

DEPARTMENT OF INSPECTIONS, LICENSES & PERMITS 3430 COURT HOUSE DRIVE ELLICOTT CITY, MD 21043 PERMITS (410) 313-2455 INSPECTIONS (410) 313-1850	<b>HOWARD COUNTY          RESIDENTIAL          HEATING-VENTILATION-AIR          CONDITIONING AND          REFRIGERATION PERMIT          APPLICATION</b>	HVACR PERMIT # <u>M/16001239</u> BUILDING PERMIT #
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BUILDING ADDRESS: <u>10564 Hunters way</u> SUITE/APT: _____ <u>Laurel, MD 20723</u> SUBDIVISION: _____ CENSUS TRACT: _____ SECTION: _____ AREA: _____ LOT: <u>73</u> TAX MAP: <u>0041</u> PARCEL: <u>0454</u> BLOCK: _____ ZONE: _____ PROPERTY ID: _____ MAP COORDINATES: _____ TYPE OF IMPROVEMENTS: _____ USE: _____	OWNERS NAME: <u>Michael Tenbrock</u> ADDRESS: <u>10564 Hunters way</u> CITY: <u>Laurel</u> STATE: <u>MD</u> ZIP CODE: <u>20723</u> HOME PHONE: <u>443-562-8595</u> WORK PHONE: _____
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CHECK ONE	HOW MANY	COMPANY NAME:
SINGLE FAMILY DWELLING <input checked="" type="checkbox"/>	<u>1</u> ZONES	Ground Loop Heating & Air Cond., Inc.
SINGLE FAMILY TOWNHOUSE <input type="checkbox"/>	_____ ZONES	LICENSEE NAME: Michael E. Cullum
MULTI-FAMILY / HOTEL/MOTEL <input type="checkbox"/>	_____ ROOMS	ADDRESS: 1701 Whiteford Road
ASSISTED LIVING HOMES (16 OR FEWER RESIDENTS) <input type="checkbox"/>	_____ ROOMS	CITY: Darlington STATE: MD ZIP CODE: 21034 PHONE: 410-836-1706 HVACR LICENSE NO: 6539

**New**

Heating and Air Conditioning  Heating System Only  Other Work (Describe): \_\_\_\_\_

Geo Thermal System  Ductless Mini Splits  Thru The Wall Systems

**Replacement**

Heating  Heating and Air Conditioning

**Equipment**  
Water Furnace  
5 ton NNV060

**Additions and Alterations**

Heating  Air Conditioning  Heating and Air Conditioning

\*\*\*\*Replacement Geo Thermal Systems are not required; However, if a tax credit is being sought a permit is required\*\*\*\*

Zones	Rooms
Permit Fee = # of Zones x \$40 = <u>40.00</u> Technology Fee (10% of Permit Fee) = <u>4.00</u> Plus Application Fee <u>50.00</u> Total Fees Due = <u>94.00</u>	Permit Fee = # of Rooms x \$80 = _____ Technology Fee (10% of Permit Fee) = _____ Plus Application Fee \$50 <u>50.00</u> Total Fees Due = _____

I HAVE CAREFULLY EXAMINED AND READ THIS APPLICATION AND KNOW IT IS TRUE AND CORRECT. THE WORK DESCRIBED HEREIN WILL BE PERFORMED BY A STATE HVACR LICENSED PERSON(S), AND ALL WORK WILL BE PERFORMED IN COMPLIANCE WITH APPLICABLE CODES AND STANDARDS OF HOWARD COUNTY THE STATE OF MARYLAND.

Michael C 10/11/16  
 SIGNATURE OF LICENSEE DATE

Michael Cullum  
 PRINT NAME OF LICENSEE

linda @ ground loop.com  
 Email Address

Make check payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

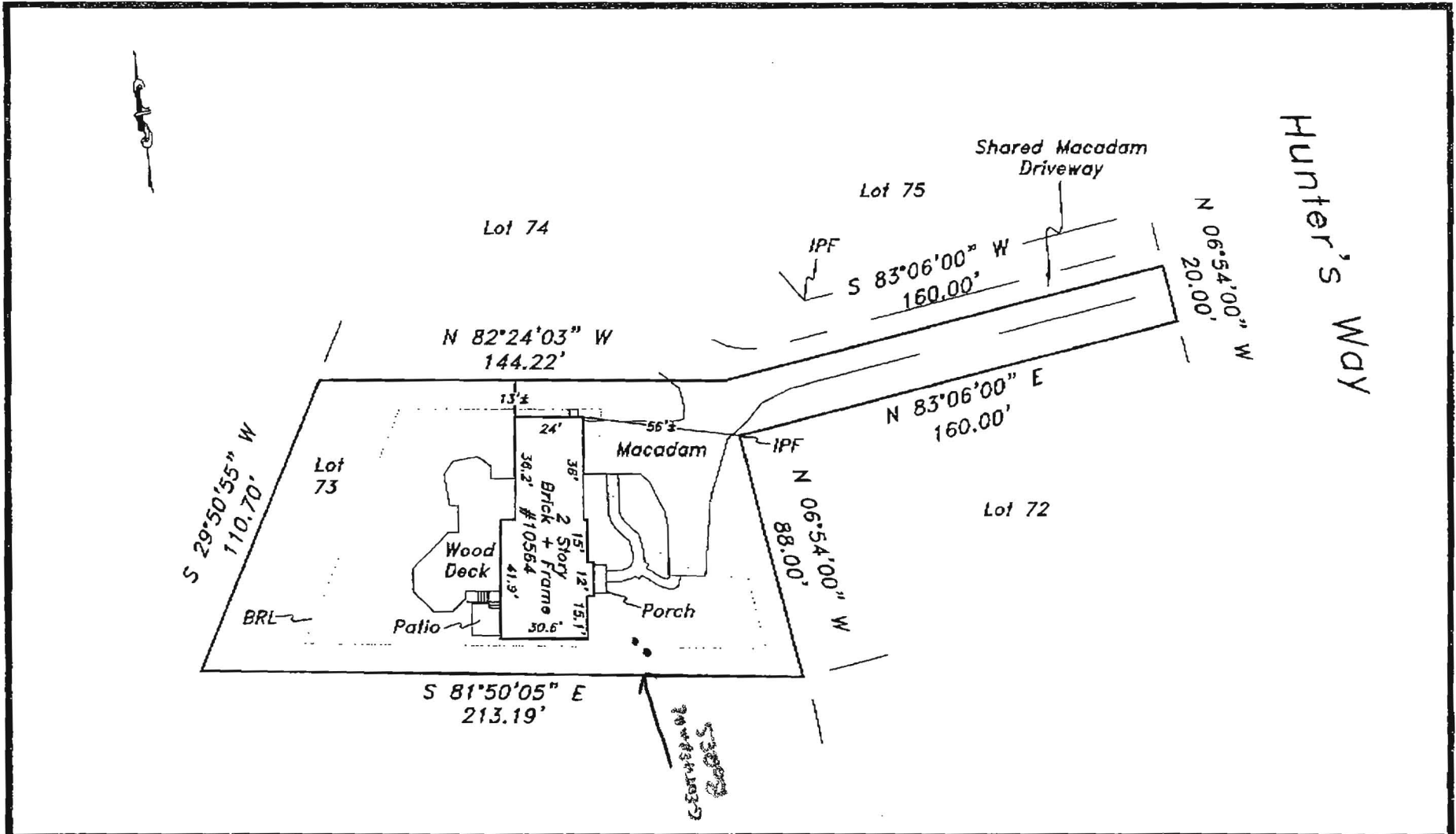
<b>Validation</b>	
Check Number:	<u>03950</u>
Cash:	_____
Receipt Number:	<u>4108038</u>

Word doc: T:\Updated Forms\hvac application  
 Rev:10.2009

Signature 12/6/16  
 Date

Vertical Loops

MI 600239



The purpose of this drawing is to locate, describe, and represent the positions of buildings and substantial improvements affecting the property shown hereon, being known as:  
 Lot 73, Section Two, Area Four,  
 WARFIELD'S RANGE  
 recorded among the land records of Howard County, Maryland in Plat 7004

J. Carl Hudgins PLS #96  
 Expiration Date: 3/11/14

**LOCATION DRAWING**  
 10564 Hunter's Way  
 6th ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

**SAGE TITLE GROUP**  
 THE WISE CHOICE

This is page one of a two page document. The advice found on the affixed page is an integral part of this drawing, and is not valid without all pages.

**NTT Associates, Inc.**  
 16205 Old Frederick Rd.  
 Mt. Airy, Maryland 21771  
 Phone: (410) 442-2031  
 Fax: (410) 442-1315  
 www.nttsurveyors.com

Scale:	1" = 50'
Date:	10-24-13
Field By:	DR
Drawn By:	DR
File No.:	109147TMS
Page No.:	1 of 2

M16001239

WaterFurnace Energy Analysis				
ASHRAE Single Zone Load Calculation Ver. 8.3				
Dealer-	Ground Loop Heating & Air Cond 1701 Whiteford Rd Darlington Md 21034		Client-	tenvbrock
Design Conditions-	Winter	Summer	Daily	
Outside Temp:	12 ° F	92 ° F	Range:	
Inside Temp:	70 ° F	72 ° F	23	
Difference:	58 ° F	20 ° F	° F	
General Information-				
Glass Type:	0 Clear	Exposed Ducts:	15%	
Roof Color:	0 Dark	Duct Loss Factor:	0.15	
Occupancy:	4 People	Duct Gain Factor:	0.15	
Light/Appliance:	2000 btuh			
Infiltration Evaluation:	Qty	Code		
Fireplace:	1	1	Std-Damper	
Fans/Vents:	2	1	W/ Damper	
Attic Access:	0	1		
Window AC:	0	0		
Fossil Furnace:	0	0		
Fossil DHW Heater:	0	0		
Exposed Duct System:		0	Poorly Sealed	
Building # Stories:		2		
Wind Shielding:		2	Moderate	
<b>BUILDING LOAD SUMMARY - WHOLE HOUSE</b>				
		<b>AREA</b>	<b>LOSS</b>	<b>GAIN</b>
<b>WALLS/PARTITIONS-</b>				
EXT. WALL- R13		1075	7943	2543
CONCR-4' BEL GRD-R11		1216	4232	
EXT. WALL- R13		1216	8982	2876
<b>WINDOWS/DOORS-</b>				
D.H./SLDG-WOOD-DOUBLE		240	13275	7489
D.H./SLDG-WOOD-DOUBLE				
DOOR-WOOD-STRM		21	731	218
SLDG DR-WOOD-DOUBLE		32	2094	958
<b>CEILINGS/FLOORS-</b>				
FRAME CEILING-R30		1408	3870	2265
FRAME FLOOR-R11		1408	7708	1994
PEOPLE				1200
LIGHT/APPLIANCE				2000
EXPOSED DUCT SYSTEM		15%	1099	485
MOISTURE REMOVAL				6609
OTHER LOSS/GAIN-			0	0
<b>TOTAL LOAD (BTU/HR)</b>			<b>49934</b>	<b>28637</b>

