

**SECTION 01025
MEASUREMENT AND PAYMENT**

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Contractor shall receive and accept the compensation provided in the Contract as full payment for furnishing all labor, equipment, and materials and for performing all construction/operations necessary to complete the Work as described in the Contract, and in full payment for all losses or damages incurred during the Work, for any discrepancies between actual and estimated quantities, or from any unanticipated difficulties which may arise during the Work until final acceptance by the Owner.
- B. Payment for the various Items on the Contractor's Bid Form, as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles and for all labor, operations, supervision, overhead, profit, and incidentals appurtenant to the Items of Work being described as necessary to complete the various Items of the Work all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor.
- C. No separate payment will be made for any Item that is not specifically set forth on the Contractor's Bid Form and all costs therefore shall be included in the prices named on the Contractor's Bid Form for the various appurtenant Items of Work. Payment for complying with the safety requirements for construction on the Work site shall be included in the contract unit price paid for the various Items of Work wherein it is required, and no separate payment will be made therefore.
- D. The total Bid amount shall cover all Work required by the Contract Documents. All costs in connection with the proper and successful completion of the Work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction equipment and tools; including all costs and expenses for taxes, commissions, transportation charges and expenses, permit fees, patent fees, royalties, handling and tests; and performing all necessary labor and supervision to fully complete the Work shall be included in the Bid. All Work not specifically set forth as a pay Item on the Contractor's Bid Form shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the Unit Prices bid and/or the Lump Sum Price.
- E. The quotations for the various Items of Work are intended to establish a total price for completing the Work in its entirety. Should the Contractor feel that the cost for any Item of Work has not been established by the Contractor's Bid Form,

Contractor shall include the cost for that Work in some other applicable Bid Item, so that his proposal for the project does reflect his total price for completing the Work in its entirety.

- F. The quantities stipulated on the Contractor's Bid Form are approximate and are to be used only (a) as a basis for estimating the probable cost of the Work and (b) for the purpose of comparing the Bids submitted for the Work. The actual amount of Work done and materials under Unit Price Items may differ from the estimated quantities. The basis of payment for Work and materials will be the actual amount of Work done and materials furnished unless it exceeds the estimated quantities in which case a change order must be approved prior to payment for quantities exceeding the estimated quantity.
- G. The Contractor shall field verify all quantities and dimensions shown on the Drawings or contained in the Contract Specifications.
- H. The Contractor shall be responsible for establishing contracts with its subcontractors, which have a measurement and payment in accordance with this Section. If the Contractor establishes a contract with its subcontractors, which is in conflict with this Section, any additional cost incurred will be borne by the Contractor.
- I. Restoration is not a separate pay item but is considered to be an integral part of the work under the contract, and all contract bid prices include the cost of restoration necessitated by the work related to that bid item. Restoration includes existing structure and property, paving, stabilized roads, drainage piping and ditches, catch basins, head walls, yard culverts, driveways, lawns and ground areas, walkways, and irrigation systems, which are altered, removed or damaged during construction. Cleanup is an integral part of restoration.
- J. Unit prices provided by Contractor on Bid Form shall be valid and applicable for quantities up to 130 percent of the estimated quantities shown on the Bid Form.

1.02 GENERAL

- A. The following paragraphs describe measurement of and payment for the Work to be done under the respective Items listed in the itemized Bid for this Contract.
- B. Each Lump Sum and Unit Price stated in the itemized Bid shall constitute full compensation for all labor, equipment and materials necessary and required to complete all Work specified under that particular Item including cleanup and all costs for doing related Work as set forth in the Contract Documents, Specifications and/or on the Contract Drawings or implied in carrying out their intent.

1.03 COMPUTATION OF QUANTITIES

- A. Measurement of quantities expressed as area shall be based upon a horizontal, planimetric projection to the Work limits as determined by survey record drawings prepared by a surveyor licensed in the State of Georgia. Cost of surveying shall be paid by the Contractor under the Project Survey Bid Item and other Bid Items, as appropriate.
- B. Measurement of linear items will be for quantities actually field installed to the specified Work limits, based upon surveyed stations recorded along the straight or curved centerline of each respective Item. Measurement conducted by survey is to be conducted by the Contractor's approved surveyor licensed in the State of Georgia.
- C. Measurement of quantities expressed as volume will be based upon a neat plan line projection to the Work limits (planimetric measure) as determined by survey Record Drawings for each Item, with no additional allowances for shrinkage, swelling, or creep. Quantities expressed as volume will be in-place volumes to the dimensions indicated on the Contract Drawings. The average end area method or other methods acceptable to the Owner/Engineer will be used.
- D. Payment will be made to the limits as specified in the Contract Documents. If the constructed limits are less than the specified limit, payment will be made to the actual limits of construction as shown on the Record Drawings. Payment for quantities that exceed the specified contract limits will only be made with the approval of the Owner with acceptable supporting documentation from the Contractor. Payment for quantities that exceed the Contract quantities can only be obtained through an approved Change Order.
- E. No partial payments shall be made for the installation of Items which have not been tested and approved by the Engineer.
- F. Partial payment will be made for material delivered to the site, and adequately stored and protected until installation. Materials will be paid for at direct cost plus shipping, upon presentation of a valid receipt of bill with the payment request. All such requests must have material quantities verified by the Engineer prior to payment. Conditions for payment of stockpile of material will be discussed during the Pre-Construction Meeting. At a minimum, the materials must have an approved Shop Drawing and or Manufacturer's materials certification.
- G. Payment will be made monthly until completion of each Unit Price Item and or Lump Sum cost based on quantity completed by Contractor, and verified by the Engineer. Final payment will be based on quantity calculated from Record Drawings prepared by surveyor licensed in the State of Georgia and confirmed by field measurement by the Engineer and Owner.

