

Alpaca Customer Agreement

In consideration of Alpaca Securities LLC ("Alpaca") and its agents and assigns (collectively "You" and/or "Your") opening one or more accounts ("My Account(s)" or the "Account(s)") on my behalf, I represent and agree with respect to all Accounts, to the terms set forth below (the "Agreement"). When used in this Agreement, the words "I", "Me", "My", "Mine", "We" and/or "Us" mean the owner(s) of the Account. When used in the Agreement, the word "federal" means the United States of America.

I UNDERSTAND THAT THE TERMS AND CONDITIONS OF THIS AGREEMENT GOVERN ALL ASPECTS OF MY RELATIONSHIP WITH YOU REGARDING MY ACCOUNTS. I WILL CAREFULLY READ, UNDERSTAND AND ACCEPT THE TERMS AND CONDITIONS OF THIS AGREEMENT BEFORE I SIGN THE APPLICATION OR OTHER SIMILARLY WORDED SIGNATURE AREAS. IF I HAVE ANY QUESTIONS ABOUT ANY OF THE PROVISIONS IN THIS AGREEMENT, I WILL EMAIL AT Compliance@ALPACA.MARKETS OR CALL ALPACA AT 01-650-489-2017. I UNDERSTAND THAT ELECTRONICALLY SIGNING THE APPLICATION, IT IS THE LEGAL EQUIVALENT OF MY MANUALLY SIGNING THIS AGREEMENT AND I WILL BE LEGALLY BOUND BY ITS TERMS AND CONDITIONS. BY ENTERING INTO THIS AGREEMENT, I ACKNOWLEDGE RECEIPT OF THE ALPACA PRIVACY STATEMENT. I UNDERSTAND THAT THIS AGREEMENT MAY BE AMENDED FROM TIME TO TIME BY ALPACA, WITH REVISED TERMS POSTED ON THE ALPACA WEBSITE. I AGREE TO CHECK FOR UPDATES TO THIS AGREEMENT. I UNDERSTAND THAT BY CONTINUING TO MAINTAIN MY SECURITIES BROKERAGE ACCOUNT WITHOUT OBJECTING TO ANY REVISED TERMS OF THIS AGREEMENT, I AM ACCEPTING THE TERMS OF THE REVISED AGREEMENT AND I WILL BE LEGALLY BOUND BY ITS TERMS AND CONDITIONS. IF I REQUEST OTHER SERVICES PROVIDED BY ALPACA THAT REQUIRE ME TO AGREE TO SPECIFIC TERMS AND CONDITIONS ELECTRONICALLY (THROUGH CLICKS OR OTHER ACTIONS) OR OTHERWISE, SUCH TERMS AND CONDITIONS WILL BE DEEMED AN AMENDMENT AND WILL BE INCORPORATED INTO AND MADE PART OF THIS AGREEMENT. I ALSO UNDERSTAND THAT BY ELECTRONICALLY SIGNING THE APPLICATION, I HAVE ACKNOWLEDGED THAT THIS AGREEMENT CONTAINS A PREDISPUTE ARBITRATION CLAUSE IN SECTION 28 HEREIN.

1. Capacity and Status.

If an individual, I am of legal age under the laws of the jurisdiction where I reside and authorized to enter into this Agreement. If an entity, I am duly formed, validly existing and in good standing in My jurisdiction of organization, have full power and authority to enter and perform this Agreement, and the persons signing the account application are fully authorized to act on My behalf. No person, except Myself (or any person named in a separate agreement or joint account), has any interest in the Account opened pursuant to this Agreement. I acknowledge that unless You receive written objection from Me, You may provide My name, address, and securities positions to requesting companies in which I hold securities. Except as otherwise disclosed to You in writing, neither I nor any member of My immediate family is an employee of any exchange, any corporation of which any exchange owns a majority of the capital stock, a member of any exchange or self-regulatory organization, a member of any firm or member corporation registered on any exchange, a bank, trust company, insurance company or any corporation, firm or individual engaged in the business of dealing either as a broker-dealer or as principal in securities. I understand and agree that I am obligated to promptly notify You in writing if I or a member of My immediate family becomes registered or employed in any of the above-described capacities. I further agree to promptly notify You in writing if I am now or if I become: (i) registered or qualified with the Financial Industry Regulatory Authority, Inc. ("FINRA"), the SEC, the Commodities Futures Trading Commission, any state securities agency, any securities exchange or association, or any commodities or futures contract market or association; (ii) an "investment adviser" as that term is defined in Section 201(11) of the Investment Advisers Act of 1940 (whether or not registered or qualified under that act); (iii) employed by a bank or other organization exempt from registration under federal and state securities laws to perform functions that would require Me to be so registered or qualified if I were to perform such functions for an organization not so exempt; or (iv) an officer, director or 10% stockholder of any publicly traded company.

2. Authorization.

I understand that My brokerage account is self-directed. Accordingly, I appoint You as My agent for the purpose of carrying out My directions to You in accordance with the terms and conditions of this Agreement and any attendant risks with respect to the purchase or sale of securities. You are authorized to open or close My Accounts, place and withdraw orders and take such other steps as are reasonable to carry out My directions. All transactions will be effected only on My order or the order of My authorized delegate, except as described in **Section 9**. I understand Alpaca provides trading and brokerage services through the Alpaca website (the "Website"), the Alpaca mobile application (the "App"), and the Application Programming Interface (the "API"). I agree to receive and transmit financial information through such electronic means. My use or My grant of access to My Account to any third party to access information or place transactions in My Account is solely at My risk.

3. Customer Representations and Responsibilities.

a. Self-directed Account.

I understand that My Account is self-directed, I am solely responsible for any and all orders placed in My Account and all orders entered by me or on My behalf are unsolicited and based on My own investment decisions or the investment decision of My duly authorized representative or agent. Accordingly, I agree that neither You nor any of Your employees, agents, principals or representatives:

- i. provide investment advice in connection with this Account;
- ii. recommend any security, transaction or order;
- iii. solicit orders;
- iv. act as a market maker in any security;
- v. make discretionary trades; and
- vi. produce or provide research

b. Research Materials.

To the extent research materials or similar information is available through the App or the Website or the web sites of any of its affiliates, I understand that these materials are intended for informational and educational purposes only and they do not constitute a recommendation to enter into any securities transactions or to engage in any investment strategies.

c. Information Accuracy.

