EXHIBIT E

Exhibit Request:

Describe the manner of operation of the System. This description should include the following:

1.   The means of access to the System.

2.   Procedures governing entry and display of quotations and orders in the System.

3.   Procedures governing the execution, reporting, clearance and settlement of transactions in connection with the System.

4.   Proposed fees.

5.   Procedures for ensuring compliance with System usage guidelines.

6.   The hours of operation of the System, and the date on which applicant intends to commence operation of the System.

7.   Attach a copy of the users' manual.

8.   If applicant proposes to hold funds or securities on a regular basis, describe the controls that will be implemented to ensure safety of those funds or securities.

Response:

Table of Contents

A. Introduction

1) <u>General</u>

MIAX Sapphire, LLC ("MIAX Sapphire" or the "Exchange") proposes to register as a national securities exchange under Section 6 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The Exchange will be owned by its parent company, Miami International Holdings, Inc. ("Miami Holdings") which will elect all directors of the Board of Directors of the Exchange. However, Article II, Sections 2.4 and 2.5 of the By-Laws of the Exchange provide a process by which Exchange Members may nominate representatives to the Board that complies with the requirement for fair representation of members in the selection of directors. See Exhibit J to this Application. The members of the Exchange (the "Members") will consist of those broker-dealers admitted to transact business on the Exchange. Members will be subject to the Rules of the Exchange and will have representation on the Exchange's Board of Directors and certain committees. Members who are not also stockholders of Miami Holdings will not have any ownership interest in the Exchange.

Once registered, the Exchange will operate a fully automated electronic options trading platform to buy or sell securities with a continuous, automated matching function. Liquidity will be derived from quotes as well as orders to buy and orders to sell submitted to the Exchange electronically by Members from remote locations. Additionally, there will be a physical Exchange trading floor located in Miami, Florida. There will be two types of Members on the electronic Exchange – Market Makers ("Market Makers" or "MMs") and Electronic Exchange Members ("EEMs", and collectively with MMs, "Members"). Although the Exchange will permit Members to register as Exchange Market Makers, such Market Makers will not receive special trading allocations or similar rights vis-à-vis other Members. Market Makers will have affirmative and negative market making obligations. Access to the Exchange will be through the use of Trading Permits issued to the Members. The Trading Floor will have two types of Floor Participants – Floor Brokers and Floor Market Makers. A Floor Broker is an individual who is registered with the Exchange for the purpose, while on the Trading Floor, of accepting and handling options orders. A Floor Broker must be registered as a Floor Participant prior to registering as a Floor Broker. A Floor Market Maker is a Floor Participant of the Exchange located on the Trading Floor who has received permission form the Exchange to trade in options for his own account. Only those employees of Floor Participants that are registered and approved by the Exchange may be admitted to the Trading Floor.

Access to the Exchange will be open to broker-dealers registered under Section 15(b) of the Exchange Act that meet the standards for membership set forth in Chapter II of the proposed Exchange Rules. Further, all MIAX Options, MIAX Pearl, and MIAX Emerald Members in good standing will be eligible for a Trading Permit in the same membership category to trade on MIAX Sapphire. For example, a Market Maker in good standing on MIAX Pearl will be eligible to become a Market Maker on MIAX Sapphire, through the submission and approval of an Exchange Waive-In Membership Application. Members will be subject to fees for executions on the Exchange as set forth in the proposed Rules of the Exchange or as may otherwise be determined by the Exchange from time-to-time pursuant to a fee schedule. Trading Permits will not be transferable except in the event of a change in control of a Member subject to meeting certain criteria. A more detailed description of the Membership criteria is set forth in Chapter II of the Exchange's proposed Rules. See Exhibit B to this Application.

2) Regulation SCI

Regulation Systems Compliance and Integrity ("Regulation SCI") requires self-regulatory organizations (defined as SCI entities) to have, among other things, robust and resilient technological systems that ensure the SRO's own operational capability, including the ability to maintain effective operations, minimize or eliminate the effect of performance degradations, and have sufficient backup and recovery capabilities. Specifically, Regulation SCI Rule 1001(a) requires each SCI entity to establish, maintain and enforce written policies and procedures reasonably designed to ensure that its SCI systems have levels of capacity, integrity, resiliency, availability, and security, adequate to maintain the SCI entity's operational capability and promote the maintenance of fair and orderly markets.

Regulation SCI Rule 1001(a)(2)(v) further requires business continuity and disaster recovery plans that include maintaining backup and recovery capabilities that are both sufficiently resilient and geographically diverse. To be deemed sufficiently resilient, Regulation SCI has established a goal for SCI entities of next business day resumption of trading and two-hour resumption of critical SCI systems following a wide-scale disruption. To be considered geographically diverse, Regulation SCI provides a reasonable degree of flexibility to an SCI entity to determine the precise nature and location of its backup site. Regulation SCI does not specify a minimum distance for an SCI entity's backup and recovery facilities. However, the backup site should not rely upon the same infrastructure components nor be subject to the same vulnerabilities or risks as its primary site.

MIAX Sapphire will be compliant with all aspects of Regulation SCI including the requirements for its backup and recovery capabilities. The Exchange's disaster recovery plans in general and its backup data center in particular will be robust and resilient. It should be noted that the Exchange does not plan to operate any critical SCI systems and therefore will not be required to meet the two-hour resumption of service goal set forth in the Regulation.

The MIAX Sapphire Trading floor will be located in Miami, Florida. The MIAX Sapphire electronic market will be primarily operated out of New Jersey (the "Primary Data Center"). The MIAX Sapphire Disaster Recovery ("Disaster Recovery") site is located in Illinois.

The topology of the planned system includes complete redundancy of software level components such that a failure of a single software component, due to server hardware or network device failures, will recover to a backup instance running in a Hot/Hot or a Hot/Warm configuration. Depending on the specific failed component, redundancy can exist within the primary system or within an independent secondary hardware system. In the event of a widespread Primary Data Center site failure, the Disaster Recovery Data Center will be available for the site failover. The systems deployed in the Disaster Recovery Data Center will be designed, deployed and tested to be sufficiently resilient and comply with the Regulation SCI requirement to be operational the next business day after declaring a disaster in the Primary Data Center.

The Disaster Recovery Data Center will be sized with servers and networking equipment such that it provides identical functional services as the Primary Data Center site. The Disaster

Recovery site selected for MIAX Sapphire is in accordance with the Regulation SCI requirements for maintaining backup and recovery capabilities that are both sufficiently resilient and geographically diverse. The Disaster Recovery site is approximately 700 miles away from the Primary Data Center with reasonable geographical and supporting infrastructure diversity.

As part of normal business operations, MIAX Options has successfully deployed and validated a model to allow and facilitate shared support of trading systems, trading operations, systems operations and regulatory operations from the National Operations & Control Center (NOCC) and diverse off-site locations (home based). A rotation schedule is established for key operational staff to offer off-site support on an ongoing basis to ensure that there is a continuous assessment and validation of remote support capabilities. This will ensure that remote connectivity capabilities and operational procedures are continuously assessed irrespective of any business continuity situations. MIAX Sapphire will follow the same model.

In accordance with Regulation SCI requirements, the supporting framework is designed and implemented to operate and maintain robust and resilient technological systems that ensure MIAX Sapphire's own operational capability. This includes the ability to maintain effective operations, minimize or eliminate the effect of performance degradations, and provide sufficient backup and recovery capabilities. The supporting framework also facilitates maintaining and enforcing written policies and procedures reasonably designed to ensure that its SCI systems have levels of capacity, integrity, resiliency, availability, and security adequate to maintain the SCI entity's operational capability and promote the maintenance of fair and orderly markets.

In addition, with respect to personnel necessary to operate the Exchange's market in the event of a wide-scale disruption that forces the Exchange to activate its back-up recovery sites, the Exchange's staff will work remotely using facilities set-up in their homes throughout the tri-state region. Currently, all the MIAX Options market and technology operations staff have the full set of tools necessary to operate the market from their at home facilities. MIAX Options regularly tests the use of the at-home facilities on an individual basis.

In accordance with Rule 1001(a) of Regulation SCI, the Exchange will have written policies and procedures in place that reflect its operational capabilities, including the ability to maintain effective operations, minimize or eliminate the effect of performance degradations, and have sufficient backup and recovery capabilities.

Proposed Rule 321, Business Continuity and Disaster Recovery Plans Testing Requirements for Designated Members (which is incorporated by reference to Rule 321 of MIAX Options), provides that pursuant to Regulation SCI and with respect to the Exchange's business continuity and disaster recovery plans, including its disaster recovery systems, the Exchange is required to establish standards for the designation of Members that the Exchange reasonably determines are, taken as a whole, the minimum necessary for the maintenance of fair and orderly markets in the event of the activation of such plans. The Exchange has established standards and will publish such standards in a Regulatory Circular prior to launch of the Exchange and designate Members according to those standards as set forth below. All Members are permitted to connect to the Exchange's disaster recovery systems and to participate in testing of such systems.

Proposed Rule 321 further provides that certain Members will be required to connect to the Exchange's disaster recovery systems and participate in functional and performance testing as announced by the Exchange, which shall occur at least once every 12 months. The following Members, as provided in proposed Rule 321, must participate in mandatory testing of the

Exchange's disaster recovery systems: Members that have been determined by the Exchange to contribute a meaningful percentage of the Exchange's overall volume.

For purposes of identifying Members that contribute a meaningful percentage of the Exchange's overall volume ("meaningful percentage"), proposed Interpretations and Policies .01 to proposed Rule 321 provides that the Exchange will measure volume executed on the Exchange during a calendar quarter determined by the Exchange (the "measurement quarter") and published in a circular distributed to Members. The meaningful percentage will be determined by the Exchange and will be published in a circular distributed to Members. Proposed Rule 321 further provides that the meaningful percentage applicable in any measurement quarter will be published in advance of such measurement quarter and will not apply retroactively to any measurement quarter completed or in progress and that the Exchange will also individually notify all Members that will be subject to mandatory testing based on the meaningful percentage following the completion of the measurement quarter.

Any changes to the Designation Standards will be published by MIAX Sapphire in a Regulatory Circular in advance of the start of any measurement quarter and will not be applied retroactively to any measurement quarter then completed or in progress.

MIAX Sapphire will individually notify Designated BCP Members of their designation as such (including the Exchange volume percentage(s) such designation is based upon) promptly following completion of the applicable measurement quarter. Members designated for the first time will become subject to the requirements of proposed Rule 321 in the next calendar quarter following their receipt of notice of designation from MIAX Sapphire.

This exhibit describes, in summary form, the proposed operation of the Exchange. A more detailed description of the proposed Exchange is set forth in the proposed By-Laws and proposed Rules of the Exchange. See Exhibit A and Exhibit B to this Application.

B. Access to the Exchange (Item #1)

1) Member Access

Members will access the Exchange electronically through the use of a variety of systems. The Exchange will not accept telephone orders.

The Exchange has designed its systems to allow its Members to individually determine the best method for accessing the Exchange. Thus, Members may develop their own customized front-end software using protocols determined by the Exchange, or may use third-party vendors to route orders to the Exchange through a front-end or service bureau configuration. Members will be able to access the Exchange remotely through a variety of methods and connections that support a minimum data exchange rate, as may be determined by the Exchange from time-to-time.

Direct access to the Exchange is available to Members at an Internet Protocol ("IP") address by one or more of the following methods: (i) electronic access at the Exchange's IP network address by the Member's own software, via communications that are compliant with the Financial Information Exchange ("FIX") protocol application programmer interface ("API") provided by the Exchange; (ii) electronic access at the Exchange's IP network address by the Member's own

software via communications that are compliant with the MIAX Options Express Orders ("MEO") protocol API provided by the Exchange; or (iii) other means of access provided from time-to-time by the Exchange. Not all order types will be available for use on each of the MEO Interface or the FIX Interface. The Exchange will issue a Regulatory Circular listing which order types, among the order types accepted by the Exchange, are available for delivery via the MEO Interface and which are available for delivery via the FIX Interface.

Members provide a unique IP address to the Exchange for each requested connection, and the Exchange then configures its routers to only allow access from the Member's IP address to a dedicated IP address on the Exchange's network. By requiring the use of a registered IP address, the Exchange assures that only authorized Members will have access.

Members will be responsible for having procedures reasonably designed for safeguarding access to the Exchange and for notifying the Exchange upon learning that such safeguards have been compromised. Connectivity to the Exchange will occur through secure telecommunications "ports" or points of entry. Each Member will be assigned a specific port or multiple ports, each of which has a set of unique Exchange-provided login credentials assigned to that Member's registered IP address.

The Exchange will provide an API for Floor Participants to query the Electronic Order Book. The query will return the current price and size of orders on the Electronic Order Book.

2) Non-Member Access

The Exchange plans to become a participant in the Options Order Protection and Locked/Crossed Market Plan or any successor plan ("Linkage Plan"). If admitted as a participant to the Linkage Plan, other plan participants would be able to send orders to the Exchange in accordance with the terms of the Linkage Plan.

Non-Members may also access the Exchange pursuant to proposed Rules governing "sponsored access" to the Exchange. The Exchange plans to permit access by entities ("Sponsored Users") whose access is authorized in advance by entering into an arrangement with a Member ("Sponsoring Member") in accordance with proposed Exchange Rules. The Sponsoring Member must agree to be responsible for all trading conducted pursuant to that arrangement to the same extent as trading conducted by the Member for customers. The Sponsoring Member is responsible for implementing policies and procedures for supervising and monitoring the trading effected pursuant to the arrangement to ensure that it is in compliance with all applicable federal securities laws and rules and proposed Exchange Rules. In addition, Sponsored Users must agree to comply with all applicable proposed Rules of the Exchange governing the entry, execution, reporting, clearing and settling of orders in securities eligible for trading on the Exchange.

C. Entry and Display of Quotations and Orders in the System (Item #2)

1) Entry of Orders on the Exchange

Orders entered on the Exchange must be priced and must have a designated size (limit orders) or must be orders to buy or sell a stated amount of a security at the best obtainable bid or offer when the order reaches the Exchange (market orders). Some orders, both limit and market, can

include an instruction to ignore prices on other markets. Orders will be accepted for any security traded on the Exchange, whether submitted by a Member on a proprietary or agency basis in any size.

The following are the order types described in the proposed Exchange Rules that will be available for use on the Exchange: market orders, limit orders, marketable limit orders, cancel-replacement orders, immediate-or-cancel orders, intermarket sweep orders, do not route orders, day limit orders, customer cross orders, and qualified contingent cross orders. Each of these Exchange order types are described in detail in proposed Exchange Rule 516. The Exchange will maintain a full audit trail of every order submitted to the Exchange. Members may receive status reports regarding orders submitted to the Exchange or change or cancel an order at any time before that order is fully executed on the Exchange.

Additionally, the Exchange will support complex orders, complex customer cross orders, and complex contingent cross orders as described in detail in proposed Exchange Rule 518. The Exchange trading floor will support qualified floor orders as described in detail in proposed Rule 2040. Qualified floor orders will be submitted from the trading floor to the Exchange via the Floor Broker's MEO Interface connection.

The Exchange System includes an Aggregate Risk Manager for Market Makers ("ARM-M"), as described in the Exchange's proposed Rule 517 pursuant to which the System will maintain a counting program ("MM Counting Program") for each Market Maker who has submitted an order in an option class (an "MM Option Class") delivered via the MEO Interface as described below (an "MM ARM Eligible Order"). Using the MM Counting Program, ARM-M protects Market Makers by limiting the number of contracts they execute in an option class on the Exchange within a specified time period that has been established by the Market Maker (an "MM specified time period"). Market Makers establish a percentage of their orders (the "MM Allowable Engagement Percentage") and the MM specified time period for each option class. When an execution of an MM ARM contract occurs, the System looks back over the MM specified time period to determine whether the execution is of sufficient size to trigger the ARM-M. The System activates the ARM-M when it has determined that a Market Maker has traded a number of contracts equal to or above their MM Allowable Engagement Percentage during the MM specified time period. The ARM-M then automatically cancels and removes the MM's ARM-M orders in all series of that particular option class and reject new orders by the Market Maker in all series of that particular Market Maker Specified Option Class until the Market Maker sends a notification to the System of the intent to reengage and submits a new order in the affected class. A Market Maker may configure enhanced Aggregate Risk Manager protections for one option class (the "ARM Class Protection"), or more than one class ("ARM Firm Protection") under proposed Rule 517 Interpretations and Policies .01.

