

EXHIBIT A**TASK ORDER NUMBER 2022 - 01**
PHASE 5 EXPANSION – PERMITTING, DESIGN, & BIDDING

This Task Order pertains to an Agreement by and between Rowan County, North Carolina, (“OWNER”), and HDR Engineering, Inc. of the Carolinas (“ENGINEER”), signed January 20, 2021, (“the Agreement”). Engineer shall perform services on the project described below as provided herein and in the Agreement. This Task Order shall not be binding until it has been properly signed by both parties. Upon execution, this Task Order shall supplement the Agreement as it pertains to the project described below.

TASK ORDER NUMBER: 2022 - 01

PROJECT NAME: ROWAN COUNTY LANDFILL PHASE 5 EXPANSION – PERMITTING, DESIGN, & BIDDING

PART 1.0 PROJECT DESCRIPTION:

This scope addresses the work to prepare a Construction Permit Application (CPA) per NCDEQ Rule .1617 for the next five-year landfill phase of the landfill, referred to as Phase V. This phase is expected to encompass approximately 21 acres adjacent to Phase IV. The CPA has two major components: The Design Hydrogeologic Report (handled under a separate task order) and the Design Engineering Report (included in this task order).

This task also outlines the engineering services for the preparation of construction documents and bidding assistance of the Phase V unit of the Rowan County Landfill.

PART 2.0 SCOPE OF SERVICES TO BE PERFORMED BY ENGINEER ON THE PROJECT:**Task 1 –Construction Permit Application (Rule .1617)**

This Task Series includes completion of the Construction Permit Application. The major components of the application as identified in .1617(a)(1) include the following:

- Facility Plan (Rule .1619)
- Engineering Plan (Rule .1620)
- Operations Plan (Rule .1625)
- Closure and Post-Closure Plan (Rule .1629)
- Construction Quality Assurance Plan (Rule .1621)
- Water Quality Monitoring Plan [Rule .1623(b)]
- Design Hydrogeologic Study

HDR typically groups the Facility Plan, Engineering, Plan, Operations Plan, and Closure/Post-Closure Plan discussions into a report section, and provides the Design Hydrogeologic Study, Construction Quality Assurance (CQA) Plan, and Water Quality Monitoring Plan (WQMP) as separate report sections. The tasks detailed below follow this format.

Task 1A – Construction Plan Report**Subtask 1.1.1 – Facility Plan (Rule .1619)**

Activities:

1. This work includes portions of the Site Study which will be incorporated into the Facility Plan. Additional work includes details regarding the landfill operation. Specifically:
 - a. Grade and flow direction of the leachate system
 - b. Size, location, and grades for leachate piping
 - c. Transitional contours and boundaries for each phase of development
 - d. Stormwater segregation features
2. The proposed leachate management facilities are also included in addition to this section. Items include the following.
 - a. Performance and design concepts
 - b. Normal operating conditions
 - c. Leachate management system details

Deliverables:

1. Facility Plan information for inclusion in the Construction Plan report.

Clarifications:

1. It is anticipated that leachate from the expansion area will be pumped to the existing leachate management facilities for pretreatment and disposal.
2. Design of the force main and pumping systems will be completed under Task Series 4.

Subtask 1.1.2 – Engineering Plan (Rule .1620)

Narrative:

The detailed design of the landfill is addressed in this task. Work will closely follow Rule .1624, which relates the minimum construction requirements for new landfill facilities.

Activities:

Major work includes the following.

1. Engineering Report
 - a. Foundation design
 - b. Material compatibility and stability
 - c. Base liner system design (Rule .1624)
 - d. Cap system (Rule .1627)
 - e. Leachate storage and treatment facilities (Rule .1680)
 - f. Analytical methods and assumptions
 - g. Technical references
 - h. Location restriction demonstrations (Rule .1622)
 - i. Materials of construction and construction practices
2. Engineering Drawings
 - a. Existing conditions
 - b. Grading plans
 - c. Base liner system
 - d. Leachate collection system
 - e. Stormwater segregation system
 - f. Cap system
 - g. Erosion control plans
 - h. Demonstration of vertical separation

Deliverables: 1. Engineering Plan for inclusion in the Construction Plan report.

