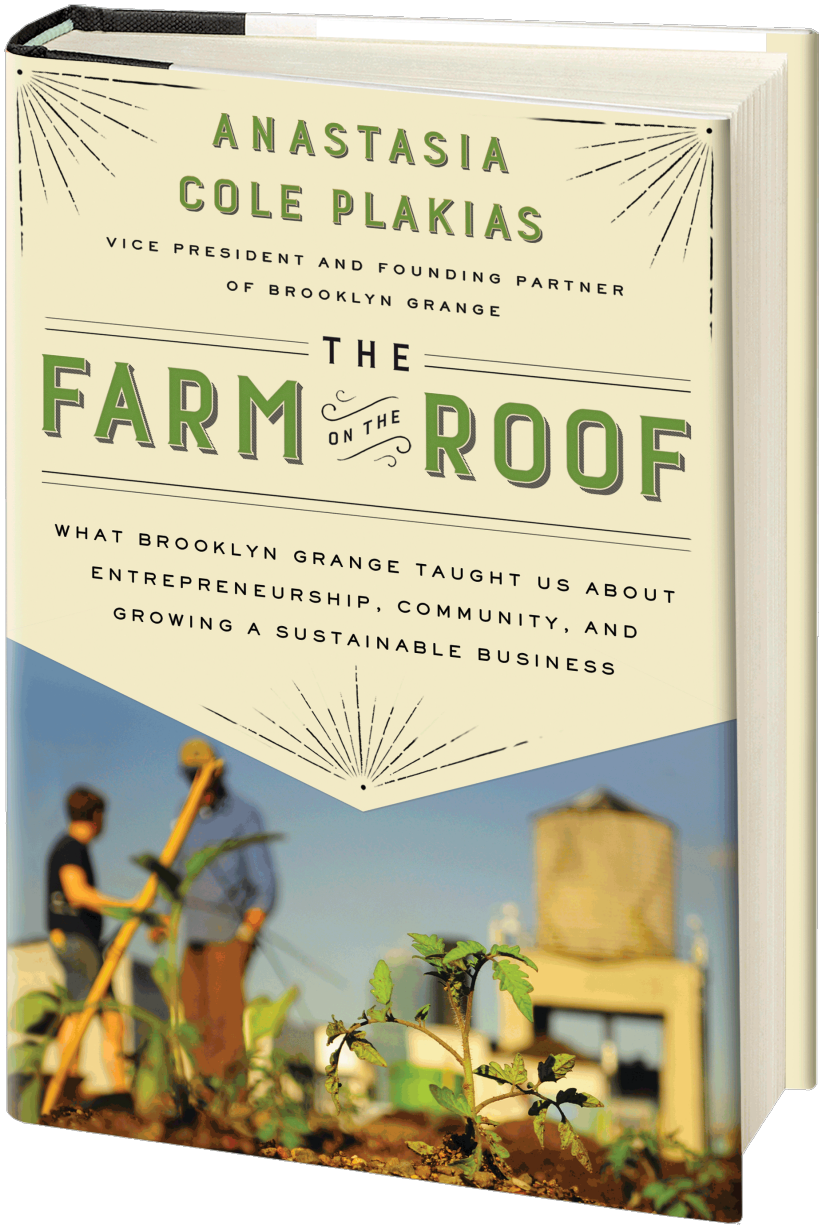
BROOKLYN
GRANGE
© VALERY RIZZO

Agenda

- Overview of Brooklyn Grange
- Conservation Areas:
  - Compost and Nutrient
  - Water
  - Soils

WE WROTE A BOOK ABOUT THE FARM

The book describes our experiences from an entrepreneurial standpoint. The story includes technical decisions and problem solving, marketing, business decisions, and the complexities of running a sustainably minded business in the real capitalist world.



