Part III: Manner of Operations
Item 7: Order Types and Attributes

    a. Identify and explain each order type offered by the NMS Stock ATS. In your explanation, include the following:

        i. priority, including the order type's priority upon order entry and any subsequent change to priority (if applicable); whether and when the order type can receive a new time stamp; the order type's priority vis-à-vis other orders on the book due to changes in the NBBO or other reference price; and any instance in which the order type could lose execution priority to a later arriving order at the same price;

        ii. conditions, including any price conditions (e.g., how price conditions affect the rank and price at which it can be executed; conditions on the display or non-display of an order; or conditions on executability and routability);

        iii. order types designed not to remove liquidity (e.g., post-only orders), including what occurs when such order is marketable against trading interest on the NMS Stock ATS when received;

        iv. order types that adjust their price as changes to the order book occur (e.g., price sliding orders or pegged orders) or have a discretionary range, including an order's rank and price upon order entry and whether such prices or rank may change based on the NBBO or other market conditions when using such order type; when the order type is executable and at what price the execution would occur; whether the price at which the order type can be executed ever changes; and if the order type can operate in different ways, the default operation of the order type;

        v. whether an order type is eligible for routing to other Trading Centers;

        vi. the time-in-force instructions that can be used or not used with each order type;

        vii. the circumstances under which order types may be combined with another order type, modified, replaced, canceled, rejected, or removed from the NMS Stock ATS; and

        viii. the availability of order types across all forms of connectivity to the NMS Stock ATS and differences, if any, in the availability of an order type across those forms of connectivity.

PURE ATS is a crossing venue that matches compatible Subscriber orders and generates fills for those matches based on referencing publicly available market data, including the volume and associated price, of each SIP-reported trade as they occur, the Official Closing Price ("OCP"), and the NBBO. The venue's matching, reference, and crossing logic is primarily governed by the use of PURE ATS order types ("Order Types"). Each Order Type seeks fills referencing a defined set of market data. PURE ATS offers Subscribers the following order types: Streaming Block orders; Liquidity Seeking orders; and Reference-on-Close orders (each, an "Order Type"). PURE ATS Order Types are described in detail in this Item under "Order Types."

PURE ATS "matches" are bilateral pairings of compatible orders. Compatible orders are matched in accordance with the logic described in the "Inter-Order Type Compatibility Ranking" and "Matching" sections below (in this Item and in Part III, Item 11, Trading Services, Facilities and Rules). PURE ATS generates two types of matches:

    (i)   A "single point match," which results in a single point-in-time fill attributed to each order in the match, i.e., one single point match will result in one fill. Or,

    (ii)   A "streaming match," which results in a series of "child fills" (a "stream") attributed to each order in the match, i.e., one streaming match will result in multiple fills. On the PURE ATS, "child fill" means a trade executed by the ATS for a streaming match and is meant to indicate that one streaming match will potentially be associated with multiple fills.

A streaming match will continue uninterrupted so long as both orders in the match have quantity and remain "marketable" (as such term is defined below in this Item).

The type of match is determined by the Order Types that are matched, as described in this Item and in Part III, Item 11 (and Part III, Item 18 for the Post-Close Trading Session). ATS rules may apply differently to single point matches and streaming matches; where applicable, such distinctions are noted in this Form ATS-N.

Upon matching, the ATS executes fills for each matched order. The terms of all fills (both single point-in-time fills and streaming child fills), are governed by the Order Types, and execution logic described in this Item and in Part III, Item 11 (and Part III, Item 18 for the Post-Close Trading Session).

The remainder of this section provides additional detail on the (i) Order Types accepted on the ATS; (ii) how orders are prioritized; (iii) marketability (bid/offer) requirements; (iv) how Order Types can interact on the ATS; (v) ATS matching rules; (vi) minimum stream quantity, allocation and price discovery (execution logic); (vii) order modification and cancellation; and (viii) Time-in-Force (TIF)/order instructions. It also sets forth numerous examples meant to illustrate these principles. Note that this section applies to both regular hours trading and the Post-Close Trading Session unless otherwise noted in this Form ATS-N.

Order Types

Each firm and conditional order sent to the ATS will include a symbol, size, price, market side, a liquidity transfer rate (explained below), and a Time-in-Force, among other terms.

(1) Streaming Block

Streaming Block orders are exclusively seeking a streaming match that references SIP-reported trades using a matched liquidity transfer rate ("LTR") during regular trading hours (in the Post-Close Trading Session, this Order Type is seeking a single point match with an ROC order that references the OCP (see Part III, Item 18)).

PURE ATS has four Streaming Block orders that Subscribers can use. Each Streaming Block has an associated minimum LTR and a maximum LTR that indicates the LTR range that the Subscriber will accept. A streaming match will have a matched LTR that satisfies both matched orders (see Matching section in this Item and Part III, Item 11). The matched LTR is a rate percentage that PURE ATS uses to determine the size of child fills in a streaming match. More specifically, the size of the child fills in the streaming match is the matched LTR percentage multiplied against the quantity of each SIP-reported trade (SIP-reported trades are referred to as reference trades throughout this Form ATS-N) subject to the order's residual quantity (no order will receive a fill larger than its residual quantity) and the ATS's minimum stream quantity conditions ("MSQ") in accordance with the execution logic described in this item (see the MSQ example below in this item). The price of each child fill is the weighted average price of the reference trades that contribute to achieving the MSQ (see the MSQ example below in this item). Additional description of the PURE ATS compatibility, matching, and execution logic is described below in this Item under "Inter-Order Type Compatibility Ranking," "Matching" and "Minimum Stream Quantity, Allocation, and Price Discovery".

Upon a child fill being effected (i.e., a trade being effected), the quantity of the child fill is then decremented against the total quantity of the matched order (decrementing is further explained and illustrated in "Inter-Order Type Compatibility and Matching" found below in this Item). The matched LTR can then be continuously applied to each successive SIP-reported trade to create a series of child fills in a stream. The stream can continue over time, without any time limitations (during the course of an entire trading day with any remaining quantities cancelled at the end of a trading day).

 Streaming Block orders can be firm or conditional.

The Streaming Block orders are:

1. 10-200% ("200%")

    This Streaming Block is seeking a child fill quantity of 200% of the quantity of each contemporaneous SIP-reported trade but will accept at least 10%. This means that for a SIP-reported trade of 100 shares, the 200% Streaming Block will accept 200 shares to 10 shares for that child fill at the price of the SIP-reported trade.

2. 5-30% ("30%")

    This Streaming Block is seeking a child fill quantity of 30% of the quantity of each contemporaneous SIP-reported trade but will accept at least 5%. This means that for a SIP-reported trade of 100 shares, the 30% Streaming Block is seeking 30 shares to 5 shares for that child fill at the price of the SIP-reported trade.

3. 5-15% ("15%")

    This Streaming Block is seeking a child fill quantity of 15% of the quantity of each contemporaneous SIP-reported trade but will accept at least 5%. This means that for a SIP-reported trade of 100 shares, the 15% Streaming Block is seeking 15 shares to 5 shares for that child fill at the price of the SIP-reported trade.

4. Custom LTR Range ("Custom")

    This Streaming Block is seeking a child fill quantity based on the Custom parameters entered. Custom orders require both a minimum and maximum LTR, and must be within the range of .1-500%; the minimum and maximum LTR of a Custom order may be equal. For example, a Custom order with a 2% minimum and a 4% maximum, will accept 2 shares to 4 shares in a child fill referencing a SIP-reported trade of 100 shares, at the price of the SIP-reported trade.

Note that the examples above are illustrative. For the avoidance of doubt, PURE ATS will only generate child fills in accordance with the MSQ conditions described below.

(2) Liquidity Seeking ("LS")

During regular trading hours, this Order Type is seeking a single point match that references the NBBO. If such match is not available, LS orders will also accept a streaming match at the highest available LTR (compatibility, matching, and execution logic is described below in this Item under

"Inter-Order Type Compatibility Ranking," "Matching" and "Minimum Stream Quantity, Allocation, and Price Discovery").