Clarifications:

1. The rules governing closure requirements (.1627(c)(3)(A)) reference a maximum of 25 percent slopes (4:1) for landfill units. The Solid Waste Section has, on previous projects, approved use of 3:1 slopes with terraces, as long as the engineering calculations demonstrate adequate stability. A stability analysis for 3:1 slopes is included in this scope.
2. A Permit application for erosion and sedimentation control will be prepared as part of Task Series 2.

Subtask 1.1.3 – Operations Plan (Rule .1625)

Narrative: The Operations Plan will describe the operational procedures followed at the landfill.

Activities: Prepare an Operations Plan that relates the following information:

1. Operations Drawings
 - a. Drawings for each phase of landfill development
 - b. Existing conditions and disposal areas
 - c. Construction progression
 - d. Leachate controls
 - e. Special waste areas
 - f. Buffer zones
 - g. Stockpile and borrow areas
2. Operations report, providing a narrative discussion addressing the operational requirements of the landfill (Rule .1626), including the following.
 - a. Waste acceptance and disposal requirements
 - b. Cover material requirements
 - c. Disease vector control
 - d. Explosive gases control
 - e. Air quality compliance
 - f. Access and safety requirements
 - g. Erosion and sedimentation control requirements
 - h. Drainage control and water protection requirements
 - i. Liquids restrictions
 - j. Recordkeeping requirements
 - k. Waste spreading and compacting requirements
 - l. Leachate management plan

Deliverables: 1. Completed Operations Plan for inclusion in the Construction Plan report.

Clarifications:

1. Design of a gas system is not required for the CPA and is not included in this Scope of Work.

Subtask 1.1.4 – Closure and Post-Closure Plan (Rule .1629)

Narrative: This work includes preparation of Closure and Post-Closure Plan,.

Activities: Prepare a Closure/Post-Closure Plan that includes the following.

1. Closure Plan requirements
 - a. Cap system description
 - b. Estimate of largest area to require closure
 - c. Estimate of maximum inventory of waste
 - d. Closure schedule
 - e. Closure cost estimate
 - f. Erosion and sediment control plan updates
2. Post-Closure Plan requirements
 - a. Monitoring and maintenance requirements
 - b. Contact person information
 - c. Proposed final use of the property
 - d. Post-closure cost estimate

Deliverables: 1. Completed Closure/Post-Closure Plan for inclusion in the Construction Plan report.

Clarifications: None

Task 1B – Construction Quality Assurance (CQA) Plan (Rule .1621)

Narrative: This task includes preparation of a CQA Plan to serve as the guidance document to ensure quality construction of the landfill.

Activities: The CQA Plan will follow the outline provided in Rule .1621 and the minimum criteria established in Rule .1624. The CQA Plan shall include the following key elements.

1. Responsibilities and authorities of each organization
2. Inspection activities and procedures
3. Sampling strategies and protocol
4. Documentation and reporting requirements

Deliverables: 1. Completed CQA Plan for inclusion in the Construction Permit Application.

Clarifications: None

Task 1C – Water Quality Monitoring Plan (Rule .1623(b)(3))

Narrative: This task includes modification of the existing of surface and ground-water monitoring plans for the site.

Activities: Major work tasks include the following.

1. A ground-water monitoring plan including sampling and analysis requirements and detection monitoring requirements fulfilling the requirements of Rules .1630 through .1637.
2. A surface water monitoring plan in accordance with Rule .0602.

Deliverables: 1. Completed Water Quality Monitoring Plan for inclusion in the Construction Permit Application.

Clarifications: 1. Installation of the detection monitoring wells is not included in this scope.

Task 1D – Construction Permit Application Submittal

Narrative: This Task includes finalizing and submitting the Construction Permit Application reports to NCDEQ for review and approval.

Activities:

1. Compile work completed above into a final draft Construction Permit Application (three copies).
2. Review final draft with City staff and address staff comments.
3. Complete final Construction Permit Application and submit to NCDEQ for review and approval (two copies).
4. Monitor review process and address NCDEQ comments.
5. Submit final, edited Construction Permit Application to NCDEQ for final approval and stamping (six copies).

Deliverables: 1. Construction Permit Application reports as indicated above.