BROOKLYN GRANGE

2010 – 1st Farm

LOANS

5-YR NOTES

+

CROWD SOURCING

+

EVENTS

+

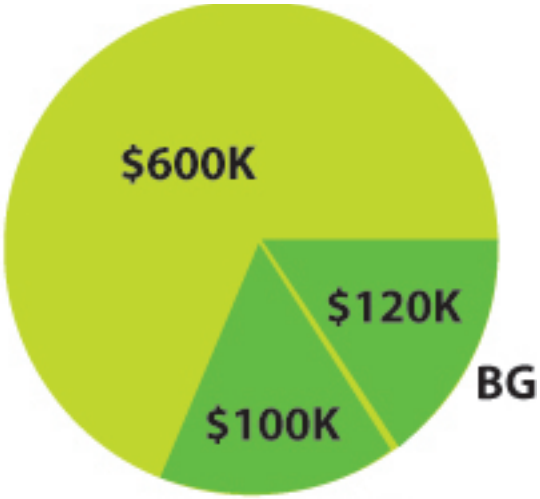
EQUITY

FOR LEASE 718-360-9500
718-360-9500
FOR LEASE
718-360-9500
PLANET AUTO MALL
YOU WORK YOU DRIVE

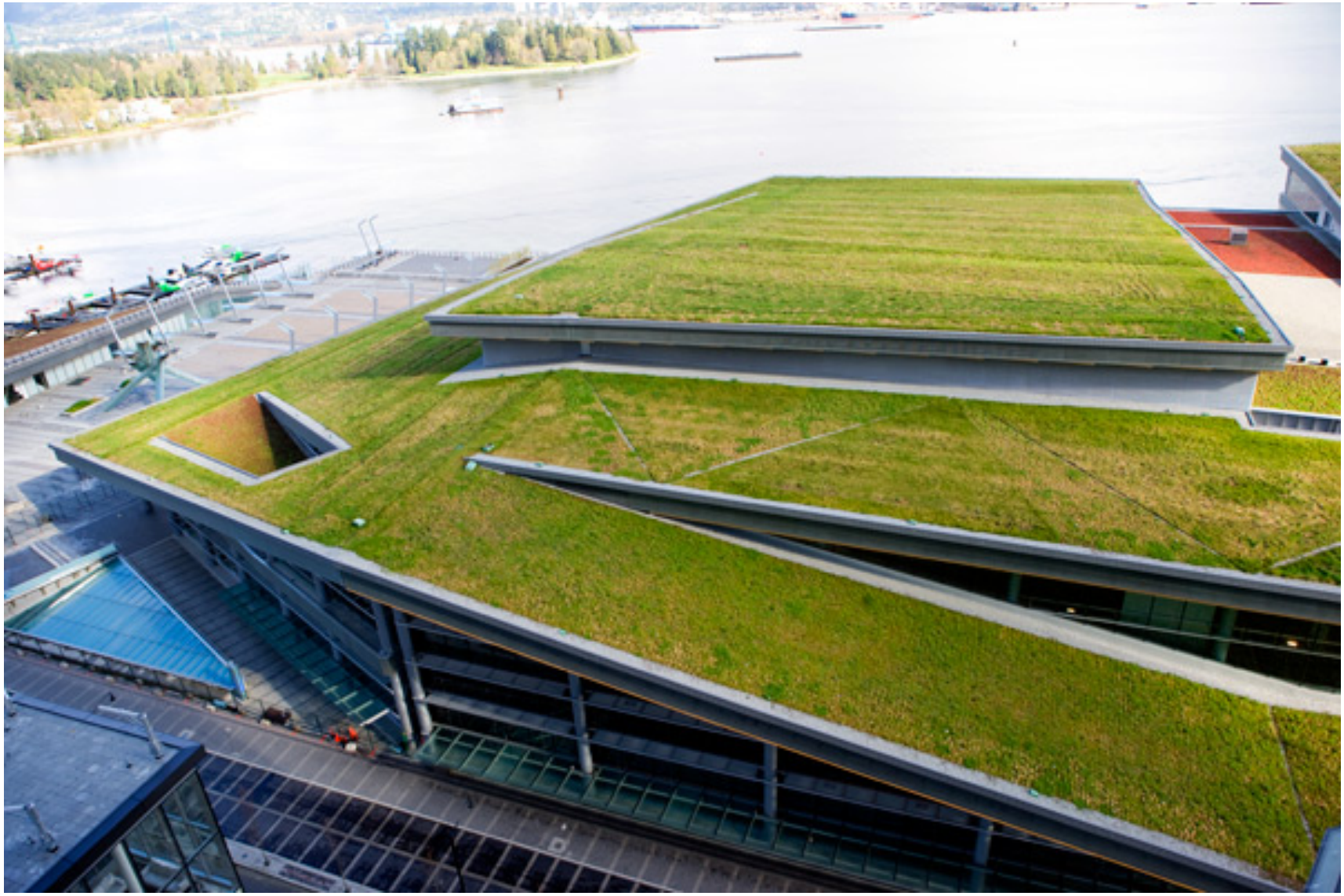
2012 – 2nd Farm

+

NYC DEPARTMENT OF
ENVIRONMENTAL PROTECTION (DEP)



LANDLORD



Vegetable Sales Channels

- Wholesale (restaurants and grocers)
- Markets
- CSA

MARIETTA
ARUGULA
MARIETTA
ARUGULA

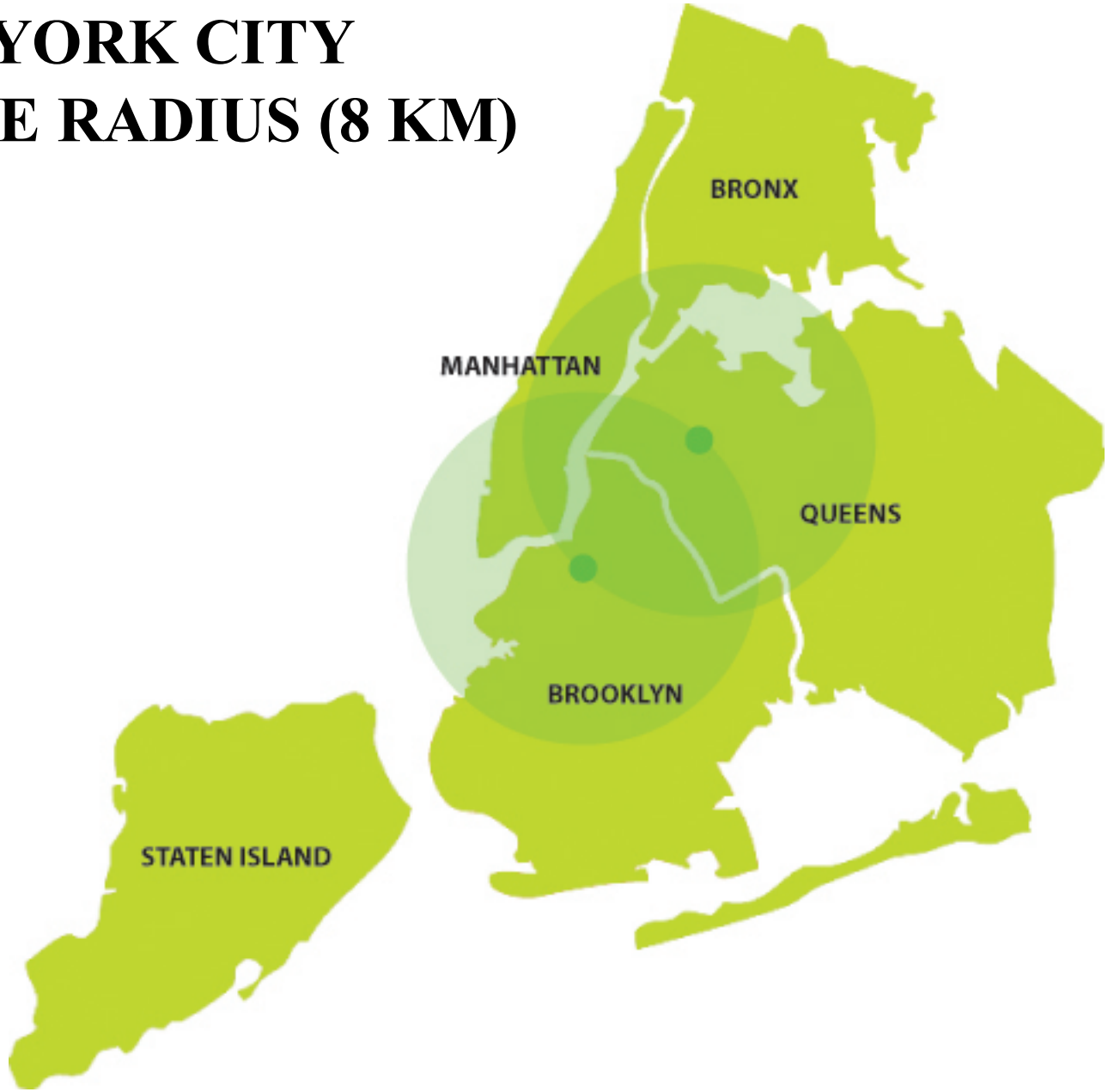
Shishito
Peppers
$9/Box
Hot Sauce
$8/Bottle
Honey
$12/Jar

