. Furnish the meter box for 2" service.

Includes disposing of existing meter box (if damaged) and furnishing new white PVC meter box as per the drawings. The meter box shall be installed such that the meter lid will match the existing grade and/or as directed by the City or Engineer. The removal and installation labor of the meter box is paid for in the bid item, "Reconnection of the culinary water service lateral."

- a. The 1-inch services are located at Sta. 15+53, Sta. 15+71 and Sta. 15+81
- b. The 2-inch service is located at Sta. 0+52.

Payment shall be by the unit bid price for each meter box $\frac{3}{4}$ " or 1" or 2" furnished, complete.

Bid Item 34. Furnish and install handicap ramp (red in color).

Includes all required earthwork, excavating and saw cutting, compaction and grading for handicap ramps; furnishing, installation and compaction of 6-inch thickness of roadbase materials and 6-inch thickness of concrete, expansion joints, backfilling around any adjoining structures; furnishing and installing the 2-foot x 4-foot detectable warning service device panel with the appropriate color; and all other appurtenant work, complete.

- a. Handicap ramps must comply with current ADA specifications.
- b. Includes concrete flatwork required in front of panel, on each side of the panel up to two (2) feet on each side and behind the panel up to four (4) feet behind the panel.
- c. Handicap ramps shall be installed on all corners of the streets being improved as shown on the contract drawings.
- d. The contractor is strongly encouraged to visit the site and determine the

extent of the required improvements.

- e. **Each handicap ramp is different.**
- f. **Any new concrete vandalized, damaged, marked with graffiti or pitted by rain before it has sufficiently hardened, shall be replaced at the Engineer's discretion with no additional cost to the Owner.**
- g. Placement of the additional curb & gutter and sidewalk improvements required for the handicap ramp shall be paid under the appropriate bid item, and not to be paid as part of this item.

Payment shall be by the unit bid price for each handicap ramp furnish and installed with detectable warning service device placed, as noted above, complete.

Bid Item 35. Furnish and install concrete curb and gutter.

Includes all related earthwork, furnishing, and installing 6-inches of roadbase under the new curb and gutter, compaction of roadbase and fine grading; furnishing and installing concrete curb and gutter; including expansion/contraction joints and radius sections, includes any special troweling for driveways and handicap ramps; barricades to protect new construction; and all other appurtenant work, complete.

- a. Expansion joints shall be placed at all abutments to existing curb and gutter/flatwork, at curb and gutter joints preceding and following driveways, every forty linear feet of curb and gutter constructed, or as directed by the Engineer.
- b. **Any new concrete vandalized, damaged, marked with graffiti or pitted by rain before it has sufficiently hardened shall be replaced at the Engineer's discretion with no additional cost to the Owner.**
- c. The curb and gutter shall be measured through catch basins and driveways.

Payment shall be by the unit bid price for each linear foot of concrete curb and gutter furnished and installed, complete.

Bid Item 36. Furnish and install 4-inch thick concrete flatwork.

Includes all related earthwork; furnishing and installing 4-inch thick roadbase under the flatwork, compaction of roadbase and fine grading; furnishing and installing 4-inch-thick concrete or flatwork; including expansion/contraction joints, barricades to protect new construction; and all other appurtenant work, complete.

- a. Expansion joints shall be placed at all abutments to existing sidewalk/flatwork, at sidewalk joints preceding and following driveways, every forty linear feet of sidewalk constructed, or as directed by the Engineer.
- b. **Any new concrete vandalized, damaged, marked with graffiti or pitted by rain before it has sufficiently hardened shall be replaced at the Engineer's discretion with no additional cost to the Owner.**
- c. The 4-inch-thick concrete is the existing sidewalk, concrete areas in the park strip.

Payment shall be by the unit bid price for each square foot of 4-inch thick concrete flatwork, furnished and installed, complete.

Bid Item 37. Furnish and install concrete flatwork 6-inch thick.

Includes all related earthwork; furnishing and installing 6-inch thick roadbase under the flatwork, compaction of road base and fine grading; furnishing and installing 6 inch thick concrete or flatwork, including expansion/contraction joints, barricades to protect new construction; and all other appurtenant work, complete.

- a. Expansion joints shall be placed at all abutments to existing sidewalk/flatwork, at sidewalk joints preceding and following driveways, every forty linear feet of sidewalk constructed, or as directed by the Engineer.
- b. **Any new concrete vandalized, damaged, marked with graffiti or pitted by rain before it has sufficiently hardened shall be replaced at the Engineer's discretion with no additional cost to the Owner.**
- c. The 6-inch-thick concrete is the driveway approaches and sidewalk through the driveway.

Payment shall be by the unit bid price for each square foot of 6-inch thick concrete flatwork, furnished and installed, complete.

Bid Item 38. Furnish and install hooded catch basin.

Includes all related earthwork including excavating, removal, and disposal of existing curb and gutter; including saw-cutting pipes as required; backfilling, and compacting the sub-base gravel and earth materials under and around a cast-in-place catch basin; doweling rebar in top of box for connection to curb and gutter; furnishing and installing the new hooded frame and grate; connecting all

pipes and sealing all pipe connections, grouting as required; and all other appurtenant work, complete.

