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228 Georgetown Rd  
Jacksonville, NC 28540

## **REQUEST FOR BID**

### **TITLE:**

**2023 Hickory Grove Lagoon Closure**

### **INFORMAL RFB**

**Date of Issue: September 20, 2023**

**Bids Due: October 18, 2023**

For more information, contact:

Sherry Jones

Operations Coordinator

[sjones@onwasa.com](mailto:sjones@onwasa.com)

**ONSLow WATER & SEWER AUTHORITY**  
**2023 Hickory Grove Lagoon Closure**

**INSTRUCTIONS FOR BIDDERS**

Bids will be received by the Onslow Water & Sewer Authority (hereinafter referred to as ONWASA) to provide all labor, equipment, and materials necessary to perform the necessary tasks to formally close the Hickory Grove Lagoon (located off Piney Green Road -SR 1406, behind Easy Street, east of Jacksonville in Onslow County), as specified in this Request for Bids (hereinafter referred to as RFB) until **2:00 pm on October 18, 2023, at Onslow Water & Sewer Authority, 228 Georgetown Road, Jacksonville, North Carolina.**

Bids must be submitted on the Bid Pricing Sheet (Exhibit 3), which is included as part of this RFB Package and must be completed in its entirety.

The quoted price should not include any sales or use taxes but should only reflect the actual bid price of the service and materials.

ONWASA reserves the right to reject any or all bids, to waive informalities, and to accept any bid which, in the opinion of ONWASA, appears to be in its best interest or to award this contract in part or total.

Bids will be evaluated by determining the lowest responsive, responsible bidder considering:

- Bidder's ability and capacity to provide the designated materials.
- Bidder's price for services.
- Character, integrity, reputation, judgment, experience, and efficiency of bidder.

All bids shall be notarized. Bidders responding to this RFB are hereby notified that North Carolina General Statutes relating to the licensing of contractors will be observed in receiving bids and awarding contracts.

This RFB and all Bidder responses are considered public information after the contract is awarded, except for trade secrets specifically identified in writing by the Bidder, which will be managed according to the North Carolina State Statute or other laws. Any section of the Bidder's response package that is deemed to be a trade secret by the Bidder shall be submitted in a separate envelope clearly marked "TRADE SECRET INFORMATION- DO NOT DISCLOSE."

**ONSWLOW WATER & SEWER AUTHORITY**  
**2023 Hickory Grove Lagoon Closure**

**INFORMATION FOR BIDDERS**

**1. SCOPE OF WORK**

The Bidder shall provide all labor, equipment, and materials necessary to formally close the Hickory Grove Lagoon, located off Piney Green Road (SR 1406), behind Easy Street, east of Jacksonville in Onslow County.

Bids must be recorded on the Bid Pricing Sheet (Exhibit 3). ONWASA's Standard Service Contract language is included in this RFB (Exhibit 4).

**A mandatory site visit will be held at the Hickory Grove Lagoon site on Tuesday, October 3, 2023, at 10:00 a.m. to allow prospective bidders to physically inspect the work location before submitting a proposal. Bidders who fail to attend the mandatory site visit shall have their bids rejected as non-responsive.**

**TIME OF PERFORMANCE**

As time is of the essence in completing this project, after receiving a written Notice to Proceed from ONWASA, all work on the project shall be completed within One Hundred Eighty (180) consecutive calendar days.

The Contractor shall, always during the continuance of the Contract, perform the work with such resources as are sufficient to complete the work within the time specified. The Contractor must be able to bring in additional equipment as necessary, should any onsite equipment require repairs that extend beyond five (5) calendar days.

**WARRANTIES**

Bidder shall warranty all work for no less than (90) days for workmanship and for the full manufacturer warranty period on materials.

**ERRORS/DEFICIENCIES**

Bidder shall immediately, without additional compensation, make any corrections regarding inferior or incomplete work or materials furnished under any contract issued as a result of this solicitation if ONWASA determines that the Bidder is responsible for the errors or deficiencies.

**ADDITIONAL WORK**

Any additional work or repair identified during the 2023 Hickory Grove Closure Project shall be described and submitted to Jeffrey Lohr, P.E., Engineering Manager, via email at [jlohr@onwasa.com](mailto:jlohr@onwasa.com) before performing the additional work.

## **2. SUBMITTAL OF BIDS**

Bids must be written legibly on the Bid Pricing Sheet (Exhibit 3) and addressed to:

Onslow Water & Sewer Authority  
2023 Hickory Grove Closure Project  
Attn: Sherry Jones, Operations Coordinator  
228 Georgetown Road  
Jacksonville, NC 28540

Bids may be received prior to the date and time of the bid opening. It is the Bidder's responsibility to ensure that the bid is received by ONWASA prior to the hour and date specified in this RFB. Any bids received after that hour and date will be returned unopened.

## **3. PRICE FOR SERVICES**

Bids should be placed using the Bid Pricing Sheet (Exhibit 3) provided in the RFB.

## **4. ADDENDA**

Any addendum issued before the date set forth for bid submittal shall be covered in the bid and shall be made a part of the contract. It is the responsibility of the Bidder to be aware of information issued in the form of an addendum. Receipt of any and all addenda issued shall be acknowledged by Bidder in the space provided on the Bid Pricing Sheet.

## **5. INTERPRETATION OF DOCUMENTS**

If any Bidder submitting a bid is in doubt as to the true meaning of any part of this RFB or finds discrepancies or omissions in the RFB, he may submit a request for an interpretation or correction to ONWASA. Any interpretation or correction of the documents will be made only by an addendum duly issued, and a copy of such addendum will be posted on ONWASA's website. ONWASA will not be responsible for any other explanations or interpretations of the documents. Receipt of addenda should be noted on the Bid Pricing Sheet (Exhibit 3).

Any questions pertaining to the Scope of Work or the ONWASA Specifications should go to Jeff Lohr via email at [jlohr@onwasa.com](mailto:jlohr@onwasa.com).

## **6. WITHDRAWAL OF BID**

Any Bidder may withdraw their bid, either personally or by written request, before the scheduled closing time for receipt of bids. Bids shall remain valid for ninety (90) days after submittal.

## **7. AWARD OR REJECTION OF BIDS**

If a contract is awarded, ONWASA will award to the lowest, responsive, responsible bidder whose bid, in ONWASA's opinion, best complies with the criteria outlined in this RFB, taking into consideration price, methodology, quality, performance, and the time specified in the bids for the performance of the contract.

ONWASA reserves the right to accept or reject any or all bids if it is deemed best for the public good and to waive any informality in the bids received.

## **8. ISSUANCE OF CONTRACT**

A contract will be issued to the selected Bidder. ONWASA's terms and conditions for this type of work are provided in ONWASA's Standard Service Contract Language (Exhibit 4).

## **9. MINORITY BUSINESS PARTICIPATION AND NON-DISCRIMINATION**

The successful Bidder and any subcontractor under him, shall be required to ensure that minority and women-owned business enterprises will be provided equal opportunity to submit bids for subcontracts to the maximum extent feasible. Further, there shall be no discrimination in employment practices based on race, religious creed, color, national origin, ancestry, age, physical handicap, medical condition, marital status, or sex.

## **10. INSURANCE**

Bidders must include a Certificate of Insurance with their bid showing coverage limits as outlined in ONWASA's Standard Service Contract Language (Exhibit 4).

## **11. CONTRACT ADMINISTRATION**

The selected Bidder will coordinate all activities with Jeff Lohr, Engineering Manager, via email at [jlohr@onwasa.com](mailto:jlohr@onwasa.com). The selected Bidder shall receive approval from ONWASA before performing the work.

## **12. E-VERIFY/ IRAN DIVESTMENT/ONWASA VENDOR FORM**

The Bidder shall comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes by filling out the E-Verify Affidavit (Exhibit 5). By acceptance of this contract, the Contractor affirms they are not listed on the Final Divestment List created by the North Carolina State Treasurer according to N.C.G.S. 143-6A-4, Iran Divestment Act Certification. The Bidder shall comply with ONWASA requirements to complete the Authority's Vendor Form. This information is required to establish the Contractor as a vendor in ONWASA's payment system.

**EXHIBIT 1**  
**SCOPE OF WORK**  
**2023 Hickory Grove Lagoon Closure**

The Bidder shall provide all labor, equipment, and materials necessary to perform the work as described in Exhibit 2 at the Hickory Grove Lagoon, located off Piney Green Road (SR 1406), behind Easy Street, east of Jacksonville in Onslow County.