In order to avoid the occurrence of potential obvious or catastrophic errors on the Exchange, the Exchange System includes the MIAX Sapphire Order Monitor ("MOM"), as described in the Exchange's proposed Rule 519. The MIAX Sapphire Order Monitor will prevent certain orders from EEMs from executing or being placed on the Simple Order Book at prices outside pre-set standard limits and if the size of the order exceeds the order size protection designated by the EEM submitting the order. Additionally, the System will reject any EEM orders that exceed the maximum number of open orders held in the System on behalf of a particular EEM and any orders that cause the number of open contracts represented by orders held in the System on behalf of a particular EEM to exceed a specified maximum number of contracts.

The Exchange System also includes a Risk Protection Monitor for Orders Entered via the FIX Protocol ("RPM-FIX") in proposed Rule 519A. The Risk Protection Monitor provides risk protections for orders entered by an EEM on the Exchange. The System maintains a counting program ("counting program") for each EEM that will count the number of orders entered and the number of contracts traded via an order entered by an EEM on the Exchange within one or more specified time periods that have been established by the Exchange (each, a "specified time period"). EEMs shall establish for each specified time period an Allowable Order Rate and an Allowable Contract Execution Rate which may not exceed the EEM's historical peak order rate and peak contract execution rate multiplied by a factor determined by the Exchange. When an EEM's order is entered or when an execution of an EEM's order occurs, the System will look back over each specified time period to determine whether the order entered or the execution that occurred triggers the Risk Protection Monitor. When triggered, the Risk Protection Monitor will (i) prevent the System from receiving any new orders in all series in all classes from the EEM; and (ii) if designated by the EEM's instructions, cancel all existing orders with a time-in-force of Day in all series from the EEM via the FIX Interface or MEO Interface; or (iii) send a notification to the Member without any further preventative or cancellation action by the System, as applicable.

The System will trigger the Risk Protection Monitor when the counting program has determined either (i) that an EEM has entered during the specified time period a number of orders exceeding their Allowable Order Rate, or (ii) that an EEM has executed during the specified time period a number of contracts exceeding their Allowable Contract Execution Rate. Once engaged, the Risk Protection Monitor will then automatically prevent the System from receiving any new orders in all series in all classes from the EEM, and, if designated by the EEM's instructions, cancel all existing orders with a time-in-force of Day in all series in all classes from the EEM. When engaged, the Risk Protection Monitor will still allow the EEM to interact with existing orders entered prior to exceeding the Allowable Order Rate or the Allowable Contract Execution Rate, including sending cancel order messages and receiving trade executions from those orders. The Risk Protection Monitor shall remain engaged until the EEM communicates with the Exchange to enable the acceptance of new orders. EEMs may elect to group with other EEMs under certain circumstances and with the EEM's clearing firm. EEMs may also elect to receive warning notifications under the Risk Protection Monitor.

The Exchange will also provide protection to Members that are disconnected from the System. When a loss of communication is detected, the System will close the session and automatically cancel quotes and orders as configured by the Member.

All options will be traded in decimals on the Exchange and consistent with the Penny Interval Program.

2) <u>Entry of Quotations on the Exchange</u>

Quotes may only be entered by Market Makers, and only in the option series to which the Market Maker is registered to trade, must be priced and must have a designated size. Similar to the Exchange's affiliate, MIAX Pearl, a quote is defined in proposed Rule 100 as a bid or offer entered by a Market Maker as a firm order that updates the Market Maker's previous bid or offer, if any. When the term order is used in the proposed Rules and a bid or offer is entered by the Market Maker in the option series to which such Market Maker is registered, such order shall, as applicable, constitute a quote or quotation for purposes of the proposed Rules. The standard minimum quote size will be one contract. All of the bids and offers in the quote types described

below shall be firm in accordance with the Market Maker's obligations under proposed Exchange Rules and Rule 602 of Regulation NMS.

3) Display of Orders and Quotations

All orders/quotes submitted to the Exchange will be displayed unless the order is a contingent order (such as immediate or cancel orders). Orders/Quotes submitted to the Exchange shall be displayed on an anonymous basis at the price specified by the submitting Member. Non-displayed orders will not be displayed to any Members and will not have time priority over displayed orders. In addition, the Exchange intends to become a participant in the Options Price Reporting Authority Plan ("OPRA Plan") and will collect and submit to OPRA the best buy and sell interest displayed on the Exchange in accordance with the terms of the OPRA Plan.

Certain orders and quotes available on the Exchange will be displayed at one price and executable at another price as described below. The handling by the trading System of certain orders that lock or cross the opposite side NBBO can result in the display of orders at one price and the execution at another price.

Based on Exchange System functionality, a locked or crossed market will not be displayed by the Exchange with respect to orders to buy and orders to sell submitted to the Exchange unless allowed pursuant to proposed Exchange Rules or a national market system plan governing locked and crossed markets. The managed interest process for orders that could not be executed or could not be executed in full ("managed orders") under proposed Rule 515(d) provides for the display of such orders one Minimum Price Variation ("MPV") away from the current opposite side NBBO and provides for the booking of the order at a price that will lock the current opposite side NBBO. It should be noted that in those situations where the execution price differs from the displayed price, the execution price will always provide price improvement over the price displayed to the incoming order. The managed interest process for orders is discussed further in Section D below.

D. Execution, Reporting, Clearance and Settlement Procedures (Item #3)

1) Execution and Trade Reporting

i. Orders and Quotes on the Simple Order Book – the Exchange's Regular Electronic Book of Orders and Quotes

a. Opening Process

Pursuant to proposed Rule 503, for the opening or resumption of trading of securities by the System, the Opening Process shall occur at or after 9:30 a.m. Eastern Time, if the dissemination of a regular market hours quote or trade (as determined by the Exchange) by the Market for the Underlying Security has occurred.

"Market for the Underlying Security" is defined in proposed Rule 503(a)(3) to mean either the primary listing market, the primary volume market (defined as the market with the most liquidity in that underlying security for the previous two calendar months), or the first market to open the

underlying security, as determined by the Exchange on a class by class basis and announced to Members on the Exchange's website.

"Valid Width National Best Bid or Offer" or "Valid Width NBBO" is defined in proposed Rule 503(a)(4) to mean the combination of all away market quotes and any combination of MIAX Sapphire Market Maker orders and quotes received from a minimum number of away markets and a minimum number of MIAX Sapphire Market Makers within a specified bid/ask differential each as established and published by the Exchange on its website. The Valid Width NBBO will be configurable by the underlying, and tables with valid width differentials will be posted by MIAX Sapphire on its website. Away markets that are crossed will void all Valid Width NBBO calculations. If any Market Maker orders or quotes on MIAX Sapphire are crossed internally, then all such orders and quotes will be excluded from the Valid Width NBBO calculation. If any Market Maker orders or quotes on MIAX Sapphire are locking or crossing the ABBO, or Away Best Bid or Offer, meaning the best bid(s) or offer(s) disseminated by other Eligible Exchanges, the Market Maker's orders or quotes will be managed at the locked or crossed ABBO price for purposes of calculating the Valid Width NBBO.

Following the dissemination of a quote or trade in the Market for the Underlying Security (the "First Market Event") pursuant to proposed Rule 503(b) the System will pause for a period of time no longer than one-half second to allow the market place to absorb this information. Or, in the case of a trading halt, the Opening Process shall occur when trading resumes pursuant to proposed Rule 504. Market hours trading shall commence or, in the case of a halted option, resume when the MIAX Sapphire Opening Process concludes.

Pursuant to proposed Rule 503(b)(1), the opening of trading or resumption of trading after a halt of securities by the System will be dependent on the following criteria, provided the ABBO is not crossed. If there is a possible trade on MIAX Sapphire a Valid Width NBBO must be present. If no trade is possible on MIAX Sapphire, then the Exchange will open dependent upon one of the following: (A) a Valid Width NBBO is present; (B) a certain number of other options exchanges (as determined by the Exchange and posted by MIAX Sapphire on its website) have disseminated a firm quote on OPRA; or (C) a certain period of time (as determined by the Exchange and posted by MIAX Sapphire on its website) has elapsed.

Pursuant to proposed Rule 503(b)(2)(i), the System will determine an Opening Price during the Opening Process where there is a possible trade on MIAX Sapphire. After the First Market Event has occurred or the trading halt has been lifted and the criteria for opening has been met, in each case where there are orders or quotes with internally locking or crossing prices for a particular option series the System will determine a single price at which such option series will be opened (the "Opening Price") . The Opening Price of a series will be the midpoint of the Valid Width NBBO, rounded up if necessary (the "NBBO Midpoint").

After establishing an Opening Price, pursuant to proposed Rule 503(b)(2)(ii) orders and quotes in the System that are priced equal to or more aggressively than the Opening Price will be matched based on price-time priority. Matches will occur until there is no remaining volume or there is an imbalance of orders. All orders and quotes or portions thereof that are matched pursuant to the Opening Process will be executed at the Opening Price. An imbalance of orders on the buy side or sell side may result in orders that are not executed in whole or in part. Such orders will be handled in time sequence, beginning with the order with the oldest time stamp and may, in whole or in part, be placed on the Simple Order Book, cancelled, executed, managed in accordance with proposed Rule 515, or routed in accordance with proposed Rule 529.

Pursuant to proposed Rule 503(b)(3), where there is no possible trade on MIAX Sapphire the Opening Process will occur without the determination of an Opening Price. After the First Market Event has occurred or the trading halt has been lifted and the criteria for opening has been met, and where there are no contracts in a particular series that would execute at any price, the System shall open such options for trading without determining an Opening Price. The System will open such series by disseminating via a national market system plan the Exchange's best bid and offer among quotes and orders that exist in the System at that time.

b. Certain Locking or Cross Orders or Quotes

Pursuant to proposed Rule 503(d), if any Market Maker order or quote on MIAX Sapphire is locking or crossing another order or quote of such Market Maker on MIAX Sapphire during the Opening Process, then the System will cancel the oldest of the Market Maker's locking or crossing order or quote prior to execution.

c. Executions After the Opening

After the opening, executions on the Exchange will occur when a buy order/quote and a sell order/quote match on the Book. Pursuant to proposed Rule 514(b), such executions are allocated pursuant to price-time allocation methodology. The price-time allocation methodology provides that the System will execute all trading interest at the best price level within the System before executing trading interest at the next best price. Within each price level, if there are two or more quotes or orders at the best price, trading interest will be executed in time priority.

The Exchange System includes certain self-trade protection as set forth in proposed Rule 514(c). Orders entered by a Market Maker via the MEO Interface or the FIX Interface using the same MPID will not be executed against orders entered on the opposite side of the market by the same Market Maker using the same MPID via the MEO Interface or the FIX Interface. In such a case, the System will cancel the oldest of the orders back to the entering party prior to execution.

The Exchange's System will, when appropriate, immediately execute incoming orders or quotes against orders and quotes in the System, provided such incoming orders and quotes will not be executed at prices inferior to the NBBO. When an incoming order is not executable or cannot be fully executed, the System will pursuant to proposed Rule 515 (Execution of Orders) handle the order by (i) posting the order or quote at its limit price; (ii) routing it to an away market; (iii) executing or cancelling the order in accordance with the price protection processes; (iv) managing it in accordance with the Managed Interest Process.

The System provides price protection for market orders and limit orders as set forth in proposed Rule 515(c). Price protection prevents an order from being executed beyond the price designated in the order's price protection instructions (the "price protection limit"). The price protection instructions will be expressed in units of MPV away from the NBBO at the time of the order's receipt, or the SBBO if the ABBO is crossing the SBBO. Market participants may designate price protection instructions on an order by order basis within a minimum and maximum number of MPVs away from the NBBO at the time of receipt, or the SBBO if the ABBO is crossing the SBBO, as determined by the Exchange and announced to Members through a Regulatory Circular. The default price protection will be within 1 to 5 MPVs away from the NBBO at the time of receipt, or the SBBO if the ABBO is crossing the SBBO as determined by the Exchange and announced to

Members through a Regulatory Circular. When triggered, price protection will cancel an order or the remaining contracts of an order.

d. Managed Interest Process for Orders

The Managed Interest Process as set forth in proposed Rule 515(d)(2) applies to orders that are not routable (such as an order marked "Do Not Route") that would either lock or cross the NBBO, certain orders with remaining unexecuted contracts after having been routed, and certain orders with remaining unexecuted contracts having executing against the NBBO when the Exchange alone represented the NBBO. Managed orders will be displayed at one MPV away from the current opposite side NBBO to avoid a lock or cross, but will be available for execution on the Book at a price equal to the opposite side NBBO. The Managed Interest Process will take into account any changes to the NBBO. If the NBBO changes to an inferior price, the managed order's displayed price will continuously re-price to one MPV away from the opposite side of the new NBBO and the price at which the managed order is available for execution on the Book will continuously re-price to be equal to the opposite side of the new NBBO. Such re-pricing will continue until the managed order reaches its limit price, is fully executed, or is cancelled.

Any incoming order or quote executable against a managed order will be executed at the price at which the managed order is "resting" on the Book, provided that the execution price does not violate the current NBBO.

An order subject to the Managed Interest Process under proposed Rule 515(d) will retain its original limit price irrespective of the prices at which such order is booked and displayed and will maintain its original timestamp, provided however each time the order is booked at a more aggressive Book price, the order will be re-ranked for time purposes. All orders that are re-booked and re-displayed pursuant to the Managed Interest Process will retain their priority as compared to other orders subject to the Managed Interest Process, based upon the time such order was initially received by the Exchange. Following the initial booking and display of an order subject to the Managed Interest Process, an order will only be re-booked and re-displayed to the extent it achieves a more aggressive price, provided, however, that the Exchange will re-book an order at the same price as the displayed price in the event such order's displayed price is locked or crossed by the ABBO. Such event will not result in a change in priority for the order at its displayed price.

The Booked and displayed prices of an order subject to the Managed Interest Process may be adjusted once or multiple times depending on changes to the prevailing ABBO.

Pursuant to proposed Interpretations and Policies .01 of proposed Rule 515, in the course of the Managed Interest Process for Non-Routable Orders as provided in proposed Rule 515(d)(2), if managed interest becomes tradable at multiple price points on the Exchange due to the ABBO transitioning from a crossed state to an uncrossed state, the initial trade price will be the midpoint of the SBBO, or the best bid and offer on the Simple Order Book of MIAX Sapphire, rounded up to the nearest MPV if necessary unless that price would be outside the ABBO, in which case the midpoint of the SBBO will be rounded to the nearest MPV at or inside the ABBO if necessary. An imbalance of orders on the buy side or sell side may result in orders that are not executed in whole or in part. Such orders will be handled in time sequence, beginning with the order with the oldest time stamp and may, in whole or in part, be placed on the Simple Order Book, cancelled, executed, or routed in accordance with proposed Rule 529.

e. Orders for Own or Customer Accounts

In executing orders submitted to the Exchange's Simple Order Book, the Exchange will not distinguish between orders submitted by Members for their own accounts and orders submitted by Members for their customers. All Exchange Members will submit orders to the Exchange from remote locations and have equal access to orders residing on the Exchange. Similarly, because orders on the Exchange will be executed automatically, no Member of the Exchange will have the ability to control the timing of execution (other than to change or cancel an order/quote prior to execution).

f. ISOs

The Exchange will accept Intermarket Sweep Orders ("ISO") in accordance with the Options Order Protection and Locked/Crossed Market Plan. ISOs are executed by the trading System without respect to the protected quotations of other exchanges, that is, the Options Order Protection and Locked/Crossed Market Plan and proposed Exchange Rules provide an exemption to the prohibition on trading-through the NBBO for orders identified as ISOs, provided the Member submitting the ISO has complied with all aspects of the Plan and proposed Exchange Rules. It should be noted, executions of ISOs on the Exchange will be handled in accordance with the proposed Exchange Rules governing the allocation among participants to the execution.

ii. Complex Orders

a. General

The trading of complex orders is covered in proposed Rule 518. Proposed Rule 518(a) provides the definitions of terms that apply to the trading of complex orders, including the following:

The term ABBO means the best bid(s) or offer(s) disseminated by other Eligible Exchanges (defined in Rule 1400(g)) and calculated by the Exchange based on market information received by the Exchange from OPRA.

A "complex order" is any order involving the concurrent purchase and/or sale of two or more different options in the same underlying security (the "legs" or "components" of the complex order), for the same account, in a conforming or non-conforming ratio as defined below for the purposes of executing a particular investment strategy. Mini-options may only be part of a complex order that includes other mini-options. Only those complex orders in the classes designated by the Exchange and communicated to Members via Regulatory Circular with no more than the applicable number of legs, as determined by the Exchange on a class-by-class basis and communicated to Members via Regulatory Circular, are eligible for processing.