- i. I certify that the information contained in this Agreement, the account application, and any other document that I furnish

to You in connection with My Account(s) is complete, true and correct, and acknowledge that knowingly giving false information for the purpose of inducing You to extend credit is a federal crime;

- ii. I authorize You to contact any individual or firm noted herein or on the documents referred to in subsection (i) of this Section and any other normal sources of debit or credit information;
- iii. I authorize anyone so contacted to furnish such information to You as You may request; and
- iv. I agree that this Agreement, the account application and any other document I furnish in connection with My Account is Your property, as the case may be.

I shall promptly advise You of any changes to the information in such agreements and documents in writing within 10 calendar days. I authorize You to obtain reports and provide information to others concerning My creditworthiness and business conduct. Upon My request, You agree to provide Me a copy of any report so obtained. You may retain this Agreement, the Account application, and all other such documents and their respective records at Your sole discretion, whether or not credit is extended.

4. Risks.

I understand that all investments involve risk, that losses may exceed the principal invested, and that the past performance of a security, industry, sector, market, or financial product does not guarantee future results or returns.

5. Account Defaults.

I understand that My Account comes with many defaulted service instruction features and preferences. I further understand that I am not required to use these defaulted options or preferences and that once My Account is approved and opened I have the sole discretion to control and adjust such defaulted service preferences that relate to my account.

6. Knowledge of Account.

I understand that I am solely responsible for knowing the rights and terms for all securities purchased, sold and maintained in My Account including, but not limited to, mergers, reorganizations, stock splits, name changes and/or symbol changes, and dividends. I further understand that certain securities may grant Me valuable rights that may expire unless I take specific action. These securities include bonds, convertible securities, warrants, stock rights and securities subject to exchange offers or tenders. I am responsible for knowing all expiration dates, redemption dates, and the circumstances under which rights associated with My securities may be called, cancelled, or modified. You may, but are not obligated to, notify Me of any upcoming expiration or redemption dates, or take any action on My behalf without My specific instructions except as required by law and the rules of regulatory authorities.

7. Purchases.

All orders for the purchase of securities given for My Account will be authorized by Me and executed in reliance on My promise that an actual purchase is intended. It is My obligation to pay for purchases immediately or on Alpaca's demand. I understand Alpaca may at any time, in its sole discretion and without prior notice to Me, prohibit or restrict My ability to trade securities. I further agree not to allow any person to trade for My Account unless a trading authorization for that person has been received and approved by Alpaca. You reserve the right to require full payment in cleared funds prior to the acceptance of any order. In the event that I fail to provide sufficient funds, You may, at Your option and without notice to Me, i) charge a reasonable rate of interest, ii) liquidate the Property subject of the buy order, or iii) sell other Property owned by Me and held in any of My Accounts. You may also charge any consequential loss to My Account. For purposes of this Agreement, "Property" shall mean all monies, contracts, and all related distributions, proceeds, products and accessions. This includes all such Property held, maintained or carried by Electronic Transaction Clearing, Inc. in any manner for Me.

8. Sales/Short Sales.

I promise to deliver all securities sold in My Account and to provide collateral of a type and amount acceptable to Alpaca for all short sales in My Account. Alpaca requires that a security be held in an account prior to the acceptance of a sell order with respect to such security unless the order is specifically designated as a "short sale." If a security is not held in My Account and a sell order is processed, I must promptly deliver such security to Alpaca for receipt in good deliverable form on or before the settlement date. Any order accepted without negotiable certificates or positions in My Account will be subject, at Alpaca's sole discretion, to cancellation or buy-in. To ensure this will not occur, I agree to only place sell orders for securities owned by Me and held in My Account at the time My order is placed. Proceeds of a sale will not be paid to me or released into My Account until Alpaca has received the security in good deliverable form, whether from a transfer agent or from Me and the settlement of the security is complete. If the security is not received on or before settlement date, or as market conditions warrant, Alpaca may in its sole discretion purchase the security on the open market for My Account and may liquidate and close out any and all securities in My Account in order to pay for such purchase. In the event a security is bought in, I will be responsible for all resulting Losses incurred by Alpaca. I understand that I may execute short sales only in a Margin Account (See Margin Agreement and Margin Disclosure Statement for more information) and that such execution must comply with applicable short sales rules.

9. Assistance by Alpaca.

I understand that when I request assistance from Your employees in using the investment tools available on the Website, the App, or API, it will be limited to an explanation of the tool's functionality and, if requested by Me, to the entry by Your employees of variables provided by Me, and that such assistance does not constitute investment advice, an opinion with respect to the suitability of any transaction, or solicitation of any orders.

10. No Tax or Legal Advice.

I understand that Alpaca does not provide tax or legal advice and that You may discontinue this service for My Account immediately by providing written notice to Me.

11. Electronic Access.

- a. I am solely responsible for keeping My Account numbers and PINs confidential. "PINs" shall mean My username and password.
- b. I agree and accept full responsibility for monitoring and safeguarding My Accounts and access to My Accounts.
- c. I agree to immediately notify You in writing, delivered via e-mail and a recognized international delivery service, if I become aware of:
 - i. any loss, theft, or unauthorized use of My PINs or Account numbers;
 - ii. any failure by Me to receive any communication from You indicating that an order was received, executed or cancelled,

as applicable;

- iii. any failure by Me to receive an accurate written confirmation of an execution;
- iv. any receipt by Me of confirmation of an order, execution or cancellation, which I did not place;
- v. any inaccurate information in or relating to My Account balances, deposits, withdrawals, securities positions or transaction history; or
- vi. any other unauthorized use or access of My Account.
- vii. Each of the events described in subsections 3(k)(iii)(1-6) shall be deemed a "Potential Fraudulent Event".

