The Bloedel Reserve ASP Composting System

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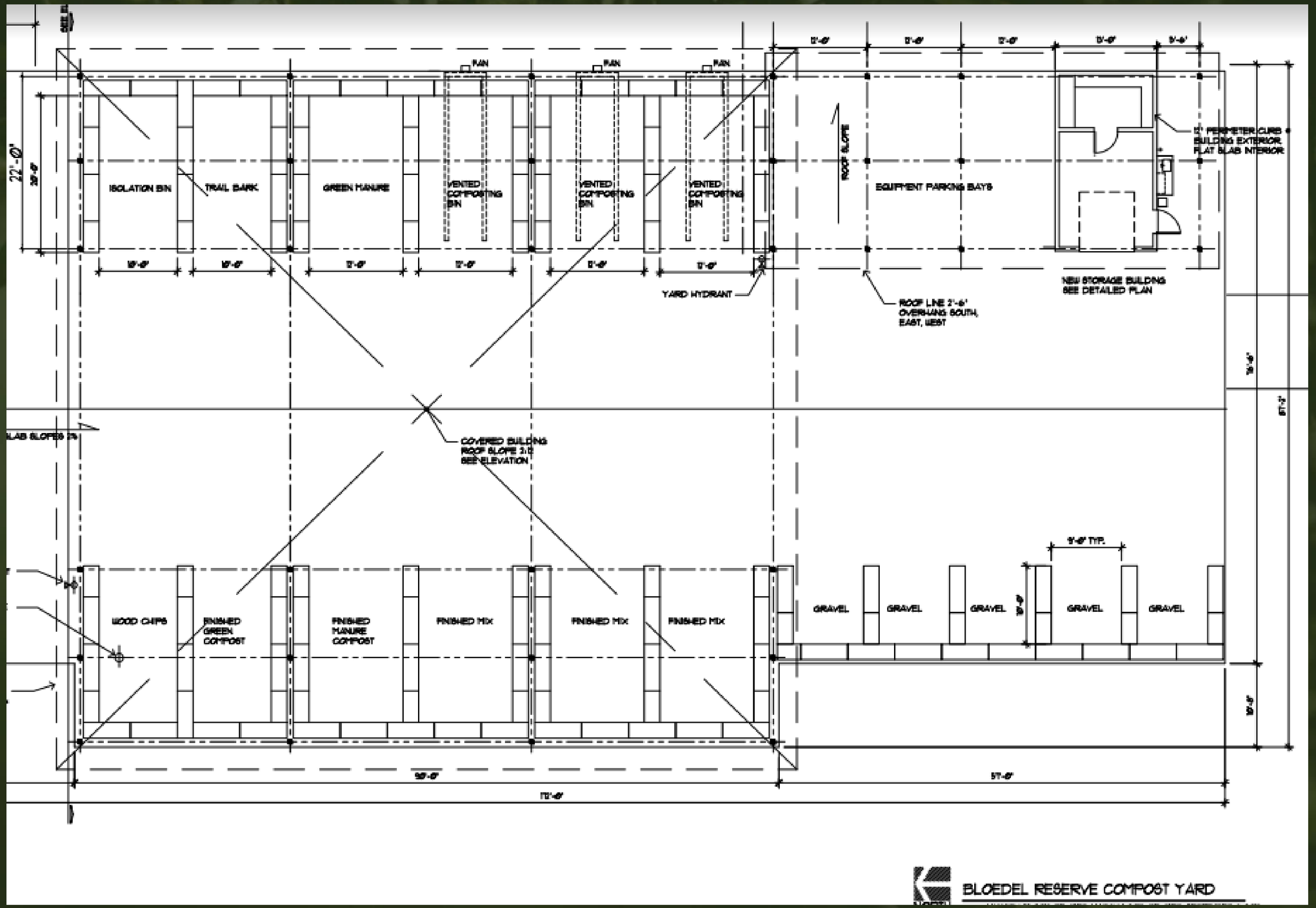
The Bloedel Reserve

- Horticultural Reserve on Bainbridge Island
- 65 acre campus estate
- Moved from fertilizers and pesticides to compost and compost teas 10 years ago
- Compost reduced pesticide and fertilizer use by 90% at the reserve

New Compost and Bulk Materials Building

- Building finished in 2021
- 3 bay ASP design saved $1 Million
- Composts manure and green waste from grounds
- Compost used for disease suppression and nutrients

