



DIVISION OF
CORPORATION FINANCE

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

November 29, 2021

Peter Bordes
Executive Chairman
Trajectory Alpha Acquisition Corp.
99 Wall Street, #5801
New York, New York 10005

**Re: Trajectory Alpha Acquisition Corp.
Amendment No. 3 to
Registration Statement on Form S-1
Filed November 17, 2021
File No. 333-253967**

Dear Mr. Bordes:

We have reviewed your amended registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply 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 these comments, we may have additional comments.

Amendment No. 2 to Registration Statement on Form S-1

Cover Page

1. We note your disclosure on page 21 that the anchor investors' purchases would represent an aggregate of 98.2% of the units being sold in this offering. Please revise to state this on the cover page. In addition, please state the number of anchor investors.

The Offering

Redemption rights in connection with proposed amendments..., page 36

2. Please explain why you have removed the disclosure stating the beneficial ownership of the initial stockholders here and throughout the filing.

Peter Bordes
Trajectory Alpha Acquisition Corp.
November 29, 2021
Page 2

There has been and may in the future be diversity in the capital structure...., page 82

3. We note your risk factor that "diversity" in financial accounting policies and further statements by the SEC relating to accounting of special purpose acquisition companies could result in the correction of accounting errors in previously issued financial statements. Please tell us what "diversity" in financial accounting policies means and how it relates to (1) the requirements in Regulation S-X that the financial statements must be prepared in accordance with generally accepted accounting principles in the U.S. ("U.S. GAAP"), and (2) your financial statements and related audit opinion that state your financial statements were prepared in accordance with U.S. GAAP. In addition, address how "diversity" in accounting could result in the correction of an accounting error when the U.S. GAAP definition of an "accounting change" explicitly scopes out "the correction of an error in previously issued financial statements."

You may contact Dale Welcome at 202-551-3865 or John Cash at 202-551-3768 if you have questions regarding comments on the financial statements and related matters. Please contact Erin Purnell at 202-551-3454 or Anne Parker at 202-551-3611 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Manufacturing