

**IN THE TENNESSEE PUBLIC UTILITY COMMISSION  
AT NASHVILLE, TENNESSEE**

**IN RE:** )  
 )  
**PETITION OF TENNESSEE** )  
**WASTEWATER SYSTEMS, INC.,** ) **DOCKET NO. 21-00026**  
**TO AMEND ITS CERTIFICATE** )  
**OF CONVENIENCE AND** )  
**NECESSITY** )

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**SECOND SUPPLEMENTAL INFORMATION**

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Tennessee Wastewater Systems, Inc. ("TWSI", "Utility", or "Company")  
files this Second Supplemental Information in response to the email filed in this  
Docket by Commission Staff dated June 16, 2022, and responds as follows:

**Additional Information to be provided in this docket**

1. Regarding Commission Rule 1220-04-13-.17 (a)(7): Regarding the geographic territory to be served. Please provide the Parcel ID information (Control map, Group, and Parcel ID) of the land to be deeded to the Utility. It will be similar to the property information which can be obtained from this web address: [https://assessment.cot.tn.gov/RE\\_Assessment/](https://assessment.cot.tn.gov/RE_Assessment/)

**ANSWER: See attached Exhibit 1**

2. Regarding Commission Rule 1220-04-13-.17 (b)(1): Please provide a letter from the Clay County municipal government regarding its intent/non-intent to serve the proposed area.

**ANSWER: A letter from Clay County has been requested and will be filed in the docket upon receipt.**

3. Regarding Commission Rule 1220-04-13-.17 (b)(3): Please provide the final executed signature page for the applicable contracts in this docket negotiated between the Contractor, the Utility, and the property/subdivision Developer.

**ANSWER: See attached Exhibit 3**

4. Regarding Commission Rule 1220-04-13-.17 (d)(2): Please provide copies of Mr. Jeramy Stewart's Wastewater System Operator license, Grade I Collection Systems license, and his Biological Natural Systems license in this docket filing.

**ANSWER: The operator will be Tracy Nichols. A copy of his current license is attached as Exhibit 4.**

5. Regarding Commission Rule 1220-04-13-.17 (d)(1): Please provide a copy of the State Operating Permit ("SOP") application filed with TDEC. Include the letter from TDEC indicating the receipt of a complete application, and including any engineering and/or design reports submitted to TDEC: such as the Design Development Report and the Detailed Soils Investigation Report.

**ANSWER: A copy of the SOP application is attached as Exhibit 5A. The letter of complete application from TDEC is attached as Exhibit 5B. The engineering plans is attached as Exhibit 5C. The DDR and DSIR are part of the county requirements for systems in Williamson County and do not apply to this petition.**

**Regarding Testimony to be updated in this docket**

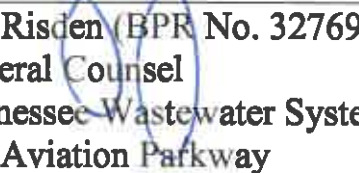
6. Regarding Commission Rule 1220-04-13-.17 (f)(1): Regarding evidence the public need exists for this wastewater system. An authorized representative of TWSI will need to make a statement saying that: "The property is not currently served by any wastewater provider, and that no local utilities, nor city or county governments intend to provide wastewater service."
7. Regarding Commission Rule 1220-04-13-.17 (f)(5): An authorized representative of TWSI will need to make a statement that the applicant is

aware of the requirement of Rule 1220-04-13-.09(7) concerning the completion of the construction of the wastewater system within three years of TPUC's written approval of the CCN.

8. In the testimony, an authorized representative of TWSI will need to make a statement that DH Development, LLC is a subsidiary of Woodland Capital and that DH Development's representative is authorized to execute the agreements in this docket on behalf of this partnership.

**ANSWER: TWSI's witness Matthew Nicks is filing supplemental testimony, included with this filing, addressing each of these items.**

RESPECTFULLY SUBMITTED,



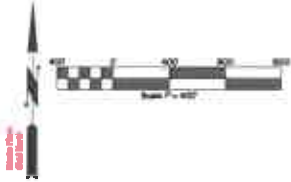
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Jeff Ridsen (BPR No. 32769)  
General Counsel  
Tennessee Wastewater Systems, Inc.  
851 Aviation Parkway  
Smyrna, TN 37167  
(615) 220-7171  
[jeff.ridsen@adenus.com](mailto:jeff.ridsen@adenus.com)

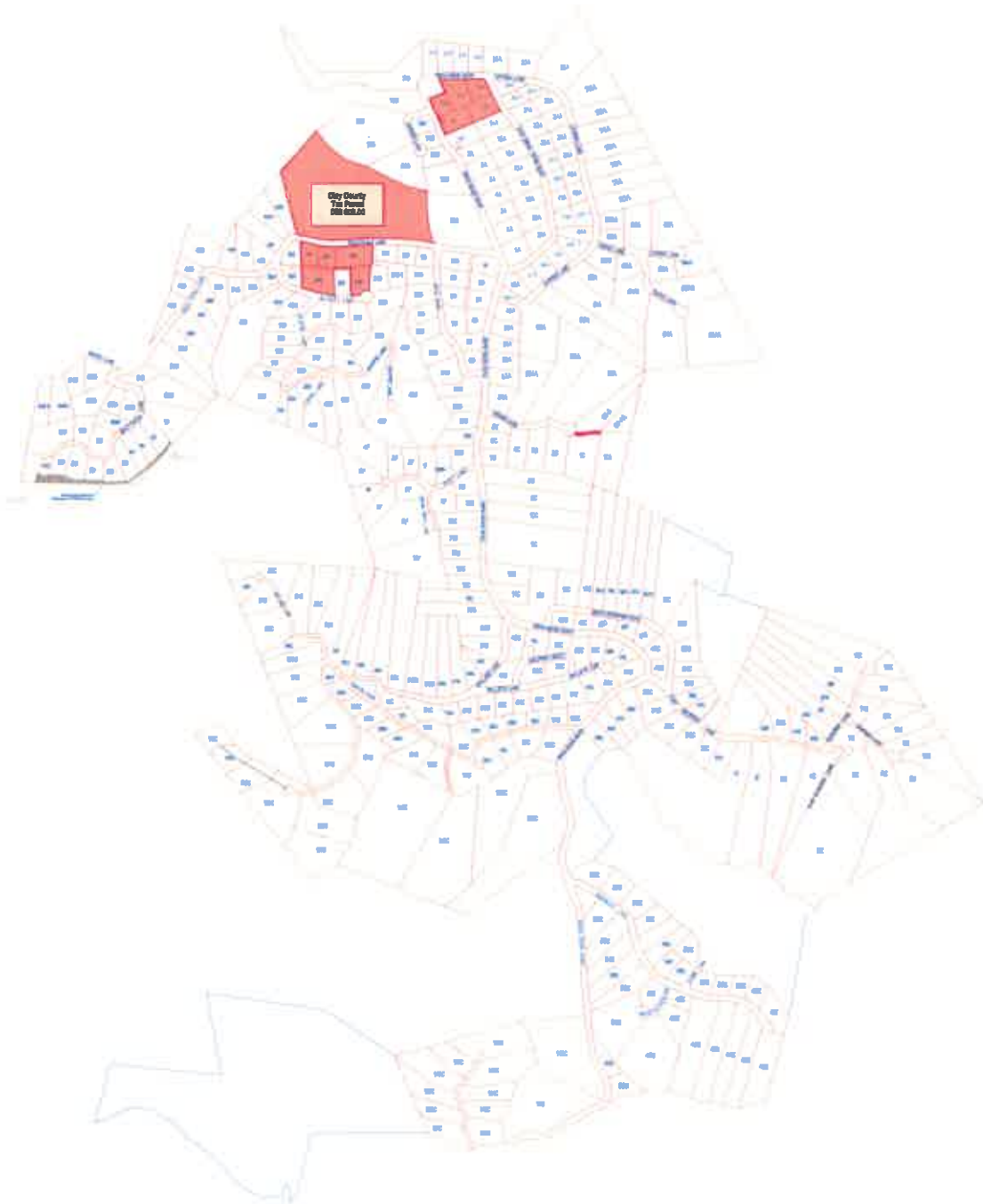
DH Development  
The Pointe at Dale Hollow  
Sewer Treatment Facility  
Lot Conveyance to TWSI

Lot	Use
14B	Drip Irrigation Field
16B	Drip Irrigation Field
17B	Drip Irrigation Field
20B	Treatment Facility
23B	Drip Irrigation Field
9A	Drip Field Reserve Area
10A	Drip Field Reserve Area
11A	Drip Field Reserve Area
12A	Drip Field Reserve Area
13A	Drip Field Reserve Area
052 002.00*	Drip Irrigation Field

*\*Property located in tax parcel 052 002.00 was never platted to lots. Tax Parcel information provided as reference*

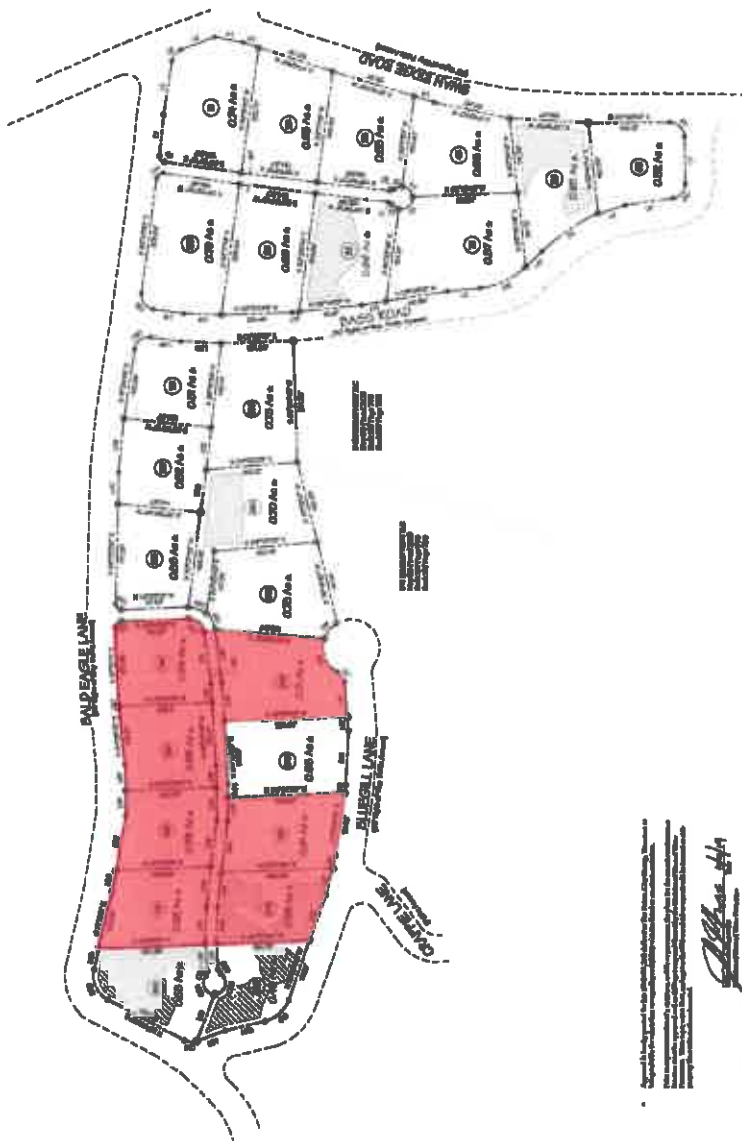


**THE POINTE**  
**SWAN RIDGE ROAD**  
**4TH CIVIL DISTRICT**  
**CLAY COUNTY, TENNESSEE**



NOTE: The plat as drawn hereon is for advertising purposes only. For a more precise plat contact the selling agent.



[illegible]

**Abstract**

the *Journal of Management of Accounting and Finance* (JMAF) has been published by the American Accounting Association (AAA) since 1996. The JMAF is a peer-reviewed journal that publishes research in the field of management accounting and finance. The journal is published quarterly and is available online through the AAA website. The JMAF is a leading journal in the field of management accounting and finance, and it is highly respected by researchers and practitioners alike. The journal is published by the American Accounting Association, which is a professional organization that represents accountants and financial managers. The JMAF is a peer-reviewed journal, which means that the research is evaluated by other experts in the field before it is published. The journal is available online through the AAA website, and it is also available in print form. The JMAF is a leading journal in the field of management accounting and finance, and it is highly respected by researchers and practitioners alike.

