

NOTICE TO BIDDERS

Construction of Landfill Cell 5 at Central Landfill Facility Worcester County, Maryland

The Worcester County Commissioners are currently accepting sealed bids for construction of Landfill Cell 5 at the Worcester County Central Landfill Facility located on Central Site Lane, Newark, Maryland 21841 for the Worcester County Department of Public Works – Solid Waste Division. Contract Documents, Construction Specifications and Plans are available from DiCarlo Precision Instruments, Inc., 2006 Northwood Drive, Salisbury, Maryland 21801 (410-749-0112). Interested bidders are encouraged to attend a **pre-bid conference at 10:00 AM on Monday, July 17, 2017** at the Worcester County Central Landfill Facility located on Central Site Lane, Newark, Maryland 21841. **Sealed bids will be accepted until 1:00 PM (EDT), Monday, August 7, 2017** in the Office of the County Commissioners at Room 1103 - Worcester County Government Center, One West Market Street, Snow Hill, Maryland 21863, at which time they will be opened and publicly read aloud. Envelopes shall be marked "**Bid Enclosed - Central Landfill Facility Site; Landfill Cell Five**" in the lower left-hand corner. After opening, bids will be forwarded to the Public Works Department for tabulation, review and recommendation to the County Commissioners for their consideration at a future meeting. In awarding the bid, the Commissioners reserve the right to reject any and all bids, waive formalities, informalities and technicalities therein, and to take whatever bid they determine to be in the best interest of the County considering lowest or best bid, quality of goods and work, time of delivery or completion, responsibility of bidders being considered, previous experience of bidders with County contracts, or any other factors they deem appropriate. All inquiries shall be directed to Darl Kolar, P.E., Project Manager with EA Engineering, Science, and Technology, Inc. PBC, at 410-641-5341.

19 July 2017
EA Project No. 1060932

TO: Bidders of Record

FROM: EA Engineering, Science, and Technology
11202 Racetrack Road, Unit 103
Ocean Pines, MD 21811

RE: Addendum No. 1
Worcester County Department of Public Works
Central Landfill Facility Site – Landfill Cell 5

TO ALL BIDDERS: This Addendum No. 1 contains modifications to the Contract Documents. This Addendum No. 1 shall supplement, amend, and become part of the Contract Documents and Construction Specifications for the title project and contract.

Except as may be otherwise described, bidding requirements, materials, and workmanship for the work described herein shall conform to all requirements of the original Contract Documents, except as modified using succeeding addenda. The following Addendum to the specifications and drawings is made a part of the project and takes precedence over the section of the specifications, in part, and/or drawings, as originally written, or as modified in succeeding addenda. All bids shall be based on this addendum in accordance with the Bidding Documents.

- Modifications to Contract Documents
- Pre-bid meeting minutes/Responses to Questions

MODIFICATIONS TO CONTRACT DOCUMENTS

Contract Documents and Construction Specifications:

1. Instructions to Bidders, Section 3. Qualifications of Bidders, DELETE the following bullets in their entirety:
 - “Soil boring logs for each borrow source indicating there is sufficient material in the pit to complete the project.
 - At least two grain size analysis reports for each borrow location. For clay source, also provide liquid limits and plasticity index.
 - For each clay source provide two proctor curves and two permeability tests indicating that the clay meets the requirements for maximum permeability as specified, when remolded to the specified proctor density.
 - A letter of recommendation, stating that the Bidder has performed acceptably on a project of similar size, where a minimum of 20 acres of high density polyethylene (HDPE) liner and 20,000 CY of compacted clay liner were installed.”

Contract Drawings:

1. ADD: Drawing E-3.

**WORCESTER COUNTY, MD
CENTRAL LANDFILL FACILITY – LANDFILL CELL 5
PRE-BID MEETING MINUTES**

DATE: July 17, 2017
TIME: 10:00 A.M.
LOCATION: Worcester County Central Landfill Facility

Attendees See attached sign-in sheet

Introductions

Owner: Worcester County Commissioners (DPW)
Design Engineer: EA Engineering, Science and Technology, Inc. PBC

Project Description

- Clear and grub to limit of disturbance.
- Purchase, deliver, and place approximately 165,000 cubic yards (CY) of borrow for structural fill grade preparation.
- Purchase, deliver, and place approximately 65,000 CY of borrow with a maximum permeability of 1×10^{-5} centimeters per second (cm/sec) soil for subgrade construction.
- Purchase, deliver, and install approximately 18.7 acres of 60-mil high-density polyethylene (HDPE) liner.
- Purchase, deliver, and install a 24-inch-thick leachate collection zone, including piping system, bedding and separation geotextiles, and protective cover.
- Purchase, deliver, and install 6-inch HDPE leachate force main, and associated appurtenances from the new pump stations to the existing valve vault associated with the newly constructed leachate storage tank.
- Purchase, deliver, and install two aboveground leachate pumping stations, and associated equipment.
- Other work as shown on the Plans and these Specifications.

Project Funding

- The project is funded solely by Worcester County.

Bid Due Date

- Bids are due on Monday, 7 August 2017 at 1:00 PM in the Offices of the county commissioner's room 1103 – Worcester County Government Center, One West Market Street, Snow Hill, Maryland 21863. Last day for questions is July 31, 2017.

Bonds and Bid Form

- Proposal, Performance and Payment Bonds are required for this project
- Proposal Bond shall be included in the Bid Package

Completion Time

- Contract Time will be 365 Days
- Liquidated damages will be \$1,000 per day for the first 30 days and \$5,000 per day thereafter
- Retainage will be 10%, and may be reduced later in the project at the Owner's election.
- Contractor to submit proposed schedule, and update as required.
- Certificate of Substantial Completion will be issued upon approval by the Engineer and Owner to open the cell to receive waste.
- Contract time will cease to run when Certificate of Substantial Completion is issued.
- Contractor must notify CM within 2 days of any event that will delay project in accordance with the General Conditions of the contract.
- Claims for weather days must be requested by the 15th of the following month. Detailed back-up must be submitted with the request in accordance with the General Conditions of the contract.

Submittals

- Submittals can be provided electronically to initiate review. Two hard copies shall be submitted following final approval for the Owner/Engineer to maintain.

Permitting

- A General Construction Permit – Notice of Intent Permit is required for this project and the County is awaiting permit approval from MDE. The County will issue to the Notice to Proceed to the successful bidder following the receipt of the NOI. The NOI is anticipated to be obtained in early September 2017.
- Erosion and Sediment Control
- Stormwater Management Approval

Site Conditions

- Shallow groundwater. Contractor shall expect shallow groundwater. Cell 5 is built up with imported structural fill. Bridge lift areas may be needed.
- Active landfill facility. Contractor shall expect coordination with solid waste conveyance vehicle traffic

Progress Meetings

- Progress meetings will be held monthly and the Contractor will be required to provide a updated schedule, submittal log and RFI log at each progress meeting.

