Part III: **Manner of Operations**

Item 11: Trading Services, Facilities and Rules

a. Provide a summary of the structure of the NMS Stock ATS marketplace (e.g., crossing system, auction market, limit order matching book) and explain the means and facilities for bringing together the orders of multiple buyers and sellers on the NMS Stock ATS.

Generally, Instinct X is an NMS Stock ATS that operates within BofAS as part of the GBAM Division of BAC and offers matching services in all NMS Stocks. Specifically, Instinct X is a crossing system that (for other than IXCC and Trajectory Cross) matches non-displayed orders based on a Price/Client Segment/Time priority and Subscriber selected order attributes. Instinct X also supports conditional placement trading interest as described in Part III, Item 9, which allows a Subscriber to place non-firm trading interest into Instinct X for matching through a Firm-Up process. Instinct X will establish a non-displayed "book" (subject to further discussion in Part III, Item 15) for orders and conditional placements, respectively, for each security made available for matching (the book is the conceptual file that maintains all individual orders or conditional placements deemed eligible for crossing in a particular security). Instinct X also accepts IXCC Orders designated for the IXCC. IXCC Orders and their handling are discussed below in Part III, Item 17. Instinct X also offers a Trajectory Cross, which matches non-displayed orders and conditional placements based on Order vs. Conditional Placement/Client Segment/Ratio of Order Size to Duration/Time priority and Subscriber selected order attributes. Trajectory Orders can only match with other Trajectory Orders.

b. Are the means and facilities required to be identified in Item 11(a) the same for all Subscribers and the Broker-Dealer Operator?

☒Yes ☐No

c. Explain the established, non-discretionary rules and procedures of the NMS Stock ATS, including order interaction rules for the priority, pricing methodologies, allocation, matching, and execution of orders and trading interest, and other procedures governing trading, such as price improvement functionality, price protection mechanisms, short sales, locked-crossed markets, the handling of execution errors, and the time-stamping of orders and executions.

Instinct X evaluates each Subscriber incoming order and conditional placement to determine whether: (i) the Instinct X system is available for trading and (ii) the symbol is available for trading. If so, Instinct X assesses the market conditions applicable to each order or conditional placement including: (i) the availability of market data (updated in real-time), (ii) the symbol's trading status (updated in real-time), (iii) whether the time is within Instinct X's trading hours (see Part III, Item 4), and (iv) whether the bid/ask spread is smaller than the maximum value set by BofAS for the particular security and the

particular time interval. If the market conditions are acceptable, Instinct X then evaluates each order's or conditional placement's Subscriber required attributes.

IXCC Orders and their handling are discussed below in Part III, Item 17.

This section first discusses non-Trajectory Orders, then separately discusses Trajectory Orders, then discusses aspects of the ATS operations applicable to both.

NON-TRAJECTORY ORDERS

PRIORITY Instinct X will match orders based on Price/Client Segment/Time priority, in order of precedence. First, Instinct X will consider price and will prioritize the more conservative of the Limit and Relative Price defined in any peg instruction. Next, Instinct X will consider the Client Segment for equally priced orders. Specifically, orders in a lower-numbered Client Segment will have priority over orders in a higher-numbered Client Segment (as defined in Part III, Item 13). After assessing the price and Client Segment of an order, Instinct X will consider the time it received the order and will prioritize orders received earlier in time. Instinct X will match conditional placements based on Price/Quantity/Time priority, in order of precedence. When multiple same side conditional placements have an identical price, Instinct X determines execution priority based on the order's quantity, followed by the time of order receipt in Instinct X. A Subscriber's use of the MinQty, Post Only, or Volatile Quote Protection attributes, or the Discretionary Order Types, as defined in Part III, Item 7, may also affect an order's or conditional placement's priority. For example, an incoming order that would match with a resting order based on Price/Client Segment/Time but that does not meet the resting order's MinQty would not result in a match. Similarly, an incoming order that would match with a resting order based on Price/Client Segment/Time but that is marked Post Only would not result in a match. A Subscriber's election not to interact with a particular Client Segment (see Part III, Item 14) could also prevent an order or a conditional placement that otherwise satisfies matching criteria, including priority criteria, from matching. To the extent an incoming order or conditional placement is prevented from matching with a resting order or conditional placement by one of these order attributes, Instinct X would look for other potential matches with resting orders or conditional placements, using the priority rules described above. If no match is identified, the incoming order or conditional placement will be added to the Instinct X order book.