The use and storage of any information including, without limitation, My Account numbers, PINs, portfolio information, transaction activity, account balances and any other information or orders available on My wireless, web-enabled cellular telephone or similar wireless communications device (collectively, "Mobile Device") or My personal computer is at My own risk and is My sole responsibility. I represent that I am solely responsible for and have authorized any orders or instructions appearing in, originating from, or associated with My Account, My Account number, and PINs. I agree to notify You immediately after I discover any Potential Fraudulent Event, but in no event more than twenty-four (24) hours following discovery. Upon request by You, I agree to report any Potential Fraudulent Event promptly to legal authorities and provide You a copy of any report prepared by such legal authorities. I agree to cooperate fully with the legal authorities and You in any investigation of any Potential Fraudulent Event and I will complete any required affidavits promptly, accurately and thoroughly. I also agree to allow You access to My Mobile Device, My computer, and My network in connection with Your investigation of any Potential Fraudulent Event. I understand that if I fail to do any of these things I may encounter delays in regaining access to the funds in My Account. I agree to indemnify and hold You and Your parent company and affiliates harmless from and against any losses arising out of or relating to any Potential Fraudulent Event.

12. Clearance of Trades.

I understand that You have entered into a clearing agreement with Electronic Transaction Clearing, Inc. ("ETC") whereby You will introduce My Account to ETC, and ETC will clear all transactions, on a fully-disclosed basis. I understand that ETC carries My Account(s) and is responsible for the clearing and bookkeeping of transactions, but is not otherwise responsible for the conduct of Alpaca. Until receipt from Me of written notice to the contrary, ETC may accept from Alpaca, without inquiry or investigation, (i) orders for the purchase or sale of securities and other property on margin, if I have elected to have a margin account, or otherwise, and (ii) any other instructions concerning said accounts. ETC shall look solely to Alpaca unless otherwise directed by Alpaca, and not to Me with respect to any such orders or instructions; except that I understand that ETC will deliver electronically confirmations, statements, and all written or other notices with respect to My Account directly to Me with copies to Alpaca, and that ETC will look directly to Me or Alpaca for delivery of margin, payment, or securities. I agree to hold ETC harmless from and against any losses, costs or expenses arising in connection with the delivery or receipt of any such communication(s), provided ETC has acted in accordance with the above. The foregoing shall be effective as to My Account until written notice to the contrary is received from Me by ETC or Alpaca.

13. Review of Confirmations and Statements.

I agree that it is My responsibility to review order execution confirmations and statements of My Account promptly upon receipt. I agree to receive all confirmations and account statements, as well as all tax related documents, in electronic format. I understand that account statements will evidence all activity in My Account for the stated period, including securities transactions, cash balances, credits to My Account and all fees paid from My Account. These documents will be considered binding on Me unless I notify You of any objections within two (2) days from the date confirmations are sent and within ten (10) days after My Account statements are posted online. Such objection may be oral or in writing, but any oral objection must be immediately confirmed in writing. In all cases, You reserve the right to determine the validity of My objection. If I object to a transaction for any reason, I understand and agree that I am obligated to take action to limit any losses that may result from such transaction or I will bear sole responsibility for any losses relating to the transaction, even if My objection to the transaction is ultimately determined to be valid. Nothing in this Section 5 shall limit My responsibilities as described in Section 3 of this Agreement.

14. Important Information Needed to Open a New Account.

To help the government better detect the funding of terrorism and money laundering activities, federal law requires all financial institutions to obtain, verify, and record information that identifies each person who opens an account. Therefore, I understand that when I open My Account You will ask for My name, address, date of birth and other identifying information. You may also ask copies of My driver's license, passport or other identifying documents. I understand that You may take steps to verify the accuracy of the information I provide to You in My Account application or otherwise, and that you may restrict My access to My Account pending such verification. I will provide prompt notification to You of any changes in the information including, but not limited to, My name, address, e-mail address and telephone number.

15. SIPC and Other Insurance Coverage.

I understand that Alpaca is a member of the Securities Investor Protection Corporation ("SIPC"), which provides protection for accounts up to \$500,000 (including \$250,000 for claims of cash) per client as defined by SIPC rules. An explanatory brochure is available upon request via telephone at (202) 371-8300 or at www.sipc.org.

16. Telephone Conversations and Electronic Communications.

I understand and agree that You may record and monitor any telephone or electronic communications with Me. Unless otherwise agreed in writing in advance, You do not consent to the recording of telephone conversations by any third party or Me. I acknowledge and understand that not all telephone or electronic communications are recorded by You, and You do not guarantee that recordings of any particular telephone or electronic communications will be retained or capable of being retrieved.

17. Oral Authorization.

I agree that You shall be entitled to act upon any oral instructions given by Me so long as You reasonably believe such instruction was actually given by Me or my authorized agent.

18. Applicable Laws and Regulations.

All transactions in My Account will be subject to federal securities laws and regulations, the applicable laws and regulations of any state or jurisdiction in which Alpaca is registered, the rules of any applicable self-regulatory organization of which Alpaca is a member and the

rules, regulations, customs and usages of the exchange or market, and its clearing house, if any, where the transactions are executed. In no event will Alpaca be obligated to effect any transaction it believes would violate any federal or state law, rule or regulation or the rules or regulations of any regulatory or self-regulatory organization.

19. Distributions.

In the event that I sell a security prior to its ex-dividend/distribution date, and I receive the related cash/stock dividend or distribution in error, I direct You on My behalf to pay such dividend/distribution to the entitled purchaser of the securities I sold, and I guarantee to promptly reimburse You for, or deliver to You, said dividend or distribution.

20. Market Volatility; Market Orders; Limit Orders; and Queued Orders.

I understand that, whether I place a market or limit order, I will receive the price at which my order is executed in the marketplace. Particularly during periods of high volume, illiquidity, fast movement or volatility in the marketplace, the execution price received may differ from the quote provided on entry of an order, and I may receive partial executions of an order at different prices. I understand that Alpaca is not liable for any price fluctuations. I also understand that price quotes generally are for only a small number of shares as specified by the marketplace, and larger orders are relatively more likely to receive executions at prices that vary from the quotes or in multiple lots at different prices.

I understand that securities may open for trading at prices substantially higher or lower than the previous closing price or the anticipated price. If I place a market order (whether during normal market hours or when the market is closed), I agree to pay or receive the prevailing market price at the time My market order is executed, subject to the specific clarification above relating to buy orders. I understand that the price I pay may be significantly higher or lower than anticipated at the time I placed the order. To avoid buying a security at a higher price and possibly exceeding My purchasing power, I understand My option to enter a limit order. I also understand that limit orders may not be executed at any particular time, or at all if there is not sufficient trading at or better than the limit price I specify, and are only good until the end of the trading day in which they are entered. The Website contains further information regarding order types and limitations, which I agree to read and understand before placing such orders.