**A mandatory site visit will be held at the Hickory Grove Lagoon site on Tuesday, October 3, 2023, at 10:00 a.m. to allow prospective bidders to physically inspect the work location before submitting a proposal. Bidders who fail to attend the mandatory site visit shall have their bids rejected as non-responsive.**

All materials and work on this project shall conform to the following:

- a) Work shall be performed per all applicable State and local codes and regulations governing this project.
- b) All permits required to complete the project shall be obtained by the contractor before the start of work; the cost to do so shall be included in the Contractor's proposal.
- c) Entrance to this site is restricted; the work schedule must be coordinated with ONWASA to ensure access and minimize the impact on daily operations.
- d) The contractor shall conduct the work in such a manner as to avoid damage to other site facilities. Any such damage shall be repaired by the contractor at no additional cost to ONWASA.
- e) Removal and disposal of existing materials.
- f) Replace the installation of materials with "like same" as existing. All materials must comply with proper building/wind/structural codes and/or guidelines.
- g) Clean the site of all construction materials upon completion of work.
- h) All bid submissions must be in writing and are due no later than **October 18 at 2:00 p.m.** Bid submissions will be mailed to ONWASA, 228 Georgetown Rd, Jacksonville, NC, 28540, **Attn: Sherry Jones, Operations Coordinator, REF: 2023 Hickory Grove Closure.**

**END OF SCOPE OF WORK**

## **EXHIBIT 2**

### **SITE PLAN and DETAILS 2023 Hickory Grove Lagoon Closure**





Technical Specifications  
Division 1 - General Requirements

Section	Title	Pages
01100	Summary of Work .....	1-2
01312	Project Coordination and Meetings .....	1-1
01330	Submittal Procedures.....	1-4
01450	Quality Control .....	1-3
01500	Temporary Facilities and Controls.....	1-3

Division 2 - Site Construction

02300	Earthwork and New Weir .....	1-6
02370	Erosion Control .....	1-3
02820	Chain Link Fences and Gates .....	1-4
02920	Lawns and Grasses .....	1-5

## SECTION 01100

### SUMMARY OF WORK

#### PART 1 GENERAL

##### 1.01 GENERAL NOTES

- A. The terms "Owner" and "ONWASA" are used interchangeably throughout the contract documents and refer to the Owner.
- B. The Contractor shall take photographs of the entrance road, berm, existing fence, and proposed construction areas starting at the public street access and ending at the existing chlorination basin before the start and after completion of the work. The Contractor shall provide the Owner with copies of the photographic records (i.e., pre-construction and post-construction). The cost of photographic work shall be incidental to the contract, and no separate payment will be made by the Owner.

##### 1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work described in Exhibit 2 includes the provision of labor, materials, equipment, and services required to complete the Hickory Grove Lagoon Closure for the Onslow Water and Sewer Authority, Onslow County, North Carolina.
  - 1. Plugging of piping in the existing Chlorination Structure, removal of existing walkway (with off-site disposal), filling of entire structure interior with stone and adding concrete cap on the existing structure.
  - 2. Construction of a weir in existing lagoon berm. This includes removal of existing fence and installation of a new fence based on the new weir contours.
  - 3. Seeding and mulching of all disturbed areas, including any area disturbed area adjacent to the Work or disturbed by sediment and erosion control measures.
  - 4. Install and remove erosion control measures.

##### 1.03 OWNER OCCUPANCY

- A. Owner will occupy the site during the entire period of construction.
- B. Contractors shall cooperate with Owner to minimize conflict, and to facilitate Owner's operation of the wastewater pump station and any other site facility.

##### 1.04 CONTRACTOR USE OF SITE

- A. Contractor shall provide his own staging area as necessary for his Work.

#### PART 2 PRODUCTS

Not Used

#### PART 3 EXECUTION

Not Used

END OF SECTION

## SECTION 01312

### PROJECT COORDINATION AND MEETINGS

#### PART 4 GENERAL

##### 4.01 SECTION INCLUDES

- A. This Section specifies administrative and supervisory requirements necessary for Project coordination.

##### 4.02 GENERAL COORDINATION REQUIREMENTS

- A. Responsibilities of Contractor:
  - 1. Coordinate construction activities for the Project to ensure efficient and proper installation of each part of the Work.
  - 2. Where space availability is limited, coordinate installation of components to assure maximum accessibility for maintenance.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with the Engineer and Owner. Such administrative activities include, but are not limited to, the following:
  - 1. Preparation of schedules.
  - 2. Installation and removal of temporary facilities.
  - 3. Delivery and processing of submittals.
  - 4. Progress meetings.
  - 5. Project Close-out activities.

##### 4.03 MEETINGS

- A. Pre-construction conference shall be held prior to the beginning of the Work.
- B. Construction progress meetings will be held as necessary and be held at the site.
- C. Contractor's project superintendent shall attend meetings.
- D. Engineer will schedule and administer meetings except for meetings held by the Contractor for normal coordination of the Work.
- E. Engineer will prepare an agenda with copies to participants, preside at meetings, prepare minutes, and distribute to participants for meetings scheduled by the Engineer.

#### PART 5 PRODUCTS

Not Used

#### PART 6 EXECUTION

Not Used

END OF SECTION

## SECTION 01330

### SUBMITTAL PROCEDURES

#### PART 7 GENERAL

##### 7.01 SECTION INCLUDES

- A. This Section includes, but is not limited to, requirements for the following:
  - 1. Submittal procedures.
  - 2. Proposed product list.
  - 3. Project record documents.
  - 4. Certificates of compliance.
  - 5. Catalog data.
  - 6. Manufacturer's installation procedures.
  - 7. Samples.

##### 7.02 SUBMITTAL PROCEDURES

- A. Transmit each submittal with cover letter to Engineer at The Wooten Company, 120 N. Boylan Avenue, Raleigh, NC 27603.
- B. Sequentially number transmittal forms. Re-submittals to have original number with an alphabetic suffix.
- C. Cover letter for each submittal package shall list the following:
  - 1. Contractor's name:
  - 2. Owner's name: Onslow Water and Sewer Authority
  - 3. Project name: 2023 Hickory Grove Lagoon Closure
  - 4. Wooten Job No.: 2896-AF
- D. Individual submittals shall each be listed by the following information:
  - 1. Submittal reference no.
  - 2. Specification section number.
  - 3. Drawing and detail number when appropriate.
  - 4. Type submittal.
  - 5. Supplier.
  - 6. Manufacturer.
- E. Apply Contractor's stamp to each submittal, signed or initialed and dated, certifying that Contractor has reviewed submittal for conformance with requirements of Contract Documents and has coordinated submittal with related work.
- F. Schedule submittals to expedite Project and deliver to coordinate submission of related items. Allow a minimum of fifteen (15) working days for Engineer's review.
- G. Identify variations from Contract Documents and Product limitations as they relate to the satisfactory performance of the Project.
- H. Provide space for Contractor and Engineer review stamps.
- I. Revise and resubmit submittals as required; identify changes made since the previous submittal.
- J. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report inability to comply with provisions.

- K. Work requiring submittal review by Engineer shall not be started until review has been obtained.
- L. Engineer's review of submittals shall not relieve Contractor of responsibility for complete compliance with Contract Documents.

#### 7.03 ADMINISTRATIVE SUBMITTALS

- A. Construction Schedule
  - 1. Submit three (3) copies of the project schedule 15 days after date of Owner-Contractor Agreement. One copy shall be returned to the Contractor.
  - 2. Schedule shall be, as a minimum, a one-to-two-page typed sheet identifying the following:
    - a. Product submittal dates and delivery dates accounting for engineer review time and product delivery.
    - b. Proposed method for preventing water from entering work areas from either side of the existing berm.
    - c. Proposed project field work start date.
    - d. Proposed work duration and date for completion of work by specific task to be completed (mobilization, weir work, and fence replacement, chlorine structure work, and final cleanup).
- B. Project Record Documents
  - 1. Maintain on site one set of the following record documents; record actual revisions to the Work:
    - a. Contract Drawings.
    - b. Project Manual.
    - c. Addenda.
    - d. Change Orders and other Modifications to the Contract.
    - e. Reviewed submittals.
  - 2. Store Record Documents separate from documents used for construction.
  - 3. Record Documents: Legibly mark each item to record actual construction, including:
    - a. Field changes from construction Drawings.
    - b. Details not on original Contract Drawings.
  - 4. Submit documents to Engineer with final Application for Payment.

#### 7.04 TECHNICAL SUBMITTALS

- A. General
  - 1. Unless noted otherwise, submit the number of copies that Contractor requires, plus three (3) copies that will be retained by Engineer.
  - 2. Submittals shall be provided, include silt fence, geotextile, rip rap, stone, concrete mix design, expansion joint material, concrete sealant, and concrete wire mesh. Supply any other additional submittals, as required, by the technical specifications.
  - 3. See drawings for required concrete and concrete accessories to supply.
- B. Certificates of Compliance
  - 1. Certificates shall certify that the Products delivered to the project are in conformance with the specifications.
  - 2. Certification shall not relieve the Contractor of responsibility for complying with requirements of the specifications.

