PLANNING & ZONING COMMISSION

ROBERT C. WHEATLEY, CHAIRMAN KIM HOEY STEVENSON, VICE-CHAIRMAN R. KELLER HOPKINS J. BRUCE MEARS HOLLY J. WINGATE





sussexcountyde.gov 302-855-7878 T 302-854-5079 F JAMIE WHITEHOUSE, AICP, MRTPI DIRECTOR

PLANNING AND ZONING AND COUNTY COUNCIL INFORMATION SHEET Planning Commission Public Hearing Date February 11th, 2020.

Application: CU 2258 Bioenergy Development Group, LLC

Applicant: Bioenergy Development Group, LLC

50 State Circle

Annapolis, MD 21401

Owner: BDG DE LLC

50 State Circle

Annapolis, MD 21401

Site Location: Lying on the west side of Seaford Road (Route 13A), approximately 0.2

mile north of Oneals Road (S.C.R. 485)

Current Zoning: AR-1 Agricultural Residential Zoning District

Proposed Use: Amend CU 1314 (as amended by CU's 1691 and 1692) to permit the

processing and handling of poultry litter to include nutrient recovery for

natural gas and electrical generation

Comprehensive Land

Use Plan Reference: Industrial

Councilmatic

District: Mr. Vincent

School District: Seaford School District

Fire District: Blades Fire District

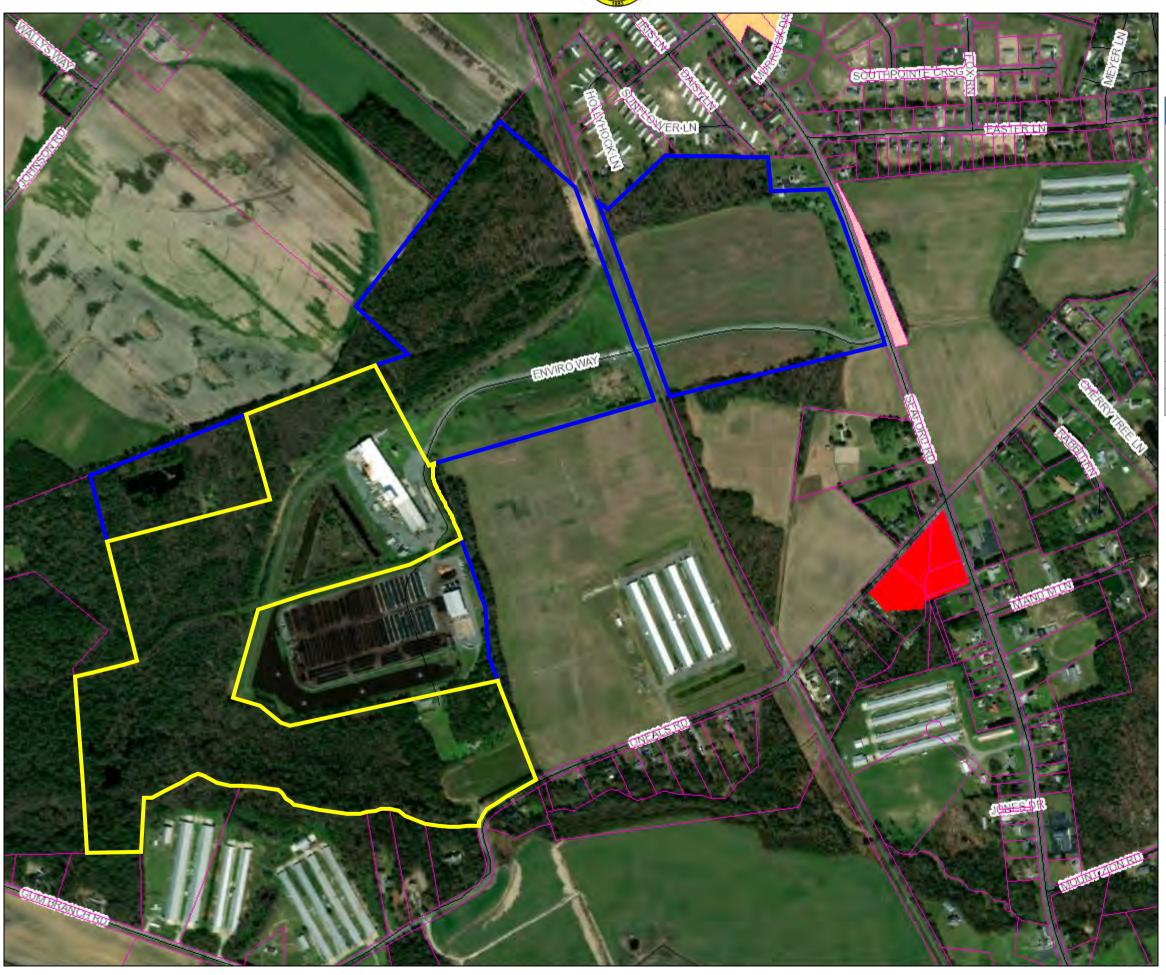
Sewer: Private, On-Site

Water: Private, On-Site

Site Area: 228.88 acres +/-

Tax Map ID.: 132-6.00-88.01, 95.00 & 132-11.00-41.00, 41.02





PIN:	132-11.00-41.00
Owner Name	BDG DE LLC
Book	5195
Mailing Address	50 STATE CIR
City	ANNAPOLIS
State	MD
Description	NW/RT 487
Description 2	1555'NE/RT 487 SW/50
Description 3	EASEMENT ENVIRO WAY
Land Code	

polygonLayer

Override 1

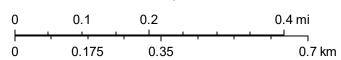
polygonLayer

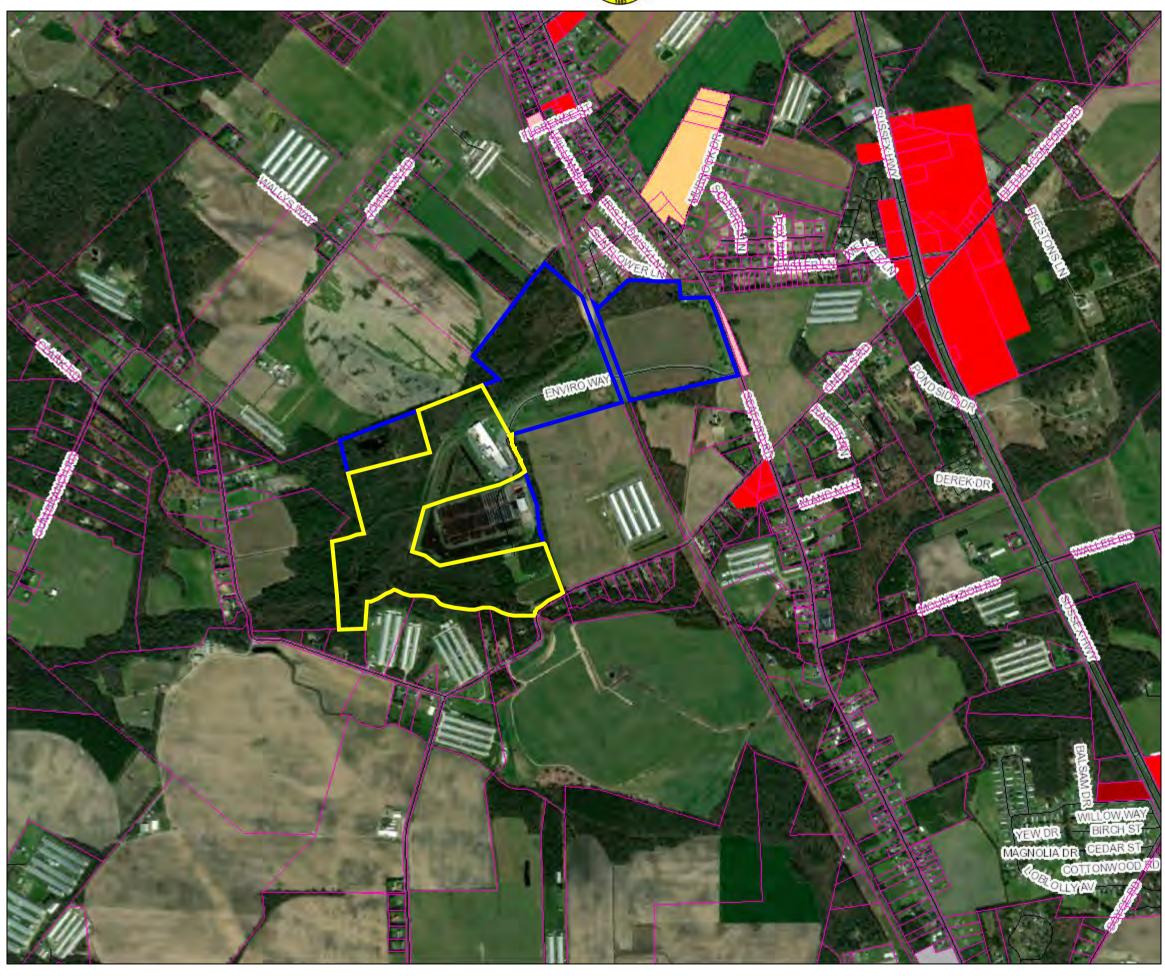
Override 1

Tax Parcels

Streets

1:9,028





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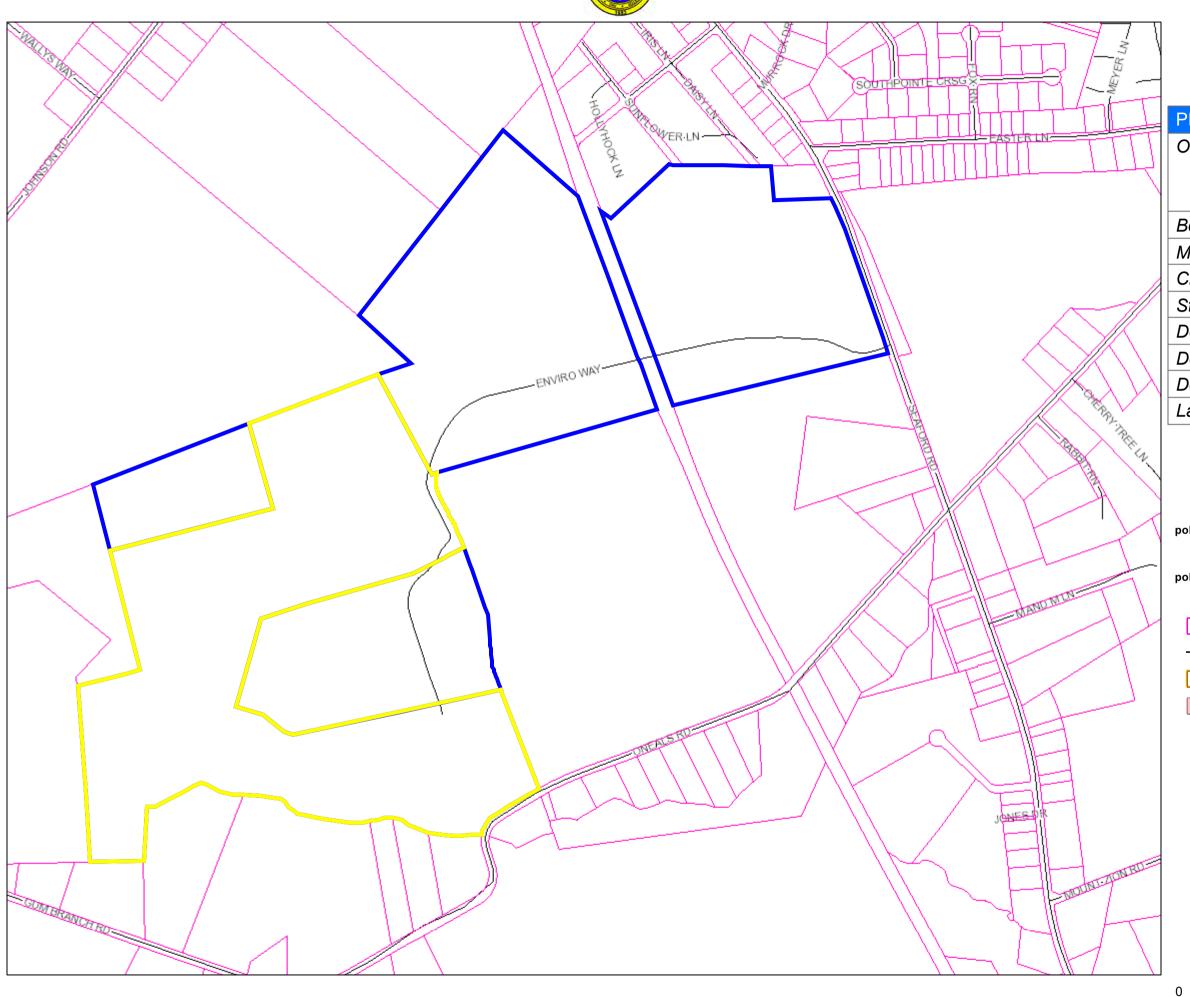
Tax Parcels

Streets

1:18,056 0.45

0.9 mi 0.225 0.35 1.4 km 0.7

Sussex County



PIN:	132-11.00-41.00
Owner Name	BDG DE LLC
Book	5195
Mailing Address	50 STATE CIR
City	ANNAPOLIS
State	MD
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polygonLayer

Override 1

polygonLayer

Override 1

Tax Parcels

Streets

County Boundaries

Municipal Boundaries

1:9,028

0.1 0.2 0.4 mi 0.175 0.35 0.7 km

JAMIE WHITEHOUSE, AICP MRTPI

PLANNING & ZONING DIRECTOR (302) 855-7878 T (302) 854-5079 F jamie.whitehouse@sussexcountyde.gov





DELAWARE sussexcountyde.gov

Memorandum

To: Sussex County Planning Commission Members

From: Christin Scott, Planner I

CC: Vince Robertson, Assistant County Attorney and applicant

Date: February 5, 2021

RE: Staff Analysis for CU 2258 Bioenergy Development Group, LLC

This memo is to provide background and analysis for the Planning Commission to consider as a part of application CU 2258 Bioenergy Development Group, LLC to be reviewed during the February 11, 2021 Planning Commission Meeting. This analysis should be included in the record of this application and is subject to comments and information that may be presented during the public hearing.

The request is for a Conditional Use for Tax Parcels 132-6.00-88.01, 95.00 & 132-11.00-41.00, 41.02 to amend CU 1314 (as amended by CU's 1691 and 1692) to permit the processing and handling of poultry litter to include nutrient recovery for natural gas and electrical generation to be located at 28338 Enviro Way, Seaford. The parcels are located on the west side of Seaford Rd. (Rt. 13A), approximately 0.2 mile north of Oneals Rd. (S.C.R. 485). Each separate parcel combines for a total acreage of 228.88 acres +/-. the Applicant has submitted a Conceptual Site Plan showing the additional buildings and structures associated with the proposed use, and the floor areas associated with the additional buildings. The existing floor area of 69,120 sf. is proposed to be increased to 72,620 sf.

There are 3 related Conditional Use Applications for the parcels, CU 1314, CU 1691 & CU 1692. CU 1314 requested a micro-nutrient plant for poultry litter and was approved by the Sussex County Council on December 21, 1999 through Ordinance No. 1354. CU 1691 was a request to amend CU 1314 to a micro-nutrient plant with related truck entrance and rail spur for the processing and handling of poultry litter and was approved by the Sussex County Council on July 25, 2006 through Ordinance No. 1865. CU 1692 was a request to amend the conditions of approval of CU 1691 and CU 1314 and was approved by the Sussex County Council on August 1, 2006 through Ordinance No. 1866.

The 2018 Sussex County Comprehensive Plan Update (Comprehensive Plan) provides a framework of how land is to be developed. As part of the Comprehensive Plan, a Future Land Use Map is included to help determine how land should be zoned to ensure responsible development. The Future Land Use map in the plan indicates that the parcels have a designation of "Industrial." The surrounding and adjacent properties located to the north, south, east, and west of the subject properties lie within the "Low Density" Future Land Use Map designation.

As outlined within the 2018 Sussex County Comprehensive Plan, Industrial Areas are lands devoted to concentrations of larger industrial uses including heavier industry, light industry, warehousing, and flex space. Appropriate development in these areas could take the form of conventional



Staff Analysis CU 2258 Bioenergy Development Group, LLC Planning and Zoning Commission for February 11, 2021

industrial parks or planned business parks with a unified design that incorporate a combination of light industry and other business uses. Large, more intensive stand-alone industrial uses should also be directed to these areas.

The subject properties are zoned Agricultural Residential (AR-1). The adjoining parcels to the north, south, east and west are all zoned Agricultural Residential (AR-1). The properties to the south along Seaford Rd. (Rt. 13A) are zoned General Commercial (C-1).

Since 2011, there has been one additional Conditional Use application, as well as the applications mentioned above, within a 1-mile radius of the application site. Conditional Use No. 1940 to allow for a physical training studio and gym. This application was approved by the Sussex County Council on September 11, 2012 through Ordinance No. 2276-A

Based on the analysis of the land use, surrounding zoning and uses, the Conditional use to amend CU 1314 (as amended by CU's 1691 and 1692) to permit the processing and handling of poultry litter to include nutrient recovery for natural gas and electrical generation, subject to considerations of scale and impact, could be considered as being consistent with the land use, area zoning and surrounding uses.

File	#:				
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Planning & Zoning Commission Application Sussex County, Delaware

Sussex County Planning & Zoning Department 2 The Circle (P.O. Box 417) Georgetown, DE 19947 302-855-7878 ph. 302-854-5079 fax

Type of Application: (please check ap	plicable)					
Conditional Use 👱						
Zoning Map Amendment						
Site Address of Conditional Use/Zoning Map Amendment						
TM No.132-6.00-88.01 and 95.00 and 132-11.00-41.00 and 41.02						
Type of Conditional Use Requested: Amend CU 1314 (as amended by CUs 1691 a include nutrient recovery for natural gas and e	nd 1962) to permit the eletrical generation	e processing and handling of poultry litter to				
Tax Map #: See above		Size of Parcel(s): 228.88 a. +/-				
Current Zoning: AR-1 Propose	d Zoning: CU	Size of Building:				
Land Use Classification: Industrial						
Water Provider: on site	Sewe	er Provider: on site				
Applicant Information						
Applicant Name: Bioenery Development G	roup, LLC					
Applicant Address: 50 State Circle						
	State: MD	ZipCode: <u>21401</u>				
Phone #:						
Owner Information						
Owner Name: BDG DE LLC						
Owner Address: same as above						
City:	State:	Zip Code:				
Phone #:						
Agent/Attorney/Engineer Information	1					
Agent/Attorney/Engineer Name: Den	nis L. Schrader					
Agent/Attorney/Engineer Address: P.C	D. Box 690					
City: Georgetown	State: <u>DE</u>	Zip Code: <u>19947</u>				
Phone #:(302) 856-0010	E-mail: dschrader@morrisjames.com					





Check List for Sussex County Planning & Zoning Applications

The following shall be submitted with the application

e Site Plan or Survey of the property e location of existing or proposed building(s), building setbacks, ed entrance location, etc. s (may be e-mailed to a staff member) otion
ation for the Commission/Council to consider (ex. os, exhibit books, etc.) If provided submit 8 copies and they of ten (10) days prior to the Planning Commission meeting.
Notice will be sent to property owners within 200 feet of the will come out to the subject site, take photos and place a sign nd time of the Public Hearings for the application.
ion Request Response
uired)
forms, exhibits, and statements contained in any papers or on are true and correct.
If shall attend all public hearing before the Planning and y Council and any other hearing necessary for this application e best of my ability to respond to the present and future ence, order, prosperity, and general welfare of the inhabitants
Date: 17.27.20
Date:
Fee: \$500.00 Check #:Application & Case #:
Recommendation of PC Commission: Decision of CC:



STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

JENNIFER COHAN SECRETARY

January 16, 2020

Ms. Janelle Cornwell, Director Sussex County Planning & Zoning P.O. Box 417 Georgetown, DE 19947

Dear Ms. Cornwell:

The Department has completed its review of a Service Level Evaluation Request for the **Bioenergy Development Group, LLC** conditional use application, which we received on December 17, 2019. This application is for an approximately 198.48-acre assemblage of parcels (Tax Parcels: 132-6.00-88.01, 132-6.00-95.00 & 132-11.00-41.00). The subject land is located on the north side of Oneals Road (Sussex Road 485) and west of Seaford Road (Sussex Road 13), approximately 350 feet southwest of the intersection of Seaford Road and Easter Hill Road (Sussex Road 485A), south of the City of Seaford. The subject land is currently zoned AR-1 (Agricultural Residential) and the applicant is seeking a conditional use approval.

Per the 2018 Delaware Vehicle Volume Summary, the annual average daily traffic volume along the segment of Seaford Road where the subject land is located, which is from the south Blades limits to the north Laurel limits, is 5,960 vehicles per day. As the subject land also has frontage along Oneals Road, the annual average daily traffic volume along that road segment is 1,937 vehicles per day.

Our volume-based criteria for requiring a traffic impact study (TIS), addressed in Section 2.2.2.1 of the <u>Development Coordination Manual</u>, are that a development generates more than 500 trips per day or 50 trips during a weekly peak hour. While it seems that the above criteria could be met, we presently cannot predict the site's trip generation with enough accuracy to make a TIS useful. Thus, we recommend that this rezoning application be considered without a TIS and that the need for a TIS be evaluated when a subdivision or land development plan is proposed.

If the County approves this application, the applicant should be reminded that DelDOT requires compliance with State regulations regarding plan approvals and entrance permits, whether or not a TIS is required.



Ms. Janelle M. Cornwell Page 2 of 2 January 16, 2020

Please contact Mr. Claudy Joinville, at (302) 760-2124, if you have questions concerning this correspondence.

Sincerely,

T. William Brockenbrough, Jr.

J. William Broslowbrough, f

County Coordinator

Development Coordination

TWB:cjm

cc: Constance C. Holland, Coordinator, Cabinet Committee on State Planning Issues Jamie Whitehouse, Planning & Zoning Manager, Sussex County Planning & Zoning Bioenergy Development Group, LLC, Applicant J. Marc Coté, Assistant Director, Development Coordination Gemez Norwood, South District Public Works Manager, Maintenance and Operations Susanne Laws, Sussex County Subdivision Coordinator, Development Coordination Derek Sapp, Subdivision Manager, Development Coordination Kevin Hickman, Subdivision Manager, Development Coordination Brian Yates, Subdivision Manager, Development Coordination

John Andrescavage, Subdivision Manager, Development Coordination James Argo, South District Project Reviewer, Maintenance & Operations Troy Brestel, Project Engineer, Development Coordination

Claudy Joinville, Project Engineer, Development Coordination



April 10, 2020

Duffield Associates, Inc. 1060 South Governors Ave., Suite 101 Dover, DE 19904 Phone: 302.674.9280

Fax: 302.674.1099 duffnet.com

Via Electronic Mail

Mr. Jamie Whitehouse, AICP, MRTPI Director, Department of Planning & Zoning Sussex County 2 The Circle, P.O. Box 417 Georgetown, DE 19947

RE: Bioenergy Development Group Anaerobic Digester and Related Site Improvements 28338 Enviro Way, Seaford, Delaware 19973

Dear Mr. Whitehouse:

On behalf of our client BioEnergy Development Group (BDG), attached please find a preliminary site plan submission for the subject project. We are requesting review of the preliminary site plan at the next available Planning and Zoning Commission meeting. Representatives of BDG and Duffield Associates, Inc. (Duffield) will be in attendance to provide statements and answer questions that you or the Commission may have. Please include the following project summary in your review and provide a copy to the Commission with the preliminary site plan. Our team, along with BDG, has participated in several meetings with various regulatory agencies in order to understand the full scope of permits required for this project. Those permits or approvals are noted in *italics* below.

PROJECT SUMMARY

BDG currently owns and operates an existing composting operation, formerly known as Perdue AgriRecycle, located at 28338 Enviro Way, Seaford, DE 19973 which sits on approximately 220 acres in Sussex County, DE. The existing composting operation is permitted to process a combined 30,000 tons per year of Dissolved Air Floatation wastes (DAF), hatchery and poultry litter, producing and selling approximately 15,000 tons of organic compost per year.

The location was also the site of a poultry litter pelletizing plant operated by Perdue and originally permitted to take in 110,000 tons of poultry waste materials. Perdue had ceased pelletizing operations prior to acquisition of the site by BDG.

Using the former pelletizing plant and its existing operations building as well as surrounding supportive infrastructure, BDG is developing a poultry industry centric anaerobic digester (AD) which will process up to 200,000 metric tons per year of poultry DAF and additional poultry industry waste (generated by Perdue and other industry companies). The AD will produce approximately 430,000 MMBtus per year of clean, renewable natural gas (RNG). The RNG will be sold and injected on-site into the natural gas pipeline distribution system displacing an equal amount of fossil fuel derived natural gas. Chesapeake Utilities Corporation is currently envisioned as BDG's partner regarding RNG.

RE: Project Number 12393.ED

April 10, 2020

Page 2



Anaerobic digesters produce a biogas which is rich in methane (CH₄) that will be cleaned and upgraded to pipeline natural gas quality standards and used as clean and sustainable RNG. The biogas contaminants removed during the cleaning and upgrading process include moisture, particulates, oils, volatile organic compounds (VOC), carbon dioxide (CO₂), and hydrogen sulfide (H₂S). The moisture removed is collected and processed with other process wastewater through an on-site wastewater pre-treatment plant for discharge. Particulates, oils, some of the VOCs and H₂S are trapped in an activated carbon media in an enclosed vessel. Once trapped, there is no potential release of these contaminants. Media is replaced as needed when saturated and the contaminated media is taken to a landfill for disposal and is considered a non-hazardous waste. The remaining VOCs are destroyed with a small amount of unrecovered methane in a tail gas from the treatment system, which is either thermally oxidized or burned in the flare. CO₂ is recovered for sale as a coproduct.

In addition to RNG, the AD Facility will recover: 1) approximately 90 million cubic feet per year of carbon dioxide (CO₂) that will be made available to the commercial market for sale; and 2) 31,000 tons per year of a nutrient rich solids digestate. The digestate, a class A Compost in its own right, will be incorporated within the facility's current and ongoing compost process creating an organically rich and natural soil amendment. BDG is also expecting to increase the amount of material composted on site beyond the current permitted limit of 30,000 tons of varied materials.

State and Local Economic Impact – The existing compost facility currently employs 12 people with responsibilities that range from: mechanic to pile turner to environmental manager. The anaerobic digestor at completion is envisioned to expand our staffing needs to approximately 50 individuals from the community with jobs that range from engineering and operation to trucking, maintenance and operations.

Additionally, the site will become a learning center focused on the agricultural jobs of the future. BDG plans to partner with University of Delaware both in extending current relationships at the Carvel campus as well as extending their reach to bring research staff to the facility on specific projects of interest of the agricultural community. And as a long-term community resident, BDG also plans to extend this academic exchange to include work with the Delaware Technical Community College and high schools in the area.

In terms of direct expense, a shovel ready project such as proposed for this facility has a budget of of over \$25 million. Roughly half of this budget is directed at local trades from construction to concrete, fencing to project design.

Traffic – As part of the development of the existing operation, the site entrance was designed to accommodate 82 vehicles per day entering and exiting the facility. A Service Level Evaluation has been prepared by DelDOT and provided to Sussex County on January 16, 2020. We believe that existing trip allowances are sufficient to accommodate the needs of the new project; therefore, we will be working with *DelDOT to obtain a Letter of No Objection or Contention*.

Wastewater – Sanitary wastewater is currently treated and discharged using an existing on-site wastewater system. Moving forward up to approximately 37.5 million gallons per year of process

RE: Project Number 12393.ED

April 10, 2020

Page 3



wastewater will be generated directly by the AD process and supporting facilities. Process wastewater will be collected and refined using on-site pretreatment system, then, based on water balance and discharge limits, incorporated into Sussex County's wastewater collection system. Initial and very positive discussions are ongoing with the County to create a new sewer district that will include a pumping station and force main to transmit wastewater to the Blades Sanitary Sewer District and subsequently to the City of Seaford for final treatment and discharge. As part of this process, we will work with the County and DNREC to obtain an *Approval for the Construction of a Wastewater Conveyance System*.

Water Supply – Process and potable water for the facility is currently provided by an on-site water supply well. Future water needs associated with the AD process are currently under evaluation and may require, though not envisioned, the facility to seek approvals from DNREC for additional on-site well(s).

Air Permitting and Odor Mitigation – The Facility has a current air permit with the State of Delaware, APC-2016/0093. This *air permit will be modified and updated* to incorporate new potential point sources of air emissions from three and possibly a fourth optional source:

- 1) A new flare which burns the biogas when the biogas upgrade system is not available due to repairs and maintenance. The flare is expected to operate no more than 900 hours each year.
- 2) A natural gas fired, boiler to provide thermal energy for process heat in the Facility to heat materials within the digester. The boiler will utilize appropriate air pollution control technology.
- 3) Thermal oxidizer for destruction of tail gas.
- 4) An optional combined heat and power system capable of producing about 2 MW of electricity may be added to the facility during early design but is not likely.

Potential Odor issues will be mitigated through controlled handling of feedstock materials. Solid feedstock materials for the AD will be delivered to, and transferred within, the existing operations building, which is a closed, negative pressure space that utilizes biofilters for removal of noxious odors. Solid materials will be piped into the AD from inside the operations building. Liquid materials will be transferred via a closed piping system located outside the building.

New AD storage and process tankage – Upgrades to the facility will include new above ground process and storage tanks associated with the AD. All tanks are closed and covered vessels, the area around the AD tankage will be a stone surface:

- 1) One equalization tank designed to hold 165,000 170,000 gallons of DAF slurry, (11 13% solids and 87 89% water);
- 2) Four anaerobic digester tanks each designed to hold approximately 1.3 million gallons of the same mixture of DAF sludge and water;

RE: Project Number 12393.ED

April 10, 2020

Page 4



- 3) Two secondary fermentation tanks also each designed to hold approximately 1.3 million gallons of a mixture of 6% digested solids and water;
- 4) One fixed roof biogas tank with approximately 500,000 cubic feet of biogas storage capacity.

We are working to obtain a Resource Recovery Facility Permit from DNREC for the AD.

Pressure vessels – Besides the boiler used for process heating, no other pressure rated vessels are anticipated in the design and construction of the Facility.

On-site chemicals – Minimal chemical storage totaling less than 10,000 gallons is required on site and will consist primarily of boiler and water treatment chemicals and small amounts of oils and lubricating grease for equipment.

Other construction or paving – The existing building has been unused for some time and requires some normal maintenance. BDG plans to renovate the both exterior skin and roof. Planned renovations inside the building are related to installation of equipment, structures, piping and other supported infrastructure needed to process feed stocks and products in a manner similar to the former pelletizing facility.

Outside of the building, total land disturbance including grading and paving is estimated to be from 5 to 10 acres based on the anticipated site layout; however, a large portion of the disturbed area associated with the current project will be related to modifications to existing disturbed lands. This will include paving an approximate 1,500-foot length of the existing entrance road, reducing the potential generation of dust and insuring efficient and safe traffic flow. Minor grading operations are contemplated near the existing site entrance to create a reception area including visitor parking and a small security office. Larger grading operations will occur west of the operations building, where the AD process equipment, piping and tankage will be constructed. In addition, existing stormwater management ponds will be modified and relocated in this area.

Other planned improvements include installation of new security fencing, new landscaping, and new signage at the site entrance. No lighting improvements are planned at this time.

Stormwater Management – A NPDES general permit for industrial stormwater is in place for the composting operation and BDG has submitted a Notice of Intent to implement system enhancements. BDG is prepared to implement plans previously developed by Perdue, through its consultant McCrone, and approved by DNREC to make modifications to the outlet structure of the stormwater facility that serves the composting operation. Aerators, per the approved plan, will be installed in the stormwater pond to facilitate evaporation and enhance storage capacity with the goal of minimizing surface water discharges.

New construction/land disturbance amounts will determine what, if any, additional stormwater infrastructure may be needed to meet regulatory requirements. Existing stormwater management facilities located west of the existing building and new AD tankage will be relocated and enlarged.

RE: Project Number 12393.ED

April 10, 2020

Page 5



These improvements will require a *Detailed Sediment and Stormwater Management Plan permit* from the Sussex Conservation District.

In addition to improvements in our current storm water management program, BDG will incorporate best management practices (BMPs) when using available land owned by the facility. This could include, but not be limited to:

- Assuring nutrient management plans are developed and implemented for tilled acreage.
- Identifying opportunities for creation of buffer areas to water/wetland features on site.
- Planting winter cover crops where practicable.
- Utilizing native vegetation in plantings.

Beyond any BMPs implemented on-site, the process of anaerobic digestion and associated pasteurization will remove pathogens from soil amendments produced from the facility site. Ultimately, the processing of waste streams from state and regional poultry operations will reduce the amount of DAF wastes, poultry litter, and associated nutrients that have historically been land applied in Delaware and surrounding states.

Wetlands – Wetlands are located on the property, but are not located within the areas where construction will occur. We will provide confirmation of no impact to wetlands as part of our final site plan submission.

Federal Permits – No federal permits are anticipated and no federal funding or grants are required for the construction and operations of the Facility. Any federal permitting associated with installation of the natural gas pipeline to the facility will be led by and coordinated by Chesapeake Utilities Corporation

We trust this information is adequate for your review and look forward to your working with your office on this project. Please do not hesitate to contact us at (302) 239-6634 if you have any additional questions or require additional information.

Sincerely,

DUFFIELD ASSOCIATES, INC.

Stephen J. Gorski, P.E. Senior Project Manager

Stephen J Gorski

Semoi i roject ivianagei

MEF/SCH:

12393ED.0420-Environmental Request Letter.COR



SUPPORT EXHIBIT

DEPARTMENT OF AGRICULTURE

2320 SOUTH DUPONT HIGHWAY DOVER, DELAWARE 19901 AGRICULTURE, DELAWARE, GOV TELEPHONE: (302) 698-4500 TOLL FREE: (800) 282-8685

FAX: (302) 697-6287

SECRETARY
KENNETH M. BOUNDS
DEPUTY SECRETARY

MICHAEL T. Scuse

February 2, 2021

Robert C. Wheatley, Chairman Sussex County Planning and Zoning Commission 2 The Circle Georgetown, DE 19947

Dear Chairman Wheatley,

On behalf of the Delaware Department of Agriculture, I am pleased to provide a letter of support for the proposed organics recycling project by Bioenergy DevCo (BDC) at the former Perdue AgrirRcycle facility. Bioenergy's proposal is in perfect alignment with the Department's mission to promote the viability of food, fiber, and agricultural industries in Delaware through quality services that protect the general public's health and welfare and enhance the environment, health, and welfare of the general public. This project provides a sustainable solution for organic waste produced by the poultry industry, Delaware's most significant agricultural sector.

Delaware's poultry industry supports more than 20,000 jobs, directly and indirectly, while generating a \$3.5 billion economic impact to our state. Ranked first in the nation, Sussex County produces more than 200 million broilers per year. Growing and processing broilers at this scale result in a significant amount of poultry litter and DAF sludge. The selection by BDC to locate their project in Sussex County is vital. Their commitment to investing more than \$40 million in repurposing and upgrading the former Perdue AgriRecycle facility will create a state-of-the-art facility dedicated to sustainable nutrient management, renewable energy, healthy soil products, and the creation of jobs for our residents.

The BDC project represents an opportunity to help transition the poultry industry to a more sustainable future. This project will recycle organic poultry waste and convert it into fossil-free biogas through proven anaerobic digestion technology used on farms across the United States. This biogas will then be cleaned and processed into pipeline-quality renewable natural gas and delivered to Delawareans through a partnership with Chesapeake Utilities. This important project not only benefits our residents and the environment but also serves as an innovative solution to agricultural waste that will help sustain and strengthen Delaware's agricultural industry for generations to come.

Sincerely,

Michael T. Scuse

Secretary of Agriculture

Michael T Scuse



SENATE STATE OF DELAWARE 411 LEGISLATIVE AVENUE DOVER, DELAWARE 19901

SUPPORT EXHIBIT

January 27, 2021

Robert C. Wheatley, Chairman Sussex County Planning and Zoning Commission 2 The Circle Georgetown, DE 19947

Dear Chairman Wheatley,

Please accept this letter of support for Bioenergy DevCo's proposed organics recycling project at the former Perdue Agrirecycle facility near Seaford, which will create renewable natural gas from agricultural wastes such as poultry litter and DAF using proven anaerobic digestion technology. Agriculture is Delaware's No. 1 industry and poultry farming and processing are an important part of Sussex County's economic fiber and rural heritage. Sussex County farmers produce more than 200 million broilers per year, and the poultry industry supports more than 20,000 jobs and generates \$3.5 Billion in annual economic impact in the State of Delaware.

Bioenergy's project supports the poultry industry and our farmers by offering a local and more environmentally sustainable disposable alternative for the waste organics produced from raising and processing chickens. This project to repurpose and upgrade the former Perdue facility represents a more than \$40 million investment by Bioenergy in Sussex County and will create a state-of-the-art facility - known as the Bioenergy Innovation Center - dedicated to sustainable nutrient management, renewable energy production, and healthy soil products. In addition to creating job, this project will serve as an anchor for green economic development in Sussex County and the State of Delaware.

Perdue's original mission for this facility was to help the poultry industry on the Delmarva peninsula manage residual organics in an environmentally smart manner. Bioenergy's proposed organics recycling project is in full keeping with this mission, and we are pleased to hear that Bioenergy has entered long-term relationships with Perdue to process its organic wastes into raw biogas and Chesapeake Utilities for the delivery of clean renewable gas within our communities.

With these benefits in mind, we urge the Planning and Zoning Commission to approve any permits and conditional use amendments necessary for this important project to move forward in Sussex County. Thank you for your consideration.

Respectfully,

Gerald W. Hocker

Delaware State Senator, Minority Leader

20th Senatorial District

Burant I Richard

Delaware State Senator, Minority Whip

Ernesto B. Lopez Delaware State Senator 6th Senatorial District Bryant L. Richardson Delaware State Senator 21st Senatorial District

Brian G. Pettyjohn

19 Senatorial District

David L. Wilson

Delaware State Senator 18th Senatorial District



From: webmaster@sussexcountyde.gov on behalf of Sussex County DE

<webmaster@sussexcountyde.gov>

Sent: Thursday, February 4, 2021 1:49 PM

To: Planning and Zoning

Subject: Submission from: Planning & Zoning Commission contact form

RECIPIENTS: Jamie Whitehouse

Submitted on Thursday, February 4, 2021 - 1:49pm

Name: Nancy Jeanne Hannigan

Email address: NJHANNIGAN@YAHOO.COM

Phone number: 3025436446

Subject: Conditional Use Permit #1962

Message: I am writing to ask that the Commission VOTE NO regarding Conditional Use Permit #1962, to expand producing methane gas from farm waste. I am a retired chemist and see 2 major problems with the proposal: (1) the process would consume unacceptable quantities of fresh water for limited benefit, and negatively impact water quality (2) methane gas is highly explosive and would pose significant risk to area residents.

From: webmaster@sussexcountyde.gov on behalf of Sussex County DE

<webmaster@sussexcountyde.gov>

Sent: Thursday, February 4, 2021 7:37 AM

To: Planning and Zoning

Subject: Submission from: Planning & Zoning Commission contact form

RECIPIENTS: Jamie Whitehouse

Submitted on Thursday, February 4, 2021 - 7:37am

Name: Clark

Email address: clarkleitner@yahoo.com

Phone number: 3025027291

Subject: BioGas Capture and Refining Facility

Message: We need the complete assessment of how much fresh water will be needed to process, where the fresh water

will come from, and what is the strategy to dispose of said water which wil be filled high levels of nitrogen and

phosphorus.



From: webmaster@sussexcountyde.gov on behalf of Sussex County DE

<webmaster@sussexcountyde.gov>

Sent: Wednesday, February 3, 2021 3:09 PM

To: Planning and Zoning

Subject: Submission from: Planning & Zoning Commission contact form

RECIPIENTS: Jamie Whitehouse

Submitted on Wednesday, February 3, 2021 - 3:08pm

Name: Ellen Homsey

Email address: ehomsey@yahoo.com

Phone number: 3026559493

Subject: Conditional use permit #1964

Message: My view: this is an environmentally and socially reckless, short-sighted, and destructive proposal and

unworthy of the the Planning and Zoning Commission.



From: webmaster@sussexcountyde.gov on behalf of Sussex County DE

<webmaster@sussexcountyde.gov>

Sent: Wednesday, February 3, 2021 5:10 PM

To: Planning and Zoning

Subject: Submission from: Planning & Zoning Commission contact form

RECIPIENTS: Jamie Whitehouse

Submitted on Wednesday, February 3, 2021 - 5:10pm

Name: Nancy Fifer

Email address: guss46@verizon.net Phone number: 3026446829

Subject: pollution

Message: are we not trying to reduce the pollution of our planet? This idea is atrocious!



From: webmaster@sussexcountyde.gov on behalf of Sussex County DE

<webmaster@sussexcountyde.gov>

Wednesday, February 3, 2021 6:09 PM Sent:

Planning and Zoning To: Submission from: Planning & Zoning Commission contact form Subject:

RECIPIENTS: Jamie Whitehouse

Submitted on Wednesday, February 3, 2021 - 6:08pm

Name: KAREN A DESANTIS

Email address: kadesantis@comcast.net

Phone number: 3022125630

Subject: Bioenergy Development Group and Perdue Farm's proposal to be heard on Feb.11

Message: Hello, Thank you for all you do for the community. I want to express my concern about the Bioenergy Development Group and Perdue Farm's proposal for treating farm waste from our area and from other states. I hope the request is declined. Considering the current state of our water and the unbelieveable amount of new construction, it would be irresponsible to encourage more use of our water for processing out of state waste and putting that used water back into our land. I am willing to reduce my chicken eating to once a week to help deal with this issue! Seriously, I think we need start to take care of our people and note become a dumping ground for other states or for big companies. Thank you for your consideration.



From: webmaster@sussexcountyde.gov on behalf of Sussex County DE

<webmaster@sussexcountyde.gov>

Sent: Wednesday, February 3, 2021 8:23 PM

To: Planning and Zoning

Subject: Submission from: Planning & Zoning Commission contact form

RECIPIENTS: Jamie Whitehouse

Submitted on Wednesday, February 3, 2021 - 8:23pm

Name: Denise Giacoia

Email address: denisegiacoia55@gmail.com Phone number: 9086190900

Subject: BioGas Capture and Refining Facility

Message: We need to make sure there will be a traffic study. There should be an investigation on what the long term effect on people's health, impact to water, and impact to tourist community. This site is right next to watersheds that need to be cleaned up and this will just add to this problem. The project is not totally transparent. Does not show gas emissions, the trucks that can explode....this is to Polly Annerish! In addition, there needs to be more conditions around this build since it is larger than just a composting site. This will impact the value of our homes and can impact the growth in more households that will move to this state.



From: webmaster@sussexcountyde.gov on behalf of Sussex County DE

<webmaster@sussexcountyde.gov>

Sent: Thursday, February 4, 2021 11:49 AM

To: Planning and Zoning

Subject: Submission from: Planning & Zoning Commission contact form

RECIPIENTS: Jamie Whitehouse

Submitted on Thursday, February 4, 2021 - 11:48am

Name: Debbi Zarek

Email address: debbi.zarek@gmail.com

Phone number: 3024634271

Subject: No permit for a BioGas Capture and Refining Facility

Message: Hello,

I am writing to let you know I oppose the permit for a BioGas Capture and Refining Facility in Sussex county. This is exactly what we DON'T need. I am always surprised that more is not being done about the chicken waste run off in Sussex county. Last year there were articles in the News Journal about contaminated water around a poultry factor. Water needed to be given to these residents. The waste from a poultry factory can be devasting for a community as it ruins their water. Having Delaware be the site to take in other factories waste is crazy! We need less poultry factories and less chicken waste in Delaware, not more. Please vote no for the permit. Honestly, we should be having a campaign to decrease chicken intake as it is disasterous to our environment.

