

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL

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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>Nashat Amir</u> (Last) (First) (Middle) <u>C/O POLARIS PARTNERS</u> <u>ONE MARINA PARK DRIVE, 10TH FL.</u> (Street) <u>BOSTON MA 02210</u> (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) <u>06/26/2019</u>	3. Issuer Name and Ticker or Trading Symbol <u>Morphic Holding, Inc. [MORF]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
<u>No securities beneficially held</u>	<u>0</u>	<u>D</u>	

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

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)	4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)	
	Date Exercisable	Expiration Date					
<u>Series Seed Preferred Stock</u>	<u>(1)</u>	<u>(1)</u>	<u>Common Stock</u>	<u>473,276</u>	<u>(1)</u>	<u>I</u>	<u>By Polaris Partners VII, L.P.⁽²⁾⁽³⁾</u>
<u>Series A Preferred Stock</u>	<u>(4)</u>	<u>(4)</u>	<u>Common Stock</u>	<u>1,236,302</u>	<u>(4)</u>	<u>I</u>	<u>By Polaris Partners VII, L.P.⁽²⁾⁽³⁾</u>
<u>Series B Preferred Stock</u>	<u>(5)</u>	<u>(5)</u>	<u>Common Stock</u>	<u>344,662</u>	<u>(5)</u>	<u>I</u>	<u>By Polaris Partners VII, L.P.⁽²⁾⁽³⁾</u>
<u>Series Seed Preferred Stock</u>	<u>(1)</u>	<u>(1)</u>	<u>Common Stock</u>	<u>33,108</u>	<u>(1)</u>	<u>I</u>	<u>By Polaris Entrepreneurs' Fund VII, L.P.⁽⁶⁾</u>
<u>Series A Preferred Stock</u>	<u>(4)</u>	<u>(4)</u>	<u>Common Stock</u>	<u>86,487</u>	<u>(4)</u>	<u>I</u>	<u>By Polaris Entrepreneurs' Fund VII, L.P.⁽⁶⁾</u>
<u>Series B Preferred Stock</u>	<u>(5)</u>	<u>(5)</u>	<u>Common Stock</u>	<u>24,111</u>	<u>(5)</u>	<u>I</u>	<u>By Polaris Entrepreneurs' Fund VII, L.P.⁽⁶⁾</u>
<u>Stock Option (right to buy Common Stock)</u>	<u>(7)</u>	<u>06/26/2029</u>	<u>Common Stock</u>	<u>24,000</u>	<u>15</u>	<u>D</u>	

Explanation of Responses:

- Each share of the issuer's Series Seed Preferred Stock will automatically convert into one share of the issuer's Common Stock immediately upon the closing of the issuer's initial public offering ("IPO") and has no expiration date.
- The reportable securities are owned directly by Polaris Partners VII, L.P. ("PP VII"). Polaris Management Co. VII, L.L.C. ("PMC VII") is the general partner of PP VII. The reporting person, a member of the issuer's Board of Directors, is a member of PMC VII. Each of the reporting person, David Barrett ("Barrett"), Brian Chee ("Chee"), Jonathan A. Flint ("Flint"), Terrance G. McGuire ("McGuire") and Bryce Youngren ("Youngren" and, together with the reporting person, Barrett, Chee, Flint, and McGuire, the "Managing Members") are the managing members of PMC VII.
- Each of the Managing Members, in their respective capacities with respect to PMC VII, may be deemed to have shared voting and dispositive power over the shares held by PP VII. Each of PMC VII and the Managing Members disclaims beneficial ownership of these securities and this report shall not be deemed an admission that any one of them is the beneficial owner of such securities for purposes of Section 16 or for any other purpose, except to the extent of their respective pecuniary interests therein.
- Each share of the issuer's Series A Preferred Stock will automatically convert into one share of the issuer's Common Stock immediately upon the closing of the issuer's IPO and has no expiration date.
- Each share of the issuer's Series B Preferred Stock will automatically convert into one share of the issuer's Common Stock immediately upon the closing of the issuer's IPO and has no expiration date.
- The reportable securities are owned directly by Polaris Entrepreneurs' Fund VII, L.P. ("PEF VII"). PMC VII is the general partner of PEF VII. The reporting person, a member of the issuer's Board of Directors, is a member of PMC VII. Each of the reporting person, Barrett, Chee, Flint, McGuire and Youngren are the managing members of PMC VII. Each of the Managing Members, in their respective capacities with respect to PMC VII, may be deemed to have shared voting and dispositive power over the shares held by PEF VII. Each of PMC VII and the Managing Members disclaims beneficial ownership of these securities and this report shall not be deemed an admission that any one of them is the beneficial owner of such securities for purposes of Section 16 or for any other purpose, except to the extent of their respective pecuniary interests therein.
- The option vests as to 25% of the total shares on June 26, 2020, 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 each vesting date.

/s/ Robert Farrell as attorney-
in-fact for Amir Nashat 06/26/2019

** 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 5 (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.

LIMITED POWER OF ATTORNEY

The undersigned hereby constitutes and appoints Robert Farrell, William DeVaul and Praveen Tipirneni, as long as they are providing services to Morphic Holding, Inc., a Delaware corporation (the "Company"), or any of them, the undersigned's true and lawful attorney-in-fact to:

- (1) execute for and on behalf of the undersigned, in the undersigned's capacity as an officer and/or director of the Company, Forms 3, 4 and 5 in accordance with Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations thereunder;
- (2) do and perform any and all acts for and on behalf of the undersigned that may be necessary or desirable to complete and execute any such Forms 3, 4s and 5s and timely file such forms with the Securities and Exchange Commission and any stock exchange or similar authority, if required; and
- (3) take any other action of any type whatsoever in connection with the foregoing that, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to each such attorney-in-fact full power and authority to do and perform each and every act and thing whatsoever requisite, necessary or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution and revocation, hereby ratifying and confirming all that each such attorney-in-fact, or each such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that each of the foregoing attorneys-in-fact, in serving in such capacity at the request of the undersigned, is not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Exchange Act.

The undersigned agrees that each such attorney-in-fact may rely entirely on information furnished orally or in writing by the undersigned to each such attorney-in-fact. The undersigned also agrees to indemnify and hold harmless the Company and each such attorney-in-fact against any losses, claims, damages or liabilities (or actions in these respects) that arise out of or are based on any untrue statement or omission of necessary facts in the information provided by the undersigned to such attorney-in-fact for purposes of executing, acknowledging, delivering and filing Forms 3, 4 or 5 (including amendments thereto) and agrees to reimburse the Company and each such attorney-in-fact for any legal or other expenses reasonably incurred in connection with investigating or defending against any such loss, claim, damage, liability or action.

This Power of Attorney shall remain in full force and effect until the undersigned is no longer required to file Forms 3, 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, unless earlier revoked by the undersigned in a signed writing delivered to the foregoing attorneys-in-fact.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 21st day of June 2019.

/s/ Amir Nashat

Name: Amir Nashat