- C. Catalog Data
  - 1. Catalog data shall provide sufficient detail to show compliance with specified materials.
  - 2. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Work.
- D. Manufacturer's Installation Procedures
  - 1. Installation procedures should indicate manufacturer's recommendations for proper installation of Product.
- E. Samples
  - 1. Submit samples as required by the individual specification sections. Samples shall be physical examples to illustrate the materials and workmanship. Submit in sufficient size and quantity to clearly illustrate the functional characteristics of the Product.

PART 8      PRODUCTS

Not Used

PART 9      EXECUTION

Not Used

END OF SECTION

## SECTION 01450

### QUALITY CONTROL

#### PART 10 GENERAL

##### 10.01 SECTION INCLUDES

- A. Quality assurance and control of installation.
- B. References.

##### 10.02 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Contractor to monitor quality control over suppliers, manufacturers, Products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- D. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
- E. Concrete
  - 1. Ready mix delivered to site. Contractor shall submit copy of delivery tickets to the Engineer for each batch of ready mixed concrete in accordance with ASTM C-94. Indicate total water content. Concrete to meet specifications listed on the Drawings.
  - 2. Concrete mixed on site shall be machine mixed. Provide an approved type of batch mixer at the site equipped with an accurate water measuring and control device and capable of producing a homogeneous concrete mixture of uniform color. Apparatus provided for weighing aggregate and cement shall be designed especially for this purpose. Weigh fine and coarse aggregate and cement separately. Cement in standard packages need not be weighed, but bulk cement or fractional packages shall be weighed. Accuracy of measuring devices shall be such that successive quantities can be measured to within one percent of required amount. Measuring devices shall be subject to verification. Do not exceed rated capacity of mixer. Time of mixing after cement and aggregates are in the mixer drum shall not be less than one minute for one cubic yard or less and increased 15 seconds for each additional cubic yard or fraction thereof in capacity. The total required water shall be in the drum before one-fourth of the mixing time has elapsed. Mixer drum shall rotate at a peripheral speed of about 200 feet per minute throughout the mixing period. Discharge entire contents of mixer drum before recharging. Provide necessary equipment and establish accurate procedures subject to Engineer's approval for determining the quantity of free moisture in the aggregates. Moisture determination shall be made at intervals as directed by Engineer. The retempering of concrete which has partially hardened, i.e., mixing with or without additional cement, aggregate, or water, will not be permitted.

### 10.03 CONTRACTOR RESPONSIBILITIES

- A. Notify Engineer 24 hours prior to expected time for work requiring inspection (berm excavation, geotextile and rip rap placement, stone and concrete placement in structures, and other work as agreed to in pre-construction meeting).

### 10.04 REFERENCES

- A. Conform to reference standard by date of issue current to date of Bid opening.
- B. Should specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Contractual relationship of parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

### PART 11 PRODUCTS

Not Used

### PART 12 EXECUTION

Not Used

END OF SECTION

## SECTION 01500

### TEMPORARY FACILITIES AND CONTROLS

#### PART 13 GENERAL

##### 13.01 SECTION INCLUDES

- A. Temporary Utilities: Electricity, lighting, water, and sanitary facilities.
- B. Temporary Controls: Barriers, enclosures and fencing, water control, dust control, erosion and sediment control, and protection of the work.
- C. Construction Facilities: Access roads, parking, and progress cleaning.

##### 13.02 TEMPORARY UTILITIES

- A. Electricity
  - 1. Contractor to provide and pay for temporary power for construction, as needed.
- B. Lighting
  - 1. Contractor to provide and maintain lighting for construction operations, as needed.
- C. Water
  - 1. Contractor shall be required to provide water for concrete preparation/mixing, as needed.
- D. Sanitary Facilities
  - 1. Provide and maintain required facilities and enclosures as necessary to comply with the laws and ordinances of the authority having jurisdiction and the State of North Carolina.
  - 2. General Contractor shall provide the above sanitary facilities, as required, at the Project Site.
  - 3. There are no existing sanitary facilities at the site.

##### 13.03 TEMPORARY CONTROLS

- A. General
  - 1. Temporary controls shall be the responsibility of each Contractor for their respective work unless noted otherwise.
- B. Barriers
  - 1. As necessary, provide barriers to prevent unauthorized entry to construction areas for the safety of the public, the protection of the work, and to protect existing facilities and adjacent properties from damage from construction operations.
  - 2. Protect site and existing structures from damage.
- C. Dust Control
  - 1. Execute Work by methods designed to minimize raising dust from construction operations.
  - 2. Provide positive means to prevent airborne dust from dispersing into atmosphere.
- D. Protection of Installed Work
  - 1. Protect installed Work and provide special protection where specified in individual specification Sections.

2. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.

#### 13.04 CONSTRUCTION FACILITIES

- A. General
  1. Construction facilities shall be the responsibility of the Contractor, as needed.
- B. Access Roads
  1. Provide means of removing mud from vehicle wheels before entering streets.
- C. Parking
  1. Do not allow vehicle parking to block existing drive to ONWASA pump station.
  2. Do not allow vehicle parking on private property without prior approval.
- D. Progress Cleaning
  1. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
  2. Remove waste materials, debris, and rubbish from site periodically and dispose off site.

#### 13.05 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary above grade or buried utilities, equipment, facilities, and materials, prior to Final Inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition.

#### PART 14 PRODUCTS

Not Used

#### PART 15 EXECUTION

Not Used

END OF SECTION

## SECTION 02300

### EARTHWORK AND NEW WEIR

#### PART 16 GENERAL

##### 16.01 SECTION INCLUDES

- A. Provide labor, equipment, and material to perform site earthwork and new weir installation as specified herein and indicated on the Drawings. Work shall include, but is not limited to, the following:
  - 1. Protection of underground facilities and existing facilities.
  - 2. Lagoon Water Control.
  - 3. Excavation and New Weir Installation, as indicated on the Drawings.
  - 4. Maintenance and stability of site.
  - 5. Disposal of waste and surplus material.
- B. Examine the site to determine the extent of excavating and related items necessary to complete the work. All excavation is unclassified.

##### 16.02 RELATED SECTIONS

- A. The following Sections have work that is directly related to this Section. This does not relieve the Contractor of his responsibility of proper coordination of all the work:
  - 1. Section 02370 Erosion Control

##### 16.03 REFERENCES

- A. The latest revision, at the time of bidding, of the publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.
  - 1. American Society of Testing Materials (ASTM)
    - a. C33 Concrete Aggregates.
    - b. D698 Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 5.5-lb (2.49 Kg) Rammer and 12-inch Drop (Standard Proctor).
    - c. D1556 Density of Soil in Place by the Sand-Cone Method.
    - d. D1586 Penetration Test and Spilt-Barrel Sampling of Soils.
    - e. D2167 Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
    - f. D2216 Laboratory Determination of Water (Moisture) Content of Soil, Rock, and Soil-Aggregate Mixtures.
    - g. D2487 Classification of Soils for Engineering Purposes.
    - h. D2922 Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).

##### 16.04 DEFINITIONS

- A. Backfill: A specified material used in refilling a cut, trench, or other excavation, placed at a specified degree of compaction.
- B. Compaction: Process of mechanically stabilizing a material by increasing its density at a controlled moisture condition. "Degree of compaction" shall be expressed as a percentage of the maximum dry density obtained by the test procedure presented in ASTM D698 (Standard Proctor).

- C. Excavation: The removal of soil or rock to obtain a specified depth or elevation.
- D. Fill: Specified material placed at a specified degree of compaction to obtain an indicated grade or elevation.
- E. Hard Material: Solid, homogeneous material which are not included in the definition of "rock," but which usually require the use of heavy excavation equipment with ripper teeth. Material having a standard penetration resistance as determined by ASTM D1586 60 and 150 blows per foot is defined as "hard material."
- F. Lift: Layer of soil placed on top of a previously prepared or placed soil.
- G. Rock: Solid, homogeneous material which cannot be removed without the systematic drilling and blasting exceeding one (1) cubic yard in volume. Material having a standard penetration resistance as determined by ASTM D1586 greater than 150 blows per foot is defined as "rock." Removal of "hard material" will not be considered rock excavation because of intermittent drilling and blasting that is performed merely to increase production.
- H. Soil classification shall be in accordance with ASTM D2487.
  - 1. Satisfactory materials: Soils classified as GW, GP, GC, GM, SP, SC, SM, SW, ML, and CL.
  - 2. Unsuitable materials: Soils considered as unsatisfactory shall be materials that do not comply with the requirements of satisfactory above and include, but shall not be limited to, the following:
    - a. Soil containing organic matter, debris, stones larger than 6 inches, or frozen material. Stones greater than 4 inches will not be permitted in the top 12 inches.
    - b. Soils classified as Pt, CH, MH, OH, and OL.
  - 3. Cohesionless: Classified as GW, GP, SW, and SP. Soils classified as GM and SM shall be classified as cohesionless only when the fines have a plasticity index of less than 10.
  - 4. Cohesive: Classified as GC, SC, ML, CL, MH, and CH. Soils classified as GM and SM shall be classified as cohesive only when the fines have a plasticity index greater than 10.
- I. Subgrade: Lowest elevation upon which fill or other work will be placed in the absence of unsuitable material.
- J. Topsoil: Natural, friable soil, representative of productive soils in the vicinity of the site. Topsoil shall be free from roots, stones larger than 1-inch, objectionable weed seeds, toxic substances, and materials that hinder grading, planting, and maintenance operations.

