



## **PROPOSAL**

# **AERATED STATIC PILE PILOT PROJECT & OPERATOR TRAINING PROGRAM**

AUGUST 1, 2022

TOWN OF NEW PALTZ

MICHAEL YORK

NEW PALTZ, NEW YORK

Prepared by Peter Moon, P.E.

President and Principal Engineer

# INTRODUCTION

August 1, 2022

Town of New Paltz - Recycling  
PO Box 550  
New Paltz NY 12561

Attn: Michael York

Re: O<sub>2</sub>Compost Proposal for ASP Compost Pilot Project and Operator Training Program

Dear Mike:

Thank you for your interest in the O<sub>2</sub>Compost Training Program and for considering one of our systems for the existing compost facility located at the New Paltz ReUse and Recycling Center in New York. This proposal is for our ASP Pilot Project and Operator Training Program, using the Block-Bay Aerated Static Pile (ASP) Method. Our objective is to demonstrate the ASP Method of composting to process a combination of feedstocks, including yard waste and source separated organics (i.e., pre- and post-consumer food waste).

In designing our compost systems, our primary objectives are to:

- 1) Protect surface and ground water resources;
- 2) Mitigate impacts from odors, flies, rodents and birds;
- 3) Reduce the time and expense now committed to waste management;
- 4) Produce a high-quality finished product for use around your farm, local community gardens, or for sale to gardeners in the area; and
- 5) Provide a compost system that becomes fully integrated into your daily activities.

The method of composting that we use is referred to as Aerated Static Pile (ASP) Composting. This simply means that we induce airflow through the mix of materials using an electric blower – we do not turn the pile during the first 30 days (the active phase) of composting. ASP composting was originally developed by the U.S. Department of Agriculture in the mid-1970's and is used throughout the country to process a wide variety of municipal organic waste materials.

O<sub>2</sub>Compost has utilized this technology to work with full spectrum of organic feedstocks in agricultural, institutional, and industrial settings. The ASP method is ideal for composting landscape debris (i.e., green waste) as well as livestock manure and pre- and post-consumer food waste that you may want to include in the mix.

With aerated composting, we maintain aerobic conditions throughout the compost pile and by adjusting the frequency and duration of airflow we can manage pile temperatures. This, in turn, expedites the composting process and yields a high-quality compost product that is effectively free of pathogens, parasites and weed seeds. By composting in this manner, we are able to control offensive odors and flies, improve the aesthetics of the waste handling area, quickly produce a superior product, and reduce your labor and operating expense.

## ASP Compost System

The ASP component of your Training Program includes the following components:

- 1) Customized Design Drawings or a free-standing Aerated Static Pile
- 2) A detailed materials list;
- 3) Complete Operations Manual with step-by-step instructions;
- 4) Unlimited Technical Support; and
- 5) Aeration Equipment Package, including:
  - (1) Electric blower – High Impact Plastic Blowers (1.5 hp) w/ 2 Year Warranty;
  - (1) Cycle Timer – w/ 1 Year Warranty;
  - (1) a set of PVC pipe fittings for a 6" diameter / 4-pipe aeration manifold; and
  - (1) 36-inch long temperature probe.

Straight lengths of 6-inch and 4-inch diameter pipe would be purchased by you from local pipe suppliers. This would be the only additional cost to the Training Program.

*Note 1: All equipment included in this quote is 110V / 15 Amp. Alternative power sources can be accommodated at an additional nominal cost.*

## Pricing

The cost of the ASP Pilot Project & Training Program is \$9,995, which includes all the above-mentioned components. Shipping the blower and timer to New York will cost an additional \$250, resulting in a total cost of \$10,245.

**Divide Full Amount into Two Equal Payments:** We ask that the City pay the first half of the Training Program (\$5,000) to: 1) initiate the design process; 2) receive your complete set of construction-ready design drawings; and 3) receive your aeration equipment package, as detailed above. Upon receiving design and equipment, we request that the City pay the remaining half (\$4,995 plus \$250 reimbursed shipping) to initiate the operator training and technical support components.

