

**TOWN OF FAIRFIELD CONNECTICUT
WATER POLLUTION CONTROL FACILITY
COMPOST PROCESS/SYSTEM
BIOSOLIDS COMPOSTING SUCCESS STORY
JOSEPH MICHELANGELO DIRECTOR OF PUBLIC WORKS
WILLIAM C. NORTON SUPERINTENDENT WPCF**



**TOWN OF FAIRFIELD CT
POPULATION 58,570
WPCF SIZE 9MGD
ADVANCED BNR FACILITY
210 MILES OF SANITARY SEWERS
8 PUMPING STATIONS
16,500 SEWER CONNECTIONS**



**PRIMARY DIGESTER
DIAMETER 60 FEET
MAX. WATER DEPTH 28 FEET**

**SECONDARY DIGESTER
DIAMETER 60 FEET
NORMAL WATER DEPTH 26 FEET**



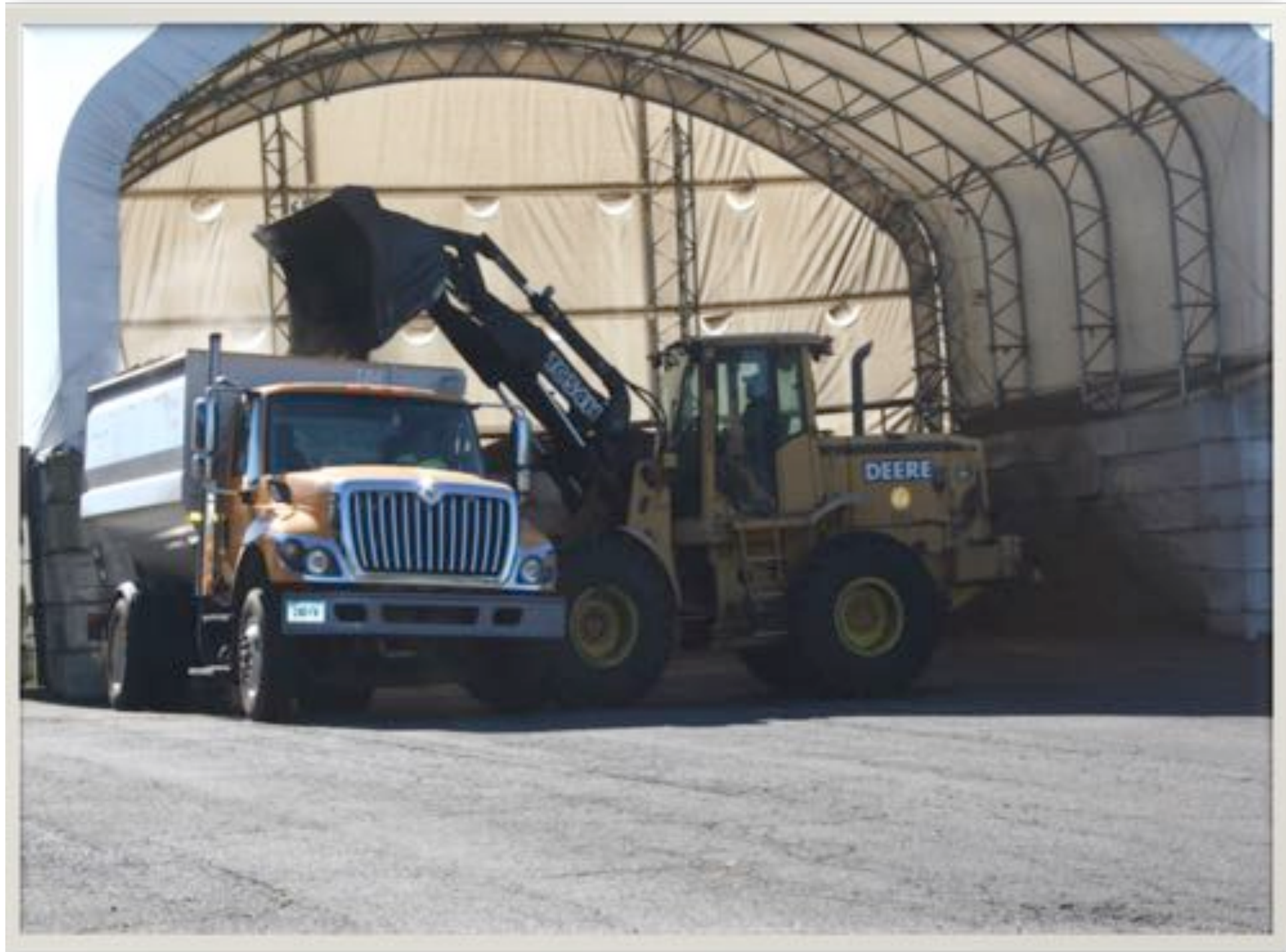






















1214

Course # 44 The Basics/See Course by # 1 of
Course # 45 The Basics/See Course by # 2 of
Course # 46 The Basics/See Course by # 3 of
Course # 47 The Basics/See Course by # 4 of
Course # 48 The Basics/See Course by # 5 of

1215

Course # 49 The Basics/See Course by # 1 of
Course # 50 The Basics/See Course by # 2 of
Course # 51 The Basics/See Course by # 3 of
Course # 52 The Basics/See Course by # 4 of

1216

Course # 53 The Basics/See Course by # 1 of FC
Course # 54 The Basics/See Course by # 2 of FC
Course # 55 The Basics/See Course by # 3 of FC
Course # 56 The Basics/See Course by # 4 of FC
Course # 57 The Basics/See Course by # 5 of FC

1217

Course # 58 The Basics/See Course by # 1 of FC
Course # 59 The Basics/See Course by # 2 of FC
Course # 60 The Basics/See Course by # 3 of FC
Course # 61 The Basics/See Course by # 4 of FC
Course # 62 The Basics/See Course by # 5 of FC

1218

Course # 63 The Basics/See Course by # 1 of JM
Course # 64 The Basics/See Course by # 2 of JM
Course # 65 The Basics/See Course by # 3 of JM

1219

Course # 66 The Basics/See Course by # 1 of
Course # 67 The Basics/See Course by # 2 of FC
Course # 68 The Basics/See Course by # 3 of FC