- H. Payment for Lump Sum Items will be made as described for each individual Lump Sum Bid Item. The Contractor shall not rely on the estimated quantities given, but shall instead estimate all quantities for the Item independently for the basis of their bid. No claim shall be made by the Contractor for deviations between the Contractor's estimated quantity and the Engineer's estimated quantity including the quantity required to complete the Work. The Contractor shall base their bid solely on the Contractor's independently estimated quantity.
- I. If the Contractor is required to use the scales located at the facility to measure and obtain average unit wastes for material disposed, the Contractor shall select either off-road or on-road vehicles that can access the scales with dimensions and specifications as directed by the Owner. The Contractor shall coordinate with the Owner regarding the actual trucks proposed for the project, and confirm the suitability of the truck to be able to be weighed on the scales. A load count for bases of billing, without an average unit weight obtained from tonnages recorded through the scales for the pay items requiring tonnage across the scale for payment, will not be accepted.

1.04 VARIATIONS IN ESTIMATED QUANTITIES

- A. The quantities provided in the Contract Documents are approximate only, and are given as a basis for the uniform comparison of bids. The Owner does not expressly or by implication agree that the actual amount of Work will correspond therewith.
- B. The Contractor must provide, for Unit Price Work, a proposed contract price determined on the basis of estimated quantities required for each Item. The estimated quantities of Items are not guaranteed and are solely for the purpose of comparing bids. Each such unit will be deemed to include an amount for overhead, profit and indirect costs for each separately defined Item.

1.05 BID FORM

- A. The Bid Form for the items contained within this Section can be found in the contract documents.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 MEASUREMENT AND PAYMENT

- A. Bid Item Nos. 001 and 001A - Mobilization/Demobilization (Lump Sum)

Measurement: The various Items and Work required for Mobilization / Demobilization will not be measured for payment. All Work for this Bid Item shall be included in one lump sum price quantity pro-rated as a percentage of

work completed.

Payment: The lump sum price for Mobilization shall constitute full compensation for all preparatory Work and operations in mobilizing for beginning Work on the project including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, sanitary and other facilities as required by the Contract Documents and Specifications and State and local laws and regulations. The costs of bonds and any required insurance and any other pre-construction expense necessary for the start of the Work, excluding the cost of construction materials. This Bid Item will include mobilization/demobilization for all parts or phases of the total project.

The Contract Price for mobilization/demobilization shall be subject to the following provisions:

- a. The maximum amount allowed to be bid for mobilization/demobilization is 5 percent of the total bid price.
- b. Partial payments for mobilization/demobilization will be made in accordance with the following schedule.

Condition or Percent of Total Contract Amount Earned	Allowable Percent of the Lump Sum Price for the Item
All permits, bonds, insurance Transportation of all equipment/facilities Preparatory work and operations Fire protection and safety program Installed on-site sanitary facilities and office trailer Finalized/Approved detailed construction schedule Finalized/Approved Health and Safety Plan Finalized/Approved schedule of values Finalized/Approved schedule of submittals Post all OSHA, EPA, Department of Labor, and all other required notices.	30
10 percent total contract amount earned	40
25 percent total contract amount earned	60
50 percent total contract amount earned	80
100 percent total contract amount earned	100

The final payment for mobilization/demobilization will not be made until all the temporary facilities, excess materials, resources, equipment, utilities that were used to perform the Work, and all remaining construction debris at the completion of the project have been removed from the site. Additionally, this shall include the submittal of all final record drawings, record surveys, project photos, release of

liens and other incidentals as specified as requirements of Project close-out.

B. Bid Item Nos. 002 and 002A - Project Survey (Lump Sum)

Measurement: Measurement for the Work specified in this Bid Item shall be based on the schedule below for payment and all Items related to survey the Work shall be included in the Contract Lump Sum Price. Payment shall be full compensation for the preparatory Work, establishing construction controls, baseline surveys, location of utilities, stakeout of elevation and positional information required to complete the construction, record keeping, and obtaining all survey information required to compile Record “As-Built” Drawings. “As-built” drawings must be signed and sealed by a surveyor licensed in the State of Georgia.

