

SECTION 01025 MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Measurement and payment criteria applicable to portions of the Work performed under a unit price payment method.
- B. Defect assessment and non-payment for rejected work.

1.2 AUTHORITY

- A. The Engineer will take all measurements and compute quantities accordingly.
- B. Assist by providing necessary equipment, workers, and survey personnel as required.

1.3 UNIT QUANTITIES SPECIFIED

- A. Quantities and measurements indicated in the Contract Documents are for bidding and contract purposes only. Quantities and measurements supplied or placed in the Work and verified by the Engineer shall determine payment.
- B. If the actual Work requires more or fewer quantities than those quantities indicated, provide the required quantities at the unit sum/prices contracted.

1.4 MEASUREMENT OF QUANTITIES

- A. Measurement Devices:
 - 1. Weigh Scales: Inspected, tested and certified by the applicable state Weights and Measures department within the past year.
 - 2. Platform Scales: Of sufficient size and capacity to accommodate the conveying vehicle.
 - 3. Metering Devices: Inspected, tested and certified by the applicable State department within the past year.
- B. Measurement by Weight: Concrete reinforcing steel, rolled or formed steel or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook or scale weight.
- C. Measurement by Volume: Measured by cubic dimension using mean length, width and height or thickness.
- D. Measurement by Area: Measured by square dimension using mean length and width or radius.
- E. Linear Measurement: Measured by linear dimension, at the item centerline or mean chord.
- F. Stipulated Sum/Price Measurement: Items measured by weight, volume, area, or linear means or combination, as appropriate, as a completed item or unit of the Work.

1.5 PAYMENT

- A. Payment Includes: Full compensation for all required labor, products, tools, equipment, plant, transportation, services and incidentals; erection, application or installation of an item of the Work; overhead and profit, includes any and all "general conditions".
- B. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the Engineer multiplied by the unit sum/price for Work which is incorporated in or made necessary by the Work.

1.6 DESCRIPTION OF BID ITEMS

- A. The Work of the project generally consists of the following:

1. *Mobilization- Measurement is a lump sum item. Payment includes all costs associated with mobilization, demobilization, establishment of offices, buildings and other facilities necessary for the Work, bonds, insurance, dust control, traffic control, storm water pollution prevention, clearing and grubbing, survey layout, fees, permits, clean-up, administrative services and all costs associated with the project that are not included in other bid items. All work to be complete and in place in accordance with project plans, specifications and permits.*
2. *Install Traffic Signal System (including poles, signal controller, service lines, pedestals, and all other appurtenances) - Measurement is a lump sum item. Payment includes all costs associated with installing traffic signal poles in addition to but not limited to all supporting appurtenances and/or structures such as pole foundations, junction boxes, utilities and / or conduits, resolving any conflicts, boring, drilling, wires, ground base, pole base, traffic signals, pedestrian signals, LED lenses, poles, mast arms, anchor bolts, video detection, luminaire extensions and arms, lighting, mast arm mounted signs, and all other necessary appurtenances required for the traffic signals to operate correctly. Payment includes all costs associated with excavation, backfilling, and compaction; furnishing and installing a traffic signal controller, underground service pedestal, conduit, circuit and utility lines, wires, boring, drilling, junction box, and all other necessary appurtenances required for the traffic signals to operate correctly. Payment includes all costs associated with furnishing and installing 11' Traffic Signal Poles, foundation, junction box, utilities and/or conduits, boring, drilling, breakaway support stub, bolts, nuts, washers, and all other necessary appurtenances required for the traffic signal pole to operate correctly. All work to be complete and in place in accordance with project plans, specifications and permits.*
3. *Furnish and Install Signage - Measurement is based on the actual number of sign posts installed for all signs that are not mounted on a signal pole and/or mast arm. Multiple signs on one post count as one (1) sign. Payment includes all costs associated with furnishing and installing signs as shown on construction plans in addition to subsequent soil excavation, installation, compaction, grading, and restoration. All work to be complete and in place in accordance with project plans, specifications and permits.*
4. *Furnish and Install Paint Striping – Measurement is based on the actual number of gallons of paint installed. Payment includes all costs associated with furnishing and applying solid and broken paint striping in 4, 8, and 12 inch widths, protection, traffic control, and surface preparation. All work to be complete and in place in accordance with project plans, specifications and permits.*
5. *Furnish and Install Paint Messages – Measurement is based on the actual number of paint messages installed. One message is equal to one arrowhead or symbol. Payment includes all costs associated with furnishing and applying paint, protection, traffic control, and surface preparation. All work to be complete and in place in accordance with project plans, specifications and permits.*
6. *Furnish and Install Asphalt & Untreated Base Course – Measurement is based on the actual square feet of pavement installed. Payment includes all unclassified excavation, subgrade preparation, road base placement and compaction, tack coat, and asphalt material placement and compaction. All work to be complete and in place in accordance with project plans, specifications and permits.*

