

Menu Save Reset Cancel Help

Record Detail \* (This section is required.)

Permit Type: Building/Residential/Mech/New  
 Permit Number: M21000878  
 Opened Date: 10/05/2021

Description of Work  
 INSTALL NEW GEOTHERMAL HVAC USING (1) WATER FURNACE 4-TON NDH049 GEOTHERMAL UNIT WITH HORIZONTAL LOOPS (4 TRENCHES, 150' IN LENGTH, 5' DEEP). WE WILL USE EXISTING DUCT.

[check spelling](#)

Address \* (This section is required.)

Search Reset Clear Get Parcel & Owner

Street # 12396 Street Name FREDERICK Street Type RD  
 Unit Type --Select-- Unit # X Coordinate -76.94345 Y Coordinate 39.30149  
 City WEST FRIENDSHIP State MD Zip Code 21794 Primary Yes

*approved K. [signature]  
 3/17/2023*

Parcel \* (This section is required.)

Search Reset Clear Get Address & Owner

| GIS ID | Parcel | Parcel Area | Land Value | Improved Value | Exemption Value | Plan Area |
|--------|--------|-------------|------------|----------------|-----------------|-----------|
| 904788 | 15     | 4.63        | 288700     | 555100         | 266400          | RURAL     |

Legal Description  
 IMPSP/O LOT 22 4.6303 A[ ]12396 FREDERICK RD[ ]MATHIS PROPERTY

[check spelling](#)

| Block | Lot | Census Tract | Council Dist | Inspection Dist | Supervisor Dist | Map # | DAP Zone |
|-------|-----|--------------|--------------|-----------------|-----------------|-------|----------|
|       | 22  | 603000       | 5            |                 |                 |       |          |

Plan Area State Tax Id Subdivision Name  
 1403313093

Section Area Tax Map  
 15

Grid Zoning District ADC Map  
 15-12 RR-DEO 4813-K2

SDP No. Final Plan No. WP File No.

Record Plat No. WS Contract No. FDP No. Primary Yes  
 7869

Owner Occupied Year Built Historic District  
 Yes  No 1988  Yes  No

Historic District Registry No. Stat Area Flood Plain  
 3-05  Yes  No

Building No

Owner \* (This section is required.)

Search Reset Clear

Name  
 TUZZC  
 Address Line 1  
 12396 FREDERICK RD  
 Address Line 2  
 Address Line 3

Mail City  
 WEST FRIENDSHIP  
 Mail State  
 MD  
 Mail Zip Code  
 21794  
 Phone  
 443-799-7252  
 Primary  
 Yes  
 E-mail

ptuzzolo@hotmail.com  
Cell Number

Fax Number

Professionals \* (This section is required.)

License # \* 05010006539  
 License Type \* HVACR  
 Primary No

Business Name  
 GROUND LOOP HEATING & AIR CONDITIONING, INC.  
 First Name Middle Name Last Name  
 ✓ MICHAEL E CULLUM  
 Address Line 1  
 ✓ 1701 WHITEFORD RD  
 Address Line 2

City DARLINGTON State MD ZIP Code 21034-0000  
 Phone 1 4108361706 Phone 2 Fax 4104570581  
 E-mail MIKE@GROUNDLOOP.COM

Applicant (This section is not required.)

Search As Owner As Lic. Prof As Contact

Type \* Applicant  
 Relationship Applicant  
 Primary Yes

First Name MI Last Name  
 Michael Cullum  
 Full Name  
 ✓ Michael Cullum  
 Organization Name  
 Ground Loop Heating & Air Conditioning, Inc.  
 Street Address  
 1701 WHITEFORD RD  
 Address Line 2

City DARLINGTON State MD Zip Code 21034  
 Phone 410-836-1706 Cell Fax 410-457-0581  
 E-mail emilie@groundloop.com

