



September 24, 2020

Joe Clase, AICP  
Plan4 Land LLC  
1 South Harrison St., P.O. Box 306  
Ashley, Ohio 43003

Mr. Clase:

Enclosed is the soil evaluation report for the Center Village Property located at Center Village and Harlem Road, Galena, Ohio, specifically Lot 5 (Parcel No.316-230-02-027-004) and Lots 6 and 10 (Parcel No.419-310-02-011-000). Each lot needs suitable areas for a primary and secondary soil-based Household Sanitary Treatment System (HSTS). Included with the report is a conceptual site plan with the approximate location of soil test pit (TP) locations and representative soil evaluation areas highlighted.

The following design considerations are highlighted; an apparent and perched seasonal high-water tables observed at 7 to 13 inches below the soil surface and a restrictive feature (fragipan) at 36 inches below the soil surface on portions of the property.

Copies of this letter, soil profile description, aerial mapping, and HSTS drawing should be submitted to the Delaware County Health Department (DCHD) via your installer/designer of your on-site wastewater system. The DCHD will make the determination as to whether the soil and site area are suitable for on-site sewage treatment.

It is very important that all areas approved for the HSTS have the construction contractor stake and flag the proposed locations prior to all phases of construction. No soil, building, or waste material should be stored on the proposed treatment areas. Disturbance to the treatment areas may result in compaction and lead to subsequent failure of the system.

Sincerely,

**SMART SERVICES, INC.**


A handwritten signature in blue ink, appearing to read 'Mitchel R. Strain', is written over the printed name.

Mitchel R. Strain, CPSS  
Director of Environmental Services



# Site and Soil Evaluation for Sewage Treatment and Dispersal


County: Delaware  
 Township / Sec: Harlem  
 Property Address/Location: Center Village & Harlem Road  
 Galena, Ohio 43021  
 Applicant Name: Joe Clase, AICP, Plan4 Land LLC  
 Address: 1 South Harrison St., PO Box 306  
 Ashley, Ohio 43003  
 Phone #: 833.752.6452  
 Parcel #: 419-310-02-011-000(Lot 6)  
 Test Hole #: 1  
 Latitude/Longitude: N/A  
 Method:  Pit  Auger  Probe

Land Use / Vegetation: Ag/Soybean  
 Landform: Upland  
 Position on Landform: Flat  
 Percent Slope: 1-4  
 Shape of Slope: Linear  
 Date: 09/02/20  
 Evaluator: Mitchel R. Strain  
 Certification Stamp or #: 02619  
 Signature:   
 Phone #: 614.202.8621

Soil Profile	Estimating Soil Saturation				Estimating Soil Permeability					Other Soil Features		
	Horizon	Depth (inches)	Munsell Color (hue, value, chroma)		Class	Texture		Structure			Consistence	
			Matrix Color	Redoximorphic Features		Approx. % Clay	Approx. % Fragments	Grade	Size			Type (shape)
Ap	0-7	10YR 4/3	None	None	sil	20	0	1	f	gr	vfr	Common Fine Roots
Bt1	7-13	10 YR 5/4	None	None	sicl	35	2	2	co	sbk	fi	
Bt2	13-25	10 YR 4/4	10 YR 5/8	10 YR 6/1	sic	45	2	1	co	sbk	fi	
BC	25-36	10YR 5/4	10 YR 5/8	10 YR 6/1	sic	45	5	1	m	sbk	fi	
C	36-60	10 YR 6/1	10 YR 5/8	10 YR 6/1	cl	40	10	0	NA	m	fi	
<b>Limiting Conditions</b>												
Perched Seasonal Water Table			Depth to (in.)	Descriptive Notes		<b>Remarks / Risk Factors:</b>						
Apparent Water Table			None	Common Distinct Redox								
Highly Permeable Material			None									
Bedrock			>60			Sandstone						
Restrictive Layer			None									

Note: The evaluation should include a complete site plan or site drawing.


