Saratoga Biochar Solutions, LLC
Carbon Fertilizer™ Manufacturing Facility
Moreau, New York

April 2022

General Information on Site Plan Application

The Original

CARBON FERTILIZER™

Granular Slow-Release Bio-Fertilizer that builds Soil Carbon

"MADE IN USA from recycled American organic mater, carbon and nutrients."

6
C
Carbon

MADE IN USA

About Us

- **Northeastern Biochar Solutions, LLC ("NBS") provides the most sustainable use of biosolids to the benefit of human health and the environment.**
  - Transforms dirty industries into green industries.
    - Provides a substitute for biosolids waste disposal.
    - Provides a substitute for chemical fertilizers.
  - Manufactures bio-fertilizers responsibly.
    - Recovers resources to the greatest extent possible.
    - Eliminates PFAS and other contaminants.
    - Reduces greenhouse gas ("GHG") emissions.
    - Reduces harmful, regulated air emissions.
  - Sequesters carbon in soil where it is needed.
    - Reduces fertilizer consumption.
    - Reduces nutrient pollution in waterways.

- **NBS intends to build Carbon Fertilizer™ manufacturing facilities in constrained biosolids markets throughout the U.S. and provide the technology to utilities globally.**

Saratoga Biochar Solutions, LLC

- **Saratoga Biochar Solutions, LLC ("SBS") is a NBS affiliate company established to build, own, and operate a carbon fertilizer manufacturing facility in Moreau, NY.**
  - Presently 100% owned by NBS.
  - Licensed to use NBS's proprietary Carbon Fertilizer process.
  - Contractually managed by NBS.
  - Biosolids deliveries are exclusively contracted with Casella Organics.
  - Performance and emissions are guaranteed by equipment manufacturers.
    - Guarantees performance and emissions for process equipment.
    - Guarantees particulate, sulfur dioxide, ammonia, and odor emission reductions.
- **The SBS Facility will be built in three (3) phases over a period of five (5) years.**
  - Initial capacity is one-third of total projected capacity and air emissions.
  - Provides the opportunity to demonstrate actual emissions.
  - Provides the opportunity to ramp up slowly and adjust, if needed, prior to expanding.