BROOKLYN
GRANGE
ROOFTOP FARM
GREENS
GROWN ACCORDING TO ORGANIC PRINCIPLES

Fairytale Eggplant
Mixed Asian Eggplant

Cobala

NEW YORK CITY
5 MILE RADIUS (8 KM)



GROWING VERTICAL AT
Clifton Place
MEMORIAL GARDEN & PARK

BROOKLYN GRANGE bees
urban HONEY
natural raw wildflower honey made by the best bees in NYC
5.6 oz

BROOKLYN GRANGE
rooftop HOT SAUCE
Ingredients:
REFRIGERATE AFTER OPENING
Brooklyn Grange LLC
37-18 Northern Blvd Roof
Long Island City, NY 11101

Chickens

Composting

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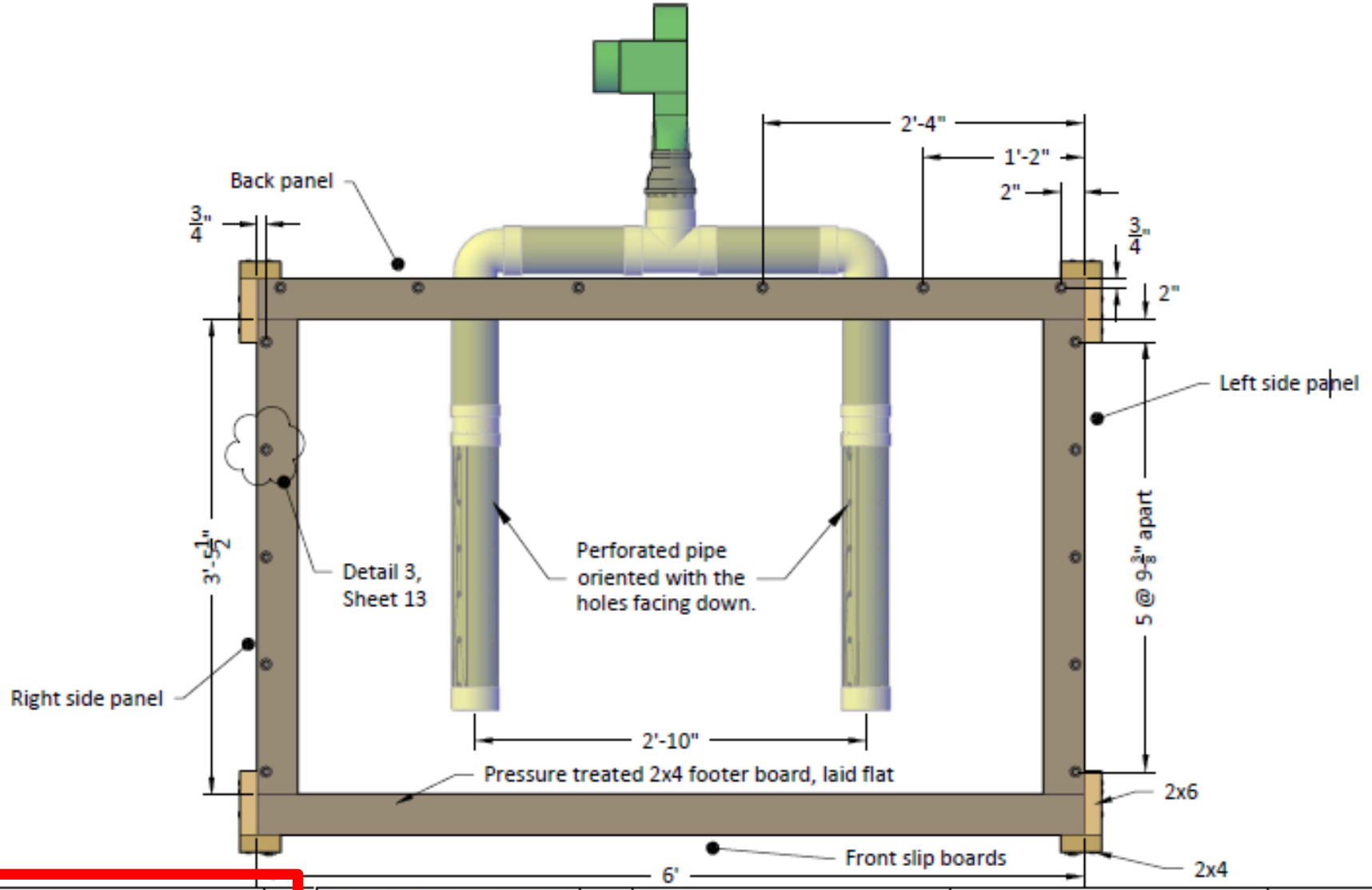
Composting

MICRO-BIN COMPOST SYSTEM

Bottom View (Looking Up)



O2Compost Compost Systems & Training	BARN PROS EQUESTRIAN FACILITIES NATIONWIDE	Reviewed by: Peter Moon, PE	Bottom View (Looking Up)	2012
		Designed by: Derrick Santos, EIT	Micro-Bin 4x6 T&G	12 of 15

REOTEMP
°F
0
20
40
60
80
100
120
140
160
180
200
REOTEMP
SAN DIEGO
INST. CORP
CALIF.-U.S.A.

