

PRE-CONSTRUCTION MEETING MINUTES

2015 PARTIAL CLOSURE CONSTRUCTION
CHARLOTTE MOTOR SPEEDWAY LANDFILL V
CABARRUS COUNTY ■ NORTH CAROLINA
DATE: August 25, 2015, 9:00 A.M.

HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
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ATTENDEES:

NAME	COMPANY	NUMBER	EMAIL
Jonathan Usher, P.E.	Bunnell-Lammons Engineering, Inc.	(864) 616-3995	Jonathan.usher@blecorp.com
Rob Yeoman	Bunnell-Lammons Engineering, Inc.	~	rob.yeoman@blecorp.com
Cotton Spry	Republic Services, Inc.	~	~
Bart Keller	Republic Services, Inc.	(843) 514-5550	TKeller@republicservices.com
Mike Gurley	Republic Services, Inc.	(704) 400-6557	MGurley@republicservices.com
Fred Brown	Earnhardt Grading, Inc.	(704) 361-7881	Fred@EarnhardtGrading.com
Bobby Lynn	Earnhardt Grading, Inc.	~	Bobby@earnhardtgrading.com
Jamie Lineberger	Earnhardt Grading, Inc.	(704) 506-6489	Jamie@earnhardtgrading.com
John Murray, P.E.	NC DENR	(252) 808-2808	john.murray@ncdenr.gov
Matthew Cheek, P.E.	Hodges, Harbin, Newberry, & Tribble, Inc.	(478) 743-7175	Mcheek@hhnt.com
Eric Jackson, P.E.	Hodges, Harbin, Newberry, & Tribble, Inc.	(478) 743-7175	Ejackson@hhnt.com

1. INTRODUCTION

A. Identify Parties and Responsibilities:

1. Owner's Representatives: Republic Services, Inc.
 - a. Project Manager – Mike Gurley
 - b. On-Site Contact – Cotton Spry – Operations Manager
 - c. Area Environmental Manager – Hank Ludwig, P.E.
 - d. General Manager – Bart Keller
2. Design Consultants: Hodges, Harbin, Newberry, & Tribble, Inc. (HHNT)
 - a. Lowry Tribble, Jr., P.E.
 - b. Matt Cheek, P.E.
3. General Contractor: Earnhardt Grading, Inc. (EGI)
 - a. Project Manager – Fred Brown
 - b. Site Superintendent – Bobby Lynn and Jaime Lineberger

- Subcontractors will be controlled completely by Contractor (any issues with subcontractors to be contractor's responsibility).
 - Contractor's Surveyor – Donnie Lawrence or EGI Staff
 - Contractor to use the following sub-contractors:
 - Gaston Fence – replacement fencing
 - Sides Seeding – Matting & Seeding
- 4. Liner Installer: Environmental Specialties International, Inc.
 - a. Project Manager – TBD
 - b. Site Superintendent – TBD
- 5. Construction Quality Assurance (CQA) Services – The Owner will utilize a 3rd party CQA Firm for all CQA work. The Owner's CQA Firm will be Bunnell-Lammons, Eng. Out of Greenville, SC.
 - a. Consultant's Engineering Manager (Certifying) – Dan Bunnell, P.E. of Bunnell-Lammons Engineering, Inc. assisted by Jonathan Usher, P.E.
 - b. CQA Consultant's Resident Technician – Rob Yeoman
- 6. Certification Surveying Services - The owner will utilize a 3rd party surveyor for all confirmation surveys. The Owner's surveyor may be used by the Contractor for surveying or stakeout at their expense. The Owner's Surveyor will be:

Donnie Lawrence
 106 W. Jefferson Street
 Monroe, NC 28112
 (704) 289-1013
 donnie@lawrencesurveying.com

- 7. NC DENR Permitting Engineer & Construction Inspector – John Murray, P.E.

2. LINES OF COMMUNICATION:

- A. Reporting Hierarchy - HHNT will maintain the project file and distribute info to all parties. Single points of contact shall be established in the field and in the office.
- B. Progress Meetings - BLE will be on-site on a fulltime basis since surface preparation is expected to begin immediately. Mike Gurley requested that progress meetings be scheduled every other week. Daily tailgate meetings will be held each day between Contractor's Superintendent, CQA Technician, and Owner's Representative.
- C. Design changes during construction must be discussed and approved by the Design Engineer before implementation. The CQA technician is not allowed to approve any changes.
 - 1. Change Orders have to be written and approved by HHNT and Republic
 - 2. Verbal changes must be followed with written correspondence.