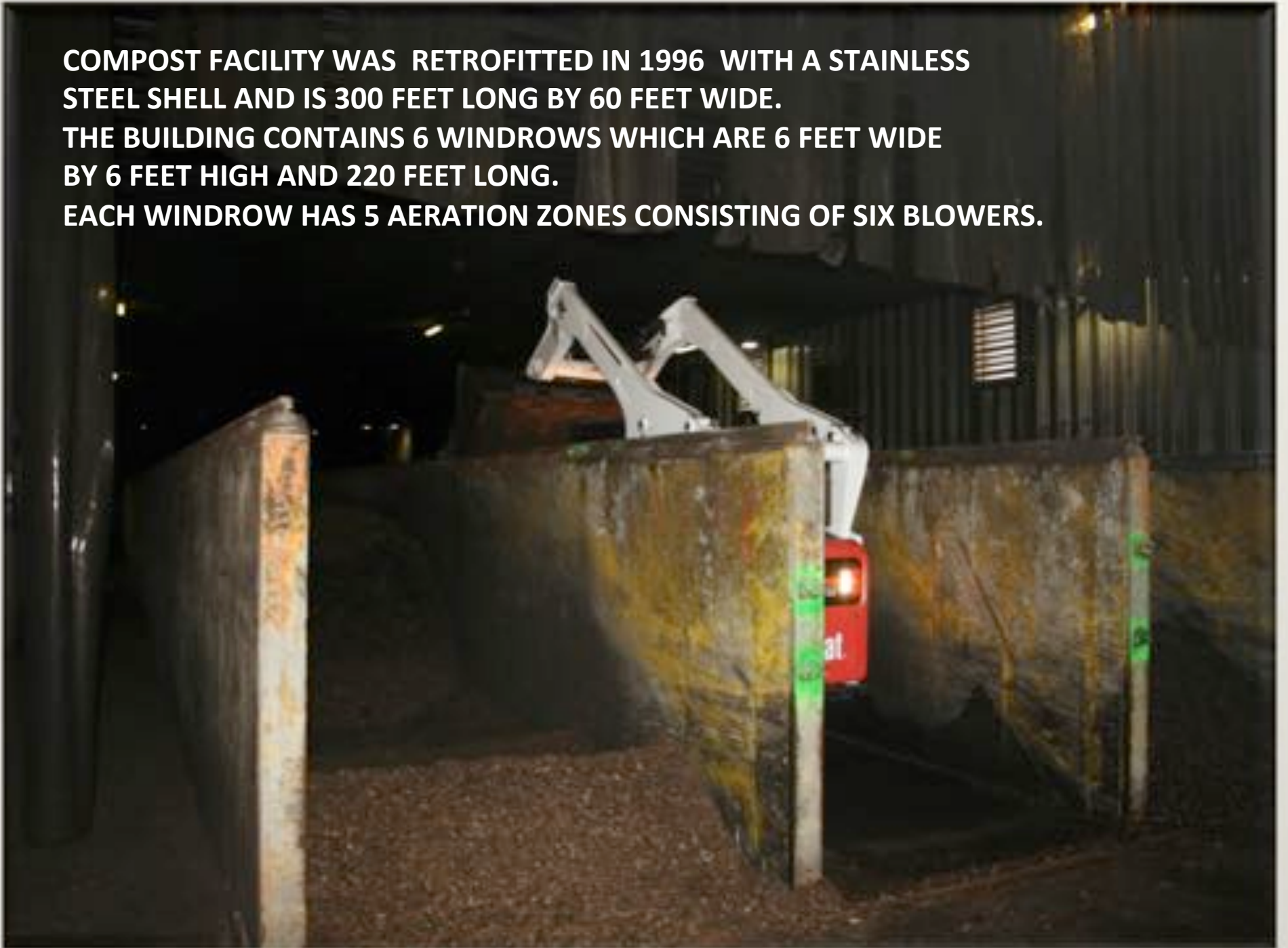
1220

Course # 69 The Basics/See Course by # 1 of FC
Course # 70 The Basics/See Course by # 2 of FC
Course # 71 The Basics/See Course by # 3 of FC
Course # 72 The Basics/See Course by # 4 of FC
Course # 73 The Basics/See Course by # 5 of FC
Course # 74 The Basics/See Course by # 6 of FC

1221

Course # 75 The Basics/See Course by # 1 of FC
Course # 76 The Basics/See Course by # 2 of FC
Course # 77 The Basics/See Course by # 3 of FC
Course # 78 The Basics/See Course by # 4 of FC
Course # 79 The Basics/See Course by # 5 of FC
Course # 80 The Basics/See Course by # 6 of FC

COMPOST FACILITY WAS RETROFITTED IN 1996 WITH A STAINLESS STEEL SHELL AND IS 300 FEET LONG BY 60 FEET WIDE. THE BUILDING CONTAINS 6 WINDROWS WHICH ARE 6 FEET WIDE BY 6 FEET HIGH AND 220 FEET LONG. EACH WINDROW HAS 5 AERATION ZONES CONSISTING OF SIX BLOWERS.