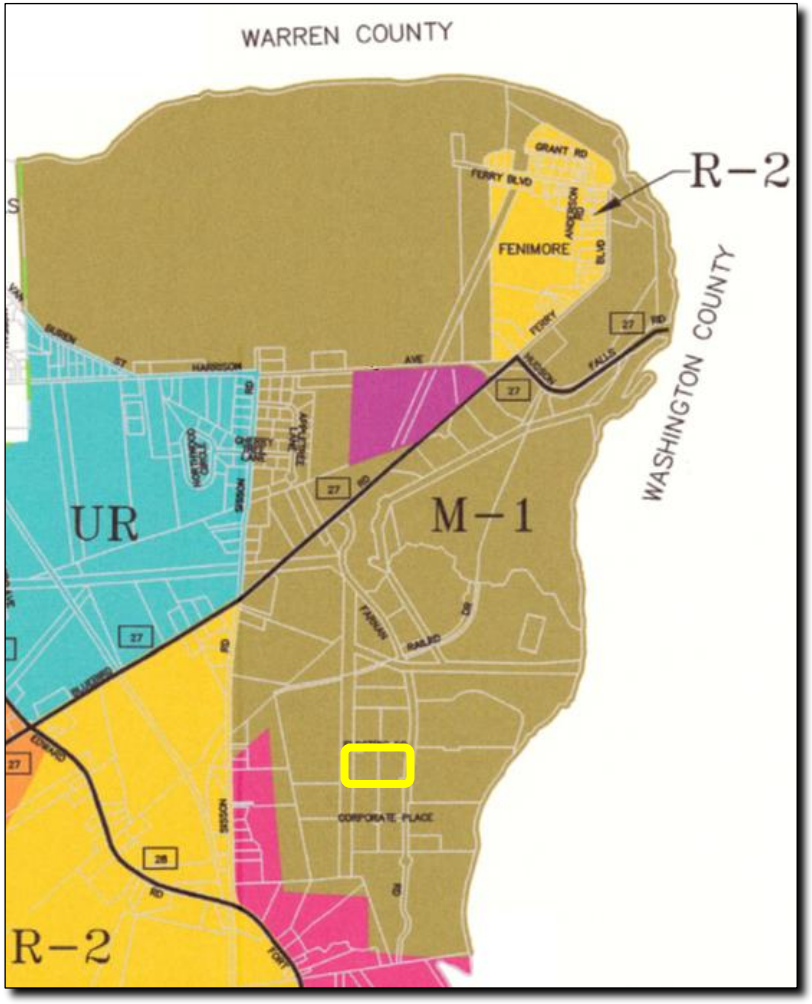
Proposed Facility Location

- **The SBS Facility is strategically located near the New York State Thruway.**
  - Numerous trucks use the artery to deliver biosolids to landfills, farms, composting facilities, and other disposal points throughout the entire state and beyond.
  - NYS Thruway has high weight limits that permit carrying up to 37 tons per load of biosolids.
  - Hundreds of trucks transporting biosolids pass by the facility location weekly.

New York State Thruway Map

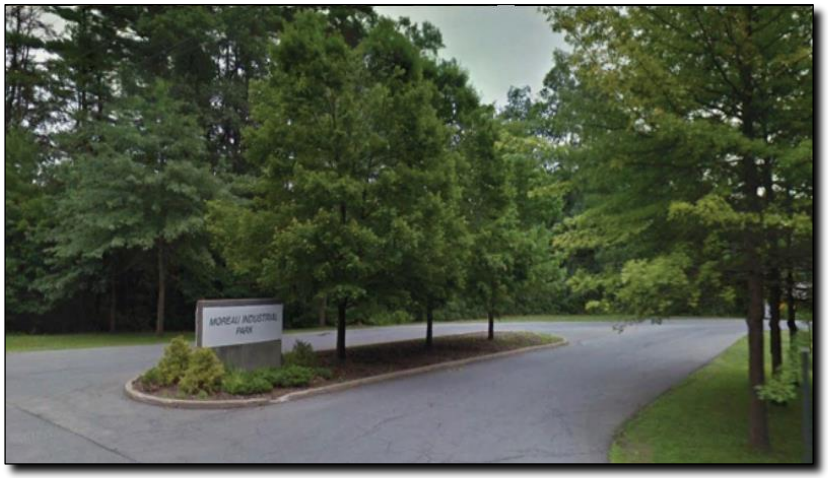
Site Zoning

- **Town of Moreau zoning is appropriate for the SBS Facility's intended use.**
  - Zoning: M-1
    General Manufacturing & Industrial
- **Moreau Industrial Park.**
  - Built over 20 years ago
  - SBS Facility will be the second tenant.
- **One (1) neighbor within 500 feet.**
  - Hexion, Inc. (i.e., the first tenant)
  - 64 Farnan Rd, South Glen Falls, NY
  - Manufactures specialty chemicals such as binders, adhesives, coatings and ink resins.