[illegible]

**Keywords:** *Public Transport, Public Transport Use, Public Transport Mode, Public Transport Mode Choice, Public Transport Mode Selection, Public Transport Mode Switching, Public Transport Mode Transfer, Public Transport Mode Change, Public Transport Mode Shift, Public Transport Mode Transition, Public Transport Mode Conversion, Public Transport Mode Interchange, Public Transport Mode Integration, Public Transport Mode Interchangeability, Public Transport Mode Interoperability, Public Transport Mode Interconnectivity, Public Transport Mode Interchangeable, Public Transport Mode Interoperable, Public Transport Mode Interconnected, Public Transport Mode Interchangeably, Public Transport Mode Interoperably, Public Transport Mode Interconnectedly, Public Transport Mode Interchangeably, Public Transport Mode Interoperably, Public Transport Mode Interconnectedly*

**Test Results**  
**Comments**  
**Signature**  
**Date**

<p>  </p>	<p>  </p>
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 Christopher M. Vick, R.L.S. #22824  
**VICK SURVEYING, LLC**  
  
 22772 McMan Cove Road, Coonville, TN 38019-3898

[illegible]

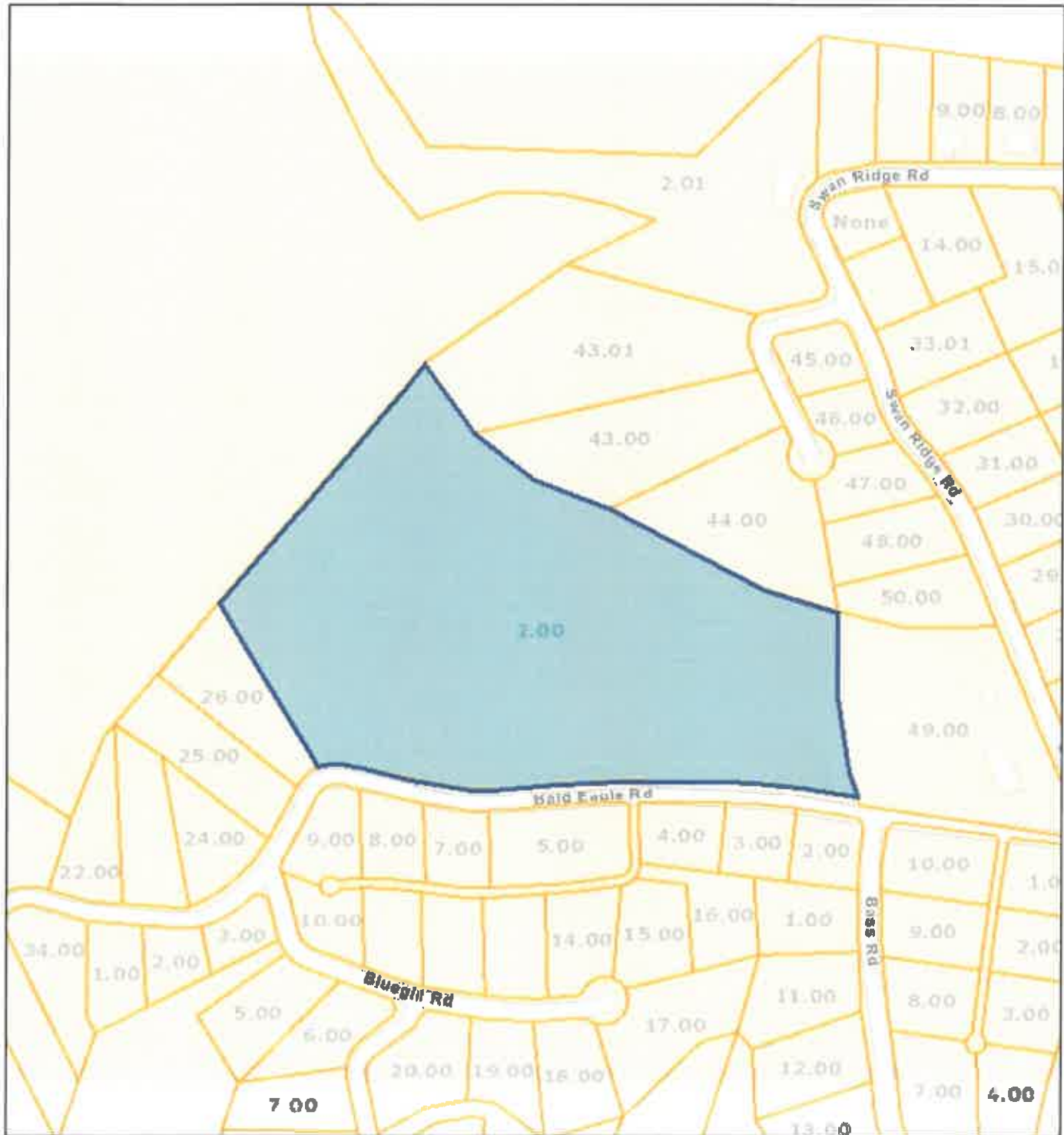
100-441614, BUREAU OF CLER COUNTY, IN

5/2/78

20 Apr 2014



## Clay County - Parcel: 058 002.00



Date: June 17, 2022  
County: Clay  
Owner: D H DEVELOPMENT LLC  
Address: SWANN RIDGE RD  
Parcel Number: 058 002.00  
Deeded Acreage: 0  
Calculated Acreage: 15.01  
Date of Imagery: 2018

State of Tennessee, Comptroller of the Treasury, Department of Property  
Assessment (DPA) – Geographic Services

The property lines are compiled from information maintained by your local county Assessor's  
office but are not conclusive evidence of property ownership in any court of law.



IN WITNESS WHEREOF, the parties have executed this Agreement to be effective as of the Effective Date.

**DEVELOPER:**

DH Development, LLC

By: 

Name: Aaron Patsch

Title: Authorized Representative

**CONTRACTOR:**

Adenus Solutions Group, LLC  
a Tennessee Limited Liability Company

By: 

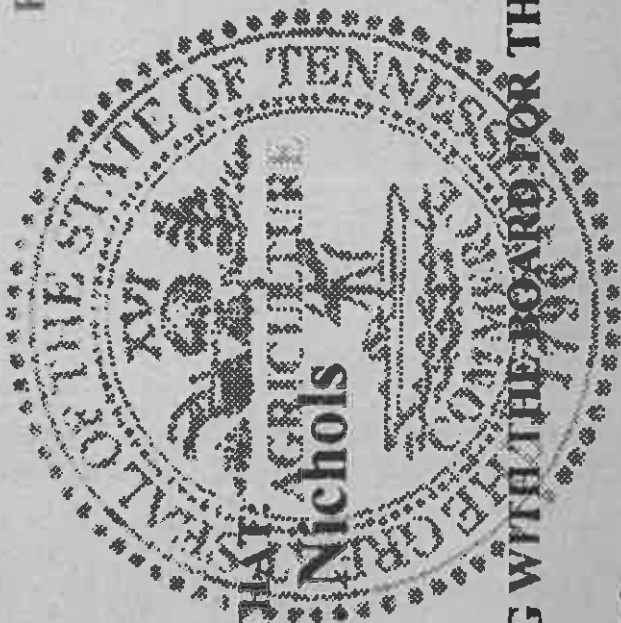
Name:

Title:

EXHIBIT 4

STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
WATER AND WASTEWATER OPERATOR CERTIFICATION BOARD

EXPIRATION DATE  
12/31/2022



I.D. NO.  
15046

THIS IS TO CERTIFY THAT  
Tracy A. Nichols

IS IN GOOD STANDING WITH THE BOARD FOR THE CLASSIFICATIONS  
LISTED:

BNS, CS2

WHEN CORRESPONDING ALWAYS REFER TO YOUR I.D. NUMBER  
AND SEND NOTIFICATION OF ADDRESS CHANGE



March 18, 2022

Mr. Brad Harris  
 TDEC - Division of Water Resources  
 William R. Snodgrass Tennessee Tower  
 312 Rosa L. Parks Avenue, 11<sup>th</sup> Floor  
 Nashville, TN 37243

RE: The Pointe STEP Sewer Collection System  
 Clay County, Tennessee

Dear Mr. Harris,

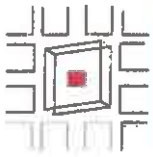
Please find enclosed the Application for State Operating Permit, utility commitment letter, engineering report, construction plans, technical specifications, soil study information, wastewater plans review worksheet, and a copy of the review fee check for The Pointe STEP Sewer Collection System in Clay County, Tennessee. The documents are being submitted in conformance with TDEC's submittal guidelines on behalf of DH Development, LLC to facilitate the review process for the permitting of the above referenced facility.

The Pointe will be developed in Clay County, TN on the east side of Dale Hollow Reservoir, approximately 2 miles east of Celina, TN. The Pointe is a residential community that has 433 buildable lots; of which 180 that will be served by a decentralized treatment facility.

The wastewater conveyance, treatment, and disposal system will be owned and maintained by Adenus. The treatment facility will include a recirculating sand filter, ultraviolet disinfection, and drip dispersal zones for wastewater dispersal. This project design flow is 54,000 GPD (0.054 MGD which is below 0.075 MGD. A \$2,000 submittal check is included for wastewater treatment systems less than 0.075 MGD design flow, based upon the following TDEC rate schedule.

- \$250 for Wastewater Plants: (Final Design Submission: Plans & Specifications)
- \$250 for Engineering Report Review
- \$1,500 for Collection Systems or Force Mains: (Final Design Submission). Based upon 27,105 LF of force main at \$25.00 per 250 feet (or portion thereof); not to exceed \$1500.
- Total Permit Application Fee = \$2,000

Page 1 of 2



**FARMER | MORGAN**

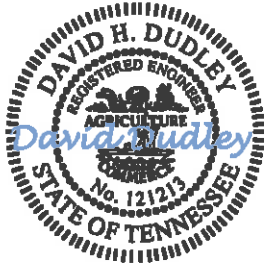
PLANNING DESIGN CONSTRUCTION

Nashville, TN | Pikeville, TN | Huntsville, AL

[www.farmarmorgan.com](http://www.farmarmorgan.com)

Please contact our office at 615.933.3857 if you have any questions.

Respectfully yours,



David Dudley, PMP, PE  
Farmer | Morgan, LLC  
PO Box 592  
Pikeville, TN 37367  
Office: 615.993.3857

CC: Jesse McDowell  
Senior Vice President  
Resource Land Holdings, LLC



Tennessee Department of Environment and Conservation  
Division of Water Resources  
William R. Snodgrass - Tennessee Tower  
312 Rosa L. Parks Avenue, 11th Floor  
Nashville, Tennessee 37243-1102  
(615) 532-0625

**APPLICATION FOR A STATE OPERATION PERMIT (SOP)**

Type of application: ☒ New Permit ☐ Permit Reissuance ☐ Permit Modification

**Permittee Identification:** (Name of city, town, industry, corporation, individual, etc., applying, according to the provisions of Tennessee Code Annotated Section 69-3-108 and Regulations of the Tennessee Water Quality Control Board.)

Permittee **Tennessee Wastewater Systems, Inc.**  
Name  
(applicant):

Permittee **849 Aviation Parkway, Smyrna, TN 37167**  
Address:

Official Contact: <b>Jeff Ridsen</b>	Title or Position: <b>CEO</b>		
Mailing Address: <b>849 Aviation Parkway</b>	City: <b>Smyrna</b>	State: <b>TN</b>	Zip: <b>37167</b>
Phone number(s): <b>615-220-7171</b>	E-mail: <b>jeff.ridsen@adenus.com</b>		

Optional Contact: <b>Matthew Nicks</b>	Title or Position: <b>Engineering Director</b>		
Address: <b>849 Aviation Parkway</b>	City: <b>Smyrna</b>	State: <b>TN</b>	Zip: <b>37167</b>
Phone number(s): <b>615-220-7166</b>	E-mail: <b>matthew.nicks@adenus.com</b>		

**Application Certification** (must be signed in accordance with the requirements of Rule 0400-40-05-.05)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted 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 for knowing violations. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury.

Name and title; print or type <b>Jeff Ridsen, CEO</b>	Signature	Date
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<b>Facility Identification:</b>		<b>Existing Permit No.</b>	
Facility Name: The Pointe Step Sewer Collection System		County: Clay	
Facility Address or Location: 3377 Swan Ridge Road Celina, TN 38551		Latitude: 36.53806 N	
		Longitude: 85.41833 W	
Name and distance to nearest receiving waters: N/A			
If any other State or Federal Water/Wastewater Permits have been obtained for this site, list their permit numbers: None			
Name of company or governmental entity that will operate the permitted system:		Tennessee Wastewater Systems, Inc.	
Operator address: 849 Aviation Parkway, Smyrna, TN 37167; 615-220-7166			
Has the owner/operator filed for a Certificate of Convenience & Necessity (CCN), or an amended CCN, with the Tennessee Regulatory Authority (TRA) (may be required for collection systems and land application treatment systems)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
If the applicant listed above does not yet own the facility/site or if the applicant will not be the operator, explain how and when the ownership will be transferred or describe the contractual arrangement and renewal terms of the contract for operations.			
<b>Complete the following information explaining the entity type, number of design units, and daily design wastewater flow:</b>			
<u>Entity Type</u>	<u>Number of Design Units</u>		<u>Flow (gpd)</u>
<input type="checkbox"/> City, town or county	No. of connections:		
<input checked="" type="checkbox"/> Subdivision	No. of homes: 180	Avg. No. bedrooms per home: 3	54,000
<input type="checkbox"/> School	No. of students:	Size of cafeteria(s): No. of showers:	
<input type="checkbox"/> Apartment	No. of units:	No. units with Washer/Dryer hookups: No. units without W/D hookups:	
<input type="checkbox"/> Commercial Business	No. of employees:	Type of business:	
<input type="checkbox"/> Industry	No. of employees:	Product(s) manufactured:	
<input type="checkbox"/> Resort	No. of units:		
<input type="checkbox"/> Camp	No. of hookups:		
<input type="checkbox"/> RV Park	No. of hookups:	No. of dump stations:	
<input type="checkbox"/> Car Wash	No. of bays:		
<input type="checkbox"/> Other			
Describe the type and frequency of activities that result in wastewater generation. Normal household usage			