Soil Report

Job Name: Brooklyn Grange

Date: 4/25/2017

Company: Brooklyn Grange

Submitted By:

Sample Location			BNY West	BNY East	LIC West	LIC East	E-MH
Sample ID			A	B	C	D	
Lab Number			143	144	145	146	147
Sample Depth in Inches			6	6	6	6	6
Total Exchange Capacity (M. E.)			16.82	19.63	15.31	15.66	6.47
pH of Soil Sample			7.4	7.6	7.6	7.5	6.4
Organic Matter, Percent			29.54	19.65	14.33	13.06	2.45
ANIONS	SULFUR:	p.p.m.	17	59	27	28	17
	Mehlich III Phosphorous:	as (P_2O_5) lbs / acre	981	1508	960	1061	953
EXCHANGEABLE CATIONS	CALCIUM: lbs / acre	Desired Value	4574	5338	4165	4258	1759
		Value Found	5110	6290	4940	5096	1485
		Deficit					-274
	MAGNESIUM: lbs / acre	Desired Value	484	565	441	450	200
		Value Found	729	644	465	428	225
		Deficit				-22	
	POTASSIUM: lbs / acre	Desired Value	524	612	477	488	201
		Value Found	210	302	255	325	631
		Deficit	-314	-310	-222	-163	
	SODIUM:	lbs / acre	29	39	55	48	49
BASE SATURATION %	Calcium (60 to 70%)		75.96	80.12	80.65	81.38	57.38
	Magnesium (10 to 20%)		18.06	13.67	12.65	11.39	14.49
	Potassium (2 to 5%)		1.60	1.97	2.13	2.66	12.50
	Sodium (.5 to 3%)		0.38	0.44	0.78	0.67	1.63
	Other Bases (Variable)		4.00	3.80	3.80	3.90	5.00
	Exchangable Hydrogen (10 to 15%)		0.00	0.00	0.00	0.00	9.00
TRACE ELEMENTS	Boron (p.p.m.)		0.84	0.97	0.66	0.68	0.64
	Iron (p.p.m.)		176	194	211	202	350
	Manganese (p.p.m.)		32	37	29	30	78
	Copper (p.p.m.)		5.03	6.94	6.18	5.79	1.61
	Zinc (p.p.m.)		19.25	25.8	21.51	21.35	6.72
	Aluminum (p.p.m.)		128	88	197	181	707
OTHER							

Logan Labs, LLC

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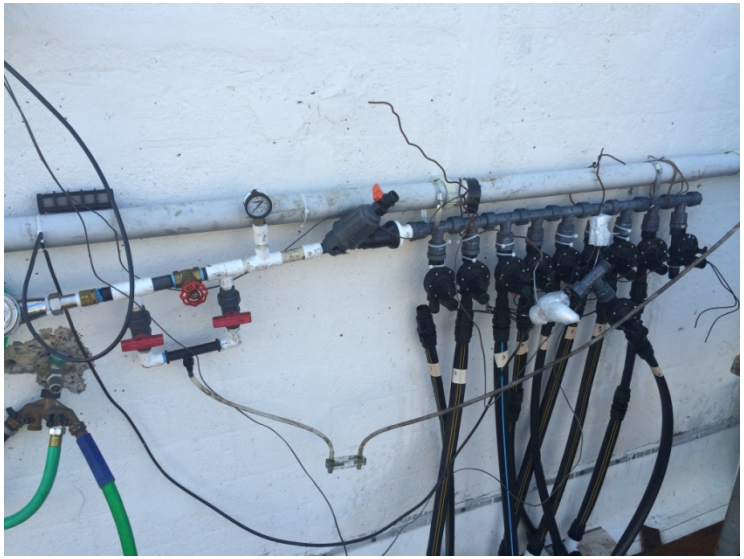
Irrigation

- Manifold with 10+ zones for watering.
- Combination of drip and aerial zones, on timer
- Includes Mazzei fertigation unit



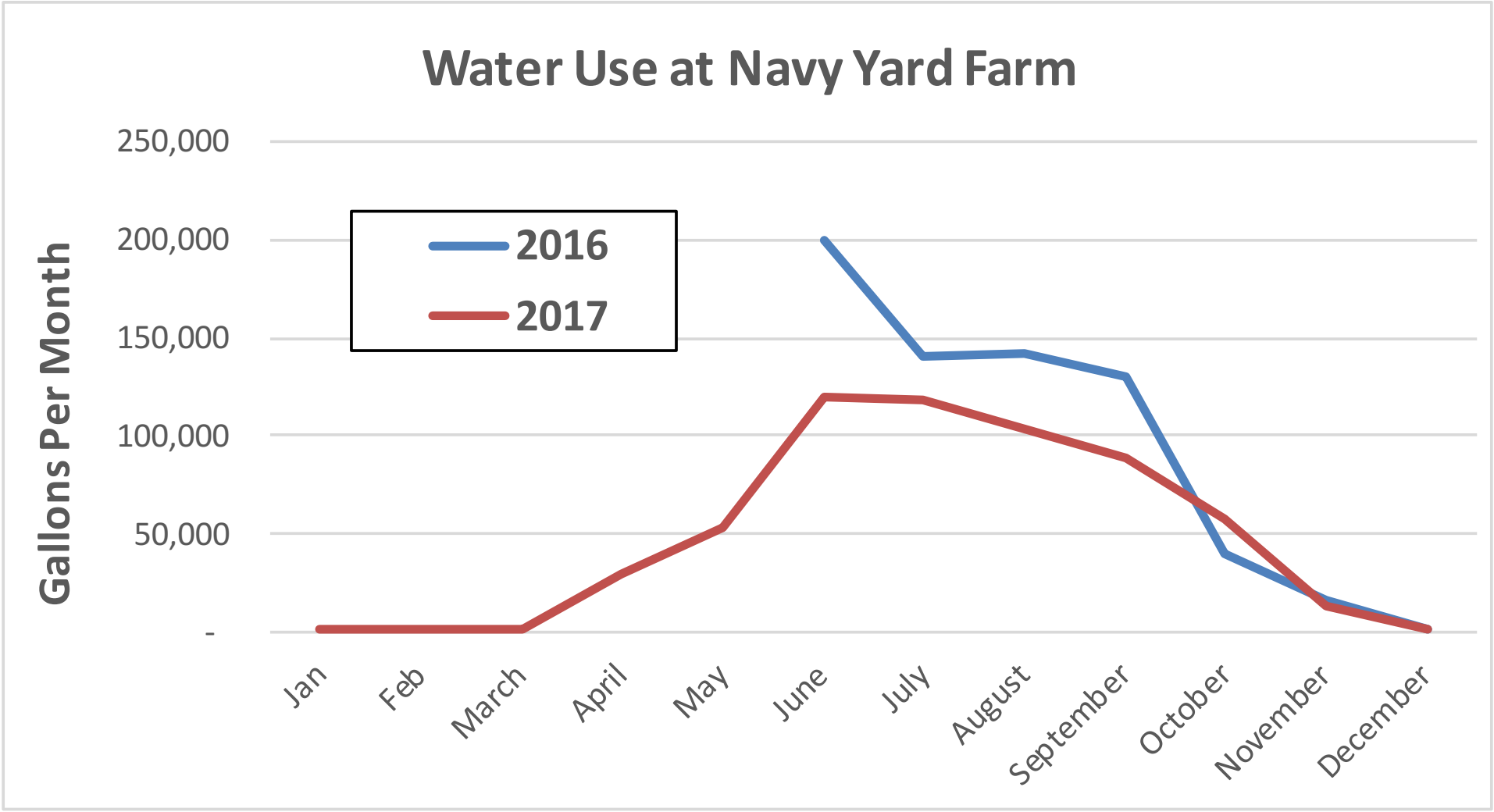
- Drip Irrigation system
- 2 lines per row
- 8” Spacing of holes