Thank you for your time, Debbi Zarek, MD, FACP, Owner Progressive Health of Delaware 302-543-5454 3521 Silverside Rd, Ste 2J Quillen Bldg. Wilmington, DE 19810 Fax 302-327-4200 https://us-west-

2.protection.sophos.com?d=progressivehealthproject.com&u=aHR0cHM6Ly93d3cucHJvZ3Jlc3NpdmVoZWFsdGhwcm9qZWN0LmNvbS9wcm9ncmVzc2l2ZS1oZWFsdGgtb2YtZGVsYXdhcmU=&i=NWY0NTE2ZjM3OTk3OGlwZjc0MDhkYTAy&t=MWdldDE3UTYyakhUUXZtWU5iSnRNcEF6ZGZMWXZFNGVtMGRUOVZDaVR4ND0=&h=6137563e4672489e992604d07f31d794



From: webmaster@sussexcountyde.gov on behalf of Sussex County DE

<webmaster@sussexcountyde.gov>

Sent: Thursday, February 4, 2021 12:36 PM

To: Planning and Zoning

Subject: Submission from: Planning & Zoning Commission contact form

RECIPIENTS: Jamie Whitehouse

Submitted on Thursday, February 4, 2021 - 12:36pm

Name: Claire Simmers

Email address: simmersca@gmail.com

Phone number: 4844597029

Subject: Planning and Zoning Feb 11 Meeting

Message:

I oppose any approval for the Bio-energy permit application for an anaerobic digestive and biogas usage. Bio Energy

Development Group, LLC C/U 2258

Description of Request:

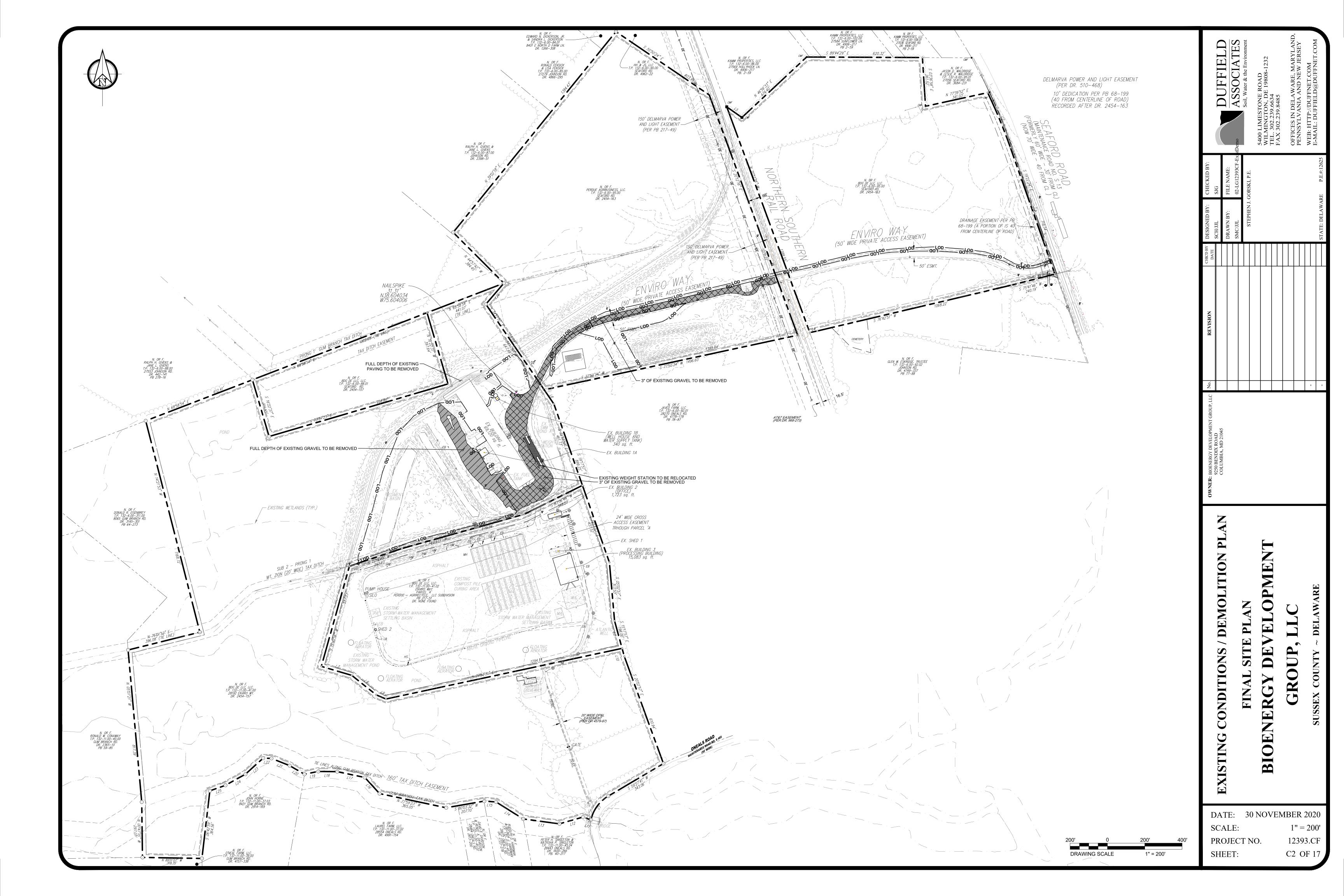
AN ORDINANCE TO GRANT A CONDITIONAL USE OF LAND IN AN AR-1 AGRICULTURAL RESIDENTIAL DISTRICT TO AMEND CONDITIONAL USE NO. 1314 (ORDINANCE NO. 1354) (AS AMENDED BY CONDITIONAL USE NO. 1691 (ORDINANCE NO. 1865) AND CONDITIONAL USE NO. 1962 (ORDINANCE NO. 2311)) TO PERMIT THE PROCESSING AND HANDLING OF POULTRY LITTER TO INCLUDE NUTRIENT RECOVERY FOR NATURAL GAS AND ELECTRICAL GENERATION, TO BE LOCATED ON A CERTAIN PARCEL OF LAND LYING AND BEING IN BROAD CREEK HUNDRED, SUSSEX COUNTY, CONTAINING 228.88 ACRES, MORE OR LESS.

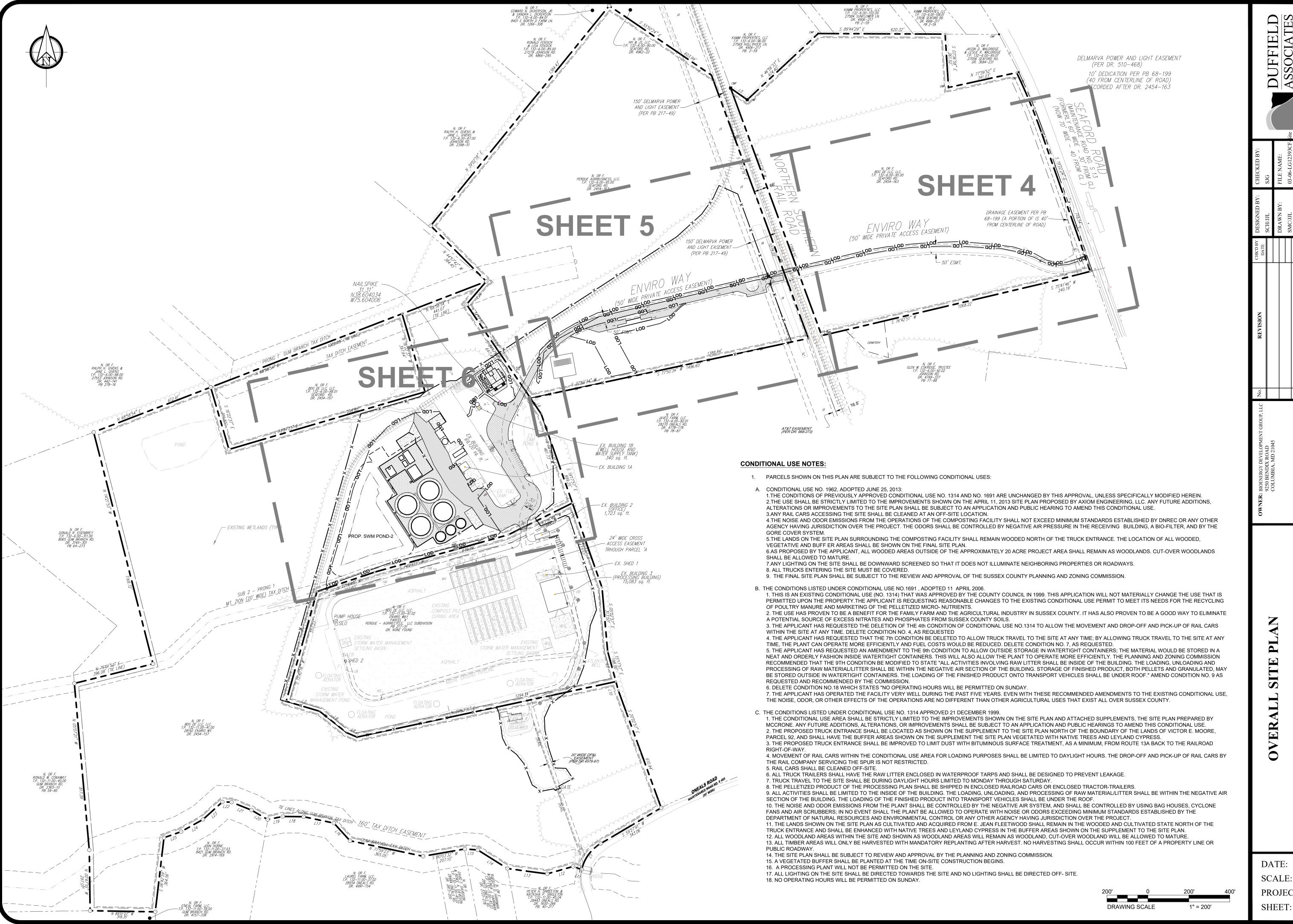
The location is in a sensitive area surrounded by wetlands and flanked by a low-income community and not industrially zoned. This isn't either agricultural use or residential so is inconsistent with the current zoning for this land. This is an industrial process that involves a small refinery and natural gas pipelines, and trucking. Nutrient recovery for natural gas and electrical generation is an industrial process.

This mega-anaerobic digester will bring in waste from all over the region, in addition to the waste we produce here in Delaware, up to 200,000 tons of waste annually. According to industry experts, it takes around 3,800 gallons of fresh water to digest 1 ton of dry poultry waste. That means this facility could require millions of gallons of fresh water to operate. The facility would then have to manage this water afterward as it is contaminated with extremely high levels of nitrogen and phosphorus. As of now, it is not clear how the facility will handle this waste stream and the contaminants contained within.

Certainly, spraying this water on local fields or injecting it into local wastewater management systems could be the tipping point for the already high levels of nitrogen pollution in the area that has led to many sources of water becoming unsafe and local waterways being destroyed.

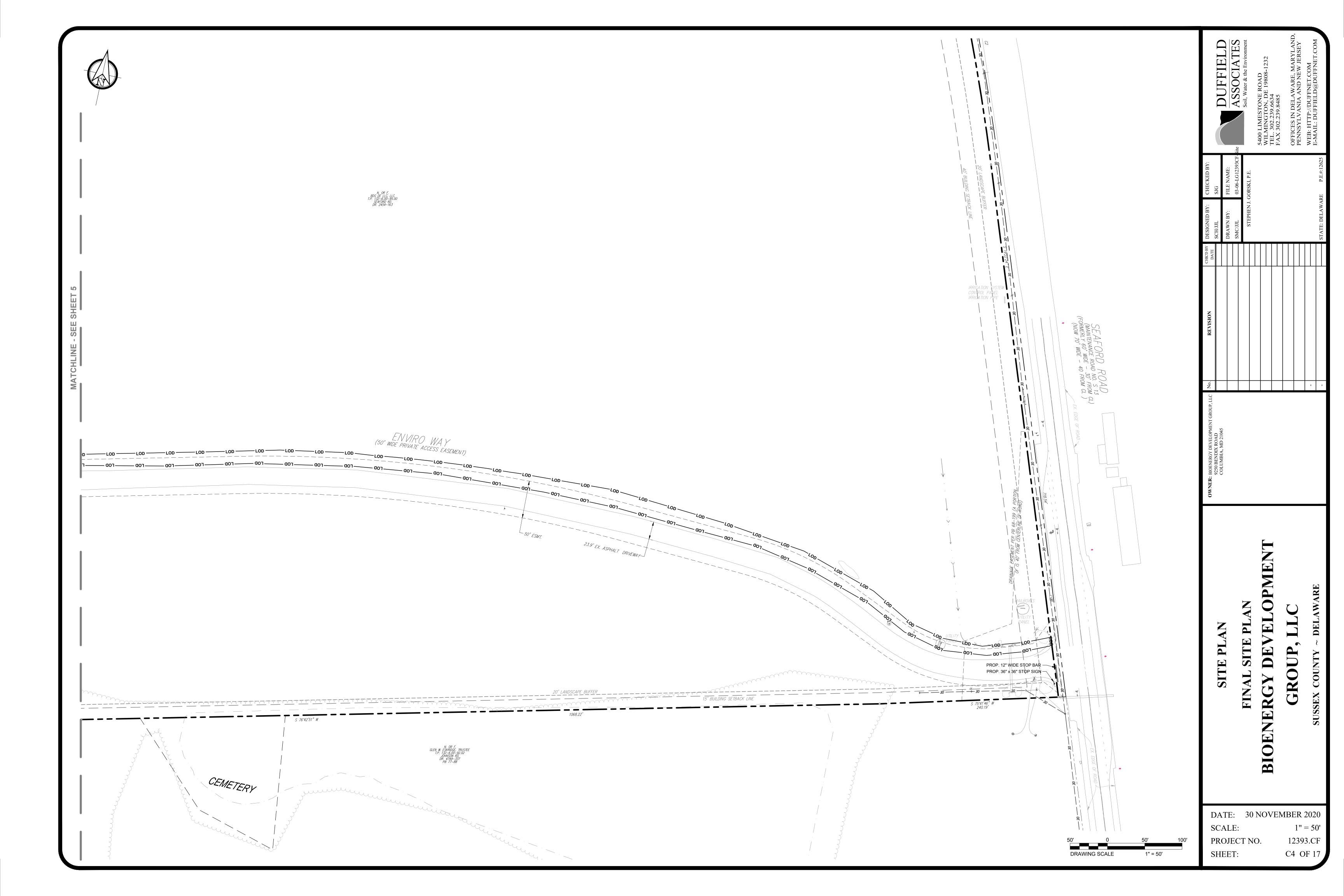
BIOENERGY DEVELOPMENT GROUP, LLC SITE CONSTRUCTION NOTES: TAX MAP: 132-6.00-88.01, 132-6.00-95.00, 132-11.00-41.00, 132-11.00-41.02 FINAL SITE PLANS WATER SERVICE: EXISTING PRIVATE WELL **BLADES, SUSSEX COUNTY, DELAWARE** 9. EXISTING UTILITIES AND OTHER PHYSICAL FEATURES ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR AND ARE SPECIFICATIONS AND DETAILS EXCEPT WHERE OTHERWISE NOTED OR SPECIFIED. CONTRACTOR SHALL EXERCISE EVERY PRECAUTION TO AVOID DAMAGE TO EXISTING UTILITIES. COST OF REPAIRS TO ANY INSTALLED USING 6-INCH DIAMETER PERFORATED UNDERDRAIN PIPE MEETING STATE AND LOCAL STANDARD **LOCATION MAP** MAP: USGS SCALE: 1" = 6000' 16. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES TO SCHEDULE POLE/UTILITY RELOCATIONS AND 132-6 00-88 01 132-11.00-41.02 SEPARATE DEED NOT 2. Source of Title 17. THE CONTRACTOR SHALL APPLY FOR AND OBTAIN A DEWATERING PERMIT FROM THE DNREC WELL PERMITS BRANCH OF REFER TO PB 220-49 . Supporting Document THE WATER SUPPLY SECTION (302-739-9944). SEAFORD ROAD SEAFORD, 28338 ENVIRO WAY SEAFORD, DE ENVIRO WAY SEAFORD, DE 4. Parcel Address Lot Width (Septic) 100' (150' FRONTING ROAD) 100' (150' FRONTING ROAD) 100' (150' FRONTING ROAD) 100' (150' FRONTING ROAD Lot Width Minimum: 100' (150' FRONTING ROAD) 100' (150' FRONTING ROAD) 100' (150' FRONTING ROAD) \sim ϵ THE ZONING CODE OF SUSSEX COUNTY, DELAWARE, CHAPTER 115, ARTICLE IV, SECTION 115-25 (AS OF JULY 25, 2019). NOTE: IT IS STRONGLY ADVISED CONTACT THE JURISDICTIONAL CONTROLLING AUTHORITIES FOR UP TO DATE INFORMATION. INTERPRETATIONS AND VERIFICATION OF THE MOST RECENT ZONING CODE, ASSOCIATED REGULATIONS AND RECENTLY PROPOSED ORDINANCES. 435,600+/-SF (10.00+/-AC) 3,956,990.40+/-SF (90.84+/-AC) 4,253,198.40+/-SF (97.64+/-AC) 1,159,567.20+/-SF (26.62+/-AC) 9,805,356.0+/-SF (225.10+/-AC) BLDG 1A: 1,602 +/- SF BLDG 3: 15,083 +/- SF 35,600+/-SF (10.00+/-AC) 3,869,187.15+/-SF (88.82+/-AC) 4,067,244.54+/-SF (93.37+/-AC) 363,695.45+/-SF (8.35+/-AC) 8,735,727.14+/-SF (200.54+/-AC) FILL STATION (BIO REACTOR AREA): 170 SF 60,136.46+/- SF (1.38+/-AC) 182,513 +/- SF (4.18+/-AC) 242,649.46+/- SF (5.57+/-A 3,869,187.15+/-SF (88.82+/-AC) 3,965,835.72+/-SF (91.04+/-AC) 363,695.45+/-SF (8.35+/-AC) 8,634,318.32+/-SF (198.22+/-AC) HE EXISTING PARKING SPACE COUNT REFERS TO MARKED SPACES ONLY. THE SITE HAS SIGNIFICANT AREAS OF PAVEMENT CONSISTING OF GRAVE 9. Flood Zone Designations 10. Record Plans: A PORTION OF THIS PROPERTY IS SHOWN ON THE RECORD MINOR SUBDIVISION PLAN TITLED: "SUBDIVISION OF THE LANDS OF PERDUE PLEASE NOTE THAT OTHER UTILITIES, NOT READILY VISIBLE, NOT SHOWN ON THE PLANS OR UTILITIES PLACED BY THIRD PARTY AGENTS, MAY BE 13. Bearing Reference: BIOENRGY DEVELOPMENT GROUP II C 14. Owner Data: 9250 BENDIX ROAD 15. Water Service: EXISTING SEPTIC TO BE ABANDONED. PROPOSED PUBLIC SYSTEM (NEW SUSSEX COUNTY DISTRICT) 16. Sewer Service: WETLANDS SHOWN HEREON ON BASED ON A SITE INVESTIGATION PERFORMED BY SHEET LIST RALPH DOWNARD OF DUFFIELD ASSOCIATES IN JUNE OF 2020. NO WETLANDS EXIST SHEET C1 **INDEX SHEET ADJOINER** WITHIN THE LIMITS OF DISTURBANCE FOR THIS PROJECT. SHEET C2 EXISTING CONDITIONS/DEMOLITION PLAN BUILDING 2. PARCELS SHOWN ON THIS PLAN ARE SUBJECT TO CONDITIONAL USES, SEE SHEET SHEET C3 OVERALL SITE PLAN C.L.F. CHAIN LINK FENCE SHEET C4 SITE PLAN CHIMNEY OVERHANG THE PARCEL IS LOCATED WITH AN AREA OF FAIR GROUNDWATER RECHARGE SHEET C5 SITE PLAN CONCRETE POTENTIAL PER CHAPTER 89 SOURCE WATER PROTECTION OF THE SUSSEX SHEET C6 SITE PLAN DRILLHOLE SHEET C7 **GRADING PLAN** FLOOR OVERHANG THE PARCEL IS NOT LOCATED WITHIN A WELLHEAD PROTECTION AREA TO COMPLY SHEET C8 **GRADING PLAN** IRON PIPE/PIN WITH CHAPTER 89 SOURCE WATER PROTECTION OF THE SUSSEX COUNTY CODE. MONUMENT SHEET C9 **GRADING PLAN** PROPOSED BUILDING HEIGHT IS 35' PROPERTY LINE SHEET C10 UTILITY PLAN PROPOSED FERMENTER TANK HEIGHT IS 42' ABOVE GRADE POINT OF BEGINNING SHEET C11 STORM DRAIN TABLES AND PROFILES PROPOSED PRETREATMENT TANK HEIGHT IS 32' ABOVE GRADE ROOF OVERHANG SHEET C12 SITE DETAILS RIGHT-OF-WAY SHEET C13 FIRE MARSHAL PLAN - OVERALL SITE PLAN WINDOW OVERHANG SHEET C14 FIRE MARSHAL PLAN - SITE PLAN MATCH EXISTING GRADE SHEET C15 FIRE MARSHAL PLAN - SITE PLAN Image: Control of the con LANDSCAPE PLAN LANDSCAPE DETAILS AND NOTES **EXISTING LEGEND** PROPOSED LEGEND PROPERTY LINE — X — PROPOSED FENCE ADJOINER PROPERTY LINE ----PROPOSED EASEMENT EASEMENT — HW — HW — PROPOSED WATER - PROPOSED GAS FORCE MAIN -ss--ss--ss-- PROPOSED SANITARY SEWER ——sp——sp——sp—— PROPOSED STORM DRAIN **ASPHALT** — E — PROPOSED ELECTRIC ///////////// 4" HEAVY DUTY ASPHALT OVERLAY CONCRETE TULL DEPTH HEAVY DUTY ASPHALT GRAVEL - RAIL ROAD PROPOSED CONCRETE ———LOD ——— LIMIT OF DISTURBANCE PROPOSED SPOT ELEVATION MATCH EXISTING GRADE DRAWING SCALE OWNER'S CERTIFICATION: **ENGINEER'S CERTIFICATION:** SUSSEX COUNTY CONERVATION DISTRICT SUSSEX COUNTY CERTIFICATION I, BIOENERGY DEVELOPMENT GROUP, LLC, HEREBY CERTIFY THAT I AM THE OWNER OF THE I, STEPHEN J. GORSKI, HEREBY CERTIFY THAT I AM A REGISTERED ENGINEER IN THE STATE OF APPROVED: SUSSEX COUNTY CONSERVATION DISTRICT APPROVED: THE COUNTY PLANNING AND ZONING COMMISSION OF DELAWARE, THAT THE INFORMATION SHOWN HEREON HAS BEEN PREPARED UNDER MY SUPERVISION DATE: 30 NOVEMBER 2020 PROPERTY DESCRIBED AND SHOWN ON THIS PLAN, THAT THE PLAN WAS MADE AT MY SUSSEX COUNTY. AND TO MY BEST KNOWLEDGE AND BELIEF REPRESENTS GOOD ENGINEERING PRACTICES AS DIRECTION, AND THAT I ACKNOWLEDGE THE SAME TO BE MY ACT AND DESIRE THE PLAN TO BE RECORDED ACCORDING TO LAW. AS SHOWN 30 NOVEMBER, 2020 12393.CF PROPERTY OWNER REGISTRATION # 12625 SHEET:

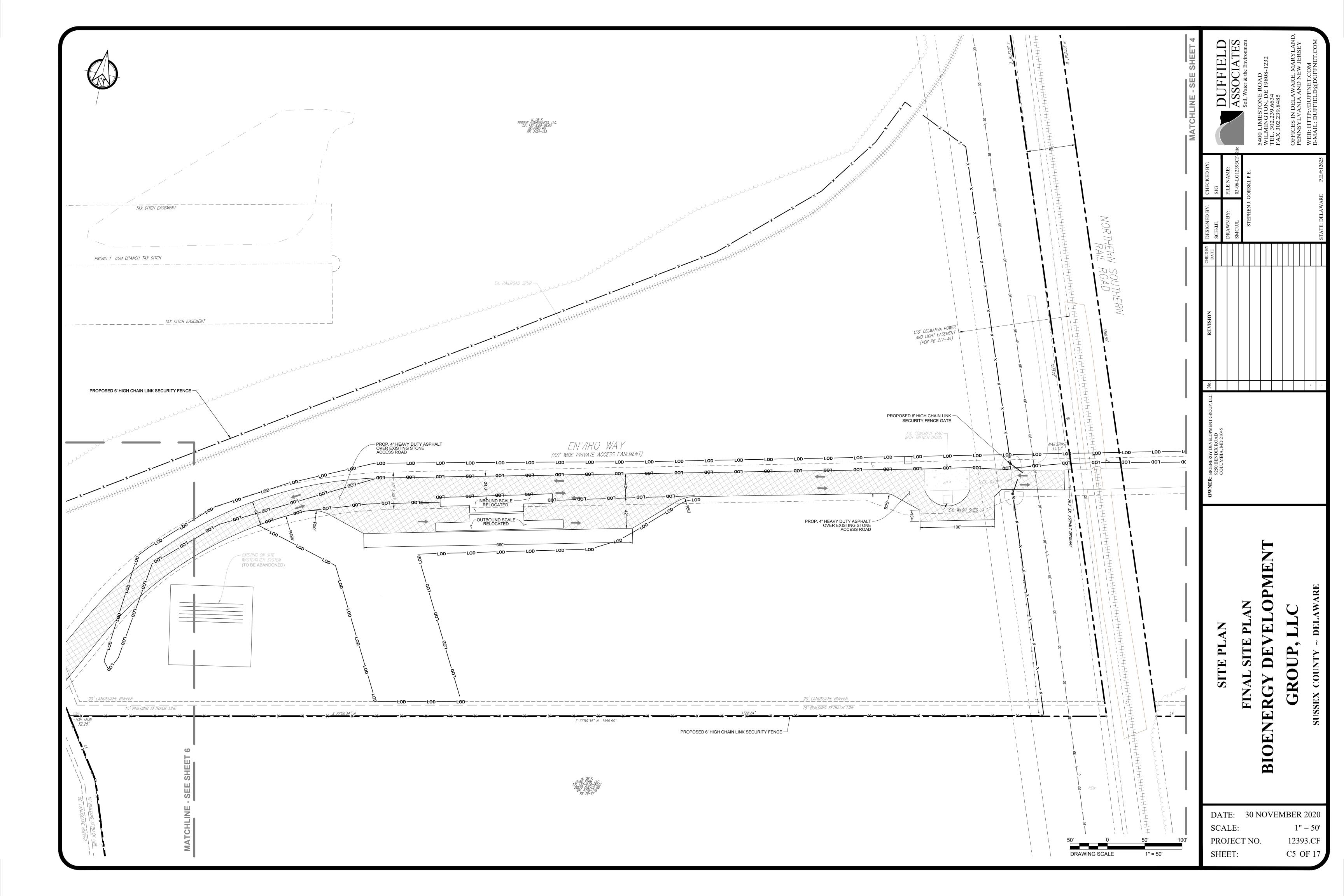


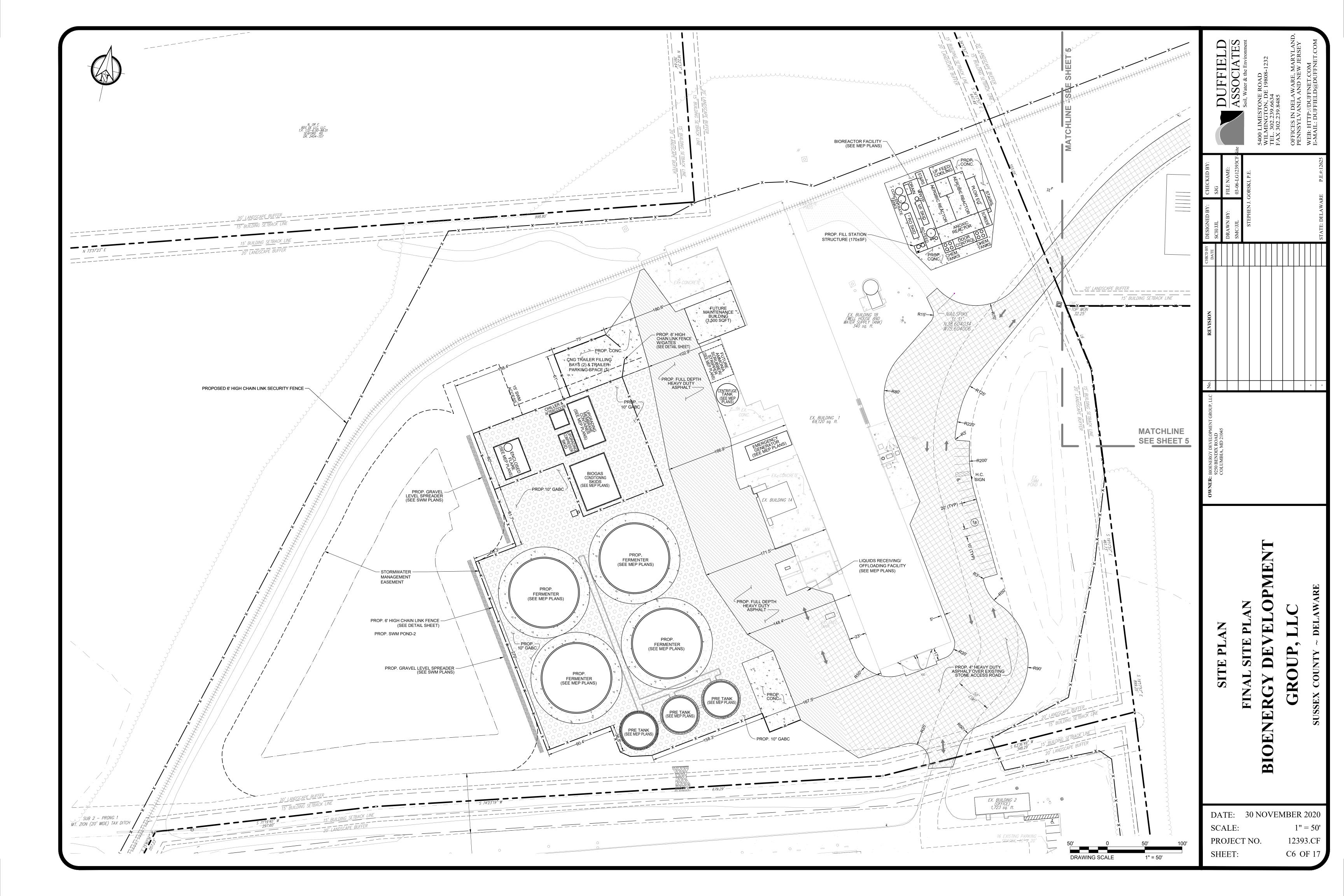


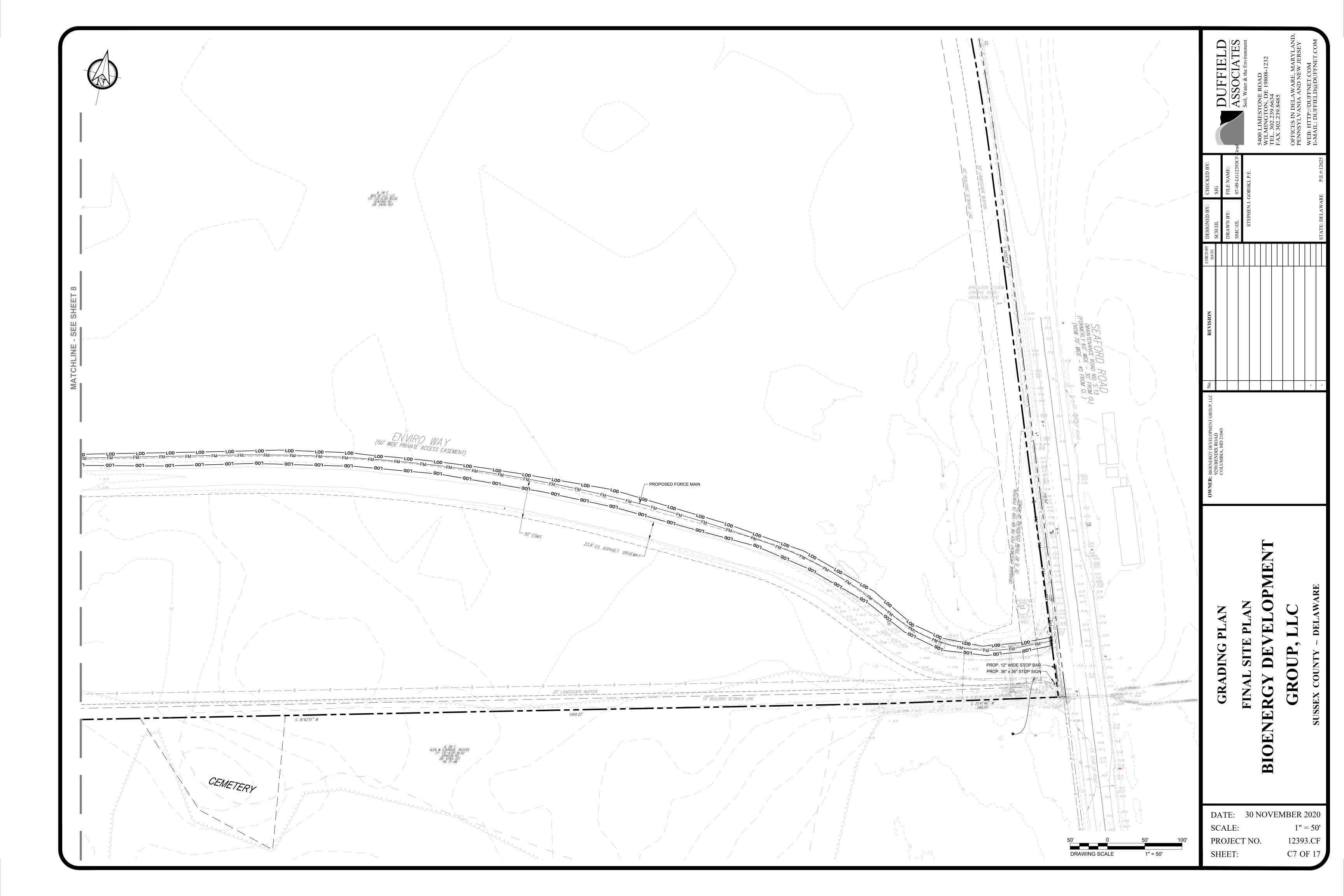
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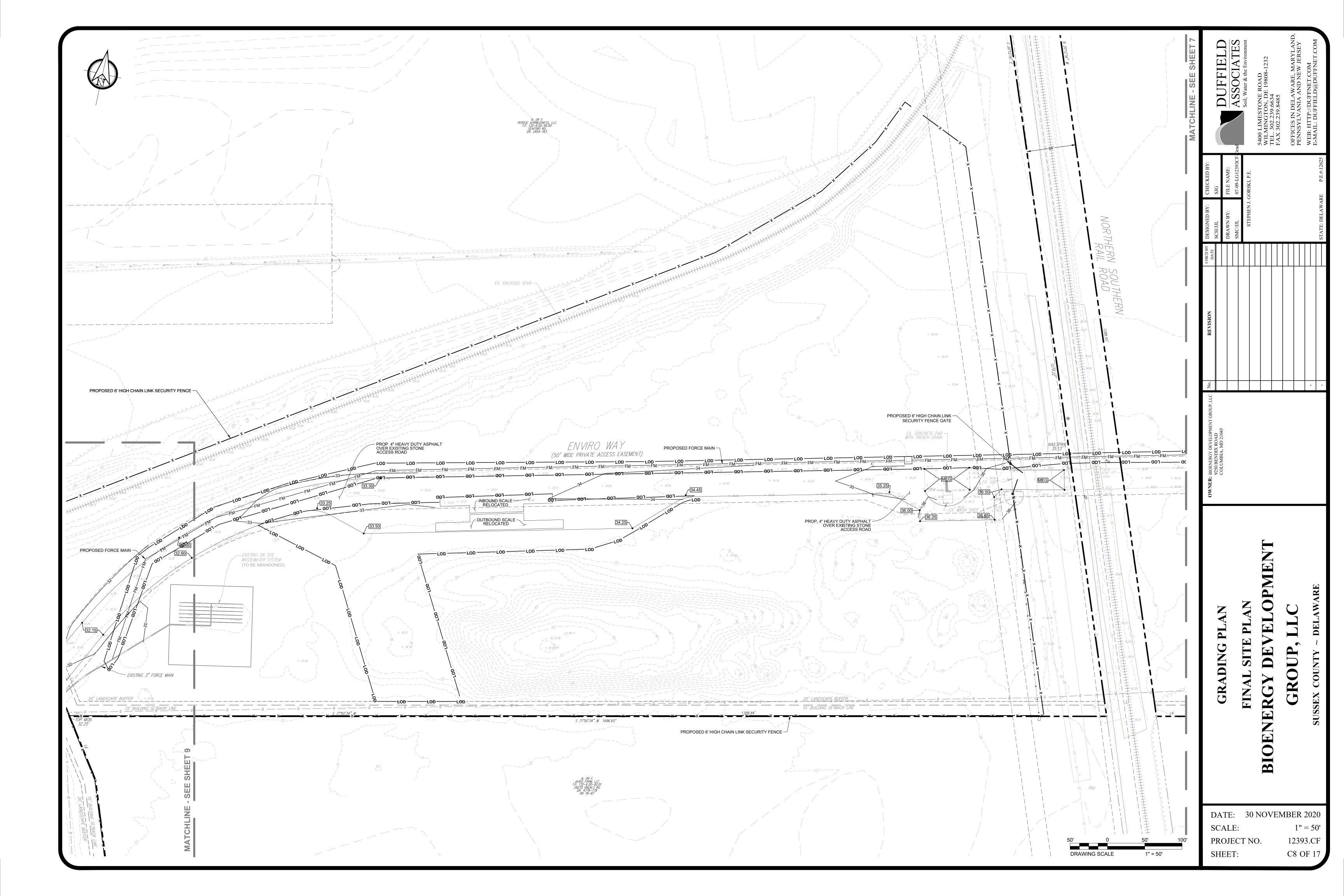
DATE: 30 NOVEMBER 2020 SCALE: 12393.CF PROJECT NO. C3 OF 17