PRICE IMPROVEMENT Instinct X offers Subscribers the ability to choose price protection mechanisms in the form of the following pegged orders: (i) MIDPOINT PEG -- an order that is pegged to the midpoint of the BBO; (ii) PRIMARY PEG -- an order that is pegged to the BBO on the same side of the market (i.e., near touch); and (iii) MARKET PEG -- an order that is pegged to the BBO on the opposite side of the market (i.e., far touch). Instinct X will split price improvement equally between counterparties within the

bounds of the BBO for two limit orders with overlapping limit prices. If the calculated midpoint between the two orders falls outside the BBO, the execution price will be the outer bound of the BBO. Instinct X will treat a resting midpoint pegged order as a limit order and will split price improvement equally between counterparties when executing against an opposite limit priced order. Similarly, Instinct X will treat a far side pegged order as a limit order and will split price improvement equally between counterparties when executing against an opposite limit priced order as well as a resting midpoint pegged order. For example, Instinct X will split price improvement and execute halfway between the midpoint of the BBO and the far side bid or offer when a resting midpoint pegged order crosses with a far side pegged order. Instinct X will not provide price improvement to a market order when matching against a limit order and will instead execute such orders at the assigned limit price. For example, Instinct X will execute a resting midpoint pegged order and a market order at the midpoint of the BBO assuming the realized pegged price is more conservative than any specified absolute limit on the midpoint pegged order. Additionally, because Instinct X treats an order pegged to the far side as a limit order, Instinct X will execute at the far side and will not provide price improvement when matching a market order and a resting order pegged to the far side.

TRAJECTORY ORDERS

PRIORITY Instinct X will match Trajectory Orders on a Order vs. Conditional Placement/Client Segment/Ratio of Order Size to Duration/Time basis. First, firm orders will have priority over conditional placements. Then, with respect to prioritization by Client Segment, Trajectory Orders in a lower-numbered Client Segment will have priority over Trajectory Orders in a higher-numbered Client Segment. If both Trajectory Orders are from the same Client Segment, Instinct X will consider the ratio of size (number of shares) of the Trajectory Order to duration of the Trajectory Order--the largest ratio will take priority. If both Trajectory Orders have the same Client Segment and Ratio of Order Size to Duration, the Trajectory Order received earliest-in-time will have priority. A Subscriber's use of the MinQty or Minimum Match Duration attributes, as defined in Part III, Item 7, may also affect a Trajectory Order's priority. For example, an incoming order that would match with a resting order other than with respect to the resting order's MinQty would not result in a match. Similarly, an incoming Trajectory Order that would otherwise match against a resting Trajectory Order based on Order vs. Conditional Placement/Client Segment/Ratio of Order Size to Duration/Time but that has a Minimum Match Duration that is longer than the resting Trajectory Order's duration would not result in a match. A Subscriber's election not to interact with a particular Client Segment (see Part III, Item 14) could also prevent a Trajectory Order that otherwise satisfies matching criteria, including priority criteria, from matching. To the extent an incoming Trajectory Order is prevented from matching with a resting Trajectory Order by one of these order attributes, Instinct X would look for other potential matches with resting Trajectory Orders, using the priority rules described above. If no match is identified, the incoming Trajectory Order will be added to the order book.

MATCHING If two firm Trajectory Orders match based on the above prioritization, they will be matched for the order quantity executable over the shortest duration. For example, if a buy order for 500 shares with a five minute duration matches with a sell order for 1000 shares with a two minute duration, the match quantity will be (2/5)* 500 shares, or 200 shares, and the duration of the match will be two minutes. Any unpaired quantity will be cancelled back after the paired quantity is executed. In the foregoing example, after two minutes and the execution for 200 shares, the buy order will receive a cancel for 300 shares and the sell order will receive a cancel for 800 shares.

