FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

| OTATELESIT | 05 0114 11050 | DENIEELOLAI   | 014/115501115 |
|------------|---------------|---------------|---------------|
| STATEMENT  | OF CHANGES    | IN BENEFICIAL | OWNERSHIP     |

| OMB APP                  | ROVAL |  |  |  |  |  |  |
|--------------------------|-------|--|--|--|--|--|--|
| OMB Number: 3235-0       |       |  |  |  |  |  |  |
| Estimated average burden |       |  |  |  |  |  |  |
| hours per response:      | 0.5   |  |  |  |  |  |  |

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person*  GRAY SUSANNAH  |  |                                |  | 2. Issuer Name and Ticker or Trading Symbol Morphic Holding, Inc. [ MORF ] |  |          |                                 |   |                            | (Che  | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)  X Director 10% Owner |   |   |                    |  |                           |                                       |
|--|--|--------------------------------|--|--|--|----------|---------------------------------|---|----------------------------|---|---|---|---|--------------------|--|---------------------------|---------------------------------------|
|  | RPHIC HO   | LDING, INC.                    | (Middle)   |  | 3. Date of Earliest Transaction (Month/Day/Year) 04/27/2021                              |          |                                 |   |                            |   |   |   | Officer<br>below)                                   | r (give title<br>) |  | Other (s<br>below)        | pecify                                |
| 35 GATEHOUSE DRIVE, A2   |  |                                | 4.   | 4. If Amendment, Date of Original Filed (Month/Day/Year)                   |  |          |                                 |   |                            | 6. Individual or Joint/Group Filing (Check Applicable Line) |   |   |   |                    |  |                           |                                       |
| (Street) WALTH   | AM M   | (A                             | 02451  |  |  |          |                                 |   |                            |   |   | X   | Form fi   | led by Mor         |  | rting Persor<br>One Repor |                                       |
| (City)   | (S   | tate)                          | (Zip)  |  |  |          |                                 |   |                            |   |   |   |   |                    |  |                           |                                       |
|  |  | Tab                            | le I - Non-D   | erivativ   | /e Se  | curities | s Ac                            | quired, Di  | spose                      | d of, or  | Benef   | icially   | / Owned   |                    |  |                           |                                       |
| Date   |  | Transactio<br>te<br>onth/Day/\ | Execution Date,  |  | 3. Transaction Code (Instr. 8)  4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4) |          |                                 | Securitie<br>Beneficia<br>Owned F                       | eficially<br>ned Following |   | Form: Direct  | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership |   |                    |  |                           |                                       |
|  |  |                                |  |  |  |          |                                 | Code V  | Amo                        | unt (/  | (A) or (D) Price  |   | Reported<br>Transaction(s)<br>(Instr. 3 and 4)      |                    |  |                           | (Instr. 4)                            |
| Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |  |                                |  |  |  |          |                                 |   |                            |   |   |   |   |                    |  |                           |                                       |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)  | Conversion Date Execu<br>or Exercise (Month/Day/Year) if any |                                | 3A. Deemed<br>Execution Date<br>if any<br>(Month/Day/Yea | Code   | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Inst 3, 4 and 5)     |          | ive<br>ies<br>ed<br>ed<br>nstr. | 6. Date Exercisal<br>Expiration Date<br>(Month/Day/Year |                            | of Securities   |   | curity  | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) |                    | Ownersh S Form: Ully Direct (D Or Indirect (I) (Instr. | Ownership                 | Beneficial<br>Ownership<br>(Instr. 4) |
|  |  |                                |  | Code   | v  | (A)      | (D)                             | Date<br>Exercisable                                     | Expirati<br>Date           | ion Title   | or<br>Nu<br>of  | mber<br>ares  |   |                    |  |                           |                                       |
| Stock<br>Option<br>(right to<br>buy<br>Common<br>Stock)  | \$55.46  | 04/27/2021                     |  | A  |  | 24,000   |                                 | (1)   | 04/26/20                   | O31 Comn<br>Stoo  |   | .,000   | \$0.00  | 24,000             | 0  | D                         |                                       |

1. The option vests as to 25% of the total shares on April 27, 2022, and then 9.375% of the remaining shares shall vest quarterly thereafter, subject to the reporting person's provision of service to the issuer on

## Remarks:

/s/ Robert Farrell as attorney-04/29/2021 in-fact

\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- \* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.