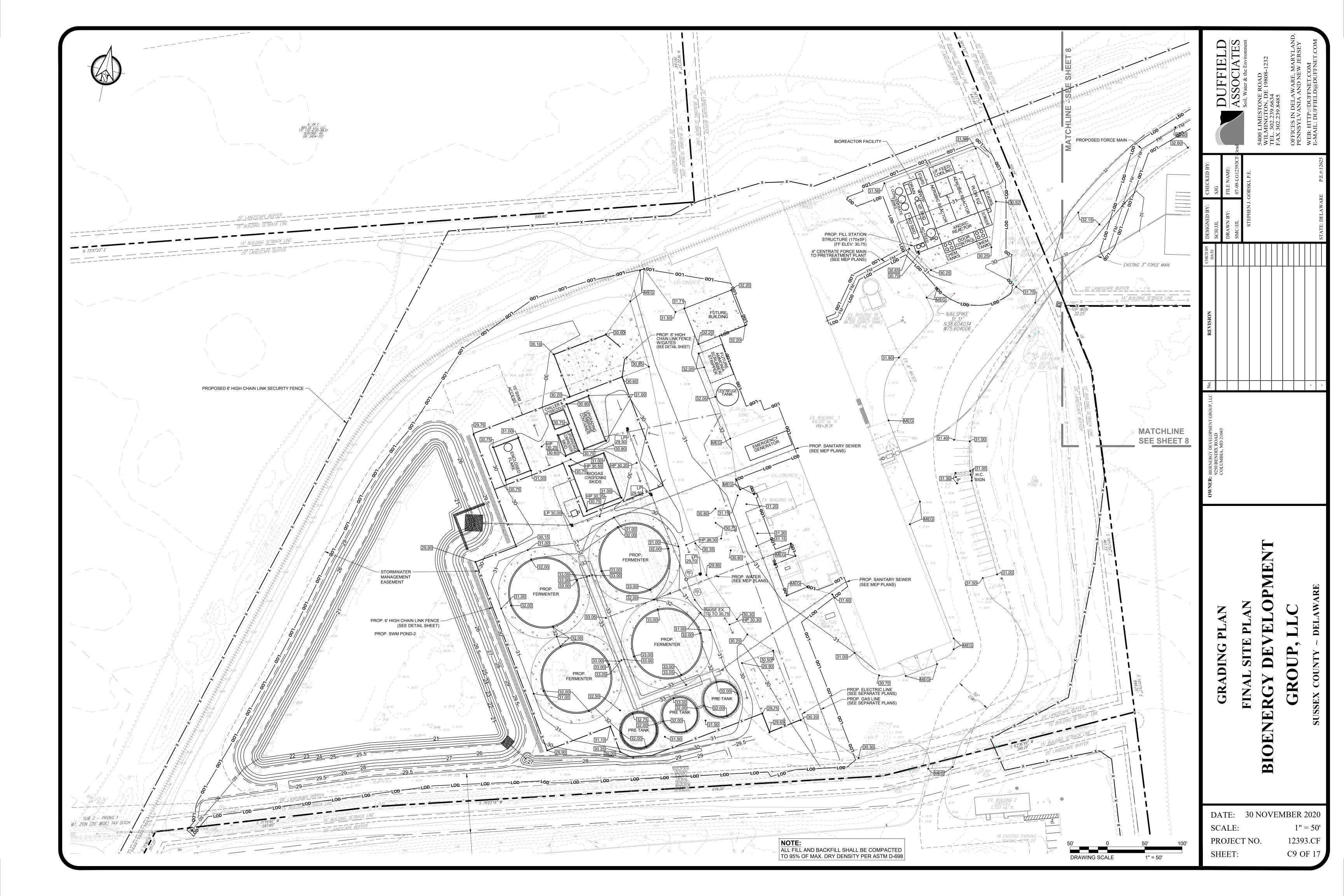


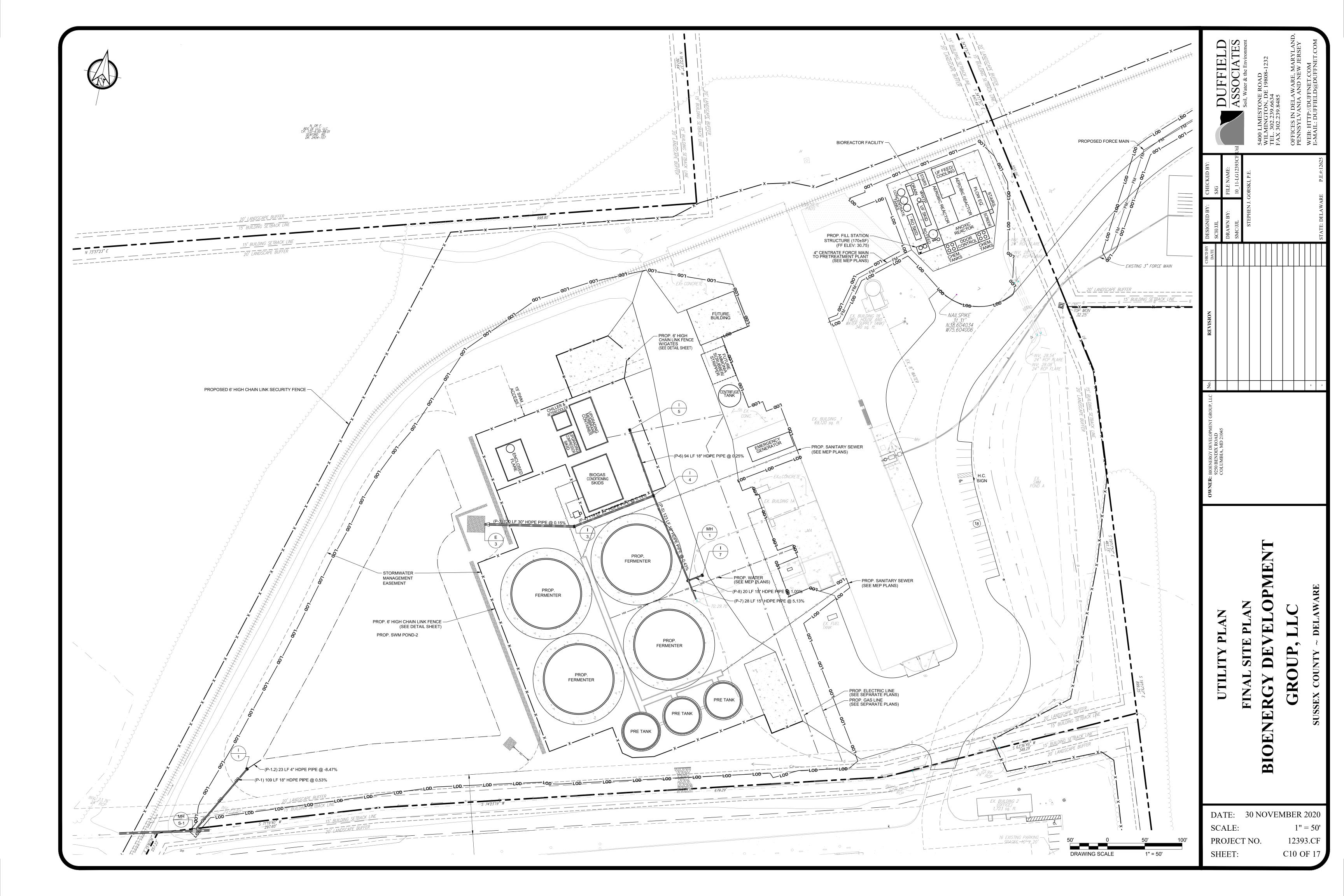






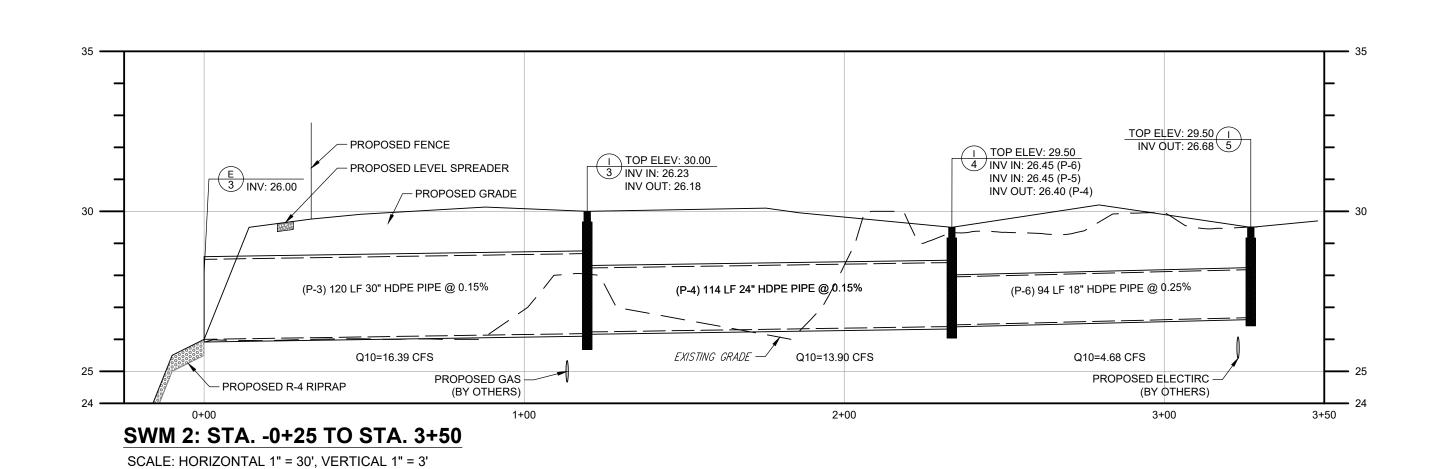


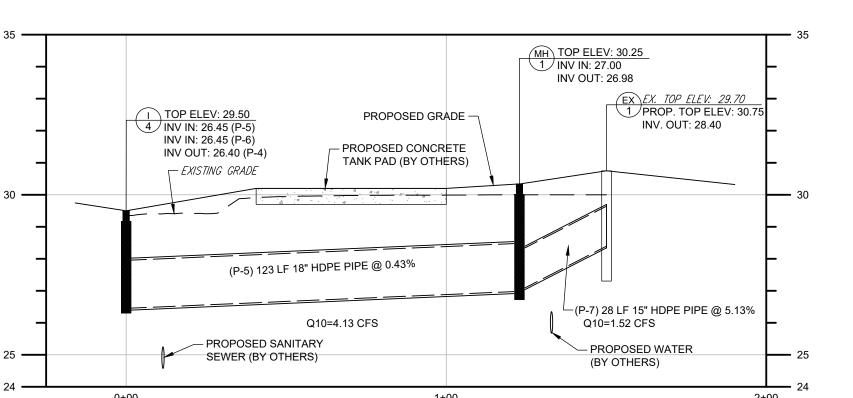




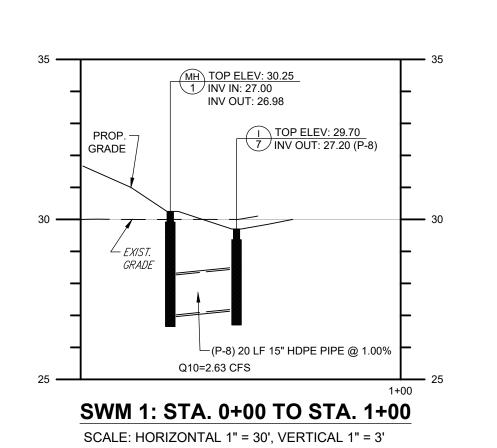
	STORM I	DRAINAC	SE STRUCTURE	SCHED	ULE	
NAME	BOX DESCRIPTION	TOP UNIT	GRATE	T.G. ELEV.	INVERT(S) IN	INVERT(S
E-3	30 IN FLARED END SECTION				26.00 (P-3 - 30")	
I-3	34 X 24 INLET	TYPE C	SINGLE - TYPE 1	30.00	26.23 (P-4 - 24")	26.18 (P-3 - 3
I-4	34 X 24 INLET	TYPE C	SINGLE - TYPE 1	29.50	26.45 (P-5 - 18") 26.45 (P-6 - 18")	26.40 (P-4 - 2
I-5	34 X 24 INLET	TYPE C	SINGLE - TYPE 1	29.50		26.68 (P-6 - 1
I-7	34 X 24 INLET	TYPE C	SINGLE - TYPE 1	29.70		27.20 (P-8 - 1
MH-1	48 X 30 BOX MH	МН	SINGLE - MH	30.25	27.00 (P-7 - 15") 27.00 (P-8 - 15")	26.98 (P-5 - 1
EX-1				30.75		28.40 (P-7 - 1

	STORM DRAINAGE PIPE SCHEDULE							
PIPE	FROM	то	SIZE	TYPE	LENGTH	SLOPE	INVERT ELEVATION IN	INVERT ELEVATION OUT
P3	3	E-3	30"	HDPE PIPE	120 LF	0.15%	26.18	26.00
P4	4	3	24"	HDPE PIPE	114 LF	0.15%	26.40	26.23
P5	MH1	4	18"	HDPE PIPE	123 LF	0.43%	26.98	26.45
P6	5	4	18"	HDPE PIPE	93 LF	0.25%	26.68	26.45
P7		MH1	15"	HDPE PIPE	27 LF	5.13%	28.40	27.00
P8	7	MH1	15"	HDPE PIPE	20 LF	1.00%	27.20	27.00



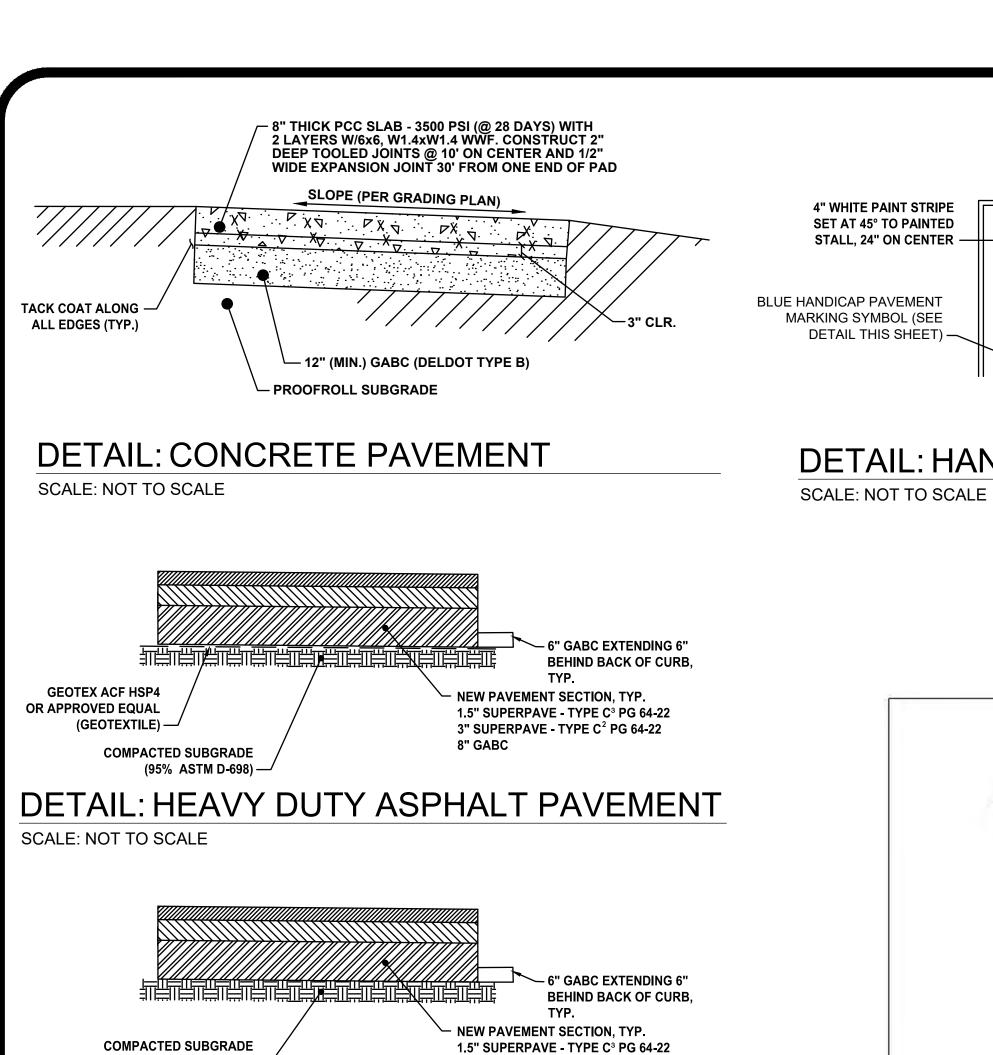


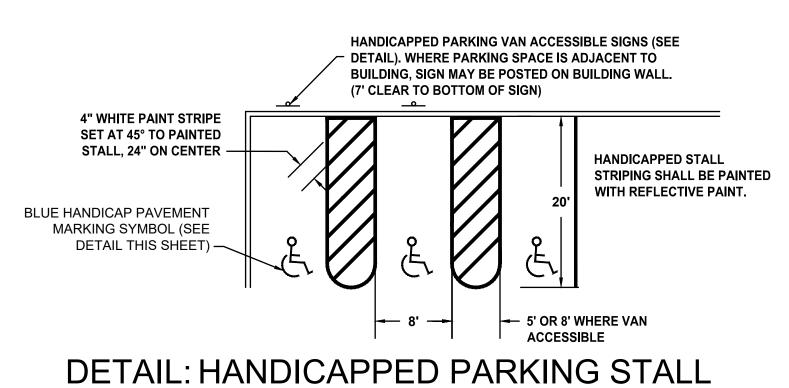
SWM 3: STA. -0+25 TO STA. 2+00 SCALE: HORIZONTAL 1" = 30', VERTICAL 1" = 3'



STORM DRAIN TABLES AND PROFILES FINAL SITE PLAN BIOENERGY DEVELOPMENT

DATE: 30 NOVEMBER 2020
SCALE: AS SHOWN
PROJECT NO. 12393.CF
SHEET: C11 OF 17





PARKING VAN (R7-8 12"x 18")

RESERVED

SCALE: NOT TO SCALE

ACCESSIBLE R7-8a SIGN SHALL BE DISPLAYED DIRECTLY ABOVE R7-8 VAN ACCESSIBLE STALLS ONLY DETAIL: ACCESSIBLE PARKING SIGN (R7-8)

-REFLECTIVE WHITE FIELD WITH GREEN

BLUE FIELD WITH REFLECTIVE WHIT

LETTERS AND BORDER.

' 1'-5" **∤•**

OPEN END OF PARKING STALL CONTRACTOR SHALL PAINT SYMBOL

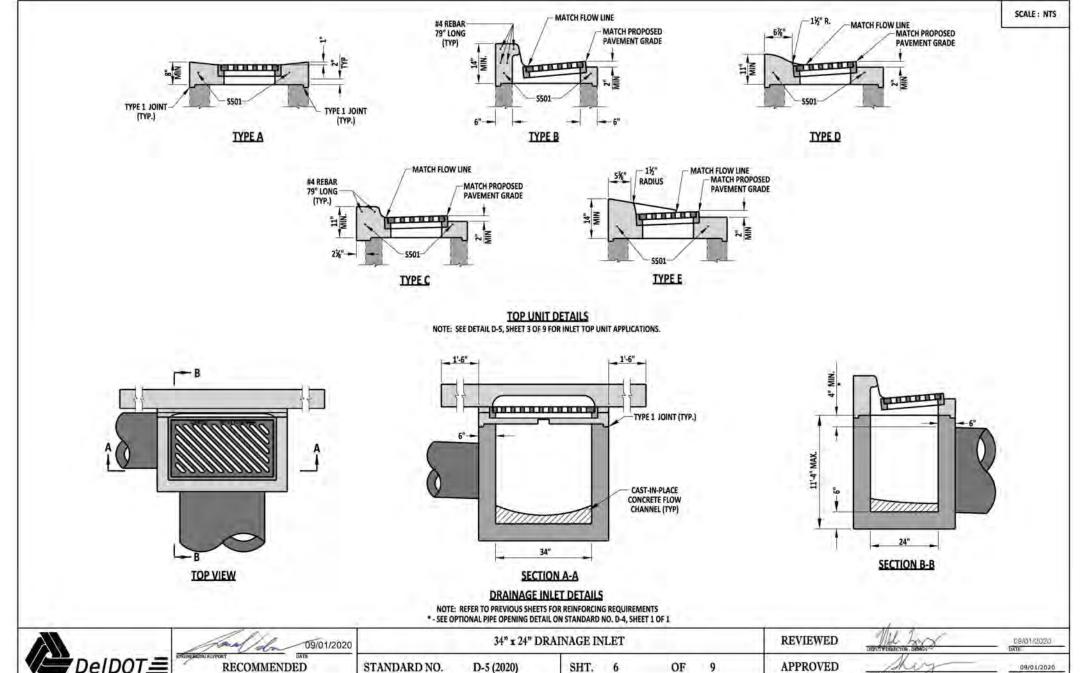
DETAIL: HANDICAP PVMT MARKING SYMBOL

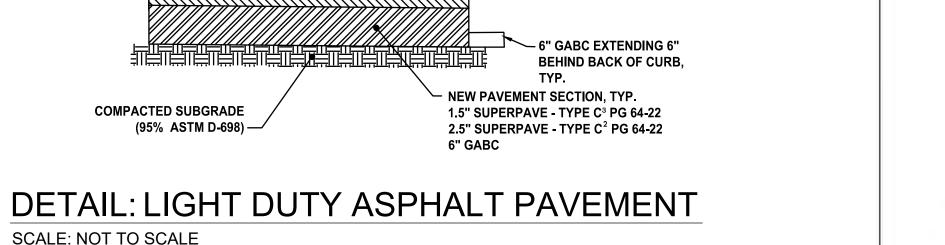
SCALE: NONE

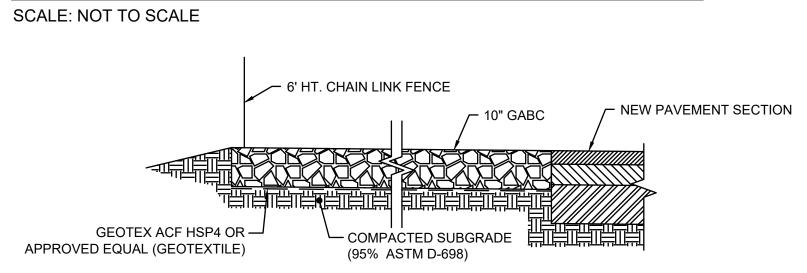


DETAIL: STOP SIGN (R1-1)

SCALE: NOT TO SCALE







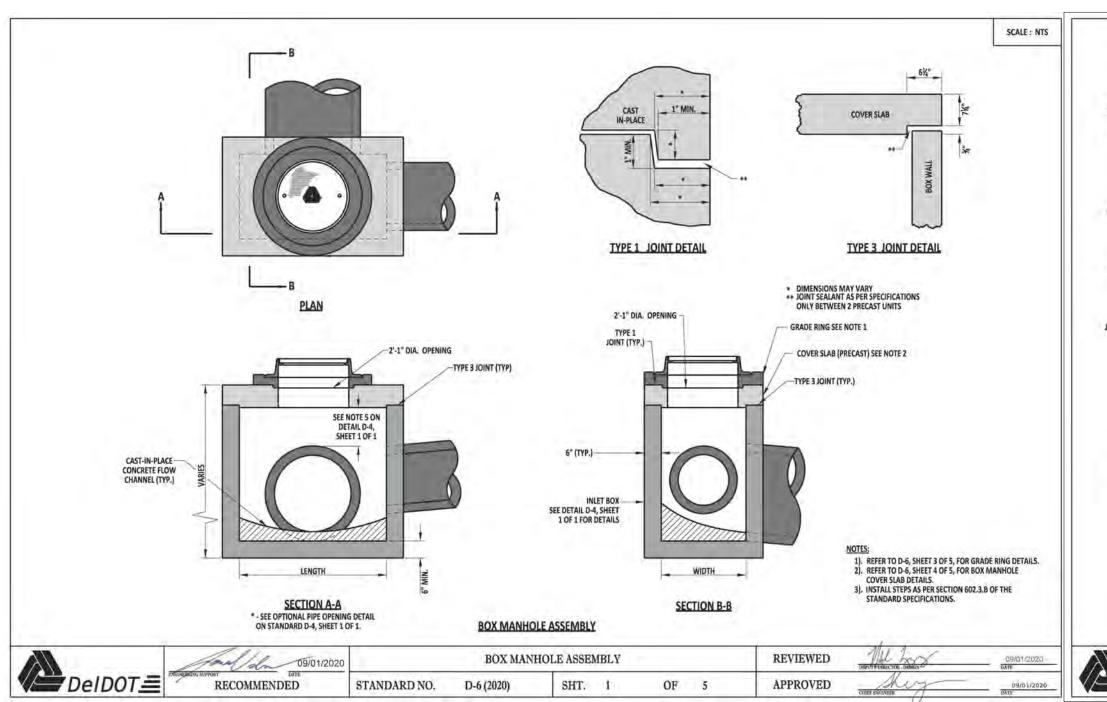
6" GABC

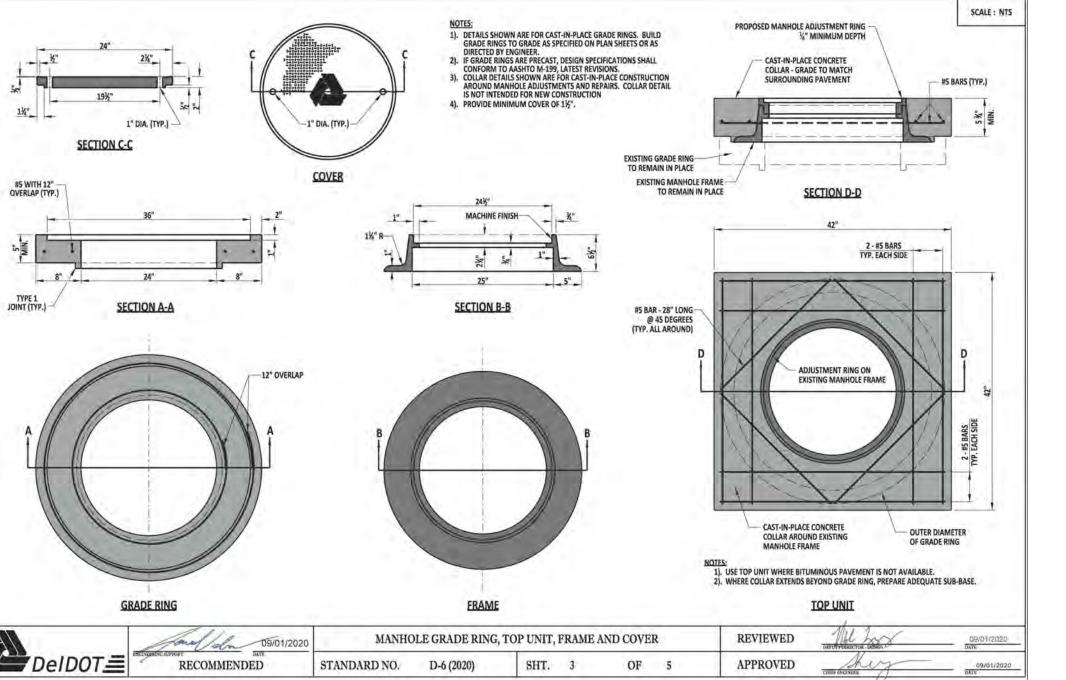
2.5" SUPERPAVE - TYPE C² PG 64-22

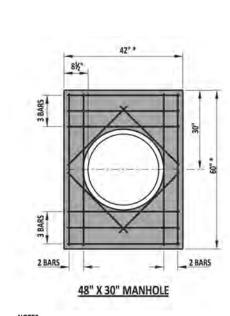
DETAIL: 10" GABC

SCALE: NOT TO SCALE

(95% ASTM D-698)





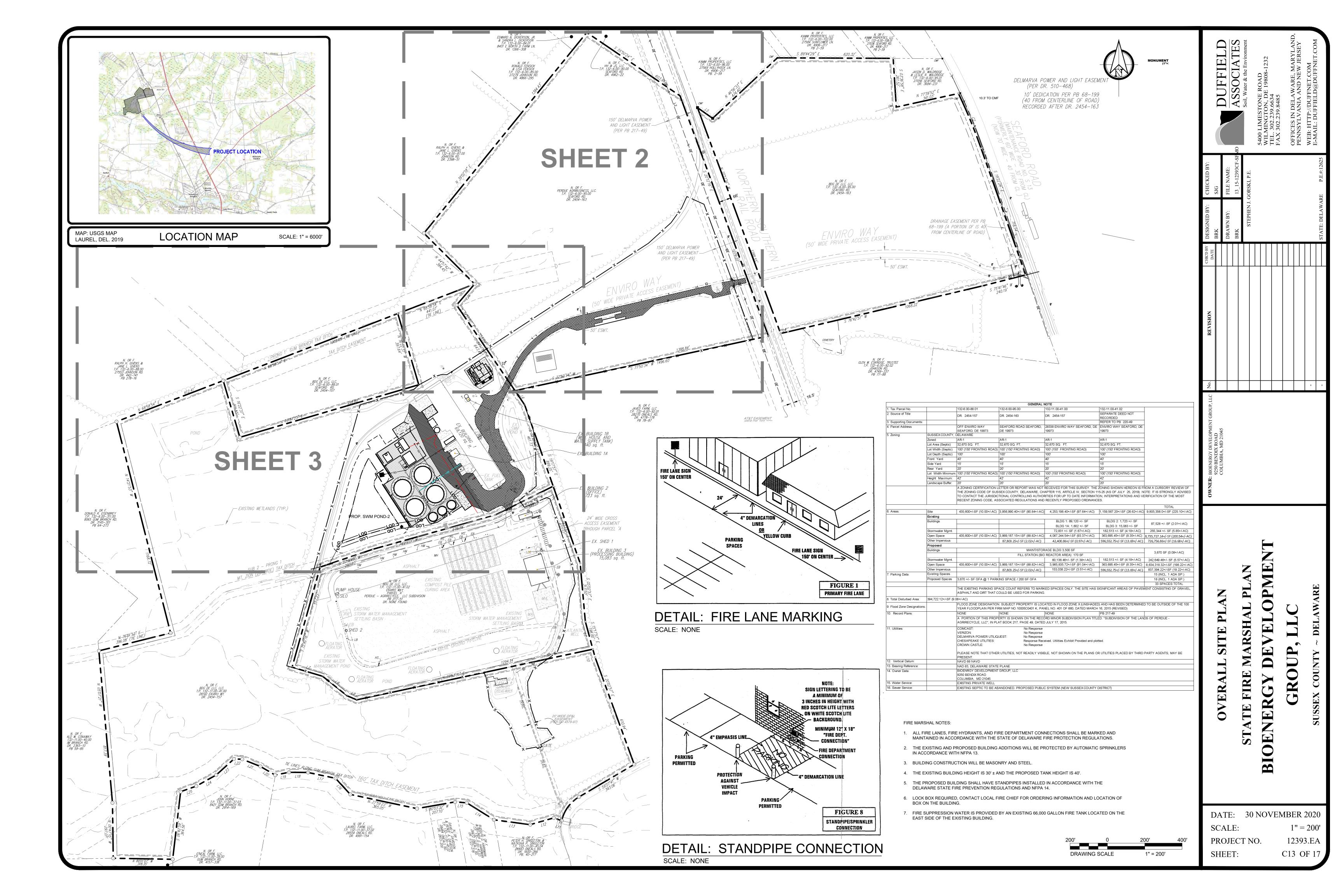


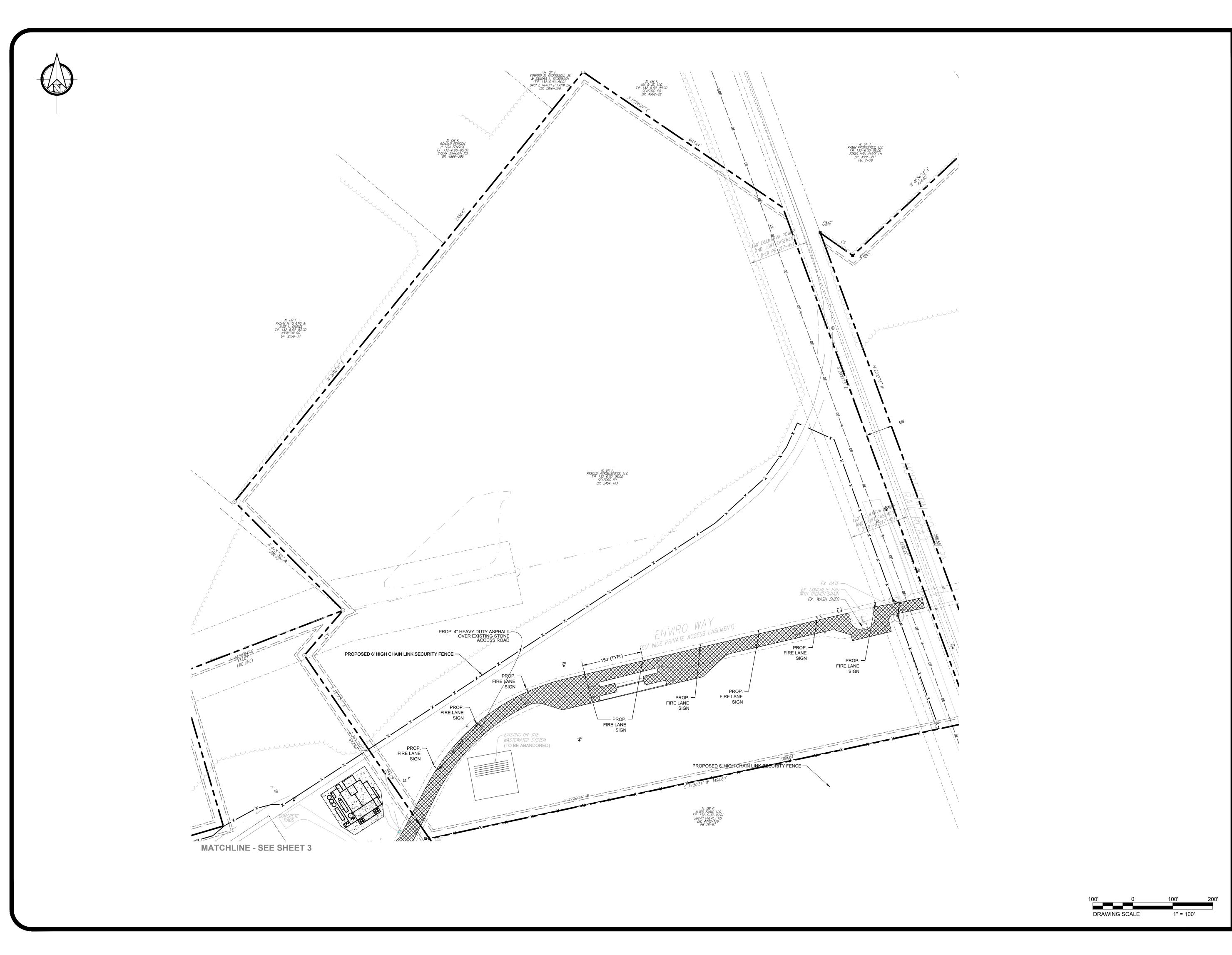
1). PRECAST COVER SLABS. 2). USE #5 BARS SPACED AT 6" UNLESS NOTED OTHERWISE 3). PROVIDE A MINIMUM BAR COVER OF 1½". 4). COVER SLAB DESIGN SPECIFICATIONS SHALL MEET HL-93 LOADING AND CONFORM TO AASHTO M-199, LATEST REVISIONS. * DIMENSIONS TO MATCH OUTSIDE TO OUTSIDE DIMENSIONS OF BOX.

SITE DETAILS	FINAL SITE PLAN

DATE: 30 NOVEMBER 2020 AS SHOWN 12393.CF PROJECT NO. C12 OF 17 SHEET:

PME]



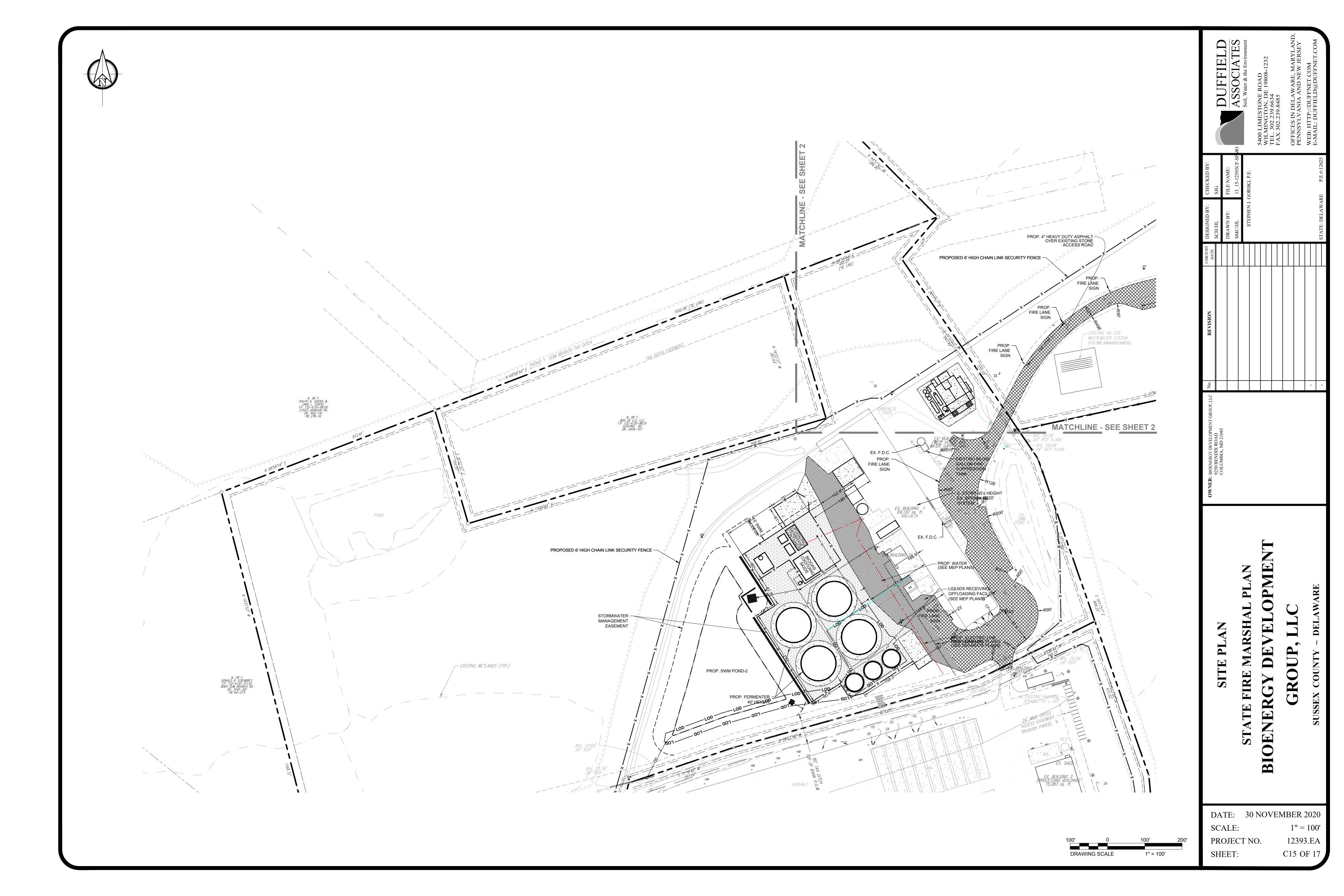


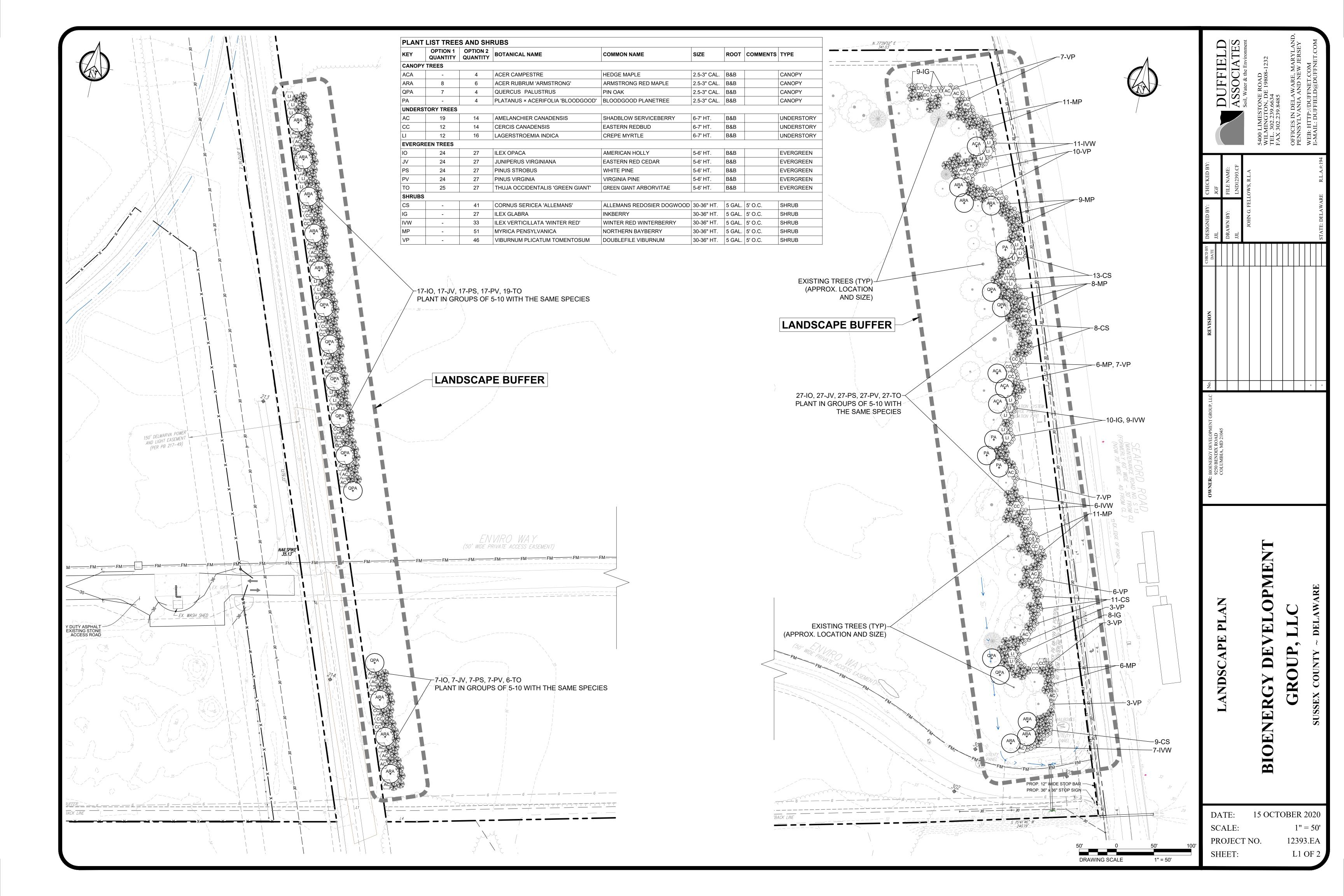
DUFFIELD
ASSOCIATES
Soil, Water & the Environment

BIOENERGY

DATE: 30 NOVEMBER 2020 SCALE: PROJECT NO. SHEET:

1'' = 100'12393.EA





LANDSCAPE NOTES

- MULCH ALL TREE PITS. PLANT BEDS, AND GROUND COVER AREAS WITH A MINIMUM 3" DEPTH (AFTER SETTLEMENT) OF MULCH OR AS NOTED: SHREDDED HARDWOOD MULCH SHALL BE USED FOR ALL TREE PITS AND SHRUB BEDS.
- 2. THIS DRAWING TO BE USED FOR LANDSCAPE DEVELOPMENT PURPOSES ONLY.
- 3. ALL TREE STAKING, GUYING, AND WRAPPING SHALL BE REMOVED AFTER ONE YEAR.
- 4. ALL SHRUB, FLOWER, AND GROUND COVER BEDS SHALL BE PITCHED OR CROWNED TO ASSURE A MINIMUM SURFACE PITCH OF 3% FOR POSITIVE SURFACE DRAINAGE.
- 5. ALL PROPOSED LANDSCAPE PLANT MATERIAL TO BE GUARANTEED FOR A PERIOD OF THREE YEARS FROM THE DATE OF ACCEPTANCE, AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM NEGLECT BY OWNER, ABUSE OR DAMAGE BY OTHERS, OR UNUSUAL PHENOMENA OR INCIDENTS WHICH ARE BEYOND LANDSCAPE INSTALLER CONTROL. CONTRACTOR, IF NOT MAINTAINING THE PROPERTY DURING THE GUARANTEE PERIOD, SHALL BE RESPONSIBLE FOR MAKING MONTHLY INSPECTIONS AND ISSUING WRITTEN REPORTS DETAILING ANY MAINTENANCE PRACTICES HE OBSERVES WHICH WOULD IN ANYWAY NEGATE HIS GUARANTEE OBLIGATION.
- 6. ALL AREAS BEYOND THE LIMIT OF LAWN/GROUNDCOVER THAT ARE DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITION AND/OR TO COMPLY WITH STANDARDS INDICATED ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
- 7. ALL TREES ADJACENT TO CURBS (OR EDGE OF PAVEMENT) SHALL BE PLACED 5'-0" AWAY FROM THE CURB FACE MEASURED TO THE CENTERLINE OF THE TREE TRUNK. IF PLACED IN THE MEDIAN ISLAND, THEY SHALL BE CENTERED IN THE SPACE BETWEEN THE CURBS OR AS NOTED ON THE LANDSCAPE PLAN. ALL TREES PLANTED ADJACENT TO PEDESTRIAN WALKWAYS SHALL BE BRANCHED AT 7'
- 8. NO PLANT MATERIAL ABOVE 24" WILL BE INSTALLED WITHIN ANY APPROVED SIGHT TRIANGLE.
- 9. PLANT BACKFILL MIX SHALL CONTAIN THE FOLLOWING:
- 1 PART AMENDED TOPSOIL (SCREENED) WITH FERTILIZATION AS REQUIRED BELOW:

AMENDED TOPSOIL: SHALL BE WITHOUT ADMIXTURE OF SUBSOIL OF SLAG AND SHALL BE FREE OF STONES, LUMPS, PLANTS OR THEIR ROOTS, STICKS AND EXTRANEOUS MATTER, AND SHALL NOT BE MOVED, PLACED OR USED WHILE IN FROZEN OR MUDDY CONDITION. TOPSOIL SHALL HAVE AN ACIDITY RANGE OF pH 5.0 TO 7.0 AND SHALL CONTAIN NOT LESS THAN 5% ORGANIC MATTER AS DETERMINED BY THE "WALKLEY-BLACK METHOD" (COLORIMETRIC VERSION). SUFFICIENT LIMESTONE SHALL BE ADDED TO

OF pH 6.0 TO pH 6.5. THERE SHALL BE A MINIMUM OF 12" OF TOPSOIL (AFTER SETTLEMENT) IN ALL PLANT BEDS, OR GROUND COVER AREAS AND 3" IN ALL FINE LAWN, SEEDED AREAS OR AS CALLED FOR. AREAS WHERE PAVING HAS BEEN REMOVED TO PROVIDE LAWN OR PLANTING BED AREA SHALL BE ROTOTILLED TO A DEPTH OF AT LEAST 12 INCHES PRIOR TO PLACING TOPSOIL.

FERTILIZATION: 1. FOR TREES, SHRUBS AND ALL GROUND COVER (HERBACEOUS AND CONIFEROUS): "TERRA-SORB" AG AT THE RATE OF 32 OZ PER CUBIC YARD OF SOIL MIX.

2. FOR TREES AND SHRUBS (EXCLUDING CONIFEROUS GROUND COVER): PHC HEALTHY START 3-4-3 ORGANIC FERTILIZER/SOIL CONDITIONER, SHALL BE APPLIED AT 1/2 LB. PER TRUNK DIAMETER (CAL. INCH) FOR TREES. FOR SHRUBS USE THE FOLLOWING TABLE:

PLANT SIZE	RATE CU	PS LBS.	#PLAN	T BAC
1 GALLON	1/2	1/4	100	
5 GALLON	1	1	/2	50
15 GALLON	2	1	25	
24" BALL/BOX	3	1 1/2	16	
36" BALL/BOX	5	2 1/2	10	
42" BALL/BOX	6	3	8	
54" BALL/BOX	8	4	6	
72" BALL/BOX	10	5	5	

FOR HERBACEOUS AND CONIFEROUS GROUND COVER: DRY ROOTS 2 SHALL BE APPLIED AT THE FOLLOWING RATES:

CONIFEROUS GROUND COVER: PLANT SIZE RATE CUPS LBS. #PLANT BAG

3/4 1 1/2

HERBACEOUS GROUND COVER: 20LBS./1000 SQUARE FEET.

FOR LAWN AND SEEDED AREAS: 10-6-4 50% ORGANIC FERTILIZER AT THE RATE OF 20LBS. PER 1,000 SQUARE FEET (OR AS REQUIRED BY TOPSOIL ANALYSIS REPORT).