# Site and Soil Evaluation for Sewage Treatment and Dispersal

County: <u>Delaware</u>	Land Use / Vegetation: <u>Ag/Soybean</u>	
Township / Sec: <u>Harlem</u>	Landform: <u>Upland</u>	
Property Address/Location: <u>Center Village &amp; Harlem Road</u>	Position on Landform: <u>Flat</u>	
<u>Galena, Ohio 43021</u>	Percent Slope: <u>1-4</u>	
Applicant Name: <u>Joe Class, AICP, Plan4 Land LLC</u>	Shape of Slope: <u>Linear</u>	
Address: <u>1 South Harrison St., PO Box 306</u>	Date: <u>09/02/20</u>	Certification Stamp or # <u>22619</u>
Phone #: <u>833.752.6452</u>	Evaluator: <u>Mitchel R. Strain</u>	Signature: 
Parcel #: <u>316-230-02-027-000(Lot 6)</u>		
Test Hole #: <u>2</u>		
Latitude/Longitude: <u>N/A</u>		Phone #: <u>614.202.8621</u>
Method: <u>X</u> Pit <u>X</u> Auger <u>    </u> Probe		

Soil Profile	Estimating Soil Saturation				Estimating Soil Permeability					Other Soil Features		
	Munsell Color (hue, value, chroma)				Class	Texture		Structure			Consistence	
	Matrix Color	Concentrations	Depletions	Redoximorphic Features		Approx. % Clay	Approx. % Fragments	Grade	Size			Type (shape)
Ap	0-7	10YR 4/3	None	None	sil	20	0	1	f	f	vfr	Common Fine Roots
Btl	7-12	10 YR 5/4	None	None	sicl	35	2	2	co	co	fi	
Bt2	12-25	10 YR 4/4	10 YR 5/8	10 YR 6/1	sic	45	2	1	co	co	fi	
BC	25-36	10YR 5/4	10 YR 5/8	10 YR 6/1	sic	45	5	1	m	sbk	fi	
C	36-60	10 YR 6/1	10 YR 5/8	10 YR 6/1	cl	40	10	0	NA	m	fi	
<b>Limiting Conditions</b>											Remarks / Risk Factors:	
Perched Seasonal Water Table				Depth to (in.)	Descriptive Notes							
Apparent Water Table				None	Common Distinct Redox							
Highly Permeable Material				None								
Bedrock				>60	Sandstone							
Restrictive Layer				None								

Note: The evaluation should include a complete site plan or site drawing.

# Site and Soil Evaluation for Sewage Treatment and Dispersal

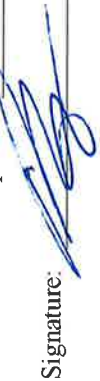
County: Delaware	Land Use / Vegetation: Ag/Soybean	
Township / Sec: Harlem	Landform: Upland	
Property Address/Location	Position on Landform: Flat	
Center Village & Harlem Road	Percent Slope: 1-4	
Galena, Ohio 43021	Shape of Slope: Linear	
Applicant Name:	Date: 09/02/20	Certification Stamp or #: 02619
Address:	Evaluator: Mitchel R. Strain	Signature: 
Joe Class, AICE, Plan4 Land LLC		
1 South Harrison St., PO Box 306		
Ashley, Ohio 43003		
Phone #: 833.752.6452		
Parcel #: 419-310-02-011-000(Lot 10)		
Test Hole #: 1		
Latitude/Longitude: N/A		
Method: <input checked="" type="checkbox"/> Pit <input checked="" type="checkbox"/> Auger <input type="checkbox"/> Probe		Phone #: 614.202.8621