# SOP APPLICATION – page 3

Permit Number: SOP-\_\_\_\_\_

<b>Engineering Report (required for collection systems and/or land application treatment systems):</b>		<input type="checkbox"/> N/A
<input checked="" type="checkbox"/> Prepared in accordance with Rule 1200-4-2-.03 and Section 1.2 of the Tennessee Design Criteria (see website for more information)		
<input checked="" type="checkbox"/> Attached, or		
<input type="checkbox"/> Previously submitted and entitled: _____		Approved? <input type="checkbox"/> Yes. Date: _____ <input type="checkbox"/> No
<b>Wastewater Collection System:</b>		<input type="checkbox"/> N/A
System type (i.e., gravity, low pressure, vacuum, combination, etc.): <b>Watertight effluent pressure collection system</b>		
<b>System Description: 2", 2.5" 3", and 4" diameter SDR 17 PVC pressure pipe and required fittings</b>		
Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.): <b>Each home has a minimum of 24-36 hours storage in the STEP tank. Heavy rains have a minimal impact on a watertight collection system. Generators can be used as necessary during an extended power outage.</b>		
In the event of a system failure describe means of operator notification: <b>All pumps have redundancy &amp; alarms.</b>		
List the emergency contact(s) (name/phone): <b>Matthew Nicks 615-220-7166, matthew.nicks@adenus</b>		
For low-pressure systems, who is responsible for maintenance of STEP/STEG tanks and pumps or grinder pumps (list all contact information)? <b>Tennessee Wastewater Systems, Inc. , 849 Aviation Parkway, Smyrna, TN 37167; 615-220-7166</b>		
Approximate length of sewer (excluding private service lateral): <b>27,105 LF</b>		
Number/hp of lift stations: _____ / _____		Number/hp of lift pumps _____ / _____
Number/volume of low pressure and or grinder pump tanks <b>Proposed 2-3000 gal Recirc Tank, 1-2000 gal Final Dose Tank</b> Number/volume septic tanks <b>180~1,500 STEP tanks</b>		
Attach a schematic of the collection system. <input checked="" type="checkbox"/> Attached _____		
If this is a satellite sewer and you are tying in to another sewer system complete the following section, listing tie-in points to the sewer system and their location (attach additional sheets as necessary):		
<u>Tie-in Point</u>	<u>Latitude (xx.xxxx°)</u>	<u>Longitude (xx.xxxx°)</u>
<b>None</b>		
<b>Land Application Treatment System:</b>		<input type="checkbox"/> N/A
Type of Land Application Treatment System: <input checked="" type="checkbox"/> Drip <input type="checkbox"/> Spray <input type="checkbox"/> Other, explain: _____		
Type of treatment facility preceding land application (recirculating media filters, lagoons, other, etc.): <b>Recirculating media filter</b>		
Attach a treatment schematic. <input checked="" type="checkbox"/> Attached _____		
Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.): <b>The existing septic tank and proposed STEP tanks are sized for peak daily flow storage for the purpose of power failures and equipment failures.</b>		
For New or Modified Projects: <b>The Pointe</b>		
Name of Developer for the project: <b>DE Development</b>		
Developer address and phone number: <b>1400 16th Street, Suite 320, Denver, CO 8020; 720.723.2850</b>		
For land application, list: <input checked="" type="checkbox"/> Proposed acreage involved: <b>13.59 acres total</b> <input checked="" type="checkbox"/> Inches/week and soil loading rate to be applied: <b>4.96 acres</b>		
required with additional <b>2.48</b> acres of reserve soils area, with loading rate of <b>0.25 gpd/sf.</b>		
Is wastewater disinfection proposed? _____		
<input checked="" type="checkbox"/> Yes Describe land application area access: <b>The Drip Field is adjacent to Bald Eagle Lane and the Reserve Area is adjacent to Swan Ridge Road.</b>		
<input type="checkbox"/> No Describe how access to the land application area will be restricted fence with access gates		



**Attach required additional Engineering Report Information (see website for more information)**

- ☒ Topographic map (1:25,000 scale presented at a six inch by six inch minimum size) showing the location of the project including quadrangle(s) name(s) GPS coordinates, and latitude and longitude in decimal degrees should also be included.
- ☒ Scaled layout of facility showing the following: lots, buildings, etc. being served, the wastewater collection system routes, the pretreatment system location, the proposed land application area(s), roads, property boundaries, and sensitive areas such as streams, lakes, springs, wells, wellhead protection areas, sinkholes and wetlands.
- ☒ Soils information for the proposed land disposal area in the form of a Water Pollution Control (WPC) Soils Map per Chapter 16 and 17 State of Tennessee Design Criteria for Sewage Work. The soils information should include soil depth (borings to a minimum of 4 feet or refusal) and soil profile description for each soil mapped.
- ☒ Topographic map of the area where the wastewater is to be land applied with no greater than 10 foot contours presented at a minimum size of 11 inches by 17 inches.
- ☒ Describe alternative application methods based on the following priority rating: (1) connection to a municipal/public sewer system, (2) connection to a conventional subsurface disposal system as regulated by the Division of Groundwater Protection, and/or (3) land application.

**For Drip Dispersal Systems Only:** Unless otherwise determined by the Department, sewage treatment effluent wells, i.e., large capacity treatment/drip dispersal systems after approval of the SOP Application, will be issued an UIC tracking number and will be authorized as Permit by Rule per UIC Rule 1200-4-6-.14(2) and upon issue of a State Operating Permit and Sewage System Construction Approval by the Department. Describe the following:

The area of review (AOR) for each Drip Dispersal System shall, unless otherwise specified by the Department, consist of the area lying within a one mile radius or an area defined by using calculations under 1200-4-6-.09 of the Drip Dispersal System site or facility, and shall include, but not be limited to general surface geographic features, general subsurface geology, and general demographic and cultural features within the area. Attach to this part of the application a general characterization of the AOR, including the following: (This can be in narrative form) [see Chapter 15](#)

- ☒ A general description of all past and present groundwater uses as well as the general groundwater flow direction and general water quality. [See Section 01.1](#)
- ☒ A general description of the population and cultural development within the AOR, i.e. ☒ agricultural, ☐ commercial, ☐ residential or ☐ mixed. [See Section 01.2](#)
- ☒ Nature of injected fluid to include physical, chemical, biological or radiological characteristics. [See Section 01.3](#)
- ☐ If groundwater is used for drinking water within the area of review, then identify and locate on a topographic map all groundwater withdrawal points within the AOR, which supply public or private drinking water systems. Or supply map showing general location of publicly supplied water for the area (this can be obtained from the water provider)
- ☐ If the proposed system is located within a wellhead protection area or source water protection area designated by Rule 1200-5-1-.34, show the boundary of the protection area on the facility site plan.
- ☒ Description of system. Volume of injected fluid in gallons per day based upon design flow, including any monitoring wells. [Chapter 7](#)
- ☒ Nature and type of system, including installed dimensions of wells and construction materials. [Chapter 5](#)

**Pump and Haul:**☒ N/A

Reason system cannot be served by public sewer:

Distance to the nearest manhole where public sewer service is available:

When sewer service will be available:

Volume of holding tank: \_\_\_\_\_ gal.

Tennessee licensed septage hauler (attach copy of agreement):

Facility accepting the septage (attach copy of acceptance letter):

Latitude and Longitude (in decimal degrees) of approved manhole for discharge of septage:

Describe methods to prevent and respond to any bypass of treatment or discharges (i.e., power failures, equipment failures, heavy rains, etc.):

**Holding Ponds (for non-domestic wastewater only):**☒ N/APond use: ☐ Recirculation ☐ Sedimentation ☐ Cooling ☐ Other (describe):

Describe pond use and operation:

Permit Number: SOP-\_\_\_\_\_

If the pond(s) are existing pond(s), what was the previous use?

Have you prepared a plan to dispose of rainfall in excess of evaporation? ☐ Yes ☐ No

If so, describe disposal plan:

Is the pond ever dewatered? ☐ Yes ☐ No

If so, describe the purpose for dewatering and procedures for disposal of wastewater and/or sludge:

Is(are) the pond(s) aerated? ☐ Yes ☐ No

Volume of pond(s): \_\_\_\_\_ gal.

Dimensions: \_\_\_\_\_

Is the pond lined (Note if this is a new pond system it must be lined for SOP coverage. Otherwise, you must apply for an Underground Injection Control permit)?

☐ Yes ☐ No

Describe the liner material (if soil liner is used give the compaction specifications):

Is there an emergency overflow structure? ☐ Yes ☐ No

If so, provide a design drawing of structure.

Are monitoring wells or lysimeters installed near or around the pond(s)? ☐ Yes ☐ No

If so, provide location information and describe monitoring protocols (attach additional sheets as necessary):

**Attach required additional information**☐ Topographic map (1:24,000 scale presented at a six inch by six inch minimum size) showing the location of the project including GPS coordinates, latitude and longitude in decimal degrees quadrangle name should also be included.☐ Scaled layout of facility showing the following: kys, buildings, etc. being served, the wastewater collection system routes, the pretreatment system location, roads, property boundaries, and sensitive areas such as streams, lakes, springs, wells, wellhead protection areas, sinkholes and wetlands.

The area of review (AOR) for each holding pond shall, unless otherwise specified by the Department, consist of the area lying within and below a one mile radius of the holding pond site or facility, and shall include, but not be limited to surface geographic features, subsurface geology, and demographic and cultural features within the area. Attach to this part of the application a complete characterization of the AOR, including the following: (This can be in narrative form)

☐ Description of all past and present uses of groundwater within the AOR, as documented by public record.☐ Description of the groundwater hydrology within the AOR, including characteristics of all subsurface aquifers, presence or absence of solution development features, general direction of groundwater movement, and chemical characteristics of the ground waters in the AOR..☐ Description of the population and cultural development within the AOR, including the number of persons living within one mile of the well or facility, land uses within the AOR, and the existence of any community, state, regional or national parks, wildlife refuges, natural or wilderness areas, recreational or other public-use areas, or any other environmentally sensitive features within the area of review.☐ If groundwater is used for drinking water within the area of review, then identify and locate on a topographic map all groundwater withdrawal points within the AOR, which supply public or private drinking water systems..☐ Identify any surface water intake, which supplies a public water distribution system and is located within the AOR or within three miles topographically down gradient from the well or facility. If any such intake(s) wells or springs exist, then locate on map

Permit Number: SOP-\_\_\_\_\_

<b>Mobile Wash Operations:</b>		<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Individual Operator <span style="float: right;"><input type="checkbox"/> Fleet Operation Operator</span>		
<b>Indicate the type of equipment, vehicle, or structure to be washed during normal operations (check all that apply):</b>		
<input type="checkbox"/> Cars	<input type="checkbox"/> Parking Lot(s):          sq. ft.	
<input type="checkbox"/> Trucks	<input type="checkbox"/> Windows:          sq. ft.	
<input type="checkbox"/> Trailers (Interior washing of dump-trailers, or tanks, is prohibited.)	<input type="checkbox"/> Structures (describe):	
<input type="checkbox"/> Other (describe):		
<b>Wash operations take place at (check all that apply):</b>		
<input type="checkbox"/> Car sales lot(s)	<input type="checkbox"/> Public parking lot(s)	
<input type="checkbox"/> Private industry lot(s)	<input type="checkbox"/> Private property(ies)	
<input type="checkbox"/> County(ies), list:	<input type="checkbox"/> Statewide	
<b>Wash equipment description:</b>		
<input type="checkbox"/> Truck mounted	<input type="checkbox"/> Trailer mounted	
<input type="checkbox"/> Rinse tank size(s) (gal.):	<input type="checkbox"/> Mixed tanks size(s) (gal.):	
<input type="checkbox"/> Collection tank size(s) (gal.):	Number of tanks per vehicle:	
Pressure washer:          psi (rated)          gpm (rated)	Pressure washer: <input type="checkbox"/> gas powered <input type="checkbox"/> electric	
Vacuum system manufacturer/model:	Vacuum system capacity:          inches Hg	
Describe any other method or system used to contain and collect wastewater:		
List the public sewer system where you are permitted or have written permission to discharge waste wash water (include a copy of the permit or permission letter):		
Are chemicals pre-mixed, prior to arriving at wash location? <input type="checkbox"/> Yes <input type="checkbox"/> No		
<b>Describe all soaps, detergents, or other chemicals used in the wash operation (attach additional sheets as necessary):</b>		
Chemical name:	Manufacturer:	Primary CAS No. or Product No.

### **0.1.1 Groundwater General Description**

The USGS maps indicate the Pointe wastewater treatment area drainage flow path is to the west and north towards Dale Hollow Reservoir. The Pointe development is comprised of approximately 638 acres. The topography is mainly gently rolling to rolling slopes of 5 -15%. The property is bordered by Dale Hollow Reservoir to the north, to the west, east and south by private property by others. Roughly 15% of the site is wooded.

The Pointe development property was previously woodland with some areas cleared for pastureland. Groundwater was used historically to provide water to residents in the region. At this time the area is served by the Northwest Clay Utility District.

It is assumed that the groundwater movement and surface flows are to the west, east, and north towards Dale Hollow Reservoir.

#### **Following is summary of post development conditions:**

- \* Number of Lots Served: 180**
- \* Design Flow/Lot: 300 GPD**
- \* Total Design Flow: 54,000 GPD**
- \* Land Application Loading Rate: 0.25 GPD/S.F.**
- \* Land Application Area Required: 4.96 Acres**
- \* Land Drip Disposal Reserve Area: 2.48 Acres (50%)**
- \* Total Land Application Area Required: 7.44 Acres**
- \* Total Land Application Area Provided: 13.59 Acres**
- \* Total Land Application Area Available After Setbacks, Slope**
- \* Corrections, & Unsuitable Soils: 8.8 Acres**
- \* Drip Line Spacing: 5'**

Note the following USGS information maps and soil maps in Chapter 19 of this engineering report.



MAP NUMBER  
470BTC01.00E  
EFFECTIVE DATE  
September 28, 2010



# National Flood Hazard Layer FIRMette



85°15'3"W 36°12'35"N



## Legend

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

### SPECIAL FLOOD HAZARD AREAS



### OTHER AREAS OF FLOOD HAZARD



### OTHER AREAS



### GENERAL STRUCTURES



### OTHER FEATURES



### MAP PANELS



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 3/27/2022 at 9:00 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.

## **01.2 Population General Description**

Previously, the majority of the Area of Review was woodland with some locations cleared primarily for pasture and is out on a large peninsula of Dale Hollow Reservoir. The majority of the area has been cleared for the Pointe development and now contains roadways, some utilities, and several homes. Note maps and aerial photos within this report

## **01.3 Nature of Fluid**

A total of 180 residential lots out of the 433 residential lots within The Pointe development will be connected the STEP sewer system and have a peak design discharge of approximately 54,000 gpd of domestic wastewater. The effluent quality is typical domestic residential treated wastewater that meets State Operating Permit limits.

## **01.4 Publicly Supplied Water**

The Pointe development is provided municipal public water serviced by the Northwest Clay Utility District.



**Jeff Ridsen**

---

**From:** bryan.pope@tn.gov  
**Sent:** Thursday, June 2, 2022 9:05 AM  
**To:** Jeff Ridsen  
**Cc:** bryan.pope@tn.gov  
**Subject:** TDEC-DWR - Notice of Complete Permit Application

\*\*\* This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\*

State of Tennessee  
Department of Environment and Conservation Division of Water Resources

---

Permit Number      SOP-19023  
Permittee Name      Tennessee Wastewater Systems Inc.  
Project Name      The Pointe

---

The Division of Water Resources (the division) acknowledges the receipt of a permit application in our office on 23-MAR-22.