In the Post-Close Trading Session, this Order Type is seeking a single point match with an ROC order that references the OCP (see Part III, Item 18).

Subscribers can set a maximum LTR up to 3,000% for LS orders, which is the default LTR maximum for such order types. The LTR maximum will be considered for any streams that the LS order enters (LTR is not considered for single point matches). ~~LS orders have an unlimited maximum LTR.~~ Subscribers can set a minimum LTR for LS orders; otherwise, the default minimum LTR for an LS order is 5 %. These orders can be firm or conditional.

(3) Reference-on-close ("ROC")

This Order Type is seeking only a single point match that references the OCP for up to its full quantity during the Post-Close Trading Session (compatibility and matching and execution logic is described below in this Item under "Inter-Order Type Compatibility Ranking," "Matching" and "Minimum Stream Quantity, Allocation, and Price Discovery" and in Part III, Item 18). This Order Type will not match prior to the OCP being disseminated, will not trade using any reference other than the OCP, and will not enter a streaming match. ROC orders do not have an LTR range but rather have an unlimited LTR. The unlimited LTR for ROC orders cannot be changed. ROC orders must be firm orders.

Intra-Order Type Prioritization

PURE ATS uses intra-order prioritization logic to rank orders within the same Order Type (note that for these purposes, Streaming Block is considered one Order Type). This section should be read in conjunction with the Inter-Order Type Compatibility Ranking section below in this Item, and in Part III, Item 11, for purposes of ranking for matches.

Within each Order Type, firm and conditional orders are prioritized based on (i) LTR, (ii) size of the order, (iii) marketability (as defined below), and (iv) time the order was received, in that sequence. The ATS processes (i.e., assesses for matching compatibility, as described below) firm orders prior to conditional orders regardless of the order terms of the conditional orders.

The first term considered in intra-Order Type prioritization ranking is the LTR. Orders are prioritized by the highest maximum LTR. (The ~~LS Order Type and~~ ROC Order Type always ~~have~~ has an unlimited maximum LTR and therefore when prioritizing such orders among like Order Types, PURE ATS will always need to look at least to the size of the relevant orders).

The following example demonstrates the intra-Order Type prioritization if the ATS received the three orders chronologically:

Buy Order 1: 15% Streaming Block
Buy Order 2: 200% Streaming Block
Buy Order 3: 25% (Custom) Streaming Block

Regardless of any other terms of the orders (e.g., size, marketability, or time), the intra-Order Type prioritization would be based on maximum LTR, as follows:

Buy Order 2 (Highest maximum LTR)
Buy Order 3 (2nd highest maximum LTR)
Buy Order 1 (3rd highest maximum LTR)

For two orders with the same LTR, the second term considered in intra-Order Type prioritization ranking is the size of the order quantity. The larger the order, the higher the standing. For example, if the ATS received the following three orders chronologically:

Buy Order 1: 15% Streaming Block, for 25,000 shares
Buy Order 2: 15% Streaming Block, for 5,000 shares
Buy Order 3: 15% Streaming Block, for 50,000 shares

The prioritization would be:
Buy Order 3 (50,000 shares)
Buy Order 1 (25,000 shares)
Buy Order 2 (5,000 shares)

The third term considered in intra-Order Type prioritization ranking (i.e., for orders that are the same LTR and of equal size) is the marketability of the order. The marketability standard depends on the (i) relevant match type and (ii) reference point.

The marketability of an order for a potential streaming match is the difference between the order's limit price and the contra-side NBBO. For instance, if the NBBO is $10.01 x $10.02 and the limit of a buy order is $10.05, the marketability of an order is .03. The greater the marketability, the higher the standing in terms of priority.

To illustrate prioritization for a potential stream match, if the ATS received the following three orders chronologically:

Buy Order 1: 15% Streaming Block, for 25,000 shares, marketable by 4 cents
Buy Order 2: 15% Streaming Block, for 25,000 shares, marketable by 10 cents
Buy Order 3: 15% Streaming Block, for 25,000 shares, marketable by 6 cents

The prioritization would be:
Buy Order 2 (10 cents marketable)
Buy Order 3 (6 cents marketable)
Buy Order 1 (4 cents marketable)

An order is marketable for a single point match referencing the NBBO (this applies to LS orders only) if the order's limit price at least satisfies its peg instruction (peg instructions are described in Item 11c). The more aggressive the limit price, the higher the standing in terms of priority. Single point-in-time trades are described below in the "Minimum Stream Quantity, Allocation, and Price Discovery" section and Examples 9 and 10 of this response.

An order is marketable for a single point match referencing the OCP (this applies to Streaming Block, LS, and ROC orders) if the order's limit price is at least through the OCP. The more aggressive the limit price, the higher the standing in terms of priority.

The final term considered in intra-Order Type prioritization ranking (i.e., for orders that are the same LTR, equal size, and have equal marketability) is the time the order arrived, with priority

being assigned chronologically. Note that time priority for ROC orders takes into account the time orders arrive on the ATS during regular hours trading and the Post-Close Trading Session, i.e., ROC orders arriving at 10 am, 3 pm, and 4:02 pm, would be prioritized in that order (all else being equal). Given the aforementioned prioritization logic, it is by system design that orders arriving later could feasibly be given higher priority than earlier arriving orders.

Minimum Marketability Threshold

For an order to be eligible for a streaming match, it must be marketable by a minimum threshold (the "minimum marketability threshold") (minimum marketability thresholds are not applied to single point matches). The minimum marketability thresholds are set on a stock-by-stock basis and are neither publicly available nor made available to Subscribers and can be set at any integer, including zero. PURE ATS can modify the minimum marketability threshold for particular stocks to account for volatility, including in the event of anomalous volatility of the overall market, relevant sector, or a specific stock. To monitor for circumstances that may warrant modifying the minimum marketability threshold, PURE considers various volatility proxies such as the VIX, Implied Volatilities, and Realized Volatilities of single stocks, sector indices, and/or market-wide indices. The minimum marketability thresholds are manually updated by PURE Market Operations and are reviewed biannually.

For example, for a stock with a minimum marketability threshold of 2 cents that is experiencing significantly higher price volatility, the minimum marketability threshold could be increased to 4 cents. This would require a buy order to have a limit of 4 cents higher than the current national best offer, and a sell order to have a limit of 4 cents below the current national best bid to be eligible for a streaming match.

PURE believes that modifications to the minimum marketability threshold in these circumstances promotes matches that yield more efficient streams between Subscribers.

Note that minimum marketability thresholds are only relevant to the creation of a streaming match (i.e., to be eligible for a match, an order must meet the minimum marketability threshold). Once an order is in a streaming match, so long as the order remains marketable (i.e., the order's limit price is priced at or through its respective NBBO farside), the order will remain in the match. If a matched order ceases to be marketable, the streaming match will end.

For example, if the NBBO is $10.01 x $10.02, for a stock with a minimum marketability threshold of 4 cents, a sell order would need to be priced at $9.97 to be eligible for a streaming match. Once matched, the order would only need to remain marketable to remain in the streaming match. If the order became unmarketable, i.e., the NBBO moved to $9.96 X $9.97, the streaming match would end. To become eligible for a streaming match again (with the previous matched order or any other order), the sell order would again need to meet minimum marketability thresholds at the then-prevailing NBBO.

Inter-Order Type Compatibility Ranking

PURE ATS will only match orders of Order Types that are compatible.

(1) Streaming Block Orders: Streaming Block orders are compatible to match with LS and Streaming Block orders during the regular trading hours, prioritized by Order Type in that order.

