

2023 Annual Meeting of Stellar Bancorp, Inc. Shareholders
May 25, 2023 at 10:00 a.m. CT
The Houstonian Hotel
111 North Post Oak Lane
Houston, Texas 77024

Important notice regarding the Internet availability of proxy materials for the Annual Meeting of Shareholders.
The materials are available at: www.envisionreports.com/STEL



▼ IF VOTING BY MAIL, SIGN, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. ▼

Stellar Bancorp, Inc.



Notice of 2023 Annual Meeting of Shareholders to be held on May 25, 2023

Proxy Solicited on behalf of the Stellar Bancorp, Inc. Board of Directors

The undersigned hereby constitutes and appoints Robert R. Franklin, Jr. and Steven R. Retzloff, jointly and severally with the full power of substitution and revocation, as proxies to represent and to vote for and on behalf of the undersigned, with all the powers that the undersigned would possess if personally present, all of the shares of common stock, par value \$0.01 per share, of Stellar Bancorp, Inc. (the "Company"), that the undersigned would be entitled to vote if then personally present at the Annual Meeting of Shareholders of the Company (the "Annual Meeting") to be held at The Houstonian Hotel, 111 North Post Oak Lane, Houston, Texas 77024 on Thursday, May 25, 2023, at 10:00 a.m. Central Time, and at any adjournments or postponements thereof, on the matters and proposals set forth in the Notice of the Annual Meeting of Shareholders dated April 24, 2023, and which may properly come before the Annual Meeting in accordance with directions contained in this Proxy Card. The undersigned hereby revokes all appointments of proxy previously given to vote at the Annual Meeting.

This proxy, when properly executed, will be voted in the manner directed herein by the undersigned Shareholder. If no direction is made, this proxy will be voted "FOR" the election of all of the Class I director nominees named in Proposal 1, "FOR" approval of Proposal 2, for "1-Year" for Proposal 3, and "FOR" approval of Proposal 4. In their discretion, the Proxies are authorized to vote upon such other business as may properly come before the meeting.

(Items to be voted appear on reverse side)

C Non-Voting Items

Change of Address – Please print new address below.

Comments – Please print your comments below.