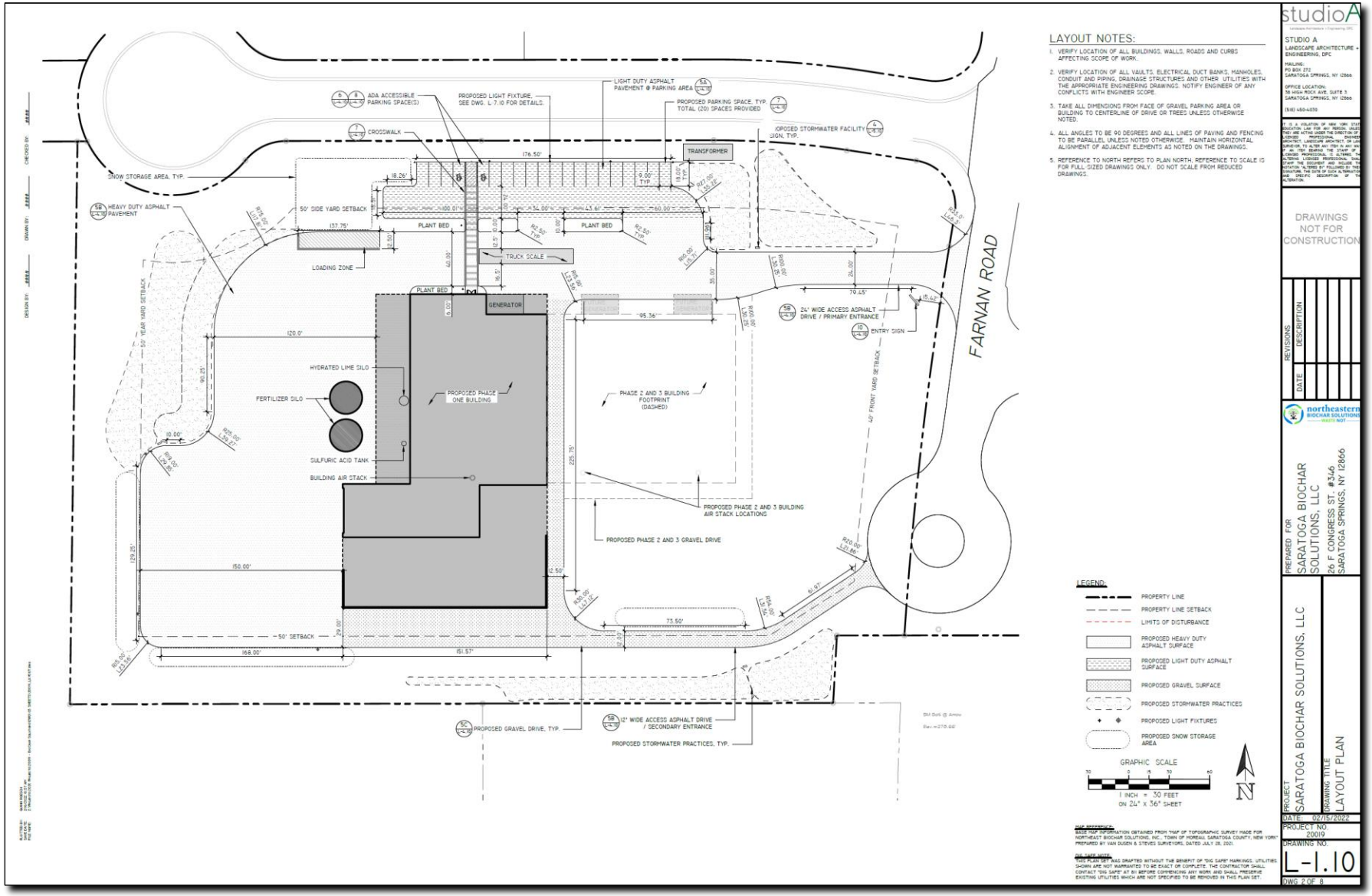


Site Overview

- **Executed purchase option, pending approvals, on 2 parcels in Moreau Industrial Park.**
  - Address: 2-6 Electric Drive, South Glens Falls, NY
  - Parcels: 50.-4-22 and 50.-4-16 (merging parcels).
  - Acres: 5.89
  - Utilities: Gas, Water, Electric, Sewer
    Existing utilities are run to property and sufficient for our full-expanded operations.