During the Post-Close Trading Session, upon the dissemination of the OCP, firm and conditional Streaming Block orders are exclusively compatible with ROC orders in accordance with the parameters described in Part III, Item 18. For the avoidance of doubt, because ROC orders are not eligible for matches during regular trading hours, the presence of ROC orders on the ATS order book during regular trading hours does not inhibit matches of LS and Streaming Block orders.

(2) LS Orders: The LS Order Type is compatible to match with the LS and Streaming Block orders during regular trading hours prioritized by Order Type in that order.

During the Post-Close Trading Session, upon dissemination of the OCP, firm and conditional LS orders are exclusively compatible with ROC orders in accordance with the parameters described in Part III, Item 18. For the avoidance of doubt, because ROC orders are not eligible for matches during regular trading hours the presence of ROC orders on the ATS order book during regular trading hours does not inhibit matches of LS and Streaming Block orders.

(3) ROC Orders: The ROC Order Type is not compatible with any Order Type until the OCP has been disseminated. Until that point, ROC orders are not eligible for any match and will remain resting on the ATS order book. Upon the dissemination of the OCP, the ROC Order Type is compatible to match with ROC orders, LS orders, and Streaming Block orders, prioritized by Order Type in that order.

Matching

Matches are bilateral (i.e., between only two orders). For a match to occur, two orders must be compatible.

Compatibility means that among compatible Order Types (described above) there is (i) a buy and sell order in the same security, (ii) both meeting the minimum marketability threshold (not applicable to single point matches), (iii) with overlapping LTRs (i.e., the LTR minimum to maximum range of one order overlaps with the LTR minimum to maximum range of another order), and (iv) that any additional order handling instructions sent with the orders (as described below in Part III, Item 11, Additional Order Parameters) are satisfied.

In searching for a match for an order, the ATS first considers inter-Order compatibility ranking. If there are multiple compatible contra-side orders with equal inter-Order compatibility ranking, the ATS will look to the intra-Order Type prioritization ranking of the relevant orders.

The following examples illustrate the application of the PURE ATS inter-Order Type compatibility logic (example assumes orders are compatible on all terms not reflected):

Example 1 - Incoming LS Order
Orders 1-3 are resting on the ATS during regular trading hours (all orders are firm).
Order 1 is a buy order for 5,000 shares in the LS Order Type.
Order 2 is a buy order for 5,000 shares in the 15% Streaming Block (min. of 5%, max. of 15%).
Order 3 is a buy order for 5,000 shares in the ROC Order Type.

Order 4 arrives in the PURE ATS and is a sell order for 5,000 shares in the LS Order Type.

The compatible orders for Order 4 would be prioritized as:

Order 1
Order 2
Order 3 would not be ranked during regular trading hours.

Example 2 - Resting ROC orders
Orders 1-4 are resting on the ATS when the OCP is disseminated (all orders are firm).
Order 1 is a buy order for 5,000 shares in the LS Order Type.
Order 2 is a buy order for 5,000 shares in the 15% Streaming Block Order Type (min. of 5%, max. of 15%).
Order 3 is a buy order for 5,000 shares in the ROC Order Type.
Order 4 is a sell order for 5,000 shares in the ROC Order Type.

The compatible orders for Order 4 would be prioritized as:
Order 3
Order 1
Order 2

Example 3 - Incoming Streaming Block order
Orders 1 and 2 are resting on the ATS during regular trading hours (all orders are firm).
Order 1 is a buy order for 5,000 shares in the LS Order Type.
Order 2 is a buy order for 5,000 shares in the 15% Streaming Block (min. of 5%, max. of 15%).

Order 3 arrives in the PURE ATS and is a sell order for 5,000 shares in the 200% Streaming Block.

The compatible orders for Order 3 would be prioritized as:
Order 1
Order 2

Matches will result in the following: (i) streaming matches are created at the highest possible LTR satisfying both matched orders (the highest LTR within the acceptable range for each matched order); and (ii) single point matches are created at the highest possible quantity that satisfies both matched orders (see also Part III, Item 18, for match behavior during the Post-Close Trading Session).

If an order has residual quantity or LTR after being matched, the order's decremented quantity or LTR will be available for other matches, meaning the order can be in multiple matches concurrently. Note that for prioritization purposes, a decremented order maintains its original priority standing on the order book (e.g., an order using the 200% Order Type with a residual 170% LTR following a match, is still treated as a 200% Order Type for purposes of prioritization).

The following examples illustrate the interaction of Streaming Block orders with different LTRS:

Example 4 - Compatible LTRs:
Order 1 is a buy order for 5,000 shares in the 15% Streaming Block Order Type (min. of 5%, max. of 15%).
Order 2 is a sell order for 5,000 shares in the 15% Streaming Block Order Type (min. of 5%, max. of 15%).

These orders have overlapping LTRs because the LTR ranges of the orders overlap. Thus, the orders are eligible to be matched. The orders will be matched at 15%, which is the highest common LTR between the two orders (in this example, this also happens to be the maximum LTR for each order).

Example 5 - Incompatible LTRs:
Order 1 is a buy order for 5,000 shares in the 15% Streaming Block Order Type (min. of 5%, max. of 15%).
Order 2 is a sell order for 5,000 shares in the Custom Streaming Block Order Type, with a 1% minimum and a 4% maximum LTR.

These orders do not have overlapping LTRs because Order 2's LTR range (1% to 4%) does not overlap with Order 1's LTR range (5% to 15%). Thus, these orders are not eligible to be matched.

Example 6 - Compatible But Different LTRs:
Order 1 is a buy order for 5,000 shares in the 30% Streaming Block Order Type (min. of 5%, max. of 30%).
Order 2 is a sell order for 5,000 shares in the 15% Streaming Block Order Type (min. of 5%, max. of 15%).

These orders have overlapping LTRs because the LTR ranges of the orders overlap. Thus, the orders are eligible to be matched. The orders will be matched at 15%, which is the highest common LTR between the two orders. Order 1 will also have a residual LTR of 15%, which will rest in the ATS order book awaiting other potential matches.

Example 7 - Compatible LTRs and Concurrent Matching:
Order 1 is a buy order for 10,000 shares in the 15% Streaming Block Order Type (min. of 5%, max. of 15%).
Order 2 is a buy order for 10,000 shares in the 15% Streaming Block Order Type(min. of 5%, max. of 15%).
Order 3 is a sell order for 20,000 shares in the 30% Streaming Block Order Type (min. of 5%, max. of 30%).

Here, Order 3 has overlapping LTRs with both Order 1 and Order 2, and has sufficient LTR to match with both contra-side orders. Therefore, Order 3 will enter two concurrent matches, one with Order 1 and a second with Order 2. In this way, Order 1 and Order 2 will satisfy their maximum LTR of 15%, and Order 3 will achieve its maximum LTR of 30% (two matches each at 15% LTR).

Example 8 - Compatible LTRs and Sequential Matching:
Order 1 is a buy order for 10,000 shares in the 30% Streaming Block Order Type (min. of 5%, max. of 30%).
Order 2 is a buy order for 10,000 shares in the 30% Streaming Block Order Type (min. of 5%, max. of 30%).
Order 3 is a sell order for 20,000 shares in the 30% Streaming Block Order Type (min. of 5%, max. of 30%).

Here, Order 3 has overlapping LTRs with both Order 1 and Order 2, but only has LTR to match with one of the orders since the orders will be matched at the highest common LTR -- here 30%. Since Order 1 is prioritized over Order 2, Order 3 and Order 1 form a match at a 30% LTR.

Order 2 will remain resting on the ATS order book. However, because Order 3 is larger in size than Order 1, Order 3 will have a residual 10,000 shares to sell once Order 1's buy order is completed. Therefore, once Order 1's quantity is fully exhausted, Order 3 will form a match with Order 2, which will continue as a stream until both Order 3 and Order 2 are fully exhausted (since Order 3's residual 10,000 shares to sell is equal to Order 2's 10,000 shares to buy).