- D. CQA Daily Reports emailed to Matt Cheek, P.E., Eric Jackson, P.E., Mike Gurley, Fred Brown, and Bobby Lynn. Daily reports to be sent out daily throughout the project.
- E. Contractor personnel to use dedicated contractor/construction entrance to be coordinated with Cotton Spry.
- F. Republic and Earnhardt Grading will coordinate access to site for contractor when site is closed. Gate should be closed at all times when landfill is closed.
- G. Submittals should be sent to Matt Cheek, P.E. for review and approval. Submittals required as specified in SPEC's; five sets in hard copy format or 1 electronic copy of good quality to be provided, previously stamped approved by Contractor. **Material orders to be made as soon as possible, but not prior to submittal approval. No materials should be delivered to site prior to submittal approval.**

3. CONTRACT RELATED ISSUES:

- A. Notice to Proceed for 120 day contract time will be issued for August 25, 2015. Estimated Date of Completion is December 31, 2015. **Project absolutely must be completed before the end of the year.** The 120 day contract time includes 20 days for the geosynthetics installer. HHNT requested a copy of the executed agreement.
- B. Unit Price Bid / Quantity Bid - Payment will be made on installed quantities. Quantities listed on the Bid Form are for bidding purposes only. Any significant discrepancies in the Bid Form shall be reported to the Engineer immediately. Refer to measurement & payment section of the specifications for any questions on payment.
- C. No Payment and Performance bonds will be required.
- D. Liquidated damages - \$1,500 per day as noted in the executed Agreement
- E. Contractor's License is required for this project.
- F. Contractor has provided a Certificate of Insurance.

4. DISTRIBUTION OF DOCUMENTS:

All parties will need copies of the revised plans and specifications.

- A. Design Drawings:
 - Earnhardt– Requested all plans in AutoCAD format only
 - BLE – Electronic only
 - Lawrence Associates – Electronic & CAD file
 - Charlotte Motor Speedway Landfill – None
 - Mike Gurley– Electronic only
 - John Murray – Half size set of Plans
- B. Construction Specifications – John Murray – 1 copy

- C. CQA Plan – John Murray – 1 copy
- D. Permits – Applicable permits available in LF office.

5. SITE REQUIREMENTS:

- A. All safety issues are the responsibility of contractor and any safety issues observed should be reported to the contractor. However, any observed safety issues reported to the contractor will be provided as a courtesy only. Earnhardt Grading and BLE will sign Republic's Contractor Safety Statement and provided a copy of their safety plan.
- B. Safety Rules (hardhat when overhead hazards are present, pants, high visibility vests, gloves, eye protection)
- C. Site Rules (access, parking, etc.) –Earnhardt Grading will be allowed to park in designated area by the site once construction begins.
- D. Traffic Control - Responsibility of Contractor-waste truck traffic must be maintained at all times; communication between Republic and Earnhardt Grading is critical and should not be an issue. Cell phone usage will not be permitted by truck drivers while driving.
- E. Erosion Control - Responsibility of Contractor. Any sediment from Closure Construction that reaches the basin must be cleaned at the conclusion of the closure work, at the expense of the Contractor.
- F. NC DENR has been notified of the start of construction and is attending this meeting via webex.
- G. NC DENR Permit Engineer, Mr. John Murray, P.E. may visit the site throughout construction to inspect various surfaces. The Contractor must notify the Owner if and when any representative from NC DENR shows up at the site. This may include the Local Inspector: Teresa Bradford

6. CONSTRUCTION:

- A. Scope of Work: Construction will follow the 2015 Partial Closure Construction plans prepared by HHNT, Last Revised August 2015
 - 1. Construction of an 15.2 acre partial closure cap located over a portion of the Eastern Slope of Cells 2E,2F,2G, and 2H-(Reviewed Plans).
 - 2. Drainage over the LLDPE cap is critical to long-term stability. This system must be carefully installed
 - 3. Specific General Contractor Responsibilities include:
 - Waste Relocation and/or Fill Placement up to design grades by the General Contractor are NOT anticipated.
 - General Contractor will be responsible for unloading, storage, and protection of geosynthetics which are expected to be offloaded at the top of the slope area.
 - It will be up to the General Contractor to demonstrate the required thickness has been achieved for each layer.

- Construction surveying; On-site survey control to be confirmed with Drew and/or Donnie Lawrence.
- Pre-construction survey is the contractor's responsibility and should be done prior to any construction.
- Contractor shall provide temporary power and sanitary conveniences for all employees as needed during construction, including office space, if desired.

4. Owner's Responsibilities include:

- Coordination of Geosynthetic's Contractor
- Republic will contract with liner installer (ESI) and provide all geosynthetic materials. Delivery date of material will be provided ASAP.

5. There is a requirement to verify the thickness of the intermediate cover layer. A smooth, uniform surface is required.

