

**Exhibit 1**  
**to**  
**Professional Services Agreement (NAT26306-SANDBYPASS)**  
**Statement of Work**

**1. Project Description**

Department of Natural Resources and Environmental Control (DNREC) operates the Indian River Inlet Sand Bypass Facility located within Delaware Seashore State Park in cooperation with the United States Army Corps of Engineers (USACE). This project is designed to restore natural littoral drift disrupted by the Indian River Inlet Jetties through mechanical movement of sand from the southside of the inlet across the Route 1 bridge to the Northside beach area.

This project is designed to operate Labor Day through Memorial Day. Vendor shall move and grade a minimum of 20,000 cubic yards of material per month from the South side beach using the sand bypass system. This system is designed to move a minimum of 100,000 cubic yards per 9-month period but has been able to move 250,000 cubic yards when material is available.

**2. Scope of Work**

Vendor will supply labor, heavy equipment including 150-ton crane, skid steer or dozer, onsite, oversight and maintenance of supplied equipment during the operational seasons.

DNREC will supply HDPE pipelines, eductor flex piping, slurry/intake pumps and variable frequency drives. Vendor will be responsible for successfully installing intake pipeline and HDPE lines along Southside beach and any equipment needed to perform that action, including but not limited to pipe fusion machine, lifting equipment, etc.

Adherence to all environmental regulations and permit conditions are mandatory. During times of extreme tidal influx (anticipated storm surge, significant weather event such as Nor'easter/Hurricane or anticipated damaging tidal events) all pipelines must be secured appropriately and Vendor will be responsible for replacement of pipe left exposed, lost, or damaged during such events.

The Sand Bypass building is equipped with flood barriers/gates that should be installed when strong tidal events are anticipated in the Indian River Inlet. DNREC Project Manager will make official notification and review prior to storm.

Pumped material must be graded from the existing dune face to the high tide line at the shallowest slope possible to avoid wave action creating a scarp during regular tidal events. A slope of (1:20) is the desired maintenance slope from High Tide line to toe of the dune. The upper part of the berm should be adaptively managed such that, if there is substantial scarping the slope is regraded.

Discharge pipe on the Northside beach should be kept elevated at the outfall. Discharge material should be maintained at a 40-60% sand mix. Higher concentrations clog the pipe which could lead to unnecessary damage and project delays. A dog leg wall should be built to help slow discharge and accumulate material. This wall should be an estimated 100 feet on each side of the pipe, with a discharge flow area of about 30-50 feet away from the pipeline. Height of this wall varies based on GPM deposition within the discharge area and should be managed by Vendor onsite.

Clear defined communication lines between northside operators and pump house operators are critical to the success of the project.

### **3. Equipment Specifications**

Specific equipment required from vendor will be associated with standard beach restoration operations, including but not limited to tracked dozers, loaders, etc. A 150-ton crane is required due to the amount of suction placed on the supplied jet pump eductor system. A lattice crane has been historically used at this site.

The Gen-Flo eductor forms a crater by fluidizing the sand around its intake using a high-pressure water jet, which is especially effective during rising tides with wave energy that keeps sediment moving into the device. The rapid acceleration lowers pressure in the suction chamber, creating a vacuum that draws in the suspended material. The system employs large supply and booster pumps, upgraded control systems to monitor flow rates and pressure.

Cranes must be walked into Sand Bypass Station main storage area during weekends to prevent disruption to public access. During weekdays all pipe and equipment must be walked back towards the dune line. No equipment can be stored on the beach on the northside of the inlet. No fuel storage is allowed underneath the footprint of the Route 1 bridge. Any and all fuel containers must be secured in an DelDOT-approved location following appropriate storage guidelines.

### **4. Operational Guidelines**

DNREC will provide detailed startup and shutdown procedures as part of this solicitation. Vendors should take care to minimize cavitation and air pockets within the lines during operations as this could lead to damage to pumps, motors or catastrophic failure which could lead to serious injury.

Communication is required daily between onsite leadership and DNREC to discuss any issues or concerns on the project area. Radio contact is required between onsite operators to ensure clear lines of communication between operators on both sides of the inlet. Daily logs will be required for operational records, including status, downtime, and hourly documentation of GPM, RPM, Density, and weather conditions during operation. An example will be provided as part of this solicitation.

Any impact or storage requests within the DelDOT Bridge R/W, including under the bridge deck, shall be submitted to DelDOT South District for review and approval prior to work commencing.

The paved parking area outside of the Sand Bypass main storage area is the property of DNREC's Division of Parks and Recreation. The moving or staging of equipment through or on this area must be approved by the Delaware Seashore State Park Superintendent or their designee

## **5. Maintenance Requirements**

DNREC intends to have scheduled maintenance planned for motors and pumps performed by separate entity to ensure warranty compliance. These dates will be coordinated with successful vendor to ensure consistent maintenance tasks covering the quarterly, semi-annual and annual maintenance needs as defined in the owner manuals.

Daily tasks including pump/motor lubrication, packing maintenance on eductor and pumps, eductor maintenance, building maintenance tasks will be expected to be performed by successful bid. Any major replacement or fabrication to eductor will be performed by DNREC, this does not include replacing eductor packing or other normal wear items. A building O&M manual will be provided as part of this listing.

Weekly inspections of the bypass pipe, valves and all structural connections to ensure no leaks or external damage have occurred. DNREC will coordinate repairs to be performed by its predesignated contracted service providers.

Any repairs or maintenance activities within DelDOT bridge right-of-way or along the RTE 1 Bridge shall be reviewed by DelDOT for comment and approval prior to work commencing. Proposed repairs submitted to DNREC for DelDOT review shall include summary, scope of work, material specs and proposed schedule.

Any repairs or maintenance activities that affect the flow of vehicular or pedestrian traffic need to be submitted to DelDOT's Traffic Section for review and approval prior to work commencing, including proposed MOT and schedule. Advanced notification to the public shall be required for any impact/delays.

## **6. Environmental Compliance**

DNREC traditionally operates this plant from Labor Day to Memorial Day. Successful bidders are expected to operate this project within that window for environmental time of year constraints. A large percentage of material is currently available for harvest as part of this solicitation. Bids should be structured based on Cubic Yards of material able to be moved instead of timeline at this time. Future solicitations may change to be adapted for timeline instead.

No work should be performed from Memorial Day to Labor Day due to increased recreational activities in these areas. This includes mobilization and demobilization on beach front locations.

During operations public signage should be maintained to detail closed working areas, public notices and other important information. Work should be performed to the best of vendors ability above the high tide line.

Maintain all required environmental and safety documentation (MSDS sheets, monitoring reports, etc.)

## **7. Reporting and Documentation**

DNREC will supply equipment manuals, O&M procedures, emergency management plans, and required inspection/production logs as part of this solicitation. A daily progress report is required, along with any incident reports prior to a final project review adhering to the DNREC and USACE guidelines. Examples have been provided as part of the RFP solicitation.

DNREC Survey will be conducting monthly onsite surveys. Results will be provided to Vendor within a week of completion.

## **8. Commencement of Work and Timing.**

Work will be split into two timelines the first starting in March 2026 and continue until May 15, 2026. All material must be removed from the beach on both North and South side locations on or around May 15, 2026. Work will restart after Labor Day in September of 2026 and continue until May 15, 2027.

Material and equipment must not be mobilized to the project area until after the Labor Day Weekend following coordination with DNREC and DelDOT.

All equipment must be moved to assigned staging areas during weekends unless granted written permission from DNREC. All Work must be performed from Monday to Friday unless written authorization is received from DNREC.

## **9. Safety Plans**

Vendor will comply with the following Safety Plans for the (a) Crane Set up and Demobilization; (b) Pipe Set Up, Exclusion Zone; and (c) Southside Exclusion Zone.

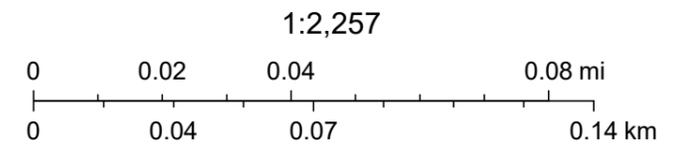
# Pipe Set up, Exclusion Zone



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Green Square is the location for fuel cell

Blue line is HDPE pipe that will extend from pipe access area.

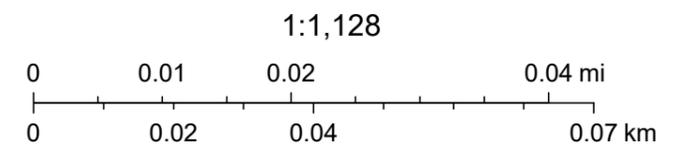


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# Crane Set up and Demobilization



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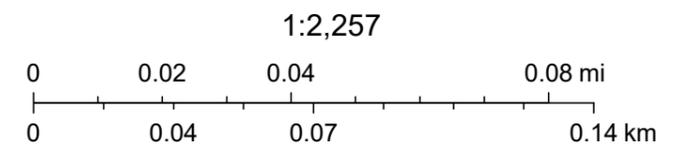


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# Southside Exclusion zone



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