The term complex order also includes stock-option orders. A stock-option order is an order to buy or sell a stated number of units of an underlying security (stock or Exchange Traded Fund Share ("ETF")) or a security convertible into the underlying stock ("convertible security") coupled with the purchase or sale of options contract(s) on the opposite side of the market representing either (i) the same number of units of the underlying security or convertible security, or (ii) the number of units of the underlying stock necessary to create a delta neutral position where the ratio represents the total number of units of the underlying security or convertible security in the option leg to the total number of units of the underlying security or convertible security in the stock leg. A stock-option order may have a conforming or non-conforming ratio as defined below, and is

subject to the limitations set forth in proposed Interpretation and Policy .01 of proposed Rule 518. Only those stock-option orders in the classes designated by the Exchange and communicated to Members via Regulatory Circular with no more than the applicable number of legs as determined by the Exchange on a class-by-class basis and communicated to Members via Regulatory Circular, are eligible for processing.

The term "complex strategy" means a particular combination of components and their ratios to one another. New complex strategies can be created as the result of the receipt of a complex order or by the Exchange for a complex strategy that is not currently in the System. The Exchange may limit the number of new complex strategies that may be in the System at a particular time and will communicate this limitation to Members via Regulatory Circular.

The term "conforming ratio" is where the ratio between the sizes of the options components of a complex order is equal to or greater than one-to-three (.333) and less than or equal to three-to-one (3.00); and where one component of the complex order is the underlying security (stock or ETF) or security convertible into the underlying stock ("convertible security"), the ratio between the option component(s) and the underlying security (stock or ETF) or convertible security is less than or equal to eight-to-one (8.00).

The term "free trading" means trading that occurs during a trading session other than at the opening or re-opening for trading following a halt.

The Implied Complex Sapphire Best Bid or Offer ("icSBBO") is a calculation that uses the best price from the Simple Order Book for each component of a complex strategy including displayed and non-displayed trading interest. For stock-option orders, the icSBBO for a complex strategy will be calculated using the best price (whether displayed or non-displayed) on the Simple Order Book in the individual option component(s), and the NBBO in the stock component.

A MEO Complex Order or "MCO" is a complex order submitted via the MEO Interface with a time-in-force of IOC.

The term "NBBO" means the national best bid or offer as calculated by the Exchange based on market information received by the Exchange from the appropriate Securities Information Processor ("SIP").

The term "non-conforming ratio" is where the ratio between the sizes of the options components of a complex order is greater than three-to-one (3.00) or less than one-to-three (.333); or where one component of the complex order is the underlying security (stock or ETF) or security convertible into the underlying stock ("convertible security"), the ratio between the option component(s) and the underlying security (stock or ETF) or convertible security is greater than eight-to-one (8.00).

b. Types of Complex Orders

Proposed Rule 518(b) will describe the various types of complex orders offered by the Exchange. The complex order types that may be submitted for use on the Exchange are limit orders, market orders, or Day Limit Orders as each such term is defined in proposed Rule 516, or Complex Immediate-or-Cancel ("cIOC") Orders, Complex Customer Cross ("cC2C") Orders, or Complex Qualified Contingent Cross ("cQCC") Orders, as such terms are defined in proposed Rule 518.

A Complex Immediate-or-Cancel or "cIOC" Order is a complex order that is to be executed in whole or in part upon receipt. Any portion not so executed is cancelled. A Complex Customer Cross or "cC2C" Order is comprised of one Priority Customer complex order to buy and one Priority Customer complex order to sell at the same price and for the same quantity. Trading of cC2C Orders is governed by proposed Rule 515(g)(3). A Complex Qualified Contingent Cross or "cQCC" Order is comprised of an originating complex order to buy or sell where each component is at least 1,000 contracts that is identified as being part of a qualified contingent trade, as defined in proposed Rule 516, Interpretation and Policy .01, coupled with a contra-side complex order or orders totaling an equal number of contracts. Trading of cQCC Orders is governed by proposed Rule 515(g)(4).

c. Trading of Complex Orders

Proposed Rule 518(c) describes the manner in which complex orders will be handled and traded on the Exchange. The Exchange will determine and communicate to Members via Regulatory Circular which complex order origin types (i.e., non-broker-dealer customers, broker-dealers that are not Market Makers on an options exchange, and/or Market Makers on an options exchange) are eligible for entry onto the Strategy Book. The Strategy Book is the Exchange's electronic book of complex orders as defined in proposed Rule 100. Complex orders will be subject to all other proposed Exchange Rules that pertain to orders and quotes generally, unless otherwise provided in this proposed Rule 518. Proposed Rule 518(c) governs trading of all complex order types set forth in proposed Rule 518(b), unless otherwise specified in proposed Rule 518(b).

d. Minimum Increments and Trade Prices

Proposed Rule 518(c)(1)(i) provides that bids and offers on complex strategies having only option components may be expressed in $0.01 increments, and the component(s) of such a complex order may be executed in $0.01 increments, regardless of the minimum increments otherwise applicable to individual components of the complex order.

Proposed Rule 518(c)(1)(ii) provides that bids and offers on complex orders for stock-option complex strategies (including a cQCC Order entered with a stock component) may be expressed in any decimal price the Exchange determines. The option component(s) of such a complex order may be executed in $0.01 increments, regardless of the minimum increments otherwise applicable to individual components of the complex order, and the stock component of such a complex order may be executed in any decimal price permitted in the equity market.

Proposed Rule 518(c)(1)(iii) provides that if any component of a complex order (including a stock-option order) with a conforming ratio would be executed at a price that is equal to a Priority Customer bid or offer on the Simple Order Book, at least one other option component of the complex strategy must trade at a price that is better than the corresponding SBBO.

Proposed Rule 518(c)(1)(iv) provides that a complex order (including a stock-option order) with a conforming ratio will not be executed at a net price that would cause any option component of the complex strategy to be executed: (A) at a price of zero; or (B) ahead of a Priority Customer Order on the Simple Order Book without improving the SBBO of at least one option component of the complex strategy.

Proposed Rule 518(c)(1)(v) provides that a complex order (including a stock-option order) with a non-conforming ratio will not be executed at a net price that would cause any option component

of the complex strategy to be executed: (A) at a price of zero; (B) ahead of a Priority Customer Order at the SBBO on the Simple Order Book; or (C) at a price that is through the NBBO.

Proposed Rule 518(c)(1)(vi) provides that a complex order will not be executed at a price that is outside of its MPC Price (as defined in proposed Rule 532(b)(6)) or its limit price.

Proposed Rule 518(c)(1)(vii) provides that if the complex order is a stock-option order with a conforming or non-conforming ratio and only one option component, the option leg must be at or inside the SBBO and must improve the price of any Priority Customer Order(s) resting on the Simple Order Book at the SBBO for that option.

Proposed Interpretations and Policies .01 of proposed Rule 518 describes special provisions applicable to stock-option orders. Specifically, Interpretations and Policies .01(c)(1) provides that the option leg(s) of a stock-option order with a conforming ratio shall not be executed (i) at a price that is inferior to the Exchange's best bid (offer) in the option or (ii) at the Exchange's best bid (offer) in that option if one or more Priority Customer Orders are resting at the best bid (offer) price on the Simple Order Book in any of the option components. If one or more Priority Customer Orders are resting at the best bid (offer) price on the Simple Order Book in each of the option components of the order, at least one option component must trade at a price that is better than the corresponding bid or offer in the marketplace by at least $0.01. A stock-option order with only one option component must improve the price of any Priority Customer Order(s) resting on the Simple Order Book at the SBBO for that option. The option leg(s) of a stock-option order may be executed in a $0.01 increment, regardless of the minimum quoting increment applicable to that series.

Proposed Interpretations and Policies .01(c)(2) of proposed Rule 518 provides that no option leg(s) of a stock-option order with a non-conforming ratio shall be executed (i) at a price that is inferior to the Exchange's best bid (offer) in the option or (ii) at the Exchange's best bid (offer) in that option if there are one or more Priority Customer Orders resting on the Simple Order Book at the best bid (offer) price for any option leg of a stock-option order. Each component of a stock-option order with a non-conforming ratio must trade at a price better than any Priority Customer Order(s) resting on the Simple Order Book at the best bid (offer) price by at least $0.01. The option leg(s) of a stock-option order may be executed in a $0.01 increment, regardless of the minimum quoting increment applicable to that series.

e. Execution of Complex Orders

Proposed Rule 518(c)(2) describes the process of opening the Strategy Book (and reopening after a halt) for trading, the prices at which executions may occur on the Exchange for complex strategies, and the process of evaluation that is conducted by the System to evaluate the eligibility of complex orders to participate in the Managed Interest Process for complex orders as described in proposed subparagraph (c)(4) of proposed Rule 518.

Complex orders do not participate in the Opening Process for the individual option legs conducted pursuant to proposed Rule 503. The System will evaluate the eligibility of complex orders (as applicable) to participate in the Managed Interest Process for complex orders as described in proposed subparagraph (c)(4) or proposed Rule 518; if they are eligible for full or partial execution against a complex order resting on the Strategy Book; whether the complex order should be cancelled; and whether all or any remaining portion of the complex order should be placed on the Strategy Book. The Strategy Book will open for trading, or reopen for trading after a halt, when

the System determines that all the components of a complex strategy are open in the Simple Market.

f. Prices for Complex Strategy Executions

Incoming complex orders will be executed by the System in accordance with the provisions set forth in proposed Rule 518, and will not be executed at prices inferior to the icSBBO. Incoming complex orders (including stock-option orders) with conforming ratios will be executed in accordance to proposed Rule 518(c)(1)(iv). Incoming complex orders with non-conforming ratios (including stock-option orders) will be executed in accordance to proposed Rule 518(c)(1)(v). Complex orders will never be executed at a price that is outside of the individual component prices on the Simple Order Book or interest on the Strategy Book.

Incoming complex orders (including the option leg(s) of stock-option orders) with conforming ratios that could not be executed because the executions would be priced (A) outside of the icSBBO, or (B) equal to the icSBBO due to a Priority Customer Order at the best icSBBO price, will be cancelled if such complex orders are not eligible to be placed on the Strategy Book.

Incoming complex orders (including the option leg(s) of stock-option orders) with non-conforming ratios that could not be executed because the executions would be priced (A) outside of the icSBBO, or (B) equal to Priority Customer interest at the SBBO for any component leg, or (C) equal to Priority Customer interest on the Strategy Book, or (D) outside of the NBBO, will be cancelled if such complex orders are not eligible to be placed on the Strategy Book.

Complex orders will be executed without consideration of any prices for the complex strategy that might be available on other exchanges trading the same options contracts provided, however, that such complex order price may be subject to the Implied Exchange Away Best Bid or Offer ("ixABBO") Protection described in proposed Rule 532(c)(7), and are subject to the MPC price protection feature described in proposed Rule 532(c)(6).

g. Complex Order Priority

A complex order may be executed at a net credit or debit price with one other Member without giving priority to bids or offers established in the marketplace that no better than the bids or offers comprising such net credit or debit, provided, however, that if any of the bids or offers established in the market place consist of a Priority Customer Order, at least one leg of the complex order with a conforming ratio must trade at a price that (A) for a complex order with a conforming ratio if any of the bids or offers established in the marketplace consist of a Priority Customer Order, at least one leg of the complex order with a conforming ratio must trade at a price that is better than the corresponding bid or offer in the marketplace by at least a $0.01 increment and (B) for a complex order with a non-conforming ratio each leg must trade at a price that is at least $0.01 better than any Priority Customer Order at the SBBO on the Simple Order Book for that option.

If a stock-option order with either a conforming or non-conforming ratio has one option leg, such option leg has priority over bids and offers established in the marketplace by Professional Interest (as defined in proposed Rule 100) that are no better than the price of the options leg, but not over such bids and offers established by Priority Customer Orders. If a stock-option order with a conforming ratio has more than one option leg, such option legs may be executed in accordance with proposed Rule 518(c)(3)(i)(A). The option leg(s) of a stock-option order with a non-conforming ratio will be executed in accordance with proposed Rule 518(c)(3)(i)(B).

Complex orders will be automatically executed against bids and offers on the Strategy Book in price-time priority. Bids and offers at the same price on the Strategy Book will be executed in time priority.

h. Managed Interest Process for Complex Orders

Complex orders will not be routed outside of the Exchange regardless of prices displayed by away markets. The Managed Interest Process for complex orders will be based upon the icSBBO (as defined in proposed subparagraph (a) of proposed Rule 518). Complex orders (including stock-option orders) with conforming and non-conforming ratios will always be placed on the Strategy Book at a tradeable price in accordance to proposed Rule 518(c)(1)(iv) and proposed Rule 518(c)(1)(v), respectively.

A complex order that is resting on the Strategy Book and is either a complex market order (as described in proposed subparagraph (c)(6) of proposed Rule 518), or has a limit price that locks or crosses the current opposite side icSBBO when the icSBBO is the best price, may be subject to the Managed Interest Process for complex orders as discussed herein. The System will first determine if the inbound complex order can be matched against other complex orders resting on the Strategy Book at a price that is at or inside the icSBBO (provided there are no Priority Customer Orders on the Simple Order Book at that price).

When the opposite side icSBBO includes a Priority Customer Order, the System will book and display such booked complex order with a conforming ratio on the Strategy Book at a price (the "book and display price") such that at least one option component is priced $0.01 away from the current opposite side SBBO. When the opposite side icSBBO does not include a Priority Customer Order and is not available for execution in the ratio of such complex order, the System will place such complex order on the Strategy Book and display such booked complex order at a book and display price that will lock the current opposite side icSBBO.

When the opposite side icSBBO includes any Priority Customer Order(s), the System will book and display such booked complex order with a non-conforming ratio on the Strategy Book at a price (the "book and display price") such that each option component is priced $0.01 away from the current opposite side SBBO for each option component with a Priority Customer Order at the SBBO on the opposite side. When the opposite side icSBBO does not include any Priority Customer Order(s) and is not available for execution in the ratio of such complex order, the System will place such complex order on the Strategy Book and display such booked complex order at a book and display price that will lock the current opposite side icSBBO.

Should the icSBBO change, the complex order's book and display price will continuously re-price to the new icSBBO until (A) the complex order has been executed in its entirety; (B) if not executed, the complex order has been placed on the Strategy Book at prices up to and including its limit price or, in the case of a complex market order or a limit order that is priced more aggressively than the new icSBBO (i.e., lower than the icSBBO bid for an order to sell or higher than the icSBBO offer for an order to buy), at the new icSBBO; (C) the complex order has been partially executed and remaining unexecuted contracts have been placed on the Strategy Book at prices up to and including their limit price or, in the case of a complex market order or a limit order that is priced more aggressively than the new icSBBO, at the new icSBBO; or (D) the complex order or any remaining portion of the complex order is cancelled. If the Exchange receives a new complex order for the complex strategy on the opposite side of the market from

the managed complex order that can be executed, the System will immediately execute the remaining contracts from the managed complex order to the extent possible at the complex order's current book and display price, provided that the execution price is not outside of the current icSBBO. If unexecuted contracts remain from the complex order on the Strategy Book, the complex order's size will be revised and disseminated to reflect the complex order's remaining contracts at its current managed book and display price.

iii. Evaluation process for Complex Orders

The Strategy Book is evaluated upon receipt of a new complex order and is evaluated continually thereafter by the System.

a. Evaluation Upon Receipt During Trading

After a complex strategy is open for trading, all new complex orders that are received for the complex strategy are evaluated upon arrival.

The System will evaluate (A) whether such complex orders are eligible for full or partial execution against a complex order resting on the Strategy Book; (B) whether all or any remaining portion of a complex order should be placed on the Strategy Book; (C) the eligibility of such complex orders to participate in the Managed Interest Process as described in proposed subparagraph (c)(4) of proposed Rule 518; (D) whether such complex orders should be cancelled; and (E) the MPC Price.

b. Continual Evaluation

The System will continue to evaluate (A) whether such complex orders are eligible for full or partial execution against a complex order resting on the Strategy Book; (B) whether all or any remaining portion of a complex order should be placed on the Strategy Book; (C) the eligibility of such complex orders to participate in the Managed Interest Process as described in proposed subparagraph (c)(4) of proposed Rule 518; and (D) whether such complex orders should be cancelled. The System will also continue to evaluate whether there is a wide market condition (as described in proposed Interpretations and Policies .02(a)(1) of proposed Rule 518), a halt (as described in proposed Interpretations and Policies .02(a)(3) of proposed Rule 518) affecting any component of a complex strategy. Complex orders will be handled during such events in the manner set forth in proposed Interpretations and Policies .02(a) of proposed Rule 518.

iv. Special Provisions Applicable to Stock-Option Orders

Proposed Interpretations and Policies .01 of proposed Rule 518 will describe stock-option order handling. Stock-option orders may be executed against other stock-option orders through the Strategy Book or in open outcry. A stock-option order shall not be executed on the System unless the underlying security component is executable at the price(s) necessary to achieve the desired net price.