B. Construction Items

1. Proposed Construction Items

- a. Start uncovering edge of existing closure cap
- b. Smooth out temporary drainage berms and reduce slope of areas at 3H:1V
 - Site is permitted for 3H:1V sideslopes. Effort should be made during re-grading and re-shaping of the surface to achieve 3H:1V without having to perform large cuts or fills to do so.
- c. Remove existing temporary downdrains as specified on the plans.
- d. Proposed diversion berms shall be installed with a minimum 2% slope and maximum 3% slope. (Absolute minimum is 2%)
- e. Extend berms beyond limits of Geomembrane to reduce potential erosion at the edge of liner.
- f. Drainage berms should be installed in accordance with the plans and provide the designed depth in the flow channel. BLE will verify the depths.
- g. The 2015 closure area should not require access from the existing closure area, if required; 4' thick roads must be maintained for all traffic.

2. Storage and Staging of Materials – to be coordinated with Cotton Spry.

3. Fuel and Maintenance – Earnhardt Grading plans to bring a mobile truck and keep it parked on-site. Contractor to coordinate location to avoid environmental monitoring wells.

4. Storm Water Management is the responsibility of the Contractor. Earnhardt Grading must be diligent in managing water during protective cover placement. It is the contractor's responsibility to control storm water run-on into project area. All storm water run-off from project area should be directed to one of the sediment basins.
5. NPDES sampling, reporting, inspections and maintenance will be the Contractor's responsibility. Contractor ultimately responsible for the E&S measures. Forms for completing these inspections will be provided by EGI.
6. Earnhardt Grading is responsible for confirming required thickness of cap components – Earnhardt Grading will verify thickness on a 50' x 50' grid. The method of verification should be provided to HHNT for approval. All thickness verification must be observed and recorded by BLE. All layers of the capping system will be surveyed by Drew and/or Donnie Lawrence as verification as well after thickness checks are completed.
7. Certification grid will be prepared by the engineer and surveyor and provided to Contractor.
8. Certification Surveying – Contractor to confirm surface is ready and inform Engineer if surveyor needs to be re-scheduled (only two trips per surface included with Owner's contract, additional trips are the Contractor's responsibility). Drew and/or Donnie Lawrence will perform the as-built surveys of prepared subgrade, FML, and final/top of protective cover.

C. Construction Schedule

1. Anticipated Project Start Date: August 25, 2015. Updated Construction Schedules should be submitted with each Pay Request.
2. Materials delivery and installation - Earnhardt Grading will be responsible for coordinating all material deliveries and unloading. Delivery of materials should be coordinated to prevent nuisance issues. For e.g.: trucks in road causing traffic delays, trucks arriving before site opens or after site closes should be coordinated by Earnhardt Grading with the Owner. Delivery trucks should not park along the road outside the site entrance.
3. Work schedule / hours open - Daylight to Dark, 6 Days per week. End work at dark on Saturday. Work on Sundays is negotiable. If a complaint is made, these hours may be reduced. Bart Keller will inform the neighbors of the upcoming project.
4. Time weather delays and work expedition must be addressed in accordance with the contract documents.
5. 20 days should be planned by Earnhardt for installation of geosynthetics (included in 120 day contract time)

D. Invoicing Procedures and Hierarchy

1. Contractor - Invoices come to Mike Gurley and are reviewed, and then approved and sent on for payment (send draft request by email first for review by the 20th of each month. Final versions will be provided to Mike Gurley by the 25th of each month.)

7. CONSTRUCTION QUALITY ASSURANCE PLAN:

CQA Services will be provided by Bunnell Lammons Engineering, Inc. BLE will serve as a true third-party CQA firm to be a separate contract administered by Republic.

A. Soils:

1. Strip and stockpile all topsoil from the pond/borrow area. Soil resources on-site are limited, Earnhardt must manage soils carefully.
2. Additional clearing in borrow area may be needed and will be worked out following the meeting between Earnhardt Grading and Republic. Any clearing completed by Earnhardt Grading will be outside of the closure project contract.
3. Construction Quality Assurance (CQA) testing on soils to be performed in BLE's lab.
4. Access in the Borrow Area will be allowed during race week. All disturbed areas should be roped off to restrict access. EGI is not expected to obtain any soil materials within the Landfill's Borrow Area.

B. LLDPE Liner System

1. BLE to coordinate testing.
2. Installer – ESI
 - A pre-deployment meeting will be held with them by BLE prior to start.
3. Earnhardt Grading will coordinate with ESI during geosynthetics deployment and will provide adequate personnel for surface maintenance during that time. BLE will assist with coordination as requested.
4. BLE representative will be on-site at all times during geosynthetics installation.
5. Geosynthetics testing will be performed by TRI Labs. BLE will assist in coordinating all required outside laboratory testing.