- 10. ALL PLANT MATERIAL MUST COMPLY WITH THE RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "STANDARD FOR NURSERY
- 11. PLANT QUANTITIES ARE GIVEN FOR COMPARISON PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING PLANT COUNTS AND SHALL BE RESPONSIBLE FOR PROVIDING ALL PLANT MATERIAL SHOWN ON THE DRAWING. ANY DISCREPANCIES BETWEEN PLANT SCHEDULE QUANTITIES AND PLANS SHALL IMMEDIATELY BE BROUGHT TO THE LANDSCAPE ARCHITECT'S ATTENTION PRIOR TO SUBMISSION OF BID. NO SUBSTITUTIONS OF TYPE OF PLANT MATERIAL OR SIZES OF PLANT MATERIAL WILL BE ACCEPTABLE UNLESS APPROVED BY THE LANDSCAPE ARCHITECT. ANY CHANGES TO AN APPROVED LANDSCAPE PLAN MUST BE AUTHORIZED BY THE LANDSCAPE ARCHITECT.
- 12. APPLY ANTI-DESICCANT PRIOR TO THE ONSET OF WINTER AND AGAIN IN MID-WINTER, USING POWER SPRAY TO PROVIDE AN ADEQUATE FILM OVER TRUNKS, BRANCHES, STEMS, TWIGS, AND FOLIAGE. IF DECIDUOUS TREES OR SHRUBS ARE MOVED IN FULL-LEAF, SPRAY WITH ANTI-DESICCANT AT NURSERY BEFORE MOVING AND AGAIN TWO WEEKS AFTER INSTALLATION.
- 13. ALL PLANTED TREES, SHRUBS, GROUND COVERS AND ANNUAL FLOWERS, SHALL BE MAINTAINED UNTIL FINAL ACCEPTANCE OF THE COMPLETED CONTRACT, OR WHEN INSTALLATION IS ACCEPTED AND MAINTENANCE IS TRANSFERRED TO OWNER. MAINTENANCE SHALL INCLUDE WATERING, CULTIVATING, CONTROL OF INSECTS, FUNGUS, AND OTHER HORTICULTURAL OPERATIONS NECESSARY FOR THE PROPER GROWTH OF ALL PLANT MATERIAL.
- 14. PLANT LOCATIONS SHOWN ON THE PLAN ARE APPROXIMATE AND SUBJECT TO FIELD AND UTILITY LOCATIONS.
- 15. PERMANENT SEEDING MIX PER DNREC STANDARD DETAIL DE-ESC 3.4.3. REFER TO SEDIMENT AND STORMWATER PLANS, SHEET 6 OF 9. ALL PERVIOUS AREAS THAT DO NOT RECEIVE SHREDDED HARDWOOD MULCH SHALL BE SEEDED ACCORDING TO THE TABLE BELOW.

		PERMAN	ENT SE	EDING	AND	SEED	DING I	DATES	S (cor	ıt.)		
	Seeding Mixtures	Seeding	g Rate ¹		•	timum O = Optin A = Accep	num Plan	ting Perio	d		Remarks	
Mix No.	Certified Seed ³			Co	astal Pl	ain	Р	iedmon	nt	All ⁴		
	Poorly Drained Soils	lbs/Ac	lb/1000 sq.ft.	2/1- 4/30	5/1- 8/14	8/15- 10/31	3/1- 4/30	5/1- 7/31	8/1- 10/31	10/31- 2/1		
14	Creeping Red Fescue Rough Bluegrass or Chewings Fescue	50 90	1.15 2.1	0	Α	0	0	Α	0		Shade tolerant, moisture tolerant.	*

- 1. When hydroseeding is the choosen method of application, the total rate of seed should be increased by 25%. 2. Winter seeding requires 3 tons per acre of straw mulch. Planting dates listed above are average for Delaware. These dates may require
- adjustment to reflect local conditions 3. All seed shall meet the minimum purity and maximum germination percentages recommended by the Delaware Department of Agriculture. The maximum % of weed seeds shall be in accordance with Section 1, Chapter 24, Title 3 of the Delaware Code.
- 4. Cool season species may be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
- 6. Warm season grass mix and Reed Canary Grass cannot be mowed more than 4 times per year. 7. Warm season grasses require a soil temperature of at least 50 degrees in order to germinate, and will remain dormant untill then.

TREE PROTECTION NOTES

- ORNAMENTAL KALE / CABBAGE

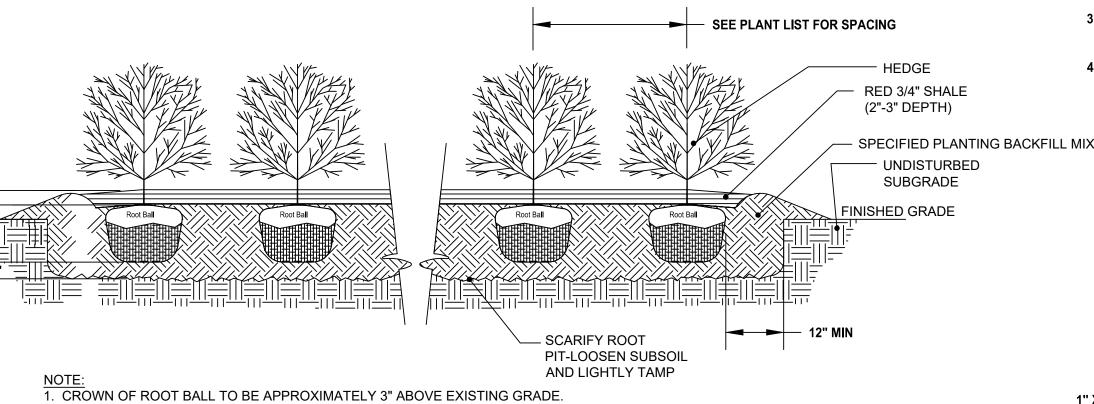
- 1. LIMIT OF WORK LINE TO BE DELINEATED BY SNOW FENCING OR APPROVED EQUAL. ALL TREES IDENTIFIED AS BEING PRESERVED FOR CREDIT SHALL BE FENCED ALONG OR BEYOND THEIR DRIP LINE. SEE TREE PROTECTION DETAIL ON THIS SHEET.
- 2. PROTECTIVE FENCING TO BE SNOW FENCING OR EQUIVALENT TO PROTECT VEGETATION FROM HEAVY MACHINERY OR CONSTRUCTION OPERATIONS.
- 3. PROTECTIVE FENCING TO BE ERECTED BEFORE EXCAVATION AND REMOVED UPON COMPLETION OF GRADING.

RECOMMENDED SEASONAL COLOR VARIETIES:

ANNUALS	PERENNIALS
• SPRING	- SUMMER PHLOY
- PANSIES	- COMMON THRIFT
- SNAPDRAGON	- SHASTA DAISY
- DUSTY MILLER	- THREAD - LEAVED COREOPSIS
• SUMMER	- ENGLISH LAVENDER
- GERANIUMS	- PERENNIAL SALVIA
- MARIGOLDS	- AUTUMN STONE CROP
- IMPATIENTS	
• FALL / WINTER	
- PANSIES	
- CHRYSANTHEMUMS	

CONTRACTOR NOTES

- 1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES REGARDING LANDSCAPING.
- 2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH A HEALTHY STAND OF GRASS ON ALL SEEDED AREAS.
- 3. GENERAL CONTRACTOR IS TO CLEAN ENTIRE SITE OF ALL CONSTRUCTION DEBRIS AND RAKE ENTIRE SITE.

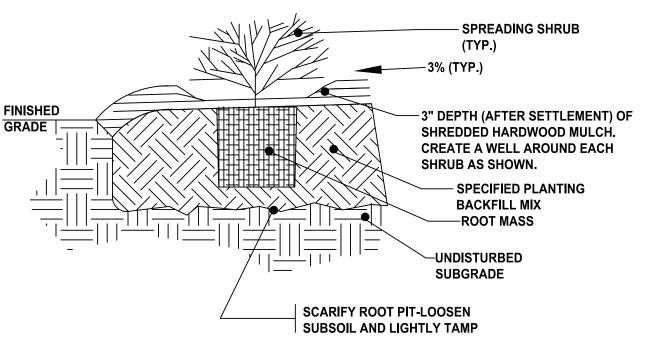


- 2. REMOVE COLLAR ROPES AND BURLAP FROM TOP 1/3 OF ROOT BALL
- 3. HEDGE PLANTING TRENCH SHALL BE CONTINUOUS FOR ENTIRE LENGTH OF HEDGE.

DETAIL: HEDGE PLANTING SCALE: NOT TO SCALE CHINA GIRL/CHINA BOY HOLLY HEDGE 3" DEPTH (AFTER SETTLEMENT) OF SHREDDED HARDWOOD BARK MULCH 3:1 STEEPEST ALLOWED ADJACENT TURF OR MULCH-SEE SPECIFIED PLANTING BACKFILL 5:1 SIDE SLOPE (PREFERRED CONDITION) (TYPICAL) **FINISHED GRADE** SUBGRADE → 12" MIN → 3'-4" WIDE TRENCH - 5'-0" WIDE PLANTING BED (MIN)

DETAIL: HEDGE PLANTING CROSS SECTION

SCALE: NOT TO SCALE



- 1. CROWN OF ROOT MASS TO BE SLIGHTLY ABOVE EXISTING GRADE. IF DRAINAGE IS QUESTIONABLE NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY FOR DECISION.
- 2. FOR BARE ROOT SHRUBS: THIN BRANCHES AND FOLIAGE (NOT ALL END TIPS) BY 1/3 RETAINING NORMAL PLANT SHAPE. (BARE ROOT PLANTS ONLY).
- 3. FOR CONTAINER SHRUBS: REMOVE POT, CHECK ROOT SYSTEM. IF THERE ARE ANY SIGNS OF BEING ROOT BOUND, SLASH ROOT MASS (WITH A SHARP KNIFE) VERTICALLY IN 4 EQUIDISTANT LOCATIONS.
- 4. FOR BALLED AND BURLAPPED SHRUBS: REMOVE COLLAR ROPES AND TOP 1/3 OF BURLAP. 5. CROWN OR SLOPE ALL SHRUB BEDS TO ASSURE A MIN. PITCH OF 3%.

SHRUB PLANTING DETAIL

NOT TO SCALE

PLANTING NOTES: 1. CROWN OF ROOT BALL SHALL BEAR SAME RELATION (OR SLIGHTLY ABOVE) TO FINISHED GRADE AS IT BORE TO PREVIOUS GRADE. 2. DO NOT DAMAGE MAIN ROOTS OR DESTROY ROOT BALL WHEN INSTALLING TREE SUPPORT POSTS. 3. REMOVE HOSE AND POST AT END OF **GUARANTEE PERIOD (OR NO LONGER** THAN 12 MONTHS) 4. CONTRACTOR TO PROVIDE PROTECTION AGAINST DEER RUB/RUT WHICH IS NOT DIRECTLY ATTACHED TQ TRUNK. (AS APPROVED) POSTS (3) & 1" X 2" WOOD BRACES NAILED TO POSTS. (FOR TREES OVER 3" CAL.) <u>PLAN</u> GCS TREESTRAP #2024, AVAILABLE FROM GCS, INC., 230 CENTER STREET, NORTH WALES, PA 19454. (215) 661-9070 1" X 2" WOOD BRACE NAILED TO NO. 10 GAUGE GALVANIZED ANNEALED POSTS FOR TREES OVER 3" CAL. — STEEL WIRE TWISTED 2 STRANDS **DOUBLE WRAPPED** POSTS TO BE WHITE CEDAR AS FOLLOWS: 2-21\2" DIA. POST (MINOR TREE) 4' POST HEIGHT 3-3 1\2" DIA. POSTS (MAJOR TREES TO 3" CAL.) 5' POST HEIGHT 3-3 1\2" DIA. POSTS (MAJOR TREES OVER 3" CAL.) 7' POST HEIGHT POST SHALL EXTEND BELOW FINISHED GRADE 2'-6" MIN. -**VARIES (SHALL BE 6" BEYOND BALL MINIMUM.)** — 3" DEPTH (AFTER SETTLEMENT) **CUT ROPES AT TOP OF BALL** OF SHREDDED HARDWOOD MULCH. REMOVE TOP 1/3 OF BURLAP — NO MULCH SHOULD BE TOUCHING TREE TRUNKS MULCH RADIUS SPECIFIED PLANTING BACKFILL MIX

DETAIL: TREE PLANTING

SCALE: **NOT TO SCALE**

STORM DRAIN INSPECTION AND MAINTENANCE

CATCH BASINS AND ROOF DRAIN CLEANOUTS:

CATCH BASINS AND ROOF DRAIN CLEANOUTS SHOULD BE INSPECTED SEMI-ANNUALLY. ROOF DRAINS SHOULD BE CLEARED OF ANY OBSERVED DEBRIS. CATCH BASIN INSERTS SHOULD BE INSPECTED AT LEAST SEMI-ANNUALLY OR AFTER LARGE STORM EVENTS. SEDIMENT SHALL BE REMOVED DURING THE SEMI-ANNUAL INSPECTION. FILTER STRIPS SHOULD BE REPLACED WHEN THEIR CAPACITY IS REACHED.

TRENCH DRAINS:

TRENCH DRAINS SHALL BE INSPECTED SEMI-ANNUALLY, ACCUMULATED SEDIMENT AND DEBRIS MUST BE REMOVED BY PRESSURE WASHING OR OTHER APPROPRIATE MEANS TO ALLOW RUNOFF TO FREELY ENTER THE TRENCH DRAIN AT ALL TIMES.

<u>SECTION</u>

BIORETENTION AREA INSPECTION AND MAINTENANCE:

- THERE SHOULD BE SEMI-ANNUAL REGULAR INSPECTIONS OF THE FACILITY. ONCE BEFORE GROWTH EMERGES IN THE SPRING, AND ONCE AT SEED DISPERSAL IN THE FALL. JUST BEFORE NEW GROWTH EMERGES IN THE SPRING, CUT DOWN STANDING STALKS OF HERBACEOUS MATERIAL TO 12 INCHES. TO ELIMINATE COMPETITION FROM INVASIVE PLANTS AND UNDESIRABLE WOODY VEGETATION, SELECTIVELY APPLY APPROPRIATE HERBICIDE WITH A CUT STUMP APPLICATOR OR DIRECTED FOLIAR SPRAYS. PRUNE TREES AND SHRUBS AS NEEDED EVERY FALL.
- 2. THE FACILITY SHOULD BE INSPECTED AFTER STORM EVENTS GREATER THAN 2 INCHES. RESEED AND/OR REPLANT AS REQUIRED BASED UPON INSPECTION FINDINGS. FOR WOODY MATERIAL, INSPECT FOR PESTS AND ICE DAMAGE.
- 3. WHERE SEDIMENT FOREBAYS ARE PROVIDED, REMOVE SEDIMENTS ACCUMULATED IN THE FOREBAY ONCE IT IS HALF FILLED.
- 4. REMOVE ALL VISIBLE ACCUMULATIONS OF SEDIMENT ON TOP OF THE MULCH LAYER WITH A FLAT SHOVEL. RAKE TO PROMOTE INFILTRATION. ADD MULCH IN SPRING AS NEEDED TO MAINTAIN 3 INCH MULCH LAYER.
- 5. STABILIZE ERODED AREAS AND REPLANT AS NECESSARY.
- 6. THE SOIL SHOULD BE TESTED ANNUALLY TO ENSURE PROPER PH, AND ADJUSTED WITH LIMESTONE IF IT IS DETERMINED TO BE TOO ACIDIC. IF REQUIRED, FERTILIZER SHOULD ONLY BE APPLIED IN THE FALL.

\square

15 OCTOBER 2020 SCALE:

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12393.EA PROJECT NO.

L2 OF 2 SHEET:



BIOENERGY DEVCO

CONDITIONAL USE EXHIBIT BOOK

C.U. No. 2258 FEBRUARY 11, 2021

Table of Contents

Introduction	3
Applicants	3
About Bioenergy Devco	3
About Anaerobic Digestion	3
Site Past Use	5
Regional Nutrient Management	6
Facility Operations Overview	7
Benefits	8
Employment	8
Environment Introduction Environmental Benefits - Soil Health Environmental Health – Water Quality Environmental Benefits – Alternatives to Land Application	9 9 10 11 11
Community Engagement	12
Design Considerations	12
Traffic	12
Odor	12
Dust	13
Noise	13
Gas and Safety	13
Air Quality and Emissions	13
Groundwater	14
Stormwater	14
Wastewater Pretreatment	14
Engineering Considerations	15
Site Permitting Traffic Sediment and Stormwater Stormwater (Industrial) Water Supply Wastewater Air Resource Recovery Facility Permit	15 15 15 15 15 15
Kesource Recovery Facility Permit	16

Appendix

Copy of Application	17
Site Plan Color Rendering	19
Final Site Plan	22
DelDOT Permit for Entrance Construction Approval	40
DelDOT Permit for Entrance Construction	42
SFMO Site Plan Approval	44
Conditional Use Ordinance 2311 for Conditional Use 1962	47
Conditional Use Ordinance 1865 for Conditional Use 1691	52
Conditional Use Ordinance 1354 for Conditional Use 1314	57
Sussex County Zoning Letter	65
Findings of Fact	66
SCD Standard Plan Approval Letter	69
Standard Plan with SCD Approval	71
S&S Plans with SCD Approval	75
DNREC Drainage Program Letter of No Objection	

INTRODUCTION

APPLICANTS

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ABOUT BIOENERGY DEVCO

Bioenergy Devco (BDC) is a Maryland-based developer of anaerobic digestion (AD) facilities, committed to bringing leading European technology to North America. BDC's technology division, BTS Biogas, boasts 20+ years of global experience, financing, designing, building, and operating anaerobic digesters on four continents. BDC guarantees performance of the more than 220 facilities it has developed and the more than 150 plants it services worldwide.

BDC owns and operates the Bioenergy Innovation Center (BIC), a successful composting facility that receives poultry residuals and manufactures high quality organic compost distributed throughout the region. As a complement to this facility, BDC is constructing a state-of-the-art anaerobic digestor. The combined compost and AD operation will be dedicated to minimizing environmental impact of excess organics created by the poultry industry and enriching the land, while creating new opportunities for farmers around the Delmarva peninsula. The addition of an anaerobic digestion system will enhance the facility's outputs to include renewable energy and digestate that can be used as a soil amendment.

ABOUT ANAEROBIC DIGESTION

Anaerobic digestion (AD) is a safe and common process that uses microbes to break down organic materials into important and valuable end-products – renewable energy and an organic soil amendment. This widely adopted technology is used worldwide, with approximately 50 million ADs in operation across the globe, ranging from small backyard digesters to large digesters common at wastewater treatment sites, farms, and food processing facilities. The AD facility being developed at BIC, while innovative, is hardly a new or untested technology¹.

Europe is widely considered the leader in AD technology, and its implementation has been propelled by the establishment of rigorous environmental regulations for waste disposal and demand for renewable energy. While Europe is considered the industry leader, AD has a growing global footprint. There are approximately two million AD facilities worldwide that are considered industrial, similar in operation and design to what is being proposed at BIC.² In fact, this promising technology is already at work in the Delmarva region. Existing local facilities and commercial operations that utilize AD include, but are not limited, to:

- Millennium Farms Digester 6 Buck Harbor Road, Pocomoke City, MD 21851
- Dogfish Head Brewery 6 Cannery Village Center, Milton, DE 19968
- Wilmington Wastewater Treatment Plant E 12th St & Hay Rd, Wilmington, DE 19809
- HRSD Atlantic Sewage Treatment Plant 645 Firefall Drive, Virginia Beach, VA 23454
- Chesapeake-Elizabeth WPCF 5332 Shore Drive, Virginia Beach, VA 23455

The Delmarva peninsula and the residents of Sussex County have faced many challenges related to organics management. AD provides much needed alternatives to land application and land filling of organic materials. Traditionally, much of this material has been spread on farmland; however, the long term environmental and community impacts of this practice make it necessary to explore new approaches. Land applying these materials in large scale causes odor nuisances for communities and causes harmful nutrient buildup in farm soils that leach into surface and ground water. These excessive nutrients end up in drinking water and in our watersheds, posing serous risks to public health and the environment.

AD provides an alternative to spreading raw organic materials on farmland. Much in the tradition of the site's past uses of composting and pelletizing, the facility being developed will recycle this material into safe and sustainable products. However, this facility will maximize environmental benefit beyond previous uses by employing state of the art AD technology. In addition to exporting soil amendments, the Bioenergy Innovation Center will also export renewable natural gas, a clean, low-carbon fuel not derived from fossil fuels. This renewable natural gas will be injected into the natural gas pipeline, fueling local homes and businesses.

¹ Yousuf, A., Khan, M. R., Pirozzi, D., & Ab Wahid, Z. (2016). Financial sustainability of biogas technology: Barriers, opportunities, and solutions. *Energy Sources, Part B: Economics, Planning, and Policy, 11*(9), 841-848.

² Vasco-Correa, J., Khanal, S., Manandhar, A., & Shah, A. (2018). Anaerobic digestion for bioenergy production: Global status, environmental and techno-economic implications, and government policies. *Bioresource technology*, 247, 1015-1026.

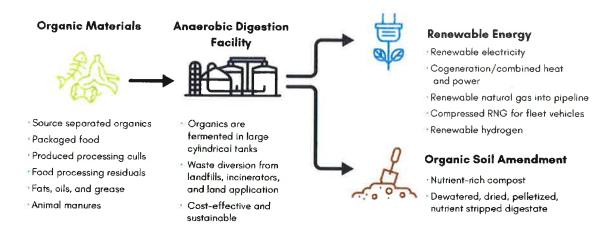


Figure 1 - General description of anaerobic digestion, detailing inputs and outputs.

SITE PAST USE

The Bioenergy Innovation Center occupies land that has been used as a regional recycling facility, converting large volumes of agricultural residuals into soil amendments, for more than 20 years.

This property was first developed in 1999 as the Perdue AgriRecycle facility. This facility received up to 120,000 tons per year of poultry litter, and used natural gas fired boilers to dry and then pelletize the poultry litter into an organic fertilizer. Trucks delivered the poultry litter from area farms to the Perdue AgriRecycle facility, and both trucks and trains transported finished fertilizer to customers.

The original Conditional Use (No. 1314) from 1999 allows for the receiving of poultry by-products to be converted into fertilizers. This Conditional Use mentions that the facility is in a development district of the 1997 Sussex County Comprehensive Development Plan, and therefore an appropriate location for a recycling facility that serves the Delmarva agricultural community.

A second Conditional Use (No. 1691) was issued in 2006. This Conditional Use modifies the No. 1314 to ease operational conditions, allowing for the pickup and drop of materials using rail cars within the site at any time. The same Conditional Use allows for truck travel to the site any time, outside storage in watertight containers and operation on Sundays. The use outlined in this ordinance has "proven to be a good way to eliminate potential sources of excess nitrates and phosphates from Sussex County Soils."

The Perdue AgriRecycle facility transitioned to its current functionality as the AgriSoils composting facility in 2014, covered under Conditional Use 1962. This facility, now in operation for six years, has been permitted to convert 30,000 tons of poultry by-products into compost, used by the agricultural and horticultural industry throughout the region. BDC purchased the compost facility in February 2020 and has been operating here under DNREC Compost Permit SW-18/03. Since assuming operations in

February 2020, BDC has had no complaints or Notices of Violation and is in full compliance with all permits and regulations.

BDC's proposed anaerobic digester is similar to the past use of this site. Like the AgriRecycle pelletizing facility and the AgriSoil composting facility, the BDC AD facility will recycle local agricultural by-products into valuable products bought and distributed throughout the eastern United States. In addition to soil amendments, the BDC AD will also create renewable natural gas, addressing a second critical need of the community.

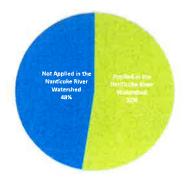
The vantage from Alt-Rt. 13 and the façade of the main building facility will not change. The technology used within, however, will change. Instead of using natural gas to dry and pelletize poultry litter, the BDC AD will use microorganisms within contained tanks to extract energy from poultry residuals. Instead of being a major consumer of natural gas, this new facility will be an exporter of renewable natural gas made not from fracking but from the natural process of biodegradation.

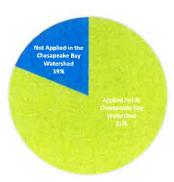
REGIONAL NUTRIENT MANAGEMENT

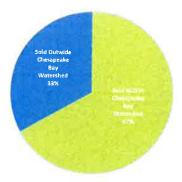
A common misconception is that BIC is aggregating organic waste and therefore nutrients, thus increasing the nutrient loading into nearby creeks, streams, and watersheds. The facility recycles organic material that would typically be applied on agricultural land within the Nanticoke and Chesapeake watersheds, and manufactures soil amendments that are being distributed to lands in need of added nutrients outside of these watersheds. This net export of nutrients reduces the current load impacting the Nanticoke River and the Chesapeake Bay.

Materials that will be disposed of at BIC contain significant amounts of excess nitrogen, 1m pounds of which would have been land applied in the Chesapeake Bay watershed and 700k pounds that would have been applied in the Nanticoke River watershed. BIC will receive and process these organic materials, preventing these quantities of N from being land applied in these watersheds.

In 2020, BIC sold 18,122 tons of compost, 12,111 tons of that compost was sold and distributed to customers within the Chesapeake Bay watershed, and 920 tons were sold and distributed to customers within the Nanticoke River watershed.







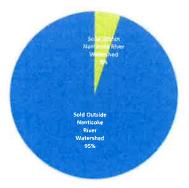


Figure 2 - Breakdown of whether compost was sold and distributed inside or outside the Chesapeake Bay and Nanticoke River watersheds.

While 2/3 of the compost sold in 2020 remained inside the Chesapeake Bay watershed, the vast majority, 95%, was transported outside the Nanticoke River watershed. This shows that the facility acts as a net exporter of nutrients by receiving in nutrients that would otherwise be applied in their raw form within local watersheds and distributes those excess nutrients out of local watersheds bolstering nutrient management initiative and improving outcomes for local ecosystems.

FACILITY OPERATIONS OVERVIEW



BIC is currently a successful composting facility. The facility is permitted to receive, process, and recycle 30,000 tons per year of poultry residuals and manufactures about 18,000 tons per year of high-quality organic compost. That compost is being used in local gardens and farms and distributed to agricultural and horticultural business in the mid-Atlantic region.

BDC is proposing to build an AD facility in the rear of the old pelletizing facility. The rear yard and some of the existing stormwater pond will be replaced with four above ground tanks. A portion of the old pelletizing facility will be repurposed for the operation of the AD. A microbiology lab and associated feedstock testing facility, spare parts warehouse, and administrative offices will also occupy the old

pelletizing building.

Feedstocks will continue to be brought into the facility from the main entrance of Enviro Way, off Alt-13. Trucks are weighed and directed to the AD receiving building, which is on the south side of the pelletizing building and previously used for the receiving of poultry litter. The receiving building is

completely enclosed, under negative pressure to capture odors. Inside, trucks will empty, be weighed a second time, and then leave the site via Enviro Way.

The material will then be pumped into the one of three exteriors above-ground mixed storage tanks, material is the pumped into one of the four digester tanks. All these tanks are completely enclosed, containing both the material and any odors. The tanks are heated and the contents constantly mixed. Inside, micro-organisms break down the material.

The microorganisms release biogas, a mixture of methane, carbon dioxide, water vapor, and other trace gasses (minor quantities of hydrogen sulfide and ammonia) which are captured and scrubbed. Biogas is collected from these tanks. Chesapeake Utilities will be responsible for cleaning the gas to reach renewable natural gas quality and injecting it into the natural gas pipeline.

After about one month in the digesters, the material, now called digestate, has been broken down and is removed. Digestate is a liquid organic soil amendment and can be used to improve soil fertility and plant growth in farmland. However, since we have established markets for compost, BIC will use a centrifuge to remove excess water from the digestate. The digestate solids will be transferred to the composting facility, where it will be further processed with ground wood waste to make the same organic compost that is produced and marketed today. The water separated from the digestate will be processed in an on-site wastewater pre-treatment system before being transferred to a local wastewater facility for ultimate discharge.

BENEFITS

EMPLOYMENT

The BIC currently employs eleven full time positions with an annual payroll of approximately \$750,000 per year. All employees are full-time with benefits, and our staff includes equipment operators, mechanics, office, and management staff.

The construction of the AD employs 40-45 people. Long term BDC projects roughly 30 additional employees for the future AD facility and 11 employees for the compost facility.

In the future, the Bioenergy Innovation Center will expand its workforce, where in addition to the equipment operators, mechanics, and administrative staff that we currently employ, we look to employ environmental technicians and microbiologists.

The Bioenergy Innovation Center will also support dozens of other employees through the contracting with local vendors for transportation, specialized equipment maintenance, and other regularly performed services.

We take pride in our ability to offer long-term careers with living wages and proudly employ people who have been working on the site for many years. BDC is working with DelTech to hire within the community. BDC offers full-time employment with healthcare and benefits packages. The positions will range from entry-level mechanics to more experienced facility operators, qualified lab technicians, and many others.

ENVIRONMENT

INTRODUCTION

Anaerobic digestion (AD) is a holistic environmental solution at the heart of the circular economy. AD leverages natural microbial processes to extend the useful lifecycle of organics by converting waste streams to valuable resources. AD technology mimics nature's processes of breaking down organic molecules relying on bacteria to decompose organic waste in the absence of oxygen. This process produces biogas (a renewable fuel) and digestate (an organic soil fertilizer, amendment, or additive). The process allows for a truly circular approach to recycling excess organic waste, creating renewable energy, and returning nutrients and carbon back to the soil. This approach has significant impacts on reducing greenhouse gas (GHG) emissions, making AD a vital tool in reversing the effects of climate change.

AD offers a solution to the atmospheric emissions from three sectors responsible for most GHG emissions: energy, waste, and agriculture ³. A typical AD project such as the BIC that uses organic residuals diverted from landfills can:

- 1. Divert 114,185 US tons of organic residuals from landfills
- 2. Provide renewable energy equal with the annual electricity use of 7,504 US houses
- 3. Reduce the carbon emissions equal to taking out of the streets permanently 7,808 cars
- 4. Have the same carbon sequestration impact that a forested area equal to **56 times the size of Central Park** area.

Environmental evaluation and analysis are performed with the Life Cycle Assessment (LCA) framework, which is an EN ISO 14040 standardized process with specific rules and guidelines. LCA analysis assess environmental impacts associated with all the stages of a product's life, from raw material extraction through materials processing, manufacture, distribution, and use ⁴.

LCA analysis of AD technology in different countries and from various independent researchers highlight the multiple environmental benefits of the AD technology in comparison with alternative options. AD is recognized as the best option for various organic residues (organic food waste, food industry residues, litter and MSW) in terms of Renewable Energy output, Global Warming Potential and Eutrophication Potential ^{5 6 7 8}.

³ EPA (2020, December 04). Sources of Greenhouse Gas Emissions. Retrieved January 30, 2021, from https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions

⁴ Krishna, I. M., Manickam, V., Shah, A., & Davergave, N. (2017). Environmental management: science and engineering for industry. Butterworth-Heinemann.

⁵ Evangelisti, S., Lettieri, P., Borello, D., & Clift, R. (2014). Life cycle assessment of energy from waste via anaerobic digestion: a UK case study. *Waste management*, *34*(1), 226-237.

⁶ Beausang, C., McDonnell, K., & Murphy, F. (2020). Anaerobic digestion of poultry litter—A consequential life cycle assessment. *Science of The Total Environment*, 735, 139494.

⁷ Chaya, W., & Gheewala, S. H. (2007). Life cycle assessment of MSW-to-energy schemes in Thailand. *Journal of Cleaner Production*, *15*(15), 1463-1468.

⁸ Cremiato, R., Mastellone, M. L., Tagliaferri, C., Zaccariello, L., & Lettieri, P. (2018). Environmental impact of municipal solid waste management using Life Cycle Assessment: The effect of anaerobic digestion, materials recovery and secondary fuels production. *Renewable Energy*, 124, 180-188.

The state of Delaware faces several challenges related to waste with far reaching environmental impacts. The Delaware Solid Waste Authority estimates that the state generates a considerable amount of recyclable organic materials – including food and yard waste – each year. Representing nearly 25% of Delaware's municipal solid waste stream, most of this organic material is disposed of through unsustainable means – primarily landfills.⁹

An estimated 30-40% of these recyclables have typically been discarded during initial agricultural processing or handled on-site through farm-operated composting facilities¹⁰ Delaware's thousands of acres of phosphorus-enriched farmland in Sussex and Kent counties, as well as the state's challenges with nitrogen-laden fertilizer operations south of the Chesapeake and Delaware Canal, speak to the urgent need for new more sustainable waste solutions¹¹. The Bioenergy Innovation center will be taking in organic waste from the Delmarva region and diverting waste from some of the regions overburdened waste infrastructure.

The Anerobic Digester operations at the Bioenergy Innovation Center (BIC) will result in a net decrease in nutrient loading to both the Nanticoke and Chesapeake watersheds. This is because:

- The facility aggregates organic wastes that would typically be applied on agricultural land in proximity to the Nanticoke and Chesapeake watersheds, and manufactures soil amendments that are being distributed and used outside of these watersheds in areas where these nutrients are needed. This net export of nutrients reduces the current load currently being loaded into Nanticoke River and the Chesapeake Bay.
- 2. The processes of anaerobic digestion and composting breaks down nutrients from raw feedstocks to stabilized soil amendment which promotes the overall soil health. A healthy soil can naturally manage the nutrients more effectively which results on lower nutrient runoffs and higher nutrient absorption from crops and plants. Anaerobic digestion and compost convert soluble, inorganic nutrients in feedstocks into insoluble, organic nutrients in soil amendments which have lower BOD (Biochemical Oxygen Demand). The nutrients are released slowly in these soil amendments, increasing the likelihood of plant uptake, and decreasing the loading into ground and surface waters. Therefore, the environmental and human health impacts of applying of these nutrients is reduced when you compost or anaerobically digest them compared to applying the raw feedstock.
- 3. DAF sludge, when directly applied to farmland, creates conditions that do not favor plant growth and nutrient uptake. This is because of the physical properties of DAF sludge, and these conditions do not exist with digestate or compost. Therefore, BIC will be producing soil amendments that promote plant growth and plant nutrient uptake, thereby reducing nutrients

 ⁹ Analysis of Organics Diversion Alternatives Report to the Delaware Solid Waste Authority. (2017, September). Retrieved from https://dswa.com/wp-content/uploads/2015/02/Final-Report-to-DSWA-Organics-Analysis-September-8-2017.pdf
 ¹⁰ USDA Food Waste FAQs. (n.d.). Retrieved from

https://www.usda.gov/foodwaste/faqs#:~:text=In%20the%20United%20States%2C%20food,worth%20of%20food%20in%2020 10.

¹¹ Amato, H. K., Wong, N. M., Pelc, C., Taylor, K., Price, L. B., Altabet, M., ... & Graham, J. P. (2020). Effects of concentrated poultry operations and cropland manure application on antibiotic resistant Escherichia coli and nutrient pollution in Chesapeake Bay watersheds. *Science of The Total Environment*, 735, 139401.

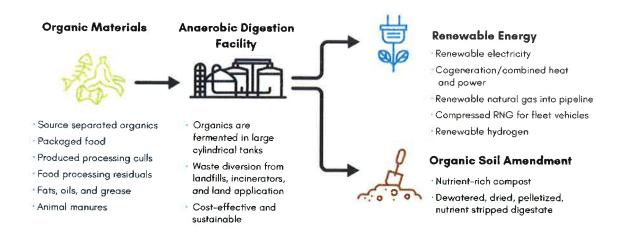


Figure 1 - General description of anaerobic digestion, detailing inputs and outputs.

SITE PAST USE

The Bioenergy Innovation Center occupies land that has been used as a regional recycling facility, converting large volumes of agricultural residuals into soil amendments, for more than 20 years.

This property was first developed in 1999 as the Perdue AgriRecycle facility. This facility received up to 120,000 tons per year of poultry litter, and used natural gas fired boilers to dry and then pelletize the poultry litter into an organic fertilizer. Trucks delivered the poultry litter from area farms to the Perdue AgriRecycle facility, and both trucks and trains transported finished fertilizer to customers.

The original Conditional Use (No. 1314) from 1999 allows for the receiving of poultry by-products to be converted into fertilizers. This Conditional Use mentions that the facility is in a development district of the 1997 Sussex County Comprehensive Development Plan, and therefore an appropriate location for a recycling facility that serves the Delmarva agricultural community.

A second Conditional Use (No. 1691) was issued in 2006. This Conditional Use modifies the No. 1314 to ease operational conditions, allowing for the pickup and drop of materials using rail cars within the site at any time. The same Conditional Use allows for truck travel to the site any time, outside storage in watertight containers and operation on Sundays. The use outlined in this ordinance has "proven to be a good way to eliminate potential sources of excess nitrates and phosphates from Sussex County Soils."

The Perdue AgriRecycle facility transitioned to its current functionality as the AgriSoils composting facility in 2014, covered under Conditional Use 1962. This facility, now in operation for six years, has been permitted to convert 30,000 tons of poultry by-products into compost, used by the agricultural and horticultural industry throughout the region. BDC purchased the compost facility in February 2020 and has been operating here under DNREC Compost Permit SW-18/03. Since assuming operations in

February 2020, BDC has had no complaints or Notices of Violation and is in full compliance with all permits and regulations.

BDC's proposed anaerobic digester is similar to the past use of this site. Like the AgriRecycle pelletizing facility and the AgriSoil composting facility, the BDC AD facility will recycle local agricultural by-products into valuable products bought and distributed throughout the eastern United States. In addition to soil amendments, the BDC AD will also create renewable natural gas, addressing a second critical need of the community.

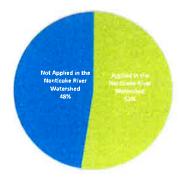
The vantage from Alt-Rt. 13 and the façade of the main building facility will not change. The technology used within, however, will change. Instead of using natural gas to dry and pelletize poultry litter, the BDC AD will use microorganisms within contained tanks to extract energy from poultry residuals. Instead of being a major consumer of natural gas, this new facility will be an exporter of renewable natural gas made not from fracking but from the natural process of biodegradation.

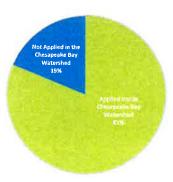
REGIONAL NUTRIENT MANAGEMENT

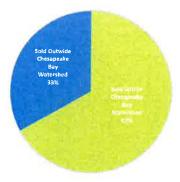
A common misconception is that BIC is aggregating organic waste and therefore nutrients, thus increasing the nutrient loading into nearby creeks, streams, and watersheds. The facility recycles organic material that would typically be applied on agricultural land within the Nanticoke and Chesapeake watersheds, and manufactures soil amendments that are being distributed to lands in need of added nutrients outside of these watersheds. This net export of nutrients reduces the current load impacting the Nanticoke River and the Chesapeake Bay.

Materials that will be disposed of at BIC contain significant amounts of excess nitrogen, 1m pounds of which would have been land applied in the Chesapeake Bay watershed and 700k pounds that would have been applied in the Nanticoke River watershed. BIC will receive and process these organic materials, preventing these quantities of N from being land applied in these watersheds.

In 2020, BIC sold 18,122 tons of compost, 12,111 tons of that compost was sold and distributed to customers within the Chesapeake Bay watershed, and 920 tons were sold and distributed to customers within the Nanticoke River watershed.







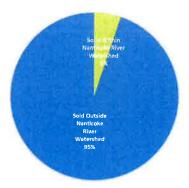


Figure 2 - Breakdown of whether compost was sold and distributed inside or outside the Chesapeake Bay and Nanticoke River watersheds.

While 2/3 of the compost sold in 2020 remained inside the Chesapeake Bay watershed, the vast majority, 95%, was transported outside the Nanticoke River watershed. This shows that the facility acts as a net exporter of nutrients by receiving in nutrients that would otherwise be applied in their raw form within local watersheds and distributes those excess nutrients out of local watersheds bolstering nutrient management initiative and improving outcomes for local ecosystems.

FACILITY OPERATIONS OVERVIEW



BIC is currently a successful composting facility. The facility is permitted to receive, process, and recycle 30,000 tons per year of poultry residuals and manufactures about 18,000 tons per year of high-quality organic compost. That compost is being used in local gardens and farms and distributed to agricultural and horticultural business in the mid-Atlantic region.

BDC is proposing to build an AD facility in the rear of the old pelletizing facility. The rear yard and some of the existing stormwater pond will be replaced with four above ground tanks. A portion of the old pelletizing facility will be repurposed for the operation of the AD. A microbiology lab and associated feedstock testing facility, spare parts warehouse, and administrative offices will also occupy the old

pelletizing building.

Feedstocks will continue to be brought into the facility from the main entrance of Enviro Way, off Alt-13. Trucks are weighed and directed to the AD receiving building, which is on the south side of the pelletizing building and previously used for the receiving of poultry litter. The receiving building is

completely enclosed, under negative pressure to capture odors. Inside, trucks will empty, be weighed a second time, and then leave the site via Enviro Way.

The material will then be pumped into the one of three exteriors above-ground mixed storage tanks, material is the pumped into one of the four digester tanks. All these tanks are completely enclosed, containing both the material and any odors. The tanks are heated and the contents constantly mixed. Inside, micro-organisms break down the material.

The microorganisms release biogas, a mixture of methane, carbon dioxide, water vapor, and other trace gasses (minor quantities of hydrogen sulfide and ammonia) which are captured and scrubbed. Biogas is collected from these tanks. Chesapeake Utilities will be responsible for cleaning the gas to reach renewable natural gas quality and injecting it into the natural gas pipeline.

After about one month in the digesters, the material, now called digestate, has been broken down and is removed. Digestate is a liquid organic soil amendment and can be used to improve soil fertility and plant growth in farmland. However, since we have established markets for compost, BIC will use a centrifuge to remove excess water from the digestate. The digestate solids will be transferred to the composting facility, where it will be further processed with ground wood waste to make the same organic compost that is produced and marketed today. The water separated from the digestate will be processed in an on-site wastewater pre-treatment system before being transferred to a local wastewater facility for ultimate discharge.

BENEFITS

EMPLOYMENT

The BIC currently employs eleven full time positions with an annual payroll of approximately \$750,000 per year. All employees are full-time with benefits, and our staff includes equipment operators, mechanics, office, and management staff.

The construction of the AD employs 40-45 people. Long term BDC projects roughly 30 additional employees for the future AD facility and 11 employees for the compost facility.

In the future, the Bioenergy Innovation Center will expand its workforce, where in addition to the equipment operators, mechanics, and administrative staff that we currently employ, we look to employ environmental technicians and microbiologists.

The Bioenergy Innovation Center will also support dozens of other employees through the contracting with local vendors for transportation, specialized equipment maintenance, and other regularly performed services.

We take pride in our ability to offer long-term careers with living wages and proudly employ people who have been working on the site for many years. BDC is working with DelTech to hire within the community. BDC offers full-time employment with healthcare and benefits packages. The positions will range from entry-level mechanics to more experienced facility operators, qualified lab technicians, and many others.

ENVIRONMENT

INTRODUCTION

Anaerobic digestion (AD) is a holistic environmental solution at the heart of the circular economy. AD leverages natural microbial processes to extend the useful lifecycle of organics by converting waste streams to valuable resources. AD technology mimics nature's processes of breaking down organic molecules relying on bacteria to decompose organic waste in the absence of oxygen. This process produces biogas (a renewable fuel) and digestate (an organic soil fertilizer, amendment, or additive). The process allows for a truly circular approach to recycling excess organic waste, creating renewable energy, and returning nutrients and carbon back to the soil. This approach has significant impacts on reducing greenhouse gas (GHG) emissions, making AD a vital tool in reversing the effects of climate change.