RESPONSE TO QUESTIONS

- Question No. 01: Is there an anticipated Notice to Proceed Date?
Response No. 01: *The Notice to Proceed date will be dependent on the completeness of the received bids and review of the bids considering the County's available funding. The County is hopeful for a Notice to Proceed date of mid-September. It is not the County's intent to delay the start of this project and would like construction to start as early as possible this fall.*
- Question No. 02: Is there an anticipated date to obtain the General Construction Permit – Notice of Intent?
Response No. 02: *The County anticipates obtaining the General Construction Permit - Notice of Intent by early September 2017.*
- Question No. 03: Is there a location identified on the drawings for a construction trailer?
Response No. 03: *The Contractor can utilize the gravel area adjacent to the Maintenance Building located just east of the scales. This is the same area the Contractor utilized during the construction of Cell 4.*
- Question No. 04: Is there a material storage area?
Response No. 04: *The Contractor may use the gravel area adjacent to the Maintenance Building located just east of the scales for material storage.*
- Question No. 05: Can geosynthetic materials be stored all at once for the project or does deliver of materials need to be staged?
Response No. 05: *The Contractor may deliver the material all at once provided the area is sufficient in size and the area required is measured both horizontally and vertically (for stacking rolls) and communicated to the Owner and Engineer for approval.*
- Question No. 06: Will clearing and grubbing trees and shrubs be required to be taken offsite?
Response No. 06: *No. Cleared and grubbed trees and shrubs may be shredded and provided to the County. The Contractor may remove the trees and shrubs from the Central Landfill Facility at no cost to the County.*
- Question No. 07: We request CAD files for bid takeoff purposes. How may we obtain these?
Response No. 07: *Yes. Autocadd files of the base files to include existing and proposed conditions will be provided to DiCarlo for email distribution to the plan holders.*
- Question No. 08: Instructions to Bidders IB-1 indicate borrow source information required with the bid, but it was discussed at the pre-bid meeting this may not all be necessary. Please confirm what is required with the bid.

Response No. 08: The Instructions to Bidders section will be revised to remove the requirements of submitting proctor curves, soil boring logs and permeability tests for each clay source at the time of bid.

Question No. 09: Can you clarify the intent the “full-time onsite superintendent” in the Qualifications of Bidders section of the Instructions to Bidders

Response No. 09: During the installation, the geosynthetic clay liner installer shall meet the requirements identified in Section 06040. Specifically, the Contractor is required to submit an installation plan. The bid package shall include the resume of the superintendent overseeing the installation.

Question No. 10: Will stripped topsoil be required to be removed from the site?

Response No. 10: Stripped topsoil may be stockpiled and used for stabilization or provided to the County at the working face of Cell 4. Clean topsoil shall not be removed from the Central Landfill Facility.

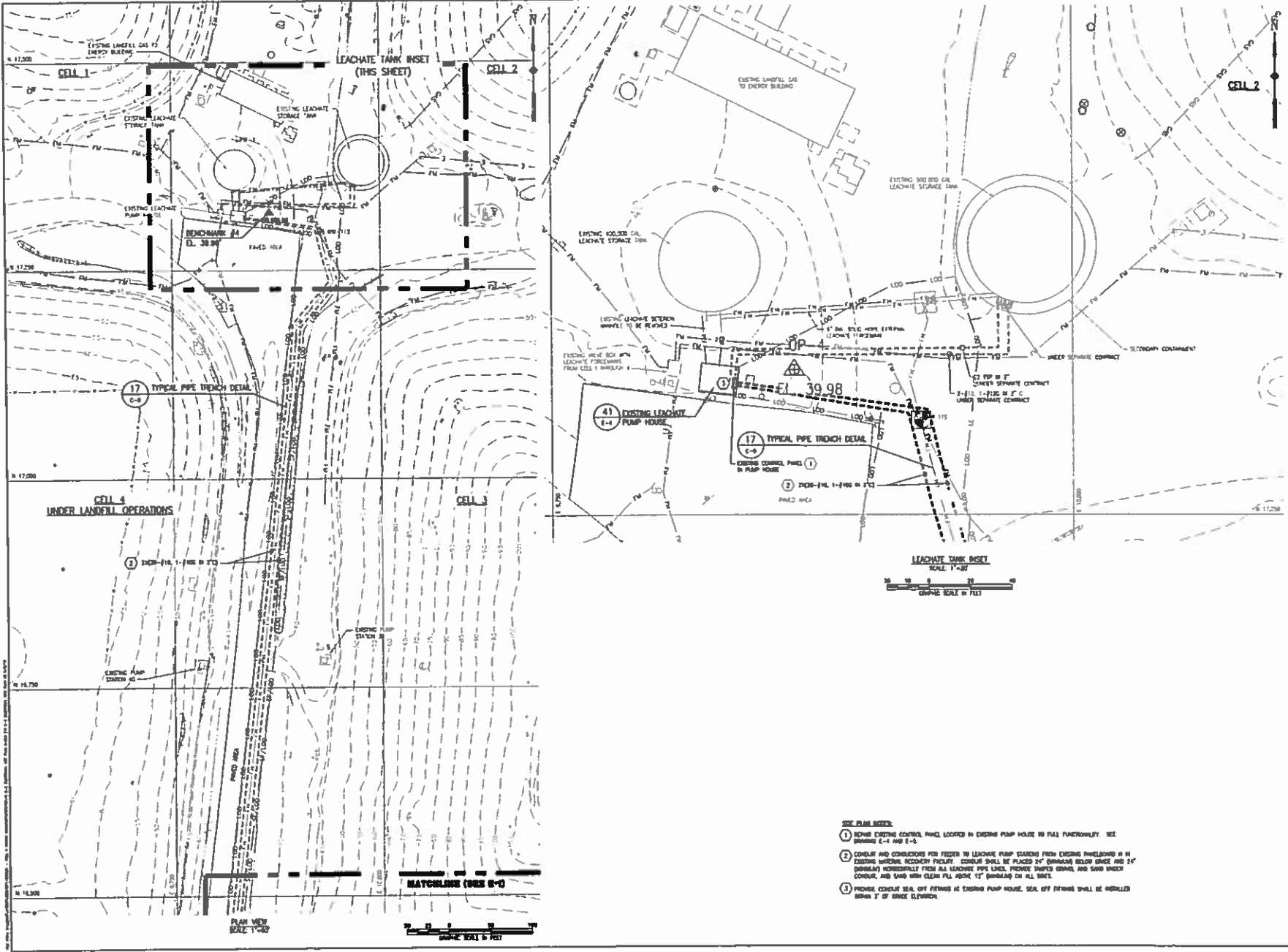
Question No. 11: Specification 02729-1.3.2, Leachate Zone Sand. Will deviation from ASTM C-33 and max 2% passing 200 sieve be allowed as long as the permeability is achieved?

Response No. 11: This cannot be deemed acceptable as the fines may result in clogging the leachate collection and conveyance system.



WORCESTER COUNTY CENTRAL LANDFILL FACILITY
 LANDFILL CELL 5
 PRE-BID MEETING
 SIGN IN SHEET

NAME	COMPANY	PHONE	EMAIL
1. CODY ALLEN	IND. CONT SYSTEMS	443-206-2469	cody@icmaterials.com
2. Douglas H. Brown Sr	Barkers Landmg Exc.	240 577 4833	DBROWN@BARKERSLANDMGEXCAVATION.COM
3. AARON TIDD	SARGENT CORPORATION	804-368-7118	SARGENT-CORP.COM @yaho
4. Matt Ruth	Allan Myers	410-937-9566	matt.ruth@allanmyers.com
5. Ben Becker	Kiewit	443-591-3265	ben.becker@kiewit.com
6. SEAN GAINES	NIXIE	443 243 3027	SEAN@NIXIECONST.COM
7. Todd Hartman	Hallatan	410 583 7700	Tod Hartman@hallatan.com
8. Keith Bilbrough	Bilbrough electric	410.479.4215	Keith@bilbroughelectric.com
9. Anthony Nicastro	Allan Myers	215-584-2219	Anthony.nicastro@allanmyers.com
10. FRANK FURELL	ALLAN MYERS	610 960 5122	FRANK.FURELL@ALLANMYERS.COM
11. DARL KOLAR	EA	410 641 5341	dkolar@eagest.com
12. DOUGLAS REYNOLDS	REYNOLDS EXCAVATING	410 651 0770	douglasreynolds@reynoldsexca.com
13. JOHN TUSTIN	Wor. Co		
14. Mike Mitchell	Wor. Co		
15. Tim Rafter	Atlantic Living	609 468 4084	TimR@AtlanticLiving.com
16. Matt Winterle	Atlantic Living	609-468-4614	matt.w@atlanticliving.com
17. Westley Rowe	George + Lynch	302-505-6430	Jnorman@gecolyn.com
18. MITCH SEITZ	A-DEL	302 893 3961	MSEITZ@A-DEL.COM
19.			