C. Protective Cover and 4" CPP Outlet:

1. Protective Cover Material placement on the slope must be pushed from bottom up.

2. Storm water management during placement of the protective cover material is critical. Storm Water from above the partially installed protective cover must be managed to eliminate washouts and escape of sediment from the project area, or damage to the previously capped area.
3. Installation of 4" CPP outlet system will help stabilize the protective cover material being placed on the slope.
4. Protective Cover must be compacted to provide stability and minimize infiltration. The compaction for the protective cover should be between 90% - 92%.
5. The maximum particle size of protective cover material is 3".
6. Drainage Berms should be compacted and constructed using good clean clay material (10^{-5}). Soils with too much silt should be avoided. Compaction percentage to be discussed in more detail.

D. Coordination with Gas System Installation:

1. New wells and LFG piping have been completed. No additional LFG work is expected to occur except for repairs and raising wells, as required.

8. PROJECT DELIVERABLES:

- A. Daily Reports will be sent via email.
- B. Material Conformance Test Results - To be sent to CQA Engineer to include in CQA documentation to NC DENR.
- C. List of subs and schedule will be provided and updated by Earnhardt Grading as necessary during construction

9. MISCELLANEOUS ITEMS:

- A. Existing edge of base liner and closure liner shall be located before shaping of existing slopes
- B. Cap LLDPE must be welded to base liner, where applicable
- C. Dust control is a necessity and Earnhardt Grading will be responsible.
- D. Water for on-site uses will be taken from the same on-site source used by the landfill. EGI may utilize the landfill's pump.
- E. Soils in borrow area must be managed appropriately. BLE will provide recommendations of where soil material for project is available. All 10^{-7} clay material should be preserved for future base liners, fine, silty material should be avoided.

- F. HHNT will perform inspections at critical periods of construction. Light inspections will be made during shaping and infiltration layer construction. Heavy inspections will be made during protective cover, berms and drainage system installation.
- G. It is very important to keep all BMP's maintained and installed properly, especially in the borrow area.
- H. Storm water conveyance channels will be repaired and stabilized as shown on the plans at the completion of the closure project.
- I. Landfill Gas Collection System must remain operational during construction. As-built data is shown on the Construction plans and is available for the GC's use. The General Contractor must use extreme care to prevent any damage to the Landfill Gas system infrastructure particularly during surface preparation. Wells, header and laterals must be completely protected during this project. This will be most critical during the shaping portion of construction. Any damage to the LGCS must be reported to the Owner immediately so that the Owner's LFG Contractor can be mobilized to make the necessary repairs.
- J. All LFG wells should be at least 6' upslope of the side slope drainage berms; if the berms and inlets need to be relocated, Earnhardt Grading shall notify the CQA firm and the Design Engineer.
- K. ESI will also provide assistance and overall LFG management of the LFG system during geosynthetics deployment. ESI will be responsible for ensuring gas pockets do not form beneath the cap.
- L. Earnhardt Grading shall maintain intermediate cover layer surface prior to FML Placement; the top lift should be smooth and at the proper grade.
- M. CQA Engineer must certify the work to NC DENR and therefore, they must see and inspect everything.
- N. There should be no unsuitable material currently within the project area.
- O. If any leachate outbreaks are discovered during construction, Cotton Spry should be notified immediately.
- P. Any flagging waste, rocks, or other protrusions $> \frac{1}{4}$ " should be removed prior to acceptance of the foundation (Intermediate cover) layer.
- Q. The Contractor should not use leaky machinery. Oil or grease spots on the ground are not acceptable. No petroleum tanks may be set up anywhere near a groundwater monitoring well.
- R. Grassing is a big deal and must be in accordance with the project documents. A line item for grassing has been added to the bid form.
- S. At the completion of this project, the borrow area must be dressed up to provide smooth, uniform slopes that are free draining.

- T. Prior to removing the existing chain link fence, new fencing shall be placed to ensure containment of the cows. Bart will notify the farmer for relocation of cows. EGI expects that the chain link fencing can be completed in one day.
- U. B&M on-site for Gas Expansion project on opposite side of hill and available for assistance on any gas system repairs or well extensions. Blue Flame is also available as needed. Coordinate traffic and material deliveries with B&M.
- V. 60" dia. HDPE pipe will be used in lieu of 54" dia. pipe as called for on the plans since 54" dia. HDPE is not available in this area.
- W. Contractor wants to move the new outlet structure south to facilitate installation and keep the existing basin in operation. This request was approved as long as pipe discharge will not be directed toward the existing sewer manhole. No impacts to the sewer easement will be allowed.
- X. Rock Filter Dam to be constructed using native on-site site rock – no specification.
- Y. Burning Vegetative Debris is the Contractor's responsibility. All state/local permits for burning are the Contractor's responsibility.

10. Meeting Adjourned