AD offers a solution to the atmospheric emissions from three sectors responsible for most GHG emissions: energy, waste, and agriculture ³. A typical AD project such as the BIC that uses organic residuals diverted from landfills can:

- 1. Divert 114,185 US tons of organic residuals from landfills
- 2. Provide renewable energy equal with the annual electricity use of 7,504 US houses
- 3. Reduce the carbon emissions equal to taking out of the streets permanently 7,808 cars
- 4. Have the same carbon sequestration impact that a forested area equal to **56 times the size of Central Park area**.

Environmental evaluation and analysis are performed with the Life Cycle Assessment (LCA) framework, which is an EN ISO 14040 standardized process with specific rules and guidelines. LCA analysis assess environmental impacts associated with all the stages of a product's life, from raw material extraction through materials processing, manufacture, distribution, and use ⁴.

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An estimated 30-40% of these recyclables have typically been discarded during initial agricultural processing or handled on-site through farm-operated composting facilities¹⁰ Delaware's thousands of acres of phosphorus-enriched farmland in Sussex and Kent counties, as well as the state's challenges with nitrogen-laden fertilizer operations south of the Chesapeake and Delaware Canal, speak to the urgent need for new more sustainable waste solutions¹¹. The Bioenergy Innovation center will be taking in organic waste from the Delmarva region and diverting waste from some of the regions overburdened waste infrastructure.

The Anerobic Digester operations at the Bioenergy Innovation Center (BIC) will result in a net decrease in nutrient loading to both the Nanticoke and Chesapeake watersheds. This is because:

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- 3. DAF sludge, when directly applied to farmland, creates conditions that do not favor plant growth and nutrient uptake. This is because of the physical properties of DAF sludge, and these conditions do not exist with digestate or compost. Therefore, BIC will be producing soil amendments that promote plant growth and plant nutrient uptake, thereby reducing nutrients

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 $[\]frac{\text{https://www.usda.gov/foodwaste/faqs\#:}\sim:\text{text=In}\%20 \text{the}\%20 \text{United}\%20 \text{States}\%2C\%20 \text{food,worth}\%20 \text{of}\%20 \text{food}\%20 \text{in}\%2020 \text{10}.}$

¹¹ Amato, H. K., Wong, N. M., Pelc, C., Taylor, K., Price, L. B., Altabet, M., ... & Graham, J. P. (2020). Effects of concentrated poultry operations and cropland manure application on antibiotic resistant Escherichia coli and nutrient pollution in Chesapeake Bay watersheds. *Science of The Total Environment*, 735, 139401.

that would leach into ground or surface waters. And which is further effective in nutrient reduction when combined with the current compost being sold by our Bioenergy Innovation Center.

ENVIRONMENTAL HEALTH - WATER QUALITY

The macronutrients in raw feedstocks and finished BIC products come in different forms. Nitrogen, the leading driver of eutrophication of the Chesapeake Bay and drinking water pollutant, can be found in soluble, inorganic forms such as nitrate (NO³) or bound in large organic molecules such as humic acid. BIC plays an important role in converting these nutrients from soluble, inorganic forms that quickly leach into surface and groundwater into insoluble, organic forms that become plant available or in a more plant-compatible form (NH⁴4), reducing the likelihood of transport. That is possible also due to the overall soil health improvement as it is described below¹². Further evaluation and analysis can calculate and quantify the number of pounds of either N or P in each of their forms, and BIC should be credited the difference when calculating the nutrients, the facility is offsetting.

ENVIRONMENTAL BENEFITS - ALTERNATIVES TO LAND APPLICATION

The BDC AD offers an alternative to the land application of raw poultry by-products on farmland. Residents of Sussex County are too familiar with the unpleasant pervasive smell of land application. Instead of those materials being spread, sprayed, or injected into farm soil, they will be transported to the Bioenergy Innovation Center and recycled in an enclosed, contained system.

Raw poultry by-products contain pathogens that can pose serious public health impacts, including Salmonella and E. Coli. When these by-products are land applied, theses pathogens can contaminate water and our drinking supply. The high heat of the AD and composting process kills these pathogens, and our compost is routinely tested to ensure that the amount of these pathogens meets state requirements.

Furthermore, repeated land application of raw poultry by-products causes long-term soil fertility problems. While poultry by-products do have high nitrogen content and can be used as a nutrient source for plants, they also contain high levels of grease and oil. When applied to farmland, these high levels of grease and oil create a high oxygen demand and potentially anaerobic conditions in the soil, all which negatively affect plant growth. On the contrary, in the case of compost and digestate from AD that uses poultry by-products as feedstock, grease and oils have already been through biological degradation. Thus, digestate or compost from the same feedstock does not cause such severe anaerobic soil conditions in the soil, which promotes the health of the soil and its ability to manage the nutrients in a natural undisturbed way¹³.

Another problem related to direct land application of raw poultry by-products is the physical clogging of the soil and obstruction of water flow. Long-term application of the high fat and oil content of sludge can lead to physical clogging of the soil. As a result, water cannot flow through the soil and plants cannot grow. In contrast, compost and digestate from AD derived from DAF sludge, grease and oils

¹² Möller, K., & Müller, T. (2012). Effects of anaerobic digestion on digestate nutrient availability and crop growth: A review. *Engineering in Life Sciences*, *12*(3), 242-257.

¹³ Simpson, T. W. (1991). Agronomic use of poultry industry waste. *Poultry Science*, 70(5), 1126-1131.

undergo degradation and are broken down to allow for the flow of water and nutrients. As a result, there is no potential long-term risk of soil clogging with the use of digestate and compost. The resulting healthy soil can manage the nutrients in a natural undisturbed way.

COMMUNITY ENGAGEMENT

BDC welcomes the opportunity to engage with local communities and show how our anaerobic digestion facilities will bring a more sustainable approach to regional organics processing and renewable energy generation – all while producing better soil, water, and air quality outcomes for our collective environment.

The BIC has made donations to the Spade and Trowel Garden Club of Seaford, the Delaware Food Bank, and other local organizations to foster community engagement and involvement. On November 21, 2020, BDC hosted a Discovery Day event at the BIC with both in-person and virtual attendance options. The purpose of the event was to educate and provide transparency to the community about existing and future facility operations, environmental benefits, and any other topics of interest to attendees.

The BIC has partnered with the University of Delaware for a compost study and is in discussions with other local educational institutions about job pathways program partnerships.

BDC will continue to engage with local organizations and community members as part of its Community Engagement Program and welcomes all interested parties for tours and site visits. We also look forward to providing a space for future job training and research.

DESIGN CONSIDERATIONS

TRAFFIC

All incoming truck traffic will access the site from Seaford Road and turn onto Enviro Way. All Trucks leaving the site will use Enviro Way and turn onto Seaford Road. A separate administrative entrance is planned to be constructed to allow access to the site from Oneals Road. This administrative entrance will be used by all visitors and employees, and thus limit the Seaford Road entrance to commercial truck traffic. BDC anticipates approximately a forty (40) trucks per day of organic feedstock material delivered to the Site for both the anaerobic digester and the composting facility. It is anticipated another five (5) trucks per day will move finished digestate solids and/or compost. Total vehicle trips per day are expected at less than 200 and therefore a traffic impact analysis was not required by DelDOT. A permit for entrance construction has been issued by DelDOT.

ODOR

During the design phase, the design team evaluates odor control using a holistic approach. Odor control measures are site specific and can include a combination of negative pressure, carbon filters placed on vents and dilution stacks, depending on the needs of a specific project. Our facilities are designed so that all food waste/solid waste is received in an enclosed Process Building with an air ventilation system designed to prevent odors from escaping. The air ventilation systems are designed to remove odors

from the building and the elimination or the sufficient dilution of odors prior to being released into the surrounding environment. Biofilters and dilution exhaust fans are proven technologies that are currently used in the design of BDC Facilities. Inbound and outbound vehicles transporting material to our facilities would be required to tarp and/or containerize food waste, digestate and other material loads from the point of origin to the facility.

DUST

Gravel roads will be wetted by truck throughout construction and operation of the Facility to minimize and control dust. As in the previous operation of this site, feedstock including chicken litter is offloaded and handled inside a closed building with dust mitigation and environmental controls to facilitate collection of air born dust in the air.

NOISE

Noise emitting devices, such as back up alarms on heavy equipment will be confined to the facility and contained within structures to limit the noise pollution beyond the property boundary.

GAS AND SAFETY

We certify all facilities to comply with all required safety and emission standards. BDC and its technology partner BTS have an exemplary safety record. In over 20 years and more than 225 Plants worldwide a BTS digester has never exploded. BTS technology has maintained this excellent safety record by proactively defining any potential explosion risk areas and ensuring use of certified tools and redundant safety measures (i.e., pressure relief systems) to prevent accidents. The anaerobic digestion process is completely enclosed process and monitored continuously with instrumentation reporting to a plantwide integrated controls and automation system and by daily visual inspections. Sampling ports allow operators to collect samples of the materials in the digester for lab analysis to ensure the digester is operating for optimal performance and ensure the safety of facility workforce and the surrounding community.

AIR QUALITY AND EMISSIONS

The facility is designed in compliance with all local air quality and odor control ordinances. Air ventilation systems are built into the facility to remove odors from the building and allow for elimination or significant dilution of odors/contaminants prior to any release into the air surrounding the facility. Our 20 plus year history clearly illustrates an excellent track record in preventing fugitive emissions from digestate. BTS biogas plants are designed for optimal digestion/degradation of organic matter in the Digesters and capture of biogas produced which ensures minimal fugitive emissions. Materials received are processed immediately and incorporated in enclosed systems restricting emissions release. Covered storage tanks and digesters maximize gas capture for processing. Therefore, the storage tanks have a covering that captures the rest of biogas (more or less 55% methane) and sending it to the CHP/upgrading.

GROUNDWATER

The Property is located within the Coastal Plain Physiographic Province, which is characterized by flat to gently sloping land surfaces underlain by sedimentary deposits. Mapping by the Delaware Geological Survey (2010) indicates that the project site is just south of the Georgetown Quadrangle Geologic Map which indicates that the area south of Georgetown is underlain in succession by sediments of the Beaverdam and Cat Hill Formations. The United States Geological Survey, Hydrologic Investigations Atlas (1968) maps a groundwater elevation contour of 40 feet above MSL west of the Property and a groundwater elevation contour of 30 feet above MSL east to southeast of the Property, suggesting a groundwater flow direction of east to southeast across the Property. While groundwater elevations vary seasonably, the groundwater elevation contours suggest a depth to groundwater of six feet below ground surface on the north end of the Property to approximately two feet below ground surface on the south end of the Property near Horse Pound Swamp Ditch. A detailed discussion of subsurface and ground water conditions is included in the BDC Hydrogeologic Assessment Report submitted as part of permit request.

STORMWATER

There are four existing ponds on the site. Impervious surfaces include the existing building and associated gravel and asphalt areas. The site generally drains to five analysis points. About half of the site drains west towards an existing pond on the property. The rest of the site drains west towards the edge of property. Three offsite drainage areas have also been identified. All three areas drain toward the existing on-site ponds. A detailed discussion of existing and proposed stormwater management facilities is included in the Stormwater Management Report.

WASTEWATER PRETREATMENT

The facility does not require use of fresh water for waste processing. The wastewater or liquid fraction from the digestate if not recycled back into the anaerobic digestion process is pre-treated before discharge using a membrane bioreactor, ultrafiltration and reverse osmosis. The wastewater treatment program consists of two equally sized systems, when fully built out, they are each designed to treat approximately 140,000 gallons per day. The wastewater passes through a mix tank and into an anoxic reactor via screening and micro-screening to remove particulate or suspended solids. After the anoxic reactor, the wastewater passes through two aerobic reactor tanks in parallel where antifoam sprayers are used as needed and then is stored in the ultrafiltration feed tank for a short duration. From the UF feed tank, the liquid is pumped into and treated by an ultrafiltration unit followed by treatment with a reverse osmosis unit. The wastewater is then cooled and stored for discharge to Sussex County via a forced main connection from the plant to the Sussex County wastewater system. The total discharge to Sussex County is estimated to be 60,000 gallons per day when plant is fully built out. The wastewater makeup while being finalized will readily meet all county standards and we are currently in discussions with Sussex County about becoming a customer and utilizing a County facility for discharge.

ENGINEERING CONSIDERATIONS

SITE PERMITTING

TRAFFIC

The average daily estimated traffic coming to and leaving the site were projected at less than the 200 trips per day, below the threshold that would trigger a traffic impact analysis required by the Department of Transportation. Vehicles using the site include employees, feedstock delivery, product pick up, wastewater transport, natural gas transport. DelDOT has issued an Entrance Improvements approval.

SEDIMENT AND STORMWATER

Sussex Conservation District has approval final sediment and stormwater plans for the project. The stormwater facility that separately serves the former pelletizing plant will be redesigned and reconstructed to accommodate the construction of the proposed tank farm and process equipment associated with the anaerobic digester. The existing outfall from the stormwater pond will be utilized. The proposed stormwater management design will utilize one proposed wet extended detention pond facility and one existing wet extended detention pond facility to reduce peak runoff from the Site. A wet pond is proposed in lieu of infiltration and bioretention practices due to a high ground water table. Improvements to the anaerobic digester area do not result in feedstock or product exposed to weather.

STORMWATER (INDUSTRIAL)

The existing stormwater pond serving the compost area is being upgraded under plans developed by Perdue, as the past owner of the site, approved by DNREC and implemented by BDC. Enhancements include installation of aerators to assist with evaporation and raising of weir to enhance storage capacity. Nutrient offsets are being developed for potential discharge from pond. The industrial stormwater plan will be updated post construction under the National Pollution Discharge Elimination System program and will include specific steps forward surrounding the entire parcel.

WATER SUPPLY

The Facility is currently served by on-site water supply wells that include an irrigation well, public wells, domestic well, and a production well that serves the facility's fire suppression system. Water supply needs are expected to be met using existing wells and accordingly, an allocation permit is not expected to be needed.

WASTEWATER

The wastewater generated from the anaerobic digestion process will be treated using a purpose-built treatment plant. Effluent quality from the treatment facility will meet Sussex County Public Sewer

Discharge Standards. Wastewater volumes are expected to be up to 60,000 gallons per day at full operation with effluent being recycled back into the anaerobic digestion process thereby essentially eliminating the need for supplement water from on-sit water supply. Treated wastewater will be trucked to a Sussex County facility for discharge. BDC is currently evaluating options for connection to local municipal system.

AIR

The facility will utilize equipment that produces air emissions and require permits from DNREC. There are three units; a standby generator for use when electricity is not available from the grid, a thermal oxidizer that will provide conditioning as part of the renewable natural gas processing system and a flare that will be used as a backup for treatment of gases. All three units are considered minor emissions sources under DNREC regulations.

RESOURCE RECOVERY FACILITY PERMIT

The facility will require a Resource Recovery Facility Permit pursuant to the Delaware Regulations Governing Solid Waste administered by DNREC and will be applicable to both the composting and anaerobic digestion operations. Composting is currently operating under a composting permit issued by DNREC. The current permit application is under review by DNREC.

Elements of the application include an engineering report, operations plan, recycling analysis, closure plan, financial assurance in the event of closure and an environmental assessment. The application also includes a hydrogeological assessment of the soils and groundwater on the site.

File #:	
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Sussex County Major Subdivision Application Sussex County, Delaware

Sussex County Planning & Zoning Department 2 The Circle (P.O. Box 417) Georgetown, DE 19947 302-855-7878 ph. 302-854-5079 fax

Type of Application: (please ched	ck applicable)	
Standard:		
Cluster: <u>✓</u>		
ESDDOZ:		
Location of Subdivision:		
Cannon Road (adjacent to Pelican Point	: 1-3)	
Proposed Name of Subdivision:		
Pelican Point 4-5	4.000.00	
Tax Map #: 2-34-16.00, Parcels 21.03,	21 07 23 01 1509 through 1697	Total Acreage: 109.99 acres (+/-)
23, 10.00, 1 10.00, 1 11.00,		Total Acreage. 109.99 acres (17-)
Zoning: AR-1 Density: 1.99	acre Minimum Lot Size:	7,500 sqft Number of Lots: 219
Open Space Acres: 44.22 acres (+/-)		
Water Provider: Artesian Resources	Sewer P	rovider: Artesian Resources
Applicant Information		
Applicant Name: Cannon Road Inves	tments, LLC	
Applicant Address: 5169 West Wood		
City: Wilmington	State: DE	ZipCode: 19808
Phone #: (302) 999-9200		Development1@gmail.com
Owner Information		
Owner Name: Cannon Road Investme	ents, LLC	
Owner Address: 5169 West Woodmil	l Drive, Suite 10	
City: Wilmington	State: DE	Zip Code: 19808
Phone #: (302) 999-9200	E-mail: Delaware	Development1@gmail.com
Agent/Attorney/Engineer Inform	ation	
Agent/Attorney/Engineer Name:	Dennis Schrader	
Agent/Attorney/Engineer Address	: 107 W. Market Street/P.O. Bo	ox 690
City: Georgetown	State: DE	Zip Code: <u>19947</u>
Phone #: (302) 256-0010	E-mail: dschrader(





Check List for Sussex County Major Subdivision Applications

The following shall be submitted with the application

Completed Application	
o Plan shall show the oproposed lots, lands o Provide compliance	of the Site Plan or Survey of the property and a PDF (via e-mail) existing conditions, setbacks, roads, floodplain, wetlands, topography, scape plan, etc. Per Subdivision Code 99-22, 99-23 & 99-24 with Section 99-9. ption, copy of proposed deed restrictions, soil feasibility study
✓ Provide Fee \$500.00	
books, etc.) If provided subm	nation for the Commission to consider (ex. photos, exhibit nit seven (7) copies and they shall be submitted a minimum Planning Commission meeting.
on the site stating the date a	Notice will be sent to property owners within 200 feet of the f will come out to the subject site, take photos and place a sign and time of the Public Hearings for the application.
✓ PLUS Response Letter (if req	uired)
51% of property owners con	sent if applicable
The undersigned hereby certifies that the plans submitted as a part of this application	e forms, exhibits, and statements contained in any papers or ion are true and correct.
Zoning Commission and any other hearin questions to the best of my ability to resp	alf shall attend all public hearing before the Planning and g necessary for this application and that I will answer any bond to the present and future needs, the health, safety, and general welfare of the inhabitants of Sussex County,
Signature of Applicant/Agent/Attorn	<u>ev</u> Date: (2 4)9
Signature of Owner PHO	Date: 12/4/19
For office use only: Date Submitted: Staff accepting application: Location of property:	Fee: \$500.00 Check #:Application & Case #:
Date of PC Hearing:	Recommendation of PC Commission:

COMMUNITY DEVELOPMENT & HOUSING

BRAD D. WHALEY DIRECTOR (302):855-7777 T (302):854-5397 F





Affordable Housing Support Policy

I. Mission Statement

It is Sussex County's mission to promote non-discrimination and affirmatively further fair and equal housing opportunities for all, and further, to inform housing developers and the general public that the County supports the development of affordable housing opportunities in Sussex County.

II. Affordable Housing Subdivisions

Sussex County promotes racially/ethnically diverse, mixed income, affordable housing in all areas under its jurisdiction. Accordingly, Developers are encouraged to provide affordable housing opportunities to Sussex County residents in all new developments, affirmatively market those affordable housing units to diverse populations, and meet with the surrounding residents early in the development approval process.

III. Affordable Housing Defined

- a. Homeownership: Sussex County considers an affordable housing project to be a housing project in which any portion thereof is designed or intended to serve households earning less than 125 percent of the Area Median Income for Sussex County as calculated by the U.S. Department of Housing and Urban Development annually, and which is comprised of at least one of the following elements:
 - Seeking participation in Sussex County's Moderately Priced Housing Unit (MPHU) Program
 - ii. Applying for funding by the Delaware State Housing Authority's (DSHA) Housing Development Fund (HDF)
 - iii. Applying for HOME Investment Partnerships (HOME) funding through DSHA
 - iv. Applying for a Section 523 or 524 Rural Housing Site Loan through the U.S. Department of Agriculture (USDA) Rural Development
 - v. Sussex County Habitat for Humanity
 - vi. Milford Housing Development Corporation
 - vii. Community Land Trust
 - viii. Other elements which, in the County's discretion, meet the goals and objectives set forth in the Affordable Housing Support Policy Mission Statement.



- b. Rental: Sussex County considers an affordable rental housing project to be a rental housing project in which any portion thereof is designed or intended to serve households earning less than 80 percent of the Area Median Income for Sussex County as calculated by the U.S. Department of Housing and Urban Development annually, and which is comprised of at least one of the following elements:
 - i. Seeking participation in the Sussex County Rental Program (SCRP)
 - ii. Applying for funding by the Delaware State Housing Authority's (DSHA) Housing Development Fund (HDF)
 - iii. Applying for HOME Investment Partnerships (HOME) funding through DSHA
 - iv. Applying for funding by DSHA's Low Income Housing Tax Credits (LIHTC) program
 - v. Applying for Multi-Family Mortgage Revenue Bond Program (MFMRB) financing through DSHA
 - vi. Applying for a Rural Rental Housing Loan through USDA Rural Development
 - vii. Applying for a Guaranteed Rental Housing Loan through USDA Rural Development
 - viii. Community Land Trust
 - ix. Other elements which, in the County's discretion, meet the goals and objectives set forth in the Affordable Housing Support Policy Mission Statement.

IV. Affordable Housing Project Support

a. Letter of Support

Sussex County will provide conditional letters of support to developers of affordable housing projects seeking financing opportunities, provided that the project qualifies under the definitions above. Further, support letters for affordable rental housing projects will only be authorized if the project is proposed in an Area of Opportunity, as defined by DSHA in Exhibit A. For further information regarding impacted areas versus areas of opportunity, please contact Karen Horton with DSHA at (302) 739-4263. **Note:** Letters of support do not exempt the developer from the County's planning and zoning process, nor guarantee approval through that process.

b. Deferral of Fees

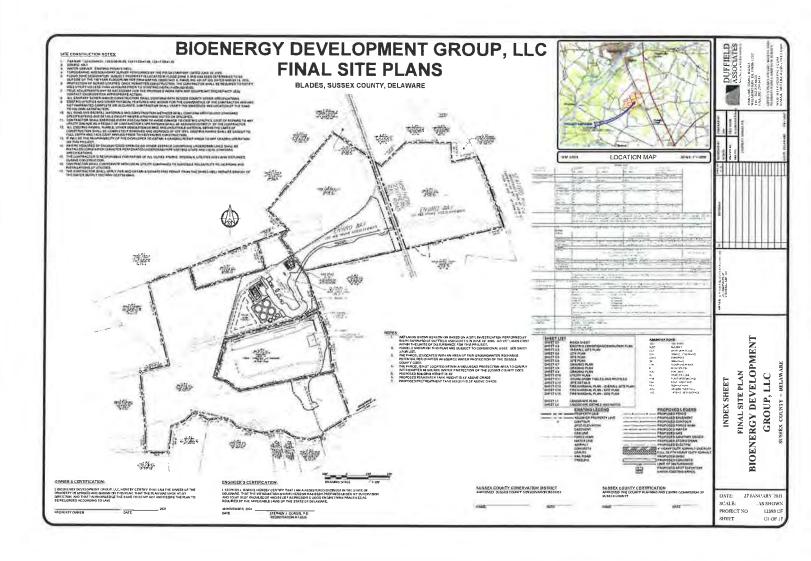
Sussex County desires to encourage the construction of affordable housing for lowand moderate-income households. The County finds that the up-front payment of sewer impact fees for affordable residential housing development creates a barrier to such development and desires to ease the barrier by deferring the time for payment of the fees.

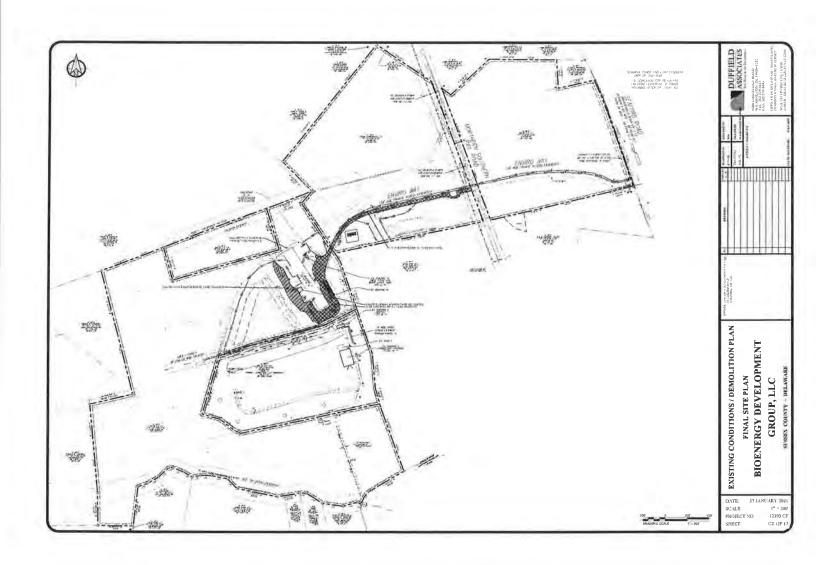
Projects must qualify under Sussex County Code (§110-94) and Delaware State Code (Title 9, Chapter 81, Sections 8105, 8106, and 8110). Qualifying projects will not be assessed connection charges for County sewer. However, once the property is

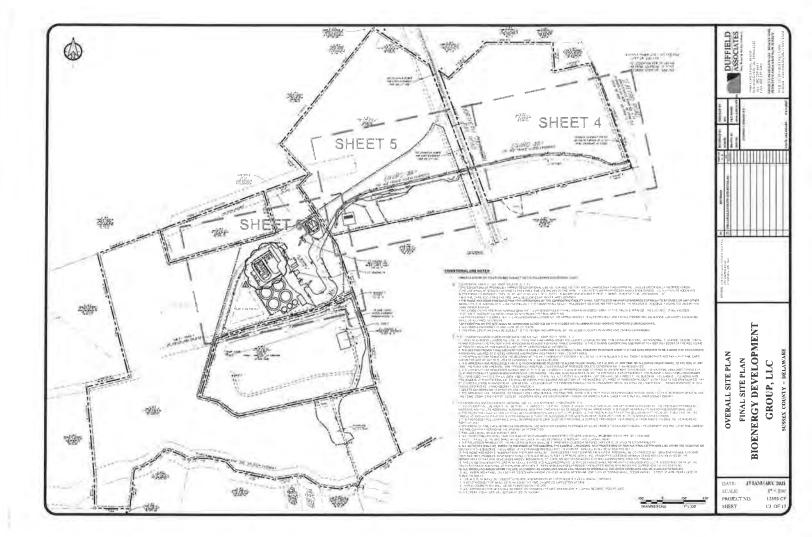
transferred or sold to a non-qualifying buyer, those deferred charges will be immediately due and payable within 30 days.

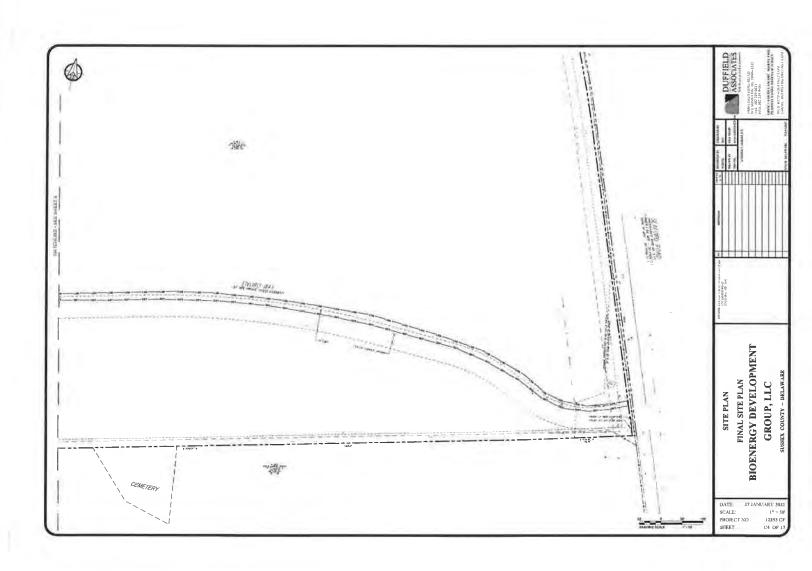
It is incumbent upon the affordable housing developer to submit evidence of their qualifying status to the County's Assessment Department to ensure that they benefit from this affordable housing incentive.

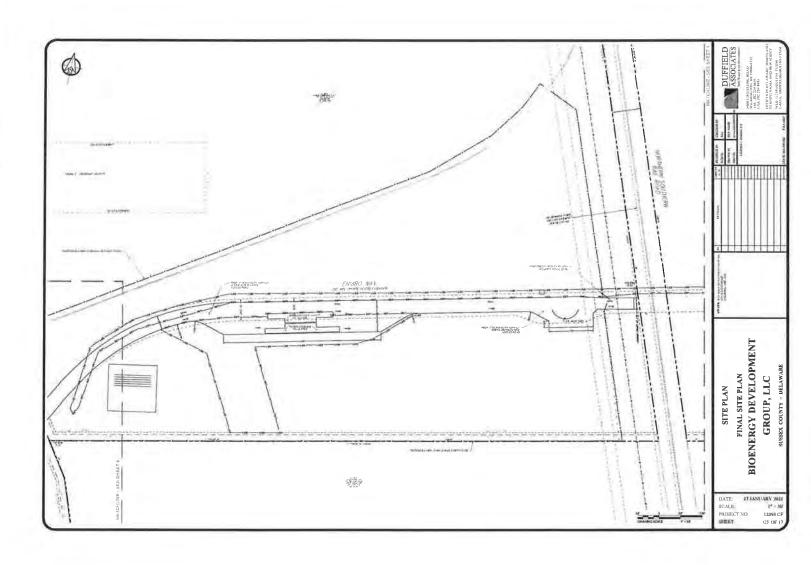


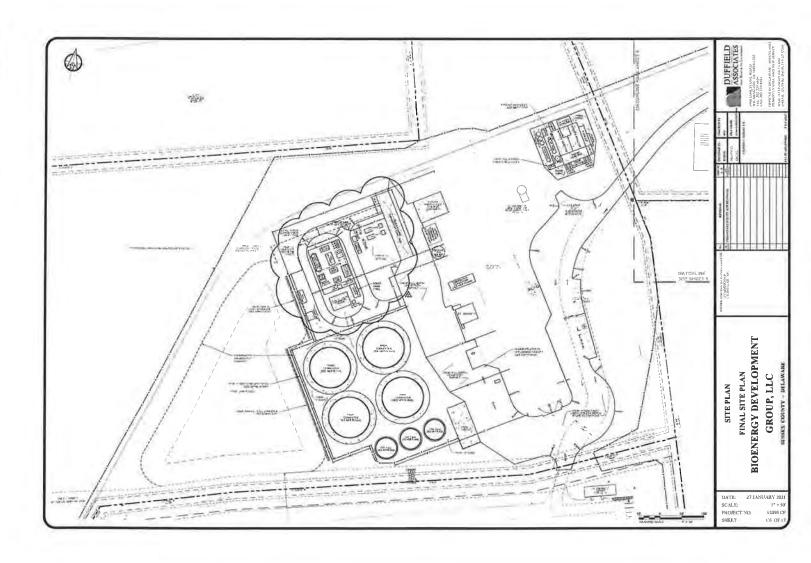


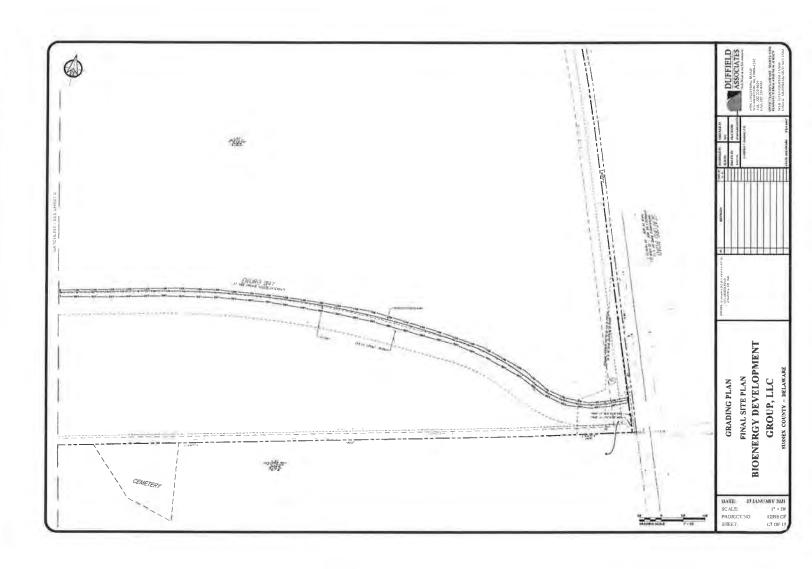


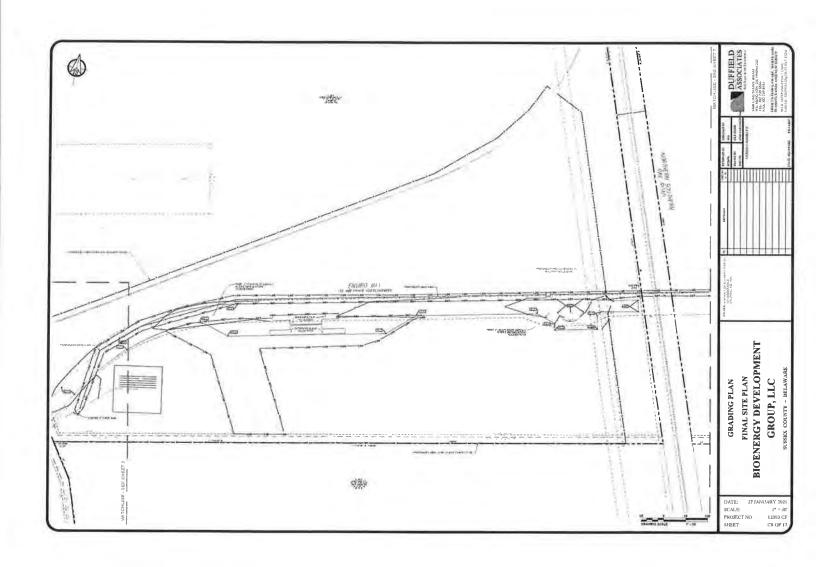


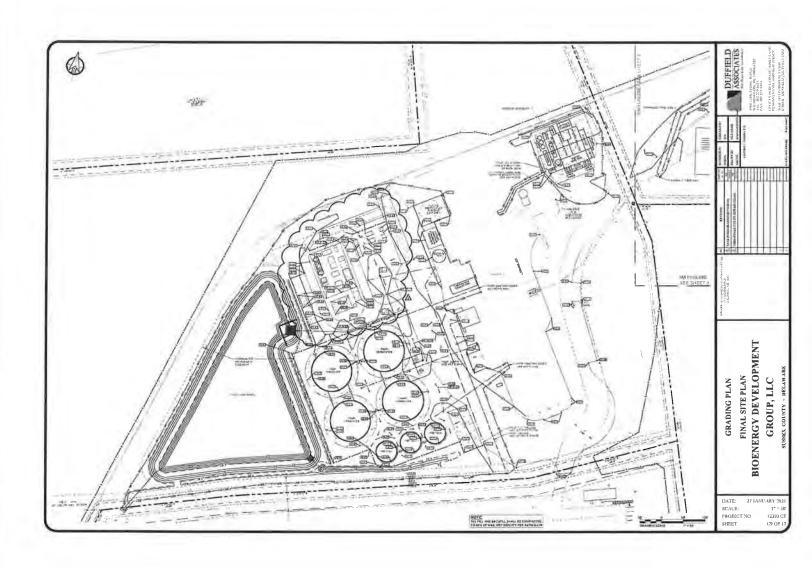


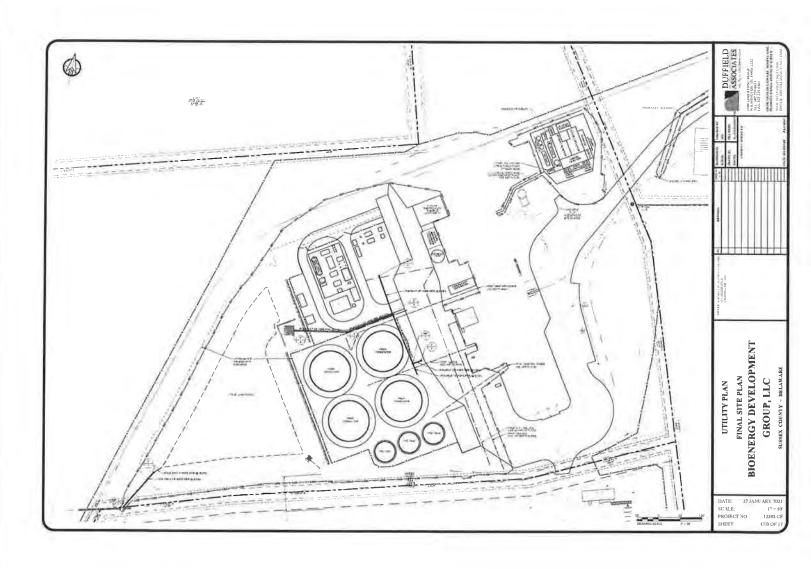


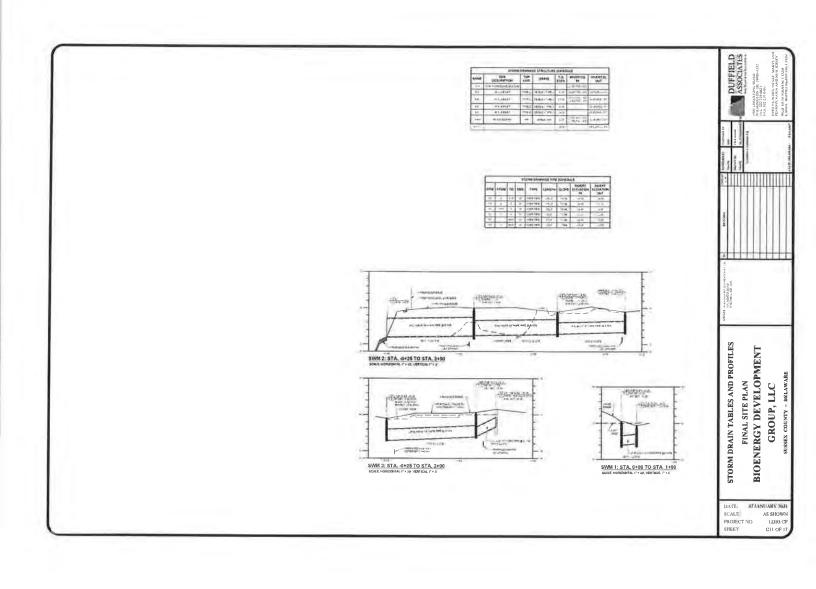


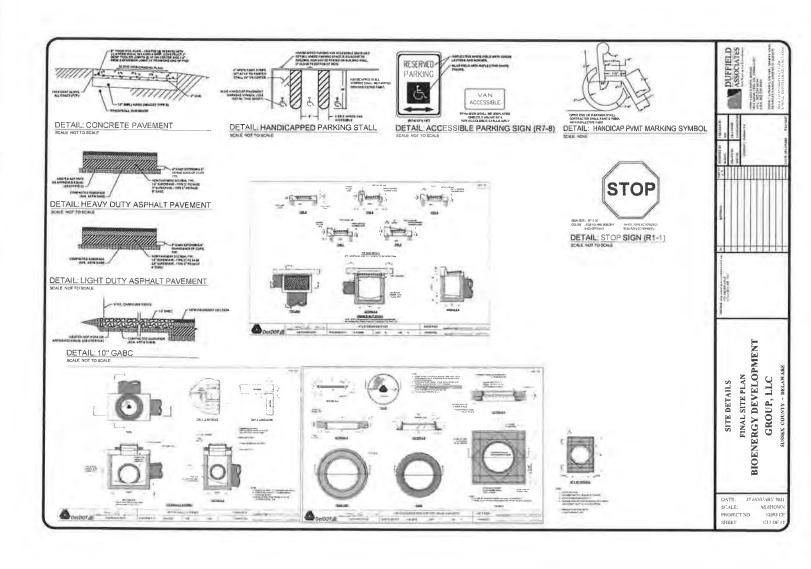


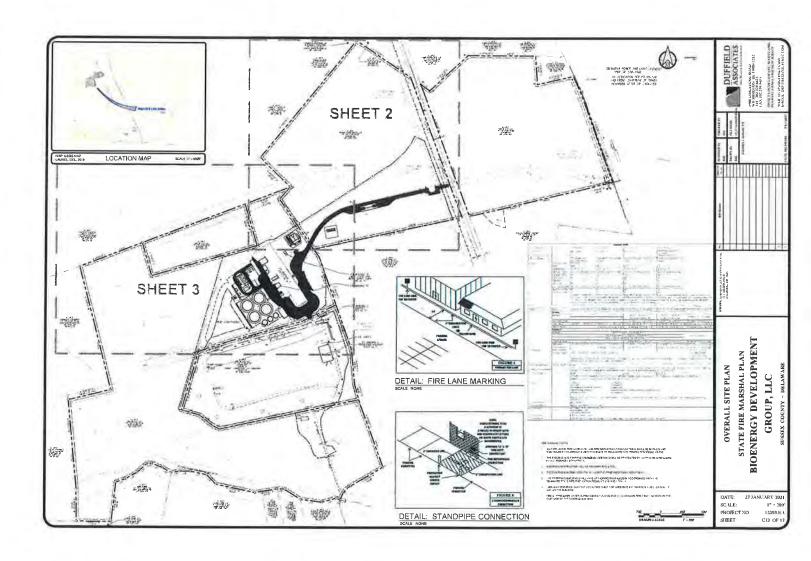


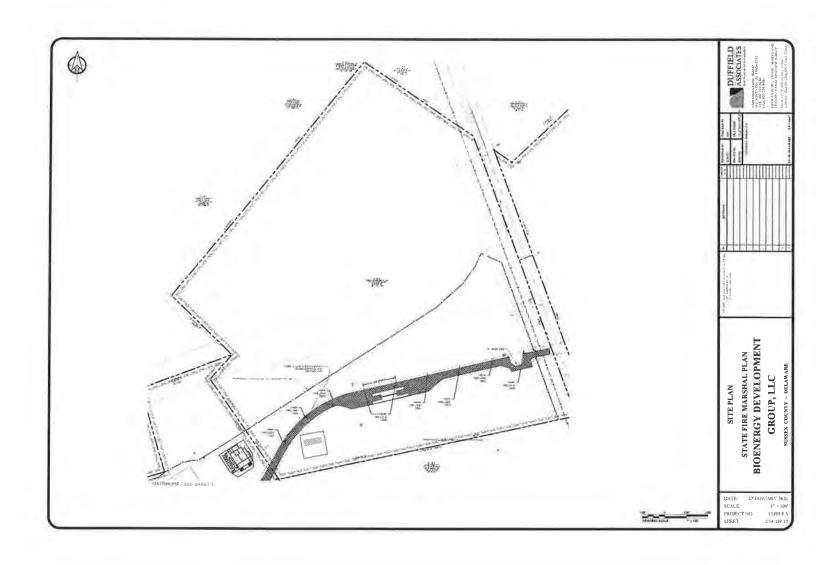


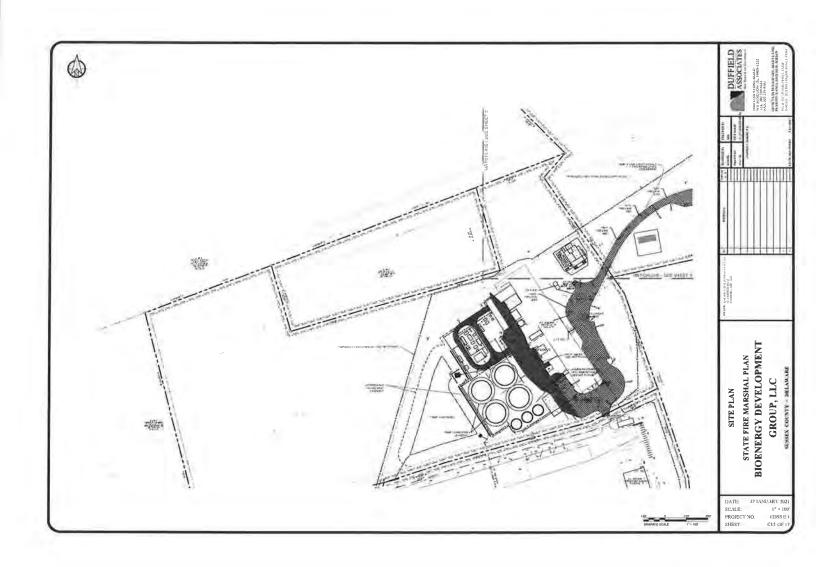


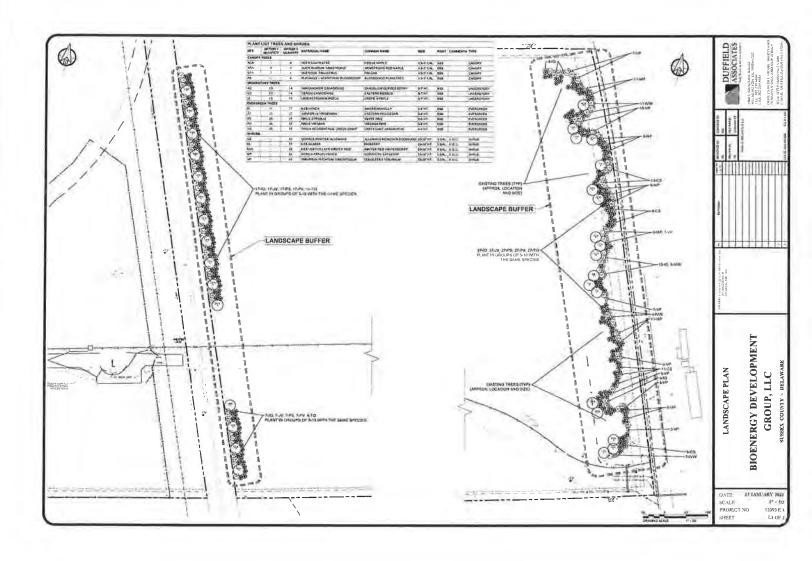


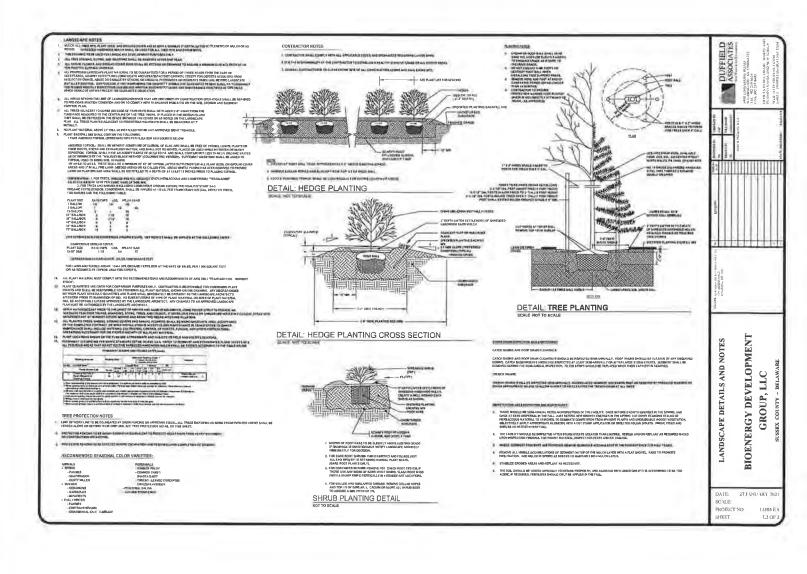














STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

JENNIFER COHAN SECRETARY

October 01, 2020

Peter Ettinger Bioenergy Development Group LLC 6751 Columbia Gateway Dr. STE 300 Columbia, Maryland 21046

SUBJECT: Authorization to Apply for a Permit for Entrance Construction

Bioenergy Development Blades

Tax Parcel # 132-11.00-41.00, 132-6.00-95.00

SCR013-SEAFORD ROAD
Broad Creek Hundred, Sussex

Dear Peter Ettinger:

The Delaware Department of Transportation (DelDOT) has reviewed your request, dated September 3, 2020, to obtain a Letter of No Contention (LONC) to use an existing commercial building and site entrance for the above referenced project. In coordination with the South District Public Works Office we have determined that your project will require some modifications or enhancements to meet current regulatory requirements. We have therefore determined that this project is eligible to obtain a Permit for Entrance Construction (PEC) to make these modifications. The PEC will include a list of items that must be addressed, as well as requirements for bonding to perform work, where needed, within the State of Delaware right-of-way (ROW). This approval shall be valid for a period of **one (1) year**.