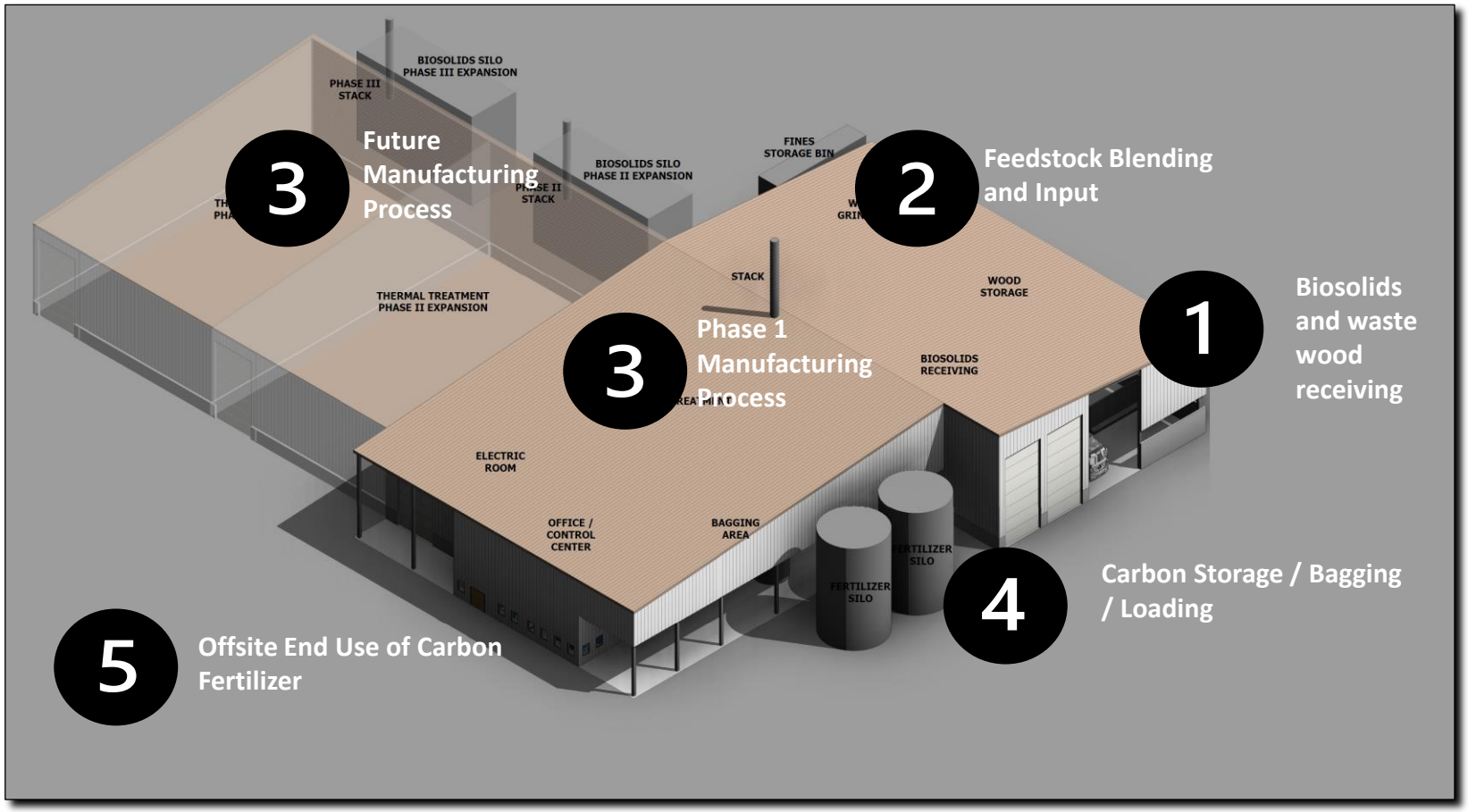


Site Plan

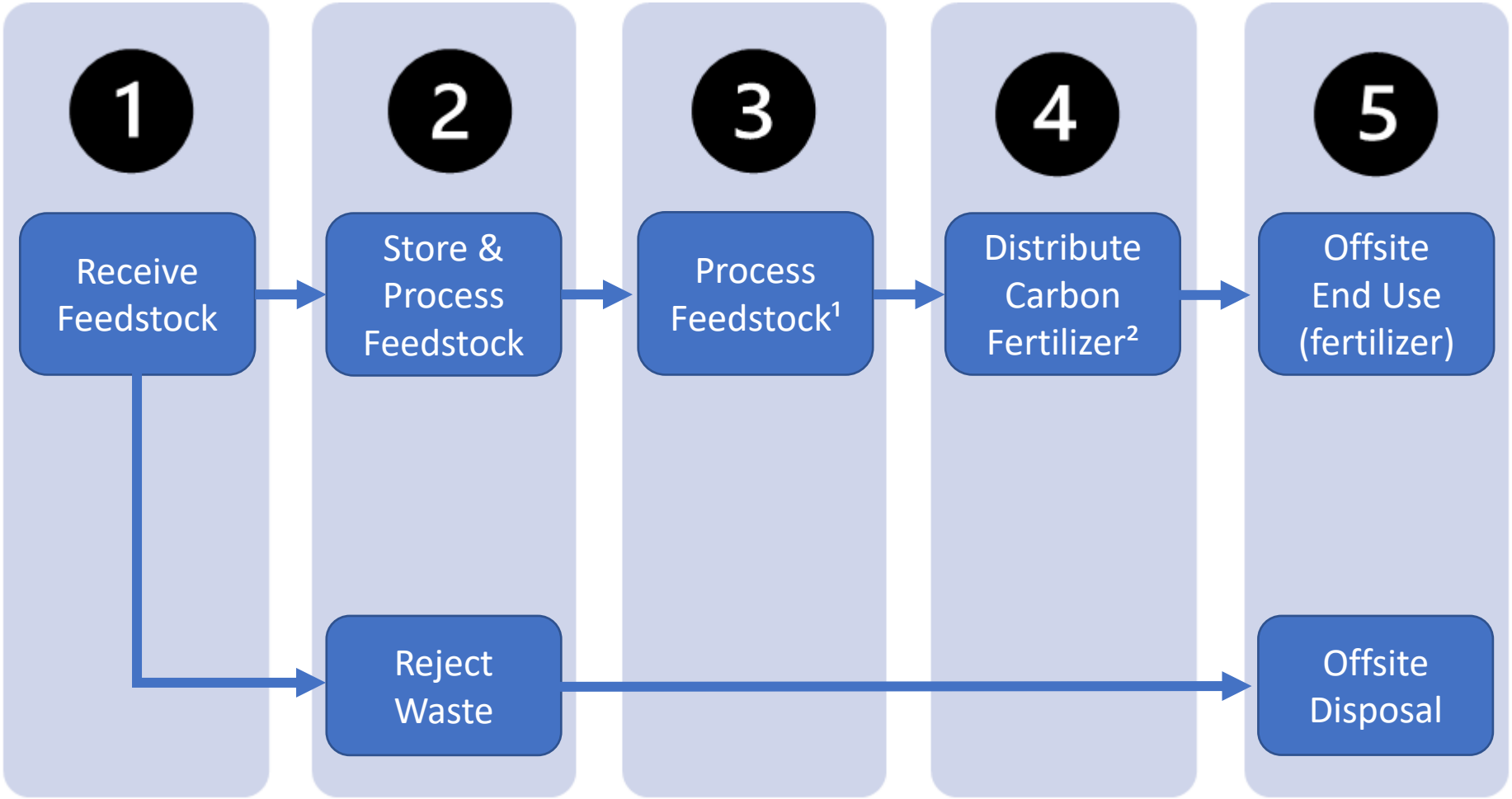

LAYOUT NOTES:
1. VERIFY LOCATION OF ALL BUILDINGS, WALLS, ROADS AND CURBS AFFECTING SCOPE OF WORK.
2. VERIFY LOCATION OF ALL VAULTS, ELECTRICAL DUCT BANKS, MANHOLES, CONDUIT AND PIPING, DRAINAGE STRUCTURES AND OTHER UTILITIES WITH THE APPROPRIATE ENGINEERING DRAWINGS. NOTIFY ENGINEER OF ANY CONFLICTS WITH ENGINEER SCOPE.
3. TAKE ALL DIMENSIONS FROM FACE OF GRAVEL PARKING AREA OR BUILDING TO CENTERLINE OF DRIVE OR TREES UNLESS OTHERWISE NOTED.
4. ALL ANGLES TO BE 90 DEGREES AND ALL LINES OF PAVING AND FENCING TO BE PARALLEL, UNLESS NOTED OTHERWISE. MAINTAIN HORIZONTAL ALIGNMENT OF ADJACENT ELEMENTS AS NOTED ON THE DRAWINGS.
5. REFERENCE TO NORTH REFERS TO PLAN NORTH. REFERENCE TO SCALE IS FOR FULL SIZED DRAWINGS ONLY. DO NOT SCALE FROM REDUCED DRAWINGS.
FARNAN ROAD
TRANSFORMER
GENERATOR
TRUCK SCALE
LOADING ZONE
PLANT BED
HYDRATED LIME SILO
FERTILIZER SILO
SULFURIC ACID TANK
BUILDING AIR STACK
PROPOSED PHASE ONE BUILDING
PHASE 2 AND 3 BUILDING FOOTPRINT (DASHED)
PROPOSED PHASE 2 AND 3 BUILDING AIR STACK LOCATIONS
PROPOSED PHASE 2 AND 3 GRAVEL DRIVE