Soil Profile	Estimating Soil Saturation				Estimating Soil Permeability				Other Soil Features		
	Munsell Color (hue, value, chroma)				Texture	Structure	Consistence	Other Soil Features			
	Matrix Color	Concentrations	Depletions	Class						Approx. % Clay	Approx. % Fragments
Ap	10YR 4/3	None	None	sil	20	0	1	f	gr	vfr	Common Fine Roots
Btg	10 YR 6/2	7.5YR 5/6	None	sicl	35	2	2	co	sbk	fi	
Bt	10 YR 4/4	10 YR 5/8	10 YR 6/1	sic	45	2	1	co	sbk	fi	
BC	10YR 5/4	10 YR 5/8	10 YR 6/1	sic	45	5	1	m	sbk	fi	
Cd	10 YR 6/1	10 YR 5/8	10 YR 6/1	cl	40	10	0	NA	m	vfi	
<b>Limiting Conditions</b>											
Perched Seasonal Water Table	Depth to (in.)	8		Descriptive Notes		Reduced Matrix					
Apparent Water Table		None									
Highly Permeable Material		None									
Bedrock		>60									
Restrictive Layer		36		Dense Till		Sandstone					
<b>Remarks / Risk Factors:</b>											

Note: The evaluation should include a complete site plan or site drawing.



# Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Delaware	Land Use / Vegetation: Ag/Soybean	Certification Stamp or #: 02619
Township / Sec: Harlem	Landform: Upland	Signature: 
Property Address/Location: Center Village & Harlem Road	Position on Landform: Flat	Phone #: 614.202.8621
Galena, Ohio 43021	Percent Slope: 1-4	
Applicant Name: Joe Class, AICP, Plan4 Land LLC	Shape of Slope: Linear	
Address: 1 South Harrison St., PO Box 306	Date: 09/02/20	
Ashley, Ohio 43003	Evaluator: Mitchel R. Strain	
Phone #: 833.752.6452		
Parcel #: 419-310-02-011-000(Lot 10)		
Test Hole #: 2		
Latitude/Longitude: N/A		
Method: <input checked="" type="checkbox"/> Pit <input checked="" type="checkbox"/> Auger <input type="checkbox"/> Probe		

Soil Profile	Estimating Soil Saturation				Estimating Soil Permeability					Other Soil Features		
	Munsell Color (hue, value, chroma)				Class	Texture		Structure			Consistence	
	Matrix Color	Concentrations	Depletions	Redoximorphic Features		Approx. % Clay	Approx. % Fragments	Grade	Size			Type (shape)
Ap	0-7	10YR 4/3	None	None	sil	20	0	1	f	gr	vfr	Common Fine Roots
Btg	7-13	10 YR 6/2	7.5YR 5/6	None	sicl	35	2	2	co	sbk	fi	
Bt	13-25	10 YR 4/4	10 YR 5/8	10 YR 6/1	sic	45	2	1	co	sbk	fi	
BC	25-36	10YR 5/4	10 YR 5/8	10 YR 6/1	sic	45	5	1	m	sbk	fi	
Cd	36-60	10 YR 6/1	10 YR 5/8	10 YR 6/1	cl	40	10	0	NA	m	vfi	
<b>Limiting Conditions</b>												
Perched Seasonal Water Table					Depth to (in.)	Descriptive Notes					Remarks / Risk Factors:	
Apparent Water Table					None	Reduced Matrix						
Highly Permeable Material					None							
Bedrock					>60						Sandstone	
Restrictive Layer					36	Dense Till						

Note: The evaluation should include a complete site plan or site drawing.