7. *Furnish and Install Curb & Gutter - Measurement is based on the actual linear feet of curb and gutter constructed. Payment includes protection of existing utilities and ditch slopes, excavation to sub-grade according to limits stated in plans and/or specifications, sub-grade preparation, supply and compact road base and concrete work. All work to be complete and in place in accordance with project plans, specifications and permits.*
8. *Furnish and Install New Catch Basin – Measurement is based on the actual number of catch basins furnished and installed. Payment includes all costs associated with excavation, compaction, backfilling, constructing, assembling, and setting to grade all catch basin materials and appurtenances.*
9. *Furnish and Install New Junction Box – Measurement is based on the actual number of catch basins furnished and installed. Payment includes all costs associated with excavation, compaction, backfilling, constructing, assembling, and setting to grade all catch basin materials and appurtenances.*
10. *Furnish and Install 15” RCP Class B – Measurement is based on the actual linear feet of pipe installed. Payment includes all labor and materials necessary for excavation both classified and unclassified, dewatering of trench, furnishing and installing new pipe with bedding and backfill, and existing utility protection. All work to be complete and in place in accordance with project plans, specifications and permits.*
11. *Furnish and Install Pedestrian Ramps – Measurement is based on the actual number of pedestrian ramps furnished and installed. Payment includes excavation, removal, and disposal of soil; furnishing and installing new pedestrian access ramps. All work to be complete and in place in accordance with project plans, specifications and permits.*
12. *Sawcut, Remove, and Dispose of Existing Asphalt – Measurement is based on the actual square feet of pavement removed and disposed of. Payment includes excavation, removal, and disposal of pavement, base and/or subgrade material. Saw cutting of existing asphalt is included in this bid item. All work to be complete and in place in accordance with project plans, specifications and permits.*
13. *Remove and Dispose of Existing Curb & Gutter - Measurement is based on the actual linear feet of curb and gutter removed and disposed of. Payment includes removal and disposal of concrete curb and gutter as designated on construction drawings. Saw cutting of concrete curb and gutter is included in this bid item. All work to be complete and in place in accordance with project plans, specifications and permits. Disposal at an approved off site location.*
14. *Remove and Dispose of Existing Sidewalk – Measurement is based on the actual number of square feet of sidewalk removed and disposed of. Payment includes removal and disposal of sidewalk as designated on construction drawings. Saw cutting of sidewalk is included in this bid item. All work to be complete and in place in accordance with project plans, specifications and permits. Disposal at an approved off site location.*
15. *Remove (Mill) and Replace Top 2” of Asphalt – Measurement is based on the actual square feet of pavement removed and replaced. Payment includes sawcutting, excavation, removal, and disposal of the top 2” of existing pavement; furnishing, installing, and compacting new pavement to lines and grades shown. All work to be complete and in place in accordance with project plans, specifications and permits.*

16. *Relocate Existing Fire Hydrant – Measurement is based on the actual number of fire hydrants relocated. Payment includes all costs associated with excavation, removal and disposal of pipe as necessary; furnishing and installing new pipe, thrust block, bedding, and backfill as necessary; compaction of bedding and backfill materials; reconnection to existing water lines as necessary which may include subsequent connection methods, valves, and/or fittings; and setting hydrant to grade, flushing and disinfection. All work to be complete and in place in accordance with project plans, specifications and permits.*
17. *Replace/Modify Existing Landscaping – Measurement is a lump sum item. Payment includes all labor and materials required to replace and / or modify landscaping as shown on plans and specifications.*
18. *Reconstruct Existing Catch Basin - Measurement is based on the actual number of catch basins reconstructed. Payment includes all costs associated with excavation, removal and disposal of existing catch basin or junction box cover and rim, asphalt removal and replacement, sawcutting, and furnishing and installing new catch basin or junction box cover, rim, or grate, and setting rim to grade. All work to be complete and in place in accordance with project plans, specifications and permits.*

**Farmington City will furnish the materials as stated in the respective tables found on Drawing Sheets SG-1, DT-1, DT-4, DT-5, and sheet notes found on remaining sheets. Contractor shall furnish any other miscellaneous materials not provided and not stated on the drawing sheets mentioned above.*

ALTERNATIVE BID SCHEDULE

A-4A,B,C. Furnish and Install Pavement Marking Tape- Measurement is based on the actual lineal feet of Pavement Marking Tape installed on the ground. Payment includes all costs associated with furnishing and installing solid and broken paint striping in 4, 8, and 12 inch widths, protection, traffic control, and surface preparation. All work to be complete and in place in accordance with project plans, specifications and permits.

It is the responsibility of the Contractor to fully inform himself regarding all Federal, State and local tax laws, rules or regulations furnished under this Contract, including all exemption provisions and procedures.

All bid prices for material, equipment and labor for the Work under this Contract is inclusive of any tax for materials which are imposed by any governing agency to which the Work hereunder is subject. The Contractor is solely responsible for assuring that all applicable taxes are included in his bid.

1.7 MOBILIZATION

- A. If there is no separate bid item in the Bid Form for Mobilization, include all mobilization costs with other items of work.
- B. If there is a separate bid item in the Bid Form, mobilization will be paid as follows:
 - 1. Payment will be made at the contract lump sum for "Mobilization Payments will be made in accordance with the following table:

<u>Percent of Original Contract Amount Earned</u>	<u>Percent of Amount Bid for Mobilization to be Paid</u>
5%	40
15%	20
40%	30
50%	10

PART 2 - PRODUCTS - Not used

PART 3 - EXECUTION - Not used

END OF SECTION