Please note: Your Permit for Entrance Construction must be obtained from the South District Public Works Office, before you can start any construction.

The following conditions are provided with this response letter:

- 1) Site shall have access from the existing entrance located on Seaford Road (SCR 013).
- 2) Only the modifications/construction or traffic pattern changes that are itemized and authorized under the PEC will be permitted. Please coordinate with the DelDOT Public Works Office regarding the scope, location and limits of the following items, as well any other items listed in the PEC:
 - a) Replace existing stop sign with a new 36"x36" R1-1 stop sign and install a new 16" wide thermo stop bar
- 3) DelDOT reserves the right to review, modify or revoke this authorization letter and PEC and require additional entrance upgrades in the future if proposed activities create traffic conflicts, safety concerns or operational issues.



Bioenergy Development Blades Peter Ettinger Page 2 October 01, 2020

- 4) The property owner is responsible to:
 - a. Submit information to DelDOT, regarding any future operational or site changes, (including but not limited to: rezoning, site layout changes, changes in use, entrance modifications, expanded/additional uses, new uses, etc.). Changes of this nature may alter the flow and/or volume of traffic and could require a new PEC, LONC or formal review for Approvals and/or Permits.
 - b. Establish and maintain clear sight lines at the entrance. There shall be no placement of structures, signs, objects, items for sale or parking of vehicles within State ROW or entrance limits. Shrubbery, Plantings, trees and/or other visual barriers that could obstruct the sight distance of a driver preparing to enter the roadway are prohibited.
 - 5) The property owner and applicant are responsible to coordinate with DelDOT Outdoor Advertising & Roadside Control at (302) 853-1327, for information on obtaining specific permits for sign installation on private property. Permits for Utilities construction within State right-of-way require separate permit applications please contact DelDOT's South District at (302) 853-1345.

The Department would like to thank you for your submittal.

Please contact the South District Public Works Office at (302) 853-1340, for their assistance in obtaining the PEC. <u>No construction or modification</u> listed under Item 2 is allowed in advance of the DeIDOT Public Works Office issuance of the Permit for Entrance Construction.

Sincerely,

Susanne K. Laws Sussex County Review Coordinator, Development Coordination

cc: Stephen Gorski, Duffield Associates, Inc.
Jamie Whitehouse, Sussex County Planning & Zoning Commission
Rusty Warrington, Sussex County Planning & Zoning
Jessica L. Watson, Sussex Conservation District
Gemez Norwood, South District Public Works manager
William Kirsch, South District Entrance Permit Supervisor
James Argo, South District Project Reviewer
Wendy L. Polasko, Subdivision Engineer
John Andrescavage, Sussex County Reviewer

PERMIT FOR ENTRANCE CONSTRUCTION

PERMIT NO.: SC-0059-20CM

& THE STATE	DISTRICT Sussex AREA 1	PERMIT NO. SC-0059-20	CM DATE 11/20/2020
3 = 3	Type Of Access: Commercial	Bonding Company: Wa	ived
Tage Services	Maintenance Road No.: S13 De	elaware Grid Coordinate:	29A3
THE STATE OF THE S	Issue To: BioEnergy Development Group, LLC.	Phone No.: 7195	026100
1704 - 1776 - 1785	Address: 9250 Bendix Road, Columbia, MD 210	045	
STATE OF DELAWARE DEPARTMENT OF	Type Of Security Furnished : NA	Amount:	0.00
TRANSPORTATION			(150% of cost)
DIVISION OF MAINTENANCE &	Estimated Construction Cost : \$0.00	Expiration Date	11/20/2021
OPERATIONS	PARCEL ID NO. 132-11.00-41.00		
23697 Dupont Blvd Georgetown, DE 19947			

DESCRIPTION OF CONSTRUCTION

Permission is granted to install stop sign with 3-piece break away at 7 feet height to bottom of sign and thermoplastic bar only at the entrance to the project known as Bioenergy Development Blades located on SCR 13 as per plans approved on 10/1/2020 by Susanne Laws, Sussex County Review Coordinator. Due to the minor nature of improvements, the security for this project has been waived. Upon successful completion of work in conformance with approved plans, a permanent entrance permit will be issued. As a property owner granted a permit to construct improvements within the State right-of-way, it is your responsibility to construct improvements according to your plans and State Specifications. The District requires that any changes in the plans have prior approval from the Section Supervisor. Prior notification must be given to the Section Supervisor when work will occur on the permit. Failure to give adequate notification will result in loss of permit and possible legal ramifications. Please contact Bill Kirsch at (302) 853-1342 to give 72 hours notice prior to construction at the entrance.

A final inspection will be held when work on the permit is complete. Any corrections, additions, alterations, etc. will be done before the permit is accepted. These items in no way eliminate guarantees set forth by the permit. The owner/developer must obtain a Utility Construction Permit, separate from the entrance permit, for any utility work to be done within State right-of-way.

If in the future the proposed use changes, expands, is sold, or leased, then this permit will be null and void. The owner will be required to obtain a new permit from DelDOT.

Page: 1 of 2

PL-01 05/01

Document No.: 55 02 01 81 08 04

PERMIT FOR ENTRANCE CONSTRUCTION

PERMIT NO.: SC-0059-20CM

It is hereby agreed by the owner of the property affected, and all heirs, assigns, and/or successors in interest, that all construction covered by this permit shall be performed in accordance with the approved construction plan and the current Standard Specifications published by the Department of Transportation. The plan and specifications are incorporated herein by reference, and made part of this permit. Work is to begin within 90 days of the date of this permit, and it is to be completed on or before the above completion date. Requests for an extension of this permit shall be submitted in writing to the Permit Section 30 days prior to expiration.

The Owner agrees not to sell, lease, or change the use of the property to significantly alter the flow and/or volume of traffic and/or drainage as determined within the sole discretion of the Division, and/or transfer his/her interest in the property without obtaining a new permit from the Division of Maintenance & Operations. Such failure automatically voids this permit.

The holder of this permit shall idemnify and save harmless the Division of Maintenance & Operations and its officers, employees, and/or agents from suits and damages arising from, or on account of the above described construction herein permitted on State rights-of-way, or the Division's acceptance thereof consistent with Section 107.14 of the Standard Specifications and all amendments thereto, incorporated herein by reference.

Traffic Control and utility alterations shall be in accordance with current The Division of Maintenance & Operations "Traffic Controls for Streets and Highway Construction Manual" and the "Utilities Policy and Procedure Manual," incorporated herein by reference.

Permittee shall call the Division of Maintenance & Operations Permit Section, (Canal District: 326-4679, Central District: 760-2433, South District: 853-1342) and Miss Utility (I-800-282-8555) prior to any construction on State rights-of-way.

The Division of Maintenance & Operations may require revisions to the approved plans as required by field conditions.

The permittee shall request the Division of Maintenance & Operations make final inspection of the construction when work is completed, and all work must be completed to the satisfaction of said Division of Maintenance & Operations.

This permit shall be wholly conditional upon the satisfactory completion of all provisions set forth herein. If, upon expiration of this permit, work is incomplete or not performed according to the aforesaid plan and specifications, and no extension is applied for and issued, this permit shall become null and void for all legal purposes and the entrance shall be considered illegal with reference to 17 Del.C.\$146.

William Kirsch	BioEnergy Development Group, LLC.		
Authorized Representative of Division of Maintenance & Operations	Property Owner		
	Property Owner Signature		

PL-01 05/01 Document No.: 55 02 01 81 08 04



OFFICE OF THE STATE FIRE MARSHAL Technical Services

22705 Park Avenue Georgetown, DE 19947



SFMO PERMIT

Plan	Review	Number:	2020-	-04 - 20	74445.	-MJS-01
	1 10 1 10 11	I TOUINGE	2020	-U-T-Z	ノーナーン・	-1414143-17

Status: Approved as Submitted

Tax Parcel Number: 1-32-6-95&88.01

Date: 08/04/2020

Project

Tank Farm

28339 Enviro Way - BioEnergy Innovation Center

Enviro Way Seaford DE 19973

Scope of Project

Number of Stories: Square Footage: Construction Class:

Fire District: 71 - Blades Volunteer Fire Company

Occupant Load Inside: Occupancy Code:

Applicant

Steve Gorski

This office has reviewed the plans and specifications of the above described project for compliance with the Delaware State Fire Prevention Regulations, in effect as of the date of this review.

The owner understands that this construction start approval is limited to preliminary site construction and foundation work only. No other construction of any kind shall be permitted until the required building plan review is completed.

A Review Status of "Approved as Submitted" or "Not Approved as Submitted" must comply with the provisions of the attached Plan Review Comments.

Any Conditional Approval does not relieve the Applicant, Owner, Engineer, Contractor, nor their representatives from their responsibility to comply with the plan review comments and the applicable provisions of the Delaware State Fire Prevention Regulations in the construction, installation and/or completion of the project as reviewed by this Agency.

This Plan Review Project was prepared by:

Desiree McCall

FIRE PROTECTION PLAN REVIEW COMMENTS

Plan Review Number: 2020-04-204445-MJS-01

Tax Parcel Number: 1-32-6-95&88.01

Status: Approved as Submitted

Date: 08/04/2020

PROJECT COMMENTS

- This project has been reviewed under the provisions of the Delaware State Fire Prevention Regulations (DSFPR) UPDATED March 11, 2016. The current Delaware State Fire Prevention Regulations are available on our website at www.statefiremarshal.delaware.gov. These plans were not reviewed for compliance with the Americans with Disabilities Act (ADA). These plans were not reviewed for compliance with any Local, Municipal, nor County Building Codes.
- 1031 A Where the structure being considered is protected throughout by an automatic sprinkler system, the required fire flow shall be modified to meet the designed sprinkler demand where hydraulically calculated plus outside hose streams as specified in NFPA13, Table 11.2.3.1.1 (2002 ed.) (DSFPR Part II, Section 6 3.2.1).
- 1180 A This report reflects site review only. It is the responsibility of the applicant and owner to forward copies of this review to any other agency as required by those agencies.
- 1190 A Separate plan submittal is required for the building(s) proposed for this project.

9999

- * PLANS FOR THE GENERATOR SHALL BE SUBMITTED FOR REVIEW
- The required Fire Lane Access and Perimeter Access and all fire lane markings shall be in accordance with the site plan as approved by this Agency. This will be field verified at the final inspection. Noncompliance may cause a delay in approval forCertificate of Occupancy.
- 1415 A Fire Department access shall be provided to all otherwise inaccessible gated communities, subdivisions, developments, gated commercial properties or property by any other name through the use of a system or device as required by theDelaware State Fire Prevention Regulations and approved by the Office of the State Fire Marshal after consultation with the local Fire Chief. (DSFPR

Regulation 705, Chapter 2, Section 2.6.2). Please provide specifications for the device. Include how the system works, where the device will be located, and a letter from the Fire Chief accepting the layout.

- * PROVIDE A LETTER SIGNED BY THE PROPERTY OWNER AND FIRE CHIEF AGREEING TO HOW THE FIRE DEPARTMENT WILL ACCESS THE PROPERTY.
- 1501 A If there are any questions about the above referenced comments please feel free to contact the Fire Protection Specialist who reviewed this project. Please have the plan review number available when calling about a specific project. When changes orrevisions to the plans occur, plans are required to be submitted, reviewed, and approved.

7000/4

ORDINANCE NO. 2311

AN ORDINANCE TO GRANT A CONDITIONAL USE OF LAND IN AN AR-1 AGRICULTURAL RESIDENTIAL DISTRICT FOR A COMPOSTING FACILITY AS AN EXTENSION TO CONDITIONAL USE NO. 1314 AND CONDITIONAL USE NO. 1691 (A MICRO-NUTRIENT PLANT WITH RELATED TRUCK ENTRANCE AND RAIL SPUR FOR THE PROCESSING AND HANDLING OF POULTRY LITTER) TO BE LOCATED ON A CERTAIN PARCEL OF LAND LYING AND BEING IN BROAD CREEK HUNDRED, SUSSEX COUNTY, CONTAINING 228.88 ACRES, MORE OR LESS (Tax Map I.D. 1-32-6.00-88.01 AND 95.00 and Tax Map I.D. 1-32-11.00-41.00)

WHEREAS, on the 5th day of March 2013, a conditional use application, denominated Conditional Use No. 1962 was filed on behalf of Chesapeake AgriSoil, LLC; and

WHEREAS, on the 25th day of April 2013, a public hearing was held, after notice, before the Planning and Zoning Commission of Sussex County and on the 23rd day of May 2013, said Planning and Zoning Commission recommended that Conditional Use No. 1962 be approved with conditions; and

WHEREAS, on the 21st day of May 2013, a public hearing was held, after notice, before the County Council of Sussex County and the County Council of Sussex County determined, based on the findings of facts, that said conditional use is in accordance with the Comprehensive Development Plan and promotes the health, safety, morals, convenience, order, prosperity and welfare of the present and future inhabitants of Sussex County, and that the conditional use is for the general convenience and welfare of the inhabitants of Sussex County.

NOW, THEREFORE, THE COUNTY OF SUSSEX HEREBY ORDAINS:

Section 1. That Chapter 115, Article IV, Subsection 115-22, Code of Sussex County, be amended by adding the designation of Conditional Use No. 1962 as it applies to the property hereinafter described.

Section 2. The subject property is described as follows:

ALL that certain tract, piece or parcel of land, lying and being situate in Broad Creek Hundred, Sussex County, Delaware, and lying west of Route 13A and north of Road 485 and being more particularly described as:

BEGINNING at a point on the westerly right of way of U.S. Route 13A, a corner for these subject lands and lands now or formerly of Victor E. Moore; thence south 85°45'96" west 250.23 feet, south 86°46'11" west 1068.22 feet and south 07°53'54" west 1,495.60 feet along lands of Victor E. Moore to a point; thence southerly along these lands and lands now or formerly of Victor E. Moore the following courses: south 24°14'37" east 92.40 feet, thence south 09°17'37" east 899.25 feet, thence south 05°00'23" west 313.50 feet, thence south 05°14'37" east 198.00 feet, thence south 09°59'37" east 610.94 feet to the northerly right of way of Road 465; thence westerly 505.15 feet along the northerly right of way of Road 485 to the centerline of Gum Branch; thence northwesterly along the meandering centerline of Gum Branch approximately 2,200.00 feet to a point, a corner for these lands and lands now or formerly of Stephen C. Glenn; thence south 16°46'19" west 354.98 feet along said Glenn property to a point; thence north 78°57'47" west 318.35 feet along lands now or formerly of Frederick M. O'Neal (Trustee) to a point; thence north 09°16'05" east 297.01 feet and north 04°55'59" east 817.39 feet along lands now or formerly of Ronald W. and Ruth M. Conaway to a point; thence north 86°05'12" east 396.08 feet and north 04°18'33" west 1,168.72 feet along lands now or formerly of Donald R. Eisenbrey to a point; thence north 79°02'14" east 2,055.56 feet and north 34°54'37" west 384.45 feet along lands now or formerly of Ralph H. and Jane L. Givens to a point; thence north 49°05'23" east 1,384.35 feet along lands now or formerly of Ralph H. Givens, lands now or formerly of Ronald G. Fensick, and lands now or formerly of Edward N. Dickerson to a point; thence south 45°47'19" east 717.20 feet along lands now or formerly of George D. Elzey, Jr. to a point; thence north 68°08'07" east 504.34 feet and south 79°42'15" east 619.83 feet along lands of Florence E. Johnson and Sussex Manor to a point; thence south 06°25'19" west 261.98 feet to a point; thence north 87°41'15" east 351.14 feet to a point on the westerly right of way of U.S. Route 13A; thence 1,036.47 feet along the westerly right of way of U.S. Route 13A to the point and place of beginning and containing 228.88 acres, more or less.

This Ordinance shall take effect immediately upon its adoption by majority vote of all members of the County Council of Sussex County, Delaware.

This Ordinance was adopted subject to the following conditions:

- The conditions of previously approved Conditional Use No. 1314 and No. 1691 are unchanged by this approval, unless specifically modified herein.
- 2. The use shall be strictly limited to the improvements shown on the April 11, 2013
 Site Plan proposed by Axiom Engineering, LLC. Any future additions, alterations or improvements to the Site Plan shall be subject to an application and public hearing to amend this Conditional Use.
- 3. Any rail cars accessing the site shall be cleaned at an off-site location.
- 4. The noise and odor emissions from the operations of the composting facility shall not exceed minimum standards established by DNREC or any other agency having jurisdiction over the project. The odors shall be controlled by negative air pressure in the receiving building, a bio-filter, and by the Gore Cover System.
- 5. The lands on the Site Plan surrounding the composting facility shall remain wooded north of the truck entrance. The location of all wooded, vegetative and buffer areas shall be shown on the Final Site Plan.
- As proposed by the Applicant, all wooded areas outside of the approximately 20
 acre project area shall remain as woodlands. Cut-over woodlands shall be
 allowed to mature.
- Any lighting on the site shall be downward screened so that it does not illuminate neighboring properties or roadways.
- 8. All trucks entering the site must be covered.
- The Final Site Plan shall be subject to the review and approval of the Sussex County Planning and Zoning Commission.

I DO HEREBY CERTIFY THAT THE FOREGOING IS A TRUE AND CORRECT COPY OF ORDINANCE NO. 2311 ADOPTED BY THE SUSSEX COUNTY COUNCIL ON THE 25TH DAY OF JUNE 2013.

ROBIN A. GRIFFITH

CLERK OF THE COL

The Council found that the Conditional Use was appropriate legislative action based on the following Findings of Fact:

This is an application of Chesapeake AgriSoil, LLC to consider the Conditional Use
of land in an AR-1 Agricultural Residential District for a composting facility as an
extension to Conditional Use No. 1314 Conditional Use No. 1691 (a micro-nutrient
plant with related truck entrance and rail spur for processing and handling poultry
litter), to be located on a certain parcel of land lying and being in Broad Creek

Hundred, Sussex County, containing 228.88 acres, more or less, lying west of Route 13A north of Road 485 (Tax Map I.D. 1-32-6.00-88.01 and 95.00 and Tax Map I.D. 1-32-11.00-41.00).

- 2. The Sussex Conservation District commented that the Applicant will be required to follow recommended crosson and sediment control practices during any construction and to maintain vegetation; that no storm flood hazard areas or tax ditches are affected; that it is not likely that any off-site drainage improvements will be required; and that it is possible that on-site drainage improvements will be required.
- 3. The Sussex County Engineering Department, Utility Planning Division, commented that the site is located in the Western Sussex Planning Area No. 3 and Blades Planning Area No. 2; that an onsite septic system will be utilized; that the parcel is not in an area where the County has a schedule to provide sewer service at this time; and that a Concept Plan is not required.
- 4. Shannon Carmean-Burton, Attorney, of Sergovic, Carmean and Weidman, P.A., Ken Christenbury, Professional Engineer with Axiom Engineering, LLC, Whitney Hall, Professional Engineer, Wayne Hudson of Perdue Agri-Recycle, LLC, and Charlie Gifford of Chesapeake AgriSoil, LLC were present on behalf of the application and stated that this use will occupy approximately 20 acres of the 228.88 acre site; that the 20 acre portion is contained within Tax Map 1-32-11.00-41.00; that the site is immediately adjacent to the plant; that the existing wooded buffers will remain; that the site is being cleared to eliminate young seedlings and tree growth; that no clearing will occur beyond the railroad spur; that the original conditions for the micro-nutrient plant, as amended in 2006, will remain with the exception of the use of this facility; that DelDOT voiced no objections and determined that there will not be any traffic impact; and that DNREC approvals are required and will be obtained.
- The Applicant stated that the proposed facility would utilize processed water from the Plant in this process rather than having to haul the processed water off-site for land application.
- 6. The Applicant further represented that Best Management Practices will be utilized; that the proposed project is very environmentally responsible; that the operation will be carried on during one daytime shift from 7:00 a.m. to 5:00 p.m. weekdays only; that water can be provided to control any dust; that the intended 20 acre area for the facility includes the stormwater management pond; that they may utilize dead-birds in a catastrophic emergency situation; that they anticipate 11 full-time employees, and assume approximately eight (8) secondary related service jobs; and that they will most likely be using independent haulers.
- 7. The Applicant further represented that the purpose of AR-1 includes references to provide for a full range of agricultural activities and protects agricultural lands; that it should also protect established agricultural operations and activities; that the permitted conditional uses in the AR-1 District include agricultural related activities; that it will decrease the amount of pollution and odor from poultry waste previously applied directly to the soils as a fertilizer; that the proposed use will provide community-wide benefits and the ability to recycle a by-product of the poultry industry utilizing the latest Gore technology; that due to the need for enhancing the ability of the poultry industry to protect the local environment, the proposed conditional use is an appropriate zoning method for permitting the use and thus, the conditional use complies with the Zoning Code; that the Applicant submits that this project is consistent with the provisions of the Comprehensive Plan which identifies the property in a Low Density Area; that the Plan provides that all land designated in the Low Density Area are currently zoned AR-1; that the Plan provides that the primary uses envisioned in Low Density Areas are agricultural activities and single family detached homes; and that industrial uses that support or depend on agriculture should be permitted.

- 8. The Applicant further represented that the Gore system proposed to be utilized uses positive aeration and a specially designed cover to create an enclosed system that optimizes the recycling process, controls odors and micro-organisms, separates leachate from storm water and creates a consistent product unaffected by outside environmental conditions; and that the use is designed to benefit the family farm and agricultural industry, especially poultry growers, in the County.
- 9. This is an extension of existing Conditional Uses approved by Sussex County; that Conditional Use Nos. 1314 and 1691 were for a micro-nutrient plant with related truck entrances and a rail spur for the processing and handling of poultry litter; that this is a reasonable change to the existing uses and a reasonable expansion to the overall site; that the proposed site is adjacent to the existing micro-nutrient plant that is operated by Perdue AgriSoil, LLC; and that the proposal is consistent with this adjacent use.
- 10. The proposed use will have a positive economic impact on Sussex County and its residents, with full-time employees on the site, and additional equipment and hauling services that are necessary for the operation of the facility.
- 11. The application is supported by the Inland Bays Foundation and the Secretary of the Delaware Department of Agriculture.
- 12. The use is consistent with the underling AR-1 Agricultural Zoning and the rural agricultural uses that exist in the vicinity of the site; that the proposed use will be a benefit to agriculture in Sussex County, as well as the Delmarva Peninsula, as an efficient means to eliminate a potential source of excess nitrates and phosphates from area soils; and that it also provides an innovative but environmentally sensitive method of handling poultry waste products and produces an end-product that can be beneficially used in an environmentally responsible manner.
- 13. This use promotes the goals of the Sussex County Comprehensive Plan by enhancing the environmental quality of Sussex County; it is also a use which has a public or semipublic character that is essential and desirable to the general convenience and welfare of Sussex County and its residents.
- 14. Based on the record and recommendation of the Planning and Zoning Commission and the record created before Council, the Conditional Use was approved subject to 9 conditions which will serve to minimize any potential impacts on the surrounding area and adjoining properties.

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ORDINANCE NO. 1865

With Conditions and Reasons

AN ORDINANCE TO GRANT A CONDITIONAL USE OF LAND IN AN AR-I AGRICULTURAL RESIDENTIAL DISTRICT FOR AN AMENDMENT TO CONDITIONS OF APPROVAL OF CONDITIONAL USE NO. 1314 FOR A MICRO-NUTRIENT PLANT WITH RELATED TRUCK ENTRANCE AND RAIL SPUR FOR THE PROCESSING AND HANDLING OF POULTRY LITTER TO BE LOCATED ON A CERTAIN PARCEL OF LAND LYING AND BEING IN BROAD CREEK HUNDRED, SUSSEX COUNTY, CONTAINING 228.88 ACRES, MORE OR LESS

WHEREAS, on the 11th day of April 2006, a conditional use application, denominated C/U #1691, was filed on behalf of Perdue Farms AgriRecycle, L.L.C.; and

WHEREAS, on the 22nd day of June 2006, a public hearing was held, after notice, before the Planning and Zoning Commission of Sussex County and on the 6th day of July 2006, said Planning and Zoning Commission recommended that C/U#1691 be approved with conditions and reasons; and

WHEREAS, on the 18th day of July 2006, a public hearing was held, after notice, before the County Council of Sussex County and the County Council of Sussex County determined, based on the findings of facts, that said conditional use is in accordance with the Comprehensive Development Plan and promotes the health, safety, morals, convenience, order, prosperity and welfare of the present and future inhabitants of Sussex County, and that the conditional use is for the general convenience and welfare of the inhabitants of Sussex County.

NOW, THEREFORE,

THE COUNTY OF SUSSEX HEREBY ORDAINS:

Section 1. That Chapter 115, Article IV, Subsection 115-22, Code of Sussex County, be amended by adding the designation of C/U #1691 as it applies to the property hereinafter described.

Section 2. The subject property is described as follows:

ALL that certain tract, piece or parcel of land, lying and being situate in Broad Creek Hundred, Sussex County, Delaware, and lying west of U.S. Route 13A and north of Road 485 and being more particularly described as follows:

BEGINNING at a point on the westerly right of way of U.S. Route 13A, a corner for these subject ands and lands now or formerly of Victor E. Moore; thence south 85°45'06"

west 250.23 feet, south 86°46'11" west 1068.22 feet and south 07°53'54" west 1,495.60 feet along lands of Victor E. Moore to a point; thence southerly along these lands and lands now or formerly of Victor E. Moore the following courses: south 24°14'37" east 92.40 feet, thence south 09°17'37" east 899.25 feet, thence south 05°00'23" west 313.50 feet, thence south 05°14'37" east 198.00 feet, thence south 09°59'37" east 610.94 feet to the northerly right of way of Road 465; thence westerly 505.15 feet along the northerly right of way of Road 485 to the centerline of Gum Branch; thence northwesterly along the meandering centerline of Gum Branch approximately 2,200.00 feet to a point, a corner for these lands and lands now or formerly of Stephen C. Glenn; thence south 16°46'19" west 354.98 feet along said Glenn property to a point; thence north 78°57'47" west 318.35 feet along lands now or formerly of Frederick M. O'Neal (Trustee) to a point; thence north 09°16'05" east 297.01 feet and north 04°55'59" east 817.39 feet along lands now or formerly of Ronald W. and Ruth M. Conaway to a point; thence north 86°05'12" east 396.08 feet and north 04°18'33" west 1,168.72 feet along lands now or formerly of Donald R. Eisenbrey to a point; thence north 79°02'14" east 2,055.56 feet and north $34^{\circ}54'37''$ west 384.45 feet along lands now or formerly of Ralph H. and Jane L. Givens to a point; thence north 49°05'23" east 1,384.35 feet along lands now or formerly of Ralph H. Givens, lands now or formerly of Ronald G. Fensick, and lands now or formerly of Edward N. Dickerson to a point; thence south 45°47'19" east 717.20 feet along lands now or formerly of George D. Elzey, Jr. to a point; thence north 68°08'07" east 504.34 feet and south 79°42'15" east 619.83 feet along lands of Florence E. Johnson and Sussex Manor to a point; thence south 06°25'19" west 261.98 feet to a point; thence north 87°41'15" east 351.14 feet to a point on the westerly right of way of U.S. Route 13A; thence 1,036.47 feet along the westerly right of way of U.S. Route 13A to the point and place of beginning and containing 228.88 acres more or less as surveyed by Hampshire, Hampshire and Andrews, and F. Douglas Jones Surveying Associates.

This Ordinance shall take effect immediately upon its adoption by majority vote of all members of the County Council of Sussex County, Delaware.

This Ordinance was adopted subject to the following conditions and reasons:

This is an existing Conditional Use (No. 1314) that was approved by the County Council
in 1999. This application will not materially change the use that is permitted upon the
property.

The Applicant is requesting reasonable changes to the existing Conditional Use permit to
meet its needs for the recycling of poultry manure and marketing of the pelletized micronutrients.

3. The use has proven to be a benefit for the family farm and the agricultural industry in Sussex County. It has also proven to be a good way to eliminate a potential source of excess nitrates and phosphates from Sussex County soils.

4. The Applicant has requested the deletion of the 4th condition of Conditional Use No. 1314 to allow the movement and drop-off and pick-up of rail cars within the site at any time.
Delete Condition No. 4, as requested.

5. The Applicant has requested that the 7th condition be deleted to allow truck travel to the site at any time; by allowing truck travel to the site at any time, the plant can operate more efficiently and fuel costs would be reduced. Delete Condition No. 7, as requested.

in watertight containers; the material would be stored in a neat and orderly fashion inside watertight containers. This will also allow the plant to operate more efficiently. The Planning and Zoning Commission recommended that the 9th condition be modified to state "all activities involving raw litter shall be inside of the building. The loading, unloading and processing of raw material/litter shall be within the negative air section of the building. Storage of finished product, both pellets and granulated, may be stored outside in watertight containers. The loading of the finished product onto transport vehicles shall be under roof." Amend Condition No. 9 as requested and recommended by the Commission.

- Delete Condition No. 18 which states "No operating hours will be permitted on Sunday."
- 8. The Applicant has operated the facility very well during the past five years. Even with these recommended amendments to the existing Conditional Use, the noise, odor, or other effects of the operations are no different than other agricultural uses that exist all over Sussex County.

I DO HEREBY CERTIFY THAT THE FOREGOING IS A TRUE AND CORRECT COPY OF ORDINANCE NO. 1865 ADOPTED BY THE SUSSEX COUNTY COUNCIL ON THE 25TH DAY OF JULY 2006.

ROBIN A. GRIFFFEHY | CLERK OF THE COUNCIL

- had a positive effect on the environment by providing a more environmentally sound method of poultry litter disposal.
- 7. Council heard objections from Russell Ebron, a neighbor who was present in opposition to the application, who voiced various complaints and that he is in opposition to Council approving Sunday operating hours, that lights on the rear of the Perdue building are directed toward his home, and that odors and noises from the plant are offensive and negatively affect the ability of his family to enjoy their property.
- 8. In response to the objections of Mr. Ebron, the representative from Perdue stated that when any problem is brought to their attention they have tried to correct it and that he will make certain that their lights are not directed toward Mr. Ebron's home, and that DNREC has written a letter in support of the application and stated that the plant is a model facility.
- 9. Council was provided with a letter from the Delaware Economic Development Office indicating that poultry is a positive factor in the agricultural health of the State and that DEDO supports the expansion of the operating hours, and that in the past a Sunday production schedule has not diminished the quality of life for adjacent property owners.
- 10. Modifying the conditions as requested by the applicant would not materially change the use that was allowed by the approval of C/U #1314 in 1999, and the changes requested are reasonable to meet the applicant's needs for the recycling of poultry manure and the sale of the pelletized micro-nutrients produced by the plant.
- 11. The use is proven to be a benefit for the farm family and agricultural industry in Sussex County and has proven to be a good way to eliminate a potential source of excess nitrates and phosphates from Sussex County soils which occurred with the past practice of applying raw poultry manure directly to the soils.
- 12. The deletion of Conditions 4 and 7 are reasonable and will allow the plant to operate more efficiently throughout the year.
- 13. The amendment of Condition 9 to allow outside storage in watertight containers is reasonable and will allow the plant to operate more efficiently since all activities involving raw poultry litter are conducted within the building.
- 14. It was more reasonable to eliminate Condition 18 in order to allow the plant to have the

- ability to conduct Sunday operations without the necessity of having to make approval for each Sunday operation.
- The plant has operated efficiently and within pollution emission standards over the
 past five years and any noise, odor or other effects of the operations are no different
 than would occur with other agricultural uses in the County.
- 16. The revised conditions will not have an adverse impact on the neighborhood or the community.
- 17. The use is of a public or semi-public character in that it provides a more environmentally sound method of disposing of poultry litter in a commercially reasonable manner and has decreased the amount of pollution from poultry litter previously applied directly to the soils as fertilizer.
- 18. Based on the above findings, the conditional use is approved subject to the eight (8) conditions and reasons, which will serve to minimize any potential impacts on the surrounding area.

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ORDINANCE NO. 1354

With Stipulations

AN ORDINANCE TO GRANT A CONDITIONAL USB OF LAND IN AN AR-I AGRICULTURAL RESIDENTIAL DISTRICT FOR A MICRO-NUTRIENT PLANT WITH RELATED TRUCK ENTRANCE AND RAIL SPUR FOR THE PROCESSING AND HANDLING OF POULTRY LITTER TO BE LOCATED ON A CERTAIN PARCEL OF LAND LYING AND BEING IN BROAD CREEK HUNDRED, SUSSEX COUNTY, CONTAINING 228.88 ACRES, MORE OR LESS

WHEREAS, on the 9th day of September, 1999, a conditional use application, denominated C/U #1314 was filed on behalf of Perdue-AgriRecycle, LLC; and

WHERBAS, on the 4th day of November, 1999, a public hearing was held, after notice, before the Planning and Zoning Commission of Sussex County and said Planning and Zoning Commission recommended that C/U #1314 be approved; and

WHEREAS, on the 30th day of November, 1999, a public hearing was held, after notice, before the County Council of Sussex County and the County Council of Sussex County determined, based on the findings of facts, that said conditional use is in accordance with the Comprehensive Development Plan and promotes the health, safety, morals, convenience, order, prosperity and welfare of the present and future inhabitants of Sussex County, and that the conditional use is for the general convenience and welfare of the inhabitants of Sussex County.

NOW, THEREFORE.

THE COUNTY OF SUSSEX HEREBY ORDAINS:

Section 1. That Chapter 115, Article IV, Subsection 115-22, Code of Sussex County, be amended by adding the designation of C/U #1314 as it applies to the property hereinafter described.

Section 2. The subject property is described as follows:

ALL that certain tract, piece or parcel of land, lying and being situate in Broad Creek Hundred, Sussex County, Delaware, and lying west of U.S. Route 13A and north of Road 485 and being more particularly described as follows:

BEGINNING at a point on the westerly right of way of U.S. Route 13A, a corner for these subject ands and lands now or formerly of Victor E. Moore; thence south 85°45'06"

west 250.23 feet, south 86°46'11" west 1068.22 feet and south 07°53'54" west 1,495.60 feet along lands of Victor E. Moore to a point; thence southerly along these lands and lands now or formerly of Victor E. Moore the following courses: south 24°14'37" east 92.40 feet, thence south 09°17'37" east 899.25 feet, thence south 05°00'23" west 313.50 feet, thence south 05°14'37" east 198.00 feet, thence south 09°59'37" east 610.94 feet to the northerly right of way of Road 465; thence westerly 505.15 feet along the northerly right of way of Road 485 to the centerline of Gum Branch; thence northwesterly along the meandering centerline of Gum Branch approximately 2,200.00 feet to a point, a corner for these lands and lands now or formerly of Stephen C. Glenn; thence south 16°46'19" west 354.98 feet along said Glenn property to a point; thence north 78°57'47" west 318.35 feet along lands now or formerly of Frederick M. O'Neal (Trustee) to a point; thence north 09°16'05" east 297.01 feet and north 04°55'59" east 817.39 feet along lands now or formerly of Ronald W. and Ruth M. Conaway to a point; thence north 86°05'12" east 396.08 feet and north 04°18'33" west 1,168.72 feet along lands now or formerly of Donald R. Eisenbrey to a point; thence north 79°02'14" east 2,055.56 feet and north 34°54'37" west 384.45 feet along lands now or formerly of Ralph H. and Jane L. Givens to a point; thence north 49°05'23" east 1,384.35 feet along lands now or formerly of Ralph H. Givens, lands now or formerly of Ronald G. Fensick, and lands now or formerly of Edward N. Dickerson to a point; thence south 45°47'19" east 717.20 feet along lands now or formerly of George D. Elzey, Jr. to a point; thence north 68°08'07" east 504.34 feet and south 79°42'15" east 619.83 feet along lands of Florence E. Johnson and Sussex Manor to a point; thence south 06°25'19" west 261.98 feet to a point; thence north 87°41'15" east 351.14 feet to a point on the westerly right of way of U.S. Route 13A; thence 1,036.47 feet along the westerly right of way of U.S. Route 13A to the point and place of beginning and containing 228.88 acres more or less as surveyed by Hampshire, Hampshire and Andrews, and F. Douglas Jones Surveying Associates.

This Ordinance shall take effect immediately upon its adoption by majority vote of all members of the County Council of Sussex County, Delaware.

This Ordinance was adopted subject to the following stipulations:

The conditional use area shall be strictly limited to the improvements shown on the site plan
and attached supplements, the site plan prepared by McCrone. Any future additions,
alterations, or improvements shall be subject to an application and public hearings to amend
this conditional use.

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- The proposed truck entrance shall be located as shown on the supplement to the site plan
 north of the boundary of the lands of Victor E. Moore, parcel 92, and shall have the buffer
 areas shown on the supplement the site plan vegetated with native trees and Leyland
 Cypress.
- 3. The proposed truck entrance shall be improved to limit dust with bituminous surface treatment, as a minimum, from Route 13A back to the railroad right-of-way.
- 4. Movement of rail cars within the conditional use area for loading purposes shall be limited to daylight hours. The drop-off and pick-up of rail cars by the rail company servicing the spur is not restricted.
- 5. Rail cars shall be cleaned off-site.
- All truck trailers shall have the raw litter enclosed in waterproof tarps and shall be designed to prevent leakage.
- 7. Truck travel to the site shall be during daylight hours limited to Monday through Saturday.
- The pelletized product of the processing plan shall be shipped in enclosed railroad cars or enclosed tractor-trailers.
- 9. All activities shall be limited to the inside of the building. The loading, unloading, and processing of raw material/litter shall be within the negative air section of the building. The loading of the finished product into transport vehicles shall be under the roof.

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10. The noise and odor emissions from the plant shall be controlled by the negative air system, and shall be controlled by using bag houses, cyclone fans and air scrubbers; in no event shall the plant be allowed to operate with noise or odors exceeding minimum standards established by the Department of Natural Resources and Environmental Control or any other agency having jurisdiction over the project.

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- 11. The lands shown on the site plan as cultivated and acquired from E. Jean Fleetwood shall remain in the wooded and cultivated state north of the truck entrance and shall be enhanced with native trees and Leyland Cypress in the buffer areas shown on the supplement to the site plan.
- 12. All woodland areas within the site and shown as woodland areas will remain as woodland, cut-over woodland will be allowed to mature.
- All timber areas will only be harvested with mandatory replanting after harvest. No harvesting shall occur within 100 feet of a property line or public roadway.
- The site plan shall be subject to review and approval by the Planning and Zoning Commission.
- 15. A vegetated buffer shall be planted at the time on-site construction begins.
- 16. A processing plant will not be permitted on the site.

- All lighting on the site shall be directed towards the site and no lighting shall be directed offsite.
- No operating hours will be permitted on Sunday.

I DO HEREBY CERTIFY THAT THE FOREGOING IS A TRUE AND CORRECT COPY OF ORDINANCE NO. 1354 ADOPTED BY THE SUSSEX COUNTY COUNCIL ON THE 21ST DAY OF DECEMBER, 1999.