ENTRY SIGN
24' WIDE ACCESS ASPHALT DRIVE / PRIMARY ENTRANCE
12' WIDE ACCESS ASPHALT DRIVE / SECONDARY ENTRANCE
PROPOSED GRAVEL DRIVE, TYP.
PROPOSED STORMWATER PRACTICES, TYP.
PROPOSED STORMWATER FACILITY
PROPOSED LIGHT FIXTURE
PROPOSED PARKING SPACE, TYP.
TOTAL (20) SPACES PROVIDED
ADA ACCESSIBLE PARKING SPACE(S)
CROSSWALK
LIGHT DUTY ASPHALT PAVEMENT @ PARKING AREA
HEAVY DUTY ASPHALT PAVEMENT
SNOW STORAGE AREA, TYP.
50' SIDE YARD SETBACK
50' REAR YARD SETBACK
40' FRONT YARD SETBACK
50' SETBACK
LEGEND:
PROPERTY LINE
PROPERTY LINE SETBACK
LIMITS OF DISTURBANCE
PROPOSED HEAVY DUTY ASPHALT SURFACE
PROPOSED LIGHT DUTY ASPHALT SURFACE
PROPOSED GRAVEL SURFACE
PROPOSED STORMWATER PRACTICES
PROPOSED LIGHT FIXTURES
PROPOSED SNOW STORAGE AREA
GRAPHIC SCALE
1 INCH = 30 FEET
ON 24" X 36" SHEET
N
studioA
STUDIO A
LANDSCAPE ARCHITECTURE + ENGINEERING, DPC
DRAWINGS NOT FOR CONSTRUCTION
REVISIONS
DESCRIPTION
DATE
PREPARED FOR
SARATOGA BIOCHAR SOLUTIONS, LLC
26 F CONGRESS ST. #346
SARATOGA SPRINGS, NY 12866
PROJECT
SARATOGA BIOCHAR SOLUTIONS, LLC
DRAWING TITLE
LAYOUT PLAN
DATE: 02/15/2022
PROJECT NO. 20019
DRAWING NO.
L-1.10
DWG. 2 OF 8