**WORCESTER COUNTY
CENTRAL LANDFILL FACILITY
LANDFILL CELL NUMBER FIVE
NEWARK, MARYLAND**

ELECTRICAL SITE PLAN III

EA
 EA ENGINEERING,
 SCIENCE AND
 TECHNOLOGY
 Hunt Valley Center
 228 Baltimore Center
 Hunt Valley, Maryland 21046
 (410) 584-7000

SHEET NO.	100-B-0
DATE	AUGUST 2015
DESIGN BY	DF
DRAWN BY	MSH
CHECKED BY	CSJ
PROJECT NUMBER	0000011
DRAWN NUMBER	E-3
SHEET TOTAL	11 OF 23

- SEE PLAN NOTES:**
- 1) REPAIR EXISTING CONTROL PANEL LOCATED IN EXISTING PUMP HOUSE TO FULL FUNCTIONALITY. SEE SHEETS E-4 AND E-5.
 - 2) CONDUIT AND CONDUITORS FOR FEEDER TO LEACHATE PUMP STARTING FROM EXISTING ENVELOPEDS IN EXISTING WASTEWATER RECOVERY FACILITY. CONDUIT SHALL BE PLACED 24" (MINIMUM) BELOW GRADE AND 24" (MINIMUM) HORIZONTALLY FROM ALL LEACHATE PIPE LINES, FIBER OPTIC CABLES, AND SAND UNDER CONDUIT, AND SAND WITH CLEAN FILL ABOVE 12" (MINIMUM) TO ALL FEEDS.
 - 3) PROVIDE CONDUIT SEAL OFF FITTINGS AT EXISTING PUMP HOUSE. SEAL OFF FITTINGS SHALL BE INSTALLED UPON 1" OF BRASS ELEVATION.

1 August 2017
EA Project No. 1060932

TO: Bidders of Record

FROM: EA Engineering, Science, and Technology
11202 Racetrack Road, Unit 103
Ocean Pines, MD 21811

RE: Addendum No. 2
Worcester County Department of Public Works
Central Landfill Facility Site – Landfill Cell 5

TO ALL BIDDERS: This Addendum No. 2 contains modifications to the Contract Documents. This Addendum No. 2 shall supplement, amend, and become part of the Contract Documents and Construction Specifications for the title project and contract.

Except as may be otherwise described, bidding requirements, materials, and workmanship for the work described herein shall conform to all requirements of the original Contract Documents, except as modified using succeeding addenda. The following Addendum to the specifications and drawings is made a part of the project and takes precedence over the section of the specifications, in part, and/or drawings, as originally written, or as modified in succeeding addenda. All bids shall be based on this addendum in accordance with the Bidding Documents.

- **Revised Bid Due Date: August 21, 2017, 1:00pm**
- **Modifications to Contract Documents**

MODIFICATIONS TO CONTRACT DOCUMENTS

1. Instructions to Bidders, Section 12 Submission of Bids, first sentence, DELETE, “August 7, 2017” and REPLACE with, “August 21, 2017.”
2. Instructions to Bidders, Section 14 Opening of Bids, first sentence, DELETE, “August 7, 2017” and REPLACE with, “August 21, 2017 and second sentence, DELETE “August 15, 2017” and REPLACE with, “September 5, 2017.”
3. Supplementary Conditions Section SC-18.05, DELETE, “31 July 2017” and REPLACE with “10 August 2017.”

4 August 2017
EA Project No. 1060932

TO: Bidders of Record

FROM: EA Engineering, Science, and Technology
11202 Racetrack Road, Unit 103
Ocean Pines, MD 21811

RE: Addendum No. 3

Worcester County Department of Public Works
Central Landfill Facility Site – Landfill Cell 5

TO ALL BIDDERS: This Addendum No. 3 contains modifications to the Contract Documents. This Addendum No. 3 shall supplement, amend, and become part of the Contract Documents and Construction Specifications for the title project and contract.

Except as may be otherwise described, bidding requirements, materials, and workmanship for the work described herein shall conform to all requirements of the original Contract Documents, except as modified using succeeding addenda. The following Addendum to the specifications and drawings is made a part of the project and takes precedence over the section of the specifications, in part, and/or drawings, as originally written, or as modified in succeeding addenda. All bids shall be based on this addendum in accordance with the Bidding Documents.

- Response to Plan Holder Questions
- Modifications to Contract Documents

RESPONSE TO PLAN HOLDER QUESTIONS

Question No. 01 In reviewing the documents for the pump stations, I noticed that the suction and discharge piping outside the pumping stations is shown as stainless steel, but all the piping and valves inside the station enclosure are specified as ductile iron or similar materials.

Response No. 01 The piping, valves and fittings inside the station enclosure shall be stainless steel. See the Modifications to the Contract Documents section.

Question No. 02: Would you provide a spec or product model for the air release valves (Detail 40 / C-15)?

Response No. 02: The Air Release Valve Model No. VMC-49AS as manufactured by ValMatic Valve and Manufacturing Corp. or approved equal.

Question No. 03: Section 15060-2.1.1 indicate ductile iron backing rings at forcemain gate valves, whereas para. 2.6 requires all 316 SS. Would you confirm ductile iron is correct for the valve backing rings?

Response No. 03: Ductile iron is correct for the valve backup rings.

Question No. 04: In the addendum, you stated that topsoil not reused for stabilization can be hauled to the active face. How are we being paid for that? Will that be billed to

the Unsuitable Soils line item?

Response No. 04: Topsoil removed and not reused by Contractor shall be transported to the working face of Cell 4 and will be paid for as a unit price item under Bid Item No. 3.

Question No. 05: Detail 7 on drawing C-8. The detail shows a bootless penetration through the liner system at each of the sumps. The detail also shows a second pipe penetration, detail 14-C-9 “at limit of structural fill”. We are confused by this detail. Is the intent for a bootless penetration as well as a regular pipe boot at each of the sumps? Can you please clarify and provide more information in regards to this detail and the impact on the liner system?

Response No. 05: Detail 7 illustrates the requirement of a HDPE fabrication between the pipe and liner system which is further illustrated on Detail 19 along with a 3’x3’ clay plug around the pipe from the penetration to the berm exit which is further illustrated on Details 14 and 15.

Question No. 06: On sheet E-2 on the panel schedule, note 1 indicates 2 -70amp 3 pole circuit breakers feeding the new pumps but note at the bottom of panel schedule indicates 2- 40amp 3 pole breakers. Which is correct?

Response No. 06: The panelboard schedule on Drawing E-2 identifying 2-70amp 3-pole breakers is correct, coded Note 1 below the panelboard schedule indicating 40A circuit breaker is not correct.