#### 16.05 SUBMITTALS

- A. Submit the following in accordance with Section, Submittal Procedures:
  - 1. Rip Rap and Geotextile Materials

### PART 17 PRODUCTS

#### 17.01 MATERIAL

- A. New Weir
  - 1. Geotextile Fabric: Type 2 Geotextile Filter Fabric per NCDOT Section 10-56.

2. Class 1: Stone shall conform to NCDOT Class 1 standards. Stone shall conform to NCDOT standards and shall range in size from 5 to 17-inches with the stone gradation being equally distributed within the required size range.

## PART 18 EXECUTION

### 18.01 GENERAL

- A. Provide erosion control measures as specified in Section, Erosion Control.
- B. Protect existing berm, structures and features to remain.
- C. Dispose of excavated material in such a manner that it will not obstruct the water flow, endanger existing improvements or Work in progress, impair the use or appearance of the existing facilities, or be detrimental to the completed Work.
- D. Weather Limitations: Proceed with fill and backfill operations based on the following weather conditions:
  1. Temperature must be above freezing.
  2. In windy, hot, or arid conditions with a high rate of evaporation add moisture to the material to maintain the optimum moisture content.
  3. Do not proceed in rain or on saturated subgrade.
- E. Repair or undercut and backfill soils that become damaged by construction activity or unsuitable due to being left exposed to the weather at no additional cost.
- F. Do not place material on surfaces that are muddy, frozen, or contain frost.
- G. Excavation carried below the elevation indicated on the Drawings shall be backfilled and compacted at no additional cost.
- H. Excavated existing berm material may be used as backfill for the geotextile anchor trench as long as it is not considered unsuitable as defined in Section 1.04.I.2. Excess excavated material not suitable or not used for backfilling will be disposed of off-site.

### 18.02 PROTECTION OF UNDERGROUND AND EXISTING FACILITIES

- A. Underground utilities or pipes are not expected in the berm in the New Weir construction area. However, there is an existing discharge pipe from the existing Chlorination Basin that is buried in the berm. Contractor shall Investigate its location to verify this pipe shall not be disturbed or compromised by the Contractor's work.
- B. Repair damage to existing facilities at no additional cost to the Owner.

### 18.03 WATER CONTROL

- A. The construction of the New Weir may require excavation below the existing Hickory Grove Lagoon water level. The lagoon is currently regulated under a NPDES permit limiting discharge to 22,500 gpd or less and any discharge would require sampling and analysis to allow discharge. Currently, there is no lagoon discharge. In addition, the lagoon bottom is in contact with the groundwater at the site and thus the ability to pump the water level down is not known. Therefore, the Contractor will not be allowed to pump water out of the lagoon to lower the natural water level and will have to accomplish the work without relying on lowering the water level. The typical lagoon water depth is 3 to 4 feet.

- B. The New Weir bottom shall be above the normal lagoon water level, but excavation for placement of the geotextile and rip rap may require excavation below the existing lagoon water level as noted in Paragraph A.
- C. Prior to any excavation for the New Weir structure, the Contractor shall devise means and methods to retain water in the lagoon (sandbagging/sheet piles or other methods) to prevent water flow into the weir excavation area from the lagoon or from outside the lagoon during excavation and construction of the weir. Water shall be retained in the existing lagoon for the entire construction of the New Weir and the retention method shall not be removed until approved by the Engineer. Provide a job superintendent experienced in the water retaining method.
- D. Perform excavation and construction to slope the New Weir such that rainwater shall be continually and effectively drained to outside the lagoon (i.e., any rainfall falling on the weir or from the berm will be flow toward the outside berm). Minimum slope of approximately 1 inch per 10 feet.
- E. Fluctuations of the lagoon water level. may be expected during the year due to seasonal and climatic changes.

#### 18.04 EXCAVATION FOR AND INSTALLATION FOR NEW WEIR STRUCTURE

- A. Make excavation to the dimensions and elevations for the New Weir structure as indicated on the Drawings.
- B. Excavation carried below the depths indicated, without specific directions, shall be backfilled and compacted as specified herein to the proper grade at no additional cost.
- C. If encountered, unsuitable materials shall be excavated to a depth of 6 inches minimum below the proposed weir bottom elevation. Replace unsuitable material with other suitable excavated berm soil, as available. In the event that suitable excavated berm soils are insufficient to replace the unsuitable material removed, the Contractor shall supply and backfill with select material as a change to the Contract Price.
- D. Prepare the subgrade for geotextile and riprap to the required lines and grades shown on the Drawings. Compact any fill required in the subgrade to a density approximating that of the surrounding undisturbed berm material using vibratory compactor. Cut the subgrade sufficiently that the finished grade of the rip rap will be at the elevation indicated on the drawings.
- E. Place geotextile fabric directly on the prepared subgrade.
- F. Placement riprap immediately after placement of the fabric
- G. Place backfill and fill material in the geotextile fabric trench in 6 to 8-inch lifts and hand tap/compact not disturbing or tearing the fabric material. Compact fabric trench backfill to a density approximating that of the surrounding undisturbed berm material.

#### 18.05 BORROW MATERIAL

- A. If needed, provide borrow material required for backfill to bring the New Weir to the elevations indicated on the Drawings. Borrow material shall be subject to the approval of the Engineer. Notify Engineer as to the site selected for inspection and approval prior to transporting borrow material to the site.
- B. Provide soil analysis for each type of material from proposed borrow pit(s) for Engineer's approval prior to placing borrow material. Contractor shall do necessary

work to bring the borrow material to within plus or minus 1-1/2 percent of the optimum moisture content. A minimum of one sample per structure shall be obtained for analysis.

18.06 MAINTENANCE AND STABILITY

- A. Maintain existing grade on the New Weir, lagoon berms and side slopes until the final completion and acceptance of the Project. Repair areas that are damaged.

18.07 DISPOSAL OF SURPLUS MATERIAL

- A. Dispose of surplus material not required or unsuitable for filling, backfilling, or grading in an approved spoil area in accordance with ONWASA and local ordinances.
- B. Obtain erosion control permit as necessary for disposal site(s).

END OF SECTION

SECTION 02370  
EROSION CONTROL

PART 19 GENERAL

19.01 SECTION INCLUDES

- A. Work shall include, but not be limited to, the following:
  - 1. Erosion control at project site.
  - 2. Removal of surface debris.
  - 3. Temporary and permanent ground cover.
  - 4. Maintain and remove erosion control devices.

19.02 RELATED SECTIONS

- A. The following Sections have work that is directly related to this Section. This does not relieve the Contractor of his responsibility of proper coordination of all the work:
  - 1. Section 02920 Lawns and Grasses

19.03 REFERENCED STANDARDS

- A. "Erosion and Sediment Control Planning and Design Manual," issued by the N. C. Sedimentation Control Commission.

19.04 QUALITY ASSURANCE

- A. Conform to rules and regulations of the Erosion Control Laws of the State of North Carolina, specifically the Sedimentation Pollution Control Act of 1973 (G.S. 113A) as amended, and the local jurisdiction where the project is located.
- B. Provide permanent ground cover as soon as possible, and no later than 7 working days after completion of work in a specific area.

19.05 WARRANTY

- A. Contractor is liable for damages to public and private property and fines as may be placed on the Project by the governing agencies due to failure to provide adequate erosion control devices.

PART 20 PRODUCTS

20.01 MATERIALS

- A. Matting / Erosion Control Fabric (ECF): Matting and ECF shall be heavy jute mesh over mulch held in place by staples. Commercially available ECFs may be used upon approval of the engineer. Approval of fabrics will require manufacturer's design data regarding velocity, ditch slopes, method of installation, decay cycle, repair techniques, and grass growth enhancement characteristics.
- B. Wire Staples: 16-gauge steel wire, with minimum of 3" top and 4" long legs.
- C. Gravel for Stone Filters: #57 crushed stone.
- D. Filter Fabric: 7-1/2 oz. burlap fabric or other silt filtering fabric.