Building Design

- The building features a completely enclosed biosolids receiving and storage area, and manufacturing area, that are under purview of air treatment.
- Attached is a partially enclosed, covered wood/paper receiving, storage, and processing area, and an outdoor carbon storage, bagging, and loading area.



Facility Process Flowchart

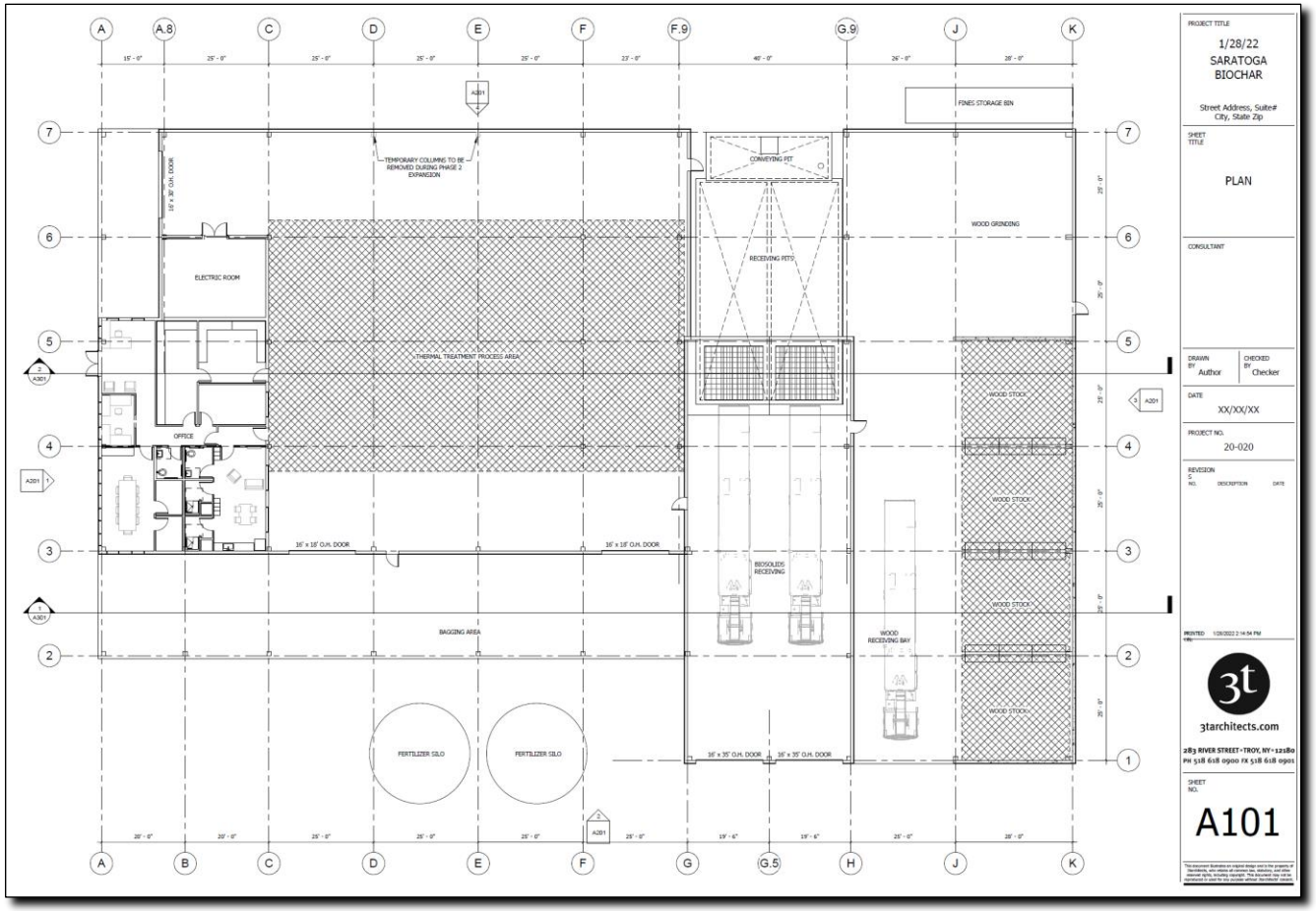


[1] Drying, pyrolysis, air treatment, sewer discharge.