Payment: Payment for this Bid Item will be made at the Contract Lump Sum Price, which price and payment shall be full compensation for surveying in accordance with the Contract Documents and Specifications and accepted by the Engineer based on the following schedule:

Pre-construction Survey per Section 017501 Part 2.3.A.1 (Landfill Expansion and Mining Areas)	20%
Subgrade Staking and Survey per Section 017501 Part 2.3.A.1	30%
Clay Subbase Survey per Section 017501 Part 2.3.B	40%
Secondary HDPE Liner Survey per Section 017501 Part 2.3.G	50%
Primary HDPE Liner Survey per Section 017501 Part 2.3.J	60%
LCRS / Protective Cover Survey per Section 017501 Part 2.3.L	70%
Project Completion “As-Built Survey” at per Section 017501 Part 2.3.N (Landfill Expansion and Mining Areas)	80%
Record Drawings as described below	100%

Record Drawings: The Contractor shall, throughout the project, maintain a redline set of construction drawings noting deviations or actual installed conditions. As part of the Final Completion, the Contractor must submit a complete set of final Record Drawings based on the red lines maintained throughout the project, which identify the actual constructed conditions. These record drawings shall use the Construction Drawings as a base and show changes by cloud and strikethrough in electronic format (AutoCAD 2018 or later version). The Record Drawings shall incorporate the surveys listed above and any other changes made to the project components into the set in order to create a single Record Drawing Set for the project. Draft Record Drawing sets, in both hardcopy and AutoCAD format in accordance with the specifications, must be submitted to the Owner and Engineer for review in order to grant Substantial Completion. Final Completion cannot be granted until the certified Record Drawings (hardcopy and AutoCAD format) signed and sealed by a Georgia licensed Professional Engineer or Land Surveyor is submitted to and approved by the Owner and Engineer. The Record Drawings

are critical to the Owner and must be accurate to receive approval by the FDEP for operation of the facility.

Partial Surveys of Work: It is understood that the Contractor may elect to construct the Project at different time intervals and survey each section separately. Partial surveys must be submitted to the Engineer to determine that the section the Contractor is requesting to continue working in meets the design requirements. The Contractor may not continue work until the partial survey is approved. Partial surveys are not required to be signed and sealed at the time of submittal, however, the partial surveys used to compile the complete survey for each of the surveys listed above, must not deviate from the partial survey submitted and the complete survey must be certified for submittal. Payment for surveys will not be made until the complete, certified survey is submitted and approved. However, partial surveys may be used for payment of work items such as soil and piping upon review, agreement, and approval by the Owner, Engineer, and CQA Representative.

C. Bid Item Nos. 003 and 003A – Site Clearing, Grubbing, and Stripping (Lump Sum)

Measurement: Measurement for the Work specified in this Bid Item shall be on a lump sum basis based on percentage of work completed.

Payment: Payment for this Bid Item will be made on a lump sum basis for areas cleared and grubbed within the limits of construction and completed in accordance with the Contract Documents and Specifications and accepted by the Engineer. This pay item shall include all necessary materials, equipment, transportation, labor, and appurtenance necessary for material excavation. This line item shall also include grading, loading, hauling, and unloading/dumping of unsuitable material at a selected area designated by the Owner, and work incidental thereto, necessary to complete this item in accordance with the Contract Documents.

D. Bid Item Nos. 004 and 004A - Erosion and Sediment Control (Lump Sum)

Measurement: Measurement for the Work specified in this Bid Item shall be on a lump sum basis based on percentage of work completed for all erosion and sediment control components.

Payment: Payment for this Bid Item will be made on a lump sum basis based on percentage of work completed for the various components of temporary and permanent erosion and sediment control maintained for the duration of construction until the project site is stabilized. This pay item shall include, but is not limited to, furnishing, installing, and maintaining: silt fence, temporary or intermediate seeding and mulching, temporary stormwater channels and diversions, temporary construction entrances, removal of sediment from roads and stormwater channels resulting from Contractor's work and placed in a designated

stockpile area, and work incidental thereto, necessary to complete this item in accordance with the Contract Documents. This Work shall include erosion and sediment control for landfill expansion, roadway construction, stormwater improvements and any other land disturbing activities performed by the Contractor on the landfill property.

- E. Bid Item Nos. 005 and 005A –Subgrade, Embankment, Roads, Stormwater Swale, and Leachate Tank Cut (Cubic Yards)

Measurement: Measurement for the Work specified in this Bid Item will be on a cubic yard basis for cut (removing existing soil above basegrades after site clearing, grubbing, and stripping) required to meet design basegrades, embankment, and stormwater swale construction within the construction limits. Measurement for this bid item will be made by comparing the Preconstruction (less grubbing and stripping) and Subgrade Surveys.

Payment: Payment for this Bid Item will be made on a cubic yard basis. This pay item shall include all necessary labor, equipment, establishing construction controls, surveying, excavation, loading, hauling, placement, stockpiling, testing, and all other appurtenances and incidentals required to complete the Work in accordance with the Contract Documents. The Contractor shall be responsible for loading, transporting, and stockpiling the material generated from the landfill cell excavation for reuse. Material not incorporated back into the Work shall be loaded and transported to a designated on-site area as directed by the Owner.

- F. Bid Item Nos. 006 and 006A –Waste Removal for Tie-in to Existing Liner - Cut (Cubic Yards)

Measurement: Measurement for Work specified for this bid will include but not be limited to all costs associated with the relocation of refuse for connection of the proposed liner system to the Phase 3 Unit 1 liner system. Wastes shall be moved to the working active face of the existing MSW landfill and shall be coordinating with the Owner. Costs shall be expensed on a cubic yard basis based on survey. The Contractor will not be charged for disposal at the landfill working face.

Payment: Payment for this Bid Item will be made on a cubic yard basis. This pay item shall include all necessary labor, equipment, establishing construction controls, surveying, excavation, loading, hauling, placement, stockpiling, testing, and all other appurtenances and incidentals required to complete the Work in accordance with the Contract Documents. The Contractor will be responsible for repairing damage to the existing liner system during the course of the Project during the course of the Project.