Members may only submit stock-option orders if such orders comply with the Qualified Contingent Trade Exemption from Rule 611(a) of Regulation NMS under the Exchange Act. Members submitting such complex orders represent that such orders comply with the Qualified Contingent Trade Exemption.

To participate in stock-option order processing, a Member must give up a Clearing Member previously identified to, and processed by the Exchange as a Designated Give Up for that Member in accordance with proposed Rule 507 and which has entered into a brokerage agreement with one or more Exchange-designated broker-dealers that are not affiliated with the Exchange to electronically execute the underlying security component of the stock-option order at a stock trading venue selected by the Exchange-designated broker-dealer on behalf of the Member.

v. Complex Liquidity Exposure Process ("cLEP") for Complex Orders

Proposed Rule 518(e) will describe the handling of orders that would execute or post at a price that would violate its MPC Price, as described in proposed Rule 532(c)(6). The System will post the complex order to the Strategy Book at its MPC price and begin the cLEP process by broadcasting a liquidity exposure message to all subscribers of the Exchange's data feeds. The liquidity exposure message will include symbol, side of the market, start price (MPC Price of the complex order), and the imbalance quantity.

At the conclusion of the cLEP, the System will calculate the next potential MPC Price for remaining liquidity with an original limit price or protected price more aggressive than the existing MPC Price. The next MPC Price will be calculated as the MPC Price plus (minus) the next MPC increment for buy (sell) orders (the "New MPC Price"). The System will initiate the cLEP for liquidity that would execute or post at a price that would violate its New MPC Price. Liquidity with an original limit price or protected price less aggressive (lower for a buy order, or higher for a sell order) than or equal to the New MPC Price will be posted to the Strategy Book at its original limit price or handled in accordance with proposed subsection (c)(2)(ii) – (iii) of proposed Rule 518.

The cLEP will continue until no liquidity remains with an original limit price or protected price that is more aggressive than its MPC Price. At the conclusion of the cLEP, any liquidity that has not been executed will be posted to the Strategy Book at its original limit price. Remaining liquidity with an original limit price that is (i) less aggressive (lower for a buy order, or higher for a sell order) than or equal to the MPC Price will be handled in accordance with proposed subsection (c)(2)(ii) – (iii) of proposed Rule 518.

2) Obvious or Catastrophic Errors

The Exchange will have a policy that will permit it to address those instances in which transactions occurring on the Exchange involve obvious or catastrophic errors. Proposed Exchange Rule 521 describes this error policy. The Exchange proposes to permit the Exchange to either bust a transaction or adjust the execution price of a transaction that results from an obvious error. Under the Obvious Error Procedure in proposed Rule 521(c), if a Member believes an executed order was the result of an Obvious Error it must notify the MIAX Sapphire Regulatory Control. The Exchange will review the transaction to determine whether, in fact, the transaction was the result of an Obvious Error, and either bust or adjust the trade based on the objective criteria set forth in the proposed rule.

Similarly, under the Catastrophic Error Procedure in proposed Rule 521(d), if a Member believes it has participated in a transaction that qualifies as a Catastrophic Error as defined in proposed Rule 521(d)(1), the Member must notify the MIAX Sapphire Regulatory Control. The Exchange will review the transaction to determine whether, in fact, the transaction qualifies as a Catastrophic Error, and either bust or adjust the trade based on the objective criteria set forth in proposed Rule 521.

The Exchange will also coordinate with other options exchanges in cases involving Significant Market Events across multiple exchanges under proposed Rule 521(e). If it is determined that a Significant Market Event has occurred then the Exchange will determine whether any or all transactions under review qualify as Obvious Errors, and either bust or adjust the trades based on the objective criteria set forth in proposed Rule 521. If adjustment is not feasible due to the extraordinary nature of the situation, the Exchange will bust some or all transactions arising out of the Significant Market Event during the review period. All determinations made pursuant to this provision will be final.

The Exchange will also have procedures to address erroneous trades due to disruptions and/or malfunctions of Exchange systems as described in proposed Rule 521(k).

3) Routing to Other Market Centers

The Exchange intends to become a participant in the Linkage Plan, the Exchange will provide price protection in options by routing intermarket sweep orders to other options exchanges. Intermarket sweep orders may be routed to another options exchange when trading interest is not available on the Exchange or is of insufficient size, or when the Exchange is not at the NBBO consistent with the Plan. Orders with certain contingencies and orders designated as Do Not Route or "DNR can only be executed on the Exchange. Routing is available for all Public Customer Orders received via FIX Protocol other than DNR Orders ("Eligible Orders") as follows: (i) if the NBBO was crossed upon receipt of the Eligible Order, or (ii) in situations when the NBBO was not crossed, the Eligible Order meets certain criteria. The criteria relates to the Eligible Order's limit price (it crosses the opposite side NBBO), the Exchange disseminated price, the size of the order, and the size of displayed away market.

The Exchange will route intermarket sweep orders to the other options exchanges through unaffiliated broker-dealers. The Exchange will determine the logic that provides when, how and where intermarket sweep orders are routed away to other options exchanges. The routing broker-dealers will receive instructions from the Exchange to route intermarket sweep orders to the other options exchanges and report the executions back to the Exchange.

4) Order Price Protection Mechanisms and Risk Controls.

The Exchange proposes to offer a number of order price protection and risk controls to protect orders from executing at potentially erroneous or unwanted prices for both the Simple Order Book and the Strategy Book.

The Exchange proposes to offer a Max Put Price Protection for orders entered by EEMs and MMs. Buy orders that are entered by an EEM that are priced through the maximum trading price limit will trade up to, and including, the maximum trading price limit, and will then be placed on the Simple Order Book and managed to the appropriate trading price limit as described in proposed Rule 515(d)(2), or cancelled if the Managed Protection Override is enabled. Sell orders entered by an EEM that are priced higher than the maximum trading price limit will be rejected.

Buy orders that are entered by a MM that are priced through the maximum trading price limit will trade up to, and including the maximum trading price limit, then will be placed on the Simple Order Book and managed to the appropriate trading price limit as described in proposed Rule 515(d)(2).

Sell orders entered by a MM that are priced higher than the maximum trading price limit will be displayed.

The Exchange proposes to offer Butterfly Spread, Calendar Spread, and Vertical Spread price protections. For the purposes of proposed Exchange Rule 532, the Exchange proposes to define a Butterfly Spread as a three legged complex order with two legs to buy (sell) the same number of calls (puts) and one leg to sell (buy) twice the number of calls (puts), all legs have the same expiration date but different exercise prices, and the exercise price of the middle leg is between the exercise prices of the other legs. The strike price of each leg is equidistant from the next sequential strike price. The Exchange proposes to define a Calendar Spread as a complex strategy consisting of the purchase of one call (put) option and the sale of another call (put) option overlying the same security that have different expirations but the same strike price. The Exchange proposes to define a Vertical Spread as a complex strategy consisting of the purchase of one call (put) option and the sale of another call (put) option overlying the same security that have the same expiration but different strike prices.

The Exchange proposes to offer a MIAX Strategy Price Protection (MSPP) for complex orders. The MSPP establishes a maximum protected price for buy orders and a minimum protected price for sell orders. If the MSPP is priced less aggressively than the limit price of the complex order (i.e., the MSPP is less than the complex order's bid price for a buy order, or the MSPP is greater than the complex order's offer price for a sell order), or if the order is a complex market order, the order will be (i) executed up to, and including, its MSPP for buy orders; or (ii) executed down to, and including, its MSPP for sell orders. Any unexecuted portion of such a complex order will be cancelled. If the MSPP is priced equal to, or more aggressively than, the limit price of the complex order (i.e., the MSPP is greater than the complex order's bid price for a buy order, or the MSPP is less than the complex order's offer price for a sell order) the order will be (i) displayed and/or executed up to, and including, its limit price for buy orders; or (ii) displayed and/or executed down to, and including, its limit price for sell orders. Any unexecuted portion of such a complex order: (A) will be subject to the cLEP as described in subsection (e) of proposed Rule 518; (B) may be submitted, if eligible, to the managed interest process described in proposed Rule 518(c)(4);or (C) may be placed on the Strategy Book at its limit price.

The Exchange proposes to offer a Complex MIAX Price Collar ("MPC") price protection feature for complex orders. The MPC will be an Exchange-wide price protection mechanism under which a complex order to sell will not be displayed or executed at a price that is lower than the opposite side cNBBO bid at the time the MPC is assigned by the System (i.e., upon receipt or upon opening) by more than a specific dollar amount expressed in $0.01 increments (the proposed "MPC Setting"), and under which a complex order to buy will not be displayed or executed at a price that is higher than the opposite side cNBBO offer at the time the MPC is assigned by the System by more than the MPC Setting (each the "MPC Price").

The Exchange proposes to offer an Implied Away Best Bid or Offer ("ixABBO") Price Protection. The proposed ixABBO price protection feature is a price protection mechanism under which, when in operation as requested by the submitting Member, a buy order will not be executed at a price that is higher than each other single exchange's best displayed offer for the complex strategy, and under which a sell order will not be executed at a price that is lower than each other single exchange's best displayed bid for the complex strategy.

The Exchange proposes to offer a Single Side Protection ("SSP") feature available by Market Participant Identifier ("MPID"). If the full remaining size of a Member's MEO Complex Order is

exhausted by a trade, the System will trigger the SSP for the strategy. When triggered, the System will block all new inbound MCOs for that particular strategy for that MPID. The System will provide a notification message to the Member that the protection has been triggered. The block will remain in effect until the Member notifies the Exchange (in a manner required by the Exchange and communicated to Members by Regulatory Circular) to reset the SSP ("SSP Reset").

The Exchange also proposes to offer a Managed Protection Override ("MPO") setting, which, when enabled allows Members to have their order cancelled after a risk protection setting is triggered. The proposed Managed Protection Override will apply to (i) Max Put Price Protection; (ii) Butterfly Spread Variance Price Protection; (iii) Calendar Spread Variance Price Protection; (iv) Vertical Spread Variance Price Protection; and (v) Parity Price Protection (as described in proposed Interpretations and Policies .01(g) of proposed Rule 518), if enabled.

5) Trade Reporting

The Exchange intends to become a member in the Options Price Reporting Authority Plan ("OPRA Plan") and will collect and submit to OPRA the best buy and sell interest displayed on the Exchange and report trades to OPRA in accordance with the terms of the OPRA Plan. The Exchange also proposes to provide to subscribers of its proprietary data feeds, top of the market information and data pertaining to options contracts traded on the Exchange.

6) Clearance and Settlement of Exchange Trades

The Exchange will report matched trades to the Options Clearing Corporation. The Exchange will require each Member to be a Member of a registered clearing agency or clear its transactions through a Member that is a member of a registered clearing agency. The Exchange will also require each Member, for every transaction in which it participates, to immediately give up the name of the Clearing Member through whom the transaction will be cleared. If there is a subsequent change in identity of the Clearing Member, the Member must, as promptly as possible, report such change to the Exchange.

7) Participation in Industry Programs

i. Penny Interval Program

Proposed Rule 510(c) provides that the Exchange will list option classes for the Penny Interval Program ("Penny Program") with minimum quoting requirements ("penny increments") of one cent ($0.01) and five cents ($0.05), as set forth in proposed Rule 510(a)(3)(i)-(iii). The list of the option classes included in the Penny Program will be announced by the Exchange via Regulatory Circular and published by the Exchange on its website.

ii. Limit Up-Limit Down

Proposed Interpretations and Policies .01 of proposed Rule 521 provides that an execution will not be subject to review as an Obvious Error or Catastrophic Error pursuant to proposed paragraph (c) or (d) of proposed Rule 521 if it occurred while the underlying security was in a "Limit State" or "Straddle State," as defined in the Regulation NMS Plan to Address Extraordinary Market Volatility (the "Limit Up-Limit Down Plan" or the "Plan"). Nothing in the proposed provision shall prevent such execution from being reviewed on an Official's own motion pursuant to

proposed subparagraph (c)(3) of proposed Rule 521 or a bust or adjust pursuant to proposed paragraphs (e) through (k) of proposed Rule 521.

iii.   Consolidated Audit Trail Plan Compliance Rule

The Exchange intends that MIAX Chapter XVII - Consolidated Audit Trail Plan Compliance Rules - will be incorporated by reference into the Exchange's proposed Chapter XVII, and will thus become the Exchange's Rules and thereby applicable to the Exchange's Members. Each Participant of the Consolidated Audit Trail Plan (the "CAT NMS Plan"), including MIAX Sapphire, is required to enforce compliance by its Industry Members, as applicable, with the provisions of the CAT NMS Plan, by adopting a Compliance Rule applicable to their Industry Members. The rules contained in the proposed Chapter XVII set forth the Compliance Rule to require Industry Members to comply with the provisions of the CAT NMS Plan. The proposed Rules include twelve proposed Rules covering the following areas: (1) definitions; (2) clock synchronization; (3) Industry Member Data reporting; (4) Customer information reporting; (5) Industry Member information reporting; (6) time stamps; (7) clock synchronization rule violations; (8) connectivity and data transmission; (9) development and testing; (10) recordkeeping; (11) timely, accurate and complete data; and (12) compliance dates.

8)   Trading on the Exchange Floor

i.   Registration

The Exchange proposes to operate a physical trading floor and will require that each Floor Broker, Floor Market Maker and registered representative on the Exchange Trading Floor to be registered as a "Member Exchange"("ME") under MIAX Sapphire on Form U4. Additionally, each Floor Broker, Floor Market Maker and registered representative on the Exchange Trading Floor must successfully complete the appropriate floor trading examination(s), as prescribed by the Exchange, in addition to requirements imposed by other proposed Exchange Rules. The Exchange may also require periodic examinations due to changes in trading rules, products or systems. Following the termination of, or the initiation of, a change in the trading status of any such Floor Participant who has been issued an Exchange access card and a Trading Floor badge, the appropriate Exchange form must be competed, approved and dated by a firm principal, officer or member of the firm with authority do so, and submitted to the appropriate Exchange department as soon as possible, but no later than 9:30 a.m. ET the next business day by the Floor Participant's employer. Additionally, the Exchange proposes to specify that every effort should be made to obtain the person's access card and Trading Floor badge and to submit these to the appropriate Exchange department.

ii.   Non-Participant/Clerk Registration

The Exchange is requiring that all Trading Floor personnel, including Clerks, interns, stock execution clerks and any other associated persons, of a Floor Participant not required to register pursuant to proposed Rule 1901(d) be registered as a "Floor Employee" ("FE") under "MIAX Sapphire" on Form U4. Further, the Exchange may require successful completion of an examination in addition to requirements imposed by other proposed Exchange Rules. The Exchange may also require periodic examinations due to changes in trading rules, products or systems. Following the termination of, or the initiation of, a change in the status of any such personnel of a Floor Participant who has been issued an Exchange access card and a Trading Floor badge, the appropriate Exchange form must be completed, approved and dated by a Floor

Participant principal, officer or member of the Floor Participant with authority to do so, and submitted to the appropriate Exchange department as soon as possible, but no later than 9:30 a.m. ET the next business day by the Floor Participant's employer. Additionally, every effort should be made to obtain the person's access card and Trading Floor badge and to submit these to the appropriate Exchange department.

iii. Trading Floor Hours

Dealings upon the Trading Floor shall be limited to the hours during which the Exchange is open for transaction of business, and no Floor Broker or Floor Market Maker shall make any bid, offer, or transaction upon the Trading Floor before or after those hours. Specifically, the Exchange's normal trading hours for equity options are 9:30 a.m. ET to 4:00 p.m. ET and for options on Exchange-Traded Fund Shares and broad-based indexes transactions may be effected until 4:15 p.m. ET. Additionally, if a Floor Broker wishes for an order to participate in the opening, the Floor Broker must submit the order to the System electronically. The Floor Broker may do so from the Trading Floor, however, the order will not receive any special or different treatment from any other pre-opening order submitted from off the Trading Floor.

iv. Trading Floor Admittance

The Exchange will require that no employee of a Floor Participant shall be admitted to the Trading Floor unless that person is registered with and approved by the Exchange, which may in its discretion require the payment of a fee with respect to each employee so approved, and may at any time in its discretion withdraw any approval so given. In exercising Exchange discretion in withdrawing approval, the Exchange will follow applicable disciplinary rules and procedures, including the ability to appeal such Exchange determination.

v. Floor Broker Defined

As discussed, the Exchange is proposing two categories of Participants on the Trading Floor; Floor Brokers and Floor Market Makers. A Floor Broker is an individual who is registered with the Exchange for the purpose, while on the Trading Floor, of accepting and handling options orders. A Floor Broker must be registered as a Floor Participant prior to registering as a Floor Broker. A Floor Broker may take into his own account, and subsequently liquidate, any position that results from an error made while attempting to execute, as Floor Broker, an order.

vi. Letters of Authorization

The Exchange will not permit a Floor Broker to act as a Floor Broker on the Exchange Floor unless a Letter of Authorization has been issued for such Floor Broker by a clearing member. The Letter of Authorization shall provide that the issuing clearing member shall be responsible for the clearance of the Exchange transactions of the Floor Broker when the name of such clearing member is given up. A Letter of Authorization filed with the Exchange shall remain in effect until a written notice of revocation has been filed and processed by the Exchange.

vii. Registration of Floor Brokers

Prior to being admitted on the Trading Floor, a Floor Broker must file an application in writing with Exchange staff on such form or forms as the Exchange may prescribe. The applications received from potential Floor Brokers will be reviewed by the Exchange, which shall consider an applicant's

ability as demonstrated by their passing a Floor Broker's examination and such other factors as the Exchange deems appropriate. After reviewing the application, the Exchange shall either approve or disapprove the applicant's registration as a Floor Broker.