Rules of the Tennessee Department of Environment and Conservation, Division of Water Resources, Chapter 0400-40-5-.05 (2): Permit Application, Issuance, state, in part: "The applicant will be provided notice of completeness of the application and re-submitted material within 30 days of a determination that such material constitutes a complete application. This provision does not preclude the commissioner from later requesting additional material that subsequent to the notice of completeness is determined to be necessary for permit processing."

Your application was deemed complete on 02-JUN-22.

Details regarding this permit application and associated documents can be viewed at:  
[https://dataviewers.tdec.tn.gov/pls/enf\\_reports/f?p=9034:34051:::34051:P34051\\_PERMIT\\_NUMBER:SOP-19023](https://dataviewers.tdec.tn.gov/pls/enf_reports/f?p=9034:34051:::34051:P34051_PERMIT_NUMBER:SOP-19023)

If you have questions, please contact Bryan Pope at 931-224-3098 or by E-mail at [bryan.pope@tn.gov](mailto:bryan.pope@tn.gov).

Thank you for helping us protect Tennessee waters.

---

We accept and encourage electronic document submittals via [Water.Permits@tn.gov](mailto:Water.Permits@tn.gov)

Please tell us how you think we're doing by completing TDEC Customer Satisfaction Survey at:  
<https://www.surveymonkey.com/r/TDECSurvey>

EXHIBIT 5C

DH DEVELOPMENT, LLC.

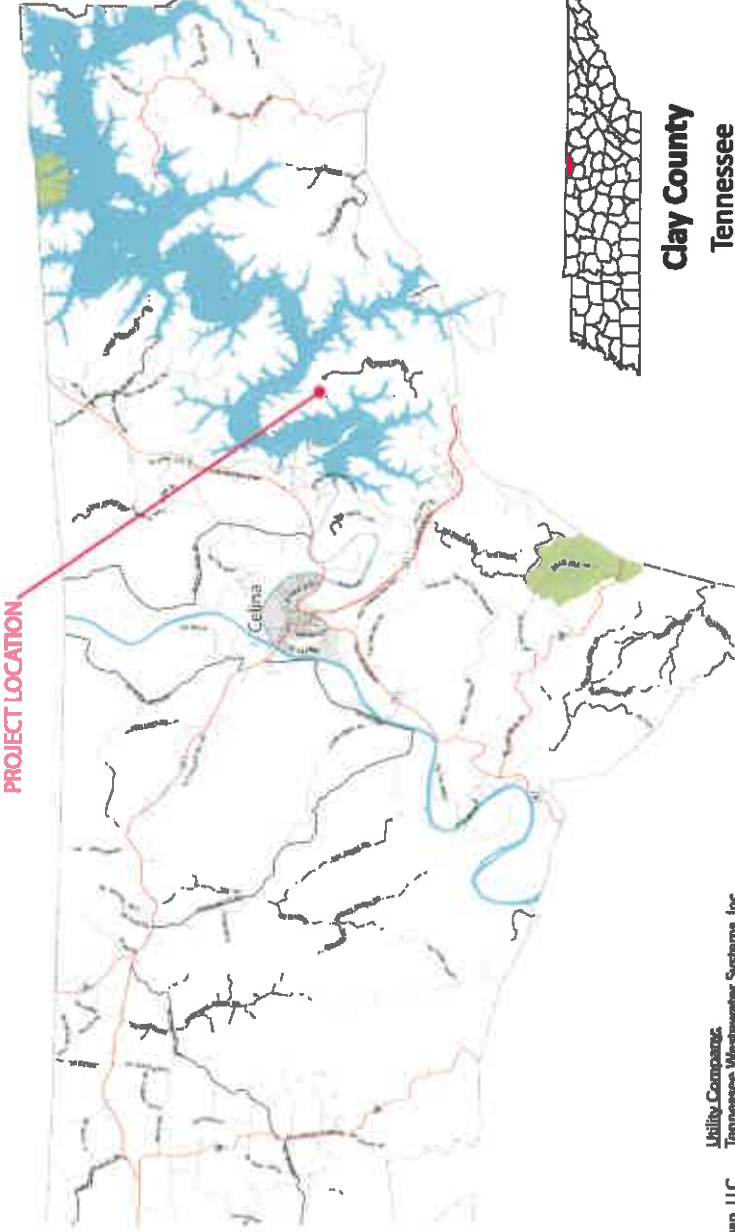
THE POINTE

WASTEWATER TREATMENT STEP SEWER SYSTEM,  
COLLECTION AND DRIP DISPERSAL PLANS  
CLAY COUNTY, TN

TN.	Locally Monitored Project Locally Led Project	Year	2022
FM Project #	2041101		



PROJECT LOCATION



Clay County  
Tennessee

**DESIGN DATA**  
Number of Lots Served: 180  
Design Flow/Lot: 300 GPD  
Total Design Flow: 54,000 GPD  
Land Application Loading Rate: 0.25 GPD/S.F.  
Land Application Area Required: 4.96 Acres  
Adrius Required Reserve Area: 2.48 Acres (50%)  
Total Land Application Area Required: 7.44 Acres  
Total Land Application Area Available: 13.59 Acres  
Total Land Application Area Available After Setbacks, Slope  
Corrections, & Unsuitable Soils: 8.8 Acres  
Drip Line Spacing: 5' O.C.  
SOP: \_\_\_\_\_

**Index of Sheets**

Description	Sheet No.
Title Sheet	1.1-1.7
Sewer Collection Plan:	2.1
Recirculating Media Site Plan:	3.1
Drip Irrigation Site Plan:	4.1-4.8
Details:	

**CONTACTS**

**Engineer:**  
Farmer | Morgan, LLC  
441 Spring St.  
Pikeville, TN 37367  
(615)-761-9002  
Benjamin Farmer

**Utility Company:**  
Tennessee Wastewater Systems, Inc.  
849 Aviation Parkway  
Smyrna, TN 37167  
(888)-423-3687  
Matt Nickels

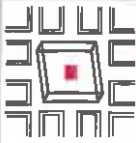


**FARMER | MORGAN**  
DESIGN CONSTRUCTION



SCALE: 1" = 1 MILE

Local Official



FARMER | MORGAN  
PLANNING & DESIGN  
1000 N. W. 10th Ave., Suite 100  
Fort Lauderdale, FL 33304  
Phone: (954) 575-1000  
Fax: (954) 575-1001  
www.farmermorgan.com

# THE POINTE STEP SEWER COLLECTION SYSTEM CLAY COUNTY, TENNESSEE

Design Plans

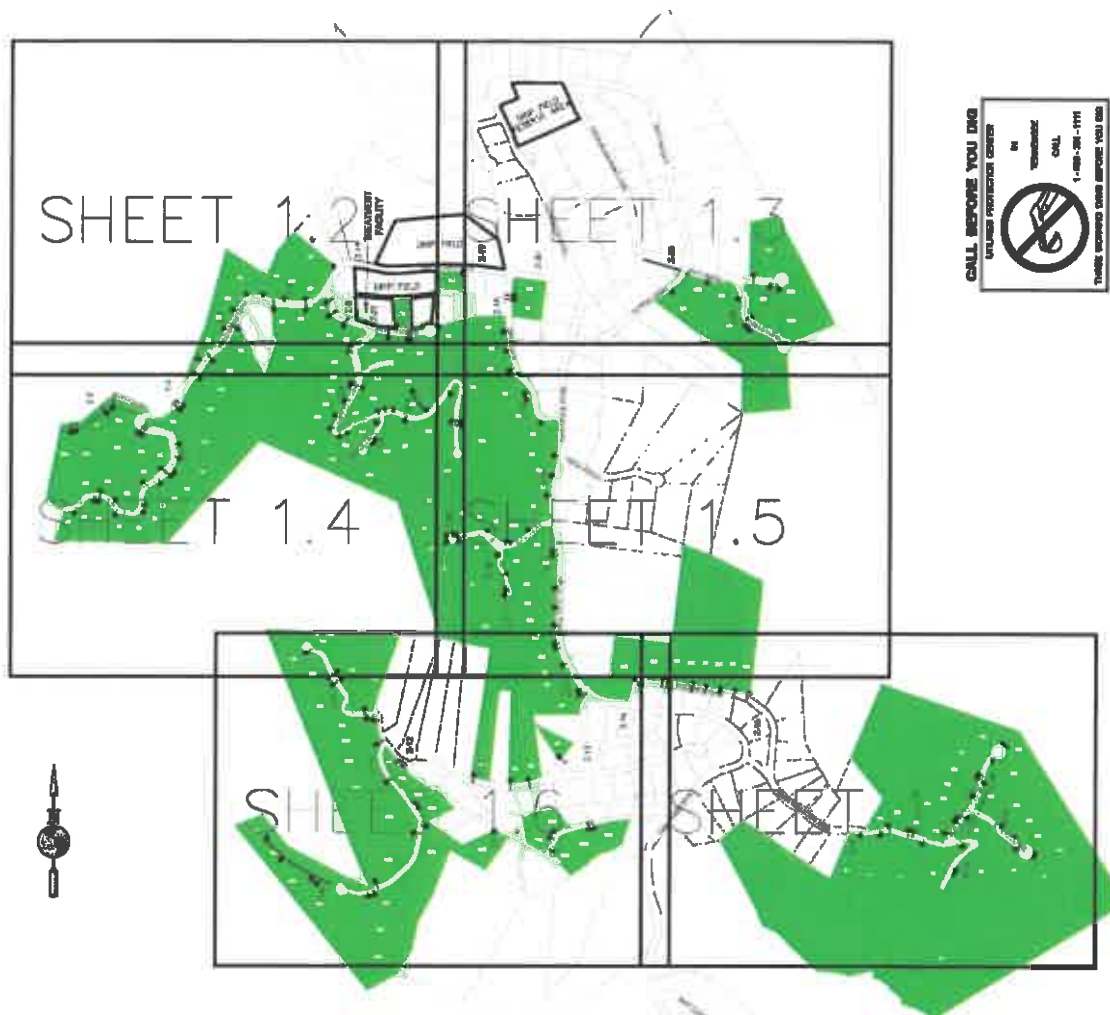
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Drawn By: J.L. DO  
Project: PML 2024101  
City: CC

Revised:  
Project:

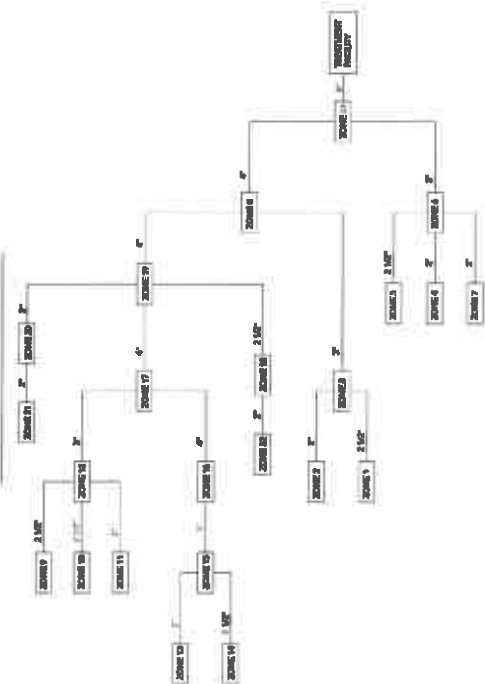
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Sheet: 1.1

PLANNED LAYOUT

# 1.1



COLLECTION / FORCE MAIN SCHEMATIC



SEWER COLLECTION ZONE INDEX

ZONE	SEWER COLLECTION ZONE INDEX
ZONE 1	1.1
ZONE 2	1.2
ZONE 3	1.3
ZONE 4	1.4
ZONE 5	1.5
ZONE 6	1.6
ZONE 7	1.7
ZONE 8	1.8
ZONE 9	1.9
ZONE 10	1.10
ZONE 11	1.11
ZONE 12	1.12
ZONE 13	1.13
ZONE 14	1.14
ZONE 15	1.15
ZONE 16	1.16
ZONE 17	1.17

• LEFT TO BE DETERMINED BY STATE ENGINEER

[illegible]

**CALL BEFORE YOU DIE**

1-800-451-1011  
TOLL FREE  
TOLL FREE  
TOLL FREE

THE POLYMERIZATION OF VINYL MONOMERS

NOTE: ALL BIDDING FORMS MUST BE FILL IN  
BLACK INK. A 14" x 10" INCH ENVELOPE OF  
CARD STOCK, COVER AND BACK, WITH 6" x 2" PLY  
STAPLES FOR LABEL SECURES. SEE  
DETAILS AND TECHNICAL SPECIFICATIONS  
FOR CONSTRUCTION REGULATION  
STRUCTURE.