- G. Bid Item Nos. 007 and 007A - Subgrade, Embankment, Roads, and Stormwater Swale Construction - Fill (Stockpile adjacent to construction area) (Cubic Yards)

Measurement: Measurement for the Work specified in this Bid Item will be on a cubic yard basis of fill material from a stockpile of soil adjacent to the construction area or re-located from within the construction limits required to complete remaining of the basegrade, embankment, stormwater swale, and road construction for the landfill expansion, wherein measurement will be made by comparing required Preconstruction (less grubbing and stripping) and Subgrade Surveys to determine the quantity of additional approved off-site soil required to complete and achieve uniform grades as shown on the Contract Drawings. Additional partial surveys may be required to determine the additional off-site source fill material after using all approved soils obtained from Bid Item No. 5. Hauling of material from the existing Linecrest Soil Borrow Area is not included in this Bid Item and shall be provided separately under Bid Item 027 and 027A, respectively.

Payment: Payment for this bid item will be on a cubic yard basis of actual quantity of installed and accepted additional off-site fill to complete the basegrade before placing the clay soil subbase, embankment, stormwater swale, and road construction. This pay item shall include all necessary materials, equipment, transportation, labor, and appurtenances, necessary to obtain soil from stockpile adjacent to the construction area or relocated from the construction limits, loading, hauling, placement, stockpiling, surveying, testing, and all other appurtenances and incidentals required to complete the Work in accordance with the Contract Documents. The soil will be used to complete the subgrade within the Phase 3 Unit 2 landfill cells, construct roadbeds, berms, and other structures as shown on the Contract Drawings. No payment will be made for fill material installed outside of the construction baseline shown on the Contract Drawings or where testing has indicated the material does not meet the specified requirements without prior approval of the Engineer.

H. Bid Item Nos. 008 and 008A– Stormwater Structures and Piping (Lump Sum)

Measurement: Measurement for the Work specified in this Bid Item will be on a lump sum basis wherein measurement will be made based on percentage of work completed for all stormwater-related components.

Payment: Payment for this Bid Item will be made on a lump sum basis based on percentage of work completed for the various components of stormwater installed as shown on the Contract Drawings and in accordance with the Technical Specifications. This Work shall include, but not limited to, excavation, bedding, backfilling, soil compaction, fittings, piping, quality control surveying, testing, geotextiles, manuals, warranties, start-up, and all other incidentals associated with the Work under this Bid Item for a complete and acceptable system.

1. 24” RCP
2. 18” RCP

3. Drop Inlets
4. Concrete Ditch
5. Rip-Rap Ditch
6. Rip-Rap Aprons
7. Flared End Sections
8. Storm Drain Concrete Manholes
9. Submersible Pumps for Stormwater De-Watering
10. Pond Outlet Structure and Skimmer

I. Bid Item Nos. 009 and 009A – 6” Clay Subbase, Imported Soils (Cubic Yards)

Measurement: Measurement for the Work specified in this Bid Item will be on a cubic yard basis of actual quantity of installed and accepted compacted clay subbase within the Phase 3 Unit 2 expansion area, wherein measurement will be made by comparing the volume between the Subgrade and Clay Subbase Surveys. The Clay Subbase Layer will be installed and approved by Engineer before placing the 60-mil Primary HDPE Layer.

Payment: This pay item shall include all necessary materials, equipment, transportation, labor, and appurtenances necessary to obtain clay from approved off-site borrow areas, loading, hauling, stockpiling, placement, compaction, finish grading to achieve uniform grades, surveying, testing, and all other incidentals required to install the 6 inches of subbase where shown on the Contract Drawings and in accordance with the Technical Specifications. Contractor shall locate the source of material for this line item from off-site source(s) and the unit price shall include all transportation costs, borrow area permitting fees, and all other incidentals. No payment will be made for Subbase Layer placed outside of the construction baseline shown on the Contract Drawings or where testing has indicated the material does not meet the specified requirements or required depth without prior approval of the Engineer.

J. Bid Item Nos. 010 and 010A – Geosynthetic Clay Liner (Square Feet)

Measurement: Measurement for the Work specified in this Bid Item will be on a square feet basis for Geosynthetic Clay Liner (GCL) installed within the Phase 3 Unit 2 Expansion area wherein measurement will be made in 3D area view using the Secondary Liner Survey including the anchor trench, but not including overlaps, wastage, test sample, repairs, manufacturer’s or installer’s defect repairs, or other material required to complete the installation.

Payment: Payment for this Bid Item will be made on a square feet basis for actual quantity of installed and accepted GCL. This pay item shall include all equipment, materials, labor, and appurtenances necessary to install the GCL where shown on the Contract drawings and in accordance with the Technical Specifications. This Work shall include, but not limited to, furnishing specified materials and documentation associated with manufacture of the GCL materials, delivery, stockpiling, inventory, deployment, quality control testing, placement, protection, cleaning, patching, tie-ins with existing Work, boots and connections required for liner penetrations, anchor trenches, welding, repairs. This bid item shall also include loading, hauling, and all other incidentals associated with the Work under this Bid Item. No payment will be made for GCL installed outside of the construction baseline shown on the Contract Drawings or where testing has indicated the material does not meet the specified requirements without prior approval of the Engineer.