## **System Design**

The volume of the free-standing ASP System can easily be adjusted to accommodate the actual volume of materials that you need to compost. We will provide you with a simple schematic design for the aeration system along with a materials list for the pipe and manifold (materials that you will purchase locally).

Following the initial pilot phase, the ASP Compost Training Program also includes a concept level drawing for the full-scale facility on a base map of the Seward Sand and Gravel property. The drawing set will include a facility layout plan for: 1) receiving and grinding wastes; 2) active composting; 3) curing; 4) screening and 5) storage. The detail drawings will include alternatives for pipe-on-grade system. We will also include a pad design, should one be required. We budget 8 hours for this design work.

The design drawings are concept level and suitable for planning purposes. They are not, however suitable for bidding and construction purposes. While 8 hours is adequate in virtually all cases, additional time required to design your system is available at an hourly rate of \$75, should you choose to further modify any aspect of the system. We will keep you notified of the time incurred and undertake additional work only after receiving your written authorization to proceed.

## **Technical Support**

Our technical support is unlimited. We are available to help you through the construction and start-up process, to review pile temperatures, and troubleshoot the operation of your new system, all done remotely by telephone and Email. We anticipate that you will be up and running and fully confident with your new composting skills within the first batch or two.

## **Regulatory Compliance**

Aerated Static Pile Composting is considered a Best Management Practice (BMP) by most states and municipalities. If your local health district, land use department, or state pollution control agency have any questions about your plans for composting using the ASP Method, please have them contact us directly or provide their contact information and we will contact them.

As part of your ASP Compost System, we will help facilitate a compliance process on your behalf. This level of effort does not include assistance with obtaining operating permits, but we would be happy to help with these services as well, under a separate work order.

## **Our Commitment**

The ASP Compost System is very systematic and straightforward to implement. We will guide you and your key people through the process step by step and within a few weeks you will find that composting becomes fully integrated into your daily and seasonal activities. It will save you both time and money and will produce an excellent product that can be used by local gardeners, landscapers, and farms in your area.

If you have any questions about your O<sub>2</sub>Compost ASP Compost System, please email me at [peter@o2compost.com](mailto:peter@o2compost.com) or call (206) 399-1980.

We have a vested interest in your success and therefore we guarantee your complete satisfaction with your new ASP Compost System. We look forward to working with you.

Sincerely,

*Peter R. Moon*

Peter R. Moon, P.E.

Owner/President  
O<sub>2</sub>Compost

Attachment A – Proposal Summary & Invoice

Attachment B – Step by Step Procedures

Attachment C – Training Program Guarantee

# ATTACHMENT A

## ASP Pilot Project

August 1, 2022

Town of New Paltz – Recycling  
PO Box 550  
New Paltz NY 12561

Attn: Michael York

PROPOSAL SUMMARY & INVOICE		
DESCRIPTION	OPTIONAL	PRICE
<b>ASP COMPOST SYSTEM:</b> <ul style="list-style-type: none"><li>• Complete Printed Operations Manual with step-by-step instructions;</li><li>• Customized Design Drawings for the system that best fits your needs;</li><li>• ASP Aeration System;</li><li>• Technical Support – Unlimited throughout the Pilot Phase;</li><li>• Concept Level Design for a Full Scale Operation</li></ul>		\$9,995.00
<b>SHIPPING &amp; HANDLING</b>		250.00
<b>TOTAL SYSTEM COST</b>		<b>\$10,245.00</b>
<b>BALANCE DUE (WITH QUICK PAY DISCOUNT APPLIED)</b>		<b>\$9,745.00</b>

PAYMENT OPTIONS
<b>PROVIDE CREDIT CARD TO:</b>
PETER MOON (206-399-1980) OR SHERRI MABEN (425-334-1008)
<b>SEND CHECK TO:</b>
O2COMPOST – PO Box 1026 SNOHOMISH WA 98291
<b>PRICES GUARANTEED THROUGH:</b>
DECEMBER 31, 2022

# ATTACHMENT B

## STEP-BY-STEP PROCEDURES FOR THE DESIGN, CONSTRUCTION AND START-UP OF YOUR NEW ASP COMPOST SYSTEM

This letter describes the sequence of events that will immediately begin to unfold as we help you design, construct and operate your new aerated compost system. You have made an excellent investment – one that will help improve the overall health of your horses, reduce adverse impacts to the environment, and pay dividends for many years to come.

Our goal is to help you resolve your organic waste management challenges once and for all and to help you convert a waste problem into a resource opportunity. Our objective is to help you determine the best size and configuration for your compost system and to walk with you through a step-by-step process so that your system is up and running quickly and becomes fully integrated into your daily operation.

To make this an efficient (and enjoyable) process for all concerned, we suggest the following steps:

### Design

1. You will be contacted by Mr. Derrick Santos, O<sub>2</sub>Compost's Lead Designer, to schedule a time to meet over the telephone. During your conversation with Derrick, he will ask you a series of questions that relate to the specifics of your situation and together you will explore your design options and preferences. Many of these specifics may have been discussed already, but we always start at the very beginning so that Derrick doesn't miss any important details.
2. Following this initial call, Derrick will prepare a Design Basis Memorandum (DBM), which is a one-page summary of your answers in Step 1. He will e-mail the DBM to you along with a three-page conceptual design so that you can begin to see the shape that your compost system will take.

We begin with this preliminary design so that we can make any changes that you want before we commit time to the final detailed design. This step may take two or more iterations before you are completely satisfied with the concept.

3. Once you have agreed to the design parameters stated in the DBM and are satisfied with the concept drawing, we ask that you sign and return the DBM so that we can proceed with your final detailed design drawings. We cannot proceed without a signed DBM on file.
4. When we have received your signed DBM, your equipment will be shipped. We wait until this step to send these items to ensure we provide the correct equipment for your scale of operation. If you prefer that we hold onto your equipment, we are happy to do so at no cost.
5. The detailed design drawings will be reviewed by a licensed structural engineer and include everything that you or your contractor will need to construct your ASP Compost System. The

design will be completed in accordance with the International Building Code (IBC) and will take into consideration site specific snow loads, wind loads, and other pertinent design conditions. While building permits are seldom required for a structure of this type, the design drawings will easily meet any county building requirements.

With the ASP Compost System, we begin with an existing standard design from our design library and modify it as needed to meet your specific requirements. As a result, we can have the completed design in your hands within a week to 10 days. This process can be expedited if you are working on a tight time schedule.

We have budgeted four hours of design time to complete your detailed design drawings. While this is typically sufficient time to complete the detailed design, we are available to make more significant design changes at a rate of \$65 per hour should we exceed the budgeted amount. You will be notified in advance of us incurring any added expense, and we will ask for your written authorization to proceed before doing so.

6. When we have completed your detailed design, the drawing set (11" x 17" format) will be sent to you along with your ASP Operations Manual. We can also send you an electronic drawing set (8 ½" x 11" format) if you would like to receive a working set sooner.

## Construction

7. The construction of your ASP Compost System will follow standard construction practices, however, your builder will undoubtedly have questions about the design. We encourage you and your contractor to contact us to ask us these questions so that the design intent is clearly understood. You have paid for this service with the purchase of your ASP System – please use it throughout the construction process.

The design incorporates many subtle details to make sure that your compost system operates properly. **For that reason, the design must not be altered without first contacting O<sub>2</sub>Compost to ensure that the integrity of the design is not compromised.** As we like to say, "It is easy to make changes on paper, but not nearly so easy to make changes once the concrete is poured".

We ask that you document each step of the construction process with digital pictures and forward these to us at each stage of the building process. This will give us the opportunity to note any possible problems that we see and bring them to your attention so that they can be rectified as soon as possible. In this case, a picture may be worth \$1,000 (or more).



## Start-up and Routine Operations

8. All technical support is done remotely by telephone and Email.
9. When you receive your Operations Manual, please review it, paying particular attention to the Summary Section and the Start-up Section. These will highlight the basic principles of aerated composting and detail a series of steps to follow, including: a) conducting a preliminary system check; b) preparing your initial compost mix; c) filling the compost bin; d) setting the timer and starting the airflow; and e) monitoring the composting process.
10. Before placing any green waste into your new ASP Compost System, we ask that you contact us by telephone so that we can discuss the basics of aerated composting, as described in Step 8. We will have you conduct a few simple tests to confirm that the aeration system is operating properly. This can be done before completion of the structure itself, and is recommended so that any changes can be made before the contractor completes the work and leaves the site.
11. During the first two or three “batches”, we will ask that you take temperature readings on a regular basis - daily at first and then 2 or 3 times a week. We will have you record the temperature data on a spreadsheet that we will provide, and send the data to us as an e-mail attachment. We also ask you to make a written note of anything that you observe. We will discuss your data and observations with you and make recommendations for adjusting the aeration system to optimize the composting process.

Most important, we want you to ask questions – lots and lots of questions. Composting takes practice, much like learning to ride a horse, play a musical instrument, or speak a new language. We do not want you to be at all concerned or frustrated with the start-up and operation of your new compost system. Prepare yourself to be amazed at the simplicity and efficiency of nature.

By working with us and following these 10 steps, we can **Guarantee Your Success**.

# ATTACHMENT C

## SYSTEM & TRAINING PROGRAM GUARANTEE AND CONFIDENTIALITY AGREEMENT

### Definitions

There is no universally accepted definition of Composting. The O<sub>2</sub>Compost Systems and Training Programs use the following practical definitions:

Composting is the biological decomposition and stabilization of organic substrates, under conditions that allow for the development of thermophilic temperatures as a result of biologically produced heat, to produce a final product that is stable, free of pathogens and plant seeds, and can be beneficially applied to land. Thus, composting is a form of waste stabilization, but one that requires special conditions of moisture and aeration to produce thermophilic temperatures. The latter are generally considered to be above 45°C (113°F). Maintenance of thermophilic temperatures is the primary mechanism for pathogen inactivation and seed destruction.

Compost is an organic soil conditioner that has been stabilized to a humus-like product that is free of viable human and plant pathogens and plant seeds, which do not attract insects or vectors, that can be handled and stored without nuisance, and that is beneficial to the growth of plants.

Reference: The Practical Handbook of Compost Engineering, Robert T. Haug, 1993

### EPA Risk Analysis

The Environmental Protection Agency (EPA) conducted exhaustive risk analyses involving the processing and use of composted biosolids (wastewater sludge) products. Upon completion of this work, the EPA established the minimum criteria used for meeting human health objectives. These criteria are stated in the body of regulation entitled 40 CFR Part 503, (also referred to as the “503 Regulations”). The technical term for the minimum criteria to produce a Class A compost is “Process to Further Reduce Pathogens” or PFRP.

The PFRP criteria for the aerated static pile method of composting are stated as follows:

1. Pile temperatures shall be maintained at 55°C (131°F) or higher for a minimum of 3 days (i.e., piles must be covered to ensure minimum temperatures are achieved throughout the pile); and
2. Fecal coliform must be less than 1,000 most probable numbers (MPN) per gram total solids (dry-weight-basis); or
3. Salmonella sp. Bacteria must be less than 3 MPN per 4 grams of total solids (dry-weight-basis).

## Guarantee

O<sub>2</sub>Compost (a division of Price-Moon Enterprises, Inc.) guarantees that the On-Farm Aerated Composting System & Program will enable the participant to produce compost from landscaping debris and other agricultural / municipal waste materials and meet: 1) the definitions stated above; and 2) the EPA minimum criteria for PFRP. This guarantee requires that the participant:

1. Read and closely follow the protocol established in the Training Manual;
2. Provide temperature monitoring data on a regular (i.e., minimum weekly) basis for O<sub>2</sub>Compost review;
3. Implement O<sub>2</sub>Compost's recommendations for changing the aeration rate throughout the technical support period specified in the Composting System purchased.

In the unlikely event that the O<sub>2</sub>Compost Training Program fails to accomplish these objectives, O<sub>2</sub>Compost will reimburse the participant their initial investment in the training program (less shipping and dealer commissions, if applicable) within 30 days of O<sub>2</sub>Compost's receiving: 1) all equipment (in like-new condition); and 2) training materials that were provided as part of the System & Program.

## Partnership

It is our goal to work with each participant as a partner with common objectives. We promise to do everything in O<sub>2</sub>Compost's power to provide excellent and timely service. Our goal is to earn your trust and respect, share in your success, and have you as our friend and advocate for years to come. By participating in the O<sub>2</sub>Compost Training Program, you have made an excellent and timely investment.

## Confidentiality

Client agrees that all services provided by O<sub>2</sub>Compost, a division of Price-Moon Enterprises, Inc., shall be treated as confidential. The referenced services include all information on O<sub>2</sub>Compost's aerated composting methodology, equipment pricing, training materials, marketing strategies, and any other information provided verbally or in writing as part of the ASP Compost Training Program. With the exception of farm personnel, Client agrees to not engage in training anyone in the methods of aerated composting using any of the training materials or equipment provided under this agreement. Exceptions to this confidentiality agreement may be made by a Principal of O<sub>2</sub>Compost on a case-by-case basis, provided that written and signed authorization is provided prior to divulging the referenced information.

*O<sub>2</sub>Compost agrees that all information pertaining to the Client's farming practices and to the Client's composting operation will be treated as confidential. This includes all information transmitted in writing, verbally, with electronic media, or by means of photographs. Exceptions to this confidentiality agreement may be made by the Client on a case-by-case basis, provided written and signed authorization is provided by the Client prior to divulging the referenced information. In general, this would include case history discussions and referenced experience gained from the Client's composting operation.*

## **O<sub>2</sub>Compost Return Policy**

### **Partial Payments (Deposits)**

*The initial deposit for an O<sub>2</sub>Compost Training Program will be refunded in full, if requested to do so in writing within 14 calendar days of making the initial payment. Refunds will be made within 14 calendar days after receiving the written request.*

*No Refunds will be made after 14 calendar days of making the initial deposit.*

### **Effective upon receiving full payment for this ASP Pilot Project and Training Program:**

*For a period of 30 days beginning on the day that final payment is received, Purchaser is entitled to a refund of 50% of the purchase price – payable to Purchaser within 60 days of communication of order cancellation. If Purchaser is already in receipt of the O<sub>2</sub>Compost equipment, the 50% refund will be payable to Purchaser within 60 days following our receipt of the returned equipment in As-New condition.*

*The remaining 50% is nonrefundable and will be retained to cover administrative costs, design time, and related expenses.*

*If the decision to cancel is made after 30 days and before 60 days from the date of sale (i.e., receiving final payment), Purchaser will be entitled to a refund of the retail value of the equipment package only. In this instance, the refund will be paid to Purchaser within 60 days following our receipt of the returned equipment in As-New condition.*

*No refunds will be made after 60 days from the date of sale.*

***This policy supersedes all other verbal or written agreements.***

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We look forward to a long and mutually beneficial working relationship,

*O<sub>2</sub>Compost Staff*

Peter Moon, P.E. Owner/President  
Sherri Maben, Office Administrator