Question No. 07: On Sheet E-2, Note 2 indicates 3 # 2 and 1 # 2 ground conductors in a 2-inch conduit, but on the drawing, it indicates 3 #300 and 1 #2 in a 3 1/2 inch conduit. Which is correct?

Response No. 07: The conductors shall be 3 #300 and 1 #2 in a 3-1/2 inch conduit.

Question No. 08: On Sheet E-2 Note 5 indicates to provide a spare 2-inch spare conduit, where does this spare conduit terminate?

Response No. 08: Site Plan Note 5 refers to providing a spare 2-inch conduit in the same trench from each pump station to the existing panelboard H in the existing Material Recovery Facility.

Question No. 09: Drawing E-4 Detail Existing Control Panel, is this the Existing PLC CP or is this the Existing LS Control Panels?

Response No. 09: Drawing E-4 Existing Control panel, it is the existing PLC CP.

Question No. 10: Same Drawing Notes one states two different part number for HMI is this correct?

Response No. 10: Each of the HMI part numbers are correct. The existing HMI is KEP MMI750; it is to be replaced with a KEP MMI8056, or the latest model of that size.

Question No. 11: What items are not working on the existing system?

Response No. 11: The existing auto-dialer does not communicate to the scale house.

Question No. 12: Are the Existing Flow meter working?

Response No. 12: *The existing flow meter works intermittently.*

Question No. 13: Are the existing LS Communicating to the Existing PLC?

Response No. 13: *The existing lift stations are communicating to the existing PLC.*

Question No. 14: The drawings do not indicate any Hand Holes or Man Holes but spec does. If they are required where and what type are to be used?

Response No. 14: *Handholes shall be spaced a minimum every 750 linear feet and in accordance with Specification Section 16402, specifically, Section 2.4 Handholes.*

Question No. 15: Are all Existing Level Transducers working?

Response No. 15: *It appears that the existing level transducers are working.*

Question No. 16: Drawing I-1 500,000-gal Tank show existing is the LSC 2 also existing?

Response No. 16: *The 500,000-gal leachate storage tank communicates to the existing pump house. The LSC-2 is existing.*

Question No. 17: Does a conduit need to be installed from the 500,000-gal tank to the existing PLC?

Response No. 17: *No.*

Question No. 18: The specs spell out the leachate sand to be Concrete Sand C-33. I have a mason sand the meets the rest of the specs, non-calcareous and less than 2% passing #200. Would this product be acceptable for the leachate collection zone sand?

Response No. 18: *If the product meets the requirements Specification 02729 Leachate Collection System, Section 1.3.2 Preconstruction Testing of Aggregates, be non-calcareous, and ASTM C-33 for fine aggregate, mason sand may be used for the leachate collection zone sand. Permeability shall meet the minimum hydraulic conductivity of 1×10^{-3} cm/sec. Please see Contract Documents and Construction Specifications Modification No. 6 below.*

Question No. 19: I am concerned about the 365 day schedule to complete this project due to the amount of soils that will need to be trucked. Is there a possibility of giving us a couple of weeks?

Response No. 19: *The County recognizes the large volume of soil to be trucked onsite for this project. The County will take into consideration the addition of calendar days, maximum of 45 calendar days, provided the Contractor can demonstrate and document an aggressive effort to maximize truck usage. Further, the County recognizes the potential for construction along U.S. Route 113 during this project. Should delays to traffic based on construction activity beyond the Contractor's control for full road or lane closure, the County will negotiate the impacts with the Contractor. The Contractor is reminded that the current speed limit in the construction zone area is 45 mph.*

MODIFICATIONS TO CONTRACT DOCUMENTS

Contract Documents and Construction Specifications:

1. Specification 11306 Package Suction-Lift Leachate Pump Stations, Section 2.5.1 Check Valves, second sentence, DELETE, “Bronze”, third sentence DELETE, “be cast iron, bronze face, and shall”, fourth sentence, DELETE, “bonze”. ADD “Valve body and all internal components shall be stainless steel” to the end of section.
2. Specification 11306 Package Suction-Lift Leachate Pump Stations, Section 2.5.2 Plug Valves, third sentence DELETE, “semi-steel” and REPLACE with “stainless steel”, last sentence, DELETE, “and the valve shall include grease zerks to keep the valve lubricated.”
3. Specification 11306 Package Suction-Lift Leachate Pump Stations, Section 2.5.3 Air Release Valves, second paragraph, DELETE, “fabric reinforced neoprene” and REPLACE with “Viton”.
4. Specification 11306 Package Suction-Lift Leachate Pump Stations, Section 2.5.4 Piping, first sentence DELETE, “ductile iron” and REPLACE with “stainless steel”.
5. Specification 11306 Package Suction-Lift Leachate Pump Stations, Section 2.5.6 Emergency By-Pass Piping, second sentence DELETE, “cast iron” and REPLACE with “stainless steel”.
6. Specification 02729 Leachate Collection System, Section 1.3.2 Preconstruction Testing of Aggregates, Leachate Collection Zone Sand, first paragraph, second sentence, DELETE “2 percent” and REPLACE with “5 percent”.
7. Specification Section 15060, 2.6 Connection Appurtenances, second paragraph, DELETE, “AISI type 316 stainless steel”, and REPLACE with “ductile iron”.
8. Bid Form, Page 3 of 6, DELETE page in its entirety and REPLACE with the attached revised Bid Form, Page 3 of 6.
9. Specification Section 01100 Measurement and Payment, DELETE in its entirety and REPLACE with the attached revised Section 01100 Measurement and Payment. The following sections of Section 01100 Measurement and Payment have been revised.
 - a. 1.5.7 Low Permeability Subgrade (1×10^{-5} cm/sec) – Bid Item No. 7
 - b. 1.5.18 Gravel Access Road Material Stockpile – Bid Item No. 18
 - c. 1.6 MEASUREMENT AND PAYMENT OF ALTERNATE BASE BID ITEMS
 - i. 1.6.1 Common Borrow Stockpile – Alternate Bid Item No. A1
 - ii. 1.6.2 Low Permeability Subgrade (1×10^{-7} cm/sec) – Alternate Bid Item No. A2

Contract Drawings:

1. Drawing E-2, Panel Schedule Note 1, DELETE “40A”, and REPLACE with “70A”.
2. Drawing E-2, Site Plan Note 2, DELETE “(3-#2, 1-#2G in 2” Conduit)”, and REPLACE with “3-#300 MCM, 1-#2G in 3.5” Conduit”.
3. Drawing I-2 Central Control and Alarm Notes, ADD, “Note 3. Repair the existing auto-dialer to full functionality. Contractor may assume the telephone line is in place and undamaged.”

**SECTION 01100
MEASUREMENT AND PAYMENT**

PART I – GENERAL

1.1 DESCRIPTION

1.1.1 Scope of Work

The items listed in this section refer to and are the same pay items listed on the Bid Form. They constitute all of the pay items for the completion of the Work. Compensation for all such services and materials shall be included in the prices stipulated for the lump sum and unit price pay items listed herein. Items of Work not specifically included in this Section for measurement and payment as described herein will not be measured for payment, but will be considered incidental to the Contract with the associated costs borne solely by the CONTRACTOR.