## PART 21 EXECUTION

### 21.01 INSTALL EROSION CONTROL DEVICES

- A. Install erosion control devices, which shall be in place and operational prior to other land disturbing activity.
- B. After installing erosion control devices as indicated on the Drawings, verify that reasonable measures have been taken to prevent the sedimentation of nearby watercourses, existing and new facilities, and adjacent property.
- C. Should Contractor believe that additional measures are necessary to adequately prevent erosion, immediately notify Engineer. If rain is predicted before the Engineer can be notified, take measures as necessary to prevent siltation of nearby water courses and work will be paid for as provided in the General Conditions.
- D. Incorporate permanent erosion control work into the project at the earliest practicable time. Coordinate temporary erosion control measures with permanent erosion control measures and other work on the project to assure effective and continuous erosion control throughout the construction and post construction period.
- E. Maintain erosion control devices during construction until the disturbed areas are stabilized and the agency having jurisdiction and the Engineer have approved the removal of the erosion control devices.

### 21.02 MAINTENANCE

- A. Inspect erosion control devices after each rainfall. Make required repairs immediately. Remove sediment deposits when deposits reach approximately one-half of the capacity of the erosion control device.
- B. Re-spread accumulated runoff related sediments on the project site in a manner that will not adversely affect erosion control facilities and permanent ground cover.
- C. Silt Fence: Should the filter fabric decompose or become ineffective before approval of its removal by the Engineer, replace fabric immediately at no additional cost to the Owner.

### 21.03 SEEDING

- A. Disturbed areas not covered by new construction shall be seeded.
- B. Provide temporary and permanent seeding in accordance with Section, Lawns, and Grasses.

### 21.04 STABILIZATION AND CLEAN-UP

- A. Remove erosion control devices upon the approval of the permanent stabilization of this site by Engineer. Dress sediment deposits remaining in place after the erosion control devices are removed to conform to the existing grade, prepared and seeded. Include cost of removal and cleanup in the cost of the installation of the device.

END OF SECTION

## SECTION 02820

### CHAIN LINK FENCES AND GATES

#### PART 1 GENERAL

##### 1.01 SUMMARY

- A. Chain link fences and/or gates removed to construct the new weir shall be replaced with new fence per this specification and be connected to existing site fence such that the fence is a continuous barrier to access to the site. If any other existing fence along the berm is damaged by the Contractor during execution of the work, any damaged fence shall also be replaced. Fence removed at the existing Chlorination Structure shall be taken off-site and not reused. The Chlorination Structure fence is not to be replaced.
- B. Section Includes
  - 1. Fence framework, fabric, and accessories.
  - 2. Excavation and concrete foundations for posts and for center drop for gates.
  - 3. Gates and related hardware.
- C. Related Documents:
  - 1. Section 03100 – Cast-in-Place Concrete

##### 1.02 SYSTEM DESCRIPTION

- A. Fence Height: 8-feet nominal fabric height.
- B. Barbed Wire: Three strands on extension arms.
- C. Line Post Spacing: At intervals not exceeding 10-feet.

#### PART 2 PRODUCTS

##### 2.01 CHAIN LINK FENCE AND GATES

- A. Manufacturers:
  - 1. Anchor Fence, Inc.
  - 2. Cyclone Fence.
  - 3. Master Halco, Inc.
- B. Framing: Black or green vinyl-coating (installed by the manufacturer), ASTM F1083, hot-dip galvanized, Schedule 40 steel pipe of the following sizes:
  - 1. Line Posts: 2.375 inch outside diameter.
  - 2. Corner, End, and Pull Posts: 3.000 inch outside diameter.
  - 3. Top and Brace Rail: 1.660 inch outside diameter.
  - 4. Gate Frame: 1.900 inch outside diameter.
  - 5. Gate Posts:
    - a. 2.875 inch outside diameter for gates 6'-0" or less.
    - b. 4.000 inch outside diameter for gates 6'-0" to 13'-0".
    - c. 6.625 inch outside diameter for gates 13'-0" to 18'-0".
    - d. 8.625 inch outside diameter for gates over 18'-0".

- C. Fabric: Aluminum or zinc-coated 9-gauge steel wire; 2-inch diamond mesh; top selvage twisted tight; bottom selvage knuckle end closed. Fabric shall have black or green vinyl coating installed by the fencing manufacturer.
  - 1. Aluminum-Coated: ASTM A491; applied by hot-dip process at 0.40 ounces per square foot before weaving fabric.
  - 2. Zinc-Coated: ASTM A392 Class 2; applied by hot-dip process at 2.0 ounces per square foot after weaving fabric.
- D. Barbed Wire: Aluminum or zinc-coated, 12-1/2-gauge steel wire, and 14-gauge steel barbs; consists of three strands of twisted wire with four-point barbs on 5-inch spacing.
  - 1. Aluminum-Coated: ASTM A585.
  - 2. Zinc-Coated: ASTM A121.
- E. Accessories:
  - 1. Tension Wire: Marcellled, 7-gauge metallic-coated steel wire; ASTM A824 Type I Aluminum-coated, or Type II Zinc-coated Class 2.
  - 2. Tension and Brace Bands: 12-gauge pressed steel, hot-dip galvanized, 3/4-inch wide.
  - 3. Tension Bars: Steel strip, minimum 3/16-inch thick by 3/4-inch wide, hot-dip galvanized.
  - 4. Tie Wires: 9-gauge round wire of aluminum alloy 1350-H19.
  - 5. Post Caps: Pressed steel or cast iron, hot-dip galvanized; designed to fit snugly over post and exclude moisture from inside.
  - 6. Barb Wire Support Arms: Pressed steel or cast iron and hot-dip galvanized with provisions for attaching three rows of barbed wire at a 45-degree angle. Capable of withstanding 250 pounds downward pull at outermost end of arm without failure. Arms designed to fit securely over line posts with provisions for passage of top rail. Provide hardware for attaching arms to end and corner posts.
  - 7. Fasteners: Galvanized carriage bolts with nuts.
- F. Gate Hardware:
  - 1. Swing Gates:
    - a. Hinges: Structurally capable of supporting gate leaf and allow opening and closing without binding. Permit gate to swing 180 degrees inward or outward.
    - b. Single Gate Latch: Forked type, capable of retaining gate in closed position and have provision for padlock. Capable of operation from either side of gate.
    - c. Double Gate Latch: Provide drop rod to hold inactive gate leaf. Provide locking device and padlock eyes as an integral part of latch.
    - d. Keeper: Provide a keeper for each gate leaf over 5'-0", consisting of mechanical device for securing free end of gate when in fully open position.

## 2.02 CONCRETE FOUNDATIONS

- A. Fence Posts and Center Drop: Class II concrete.

## PART 3 EXECUTION

### 3.01 INSTALLATION

- A. Install framework, fabric, accessories, and gates in accordance with manufacturer's instructions.
- B. Set intermediate, terminal, gate, and line posts plumb, in concrete footings with top of footing 1-inch above finish grade. Slope top of concrete for water run-off.
- C. Line Post Footing Depth Below Finish Grade: 3-feet.
- D. Corner, Gate and Terminal Post Footing Depth below Finish Grade: 3-feet.
- E. Brace each gate and corner post to adjacent line post with horizontal center brace rail and diagonal truss rods. Install brace rail, one bay from end and gate posts.
- F. Provide top rail through line post tops and splice with 6-inch-long rail sleeves.
- G. Install center and bottom brace rail on corner gate leaves.
- H. Stretch fabric between terminal posts or at intervals of 100-feet maximum, whichever is less.
- I. Position bottom of fabric 1-inch above finished grade.
- J. Fasten fabric to top rail, line posts, braces, and bottom tension wire with tie wire at maximum 15- inches on centers.
- K. Attach fabric to end, corner, and gate posts with tension bars and tension bar clips.
- L. Install bottom tension wire stretched taut between terminal posts.
- M. Install support arms sloped outward and attach barbed wire; tension and secure.
- N. Do not swing gate from building wall; provide gate posts.
- O. Install gate with fabric and barbed wire overhang to match fence. Install gate hardware.
- P. Provide concrete center drop to footing depth and drop rod retainers at center of double gate openings.
- Q. Install automatic gate operator components; comply with manufacturer's instructions.

### 3.02 ERECTION TOLERANCES

- A. Maximum Variation from Plumb: ¼-inch.
- B. Maximum Offset from True Position: 1-inch.
- C. Components shall not infringe adjacent property lines.

END OF SECTION

## SECTION 02920

### LAWNS AND GRASSES

#### PART 22 GENERAL

##### 22.01 SECTION INCLUDES

- A. Work shall include, but not be limited to, the following:
  - 1. Surface preparation of subsoil.
  - 2. Addition of fertilizer.
  - 3. Seeding.
  - 4. Maintenance to produce a permanent stand of grass.