 <u>Minimum Stream Quantity, Allocation, and Price Discovery</u>

Single point-in-time trade execution logic:

During regular trading hours, when two orders eligible for a single point match are matched (e.g., LS-LS,), they will execute a single point-in-time trade for the largest quantity possible (i.e., the smaller quantity of the two orders matched; no order will receive a fill exceeding its residual quantity). Note that given the minimum order size requirements for orders on PURE ATS, minimum stream quantity is not applicable to single point-in-time trades.

The price of the single point-in-time trade will be set in accordance with the referenced market data as dictated by the matched Order Types (e.g., NBBO), the limit price, and peg instructions, if applicable, for the two relevant orders (executions will not violate an order's limit price). Peg instructions (see Part III, Item 11c under "Peg Order Instructions for LS Orders") are applicable only to LS orders and are used (with limit prices) to determine compatibility for an LS-LS match and the price of any resulting single point-in-time trade.

For single point-in-time trade execution logic in the Post-Close Trading Session, see Part III, Item 18.

Example 9 - LS / Compatible LS:
Order 1 is a buy order for 40,000 shares in the LS Order Type.
Order 2 is a sell order for 50,000 shares in the LS Order Type.
Orders 1 and 2 will be matched and execute a single point-in-time trade at the then-current NBBO midpoint (for illustrative purposes, the examples assume that the two LS orders are compatible at the midpoint of the prevailing NBBO).
Order 2 will have a residual 10,000 shares return to resting on the ATS order book.

Streaming match execution logic (during regular trading hours; there are no streams in the Post-Close Trading Session):

Once a streaming match has occurred, the ATS will use each observed SIP-reported trade in the relevant security as reference trades to execute "child fills" in accordance with PURE ATS execution (see under "Order Types") and Minimum Stream Quantity ("MSQ") logic.

The MSQ is a PURE-set threshold that represents the smallest quantity trade (i.e., a child fill) that the ATS will effect in a particular symbol (e.g., 10 shares, 50 shares, 100 shares). For example, if the MSQ for a symbol is 20 shares, the ATS will only execute trades that yield 20 or more shares to each matched order (but for the exception described below).

The MSQ for each symbol is as follows:

- 1: Symbols with a 5-day rolling median daily volume ("MDV") equal to or greater than 10 million shares are assigned an MSQ of 50.

- 2: Symbols with a 5-day rolling MDV equal to or greater than 5 million shares and less than 10 million shares are assigned an MSQ of 40.
- 3: Symbols with a 5-day rolling MDV less than 5 million shares are assigned an MSQ of 20.

Each stock's 5-day rolling MDV is calculated daily. If the stock's 5-day rolling MDV changes such that the stock falls into a different MDV range, the stock's MSQ will be updated accordingly (MSQ updates occur daily, i.e., not intraday).

For example, if a stock had the following MDV by day:
- Trade Date 1: 9 million shares;
- Trade Date 2: 8 million shares;
- Trade Date 3: 12 million shares;
- Trade Date 4: 9 million shares;
- Trade Date 5: 25 million shares;
- Trade Date 6: 21 million shares.

Following Trade Date 5, the stock's 5-day rolling MDV is 9 million shares and the MSQ for trading the stock on Trade Date 6 would be 40. Following trading on Trade Date 6, the stock's 5-day rolling MDV is 12 million shares and the MSQ for trading on Trade Date 7 is 50 shares.

MDV for each stock is publicly available and therefore available to be calculated by all Subscribers and potential market participants.

In the ordinary course, PURE ATS will evaluate the appropriateness of the MDV ranges and applicable MSQs described above on at least a quarterly basis. PURE will notify Subscribers prior to modifying said ranges and MSQs.

The MSQ is applied as follows:

1. When the LTR of a match multiplied against the quantity of a single reference trade meets or exceeds the relevant MSQ, PURE ATS executes a child fill at the printed price of the reference trade. For example: (i) a 600-share reference trade; (ii) for a 10% LTR match; (iii) in a symbol with MSQ=50; (iv) results in PURE ATS executing a 60-share (600s*.10) child fill for the match (60> the 50 MSQ) at the printed price.

2. When the LTR of a match multiplied against the quantity of a single reference trade does not meet or exceed the relevant MSQ, no child fill is executed. PURE ATS tracks the shares derived from multiplying the LTR against the quantity of the reference trade ("Derived Shares") and consecutive subsequent trades. When the running sum of Derived Shares is equal to or greater than the relevant MSQ, PURE ATS executes a single child fill. The price of the child fill is the volume weighted average price of the underlying reference trades.

    For example: (i) a 600-share reference trade; (ii) for a 5% LTR match; (iii) in a symbol with MSQ=50; (iv) results in PURE ATS tracking 30 Derived Shares (600s*.05), but no child fill. If the next relevant SIP-reported trade is 1,000 shares, PURE ATS would execute a child fill of 80 shares (30 Derived Shares + (1,000s*.05)). The price would be the volume weighted average price of the two reference trades.

Derived Shares are an internal concept used by the ATS for tracking purposes only, akin to a trajectory marketplace tracking reference trades that contribute to an average price. Prior to an executed child fill, Derived Shares are not decremented against any order, and do not result in trade booking or reporting.

3. If a match is terminated, no further child fills are generated. Matches are terminated when matched orders become incompatible (e.g., when one or both orders become unmarketable, exhaust all quantity, or are cancelled). Any Derived Shares being tracked at the time of termination are ignored for all purposes.

Exception to the MSQ: PURE ATS will generate a fill in a match that is lower than the relevant MSQ to complete one of the matched orders (i.e., when at least one of the two paired orders has a remaining quantity that is less than the relevant MSQ). This is intended to allow an order in a stream to be fully satisfied as its residual quantity nears zero. Note that this last fill may occur as part of a new match (and would be the only fill effected in that match).

To illustrate: For a match where the MSQ for the relevant symbol is 20 shares:

- A match is comprised of two orders. Order 1 has 10,000 shares remaining, Order 2 has 1,212 shares remaining. In this circumstance, PURE ATS will only execute trades between the two orders that yield 20 or more shares to each matched order.

- MSQ Exception Scenario 1: Order 1 and Order 2 (in the initial example) exchange 1,200 shares in multiple fills during the course of a streaming match, decrementing Order 1 to 8,800 shares remaining and Order 2 to 12 shares remaining. In this circumstance, the ATS will execute a trade between the two orders that yields 12 shares to each matched order (thereby satisfying the residual of the smaller paired order). PURE ATS will not generate a fill less than 12 shares in this scenario.

- MSQ Exception Scenario 2: Order 1 and Order 2 (in the initial example) exchange 1,200 shares in multiple fills during the course of a streaming match, decrementing Order 1 to 8,800 shares remaining and Order 2 to 12 shares remaining. Order 1 is cancelled by the Subscriber, terminating the streaming match. Order 2 is returned to rest on the ATS order book with 12 shares and is eligible for a final fill of 12 shares with another contra order.

A series of reference trades can create a series or "stream" of "child fills." Note that each SIP-reported trade is only referenced once in each stream (and all concurrent streams in the ATS reference each SIP-reported trade once). The ATS references SIP-reported trades in real-time as they are reported in succession (subject to the filtering logic described in Part III, Item 23, below). (To the extent that there are malfunctions or other issues with the SIP that result in time gaps, the procedures set forth in Part III, Item 20, below will be applied). In the event that there is no SIP-reported trade after the match is formed, the orders will remain matched but there will be no child fills, and therefore no stream (i.e., a match can exist without a stream).

A stream will continue uninterrupted providing "child fills" as long as both orders remain marketable (i.e., the orders' limit prices are priced at or through the contra-side NBBO), have quantity remaining, and have not been cancelled.

