

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

February 20, 2025

Michael Nierenberg Chairman and Chief Executive Officer Rithm Acquisition Corp. 799 Broadway, 8th Floor New York, NY 10003

Re: Rithm Acquisition Corp.
Registration Statement on Form S-1
Filed February 3, 2025
File No. 333-284671

Dear Michael Nierenberg:

We have reviewed your registration statement and have the following comment.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe a comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to this letter, we may have additional comments. Unless we note otherwise, any references to prior comments are to comments in our January 16, 2025 letter.

Registration Statement on Form S-1 filed February 3, 2025 Management, page 155

1. In response to prior comment 5, we note your statement that you do not believe any potential conflict with Jaws Mustang Acquisition Corporation, a SPAC that is currently searching for a target, would materially affect your ability to complete your business combination. Given Ms. Fascitelli's fiduciary duties to your company and Jaws Mustang Acquisition Corporation, please revise your disclosure to state the basis of your belief.

We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff. February 20, 2025 Page 2

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Ameen Hamady at 202-551-3891 or Wilson Lee at 202-551-3468 if you have questions regarding comments on the financial statements and related matters. Please contact Isabel Rivera at 202-551-3518 or Mary Beth Breslin at 202-551-3625 with any other questions.

Sincerely,

Division of Corporation Finance Office of Real Estate & Construction

cc: Derek Dostal