If a firm Trajectory Order to buy (or sell) is matched with a conditional Trajectory Order to sell (or buy), Instinct X will send a Firm-Up Invite to the conditional Trajectory Order. If the conditional Trajectory Order sends a Firm-Up Accept, then the firm Trajectory Order and the conditional Trajectory Order are considered matched and will not match against any new incoming firm or conditional Trajectory Orders. If a firm Trajectory Order is matched with a conditional Trajectory Order, and the conditional Trajectory Order does not firm-up, the firm Trajectory Order will remain on the book eligible for crossing. If a firm Trajectory Order to buy (or sell) is matched with a conditional Trajectory Order to sell (or buy) and while waiting for the conditional Trajectory order to firm up, another firm Trajectory Order to sell (or buy) comes in, the firm Trajectory Order to buy (or sell) will be matched with the firm Trajectory Order to sell (or buy), and the firm-up Trajectory Order to sell (or buy) received after that will be cancelled back. If a firm Trajectory Order to buy (or sell) is matched with a conditional order to sell (or buy), and while waiting for the conditional Trajectory Order to firm up, another conditional Trajectory Order to sell (or buy) comes in, the firm Trajectory Order to buy (or sell) will not match against the new conditional order.

If two conditional Trajectory Orders match based on the above prioritization, both sides will be sent a Firm-Up Invite. The Firm-Up Invite will show the duration period for the match, which is the shorter of the two orders' duration periods. The Firm-Up Invite will also show the original order quantity for the respective order (neither side will receive the other's order quantity, or the matched order quantity). If both sides send a Firm-Up Accept within the Firm-Up preset period, the orders will be matched for the lesser order's quantity and the order duration contained in the Firm-Up Invite. If either side does not send a Firm-Up Accept in response, both orders will be cancelled. Any unpaired quantity is effectively cancelled via system-generated restatements sent after the receipt of Firm-Up orders. For example, if a 10,000-share conditional buy Trajectory Order with a duration of five minutes matches with a 5,000-share conditional sell Trajectory Order with a duration of ten minutes, and both Subscribers send Firm-Up Accepts, the system will send a restatement confirming a 5,000-share match with a duration of five minutes, which has the effect of cancelling back the remaining 5,000 shares of the conditional buy Trajectory Order.

Like conditional placements, as described in Part III, Item 9, the Trajectory Order Firm-Up Invite preset period is 100 milliseconds. The duration of Firm-Up Invites is

configurable only by BofAS and can be adjusted based on the ATS Working Group's periodic review of overall performance of conditional placements in Instinct X and the amount of time it takes counterparties to Firm-Up.

INTERVAL CALCULATIONS Long duration Trajectory Orders receive multiple executions at intervals throughout the duration of the order. The minimum interval will be four minutes and the maximum interval will be six minutes across all symbols. Each interval will be a random length between the minimum and maximum, as determined by BofAS. The number of intervals will be based on how many random intervals can fit into the duration of the order. At the end of each interval, Instinct X will confirm there were at least 3 trades in the market during the course of the interval. If there have been at least 3 trades, an execution for that interval will be printed at the VWAP price for that interval. If there have been fewer than 3 trades, there will be no execution for that interval, which will roll into the next interval.

If a short duration order is disrupted ~~mid-duration or a long duration order is disrupted mid-interval, the order will either receive a partial fill and be cancelled or be cancelled with no fill, depending on the reason for the disruption. If the order is disrupted~~ due to a market-wide halt, a stock-level halt, an ATS-level halt, a manual system intervention, or because the trading day ended, the order will be cancelled with no fill. ~~In all~~ **If a long duration order is disrupted due to a market-wide halt, a stock-level halt, an ATS-level halt, a manual system intervention, or because the trading day ended, the current and any subsequent intervals will be cancelled with no fill. Fills for intervals that completed before the disruption will not be cancelled.**