Hunter®

Hunter®
SYSTEM STATUS
SENSOR
STANDBY
ACTIVE
STATION
ACTIVE
FAULT
FLOW
NORMAL
OVERFLOW
RAIN SENSOR
ACTIVE
BYPASS
RUN
Hunter I-CORE
SYSTEM OFF
MANUAL OPERATION
SOLAR-SYNC SETTINGS
ADVANCED FEATURES
SET SENSOR OPERATION
CYCLE AND SOAK
SET CURRENT DATE / TIME
SET PROGRAM START TIMES
SET STATION RUN TIMES
SET DAYS TO WATER
SET SEASONAL ADJUSTMENT
SET PUMP OPERATION

Wobblers

65
66
67
68
69
70
71


Water Use at Navy Yard Farm
Gallons Per Month
250,000
200,000
150,000
100,000
50,000
-
2016
2017
Jan
Feb
March
April
May
June
July
August
September
October
November
December

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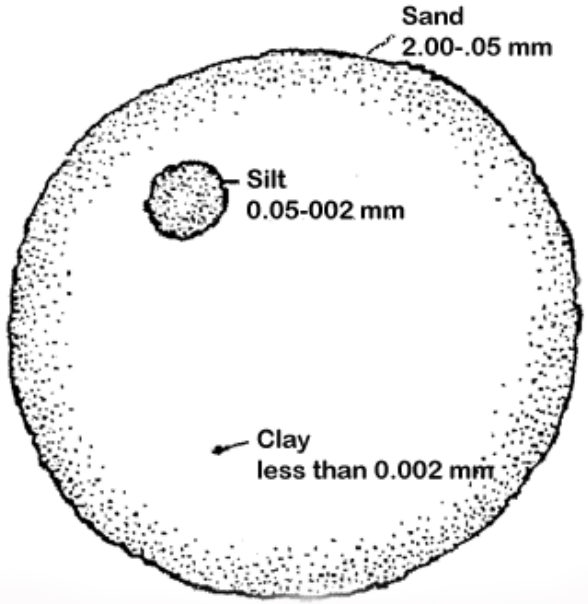


Relative size of soil grains (photo courtesy of U. of Nebraska-Lincoln Cooperative Extension at http://www.ianr.unl.edu/pubs/fieldcrops/g964.htm#sw)

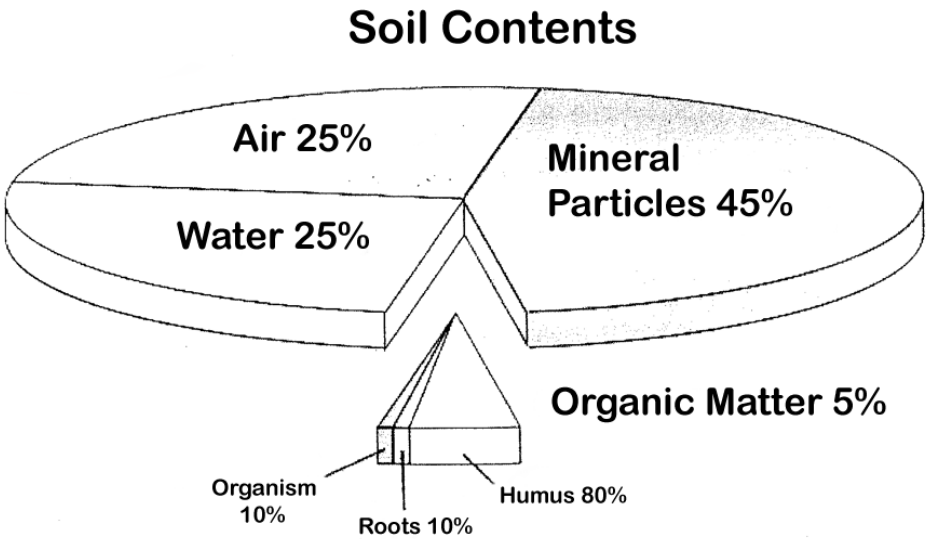
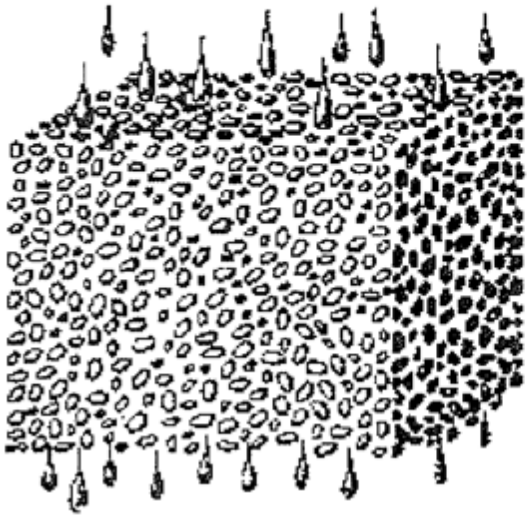