THE POINTE  
STEP SEWER COLLECTION SYSTEM  
CLAY COUNTY, TENNESSEE

## THE POINT

03/18/2022 10:00 PM (1)

0 25 50 100  
SCALE: 1"=50'-0"  
PLANNED LAYOUT

1.2



FARMER | MORGAN









**FARMER | MORGAN**  
1001 E. 10th St., Suite 100  
Tomball, TX 77375  
Tel: 281.350.0000  
Fax: 281.350.0001  
www.farmermorgan.com

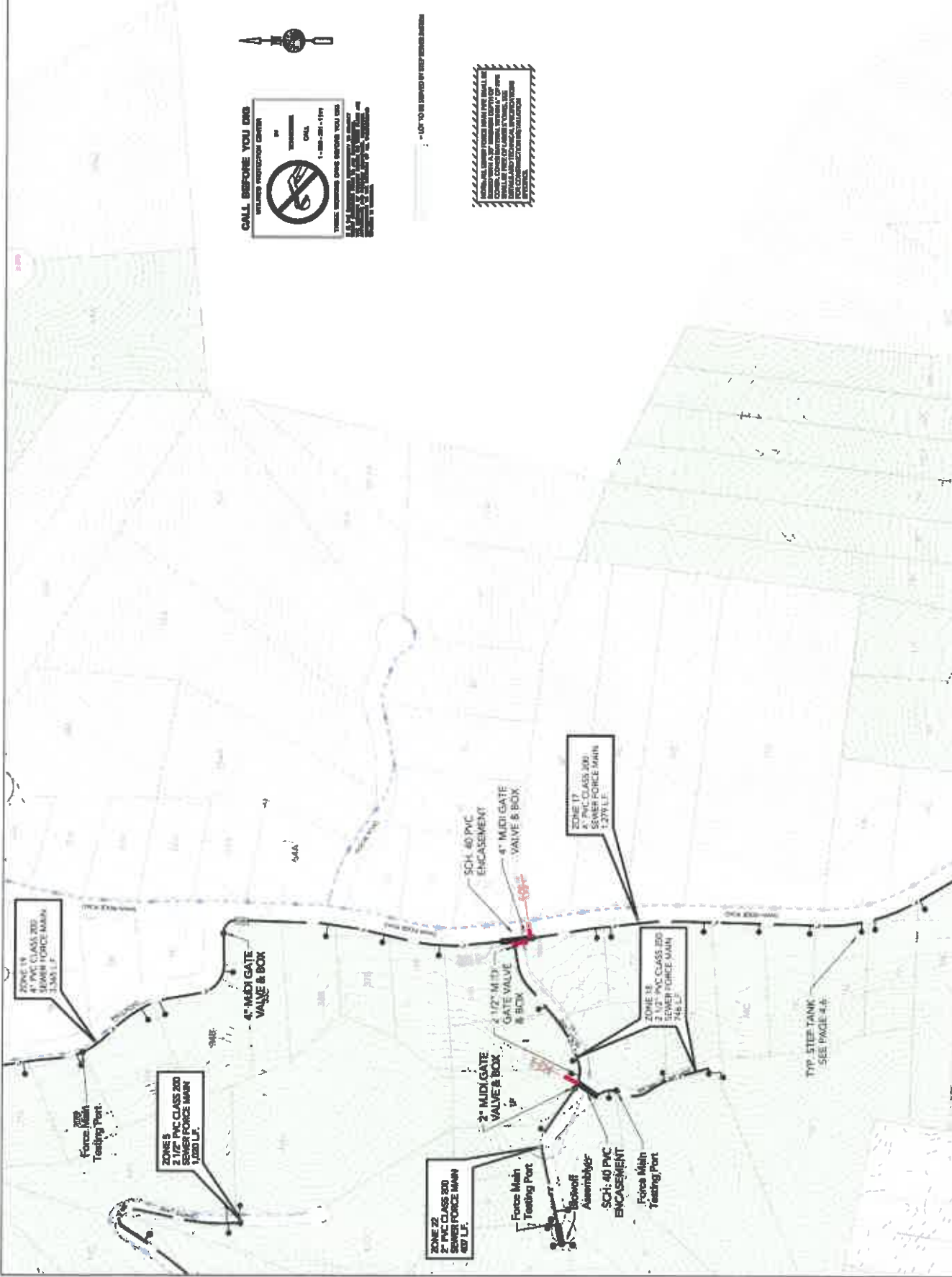
# THE POINTE STEP SEWER COLLECTION SYSTEM CLAY COUNTY, TENNESSEE

Design Plans

Date: 02/18/2022  
Drawn by: J.C. DO  
Project: PM: 204101  
Sheet: 11

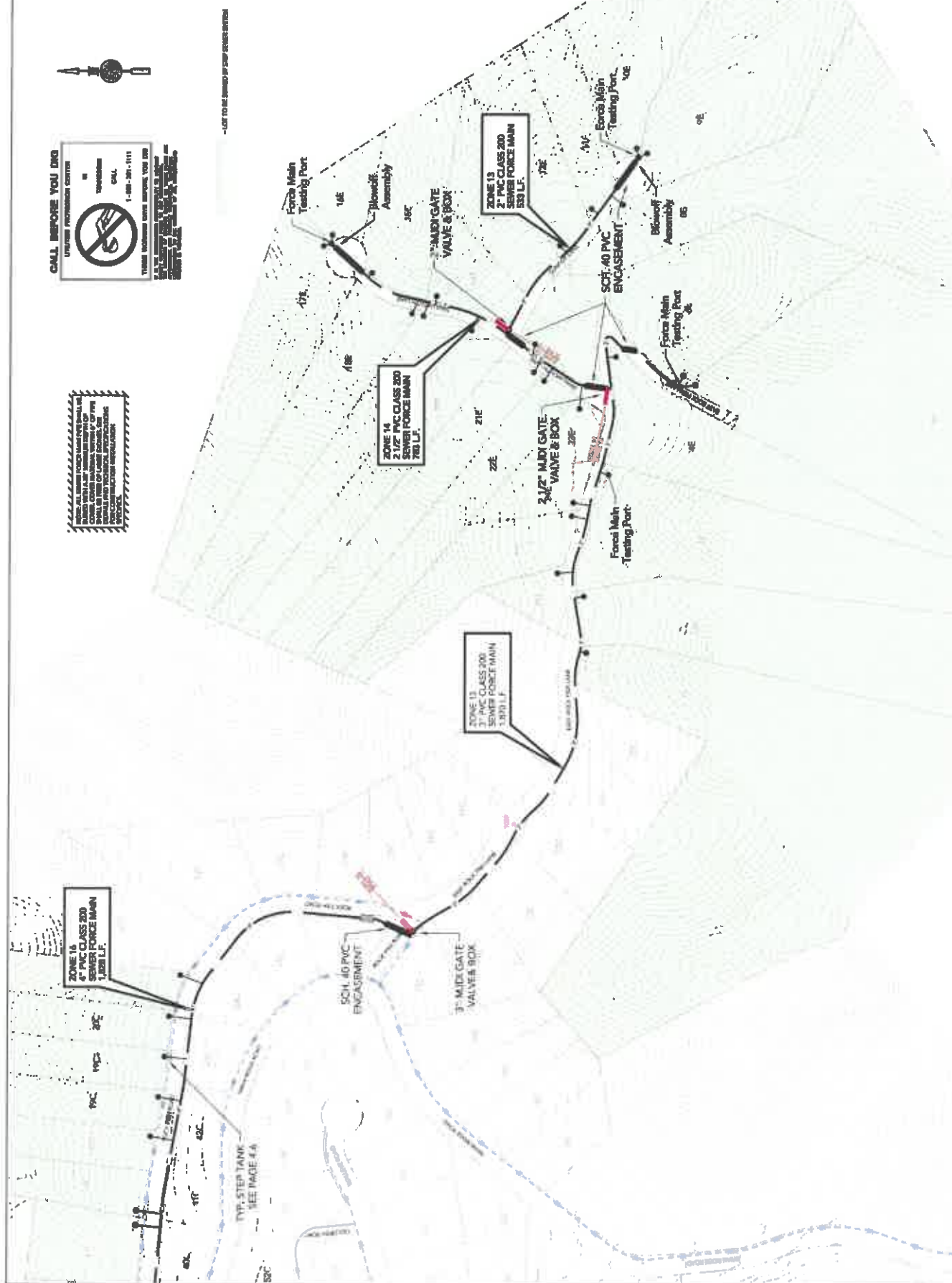
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Planned Layout

## 1.5











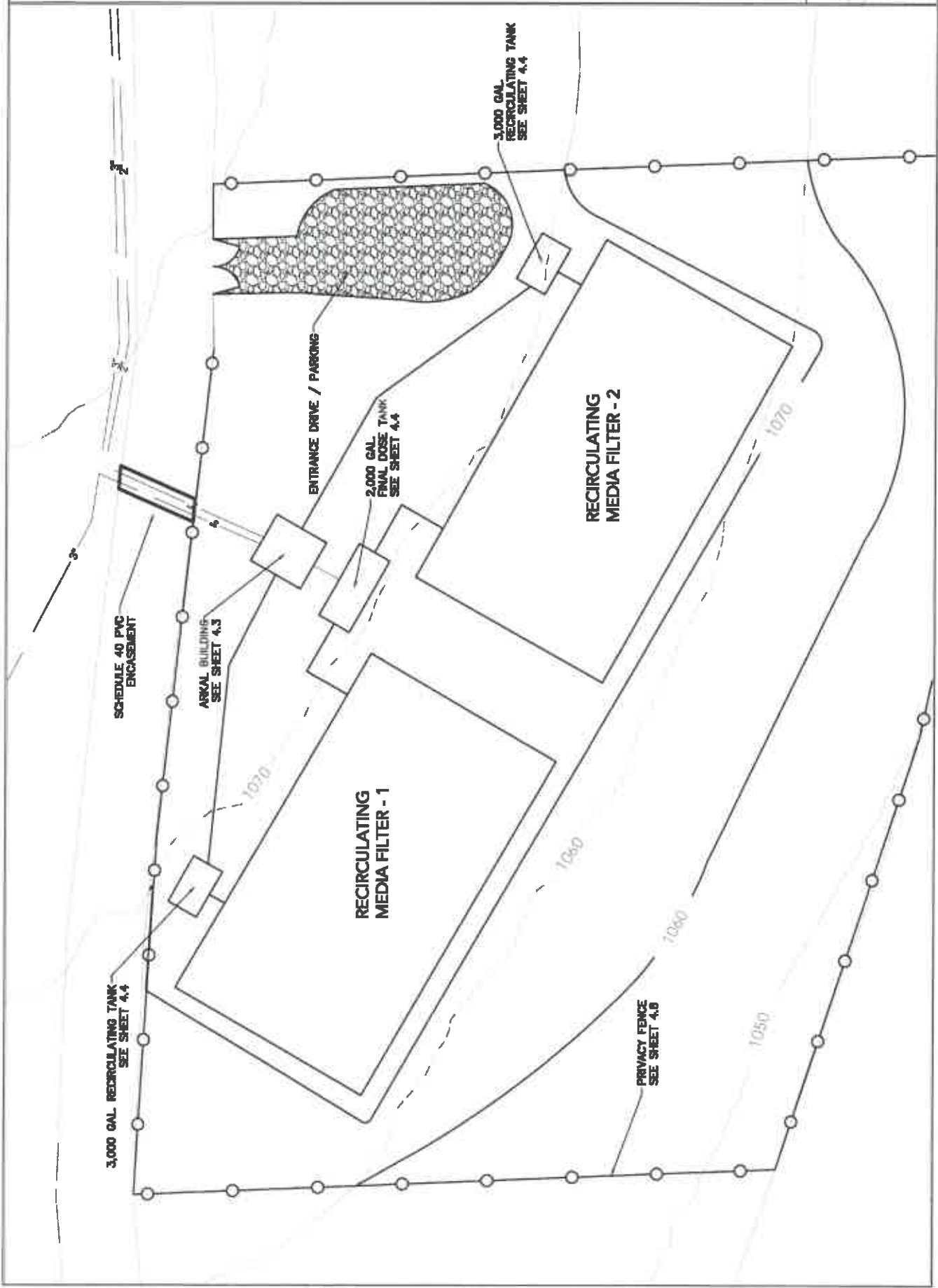
**FARMET | MICROGAN**  
P.L.L.C.  
1000 N. 10th St., Suite 100  
Tomball, TX 77375  
Tel: 281.350.1000  
Fax: 281.350.1001  
www.farmetmicrogan.com

**THE POINTE**  
**STEP SEWER COLLECTION SYSTEM**  
CLAY COUNTY, TENNESSEE

Date: 03/19/2022  
Drawn By: K.S.D.  
Project: P# 204101  
Revision: (1)

Scale: N.T.S.  
TREATMENT FACILITY

**2.1**



# 3.1

DSP INVESTIGATION

SCALE: 1" = 40' - 0"

Date: 02/16/2022

Drawn By: R.L.D.

Project: PAB 2024101

Revised: 02/16/2022

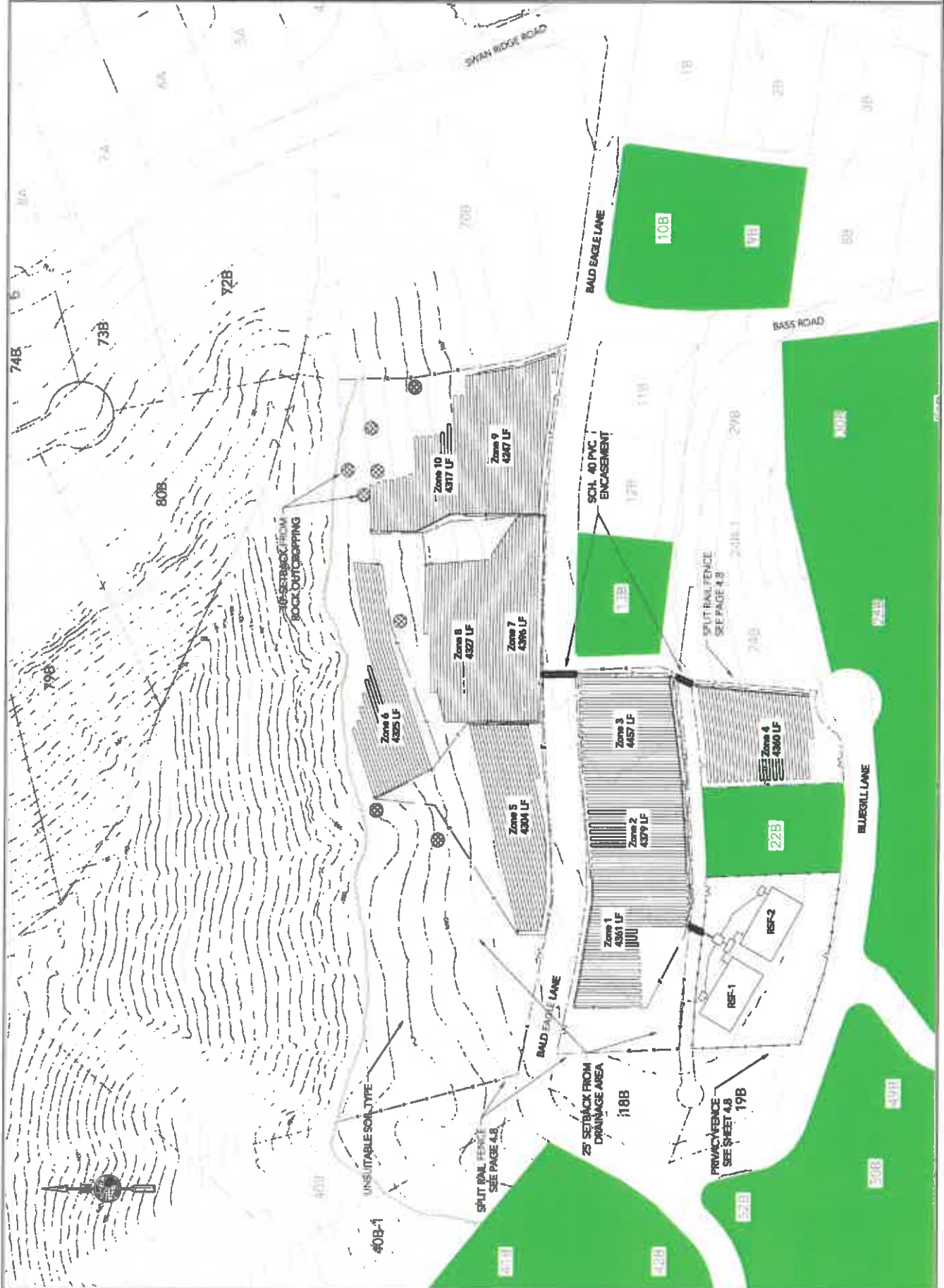
## THE POINTE STEP SEWER COLLECTION SYSTEM