ROBIN A. GRIFFITH
CLERK OF THE COUNTY COUNCIL

The Council found that the conditional use was appropriate legislative action based on the following findings of fact:

- 1. The applicant, Perdue-AgriRecycle, L.L.C., is a recently formed business entity, combining the experience of Perdue Farms Incorporated, an established poultry producer on the Delmarva peninsula with experience in pelletization, and AgriRecycle, Inc., which has knowledge in the field of micro-nutrient production, through recycling of poultry manure and marketing of the pelletized micro-nutrients.
- 2. The applicant has applied for a conditional use on 228± acres of land for a micro-nutrient plant which will be housed in a building 100' x 630'. The remaining portion of the property is to be preserved, except for roads and rail, in production farmland and/or timberland.
- 3. The proposed facility will have the same physical impact being viewed from off the property as would two chicken broiler houses, and the proposed building is compatible with traditional farm buildings in AR-1 Districts in Sussex County. The building is designed with a conveyor belt tower of 90± feet and a 60± foot rail car loading or staging tower which are exempt from height limits by Sussex County Code § 115-179.
- 4. The proposed use, as applied for through the conditional use permit, is a use which is designed to benefit the family farm and agricultural industry in Sussex County, particularly the poultry growers in Sussex County. The use is designed to enable the poultry growers to eliminate a potential source of excess nitrates and phosphates being deposited in the soils of Sussex County. The historic spreading of chicken litter without appropriate controls on farmlands within Sussex County and the Delmarva Peninsula is reported by environmental experts as contributing to the contamination problems in the tidal waters and tributaries of the Delmarva Peninsula.

5. The proposed micro-nutrient process uses a waste by-product of the poultry industry productivity and reduces the cost of waste by-product disposal for poultry growers. The process allows the original poultry waste by-product to be converted to a micro-nutrient for resale off the Delmarva peninsula to be utilized in areas where current soils are deprived of the nutrients.

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- 6. Enhancing the environmental quality of life in Sussex County is a goal of the Comprehensive Plan, and a conditional use permit has, for its purpose, the location of uses which are generally of a public or semi-public character, and are essential and desirable to the general convenience and welfare. The application, as presented, meets both the goal and purpose thereby established.
- 7. The applied for use meets the criteria that the proposed use is for the general convenience and welfare of the entire community, but does require the exercise of planning judgment as to the location and site plan.
- 8. The conditional use approval process allows the County to condition its approval by imposing restrictions, and the County Council hereinafter imposes conditions on the application approval to lessen its impact on the surrounding neighborhood.
- 9. Authorization of this use by conditional use permit is appropriate. The use is not a specified use listed in either the LI-1, LI-2 or heavy industrial zoning districts of Sussex County. While the resulting product is akin to a product produced in fertilizer manufacturing, the plant design and process is a recycling facility. The plant will use a negative air flow system and it will operate within a completely enclosed environment which is designed to minimize, if not eliminate, odors and noise from extending beyond the enclosed plant by use of air scrubbers and cyclone fans. The process utilized and the technology of the proposed micro-nutrient plant does not fit within any particular zone established by the Sussex County Zoning Ordinance. Due to the need for enhancing the ability of the poultry industry to protect the local environment, a conditional use is an appropriate zoning method for permitting a use, which will provide community-wide benefits and the ability to recycle a potential environmentally damaging by-product of the poultry industry.
- 10. The Sussex County Council finds that the restrictions and enhancements to the property which are hereinafter imposed will reduce impacts, if any, on immediately neighboring properties.

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SAZULE:

The closest residence is approximately one-half mile from the plant, and the screening proposed by the applicant and the retention of woodlands should screen the plant's operation from immediate view by any residents.

- 11. The plant is to be served solely by covered trucks. The Sussex County Council recognizes that the need to control odors through fully enclosed trucks will be required as a condition of the permit that all trucks containing poultry litter coming to the property must be covered, with the failure of a contract truck driver to maintain a covered product to be subject to probable termination.
- 12. The proposed use is partially located within a development district under the 1997 Sussex County Comprehensive Development Plan, and is therefore an appropriate location for a recycling plant which serves the Delmarva agricultural community. Although the plant itself is located in an agricultural district, it is in compliance with the Comprehensive Plan, since facilities designed to enhance and benefit the agricultural community are permitted in all agricultural districts. The use supports, and in turn is dependent upon local agricultural product and by-products. (See Comprehensive Plan at Page 11.)
- 13. The location of the plant is appropriate. The plant needs to be served by a spur rail line to ship the finished product from the Delmarva peninsula. The location of the plant is centralized with respect to a concentration of the poultry growers within Sussex County, and is served by an adequate road system not part of the major north-south through traffic roadway of Route 13 or Route 113.
- 14. Granting the conditional use permit should enhance the quality of life in Sussex County by providing an alternative source of disposal of poultry waste, and will allow a continuation of the poultry industry in Sussex County providing poultry growers with an option to be more environmentally responsible.
- 15. The proposed use which is designed to provide assistance to the poultry growing industry, a major part of the eastern shore agricultural business community, protects a viable economic base of Sussex County, and will provide the poultry growers the opportunity to meet ever-increasing stringent environmental standards imposed by the State and Federal government on their operations.

- 16. The proposed use will be economically beneficial to the County in that it will create from 15 to 20 skilled and semi-skilled jobs. The jobs will have a multiplier effect for the economy of Sussex County. The need to retain skilled and semi-skilled jobs in Sussex County is particularly crucial at this junction, since the Dupont Plant has announced a reduction of employees by 600, or one-third of the existing employees in the year 2000.
- 17. The tax base of Sussex County will be increased by the assessment for the plant authorized by the conditional use permit, and the local school districts will be benefited by an increase in tax base, without any additional burdens by reason of increased population on the lands conditionally zoned.
- 18. The Planning and Zoning Commission has recommended approval with conditions. The Sussex County Council accepts and adopts the findings of the Planning and Zoning Commission in principle, but modifies the proposed conditions in certain aspects as hereinafter provided.
- 19. The Sussex County Council finds that the subject micro-nutrient plant operation will dry, pasteurize and pelletize natural poultry waste within an enclosed plant. This type of facility is not addressed in any of the specific zoning districts established under the Sussex County Comprehensive Zoning Ordinance. The use is best authorized by a conditional use permit, as opposed to a rezoning of the 228 acres of land, so that a majority of the land not required for the plant can be restricted as to use. The below imposed conditions could not be imposed by the Sussex County Council in an ordinance rezoning the property LI-1, or any other non-conditional use zoning classification.
- 20. The proposed use will also be subject to permit requirements and regulation requirements of the Delaware Department of Natural Resources and Environmental Control controlling noise, odor, surface run-off, dust and wastewater disposal; the Delaware Department of Transportation controlling entrance and truck route access; and the federal government relating to rail use. These agencies will control the operation within their areas of expertise, which is in addition to the conditions that the Sussex County Council can legislatively impose within its area of expertise.
- 21. The County Council adopts the position of the Applicant as set forth in its letter to the Council dated December 7, 1999, which document is incorporated herein by reference, and finds

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that the appropriate method of implementing the rezoning sought for the Applicant's micronutrient processing facility, together with truck entrance and rail spurs, is through a conditional use.

22. The County Council finds that by authorizing the use through a conditional use procedure, the County can impose restrictions and conditions on the use which are designed to provide assurance that the facility will be operated so as to minimize any impact to the community and neighborhood in which the use is located. By the conditional use approval, the County can impose appropriate conditions on the Applicant's use of the property. If the Applicant's proposed use were approved through a district rezoning of lands, then all uses that would be authorized in that district would be authorized at the property, and the County could not impose specific restrictions and conditions upon such use to provide assurance that the Applicant's use of the property will be compatible with uses permitted in the surrounding area and otherwise operate in harmony with the community.

JAMIE WHITEHOUSE, AICP, MRTPI DIRECTOR OF PLANNING & ZONING (302) 855-7878 T (302) 854-5079 F jamie.whitehouse@sussexcountyde.gov

Sussex County

DELAWARE sussexcountyde.gov

October 20, 2020

Mr. Stephen J. Gorski, P.E. Duffield Associates, Inc. 5400 Limestone Road Wilmington, DE 19808

By email to: sgorski@duffnet.com

Dear Mr. Gorski,

Thank you for your zoning verification request regarding Tax Parcels 132-11.00-41.00, 132-6.00-88.01, 132-6.00-95.00 and 132-11.00-41.02. The tax parcels are located on the north side of Oneals Road (S.C.R. 485) and the west side of Seaford Road (Route 13A) with access off of Enviro Way.

The above-mentioned parcels consist of a total of 223.26 acres and are zoned Agricultural Residential (AR-1). The subject properties are not located within a Flood Zone. There are two tax ditches present on parcel 132-11.00-41.00. The northern tax ditch contains a R.O.W. that is measured 30-ft from the top of bank of the ditch, and the southern tax ditch contains a R.O.W. is measured 80-ft from the centerline of the ditch.

The use of the site as a composting facility as an addition/extension to the previously approved micro-nutrient plant for the processing and handling of poultry litter was approved by the Sussex County Council on Tuesday, June 25, 2013 under Conditional Use No. 1962. This change was adopted through Ordinance No. 2311 and is subject to nine (9) conditions. The conditions previously approved for the site under Conditional Use No. 1314 and 1691 were unchanged by this approval.

A Preliminary Site Plan for the addition of seven (7) storage tanks and other associated site improvements to be located between Buildings 1 and 3 was received by the Department of Planning and Zoning on April 16, 2020. The site plan includes a proposed 2,000 square foot security and reception office, new landscaping and fencing near the site entrance.

At their meeting of Thursday, April 23, 2020, the Planning and Zoning Commission approved the Preliminary Site Plan with the request that the Final Site Plan also require Commission approval.

A search was conducted regarding the parcel's history which concluded that there are no open violations on the property. Placement of any additional structures on the property which are not reflected on the current site plan will require site plan review and a separate permit from the County.

Please feel free to contact me with any further questions you may have during normal business hours, 8:30AM to 4:30PM, Monday through Friday at (302)855-7878.

Best Regards,

Mr. Jamie Whitehouse,

Link

Director of Planning & Zoning



Bioenergy Development Group, LLC

C.U. No 2258

PROPOSED FINDINGS OF FACT

- 1. This application is made by Bioenergy Development Group, LLC pursuant to S.C. Code § 115-22, to permit the processing and handling of poultry litter to include nutrient recovery for natural gas and electrical generation.
- 2. The applicant is the owner and occupant of the subject property located in Broad Creek Hundred and identified on the Tax Maps of the Sussex County Department of Finance as T.M. No. 132-6.00-88.01 and 95.00 and 132-11.00-41.00 and 41.02, containing 228.88 acres, more or less.
- 3. The site was originally approved in 1999 and has been in operation since then for the receipt of poultry waste to be converted to fertilizers. The site is currently operated by the Applicant as a micro-nutrient plant with related truck entrance and rail spur for the processing and handling of poultry waste and litter. These historic uses have been approved by regulatory agencies, including DNREC air and water quality agencies.
- 4. The site is designated as an AR-1 Agricultural-Residential District, which allows for a full range of agricultural activities, and is designated in the County's Comprehensive Land Use Plan as an Industrial Area, allowing land to be devoted to concentrations of larger industrial uses including heavier industry, light industry, warehousing, and flex space.
- 5. The present use was originally granted by Conditional Use No. 1314 (approved Dec. 21, 1999) and has been amended by Conditional Use Nos. 1691 (approved July 25, 2006) and 1962 (approved June 25, 2013). These conditions, as amended, will continue to be binding on the site.
- 6. This proposed extension to the existing conditional use enlarges the use to include nutrient recovery and conversion for natural gas and electrical generation. The structures currently existing on the site will remain. By granting this extension to the conditional use, the

Applicant will be able to continue supporting the agricultural business in the area and maintain or -increase the number of employees working at this site.

- 7. The proposed change is consistent with and is a reasonable expansion of the current Use and is essential and desirable for the general convenience and welfare of Sussex County residents and the agribusiness community and will have a positive effect on the County's economy.
- 8. The proposed use will require regulatory review by State agencies, including the Delaware Department of Natural Resources and Environmental Control, relating to air and water quality controls, the State Fire Marshal, and the Department of Transportation.
- 9. Any concerns raised about the location of facilities, traffic, noise, odor, dust, etc., have been addressed by the Applicant and the best environmentally responsible processes will be continued. The proposed use with the conditions imposed will not have an adverse effect on the neighboring or adjacent properties.
- 10. This application is appropriate at the subject site because of its designation as an industrial area in the County's Comprehensive Land Use Plan on the State's strategy for spending map in that they encourage these type activities supporting agriculture.
- 11. The granting of this application benefits the environment by providing a clean and efficient method for the conversion of poultry litter to renewable energy and a serving the community with natural gas and electricity.
- 12. The conditional uses requested will promote the health, safety and welfare of the inhabitants of Sussex County.

PROPOSED CONDITIONS OF APPROVAL

- 1. All improvements for processing and handling of poultry litter to include nutrient recovery for natural gas and electrical generation shall be constructed and maintained in accordance with the requirements of Delaware Department of Natural Resources and Environmental Control, the State Fire Marshal, and any other state or federal governmental agency with jurisdiction over the use of the site, or any modification thereto.
- 2. The final site plan shall be subject to review and approval by the Sussex County Planning and Zoning Commission.
- 3. Except as amended by this grant of conditional use, the conditions imposed by Conditional Use No. 1314, and as amended by Conditional Use Nos. 1691 and 1962, shall remain in effect.



Sussex Conservation District 23181 Shortly Road Georgetown, DE 19947 302-856-2105 https://www.sussexconservation.org

APPLICATION FOR STANDARD PLAN APPROVAL

NON-RESIDENTIAL CONSTRUCTION WITH LESS THAN 1.0 ACRE DISTURBED

Applicability Criteria

- 1. The disturbed area for construction of the improvements will not exceed 1.0 acre.
- 2. Within the disturbed area, the pre-development land use is not classified as forest.
- 3. For project site locations within an area previously managed for stormwater quantity and quality under an approved Sediment and Stormwater Plan, the post construction condition meets the original stormwater design criteria.
- 4. For project site locations within an area previously unmanaged for stormwater quantity and quality under an approved Sediment and Stormwater Plan, one of the following is met:

Site Information

- a. Comparison of the existing parcel curved number (CN) based upon the Department's 2017 aerial photography to the proposed CN for the parcel after non-residential construction results in less than one whole number change in the CN, OR
- b. No new impervious area is proposed as a result of construction.

Project Name: Bioenergy Alternative Fuel Processing Facility Parcel Total Acres (nearest 0.1ac); 220.5 Site Location: Enviro Way, Seaford, DE19973 Disturbed Acres (nearest 0.1ac): .95 acre Previous Plan Name: N/A Proposed Impervious Area (square feet): 875 sf (net) Previous Plan Approval Number: N/A Wooded area to be cleared: 0 ac. Tax Parcel ID: 132-6.00-88.01; 95.00; 132-11.00-41.00; 41.02 Pre CN: 85 Post CN: 85 Applicant Information Owner: BioEnergy Development Group, LLC Applicant: Duffield Associates Mailing Address: 5400 Limestone Rd Mailing Address: 9250 Bendix Road Columbia, MD 21045 Wilmington, DE 19808 Owner Phone: 719-502-6100 410-399-9777 Applicant Phone: sgorski@duffnet.com Owner Email: swarfield@bioenergydevco.com Applicant Email: Approval Information (for office use only) Approval #_ Fee Paid: \$ /000. CO Approval Date: 7/21/20 Approved by: Expiration Date: 9/21/25

Standard Conditions

- 1. Discharges from rooftops will be disconnected using one of the following methods or another method approved by the Department or Delegated Agency:
 - a. Individual downspouts will discharge to lawn or landscape area.
 - b. Discharges from downspouts will be collected to discharge to a rain garden.
 - c. Discharges from downspouts will be collected in rain barrels or cisterns for reuse.
- 2. Driveways, sidewalks, patios, and other impervious surfaces will be graded to sheet flow to lawn or other pervious areas to the maximum extent practicable.
- 3. Unless waived in writing by the Department or Delegated Agency a construction site stormwater management plan in accordance with Department or Delegated Agency guidance for this Standard Plan shall be followed. The attached checklist has been developed to serve as guidance for preparing the construction site stormwater management plan.
- 4. Approval of this Standard Plan does not relieve the applicant from complying with any and all federal, state, county or municipal laws and regulations.

Stabilization Conditions

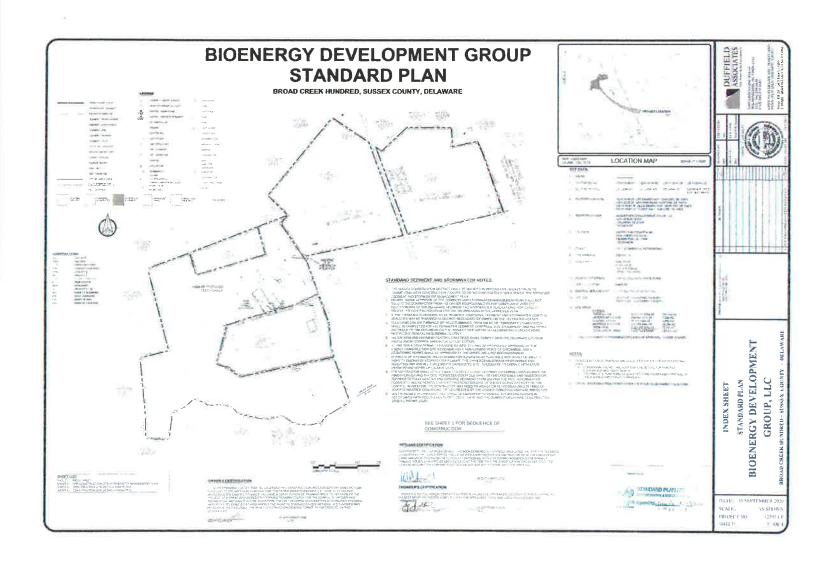
- 1. Following initial soil disturbance or redisturbance, temporary or permanent stabilization with seed and mulch shall be completed within 14 calendar days to the surface of all disturbed areas not actively under construction.
- 2. Specific stabilization recommendations may be found in the Delaware Erosion and Sediment Control Handbook, 3.4.3 Standard and Specifications for Vegetative Stabilization.

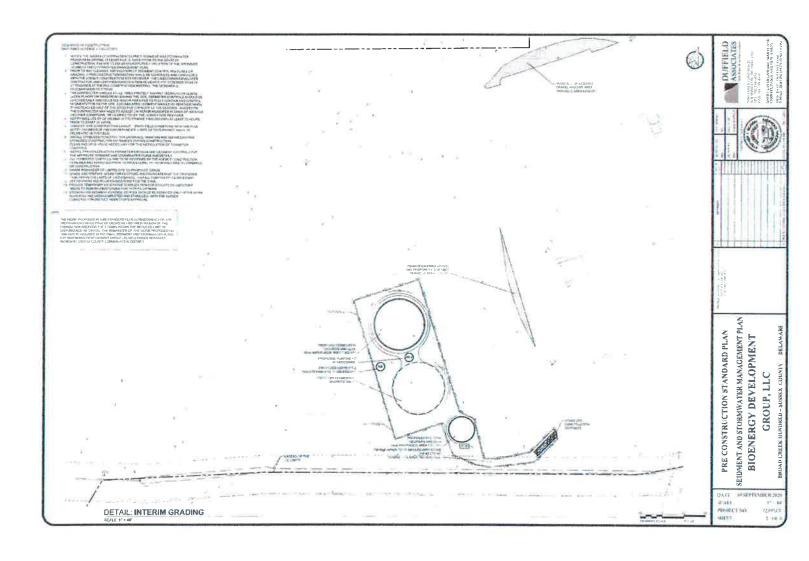
Applicant Certification

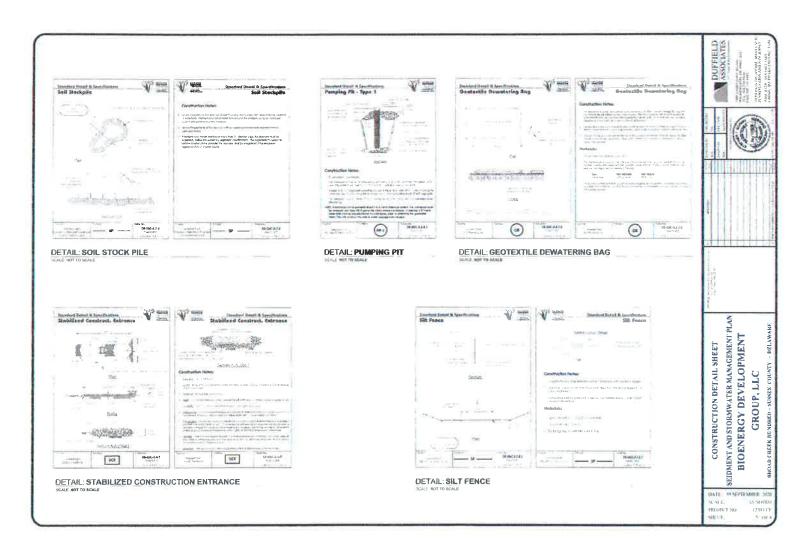
I, the undersigned, certify that the information supplied on this Application for Standard Plan Approval is accurate, the proposed land disturbing activity meets the criteria established, and all conditions of this Standard Plan Approval will be met by the applicant, builder, contractor, and owner during construction and post construction.

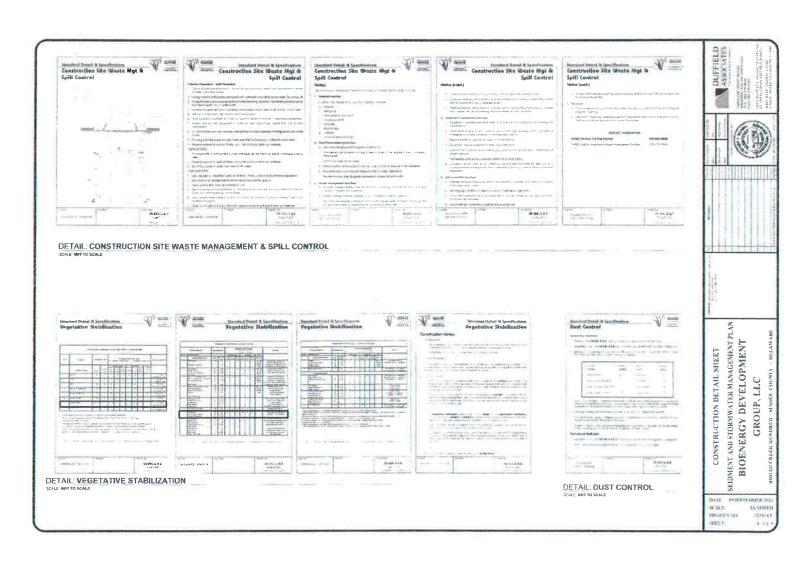
Applicant Signature:	Stephen Gorski	8/26/2020 Date:	
Applicant Printed Name:	Stephen Gorski, P.E.	Title:Sr. Project Manag	er

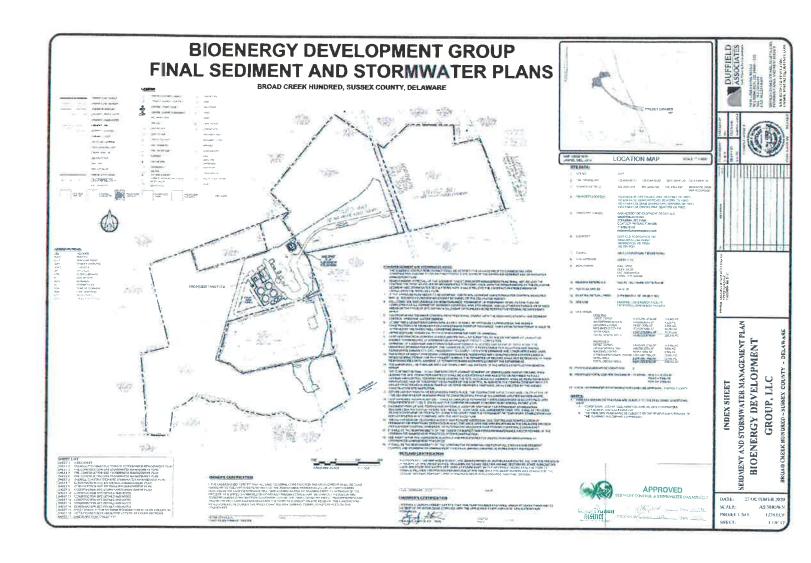
^{***}THIS STANDARD PLAN APPLICATION FORM MUST BE MAINTAINED ON THE SITE AT ALL TIMES DURING CONSTRUCTION***







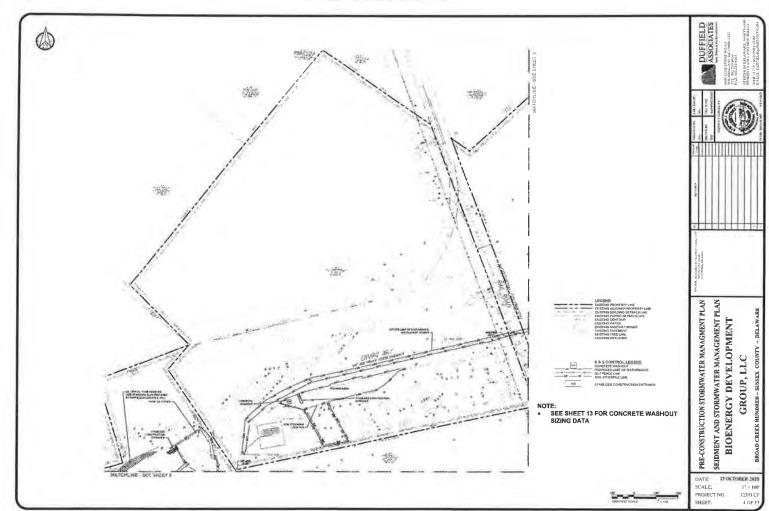




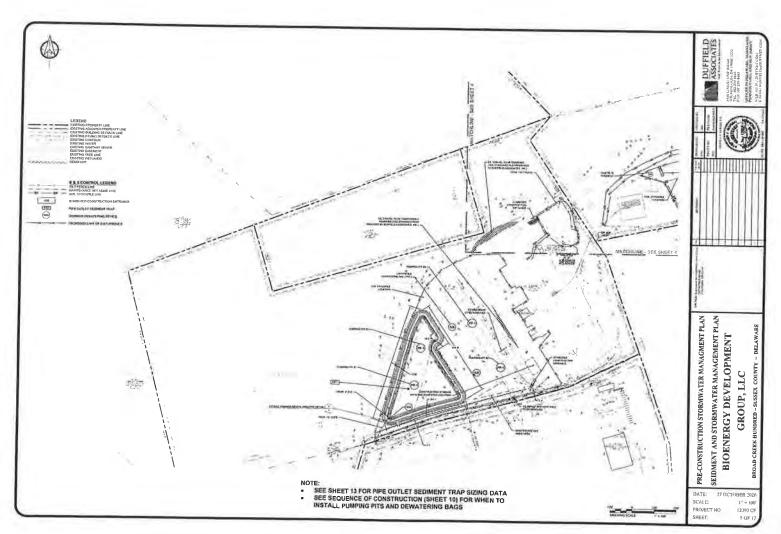
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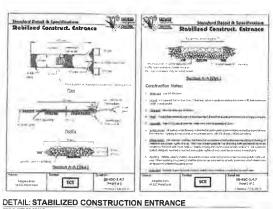
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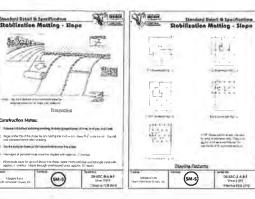
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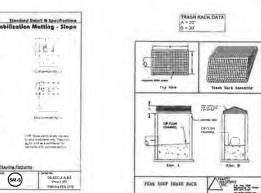
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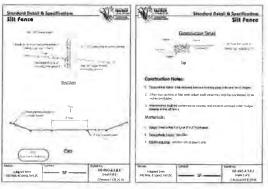




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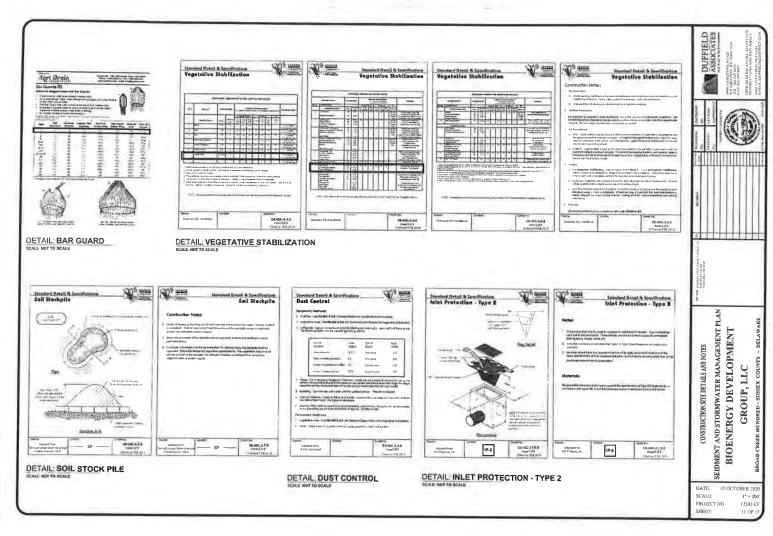


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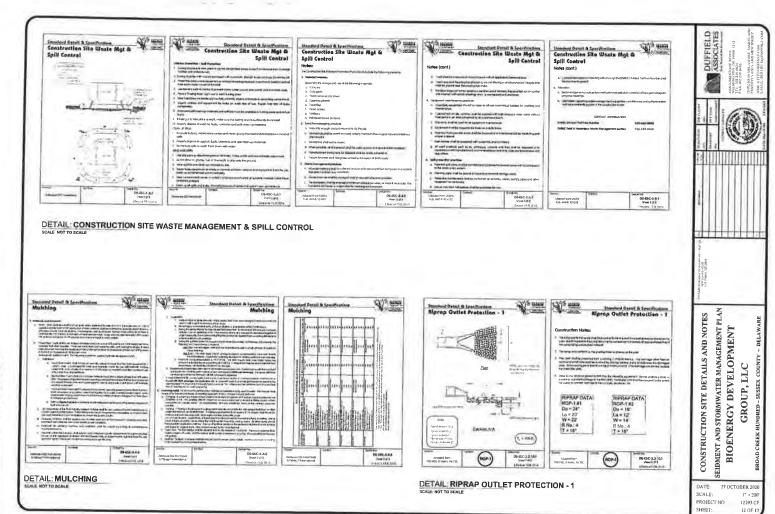
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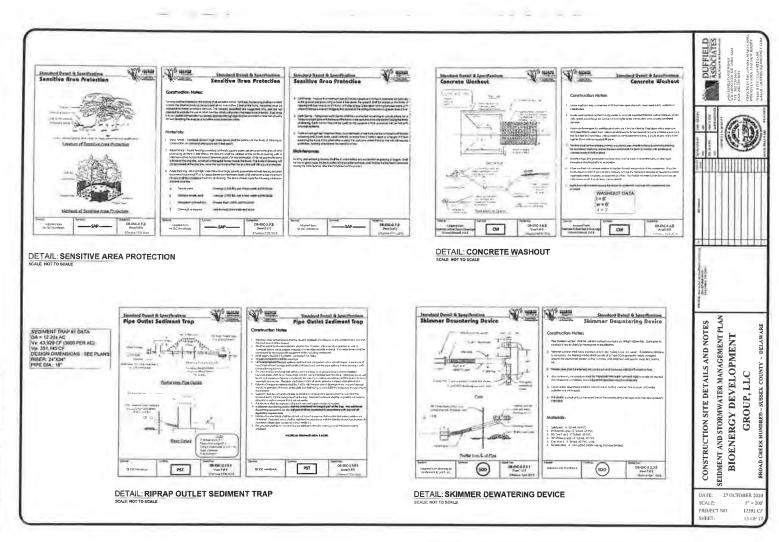
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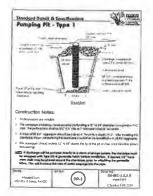
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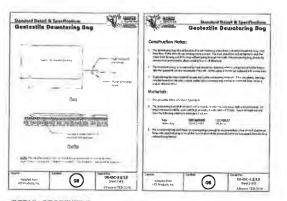
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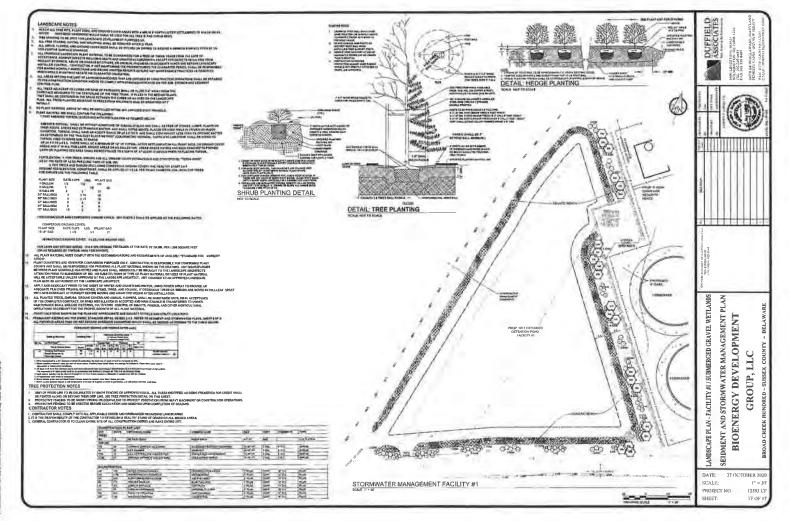
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BIOENERGY DEVELOPMENT
GROUP, LLC

BROAD CREEK BUNDRED - SUSSEX COUNTY - DELAWARE

DATE: 27 OCTORER 2020 SCALE: 1" = 200' PROJECT NO 12393.CF SHEET: 14 OF 17

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DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DIVISION OF WATERSHED STEWARDSHIP 21309 BERLIN ROAD, UNIT #6 GEORGETOWN, DELAWARE 19947

DRAINAGE PROGRAM

PHONE: (302) 855-1930 FAX: (302) 677-7059

11/17/2020

Stephen Gorski
Duffield Associates
5400 Limestone Rd.
Wilmington, DE 19808

RE: Parcel #132-6.00-88.01, 132-6.00-95.00, 132-11.00-41.00, 132-11.00-41.02, BioEnergy Development

The Delaware Department of Natural Resources and Environmental Control (DNREC), Drainage Program has reviewed the plans submitted by Duffield Associates for the above noted property within the Mt. Zion Tax Ditch Watershed.

My office has **no objection** to the works of improvement to these parcels with the following recommendations and comments:

- Maintenance of any private crossings located within the tax ditch channel and/or right-ofways are the responsibility of the landowner, **not** the tax ditch organization.
- Maintenance of any stormwater management facilities and/or associated infrastructure located within the tax ditch channel(s) and/or right-of-ways are the responsibility of the landowner, **not** the tax ditch organization.
- It is highly recommended that the landowner evaluates and cleans out the tax ditch channel to design grade, if needed, prior to construction of this project. The DNREC Drainage Program can provide technical assistance on this matter.

If you are a consultant working on behalf of a landowner, it is your responsibility to pass on this information to the landowner(s).

If you have any questions or concerns, please contact the Drainage Program at (302) 855-1930.

Sincerely,

Melissa Hubert
Melissa Hubert
Tax Ditch Program Manager II

cc: John Justice, Sussex Conservation District

ORDINANCE NO. 2311

AN ORDINANCE TO GRANT A CONDITIONAL USE OF LAND IN AN AR-1 AGRICULTURAL RESIDENTIAL DISTRICT FOR A COMPOSTING FACILITY AS AN EXTENSION TO CONDITIONAL USE NO. 1314 AND CONDITIONAL USE NO. 1691 (A MICRO-NUTRIENT PLANT WITH RELATED TRUCK ENTRANCE AND RAIL SPUR FOR THE PROCESSING AND HANDLING OF POULTRY LITTER) TO BE LOCATED ON A CERTAIN PARCEL OF LAND LYING AND BEING IN BROAD CREEK HUNDRED, SUSSEX COUNTY, CONTAINING 228.88 ACRES, MORE OR LESS (Tax Map I.D. 1-32-6.00-88.01 AND 95.00 and Tax Map I.D. 1-32-11.00-41.00)

WHEREAS, on the 5th day of March 2013, a conditional use application, denominated Conditional Use No. 1962 was filed on behalf of Chesapeake AgriSoil, LLC; and

WHEREAS, on the 25th day of April 2013, a public hearing was held, after notice, before the Planning and Zoning Commission of Sussex County and on the 23rd day of May 2013, said Planning and Zoning Commission recommended that Conditional Use No. 1962 be approved with conditions; and

WHEREAS, on the 21st day of May 2013, a public hearing was held, after notice, before the County Council of Sussex County and the County Council of Sussex County determined, based on the findings of facts, that said conditional use is in accordance with the Comprehensive Development Plan and promotes the health, safety, morals, convenience, order, prosperity and welfare of the present and future inhabitants of Sussex County, and that the conditional use is for the general convenience and welfare of the inhabitants of Sussex County.

NOW, THEREFORE, THE COUNTY OF SUSSEX HEREBY ORDAINS:

Section 1. That Chapter 115, Article IV, Subsection 115-22, Code of Sussex County, be amended by adding the designation of Conditional Use No. 1962 as it applies to the property hereinafter described.

Section 2. The subject property is described as follows:

ALL that certain tract, piece or parcel of land, lying and being situate in Broad Creek Hundred, Sussex County, Delaware, and lying west of Route 13A and north of Road 485 and being more particularly described as:

BEGINNING at a point on the westerly right of way of U.S. Route 13A, a corner for these subject lands and lands now or formerly of Victor E. Moore; thence south 85°45'06" west 250.23 feet, south 86°46'11" west 1068.22 feet and south 07°53'54" west 1,495.60 feet along lands of Victor E. Moore to a point; thence southerly along these lands and lands now or formerly of Victor E. Moore the following courses: south 24°14'37" east 92.40 feet, thence south 09°17'37" east 899.25 feet, thence south 05°00'23" west 313.50 feet, thence south 05°14'37" east 198.00 feet, thence south 09°59'37" east 610.94 feet to the northerly right of way of Road 465; thence westerly 505.15 feet along the northerly right of way of Road 485 to the centerline of Gum Branch; thence northwesterly along the meandering centerline of Gum Branch approximately 2,200.00 feet to a point, a corner for these lands and lands now or formerly of Stephen C. Glenn; thence south 16°46'19" west 354.98 feet along said Glenn property to a point; thence north 78°57'47" west 318.35 feet along lands now or formerly of Frederick M. O'Neal (Trustee) to a point; thence north 09°16'05" east 297.01 feet and north 04°55'59" east 817.39 feet along lands now or formerly of Ronald W. and Ruth M. Conaway to a point; thence north 86°05'12" east 396.08 feet and north 04°18'33" west 1,168.72 feet along lands now or formerly of Donald R. Eisenbrey to a point; thence north 79°02'14" east 2,055.56 feet and north 34°54'37" west 384.45 feet along lands now or formerly of Ralph H. and Jane L. Givens to a point; thence north 49°05'23" east 1,384.35 feet along lands now or formerly of Ralph H. Givens, lands now or formerly of Ronald G. Fensick, and lands now or formerly of Edward N. Dickerson to a point; thence south 45°47'19" east 717.20 feet along lands now or formerly of George D. Elzey, Jr. to a point; thence north 68°08'07" east 504.34 feet and south 79°42'15" east 619.83 feet along lands of Florence E. Johnson and Sussex Manor to a point; thence south 06°25'19" west 261.98 feet to a point; thence north 87°41'15" east 351.14 feet to a point on the westerly right of way of U.S. Route 13A; thence 1,036.47 feet along the westerly right of way of U.S. Route 13A to the point and place of beginning and containing 228.88 acres, more or less.

This Ordinance shall take effect immediately upon its adoption by majority vote of all members of the County Council of Sussex County, Delaware.

This Ordinance was adopted subject to the following conditions:

1. The conditions of previously approved Conditional Use No. 1314 and No. 1691 are unchanged by this approval, unless specifically modified herein.

2. The use shall be strictly limited to the improvements shown on the April 11, 2013

Site Plan proposed by Axiom Engineering, LLC. Any future additions,
alterations or improvements to the Site Plan shall be subject to an application and
public hearing to amend this Conditional Use.

3. Any rail cars accessing the site shall be cleaned at an off-site location.

4. The noise and odor emissions from the operations of the composting facility shall not exceed minimum standards established by DNREC or any other agency having jurisdiction over the project. The odors shall be controlled by negative air pressure in the receiving building, a bio-filter, and by the Gore Cover System.

5. The lands on the Site Plan surrounding the composting facility shall remain wooded north of the truck entrance. The location of all wooded, vegetative and buffer areas shall be shown on the Final Site Plan.

6. As proposed by the Applicant, all wooded areas outside of the approximately 20 acre project area shall remain as woodlands. Cut-over woodlands shall be allowed to mature.

7. Any lighting on the site shall be downward screened so that it does not illuminate neighboring properties or roadways.

8. All trucks entering the site must be covered.

9. The Final Site Plan shall be subject to the review and approval of the Sussex County Planning and Zoning Commission.

I DO HEREBY CERTIFY THAT THE FOREGOING IS A TRUE AND CORRECT COPY OF ORDINANCE NO. 2311 ADOPTED BY THE SUSSEX COUNTY COUNCIL ON THE 25TH DAY OF JUNE 2013.

ROBIN A. GRIFFITH CLERK OF THE COUNCIL

The Council found that the Conditional Use was appropriate legislative action based on the following Findings of Fact:

1. This is an application of Chesapeake AgriSoil, LLC to consider the Conditional Use of land in an AR-1 Agricultural Residential District for a composting facility as an extension to Conditional Use No. 1314 Conditional Use No. 1691 (a micro-nutrient plant with related truck entrance and rail spur for processing and handling poultry litter), to be located on a certain parcel of land lying and being in Broad Creek

Hundred, Sussex County, containing 228.88 acres, more or less, lying west of Route 13A north of Road 485 (Tax Map I.D. 1-32-6.00-88.01 and 95.00 and Tax Map I.D. 1-32-11.00-41.00).

- 2. The Sussex Conservation District commented that the Applicant will be required to follow recommended erosion and sediment control practices during any construction and to maintain vegetation; that no storm flood hazard areas or tax ditches are affected; that it is not likely that any off-site drainage improvements will be required; and that it is possible that on-site drainage improvements will be required.
- 3. The Sussex County Engineering Department, Utility Planning Division, commented that the site is located in the Western Sussex Planning Area No. 3 and Blades Planning Area No. 2; that an onsite septic system will be utilized; that the parcel is not in an area where the County has a schedule to provide sewer service at this time; and that a Concept Plan is not required.
- 4. Shannon Carmean-Burton, Attorney, of Sergovic, Carmean and Weidman, P.A., Ken Christenbury, Professional Engineer with Axiom Engineering, LLC, Whitney Hall, Professional Engineer, Wayne Hudson of Perdue Agri-Recycle, LLC, and Charlie Gifford of Chesapeake AgriSoil, LLC were present on behalf of the application and stated that this use will occupy approximately 20 acres of the 228.88 acre site; that the 20 acre portion is contained within Tax Map 1-32-11.00-41.00; that the site is immediately adjacent to the plant; that the existing wooded buffers will remain; that the site is being cleared to eliminate young seedlings and tree growth; that no clearing will occur beyond the railroad spur; that the original conditions for the micro-nutrient plant, as amended in 2006, will remain with the exception of the use of this facility; that DelDOT voiced no objections and determined that there will not be any traffic impact; and that DNREC approvals are required and will be obtained.
- 5. The Applicant stated that the proposed facility would utilize processed water from the Plant in this process rather than having to haul the processed water off-site for land application.
- 6. The Applicant further represented that Best Management Practices will be utilized; that the proposed project is very environmentally responsible; that the operation will be carried on during one daytime shift from 7:00 a.m. to 5:00 p.m. weekdays only; that water can be provided to control any dust; that the intended 20 acre area for the facility includes the stormwater management pond; that they may utilize dead-birds in a catastrophic emergency situation; that they anticipate 11 full-time employees, and assume approximately eight (8) secondary related service jobs; and that they will most likely be using independent haulers.
- 7. The Applicant further represented that the purpose of AR-1 includes references to provide for a full range of agricultural activities and protects agricultural lands; that it should also protect established agricultural operations and activities; that the permitted conditional uses in the AR-1 District include agricultural related activities; that it will decrease the amount of pollution and odor from poultry waste previously applied directly to the soils as a fertilizer; that the proposed use will provide community-wide benefits and the ability to recycle a by-product of the poultry industry utilizing the latest Gore technology; that due to the need for enhancing the ability of the poultry industry to protect the local environment, the proposed conditional use is an appropriate zoning method for permitting the use and thus, the conditional use complies with the Zoning Code; that the Applicant submits that this project is consistent with the provisions of the Comprehensive Plan which identifies the property in a Low Density Area; that the Plan provides that all land designated in the Low Density Area are currently zoned AR-1; that the Plan provides that the primary uses envisioned in Low Density Areas are agricultural activities and single family detached homes; and that industrial uses that support or depend on agriculture should be permitted.