EACH WINDROW IS TURNED ONCE PER DAY



CompMaster™ Control System

10:13:21 AM

E-STOP

FACILITY CHARGE STATUS

09-02-2016

		BAY 4	BAY 5	BAY 4	BAY 3	BAY 2	BAY 1
11.5 Ft	1	0000	0000	0002	0001	0000	0000
23.0 Ft	2	0000	0007	0006	0009	0004	0009
34.5 Ft	3	0052	0051	0050	0049	0048	0051
46.0 Ft	4	0040	0040	0044	0043	0042	0047
57.5 Ft	5	0040	0039	0038	0037	0036	0041
69.0 Ft	6	0034	0033	0032	0031	0030	0035
80.5 Ft	7	0028	0027	0026	0025	0024	0029
92.0 Ft	8	0021	0021	0020	0019	0018	0023
103.5 Ft	9	0016	0015	0014	0013	0012	0017
115.0 Ft	10	0010	0009	0008	0007	0006	0011
126.5 Ft	11	0004	0003	0002	0001	0000	0005
138.0 Ft	12	0000	0007	0006	0005	0004	0009
149.5 Ft	13	0001	0001	0000	0000	0000	0003
161.0 Ft	14	0004	0000	0004	0003	0002	0007
172.5 Ft	15	0000	0079	0078	0077	0076	0081
184.0 Ft	16	0074	0073	0072	0071	0070	0075
195.5 Ft	17	0060	0067	0066	0065	0064	0069
207.0 Ft	18	0050	0057	0056	0055	0054	0059
218.5 Ft	19	0001	0001	0004	0000	0004	0009
Charge Destination							
		0040	0040	0050	0049	0048	0053

- None
- PATH
- VAP
- BOTH
- WARNING

- F1 Daily Status
- F2 2nd Location Status
- F4 Computer Speed Status
- F5
- F7 Report Table Alarm
- F8 Computer Alarm Status
- F9 Alarm Alarm
- Options



CompMaster™ Control System

10:15:46 AM

E-STOP

BAY AERATION STATUS

09-03-2014

BAY TEMP Status	ZONE A				ZONE B				ZONE C				ZONE D				ZONE E				E/D 30.36
	Temp	Temp	TC	Valve	Temp	Temp	TC	Valve	Temp	Temp	TC	Valve	Temp	Temp	TC	Valve	Temp	Temp	TC	Valve	
1	66	66	TC	Valve	66	66	TC	Valve	60	62	TC	Valve	50	51	TC	Valve	45	45	TC	Valve	E
2	66	66	TC	Valve	66	65	TC	Valve	60	61	TC	Valve	50	52	TC	Valve	45	45	TC	Valve	E
3	66	62	TC	Valve	66	65	TC	Valve	60	58	TC	Valve	50	51	TC	Valve	45	44	TC	Valve	E
4	66	61	TC	Valve	66	63	TC	Valve	60	59	TC	Valve	50	51	TC	Valve	45	46	TC	Valve	E
5	66	67	TC	Valve	66	66	TC	Valve	60	61	TC	Valve	50	51	TC	Valve	45	46	TC	Valve	E
6	66	67	TC	Valve	66	66	TC	Valve	60	60	TC	Valve	50	50	TC	Valve	45	47	TC	Valve	E

Navigation icons: Home, Back, Forward, Stop, Refresh, Print, etc.

Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp	Temp

F1 Daily Status F2 Bay Aeration Control F3 Show Temp Averages F4 Compair Spray Status F5 F6 F7 Request Sub Menu F8 Current Alarm Status F9 Main Menu

MATCH LA

ODOR CONTROL













UNLOADING OF THE BACK BAYS OF THE COMPOST FACILITY IS DONE ONCE A WEEK. 25 TRUCK LOADS OF 4700 LBS. EACH ARE REMOVED AND HAULED ACROSS THE STREET TO HARVEST NEW ENGLAND FOR PROCESSING



Landscape Supply Center
(203) 259-6852

March 1 - October 31
Monday - Friday 7:00am - 4:00pm
Saturday 7:00am - 12 noon

CONTRACT OPERATIONS AND SERVICES AGREEMENT

AGREEMENT by and between GreenCycle of Connecticut, Inc., a Connecticut corporation, authorized to do business according to the laws of the State of Connecticut, and doing business as "GreenCycle of the Northeast," hereinafter referred to as the "Company" and the Town of Fairfield, a municipal corporation duly organized and existing according to the laws of the State of Connecticut, hereinafter referred to as the "Town."