~~other instances~~**If the handling of a short duration order is interrupted for any reason other than the specific disruptions listed in the preceding paragraph (e.g., an order becomes non-marketable or one Subscriber cancels their order), Instinct X will determine the VWAP up to the time of the interruption and provide an execution at that price for a pro rata quantity of shares, and the remaining portions of the order will be cancelled. If the handling of a long duration order is interrupted mid-interval for any reason other than the specific disruptions listed in the preceding paragraph** (e.g., an order becomes non-marketable or one Subscriber cancels their order), Instinct X will determine the VWAP for the ~~short duration order or the~~ interval~~, as applicable,~~ up to the time of the ~~disruption. Matched orders will receive~~**interruption and provide** an execution at that price for a pro rata quantity of shares, and the remaining ~~portions of the orders~~**portion of the interval and any subsequent intervals** will be cancelled. **Fills for intervals that completed before the interruption will not be cancelled.**

Subscribers may cancel short or long duration orders at any point before they are fully executed or cancelled back by the system, including before and after they are matched.

PRO RATA AND CURVE INSTRUCTIONS Subscribers who send long duration Trajectory Orders elect whether the execution quantity for each interval will be determined on a pro rata basis or a curve basis, or both. Trajectory Orders with a pro rata only instruction will only match with other pro rata orders. Trajectory Orders with a curve only instruction will only match with other curve orders. Trajectory Orders with a "both" instruction can match with either pro rata or curve orders. Where two orders are marked "both," (i) if neither order contains a curve volume distribution (as described further later in this paragraph), then the orders will be handled on a pro rata basis; (ii) if one order contains a curve volume distribution, then the orders will be handled on a curve basis and the sole volume distribution provided will be used; (iii) if both orders contain volume distributions for a curve, then the orders will be handled on a curve basis, and the orders will be executed using the curve submitted by the client with the lowest Client Segment (if both parties are in the same Client Segment, Instinct X will average both parties' curves). If the order is executed on a pro rata basis, the quantity of each execution in a given interval will be based on the proportional time remaining in the duration of the order. For example, by the time an order is halfway through the duration, the executed order quantity will be approximately one-half of the total match quantity. If the Subscriber elects a curve basis, the Subscriber must also submit a volume distribution that shows what percentage quantity of the total order quantity the Subscriber would like to see executed in each decile of the duration. For example, if the Subscriber submits a volume distribution of 5,5,5,5,10,20,20,20,5,5, the Subscriber is saying that in the first 10th of the order's duration, 5% of the total order quantity should be executed; by halfway through the order, 30% of the total order quantity should be executed. To the extent that some or all of the specified order quantity cannot be executed in a given decile, Instinct X will seek to execute such unexecuted quantity in the next decile (along with that decile's specified quantity). In the event that two Trajectory Orders with a curve instruction match, the orders will be executed using the volume distribution submitted by the client with the lowest Client Segment. If both parties are in the same Client Segment, Instinct X will average both parties' volume distributions. (As noted above, if two Trajectory orders with a "both" instruction match, and only one provides a volume distribution, that volume distribution will be used; if both provide volume distributions, the orders will be executed using the curve submitted by the client with the lowest Client Segment and, if both parties are in the same Client Segment, Instinct X will average both parties' curves.)

DECAY INSTRUCTION As described above, Subscribers can include an optional instruction to allow an unmatched Trajectory Order to "decay," meaning that the time elapsed before pairing will count toward the duration of the order. For example, if a Trajectory Order with the decay instruction enabled is sent with a duration of 120 minutes, and it is matched at time of receipt plus 10 minutes, the maximum duration for the match is 110 minutes.