[2] Storage, bagging, loading.

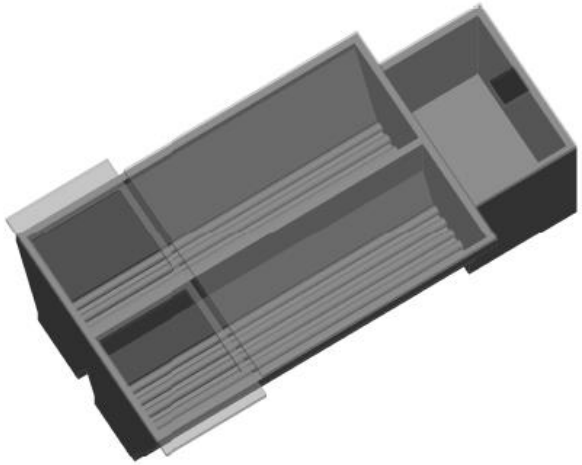
Phase 1 Design

- **Phase 1 establishes the infrastructure that benefits future expansion.**
  - 17,268sf of interior space and 13,870sf of covered outdoor areas.
  - Includes feedstock receiving, carbon handling, and supportive systems such as liquid nitrogen, hydrated lime and sulfuric acid that will service future expansions.



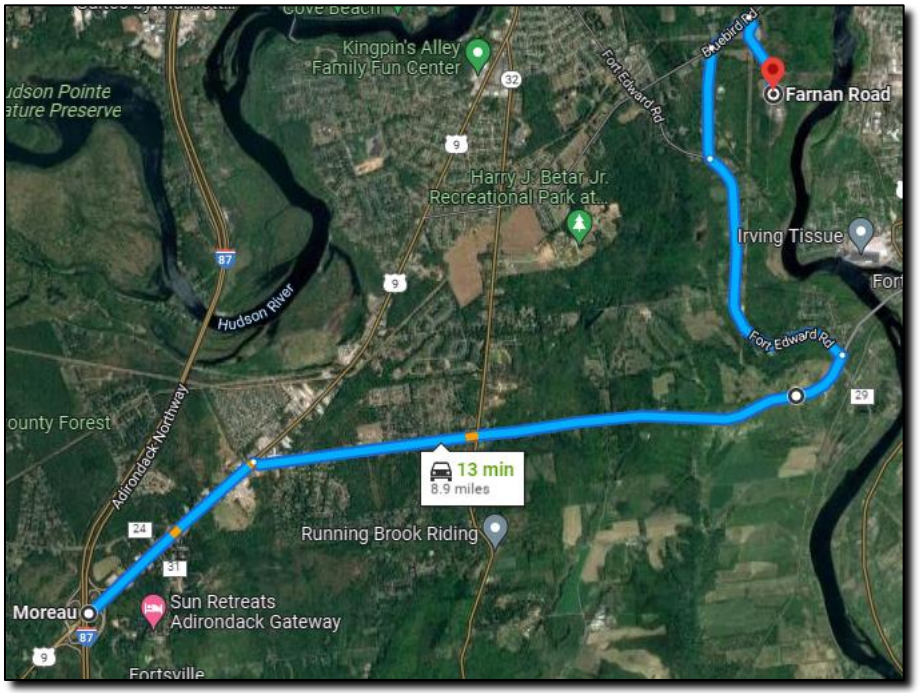
Specialized Building Design

- **SBS Facility is a specialized manufacturing facility that is custom-designed for receiving, storing, and processing biosolids.**
  - Many biosolids drying facilities are in downtown areas in U.S. cities.
  - Like any biosolids drying facility, the building is sculpted around odor management.
- **Biosolids receiving is handled indoors, under negative air pressure, to manage odors.**
  - Trucks back into one of two (2) 85’ long receiving bays until they bump the curb.
  - Hydraulic trailers then tip the biosolids into the receiving pits through a grate.
  - Screw conveyors on the bottom of the pit move the biosolids to the far end, through the wall, and into the conveyance area.
  - Biosolids receiving building and pits are under purview of air management system.