Landforms
Upland*
Terrace
Flood Plain
Lake Plain
Beach Ridge
*Includes glacial till plain and end moraine

Position on Landform
Depression
Flat
Knoll
Crest
Hillslope
Footslope

Shape of Slope
Convex
Concave
Linear
Complex

Horizon Nomenclature			
Master Horizons		Horizon Suffixes	Horizon Modifiers
O	Predominantly organic matter (litter & humus)	a Highly decomposed organic matter	Numerical Prefixes: Used to denote lithologic discontinuities.
A	Mineral, organic matter (humus) accumulation, loss of Fe, Al, clay	b Buried genetic horizon	
E	Mineral, loss of Si, Fe, Al, clay; organic matter	d Densic layer (physically root restrictive)	Numerical Suffixes: Used to denote subdivisions within a master horizon.
B	Subsurface accumulation of clay, Fe, Al, Si, humus; sesquioxides; loss of CaCO <sub>3</sub> ; subsurface soil structure	e Moderately decomposed organic matter	
C	Little or no pedogenic alteration, unconsolidated earthy material, soft bedrock	g Strong gley	
R	Hard bedrock	i Slightly decomposed organic matter	
		p Plow layer or artificial disturbance	
		r Weathered or soft bedrock	
		t Illuvial accumulation of silicate clay	
		w Weak color or structure within B	
		x Fragipan characteristics	

Soil Texture			
Texture Class Abbreviations		Textural Class Modifiers	
Course Sand	cos	Gravelly	GR
Sand	s	Fine Gravelly	FGR
Fine Sand	fs	Medium Gravelly	MGR
Very Fine Sand	vfs	Coarse Gravelly	CGR
Loamy Coarse Sand	lcos	Very Gravelly	VGR
Loamy Sand	ls	Extremely Gravelly	XGR
Loamy Fine Sand	lfs	Cobbly	CB
Loamy Very Fine Sand	lvfs	Very Cobbly	VCB
Coarse Sandy Loam	cosl	Extremely Cobbly	XCB
Sandy Loam	sl	Stony	ST
Fine Sandy Loam	fsl	Very Stony	VST
Very Fine Sandy Loam	vfsl	Extremely Stony	XST
Loam	l	Bouldery	BY
Silt Loam	sil	Very Bouldery	VBY
Silt	si	Extremely Bouldery	XBY
Sandy Clay Loam	scl	Channery	CN
Clay Loam	cl	Very Channery	VCN
Silty Clay Loam	sicl	Extremely Channery	XCN
Sandy Clay	sc	Flaggy	FL
Silty Clay	sic	Very Flaggy	VFL
Clay	c	Extremely Flaggy	XFL

\*Estimate approximate clay percentage within 5 percent

Soil Structure					
Grade		Size		Type (Shape)	
Structureless	0	Very Fine	vf	Granular	gr
Weak	1	Fine	f	Angular Blocky	abk
Moderate	2	Medium	m	Subangular Blocky	sbk
Strong	3	Coarse	co	Platy	pl
		Very Coarse	vc	Prismatic	pr
		Extr. Coarse	ec	Columnar	cpr
		Very Thin*	vn	Single Grain	sg
		Thin*	tn	Massive	m
		Thick*	tk	Cloddy	CDY
		Very Thick*	vk		

\* The sizes Very Thin, Thin, Thick, and Very Thick, are used when describing platy structure only. Substitute thin for fine, and thick for coarse when describing platy structure.

Moist Consistence	
Loose	l
Very Friable	vfri
Friable	fri
Firm	fi
Very Firm	vfi
Extremely Firm	efi

For a more detailed explanation on describing and sampling soils, please refer to the "Field Book for Describing and Sampling Soils" Schoeneberger, P.J., Wysocki, D.A., Benham, E.C., and Broderson, W.D. (editors) 2002. Field book for describing and sampling soils, version 2.0. Natural Resources Conservation Service, USDA, National Soil Survey Center, Lincoln, NE.