- K. Bid Item Nos. 011 and 011A – 60 mil Textured HDPE Geomembrane Liner, Primary and Secondary (Square Feet)

Measurement: Measurement for the Work specified in this Bid Item will be on a square feet basis of 60 mil Textured High Density Polyethylene (HDPE) geomembrane (primary and secondary) liner installed within the Phase 3 Unit 2 expansion area wherein measurement will be made in 3D area view using the Secondary and Primary HDPE Liner Surveys including the anchor trench, but not including overlaps, wastage, test sample, repairs, manufacturer's or installer's defect repairs, or other material required to complete the installation.

Payment: Payment for this Bid Item will be made on a square feet basis for actual quantity of installed and accepted 60 mil Textured HDPE. This pay item shall include all equipment, materials, labor and appurtenances necessary to install the 60 mil HDPE where shown on the Contract drawings and in accordance with the Technical Specifications. This Work shall include, but not limited to, furnishing specified materials and documentation associated with manufacture of the HDPE materials, delivery, stockpiling, inventory, deployment, quality control testing, placement, protection, cleaning, patching, tie-ins with existing Work, boots and connections required for liner penetrations, anchor trenches, welding, repairs, and all other incidentals associated with the Work under this Bid Item. No payment will be made for 60 mil HDPE geomembrane installed outside of the construction baseline shown on the Contract Drawings or where testing has indicated the material does not meet the specified requirements without prior approval of the ENGINEER.

- L. Bid Item Nos. 012 and 012A – Geocomposite, Primary and Secondary, Bi-Planar (Square Feet)

Measurement: Measurement for the Work specified in this Bid Item will be on a square feet basis of geocomposite installed within the Phase 3 Unit 2 expansion area wherein measurement will be made in 3D area view using the Secondary and

Primary HDPE Liner Surveys including the anchor trench, but not including overlaps, wastage, test sample, repairs, manufacturer's or installer's defect repairs, or other material required to complete the installation.

Payment: Payment for this Bid Item will be on a square feet basis for actual quantity of installed and accepted geocomposite. This pay item shall include all equipment, materials, labor and appurtenances necessary to install the geocomposite where shown on the Contract Drawings and in accordance with the Technical Specifications. This Work shall include, but not limited to, unloading, stockpiling, inventory, on-site handling, deployment, quality control testing, welding to the existing liner system, placement, protection, cleaning, patching, tie-ins with existing work, boots and connections, anchor trenches, seaming, repairs, as-built documentation, and all other incidentals associated with the Work under this Bid Item. No payment will be made for geocomposite installed outside of the construction baseline shown on the Contract Drawings or where installation does not meet the specified requirements without prior approval of the Engineer.

- M. Bid Item Nos. 013 and 013A - Protective Layer/Drainage Sand Layer, 24-inches Minimum Thickness, Imported Soils (Cubic Yards)

Measurement: Measurement for the Work specified in this Bid Item will be on a cubic yard basis of Protective Layer (Drainage Sand) material, from approved off-site source, installed and accepted within the Phase 3 Unit 2 expansion area, wherein measurement will be made by comparing the volume between the Primary HDPE Liner Survey and Protective Cover Survey (less the volume consumed by the Leachate Collection and Reclamation System - LCRS). The LCRS will be installed and approved by Engineer before placing the Protective Layer (Drainage Sand).

Payment: Payment for this Bid Item will be on a cubic yard basis of actual quantity of installed and accepted Protective Layer (Drainage Sand) material within the Phase 3 Unit 2 expansion area. This pay item shall include all necessary materials, equipment, transportation, labor, and appurtenances necessary to obtain Protective Layer (Drainage Sand) from approved off-site borrow areas, loading, hauling, stockpiling, placement, compaction, finish grading to achieve uniform grades, surveying, testing, and all other incidentals required to install the 24 inches of Protective Layer (Drainage Sand) where shown on the Contract Drawings and in accordance with the Technical Specifications. Contractor shall locate the source of material for this line item off the landfill property and the unit price shall include all transportation costs, borrow area permitting fees, and all other incidentals. No payment will be made for Protective Layer (Drainage Sand) placed outside of the construction baseline shown on the Contract Drawings or where testing has indicated the material does not meet the specified requirements or required depth without prior approval of the Engineer.

- N. Bid Item Nos. 014 and 014A - 12-mil Geosynthetic Rain Tarp with Sandbags (Square Feet)

Measurement: Measurement for the Work specified in this Bid Item will be on a square feet basis of 12 mil Geosynthetic Rain Tarp installed within the Phase 3 Unit 2 expansion area wherein measurement will be made in 3D area view using the Final Survey material including the anchor trench, but not including overlaps, wasteage, test sample, repairs, manufacturer's or installer's defect repairs, or other material required to complete the installation.

Payment: Payment for this Bid Item will be on a square feet basis for actual quantity of installed and accepted 12 mil Geosynthetic Rain Tarp. This pay item shall include all equipment, materials, labor and appurtenances necessary to purchase and install the Rain Tarp where shown on the Contract Drawings and in accordance with the Technical Specifications. This Work shall include, but not limited to, unloading, stockpiling, inventory, on-site handling, deployment, placement, ballasting with UV resistant sandbags on a 50-foot by 50-foot grid secured with ropes, protection, patching, seaming, as-built documentation, and all other incidentals associated with the Work under this Bid Item. No payment will be made for Rain Tarp installed outside of the construction baseline shown on the Contract Drawings or where installation does not meet the specified requirements without prior approval of the Engineer.

