

| OMB APPROVAL | |
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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* <u>Omega Fund V, L.P.</u> <hr/> (Last) (First) (Middle) 888 BOYLSTON STREET, SUITE 1111 <hr/> (Street) BOSTON MA 02199 <hr/> (City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol <u>Morphic Holding, Inc. [MORF]</u> | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below) |
| | 3. Date of Earliest Transaction (Month/Day/Year) 04/15/2021 | |
| 4. If Amendment, Date of Original Filed (Month/Day/Year) | | |

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|---------------------------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Stock | 04/15/2021 | | s ⁽¹⁾ | | 3,667 | D | \$55.16 ⁽¹⁾⁽²⁾ | 2,162,333 | D ⁽⁸⁾ | |
| Common Stock | 04/15/2021 | | s ⁽¹⁾ | | 4,331 | D | \$56.1 ⁽¹⁾⁽³⁾ | 2,158,002 | D ⁽⁸⁾ | |
| Common Stock | 04/15/2021 | | s ⁽¹⁾ | | 2,828 | D | \$57.15 ⁽¹⁾⁽⁴⁾ | 2,155,174 | D ⁽⁸⁾ | |
| Common Stock | 04/15/2021 | | s ⁽¹⁾ | | 355 | D | \$58.11 ⁽¹⁾⁽⁵⁾ | 2,154,819 | D ⁽⁸⁾ | |
| Common Stock | 04/16/2021 | | s ⁽¹⁾ | | 3,846 | D | \$54.37 ⁽¹⁾⁽⁶⁾ | 2,150,973 | D ⁽⁸⁾ | |
| Common Stock | 04/16/2021 | | s ⁽¹⁾ | | 2,719 | D | \$55.36 ⁽¹⁾⁽⁷⁾ | 2,148,254 | D ⁽⁸⁾ | |

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|-----|--|-----------------|---|--|--|---|--|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | | | | | |

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|---|
| 1. Name and Address of Reporting Person* <u>Omega Fund V, L.P.</u> <hr/> (Last) (First) (Middle) 888 BOYLSTON STREET, SUITE 1111 <hr/> (Street) BOSTON MA 02199 <hr/> (City) (State) (Zip) |
| 1. Name and Address of Reporting Person* <u>Omega Fund V GP, L.P.</u> <hr/> (Last) (First) (Middle) 888 BOYLSTON STREET, SUITE 1111 <hr/> (Street) BOSTON MA 02199 <hr/> (City) (State) (Zip) |
| 1. Name and Address of Reporting Person* <u>Omega Fund V GP Manager, Ltd.</u> |

(Last) (First) (Middle)
888 BOYLSTON STREET, SUITE 1111

(Street)
BOSTON MA 02199

(City) (State) (Zip)

1. Name and Address of Reporting Person*

Stampacchia Otello

(Last) (First) (Middle)
888 BOYLSTON STREET, SUITE 1111

(Street)
BOSTON MA 02199

(City) (State) (Zip)

Explanation of Responses:

- Shares were sold pursuant to a Rule 10b5-1 trading plan.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$54.67 to \$55.63 inclusive. The reporting person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$55.69 to \$56.67 inclusive. The reporting person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$56.70 to \$57.69 inclusive. The reporting person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$57.78 to \$58.25 inclusive. The reporting person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$53.92 to \$54.91 inclusive. The reporting person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- The price reported in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$54.96 to \$55.89 inclusive. The reporting person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- The reported securities are held directly by Omega Fund V, L.P. ("Omega V"). The reported securities may be deemed to be beneficially owned by each of Omega Fund V GP, L.P. ("Omega V GP"), as the general partner of Omega V, and Omega Fund V GP Manager, Ltd. ("Omega V GP Manager"), as the general partner of Omega V GP. Otello Stampacchia, Anne-Mari Paster and Claudio Nessi (the "Omega Directors") are all the shareholders and directors of Omega V GP Manager and have shared voting and investment power over the shares held by Omega V. Each of Omega V GP, Omega Fund V GP Manager and the Omega Directors disclaims beneficial ownership of the securities reported herein, except to the extent of its or their pecuniary interest therein, if any. Otello Stampacchia is a director of the issuer.

Remarks:

/s/ Anne-Mari Paster, as an
authorized signatory of each 04/19/2021
Reporting Person

** 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.