##### 22.02 REFERENCES

- A. N.C. Department of Agriculture - NCDA
- B. U.S. Department of Agriculture - USDA

##### 22.03 PERFORMANCE REQUIREMENT

- A. Grassed area shall be considered established when it presents a green appearance from eye level 50 feet away and the grass is growing well in each square foot of seeded area.
- B. Should the permanent seed not germinate and produce a strand of grass, reseed affected areas until a permanent stand is established.

##### 22.04 QUALITY ASSURANCE

- A. Quality of fertilizer and seed, and operations in connection with the furnishing of this material, shall comply with the requirements of the N.C. Fertilizer and Seed Law; and with the requirements of the rules and, regulations adopted by the NC Department of Agriculture in accordance with the provisions of the said law.
- B. Seed containers shall bear an official "Certified Seed" label as inspected by the N.C. Crop Improvement Association.
- C. Packages for soil conditioners and fertilizer shall bear manufacturer's guaranteed analysis.
- D. Do not apply fertilizer or seed in strong wind, when the soil is extremely wet or otherwise unworkable. No rolling shall be done if precipitation after seeding would make the operation detrimental to the seed bed.

##### 22.05 DELIVERY, STORAGE, AND PROTECTION

- A. Deliver grass seed mixture in sealed containers showing percentage of seed mix, year of production, net production, net weight, date of packaging, and location of packaging.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

##### 22.06 MAINTENANCE SERVICE

- A. Maintain seeded areas until grass is well established and exhibits a vigorous growing condition for a minimum of two cuttings.

- B. Control growth of weeds. Apply herbicides in accordance with manufacturer's instructions.
- C. Water areas seeded between May 1 and July 15 at such intervals as to maintain the seeded area in a moist condition until the grass is established and accepted by the Engineer. Provide equipment to transport and distribute the water to the seeded areas. Areas seeded between September 1 and November 1 need not be irrigated beyond the initial watering specified above except that the Contractor may apply water at his own discretion.

## PART 23 PRODUCTS

### 23.01 MATERIALS

- A. Topsoil: Fertile, agricultural soil, typical for locality, capable of sustaining vigorous plant growth, taken from drained site; free of subsoil, clay or impurities, plants, weeds, and roots; pH value of minimum 5.4 and maximum of 7.0.
- B. Fertilizer: Mixed, commercial, fertilizer containing 10-10-10 percentages of available nitrogen, phosphoric acid, and potash respectively, plus superphosphate with 20 percent P2O5 content. Fertilizer shall be dry, in granular (pellet) form, shall be delivered to the site in the manufacturer's original bag or container which shall be plainly marked as to formula.
- C. Seed: Fresh seed guaranteed 95 percent pure with a minimum germination rate of 85 percent within one year of tests. Provide the following seed mixtures with fertilizer in disturbed areas including NCDOT Rights-of-Way:

#### 1. Temporary Seeding

<u>Planting Dates</u>	<u>Grass Type</u>	<u>Pounds/Acre</u>
Dec. 1 - Apr. 15	Rye (Grain)	120
	Kobe Lespedeza	50
Apr. 15 - Aug. 15	German Millet	40
Aug.15 - Dec. 1	Rye (Grain)	120
	Lime	3,000
	Fertilizer	10-10-10 800
	Mulch	Straw 4,000

#### 2. Permanent Seeding

<u>Planting Dates</u>	<u>Grass Type</u>	<u>Pounds/Acre</u>
Sept. 1 - Oct. 31	Tall Fescue	200
	Rye (grain)	25
	Lime	4,000
	Fertilizer	10-10-10 1,000
	Mulch	Straw 4,000

- D. Matting / Erosion Control Fabric (ECF): Matting and ECF shall be heavy jute mesh over mulch held in place by staples. Commercially available ECFs may be used upon approval of the engineer. Approval of fabrics will require manufacturer's design data

regarding velocity, ditch slopes, method of installation, decay cycle, repair techniques, and grass growth enhancement characteristics.

- E. Wire Staples: 16-gauge steel wire, with minimum of 3" top and 4" long legs.
- F. Mulch: Threshed straw of oats, wheat, or rye; free from seed of obnoxious weeds; or clean salt hay. Straw which is fresh and excessively brittle or straw which is in such an advanced stage of decomposition as to smother or retard growth of grass will not be acceptable.
- G. Water: Water shall be free from substances harmful to growth of grass.

## PART 24 EXECUTION

### 24.01 PREPARATION OF SUBSOIL

- A. Complete operations in the area to be seeded and prepare subsoil to eliminate uneven areas and low spots.
- B. Scarify subsoil to a depth of 3 inches. Remove weeds, roots, stones, and foreign materials 1-1/2 inches in diameter and larger.

### 24.02 APPLICATION OF FERTILIZER

- A. Spread fertilizer not more than 2 weeks in advance of seeding.
- B. Provide mechanical spreader for even distribution and spread half of the rate in one direction, and the other half at right angles to the first. Mix thoroughly into upper 2 to 3 inches of soil by disking, harrowing or other approved methods.

### 24.03 SEEDING

- A. Accomplish seeding by means of an approved power-drawn seed drill, combination corrugated roller-seeder, approved hand operated mechanical seeder, or other approved methods to provide even distribution of seed.
- B. Do not seed when ground is excessively wet or excessively dry. After seeding, roll area with a roller, not less than 18 inches in diameter and weighing not more than 210 pounds per foot of width. Upon completion of rolling, water area with a fine spray.
- C. Immediately following seeding apply mulch or matting. Do not seed areas in excess of that which can be mulched on same day.
- D. Apply water with a fine spray immediately after each area has been mulched. Saturate to 4 inches of soil depth.

### 24.04 MULCHING AND MATTING

- A. Apply mulch or matting as required to retain soil and grass, but no less than the following:
  - 1. Slopes from 0 to 20 percent by spreading a light cover of mulch over seeded area at the rate of not less than 85 lbs. per 1000 sq. ft.
  - 2. Slopes greater than 20 percent mulch with matting. Pin matting to the ground with wire staples at 5-foot intervals, immediately after seeding.
  - 3. Use tack to prevent disruption of mulch.
- B. Other types of mulch and anchoring methods may be used upon approval by the Engineer.

#### 24.05 PROTECTION

- A. Protect seeded areas from damage by barricades, signs, and other appropriate means. Maintain and protect slopes from weather damage.

END OF SECTION

**EXHIBIT 3  
BID PRICING SHEET  
PROJECT TITLE**

\_\_\_\_\_ (Bidder) will perform the work for the **2023 Hickory Lagoon Closure** as listed in the Scope of Work (Exhibit 1) including all permits, parts, labor, restoration of the area and any other cost below.

In submitting this Bid, Bidder represents that all copies of the Contract Documents and the following addenda have been examined:

<u>Date</u>	<u>Number</u>
_____	_____
_____	_____
_____	_____

Total PROJECT DESCRIPTION as described in the Scope of Work for  
\$\_\_\_\_\_.

By signing this **2023 Hickory Grove Bid Documents Bid Pricing Sheet**, the Bidder, if selected, agrees to perform the services listed in the Scope of Work (Exhibit 1) using the rates quoted on this Bid Pricing Sheet. The bidder hereby acknowledges that he has read, understands, and agrees to the conditions stated in the ONWASA Standard Service Contract language (Exhibit 4).

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Title

**EXHIBIT 4**  
**ONWASA STANDARD SERVICE CONTRACT**  
**2023 Hickory Grove Lagoon Closure**

THIS CONTRACT is made and entered into this the \_\_\_\_\_ day of \_\_\_\_\_, 2023, by and between the **ONSWLOW WATER & SEWER AUTHORITY**, a political subdivision of the State of North Carolina (hereinafter referred to as "ONWASA") and \_\_\_\_\_, a corporation duly authorized to do business in the State of North Carolina, (hereinafter referred to as "Contractor").

ONWASA and Contractor agree as set forth below: Contractor will provide all labor, equipment, and materials necessary to perform the necessary tasks to formally close the Hickory Grove Lagoon, located off Piney Green Road (SR 1406), behind Easy Street, east of Jacksonville in Onslow County.

The Request for Bids for **2023 Hickory Grove Lagoon Closure** dated **September 20, 2023**, is attached to, and hereby incorporated into, and made part of this Contract by reference (hereinafter referred to as "the work"). Each reference to this Contract shall be deemed to include all Exhibits and Addenda. Any conflict between language in an Exhibit or Appendix and language in the main body of this Contract shall be resolved in favor of the main body of this Contract.

**ARTICLE 1**  
**GENERAL**

- 1.1 Contractor represents and maintains that it has the necessary qualifications and expertise to assume the responsibilities and render the services described herein and has the requisite corporate authority and licenses required by law.
- 1.2 The Contractor, Contractor's employees, and subcontractors shall provide all labor and materials needed to perform and execute the work as outlined in the Scope of Work outlined in the RFB in accordance with Articles 2 and 3 of this Contract. Any work initiated by the Contractor prior to the execution of a Contract for Services will be at the Contractor's sole risk.
- 1.3 Contractor shall exercise reasonable care and skill as might be expected from similarly situated professionals performing services of the kind required under this Contract at the time and the place where the services are rendered. The staff of and subcontracted professionals engaged by the Contractor shall possess the experience, knowledge, and character necessary to qualify them to perform the duties to which they are assigned.
- 1.4 Contractor's services shall be performed as expeditiously as necessary for the orderly progress of the work.

- 1.5 Contractor and ONWASA acknowledge that the Scope of Work described within the Request for Bids may not delineate every detail and minor work task required to be performed by the Contractor to complete the work authorized by the Scope of Work. If, during the performance of the work authorized by this Contract, the Contractor determines that services outside the level of those originally anticipated are required, the Contractor shall notify ONWASA's designated representative in writing and obtain ONWASA approval before proceeding with the work. Any such additional work performed without obtaining prior approval from ONWASA's designated representative is at the Contractor's sole risk.
- 1.6 Upon mutual written agreement, the work described in the Scope of Work may be modified upon negotiated additional scopes of service, compensation, time of performance, and other matters related to the work. If ONWASA and Contractor cannot contractually agree, ONWASA shall have the right to immediately terminate negotiations at no cost to ONWASA and to procure services from another source.
- 1.7 The Contractor shall coordinate with the ONWASA's designated representative prior to and during the duration of the Contract.

## **ARTICLE 2**

### **CONTRACTOR'S RESPONSIBILITIES**

- 2.1 The Contractor shall supply all labor and materials as needed to perform and execute the work described in the Scope of Work. In the event of incomplete, inaccurate, or defective work the Contractor agrees to immediately correct incomplete, inaccurate, or defective work at no further cost to ONWASA.
- 2.2 The Contractor agrees that it shall be responsible for the proper custody and care of any property furnished for use in connection with the performance of the work and will reimburse ONWASA for loss or damage to such property.
- 2.3 The Contractor shall be solely responsible for initiating, supervising, and maintaining all safety precautions in connection with the work provided under this Contract. The Contractor shall comply with all applicable laws and regulations relating to the safety of persons or property, or the protection of persons or property from damage, injury, or loss, and shall erect and maintain all necessary safeguards for such safety and protection. All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any subcontractor, supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the work, or anyone for whose acts any of them may be liable, shall be remedied by the Contractor.
- 2.4 Except as otherwise required for the safety or protection of persons or property at the site or adjacent thereto, all work shall be performed during regular working hours.
- 2.5 The Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Contract. If the Contractor performs any work knowing or having reason to know that it is contrary to laws or regulations, the Contractor

shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of contractors, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such work.

- 2.6 ONWASA will provide the Contractor with such permissions as required for access to the sites where the work shall be performed in a good and skillful manner, and the worksites maintained free of trash and waste materials and left in the same or better condition than before the work commenced. The Contractor shall supervise and direct the work and shall be solely responsible for and in control of the means, methods, procedures, techniques, and sequences of doing the work.
- 2.7 The Contractor shall maintain all records, documents, notes, and financial information related to the performance of the work in accordance with Generally Accepted Accounting Principles and Practices and shall provide ONWASA with copies of such information. Any information, data, instruments, documents, studies, or reports given to or prepared or assembled by the Contractor under this Contract shall be kept confidential and not divulged or made available to any individual or organization without the prior written approval of ONWASA.

### **ARTICLE 3**

#### **ONWASA'S RESPONSIBILITIES**

- 3.1 ONWASA shall provide the Contractor with all criteria and full information as to ONWASA's requirements for the work, including objectives and constraints.
- 3.2 The timely provision of all available information, data, reports, and records to which ONWASA has access and which are needed by the Contractor for the performance of the work.
- 3.3 Advise the Contractor of the identity and Scope of Work of any other service providers employed by ONWASA to perform or furnish services related to or affecting the work.
- 3.4 ONWASA will respond within a reasonable time to the Contractor's requests for written decisions or determinations about the Contractor's services.
- 3.5 ONWASA will give prompt written notice to the Contractor whenever ONWASA becomes aware of any event, occurrence, condition, or circumstance which may substantially affect the Contractor's performance of the work under this Contract.
- 3.6 ONWASA shall designate a representative authorized to act on its behalf concerning the work. The authorized representative shall communicate decisions about documents submitted by the Contractor to avoid unreasonable delay in the orderly and sequential progress of the work.

- 3.7 Prompt notice shall be given by ONWASA to the Contractor if ONWASA becomes aware of any fault or defect in the work or nonconformance with the Contract.

#### **ARTICLE 4**

#### **INSURANCE**

- 4.1 During the performance of the work under this Contract, the Contractor shall maintain the minimum levels of insurance shown below and is responsible for ensuring original certificates of such coverage are submitted to ONWASA directly from the insurance provider before performance. Policies shall list ONWASA as additional insured on all applicable policies. All policies shall be obtained from insurance companies that are duly licensed in the State of North Carolina to issue insurance policies for the limits and coverages so required, must cover the term of the Contract, and provide thirty (30) days advance written notice to ONWASA in the event of cancellation, expiration, or alteration.

1. General Liability Insurance, with a combined single limit of \$1,000,000 for each occurrence and \$2,000,000 in the aggregate or as otherwise specified in the addendum, whichever is greater.
2. Automobile Liability Insurance, with a combined single limit of \$1,000,000 for each person and \$1,000,000 for each accident.
3. Workers' Compensation Insurance per statutory requirements and Employers Liability Insurance, with a limit of \$500,000 for each occurrence.
4. Excess Liability/Umbrella Insurance, with a limit of \$1,000,000 per occurrence

In the event the Contractor is excluded from the requirements of the North Carolina Workers Compensation Act and does not voluntarily carry workers compensation coverage, the Contractor shall carry or cause its employees to carry adequate medical/accident insurance to cover any injuries sustained by its employees or agents during the performance of service.

- 4.2 The provisions of this Article shall survive the expiration or termination of this Contract.

#### **ARTICLE 5**

#### **PAYMENTS TO THE CONTRACTOR**

- 5.1 ONWASA hereby agrees to pay to the Contractor in lawful money of the United States for the faithful performance of the work following the Scope of Work and quoted prices as outlined in the Bid Pricing on a per invoice basis within 30 days of receipt of the Contractors invoice, subject to additions and deductions as provided in the Contract.

- 5.2 The Contractor shall invoice for work satisfactorily completed each month. Invoices shall include all sales taxes paid relative to the work, Purchase Order number, description of the item(s), quantities, unit price, extended price, freight, state and local taxes, and date of delivery.
- 5.3 ONWASA may withhold payments if ONWASA has received claims of lien by subcontractors for unpaid labor or materials, if the work of the Contractor is defective if the Contractor fails to diligently pursue the work with reasonable dispatch, or if the amount requested is not consistent with the level of work performed.
- 5.4 Retainage shall be five (5) percent of the amount earned to date for construction of the first fifty (50) percent of completed work. When the work is 50% complete and the work is progressing satisfactorily, the retainage will be reduced to two and one half (2.5) percent until job completion. The Contractor is advised that a retainage reduction is not automatic and that a reduction will be at the discretion of the Owner and the Surety Company based on representations of the Engineer.
- 5.5 In the event of a disputed or contested invoice, only that portion so contested will be withheld from payment, and the undisputed portion will be paid. Service charges and/or interest will not be accrued to any outstanding or overdue amounts.
- 5.6 Unless otherwise stated herein, payments are due and payable thirty (30) days from the date of the Contractor's invoice.

## **ARTICLE 6**

### **TERMINATION, SUSPENSION, OR ABANDONMENT**

- 6.1 The Contractor acknowledges that ONWASA is a governmental entity, and the Contract's validity is based upon the availability of public funding under the authority of its statutory mandate. If public funds are not appropriated for the performance of ONWASA's obligations under this Contract, then this Contract shall automatically expire without penalty to ONWASA thirty (30) days after written notice to Contractor of the unavailability and non-appropriation of public funds.
- 6.2 This Contract may be terminated by either party upon not less than seven days written notice should the other party fail substantially to perform per the terms of this Contract through no fault of the party initiating the termination.
- 6.3 In the event of termination that is not the fault of the Contractor, the Contractor shall be compensated for services performed prior to termination, together with reimbursable expenses then due. This shall be the exclusive remedy for termination.
- 6.4 ONWASA shall have no liability to the Contractor for any delay or damage caused the Contractor due to suspension of the work, or due to any other delay, interruption, hindrance, or interference.