- O. Bid Item Nos. 015 and 015A - 8-inch HDPE Leachate Collection Pipe, Perforated, All Inclusive (Linear Feet)

Measurement: Measurement for the Work specified in this Bid Item will be on a linear feet basis of 8-inch HDPE Leachate Collection Pipe (Perforated), wherein measurement will be made in plan view using the Protective Cover Survey.

Payment: Payment for this Bid Item will be on a linear feet basis for actual quantity of installed and accepted 8-inch HDPE Leachate Collection Pipe (Perforated). This pay item shall include all equipment, materials, labor and appurtenances necessary to install the 8-inch HDPE pipe where shown on the Contract Drawings and in accordance with the Technical Specifications. This Work shall include, but not limited to, furnishing specified materials and documentation associated with the manufacture of the HDPE pipe materials, geotextile and drainage stone, material delivery, stockpiling, inventory, placement, testing, tie-ins with existing pipes, surveying, and all other incidentals associated with the Work under this Bid Item. No payment will be made for HDPE piping installed outside of the construction baseline shown on the Contract Drawings or where testing has indicated the material does not meet the specified requirements without prior approval of the Engineer.

- P. Bid Item Nos. 016 and 016A - 8-inch HDPE Leachate Collection Pipe Cleanouts, Solid, All Inclusive (Each)

Measurement: Measurement for the Work specified in this Bid Item will be on a linear feet basis of 8-inch HDPE Leachate Collection Pipe (Solid), wherein measurement will be made in plan view using the Protective Cover Survey.

Payment: Payment for this Bid Item will be at the contract unit price per installed and accepted 8-inch HDPE Leachate Collection Pipe Cleanout (Solid, All Inclusive). This pay item shall include all equipment, materials, labor and appurtenances necessary to install the 8-inch HDPE Leachate Collection Pipe Cleanout (Solid, All Inclusive) where shown on the Contract Drawings and in accordance with the Technical Specifications. This Work shall include, but not limited to, furnishing specified materials and documentation associated with the manufacture of the HDPE pipe materials, material delivery, stockpiling, inventory, placement, threaded caps, testing, tie-ins to other pipes, pipe penetrations, surveying, cleaning of HDPE piping as necessary and supplying video documentation to prove it, HDPE fittings, elbows, cover plates, hardware, and all other incidentals associated with the Work under this Bid Item. No payment will be made for HDPE piping installed outside of the construction baseline shown on the Contract Drawings or where testing has indicated the material does not meet the specified requirements without prior approval of the Engineer.

Q. Bid Item No. 017 - 6-inch HDPE Leachate Forcemain, Solid, All Inclusive (Linear Foot)

Measurement: Measurement for the Work specified in this Bid Item will be on a linear feet basis of 6-inch HDPE leachate forcemain installed wherein measurement will be made based in plan view using the Final Survey.

Payment: Payment for this Bid Item will be on a linear feet basis for installed and accepted 6-inch HDPE Leachate Forcemain Piping. This pay item shall include all equipment, materials, labor and appurtenances necessary to install 6-inch HDPE forcemain piping extending from the Proposed Leachate Tank to the existing leachate drain line as shown on the Contract Drawings and in accordance with the Technical Specifications. This Work shall include, but not limited to, furnishing specified materials and documentation associated with the manufacture of the HDPE material, pipe and fittings, locating existing connection points and uncovering, excavation, pipe bedding, pipe stands, all piping and fittings connections to existing forcemain, pressure testing, surveying, backfill and compaction, and all other incidentals associated with the Work under this Bid Item. No payment will be made where testing has indicated the material does not meet the specified requirements without prior approval of the Engineer.

R. Bid Item Nos. 018 and 018A – Tie Into Existing Liner and Leachate Line (Lump Sum)

Measurement: Measurement for the specified in this Bid Item will be on a lump sum basis for tie-in to the existing leachate line and liner system wherein measurement will be made based on percentage of Work completed.

Payment: Payment for this Bid Item will be made on a lump sum basis based on a percentage of work completed and accepted by the Engineer. The pay item shall

include all equipment, materials, labor and appurtenances necessary to connect to the existing liner system and leachate line. The Work shall include all exposing the existing bottom liners, cleaning exposed existing liner, and connections to the existing GCL, Geocomposite, HDPE liner systems, and leachate piping. **This item shall include installation of 6" LFG piping to maintain vacuum to the existing leachate cleanout LCS-1S prior to removing and capping the existing lateral piping within the excavation footprint (callout on Sheet 3.2).** Excavation of waste to access the existing leachate piping and bottom liners should not be included in this Bid Item and shall be included in Bid Item 006/ 006A.

S. Bid Item Nos. 019 and 019A – Temporary Earthen Stormwater Berms (Linear Foot)

Measurement: Measurement for the Work specified in this Bid Item will be on a linear foot basis wherein measurement will be made based in plan view using the Final Survey.