Schedule of Values

- The Schedule of Values is a list of line items, corresponding to each aspect of the Work, establishing in detail the value or cost of each major part of the Work, and is submitted to ENGINEER for acceptance.
- Upon request of ENGINEER, support values with data that substantiate their correctness.
- The preliminary Schedule of Values is submitted to the ENGINEER for initial review. The CONTRACTOR shall incorporate the ENGINEER's comments into the Schedule of Values and provide a re-submittal to the ENGINEER. The ENGINEER may require corrections and re-submittal of the Schedule of Values until it is acceptable.
- The Schedule of Values and the Progress Schedule updates specified in Section 01300, Submittals shall be used as the basis for preparing each Application for Payment. The Schedule of Values may be used as a basis for negotiating the price of changes in the Work.
- Unit price payment items with their associated quantity shall be included in the Schedule of Values. Provide in the Schedule of Values a detailed breakdown of the unit prices when required by the ENGINEER.

1.2 SUBMITTALS

Schedule of Values

- The CONTRACTOR shall submit to the ENGINEER for acceptance a Schedule of Values that allocates cost to each item of the Work.

- The Schedule of Values shall include an itemized list of Work for each major part of the Contract, for each payment item as listed in the Bid Form.
- This schedule, when approved by the ENGINEER, shall be used as the basis for the CONTRACTOR's Applications for Progress Payments.
- Submit the required number of copies of the Schedule of Values to ENGINEER at or before the Pre-construction meeting. The first Application for Payment will not be processed without a Schedule of Values approved by the ENGINEER.
- When required by the ENGINEER, promptly submit an updated Schedule of Values to include cost breakdowns for changes in the Work, including Change Orders.

1.3 MEASUREMENT

Measurement shall be made in accordance with the Bid Form items and as described in the following sections.

1.3.1 Estimate of Quantities

The estimated quantities for unit price pay items, as listed in the Bid Form, are approximate only and are included solely for the purpose of comparison of Bids. The ENGINEER does not expressly or by implication agree that the nature of the materials encountered below the surface of the ground or the actual quantities of material encountered or required will correspond therewith, and reserves the right to increase or decrease any quantity or to eliminate any quantity as the ENGINEER may deem necessary in accordance with the Contract Documents. CONTRACTOR shall not be entitled to any adjustment in a unit bid price as a result of any change in an estimated quantity and agrees to accept the aforesaid unit bid prices as complete and total compensation for any additions or deductions caused by changes or alterations in the Work directed by the COUNTY. Increased or decreased Work involving change orders will be paid for as stipulated in the Contract Documents.

Payment for unit price earthwork quantities shall be computed by field survey grid method and analysis using AutoCAD Civil 3D 2012 or similar software. Points shall include all slope breaks and features. A maximum 25-foot by 25-foot (25' x 25') grid shall be used in the field and the vertical tolerance shall be 0.01 foot (0.01'). Alternative methods may be used as approved by the ENGINEER. Surveys shall be field run by CONTRACTOR'S independent licensed surveyor.

1.4 PAYMENT

Payments to the CONTRACTOR shall be in accordance with Paragraph GC.14 of the General Conditions and the Agreement.

Lump sum price items shall be paid for the actual percentage of Work completed as identified in the approved Schedule of Values as required in Paragraph 1.5.

Unit price items shall be paid in accordance of Paragraph GC.14.c of the General Conditions and the Agreement.

Payment for the Work shall be made in accordance with the Bid Form items as described in the following sections.

1.4.1 Payment Items

The items listed in the Contract Documents refer to the pay items listed on the Bid Form. They constitute all of the pay items for the completion of the Work. Compensation for all such services and materials shall be included in the prices stipulated for the unit price and lump sum pay items listed on the Bid Form.

- Each lump sum and unit bid price will be deemed to include an amount considered by the CONTRACTOR to be adequate to cover the CONTRACTOR's overhead and profit for each separately identified item.
- No progress payments will be made by the ENGINEER until the Construction Schedule and the Schedule of Values have been submitted to and approved by the ENGINEER.
- The CONTRACTOR shall accept in compensation, as herein provided, full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to the completed Work and for performing all Work contemplated and embraced by the Contract, also for all loss or damage arising from weather or other unforeseen conditions which may be encountered during the execution of the Work and until its final acceptance by the ENGINEER, and for all risks of every description connected with the prosecution of the Work, except as provided herein, also for all expenses incurred as a result of the suspension of the Work as herein authorized.
- The payment of any partial estimate or of any retained percentage, except by and under the approved final invoice, in no way shall affect the obligation of the CONTRACTOR to repair or renew any defective parts of the construction or to be responsible for all damage due to such defects.

1.4.2 Eliminated Items

Should any items contained in the Schedule of Values be found unnecessary for the proper completion of the Work contracted, the ENGINEER may eliminate such items from the Contract, and such action shall in no way invalidate the Contract. No allowance will be made for payment of items so eliminated.

1.4.3 Progress Payments

Percentage of Work Complete – At the end of each pay period, the CONTRACTOR's Superintendent or other authorized representative of the CONTRACTOR shall meet with the

ENGINEER and determine and agree upon the percentage of the project completed during the pay period.

Application for Payment – The CONTRACTOR will then prepare and submit an Application for Payment to the ENGINEER. The ENGINEER will evaluate the Application for Payment, determine the amounts owed, and issue a Recommendation of Payment in such amounts as provided in the Contract Documents. Progress payments shall be made monthly as the Work progresses. All progress invoices and payments shall be subject to correction in the final invoice and payment. The progress payment will be based on invoices prepared by the CONTRACTOR and approved by the ENGINEER for the value of the Work performed, and materials complete in place in accordance with the Contract. Retainage shall be as specified in the Contract Documents. The payment schedule shall be in accordance with the Contract Documents.

1.14.4 Final Payment

The CONTRACTOR shall make and the ENGINEER shall approve, as soon as practicable after the completion of the project, a final invoice for the amount of Work performed under the Contract and establish the value of such Work. Final payment shall be made in accordance with the Contract Documents.

1.5 MEASUREMENT AND PAYMENT OF BASE BID ITEMS

1.5.1 Mobilization/Stakeout/Bond – Bid Item No. 1

This item consists of all materials, labor, and equipment to complete work activities for mobilization, stakeout, and bonding. The work shall include, but not be limited to, obtaining of all permits; moving onto the site and off of the site all equipment; furnishing and erecting and then removing temporary buildings, and other construction facilities; bonding, insurance, surety and administrative costs; temporary utilities; surveying; plan and shop drawing preparation; health and safety plans; materials handling plans; excavation plans; construction/installation plans; construction quality control plans; implementation of security requirements; field offices and requirements; and staking out of work area.

Measurement and Payment – Bid Item No. 1 Mobilization/Stakeout/Bond will not be measured and shall be paid by lump sum at the Contract price as shown on Bid Item No. 1 Mobilization/Stakeout/Bond in accordance with the Contract Documents.

1.5.2 Clearing and Grubbing the project area to the limit of work – Bid Item No. 2

This item consists of all materials, labor, and equipment necessary to complete work of clearing and grubbing the project area within the limits of disturbance, and establishment of the stockpile area. The work shall include, but not be limited to, the following: clearing, grubbing, removal of vegetation and roots both in ground and stockpiled, tree and stump removal, chipping, disposal, sorting, stockpiling, hauling, and management of cleared and grubbed materials.

Measurement and Payment – Bid Item No. 2 Clearing and Grubbing the project area to the limit of work will not be measured and shall be paid by lump sum at the Contract price as shown on Bid Item No. 2 Clearing and Grubbing to the project area to the limit of work in accordance with the Contract Documents and Specifications.