chart source: http://www.physicalgeography.net/fundamentals/101.html

Soil Structure and Its Effects on Absorption

Single Grain

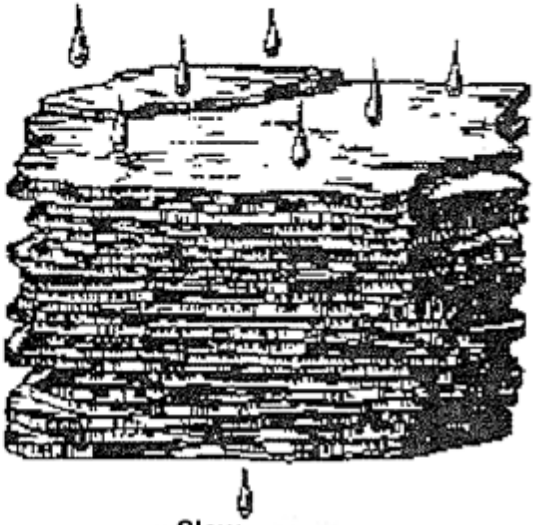


Rapid

Blocky

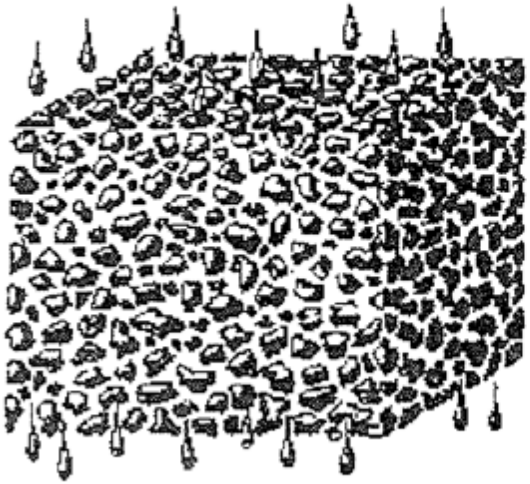
Moderate

Platy



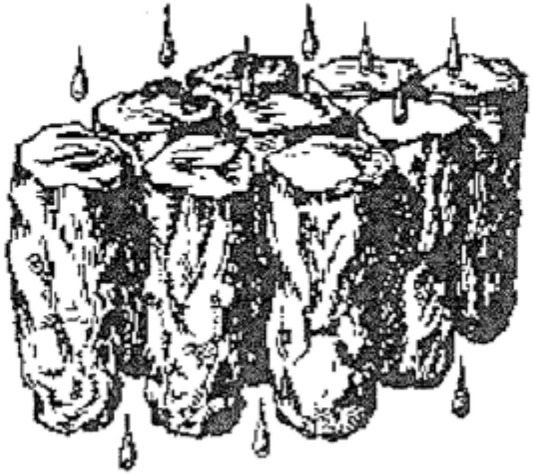
Slow

Granular



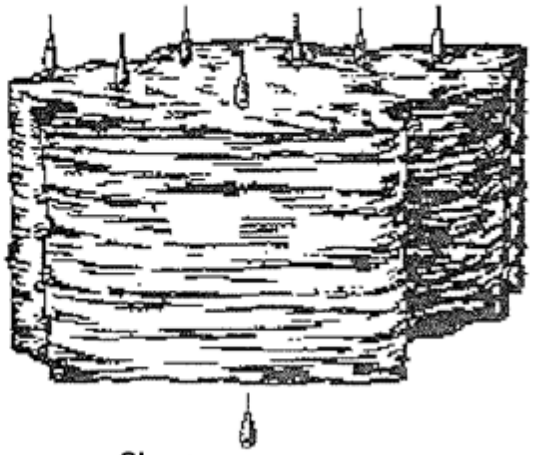
Rapid

Prismatic



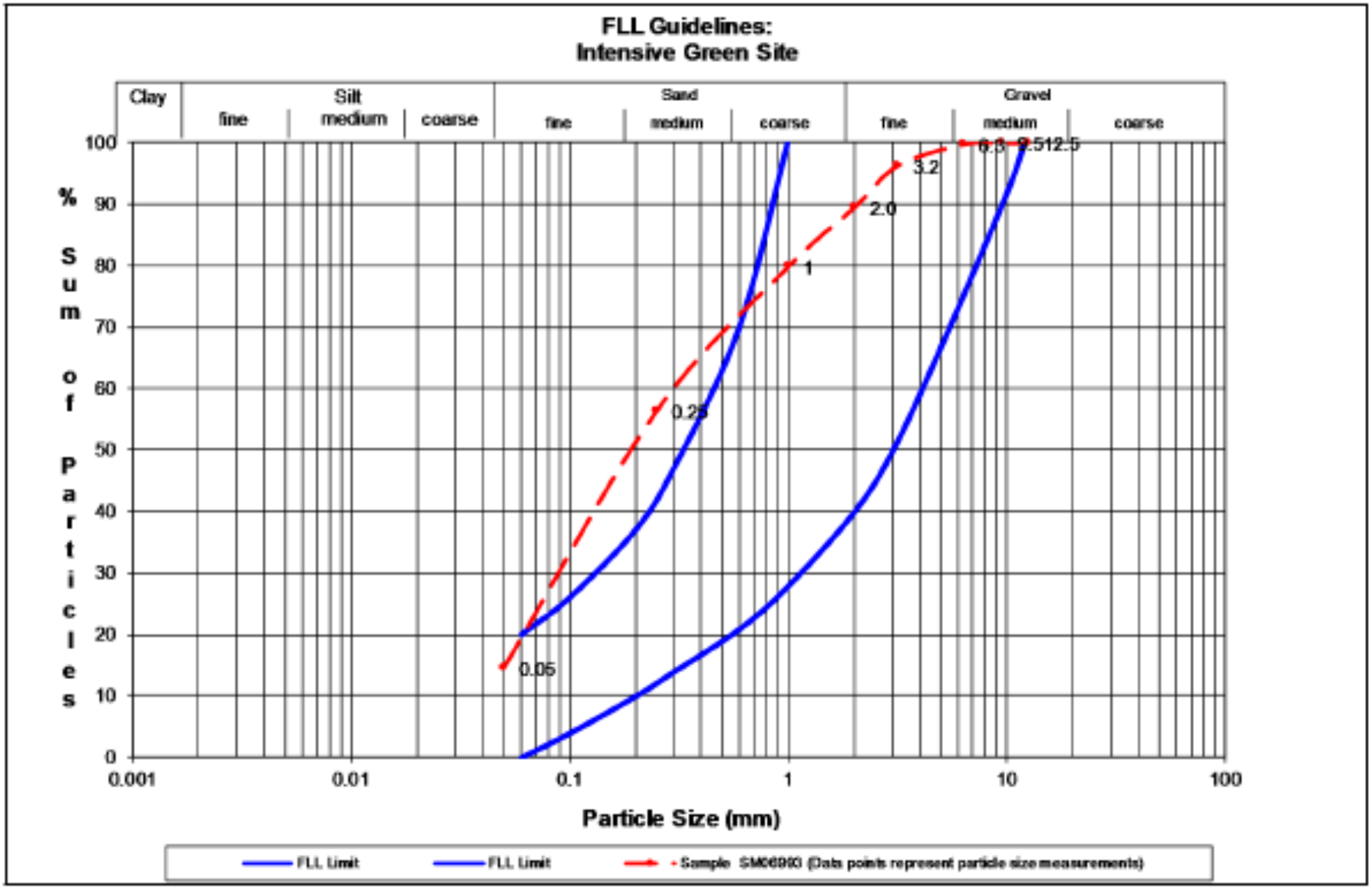
Moderate

Massive



Slow

Green Roof Media
FLL[1] Particle Size Distribution Graph for Intensive Systems



PACKING LIST ENCLOSED
roofliite
Certified Green Roof Media
agricultural 6278
THE HOME DEPOT
THE HOME DEPOT