As a customer of Alpaca, I understand that orders submitted after regular trading hours that have **not** been elected to be eligible for execution during the extended hours trading session will be queued and routed to a market maker the following morning prior to the regular trading open. The order will then be eligible for execution during regular trading hours. "Extended hours trading" means trading outside of "regular trading hours." Regular trading hours generally means the time between 9:30 a.m. and 4:00 p.m. Eastern Standard Time.

I understand that my order may fail to be sent to the market due to unforeseen circumstances or technical issues, and that Alpaca is not liable in the event my order fails.

21. Bulletin Board/Pink Sheet Stocks.

Securities that trade over-the-counter through FINRA's OTC Bulletin Board, the OTC Markets Group, or otherwise (each, an "OTC Security" and collectively "OTC Securities") present particular trading risks, in part because they are relatively less liquid and more volatile than actively traded securities listed on a major exchange. I understand that OTC Securities may be subject to different trading rules and systems than other securities and that I may encounter significant delays in executions, reports of executions and updating of quotations in trading OTC Securities. Alpaca, in its sole discretion, may require limit orders on certain OTC Securities transactions.

I understand that Alpaca only supports trading of listed stocks and that under certain circumstances, a listed stock may be delisted and become an OTC Security. Alpaca does not support OTC Securities. If I hold securities in my Account that become OTC Securities, I understand that Alpaca may, at its sole discretion, liquidate the OTC Securities and place the proceeds, if any, in my account without prior notification to me.

22. Margin Trading.

Margin trading involves interest charges and risks, including the potential to lose more than deposited or the need to deposit additional collateral in a falling market. Before using margin, customers must determine whether this type of trading strategy is right for them given their specific investment objectives, experience, risk tolerance, and financial situation. For more information please see our Margin Agreement, Margin Disclosure Statement, Day Trading Risk Disclosure, and FINRA Investor Information. These disclosures contain information on our lending policies, interest charges, and the risks associated with margin accounts.

23. Use of Market Data and Waiver or Limitation of Liability.

I understand that each participating national securities exchange or association asserts a proprietary interest in all of the market data it furnishes to parties that disseminate said data. I understand that neither Alpaca nor any participating national securities exchange or association nor any supplier of market data guarantees the timeliness, sequence, accuracy, completeness, reliability or content of market information, or messages disseminated to or by any party. I understand that neither Alpaca nor any participating national securities exchange or association nor any supplier of market data warrants that the service will be uninterrupted or error-free. I further understand that Polygon.io, LLC provides market data to non-professional Alpaca customers. The terms "non-professional" and "nonprofessional" are defined within both the NASDAQ OMX Global Subscriber Agreement as well as the NYSE Market Data Display Services Agreement, and are incorporated by reference. I agree that My use of the App, the Website, the API, or any other Alpaca service is at My sole risk. I agree not to reproduce, distribute, sell or commercially exploit the market data in any manner without written consent from Alpaca. The Alpaca service is provided on an "as is," "as available" basis without warranties of any kind, either express or implied, including, without limitation, those of merchantability and fitness for a particular purpose, other than those warranties which are implied by and incapable of exclusion, restriction or modification under the laws applicable to this Agreement.

NEITHER I NOR ANY OTHER PERSON SHALL HOLD ANY DISSEMINATING PARTY LIABLE IN ANY WAY, OR OMISSION FROM, I) ANY SUCH DATA, INFORMATION OR MESSAGE OR II) THE TRANSMISSION OR DELIVERY OF ANY SUCH DATA ,INFORMATION OR MESSAGE, OR (B) ANY LOSS OR DAMAGE ARISING FROM OR OCCASIONED BY I) ANY SUCH INACCURACY, ERROR, DELAY OR OMISSION, II) NON- PERFORMANCE OR III) INTERRUPTION IN ANY SUCH DATA, INFORMATION OR MESSAGE, WHETHER DUE TO ANY NEGLIGENT ACT OR OMISSION BY ANY DISSEMINATING PARTY, OR TO ANY "FORCE MAJEURE" (E.G., FLOOD, EXTRAORDINARY WEATHER CONDITIONS, EARTHQUAKE OR OTHER ACT OF GOD, FIRE, WAR, INSURRECTION, RIOT, LABOR DISPUTE, ACCIDENT, ACTION OF GOVERNMENT, OR COMMUNICATIONS OR

POWER FAILURE, EQUIPMENT OR SOFTWARE MALFUNCTION) OR OTHER CAUSE BEYOND THE REASONABLE CONTROL OF ANY DISSEMINATING PARTY. NEITHER YOU NOR ANY DISSEMINATING PARTY SHALL BE LIABLE, AND I AGREE TO INDEMNIFY AND HOLD HARMLESS ALPACA AND SUCH DISSEMINATING PARTY, FOR ANY INACCURACY, ERROR OR DELAY IN, OR OMISSION OF, (1) ANY SUCH DATA, INFORMATION OR MESSAGE, OR (2) THE TRANSMISSION OR DELIVERY OF ANY SUCH DATA, INFORMATION OR MESSAGE; OR ANY LOSS OR DAMAGE ARISING FROM OR OCCASIONED BY (A) ANY SUCH INACCURACY, ERROR, DELAY OR OMISSION, (B) NON-PERFORMANCE, OR (C) INTERRUPTION IN ANY SUCH DATA, INFORMATION OR MESSAGE, DUE EITHER TO ANY ACT OR OMISSION BY ALPACA OR ANY DISSEMINATING PARTY OR TO ANY "FORCE MAJEURE" (AS DEFINED ABOVE) OR ANY OTHER CAUSE BEYOND THE REASONABLE CONTROL OF ALPACA OR ANY DISSEMINATING PARTY.

I UNDERSTAND AND AGREE THAT YOU WILL NOT BE LIABLE TO ME OR TO THIRD PARTIES, OR HAVE ANY RESPONSIBILITY WHATSOEVER, FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST PROFITS, TRADING LOSSES AND DAMAGES) THAT I MAY INCUR IN CONNECTION WITH MY USE OF THE SERVICE PROVIDED BY YOU UNDER THIS AGREEMENT.