- 6.5 If termination or suspension occurs, the Contractor shall terminate or suspend performance of the work on a schedule acceptable to ONWASA.
- 6.6 In the event of noncompliance of any term or terms of this Contract by the Contractor, ONWASA may, at its sole option, declare the Contractor in default and terminate this Contract with not less than seven days written notice. Should ONWASA terminate this Contract due to the default of the Contractor, ONWASA may in addition to its other rights contract with any other party to fulfill the Contractor's obligations hereunder. The Contractor shall be liable for any increase in cost borne by ONWASA due to the default. This shall in no way limit ONWASA's right to collect any other damages, whether legal or equitable, due to the default of the Contractor.
- 6.7 Force Majeure. If either party is unable to perform any of its obligations under this Contract, or to enjoy any of its benefits because of any event which is unavoidable and beyond the control of the defaulting party, including, but not restricted to, a labor stoppage, strike action or unrest, a judicial or governmental decree, regulation or other direction not the fault of the party who has been affected, the threat or initiation of any legal action, communication line failure, power failure and any natural disaster or Act of God, the party who has been so affected shall immediately give notice to the other party and shall do everything possible to resume performance.

Upon receipt of such notice, this Contract shall be immediately suspended. If the period of non-performance exceeds fifteen (15) days from the receipt of notice of the Force Majeure Event, ONWASA may, by giving written notice, terminate this Contract.

## **ARTICLE 7**

### **OTHER CONDITIONS OR SERVICES**

- 7.1 The terms of this Contract shall control any conflicting terms in any referenced document.
- 7.2 If any provision of the Contract shall be held illegal, invalid, or unenforceable, in whole or in part, such provision shall be modified to the minimum extent necessary to make it legal, valid, and enforceable and the remaining provisions shall not be affected.
- 7.3 To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless ONWASA and the officers, directors, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of the Contractors, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the Contract or the work, including the loss of use resulting therefrom and breach of any of the successful Contractor's warranties, but only to the extent caused by any negligent, reckless or intentional act or omission of the Contractor, any subcontractor, any supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the work or anyone for whose acts any of them may be liable or arising out of the Contractor's breach of this Contract. Indemnification responsibilities created by this section

shall survive and be enforceable after the Contract between ONWASA and the successful Contractor terminates or expires. The Contractor shall defend all suits and assume all liability for any claims made against ONWASA or any of its officials or agents for the use of any patented process, device, or article forming a part of the articles, equipment, or services furnished under this Contract.

- 7.4 This Contract shall be governed by the law of the State of North Carolina. All actions relating in any way to this Contract shall be brought in the General Court of Justice in the County of Onslow and the State of North Carolina.
- 7.5 ONWASA and the Contractor, respectively, bind themselves, their partners, successors, assigns and legal representatives to the other party to this Contract and the partners, successors, assigns and legal representatives of such other party with respect to all covenants of this Contract. Neither ONWASA nor the Contractor shall assign this Contract without the written consent of the other.
- 7.6 This Contract represents the entire and integrated agreement between ONWASA and the Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. This Contract may be amended only by written instrument signed by both ONWASA and the Contractor.
- 7.7 The subject headings of the paragraphs are included for purposes of convenience only and shall not affect the construction or interpretation of any of its provisions. This Contract shall be deemed to have been drafted by both parties, and no purposes of interpretation shall be made to the contrary.
- 7.8 Nondiscrimination Clause: No person in the United States shall, on the grounds of age, race, color, national origin, gender, or disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds available under this project.
- 7.9 Minority and Female Business Enterprise: ONWASA encourages participation from Minority and Women Business Enterprise (MWBE).
- 7.10 Except as otherwise required or provided in the Scope of Work, the Contractor will not meet or confer with any member of any federal, state, or local regulatory agency concerning the services without obtaining the prior consent of ONWASA.
- 7.11 All notices which may be required by this Contract, or any rule of law shall be effective when received by certified mail sent to the following addresses:

ONslow WATER AND SEWER AUTHORITY  
Attn: Finance Office  
228 Georgetown Road  
Jacksonville, NC 28540

**IN TESTIMONY WHEREOF**, the parties have made and executed this Contract by authorized representatives, acting under and under the authority in them vested, and have hereunto set their hands and seals, the day and year first written above.

**CONTRACTOR**

ATTEST:

By: \_\_\_\_\_

\_\_\_\_\_  
Secretary

Print Name/Title: \_\_\_\_\_

(SEAL)

**ONSLOW WATER & SEWER AUTHORITY**

ATTEST:

By: \_\_\_\_\_

Franky J. Howard, ONWASA CEO

\_\_\_\_\_  
Heather Norris, Clerk

(SEAL)

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

\_\_\_\_\_  
Eric Adams, Chief Finance Officer

**EXHIBIT 5**  
**E-VERIFY AFFIDAVIT**

I, \_\_\_\_\_ (the individual attesting below), being duly authorized by and on behalf

of \_\_\_\_\_ (the entity identified as the "Employer") after first being duly sworn hereby swears or affirms as follows:

1. Employer understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25(5).
2. Employer understands that Employers Must Use E-Verify. Each employer, after hiring an employee to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS§64-26(a).
3. Employer is a person, business entity, or other organization that transacts business in this State and that employs 25 or more employees in this State.

Employer employs the following number of employees in this State (check which is applicable):

- |                              |                             |
|------------------------------|-----------------------------|
| a. Less than 25 _____        | b. Between 25 and 100 _____ |
| c. Between 100 and 500 _____ | d. 500 or more _____        |

4. Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer for specified contracts subject to E-Verify entered into with the Onslow Water & Sewer Authority Employer.

This \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Signature of Affiant

Print or Type Name: \_\_\_\_\_

State of \_\_\_\_\_ County of \_\_\_\_\_

Signed and sworn to (or affirmed) before me, this the \_\_\_\_\_

day of \_\_\_\_\_, \_\_\_\_\_.

My Commission Expires:

\_\_\_\_\_  
Notary Public

(Affix Official/Notarial Seal)

**EXHIBIT 6  
VENDOR FORM**

**Onslow Water & Sewer Authority**

Finance Office  
228 Georgetown Road  
Jacksonville, NC 28540  
Fax (910) 455-2504

Name (as reported on your income tax return) \_\_\_\_\_  
Business Name \_\_\_\_\_ Vendor# \_\_\_\_\_ (to be assigned)  
Federal ID# \_\_\_\_\_ or SS# \_\_\_\_\_

Check one of the following:

☐ Corporation ☐ Sole Proprietorship ☐ Partnership ☐ Other \_\_\_\_\_

Order Address

Street \_\_\_\_\_  
PO Box \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_  
Zip Code \_\_\_\_\_  
Contact Person \_\_\_\_\_  
Phone Number \_\_\_\_\_  
Fax Number \_\_\_\_\_  
Terms \_\_\_\_\_  
E-Mail Address \_\_\_\_\_

Payment Address

Street \_\_\_\_\_  
PO Box \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_  
Zip Code \_\_\_\_\_  
Contact Person \_\_\_\_\_  
Phone Number \_\_\_\_\_  
Fax Number \_\_\_\_\_  
Discount \_\_\_\_\_

Are you related to or have a professional relationship with any ONWASA employee? ☐ Yes ☐ No  
(If you answered yes, a Relationship Vendor form will have to be completed before any payments can be made.)

Are you a minority business enterprise? ☐ Yes ☐ No

If you answered yes, please check the appropriate box:

☐ African-American ☐ Hispanic  
☐ American Indian ☐ Female  
☐ Asian American  
☐ Socially and economically disadvantaged as defined in 15 U.S.C. 637

Product(s) and/or Service(s)

Please list the type product(s) and/or service(s) that your company can provide:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Finance Office  
228 Georgetown Road  
Jacksonville, NC 28540  
Fax (910) 455-2504

**Relationship Vendor Form**

If you are related to or have a professional relationship with any employee of Onslow Water and Sewer Authority, this form must be completed and returned to the finance office before any payments will be made.

Vendor Information:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Related ONWASA employee: \_\_\_\_\_

Relationship to employee: \_\_\_\_\_

**We agree that our relationship will not hinder or corrupt our professional relationship with Onslow Water & Sewer Authority.**

\_\_\_\_\_  
Vendor Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
ONWASA Employee Signature

\_\_\_\_\_  
Date

**Onslow Water and Sewer Authority is aware and understands these parties have a relationship with each other. The decision to authorize the use of this vendor was not influenced in any manner by the relationship referenced above.**

\_\_\_\_\_  
Department Head

\_\_\_\_\_  
Date

\_\_\_\_\_  
Finance Officer

\_\_\_\_\_  
Date