

SPECIAL CONDITIONS - MEASUREMENT AND PAYMENT

PART 1 - GENERAL

- 1.1 Scope: This section lists bid items, their unit of payment, method and limits of measurement, and subsidiary work included in the pay item.
- 1.2 Entire Cost: The unit prices shown in the bid shall reflect the entire cost for the construction of the complete work, in conformance with the plans and specifications. Cost for items called for in or reasonably inferred as necessary from the construction documents, for which a specific unit price is not listed in the bid, shall be included in the price for the closest applicable items.
- 1.3 Non-Pay Items Subsidiary to the Work as a Whole: The following items are subsidiary to the whole work. The cost of these items shall be balanced throughout the separate pay items. Timely completion of subsidiary work shall be a condition for recommendation of progress payments.
1. Bonds, insurance, permits, and licenses;
 2. Contractor progress schedules and site meetings;
 3. Environmental controls - dust control, and clean up;
 4. Parking control;
 5. Protection and restoration of existing improvements and utilities;
 6. Protection and repair of completed portions of the work;
 7. Correction of defective work;
 8. Coordination with the Owner, Project Representative and utilities, coordination with underground utilities, work to overcome site limitations, and permits.
- 1.4 Inspections and Tests: The Supplemental General Conditions establish the responsibility for performing various tests and inspections. Any tests and inspections that are not explicitly detailed as the Owner's responsibility in the General Conditions are the responsibility of the Contractor. Tests that are the responsibility of the Contractor and his suppliers are subsidiary to the related item.
- 1.5 DEFINITIONS
1. Subsidiary: Work required for completion of the project or portion of the project as described in the contract documents, for which a direct pay item is not listed in the bid

proposal. Direct measurement of subsidiary work may be impractical or identical to an established pay item or may be subject to variation based on the contractor's selected methods. Costs for subsidiary work shall be included in the bid price for the related listed bid item.

2. Field quantity: For items measured by field quantity the final quantity for payment shall be the amount actually installed and accepted as measured in the field by the methods described. Linear measurement (both direct linear pay items and component measurement for area pay items) shall be taken with a retractable, steel tape, or with a self-recording roller wheel. Measurement tape shall be either continuously supported on a plane surface or pulled tight with minimum sag when measured across uneven surfaces.
3. Plan quantity: All items shall be considered estimated quantities and may be overrun or underrun without prejudice to general conditions 15.1.
4. Linear Foot (L.F.): Distance in feet of installed and accepted work, measured along the slope of the named linear element.
5. Square Yard (S.Y.): Area in square yards of installed and accepted work, measured along the slope. Calculations shall be a sum of the component rectangles and triangles comprising the area.
6. Cubic Yard (C.Y.): Volume in cubic yards of accepted material, calculated by a mutually acceptable method.
7. Lump sum (L.S.): The total work required for the described item, no separate measurement shall be made. Lump sum items that may be correlated with time will not be reduced for early completion, nor increased for late completion when the delay is due to contractor default or due to any of the reasons for permissible time extension listed in General Condition
8. Each (EA): One complete unit, which may consist of one or more parts.
9. Acres (AC.): Area is acres of installed and accepted work, measured by the length and width of the area actually constructed within engineer-designated limits.

1.6 STANDARD PAY ITEM: Unless specifically altered by the Special Provisions the unit and limits of measurement and a partial description of subsidiary work shall be as specified below, as listed in the bid form. Items defined below but not listed on the bid shall not be pay items for this project. Other pay items may be listed in the Special Conditions. These descriptions are not intended as a complete specification of the work involved.

1. **Mobilization:** Unit of measurement is Lump Sum (L.S.). This item shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all offices, buildings and other facilities necessary for the work on the project, and for all other work and operations which must be performed or costs incurred (required bonds, insurance, permits, etc.) prior to beginning work on the various items on the project site. *Reference Section 1100 – General Requirements.*