RECITALS

WHEREAS, the Company has experience in the operation and maintenance of yard waste collection, transfer and processing facilities, the control of odor generated by such facilities and the provision of contract operating services for such facilities; and

WHEREAS, the Company has experience in the marketing of yard waste compost, biosolids compost and other bulk horticultural products; and

WHEREAS, the Town owns and operates an in-vessel agitated bin compost facility, including all associated equipment, and the belt filter press dewatering equipment, hereinafter referred to as the "Compost Facility," located at the Fairfield Water Pollution Control Facility, hereinafter referred to as the "WPCF" at 330 Richard White Way (formerly One Rod Highway) within the corporate limits of the Town; and

WHEREAS, the Town owns an approximately six acre site on Richard White Way (formerly One Rod Highway), hereinafter referred to as the "Facility Site," utilized as a yard waste facility for collection and processing of organic yard waste and the sale of bulk horticultural products, hereinafter referred to as the "Facility"; and

WHEREAS, the Town and the Company desire to enter into an Agreement wherein the Company will operate, maintain and manage the Facility, market bulk horticultural and biosolid products, and provide compost facility support services for the Town under the terms and conditions contained herein.

FOR AND IN CONSIDERATION of the foregoing and in consideration of the mutual covenants contained herein, the parties agree as hereinafter set forth:







- Distribution of Biosolids Compost in CT
- In contrast to other states, CT DEEP does not have state-wide procedures for permitting the distribution and use of biosolids products. Thus, each facility in CT is required to submit a plan for DEEP approval.
- The Compost Management Plan for Fairfield was approved in 2002 and revised in 2008 and 2015.
- The Plan includes:
 - Product testing
 - Record-keeping and reporting
 - Compost application rates (based on nitrogen)
 - Use restrictions
 - Storage requirements
 - Product labeling and Customer Terms
- Most of the conditions of the Management Plan follow EPA Part 503 with the following exceptions:

- “Compost shall not be used for food chain crops, tobacco, crops grown for animal feed, or on grazing land for animals whose products are consumed by humans.”
- Compost must be tested for Beryllium.
- Testing for *Salmonella* is not accepted as an alternative to fecal coliform.
- There are specific limits on use and storage of the compost including setbacks from wells and water bodies.
- Customers receiving more than 500 cubic yards per year must be monitored and reports sent to DEEP indicating how compost was used and stored.

- Compost distribution has been handled by Agresource Inc.
- Agresource monitors product use and prepares reports in accordance with Management Plan and maintains a permit to distribute compost in NY.
- The Town generates on average 5,250 cy of compost annually.
- About 85% is distributed in CT, with the remainder going to NY.
- There is a diversified customer base (20 to 30 customers each year).
- The median customer takes less than 200 cubic yards, with only two to three customers taking more than 500 cy each year.
- Compost is used as a soil amendment for general landscaping, including tree planting, and the construction of lawns and sports fields, for top dressing established lawns and sports fields, and as an ingredient in potting media.
- Large projects in the past five years include:

Construction of athletic fields at Guilford CT and Waterbury CT, tree planting and lawn construction at the Fairfield Metro Train Station, Stiles Hall at Yale University, and the Hartford Temple in Farmington CT.

The photo below shows the results of a recent lawn renovation achieved by Roberto Fernandez Landscaping, Stamford CT, using the Fairfield Compost.



In 2013 Agresource supplied Fairfield Compost for use as a soil amendment for the renovation of sports fields located at the technical high school in Waterbury CT. The construction work was done by C J Fucci out of New Haven CT.



- Planting beds and landscaping at Yale University, New Haven CT





- ISSUES
- THANK YOU TO THE STAFF OF THE FAIRFIELD WPCF
- ASST. SUPER. JOHN BODIE, LAB DIRECTOR DANIELLE MORRISON AND OPERATOR FRANK CULMONE.
- GEOFF KUTOR FROM AGERSOURCE INC.
- QUESTIONS?