The following example illustrates the application of the MSQ:

MSQ for the relevant symbol is 100 shares.
PURE ATS observes the following SIP-reported trades:

Reference Trade 1: 750 shares @ $36
Reference Trade 2: 1000 shares @ $35.90

PURE ATS generates fills for the following matches as follows (matches are bilateral and each order in the match receives a fill):

(1) Match 1 (30% LTR):
      a. Following Reference Trade 1: Child Fill 1 of 225 shares @ $36 reported to FINRA Trade Reporting Facility ("TRF")
      b. Following Reference Trade 2: Child Fill 2 of 300 shares @ $35.90 reported to TRF

(2) Match 2 (10% LTR):
      a. Following Reference Trade 1: No child fill (75 Derived Shares; no decrementing or TRF reports)
      b. Following Reference Trade 2: Child Fill 1 of 175 shares @ $35.94 reported to TRF

(3) Match 3 (10% LTR):
      a. Following Reference Trade 1: No child fill (75 Derived Shares; no decrementing or TRF reports)
      b. Match terminated prior to Reference Trade 2: No child fills and match is ended (75 Derived Shares ignored; no decrementing or TRF reports)

(4) Match 4 (any LTR):
      a. Match terminated prior to Reference Trade 1: No child fills and match is ended (no Derived Shares, decrementing, or TRF reports)

Streaming matches involving one LS order may also be impacted when a second LS order on the contra-side of the first LS order enters the ATS. The two examples below show the impact. For illustrative purposes, the examples assume that the two LS orders are compatible at the midpoint of the prevailing NBBO.

In the first scenario (Example 11), a stream involving an LS order and a Streaming Block order is broken by an incoming contra-side LS order with a size greater than or equal to the remaining quantity of the first LS order. In no other circumstances would a stream be broken by an incoming order. In the second scenario (Example 12), the stream involving the LS order and Streaming Block order continues even after the second LS order matches and executes a single point-in-time trade against the first LS order, because the first LS order has residual quantity after the single point-in-time trade.

Example 11 - LS / Compatible LTR / LS Contra completes the LS:
Order 1 is a buy order for 40,000 shares in the LS Order Type (seeking maximum LTR).
Order 2 is a sell order for 50,000 shares in the 15% Streaming Block Order Type.
Orders 1 and 2 will be matched at 15% to participate in Stream 1, and Order 1 will have a residual LTR of ~~Infinite~~2,985% in the order book resting simultaneously.
Order 3 is an incoming sell order for 50,000 shares in the LS Order Type.
Order 1 and Order 3 will be matched to participate in Stream 2. Stream 2 will be comprised of a single point-in-time trade for the residual of Order 1's size at the then-current NBBO midpoint.

Stream 1 (Order 1 & Order 2) will end (because Order 1 is completed by Order 3) and Order 3's and Order 2's residual quantities will return to the ATS order book.

Example 12 - LS / Compatible LTR / LS Contra does not complete the LS:
Order 1 is a buy order for 100,000 shares in the LS Order Type (seeking maximum LTR).
Order 2 is a sell order for 50,000 shares in the 15% Streaming Block Order Type.
Orders 1 and 2 will be matched at 15% to participate in Stream 1, and Order 1 will have a residual LTR of 2,985~~Infinite~~% in the order book resting simultaneously.
Order 3 is a sell order for 50,000 shares in the LS Order Type.
Order 1 and Order 3 will execute a single point-in-time trade for Order 3's size of 50,000 shares at the then-current midpoint NBBO.
Stream 1 (Order 1 & Order 2) will continue referencing SIP-reported trades.

Order Modifications and Cancellations

All firm and conditional orders can be modified or canceled at any time until the PSC.

For a firm or conditional order resting on the ATS order book, modifications to order instructions, including the Order Type, an increase in size, and limit price (which impacts marketability) will result in a new timestamp for prioritization purposes and may impact the order's priority status based on the modified parameters (in accord with the logic set forth in the Prioritization section).

For an order in a match, modifications will not impact the match or stream unless: (i) the limit price is changed and renders the order unmarketable (i.e., the order is no longer priced to at least the contra-side NBBO); or (ii) the LTR is changed (i.e., Order Type changes or changes to the LTR rate for ~~Custom~~ orders) such that the new LTR range does not overlap with the contra-side order's LTR range.

In the event of a PURE ATS trading halt (as described in Part III, Item 20, PURE ATS may implement a trading halt in response to internal issues impacting the ATS, including for technological issues), all orders will be cancelled back to Subscribers.

TIF/Order Instructions

The ATS does not support post-only orders or route to other trade centers.

Day, Immediate or Cancel (IOC), and the ATS's streaming analog Stream or Kill (SOK) are the only TIF order instructions supported by the ATS.

The IOC TIF can only be applied to the LS Order Type, and any other Order Type using the IOC TIF is rejected. The Day TIF may be applied to any Order Type.

SOK represents a specific PURE ATS TIF order instruction for Streaming Block Order Types where a Stream or Kill ("SOK") order is accepted if a contra-side order is resting on the order book and is compatible with the SOK order. If the contra order to the SOK order is not resting on the ATS order book, the SOK order will be cancelled immediately. If accepted, the SOK order is immediately matched with its compatible contra-side order. If the order is not completed for any reason, it will be cancelled back to the Subscriber rather than rest in the order book.

Note that on PURE ATS, orders with an IOC or SOK instruction are eligible to interact with conditional orders (subject to Subscriber instructions); please see Part III, Item 14 for further information on restrictions on contra-side trading interest and interaction between IOC or SOK orders and conditional orders.

Example 13 - SOK / Contra is resting and meets the LTR:
Order 1 is a resting sell order in the 15% Streaming Block Order Type (min. of 5%, max. of 15%) for 10,000 shares.
Order 2 is a SOK buy order in the 15% Streaming Block Order Type (min. of 5%, max. of 15%) for 10,000 shares.
Because Order 1 and Order 2 have overlapping LTR ranges, Order 2 will be matched with Order 1.

Example 14 - SOK / Contra is resting and does not meet the LTR:
Order 1 is a resting sell order in the Custom Streaming Block Order Type, 1-4% LTR for 10,000 shares.
Order 2 is a SOK buy order in the 15% Streaming Block Order Type (min. of 5%, max. of 15%) for 10,000 shares.
Because Order 1 and Order 2 do not have overlapping LTR ranges, Order 2 will be cancelled back and Order 1 will continue to rest.

Example 15 - SOK / Contra is resting and meets the LTR, but Quantity cannot complete:
Order 1 is a resting sell order in the 15% Streaming Block Order Type (min. of 5%, max. of 15%) for 10,000 shares.
Order 2 is a SOK buy order in the 15% Streaming Block Order Type (min. of 5%, max. of 15%) for 50,000 shares.
Because Order 1 and Order 2 have overlapping LTR ranges, Order 2 will be matched with Order 1.
After Order 1 is completed, if there is a contra-side order on the ATS order book that is compatible with Order 2, the two orders will be matched. If there is no compatible contra-side order resting on the ATS order book, the remaining 40,000 shares of Order 2 will be cancelled back to the Subscriber.

b. Are the terms and conditions for each order type and attribute the same for all Subscribers and the Broker-Dealer Operator?
Yes
If no, identify and explain any differences.

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.

PURE ATS is a crossing venue that matches compatible Subscriber orders and generates fills for those matches based on referencing publicly available market data, including the volume and associated price, of each SIP-reported trade as they occur, the OCP, and the NBBO. The venue's matching, reference, and crossing logic is primarily governed by the use of PURE ATS Order Types.

PURE ATS "matches" are bilateral pairings of compatible orders. Compatible orders are matched in accordance with the logic described in the "Inter-Order Type Compatibility Ranking" and "Matching" sections below (in this Item and in Part III, Item 7).

Upon matching, the ATS executes fills for each matched order. The terms of all fills (both single point-in-time fills and streaming child fills), are governed by the Order Types, and execution logic described in this Item and in Part III, Item 7.

The ATS is available for trading in NMS stocks only.