THANK YOU

EMAIL: ben@brooklyngrangefarm.com

Appendix

CYCLE FEATURES / CARACTÉRISTIQUES DES PROGRAMMES
Cycle Selector
Sélecteur de programmes
Normal • Casual
Wrinkle Control
Cold Wash*
Normal • Tout-aller
Commande antifrissement
Lavage à froid*
Whites • Heavy Duty
Deep Water Wash
Power Wash • Super Wash
Blancs • Service intense
Lavage à l'eau élevé
Lavage haute puissance
Super lavage
Bulky Items
Bulky/Sheets
Articles volumineux
Articles volumineux/draps
Delicates
Hand Wash
Articles délicats
Lavage à la main
Quick Wash
Express Wash
Lavage rapide
Lavage express
Load Size
Water Levels
Water Temps
Temp. de l'eau
*Except Cold Wash
Water Temp.
*Sauf temp. de l'eau
du lavage à l'eau froide
Load Description
Contenu de la charge
Cottons and Linens
Coton et lin
Mixed Loads
Charges mixtes
Large/Bulky Item
Article de grande
taille/volumineux
Mixed Loads
Charges mixtes
Mixed Loads
Charges mixtes
T-shirts
Blouses
Tee-shirts
Chemisiers
Pants/Jeans
Towels
Pantalons/jeans
Serviettes
Sheets • Coats
Comforter
Drapes • Manteaux
Couette
ALL
Tout
ALL
Tout
Soil Level Selector
Sélecteur de
degré de saleté
Medium Soils
Saleté moyenne
Lower Soils
Heavy Soils • Stains
Saleté décolée
Saleté intense • Taches
Medium Soils
Saleté moyenne
Light Soils
Saleté légère
Light Soils
Saleté légère
Water Temp Selector
Sélecteur de
temp. de l'eau
Decrease or increase the agitation time for any cycle. Diminuer ou augmenter la durée d'agitation pour tout programme.
Decrease or increase the maximum target water temperature for any cycle.
Diminuer ou augmenter la température cible maximale de l'eau pour tout programme.
NOTE: Not all options are available on all models. See Use and Care Guide for more information.
REMARQUE : Certaines options ne sont pas disponibles sur certains modèles. Voir le guide d'utilisation et d'entretien pour obtenir plus de renseignements.
WARNING
Fire Hazard
Never place items in the washer that are dampened with gasoline or other flammable fluids.
No washer can completely remove oil.
Do not dry anything that has ever had any type of oil on it (including cooking oils).
Doing so can result in death, explosion, or fire.
AVERTISSEMENT
Risque d'incendie
Ne jamais mettre des articles humectés d'essence ou d'autres fluides inflammables dans la laveuse.
Aucune laveuse ne peut complètement enlever l'huile.
Ne pas faire sécher des articles qui ont été salis par tout genre d'huile (y compris les huiles de cuisson).
Le non-respect de ces instructions peut causer un décès, une explosion, ou un incendie.
ADVERTENCIA
Peligro de incendio
Nunca coloque en la lavadora artículos que estén humedecidos con gasolina o cualquier otro líquido inflamable.
Ninguna lavadora puede eliminar completamente el aceite.
No seque ningún artículo que haya tenido alguna vez cualquier tipo de aceite (incluyendo aceites de cocina).
No seguir estas instrucciones puede ocasionar la muerte, explosión o incendio.
high efficiency