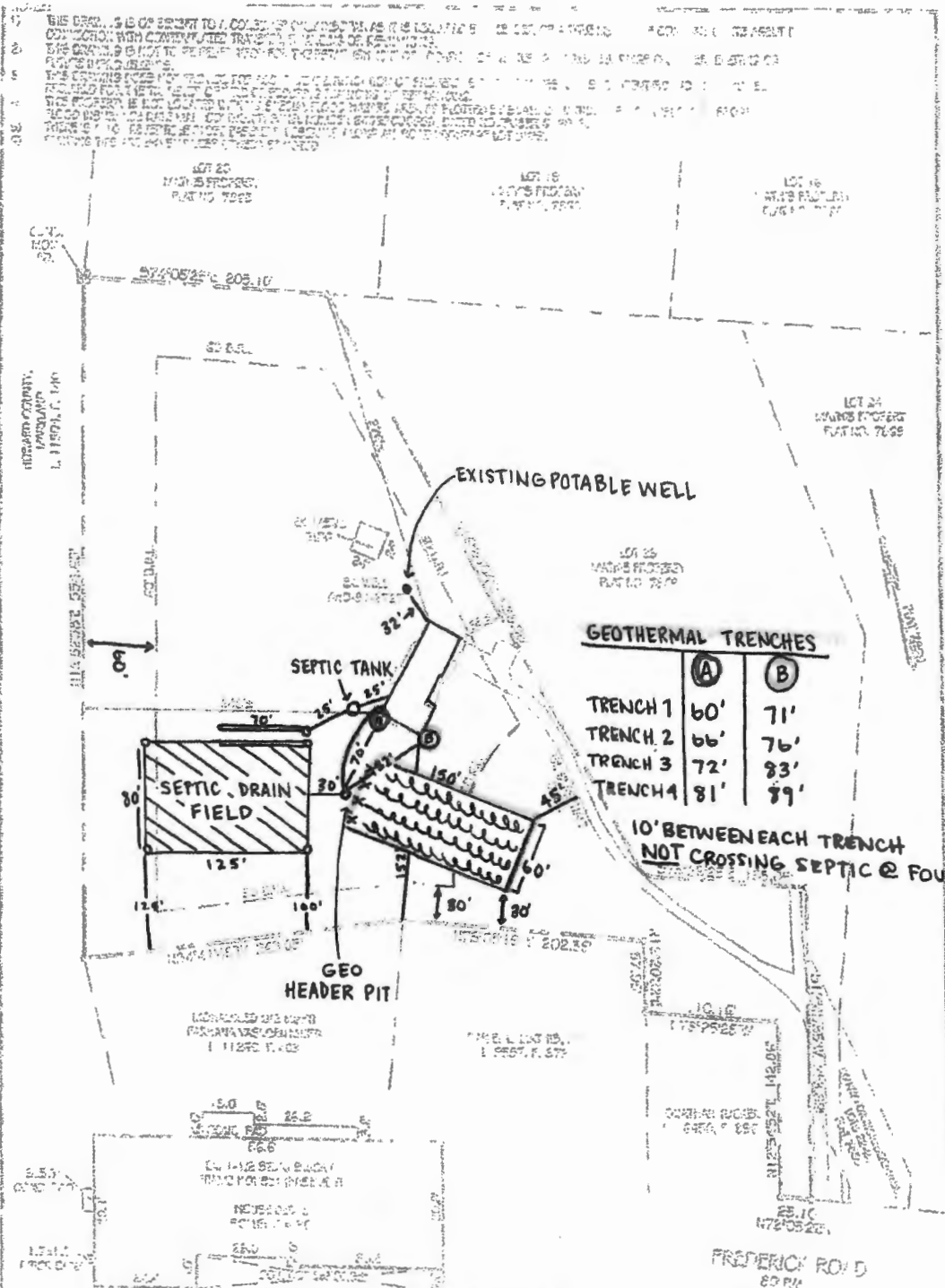
HVAC INFORMATION

HVAC INFORMATION

Capital Project-No Fee \*  Yes  No Capital Project Number (Text) Fee Exempt \*  Yes  No Building Permit No \* N/A Existing Use \* (Text) SFD Geothermal  Yes  No

Number of Zones \* 1 Number of MF Units 0 ZONES (Number) UNITS (Number) HVACR System Heating and Air Conditioning Water Supply \* Private Sewage Disposal Private Expiration Date 9/24/2023

Submit Cancel



**Approved Septic System Plan**  
**Howard County Health Department**

*[Signature]*  
**Signature**

**3/17/2023**  
**Date**

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THE SEPTIC SYSTEM PLAN AND TRENCH LAYOUT SHOWN ON THESE PLANS WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MARYLAND.

SEPTIC SYSTEM DRAWING  
DATE OF DRAWING: 3/17/2023  
DRAWN BY: [Name]  
CHECKED BY: [Name]

Maura J. Rossman, M.D., Health Officer

**Geothermal Well Setbacks**

| <b>Vertical Closed Loop</b>                                |                                |
|--|--------------------------------|
| To a potable well  | 30 feet                        |
| To a property line   | 10 feet                        |
| To a road or right-of-way                                  | 15 feet                        |
| To a sewage disposal area and system (drainfield and tank) | 50 feet                        |
| To a building foundation                                   | 20 feet                        |
| To gravity sewer line*                                     | 50 feet                        |
| <b>Horizontal Closed Loop</b>                              |                                |
| To a potable well  | 30 feet ✓ other side of house  |
| To a property line   | 10 feet ✓ 30'                  |
| To a road or right-of-way                                  | 15 feet ✓ 45' from driveway    |
| To a sewage disposal area and system                       | 25 feet ✓ 30'+ from Drainfield |
| To a building foundation                                   | 20 feet ✓ 60'+ from foundation |
| <b>Open Loop Geothermal Well</b>                           |                                |
| To a property line   | 10 feet                        |
| To a road or right-of-way                                  | 15 feet                        |
| To a building foundation                                   | 30 feet                        |
| To a sewage disposal area and system                       | 100 feet                       |
| To gravity sewer line*                                     | 50 feet                        |

**\*This distance may be 10' when the sewer is constructed of (i) Cast iron pipe with water-tight lead caulked joints or neoprene gasket joints, (ii) Solvent welded scheduled 40 (SDR equivalent) or better PVC, (iii) Thermally welded HDPE pipe.**

10/24/2018 MJD

Maura J. Rossman, M.D., Health Officer

**MEMORANDUM**

TO: Ground Loop Heating & Air Conditioning, INC  
Attn: Michael Edward Cullum  
**HVACR 05010006539**  
1701 Whiteford Road  
Darlington, MD 21034

FROM: **Joseph Cabahug**  
Licensed Environmental Health Specialist 001997  
Howard County Health Department  
**Well & Septic Program**

*Joseph Cabahug*  
*03/02/2022*

RE: M21000878; Unapproved Installation

DATE: March 2<sup>nd</sup>, 2022

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Pursuant to Howard County Mechanical Permit 21000878, be it known that Ground Loop Heating & Air Conditioning, INC, installed four horizontal geothermal loops, approximately one hundred and fifty feet in length each, and did not provide Howard County Well and Septic with a scaled plot plan showing that the horizontal loops did not conflict with existing well and septic setback policy requirements.

**At the time of this memorandum, it is unclear whether the installation impacted the existing well or septic system and it is unclear if the septic reserve area or future repair area was affected.**

The status of the mechanical permit M21000878 will remain "On Hold" until the requested scaled site plan showing the horizontal loop installation and the existing well and septic elements on site in accordance with the most current existing well and septic records (1988).

**Future development must consider the existence of an unknown horizontal geothermal loop field.**

CC: Homeowner



1701-A WHITEFORD ROAD,  
DARLINGTON, MD 21034  
410-836-1706/FAX 410-457-0581



| PROPOSAL SUBMITTED TO:   |  |                |
|--|--|----------------|
| <b>NAME &amp; JOB ADDRESS:</b>                                     | <b>PHONE:</b> 443-799-7252   | <b>DATE:</b>   |
| Partick Tuzzolo<br>12396 Frederick Rd<br>West Friendship, MD 21794 | <b>EMAIL:</b> <a href="mailto:ptuzzolo@hotmail.com">ptuzzolo@hotmail.com</a> | April 19, 2021 |



**\*\*PLEASE DO NOT MAKE ANY CHANGES, ADDITIONS OR DELETIONS TO THE VERBIAGE OF THIS CONTRACT VIA COMPUTER. CONTRACT WILL BE NULL AND VOID, IF THIS HAPPENS. Handwritten notes are acceptable. Contact your Energy Consultant to make any changes necessary.**

*Ground Loop Heating & Air Conditioning, Inc. (Contractors), hereby submits the following specifications:*

| EQUIPMENT:   |
|--|
| <ul style="list-style-type: none"> <li>• <b>REPLACE EXISTING HVAC system with (1) Water Furnace "Series 5" NDH049 4-ton dual capacity horizontal unit with Intellistart and an ECM fan. This unit meets or exceeds requirements of the Energy Star program currently in effect.</b></li> <li>• <b>INCLUDES:</b> Advanced Aurora™ Control System with Performance Monitoring, Energy Monitoring, and Refrigeration Monitoring, a Flow Center, thermostat and 10 kW emergency electric heat package.</li> <li>• <b>ALSO INCLUDES:</b> A Symphony Aurora Weblink which allows system control from any internet enabled device and allows Ground Loop to remotely access system diagnostics from our office.</li> </ul> <p>Ground Loop designs its systems using R-values and reasonable infiltration rates (new construction is per code). Homeowner or builder is responsible for any changes necessary to meet normal standards.</p> <p><i>We will remove and dispose of old equipment. Homeowner MUST notify us, if they want to keep old equipment. Ground Loop does NOT remove oil or oil tanks.</i></p> |

| HOT WATER:   |
|--|
| <ul style="list-style-type: none"> <li>• Not included in base price. See options below.</li> </ul> |

| DUCT SYSTEM:   |
|--|
| <ul style="list-style-type: none"> <li>• We will reuse the existing ductwork. We will not be responsible for existing ductwork issues. We will duct seal all connections that we disturb.</li> <li>• Temperatures may vary across areas of the house depending on lay out and construction. Different levels with a single thermostat (no zone control) will experience between a 5-7-degree temperature differences.</li> </ul> |

 Initial Acceptance  


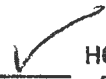
**CLOSED LOOPS:**

**VERTICAL LOOPS:** Will consist of 2 bores, 320 feet deep, of 1 1/4 inch diameter pipe. Total pipe 1,280 feet. 1 1/4 inch pipe will be run from header pit to home. This assumes drilling will be air rotary. We will flush and fill loop and unit with 80% deionized water and 20% antifreeze.

Reynolds # 2650

**NOTE:** Ground Loop reserves the right to modify bore layout in any way including bore #, depth and location. Ground Loop offers peace of mind when drilling vertical loops by covering all underground conditions known or unknown. There will be no extra cost to the homeowner because of underground conditions i.e. steel casing, water control, or silt bags. Drilling extras could add up to thousands of dollars over contract price.

OR



**HORIZONTAL LOOPS:** Will consist of 4 trenches, 150 feet in length. Each trench will have 800 feet of 3/4 inch diameter coil pipe, buried 5 feet deep. Total pipe 3,200 feet. 1 1/4 inch pipe will run from header pit to home. We will flush and fill loop and unit with 80% deionized water and 20% antifreeze.

Reynolds # 2650

We will arrange for Miss Utility to locate public utilities. Homeowner is responsible for marking the location of any private utility lines, water lines, sprinkler systems, etc. that are not marked by Miss Utility. Failure to give an exact location of private utilities may result in damage. Verbal descriptions will not be accepted. They must be physically marked with flags or paint.

3M blue marker balls will be placed in loops to assist in locating loops in the future.

We are not responsible for sediment control. Homeowner is responsible for seeding and strawing loop field. We recommend this be completed as quickly as possible to avoid issues.

**ACCESSORIES:**

- **INCLUDES** one air pad to set underneath each unit to prevent vibration.

**OPTIONS:**

Additional options are available at the following costs. These options are not included in the proposed total. If you desire any of these options, please place your initials beside that option. Please note that these options are in addition to the base contract price and must be paid as set forth below. These prices are in effect until completion of this contract. Other products are available.

|              | Initial Acceptance                                    |  |
|--------------|---|--|
| SERIES 7     | _____   | Water Furnace Series 7 variable speed capacity unit Upgrade. \$4,900.00  |
| FILTERS      | _____<br>_____<br><input checked="" type="checkbox"/> | Water Furnace Merv 13 Replacement Filter - \$103.00 each<br>Pure Air – Air Filtration System - \$2,200.00<br>Guardian Air and REME by RGF (air purification system) - \$975.00   |
| HUMIDIFIERS  | <input checked="" type="checkbox"/><br>_____<br>_____ | Aprilaire Model 700 Humidifier (Power Model/Drain Type) - \$1,215.00<br>*700 Model not recommended with Tankless Water Heater<br>Aprilaire Model 800 Steam Humidifier - \$2,350.00<br>**Ground Loop does not install humidifiers on the 2 <sup>nd</sup> floor. |
| DEHUMIDIFIER | <input checked="" type="checkbox"/>                   | Aprilaire Model <del>1850</del> <sup>500</sup> Dehumidifier (Stand-alone model) removes approximately 8.75 gallons daily- \$1,853.00   |

\$ 2,140

Initial Acceptance

|                  |  |   |
|------------------|--|---|
| HOT WATER BACKUP |  | <b>HOT WATER BACK UP:</b><br><b>LP Gas or Natural Gas. Does not include gas lines or tanks.</b> Gas work to be done by others. Based on current base proposal including electric heat- \$3,900.00<br><b>*Based on one unit. If two units, speak to salesman</b>   |
| HOT WATER        |  | <b>Note: We do not use PVC or CPVC</b><br><br><b>"5 or 7 SERIES" UNIT:</b> <ul style="list-style-type: none"> <li>• Water Furnace Desuperheater Hot Water Assist – \$2,048.00</li> <li>• Water Furnace Desuperheater with 50-gallon storage tank- \$2,999.00</li> </ul> <b>ON DEMAND GEOTHERMAL HOT WATER:</b> <ul style="list-style-type: none"> <li>• Water Furnace Geothermal On Demand Hot Water Heater – (1) NSW025 Water to Water System with Geothermal Storage Tank - \$8,848.00 (Assumes Pre-existing or Pending Loop, Not Responsible for Electrical Upgrades)</li> </ul> <b>SOLAR HOT WATER – 20 Tube flush mounted on roof, with 80-gallon tank- \$9,626.00</b><br><br><b>Marathon Water Heater – 75 gallons – Lifetime warranty on Tank, Thermostat and Element – 6 years from date of manufacture. - \$2,892.00</b> |

|  |  |
|--|--|
| <b>SERIES 5 WARRANTY:</b>  |  |
| <ul style="list-style-type: none"> <li>• <b>GROUND LOOP LIFETIME WORKMANSHIP WARRANTY</b> – We guarantee all of our workmanship for the life of the compressor unit(s) being installed. Ask for details!</li> <li>• <b>INCLUDED:</b> Water Furnace UNIT is covered under manufacturer warranty for 10 years parts and 5 years "labor allowance". All other Water Furnace parts (pumps, etc.) covered for 5 years parts and "labor allowance".</li> <li>• <b>OPTION:</b> Buy Up for Warranty: Water Furnace manufacturer warranty for 10 years parts AND 10 years "labor allowance" on internal parts- \$770.00 (per unit)</li> <li>• <b>Ground Loop</b> covers all non-Water Furnace equipment for 2 years parts and labor.</li> <li>• Warranty becomes effective on the date the unit is started and provided full payment has been received.</li> <li>• Symphony AWL Weblinks: Units have a 2-year (parts only) warranty from the date of registration.</li> </ul> |  |

|  |  |
|--|--|
| <b>MAINTENANCE AGREEMENT:</b>  |  |
| <ul style="list-style-type: none"> <li>• <b>INCLUDES</b> (2) preventative maintenance checks to be performed during the first year. Agreements are available for purchase after the first year.</li> </ul> |  |

|   |  |
|---|--|
| <b>PERMITS:</b>   |  |
| <ul style="list-style-type: none"> <li>• We will obtain HVAC and ELECTRICAL permits, if required. Well driller will obtain well permit for vertical bores. Horizontal trenches do not require a permit.</li> <li>• Homeowner must provide a plot plan of the property showing the location of the home, septic, etc.</li> <li>• <b>We will not be responsible for bringing existing conditions up to code other than HVAC.</b></li> </ul> |  |

|   |  |
|---|--|
| <b>PRICE:</b>   |  |
| <p style="text-align: center;"><b>We propose to furnish labor, complete in accordance with above specifications for the sums shown below, not including options.</b></p> <p><b>Payment to be made as follows:</b></p> |  |

 Initial Acceptance



**WATER FURNACE GEOSMART FINANCING PROGRAM – 12 MONTHS SAME AS CASH (SAC)**

Minimum credit score of 640. Maximum loan amount \$65,000.00.  
 Loan amount cannot be greater than total amount of this contract.  
 Approved loan is good for 120 calendar days.

**Customer is responsible for loan application.**  
 Call 888-716-2840, Mon-Fri 8AM – 1AM, Sat – 9 AM to 8 PM, SUN – 11AM – 7PM.  
 Fast credit decision in about 10 minutes.

APPROVAL  
 NUMBER  
 345 099 1968

Information you will need to provide:

- Company Name: Ground Loop Heating & Air Conditioning, Inc.
- Assigned Dealer ID #4
- Project Type: Replacement
- SAC Promotional Code: 12 Month – AXW546



LOAN IN THE NAME(S) OF:

PATRICK [REDACTED] TUZZO

*If loan is in more than one name, both must sign this proposal.*

|                                    | VERTICAL    | HORIZONTAL  |
|------------------------------------|-------------|-------------|
| • Amount of Base Contract          | \$33,950.00 | \$28,950.00 |
| • Plus Total Amount of Options     | \$          | \$          |
| • Total Project Cost               | \$          | \$          |
| • Minus Amount Paying in Cash      | \$          | \$          |
| • Minus Utility Rebate (see below) | \$1,500.00  | \$1,500.00  |
| • Amount to be Financed            | \$          | \$          |
| • 1st Advance Payment: 50%         | \$          | \$          |
| • 2nd Final Payment: 50%           | \$          | \$          |

| CASH<br>(We do not accept credit cards)   |             |             |
|---|-------------|-------------|
| Draws may be based on a per unit basis  | VERTICAL    | HORIZONTAL  |
|   | \$33,950.00 | \$28,950.00 |
| ◇ Deposit to be paid with signed contract   | \$6,450.00  | \$6,450.00  |
| ◇ Due upon completion of drilling boreholes or trenching  | \$11,000.00 | \$6,000.00  |
| ◇ Due upon delivery of equipment  | \$8,000.00  | \$8,000.00  |
| ◇ Due upon start-up of equipment  | \$8,000.00  | \$8,000.00  |
| ◇ Balance of contract due at the time of Walk through   | \$ 500.00   | \$ 500.00   |
| * Any options chosen are to be paid in full when each is completed*   |             |             |
| Note: Draw schedule may change based on sequence of work performed. Draws do not reflect actual cost. Failure to abide by payment terms may result in contractor stopping work. |             |             |

 Initial Acceptance  


| <b>CURRENT INCENTIVES/REBATES:</b>  |                    |                    |
|---|--------------------|--------------------|
|   | <b>VERTICAL</b>    | <b>HORIZONTAL</b>  |
|   | <b>\$33,950.00</b> | <b>\$28,950.00</b> |
| <b>26% Federal Rebate</b>   | <b>\$8,827.00</b>  | <b>\$7,527.00</b>  |
| <b>Maryland Energy Grant (Homeowner must be a resident of MD)</b>   | <b>\$3,000.00</b>  | <b>\$3,000.00</b>  |
| <b>Utility Discount \$1,500.00 Per Unit (see draw schedule above)</b>   | <b>\$1,500.00</b>  | <b>\$1,500.00</b>  |
| <b>TOTAL POSSIBLE INCENTIVES:</b>   | <b>\$13,327.00</b> | <b>\$12,027.00</b> |
| <b>COST OF SYSTEM AFTER RECEIPT OF INCENTIVES</b>   | <b>\$20,623.00</b> | <b>\$16,923.00</b> |
| <b>Ground Loop will assist with the paperwork for the incentives. However, this is not a guarantee that funds will be received.</b> |                    |                    |

*Any changes to above specifications involving extra cost, will only be executed upon written orders and shall be paid upon signing of order. Invoices not paid within 15 days shall accrue interest at 24% per year (2% per month). In the event the balance remains unpaid and contractor refers this matter to an attorney for collection, buyers agree to be solely responsible for all attorneys' fees which are agreed to be one third of the outstanding balance due and owing to contractor inclusive of interest charges. All material is guaranteed as specified. Owner/Buyers to carry fire, tornado and other necessary insurance. Contracts not signed and accepted within 30 days are subject to price change.*

*If buyer is a partnership, corporate entity, limited liability company and/or any other corporate type entity, buyer understands and agrees that their signature below personally guarantees fulfillment of all terms of the Contract including but not limited to payment of the terms of the Contract. By their signature below, they consent to be personally responsible for this obligation which is a condition precedent for the contractor accepting the terms of this agreement.*

*CHECK POLICY: By using a check for payment, you agree to the following terms: In the event your check is dishonored or returned for any reason, you authorize us to electronically (or by paper draft) re-present the check to your bank account for collection of the amount of the check, plus any applicable fees as permitted by state law.*



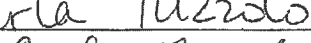
**NOTE: GROUND LOOP HEATING & AIR CONDITIONING, INC. DOES NOT RECOMMEND:  
> THE USE OF THE PROGRAMMABLE FUNCTION ON THE THERMOSTAT(S) WITH THE GEOTHERMAL UNITS.**

**GROUND LOOP HEATING & AIR CONDITIONING, INC. IS NOT RESPONSIBLE FOR:**

- ❖ NEW CONSTRUCTION OR REMODELS: WATER FEED FOR HUMIDIFIERS, TANKLESS WATER HEATERS, ETC- PLUMBER TO PROVIDE THIS.
- ❖ HOUSE NEEDS TO BE A MINIMUM .25 ACH TO HEAT, COOL AND CONTROL MOISTURE.
- ❖ IF BASEMENT IS NOT HEATED, 1<sup>ST</sup> FLOOR AND CRAWLSPACE NEEDS TO BE INSULATED.
- ❖ NATURAL GAS AND/OR PROPANE GAS DISCONNECTS OR HOOK-UPS.
- ❖ ELECTRICAL SERVICE CHANGES
- ❖ ANY CARPENTRY, DRYWALL, OR PLASTER WORK
- ❖ EXCAVATING: ROCK, SAND, SEEDING & STRAW, REMOVAL OF FILL, COMPACTING OF SOIL, TAMPING. USE OF GRADER BOXES, POWER RAKES, OR HAND RAKING AREA CAN BE DONE FOR AN ADDITIONAL COST.
- ❖ FILLING SINKING TRENCHES; CAN BE DONE FOR AN ADDITIONAL COST.
- ❖ ROCK BLASTING, ROCK EXCAVATION, RIPPING OF ONSITE MATERIALS, OR REMOVAL OF ROCK BY USE OF EXPLOSIVES, OR BY HAND TOOLS AND LOST PRODUCTION TIME.
- ❖ REMOVAL OF CONTAMINATED MATERIAL, SOLID WASTE, CHEMICAL AND SANITARY WASTE REQUIRING SPECIAL HANDLING AND/OR DISPOSAL AREAS FOR CONTAMINATED MATERIALS.
- ❖ DAMAGES CAUSED TO THE PROPERTY, INCLUDING FOUNDATIONS, LAWNS, FLOWER BEDS, SHRUBBERY, TREES, DRIVEWAYS, SIDEWALKS, ETC.
- ❖ IF THERE IS AN EXISTING OPEN LOOP, NOT RESPONSIBLE FOR ANY ISSUES RELATED TO THE LOOP.
- ❖ DAMAGE TO UNDERGROUND PIPING THAT HOMEOWNER DOES NOT MAKE US AWARE OF (EXAMPLE: SPRINKLER SYSTEMS)
- ❖ ASBESTOS IN EXISTING DUCTWORK OR EXISTING UNIT(S)
- ❖ WHEN USING ZONE CONTROL, THERE IS A POSSIBILITY OF SOME SMALL AMOUNT OF AIR NOISE.
- ❖ ENERGY REBATES/CREDITS FROM THE FEDERAL, STATE OR LOCAL GOVERNMENT. (GROUND LOOP WILL ASSIST WITH THE PAPERWORK REQUIRED TO SUBMIT APPLICATION FOR REBATES AND/OR TAX CREDITS. HOWEVER, THIS IS NOT A GUARANTEE THAT FUNDS WILL BE RECEIVED. CUSTOMER WILL ASSUME ANY COSTS INCURRED DUE TO CHANGES IN EXISTING FEDERAL, STATE, OR COUNTY PROGRAMS.)
- ❖ ISSUES CAUSED BY GENERATORS.
- ❖ ANY PROBLEMS DUE TO WATER QUALITY, PH LEVEL, MINERAL CONTENT, ETC. IN DESUPERHEATER, HUMIDIFIERS OR HOT WATER TANKS. THIS CAN CAUSE FLOODING IN BASEMENT.

 Initial Acceptance

ACCEPTANCE OF PROPOSAL: THE ABOVE PRICES AND CONDITIONS ARE SATISFACTORY AND ARE HEREBY ACCEPTED. YOU ARE AUTHORIZED TO DO THE WORK. PAYMENT WILL BE MADE AS OUTLINED ABOVE. ACCEPTANCE OF THIS CONTRACT IS BINDING BY THE INFORMATION GIVEN. PLEASE CONFIRM THAT GROUND LOOP HAS THE CORRECT BILLING AND CONTACT INFORMATION LISTED.

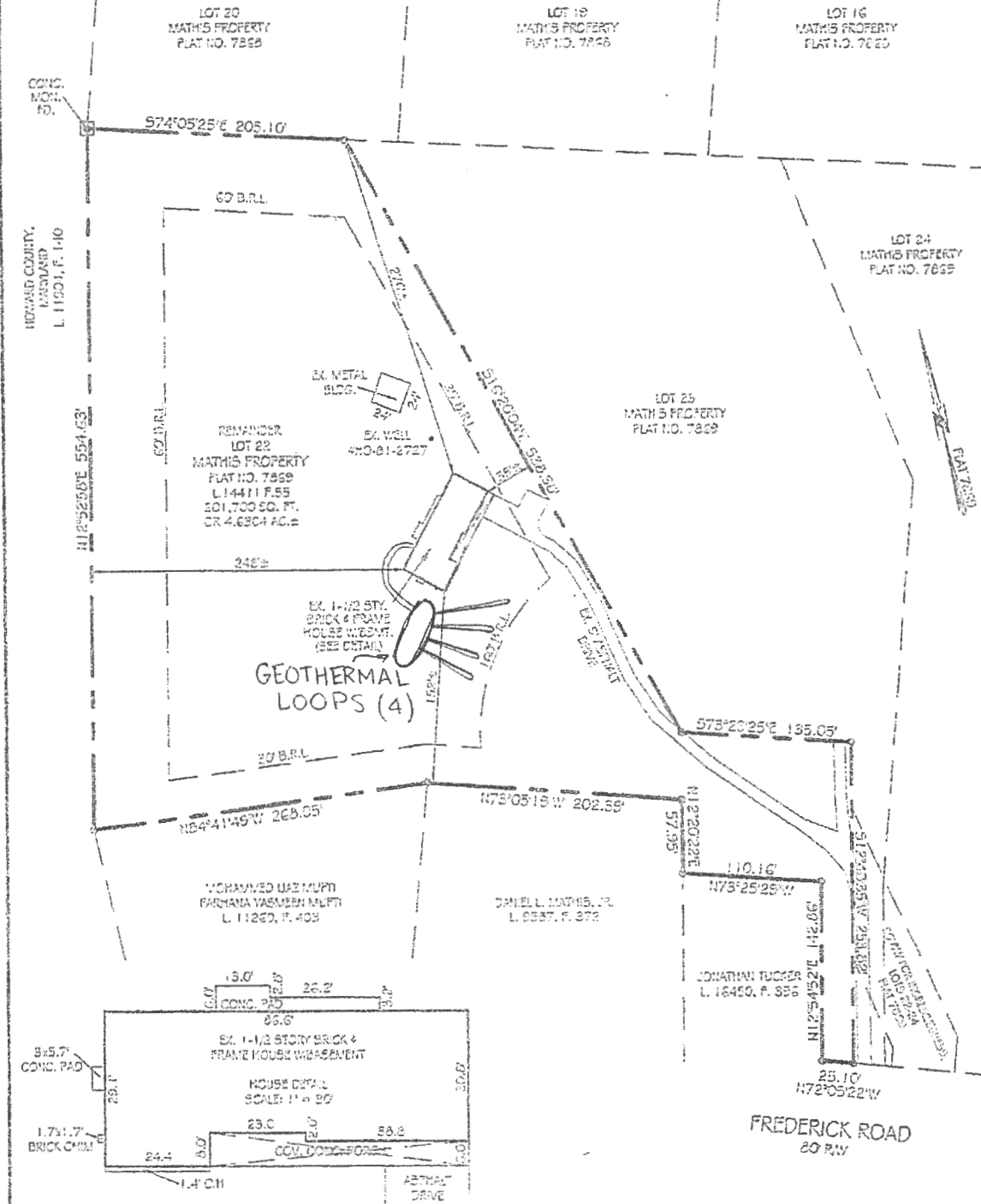
| BUYER(S)  | GROUND LOOP  |
|---|--|
| PRINTED: <u>PATRICK TUZZO</u>   | PRINTED: JASON CULLUM, VICE PRESIDENT  |
| SIGNATURE: <u></u> | SIGNATURE: <u></u> |
| DATED: <u>7/26/21</u>   | DATE: <u>8/4/21</u>  |
| PRINTED: <u>Carla Tuzzo</u>   |  |
| SIGNATURE: <u></u> |  |
| DATED: <u>7/26/21</u>   |  |

TE/ew

PAT Initial Acceptance

CT

- 1) THIS DRAWING IS OF BENEFIT TO A CONSUMER ONLY INsofar as it is required by a lender or a title insurance company or its agent in connection with contemplated transfer, financing or refinancing.
- 2) THIS DRAWING IS NOT TO BE FILED UPON FOR THE ESTABLISHMENT OR LOCATION OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS.
- 3) THIS DRAWING DOES NOT PROVIDE FOR ACCURATE IDENTIFICATION OF PROPERTY BOUNDARY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING OR REFINANCING.
- 4) THE PROPERTY IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD AREA AS PLOTTED BY SCALE ON NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 24027C0030D, DATED NOVEMBER 6, 2012.
- 5) THERE IS A 10' REVERSIBLE SLOPE EASEMENT RESERVED ALONG ALL ROAD FRONTAGE LOT LINES.
- 6) BUILDING TIES ARE 20.5' UNLESS OTHERWISE NOTED.



**PROFESSIONAL CERTIFICATION:**

I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND I AM A FULLY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21037, EXPIRATION DATE JULY 2018. I HAVE CONFORMED WITH COMAR 03.15.06.12.

*Thomas L. Frazier, Jr.*  
 For VanMar Associates  
 Thomas L. Frazier, Jr., P.E.  
 Date: 11/20/16

**HOUSE LOCATION DRAWING**  
 REMAINDER, SECTION II, LOT 22  
**MATHIS PROPERTY**  
 PLAT NO. 7869  
 LIBER 14411 FOLIO 55  
 12395 FREDERICK ROAD  
 THIRD ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 SCALE: 1" = 100' NOVEMBER 2016

I CERTIFY THIS PLAT TO BE THE RESULT OF AN ACTUAL FIELD SURVEY, BASED ON DATA FROM THE LAND RECORDS OF HOWARD COUNTY, MARYLAND, AS REFERENCED HEREON.

|                                  |         |
|----------------------------------|---------|
| REFERENCE                        | JOB NO. |
| PLAT NO. 7869, LIBER 14411 F. 55 | 63-5609 |



**VANMAR ASSOCIATES, INC.**  
 Engineers Surveyors Planners  
 310 South Main Street Mount Airy, Maryland 21771  
 (301) 820-2500 (301) 831-8018 (410) 840-2781  
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Copy to: 11/21/2016 12:36:42 PM, 11

TUZZOLO

Loops over, in end  
of November

did not cross any  
septic line

## Wolf, Kevin

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**From:** Wolf, Kevin  
**Sent:** Friday, February 4, 2022 10:36 AM  
**To:** Emilie Weldy  
**Cc:** Ted Evans; Jen Evans  
**Subject:** RE: M21000878  
**Attachments:** A35156\_03-313093\_12396\_FREDERICK\_ROAD.pdf; 15 Geothermal Well Setbacks 10-24-2018.pdf; 12396\_Frederick\_geothermal\_plotplan.pdf

Emilie,  
There has been correspondence back and forth with your office and Joseph since we received this permit (October/November 2021). Apparently there were inconsistencies with the plot plan in relation to the loops and the septic setbacks. Joseph was dealing with Jen Evans in your office. There was a revision but nothing matching the information he was requesting. You need to start by revising your current site plan, show the area of the loops in more detail (sketch exactly what is to be installed on a separate drawing) and indicate on the site plan distances of the loops area. You will also need to include the septic component locations (tank, clean-outs, trenches, etc.) and place nominal distances to each from the loops. Keep in mind all the current horizontal setback locations as well. Once you have submitted this revision to the site plan, we will review and approve or make comments as needed. Once approved, you will need to have the approved loop area staked out in the field as it matches on the site plan. Please do not hesitate to contact me with any questions regarding this correspondence.

Thanks,

Kevin M. Wolf, LEHS, REHS/RS  
Groundwater Mgmt. Sec. Supervisor  
Well & Septic Program  
Howard County Health Department  
8930 Stanford Blvd.  
Columbia, MD 21045  
410-313-2645 (Office)  
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**From:** Cabahug, Joseph <jcabahug@howardcountymd.gov>  
**Sent:** Tuesday, November 30, 2021 12:29 PM  
**To:** Jen Evans <jen@groundloop.com>  
**Cc:** Ted Evans <ted@groundloop.com>; Wolf, Kevin <KWolf@howardcountymd.gov>  
**Subject:** Re: M21000878

Jen,

This project submission still does not follow the original corrections outlined in my email November 4th. These are unacceptable.

Thank you,  
Joseph

---

**From:** Jen Evans <jen@groundloop.com>  
**Sent:** Monday, November 29, 2021 8:45 AM  
**To:** Cabahug, Joseph <jcabahug@howardcountymd.gov>  
**Cc:** Ted Evans <ted@groundloop.com>  
**Subject:** FW: M21000878

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Good morning! Attached is the loop drawing for this project. Please let me know if you need anything else. Thank you.

Jen Evans  
Project Coordinator  
Ground Loop Heating & Air, Inc.  
Cell – 410-937-8718 (feel free to call or text)  
Office - 410-836-1706  
[jen@groundloop.com](mailto:jen@groundloop.com)

**From:** Cabahug, Joseph <jcabahug@howardcountymd.gov>  
**Sent:** Thursday, November 4, 2021 7:20 AM  
**To:** Wolf, Kevin <KWolf@howardcountymd.gov>; Emilie Weldy <emilie@groundloop.com>  
**Cc:** Jen Evans <jen@groundloop.com>  
**Subject:** RE: M21000878

Hello Emilie,

Do you have scaled measurements or anything staked in the field for this project? The plot plan submitted appears that the horizontal loops enter the house at the location of the sewer house connection of the sewer line; will these be crossing?

Attached is the Well and Sewer Record and the required setbacks to a geothermal.

Please resubmit a scaled plot plan showing the existing well septic elements (tank and drainfield) and a scaled plan of the horizontal loops. The plot plan must also show any well and septic elements that are within 100' of the lot line. The hand drawing makes the 150' loops appear to be around 60' and proposed length of 150' trench from the corner of the house as shown will extend the loops into the neighbors yard.

Joseph C. Cabahug – REHS/RS LEHS II

Environmental Health Specialist

Howard County Health Department

8930 Stanford Blvd.

Columbia, MD 21045

410-313-2643 Office

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**From:** Wolf, Kevin

**Sent:** Wednesday, November 3, 2021 5:47 PM

**To:** Emilie Weldy <[emilie@groundloop.com](mailto:emilie@groundloop.com)>

**Cc:** Jen Evans <[jen@groundloop.com](mailto:jen@groundloop.com)>; Cabahug, Joseph <[jcabahug@howardcountymd.gov](mailto:jcabahug@howardcountymd.gov)>

**Subject:** Re: M21000878

Emilie,

I will check into this one tomorrow and get back to you. Not sure what happened. In short, can you tell me is this a horizontal or vertical loop? If horizontal, are you all doing the loops?

Thanks,

Kevin M. Wolf, LEHS, REHS/RS

Groundwater Mgmt. Sec. Supervisor

Well & Septic Program

Howard County Health Department

8930 Stanford Blvd.

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**From:** Emilie Weldy <[emilie@groundloop.com](mailto:emilie@groundloop.com)>  
**Sent:** Wednesday, November 3, 2021 3:47 PM  
**To:** Wolf, Kevin <[KWolf@howardcountymd.gov](mailto:KWolf@howardcountymd.gov)>  
**Cc:** Jen Evans <[jen@groundloop.com](mailto:jen@groundloop.com)>  
**Subject:** RE: M21000878

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Hi Kevin,

Checking in on the processing status of Mechanical Permit M21000878 again. Can you please provide an update? We are trying to move forward with this project.

**Building M21000878:**  
**Residential HVAC New Permit**  
**Record Status: Review In Process**

Record Info ▼

Payments ▼

Custom Component

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## Processing Status

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✓ ▶ Application Acceptance

🔄 ▼ Health Dept

Assigned to TBD

📄 Marked as Pending on 10/13/2021 by Health Department

Assigned to TBD

Marked as TBD on TBD by TBD

HVAC Permit Issuance

Final HVAC

C of C

*Thank you,*  
**Emilie Weldy**  
**Customer Coordinator**  
*Ground Loop Heating & Air, Inc.*  
*410-836-1706*  
*[emilie@groundloop.com](mailto:emilie@groundloop.com)*

**From:** Emilie Weldy <[emilie@groundloop.com](mailto:emilie@groundloop.com)>  
**Sent:** Tuesday, October 19, 2021 12:43 PM  
**To:** 'Wolf, Kevin' <[KWolf@howardcountymd.gov](mailto:KWolf@howardcountymd.gov)>  
**Cc:** Ground Loop Project Coordinator <[cpc@groundloop.com](mailto:cpc@groundloop.com)>  
**Subject:** M21000878

Hi Kevin,

I just wanted to check in on the processing status of Mechanical Permit #M21000878 for a Geothermal HVAC installation at 12396 Frederick Rd. On my end, it looks like it is currently pending in the Health Department.

*Thank you,*  
**Emilie Weldy**  
**Customer Coordinator**  
*Ground Loop Heating & Air, Inc.*  
*410-836-1706*