1.5.3 Excavation, Transport, and Placement of Unsuitable Material – Bid Item No. 3

This item consists of all materials, labor, and equipment to complete work activities for soil excavation to the limits as shown on the Contract Drawings. The work shall include, but not be limited to, excavation of soil, hauling, onsite stockpiling, surveying, any testing, and all incidentals to complete the Work in accordance with the Contract Documents.

Measurement and Payment – Bid Item No. 3 Excavation, Transport, and Placement of Unsuitable Material will be measured on the basis of in-place cubic yard volume excavated as determined by pre-construction survey and survey after soil excavation and payment made at the Contract unit price as shown on Bid Item No. 3 Excavation, Transport, and Placement of Unsuitable Material in accordance with the Contract Documents and Specifications.

1.5.4 Coarse Aggregate – Bridge Lift – Bid Item No. 4

This item consists of all materials, labor, and equipment to complete work activities for construction the Course Aggregate- Bridge Lift. The work shall include, but not be limited to, placement of geotextile, hauling, handling, Aggregate, compaction, wetting, drying, proof rolling, testing, reworking prepared Structural fill, grading, surveying and all incidentals to complete the work in accordance with the Contract Documents. No payment will be made for control of groundwater.

Bid Item No. 4 Coarse Aggregate – Bridge Lift will be measured on the basis of tons of aggregate installed as determined by survey and mutually agreed density or receipt of delivery tickets. Payment made at the Contract unit price as shown on Bid Item No. 4 Coarse Aggregate – Bridge Lift in accordance with the Contract Documents and Specifications.

1.5.5 Structural Fill – Bridge Lift – Bid Item No. 5

This item consists of all materials, labor, and equipment to complete work activities for construction the Structural Fill grade- Bridge Lift. The work shall include, but not be limited to, placement of geotextile, hauling, handling, Structural Fill, compaction, wetting, drying, proof rolling, testing, reworking prepared Structural fill, grading, surveying and all incidentals to complete the work in accordance with the Contract Documents. No payment will be made for control of groundwater.

Bid Item No. 5 Structural Fill – Bridge Lift will be measured on the basis of in-place cubic yard volume installed as determined by survey. Payment made at the Contract unit price as shown on Bid Item No. 5 Structural Fill – Bridge Lift in accordance with the Contract Documents and Specifications.

1.5.6 Structural Fill – Bid Item No. 6

This item consists of all materials, labor, and equipment necessary to complete work of site restoration of the project area in accordance with the Contract Drawings. The work shall include, but not be limited to, placement, discing, compaction, testing, wetting, drying, and survey to place Structural Fill where shown on the Contract Drawings.

Bid Item No. 6 Structural fill will be measured on the basis of in-place cubic yard volume as determined by Survey of the post clearing and grubbing and bridge lift construction as compared to the prepared Structural fill surface as shown on the Contract Drawings. Payment made at the Contract unit price as shown on Bid Item No. 6. Structural Fill in accordance with the Contract Documents and Specifications.

1.5.7 Low Permeability Subgrade (1×10^{-5} cm/sec) – Bid Item No. 7

This item consists of all materials, labor, and equipment to complete work activities for the installation of the low permeability (1×10^{-5} cm/sec) Subgrade. The Work shall include, but not be limited to, transport, hauling from offsite, installation, compaction, grading, rolling, testing, re-handling, wetting, drying, discing, surveying, as well as all incidentals to complete the Work in accordance with the Contract Documents.

Measurement and Payment – Bid Item No. 7 Low Permeability Subgrade (1×10^{-5} cm/sec) will be measured on the basis of in-place cubic yard volume installed as determined by the Structural fill and low permeability soil surveys to the limits identified in the Contract Drawings and payment made at the Contract unit price as shown on Bid Item No. 7 Low Permeability Subgrade (1×10^{-5} cm/sec) in accordance with the Contract Documents and Specifications.

1.5.8 Geosynthetic Clay Liner – Bid Item No. 8

This item consists of all materials, labor, and equipment to complete work activities for the installation of the Geosynthetic Clay Liner. The Work shall include, but not be limited to, manufacturer's testing, pre-delivery testing, storage, transport, installation, seaming, sewing, testing, surveying, as well as all incidentals to complete the work in accordance with the Contract Documents.

Measurement and Payment – Bid Item No. 7 Geosynthetic Clay Liner will not be measured and shall be paid by lump sum at the Contract price as shown on Bid Item No. 7 Geosynthetic Clay Liner in accordance with the Contract Documents and Specifications.

1.5.9 60-mil HDPE Liner – Bid Item No. 9

This item consists of all materials, labor, and equipment to complete work activities for the installation of the 60-mil HDPE liner. The work shall include, but not be limited to, manufacturer's testing, pre-delivery testing, storage, transport, installation, seaming, welding, testing, surveying, as well as all incidentals to complete the work in accordance with the Contract Documents.

Measurement and Payment – Bid Item No. 9, 60-mil HDPE Liner will not be measured and shall be paid by lump sum at the Contract price as shown on Bid Item No. 9 60-mil HDPE Liner in accordance with the Contract Documents and Specifications.

1.5.10 Geocomposite - Bid Item No. 10

This item consists of all materials, labor, and equipment to complete work activities for the installation of the Geocomposite. The work shall include, but not be limited to, manufacturer's testing, pre-delivery testing, storage, transport, installation, seaming, welding, testing, surveying, as well as all incidentals to complete the work in accordance with the Contract Documents.

Measurement and Payment – Bid Item No. 10 Geocomposite will not be measured and shall be paid by lump sum at the Contract price as shown on Bid Item No. 10 Geocomposite in accordance with the Contract Documents and Specifications.

1.5.11 Leachate Collection System - Bid Item No. 11

This item consists of all materials, labor, and equipment to complete work activities for the installation of the leachate drainage layer and the leachate collection Leachate Collection System (Filter Geotextiles, Geocomposite, Pea Gravel, Leachate Collection Zone Sand, Annulus Aggregate, Leachate Collection Piping) and conveyance system within the cell. The work shall include, but not be limited to, furnishing, handling, hauling, grading, sewing, testing, dewatering, and placement of leachate drainage layer materials including drainage stone and separation geotextile, perforated, solid HDPE piping and appurtenances; connections and fittings, bootless pipe penetration, installation of clay plug, fittings, and surveying and all incidentals to complete the Work in accordance with the Contract Documents.

Measurement and Payment – Bid Item No. 11 Leachate Collection System (Filter Geotextiles, Geocomposite, Pea Gravel, Leachate Collection Zone Sand, and Leachate Collection Piping) will not be measured and shall be paid by lump sum at the Contract price as shown on Bid Item No. 11 Leachate Collection System (Filter Geotextiles, Geocomposite, Pea Gravel, Leachate Collection Zone Sand, and Leachate Collection Piping) in accordance with the Contract Documents and Specifications.

1.5.12 Leachate Transmission System – Bid Item No. 12

This item consists of all materials, labor, and equipment to complete work activities for the installation of the Leachate Conveyance System for transmission of leachate outside the lined landfill. This includes dual walled piping, bedding, compaction, valves, valve vaults, backfill, and all incidentals to complete the work in accordance with the Contract Documents.

Measurement and Payment – Bid Item No. 12 Leachate Conveyance System will not be measured and shall be paid by lump sum at the Contract price as shown on Bid Item No. 12 Leachate Conveyance System and Pump Stations in accordance with the Contract Documents and Specifications.