9) Responsibilities of Floor Brokers

i. General Responsibility

Floor Brokers will have certain responsibilities while conducting business on the Trading Floor. Proposed Rule 2030(a) provides that in addition to the provisions of proposed Rule 2025 concerning due diligence, a Floor Broker shall ascertain that at least one Floor Market Maker is present in the Crowd Area prior to announcing an order for execution. Additionally, a Floor Broker handling an order must use due diligence to cause the order to be executed at the best price or prices available to him in accordance with the proposed Rules of the Exchange.

Floor Brokers must make a reasonable effort to ascertain whether each order entrusted to them is for the account of a Priority Customer or broker-dealer. If it is determined the order is for the account of a broker-dealer, the Floor Broker must inform the crowd that he is handling an order for the account of a broker-dealer. The Exchange is also proposing that a Floor Broker shall not be held responsible for the execution of a complex order based upon transaction prices that are established at the opening or close of trading or during any trading rotation.

ii. Contingency Orders

A Floor Broker handling a contingency order that is dependent upon the price of the underlying security shall be responsible for satisfying the dependency requirement on the basis of the last reported price of the underlying security in the primary market that is generally available on the Trading Floor at any given time. Unless mutually agreed by the Participants involved, an execution or non-execution that results shall not be altered by the fact that such reported price is subsequently found to have been erroneous.

iii. Orders for Market Makers

A Floor Broker representing an order on behalf of a Market Maker must verbally identify the order as such prior to consummating a transaction. A Market Maker and any orders represented by a Floor Broker on behalf of the Market Maker may not be concurrently represented on the Trading Floor. Orders on behalf of a Market Maker in a particular option series may not be concurrently represented by more than one Floor Broker. Further, a Floor Broker may not concurrently represent, on behalf of a Market Maker, both buy and sell orders in a particular option series which are designated as "not held."

iv. Order Recordation

In order to create an electronic audit trail for options orders represented by Floor Brokers on the Exchange's Trading Floor, a Floor Broker or such Floor Broker's employees shall, contemporaneously upon receipt of an order, including single-sided and two-sided orders, and prior to the announcement of such an order in the trading crowd, record all options orders represented by such Floor Broker onto the Floor Broker's order entry mechanism. The following specific information with respect to orders represented by a Floor Broker shall be recorded by such Floor Brokers or such Floor Broker's employees: (i) the order type (i.e., Priority Customer,

Professional Interest, broker-dealer, and Market Maker) and order receipt time; (ii) the option symbol; (iii) buy, sell, cross, or cancel; (iv) call, put, complex (i.e., spread, straddle), or contingency order; (v) number of contracts; (vi) limit price or market order, or in the case of a complex order, net debit or credit, if applicable; (vii) whether the transaction is to open or close a position; and (viii) the Options Clearing Corporation ("OCC") clearing number of the broker-dealer that submitted the order (collectively, the "required information"). Additionally, a Floor Broker must enter complete identification for all orders entered on behalf of Market Makers. Any additional information with respect to the order shall be input contemporaneously upon receipt, which may occur after the announcement and execution of the order. The Exchange is requiring that all orders be processed by the Exchange System. In the event of a malfunction in the Exchange's System or any other related Trading Floor systems, orders will not be allowed to execute from the Trading Floor.

v. Announcement

A Floor Broker must announce an agency order that the Floor Broker is representing to the trading crowd before submitting the order to the Exchange's System for execution. This announcement must take place whether the Floor Broker is representing a single-sided order and soliciting contra-side interest, or the Floor Broker has sufficient interest to match against the agency order already. If a Floor Broker is holding two non-Priority Customer agency orders or two Priority Customer agency orders the Floor Broker will choose which order is the agency order. If only one of the agency orders is for the account of a Priority Customer, that order must be the agency order.

Proposed Interpretations and Policies .03 of proposed Rule 2030 provides that an order entrusted to a Floor Broker will be considered a Not Held Order as defined in proposed Rule 2040(g), unless otherwise specified by a Floor Broker's client.

Proposed Interpretations and Policies .04 of proposed Rule 2030 provides that it shall be considered conduct inconsistent with just and equitable principles of trade for any Floor Broker or Floor Market Maker to intentionally disrupt the open outcry process.

vi. Discretionary Transactions

No Floor Broker shall execute or cause to be executed any order or orders on the Exchange with respect to which such Floor Broker is vested with discretion as to: (i) the choice of the class of options to be bought or sold; (ii) the number of contracts to be bought or sold; (iii) whether any such transaction shall be one of purchase or sale. Proposed Rule 2035 further provides that the provisions of the proposed Rule shall not apply to any discretionary transactions executed by a Floor Market Maker for an account in which he has an interest. Also, no Floor Broker shall hold a Not Held Market Order to buy and a Not Held Market Order to sell (or orders which have the effect of such Not Held Market Orders to buy and to sell) the same series of options for the same account or for accounts of the same beneficial owner. Also, no Floor Broker shall leg a complex order for a Market Maker or accept opening or discretionary orders for a Market Maker who is associated with the same Participant as such Floor Broker or who is associated with another Participant which is affiliated with the same Participant as such Floor Broker. Holding or accepting such orders can be interpreted as allowing the Floor Broker discretion with respect to the purchase or sale of such options.

10) Qualified Floor Orders

The Exchange will have a rule in place, proposed Rule 2040, that describes the process of executing an order on the Trading Floor. After an order has been announced to the trading crowd as provided in proposed Rule 2030(e)(2), the Floor Broker must submit the agency order as part of a two-sided order (Qualified Floor Order or "QFO") to the Exchange's System for execution. When a Floor Broker submits a QFO for execution, the order will be executed based on the market conditions when the order is received by the System and in accordance with proposed Exchange Rules. A QFO sent to the System is not deemed executed until it is processed by the System. All transactions occurring from the Trading Floor must be processed by the System. Floor Brokers are responsible for handling all orders in accordance with Exchange priority and trade-through rules. QFO functionality will assist the Floor Broker in respecting the Electronic Book, consistent with Exchange priority rules, as described in paragraphs (c) and (d) of this proposed Rule.

Proposed Rule 2040 further provides that; (1) there will be an initiating side and a contra-side of a QFO. The initiating side is the side of the order which must be filled in its entirety. The contra-side must guarantee the full size of the initiating side of the QFO and may provide a maximum surrender size as provided in paragraph (h) of proposed Rule 2040. If the Floor Broker was soliciting interest from the trading crowd when the initiating side was announced or to the extent the trading crowd offers a better price, the contra-side will be the solicited interest from the trading crowd. If the Floor Broker had sufficient interest to match against the initiating side when the initiating side was announced, such Floor Broker interest will be the contra-side to the initiating side. If Floor Participants responded with interest to the initiating side where the Floor Broker provided sufficient interest to match against the initiating side, the Floor Broker will allocate the initiating side of the QFO pursuant to paragraph (d) of this proposed Rule 2040; (2) QFOs will be limited solely to the Trading Floor; (3) Only Floor Brokers may use QFOs; (4) QFOs may be complex orders as defined in proposed Rule 518(a) with no more than the applicable number of legs, as determined by the Exchange and communicated to Participants via Regulatory Circular, and tied to hedge orders as defined in proposed Interpretations and Policies .02 of proposed Rule 2040; (5) A QFO will be rejected, and a reject message will be sent to the Floor Broker, if any of the components are not open for trading; (6) A Complex QFO (or "cQFO") will be rejected if any of the components are not open for trading; and (7) a wide market condition shall have no impact on the trading of QFOs. Such trading and processing will not be suspended and will continue during wide market conditions.

All QFOs must be announced to the trading crowd, as provided in proposed Rule 2030(e)(2), prior to the QFO being submitted to the Exchange's System. An Options Exchange Official will certify that the Floor Broker adequately announced the QFO to the trading crowd.

a. Submission of QFOs

The Exchange will require that the Floor Broker submit the QFO to the Exchange's System for processing as provided in this proposed Rule 2040. The QFO will not be deemed executed until it is processed by the System. Once the Floor Broker submits the QFO to the System there will be no opportunity for the submitting Floor Broker, or anyone else, to alter the terms of the QFO. After announcing the QFO to the trading crowd, the Floor Broker must submit the QFO to the System without undue delay, provided that the executing Floor Broker allows adequate time for Floor Participants to participate in the transaction as provided in Interpretations and Policies .09 of this proposed Rule.

When a Floor Broker executes a single-leg QFO, the execution price must be equal to or better than the NBBO, subject to the exceptions in proposed Rule 1401(b). Additionally, the QFO may not (1) trade through any equal or better priced Priority Customer bids or offers on the Simple Order Book; or (2) trade through any interest on the Simple Order Book that is priced better than the proposed execution price.

When a Floor Broker executes a Complex QFO, the execution and priority rules for complex orders (including stock-option orders) contained in proposed Rule 518(c)(2) and (c)(3) will continue to apply.

b. Allocation

A QFO (cQFO) will be allocated as follows:

First, the initiating side of the QFO (cQFO) will match against any bids or offers on the Simple Order Book priced better than the contra-side, provided that an adequate maximum surrender size was provided by the Floor Broker pursuant to paragraph (h) of proposed Rule 2040. Multiple bids or offers at the same price are matched based on time priority.

Next, at the same price as the contra-side of the QFO (cQFO), if any contracts (strategies) of the initiating side remain, the initiating side of the QFO (cQFO) will match against Priority Customer Orders on the Simple Order Book (Strategy Book), along with any bids or offers of non-Priority Customers ranked ahead of such Priority Customer Orders on the Simple Order Book (Strategy Book), provided that an adequate maximum surrender size was provided by the Floor Broker pursuant to proposed paragraph (h) of proposed Rule 2040. Multiple bids or offers at the same price are matched based on time priority.

Last, the remaining balance of the initiating side of the QFO (cQFO), if any, will then be matched by the System against the contra-side of the QFO (cQFO), regardless of whether the contra-side order submitted by the Floor Broker is ultimately entitled to receive an allocation pursuant to paragraph (i) or (iii) below. If no Floor Participant, other than the executing Floor Broker, is entitled to an allocation, then no further steps are necessary. If however, Floor Participants are entitled to an allocation, the remaining balance of the initiating side of the QFO (cQFO) will be allocated as described below.

> First, if the QFO (cQFO) satisfies the provisions of proposed Rule 2040(f), the executing Floor Broker is entitled to 40% of the remaining quantity of the initiating side of the QFO (cQFO).

> Next, Floor Participants that responded with interest when the executing Floor Broker announced the QFO (cQFO) to the trading crowd, as outlined in proposed Rules 2030(e)(2) and 2040(b), are allocated. When multiple Floor Participants respond with interest, priority is established pursuant to proposed Rule 2045.

> Last, if interest remains after Floor Participants that responded with interest receive their allocation, the remaining quantity of the initiating side of the QFO (cQFO) will be allocated to the executing Floor Broker.

After execution of the QFO (cQFO), the executing Floor Broker is responsible for providing the correct allocations of the initiating side of the QFO (cQFO) to an Options Exchange Official or his

or her designee, if necessary, who will properly record the order in the Exchange's system. The executing Floor Broker must provide the correct allocations to an Options Exchange Official or his or her designee, in writing, without unreasonable delay.

Further proposed Rule 2040 provides that the QFO will not route to an away exchange and the QFO will not trade through any away exchange displaying a better price.

c. Guarantee

The Exchange will provide for a participation guarantee for certain orders executed on the Trading Floor. Specifically, when a Floor Broker holds an order of the eligible order size or greater, the Floor Broker is entitled to cross a certain percentage of the order with other orders that he is holding. The Exchange may determine, on an option by option basis, the eligible size for an order to be subject to this guarantee, however, the eligible order size may not be less than 50 contracts. Any changes to the eligible order size shall be communicated to Participants via circular. Orders for less than 50 contracts may be crossed pursuant to this proposed Rule 2040 but are not subject to the guarantees described below. In determining whether an order satisfies the eligible order size requirement, any complex order must contain one leg alone which is for the eligible order size or greater. The percentage of the order which a Floor Broker is entitled to cross, after all equal or better priced Priority Customer bids or offers on the Electronic Book and any better priced interest is filled, is 40% of the remaining contracts in the order. However, nothing in proposed Rule 2040 is intended to prohibit a Floor Broker from trading more than his percentage entitlement if the other Participants of the trading crowd do not choose to trade the remaining portion of the order.

d. Not Held Order

A Not Held Order is an order marked "not held," "take time," or which bears any qualifying notation giving discretion as to the price or time at which such order is to be executed. An order entrusted to a Floor Broker will be considered a Not Held Order, unless otherwise specified by a Floor Broker's client.

e. Maximum Surrender Size

A Floor Broker may, but is not required to, provide a maximum surrender size. The maximum surrender size is the number of contracts, if any, of the initiating side of the QFO that the Floor Broker is willing to relinquish to orders and quotes on the Electronic Book that have priority pursuant to proposed Rule 2040(c). If the number of contracts on the Electronic Book that have priority over the contra-side order is greater than the maximum surrender size, then the QFO will be rejected. If the number of contracts on the Electronic Book that have priority over the contra-side order is less than or equal to the maximum surrender size, then the QFO will execute.

A Floor Broker may, but is not required to, provide a maximum surrender size for Complex QFOs. The maximum surrender size is the number of contracts, if any, of the initiating side of the Complex QFO that the Floor Broker is willing to relinquish to orders and quotes on the Strategy Book that have priority pursuant to proposed Rule 518(c)(3)(i), (ii) and (iii). If the number of contracts on the Strategy Book that have priority over the contra-side order is greater than the maximum surrender size, then the Complex QFO will be rejected. If the number of contracts on the Strategy Book that have priority over the contra-side order is less than or equal to the maximum surrender size, then the Complex QFO will execute.

f. Priority on Split-Price Transactions Occurring in Open Outcry.

The Exchange will have a rule for split price transactions occurring on the Trading Floor. Specifically, if a Floor Participant buys (sells) one or more contracts of a particular series at a particular price or prices, the Floor Participant must, at the next lower (higher) price at which another Floor Participant bids (offers), have priority in buying (selling) up to the equivalent number of option contracts of the same series that the Floor Participant bought (sold) at the higher (lower) price or prices, provided that the Floor Participant's bid (offer) is made promptly and continuously and that the purchase (sale) so effected represents the opposite side of a transaction with the same order or offer (bid) as the earlier purchase or purchases (sale or sales). The Exchange notes that this provision applies only to transactions effected on the Trading Floor. Further, the priority afforded by this proposed Rule 2040 is effective only insofar as it does not conflict with Priority Customer Orders.