24. Restrictions on Trading.

I understand that You may, in Your discretion, prohibit or restrict the trading of securities, or the substitution of securities, in any of My Accounts. I understand that You may execute all orders by Me on any exchange or market, unless I specifically instruct You to the contrary. In the event of a breach or default by Me under this Agreement, You shall have all rights and remedies available to a secured creditor under all applicable laws and in addition to the rights and remedies provided herein. I understand that You may at any time, at Your sole discretion and without prior notice to Me: prohibit or restrict My access to the use of the App or the Website or related services and My ability to trade, You may refuse to accept any of My transactions, You may refuse to execute any of My transactions, and/or You may terminate My Account. The closing of My Account will not affect the rights and/or obligations of either party incurred prior to the date My Account is closed.

Further, You will not tolerate any foul or abusive language, physical violence, threatening behavior, or other inappropriate conduct directed toward Your officers, employees, contractors or customers. If I engage in any such behavior, as determined by You in Your sole discretion, I agree that You are authorized to: (i) liquidate any securities, instruments or other property in My Account, (ii) send Me the proceeds, and (iii) close My account. You will not be responsible for any losses caused by the liquidation of securities, instruments or other property pursuant to this paragraph, including but not limited to any tax liabilities.

25. Disclaimer of Liability; Indemnification.

Except as otherwise provided by law, You, ETC or any of Your or ETC's affiliates shall not be liable for any expenses, losses, damages, liabilities, demands, charges, claims, penalties, fines and excise taxes of any kind or nature (including legal expenses and reasonable attorneys' fees) ("Losses") by or with respect to any matters pertaining to My Account, except to the extent that such Losses are actual Losses and are determined by a court of competent jurisdiction or an arbitration panel in a final non-appealable judgment or order to have resulted solely from Your, ETC's or any of Your or ETC's affiliates' gross negligence or willful misconduct. In addition, I agree that You, ETC and Your or ETC's affiliates and respective partners, managing directors, officers, directors, employees and agents (collectively, "Indemnified Parties") shall have no liability for, and I agree to indemnify, defend and hold harmless Indemnified Parties from, all Losses that result from: (i) My or My agent's misrepresentation or alleged misrepresentation, or act or omission, (ii) Indemnified Parties following My or My agent's directions or failing to follow My or My agent's unlawful or unreasonable directions, (iii) any activities or services of the Indemnified Parties in connection with the My Account (including, without limitation, any technology services, reporting, trading, research or capital introduction services), or (iv) the failure by any person not controlled by the Indemnified Parties and their affiliates to perform any obligations to Me.

I consent to the use of automated systems or service bureaus by You and ETC and Your and Electronic Transaction Clearing, Inc.'s affiliates in conjunction with My Account, including, but not limited to, automated order entry and execution, record keeping, reporting and account reconciliation and risk management systems (collectively "Automated Systems"). I understand that the use of Automated Systems entails risks, such as interruption or delays of service, errors or omissions in the information provided, system failure and errors in the design or functioning of such Automated Systems (collectively, a "System Failure") that could cause substantial damage, expense or liability to Me. I understand and agree that Indemnified Parties will have no liability whatsoever for any claim, loss, cost, expense, damage or liability of Me arising out of or relating to a System Failure.

I also agree that Indemnified Parties will have no responsibility or liability to Me in connection with the performance or non-performance by any Exchange, clearing organization, or other third party (including, without limitation, other clearing firms, banks and International Executing Brokers as defined infra) or any of their respective agents or affiliates, of its or their obligations relative to any Securities. I agree that Indemnified Parties will have no liability, to Me or to third parties, or responsibility whatsoever for: (i) any Losses resulting from a cause over which Indemnified Parties do not have direct control, including but not limited to the failure of mechanical equipment, unauthorized access, theft, operator errors, government restrictions, force majeure (as defined in Section 15), Exchange rulings or suspension of trading; and (ii) any special, indirect, incidental, consequential, punitive or exemplary damages (including lost profits, trading losses and damages) that I may incur in connection with My use of the brokerage and other services provided by Indemnified Parties under this Agreement. Further, if I authorize or allow third parties to gain access to Your services, including My Accounts, I will defend and indemnify You against any Losses arising out of claims or suits by such third parties based upon or relating to such access and use. Alpaca does not warrant against loss of use or any direct, indirect or consequential damages or losses to Me caused by My assent, expressed or implied, to a third party accessing My Account or information, including access provided through any other third party systems or sites.

26. Mutual Fund Transactions.

In the event that I purchase or hold a mutual fund, I agree to read and understand the terms of its prospectus. I understand that certain mutual funds reserve the right to change their purchasing, switching or redemption procedures and/or suspend or postpone redemptions under certain market conditions. I further understand that any mutual fund order entered with You is placed by You on a best efforts basis as prescribed and recognized by the individual fund, and that You are not responsible for unexecuted orders due to the failure of any communication system. I agree to be fully responsible for the information contained within the mutual fund prospectus and to hold You harmless for any deficiencies contained therein. I authorize You to act as My agent in the purchase and redemption of fund shares.

27. Exchange Traded Funds.

Investors should consider the investment objectives and unique risk profile of Exchange Traded Funds (ETFs) carefully before investing. ETFs are subject to risks similar to those of other diversified portfolios. Leveraged and Inverse ETFs may not be suitable for all investors and may increase exposure to volatility through the use of leverage, short sales of securities, derivatives and other complex investment strategies. Although ETFs are designed to provide investment results that generally correspond to the performance of their respective underlying indices, they may not be able to exactly replicate the performance of the indices because of expenses and other factors. A prospectus contains this and other information about the ETF and should be read carefully before investing. Customers should obtain prospectuses from issuers and/or their third party agents who distribute and make prospectuses available for review. ETFs are required to distribute portfolio gains to shareholders at year end. These gains may be generated by portfolio rebalancing or the need to meet diversification requirements. ETF trading will also generate tax consequences. Additional regulatory guidance on Exchange Traded Products can be found by [clicking here](#).

28. Effect of Attachment or Sequestration of Accounts.

You shall not be liable for refusing to obey any orders given by or for Me with respect to any of My Accounts that has or have been subject to an attachment or sequestration in any legal proceeding against Me, and You shall be under no obligation to contest the validity of any such attachment or sequestration.