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
If no, identify and explain any differences.

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.

The ATS order book matches compatible firm or conditional orders with marketable price limits at the highest compatible quantity or LTR. Upon matching, the ATS executes fills for each matched order using the relevant market data reference point(s) in accordance with the logic described in this Item and in Part III, Item 7 (and for the Post-Close Trading Session, as described in Part III, Item 18).

<u>Intra-Order Type Prioritization</u>

PURE ATS uses intra-order prioritization logic to rank orders within the same Order Type (note that for these purposes, Streaming Block is considered one Order Type). This section should be read in conjunction with the Inter-Order Type Compatibility Ranking section below in this Item, and in Part III, Item 7, for purposes of ranking for matches.

Within each Order Type, firm and conditional orders are prioritized based on (i) LTR, (ii) size of the order, (iii) marketability (as defined below), and (iv) time the order was received, in that sequence. The ATS processes (i.e., assesses for matching compatibility, as described below) firm orders prior to conditional orders regardless of the order terms of the conditional orders.

The first term considered in intra-Order Type prioritization ranking is the LTR. Orders are prioritized by the highest maximum LTR. (The ~~LS Order Type and~~ ROC Order Type always ~~have~~ has an unlimited maximum LTR and therefore when prioritizing such orders among like Order Types, PURE ATS will always need to look at least to the size of the relevant orders).

For two orders with the same LTR, the second term considered in intra-Order Type prioritization ranking is the size of the order quantity. The larger the order, the higher the standing.

The third term considered in intra-Order Type prioritization ranking (i.e., for orders that are the same Order Type and of equal size) is the marketability of the order. The marketability standard depends on the (i) relevant match type and (ii) reference point (see Part III, Item 7).

The final term considered in intra-Order Type prioritization ranking (i.e., for orders that are the same LTR, equal size, and have equal marketability) is the time the order arrived, with priority being assigned chronologically. Given the aforementioned prioritization logic, it is by system design that orders arriving later could feasibly be given higher priority than earlier arriving orders.

Inter-Order Type Compatibility Ranking

PURE ATS will only match orders of Order Types that are compatible. See Part III, Item 7 "Inter-Order Type Compatibility Ranking" section for complete list of Order Type compatibility rankings.

Matching

Matches are bilateral (i.e., between only two orders). For a match to occur, two orders must be compatible.

Compatibility means that among compatible Order Types (described above) there is (i) a buy and sell order in the same security, (ii) both meeting the minimum marketability threshold (not applicable to single point matches), (iii) with overlapping LTRs (i.e., the LTR minimum to maximum range of one order overlaps with the LTR minimum to maximum range of another order), and (iv) that any additional order handling instructions sent with the orders (as described below in this Item 11, Additional Order Parameters) are satisfied.

In searching for a match for an order, the ATS first considers inter-Order compatibility ranking. If there are multiple compatible contra-side orders with equal inter-Order compatibility ranking, the ATS will look to the intra-Order Type prioritization ranking of the relevant orders.

Matches will result in the following: (i) streaming matches are created at the highest possible LTR satisfying both matched orders (the highest LTR within the acceptable range for each matched order); and (ii) single point matches are created at the highest possible quantity that satisfies both matched orders. See Part III, Item 18, for match behavior during the Post-Close Trading Session.

If an order has residual quantity or LTR after being matched, the order's decremented quantity or LTR will be available for other matches, meaning the order can be in multiple matches concurrently. Note that for prioritization purposes, a decremented order maintains its original priority standing on the order book (e.g., an order using the 200% Order Type with a residual

170% LTR following a match, is still treated as a 200% Order Type for purposes of prioritization).

<u>Minimum Stream Quantity, Allocation, and Price Discovery</u>

Single point-in-time trade execution logic:

During regular trading hours, when two orders eligible for a single point match are matched (e.g., LS-LS,), they will execute a single point-in-time trade for the largest quantity possible (i.e., the smaller quantity of the two orders matched). Note that given the minimum order size requirements for orders on PURE ATS, minimum stream quantity is not applicable to single point-in-time trades.

The price of the single point-in-time trade will be set in accordance with the referenced market data as dictated by the matched Order Types (e.g., NBBO), the limit price, and peg instructions, if applicable, for the two relevant orders (executions will not violate an order's limit price). Peg instructions (see Part III, Item 11c under "Peg Order Instructions for LS Orders") are applicable only to LS orders and are used (with limit prices) to determine compatibility for an LS-LS match and the price of any resulting single point-in-time trade. For single point-in-time trade execution logic in the Post-Close Trading Session, see Part III, Item 18.

Streaming matches (during regular trading hours; there are no streams in the Post-Close Trading Session):

Once a streaming match has occurred, the ATS will use each observed SIP-reported trade in the relevant security as reference trades to execute "child fills" in accordance with PURE ATS execution (see under "Order Types") and MSQ logic.

Note that each SIP-reported trade is only referenced once in each stream (and all concurrent streams in the ATS reference each SIP-reported trade once). The ATS references SIP-reported trades in real-time as they are reported in succession (subject to the filtering logic described in Part III, Item 23, below). (To the extent that there are malfunctions or other issues with the SIP that result in time gaps, the procedures set forth in Part III, Item 20, below will be applied). In the event that there is no SIP-reported trade after the match is formed, the orders will remain matched but there will be no child fills, and therefore no stream (i.e., a match can exist without a stream).

All streaming child fills are governed by the MSQ logic (for in detailed description of MSQ logic see Part III, Item 7a, "Minimum Stream Quantity, Allocation, and Price Discovery").

A stream will continue uninterrupted providing "child fills" as long as both orders remain marketable (i.e., the orders' limit prices are priced at or through the contra-side NBBO), have quantity remaining, and have not been cancelled.

Below is an example applying the ATS's streaming matching logic to a series of orders:

Example 16:
The ATS receives three Buy orders in the following chronology:
Buy Order 1: 15%
Buy Order 2: 30%
Buy Order 3: 200%

The prioritization of the orders will be:
Buy Order 3 (Highest maximum LTR)
Buy Order 2 (2nd highest maximum LTR)
Buy Order 1 (3rd highest maximum LTR)

For a marketable incoming sell order (Sell Order 4), using the 200% Streaming Block Order Type:
Stream 1 would be created at an LTR of 200% between Buy Order 3 and Sell Order 4.
Buy Order 2 and Buy Order 1 would continue to rest because Sell Order 4's 200% rate was completed.

For a marketable incoming sell order (Sell Order 5), also using the 200% Streaming Block Order Type:
Stream 2 would be created at an LTR of 30% between Buy Order 2 and Sell Order 5.
Sell Order 5's available LTR is decremented to 170%.
And
Stream 3 would be created at an LTR of 15% between Buy Order 1 and Sell Order 5.
Sell Order 5's available LTR is decremented to 155%.

After the creation of Stream 2 & 3, only Sell Order 5 will be resting in the order book with a remaining LTR of 155%. Sell Order 5 is participating in two streams, Stream 2 & Stream 3.