Split-Price Priority

If an order or offer (bid) for any number of contracts of a series is represented to the trading crowd, a Floor Participant that buys (sells) one or more contracts of that order or offer (bid) at one price will have priority over all other orders and quotes, except Priority Customer Orders resting on the Electronic Book, to buy (sell) up to the same number of contracts of those remaining from the same order or offer (bid) at the next lower (higher) price.

Split-Price Priority for Orders or Offers (Bids) of 100 or More Contracts.

If an order or offer (bid) of 100 or more contracts of a series is represented to the trading crowd, a Floor Participant that buys (sells) 50 or more of the contracts of that order or offer (bid) at one price will have priority over all other orders and quotes to buy (sell) up to the same number of contracts of those remaining from the same order or offer (bid) at the next lower (higher) price. The Exchange may increase the minimum qualifying size of 100 contracts, which changes the Exchange will announce via Regulatory Circular.

Split-Price Priority for Complex QFOs.

If an order or offer (bid) of a Complex QFO with at least 100 contracts on each leg of the order is represented to the trading crowd, a Floor Participant that buys (sells) 50 or more contracts of each component leg at the permissible ratio of the Complex QFO or offer (bid) at one price that complies with the priority requirements in proposed Rule 2040(c) will have priority over all other orders and quotes to buy (sell) up to the same number of contracts of those remaining from the same order or offer (bid) at the next lower (higher) price.

Additionally, if the width of the quote for a strategy is $0.01 based on interest in the Strategy Book, and the bid or offer represent Priority Customer complex orders resting on the Strategy Book (e.g. Priority Customer bidding $2.00 for the strategy and/or Priority Customer offering $2.01 for the strategy), split-price priority pursuant to this proposed Rule 2040 is not available to a Floor Participant until the Priority Customer complex orders resting on the Strategy Book on either side of the market trade or are cancelled. If the width of the quote for the strategy is $0.01 based on interest on the Strategy Book, and the bid or offer does not represent Priority Customer complex orders, split-price priority is available subject to proposed Rule 2040(c). If the bids or offers of two or more Floor Participants are both entitled to split-price priority, it will be afforded to the extent practicable on a pro-rata basis.

Split-price priority on the Trading Floor will be subject to the following conditions: (i) the priority is available for open outcry transactions only (i.e., QFOs); (ii) the Floor Participant must make its bid (offer) at the next lower (higher) price for the second (or later) transaction at the same time as the first bid (offer) or promptly following the announcement of the first (or earlier) transaction; (iii) the second (or later) purchase (sale) must represent the opposite side of a transaction with the same order or offer (bid) as the first (or earlier) purchase (sale).

If the width of the quote for a series is the minimum increment for that series, and the bid or offer represents a Priority Customer Order(s) resting on the Electronic Book, split-price priority will not be available to a Floor Participant until the Priority Customer Order(s) resting on the Electronic Book trades.

Proposed Interpretations and Policy .01 of proposed Rule 2040 provides that (a) the Floor Broker must disclose all securities that are components of the Priority Customer Order which is subject to crossing before requesting bids and offers for the execution of all components of the order.

Once the trading crowd has provided a quote, it will remain in effect until: (1) a reasonable amount of time has passed, or (2) there is a significant change in the price of the underlying security, or (3) the market given in response to the request has been improved. In the case of a dispute, the term "significant change" will be interpreted on a case-by-case basis by an Options Exchange Official based upon the extent of recent trading in the option and in the underlying security, and any other relevant factors.

The Participants of the trading crowd who established the market will have priority over all other orders that were not announced in the trading crowd at the time that the market was established (but not over Priority Customer Orders on the Electronic Book or any non-Priority Customer Orders that have priority over such Priority Customer Orders on the Electronic Book) and will maintain priority over such orders except for orders that improve upon the market. When a Floor Broker announces an order to the trading crowd pursuant to proposed Rule 2030(e)(2), it shall be the responsibility of the Floor Participant who established the market to alert the Floor Broker of the fact that the Floor Participant has priority.

Complex orders or hedge orders on opposite sides of the market may be crossed, provided that the Floor Broker holding such orders proceeds in the manner described in proposed Rule 2040 as appropriate. Floor Participants may not prevent a complex order from being completed by giving a competing bid or offer for one component of such order. In determining whether an order satisfies the eligible order size requirement, any complex order must contain one leg which, standing alone, is for the eligible order size or greater.

A Floor Broker crossing a Priority Customer Order with an order that is not a Priority Customer Order, when providing for a reasonable opportunity for the trading crowd to participate in the transaction, shall disclose the Priority Customer Order that is subject to crossing.

Proposed Interpretation and Policy .02 of proposed Rule 2040 provides that nothing prohibits a Floor Broker from buying or selling a stock, security futures, or futures position following receipt of an option order, including a complex order, provided that prior to announcing such order to the trading crowd: (i) the option order is in a class designated as eligible for "tied hedge" transactions (as described below) as determined by the Exchange and is within the designated tied hedge eligibility size parameters, which parameters shall be determined by the Exchange and may not

be smaller than 500 contracts per order. Additionally, there shall be no aggregation of multiple orders to satisfy the size parameter, and for complex orders involved in a tied hedge transaction at least one leg must meet the minimum size requirement; (ii) such Floor Broker shall create an electronic record that it is engaging in a tied hedge transaction in a form and manner prescribed by the Exchange; and (iii) such hedging position is: (1) comprised of a position designated as eligible for a tied hedge transaction as determined by the Exchange and may include the same underlying stock applicable to the option order, a security future overlying the same stock applicable to the option order or, in reference to an index or Exchange-Traded Fund Shares ("ETF"), a related instrument. A "related instrument" means, in reference to an index option, securities comprising ten percent or more of the component securities in the index or a futures contract on any economically equivalent index applicable to the option order. A "related instrument" means, in reference to an ETF option, a futures contract on any economically equivalent index applicable to the ETF underlying the option order; (2) brought without undue delay to the trading crowd and announced concurrently with the option order; (3) offered to the trading crowd in its entirety; and (4) offered, at the execution price received by the Floor Broker introducing the option, to any Trading crowd Floor Participant who has established parity or priority for the related options.

The hedging position must not exceed the option order on a delta basis. All tied hedge transactions (regardless of whether the option order is a simple or complex order) are treated the same as complex orders for purposes of the Exchange's open outcry allocation and reporting procedures. Tied hedge transactions are subject to the existing NBBO trade-through requirements for options and stock, as applicable, and may qualify for various exceptions; however, when the option order is a simple order, the execution of the option leg of a tied hedge transaction does not qualify for the NBBO trade-through exception for a Complex Trade defined in proposed Rule 1401(b). Trading crowd Floor Participants that participate in the option transaction must also participate in the hedging position and may not prevent the option transaction from occurring by giving a competing bid or offer for one component of such order. In the event the conditions in the non-options market prevents the execution of the non-option leg(s) at the agreed prices, the trade representing the options leg(s) may be cancelled. Prior to entering tied hedge orders on behalf of customers, the Floor Broker must deliver to the customer a written notification informing the customer that his order may be executed using the Exchange's tied hedge procedures. The written notification must disclose the terms and conditions contained in this Policy and must be in a form approved by the Exchange.

A combination option and hedging position offered in reliance on these Interpretations and Policies shall be referred to as "tied hedge" orders.

Proposed Interpretations and Policies .03 of proposed Rule 2040 provides that it shall be considered conduct inconsistent with just and equitable principles of trade for any Floor Broker to use the maximum surrender size for the purpose of violating the Floor Broker's duties and obligations.

Proposed Interpretations and Policies .04 of proposed Rule 2040 provides that Floor Brokers may bring unmatched orders (i.e., the initiating side of a QFO) to the Trading Floor in order to seek a contra-side. Once a contra-side is sourced pursuant to proposed Rule 2030(e)(2) and proposed 2040(b), the Floor Broker shall submit the two-sided QFO to the Exchange's System.

Proposed Interpretations and Policies .05 of proposed Rule 2040 provides that a Participant shall not utilize the Trading Floor to effect any transaction for its own account, the account of an

associated person, or an account with respect to which it or an associated person thereof exercises investment discretion by relying on an exemption under Section 11(a)(1)(G) of the Exchange Act.

Proposed Interpretations and Policies .06 of proposed Rule 2040 provides that Floor Brokers are able to achieve split-price priority in accordance with proposed Rule 2040(i). Provided, however, that a Floor Broker who bids (offers) on behalf of a non-Market Maker MIAX Participant broker-dealer ("MIAX Participant BD") must ensure that the MIAX Participant BD qualifies for an exemption from Section 11(a)(1) of the Exchange Act or the transaction satisfies the requirements of Exchange Act Rule 11a2-2(T).

Proposed Interpretations and Policies .07 of proposed Rule 2040 provides that for split-price rounding, in situations where the allocation of contracts pursuant to proposed Rule 2040(i) would result in a fractional contract amount, the number of contracts allocated shall be rounded to the advantage of the initiating side.

Proposed Interpretations and Policies .08 of proposed Rule 2040 provides that Bids and offers on the Trading Floor, to be effective, must be made by public outcry on the Trading Floor. All bids and offers shall be general ones and shall not be specified for acceptance by particular Floor Participants.

Proposed Interpretations and Policies .09 of proposed Rule 2040 provides that bids and offers must be made in an audible tone of voice. A Floor Market Maker shall be considered "out" on a bid or offer if he does not affirmatively respond to the Floor Broker who is announcing the order, provided that a Floor Broker must give a Floor Participant a reasonable amount of time to respond. A "reasonable amount of time" will be interpreted on a case-by-case basis by an Options Exchange Official based on the current market conditions and trading activity on the Trading Floor. A Floor Participant bidding and offering in immediate and rapid succession shall be deemed "in" until he shall say "out" on either bid or offer. Once the trading crowd has provided a quote, it will remain in effect until: (i) a reasonable amount of time has passed, or (ii) there is a significant change in the price of the underlying security, or (iii) the market given in response to the request has been improved. In the case of a dispute, the term "significant change" will be interpreted on a case-by-case basis by an Options Exchange Official based upon the extent of recent trading in the option and, in the case of equity and index options, in the underlying security, and any other relevant factors. A Floor Participant must verbalize that he is "in" after a Floor Broker announces an order, even if a valid quote has been provided by the Floor Participant prior to the announcement of the order by a Floor Broker.

i.   Priority in the Trading Crowd

The Exchange will have rules determining priority in the Trading Crowd. Specifically, the highest bid shall have priority, but where two or more bids for the same option contract (or the same strategy) represent the highest price, priority shall be afforded to such bids in the sequence in which they are made. The lowest offers shall have priority, but where two or more offers for the same option contract (or the same strategy) represent the lowest price, priority shall be afforded to such offers in the sequence in which they are made. If, however, the bids (or offers) of two or more Floor Participants are made simultaneously, or if it is impossible to determine clearly the order of time in which they are made, such bids (or offers) will be deemed to be on parity and priority will be afforded to them, insofar as practicable, on an equal basis.

The Exchange requires that the Floor Broker will be responsible for determining the sequence in which bids or offers are vocalized on the Trading Floor in response to the Floor Broker's bid, offer, or call for a market. A Floor Participant that established priority pursuant to proposed Interpretations and Policies .01(c) of proposed Rule 2040 must inform the Floor Broker of such priority when the Floor Broker announces the order. Any disputes regarding a Floor Broker's determination of time priority sequence will be resolved by the Options Exchange Official. An Options Exchange Official may nullify a transaction or adjust its terms if they determine the transaction to have been in violation of the Exchange's proposed Rules.

When a Floor Broker's bid or offer has been accepted by more than one Floor Participant, that Floor Broker must designate that Floor Participant who was first, second, third, and so forth. Except as provided below, the Floor Participant with first priority is entitled to buy or sell as many contracts (or strategies) as the Floor Broker may have available to trade. If there are any contracts (or strategies) remaining, the Floor Participant with second priority will be entitled to buy or sell as many contracts (or strategies) as there are remaining in the Floor Broker's order, and so on, until the Floor Broker's order has been filled entirely.

An Options Exchange Official has the same responsibilities as a Floor Broker when the Options Exchange Official calls for a market.

The Exchange's proposed Rules will also cover the situation where the bids or offers of more than one Floor Participant are made simultaneously. Such bids or offers will be deemed to be on parity and priority will be afforded to them, insofar as practicable, on an equal basis. Accordingly, efforts will be made to assure that each Floor Participant on parity receives an equal number of contracts, to the extent mathematically possible.

The Exchange proposed Rules will also cover the situation where a Floor Broker requests a market in order to fill a large order, and the Floor Participants provide a collective response. In such situation, if the size of the trading crowd's market, in the aggregate, is less than or equal to the size of the order to be filled, the Floor Participants will each receive a share of the order that is equal to the size of their respective bids or offers. If, however, the size of the trading crowd's market exceeds the size of the order to be filled, that order will be allocated on a size pro rata basis, with the Floor Participants of the trading crowd each receiving, to the extent practicable, the percentage of the order that is the ratio of the size of their respective bids or offers to the total size of all bids or offers. Specifically, in such circumstances, the size of the order to be allocated is multiplied by the size of an individual Floor Participant's quote divided by the aggregate size of all Floor Participants' quotes. For example, assume there are 200 contracts to be allocated, Floor Market Maker #1 is bidding for 100, Floor Market Maker #2 is bidding for 200 and Floor Market Maker #3 is bidding for 500. Under the "size pro rata" allocation formula, Floor Market Maker #1 will be allocated 25 contracts (200 × 100 ÷ 800); Floor Market Maker #2 will be allocated 50 contracts (200 × 200 ÷ 800); and Floor Market Maker #3 will be allocated 125 contracts (200 × 500 ÷ 800).

ii.   Clerks

The Exchange will provide requirements for Clerks on the Trading Floor. The Exchange will define the term "Clerk" to mean any registered on-Floor person employed by or associated with a Floor Broker or Floor Market Maker and who is not eligible to effect transactions on the Trading Floor as a Floor Market Maker or Floor Broker. Proposed Rule 2055 will codify that while on the Trading Floor, Clerks shall display prominently at all times the badge(s) supplied to them by the Exchange.

Further, the proposed Rule will provide that Clerks shall be primarily located at a workstation assigned to his or her employer or assigned to his or her employer's clearing firm unless such Clerk is (1) entering or leaving the Trading Floor; (2) transmitting, correcting, or checking the status of an order or reporting or correcting an executed trade; or (3) supervising other Clerks if he is identified as a supervisor on the registration form submitted to the Exchange's Membership Department.

A Floor Broker who employs a Clerk that performs any function other than a solely clerical or ministerial function shall, prior to the time such Clerk performs any function as a Clerk: (i) comply with the registration requirement(s) set forth by the Exchange; (ii) disclose in detail to the Exchange, on an annual basis, the specific nature of such additional function(s); and (iii) submit to the Exchange written supervisory procedures in relation to such Clerk's activities. A Clerk may enter an order under the direction of a Floor Broker by way of any order handling entry device. A Floor Market Maker Clerk is any on-Floor Clerk employed by or associated with a Floor Market Maker.

Any Floor Market Maker that employs a Floor Market Maker Clerk shall register such Floor Market Maker Clerk with the Exchange's Membership Department. A Floor Market Maker Clerk that performs any function other than a solely clerical or ministerial function shall, prior to performing any function as a Floor Market Maker Clerk: (i) comply with the registration requirement(s) set forth by the Exchange, where applicable; (ii) disclose in detail to the Exchange, on an annual basis, the specific nature of such additional function(s); and (iii) submit to the Exchange written supervisory procedures relating to such Floor Market Maker Clerk's activities.

A Floor Market Maker Clerk is permitted to communicate verbal market information (i.e., bid, offer, and size) in response to requests for such information, provided that such information is communicated under the direct supervision of his or her Floor Market Maker employer. A Floor Market Maker Clerk may consummate electronic transactions under the express direction of his or her Floor Market Maker employer by matching bids and offers. Such bids and offers and transactions effected under the supervision of a Floor Market Maker are binding as if made by the Floor Market Maker employer.

iii. Floor Market Makers

The Exchange will have a rule which details the rules surrounding Floor Market Makers, including registration as a Market Maker and suspension and termination as a Floor Market Maker. Specifically, with regard to suspension or termination, the registration of any Floor Participant as a Floor Market Maker may be suspended or terminated by the Exchange upon a determination that such Floor Participant has failed to properly perform as a Floor Market Maker.

A Floor Market Maker shall not effect on the Exchange purchases or sales of any option in which such Floor Market Maker is registered, for any account in which he or his Floor Participant is directly or indirectly interested, unless such dealings are reasonably necessary to permit such Floor Market Maker to maintain a fair and orderly market.