CLAY COUNTY, TENNESSEE

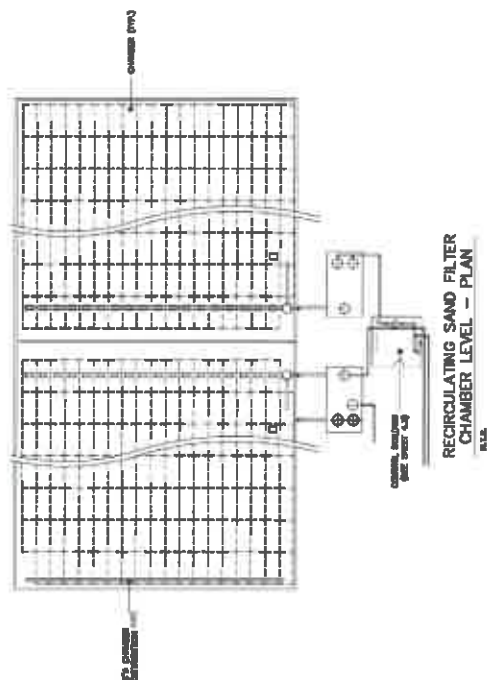
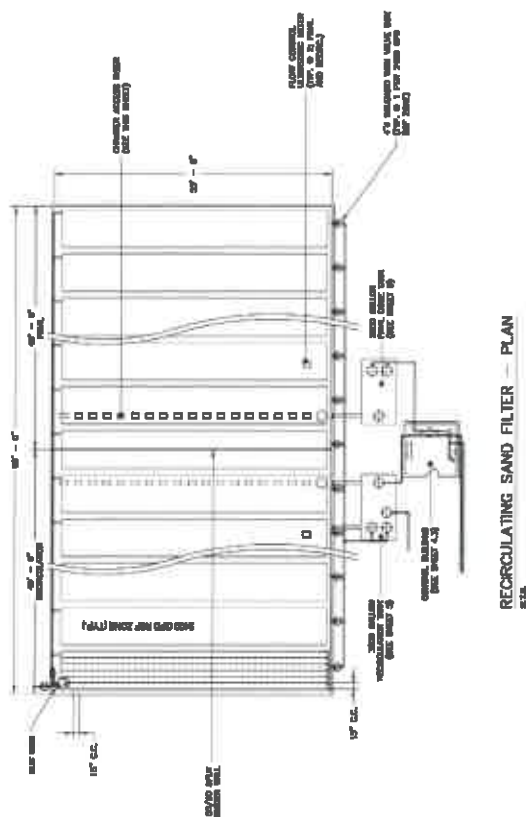
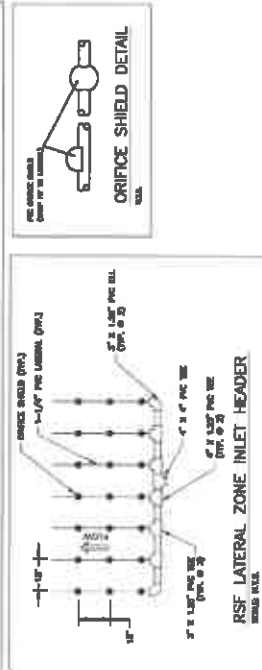
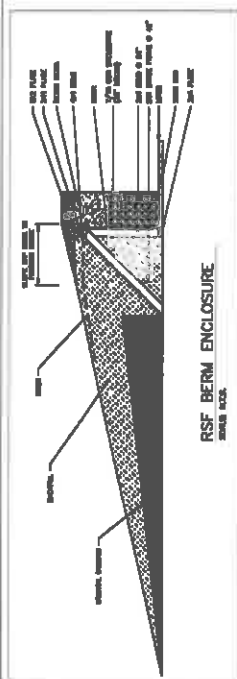
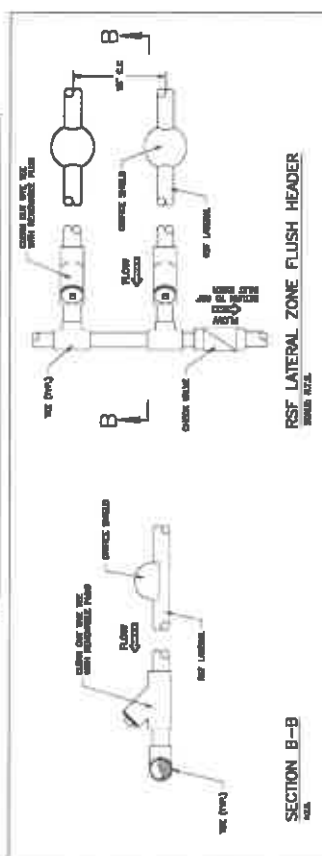
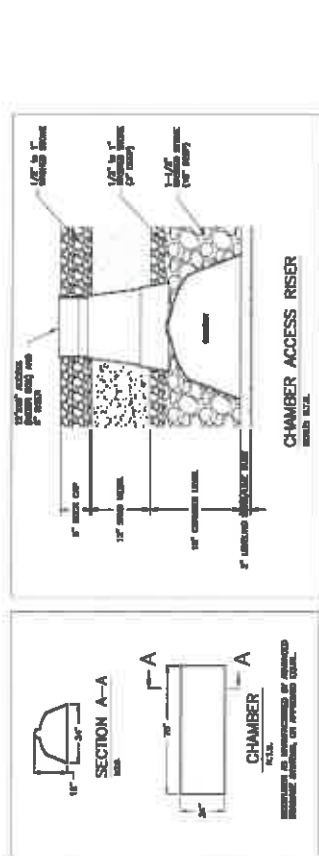
Design Plans

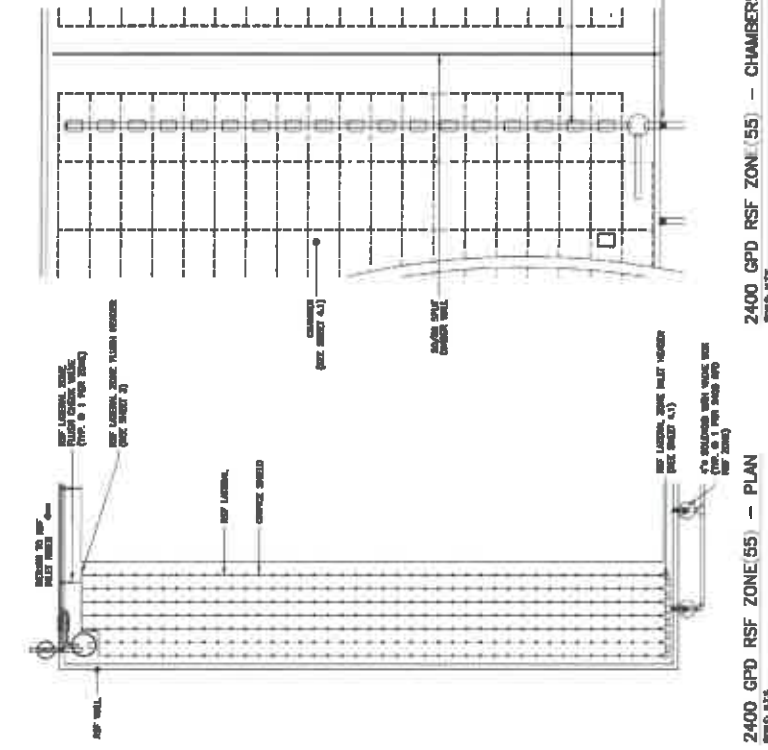
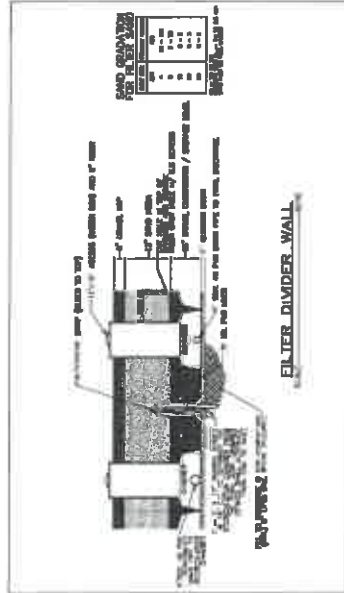
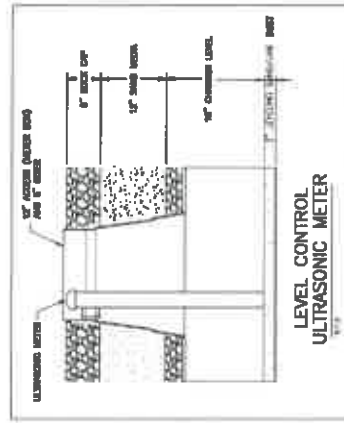
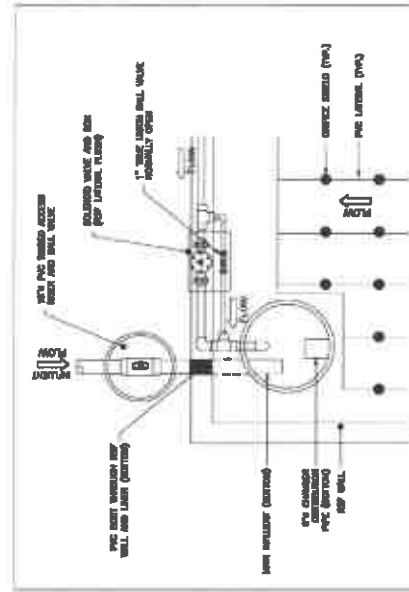
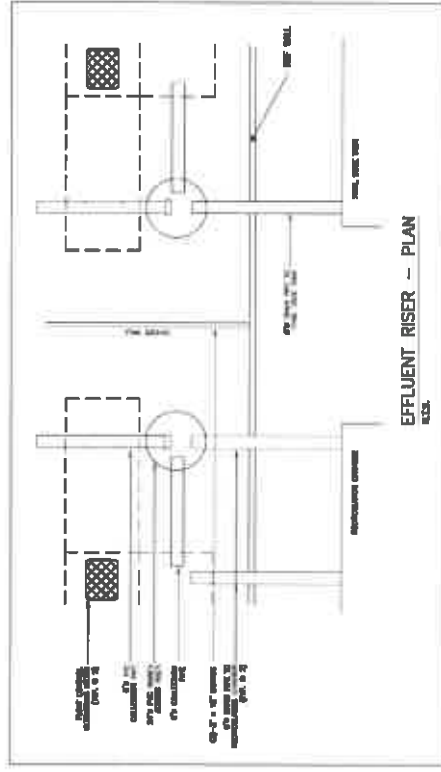


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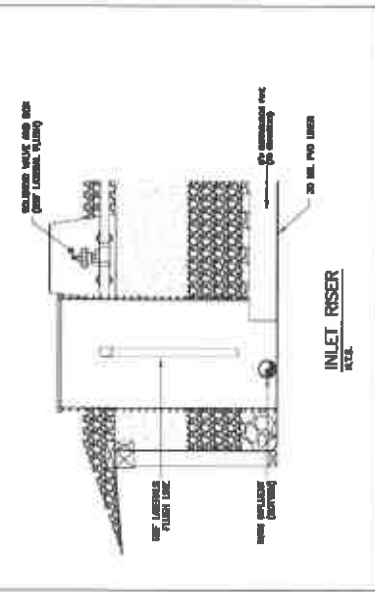






