YOUR VOTE IS IMPORTANT. PLEASE VOTE TODAY.

Vote by Internet -QUICK ★★★ EASY IMMEDIATE - 24 Hours a Day, 7 Days a Week or by Mail

VERITEX HOLDINGS, INC.

Your Internet vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed and returned your proxy card. Votes submitted electronically over the Internet must be received by 10:00 a.m., Central Time, on May 17, 2022.

INTERNET/MOBILE – www.cstproxyvote.com Use the Internet to vote your proxy. Have your proxy card available when you access the above website. Follow the prompts to vote your shares. MAIL – Mark, sign and date your proxy card and return it in the postage-paid

envelope provided.

PLEASE DO NOT RETURN THE PROXY CARD IF YOU ARE VOTING ELECTRONICALLY.

▲ FOLD HERE • DO NOT SEPARATE • INSERT IN ENVELOPE PROVIDED ▲

PROXY

THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS INDICATED, OR IF NO DIRECTION IS INDICATED, WILL BE VOTED "FOR" PROPOSAL 1, 2, 3 AND 4, AND IN THE PROXIES' DISCRETION ON ANY OTHER MATTERS COMING BEFORE THE MEETING. THIS PROXY IS SOLICITED ON BEHALF OF THE ROARD OF DIRECTORS.

	your votes.	X
, OR IF NO DIRECTION IS		
PROXIES' DISCRETION ON		

	Malaska Halland III	POR all	WITHHOLD AUTHORITY	2,	Approval of 2022 amended and restated omnibus incentive plan.	FOR	AGAINST	ABSTAIN	
	. Malcolm Holland, III rcilia Acosta	Nominees listed to the	to yole (except as marked to the contrary for all nominees						
4-4	at S. Bolin	left		(the contrary for an normness.)					
(4) Ap	pril Box			3.	Advisory vote to approve the compensation of our named	POR	AGAINST	ABSTAIN	
7 .	lake Bozman	200	NP. 127		executive officers.				
4-3	/illiam D. Ellis								
(7) W	/illiam E. Fallon			7.		POR	AGAINST	ABSTAIN	
(8) M	lark C. Griege			4.	To ratify the appointment of Grant				
(9) G	ordon Huddleston				Thronton LLP as the independent registered public accounting firm of	1 1			
(10) St	teven D. Lerner				the Company for the year ending				
(11) M	lanuel J. Mehos				December 31, 2022.				
(12) G	regory B. Morrison								
(13) Jo	ohn T. Sughrue								
(Instruction: To withhold authority to vote for any individual			CONTROL NUMBER						
	, strike a line through that								

Signature Signature, if held jointly Date, 2022
Note: Please sign exactly as name appears hereon. When shares are held by joint owners, both should sign. When signing as attorney, executor, administrator, trustee, quardisn, or corporate officer, please give title as such.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting of Shareholders to be held on May 17, 2022

The proxy statement and our 2021 Annual Report to Shareholders are available at https://ir.veritexbank.com/2022-annual-meeting-shareholders

▲ FOLD HERE • DO NOT SEPARATE • INSERT IN ENVELOPE PROVIDED ▲

PROXY

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

VERITEX HOLDINGS, INC.

The undersigned appoints C. Malcolm Holland, III and Terry S. Earley, and each of them, as proxies, each with the power to appoint his substitute, and authorizes each of them to represent and to vote, as designated on the reverse hereof, all of the shares of common stock of Veritex Holdings, Inc. held of record by the undersigned at the close of business on April 5, 2022 at the Annual Meeting of Shareholders of Veritex Holdings, Inc. to be held on May 17, 2022, or at any adjournment thereof.

THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS INDICATED. IF NO CONTRARY INDICATION IS MADE, THE PROXY WILL BE VOTED IN FAVOR OF ELECTING THE THIRTEEN NOMINEES TO THE BOARD OF DIRECTORS, AND IN FAVOR OF PROPOSAL 2, 3 AND 4, AND IN ACCORDANCE WITH THE JUDGMENT OF THE PERSONS NAMED AS PROXY HEREIN ON ANY OTHER MATTERS THAT MAY PROPERLY COME BEFORE THE ANNUAL MEETING. THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS.

(Continued and to be marked, dated and signed, on the other side)