1.5.13 Pump Stations – Bid Item No. 13

This item consists of all materials, labor, and equipment to complete work activities for the installation of the package pumping stations proposed. This includes all materials, labor, testing, package pump stations including electrical, wet wells, tie downs, excavation, concrete, foundations, and all incidentals to complete the work in accordance with the Contract Documents.

Measurement and Payment – Bid Item No. 13 Pump Stations will not be measured and shall be paid by lump sum at the Contract price as shown on Bid Item No. 13 Pump Stations in accordance with the Contract Documents and Specifications.

1.5.14 Leachate Forcemain – Bid Item No. 14

This item consists of all materials, labor, and equipment to complete work activities for the installation of the Leachate Forcemain for conveyance of leachate outside the lined landfill to the existing leachate tanks. This includes piping, bedding, compaction, valves, valve vaults, backfill, testing, penetrations, restoration, and all incidentals to complete the work in accordance with the Contract Documents.

Measurement and Payment – Bid Item No. 14 Leachate Forcemain will be measured on the basis of linear feet installed as identified in the Contract Drawings and payment made at the Contract unit price as shown on Bid Item No. 14 Leachate Forcemain in accordance with the Contract Documents and Specifications.

1.5.15 Dewatering, Stormwater Drainage and Sediment Control – Bid Item No. 15

This item consists of all materials, labor, and equipment to complete all work activities relating to seeding, stabilization, dewatering, stormwater drainage, and erosion and sediment control, including control of dust. The work shall include, but not be limited to, the following: Installation of stabilized construction entrances, silt/super silt fencing, temporary swales, seed/mulch/fertilizer, discing, earth dikes, pipe slope drains, inflow protection, riprap lining, cleanout excavation of existing devices, erosion control matting, geotextile, dust control, pumps and dewatering to complete the work as required, road cleaning, dewatering, sedimentation bags, and appurtenances. All stormwater management and erosion and sediment control measures shall be provided in order to contain all work activities in accordance with the Contract Drawings, and as directed by the ENGINEER.

Measurement and Payment – Bid Item No. 15 Dewatering, Stormwater Drainage, and Sediment Control will not be measured and shall be paid by lump sum at the Contract price as shown on Bid Item No. 15 Seeding, Stabilization, Dewatering, Stormwater Drainage, and Erosion and Sediment Control in accordance with the Contract Documents and Specifications.

1.5.16 Electrical – Bid Item No. 16

This item consists of all materials, labor, and equipment to provide electrical systems. The Work shall include, but not be limited to, obtaining of all permits; raceways, conduit, wire, excavation and backfill, control panels, temporary utilities; surveying; plan and shop drawing preparation; and all incidentals to complete the work in accordance with the Contract Documents. Electrical controls and panels associated with the pump station package system will be paid for under bid item 10.

Measurement and Payment – Bid Item No. 16 Electrical will not be measured and shall be paid by lump sum at the Contract price as shown on Bid Item No. 16 Electrical in accordance with the Contract Documents.

1.5.17 Trash Net Fencing – Bid Item No. 17

This item consists of all materials, labor, and equipment to provide electrical systems. The Work shall include, but not be limited to installation, placement, survey, netting, sewing, supports, anchors, and all incidentals to complete the work in accordance with the Contract Documents.

Measurement and Payment – Bid Item No. 17 Trash Net Fencing will not be measured and shall be paid by lump sum at the Contract price as shown on Bid Item No. 17 Trash Net Fencing in accordance with the Contract Documents.

1.5.18 Gravel Access Road Material Stockpile– Bid Item No. 18

This item consists of all materials, labor, and equipment to complete work activities for delivery of Gravel Access Road Material. The work shall include, but not be limited to, hauling, handling, weighing and stockpiling material onsite. Schedule of delivery and stockpile location for gravel access road material shall be coordinated with the County.

Bid Item No. 18 Gravel Access Road Material will be measured on the basis of tons of aggregate installed as determined by survey and mutually agreed density or receipt of delivery tickets. Payment made at the Contract unit price as shown on Bid Item No. 18 Gravel Access Road Material in accordance with the Contract Documents and Specifications.

1.6 MEASUREMENT AND PAYMENT OF ALTERNATE BASE BID ITEMS

1.6.1 Common Borrow Stockpile – Alternate Bid Item No. A1

This item consists of all materials, labor, and equipment to complete work activities for delivery of Common Borrow. The work shall include, but not be limited to, hauling, handling, weighing and stockpiling material onsite. Schedule of delivery and stockpile location of the common borrow shall be coordinated with the County.

Bid Item No. 19 Common Borrow will be measured on the basis of tons delivered and stockpiled onsite as determined by pre-and post-delivery weights at the landfill scale house. Payment made at the Contract unit price as shown on Bid Item No.19 Common Borrow in accordance with the Contract Documents and Specifications.

1.6.2 Low Permeability Subgrade (1×10^{-7} cm/sec) – Alternate Bid Item No. A2

This item consists of all materials, labor, and equipment to complete work activities for the installation of the low permeability (1×10^{-7} cm/sec) Subgrade. The Work shall include, but not be limited to, transport, hauling from offsite, installation, compaction, grading, rolling, testing, re-handling, wetting, drying, discing, surveying, as well as all incidentals to complete the Work in accordance with the Contract Documents.

Measurement and Payment – Bid Item No. 7B Low Permeability Subgrade (1×10^{-7} cm/sec) will be measured on the basis of in-place cubic yard volume installed as determined by the Structural fill and low permeability soil surveys to the limits identified in the Contract Drawings and payment made at the Contract unit price as shown on Bid Item No. 7B Low Permeability Subgrade (1×10^{-7} cm/sec) in accordance with the Contract Documents and Specifications.

PART II – PRODUCTS

NOT USED.

PART III – EXECUTION

NOT USED.

++ END OF SECTION ++

BID FORM
CENTRAL LANDFILL FACILITY SITE
LANDFILL CELL FIVE
WORCESTER COUNTY, MARYLAND

ITEM NO.	BASE ITEM DESCRIPTION	ESTIMATED QTY	UNIT	COST PER UNIT (\$)	TOTAL ITEM COST (\$)
1	Mobilization/Stakeout/Bond	1	LS		
2	Clearing and Grubbing	1	LS		
3	Excavation, Transport, and Removal of Unsuitable Material	2,000	CY		
4	Coarse Aggregate – Bridge Lift	1,000	TONS		
5	Structural Fill – Bridge Lift	10,000	CY		
6	Structural Fill	150,000	CY		
7	Low Permeability Subgrade (1x10 ⁻⁵ cm/sec)	65,000	CY		
8	Geosynthetic Clay Liner	1	LS		
9	60-mil HDPE Liner	1	LS		
10	Geocomposite	1	LS		
11	Leachate Collection System	1	LS		
12	Leachate Transmission System	1	LS		
13	Pump Stations	2	EA		
14	Leachate Force Main	3,200	LF		
15	Dewatering, Stormwater Management and Erosion and Sediment Control	1	LS		
16	Electrical	1	LS		
17	Trash Net Fencing	1	LS		
18	Gravel Access Road Material	500	Ton		
Total Base Bid					
ITEM NO.	ALTERNATE BID ITEM DESCRIPTION	ESTIMATED QTY	UNIT	COST PER UNIT (\$)	TOTAL ITEM COST (\$)
A1	Common Borrow	15,000	Ton		
A2	Low Permeability Subgrade (1x10 ⁻⁷ cm/sec)*	65,000	CY		
* Item A2 Replaces Base Bid Item Nos. 7 and 8 if chosen.					