2400 GPD RSF ZONE (55) - CHAMBERS  
SOUTH MTS.INLET RISER - PLAN  
SCALE: 1/4" = 1'-0"

EFFLUENT RISER - PLAN

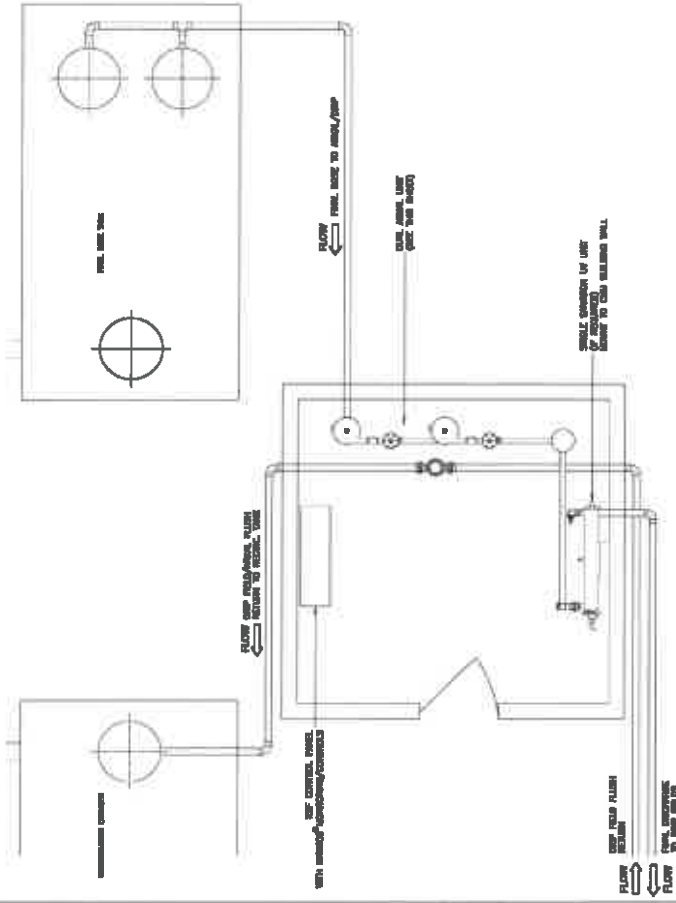
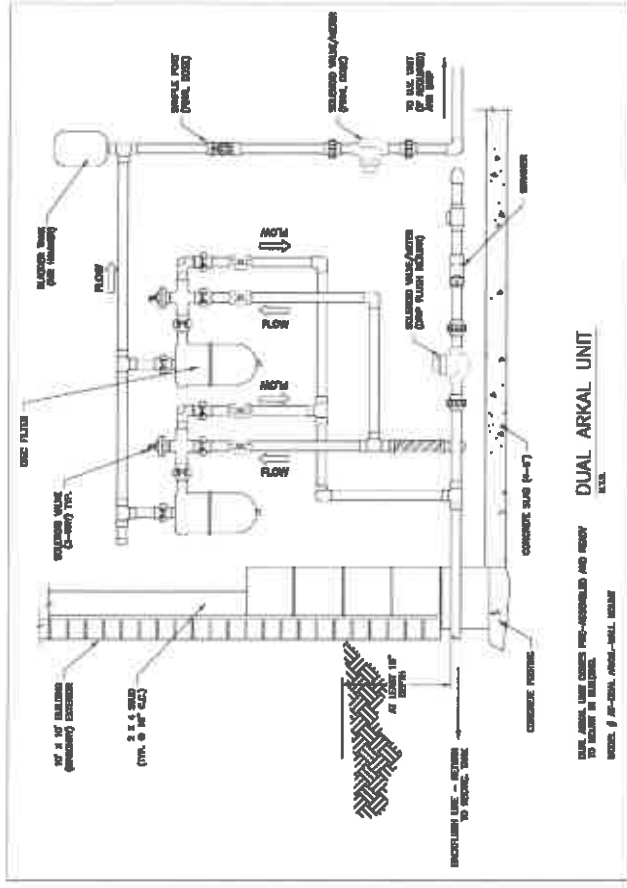


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 Drawn By: K.L.D.D.  
 Project: PMA 2046101  
 Revision:

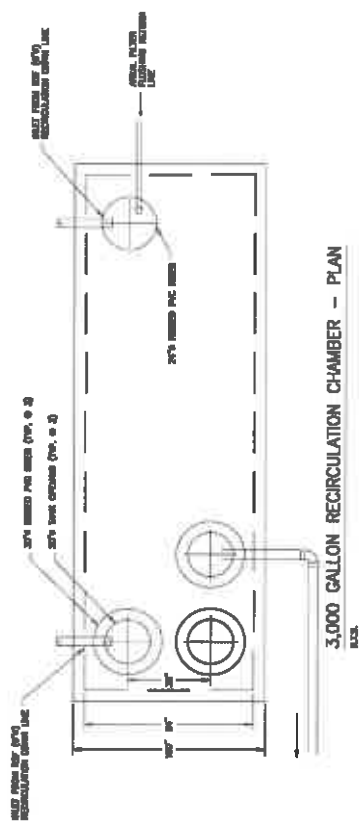
## THE POINTE STEP SEWER COLLECTION SYSTEM CLAY COUNTY, TENNESSEE

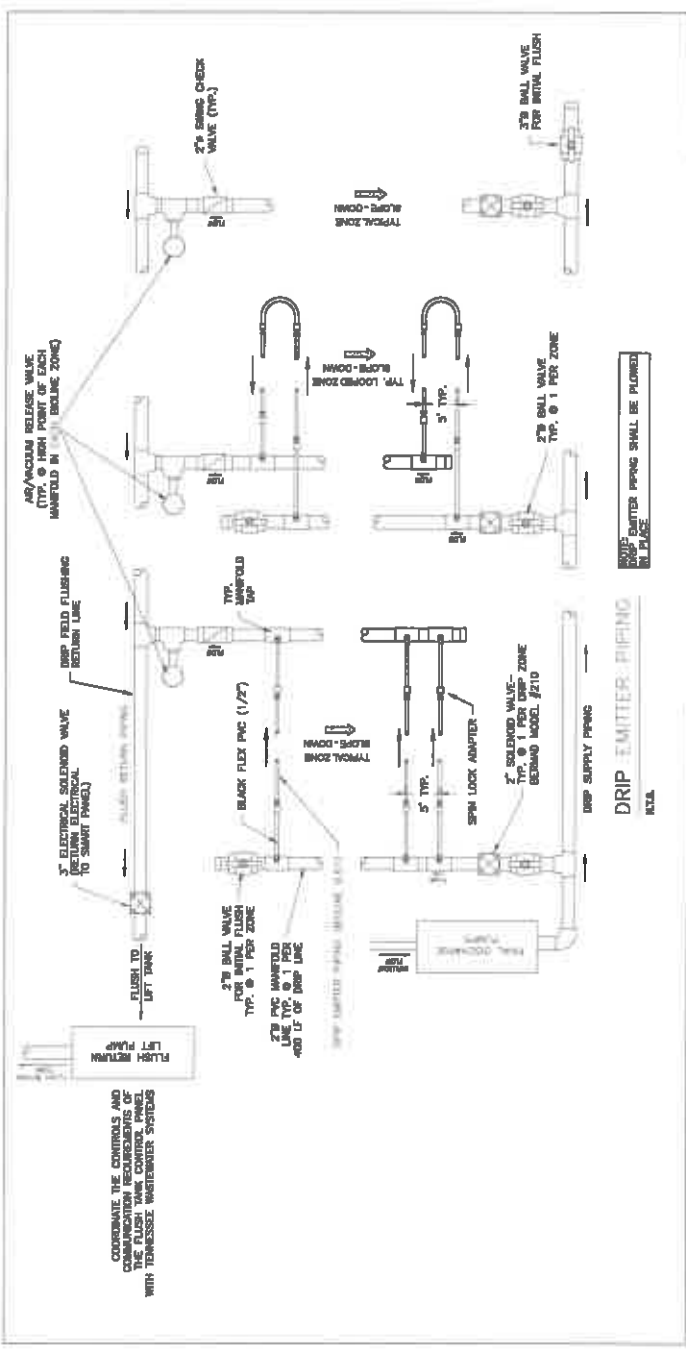
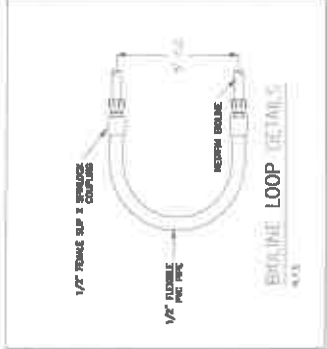
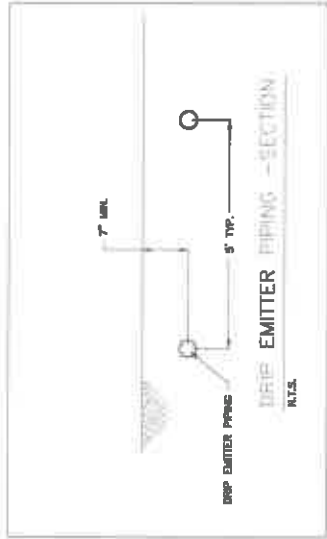
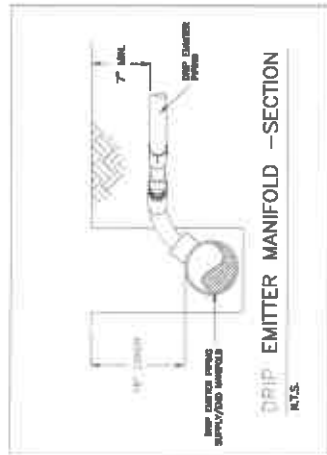
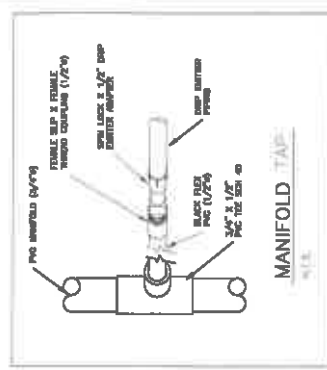
Design Plans

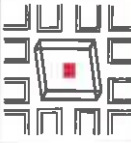
FARMER | MORGAN











FARMER | MORGAN  
DESIGN PLANS  
P.O. BOX 1000  
CLAY COUNTY, TENNESSEE 37033

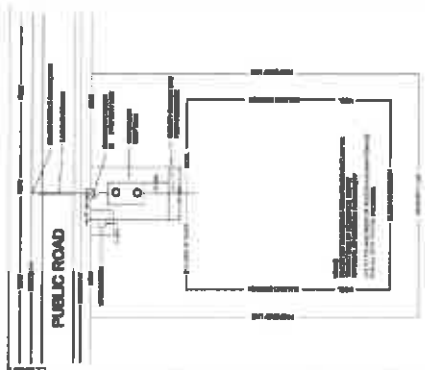
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# THE POINTE STEP SEWER COLLECTION SYSTEM CLAY COUNTY, TENNESSEE

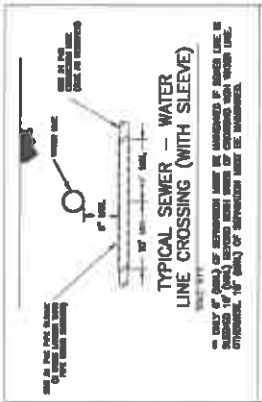
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Drawn By: RLD  
Project: PM: 20-101  
Revised: (1)

SCALE: N.E.L.  
DETAILS

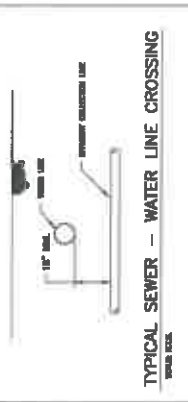
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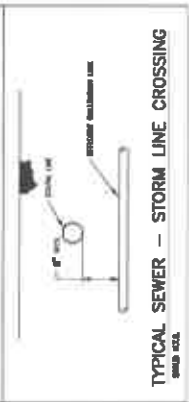
TYPICAL RESIDENTIAL SERVICE CONNECTION PLAN



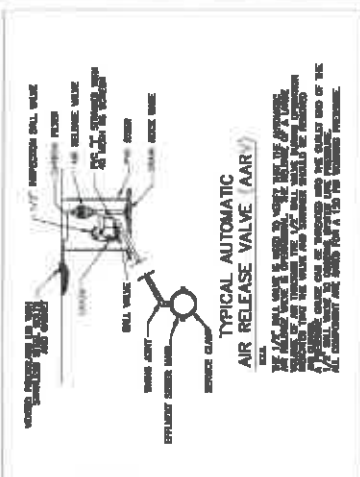
TYPICAL SEWER - WATER LINE CROSSING (WITH SLEEVE)



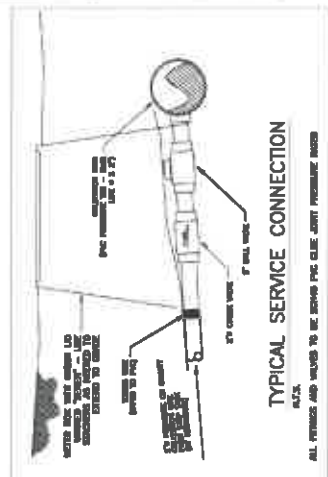
TYPICAL SEWER - WATER LINE CROSSING



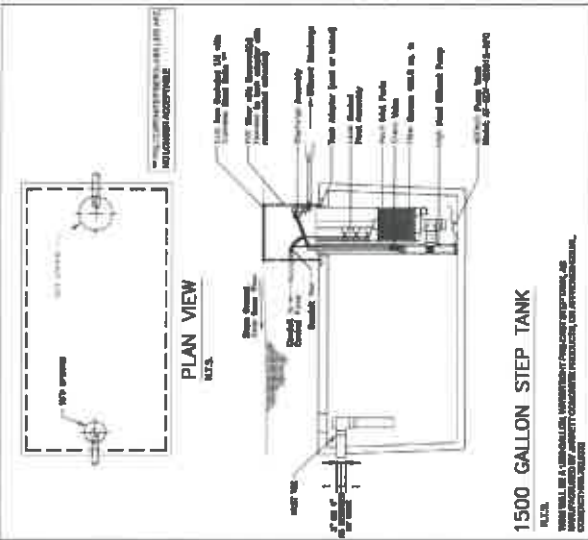
TYPICAL SEWER - STORM LINE CROSSING



TYPICAL AUTOMATIC AIR RELEASE VALVE (AAR)