29. Event of Death.

It is agreed that in the event of My death or the death of one of the joint account holders, the representative of My estate or the survivor or survivors shall immediately give You written notice thereof, and You may, before or after receiving such notice, take such proceedings, require such papers and inheritance or estate tax waivers, retain such portion of and/or restrict transactions in the Account as You may deem advisable to protect You against any tax, liability, penalty or loss under any present or future laws or otherwise. Notwithstanding the above, in the event of My death or the death of one of the joint account holders, all open orders shall be canceled, but You shall not be responsible for any action taken on such orders prior to the actual receipt of notice of death. Further, You may in Your discretion close out any or all of the Accounts without awaiting the appointment of a personal representative for My estate and without demand upon or notice to any such personal representative. The estate of any of the account holders who have died shall be liable and each survivor shall continue to be liable, jointly and severally, to You for any net debit balance or loss in said account in any way resulting from the completion of transactions initiated prior to the receipt by You of the written notice of the death of the decedent or incurred in the liquidation of the Account or the adjustment of the interests of the respective parties. Such notice shall not affect Your rights under this Agreement to take any action that You could have taken if I had not died.

30. Tax Reporting; Tax Withholding.

The proceeds of sale transactions and dividends paid will be reported to the Internal Revenue Service in accordance with applicable law.

a. U.S. Persons.

This section is applicable if I am a U.S. person. Under penalties of perjury, I certify that the taxpayer identification number that I have provided or will provide to You (including, without limitation, any taxpayer identification number on any Form W-9 that I have provided or will provide to You) is My correct taxpayer identification number. I certify that I am not subject to backup withholding and I am a U.S. Person (including a U.S. resident alien). If a correct Taxpayer Identification Number is not provided Alpaca, I understand I may be subject to backup withholding tax at the appropriate rate on all dividends, interest and gross proceeds paid to me. Backup withholding taxes are sent to the IRS and cannot be refunded by Alpaca. I further understand that if I waive tax withholding and fail to pay sufficient estimated taxes to the IRS, I may be subject to tax penalties.

b. Non-U.S. Persons.

This section is applicable if I am not a U.S. person. I certify that I fully understand all the information on any Form W-8BEN that I have submitted or will submit to You. Under penalties of perjury, I declare that (i) I have examined all the information (including, without limitation, all the information in the English language) on any Form W-8BEN that I have submitted or will submit to You and (ii) to the best of my knowledge and belief all such information is true, correct, and complete. I authorize You to provide any such Form W-8BEN to ETC or any withholding agent that has control, receipt, or custody of the income of which I am the beneficial owner or any withholding agent that can disburse or make payments of the income of which I am the beneficial owner. I agree that I will submit a new Form W-8BEN to You within 30 days if any certification made on any previously submitted Form W-8BEN becomes incorrect. I understand that the Internal Revenue Service does not require My consent to any provisions of such Form W-8BEN other than the certifications required to establish My status as a non-U.S. individual and, if applicable, obtain a reduced rate of withholding.

31. Equity Orders and Payment For Order Flow.

SEC rules require all registered broker-dealers to disclose their policies regarding any "payment for order flow" arrangement in connection with the routing of customer orders. "Payment for order flow" includes, among other things, any monetary payment, service, property, or other benefit that results in remuneration, compensation, or consideration to a broker-dealer from any broker-dealer in return for directing orders. You transmit customer orders for execution to various exchanges or market centers based on a number of factors. These include: size of order, trading characteristics of the security, favorable execution prices (including the opportunity for price improvement), access to reliable market data, availability of efficient automated transaction processing and reduced execution costs through price concessions from the market centers. Certain of the market centers may execute orders at prices superior to the publicly quoted market in accordance with their rules or practices. While a customer may specify that an order be directed to a particular market center for execution, the order-routing policies, taking into consideration all of the factors listed above, are designed to result in favorable transaction processing for customers. The nature and source of any payments and/or credits received by You in connection with any specific transactions will be furnished upon written request.

32. Free Credit Balances.

I understand that Alpaca and ETC shall not be obligated to pay interest on any free credit balance in my Account, and without notice, can use any and all free credit balances to the extent necessary to satisfy any debits arising in any of My Accounts. I further understand that Alpaca receives from Electronic Transaction Clearing, Inc., its clearing agent, rebates derived from customer margin debt balances and customer free credit balances.

33. Fees and Charges.

I understand that there may be charges for certain services provided under this Agreement. Those charges are included in the Alpaca Fee Schedule. I also agree to pay all applicable federal, state and local taxes. I authorize Alpaca to automatically debit My Account for any such charges, fees and taxes. I acknowledge that the prevailing rate of fees may change and that change may occur without notice. I

agree to be bound by such changes. I specifically agree to pay a reasonable rate of interest on the principal amount of any debit balance carried with respect to My Account. Interest may be charged against My Account in connection with cash withdrawals, if the proceeds from a security sale are disbursed before the regular settlement date of the sale transaction and late payments. If Alpaca receives My payment for securities purchases in a cash account after the settlement date, I shall be charged a late payment fee plus a daily interest charge on the debit balance until Alpaca is fully paid. Charges will be calculated using a prevailing interest rate. The charges shall accrue until paid and posted to My Account on the day following payment of the debit balance. Interest due on My Account is payable on demand. I also agree to pay such expenses incurred by You in connection with collection of any unpaid balance due on My Accounts including, but not limited to, attorney's fees allowed by law.

34. ACH Transfers.

I authorize Alpaca, at its discretion and without further prior notice, to utilize an electronic check process or Automated Clearing House ("ACH") facility to draft funds in the amount of any of My checks payable to Alpaca, its agents or assigns. Money deposited via ACH is normally not available for withdrawal for 5 to 10 business days. Within 63 days of the date of My ACH deposit, My funds may only be withdrawn to the bank account from which such funds were deposited. I understand that for the ACH transfers to be established, at least one common name must match exactly between My Alpaca and bank accounts. To send and receive ACHs My bank must be a member of the ACH system. For ACH transactions, I hereby grant You limited power of attorney for purposes of redeeming any shares in My Account if the payment exceeds available free credits and direct You to accept any orders to make payments to an authorized bank account and to fulfill these orders through the redemption of shares in My Account if the payment exceeds available free credits. In addition, if I or any joint account owner decides to rescind an ACH transfer, I hereby direct and grant You power of attorney to redeem any shares necessary to fulfill and make such rescission regardless if I incur any loss.