**LEGEND**

- BUILDINGS
- BOUNDARY
- Other Address
- TYPE
- drive
- road
- EXISTING RIGHT-OF-WAY
- ROAD CENTERLINE
- PROPERTY FLOODPLAIN
- PROPOSED GRADING
- TOPOGRAPHY
- PROPOSED RETENTION BASIN
- SEWER STAKE ADDRESS
- POTENTIAL SEPTIC
- SEPTIC SLABBACK
- MINIMUM SETBACKS PER ZONING
- PROPERTY LINES
- PROPERTY LINES (PUD)
- SOIL TYPES
- 4" WATERLINE
- OVERHEAD ELECTRIC LINES
- PROPOSED 4" WATERLINE
- PROPOSED BURIED ELECTRIC
- DRAINAGE
- SEWER
- BANITARY
- SIDEWALK

**Contact Information**

**Property Owners:** AV Investment LLC  
5709 Sugarwood Drive, New Albany, OH 43054  
614-346-9521 phone

**Project Attorney:** Lowell Hedlund, Attorney at Law  
200 E Carpus View Blvd., Ste. 200  
614-436-8000 phone

**Site Planner:** Joe Clase, AICP, Plan 4 Land, LLC  
1 S Harrison Street, P.O. Box 506, Ashley, Ohio 43085  
(633) 752-6422 phone fax

**Surveyor:** Charles A. Wagner, P.S., CW Design Group LLC  
972 Linkfield Drive, Worthington, Ohio 43085  
614-846-9279 phone

**Civil Engineer:** Nathan Harrington, P.E., Brack Engineering, LLC  
5659 Greystone Lane, Hilliard OH 43026  
(614) 506-2652 phone

**Site Information**

**Jurisdiction:** Harlem Township, Delaware County, State of Ohio  
**Location:** Harlem Road, Galena, Ohio 43021  
750 feet north of Center Village Road  
4,800 feet south of Pine View Drive  
419-310-92-611-690

**Parcel No.:** 419-310-92-611-690

**Area:** 30.646 acres

**School District:** Big Walnut Local School District

**Floodplain:** Site is located within Zone "X", Community Panel No(s) 39041C0286K & 39041C0287K, effective on April 15, 2009.  
BeA, CuA, PwA, SsA

**Soil Types:** There are no known cemeteries, historical sites or archeological significance on site or within 200 feet of it's boundaries.

**Zoning Information**

**Classification:** Farm Residential FR-1

**Lot Size:** 2.0 net acre minimum

**Fronage:** varies based on acreage, flags permitted

**Front Setback:** 90 foot minimum

**Side Setback:** 25 foot minimum

**Rear Setback:** 80 foot minimum

**Building Height:** 35 foot maximum

**Coverage:** n/a

**Note:** Current standards shown for reference only. All construction must be compliant with the then current Zoning Resolution.

**Development Information**

Land Use:	Existing	Proposed
Single Family Residential	One (1)	Eleven (11)
Non-buildable Lots:	N/A	One (1)
Area in ROW/CAD:	n/a	3.00 acres
Gross Density:	One (1) unit per 31.35 acres	One (1) unit per 2.85 acres
Net Density:	One (1) per 31.35 acres	One (1) unit per 2.30 acres
Phases:	N/A	One (1)

**Utility Information**

**Electric:** American Electric Power (Ohio AEP)

**Water:** Del-Co Water Company

**Sewer:** On-site septic

**Gas:** Columbia Gas of Ohio

**Notes:** Soil Report by Steve Miller dated February 13, 2019 on file at DGHD.

**NOTES**

**DRAINAGE:** Within the areas of land designated "Drainage Easement" an easement is hereby reserved for the maintenance of drainage facilities, including but not limited to ditches, swales and subsurface drainage for the benefit and use of the public. Development and future use of these lots shall not create obstructions to the flow of water within the easement.  
Driveway may cross easement if an appropriate culvert is maintained to allow natural flow of water.

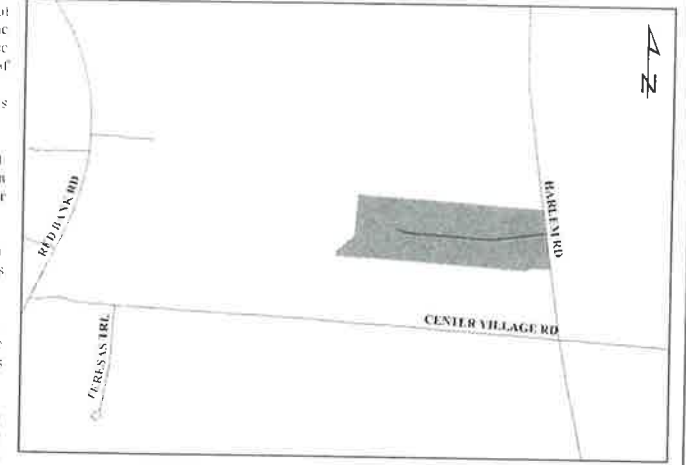
**DRIVE CULVERT:** The existing driveway culvert condition is unknown, a drive permit may be required in the future, which may require improvements or replacement of the existing drive culvert.

**BE ADVISED:** A subsurface drainage system may exist on this site. The system and/or outlet if located on this property must be maintained at all times.

**SIGHT DISTANCE:** All obstructions within the required line of sight triangle have been marked onsite and will be removed during construction, per County Engineer's request.

**EASEMENTS:** All represented easements, not previously recorded, will be recorded with the Delaware County Recorder's Office before or at the time this lot split is recorded.

RPC# -20  
SKETCH PLAN #20-14-S



**LOCATION MAP** LEGEND  
ROAD CENTERLINE  
SITE  
0 500 1,000 2,000 Feet  
1 inch = 1,000 feet

The owners, their successors, heirs or assigns of the herein delineated lots agree said lot(s) shall be connected to said central sewer. Acceptance of title to a delineated lot shall constitute waiver of further notice of hearing on this requirement. This covenant shall be included to title for said lot(s). All fees and cost associated with the connection to central sewer are the responsibility of the homeowner at the time of installation and connection.

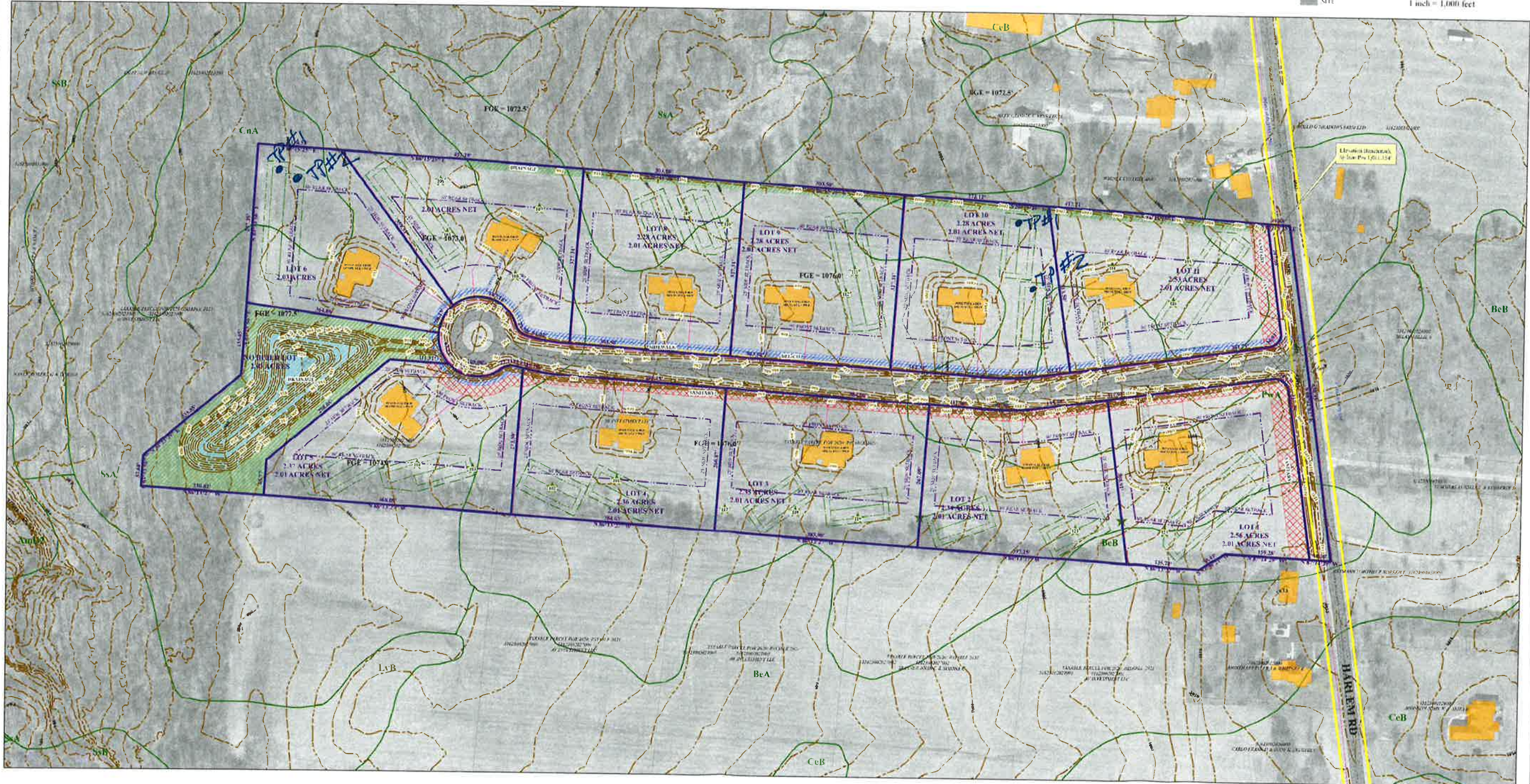
The proposed sewage treatment system (STS) areas complies with §3701-29 of the Ohio Administrative Code. Unless otherwise noted, all STS have been evaluated as a septic tank with aerator to mound system design. Alternative designs may be feasible as deemed appropriate by the designer and/or DGHD. Designer plan for septic system must be approved by the DGHD. Driveway and utility locations through lots are not to run over proposed sewage treatment areas (primary or secondary) unless alternative areas are approved by the DGHD. Trees falling within STS areas must be clear-cut before installation.

Prior to any additional buildings on the site, the owner must coordinate with the DGHD to determine that the approved on-site STS area (primary & secondary) are compatible with the owners desired construction and excavation plans. Depending on final house and plumbing elevations, pumps may be required for delivering sewage effluent to STS areas. If proposed STS discharges off the property an easement shall be obtained to point of discharge.

The owners, their successors, heirs or assigns of the herein delineated lot agree that when a central sewage system becomes available, said lot(s) shall be connected to said central sewer. Acceptance of title to a delineated lot shall constitute waiver of further notice of hearing on this requirement. This covenant shall be included to title for said lot(s). All fees and cost associated with the connection to central sewer are the responsibility of the homeowner at the time of installation and connection.

Complete Soil Report on file with the Delaware General Health District (DGHD) as completed by Steve Miller on February 13, 2019.

**DISCLAIMER**  
Aerial photography, soil types and property owner information were provided by OGRIP and the Delaware County Auditor's Office. Plan 4 Land, LLC and its employees are not responsible for damage to or injury from, under and/or above ground utilities. Always call the Ohio Utility Protection Service (OUPS) at 811 before digging. Production rights reserved by Plan 4 Land, LLC.



HARLEM ESTATES SUBDIVISION  
PRELIMINARY DEVELOPMENT PLAN  
HARLEM TOWNSHIP, DELAWARE COUNTY, OHIO

Know what's below.  
Call before you dig.  
811

PUBLIC ROAD SUBDIVISION  
11 BUILDING LOTS ON 30.646 ACRES  
WWW.PLAN4LAND.NET  
Plan 4 Land  
WWW.PLAN4LAND.NET