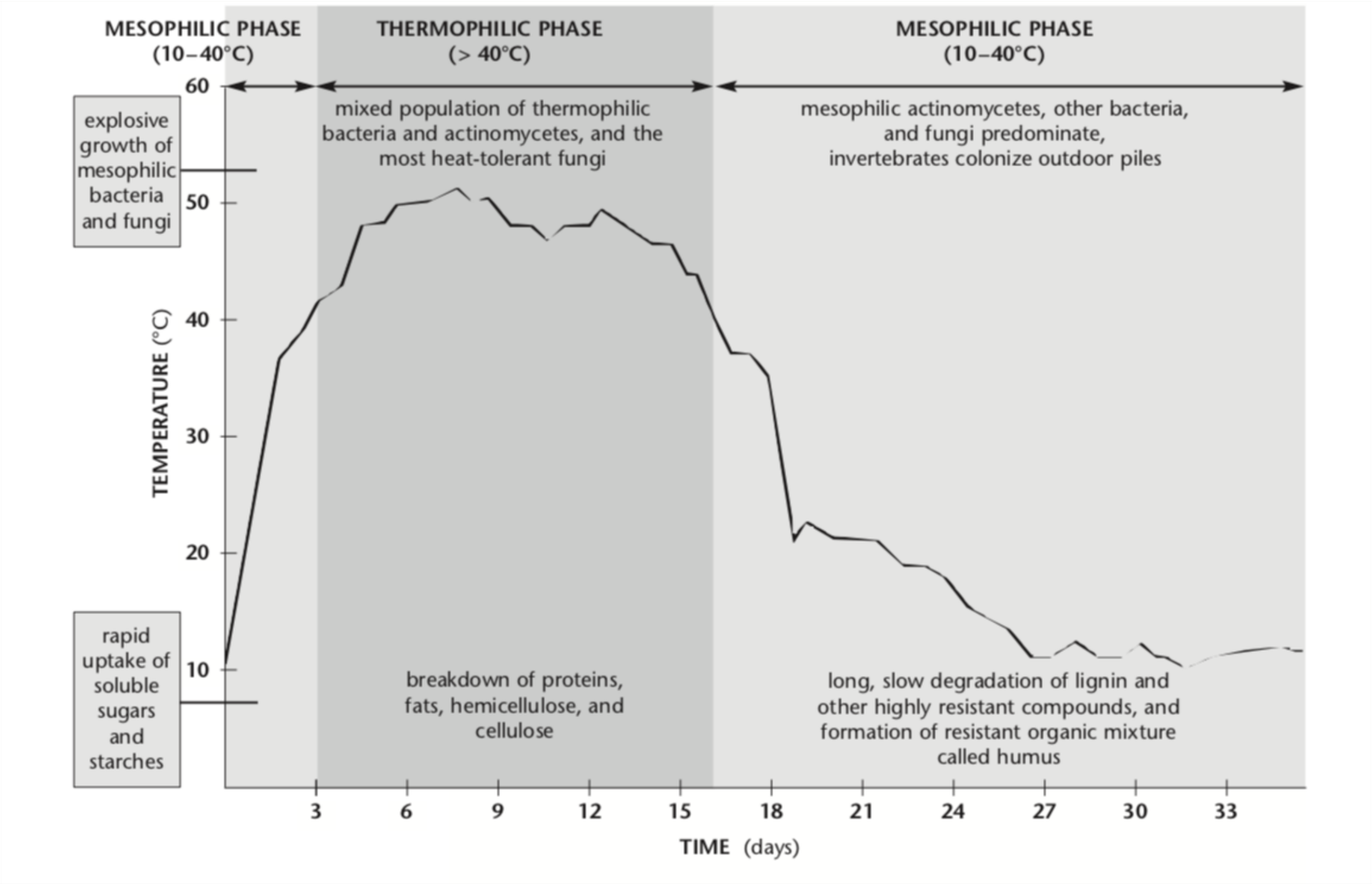
Building Design



The ASP Process

- Aerobic digestion
- Thermophilic temperatures
- Maintain O2 above 10-12%
- Optimum conditions for thermophilic composting

Thermophilic Composting Process



Source: Cornell University

Why Aerate Your Compost Pile?

- Reduces odor emissions
- Most influential factor in compost stability*
- Elevates oxygen levels
  Provides temperature control
- Enhances drying +/-

How much aeration should you use?

- Feedstock dependent (oxygen demand)
- Ranges from 1 cfm to 10 cfm per ton
- 1 cfm will cover oxygen demand
- Higher aeration rates mean more drying
- Decreases overall time for processing
- “the thermophilic phase lasted 13, 9 and 4 weeks for the aeration rates of 0.4, 0.6 and 0.9 L min^{-1} $kg^{-1dry\ wt}$, respectively.*”

*The effects of aeration rate on generated compost quality, using aerated static pile method
Waste Management Volume 29, Issue 2, February 2009, Pages 570–573

Other ASP Configurations

- Cone Composter
- Radial ASP
- Mass Bed
- Aerated Bins

About Green Mountain Technologies

- Our Mission:
- To Help Clients Compost Successfully
- Climate stability, waste reduction, nutrient cycling
- 30+ years Experience in the Composting Industry
- Based on Bainbridge Island, Washington

IN-VESSEL COMPOSTING SYSTEMS

COMMERCIAL COMPOSTING FACILITY/DESIGN

For more information about
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