In connection with the function of a Floor Market Maker in relation to assisting in the maintenance, insofar as reasonably practicable, of a fair and orderly market in the options in which he is registered, it is ordinarily expected that a Floor Market Maker will engage, to a reasonable degree under the existing circumstances, in dealings for his own account in options when lack of price continuity or lack of depth in the options market or temporary disparity between supply and

demand in the options market exists or is reasonably to be anticipated. Transactions on the Exchange for his own account effected by a Floor Market Maker in the options in which he is registered are to constitute a course of dealings reasonably calculated to contribute to the maintenance of price continuity with reasonable depth, and to the minimizing of the effects of temporary disparity between supply and demand, immediate or reasonably to be anticipated. Transactions in such options not part of such a course of dealings are not to be effected by a Floor Market Maker for his own account.

iv. Obligations and Restrictions Applicable to Floor Market Makers

The Exchange will require that the transactions of Floor Market Makers should constitute a course of dealings reasonably calculated to contribute to the maintenance of a fair and orderly market, and those Floor Participants should not enter into transactions or make bids or offers that are inconsistent with such a course of dealings. A Floor Market Maker is a Floor Participant of the Exchange located on the Trading Floor who has received permission from the Exchange to trade in options for his own account.

In response to any request for quote by a Floor Broker or Options Exchange Official, Floor Market Makers must provide a two-sided market complying with the quote spread parameter requirements contained in proposed Rule 2105(d)(1). Such Floor Market Makers shall provide such quotations with a minimum size of ten contracts.

With respect to classes of option contracts to which his assignment extends, whenever a Floor Market Maker is called upon by an Options Exchange Official or a Floor Broker to make a market, the Floor Market Maker is expected to engage, to a reasonable degree under the existing circumstances, in dealing for his own account when there exists, or it is reasonably anticipated that there will exist, a lack of price continuity, a temporary disparity between the supply of and demand for a particular option contract, or a temporary distortion of the price relationships between option contracts of the same class.

v. Quote Spread Parameters (Bid/Ask Differentials)

Additionally, the Exchange will impose the following obligations on Floor Market Makers while performing their market making activities on the Trading Floor: (1) Quote Spread Parameters (Bid/Ask Differentials). and (2) Maximum Option Price Change (Bidding no more than $1 lower and/or offering no more than $1 higher than the last preceding transaction price for the particular option contract. However, this standard shall not ordinarily apply if the price per share of the underlying stock or Exchange-Traded Fund Share has changed by more than $1 since the last preceding transaction for the particular option contract.). Specifically, Floor Market Makers shall provide a bid/ask differential on the Trading Floor for options on equities and index options bidding and/or offering so as to create differences of no more than $0.25 between the bid and offer for each option contract for which the prevailing bid is less than $2; no more than $0.40 where the prevailing bid is $2 or more but less than $5; no more than $0.50 where the prevailing bid is $5 or more but less than $10; no more than $0.80 where the prevailing bid is $10 or more but less than $20; and no more than $1 where the prevailing bid is $20 or more, provided that, in the case of equity options, the bid/ask differentials stated above shall not apply to in-the-money series where the market for the underlying security is wider than the differentials set forth above. For such series, the bid/ask differentials may be as wide as the quotation for the underlying security on the primary market, or its decimal equivalent rounded up to the nearest minimum increment. The Exchange may establish differences other than the above for one or more series of classes of

options. Quotations provided in open outcry may not be made with $5 bid/ask differentials provided in proposed Rule 603(b)(4) and instead must comply with the legal bid/ask differential requirements described in this subparagraph.

With respect to classes of option contracts other than those to which his appointment extends, a Floor Market Maker, whenever he enters the trading crowd or is called upon by an Options Exchange Official or a Floor Broker to make a market, shall undertake the obligations specified in paragraph (d) of this proposed Rule 2105. Further a Floor Market Maker should not (1) individually or as a group, intentionally or unintentionally, dominate the market in option contracts of a particular class; or (2) effect purchases or sales on the Trading Floor except in a reasonable and orderly manner; (3) be conspicuous in the general market or in the market in a particular option. Further, the Exchange will impose additional restrictions on Market Makers. Specifically, unless otherwise provided, no Floor Market Maker shall (1) initiate an Exchange options transaction while on the Trading Floor for any account in which he has an interest and execute as Floor Broker an off-floor order in options on the same underlying interest during the same trading session; or (2) retain priority over an off-floor order while establishing or increasing a position for an account in which he has an interest while on the Trading Floor of the Exchange.

11) Trading Conduct and Order & Decorum on the Trading Floor

If an Options Exchange Official determines that a Floor Participants conduct on the Trading Floor is such that it violates the Standards of Dress and Conduct, Trading Floor Badges, or Visitors on the Trading Floor provisions of proposed Rule 2080, impairs the maintenance of a fair and orderly market, or impairs public confidence in the operations of the Exchange, a Floor Participant may be fined, pursuant to the Bylaws and proposed Rules of the Exchange. An Options Exchange Official or an officer of the Exchange may exclude a Participant and any associated person of the Participant from the Trading Floor for breaches of regulations that relate to the administration of order, decorum, health, safety and welfare on the Exchange that occur on the Trading Floor. More specifically, Participants shall be excluded if they pose an immediate threat to the safety of persons or property, are seriously disrupting Exchange operations, or are in possession of a firearm. Further, the Exchange has determined that, in order to ensure that trading occurs in an open and public manner, all communications on the Floor among Floor Participants, their Clerks, and others authorized to enter transaction on the Trading Floor, shall be conducted in the English language.

12) Option Priority and Parity

The proposed Exchange Rules will direct Floor Participants in the establishment of priority of orders on the Trading Floor, and in situations where the allocation of contracts results in fractional amounts of contracts to be allocated to Floor Participants, the number of contracts to be allocated shall be rounded in a fair and equitable manner.

The Exchange will clarify that Floor Participants must follow just and equitable principles of trade when dealing on the Trading Floor. Specifically, it shall be considered conduct inconsistent with just and equitable principles of trade for (1) a Floor Broker to allocate orders other than in accordance with the Exchange's priority rules applicable to floor trades; (2) a Floor Participant to enter into any agreement with another Floor Participant concerning allocation of trades; or (3) a Floor Participant to harass, intimidate, or coerce another Floor Participant to make or refrain from making any complaint or appeal.

In order to facilitate timely tape reporting of trades, all orders announced in open outcry must be submitted for execution to the Exchange's System.

E. Proposed Fees (Item #4)

In accordance with proposed Rule 1203 the Exchange may prescribe such reasonable fees, and assessments or other charges as it may deem appropriate and as consistent with Section 6(b) of the Exchange Act. The Exchange intends to establish a Fee Schedule, which will be filed by the Exchange pursuant to Section 19 of the Exchange Act and Rule 19b-4 thereunder setting forth all applicable transaction and other fees. Actual fee amounts and types will not be determined until close to launch of Exchange operations because the fees and how they are applied will need to reflect the competitive landscape at that time.

The Exchange may also charge, among others, membership fees, application fees, market data fees, co-location fees, connectivity fees, and bandwidth fees. Exchange Members will be solely responsible for all telecommunications costs and all other expenses incurred in linking to, and maintaining links to, the Exchange. The Exchange may determine to revise or impose different fees upon its Members and Sponsoring Members from time-to-time.

F. Procedures for ensuring compliance with System usage guidelines (Item #5)

The Exchange System contains embedded Member order entry and trade guidelines. All data representing a Member's order must comply with these guidelines. Members cannot override these embedded guidelines. With respect to technical standards, prior to allowing a new Member to begin trading, the Exchange and the Member will thoroughly test the Member's connectivity. In addition, the Member may enter orders in test securities to ensure compatibility with the Exchange's system protocol. A Member may begin trading only after the Exchange is satisfied that both the Member's hardware and software meet the Exchange's standards.

Members also must agree to maintain an adequate connection to the Exchange as defined from time-to-time by the Exchange that includes a connection of sufficient speed and equipment of minimum quality.

G. The hours of operation of the System and Proposed Commencement of the Exchange (Item #6)

The Exchange proposes to operate Monday to Friday from 9:30 a.m. Eastern Time to 4:00 p.m. Eastern Time, except the Exchange may remain open for trading option contracts on Exchange Traded Fund Shares and broad-based indexes beyond 4:00 p.m. but in no case later than 4:15 p.m. Eastern Time. In addition, the Exchange may operate during any other day or time approved by the Board of Directors of the Exchange.

The Exchange proposes to commence operations upon approval of its Form 1 Application for Registration as a National Securities Exchange by the Securities and Exchange Commission (the "Commission") and subject to approval of all necessary regulatory and National Market System plans, including the Plan for Reporting of Consolidated Options Last Sale Reports and Quotation

Information (i.e., OPRA), and subject to the Exchange joining The Options Clearing Corporation, or OCC.

H. Exchange User's Manual (Item #7)

As discussed above, Members will be provided with the Exchange's technical specifications, which will enable them to develop or purchase their own, customized front-end software for interfacing with the Exchange. Members also may use third-party vendors to route orders to the Exchange via a front end or service bureau configuration. The Exchange will make available on the internet to prospective Members all necessary connectivity documentation. A draft User's Manual that will be provided to all Members and prospective Members of the Exchange is included with this Exhibit E. The draft User's Manual describes the Exchange's technical specifications and provides Members, prospective Members and other users of the Exchange with additional information that the Exchange believes will be useful to such persons for trading on the Exchange.

I. Possession of Funds or Securities (Item #8)

The Exchange will not hold funds or securities of its Members.

MIAX Sapphire Options Exchange

User Manual

Table of Contents

1. Introduction

MIAX Sapphire (MIAX Sapphire or the Exchange) created this User Manual to assist Members and users of its Exchange in understanding the operation of the Exchange. The User Manual discusses, and in some cases, summarizes various MIAX Sapphire Rules. MIAX Sapphire's complete and official Rulebook is available at: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/rulebooks. In the event of a conflict between the User Manual and the Rules set forth in the official Rulebook, the Rulebook shall prevail.

MIAX Sapphire operates a fully automated electronic options trading platform for the purpose of buying and selling securities with a continuous, automated matching function. Liquidity is derived from orders to buy and sell. Orders are submitted to the Exchange electronically by Members from remote locations. MIAX Sapphire does maintain a physical trading floor. There are two categories of electronic Members on MIAX Sapphire – Market Makers, and all other Members which are known as Electronic Exchange Members (EEMs). Additionally, there are two categories of floor Members on MIAX Sapphire – Floor Market Makers and Floor Brokers.

Access to the Exchange is maintained by way of Trading Permits issued to the Members. Trading Permits are not transferable except in the event of a change in control of a Member.

Members are subject to fees for executions and services on the Exchange as set forth in the Exchange's Fee Schedule. A link to a copy of the complete MIAX Sapphire Fee Schedule is available on the Exchange's website at: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/fees.

2. How to Become a Member of MIAX Sapphire

How to become a Member of MIAX Sapphire

Holders of MIAX Exchange Trading Permits. A holder of a MIAX, MIAX Pearl, or MIAX Emerald Trading Permit in good standing is eligible to receive one MIAX Sapphire Trading Permit in the same membership category. A holder of a MIAX, MIAX Pearl, or MIAX Emerald Trading Permit who wishes to apply to the Exchange is not required to complete and submit an Exchange application. Instead, only Exchange forms concerning election to trade on the Exchange, submitting to Exchange jurisdiction, and operational matters need to be completed and tendered.

Firms that are not holders of a MIAX Exchange Trading Permits. A prospective Member firm must be registered as a broker-dealer, must be a member of at least one other registered options exchange or FINRA, must be able to clear option trades or must clear through a clearing firm and must meet certain additional criteria described by the Exchange and set forth in the Exchange's Rules.

Further information on membership at MIAX Sapphire, is available on the Exchange's website: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/membership.

3. Types of Membership

Market Makers

To register as a Market Maker, a Member must file an application in writing on such forms as the Exchange may prescribe. The Exchange reviews applications and considers an applicant's market making ability and such other factors as the Exchange deems appropriate in determining whether to approve an applicant's registration as a Market Maker. Each registered Market Maker must appoint a qualified person to act as a "Market Maker Authorized Trader" or "MMAT". An MMAT is an authorized trader who performs market making activities and fulfills market making responsibilities on behalf of the Market Maker.

Each MMAT must self-assign appointments on a full class or series-by-series basis. Series assignments may be entered using the MEO interface, each day before 09:00 a.m. ET, or by an Exchange approved electronic interface, which requires series registration to be submitted prior to 6:00 p.m. ET of the business day immediately preceding the next trading day.

Electronic Exchange Members (EEM)

An EEM is an Exchange Member representing as agent Public Customer Orders or Non- Customer Orders on the Exchange and those non-Market Maker Members conducting proprietary trading.

Floor Participant

A Floor Participant means a Floor Broker or a Floor Market Maker.

Floor Market Maker

No Participant shall act as a Floor Market Maker in any option unless such Participant is already registered as a Market Maker by the Exchange pursuant to MIAX Sapphire Rule 600 and such registration may be revoked or suspended at any time by the Exchange.

Floor Broker

A Floor Broker must be registered as a Floor Participant prior to registering a Floor Broker. A Floor Broker is an individual who is registered with the Exchange for the purpose, while on the Trading Floor, of accepting and handling options orders.

4. Access by Non-Members

Non-Members may access the Exchange pursuant to Rules governing "sponsored access" to the Exchange. The Exchange permits access by entities (Sponsored Users) whose access is authorized in advance by entering into an arrangement with a Member (Sponsoring Member) in accordance with Exchange Rules.

Sponsored Users must agree to comply with all applicable Rules of the Exchange governing the entry, execution, reporting, clearing and settling of orders in securities eligible for trading on the Exchange. Further information about Sponsored Access can be found in MIAX Sapphire Rules, Chapter II.

5. How MIAX Sapphire Works

Architecture

Market Makers and EEMs can send orders to the Exchange's System through the MIAX Sapphire Express Order Interface (MEO) or the MIAX Sapphire FIX Order Interface (FOI) gateway. The Exchange will provide an API for Floor Participants to query the Electronic Order Book. The Floor Query will return the current price and size of orders on the Electronic Order Book. The MIAX Sapphire Trading System is designed to be highly scalable, efficient, fast, reliable, robust and flexible.

The Exchange deploys multiple matching engines, each engine performing the trade match function for a defined set of option classes.

Market Makers may connect to the System via the MIAX Sapphire Express Order Interface (MEO) using a proprietary binary protocol for the transmission of orders and other messages to and from the Exchange. Several types of MEO ports are available:

MEO supports the following port types:
- **Full Service Port Bulk (FSPB)** – Supports all MEO input message types and bulk binary order entry.
- **Full Service Port Single (FSPS)** – Supports all MEO input message types and binary order entry on a single order by order basis.
- **Limited service port (LSP)** – Supports all MEO input message types, but has the following limitations:
  - o LSPs do not support bulk order entry.
  - o LSPs support the use of IOC or ISO orders only.
- **Priority Purge Port (PPP)**
  - o Supports only MEO Mass Cancel messages.

All MEO output message types are supported on all of these port types (FSPB, FSPS and LSP).

Limitations on the number and combinations of ports exist. Refer to the MIAX Sapphire Fee Schedule for more details on available firm port configurations. Participants utilizing the binary MEO Interface are required to connect separately to each matching engine as the Exchange offers no routing capability via this interface.

Market Makers and EEMs may connect to the System via the MIAX Sapphire FIX Order Interface (FOI) gateway using the industry standard FIX protocol with MIAX Sapphire specific extensions for the transmission of orders and other messages to and from the Exchange. The MIAX Sapphire FOI validates incoming orders and forwards them to the appropriate matching engine. Executions and cancelation notifications are provided through these same interfaces.

The matching engines of the Exchange each handle a defined set of option classes, which may be reallocated on a periodic basis in order to ensure that system load is balanced across the MIAX Sapphire System. Each matching engine compares the price of all incoming orders with those orders already resting on the MIAX Sapphire Book. The matching engine matches liquidity as available, calculates the MIAX Sapphire Best Bid and Best Offer (the SBBO), monitors the other markets' displayed prices and determines when, and if, a trade can occur. If a newly arrived order is marketable

against the existing MIAX Sapphire Book, and the SBBO is equal to or better than the best consolidated quote, an immediate match is made and allocations are communicated back to the trade participants.