Clarifications:

1. Formal coordination meetings will be held with County at the 50 and 95 percent benchmarks.
2. The work associated with monitoring and responding to NCDEQ comments is included in this scope. This scope does not include effort required to address comments beyond what would be considered “typical” by HDR based on previous permitting experience. Significant design changes to address public concerns, or design changes required by NCDEQ which are not supported by the regulations, are not anticipated or included.

Task 2 – Preparation of Phase V Landfill Unit Construction Documents

Narrative: This task includes engineering services necessary to prepare construction contract bidding documents for the construction of the Phase V Landfill Unit. The specific activities HDR will perform to complete this task are described as follows.

Activities:

1. Prepare comprehensive construction documents (drawings and specifications) for construction of Phase V.
 - a. Prepare construction drawings utilizing approved construction permit application drawings.
 - b. Prepare construction specifications utilizing approved construction permit application technical specifications and including contract documents, and general conditions.
 - c. Review construction documents with the County.
2. Meet with landfill staff to determine preferred access and placement of the initial lifts of waste so that a stormwater management system for the operation of the subcells can be incorporated into the construction documents.
3. Develop a preliminary construction cost estimate.

Deliverables: 1. Construction documents for construction of the Phase V Landfill Unit.

2. Preliminary construction cost estimate.

Clarifications:

1. Final designs will be consistent with the approved permit application.
2. Site review to confirm power (location and supply) and routing of the leachate collection system from Phase V to the leachate storage basin.
3. Formal coordination meetings will be held with County at the 50 and 95 percent benchmarks.
4. One comprehensive set of construction plans and specifications shall be prepared for the construction of Phase V.
5. The County will notify and coordinate comments from all County Divisions with a responsibility for this project.

Task 3 – Bidding of Phase V Construction

Narrative:

This task item addresses assistance in bidding the contract for the Phase V Landfill Unit construction project. The specific activities HDR will perform to complete this task are described as follows.

Activities:

1. Advertise the construction project for bid through the Carolinas Associated General Contractors (AGC) and McGraw-Hill Dodge online plan rooms.
2. Preside at a pre-bid meeting and address contractor questions throughout the bid period.
3. Attend the bid opening and prepare a tabulation of bids received.
4. Review qualifications of the low bid contractor and second-lowest bid, if required.
5. Prepare a letter of recommendation to County regarding award of the contract.
6. Coordinate execution of the construction contract through County and the contractor.
7. Coordinate issuance of Notice to Proceed to the contractor.

Deliverables:

1. Addenda, as required.
2. Certified bid tabulation.
3. Letter of recommendation regarding contractor award.

Clarifications:

1. One comprehensive set of construction plans and specifications shall be prepared that includes the construction of Phase V.
2. The County will notify and coordinate comments from all County Divisions with a responsibility for this project.
3. The County will coordinate within the County to post the advertisement.
4. HDR will provide bid documents to potential bidders for a non-refundable fee.

PART 3.0 SCHEDULE

The schedule for these tasks will begin immediately upon approval.

	<u>Estimated Start</u>
Task 1 – Construction Permit Application (Rule .1617)	Feb 2022
Task 2 – ESC Design, Permit, and On-site Soils Resources Analysis	Feb 2022
Task 3 – Preparation of Phase V Landfill Unit Construction Documents	Feb 2022
Task 4 – Bidding of Phase V Construction	Apr 2022

PART 4.0 PAYMENTS TO ENGINEER

	<u>Estimated Cost</u>
Task 1 – Construction Permit Application (Rule .1617)	\$144,000
Task 2 – Preparation of Phase V Landfill Unit Construction Documents	\$58,000
Task 3 – Bidding of Phase V Construction	<u>\$24,000</u>
Task Order Fee Estimate	\$226,000

This Task Order is executed this _____ day of _____, 2022.

ROWAN COUNTY, NORTH CAROLINA
“OWNER”

DATE: _____

BY: _____

NAME: _____

TITLE: _____

ADDRESS: _____

HDR ENGINEERING, INC. OF THE CAROLINAS
“ENGINEER”

DATE: 1/25/2022

BY: Robert J. Rella

NAME: Robert J. Rella, PE

TITLE: Senior Vice President

ADDRESS: 440 South Church St. Suite 1200
Charlotte, NC 28202