GARDEN FRESH TOMATOES
Product of USA
GARDEN FRESH TOMATOES
Product of USA
GARDEN FRESH TOMATOES
OWN FRUITS AND VEGE

3747

48
KRIM
KRIM
HOT SAUCE
HOT SAUCE
JALAPEÑO

MUNDIAL
Gourmet
THE ALL PURPOSE ALL PRACTICAL
4½" Utility/Bar Knife

Quick Harvester – *Farmer's Friend*

4-Row Seeder
Johnnys

Tillie
Carts & Tools

Tilther
Johnnys

https://goo.gl/photos/LL1pFiyySqud3JhLA

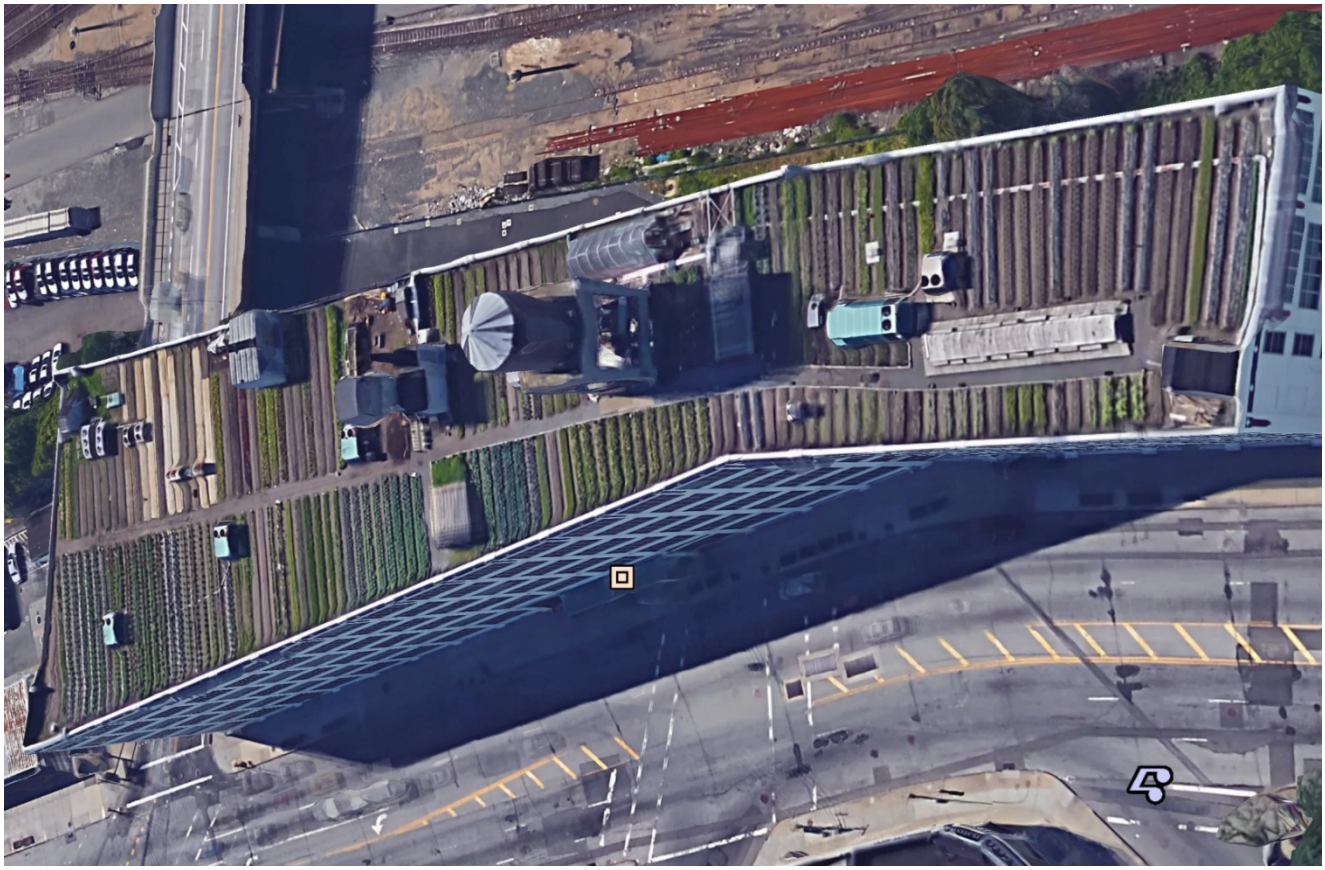
SOIL

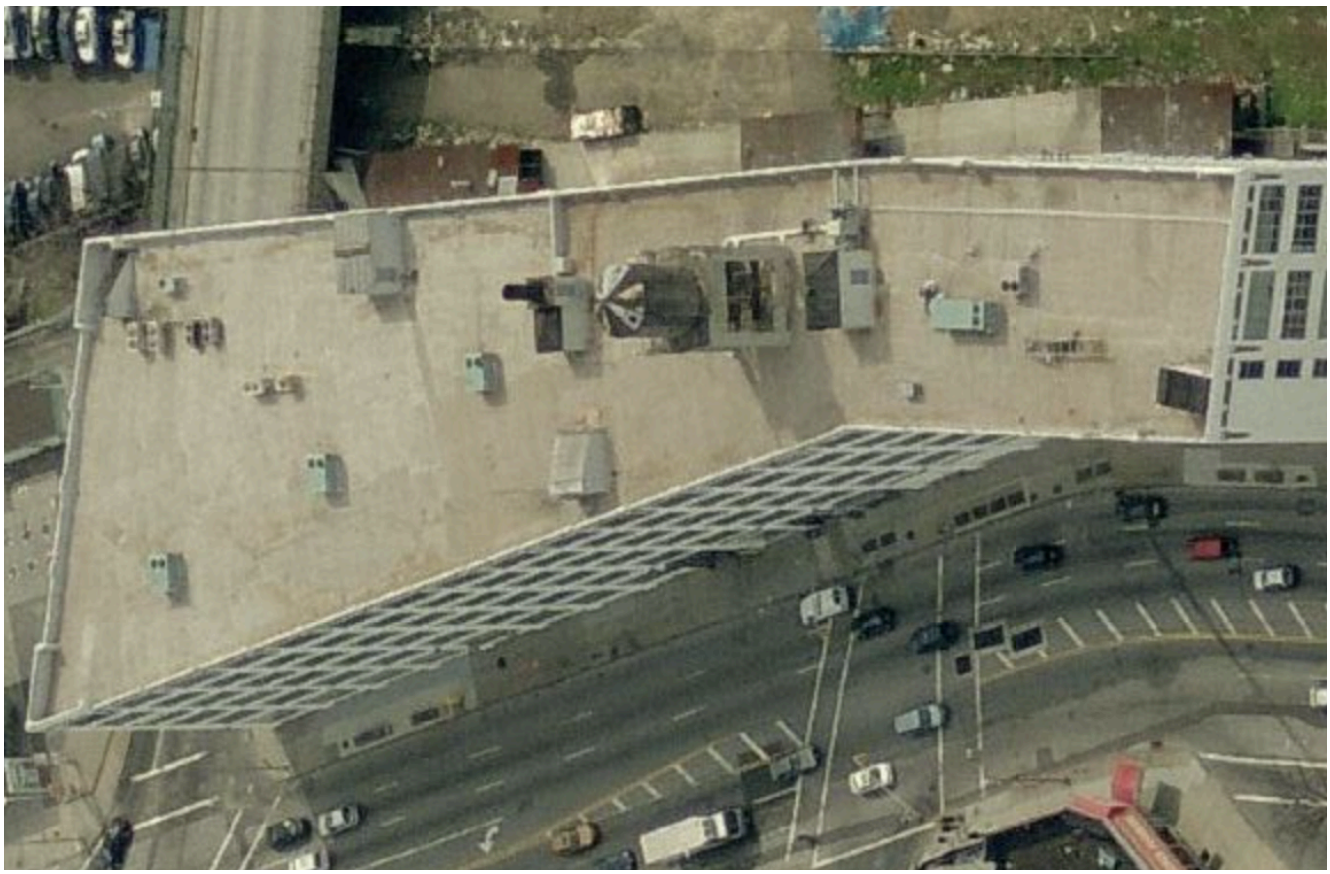
FILTER FABRIC

DRAINAGE MAT

PROTECTION LAYER

ROOT BARRIER





DOWNEY
TREE SERVICE

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SOIL

FILTER FABRIC

AGGREGATE

PROTECTION LAYER

TPO

THANK YOU

EMAIL: ben@brooklyngrangefarm.com