Curb and gutter in the location of catch basins shall be paid in the appropriate bid item. All other labor, and materials to place and construct the catch basin shall be included in this bid item unit cost.

Payment shall be by the unit bid price for each hooded catch basin furnished and installed, complete.

Bid Item 39. Furnish and install 15-inch diameter class III RCP stormwater pipe.

Includes furnishing and installation of class III storm water pipe as noted on the drawings and all required fittings, materials, labor, tools, and equipment to complete the required work and ensure proper alignment and elevations. Excavating trenches to the required elevations; removing excess and unsuitable material from the site and disposing of material in an acceptable manner; dewatering as required; backfilling trenches in pipe zone, and backfilling trenches above pipe zone to the required elevations, backfill material in and above the pipe zone; includes hand trimming excavation and all appurtenant work, complete.

- a. Excavated trench materials shall be reused if they meet specifications and are approved by the Engineer and the City.
- b. Includes all costs of air pressure testing of stormwater pipelines as required by the City standards and specifications and as directed by the Engineer. The contractor will be required to inspect the interior of all stormwater pipes by video television recording in the presence of the Engineer. The videotape recording shall be delivered to the Engineer upon completion. The pipeline must be cleaned prior to the videotaping. The video shall be provided to the engineer for approval a minimum of 5 days prior to paving.
- c. Bedding and trench fill materials are paid under the bid items to furnish those materials.

Payment shall be by the unit bid price for each linear foot of class III RCP stormwater pipe furnished and installed, complete.

Bid Item 40. Furnish 3/4-inch diameter clean gravel pipe bedding materials.

Includes furnishing gravel pipe bedding material, as directed by the Engineer, and all other appurtenant work associated, complete.

- a. Placement and compaction of gravel pipe bedding materials shall be paid

under the bid item, which utilizes gravel pipe bedding material, and not to be paid as part of this item.

- b. Recycled materials shall not be used on this project.

Payment shall be by the unit bid price for each ton of gravel pipe bedding material furnished only. Weight tickets must be submitted to the Engineer in order to document the tonnage for payment.

Bid Item 41. Furnish clean import material for trench backfill.

Includes furnishing clean imported materials for trench backfill as directed by the Engineer, and all other appurtenant work associated, complete.

- a. Placement and compaction of clean import materials for trench backfill materials shall be paid under the bid item, which utilizes trench backfill material, and not to be paid as part of this item.
- b. Recycled materials shall not be used on this project.

Payment shall be by the unit bid price for each ton of clean import trench backfill material furnished only. Weight ticket must be submitted to the Engineer in order to document the tonnage for payment.

Bid Item 42. Furnish and install untreated roadbase materials for roadway 8-inches thick.

Includes supplying crushed aggregate roadbase material; rough and fine grading and compacting substrate materials; placing and compacting roadbase material to the thickness indicated and as directed by the Engineer; and all appurtenant work, complete.

Recycled roadbase will not be approved to be used on this project.

Payment shall be by the unit bid price for each ton of crushed gravel roadbase material actually furnished, placed and compacted. Weight ticket must be submitted to the Engineer in order to document the tonnage of roadbase for payment.

Bid Item 43. Furnish and install bituminous asphalt paving materials, 3-inches thick.

Includes preparing the base, to include rough and fine grading; tack coating existing adjoining surfaces as required; supplying a bituminous surface course material to the site per Riverdale City Standards (January 2026); placing, compacting and rolling the asphalt materials to the thickness indicated; and

compaction testing, complete.

Includes all cost associated with testing asphalt per the asphalt mix design specifications.

Payment shall be by the unit bid price for each ton of bituminous asphalt paving materials actually furnished, placed and compacted. Weight tickets must be submitted to the Engineer in order to document the tonnage of the bituminous asphalt paving materials for payment.

Bid Item 44. Adjust manhole ring and cover to finish grade.

Includes all related earthwork including excavation, backfilling, compacting, and grading; all tools, labor and materials required to adjust the manhole ring and cover to finish grade; furnishing and installing roadbase course under concrete collar; furnishing and installing concrete collar (8-inch thick minimum) around the adjusted manhole ring, cleanout the dirt etc, grinding from inner holes and cover; and all appurtenant work; complete.

Concrete collar shall be kept 1/4" below the finishing asphalt pavement.

Payment shall be by the unit bid price for each manhole ring and cover adjusted to finish grade, complete.

Bid Item 45. Adjust valve box ring and cover to finish grade.

Includes all related earthwork including excavation, backfilling, compacting, and grading; all tools, labor and materials required to pre-lower the valve box and then to adjust the valve box ring and cover to finish grade; furnishing and installing roadbase course under concrete collar; furnishing and installing concrete collar (8-inch thick minimum) around the adjusted valve box ring and cover; and all appurtenant work, complete

This item is for lowering valve boxes and monitoring well covers, prior to paving and then raising it to finish grade.

Concrete collar shall be kept 1/4" below the finish asphalt pavement and shall not exceed 1/2" below the finish asphalt pavement.

Payment shall be by the unit bid price for each valve box ring and cover adjusted to finish grade, complete.