- 8. The Applicant further represented that the Gore system proposed to be utilized uses positive aeration and a specially designed cover to create an enclosed system that optimizes the recycling process, controls odors and micro-organisms, separates leachate from storm water and creates a consistent product unaffected by outside environmental conditions; and that the use is designed to benefit the family farm and agricultural industry, especially poultry growers, in the County.
- 9. This is an extension of existing Conditional Uses approved by Sussex County; that Conditional Use Nos. 1314 and 1691 were for a micro-nutrient plant with related truck entrances and a rail spur for the processing and handling of poultry litter; that this is a reasonable change to the existing uses and a reasonable expansion to the overall site; that the proposed site is adjacent to the existing micro-nutrient plant that is operated by Perdue AgriSoil, LLC; and that the proposal is consistent with this adjacent use.
- 10. The proposed use will have a positive economic impact on Sussex County and its residents, with full-time employees on the site, and additional equipment and hauling services that are necessary for the operation of the facility.
- 11. The application is supported by the Inland Bays Foundation and the Secretary of the Delaware Department of Agriculture.
- 12. The use is consistent with the underling AR-1 Agricultural Zoning and the rural agricultural uses that exist in the vicinity of the site; that the proposed use will be a benefit to agriculture in Sussex County, as well as the Delmarva Peninsula, as an efficient means to eliminate a potential source of excess nitrates and phosphates from area soils; and that it also provides an innovative but environmentally sensitive method of handling poultry waste products and produces an end-product that can be beneficially used in an environmentally responsible manner.
- 13. This use promotes the goals of the Sussex County Comprehensive Plan by enhancing the environmental quality of Sussex County; it is also a use which has a public or semipublic character that is essential and desirable to the general convenience and welfare of Sussex County and its residents.
- 14. Based on the record and recommendation of the Planning and Zoning Commission and the record created before Council, the Conditional Use was approved subject to 9 conditions which will serve to minimize any potential impacts on the surrounding area and adjoining properties.

JAMIE WHITEHOUSE, AICP DIRECTOR OF PLANNING & ZONING (302) 855-7878 T (302) 854-5079 F jamie.whitehouse@sussexcountyde.gov





Memorandum

To: Sussex County Planning & Zoning Commission Members

From: Jamie Whitehouse, AICP, Director of Planning & Zoning

CC: Mr. Vince Robertson, Assistant County Attorney

Date: April 16, 2020

RE: Preliminary Site Plan for Bioenergy Development Group, LLC

On the agenda for the Planning & Zoning Commission meeting of April 23, 2020 is a request for Preliminary Site Plan approval for a revised Site Plan showing seven (7) storage tanks and other improvements for Tax Parcels 132-6.00-88.01, 95.00 and 132-11.00-41.00 and 41.02.

This memo has been drafted to assist in providing background information to the Commission as to Condition #1 of CU 1314.

The use of the site as a composting facility as an addition/extension to the previously approved micronutrient plan for the processing and handling of poultry litter, was approved by County Council on June 25, 2013 under Conditional Use No. 1962 (CU 1962).

Staff have reviewed the original conditions of approval attached to the December 21, 1999 Conditional Use approval (CU 1314) for a micro-nutrient plant for the handling and processing of chicken litter. Condition #1 of that approval states:

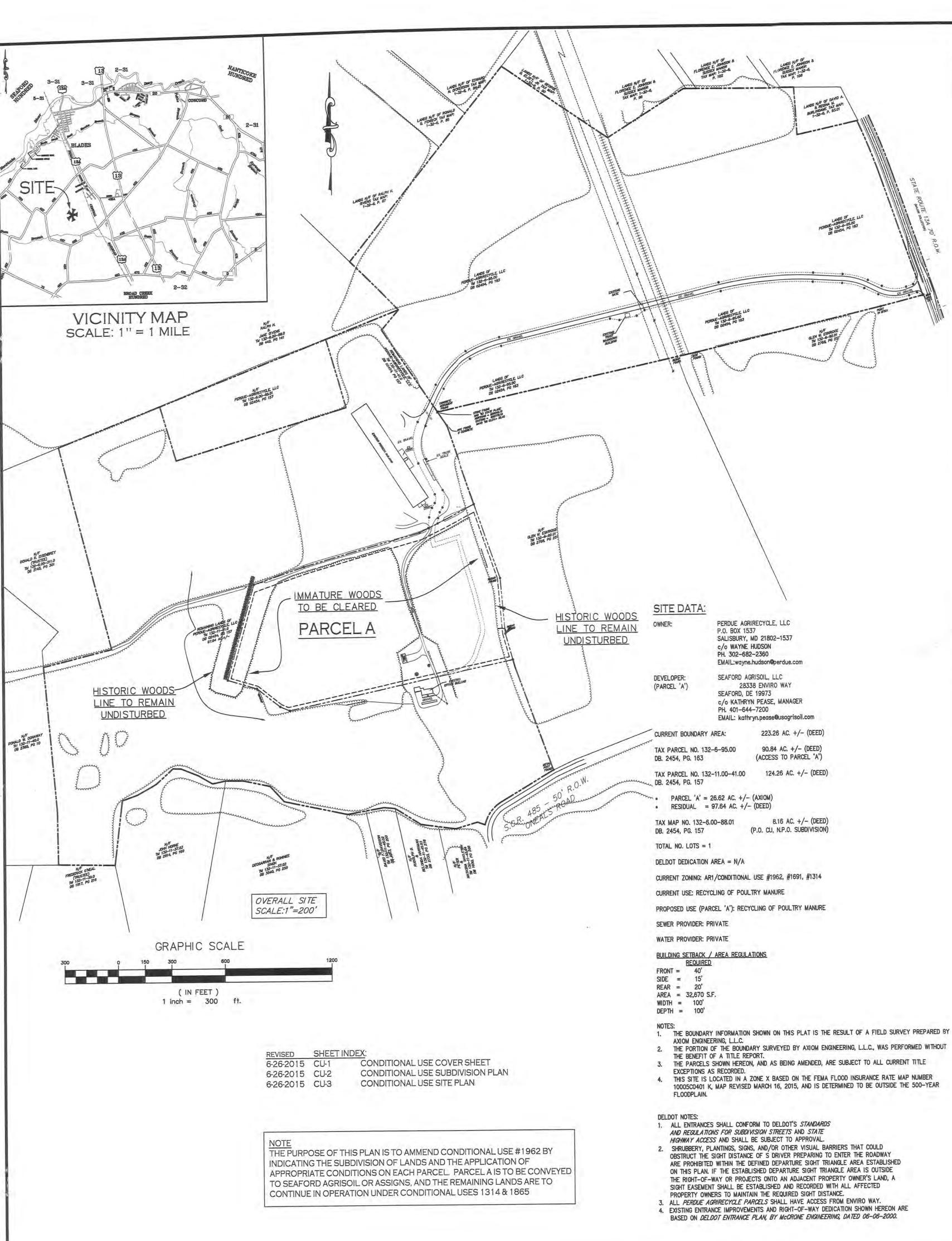
1. The Conditional Use area shall be strictly limited to the improvements shown on the site plan and attached supplements, prepared by McCrone. Any future additions, alterations, or improvements shall be subject to an application and public hearings to amend this conditional use.

This condition was repeated in the Conditions of approval for CU 1962:

1. The use shall be strictly limited to the improvements shown on the April 11, 2013 Site Plan proposed by Axiom Engineering, LLC. Any future additions, alterations or improvements to the Site Plan shall be subject to an application and public hearing to amend this Conditional Use.

Staff are of the opinion that the proposed storage tanks, to be located in the already improved area between Building 1 and Building 3, do not represent an expansion of the Conditional Use area that was identified in applications CU 1314 and CU 1962. Therefore, staff are of the opinion that a public hearing is not required for the storage tanks and other works shown on the revised Site Plan.





1999 CONDITIONAL USE 1314 - CONDITIONS APPLICABLE TO REMAINING LANDS OF PERDUE-AGRIRECYCLE, LLC

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- The conditional use area shall be strictly limited to the improvements shown on the site plan and attached supplements, the site plan prepared by McCrone. Any future additions, alterations, or improvements shall be subject to an application and public hearings to amend
- The proposed truck entrance shall be located as shown on the supplement to the site plan north of the boundary of the lands of Victor E. Moore, parcel 92, and shall have the buffer areas shown on the supplement the site plan vegetated with native trees and Leyland
- The proposed truck entrance shall be improved to limit dust with bituminous surface treatment, as a minimum, from Route 13A back to the railroad right-of-way.
- Movement of rail cars within the conditional use area for loading purposes shall be limited to daylight hours. The drop-off and pick-up of rail cars by the rail company servicing the spur is not restricted. CONDITION #4 DELETED IN 2006 PER C/U#1865
- 5. Rail cars shall be cleaned off-site.
- 6. All truck trailers shall have the raw litter enclosed in waterproof tarps and shall be designed to prevent leakage.
- 7. Truck travel to the site shall be during daylight hours limited to Monday through Saturday. CONDITION #7 DELETED IN 2006 PER C/U#1865
- 8. The pelletized product of the processing plan shall be shipped in enclosed railroad cars or enclosed tractor-trailers.
- 9. All activities shall be limited to the inside of the building. The loading, unloading, and processing of raw material/litter shall be within the negative air section of the building. The loading of the finished product into transport vehicles shall be under the roof.

 CONDITION #9 MODIFIED IN 2006 PER C/U#1865
- 10. The noise and odor emissions from the plant shall be controlled by the negative air system, and shall be controlled by using bag houses, cyclone fans and air scrubbers; in no event shall the plant be allowed to operate with noise or odors exceeding minimum standards established by the Department of Natural Resources and Environmental Control or any other agency having jurisdiction over the project.
- 11. The lands shown on the site plan as cultivated and acquired from E. Jean Fleetwood shall remain in the wooded and cultivated state north of the truck entrance and shall be enhanced with native trees and Leyland Cypress in the buffer areas shown on the supplement to the site plan.
- 12. All woodland areas within the site and shown as woodland areas will remain as woodland, cut-over woodland will be allowed to mature.
- 13. All timber areas will only be harvested with mandatory replanting after harvest. No harvesting shall occur within 100 feet of a property line or public roadway.
- 14. The site plan shall be subject to review and approval by the Planning and Zoning Commission.
- 15. A vegetated buffer shall be planted at the time on-site construction begins.
- 16. A processing plant will not be permitted on the site.
- 17. All lighting on the site shall be directed towards the site and no lighting shall be directed off-
- 18. No operating hours will be permitted on Sunday.
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- b. THE USE SHALL BE STRICTLY LIMITED TO THE IMPROVEMENTS SHOWN ON THIS SITE PLAN PROPOSED BY AXIOM ENGINEERING, LLC. ANY FUTURE ADDITIONS, ALTERATIONS OR IMPROVEMENTS TO THE SITE PLAN SHALL BE SUBJECT TO AN APPLICATION AND PUBLIC HEARING TO AMEND THIS CONDITIONAL USE. C. ANY RAILS CARS ACCESSING THE SITE SHALL BE CLEANED AT AN
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- THE APPROXIMATELY 20 ACRE PROJECT AREA SHALL REMAIN AS WOODLANDS, CUT-OVER WOODLANDS SHALL BE ALLOWED TO MATURE.
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2006 CONDITIONAL USE 1865 - AMMENDED CONDITIONS APPLICABLE TO REMAINING LANDS OF PERDUE-AGRIRECYCLE, LLC

1. This is an existing Conditional Use (No. 1314) that was approved by the County Council in 1999. This application will not materially change the use that is permitted upon the property.

2. The Applicant is requesting reasonable changes to the existing Conditional Use permit to meet its needs for the recycling of poultry manure and marketing of the pelletized micronutrients.

- 3. The use has proven to be a benefit for the family farm and the agricultural industry in Sussex County. It has also proven to be a good way to eliminate a potential source of excess nitrates and phosphates from Sussex County soils.
- The Applicant has requested the deletion of the 4th condition of Conditional Use No. 1314 to allow the movement and drop-off and pick-up of rail cars within the site at any time. Delete Condition No. 4, as requested.
- The Applicant has requested that the 7th condition be deleted to allow truck travel to the site at any time; by allowing truck travel to the site at any time, the plant can operate more efficiently and fuel costs would be reduced. Delete Condition No. 7, as requested. The Applicant has requested an amendment to the 9th condition to allow outside storage in watertight containers; the material would be stored in a neat and orderly fashion inside watertight containers. This will also allow the plant to operate more efficiently. The Planning and Zoning Commission recommended that the 9th condition be modified to state "all activities involving raw litter shall be inside of the building. The loading, unloading and processing of raw material/litter shall be within the negative air section of the building. Storage of finished product, both pellets and granulated, may be stored outside in watertight containers. The loading of the finished product onto transport vehicles shall be under roof." Amend Condition No. 9 as requested and recommended by the Commission.
- Delete Condition No. 18 which states "No operating hours will be permitted on Sunday." The Applicant has operated the facility very well during the past five years. Even with
- these recommended amendments to the existing Conditional Use, the noise, odor, or other effects of the operations are no different than other agricultural uses that exist all over Sussex County.

OWNER CERTIFICATION:

I HEREBY CERTIFY THAT I AM THE REPRESENTATIVE OF THE LEGAL OWNER OF THE PROPERTY SHOWN AND DESCRIBED ON THIS PLAN. THE AREA LABELED "PARCEL A -BOUNDARY TO BE RECORDED" IS TO BE SUBDIVIDED AND CONVEYED TO THE DEVELOPER. LAND DISTURBANCE SHOWN ON THESE PLANS OUTSIDE OF THE SUBDIVIDED PARCEL IS PERMITTED AS SHOWN, AND IS TO BE DEVELOPED IN ACCORDANCE WITH ALL APPLICABLE LAWS, ORDINANCES AND REGULATIONS. I HEREBY AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON SITE INSPECTIONS ONTO PARCEL "A" AND THE DISTURBED AREAS OUTSIDE OF PARCEL "A" BY STATE OF DELAWARE, DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL COMPLIANCE PERSONNEL AND/OR AUTHORIZED AGENTS.

VAN DEFRADING PRINTED NAME AND TITLE SIGNATURE PERDUE AGRIRECYCLE, LLC P.O. BOX 1537 SALISBURY, MD 21802-1537

76th a a 1/29/15 SEAFORD AGRISOIL, LLC 28338 ENVIRO WAY SEAFORD, DE 19973 401-644-7200 CHARLES.GIFFORD@USAGRISOIL.COM

Final Site Plan per AL7/9/15 PLANNING & ZONING COMMISSION



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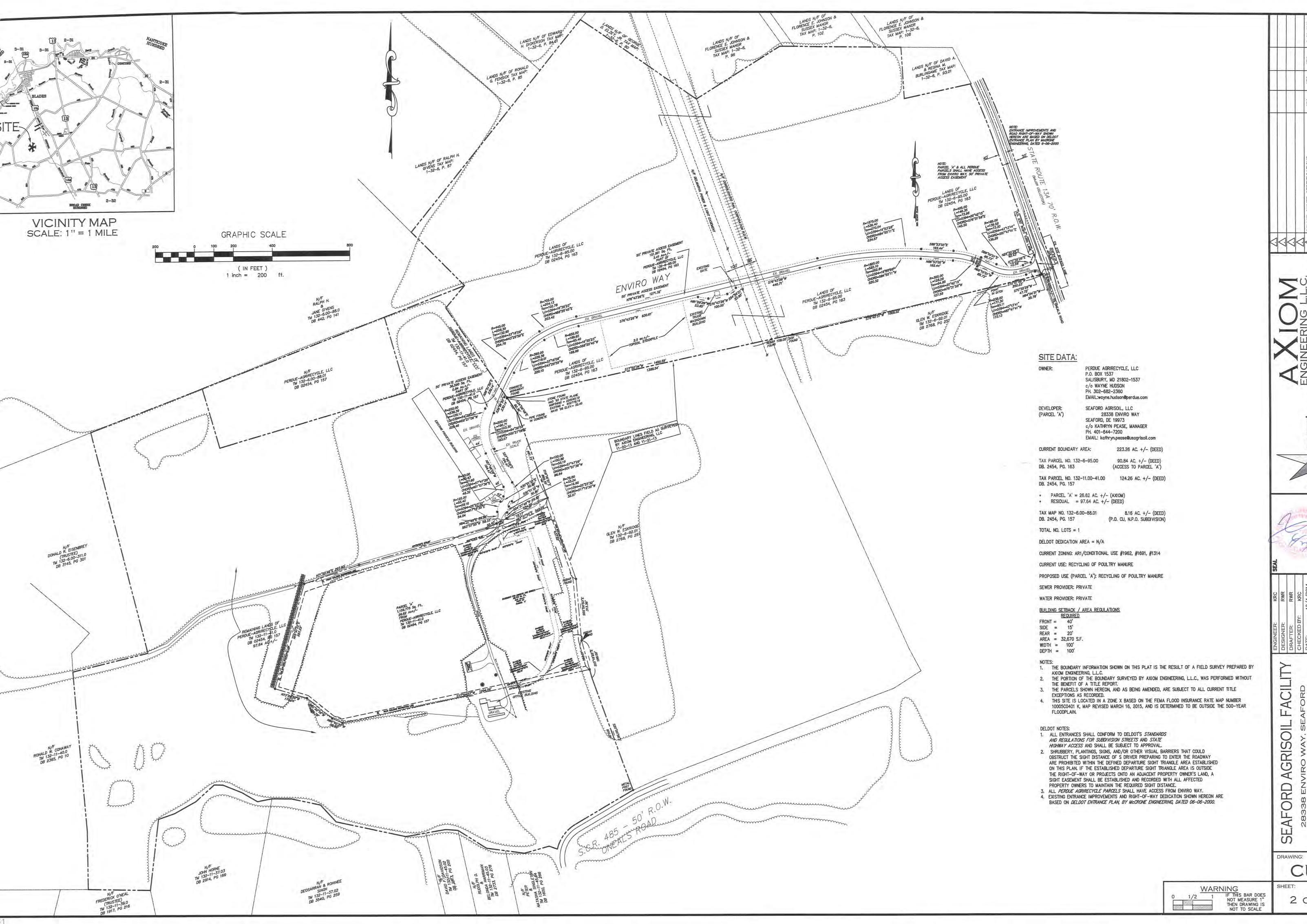
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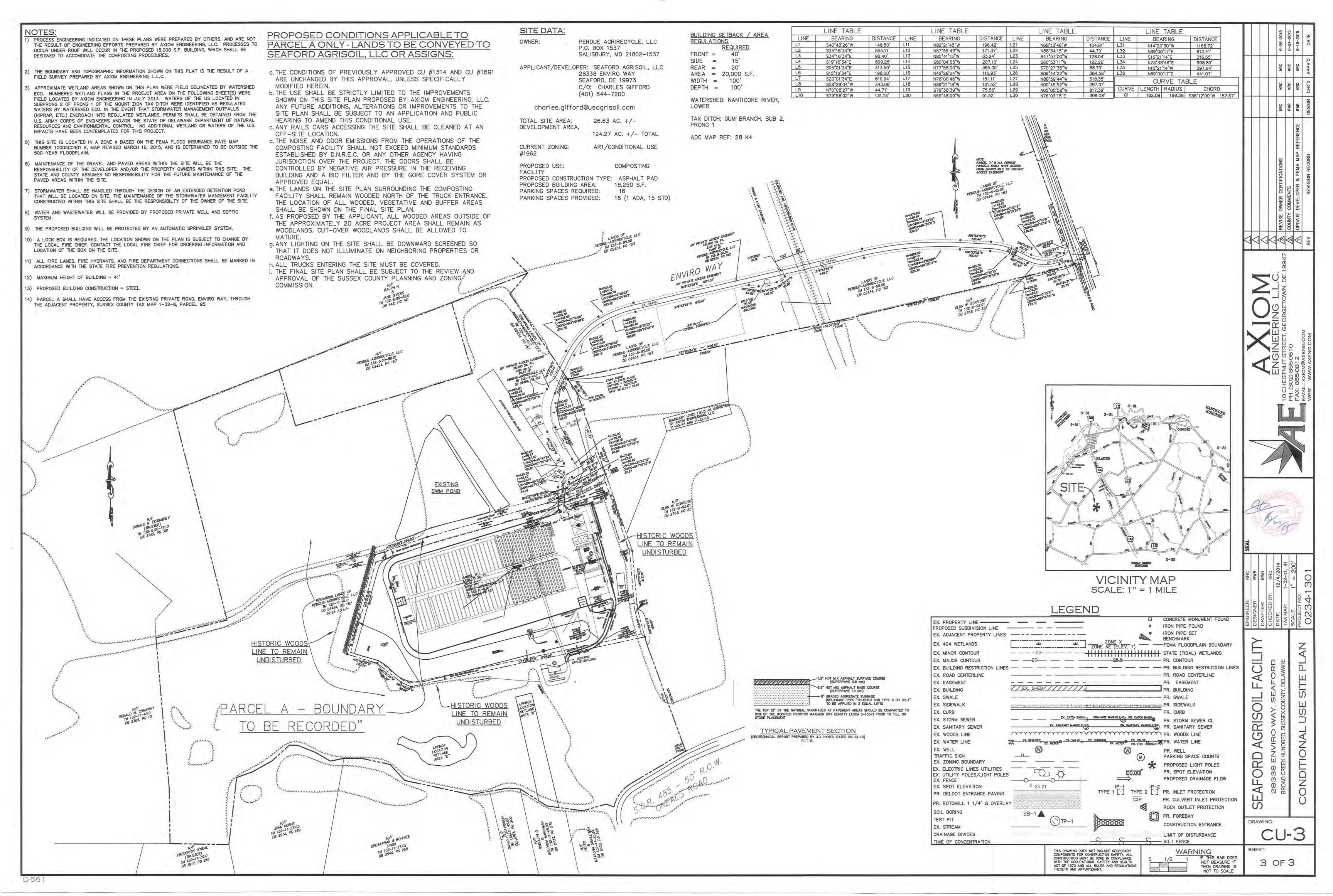
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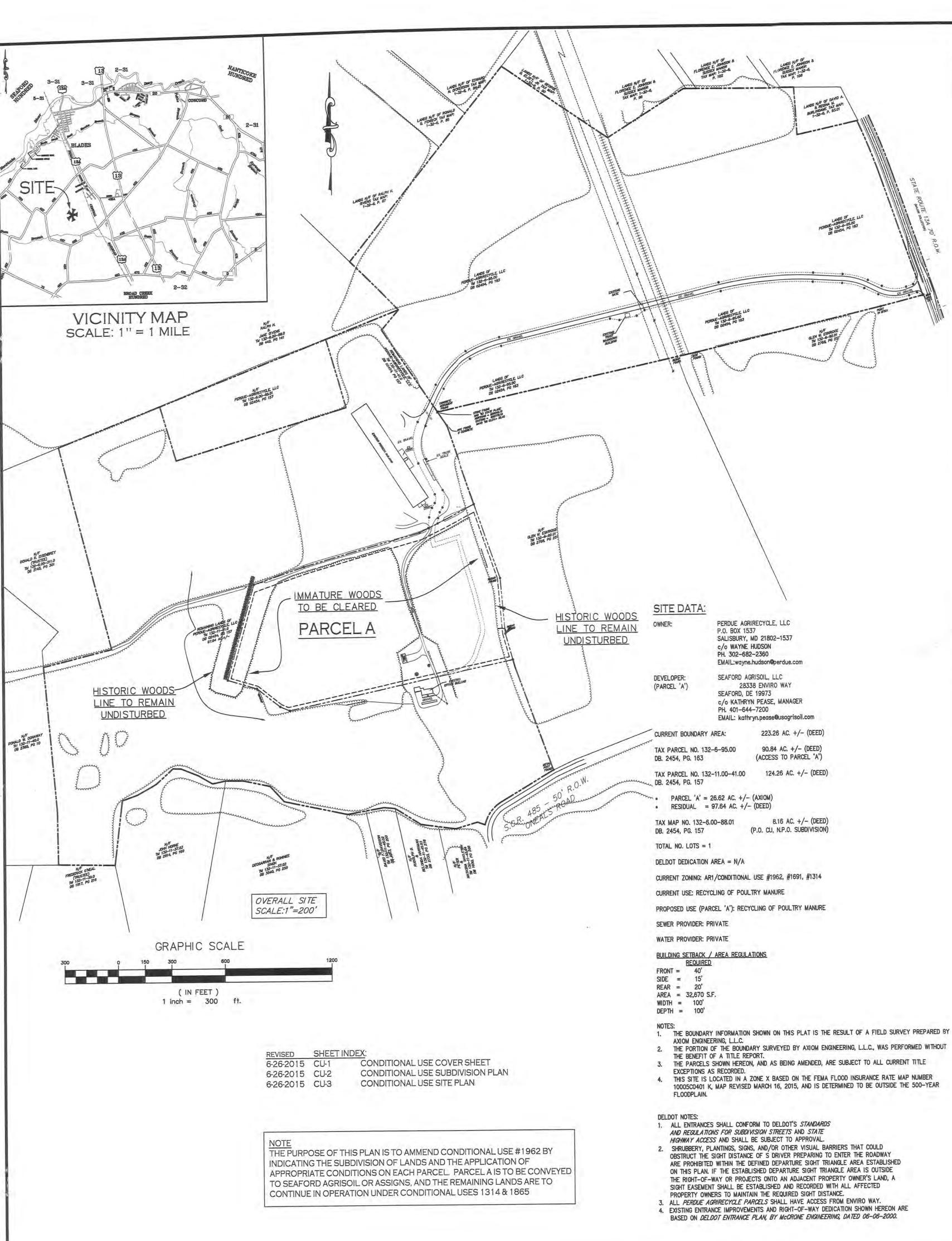
410-543-3000

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2 OF 3





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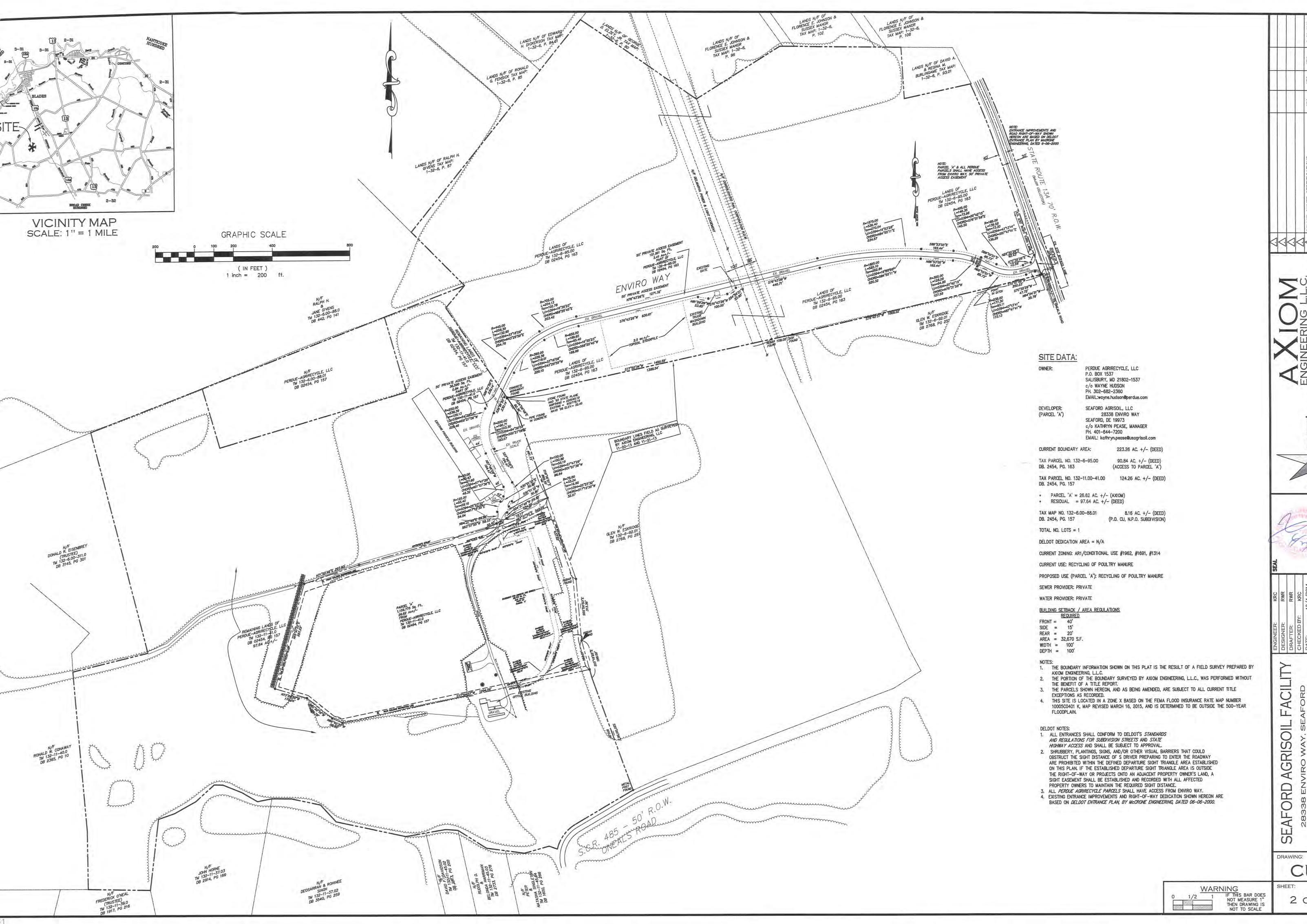
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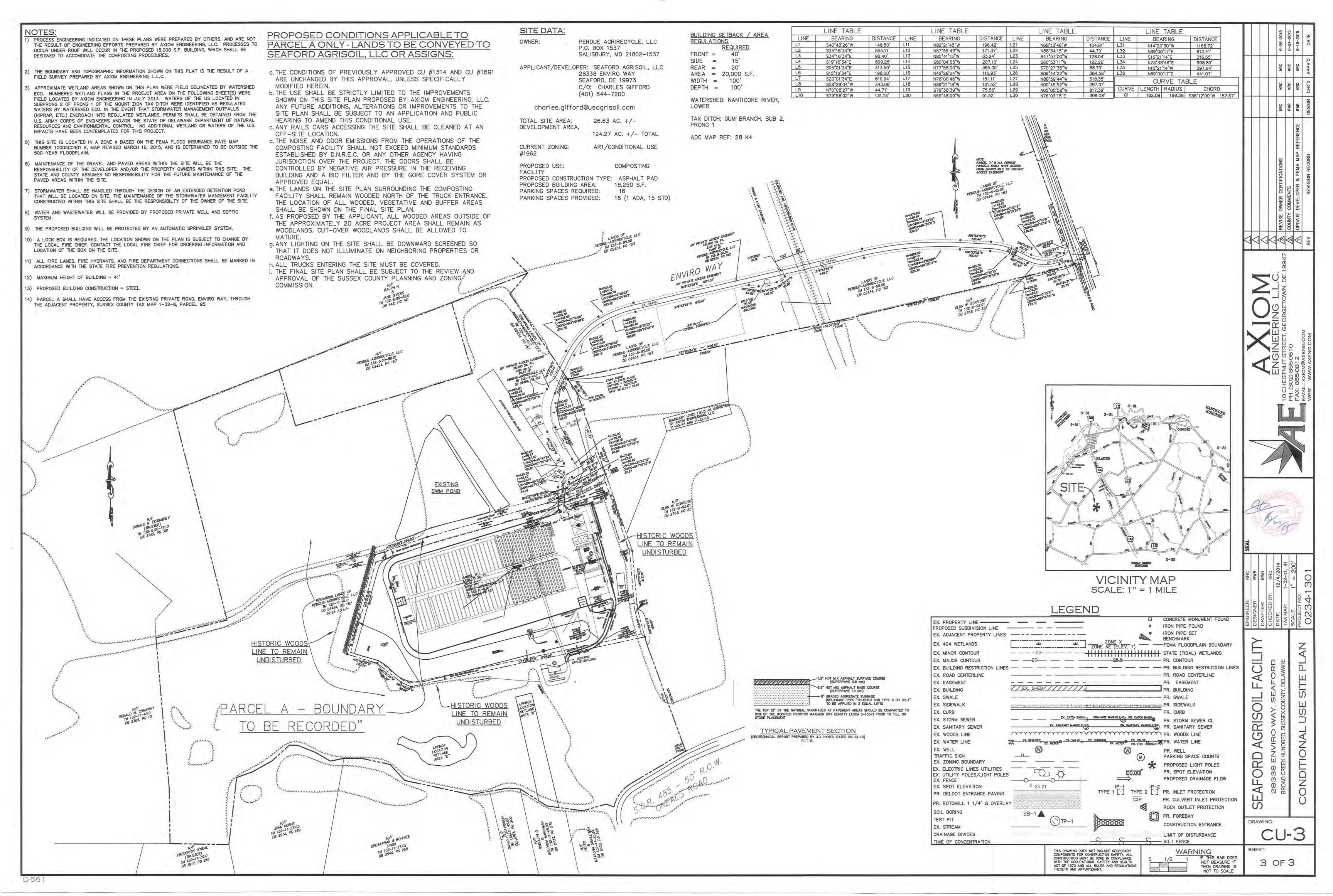
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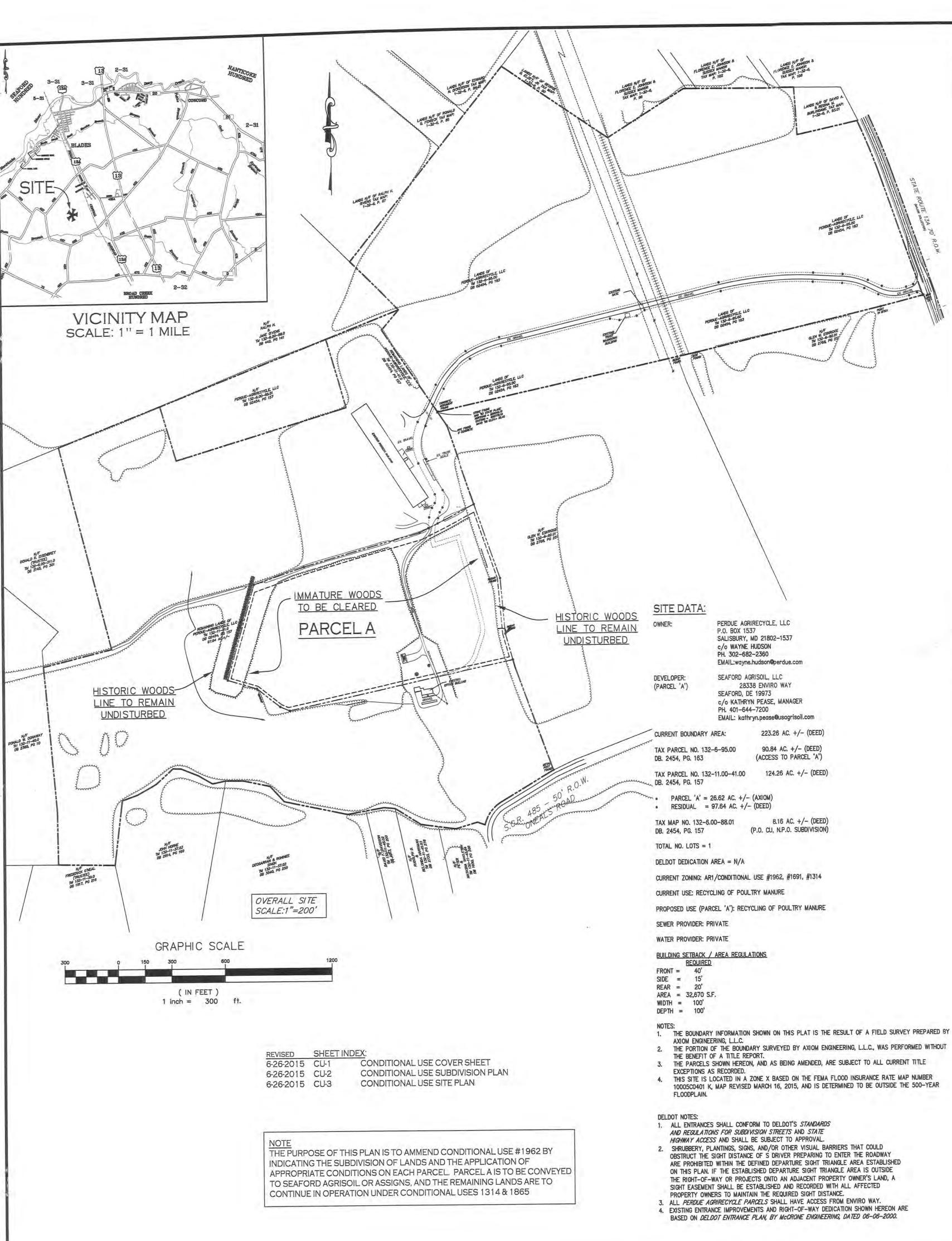
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- these recommended amendments to the existing Conditional Use, the noise, odor, or other effects of the operations are no different than other agricultural uses that exist all over Sussex County.

OWNER CERTIFICATION:

I HEREBY CERTIFY THAT I AM THE REPRESENTATIVE OF THE LEGAL OWNER OF THE PROPERTY SHOWN AND DESCRIBED ON THIS PLAN. THE AREA LABELED "PARCEL A -BOUNDARY TO BE RECORDED" IS TO BE SUBDIVIDED AND CONVEYED TO THE DEVELOPER. LAND DISTURBANCE SHOWN ON THESE PLANS OUTSIDE OF THE SUBDIVIDED PARCEL IS PERMITTED AS SHOWN, AND IS TO BE DEVELOPED IN ACCORDANCE WITH ALL APPLICABLE LAWS, ORDINANCES AND REGULATIONS. I HEREBY AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON SITE INSPECTIONS ONTO PARCEL "A" AND THE DISTURBED AREAS OUTSIDE OF PARCEL "A" BY STATE OF DELAWARE, DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL COMPLIANCE PERSONNEL AND/OR AUTHORIZED AGENTS.

VAN DEFRADING PRINTED NAME AND TITLE SIGNATURE PERDUE AGRIRECYCLE, LLC P.O. BOX 1537 SALISBURY, MD 21802-1537

76th a a 1/29/15 SEAFORD AGRISOIL, LLC 28338 ENVIRO WAY SEAFORD, DE 19973 401-644-7200 CHARLES.GIFFORD@USAGRISOIL.COM

Final Site Plan per AL7/9/15 PLANNING & ZONING COMMISSION



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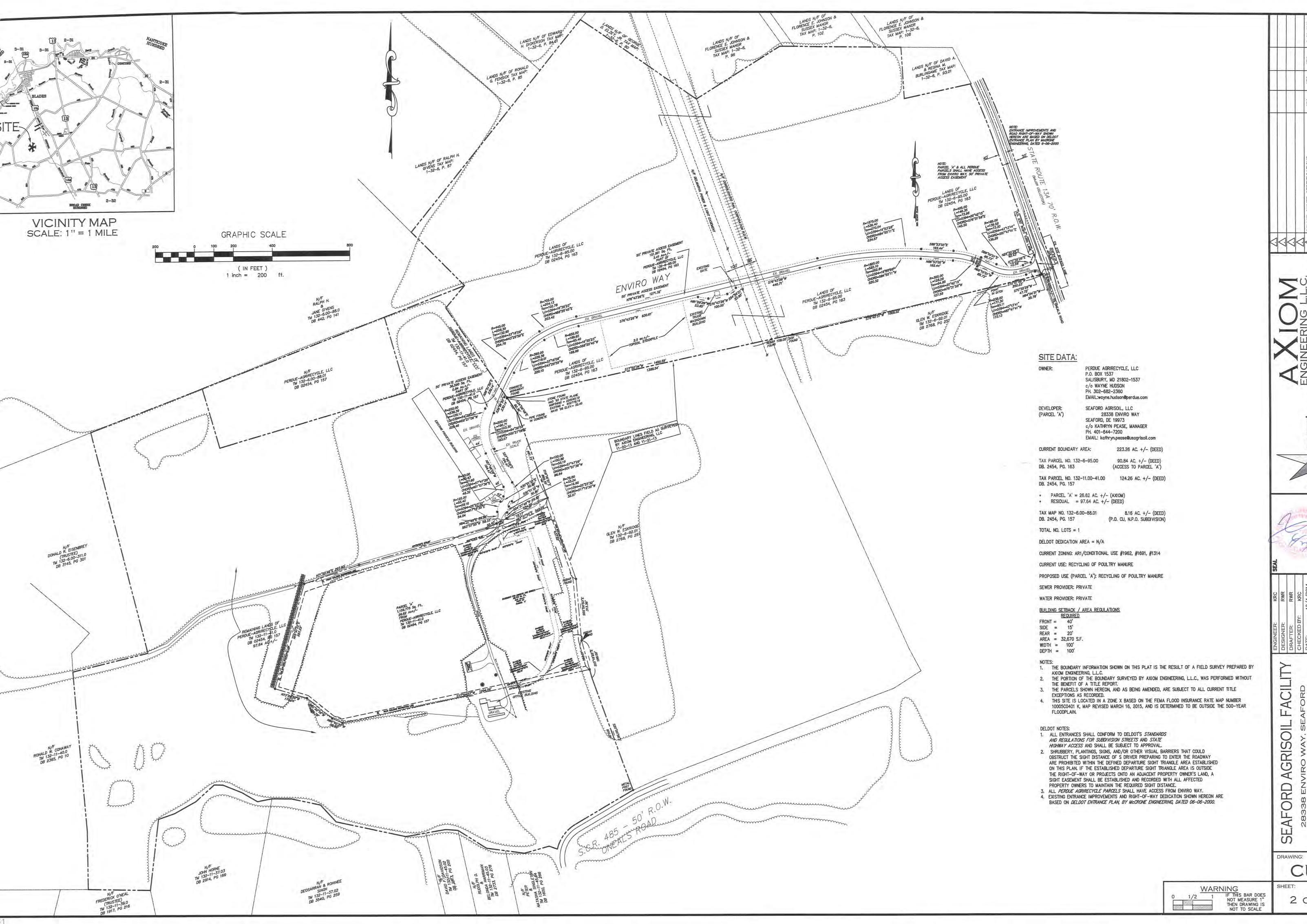
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DEVELOPER CERTIFICATION:

410-543-3000

I HEREBY CERTIFY THAT I AM THE APPLICANT AND DEVELOPER OF THE AREA LABELED "PARCEL A - BOUNDARY TO BE RECORDED". THE PROJECT SHOWN ON THESE PLANS IS TO BE DEVELOPED IN ACCORDANCE WITH ALL APPLICABLE LAWS, ORDINANCES AND REGULATIONS. I HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED PLAN, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE LAND DISTURBING ACTIVITIES WILL HAVE A SEDIMENT AND STORMWATER MANAGEMENT CERTIFICATION FROM THE DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL. I HEREBY AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON SITE INSPECTIONS BY STATE OF DELAWARE, DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL COMPLIANCE PERSONNEL AND/OR AUTHORIZED AGENTS.



2 OF 3