BOTH NON-TRAJECTORY ORDERS AND TRAJECTORY ORDERS

COMPLIANCE WITH VARIOUS FEDERAL SECURITIES REQUIREMENTS Instinct X does not accept short sale or "short exempt" orders for the IXCC. Otherwise, Instinct X is designed to operate in compliance with the requirements of Reg SHO when accepting and/or executing orders and conditional placements. With the exception of Trajectory Orders, in accordance with Rule 201 of Reg SHO, once a circuit breaker has been triggered, the short sale price test restriction will apply to short sale orders and conditional placements in that security for the remainder of the day and the following day, unless an exemption applies. With respect to Trajectory Orders, Instinct X will reject any short sell Trajectory Orders received after a circuit breaker has been triggered. If a circuit breaker is triggered while matched Trajectory Orders are pending (i.e., a short duration order has not been executed yet or a long duration order is mid-interval), Instinct X will determine the VWAP for the short duration order or the interval, as applicable, up to the time the circuit breaker has been triggered. If the VWAP price is greater than the NBB, the orders will receive an execution at that price and the remaining portions of the orders will be cancelled. If the VWAP price is less than or equal to the NBB, the orders will receive an execution at the NBB plus one minimum pricing variation and the remaining portions of the orders will be cancelled. The quantity of the execution will be determined by reference to the proportion of the duration of the match period/interval that elapsed before the Rule 201 circuit breaker was triggered. Instinct X accepts orders and conditional placements marked as "short exempt" from broker-dealer Subscribers.

Instinct X will accept but not cross orders or conditional placements, including those marked Post Only, in a locked or crossed market environment (except for IXCC and Trajectory Orders). Because IXCC and Trajectory Orders are not priced by reference to the continuous limit order book, they can be matched and executed without regard to a locked or crossed market state. Similarly, Instinct X will only cross orders and conditional placements if Limit Up/Limit Down ("LULD") bands are being disseminated and the proposed crossing price is within the LULD bands (except for IXCC Orders). With respect to IXCC Orders, if a LULD halt is in effect during any portion of the time period between the IXCC Offset Time and the time the official closing price is disseminated by the primary listing market for the relevant NMS Stock, the IXCC Orders will be cancelled back unexecuted. If a LULD halt is in effect at the time an IXCC Order is received but lifted before the IXCC Offset Time, the IXCC Order will be eligible for matching and execution in the IXCC. With respect to Trajectory Orders, if a LULD comes into in effect during the Order's duration, any unexecuted portion of the Trajectory Order will be cancelled back unexecuted. Instinct X will not execute orders or firmed-up conditional placements in a security subject to a LULD trading pause or regulatory halt. Pursuant to applicable rules, Instinct X will only resume crossing once trading has commenced on the primary listing exchange and LULD price bands are available.

BofAS handles execution errors occurring within Instinct X in accordance with the Firm's Errors and Error Correction Transactions Policy ("Error Policy"). The Error Policy applies to bona fide errors (e.g., wrong security or side of the market, execution outside the

limit price of an order, executions at clearly erroneous prices). BofAS handles executions at clearly erroneous prices consistent with the applicable rules of the self-regulatory organizations. The Error Policy requires that bona fide errors involving Instinct X be recorded in BofAS error accounts and reported to the ATS Supervisor. Bona fide errors can be raised by Clients to BofAS sales traders or identified by BofAS. After evaluating the activity to confirm it is a bona fide error, the ATS Supervisor or the ET Supervisor can correct the error in a manner that attempts to place the Subscriber in the same position had the error not occurred. The ATS supervisor or delegate reviews execution errors daily or as they occur to ensure that they are handled in accordance with BofAS procedures. Instinct X time stamps orders upon receipt in the ATS and executions at the time they occur in accordance with applicable CAT and trade reporting rules. Instinct X determines queue position by new order receipt time and updates queue positions in connection with an amendment to the specified price, an increase in quantity, a change/addition to the pegging instruction (a pegged order will maintain its queue position based on changes to the BBO unless there is action taken with respect to pegging instructions), a change to the time in force designation, or an update to MinQty. Instinct X will maintain an order's and conditional placement's queue position when the Subscriber amends the order or conditional placement to reduce the quantity.

d.   Are the established, non-discretionary rules and procedures required to be identified in Item 11(c) the same for all Subscribers and the Broker-Dealer Operator?

☒Yes ☐No