The LTR of each stream:
Stream 1 (Order 3&4) LTR: 200%
Stream 2 (Order 2&5) LTR: 30%
Stream 3 (Order 1&5) LTR: 15%

Given the following three contemporaneously processed trade reports from the consolidated tape:
SIP-reported Trade 1: 1,000 @ $36.99
SIP-reported Trade 2: 50 @ $36.9925
SIP-reported Trade 3: 200 @ $37

And given an MSQ for the relevant symbol is set at 5 shares:

The orders in Stream 1 (comprised of Order 3 and Order 4) will receive the following child fills:
Stream 1 Child Fill 1: 2,000 @ 36.99
Stream 1 Child Fill 2: 100 @ 36.9925
Stream 1 Child Fill 3: 400 @ 37

The orders in Stream 2 (comprised of Order 2 and Order 5) will receive the following child fills:
Stream 2 Child Fill 1: 300 @ 36.99
Stream 2 Child Fill 2: 15 @ 36.9925
Stream 2 Child Fill 3: 60 @ 37

The orders in Stream 3 (comprised of Order 1 and Order 5) will receive the following child fills:
Stream 3 Child Fill 1: 150 @ 36.99
Stream 3 Child Fill 2: 8 @ 36.9925
Stream 3 Child Fill 3: 30 @ 37

The aggregated traded volumes in this example are as follows:

SIP Volume: 1,250 shares
PURE ATS Volume: 3,063
    Stream 1: 2,500 shares
        Order 3: 2,500 shares
        Order 4: 2,500 shares
    Stream 2: 375 shares
        Order 2: 375 shares
        Order 5: 375 shares
    Stream 3: 188 shares
        Order 1: 188 shares
        Order 5: 188 shares

Please note that Order 5 participated in two streams, and in aggregate sold 563 shares (375 shares in Stream 2 and 188 shares in Stream 3).

Maximum Executable Quantity

PURE ATS references the OCP for its final regular trading hours trade for matched orders. The maximum fill shares an order can receive referencing the OCP (aggregated between the regular trading hours and the Post-Close Trading Session), is governed by its Maximum Executable Quantity ("MaxEQ"). The MaxEQ for Streaming Block orders equals the lesser of the order's (i) residual quantity or (ii) maximum-sought LTR times the OCP volume. For example, a 1,000-share Streaming Block order seeking an LTR up to 30% in a symbol with an OCP of 5,000 shares at $10.00 will have a MaxEQ of 1,000 shares (the lesser of 1,000 and 1,500). The MaxEQ for LS and ROC orders equals an order's residual quantity (ROC orders will only reference the OCP in the Post-Close Trading Session). An order's MaxEQ can be satisfied via multiple fills referencing the OCP that are decremented against the order's MaxEQ (multiple fills are described in Part III, Item 18).

Additional Order Parameters

The standard prioritization logic will be impacted when a Subscriber elects to use "Sub-Market Matching Instructions" (comprised of SDSP (Subscriber-Dedicated Sub-Pool), LMSP (Liquidity Maker Sub-Pool), or PRO (Pre-Routing Optimizer)) or imposes a self-match ~~prevention~~ customization constraint or conditional order restriction (implemented via a FIX message from the Subscriber; these order instructions are explained in Part III, Item 14.a). These parameters each limit potential counter-parties or contra-side orders for a respective order; otherwise, the standard prioritization logic applies to the impacted orders.

Further, Subscribers can route orders (via FIX) with minimum execution quantities ("MEQ") for (i) ROC orders and (ii) for LS orders where the Subscriber sets the minimum LTR to be greater than the highest available LTR for all other available Order Types on the ATS. The effect of setting the minimum LTR at this level is to limit potential compatible contra-side orders to only LS orders. Where a Subscriber sets an MEQ for an order, the order will only be matched in the ATS to a contra-side order that can satisfy the MEQ (and is otherwise compatible with the order).

PURE ATS does not support post-only or counter-party segmentation or classification.

Peg Order Instructions for LS Orders:

PURE ATS requires peg instructions for all LS orders. PURE ATS recognizes three peg instructions: (i) Peg Far; (ii) Peg Mid; and (iii) Peg Near (defined below). PURE ATS will assign a Peg Mid instruction to (i) any LS order routed to the ATS without a designated Peg instruction; and (ii) any LS order with a minimum LTR less than or equal to 500%.

Peg instructions are effected only in the case of two LS orders (i.e., a Peg instruction will not be considered for stream matches or for LS-ROC matches referencing the OCP). PURE ATS uses the LS order's peg instruction and its limit price to determine the order's compatibility and the price for a potential single point-in-time trade. The peg order instruction defines where an order is executable in relation to the then-prevailing NBBO; the limit price defines where an order is executable with respect to a set price point. PURE ATS will not execute a single point-in-time trade at a price that violates an order's peg instruction, and will never execute a trade that violates an order's limit price.

For clarity, for LS orders:

- Peg Far means that an order will be executed to (and including) the then-prevailing contra-side NBBO (but not in violation of the order's limit price).

- Peg Mid means that an order will be executed to (and including) the then-prevailing NBBO midpoint (but not in violation of the order's limit price).

- Peg Near means that an order will be executed to (and including) the then-prevailing near-side NBBO (but not in violation of the order's limit price).

Note that as a result of this logic, an order with a marketable limit price and priority but the most restrictive peg instruction (e.g., Peg Near) will not be eligible for a match where the only contra-side interest has a Peg Mid or Peg Near instruction.

For illustrative purposes:

In a stock with an NBBO of $10.00-$10.10, a Buy LS order with a $10.20 limit price and:

- Peg Far instruction is eligible for a single point-in-time trade up to $10.10;
- Peg Mid instruction is eligible for a single point-in-time trade up to $10.05;
- Per Near instruction is eligible for a single point-in-time trade up to $10.00.

In a stock with an NBBO of $10.00-$10.10, a Buy LS order with a $10.07 limit price and:

- Peg Far instruction is eligible for a single point-in-time trade up to $10.07;
- Peg Mid instruction is eligible for a single point-in-time trade up to $10.05;
- Per Near instruction is eligible for a single point-in-time trade up to $10.00.

In a stock with an NBBO of $10.00-$10.10, a Buy LS order with a $9.99 limit price and any Peg Instruction is not eligible for any trade because it is not marketable (the limit price is below the near-side NBBO).

Minimum Match Quantity ("MMQ"): Order instruction (sent to the ATS via FIX field) for Streaming Block orders only. The instruction allows Subscribers to set a minimum order quantity

for a contra-side order that it will accept in a match; if a contra-side does not meet the minimum order quantity, it will not be compatible with the Subscriber's order. Subscribers may set the MMQ between 100 and 1,000 for all Streaming Block orders; the default MMQ for all incoming Streaming Block orders is 1,000 shares. MMQ is applied only to Streaming Block orders that are not in a current stream (i.e., MMQ is not applied to matches resulting in incremental, concurrent streams for a particular order, as described in Part III, Item 7 and illustrated in Example 7). There is no MMQ for non-Streaming Block orders.

Price Limits, Marketability, Protection, and Improvement:
No orders will receive an execution that would violate the order's limit price. In order to optimize the creation of streams, the order book uses minimum marketability thresholds required prior to an order being eligible to match (as described in Part III, Item 7).

There is no price improvement from, nor will the price vary from the price of the trades referenced by the ATS.

Short Sales and Regulation SHO:
The ATS's Subscribers are limited to U.S. registered broker-dealers that are obligated to comply with Regulation SHO Rule 203(b)(1).

When Regulation SHO Rule 201 short sale restrictions are in effect for a particular NMS stock, PURE will cancel (previously accepted) and reject (incoming) firm and conditional short sale orders in the relevant stock, except for short sale LS orders with a minimum LTR greater than or equal to 501% ("Constrained LS Orders") that are permissibly priced for execution. The ATS will continue to execute such Constrained LS Orders pursuant to the policies and procedures adopted pursuant to Rule 201(b) of Regulation SHO.

Locked and Crossed Markets:
PURE ATS will not execute single point-in-time trades when the market is crossed. PURE ATS will only execute single point-in-time trades when the market is locked if both the buyer and seller specify on the order that they are willing to execute during a locked market. During a (i) locked market or (ii) crossed market crossed market the PURE ATS will reference SIP-reported trades as described in Part III, Item 23a.

Time Stamping of Orders and Executions:
Firm and conditional orders are timestamped at the time they are accepted by the system in microseconds. The formation of a stream and each trade fill is also timestamped in microseconds. The ATS will timestamp Subscriber firm and conditional orders in compliance with FINRA time stamp and clock synchronization rules and guidance.

Errors:
PURE has Written Supervisory Procedures regarding errors, and errors will be handled consistent with the firm's error policies. For ATS (not Subscriber) errors, PURE maintains an error account at its Clearing Broker (Instinet) to book bona fide errors, and to trade out of them. Key elements of the ATS error policy include the following:

1) Errors must be escalated to the CCO immediately;
2) Errors must be corrected and documented as soon as practicable;
3) The ATS cannot be used to liquidate an error; and

4) PURE will not cover losses for Subscribers by treating transactions as errors when they are not.

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
If no, identify and explain any differences.

Item 14: Counter-Party Selection

a. Can orders or trading interest be designated to interact or not interact with certain orders or trading interest in the NMS Stock ATS (e.g., designated to execute against a specific Subscriber's orders or trading interest or prevent a Subscriber's order from executing against itself)?

Yes

If yes, explain the counter-party selection procedures, including how counter-parties can be selected, and whether the designations affect the interaction and priority of trading interest in the ATS.

Orders can be designated to interact or not interact with certain other orders or trading interest using specific order instructions. These instructions include: (1) SDSP (Subscriber-Dedicated Sub-Pool); (2) LMSP (Liquidity Maker Sub-Pool); (3) PRO (Pre-Routing Optimizer) (SDSP, LMSP, and PRO, comprising the Sub-Market Matching Instructions); (4) self-~~trade~~ match ~~prevention~~customization; and (5) conditional order interaction instructions.

An order designated with a Sub-Market Matching Instruction is eligible to match only with either a discrete subset or restricted set of orders, per the terms of the specific instruction. With respect to these instructions: (i) Subscribers must elect to use these instructions for the subject orders (in coordination with their DMA Users, if applicable); (ii) these instructions only impose counter-party limitations for the designated subject order itself; and (iii) the designated subject order can only interact with other orders that are eligible for such interaction (e.g., if a Subscriber does not make an order eligible to interact with orders in an LMSP, it will not).

(1) With SDSP (formerly HMMP), Subscribers can request a dedicated Sub-Pool that enables a Subscriber to use the streaming protocol while limiting its counter-parties to firm and conditional orders sent by the same Subscriber (which may include directed orders from DMA clients) to the designated Sub-Pool. There is no integration between any SDSP and the ATS central order book or other Sub-Pool, i.e., orders designated to a particular SDSP will only interact with other orders in the same Sub-Pool and will not interact with orders in the ATS's central order book or orders in any other Sub-Pool. To the extent an order routed to an SDSP does not have a compatible match in the SDSP, the order will remain resting in the SDSP (subject to, for example, Subscriber cancellation). Participants in an SDSP are free to send orders to the ATS's central order book, but to do so, they must send separate orders to each destination. Use of an SDSP is a Subscriber decision and, other than limiting the universe of eligible counter-parties and contra-side orders, the orders (and any match) remain subject to the same ATS priority and matching logic described in Part III, Item 7.

(2) The LMSP modifier, only available where a Subscriber sponsors the Sub-Market Matching Instruction (and provides DMA, where applicable), allows Subscribers to designate orders as maker liquidity subject to maker-taker pricing (as discussed in Part III, Item 19, maker-taker pricing is applicable only to orders with the LMSP modifier). Subscribers may also choose to permit their DMA Users to direct orders designated with the LMSP modifier to the ATS via the Subscriber (who is at all times the broker of record). This modifier is available to all Subscribers and can be used for firm and conditional orders.

LMSP order flow must be routed through an LM ID, a unique identifier designated for such use. An LM ID will be attributed to a single Subscriber-designated LM order flow(s) (e.g., a particular trading desk, strategy, or DMA User(s)). PURE will provide any Subscriber with LM IDs upon request. In the event that a DMA User requests an LM ID directly from PURE, PURE will provide a unique LM ID to the Subscriber sponsoring the Sub-Market Matching Instruction, subject to the approval of the relevant Subscriber (DMA Users are not Subscribers, have no direct

connection to the ATS, and are not able to enter orders directly onto the ATS or to PURE). The DMA-providing broker is the PURE Subscriber and the broker of record on all firm and conditional orders and "firm-up" orders received, and the entity that will receive any maker rebates from PURE (which are negotiated with the relevant Subscriber).

Each LM ID will be associated with a single LM order flow in a discrete "LM Sub-Pool," i.e., each LM Sub-Pool will have LM order flow from a single LM ID. All Subscribers may seek liquidity in (i.e., interact with) any LM Sub-Pool via LS IDs (or enable a DMA User to do so). All requests with respect to LM IDs, LS IDs, and LM Sub-Pools may be delivered verbally or in writing to PURE. PURE will inform ATS participants or potential participants (e.g., broker-dealers considering becoming ATS Subscribers) considering accessing the ATS of the number of LM Sub-Pools operating, if any.

Once an LM Sub-Pool is configured (i.e., an LM ID is assigned), participating liquidity seekers and makers can (but are not required to) designate orders to be routed to the LM Sub-Pool.

There is no integration between any Sub-Pool and the ATS central order book for Sub-Pool liquidity seekers or makers. Orders designated to a particular LM Sub-Pool will only interact with other orders in the same LM Sub-Pool and will not interact with orders in the ATS's central order book or orders in any other LM Sub-Pool. Participants in an LM Sub-Pool are free to send orders to the ATS's central order book or other LM Sub-Pools, but to do so, they must send separate orders to each destination.

Within an LM Sub-Pool, all orders are subject to the matching and trading protocols as in the ATS's central order book. This includes that any order from a liquidity seeker or maker can interact with any other compatible order regardless of the counterparty. For the avoidance of doubt, there is no prioritization or matching benefit to LM order flow.

(3) The PRO order instruction is a functionality provided by the ATS to its Subscribers. The functionality enables a Subscriber to permit its customer to send directed orders (firm and conditional) to the ATS in which the directed order's potential counter-parties are limited to that Subscriber's inventory on the ATS (i.e., the directed order will only match with an order sent to the ATS through the same Subscriber). All orders with the PRO order instruction are automatically designated as IOC (in the case of an LS Order Type) or SOK. Use of a PRO order instruction is both a customer and Subscriber decision and, other than limiting the universe of eligible counter-parties, the orders (and any match) remain subject to the same ATS priority and matching logic described in Part III, Item 7.

(4) PURE ATS also offers Subscribers ~~a~~ self-match ~~prevention modifier~~customization that allows a Subscriber to either prevent executions with other firm or conditional orders from that Subscriber in the ATS or restrict executions to only firm or conditional orders from that Subscriber in the ATS. Self-match customization allows a subscriber to have flexible customized matching functionality in the ATS and can be applied to orders ATS pool-wide (except that this ~~This modifier~~customization is not available for orders designated to LM Sub-Pools). Subscribers can apply this ~~modifier~~customization at different levels of granularity (e.g., at the Subscriber or Subscriber's customer level; the latter would prevent orders from a Subscriber's customer from interacting with other orders in the ATS from that customer).

(5) In addition to limiting counter-parties, Subscribers can also choose to restrict (or not restrict) any order from interacting with contra-side conditional orders. Note that if a Subscriber enables

an order with an IOC or SOK time-in-force instruction to interact with conditional orders, to facilitate such an interaction, if the ATS identifies a potential match for the IOC or SOK order with a conditional order, the ATS will delay cancelling the IOC or SOK order pending the firm-up request process for the relevant conditional period (the firm-up request process has a two-second time-out period, and is described in Part III, Item 9).

PURE ATS does not segment flow; only Subscribers and their customers can limit order interactions using the order instructions described in this section.

All of the above order instructions can be sent by the Subscriber (including for directed orders) via its FIX connection with PURE ATS in accordance with PURE ATS's FIX specifications (available to all Subscribers).

b. If yes to Item 14(a), are the procedures for counter-party selection required to be identified in Item 14(a) the same for all Subscribers and the Broker-Dealer Operator?
Yes.
If no, identify and explain any differences.