

September 9, 2022

Steven D. Wintheiser
Tennessee Department of Environment & Conservation
Division of Solid Waste Management
1421 Hampshire Drive
Columbia, TN 38401

RE: Trinity Business Group, LLC, SWP 600001590
TBG Energy Recovery Processing Facility
Permit by Rule Notification Package
Notice of Technical Deficiency

To Whom it May Concern,

Barge Design Solutions, Inc. (Barge) received comments from TDEC on August 26, 2022, related to the proposed TBG Energy Recovery Processing Facility. This response letter serves to address the comments. We have provided a response that addresses each comment and have submitted a totally revised and complete Permit by Rule Notification Package.

Comment 1 –

Comments from TDEC:

1. The application does not detail what type of process will be performed in the Energy Recovery Area, and this should be specified. It is assumed, based on designation of an ash cooling area and the need for an Air Pollution Control Permit, that waste incineration will be part of the energy recovery process.

Rule 0400-11-01-.02(1)(c)1.(i) states: "T.C.A. subdivision 68-211-814(b)(2) provides that an applicant for a permit for construction or expansion of a municipal solid waste landfill or incinerator must submit a copy of the application to the municipal solid waste region at or before the time that application is submitted to the department."

No evidence was provided in the application that the application has been submitted to the municipal solid waste region for approval.

Response from Barge:

1. As shown in Appendix 3 of the attached Permit by Rule package, the "Ash Cooling Area" has been modified to "Residual Area". Additionally, thermal demanufacturing will be used in place of an incinerator to more accurately describe the process. An example of this energy recovery process/thermal demanufacturing process has been included in Appendix 8.

Comment 2 –

Comments from TDEC:

2. Rule 0400-11-01-.2(2)(b)1.(i)(XIV) states: "(i) Except as specified in subpart (iv) of this part, an owner or operator of solid waste processing facility shall: (XIV) Have alternative arrangements (e.g., contracts with other facilities) for the proper processing or disposal of the solid wastes authorized to be managed at the facility in the event the facility cannot operate."

Please provide evidence of alternative arrangements (i.e. contracts with other facilities) for the proper processing and disposal of the solid wastes to be managed at the facility in the event the facility cannot operate.

Response from Barge:

2. As stated in Section 2.0 (Permit by Rule Criteria) of the Executive Summary, part I, "Disposal of residual materials, ash and/or bio char, will be loaded from the designated residuals area and separation areas via truck to approved Class I or Class II landfills in the local area." For example, Cedar Ridge Class I landfill could accept the waste produced in the unlikely event of the facility's closure. The onsite Class II landfill IDL 60-000-0017 could also accept the materials under a special waste permit. Additionally, the financial assurance estimate that can be found in Appendix 7, is provided to demonstrate the resources that will be available when needed, in the unlikely event that the facility cannot operate. Lastly, see Section 2.0 (Permit by Rule Criteria) of the Executive Summary, part xv, for explanation that the owner will have arrangements with other approved facilities should the facility operation cease.

Comment 3 –

Comments from TDEC:

3. Rule 0400-11-01-.02(2)(a)2. states: "Solid waste processing facilities, tire storage facilities, and transfer stations must not be located in a 100-year floodplain unless it is demonstrated to the satisfaction of the Commissioner that: (i) Location in the floodplain will not restrict the flow of the 100-year flood nor reduce the temporary water storage capacity of the floodplain."

Evidence that the proposed filling within the 100-year floodplain will not restrict the flow nor reduce the temporary storage capacity of the floodplain was not provided.

Response from Barge:

3. A revised facility layout has been included in the Permit by Rule package and can be found in Appendix 3.

Comment 4 –

Comments from TDEC:

4. Rule 0400-11-01-.02(2)(b)1.(i)(XII) states: "Except as specified in subpart (iv) of this part, an owner or operator of a solid waste processing facility shall: Ensure that all liquids which either drain from solid wastes or are created by washdown of equipment at the facility are collected and directed to either: I. A wastewater treatment facility permitted to receive such waste waters under T.C.A 69-3-101 et seq. (Tennessee Water Quality Control Act), or Other methods approved by the Commissioner."

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Adequate detail on how liquids will be directed to a wastewater treatment facility were not provided.

Response from Barge:

5. As stated in Section 2.0 (Permit by Rule Criteria) of the Executive Summary, part xiii, "Should treatment be necessary the water will be pumped and hauled to the local POTW or disposed of through the City of Columbia sewer system under an industrial discharge permit or treated on site under NPDES permit TN0001538 once modified to address the additional inflow characteristics." Additionally, a revised facility layout has been included in the Permit by Rule package and can be found in Appendix 3. It specifically shows the location of three 6,000-gallon contact water collection tanks that will be used to collect and route generated liquids off-site.

If you have any questions or comments about the package please contact Jason Repsher at 615.252.4481.

Sincerely,



Abbi Klos, Civil Designer II

Barge Design Solutions, Inc.

Barge project # 3712220

CC:

Jason Repsher, Barge Design Solutions, Inc.



TBG Energy Recovery Processing Facility

Permit By Rule Notification Package

2262 Monsanto Road
Columbia, TN 38401

Prepared For: Trinity Business Group (TBG)

PREPARED BY



615 3rd Avenue South, Suite 700
Nashville, TN 37210
BARGE # 37122-20

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EXECUTIVE SUMMARY

1.0 INTRODUCTION

Barge Design Solutions, for Trinity Business Group (TBG), LLC is submitting this application for a Solid Waste Processing (SWP) permit for the processing of municipal solid waste (MSW), construction and demolition (C&D) waste and other wastes for energy and metal recovery at Star Hill Eco-Park in Columbia, Tennessee. The site is located at 2250 Monsanto Road at the former Monsanto facility being converted into the Star Hill Eco Park.

TBG is committed to environmentally sound practices involving the processing of solid waste. This document provides a narrative of the TBG operations in conjunction with a new Permit-By-Rule Notification and topographic location map presented in Appendices 1 and 2 respectively.

The purpose of this process facility is to process, sort and shred (via mechanical separation) the incoming municipal solid (MSW) and construction and demolition (C&D) waste to recover recyclable products such as metal, cardboard, drywall, and clean fill prior to any thermal demanufacturing process. The residual materials will be transported to fully permitted Class I or Class II landfills in the local area approved to accept the residual material. The facility will provide processing of waste to allow for proper combustion and energy recovery on the input side with metal recovery prior and after combustion via mechanical separation. A complete layout of the proposed facility is provided in Appendix 3.

The existing site consists primarily of vegetated area of an abandoned mine area of the former Monsanto corporation activities to mine and process phosphorous in the area and a portion of the former rail yard with exposed gravel ballast.

The facility will be operated with trained personnel and clearly posted signs for entry locations, hours of operation and contact information. Personnel will be equipped with communication devices to maintain traffic control, facility security and immediate access to emergency personnel if needed. All records required by this Permit by Rule will be kept in order at the site. All combustion activities will be addressed under separate permit with the Division of Air Pollution Control (APC).

The following narrative sections have been correlated to the Tennessee Department of Environment and Conservation – Division of Solid Waste Management regulations for ease of reference.

2.0 PERMIT BY RULE CRITERIA

(a) All permit by rule facilities shall keep any records that are required by these rules and a copy of its permit by rule authorization at the facility or at another location approved by the Department. Notwithstanding any other provision of this rule, except for subparagraph (1)(c) of this rule, and provided they are not excluded pursuant to part (1)(b)3 of this rule, the following classes of activities shall be deemed to have a permit by rule if the conditions listed are met:

i) The operator complies with the notification requirement of subparagraph (b) of this paragraph;

ii) The facility is constructed, operated, maintained, and closed in such a manner as to minimize:

I) The propagation, harborage, or attraction of flies, rodents, or other disease vectors;

This SWP will process non-hazardous materials for recycling and energy recovery from primarily delivery walking floor trailers, front-load collection trucks and roll-off containers on enclosed pads specifically designed to accept and allow for processing and transfer of the materials. Recycled products that are recovered from the process will also be stored under cover or on concrete pads and in containers designed for recycled material storage and eventually transferred for beneficial reuse. Disposal of residual materials, ash and/or bio-char, will be loaded from the designated residuals area and separation areas via truck to approved Class I or Class II landfills in the local area.

While there is no anticipated opportunity for the propagation, harborage, or attraction of flies, rodents or other disease vectors, pest control is available and being utilized at the facility.

II) The potential for explosions or uncontrolled fires;

Solid waste loads are to be dumped onto the concrete tipping floor for inspection for any non-compliant materials. Any hazards identified will be immediately conveyed to the Site Manager. Non-compliant waste will remain untouched and all personnel evacuated from the immediate area if necessary, until the material has been cleared for transport and disposal or has been removed from the facility for proper characterization and disposal. In case of a fire the Columbia Fire Department will be contacted immediately by calling 911. The facility will not accept any type of explosive materials. Fire prevention and protection are being practiced and all fire extinguisher points are clearly visible and up to date.

Additional procedures will be developed to respond to accidental fires at this facility with training of site staff. Fire extinguishers will be strategically placed throughout the facility and personnel will be trained in the use of this equipment. Should a load of solid waste be received at this facility that is burning, smoking or at a temperature that will potentially cause a fire, it will be removed from inside the structure if possible, to a designated area outside the building where it will be easier to contain, control and to extinguish.

The site grounds will be maintained on a regular basis to prevent accumulation of vegetation. No flammable materials will be stored near metal processing area, energy recovery area, or residuals area. Procedures have been developed that address accidental fires in section xvi of this

document.

III) The potential for releases of solid wastes or solid waste constituents to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management agencies;

A TMSP (Tennessee Multi-Sector Permit) will be submitted for the facility once building construction commences. TMSP permitting for the site will require the site runoff to be monitored annually for COD and TSS and to verify compliance with requirements with quarterly visual inspections to document observations on any visible signs of pollution. The proposed layout will direct stormwater to two ponds to the northwest and southeast of the main facility through stormwater control structures and will have designated outfalls at the exit of the pond structure.

Surface and groundwater will be protected by handling and processing all waste inside the process building with all inbound and outbound materials in appropriate containers. Compliance with all state and local surface water regulations will be strictly adhered to. Any necessary sewer industrial discharge permits will also be obtained.

All facility traffic will be on asphalt or compacted gravel surfaces to be maintained by typical street sweeping methods. Sufficient water will be used on these surfaces to avoid dust as needed. All equipment will be cleaned and maintained to minimize emissions and to reduce tracking. Traffic will be limited to licensed waste haulers that will follow strict traffic flow procedures.

An APC permit will be obtained, with proper controls, for the waste to energy process through TDEC. Other air pollution concerns resulting from exhaust (particularly diesel) mobile equipment such as trucks and loaders, driving on unpaved or dusty surfaces, and cleanup operations such as street sweeping will be addressed with industry accepted measures.

The following measures will be implemented to minimize the impact of potential air pollution at the site.

- Paved traffic carrying surfaces to and from the processing area
- Paved surfaces and tipping floor will be kept clean
- Street sweeping operations will use sufficient water to avoid dust. Water will be used only as necessary.
- Equipment engines will receive regular maintenance including tune-ups to minimize emissions.
- Truck bodies and tires will be cleaned as necessary to reduce tracking onto streets.