An ACH bank reversal may occur when (A) there are insufficient funds in My bank account, (B) there is a duplicate transaction, (C) the transaction is denied, or (D) the type of account is incorrect. I acknowledge that in the event of an ACH bank reversal, I will incur a fee. Before making an ACH transfer, I agree to check Alpaca's most recent Fees Schedule, available upon request. I agree that I am solely liable and responsible for any ACH reversal fees that I incur.

35. Electronic Delivery of Trade and Account Information; Notice.

All communications, including account statements, trade confirmations, margin calls, notices, disclosures, regulatory communications and other information, documents, data and records regarding My Account, or an alert that such communication has been posted to the secure section of the Website or the App, and is available for viewing, may be sent to Me at the e-mail address that I have given to You in My account application or at such other address as I may hereafter give You in writing or by e-mail at least 10 calendar days prior to delivery, and all communications so sent, whether in writing or otherwise, shall be deemed given to Me personally, whether actually received or not.

36. Arbitration.

a. **This Agreement contains a pre-dispute arbitration clause. By signing an arbitration agreement, the parties agree as follows.**

- i. **All parties to this Agreement are giving up the right to sue each other in court, including the right to a trial by jury, except as provided by the rules of the arbitration forum in which a claim is filed.**
- ii. **Arbitration awards are generally final and binding; a party's ability to have a court reverse or modify an arbitration award is very limited.**
- iii. **The ability of the parties to obtain documents, witness statements and other discovery is generally more limited in arbitration than in court proceedings.**
- iv. **The arbitrators do not have to explain the reason(s) for their award unless, in an eligible case, a joint request for an explained decision has been submitted by all parties to the panel at least 20 calendar days prior to the first scheduled hearing date.**
- v. **The panel of arbitrators will typically include a minority of arbitrators who were or are affiliated with the securities industry.**
- vi. **The rules of some arbitration forums may impose time limits for bringing a claim in arbitration. In some cases, a claim that is ineligible for arbitration may be brought to court.**
- vii. **The rules of the arbitration forum in which the claim is filed, and any amendments thereto, shall be incorporated into this Agreement.**

b. **Any controversy or claim arising out of or relating to this Agreement shall be settled by arbitration in accordance with the rules of FINRA Dispute Resolution, Inc. ("FINRA DR"). I agree to arbitrate any controversy or claim before FINRA DR in the State of California.**

c. **This agreement to arbitrate constitutes a waiver of the right to seek a judicial forum unless such a waiver would be void under the federal securities laws. If I am a foreign national, non-resident alien, or if I do not reside in the United States, I agree to waive My right to file an action against You in any foreign venue.**

d. **No person shall bring a putative or certified class action to arbitration, nor seek to enforce any pre-dispute arbitration agreement against any person who has initiated in court a putative class action; or who is a member of a putative class who has not opted out of the class with respect to any claims encompassed by the putative class action until:**

- i. **the class certification is denied;**
- ii. **the class is decertified; or**
- iii. **the customer is excluded from the class by the court.**

e. **Such forbearance to enforce an agreement to arbitrate shall not constitute a waiver of any rights under this Agreement except to the extent stated herein.**

37. Electronic Signatures and Modifications to the Agreement.

I agree to transact business with You electronically. By electronically signing an application for an account, I acknowledge and agree that such electronic signature is valid evidence of My consent to be legally bound by this Agreement and such subsequent terms as may govern the use of Your services. The use of an electronic version of any document fully satisfies any requirement that the document be

provided to Me in writing. I accept notice by electronic means as reasonable and proper notice, for the purpose of any and all laws, rules and regulations. I acknowledge and agree that Alpaca may modify this Agreement from time-to-time and I agree to consult the Website from time-to-time for the most up-to-date Agreement. The electronically stored copy of this Agreement is considered to be the true, complete, valid, authentic and enforceable record of the Agreement, admissible in judicial or administrative proceedings to the same extent as if the documents and records were originally generated and maintained in printed form. I agree to not contest the admissibility or enforceability of Alpaca's electronically stored copy of the Agreement.