Traffic Route to Site

- **Traffic Type, Frequency, and Route.**
  - Truck traffic limited: 6:00 AM - 6:00 PM Monday – Saturday.
  - Up to 50 trucks per day. Less than GEIS screening threshold.
  - Standard over-the-road dump trailers with tight fitting tarps.
  - Biosolids transport is regulated by the NYS Department of Transportation.
  - All trucks shall follow established town truck route depicted in the map:
    1. I87 Exit 17N to Route 9 North.
    2. Route 197 (Reynolds Road) East
    3. Fort Edward Road North.
    4. Bluebird Road East.
    5. Arrive at Moreau Industrial Park



Facility Summary

Facility Daily Summary					
Inputs	**Phase 1**	**Phase 2**	**Phase 3**	**Total**	**Units**
Biosolids	240	240	240	720	TPD
Waste Wood	24	24	24	72	TPD
Natural Gas	119	119	119	356	MMBtu/d
Elecricity	15,261	12,006	12,006	39,274	kWh/d
Sulfuric Acid	864	864	864	2,593	lb/d
Hydrated Lime	2,336	2,336	2,336	7,009	lb/d
Water	10,986	9,546	9,546	30,079	GPD
Outputs	**Phase 1**	**Phase 2**	**Phase 3**	**Total**	**Units**
Carbon Fertilizer	26.4	26.4	26.4	79.2	TPD
Wastewater	10,139	9,659	9,659	29,456	GPD

Facility Hourly Summary					
Inputs	**Phase 1**	**Phase 2**	**Phase 3**	**Total**	**Units**
Biosolids	10	10	10	30	TPH
Waste Wood	1	1	1	3	TPH
Natural Gas	5	5	5	15	MMBtu/h
Elecricity	636	500	500	1,636	kWh
Sulfuric Acid	36	36	36	108	lb/h
Hydrated Lime	97	97	97	292	lb/h
Water	458	398	398	1,253	GPH
Outputs	**Phase 1**	**Phase 2**	**Phase 3**	**Total**	**Units**
Carbon Fertilizer	1.1	1.1	1.1	3.3	TPH
Wastewater	422	402	402	1,227	GPH

Essential Green Infrastructure

- **We provide an "essential service" that alleviates a growing problem the right way.**
  - Biosolids disposal is a major source of GHG emissions and a material cost to New Yorkers.
  - The biosolids disposal problem in NY is getting worse despite throwing money at it.
  - We provide a "beneficial use" of biosolids that destroys PFAS and other contaminants.
  - We solve a costly problem that county and governments have with biosolids disposal.
- **We provide an "essential substitute" for harmful chemical fertilizers.**
  - Chemical fertilizers erode soil carbon and reduce the soil's ability to retain water and nutrients.
  - Nutrient runoff pollutes waterways and creates "dead zones" that devastate aquatic habitats.
  - Carbon Fertilizer™ restores soil with organic matter and carbon to reduce fertilizer loss/use.
  - Carbon Fertilizer™ is produced domestically which is needed now more than ever.
- **We provide an "essential GHG reduction."**
  - We replace heavy GHG emitters (i.e., other disposal methods and fertilizer manufacturers).
  - We produce Carbon Fertilizer™ which sequesters its weight in GHG emissions in soil.

Our Team

- **Raymond Apy – Chief Executive Officer**
  - Experienced CEO, entrepreneur, strategist, leader, talent and business developer.
  - 30+ years of business experience (engineering, sales, and management).
  - 15+ years in business management roles (President, CEO, Managing Partner).
  - Masters of Science - Environmental Science, Solid & Hazardous waste engineering, GIS, law and policy - Syracuse University/State University of NY.
- **Bryce Meeker – President**
  - 15+ years experience in renewable energy development and management.
  - 5+ years experience in carbon manufacturing.
  - Private equity, investment banking, and strategic consulting background.
  - Masters of International Business – Tufts University, Fletcher School.
- **Lee Wulfekuhle – Chief Operating Officer**
  - Recently sold Wulfekuhle Injection & Pumping, Inc. to pursue ECHV.
  - 25+ years operating experience with liming and spreading bio-waste in Midwest.
  - 20+ years experience contracting with wastewater treatment plants (WWTPs).
  - 1-1/133 RD Infantry in Dubuque, IA (10-years).