IV) The potential for harm to the public through unauthorized or uncontrolled access;

The site will have trained staff on site during operating hours and will control unauthorized access to the facility. Facility staff will monitor the facility for security purposes during operations. In addition, the property fence will be enhanced with limited and controlled access via gates during operational hours. All access gates will be locked when no facility or security personnel are on the site. Additionally, the facility will not be open to the public.

iii) The facility has an artificial or natural barrier which completely surrounds the facility and a means to control entry, at all times, through the gate or other entrances to the facility;

All vehicles entering the facility will access the site through the entrance at Monsanto Road. The existing gates, terrain, and vegetation will be utilized to restrict unauthorized access to the facility. The facility is fenced with a gate system at the existing entrance and the proposed exit point. The entire north and west sides of the facility contain a stream and river system which provides an excellent natural access barrier as do the dense existing trees and steep grades. The facility will have additional fencing and gates installed at the main and secondary access points to the site and along the access road to the facility. Gates will be closed and locked when no facility personnel are present at the site.

iv) The facility, if open to the public, has clearly visible and legible signs at the points of public access which indicate the hours of operation, the general types of waste materials that either will or will not be accepted, emergency telephone numbers, schedule of charges (if applicable), and other necessary information;

The facility will not be open to the public.

v) Trained personnel are always present during operating hours to operate the facility;

Trained staff will be on-site during all operating hours for the facility. These employees are trained to comply with all regulations concerning the operation of this facility. Documentation of training will be kept on-site and in the main personnel files.

vi) The facility has adequate sanitary facilities, emergency communications (e.g., telephone), and shelter available for personnel;

The processing facility will have several restrooms and breakrooms available for staff use. Each employee is equipped with a cellular telephone or two-way radio(s) capable of summoning emergency assistance on-site.

vii) The facility's access road(s) and parking area(s) are constructed so as to be accessible in all weather conditions;

The facility has been designed with all-weather access for the site via paved surfaces with sufficient parking for site personnel, truck and container staging and overall site access. Paving consisting of asphalt and compacted gravel as noted on the facility layout plan have been designed to handle the truck traffic anticipated at the facility.

viii) Except for composting facilities utilizing landscaping and land clearing wastes only, all waste handling (including loading and unloading) at the facility is conducted on paved surfaces;

All loading or unloading of materials will occur within buildings specifically designed for solid waste processing and recovery and on paved surfaces as required. All waste handling will be on a concrete surface within the building. The proposed facility plan includes asphalt and gravel which

covers a large amount of the facility as noted in the plans provided in Appendix 3.

ix) There is no storage of solid wastes at the facility except in the containers, bins, lined pits or on paved surfaces, designated for such storage;

There will not be storage of solid wastes at the facility except in the containers, bins, lined pits or on paved surfaces, under cover, that are designated for such storage. Waste will be received and placed on the tipping floor for process and placement in either the material recovery process lines to recycled and used in applicable areas, run through the mechanical shredding and metal recovery equipment, or sent directly to the energy recovery units. All recovered materials will be stored within a building or in appropriate containers and paved storage areas.

x) Except for incinerators or energy recovery units, there is no burning of solid wastes at the facility;

No burning of solid wastes will occur at the facility except in APC permit approved energy recovery units designed and permitted for the specific use of thermal demanufacturing and recovery energy from unwanted waste materials. See Appendix 8 for an example of the thermal demanufacturing process.

xi) There is no scavenging of solid wastes at the facility and any salvaging is conducted at safe, designated areas and times;

Scavenging will not be allowed at the facility. Salvaging activities will be prevented after hours by the locked gate as well as the physical/natural barriers and perimeter fencing. Recycling and recovery efforts along with recovered material storage will be conducted within the buildings or stored in appropriate containers.

xii) Wind dispersal of solid wastes at or from the facility is adequately controlled, including the daily collection and proper disposal of windblown litter and other loose, unconfined solid wastes;

Wind dispersal of solid waste will be controlled at this facility by requiring all material handling to be conducted inside the facility buildings.

xiii) All liquids which either drain from solid wastes or are created by washdown of equipment at the facility go to either:

- I) A wastewater treatment facility permitted to receive such wastewaters under T.C.A. §§ 69-3-101 et seq. (Tennessee Water Quality Control Act, or***
- II) Other methods approved by the Commissioner.***

Any liquid generated from the processing of the materials for recycling and recovery will be collected and managed separate from stormwater should constituents of concern from the to be acquired TMSP permit indicate an issue with discharge. Three 6,000-gallon contact water collections tanks will be used for collection of any liquid generated and will be routed off site. Should treatment be necessary the water will be pumped and hauled to the local POTW or

disposed of through the City of Columbia sewer system under an industrial discharge permit or treated on site under NPDES permit TN0001538 once modified to address the additional inflow characteristics.

xiv) The facility receives no special wastes unless:

- I) Such receipt has been specifically approved in writing by the Department, and**
- II) Special procedures and/or equipment are utilized to adequately confine and segregate the special wastes;**

No special wastes are anticipated to be received at the energy recovery processing facility. Should a material source be designated by the Tennessee Department of Environment and Conservation as a special waste then all appropriate approvals shall be obtained prior to acceptance of the material at the designated facility. Such material would be handled as defined by that approval and confined from other operations as required.

xv) The operator can demonstrate, at the request of the Commissioner, that alternative arrangements (e.g., contracts with other facilities) for the proper processing or disposal of the solid wastes his facility handles are available in the event his facility cannot operate;

The owner will have arrangements with other approved facilities to address any materials unable to be recovered or recycled by the facility as necessary and appropriate financial assurance on file with TDEC to allow proper cleanup of the site should activities cease.

xvi) The facility has properly maintained and located fire suppression equipment (e.g., fire extinguishers, water hoses) continuously available in sufficient quantities to control accidental fires that may occur;

Procedures have been developed to respond to accidental fires at the facility. The following paragraphs detail the equipment available for firefighting and the procedures developed for response to accidental fires and or potential explosions.

FIRE SUPPRESION EQUIPMENT

Fire extinguishers are located on each piece of heavy equipment and throughout the facility at locations and frequencies compliant with OSHA requirements for fire safety. The fire extinguishers will be properly maintained and recharged as necessary. Processing facility personnel will be properly trained in the use of the fire extinguishers.

Additional fire suppression controls as required by Maury County code will be installed at the facility.

FIRE RESPONSE PROCEDURES

In the case of a fire, the fire department will be notified via 911 and will subsequently be dispatched to the site. The nearest fire station to the site is the Columbia Fire & Rescue Station No. 2 at 711 Lion Parkway., which is approximately 4.5 miles from the site.

xvii) All waste residues resulting from processing activities at the facility are managed in accordance with this Chapter or Chapter 0400-12-01 (Hazardous Waste Management),

whichever is applicable, and/or with any other applicable state or federal regulations governing waste management;

No hazardous waste will be accepted at the facility. Should suspect waste be noted during waste inspections the load will be refused and diverted to an appropriate disposal facility. If incidental hazardous waste be noted and it is already on the tipping floor the load will be separated from the non-hazardous waste and stored in an appropriate container to await characterization and final disposition by the generator of the material. The facility has ample storage areas to allow for this process.

xviii) The facility is finally closed by removal of all solid wastes and solid waste residues for proper disposal. The operator must notify the Division Director in writing of his completion of closure of the facility. Such notification must include a certification by the operator that the facility has been closed by removal of all the solid waste and residues. Within 21 days of the receipt of such notice the Division Director shall inspect the facility to verify that closure has been completed. Within 10 days of such verification, the Commissioner shall approve the closure in writing to the operator. Closure shall not be considered final and complete until such approval has been made.

Should the facility close, the owner shall remove all materials from the site for either reclamation or disposal to appropriate permitted facilities as required by this paragraph. The facility concrete floor will be cleaned, and all fluid will be handled with appropriate or approved methods of disposal. All notifications shall also be filed with the Division Director in a timely manner.

xix) New solid waste processing facilities shall not be located in wetlands, unless the owner or operator makes the applicable demonstrations to the Commissioner as referenced at subparagraph (2)(p) of Rule 0400-11-01-.04.

The facility is not located in a wetland. A review of the U.S. Fish and Wildlife Service wetland location viewer did not identify any wetland as a part of the facility. The U.S. Fish and Wildlife Service map is attached as Appendix 4. Additionally, the site is part of the former Monsanto industrial facility which operated at the site since 1927.

xx) The facility must not be located in a 100-year floodplain unless it is demonstrated to the satisfaction of the Commissioner that:

i) Location in the floodplain will not restrict the flow of the 100-year flood nor reduce the temporary water storage capacity of the floodplain.

The facility is not within a 100-year floodplain as shown in Appendix 3. FEMA floodplain mapping is presented in Appendix 5.

ii) The facility is designed, constructed, operated, and maintained to prevent washout of any solid waste.

All solid waste operations will be conducted on the tipping floor inside the process building. Contact water will be collected either as leachate or stormwater and managed so as to prevent accidental release to the environment.

xxi) The facility does not:

- I) Cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife; or***
- II) Result in the destruction or adverse modification of the critical habitat of endangered or threatened species.***

This facility does not cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife; or result in the destruction or adverse modification of the critical habitat of endangered or threatened species. See Appendix 6 for iPaC Resource List. Additionally, the site is part of the former Monsanto industrial facility which operated at the site since 1927 which fully mined the area and placed unused fill across the site.

xxii) The owner/operator may not store solid waste until the processing equipment has been installed on-site and is ready for use.

Prior to any recycling or recovery operations all necessary equipment will be on-site and operational at this facility.

xxiii) The owner/operator of a solid waste processing facility which has a solid waste storage capacity of 1000 cubic yards or greater shall file with the Commissioner a performance bond or equivalent cash or securities, payable to the State of Tennessee. Such financial assurance is intended to ensure that adequate financial resources are available to the Commissioner to insure the proper operation, closure, and post closure care of the facility. The types of financial assurance instruments that are acceptable are those specified in subparagraph (3)(d) of Rule 0400-11-01-.03. Such financial assurance shall meet the criteria set forth in T.C.A. § 68-211-116(a) and at subparagraph (3)(b) of Rule 0400-11-01-.03.

The owner/operator shall provide financial assurance as required by the Tennessee Department of Environment and Conservation for this SWP. Storage associated with the energy recovery processing operations is limited to approximately 4,726 CY overall based upon the area of operations. Complete financial assurance calculations are provided in Appendix 7.

xxiv) The owners or operators proposing a new solid waste processing facility that handles putrescible wastes located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used only by piston-type aircraft must include in the permit-by-rule notification a demonstration that the facility does not pose a bird hazard to aircraft. The owners or operators proposing a new solid waste processing facility that handles putrescible wastes located within a five-mile radius of any airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the appropriate Federal Aviation Administration (FAA) office.

All material processing will occur within a building. No putrescible materials will be located or stored outside other than in appropriate containers, as such birds would not be attracted to the facility. The facility is located greater than 10,000 feet from any aircraft runway end with turbojet aircraft and greater than 5000 feet from any aircraft runway end with piston-type aircraft. FAA will be contacted for review of the facility prior to building construction.

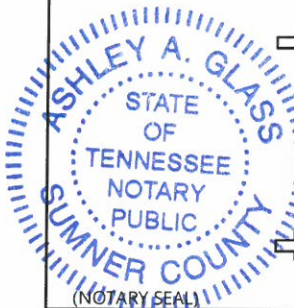
**APPENDIX 1 –
Permit By Rule Notification**



STATE OF TENNESSEE
 DEPARTMENT OF ENVIRONMENT AND CONSERVATION
 DIVISION OF SOLID WASTE MANAGEMENT
 WILLIAM R. SNODGRASS TENNESSEE TOWER
 312 ROSA L. PARKS AVENUE, 14TH FLOOR
 NASHVILLE, TN 37243

SOLID WASTE PERMIT BY RULE NOTIFICATION

1. TYPE OF PERMIT- BY- RULE REQUESTED			ID# TDEC USE ONLY		
<input type="checkbox"/> COMPOST FACILITY	<input type="checkbox"/> LAND APPLICATION	<input type="checkbox"/> TIRE STORAGE FACILITY			
<input type="checkbox"/> CONVENIENCE CENTER	<input checked="" type="checkbox"/> PROCESSING FACILITY	<input type="checkbox"/> TRANSFER STATION			
2. FACILITY INFORMATION			FACILITY LOCATION COUNTY		
FULL LEGAL NAME OF FACILITY			Maury		
TBG Energy Recovery Processing Facility			LATITUDE (DECIMAL DEGREES)		
2262 Monsanto Rd.			35.667979		
PHYSICAL LOCATION OR ADDRESS OF FACILITY			LONGITUDE (DECIMAL DEGREES)		
2262 Monsanto Rd. Columbia TN 38402			87.107330		
FACILITY MAILING ADDRESS			FACILITY EMAIL		
5800 One Perkins Dr. Suite 6A Baton Rouge LA 70808			info@trinitybusinessgroup.net		
FACILITY MANAGER OR SITE OPERATOR		PHONE (WITH AREA CODE)	AFFILIATION OF SITE OPERATOR (IF DIFFERENT FROM PERMITTEE)		
Blake Brian		(225) 766-1443	General Manager TN Operations		
3. APPLICANT (PERMITTEE)					
APPLICANT NAME		PHONE (WITH AREA CODE)	EMAIL		
Trinity Business Group (TBG)		(225) 766-1443	info@trinitybusinessgroup.net		
RESPONSIBLE OFFICIAL / TITLE		PHONE (WITH AREA CODE)	EMAIL		
Sid Brian, Owner		(225) 766-1443	sbrian@trinitybusinessgroup.net		
RESPONSIBLE OFFICIAL MAILING ADDRESS		CITY	STATE	ZIP	
5800 One Perkins Place Dr. Suite 6A		Baton Rouge	LA	70808	
LANDOWNER NAME	LANDOWNER MAILING ADDRESS	CITY	STATE	ZIP	
Star Hill, LLC (TBG subsidiary)	5800 One Perkins Place Dr., Suite 6A	Baton Rouge	LA	70808	
			DATE		
4. WASTE HANDLING					
DESCRIPTION OF ACTIVITIES AND WASTES HANDLED OR PROCESSED		AMOUNT OF WASTE HANDLED, PROCESSED OR STORED			
Process, sort and shred (via mechanical separation) the incoming municipal solid and construction and demolition waste to recover recyclable products. Facility will provide processing of waste to allow for proper combustion and energy recovery on the input side with metal recovery prior and after combustion.		2,500.00		4,726.00	
		WEIGHT TONS / DAY	VOLUME YARDS / DAY	STORAGE MAX CU YARDS	
5. CERTIFICATION REQUIRED					
I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.					
		Sidney G. Brian		PRINTED NAME	
SIGNATURE OF RESPONSIBLE OFFICIAL		6-27-22		DATE	
		3-21-23		DATE COMMISSION EXPIRES	
SIGNATURE OF NOTARY					



APPENDIX 2 –USGS Topographic Map

APPENDIX 3 – Facility Layout

ENERGY RECOVERY PROCESSING FACILITY

FOR

TRINITY BUSINESS GROUP

COLUMBIA, TN

GENERAL NOTES

1. THE EXISTING INFORMATION SHOWN ON THE PLANS IS FROM AN AERIAL SURVEY PERFORMED BY ATLANTIC, LLC EFFECTIVE DATE FEBRUARY 2022.

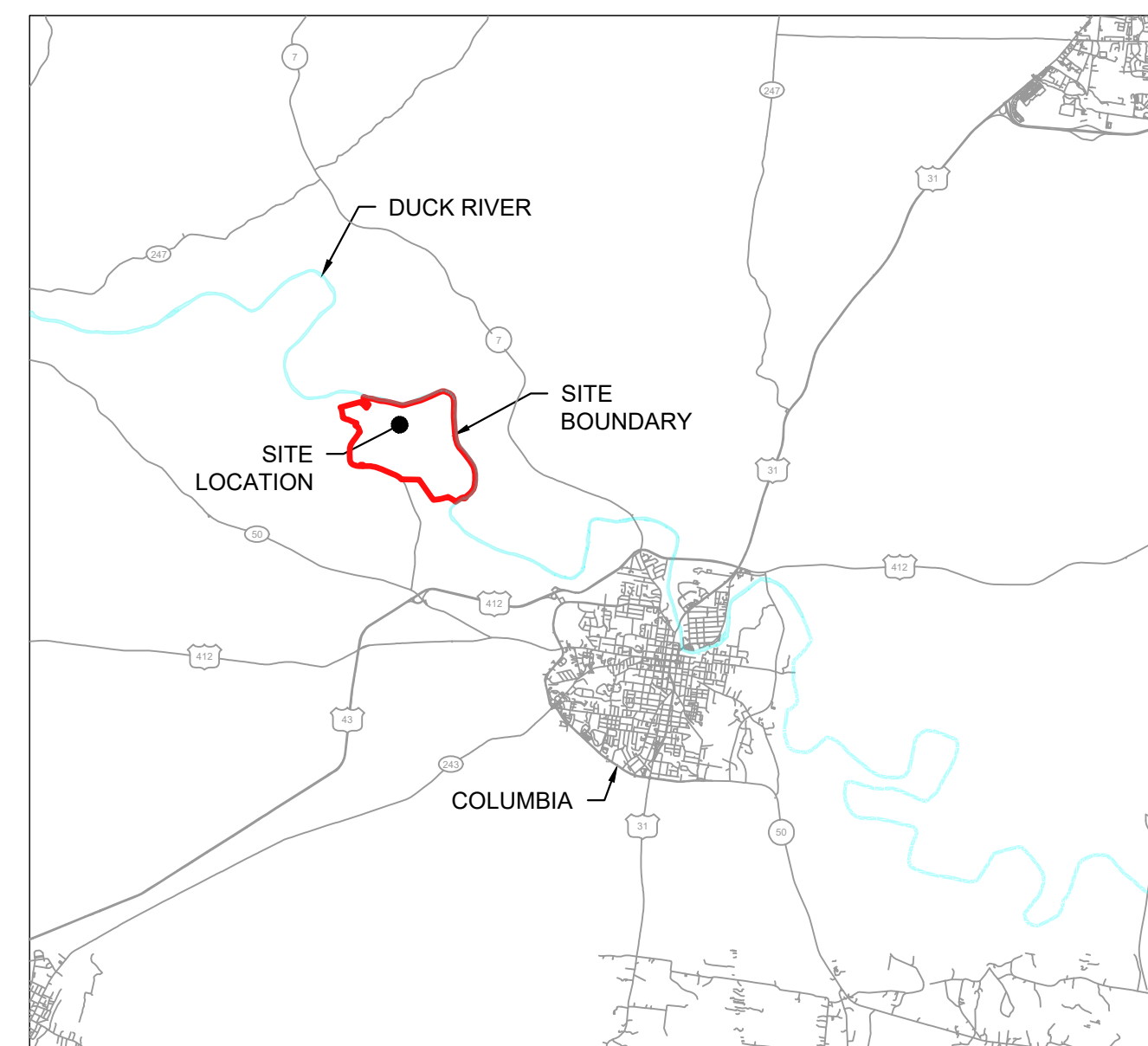
INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
C1	COVER SHEET
C2	FACILITY SITE PLAN
C3	FACILITY LAYOUT
C4	DETAILS
C5	SU-30 TURNING MOVEMENT

CONTACTS

OPERATOR:
TRINITY BUSINESS GROUP
5800 ONE PERKINS PLACE DR., SUITE 6A
BATON ROUGE, LA 70808
CONTACT: SIDNEY BRIAN
OFFICE: (225) 776-1443

ENGINEER:
BARGE DESIGN SOLUTIONS
615 3RD AVENUE SOUTH // SUITE 700
NASHVILLE, TN 37210
CONTACT: JASON REPSHER
OFFICE: (615) 252-4481



LOCATION MAP

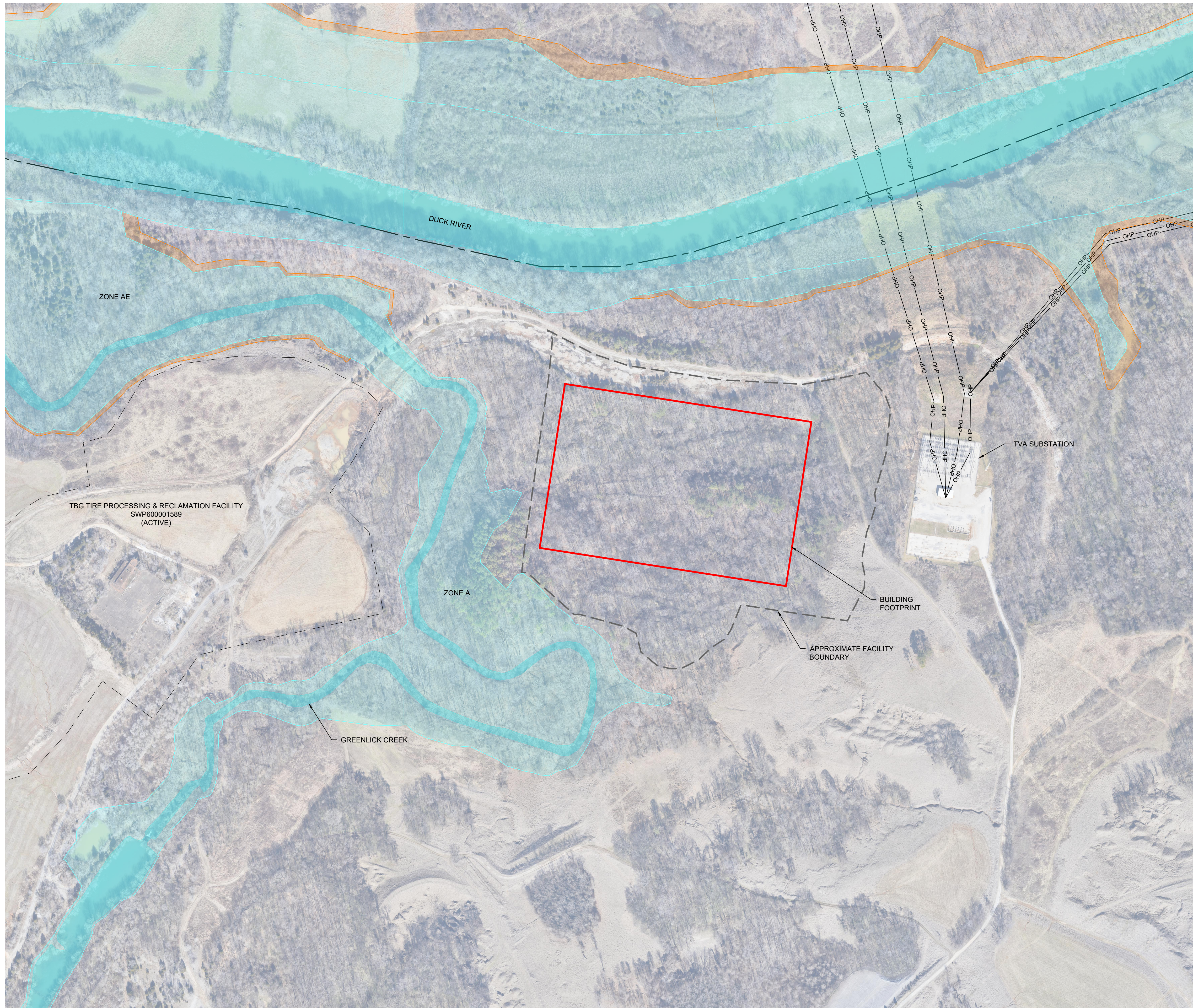
NOT TO SCALE

PROJECT INFORMATION

PROJECT NAME	ENERGY RECOVERY PROCESSING FACILITY
PARCEL ID NUMBER	077 001.00
ADDRESS	2250 MONSANTO ROAD COLUMBIA, TN 38401

ENERGY RECOVERY PROCESSING FACILITY
 FOR
TRINITY BUSINESS GROUP
 COLUMBIA, TN

USER:AMK.LDS
 FILE:1371222004_CAD/CIVIL/Energy Recovery Processing Facility/PlotC2.dwg
 SAVER:06/27/2022
 PLOTTED:07/20/2022

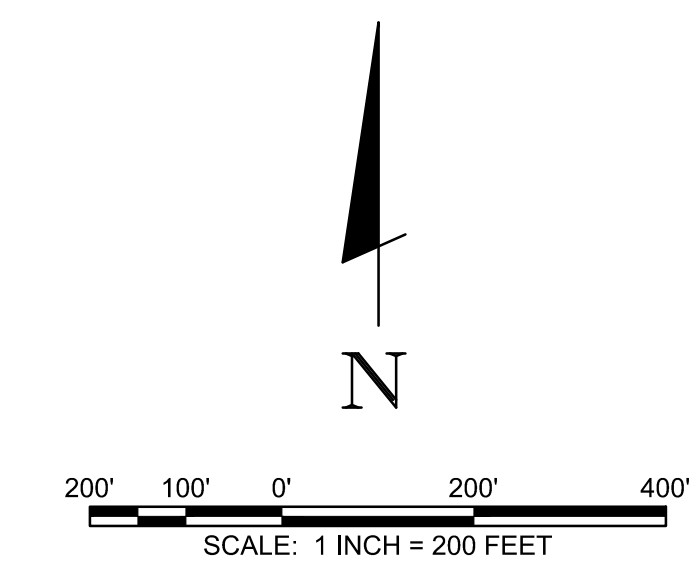


NOTES:

1. PROPERTY BOUNDARIES ARE SHOWN FOR REFERENCE PURPOSES ONLY. LINES ARE BASED ON STATE OF TENNESSEE PROPERTY VIEWER AND ARE APPROXIMATE.
2. AERIAL IMAGERY SHOWN IS FROM AN AERIAL SURVEY PERFORMED BY ATLANTIC, LLC EFFECTIVE DATE FEBRUARY 2022.

LEGEND

- PROPOSED**
- BUILDING FOOTPRINT
 - - - - - APPROXIMATE FACILITY BOUNDARY
- EXISTING**
- - - - - PROPERTY LINE
 - OHP — OVERHEAD POWER LINE
 - FEMA ZONE A / AE
 - FEMA ZONE X
 - CREEK / RIVER
 - - - - - TBG TIRE PROCESSING & RECLAMATION FACILITY BOUNDARY



BARGE
 DESIGN SOLUTIONS

615 3rd Avenue South / Suite 700 / Nashville, Tennessee 37210
 PHONE (615) 254-1500 / FAX (615) 256-6572

PRELIMINARY
 NOT FOR
 CONSTRUCTION

DATE

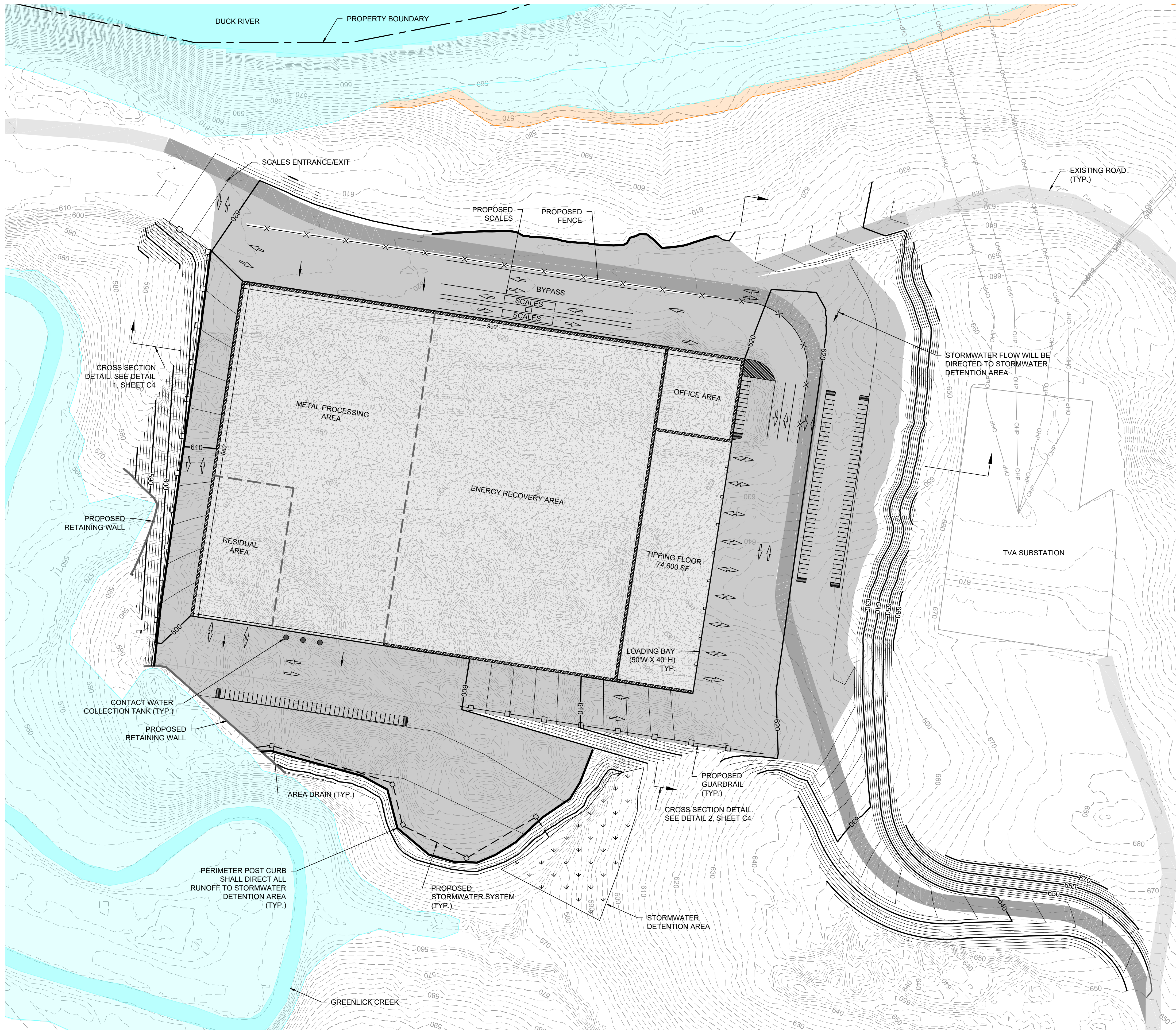
FACILITY SITE PLAN

ENERGY RECOVERY PROCESSING FACILITY
 TRINITY BUSINESS GROUP
 COLUMBIA, TN

REVISION INFORMATION	
REV.	DESCRIPTION
0	AMK JKB 06.23.22
1	AMK JKB 09.07.22

C2

FILE NO. 3712220

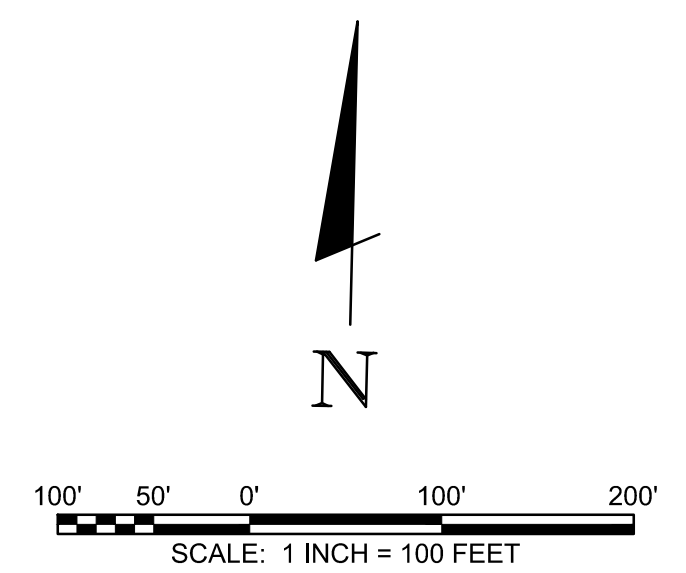


NOTES:

1. PROPERTY BOUNDARIES ARE SHOWN FOR REFERENCE PURPOSES ONLY. LINES ARE BASED ON STATE OF TENNESSEE PROPERTY VIEWER AND ARE APPROXIMATE.
2. EXISTING GROUND TOPOGRAPHICAL CONTOURS SHOWN WERE TAKEN FROM AERIAL SURVEY PERFORMED BY ATLANTIC, LLC IN FEBRUARY 2022.
3. A TMS (TENNESSEE MULTI-SECTOR PERMIT) WILL BE SUBMITTED FOR THE FACILITY ONCE OPERATION COMMENCES TO ANNUALLY MONITOR SURFACE RUNOFF AND PERFORM QUARTERLY INSPECTIONS.
4. AN AIR POLLUTION CONTROL (APC) PERMIT WILL BE OBTAINED FOR THE WASTE TO ENERGY PROCESS THROUGH TDEC DIVISION OF AIR POLLUTION CONTROL.

LEGEND

- | | | |
|-----------------|-------------------------------|--|
| PROPOSED | | |
| — 600 — | MAJOR CONTOUR (10' INTERVAL) | |
| - - - - - | MINOR CONTOUR (2' INTERVAL) | |
| → | STORMWATER FLOW ARROW | |
| ⇨ | TRAFFIC FLOW ARROW | |
| - - - - - | STORMWATER PIPE | |
| ▬▬▬▬▬ | HEAVY DUTY ASPHALT | |
| ▬▬▬▬▬ | HEAVY DUTY CONCRETE | |
| ▬▬▬▬▬ | PROPOSED ROAD | |
| x x x x | FENCE | |
| □ □ □ □ | GUARDRAIL | |
| ▬▬▬▬▬ | RETAINING WALL | |
| ● | CONTACT WATER COLLECTION TANK | |
| EXISTING | | |
| - - - - - | PROPERTY BOUNDARY | |
| — 600 — | MAJOR CONTOUR (10' INTERVAL) | |
| - - - - - | MINOR CONTOUR (2' INTERVAL) | |
| — OHP — | OVERHEAD POWER LINE | |
| ▬▬▬▬▬ | FEMA ZONE A / AE | |
| ▬▬▬▬▬ | FEMA ZONE X | |
| ▬▬▬▬▬ | CREEK / RIVER | |



PRELIMINARY
NOT FOR
CONSTRUCTION

DATE

FACILITY LAYOUT

ENERGY RECOVERY PROCESSING FACILITY
TRINITY BUSINESS GROUP
COLUMBIA, TN

REVISION INFORMATION	
REV.	DESCRIPTION
0	05.23.22
1	05.07.22

PRELIMINARY
 NOT FOR
 CONSTRUCTION

DATE

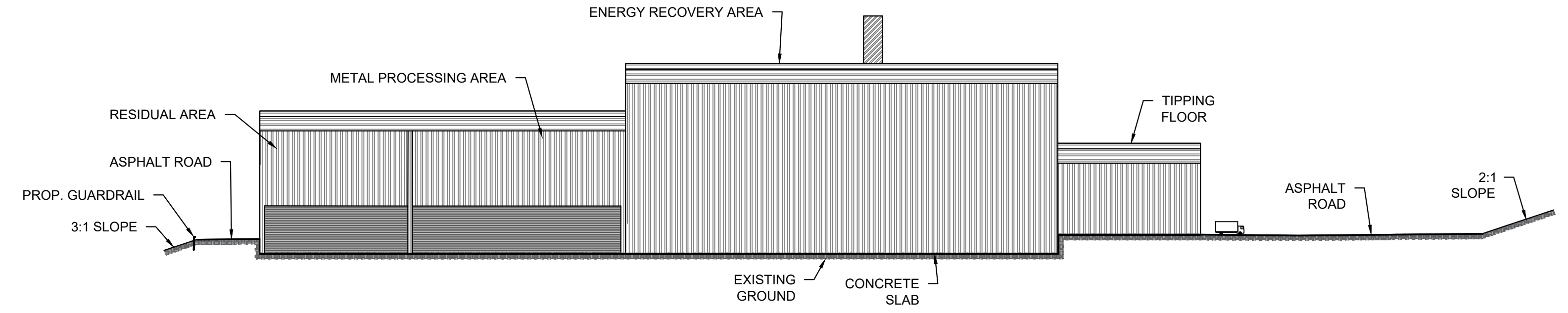
DETAILS

ENERGY RECOVERY PROCESSING FACILITY
 TRINITY BUSINESS GROUP
 COLUMBIA, TN

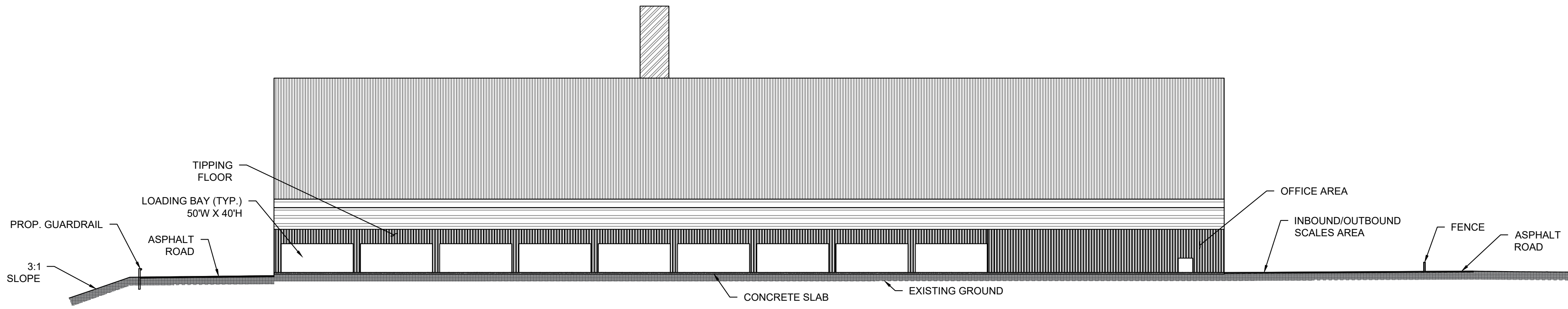
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1	AMK	JKB	09.07.22	

C4

FILE NO. 3712220

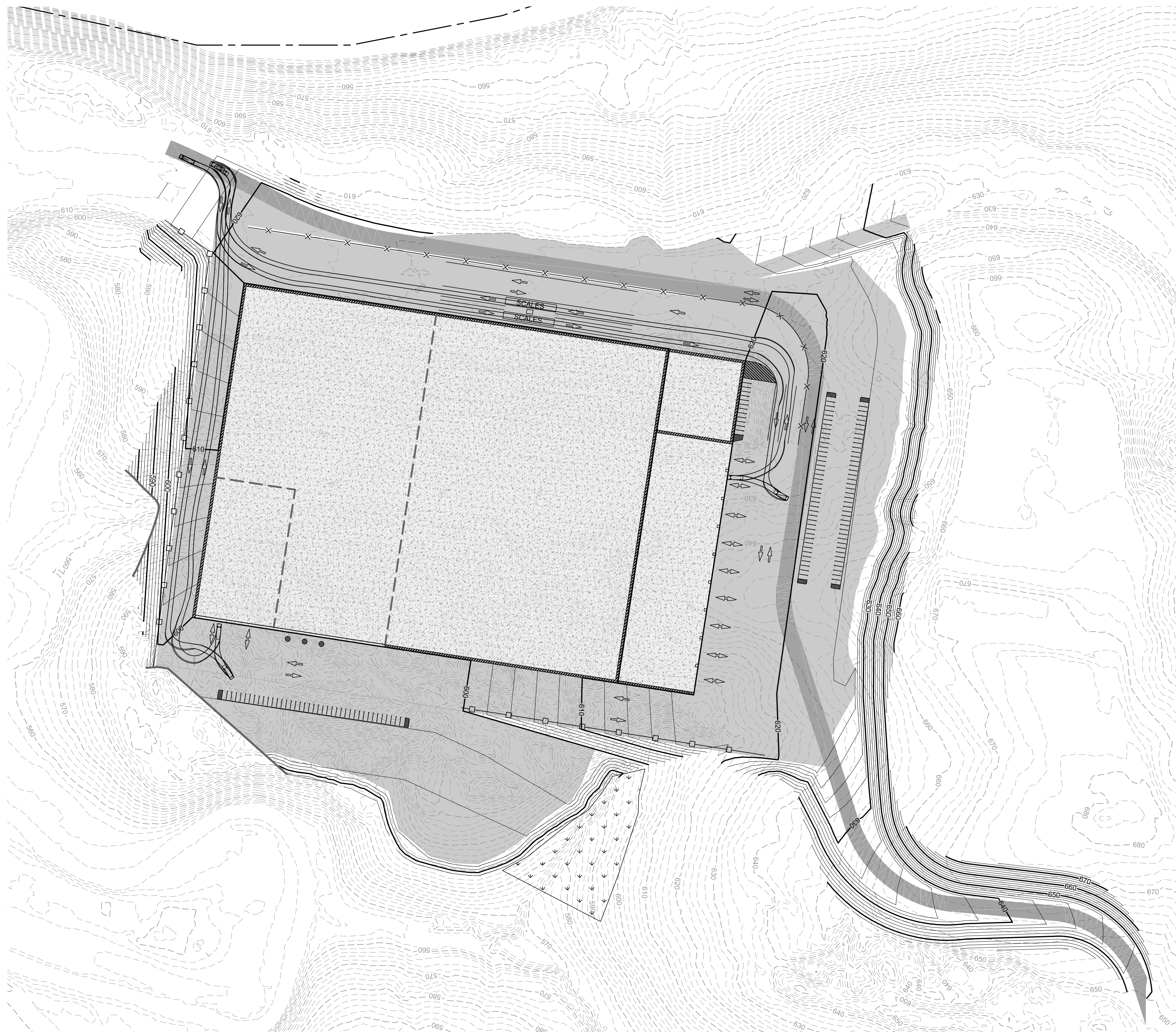


1 CROSS SECTION DETAIL
 NTS



2 CROSS SECTION DETAIL
 NTS

USER:AMKLOS
 FILE:1371222004_CAD/CIVIL/Energy Recovery Processing Facility/PlotC5.dwg
 SAVERD:09/12/2022
 PLOTTED:09/12/2022



NOTES:

1. PROPERTY BOUNDARIES ARE SHOWN FOR REFERENCE PURPOSES ONLY. LINES ARE BASED ON STATE OF TENNESSEE PROPERTY VIEWER AND ARE APPROXIMATE.
2. EXISTING GROUND TOPOGRAPHICAL CONTOURS SHOWN WERE TAKEN FROM AERIAL SURVEY PERFORMED BY ATLANTIC, LLC IN FEBRUARY 2022.
3. A TMSP (TENNESSEE MULTI-SECTOR PERMIT) WILL BE SUBMITTED FOR THE FACILITY ONCE OPERATION COMMENCES TO ANNUALLY MONITOR SURFACE RUNOFF AND PERFORM QUARTERLY INSPECTIONS.

LEGEND

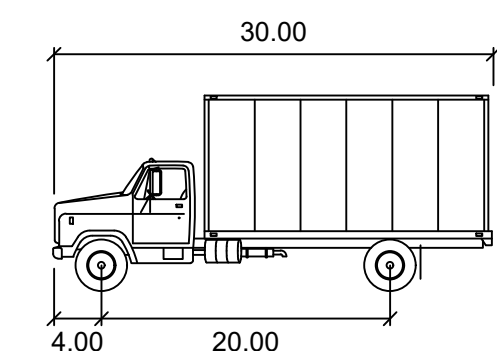
PROPOSED

- 600 — MAJOR CONTOUR (10' INTERVAL)
- — MINOR CONTOUR (2' INTERVAL)
- STORMWATER FLOW ARROW
- ⇨ TRAFFIC FLOW ARROW
- - - - - STORMWATER PIPE
- ▬ HEAVY DUTY ASPHALT
- ▬ HEAVY DUTY CONCRETE
- ▬ PROPOSED ROAD
- × × FENCE
- □ GUARDRAIL
- ▬ RETAINING WALL
- CONTACT WATER COLLECTION TANK

EXISTING

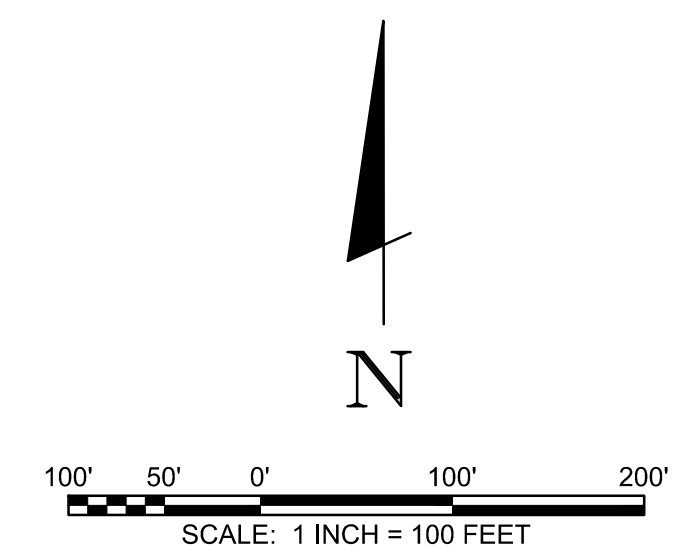
- - - - - PROPERTY BOUNDARY
- - - 600 - - - MAJOR CONTOUR (10' INTERVAL)
- - - - - MINOR CONTOUR (2' INTERVAL)
- OHP — OVERHEAD POWER LINE
- ▬ FEMA ZONE A / AE
- ▬ FEMA ZONE X
- ▬ CREEK / RIVER

DESIGN VEHICLE:



SU-30

	feet
Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 31.8



PRELIMINARY
 NOT FOR
 CONSTRUCTION

DATE

SU-30 TURNING MOVEMENTS

ENERGY RECOVERY PROCESSING FACILITY
 TRINITY BUSINESS GROUP
 COLUMBIA, TN

REV.	DR.	CHK.	DATE	DESCRIPTION
0	AMK	JKB	06.23.22	
1	AMK	JKB	09.07.22	

C5

FILE NO. 3712220

APPENDIX 4 – Wetland Mapping



May 31, 2022

Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
| | |  | Freshwater Pond |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

**APPENDIX 5 –
FEMA Floodplain Map**

National Flood Hazard Layer FIRMMette



87°6'45"W 35°40'19"N



87°6'7"W 35°39'50"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/23/2022 at 10:40 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX 6 – Endangered Species Information

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Maury County, Tennessee



Local office

Tennessee Ecological Services Field Office

☎ (931) 528-6481

📠 (931) 528-7075

446 Neal Street
Cookeville, TN 38501-4027

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

-
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat <i>Myotis sodalis</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Fishes

NAME	STATUS
Pygmy Madtom <i>Noturus stanauli</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7873	Endangered

Clams

NAME	STATUS
Birdwing Pearlymussel <i>Lemiox rimosus</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6636	EXPN
Cracking Pearlymussel <i>Hemistena lata</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4130	Endangered

Cumberland Monkeyface (pearlymussel) <i>Theliderma intermedia</i>	EXPN
No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6999	
Cumberlandian Combshell <i>Epioblasma brevidens</i>	Endangered
There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/3119	
Orangefoot Pimpleback (pearlymussel) <i>Plethobasus cooperianus</i>	Endangered
Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1132	
Oyster Mussel <i>Epioblasma capsaeformis</i>	Endangered
There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2099	
Pale Lilliput (pearlymussel) <i>Toxolasma cylindrellus</i>	Endangered
Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3118	
Rabbitsfoot <i>Quadrula cylindrica cylindrica</i>	Threatened
Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/5165	
Slabside Pearlymussel <i>Pleuonaia dolabelloides</i>	Endangered
Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1518	
Turgid Blossom (pearlymussel) <i>Epioblasma turgidula</i>	Endangered
No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7659	

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Leafy Prairie-clover <i>Dalea foliosa</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5498	Endangered
Prices Potato-bean <i>Apios priceana</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7422	Threatened
Short's Bladderpod <i>Physaria globosa</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/7206	Endangered
Tennessee Yellow-eyed Grass <i>Xyris tennesseensis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6010	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A
BREEDING SEASON IS
INDICATED FOR A BIRD ON
YOUR LIST, THE BIRD MAY
BREED IN YOUR PROJECT AREA
SOMETIME WITHIN THE
TIMEFRAME SPECIFIED, WHICH

IS A VERY LIBERAL ESTIMATE
OF THE DATES INSIDE WHICH
THE BIRD BREEDS ACROSS ITS
ENTIRE RANGE. "BREEDS
ELSEWHERE" INDICATES THAT
THE BIRD DOES NOT LIKELY
BREED IN YOUR PROJECT
AREA.)

Bald Eagle *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Sep 1 to Jul 31

Eastern Whip-poor-will *Antrostomus vociferus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 1 to Aug 20

Kentucky Warbler *Oporornis formosus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Apr 20 to Aug 20

Prairie Warbler *Dendroica discolor*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 1 to Jul 31

Prothonotary Warbler *Protonotaria citrea*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Apr 1 to Jul 31

Red-headed Woodpecker *Melanerpes erythrocephalus*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 10 to Sep 10

Rusty Blackbird *Euphagus carolinus*

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Breeds elsewhere

Wood Thrush *Hylocichla mustelina*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

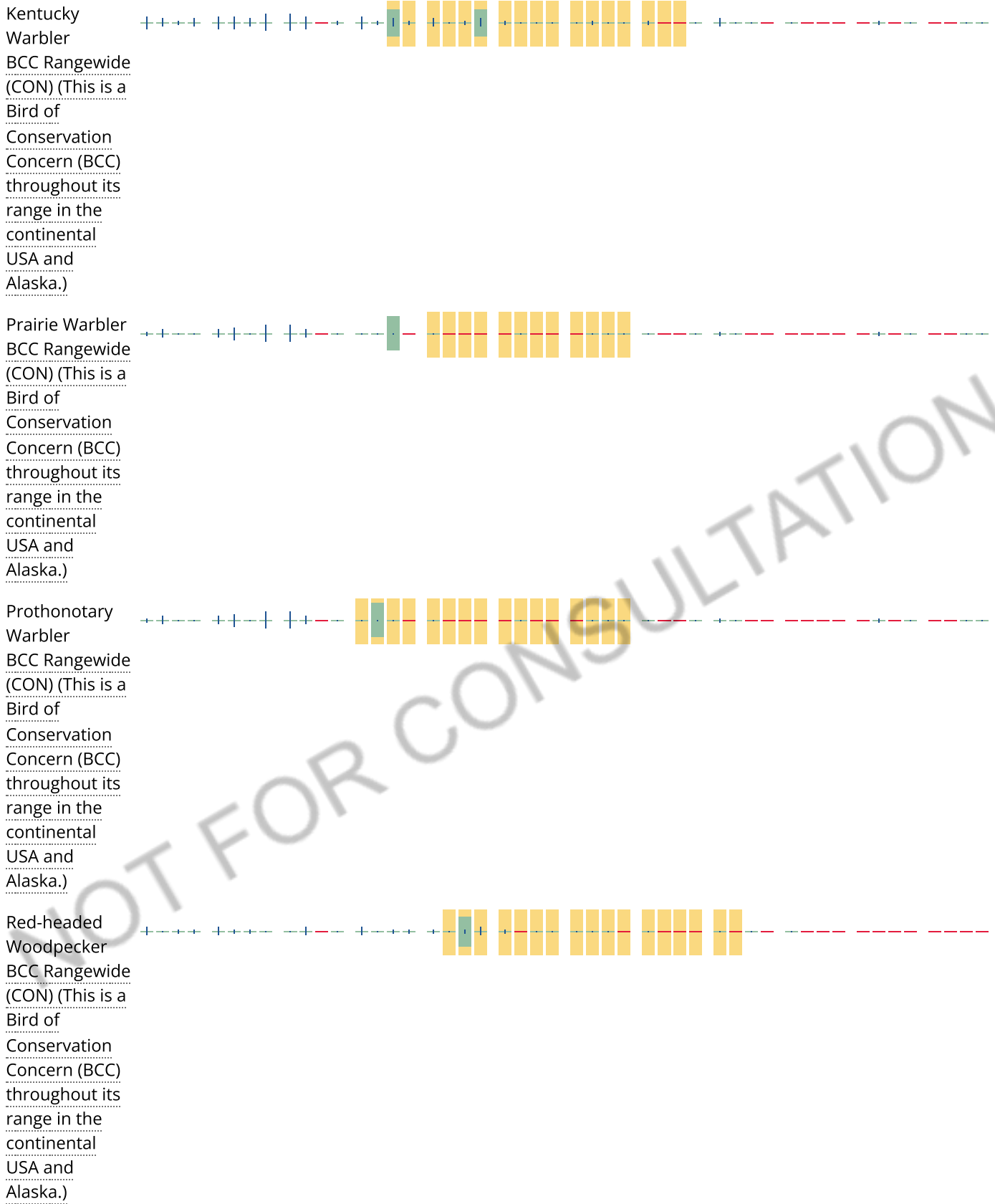
No Data (-)

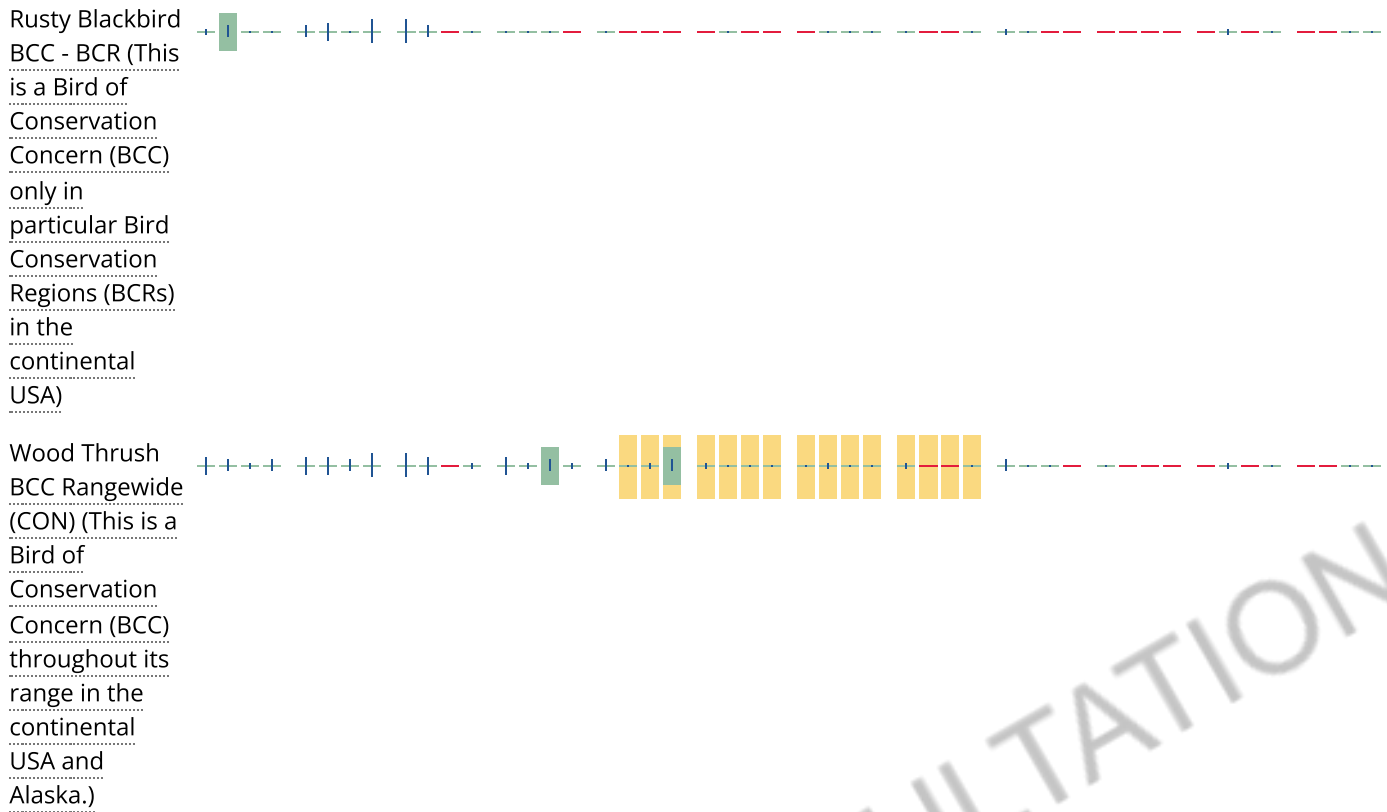
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the [John H. Chafee Coastal Barrier Resources System](#) (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local [Ecological Services Field Office](#) or visit the [CBRA Consultations website](#). The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

THERE ARE NO KNOWN COASTAL BARRIERS AT THIS LOCATION.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the [official CBRS maps](#). The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: <https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation>

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

APPENDIX 7 – Financial Assurance

**Estimated Costs for Closure / Post-Closure
TBG Energy Recovery Processing Facility**

Closure Tasks	Unit	2022 Unit Cost \$	Total Units	2022 Total Cost
1. Closure Operating Cost (Maintain Facility)				\$ 20,800
Labor (Full time, Two On-site employees for 1 Month)	HR	\$ 15.00	320	\$ 4,800
Equipment (Maintenance, Cleaning)	LS	\$ 10,000	1	\$ 10,000
Maintenance	LS	\$ 5,000	1	\$ 5,000
Cleaning	LS	\$ 1,000	1	\$ 1,000
2. Disposal and Hauling of Non-Compostable Waste				\$ 330,800
Loading, Disposal Cost	TON	\$ 38.0	6616	\$ 251,408
Hauling Transportation Cost	TON	\$ 12.0	6616	\$ 79,392
		Total Closure Costs		\$ 351,600

Contingency (TDEC Requirement)	Closure Cost	Post Closure Cost	% Contingency	Total Contingency
20% of Total Closure Plus Post-Closure Costs	\$ 351,600	N/A	20%	\$ 70,320
		Total Contingency Costs		\$ 70,320

Total Costs	\$ 421,920
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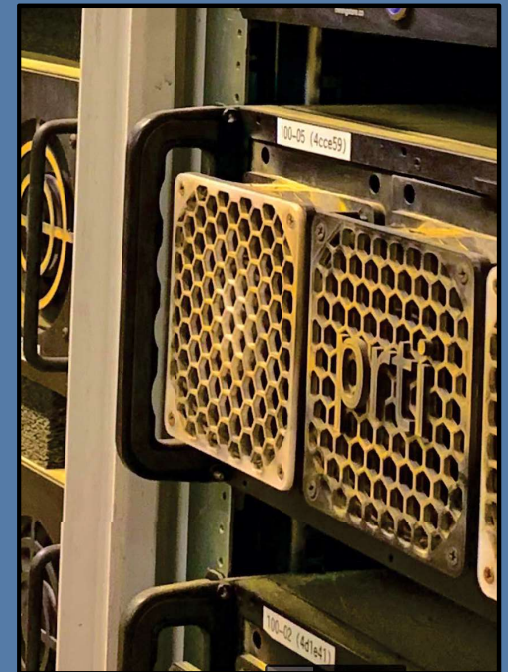
APPENDIX 8 – PRTI Summary of Opportunity



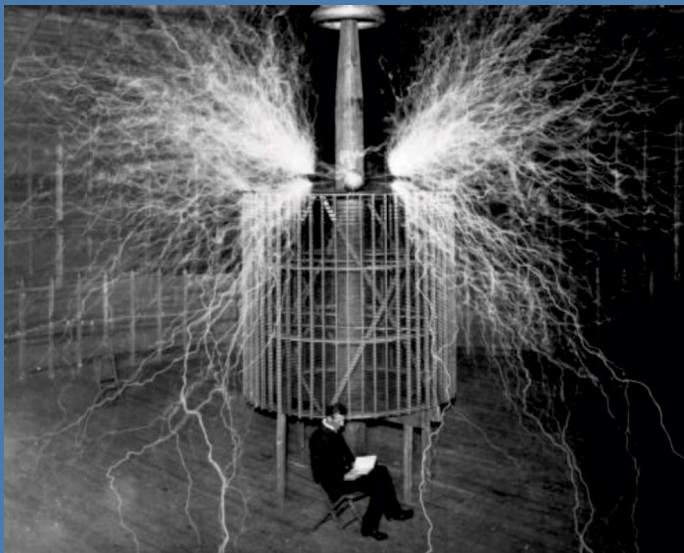
prti®

**PRTI Overview - Expansion
Oct 2021**

Blockchain is the most disruptive technology
since the invention of the Internet; PRTI
participates in supporting data center
infrastructure



Power Data Centers with Tires



Summary

PRTI, Inc. addresses the significant energy consumption concerns of cryptocurrency mining by employing energy stored in waste tires through a patent-protected Thermal Demanufacturing® technology.

This reduces the burden on the energy grid by generating 200k TH/s of mining capability per site from a power source not available to other miners.

The Problem

According to the Cambridge Bitcoin Electricity Consumption Index, BTC currently consumes an estimated 94.52 TWh of energy per year. With a mean price per KWh of \$0.05 annual BTC production cost over \$4.7B per year.

To meet the demand for BTC and other cryptocurrencies, significant energy resources are being redirected away from traditional consumers.

This has led to vocal concerns from energy analysts, cryptocurrency miners, and politicians that the current sources of power for cryptocurrency mining are unsustainable.

- Eliminating tire waste with a proven Industry 4.0 technology solution
- Waste to Value
- 4+ year technology and operating history
- Ready to scale

USA Example

Waste Tires discarded at approximately 1 per person per year

That's almost 332.9MM tires every year!*

Worldwide - >1BN tires per year**

*<https://www.ustires.org/2018-tire-shipments>

**<https://www.thebalancesmb.com/the-importance-of-tire-recycling-2878127>

Experienced and Committed Leadership



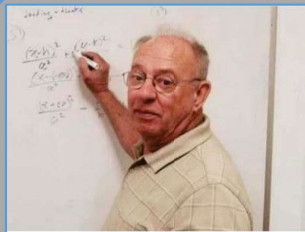
Chris Hare - CEO
IoT, Industrial Entrepreneur
Ran Innovation and Sourcing at
Sony Ericsson with \$8.5BN spend.
Previously headed technology
start ups and divisions of
TRW/Lucas in US, Europe and
Asia. With PRTI since 2015.



Ben Machon - Dir Corp Dev
Molecular Biology, MBA leader in
Healthcare, Finance, Business
Development, Management
Consulting. Supported building of
original business plan. With PRTI
since 2016.



Alan F. Krauss - Engineering Director
Graduated from the University of
Michigan with a BSE and from the
Georgia Institute of Technology with
MS and Ph.D. degrees. He has
worked at Dow Chemical, IBM,
Schneider Electric and PRTI where
he is the architect/leader of process
automation. Joined PRTI 2016.



**Wayne Machon - CTO, Deputy
Chairman**
Space Program, Electrical Engineer,
founded Unitive Electronics and
raised \$27MM and sold for \$158MM.
Ran operations and engineering at
companies including Data General
and Broadband Technologies.
Founded PRTI in 2013.

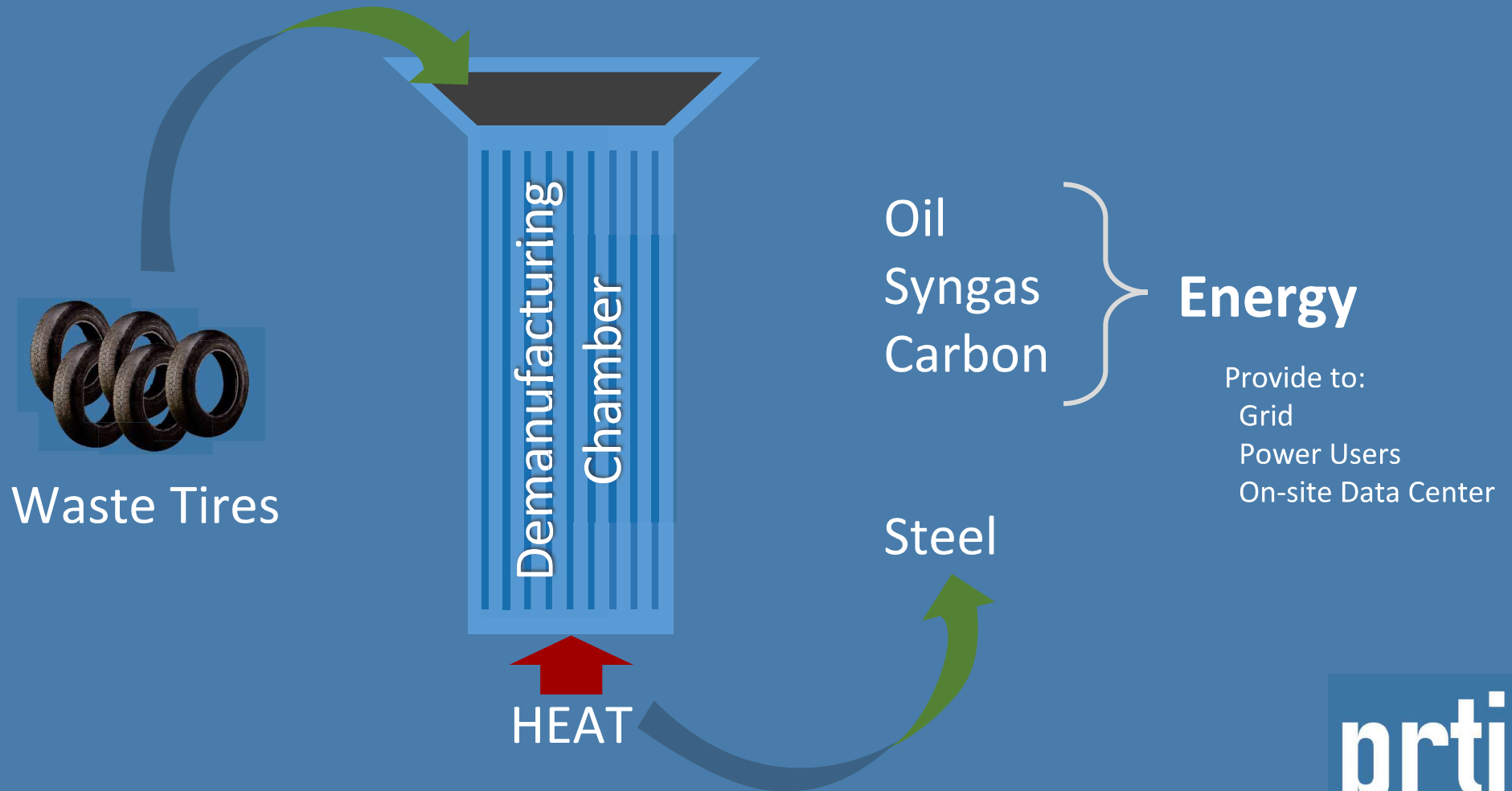


**Brent Burger - Director
Construction**
Project Management on multiple
large projects including Aberdeen
Proving Grounds and the National
Cathedral in Washington DC while
at Davis Construction. Joined PRTI
in 2016.



**Jason Williams - Exec Chairman
Investor/Serial Entrepreneur** with
successful exits in multiple
healthcare businesses including
Fastmed, which he founded, for
approaching \$500MM. Investor and
partner in Morgan Creek Digital
Assets. Invested and joined PRTI in
2015.

Thermal Demanufacturing[®]

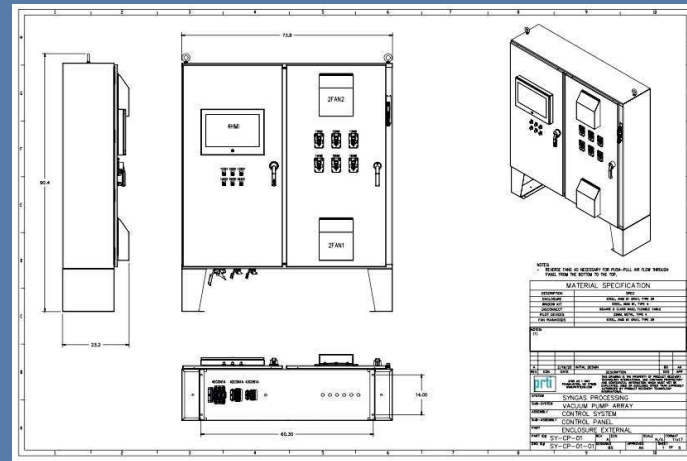
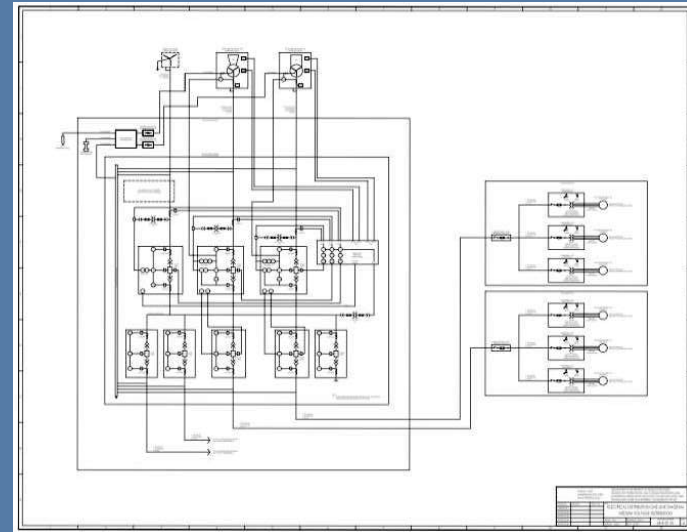
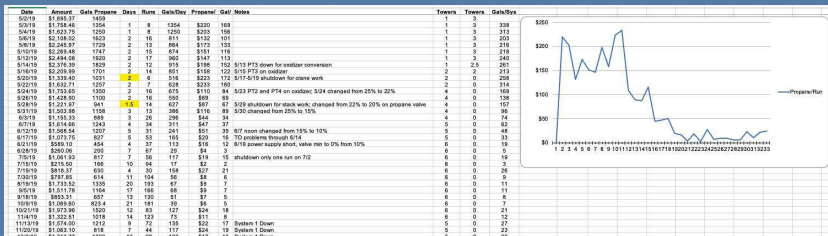


Automated Programmable Logic Controlled Process



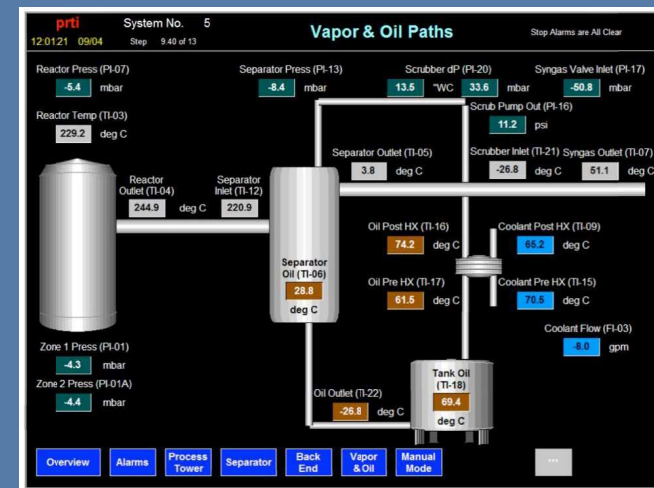
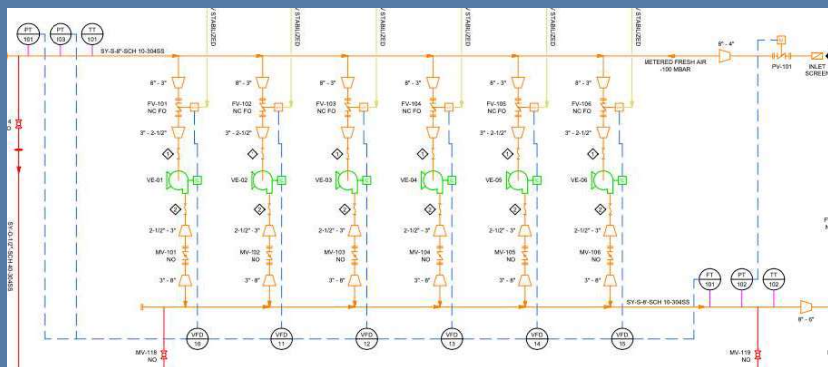
Engineering Capability

- Electrical, Mechanical
- Process, Chemical
- Automation, Controls
- Data-Driven Methodology
 - product analytical results drive equipment selection & strategy
 - process data drive enhancement & simplification

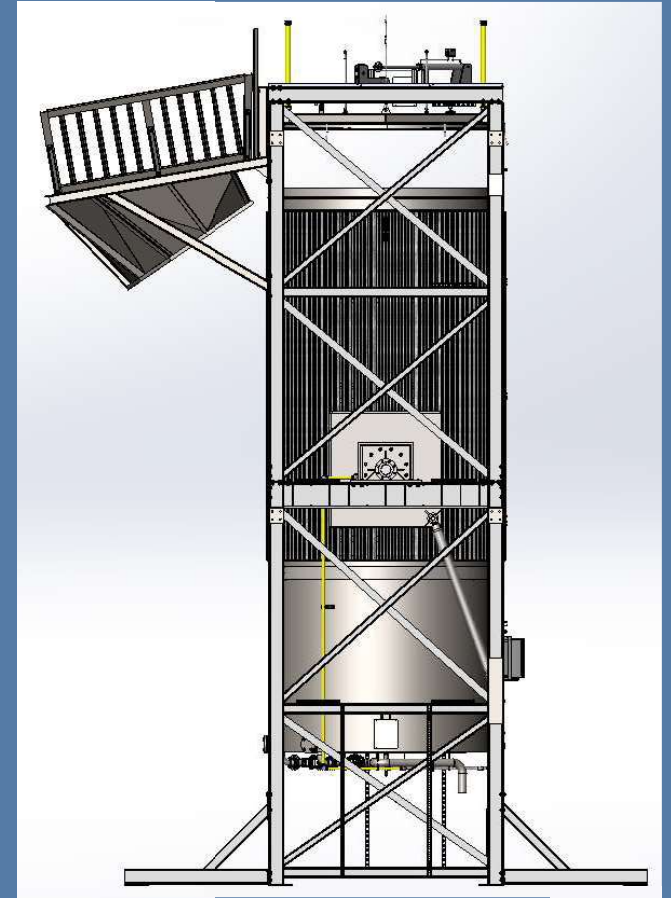
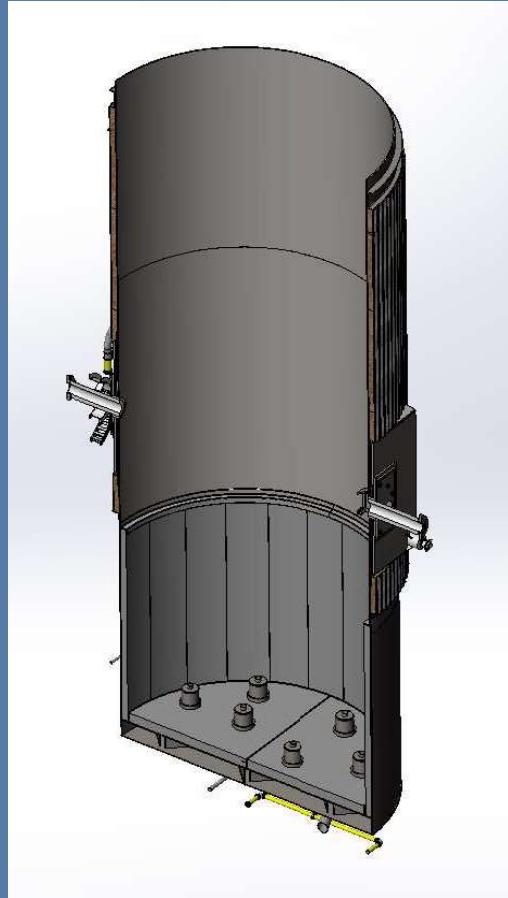
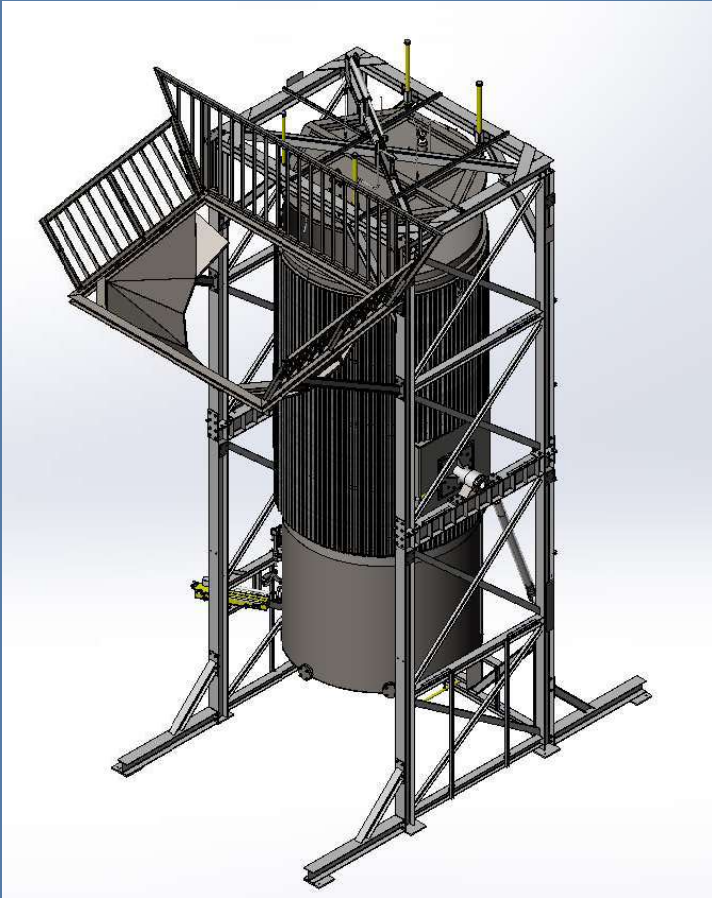