TOTAL BASE BID PRICE IN WORDS:

TOTAL ALTERNATE BID ITEM A1 PRICE IN WORDS:

TOTAL ALTERNATE BID ITEM A2 PRICE IN WORDS:

15 August 2017
EA Project No. 1060932

TO: Bidders of Record

FROM: EA Engineering, Science, and Technology
11202 Racetrack Road, Unit 103
Ocean Pines, MD 21811

RE: Addendum No. 4

Worcester County Department of Public Works
Central Landfill Facility Site – Landfill Cell 5

TO ALL BIDDERS: This Addendum No. 4 contains modifications to the Contract Documents. This Addendum No. 4 shall supplement, amend, and become part of the Contract Documents and Construction Specifications for the title project and contract.

Except as may be otherwise described, bidding requirements, materials, and workmanship for the work described herein shall conform to all requirements of the original Contract Documents, except as modified using succeeding addenda. The following Addendum to the specifications and drawings is made a part of the project and takes precedence over the section of the specifications, in part, and/or drawings, as originally written, or as modified in succeeding addenda. All bids shall be based on this addendum in accordance with the Bidding Documents.

- Response to Plan Holder Questions
- Modifications to Contract Documents

RESPONSE TO PLAN HOLDER QUESTIONS

Question No. 01: What is the anticipated elevation following the removal of the rubble waste?
Response No. 01: It is anticipated that the elevation within the delineated “Existing Rubble Fill Area” on Drawing C-1 will be approximately 35 following the relocation of the existing rubble waste.

Question No. 02: Addendum 1, Q&A 11 indicates that C-33 classification is required for the sand layer. Will a washed masonry sand that meets all the physical requirements (permeability, non-carbonated, 200 sieve <2%, etc.) that is not classified as C-33 be allowed for the leachate sand layer installation?
Response No. 02: Yes. A washed masonry sand that meets all the physical requirements (permeability, non-carbonated, etc.) that is not classified as C-33 will be allowed for the leachate sand layer installation. Permeability shall be tested at the stipulated compaction requirement. Further, a maximum of 10% finer than the 200 sieve will be allowed provided it meets the permeability.

Question No. 03: Drawing No. C-14, Detail 38 indicates a Check Valve in the wet well on one of the two 6/10 gravity drain lines. Should this be provided for both inlet pipes?
Response No. 03: Yes. A check valve shall be on both inlet gravity pipes for each pump station.

Question No. 04: Specifications Section 15060, Page 8, Paragraph 2.5 indicates Stormwater System HDPE pipe as SDR 17. Is the entire run of stormwater pipe to the outlet 6/10” dual containment (SDR-17) whereas the Gravity Drains are 6” SDR-11 and 10” SDR-17. Can we assume dual containment to the gate valve manhole and 6” only from the valve to the discharge point?

Response No. 04: *Stormwater pipe from the valve inside the manhole to the outlet apron shall be 6-inch SDR-17. Leachate collection piping and gravity piping from the landfill to the valve shall be dual containment 6-inch SDR-11 by 10-inch SDR-17.*

Question No. 05: Drawing No. C-4, Reference to Detail 25 Stormwater Outfall indicates (Typical Of 8). Should this read Typical of 7 or am I missing one that is not shown on the plans?

Response No. 05: *Yes, the reference to Detail 25 Stormwater Outfall shall read “Typical of 7”.*

Question No. 06: *Drawing No. C-13, Detail 25 shows a concrete endwall at the discharge that may or may not be required. Is this endwall needed or riprap and geotextile/stone filter only sufficient for this outlet protection?*

Response No. 06: *Contractor may assume that endwalls will not be required and use of a riprap apron in accordance with Detail 25 Stormwater Outfall Detail will be required.*

Question No. 07: *On sheet E-4 Note 2 indicates repair SCADA control panel to full functionality including conductors and existing lift stations. There will be an enormous cost involved in both time and money to research and test the existing equipment and facilities in order to have any idea what the current condition of existing system is. This would not be possible to accurately complete during the bid process. How are we to quantify the repairs required for bid purposes?*

Response No. 07: *Please see question/response no. 11 and Contract Drawings Revision No. 3 in Addendum No. 3. Repairs are limited to the auto-dialer.*

Question No. 08: *Can you give us some specs on the trash netting. Specifically, the netting.*

Response No. 08: *Netting for the litter fence shall be Redden # 970 Ranger Barrier Netting or approved equal.*

Question No. 09: Does the trash netting per Detail 16 on C-9 go around the entire landfill?

Response No. 09: *The trash netting shall extend around the perimeter of Cell 5 with a single 30-foot opening at the entrance into Subcell B.*

Question No. 10: Please see the following comments the requirements for 10-oz nonwoven geotextile

- Geotextile is manufactured from a network of staple polypropylene fibers, not continuous filaments
- Manufactures do not test for length or width
- Manufactures do not test for wide width tensile properties
- Manufactures test per production run lot only, not every 5,000 SY

- Grab tensile strength, expect 270 lbs., not 305 lbs.
- Elongation – 50%, not 60%
- Permittivity – expect 0.94 sec-1, not 1.1 sec-1
- Tear strength – expect 105 lbs., not 100 lbs.
- Since 2010, CBR puncture has replaced pin puncture and mullen burst, (no longer tested). Expect value of 725 lbs. for CBR puncture per ASTM D6241.

Response No. 10: See the Modifications to Contract Documents below for modifications to Section 06656 Geotextiles

Question No. 11: Are we required to bid the 10-7 clay option?

Response No. 11: Bidders are not required to bid on the Alternate Bid Item No. A2.

MODIFICATIONS TO CONTRACT DOCUMENTS

1. Specification 06656 Geotextiles, Section 2.1 Filter Fabric, first sentence, DELETE, and REPLACE with, “The nonwoven needle punched geotextile specified herein shall be made from staple polypropylene fiber. The geotextile shall be manufactured from prime quality virgin polymer. The geotextile shall be able to withstand direct exposure to ultraviolet radiation from sun for up to 30 days without any noticeable effect on index or performance properties.
2. Specification 06656 Geotextiles, Section 1.4.2 Quality Control During Manufacturing, under geotextile samples shall be test for the following properties: DELETE “Width, Length, Tensile Strength, Seam Strength, Grab Strength, Burst Strength and Puncture Resistance” and of product and REPLACE with, “Grab Tensile Strength, Grab Elongation, and CBR Puncture Strength.
3. Specification 06656 Geotextiles, Table 06656-1 Geotextile Fabric Properties, DELETE, and REPLACE with the table below.

**Table 06656-1
 Geotextile Fabric Properties**

Fabric Property	Unit	Test Method	Filter Fabric (Minimum Values)	
			Non-Woven Geotextile	Woven Geotextile
Weight	oz/yd ²	ASTM D-5261	10	7
Grab Tensile Strength	lb	ASTM D-4632	250	255
Grab Strength Elongation	%	ASTM D-4632	60	15
CBR Puncture Strength	lb	ASTM D-6241	700	1,250
Trapezoid Tear Strength	lb	ASTM D-4533	100	75
Apparent Opening Size	mm	ASTM D-4751	0.15	0.60
Permittivity	sec-1	ASTM D-4491	1.0	4 (gpm/ft ²)
Friction Coefficient (Geotextile/Soil)	Degrees	ASTM D-5321	26	N/A
U.V. Resistance	%	ASTM D-4355	70	70