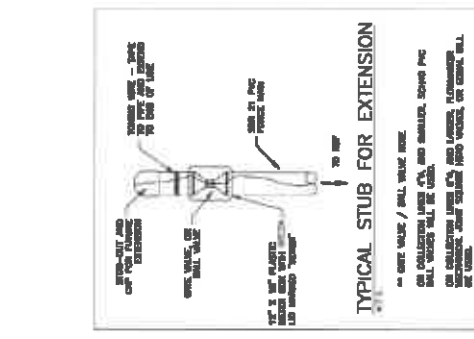


TYPICAL SERVICE CONNECTION



1500 GALLON STEP TANK

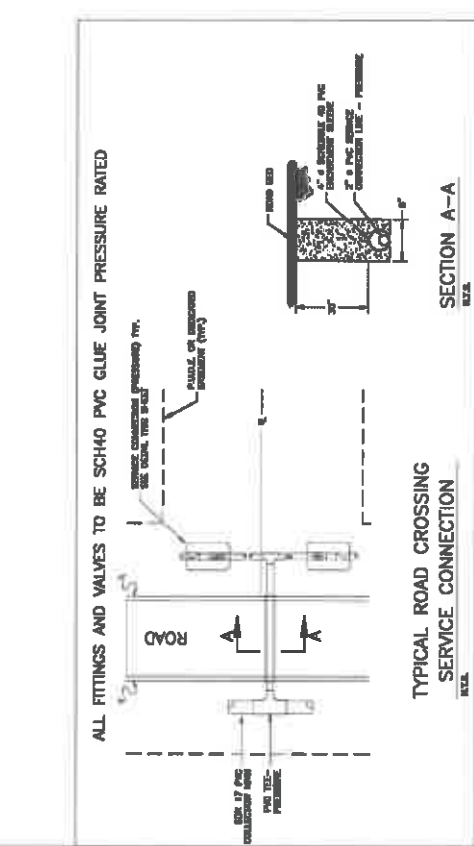
ALL FITTINGS AND VALVES TO BE SCH40 PVC GLUE JOINT PRESSURE RATED



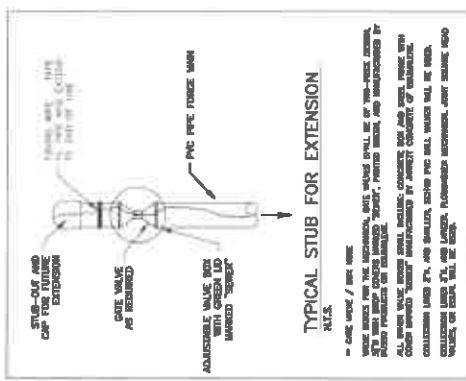
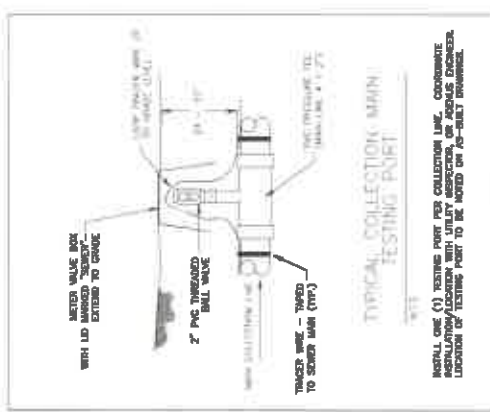
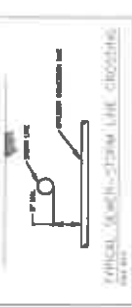
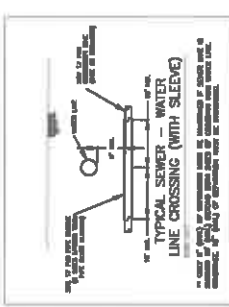
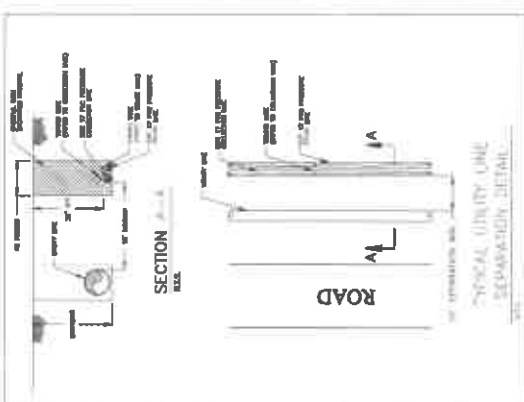
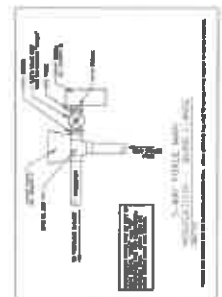
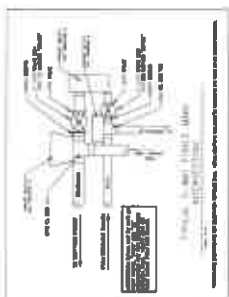
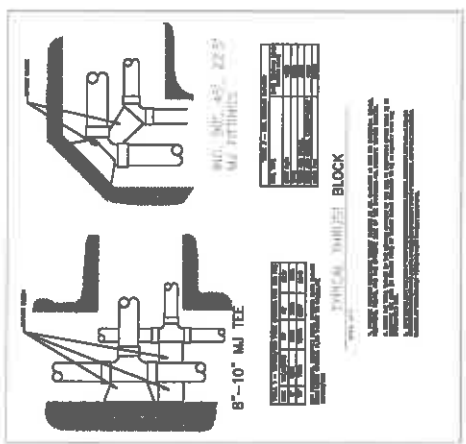
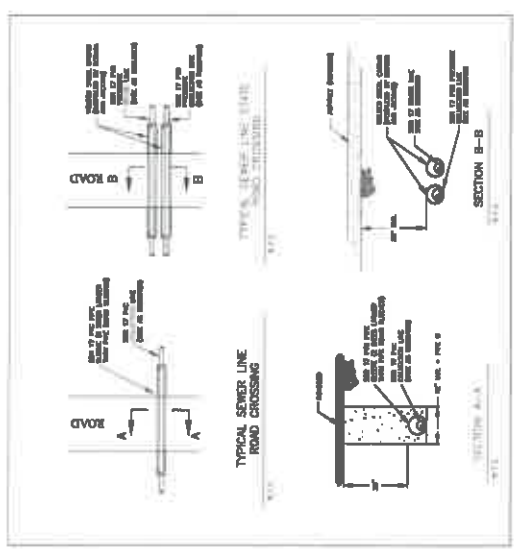
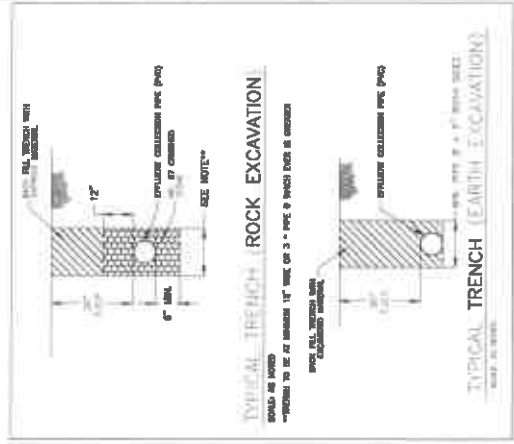
TYPICAL STUB FOR EXTENSION



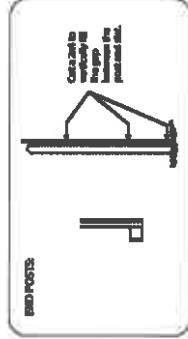
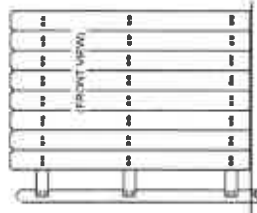
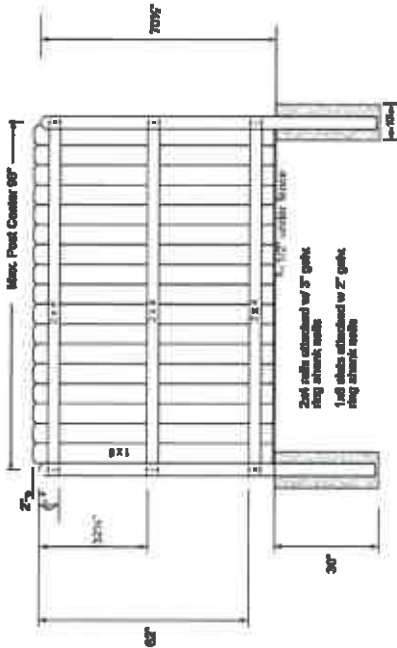
TYPICAL ROAD CROSSING SERVICE CONNECTION



TYPICAL ROAD CROSSING SERVICE CONNECTION

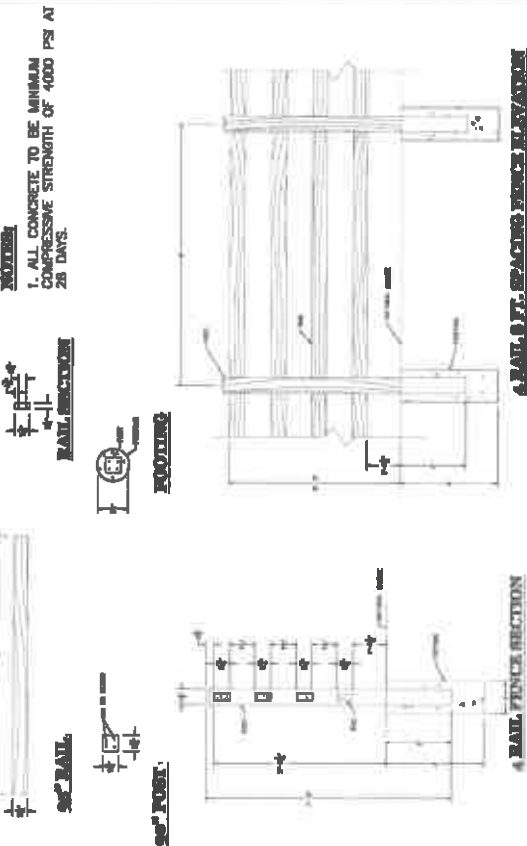


# DOG EAR FENCE



## Privacy Fence Construction Notes

1. Contractor shall install privacy fence around perimeter of the treatment facility where noted on the drawings.
2. Contractor shall install one 3-ft wide single privacy walk-through gate. Gate shall be constructed to industry standards. Gate shall have the same dog-eared design appearance as the privacy fence. Gate shall be lockable from the outside.
3. Contractor shall install one double drive-through gate with two hinged swinging panels. Each hinged swinging panel shall be 7-ft wide, with the entire open drive-through distance being 14-ft wide. Gates shall have the same dog-eared design appearance as the privacy fence. Gate shall be constructed to industry standards. Gate shall be lockable from the inside only.
4. All privacy fence wood shall be pressure-treated wood.



# RAIL FENCE SECTION

# 4 RAIL 8 FT. SPACING FENCE SECTION

## Four-Board Fence (Drip Field Perimeter) Construction Notes

1. Contractor shall install four-board fence around perimeter of the drip irrigation fields where noted on the drawings.
2. Contractor shall install one 3-ft wide single walk-through gate. At each drain field, Gate shall be constructed to industry standards. Gate shall have the same four-board design appearance as the privacy fence. Gate shall be lockable from the outside.
3. Contractor shall install one double drive-through gate with two hinged swinging panels at each drain field. Each hinged swinging panel shall be 6-ft wide with the entire open drive-through distance being 12-ft wide. Gates shall have the same four-board design appearance as the drip field area perimeter fence. Gate shall be constructed to industry standards. Gate shall be lockable.
4. All four-board fence wood shall be pressure-treated wood.



**IN THE TENNESSEE PUBLIC UTILITY COMMISSION  
AT NASHVILLE, TENNESSEE**

<b>IN RE:</b>	)	
	)	
<b>PETITION OF TENNESSEE</b>	)	
<b>WASTEWATER SYSTEMS, INC., TO</b>	)	<b>DOCKET NO. 21-00026</b>
<b>AMEND ITS CERTIFICATE OF</b>	)	
<b>CONVENIENCE AND NECESSITY</b>	)	

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**SUPPLEMENTAL TESTIMONY OF MATTHEW NICKS**

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**Q1. What is your name and business address?**

A. My name is Matthew Nicks, and my business address is 851 Aviation Parkway, Smyrna TN, 37167.

**Q2. Have you previously filed testimony in this matter?**

A. Yes.

**Q3. What is the purpose of your supplemental testimony?**

A. To provide some additional information requested by Commission Staff, regarding the public need for the wastewater system to serve The Pointe subdivision, attest to a Commission Rule, and address the relationship between Woodland Capital, LLC and DH Development and specifically regarding the ability of DH Development to convey the property utilized for the wastewater system to Tennessee Wastewater Systems, Inc.

**Q4. Does a public need exist for the wastewater system to serve The Pointe subdivision?**

A. Yes. The property is not currently served by any wastewater provider, and no local utility, nor the city or county governments intend to provide wastewater service.

**Q5. Is TWSI aware of Commission Rule 1220-04-13-.09(7)?**

A. Yes.

**Q6. Please describe the relationship between Woodland Capital, LLC and the developer DH Development, LLC; and whether DH Development, LLC is authorized to execute agreements and convey the property in this docket.**

A. DH Development, LLC is a subsidiary of Dale Hollow Partners, LLC which is a subsidiary of Coastal Timber Partners II, LLC (CTP II). CTP II is jointly owned by Resource Land

Fund V, LLC (capital partner) and Greg Boree (operating partner). As the operating partner, Greg is principal of Woodland Capital and his team manages the day to day operations of CTP II, including DH Development. Resource Land Holdings, LLC is the manager of Resource Land Fund V, and as the majority owner of CTP II, the principals of RLH are authorized to sign on behalf of each sub-entity including DH Development, LLC which owns the property and has authority to convey the land and system to TWSI.

**Q14. Does this complete your testimony?**

**A. Yes.**

### **AFFIDAVIT**

My name is Matthew Nicks and I affirm that all the information contained in the petition and in this testimony of Matthew Nicks filed in this Docket are true to the best of my knowledge and belief.



Matthew Nicks

County of Rutherford           )  
State of Tennessee           )

On this 21 th day of June 2022, personally appeared before me, Susan Chaffin, a notary public, the above-named Matthew Nicks, known to me personally who was duly sworn and on oath executed the above Affidavit.

  
Notary

My commission expires: 01/25/26