Engineering Readiness

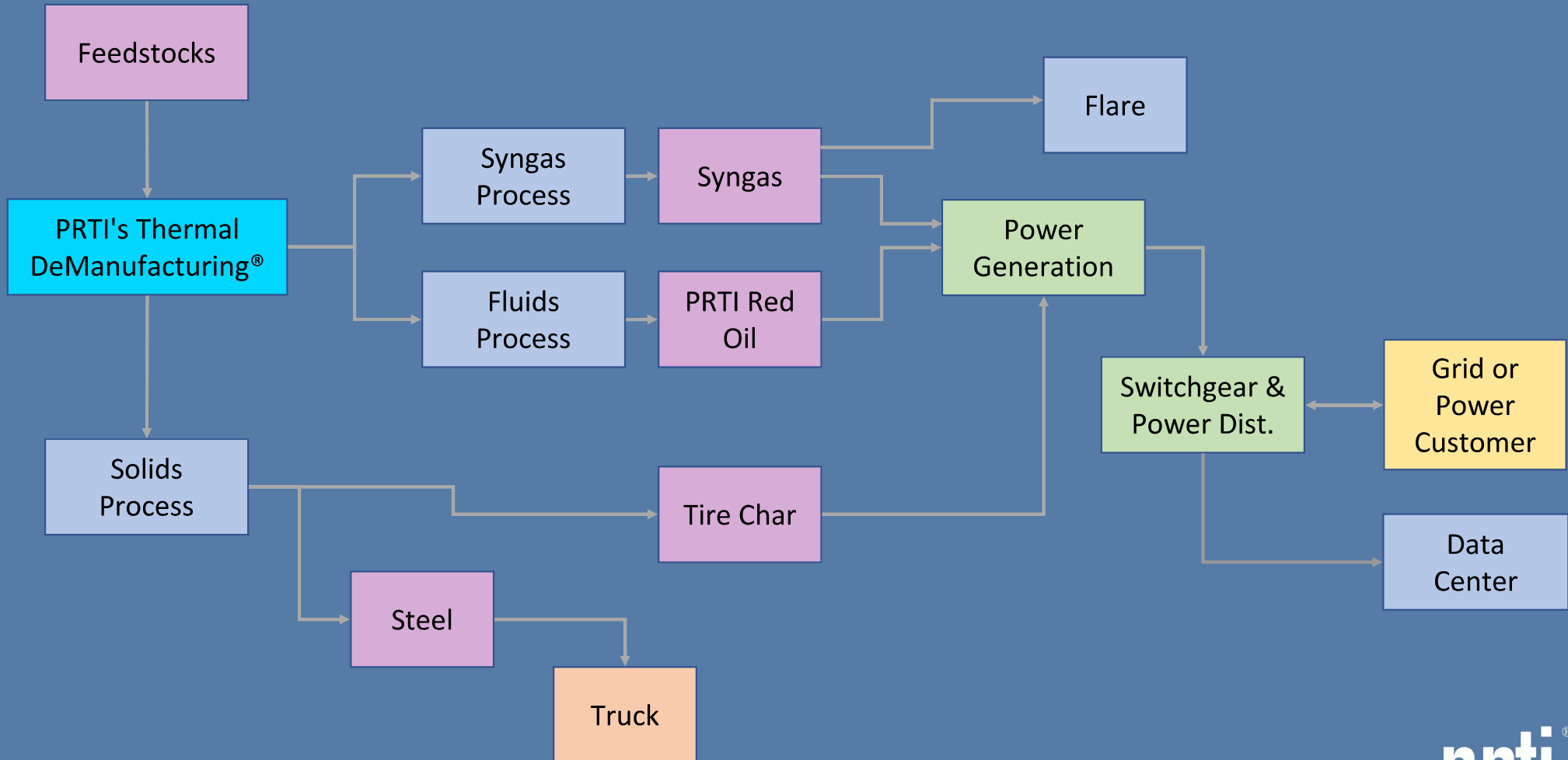
- Factory Monitoring
- EPC-Ready Documentation
 - Basis of Design
 - Process Flow Diagrams
 - Piping & Instrumentation Diagrams
 - Instrument Lists
 - Equipment Lists
 - CAD



>35 GB of 3D CAD Ready for Site Construction



Simplified Process Flow Diagram



Location Summary

United States alone can support >170 PRTI Facilities

Majority of US tire manufacturing occurs in the Southeast US (250MM units/year)

Expansion to be multi-phased approach

First 50 domestic sites, executed in the following phased approach:

Phase I – 13 Sites

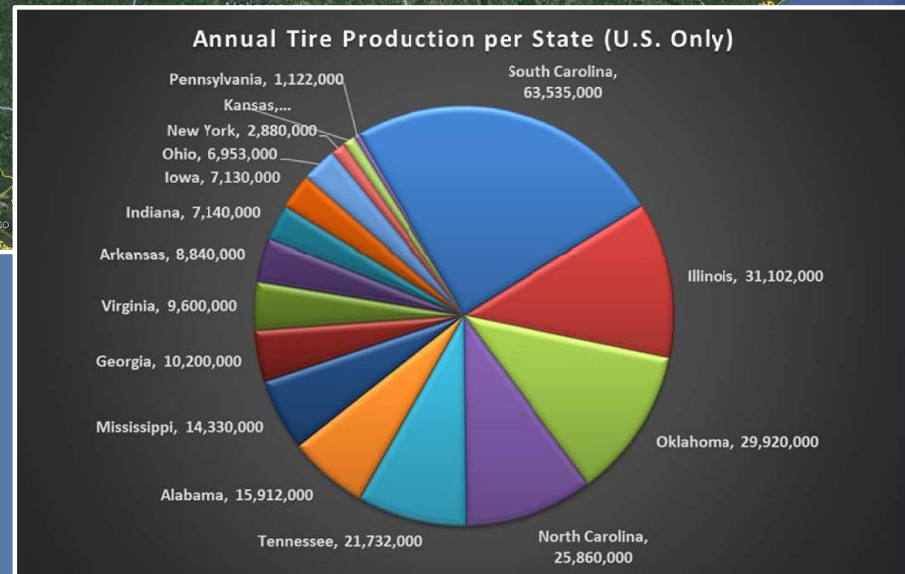
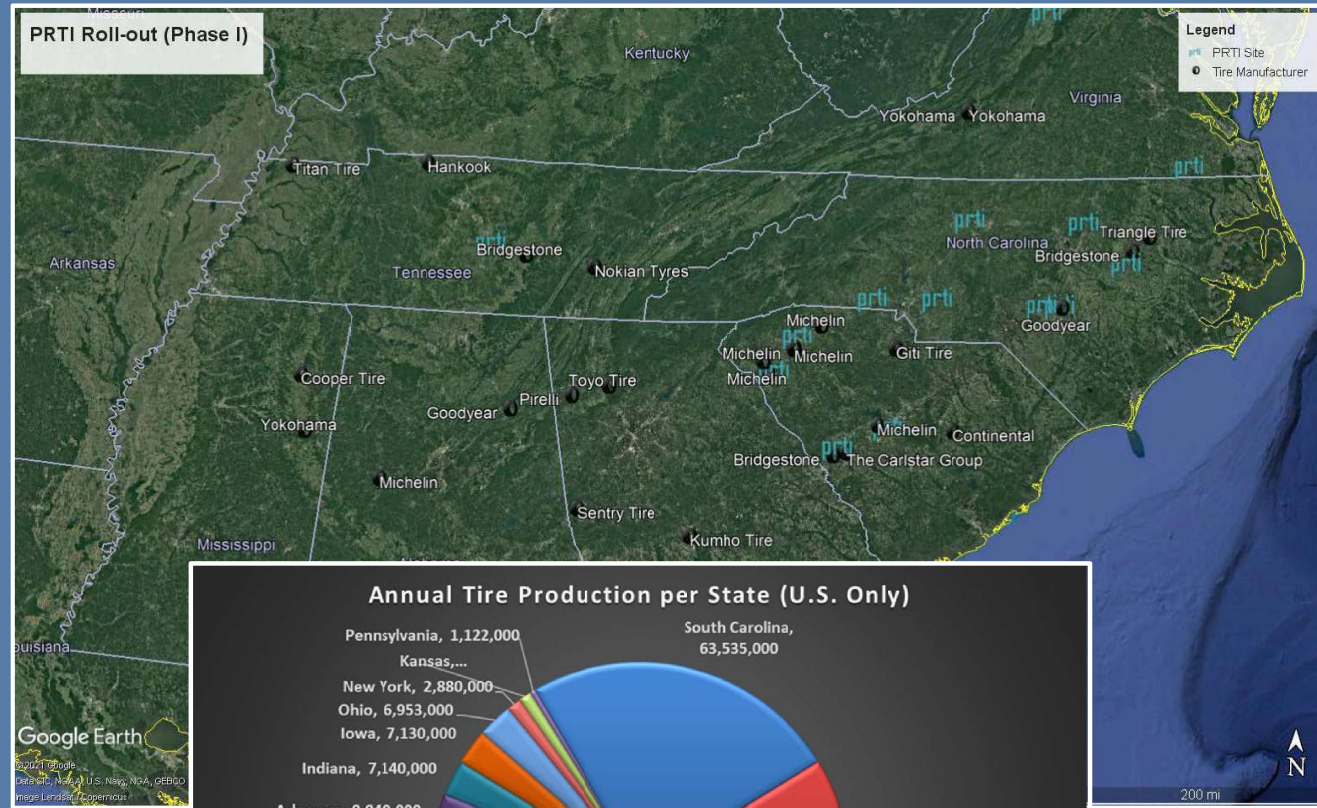
Phase II – 17 Sites

Phase III – 20 Sites

Phase I - Locations include North Carolina, South Carolina, Virginia, and Tennessee, contiguous to current HQ

Similar Permitting Regulations

Tire manufacturer feedstock and post consumer tires = >31MM Tires



Schedule Outline

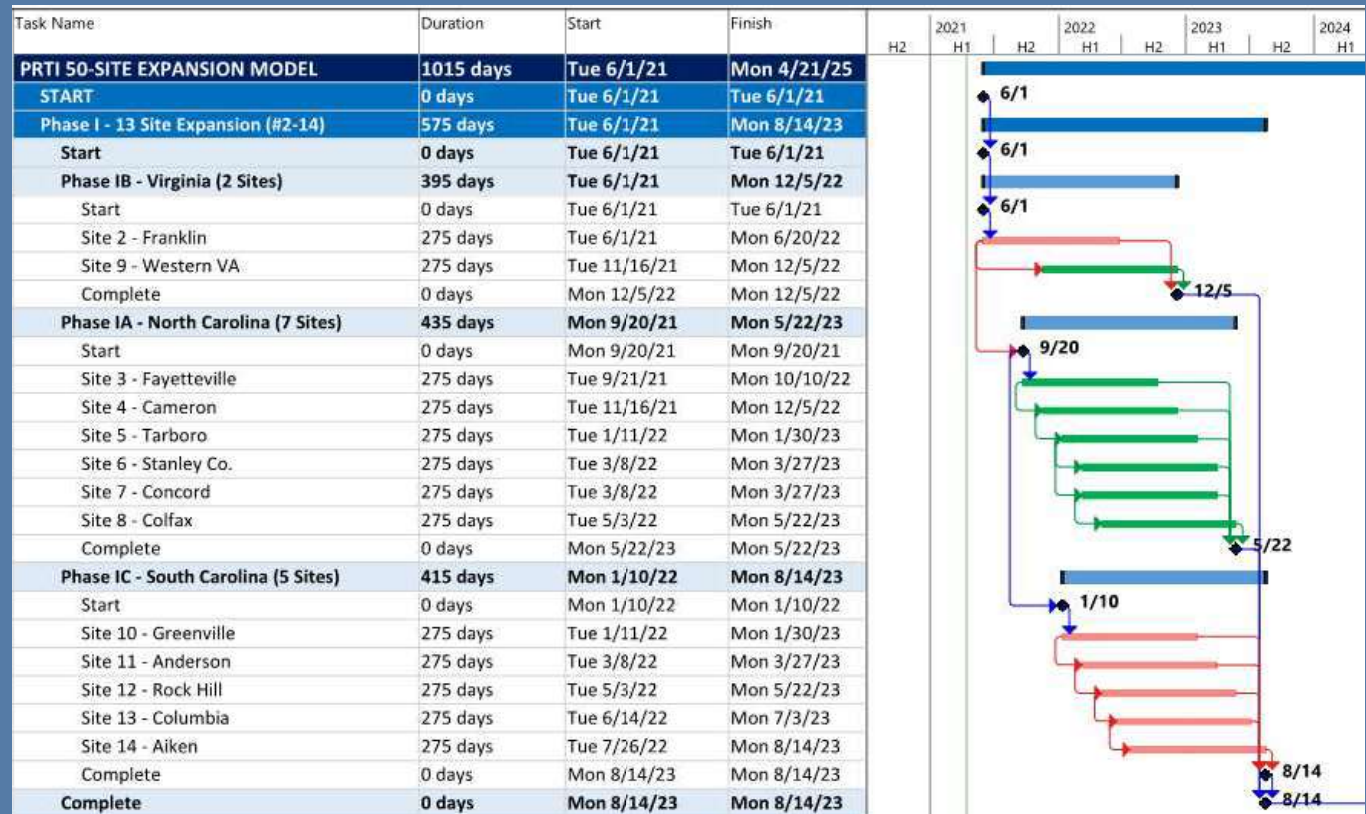
*Phase I presented below

Baseline schedule ~275 days/site

Focused approach for regional development allowing for common site acquisition and permitting efforts

Standardized and modularized design, equipment, materials allows for rapid roll-out

Robust procurement program management



Intellectual Property

- Issued US patents completed PCT (30+ countries)
- 1 issued innovation patent in Australia
- 3 additional draft patents in process
- Acquired Holocene patent portfolio / 12 patents in thermal and solar energy
- 2 US trademarks issued and international trademarks pending
- Documented trade secrets and knowhow



Foundation

- Over 4 years running production in the US
- More than 25,000 tons of tires processed
- Approaching 10,000 process runs
- Over 120,000 operating hours
- Multi-year agreements for feedstock and outputs
- Waste to enhanced value from energy
- Operating blockchain data center
- Evolving output material science
- Strong intellectual property