Payment: Payment for this Bid Item will be on a linear foot basis of berm installed and accepted. This pay item shall include all equipment, materials, labor and appurtenances necessary to obtain berm material from Linecrest Soil Borrow Area or relocated from the construction limits, loading, hauling, stockpiling, placement, compaction, finish grading to achieve uniform grades, surveying, testing, and all other incidentals required to install the berms where shown on the Contract Drawings and in accordance with the Technical Specifications. Contractor shall locate the source of material for this line item from off-site source(s) and the unit price shall include all transportation costs, borrow area permitting fees, and all other incidentals. No payment will be made for Subbase Layer placed outside of the areas shown on the Contract Drawings or where testing has indicated the material does not meet the specified requirements or required depth without prior approval of the Engineer.

T. Bid Item Nos. 020 and 020A – Sodding (Square Yards)

Measurement: Measurement for the Work specified in this Bid Item will be on a square yard basis of sod installed wherein measurement will be made in plan view from the Final Survey. The Engineer shall reserve the right to increase and/or decrease quantities for sod in order to match actual field conditions. Areas disturbed by the Contractor that are not required as part of the performance of the Work, as determined by the Owner and Engineer, will not be included in the quantity of payment.

Payment: Payment for this Bid Item will be made on a square yard basis of sod installed and accepted. This pay item shall include, but not limited to, materials, labor, equipment, conditioning topsoil with fertilizer and/or lime application, supplying and installing sod, anchoring/netting of sod, mowing, replanting, repair of erosion, maintaining areas sodded through final acceptance of the Work, and any other work necessary to produce a uniform stand of grass. No payment will

be made for sod placed outside of the limits of construction shown on the Contract Drawings without prior approval of the Engineer or for areas disturbed by the Contractor that are not required as part of the performance of the Work. Payment of sod shall not relieve the Contractor of the need to maintain sod throughout warranty period.

U. Bid Item Nos. 021 and 021A – Seeding (Square Yards)

Measurement: Measurement for the Work specified in this Bid Item will be on a square yard basis of seed installed wherein measurement will be made in plan view from the Final Survey. Seeding will only be installed at the Contractor's laydown/staging area and main access roads used by Contractor required as part of the performance of the Work. The Engineer shall reserve the right to increase and/or decrease quantities for seeding in order to match actual field conditions. Areas disturbed by the Contractor that are not required as part of the performance of the Work, as determined by the Owner and Engineer, will not be included in the quantity of payment.

Payment: Payment for this Bid Item will be made on a square yard basis of actual seed installed and accepted. This pay item shall include, but not limited to, materials, labor, equipment, conditioning topsoil with fertilizer and/or lime application, supplying and installing seed, replanting, repair of erosion, maintaining areas seeded through final acceptance of the Work, and any other work necessary to produce a uniform stand of grass. No payment will be made for seed placed outside of the limits of specified areas without prior approval of the Engineer or for areas disturbed by the Contractor that are not required as part of the performance of the Work. Payment of seed shall not relieve the Contractor of the need to maintain seeded areas throughout warranty period.

V. Bid Item Nos. 022 and 022A – Edge of Liner Posts (Each)

Measurement: Measurement for the Work specified in this Bid Item will be on a completed and installed unit basis of Edge of Liner Posts, wherein measurement will be made in plan view using the Final Survey.

Payment: Payment for this Bid Item will be the contract unit price per installed Edge of Liner Post. This pay item shall include all equipment, materials, labor and appurtenances necessary to install the Edge of Liner Posts as shown on the Contract Drawings and in accordance with the Technical Specifications. This Work shall include, but not limited to, installing wooden posts in common liner trench along toe of landfill, backfilling, compaction, surveying, and all other incidentals associated with the Work under this Bid Item.

W. Bid Item No. 23 Site Clearing, Grubbing, and Stripping for Mining Area (Lump Sum)

Measurement: Measurement for the Work specified in this Bid Item shall be on a lump sum basis based on percentage of work completed.

Payment: Payment for this Bid Item will be made on a lump sum basis for areas cleared and grubbed within the mining area and completed in accordance with the Contract Documents and Specifications and accepted by the Engineer. This pay item shall include all necessary materials, equipment, transportation, labor, and appurtenance necessary for material excavation. This line item shall also include grading, loading, hauling, and unloading/dumping of unsuitable material at a selected area adjacent to an area designated by the Owner, and work incidental thereto, necessary to complete this item in accordance with the Contract Documents.

X. Bid Item No. 24 Erosion and Sediment Control & Stormwater for Mining Area (Lump Sum)

Measurement: Measurement for the Work specified in this Bid Item shall be on a lump sum basis based on percentage of work completed related to erosion and sediment control and stormwater components for the mining area.

Payment: Payment for this Bid Item will be made on a lump sum basis based on percentage of work completed for the various components of temporary erosion and sediment control maintained for the duration of construction until the project site is stabilized. This pay item shall include, but is not limited to, furnishing, installing, and maintaining: silt fence, temporary or intermediate seeding and mulching, temporary stormwater channels and diversions, temporary construction entrances, removal of sediment from roads and stormwater channels resulting from Contractor's work, temporary construction entrances, 36" RCP stormwater outlet piping, stormwater outlet structure, drop linet, rip-rap, flared end sections, and work incidental thereto, necessary to complete this item in accordance with the Contract Documents and Technical Specifications.

