



STATE OF NEW HAMPSHIRE  
 DEPARTMENT of NATURAL and CULTURAL RESOURCES  
 DIVISION of PARKS and RECREATION  
 172 Pembroke Road Concord, New Hampshire 03301  
 Phone: (603) 271-3556 Fax: (603) 271-3553  
 Web: www.nhstateparks.org

August 30, 2019

His Excellency, Governor Christopher T. Sununu  
 and the Honorable Executive Council  
 State House  
 Concord, New Hampshire 03301

**REQUESTED ACTION**

Authorize the Department of Natural and Cultural Resources, Division of Parks and Recreation (Department) to make a **Retroactive** payment to Portside Systems, LLC (VC #307354), Portsmouth, NH in the amount of \$21,542.54 for emergency replacement of the blower, diffusers, and variable frequency drive (VFD) at the wastewater treatment facility on the summit of Mount Washington in Sargent's Purchase, NH per invoice dated July 12, 2019. 100% Capital Funds

Funding is available in account, 17-228:1-XVIII:B Roofing and Repairs, as follows:

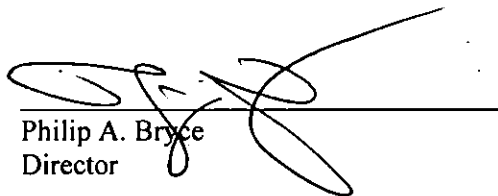
03-035-035-350030-17190000034-500161-Capital Projects

FY 2020  
 \$21,542.54

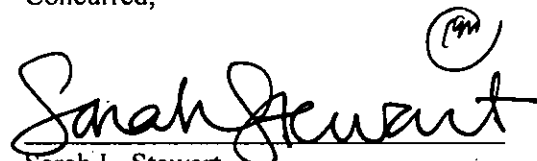
**EXPLANATION**

In order to meet the requirements of a Department of Environmental Services' Groundwater Discharge Permit, the Department requested that its Wastewater System Consultant, Underwood Engineering, solicit bids to secure a contractor to replace the blower and diffusers at the wastewater treatment facility (Facility) on the top of Mount Washington. Underwood Engineering solicited seven (7) contractors; three (3) contractors' submitted bids and four (4) declined the opportunity to bid. Of the bids received, Portside Systems, LLC (Portside) was the low bidder. While the Department was in process of completing a contract with Portside, sampling data revealed that the Facility's ability to process effluent was beginning to rapidly decline necessitating repairs. Continuing to operate without these repairs would have put us in violation of the permit; therefore, the Department requested that Portside perform the work on an emergency basis. During the replacement work, the VFD controlling the blower failed and required replacement as well. For these reasons, retroactive approval is now being sought to make payment to Portside. Portside's original bid amount was \$19,843; the additional work was \$1,699.54, for a total project cost of \$21,542.54.

Respectfully submitted,

  
 Philip A. Bryce  
 Director

Concurred,

  
 Sarah L. Stewart  
 Commissioner

**Portside Systems, LLC**  
 22 Cottage St  
 Portsmouth, NH 03801 US  
 marc@portsidesys.com  
 www.portsidesys.com

# Invoice

**BILL TO**  
 Seth Prescott  
 State of New Hampshire, Department  
 of Natural and Cultural Resources  
 172 Pembroke Road  
 Concord, NH 03301 USA

**SHIP TO**  
 Seth Prescott  
 State of New Hampshire, Department  
 of Natural and Cultural Resources  
 172 Pembroke Road  
 Concord, NH 03301 USA

INVOICE #	DATE	TOTAL DUE	DUE DATE	TERMS	ENCLOSED
1747	07/12/2019	\$21,542.54	08/11/2019	Net 30	

**P.O. NUMBER**  
 P190301

SERVICE	DESCRIPTION	QTY	RATE	AMOUNT
Engineered System	Complete Engineered System - As defined in Proposal P190301 Rev 01	1	19,843.00	19,843.00
Service Note	The below cost is for the VFD replacement as existing VFD was found to be deficient during blower installation.	1	0.00	0.00
Misc Materials	Misc. Materials - Replacement VFD for Blower System, provided at cost. See Grainger Invoice Attached.	1	664.34	664.34
Service Labor	Service Labor - Onsite Installation, Configuration, and Testing of VFD	9	95.00	855.00
Mileage	Travel Cost - Mileage; Cost/Mile	212	0.85	180.20
Travel	Travel to Site Location (Charged One Direction) - Dover NH to Mount Washington Summit	2.50	95.00	237.50
General Discount	General Discount Granted - Reduction of one way travel	2.50	-95.00	-237.50

**BALANCE DUE**

**\$21,542.54**



# Mt. Washington WWTF Upgrade

## Proposal

**To** Seth Prescott  
**Company** State of NH, Dept. of Natural and Cultural Resources  
**Telephone** (603) 271-3982  
**Email** seth.prescott@dncr.nh.gov  
**Date** 6/26/19

**Portside Systems LLC Proposal Number:** P190301 REV01

## Scope:

This proposal covers the procurement, pre-fabrication, and installation of the work done by Portside Systems, LLC in the Mt. Washington Wastewater Treatment Facility Upgrade Project. Portside Systems, LLC intends to bid the full responsibilities of the following segments of the project:

- Item 01: Replacement of existing blower with specified new blower.
- Item 02: Replacement of existing diffusers with specified new diffusers.
- Item 03: Onsite testing support and verification of work completed.

These items are as defined in an email from Underwood Engineers on 2/27/2019 along with the supplemental information provided in said email.

### Item 01: Replacement of existing blower with specified new blower

Portside Systems will provide the following materials as specified for the replacement of the existing blower. This blower replacement is to replace in like kind as process connections are the same size (2.0" NPT) and mounting orientation is similar. This has been taken into consideration as a reduction in installation time.

ITEM #	DESCRIPTION	MFG	MODEL	QTY
1	4 HP 208-230/460-60-3 regenerative blower	FPZ	SCL K06-MS-4-3 NP	1
2	2" NPT swing check valve - F x F	FPZ	CV20	1
3	2" NPT inlet filter / silencer	FPZ	FS-231P-200	1
4	Calibration of safety valve for PRESSURE service.	FPZ	M002	1
5	1/8" Tap installed on FS filter for dirty filter indicator (top location)	FPZ	M020	1
6	Pressure gauge - 0-200" H2O -2.5" dial 1/4" NPT back mount	FPZ	PG25-200	1
7	1/8" NPT Dirty filter indicator	FPZ	VG-020-013	1
8	Safety valve - 2" NPT	FPZ	VRL6	1





Portside Systems will also provide all needed hardware and piping associated with installing this new blower. The majority of this equipment will be pre-assembled and ready for installation prior to arriving onsite.

The existing variable frequency drive and electrical service is deemed suitable for use with the new blower system by similarity. The technicians will modify as needed to connect to new blower to this circuit. However, if electrical upgrades are found to be required once on site, this work will not be covered under this scope of work. Once installed, the blower motor will be bumped to check motor/blower rotation. It is assumed that this can be done via the front interface on the variable frequency drive or via the HMI.

#### Item 02: Replacement of existing diffusers with specified new diffusers

Portside Systems will provide the following materials as specified for the replacement of the existing diffusers. The existing diffusers are hard mounted to the existing 3/4" saddle taps on the main 3" trunk line. These diffusers will be removed and replaced with the diffuser assembly shown and defined in the Underwood Engineering provided drawing # 148610 by Environmental Dynamics Int'l. These diffusers will be connected via a provided cross connection fitting that will feed three (3) of the new diffusers from a single saddle tap. There are ten (10) existing diffusers being removed and twenty-nine (29) new diffusers being installed. The new weighted diffuser assembly will rest on the tank floor and be set/placed as shown in the Environmental Dynamics Int'l Drawing # 148610.

Portside Systems will conduct all work inside the bioreactor tank treating it as a confined space. Portside Systems will provide a fresh-air blower and have one technician standing watch at the entrance of the confined space during all work conducted inside the bioreactor tank.

#### Item 03: Onsite testing support and verification of work completed

The work performed by Portside Systems technicians shall be functionally verified prior to completion of project. This will require assistance by a trained Mt. Washington WWTF staff member to operate the functions of the WWTF from the HMI/Software control system. It is assumed this support will be available nearing completion of project. Portside Systems can work to schedule this testing with a staff member while on site.

### **Project Execution:**

Portside Systems plans to execute the project of upgrading the WWTF in the following manner:

- Pre-purchased equipment will be procured and received.
- All systems that require assembly will be pre-built at the Portside Systems shop, and kitted for install.
- Two technicians will be utilized to transport the equipment to the Mt Washington WWTF, and install the system on site.
- After installation, testing will be conducted to ensure blower flow rates and diffusers are working properly.





**Project Timeline:**

Portside Systems is expecting to have two technicians on site for a duration of up to 3 workdays. On-site work will be conducted in June of 2019, while procurement of equipment and system kitting will begin once payment is received.

**Site Work Expectations:**

Prior to the arrival, it will be expected that the following actions are completed at the Mt. Washington WWTF:

- Prior to arrival of Portside Systems, the Mt Washington WWTF shall be in a suitable shutdown state for working on. Furthermore, the necessary holding tanks and equipment have been emptied, purged and cleaned.
- Mt. Washington Auto Road will be open for use of without cost for duration of on-site work.
- If Mt. Washington Auto Road is closed, transportation from base to summit will be provided.

**Project Exceptions:**

This proposal by Portside Systems, LLC covers items intended to be fulfilled per the Mt Washington Project information supplied by Underwood Engineering. Portside Systems, LLC shall not be held responsible for any of the following:

- Coordination of or providing any permits associated with this project.
- Provisions of moving/installing materials/equipment that is larger than two able men to carry.
- Any provision or rental of construction/rigging equipment.
- Purchasing any major equipment (greater than \$1000) outside of the outlined purchased equipment in this proposal.
- Contract price is subject to terms and conditions.

**Pricing**

The total cost for this Mt. Washington WWTF Upgrade as defined above is \$19,843.

**Terms**

**Payment Terms**

Deposit:	65%	(\$12,898)	To place order
Balance:	35%	(\$6,945)	Due at completion of project
Leadtime:	2-3 Weeks ARD, Material lead times are 2-3 weeks.		





**Systems Warranty:**

Portside Systems will warranty the services provided to be completely fit for the purposes for which they are specified, to be completely tested, and free of defects. This warranty will extend for 90 days after customer acceptance of the system. This warranty is applicable provided that the systems are operated and maintained in accordance with Portside System's instructions, and accepted industry practices.

In the event a defect is discovered or observed in the system, Portside Systems should be notified in writing. Upon receipt of such notification, Portside Systems will investigate the options to repair, replace, or correct any and all specified defects. Portside Systems will make these corrective actions in a timely and business-like manner.

Portside Systems will not be liable for any consequential, indirect or incidental damages, which may be associated with installation or facilities where the Portside Systems provided system was installed. This warranty is exclusive and in lieu of all other warranties, written, oral or implied. All purchased parts and equipment shall be warrantied through the respective manufacturer.



**State of New Hampshire  
Department of Natural and Cultural Resources  
Planning and Development**

Mount Washington State Park  
Wastewater Treatment Facility Upgrade  
Project #CAP1972

Bid Tabulation \*

Contractor	Lump Sum Bid Amount
Portside Systems 22 Cottage Street Portsmouth, NH 03801	\$ 19,843
TBuck Construction 302 Auburn Road Turner, ME 04282	\$ 21,452
PRB Construction 25 Country Club Road - Unit 505 Gilford, NH 03249	\$ 32,500
Infrastructure Construction Corp. 9 Brown Hill Road Bow, NH 03304	Solicited – Declined to bid
Ray's Electric Office 33 Jericho Road Berlin, NH 03579	Solicited – Declined to bid
Scherbon Consolidated 40 Haverhill Road Amesbury, Ma 01913	Solicited – Declined to bid
Keymont Construction 116 Hounsell Ave Laconia, NH 03246	Solicited – Declined to bid

\* Bidding was performed by Underwood Engineers, Inc of 99 North Street, Concord, NH.