2. **Erosion and Sediment Control:** Unit of measure is Lump Sum (L.S.). Item includes all labor, materials, tools, and equipment to install erosion control measures as shown on the plans. *Reference Section 2100 – Clearing, Grubbing, Excavation and Site Preparation.*
3. **Temporary Traffic Control:** Unit of measure is Lump Sum (L.S.). This item includes all labor, tools, equipment, and traffic control devices including, but not limited to, signs, barricades, flashers, detour signs, etc. *Reference Section 2300 – Incidental Construction.*
4. **Seeding/Restoration:** Unit of measure is Acreage (AC.), field quantity. Pay area shall exclude areas disturbed due to Contractor’s carelessness or unauthorized use. Soil preparation, fertilization, topsoil, if required, and erosion control are subsidiary to this item. *Reference Section 2400 – Seeding, Sodding, and Overseeding.*
5. **Contractor Construction Staking:** Unit of measurement is Lump Sum (L.S.). This item shall consist of establishing or re-establishing the project centerline; referencing or re-referencing all necessary control points; running a level circuit to check or reestablish plan bench marks; set other Benesch marks as needed; take any original cross sections needed that are not incorporated in the plans; stake right-of-way or re-stake right-of-way where needed if it has been previously staked and perform all construction layout and reference staking necessary for the proper control and satisfactory completion of all structures, grading, paving, drainage and all other appurtenances required for the completion of the construction work and acceptance of the project. *Reference Section 1100 – General Requirements.*
6. **Excavation:** Unit of measurement is Cubic Yard (C.Y.), field quantity. Item includes all types of earthwork required to produce the proposed surface, except those listed separately or associated with a discrete structure bid as a separate unit of construction. Clearing, stripping and surface preparation, testing coordination, all material handling, stockpiling, rehandling, transportation, overexcavation, shoring, dewatering, wetting or drying of soil including water supply, benching, compaction, cleanup, imported fill unless listed separately, disposal of excess materials, and restoration of haul roads are subsidiary to this item. *Reference Section 2100 – Clearing, Grubbing, Excavation and Site Preparation.*
7. **Embankment:** Unit of measurement is Cubic Yard (C.Y.), field quantity. Item includes all types of earthwork required to produce the proposed surface, except those listed separately or associated with a discrete structure bid as a separate unit of construction. Clearing, stripping and surface preparation, testing coordination, all material handling, stockpiling, rehandling, transportation, overexcavation, shoring, dewatering, wetting or drying of soil including water supply, benching, compaction, cleanup, imported fill unless listed separately, disposal of excess materials, and restoration of haul roads are subsidiary to this item. *Reference Section 2100 – Clearing, Grubbing, Excavation and Site Preparation.*
8. **8’ Trail Concrete Pavement:** Unit of measurement is Square Yard (S.Y.), field quantity; accurate to the nearest tenth. Measurement shall be the length of the trail, measured at the back of curb times the average width. Saw cutting and disposal of materials are subsidiary. Concrete testing, subgrade preparation, form work, reinforcing, placing, consolidating, finishing, jointing, curing, protection and hot and cold weather

requirements are subsidiary to this item. *Reference Sections 2200 – Paving and Section and 2300 – Incidental Construction.*

9. **Pavement Markings and Symbols:** Unit of measurement is Lump Sum (L.S.). All materials, surface preparation, and application are subsidiary to this item. *Reference Section 2300 – Incidental Construction.*
10. **Sidewalk ADA Ramp:** Unit of measurement is Per Unit (EA), plan quantity. Subgrade preparation, form work, placing, consolidating, finishing, jointing, detectable warning panel, curing, protection, and hot and cold weather requirements are subsidiary. *Reference Sections 2200 – Paving and 2300 – Incidental Construction.*
11. **18” RCP:** Unit of measure is Linear Feet (L.F.), field quantity. This item shall include all costs in connection with excavating, trenching, grouting, and backfilling, including clean-up and restoration of the site and removal and disposal of waste and surplus materials; preparing the pipe bed, furnishing and installing the pipe, making all joints and connections, and all incidental work to complete the item. *Reference Section 2600 – Storm Sewer.*
12. **15” RCP:** Unit of measure is Linear Feet (L.F.), field quantity. This item shall include all costs in connection with excavating, trenching, grouting, and backfilling, including clean-up and restoration of the site and removal and disposal of waste and surplus materials; preparing the pipe bed, furnishing and installing the pipe, making all joints and connections, and all incidental work to complete the item. *Reference Section 2600 – Storm Sewer.*
13. **18” Flared End Section:** Unit of measure is Each (EA), plan quantity. This item shall be measured by the quantity of Each structure installed, sealed, grouted and backfilled. All labor, tools, equipment, materials, trenching, backfilling and other incidentals required to complete the work as described shall be subsidiary to this item. *Reference Section 2600 – Storm Sewer.*
14. **15” Flared End Section:** Unit of measure is Each (EA), plan quantity. This item shall be measured by the quantity of Each structure installed, sealed, grouted and backfilled. All labor, tools, equipment, materials, trenching, backfilling and other incidentals required to complete the work as described shall be subsidiary to this item. *Reference Section 2600 – Storm Sewer.*
15. **Force Account:** Unit of measure is lump sum. This lump sum amount shall be applied to cover the cost of miscellaneous items needed for the completion of the contract and that were unanticipated or not necessary at the time of bid. The Contractor has no claim to this money unless an unanticipated change to the project design is authorized by the ENGINEER.
16. **Rubber Surfacing:** Unit of measurement is Square Yard (S.Y.), field quantity; accurate to the nearest tenth. Measurement shall be the length of the trail, measured at the back of curb times the average width. All labor and materials including, but not limited to, binder, anti-stripping agent, and rubber, preparation, placing, patching, leveling, finishing, and protection in hot and cold weather requirements are subsidiary to this item. *Reference Section 2300 – Incidental Construction.*

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION