Lawrence A. Tornes Tornes Soil Investigations, LTD 811 State Route 61 North Sunbury, Ohio 43074

Phone 740 965-3254

August 22, 2020

Mr. Chip Carpenter Broker/Auctioneer Real Estate & Auction Services 2295 Creek Road Sunbury, Ohio 43074

Dear Chip,

This is my invoice for a soil site evaluation for on-site sewage treatment and dispersal at 1499 County Road 149 in Cardington Township, Morrow County, on August 20, 2020, and preparation of the enclosed soils report.

Let me know if you have any questions on the report.

August 20 and 22, 2020

\$285.00

Lawrence A. Tornes

Certified Professional Soil Scientist

Enclosure

Lawrence A. Tornes Tornes Soil Investigations, LTD. 811 State Route 61 North Sunbury, Ohio 43074

Phone 740 965-3254

August 22, 2020

Mr. Chip Carpenter United Country Real Estate

Dear Mr. Carpenter,

In August 20, 2020, I completed a soil site evaluation for on-site sewage treatment and dispersal on a 4.6 acre lot at 1499 County Road 149 in Cardington Township, Morrow County, Ohio. The proposed locations of the septic fields and test holes for the lot are marked with red flags. These fields contain soils that have been in the past and will be approved by the Morrow County Health Department for some type of on-site sewage treatment and dispersal system for a home on this date. The type of system that will be approved must be determined by a sewage system designer and the Morrow County Health Department.

Sincerely,

Lawrence A. Tornes

Certified Professional Soil Scientist

mapbox 1orrow County, Ohio, 30 AC +/-Boundary **2 PARCELS ALREADY TOTAL 4.6 AC** cardington, of 1499 County Rd 149 200FT+/-370+/- FT 25+/- AC 570+/-FT 5+/- AC Jugus? 8 8 8 Real Estate 800

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Koquested By: Chip Carperter 614 206-1135
Real Fost Estate and Auction Services

		Site and	d Soil Eva	Site and Soil Evaluation for Sewage Treatment	Sewage	Treatmo		and Dispersal			
Compte		alar.	Land	Use / Vegetation:	New	8		Scattered	edt	000	-80-
Township / Sec.: County: Property Address/Location:	ardinato	Rd./49		Land Use / Vegetation: Landform: Position on Landform: Percent Slope:	15/100	1 Risa	de	land	(		三字题 :
Applicant Name: Address:	<b>\</b>		•	Shape of Slope:	4 1	3 7		Davidination O			
Phone #:	107 til	0 0	Evalu O7-001 663 CH	Evaluator:	Terro	6 10 10	10/11	Certification St	Certification Stamp of Certification #	7	1/2
Test Hole #:	THE POR COLOR		2000	7000	Silve	AT. S	14307	307 + Phone#:	740	-5%	32
Method:	Pit V Auger	Probe			+	Bodroo	100m	* House			
		Tall-all-s Sall Salusation				Estima	Estimating Soil Permeability	cability			
	Munsell Col	Munsell Color (hue, value, chroma)	hroma)								
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Limiting Conditions	Denth to (in.)		Descriptive Notes	Votes	Remarks / R	Remarks / Risk Factors:	200		501		
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Apparent Water Table					120	riezi-	200	20051	CHITUIA		Surtaro
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Note: The evaluation shall include  Hoal (L Dopar	not and has Molto w County and Soft and Soft and County and Soft and County a	Man or site drawing inclu-	ncluding all requirement	rements in paragra	72.0	through (B)(4) of	or oading	rate of	2,79	15/da/1	1601-29-08 0.69 als/da/toH-December 2006
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Upland*	
Теттасе	
Flood Plain	
Lake Pain	
Beach Ridge	
*Includes glacial till	
plain and end moraine	

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Depression	
Flat	2 2 3 2
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Hillslope	
Footslope	

Convex	
Concave	
Linear	
Complex	

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

Texture Class Abbreviati	ons	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 1	lcos	Very Gravelly	VGR
Loamy Sand	İs	Extremely Gravelly	XGR
Loamy Fine Sand	lfs	Cobbly	СВ
Loamy Very Fine Sand	lvfs	Very Cobbly	VCE
Coarse Sandy Loam	cosl	Extremely Cobbly	XCE
Sandy Loam	sl	Stony	ST
Fine Sandy Loam	fsl	Very Stony	VST
Very Fine Sandy Loam	vfsl	Extremely Stony	XST
Loam	1,	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	XC
Sandy Clay	SC	Flaggy	FL
Silty Clay	sic	Very Flaggy	VFI
Clav	С	Extremely Flaggy	XFI

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	ес	Columnar	cpr
		Very Thin*	vn.	Single Grain	sg
ď.		Thin*	tn	Massive	m
		Thick*	tk	Cloddy	.CDY
D 1		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.

Loose	1
Very Friable	vfr
Friable	fr
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., Wystocki, 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.

osted By: Chip Carpenter 614 206-1135

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Other Soil Features	Consistence	Type (shape)	Size	Grade	Approx. % Fragments	Approx. % Clay	Class	Depletions	Concentrations	Matrix Color C	Depth (inches)	Horizon
			Structure			Texture		Features	Redoximorphic Features			
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			Permeability	<b>111</b>	Estimating So			on I	Belimating Soil Saturation	Berlina		Sall Profile
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Upland*	
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Flood Plain	
Lake Pain	
Beach Ridge	
*Includes glacial till plain and end moraine	

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