Y. Bid Item Nos. 025 and 25A – All Weather Access Roads, Cells 1, 2 and Leachate Tanks (Square Yards)

Measurement: Measurement for the Work specified in this Bid Item will be on a square yard basis of all-weather access roads installed wherein measurement will be made based in plan view using the Final Survey.

Payment: Payment for this Bid Item will be on a square yard basis for completed and accepted all-weather access road. This pay item shall include all equipment, materials, labor and appurtenances necessary to grade and compact the road subgrade, and install the geotextile, surge stone, and compacted crusher run as shown on the Contract Drawings and in accordance with the Technical Specifications. This Work shall include, but not limited to, subgrade preparation and proofrolling, removal and replacement of objectionable subgrade material, fine grading, compaction of subgrade, surge stone & compacted crusher run

courses (furnishing, placing, and compacting), testing, and all other incidentals associated with the Work under this Bid Item. No payment will be made where testing has indicated the material does not meet the specified requirements without prior approval of the Engineer.

Z. Bid Item Nos. 026 and 026A –Guardrail along Access Road (Linear Feet)

Measurement: Measurement for the Work specified in this Bid Item will be on a linear feet basis of completed and installed Guard Rail wherein measurement will be made in plan view using the Final Survey.

Payment: Payment for this Bid Item will be on a linear feet basis for actual quantity of installed and accepted Guard Rail. This pay item shall include all equipment, materials, labor and appurtenances necessary to install the guard rail as shown on the Contract Drawings and in accordance with the Technical Specifications. This Work shall include, but not limited to, installing wooden posts, backfilling, compaction, surveying, and all other incidentals associated with the Work under this Bid Item.

AA. Bid Item Nos. 027 and 27A – Hauling Soil from Linecrest Mining/Borrow Area (Cubic Yards)

Measurement: Measurement for the Work specified in this Bid Item will be on a cubic yard basis of soil from the Linecrest Road Borrow Area, wherein measurement will be made by comparing the volume between the Pre-Construction Survey and Post-Mining Survey.

Payment: Payment for this Bid Item will be on a cubic yard basis of soil hauled from the borrow area to the Phase 3 Unit 2 expansion area. This pay item shall include all necessary materials, equipment, transportation, labor, and appurtenances necessary to excavate, load, haul, stockpile, and all other incidentals required to haul the soil where shown on the Contract Drawings and in accordance with the Technical Specifications. The unit price shall include all transportation costs, permitting fees, and all other incidentals. The Contractor shall include in the price for traffic control on Bond Drive and Linecrest Road.

BB. Bid Item No. 028 Excavate to Determine Limits of Existing Underdrain and Piping for As-built Information (Each)

Measurement: Measurement for this Work will be made on a completed unit basis of excavated potholes, wherein measurement will be made based on number of potholes excavated.

Payment: Payment for this Bid Item will be the contract unit price per excavated pothole to top of actual existing underdrain, or reasonably assumed depth of existing underdrain. Excavation depths of each pothole may vary based on existing ground surface elevations and assumed underdrain elevation. Existing ground surface elevations and the surveyed elevations of the existing underdrain

endpoints are provided in the Drawings. This pay item shall include all equipment, materials, labor and appurtenances necessary to excavate and discover the limits of the existing underdrain as shown on the Contract Drawings and in accordance with the Technical Specifications. This Work shall include, but is not limited to, installing shoring and protection measurements, removal of excavated materials to areas on-site designated by the Owner, surveying, de-watering, and all other incidentals associated with the Work under this Bid Item.

- CC. Bid Item No. 029 – 250,000 Gallon Leachate Storage Tank and Concrete Secondary Storage Area, All Inclusive (Lump Sum)

Measurement: Measurement for this Work will be made on a percent complete basis on the basis of work completed and accepted by the Engineer.

Payment: Payment for this Bid Item will be made on a lump sum basis based on a percentage of work completed and accepted by the Engineer. This pay item shall include all labor, equipment, tools, supplies, and cartage required to complete all work related to the Leachate Storage Tank as shown on the Contract Drawings and Technical Specifications, including, but not limited to, installation of the steel tank, instrumentation, ladder, inlet/outlet connections, flanged manway, leachate piping and valving, pipe supports, concrete containment and foundation, anchoring, and all other incidentals related to this. The Contractor shall include costs for shop drawing submittals, manuals, warranties, the climb ladder, flanged outlets and inlets, manways, painting, coatings hydraulic testing, tank fabrications, surface blasting, and inspections in this Bid Item

- DD. Bid Item No. 030 – Permanent Construction Office (Lump Sum)

Measurement: Measurement for this Work will be made on a lump sum basis upon complete installation of Permanent Construction Office building, approximately 10-foot by 44-foot, at the location shown on the Drawings and in accordance with Section 01590.

Payment: Payment for this Bid Item will be the contract lump sum price. This pay item shall include all labor, equipment, tools, supplies, and cartage required to complete all work related to the Permanent Construction Office as shown in the Drawings and Technical Specifications including, but not limited to, sanitary sewer line and connection, water line service connection, electrical connection, and phone/data service connection. The Contractor shall include costs for shop drawings, warranties, and inspections in this Bid Item. The Contractor shall be responsible for obtaining all necessary building permits, including fees, coordinating inspections, and utility coordination and hookup to obtain a certificate of occupancy.

END OF SECTION