Bid Item 46. Repair sewer lateral with steel banded couplers.

Includes all related tools, labor, and materials required to repair sewer lateral,

including but not limited to furnishing and installing two steel banded couplers at each end and a section of PVC SDR-35 sewer pipe and all appurtenant items, complete.

Payment shall be by the unit bid price for each sewer lateral repaired with steel banded couplers, complete.

Bid Item 47. Furnish and install 4-inch diameter PVC sanitary sewer lateral.

Includes furnishing and installing 4-inch diameter PVC sanitary sewer pipe (ASTM 3034, SDR 35) and all required fittings, materials, labor, tools, and equipment to complete the required work and insure proper alignment and elevation. Excavating trenches to the required elevations; removing excess and unsuitable material from the site and disposing of materials in an acceptable manner; pipe bedding, backfilling trenches in pipe zone and backfilling trenches above pipe zone to the required elevations; compacting backfill material in and above the pipe zone; includes hand trimming excavation and all appurtenant work, as directed by the Engineer, complete;

- a. Work includes providing facilities to divert the existing flow of sanitary sewer water around work areas, as required; maintaining flow of diverted water until the new pipe lateral lines have been completed, including testing; and the removal of the diversion facilities after the work is completed.
- b. Work includes removing existing sanitary sewer lateral pipe as required.
- c. Includes cleaning and video of finished pipe. Video to be submitted for review by engineer and the city for final approval.
- d. Bedding and trench fill materials are paid under the bid items to furnish those materials.

Payment shall be by the unit bid price for each linear foot of 4-inch sanitary sewer lateral pipe, furnished and installed, complete.

Bid Item 48. Lower/adjust sewer lateral below waterline.

Includes all related earthwork including excavation, backfilling, compacting, and grading; all tools, labor and materials required to lower the sewer lateral beneath the waterline. This shall include all fernco connections, bends and up to ten feet of sewer lateral pipe to adjust the sewer lateral to be placed under the waterline, and all appurtenant work, complete.

Bedding and trench fill materials are paid under the bid items to furnish those materials.

Excavated trench materials shall be reused if they meet specifications and are approved by the Engineer and the City.

Payment shall be by the unit bid price for each lower/adjust sewer lateral below waterline, complete.

Bid Item 49. Remove and replace all landscaping improvements, public/private, damaged during construction.

Includes all related earthwork; removing and disposing of unsuitable materials as required; furnishing, installing and grading the existing ground surface and/or all imported topsoil; furnishing and placing lawn sod in the park strip and/or on private property; matching sod joints and elevations; initial watering of newly placed sod (watering required for 2-weeks or from when restoration of the irrigation system is complete); restoring all lawn sod adjacent to curb and gutters, sidewalks, driveways, etc.; protecting and/or replacing existing appurtenances such as sprinklers, rocks, lawn decorations, walls, lawn sod, trees, brick pavers, stamped concrete, shrubbery, concrete curbing, sprinkler system equipment, fences, gates, signs and all landscaping items, replacing all damaged items; protecting, moving or relocating all mailboxes as required; and all other appurtenant work, complete.

- a. All lawn sod shall be placed with 4 inches of topsoil as bedding material.
- b. The minimum width or length of the sod patch shall be 12 inches.
- c. The Contractor is responsible for all landscape replacement and coordination with the affected property owner, complete.
- d. Includes protecting, relocating, and reinstalling mailboxes as necessary.

Payment shall be at a unit bid price for each square foot of removal and replacement of the landscaping improvements, complete.

Bid Item 50. Removing and reinstalling HAFB mag markers.

Includes all related work including surveying/GIS location, removing and reinstalling the HAFB mag markers and all appurtenant work, complete.

Payment shall be by the unit bid price for each HAFB mag marker surveyed/GIS, removed and reinstalled, complete.

Bid Item 51. Furnish bedding sand - clean pipe bedding materials.

Includes furnishing bedding sand material, as directed by the Engineer; and all other appurtenant work associated, complete.

- a. Placement and compaction of bedding sand materials shall be paid under the bid item, which utilizes bedding sand material, and not to be paid as part of this item.
- b. Recycled materials shall not be used on this project.

Payment shall be by the unit bid price for each ton of bedding sand material furnished only. Weight tickets must be submitted to the Engineer in order to document the tonnage for payment.

Bid Item 52. Furnish and install a cast-in-place combination manhole and hooded storm water inlet catch basin box.

Includes all related earthwork including excavating, backfilling, and compacting the sub-base gravel and earth materials under and around the completed box; furnishing and installing the cast-in-place concrete storm water inlet box with all required reinforcement; forming or coring the walls for connecting pipes; extending rebar from the top of the new box for connection to the new curb and gutter; furnishing and installing the new hooded frame and grate; furnishing and installing the new manhole ring and cover stamped "Storm Water"; connecting all pipes and sealing all pipe connections, forming all pipe troughs in the new storm water box; grouting as required; and all other appurtenant work, complete.

Payment shall be by the unit bid price for each cast-in-place combination manhole and hooded storm water inlet catch basin box, furnish and installed, complete.

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