1. Name and Address of Reporting Person
   DeVaul William
   (Last) (First) (Middle)
   C/O MORPHIC HOLDING, INC.
   35 GATEHOUSE DRIVE, A2
   WALTHAM MA 02451

2. Issuer Name and Ticker or Trading Symbol
   Morphic Holding, Inc. [ MORF ]

3. Date of Earliest Transaction (Month/Day/Year)
   07/01/2020

4. If Amendment, Date of Original Filed (Month/Day/Year)
   07/06/2020

5. Relationship of Reporting Person(s) to Issuer
   Director
   X Officer (give title below)
   General Counsel and Secretary
   Other (specify below)

6. Individual or Joint/Group Filing (Check Applicable Line)
   X Form filed by One Reporting Person
   Form filed by More than One Reporting Person

---

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

<table>
<thead>
<tr>
<th>1. Title of Security (Instr. 3)</th>
<th>2. Transaction Date (Month/Day/Year)</th>
<th>2A. Deemed Execution Date, if any (Month/Day/Year)</th>
<th>3. Transaction Code (Instr. 8)</th>
<th>4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)</th>
<th>4A. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)</th>
<th>4B. Price of Security (Instr. 3, 4 and 5)</th>
<th>4C. Amount of Derivative Securities Underlying Derivative Security (Instr. 3 and 4)</th>
<th>5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)</th>
<th>6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)</th>
<th>7. Nature of Indirect Beneficial Ownership (Instr. 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Stock</td>
<td>07/01/2020</td>
<td></td>
<td>M</td>
<td>2,283</td>
<td>A</td>
<td>$4.32</td>
<td>$4,783</td>
<td>10% Owner</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Common Stock</td>
<td>07/01/2020</td>
<td></td>
<td>s(2)</td>
<td>1,448</td>
<td>D</td>
<td>$26.153</td>
<td>3,335</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Stock</td>
<td>07/01/2020</td>
<td></td>
<td>s(2)</td>
<td>835</td>
<td>D</td>
<td>$27.140</td>
<td>2,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Stock</td>
<td>07/02/2020</td>
<td></td>
<td>M</td>
<td>5,400</td>
<td>A</td>
<td>$4.32</td>
<td>7,900</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Stock</td>
<td>07/02/2020</td>
<td></td>
<td>s(2)</td>
<td>5,400</td>
<td>D</td>
<td>$26.506</td>
<td>2,500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Stock</td>
<td>07/06/2020</td>
<td></td>
<td>M</td>
<td>2,200</td>
<td>A</td>
<td>$4.32</td>
<td>4,700</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common Stock</td>
<td>07/06/2020</td>
<td></td>
<td>s(2)</td>
<td>2,200</td>
<td>D</td>
<td>$25.879</td>
<td>2,500</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned

<table>
<thead>
<tr>
<th>1. Title of Derivative Security (Instr. 3)</th>
<th>2. Conversion or Exercise Price of Derivative Security</th>
<th>3. Transaction Date (Month/Day/Year)</th>
<th>3A. Deemed Execution Date, if any (Month/Day/Year)</th>
<th>4. Transaction Code (Instr. 8)</th>
<th>5. Number of Derivative Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)</th>
<th>6. Date Exercisable and Expiration Date (Month/Day/Year)</th>
<th>7. Title and Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)</th>
<th>8. Price of Derivative Security (Instr. 5)</th>
<th>9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)</th>
<th>10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)</th>
<th>11. Nature of Indirect Beneficial Ownership (Instr. 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Option (right to buy Common Stock)</td>
<td>$4.32</td>
<td>07/01/2020</td>
<td>M</td>
<td>2,283</td>
<td>(7)</td>
<td>12/14/2028</td>
<td>Common Stock</td>
<td>$0.00</td>
<td>191,571</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Stock Option (right to buy Common Stock)</td>
<td>$4.32</td>
<td>07/02/2020</td>
<td>M</td>
<td>5,400</td>
<td>(7)</td>
<td>12/14/2028</td>
<td>Common Stock</td>
<td>$0.00</td>
<td>186,171</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Stock Option (right to buy Common Stock)</td>
<td>$4.32</td>
<td>07/06/2020</td>
<td>M</td>
<td>2,200</td>
<td>(7)</td>
<td>12/14/2028</td>
<td>Common Stock</td>
<td>$0.00</td>
<td>183,971</td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

**Explanation of Responses:**

1. Includes 2,500 shares of Common Stock acquired under the issuer's employee stock purchase plan on March 2, 2020.
2. The sales reported on this Form 4 were effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person.
3. The reported price in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from $25.84 to $26.675 per share, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.
4. The reported price in Column 4 is a weighted average price. These shares were sold in multiple transactions at prices ranging from $25.84 to $26.675 per share, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the range set forth in this footnote.
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7. The option vests as to 2.0833% of the total shares monthly, beginning October 30, 2018, with 100% of the total shares vested and exercisable on September 30, 2022, subject to the reporting person's provision of service to the issuer on each vesting date.

Remarks:

/s/ Robert Farrell as attorney-in-fact for William DeVaul

07/06/2020

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).


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.