- a. **Consent to Electronic Delivery of Documents.** By agreeing to electronic delivery, I am giving My informed consent to electronic delivery of all Account Documents, as defined below, other than those I have specifically requested to be delivered in paper form. "Account Documents" include notices, disclosures, current and future account statements, regulatory communications (such as prospectuses, proxy solicitations, and privacy notices), trade confirmations, and any other information, documents, data, and records regarding My Account and the services (including amendments to this Agreement) delivered or provided to me by Alpaca, the issuers of the securities and/or other property in which I invest, and any other parties. I agree that I can download, save, and/or print any Account Documents I receive via electronic delivery for my records.
- b. **Electronic Delivery System.** I acknowledge that Your primary methods of communication with Me include, without limitation, (A) posting information on the Website, (B) providing information via the App, and (C) sending email(s) to My email address of record, and, to the extent required by law, (D) providing Me with notice(s) that will direct Me to the App or the Website where I can read and print such information. Unless otherwise required by law, You reserve the right to post Account Documents on the Website without providing notice to Me. Further, You reserve the right to send Account Documents to My postal or email address of record, or via the App. I agree that all Account Documents provided to Me in any of the foregoing manner is considered delivered to Me personally when sent or posted by Alpaca, whether I receive it or not.
- c. **E-mail Notifications.** All e-mail notifications regarding Account Documents will be sent to My e-mail address of record. I understand that e-mail messages may fail to transmit promptly or properly, including being delivered to SPAM folders. I further understand that it is my sole responsibility to ensure that any emails from Alpaca are not marked as SPAM. Regardless of whether or not I receive an e-mail notification, I agree to check the Website regularly to avoid missing any information, including, without limitation, time-sensitive or otherwise important communication.
- d. **The Internet is not Secure.** I acknowledge that the Internet is not a secure network and agree that I will not send any confidential information, including, without limitation, Account numbers or passwords, in any unencrypted e-mails. I also understand that communications transmitted over the Internet may be accessed by unauthorized or unintended third parties and agree to hold You and Your parent company and affiliates harmless for any such access regardless of the cause.
- e. **Review of Account Documents.** I agree to promptly and carefully review all Account Documents when they are delivered and notify Alpaca in writing within five (5) calendar days of delivery if I object to the information provided. If I fail to object in writing within five (5) calendar days of delivery, Alpaca is entitled to treat such information as accurate and conclusive.
- f. **Costs.** Potential costs associated with electronic delivery of Account Documents may include charges from Internet access providers and telephone companies, and I agree to bear these costs. Alpaca will not charge Me additional online access fees for receiving electronic delivery of Account Documents.
- g. **Archival.** Through the Website, I will have access to an archive of all documents I received via electronic delivery for a period of one (1) year. Upon My request, I may obtain copies of earlier documents for up to six (6) years for account statements, and three (3) years for trade confirmations.
- h. **Revocation of Consent.** Subject to the terms of this Agreement, I may revoke or restrict My consent to electronic delivery of Account Documents at any time by notifying Alpaca in writing of my intention to do so. I also understand that I have the right to request paper delivery of any Account Document that the law requires Alpaca to provide Me in paper form. I understand that if I revoke or restrict My consent to electronic delivery of Account Documents or request paper delivery of same, Alpaca, in its sole discretion, may charge Me a reasonable service fee for the delivery of any Account Document that would otherwise be delivered to Me electronically, restrict or close My account, and/or terminate My access to Alpaca's services. I understand that neither My revocation or restriction of consent, My request for paper delivery, nor Alpaca's delivery of paper copies of Account Documents will affect the legal effectiveness or validity of any electronic communication provided while My consent was in effect.
- i. **Duration of Consent.** My consent to receive electronic delivery of Account Documents will be effective immediately and will remain in effect unless and until either I or Alpaca revokes it. I understand that it may take up to three (3) business days to process a revocation of consent to electronic delivery, and that I may receive electronic notifications until such consent is processed.
- j. **Hardware and Software Requirements.** I understand that in order to receive electronic deliveries, I must have access to the Internet, a valid e-mail address, and the ability to download such applications as Alpaca may specify and to which I have access. I also understand that if I wish to download, print, and/or save any information I wish to retain, I must have access to a printer or other device in order to do so.
- k. **Consent and Representations.** I hereby agree that I have carefully read the above information regarding informed consent to electronic delivery and fully understand the implications thereof. Additionally, I hereby agree to all conditions outlined above with respect to electronic delivery of any Account Document. I will maintain a valid e-mail address and continue to have access to the Internet. If my e-mail address changes, I agree to immediately notify Alpaca of my new e-mail address in writing.

38. Miscellaneous Provisions.

The following provisions shall also govern this Agreement:

- a. **Headings.** The heading of each provision hereof is for descriptive purposes only and shall not be (1) deemed to modify or qualify any of the rights or obligations set forth herein or (2) used to construe or interpret any of the provisions hereunder.
- b. **Binding Effect; Assignment.** This Agreement shall bind My heirs, assigns, executors, successors, conservators and administrators. I may not assign this Agreement or any rights or obligations under this Agreement without first obtaining your prior written consent. You may assign, sell or transfer My Account and this Agreement, or any portion thereof, at any time, without My prior consent.
- c. **Severability.** If any provisions or conditions of this Agreement are or become inconsistent with any present or future law, rule or regulation of any applicable government, regulatory or self-regulatory agency or body, or are deemed invalid or unenforceable by

any court of competent jurisdiction, such provisions shall be deemed rescinded or modified, to the extent permitted by applicable law, to make this Agreement in compliance with such law, rule or regulation, or to be valid and enforceable, but in all other respects, this Agreement shall continue in full force and effect.

- d. **Entirety of Agreement.** This Agreement, any attachments hereto, other agreements and policies referred to in this Agreement (including, but not limited to, the Website postings), and the terms and conditions contained in My Account statements and confirmations, contain the entire agreement between Alpaca and Me and supersedes all prior or contemporaneous communications and proposals, whether electronic, oral or written, between Alpaca and Me, provided, however, that any and all other agreements between Alpaca and Me, not inconsistent with this Agreement, will remain in full force and effect.
- e. **Website Postings.** I agree and understand that Alpaca may post other specific agreements, disclosures, policies, procedures, terms and conditions that apply to My use of the App, the Website or My Account on the Website. I understand that it is My continuing obligation to understand the terms of such postings, and I agree to be bound by such postings as are in effect at the time of My use.
- f. **Amendment.** You may at any time amend this Agreement without prior notice to Me. The current version of the Agreement will be posted on the Website and My continued Account activity after such amendment constitutes My agreement to be bound by all then in effect amendments to the Agreement, regardless of whether I have actually reviewed them. Continued use of the App, the Website or any other Alpaca services after such posting will constitute My acknowledgment and acceptance of such amendment. I agree to regularly consult the Website for up-to-date information about Alpaca services and any modifications to this Agreement. You are not bound by any verbal statements that seek to amend the Agreement.
- g. **Termination.** You may terminate this Agreement, or close, deactivate or block access to My Account at any time in Your sole discretion. I will remain liable to You for all obligations incurred in My Account or otherwise, whether arising before or after termination. I may terminate this Agreement after paying any obligations owed upon written notice. This Agreement survives termination of My Account.
- h. **No Waiver; Cumulative Nature of Rights and Remedies.** I understand that Your failure to insist at any time upon strict compliance with any term contained in this Agreement, or any delay or failure on Your part to exercise any power or right given to You in this Agreement, or a continued course of such conduct on Your part, shall at no time operate as a waiver of such power or right, nor shall any single or partial exercise preclude any other further exercise. All rights and remedies given to You in this Agreement are cumulative and not exclusive of any other rights or remedies to which You are entitled.
- i. **Governing Law.** This Agreement and all transactions made in My Account shall be governed by the laws of the State of California (regardless of the choice of law rules thereof), except to the extent governed by the federal securities laws, FINRA Rules, and the regulations, customs and usage of the exchanges or market (and its clearing house) on which transactions are executed.

You also acknowledge that the Customer Agreement contains a pre-dispute arbitration clause in section 36 of this Customer Agreement.

BY ELECTRONICALLY SIGNING BELOW, I AGREE TO THIS CUSTOMER AGREEMENT.

DATE:

ACCEPTED BY ALPACA SECURITIES LLC

DATE: