BRIGHTSPIRE CAPITAL, INC.

Proxy for Annual Meeting of Stockholders on May 16, 2023 Solicited on Behalf of the Board of Directors

The undersigned hereby appoints David A. Palamé and Frank V. Saracino, with full power of substitution and power to act alone, as proxy to vote all the shares of Common Stock which the undersigned would be entitled to vote if personally present and acting at the Annual Meeting of Stockholders of BrightSpire Capital, Inc., to be held May 16, 2023 at 11:00 A.M. EDT, virtually at https://web.lumiagm.com/219091430 (password: brightspire2023), and at any adjournments or postponements thereof, and at the discretion of the proxies on any other matters that may properly come before the meeting. If specific voting instructions are not provided and the signed card is returned, the proxies will vote in accordance with the Board of Directors recommendations listed on the reverse side.

(Continued and to be signed on the reverse side)

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ANNUAL MEETING OF STOCKHOLDERS OF

BRIGHTSPIRE CAPITAL, INC.

May 16, 2023

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE MEETING OF STOCKHOLDERS TO BE HELD ON MAY 16. 2023.

The Notice of Meeting, Proxy Statement and Proxy Card are available at http://www.astproxyportal.com/ast/BRSP

Please sign, date and mail your proxy card in the envelope provided as soon as possible.

Please detach along perforated line and mail in the envelope provided.

00003333333330000000 1 051623 THE BOARD OF DIRECTORS RECOMMEND A VOTE "FOR" ALL DIRECTOR NOMINEES IN PROPOSAL 1 AND "FOR" PROPOSAL 2, PROPOSAL 3 AND PROPOSAL 4. PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE x 1. To elect six directors from the nominees named in the proxy statement to serve one-THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED IN THE MANNER DIRECTED year terms expiring at the 2024 annual meeting of stockholders. HEREIN. IF NO DIRECTION IS MADE THIS PROXY WILL BE VOTED FOR EACH OF PROPOSAL 1, PROPOSAL 2, PROPOSAL 3 AND PROPOSAL 4. AGAINST ARSTAIN Catherine D. Rice Kim S. Diamond Catherine Long Vernon B. Schwartz John E. Westerfield Michael J. Mazzei 2. Approval of an advisory proposal regarding the compensation paid to BrightSpire Ratification of the appointment of Ernst & Young LLP as independent public auditor for the fiscal year ending December 31, 2023. Approval of the BrightSpire Capital, Inc. Charter Amendment. In their discretion, the proxies are authorized to vote upon such other business as may properly come before the meeting. To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method.

Signature of Stockholder

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.

Signature of Stockholder