If another market is disseminating a price superior to MIAX Sapphire's displayed price, orders may be routed to the better priced market(s).

Orders may be managed within the MIAX Sapphire System so as not to lock the prices displayed on other markets. The System will not execute such orders at prices inferior to the current NBBO. If the limit price of an order being managed locks or crosses the opposite side NBBO and the SBBO is inferior to the NBBO, the System will display the order one minimum price variation away from the current opposite side NBBO, and book the order at a price that will lock the current opposite side NBBO. Should the NBBO price change to an inferior price level and the SBBO remain inferior to the NBBO, the order's book price will continuously re-price to lock the new NBBO and the managed order's displayed price will continuously re-price one minimum price variation away from the new NBBO.

Network Infrastructure

The MIAX Sapphire network was designed to complement the MIAX Sapphire Trading System and was built from the ground up to address the performance and security needs of a high speed trading platform. The MIAX Sapphire network infrastructure utilizes fully diverse and redundant 40Gbps backbones and 10/40Gbps switch technology for maximum throughput and minimal latency.

Data Center Services

- MIAX Sapphire has partnered with Equinix, a world-class provider of data center services, to host the Trading System's data center infrastructure in its NY4 location.

- Customers with very low latency demands can cross-connect to the MIAX Sapphire System from elsewhere within the Equinix facility. MIAX Sapphire cross-connects are latency equalized to ensure each participant's cross-connect is the same physical distance from the MIAX Sapphire System regardless of their location in the Equinix facility.

- **Notable Data Center Services**
  - SSAE16 compliant Data Centers
  - Redundant power feed sourced from district substations
  - Redundant power and cooling distribution paths within the facility
  - Concurrently maintainable (N+1 for greater resiliency)
  - On-site backup power generation
- **Enhanced Security Services**
  - State of the art security
  - Hand Scanners
  - Card Readers
  - Cameras
- Buildings designed to withstand fires, earthquakes, hurricanes and other environmental threats.
- Manned 24/7.
- A second Data Center is located in Chicago (CH4) for Disaster Recovery.

Connectivity Choices

- MIAX Sapphire offers truly diverse, redundant 1 Gigabit and 10 Gigabit ULL connectivity options in data center facilities and supports direct attachment of customer/provider network equipment or direct attached host systems. Users are strongly encouraged to establish dual connections to the primary facility in NY4 and connection to the disaster recovery system located in Chicago (CH4) to minimize the possibility of service disruption. Certain Members of MIAX Sapphire will have mandatory participation requirements in the Exchange's annual Disaster Recovery (DR) test and will therefore be required to establish a connection to the disaster recovery system located in Chicago (CH4). MIAX Sapphire supports the following connectivity options:
  - o **Cross-Connect.** Users that are co-located in the Equinix NY4 data center may request an in-house cross-connect from the User's Point of Entry (POE) to MIAX Sapphire.
  - o **Point-to-point.** Users may connect point-to-point using leased lines or other network methods (e.g. Ethernet, etc.). (Users are responsible for providing colocation space for independently owned equipment.)
  - o **Metro Ethernet/Dark Fiber.** Users may connect via Metro Ethernet or a dark fiber provider.

Trading System Features

The MIAX Sapphire Trading System was developed specifically for the unique functional and performance demands of derivatives trading. The System provides the proper protections, low latency and high throughput that is essential to the success of the trading community. The MIAX Sapphire System provides extreme performance and scalability with best in class customer interface features and performance over the following interfaces:

- **MIAX Sapphire FIX Order Interface (FOI) gateway for orders**
  - o Each FOI is capable of processing more than 7,700 order messages per second.
- **MIAX Sapphire FIX Drop (FXD)**
  - o For clearing trade drops normally sent over FIX.
  - o Available only to submitting EEMs.
  - o Echoes trade fills, trade adjustments, trade corrections and trade cancellations from orders submitted via FIX.
  - o Does not include other FIX information such as order cancellations or order adjustments.
  - o Multiple MPIDs can be configured to use a single FIX Drop Interface.
- MIAX Sapphire Express Order Interface (MEO) offers direct connections to the matching engine for the high-speed mass messaging of orders in binary format.
  - o Each full service MEO Interface is capable of processing more than 200,000 orders per second.
- MIAX Sapphire Top of Market (ToM) provides low latency access to MIAX Sapphire market data.
  - o The MIAX Sapphire ToM data feed service produces market data across 6 multicast channels. Each channel is capable of transmitting more than 1,200,000 messages per second during peak periods.
- MIAX Sapphire Clearing Trade Drop (CTD) is a low-latency, real-time feed providing clearing trade information to the parties of a trade, Clearing Firms and/or other entitled designated recipients. Recipients connect to the CTD using a proprietary protocol and one or more CTD connections for each Exchange matching engine.
  - o The MIAX Sapphire CTD interface is capable of processing more than 20,000 clearing trade messages per second.
- MIAX Sapphire Liquidity Feed (SLF) provides information about orders in the MIAX Sapphire markets over a multicast feed.

- The MIAX Sapphire System uses a next-generation highly-automated Quality Assurance platform that runs a full battery of tests against the System to ensure a high level of reliability and unprecedented confidence in System updates.
    - State-of-the-art monitoring and systems security.
    - A software and hardware architecture that results in minimizing the demands on power, space and cooling while allowing for rapid scalability, standard setting resiliency and superior fault isolation.

Further information on the Top of Market feed and the MIAX Sapphire Liquidity Feed is listed below. For additional details about connecting to the MIAX Sapphire trading platform, please see the Interface Connectivity Specifications on the MIAX Sapphire website: https://www.miaxglobal.com/markets/us-options/miax-sapphire/interface-specifications.

Top of Market (ToM)

Top of Book and Trade Data is made available over the MIAX Sapphire Top of Market data feed (ToM). ToM is available to all MIAX Sapphire participants. ToM specific information:

- MIAX Sapphire Best Bid and Offer information with sizes
- Indications of Public and Priority Customer at the SBBO
    - When present, the size of the Priority Customer interest is also indicated
- Last sale information
- Post-Halt Notifications

ToM also includes information about other real-time Exchange System functions. Recipients connect to ToM using a proprietary protocol and for the purpose of redundancy may subscribe to two identical connections (ToM "A" and ToM "B") for each Exchange matching engine.

Complex Top of Market (cToM)

Complex Strategy Top of Book and Trade Data is made available over the Complex Top of Market data feed (cToM). cToM is available to all MIAX Sapphire participants who choose to subscribe. cToM specific information:

- Complex Strategy Definition Notification.
- Complex Strategy Book Best Bid and Offer information with sizes:
    - Indication of Priority Customer size at the displayed Best Price on the Strategy Book.
    - Indication the Best price on the Strategy Book is subject to the Complex Liquidity Exposure Process (cLEP)
- Complex Strategy Last sale information.
- Underlying Trading Status Notification.

cToM also includes information about other real-time Exchange System functions. Recipients connect to cToM using a proprietary protocol and for the purpose of redundancy may subscribe to two identical connections (cToM "A" and cToM "B") for each Exchange matching engine.

Complex Order functionality may be enabled or disabled via Regulatory Circular.

MIAX Sapphire Liquidity Feed (SLF)

The MIAX Sapphire Liquidity Feed provides information about orders on the MIAX Sapphire order book over a multicast feed.

The following updates are transmitted over SLF when an order is received or when an order state changes.

- **Published Order information**
  - Time stamp
  - Action
  - Product ID
  - Order ID
  - Order Side
  - Order Type
  - Order Price
  - Original Order Size
  - Open Order Size
  - Time in Force
  - Origin
  - Open or Close
  - Route Instruction

- **For Complex Orders the following information will also be included**
  - Complex Strategy Definition Notification
  - Complex Order Notices

- **The following will not be disseminated**
  - Order States
    - Pending Replace
    - Rejected
  - Order with time in Force of
    - IOC
  - Paired Orders:
    - Qualified Floor Order (QFO) Cross
    - Complex Qualified Floor Order Cross
    - Customer Cross
    - Complex Customer Cross
    - Qualified Contingent Cross
    - Complex Qualified Contingent Cross
  - Child orders related to routing are not published

MIAX Sapphire Information and Performance Reports

MIAX Sapphire Information and Performance Reports provide Member Firms with details of their trading and activities on the Exchange. Reports include key information about transaction fees, marketing fees, the NBBO and SBBO at the time of transaction, as well as volume, clearing and risk information. This information is intended to assist firms in monitoring and evaluating their trading activity on MIAX Sapphire.

Further information on the availability of MIAX Sapphire Information and Performance Reports can be obtained by contacting MIAX Sapphire Trading Operations at: TradingOperations@miaxglobal.com.

Classes Listed on MIAX Sapphire

A complete list of all Option Classes traded on MIAX Sapphire is maintained in the Listings section of the Exchange's website at this address: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/listings.

The All Classes Listed on MIAX Sapphire file is updated daily and is available in CSV format. The file contains detailed information on each Class including:
- Underlying Symbol
- Underlying Security Name
- Option Symbol
- Minimum Price Variation
- Closing Time
- Information on Expiration Programs
- Information on Price Programs
- An indication if the Class is Closing Only
- MIAX Sapphire Cloud Number (equivalent to Matching Engine Number)

Options Listed on MIAX Sapphire

A complete list of all Options traded on MIAX Sapphire is maintained in the Listings section of the Exchange's website at this address: https://www.miaxglobal.com/markets/us-options/miax-sapphire/listings.

The All Options Listed on MIAX Sapphire file is updated daily and is available in CSV format. The file contains detailed information on each listed Option including:
- Underlying Symbol
- Option Symbol
- Expiration Date
- Strike Price
- Deliverable
- An indication if the Option is Closing Only

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6. Order Information

Order Types

The following are some of the order types described in the MIAX Sapphire Rules that, except as may be described below, are available for use on the Exchange as of the date of this Manual:

- **Market**. An order to buy or sell a stated number of options contracts at the best price available at the time of execution.
- **Limit**. An order to buy or sell a stated number of options contracts at or better than a specified price.
- **Immediate-or-Cancel (IOC)**. An order to be executed in whole or part upon receipt with any unexecuted portion cancelled. An Immediate-or-Cancel order is not valid during the opening rotation process described in MIAX Sapphire Rule 503.
- **Intermarket Sweep Order (ISO)**. A limit order designated by the submitting Member as an ISO trades without regard to MIAX Sapphire price protections or protected quotations on other markets.
- **Do Not Route (DNR)**. An order that will never be routed outside of MIAX Sapphire regardless of the prices displayed by away markets. A DNR order will never execute at a price inferior to the NBBO and when necessary, its display price will be managed so as not to lock or cross the NBBO.
- **Day Limit**. An order to buy or sell which, if not executed, expires at the end of trading in the security on the day on which it was entered.
- **Cancel-Replacement Order**. A Cancel-replacement order is a single message for the immediate cancellation of a previously received order and the replacement of that order with a new order with new terms and conditions.
- **Marketable Limit Order**. A marketable limit order is a limit order to buy (sell) at or above (below) the best offer (bid) on the Exchange.
- **Qualified Contingent Cross Order (QCC).** A QCC Order is an order that is comprised of an originating order to buy or sell at least 1,000 contracts coupled with a contra side order for the same number of contracts and also paired with an NMS stock component. QCC Orders are not valid during the opening rotation process described in MIAX Sapphire Rule 503.
- **Customer Cross Order.** A Customer Cross Order is comprised of a Priority Customer Order to buy and a Priority Customer Order to sell at the same price and for the same quantity. A Customer Cross Order is not valid during the opening rotation process described in MIAX Sapphire Rule 503.
- **Qualified Floor Order (QFO)**. A simple market QFO order consists of two individual orders, submitted as a paired order, one buy and one sell, for the same option, where the buy and sell orders are to be matched at a price and are of equal size, unless subject to any must-fill quantity and Max Surrender Size (MSS) requirement. Simple market QFO is a crossing order from the trading floor sent to the Exchange via the Floor Broker FIX sessions for processing. A QFO order is not valid during the opening rotation process described in MIAX Sapphire Rule 503.

Each of these types of orders is described in detail in MIAX Sapphire Rule 516 excepting QFOs which are described in MAX Sapphire Rule 2040. The Exchange maintains a full audit trail of every order submitted to the Exchange's System. Members may receive status reports regarding orders submitted to the Exchange or change or cancel an order at any time before that order is executed on the Exchange.

Routing to Other Exchanges

Routing services are provided for routing to all Options Exchanges in the United States and are fully compliant with the Options Locked and Crossed Markets Plan (the Plan). The MIAX Sapphire System routes Public Customer Orders received via the FIX Order Interface (FOI) to away markets displaying liquidity at the NBBO when required to satisfy a protected quotation under the Plan. Orders received through MEO are not eligible for routing by the MIAX Sapphire System and will be managed if locking or crossing the NBBO.

A full description of MIAX Sapphire routing functionality is available in MIAX Sapphire Rule 529.

Interfaces and Liquidity Types

MIAX Sapphire has both a FIX Order Interface (FOI) and MIAX Sapphire Express Orders Interface (MEO). The FOI allows standard orders in FIX format. The MEO Interface allows the submission of Cancel-Replacement orders or Standard orders in a binary format. A Cancel-Replacement order replaces an existing order for a given MPID on the same product and side. A Standard order is always treated as a new order and does not cancel or replace any existing order. A Standard order can be canceled or replaced using the respective message types.

A bulk order packet can contain one or more Cancel-Replacement orders, Standard orders, Standard order cancels or Standard order replacements. The maximum number of such orders in a packet is conveyed in the MEO Interface specification: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/interface-specifications.

Quoting Requirements (Order Submission)
A Market Maker's bid and offer for a series of options contracts shall be accompanied by the number of contracts at the price the Market Maker is willing to buy or sell. The best bid and best offer entered by a Market Maker must have a size of at least one (1) contract. A Market Maker that enters a bid (offer) in a series in which he is registered on the Exchange must enter an offer (bid).

A Market Maker must enter continuous bids and offers for the options series to which it is registered in accordance to MIAX Sapphire Rule 605.

The total number of contracts executed by a Market Maker in series in which it is not registered as a Market Maker shall not exceed twenty-five percent (25%) of the total number of all contracts executed by the Market Maker in any calendar quarter.

Further information regarding order submission requirements for Market Makers can be found in MIAX Sapphire Rules 604 and 605 and on the Exchange's website: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/rulebooks.

7. Trading on MIAX Sapphire

Penny Program

MIAX Sapphire participates in the Penny Program, which provides for the quoting and trading of certain option classes in penny increments. A list of the classes participating in the Penny Program is available along with other listing information on the Exchange's website at this address: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/listings .

Minimum Trading and Pricing Increments on MIAX Sapphire

Options in classes not in the Penny Program have a Minimum Price Variation (MPV) for SBBO display in $0.05 increments if the affected series has a price of under $3.00, and in $0.10 increments if the affected series has a price of $3.00 or higher.

Options in classes in the Penny Program have an MPV for SBBO display in $0.01 increments under $3.00 and $0.05 increments for prices of $3.00 or greater. Options overlying the PowerShares QQQ™ (QQQ), SPDR® S&P 500® ETF (SPY), and iShares® Russell 2000 ETF (IWM), however, are quoted and traded in minimum increments of $0.01 for all series regardless of the price.

Allocation of Trades

MIAX Sapphire supports price-time trade allocation. Within each price level, if there are two or more orders at the best price, trading interest will be executed in time priority.

MIAX Sapphire Opening Process

The MIAX Sapphire Opening Process begins when the quoting requirements and other provisions of MIAX Sapphire Rule 503(b)(1) have been satisfied.

Once the Opening Process begins, if there are no orders that lock or cross each other, the System will open by disseminating the Exchange's best bid and offer among orders that exist in the System at that time. If there are orders that lock or cross each other for a particular option series, the System will determine a single price at which such option series will be opened (the Opening Price). Under MIAX Sapphire Rule 503(b)(2)(i) the Opening Price of a series will be the midpoint of the Valid Width NBBO, and will be rounded up if necessary to achieve a proper MPV.

After establishing an Opening Price, orders in the System that are priced equal to or more aggressively than the Opening Price will be matched based on price-time priority. Matches will occur until there is no remaining volume or there is an imbalance of orders. All orders or portions thereof that are matched pursuant to the Opening Process will be executed at the Opening Price. An imbalance of orders on the buy side or sell side may result in orders that are not executed in whole or in part. Such orders will be handled in time sequence, beginning with the order with the oldest time stamp and may, in whole or in part, be placed on the MIAX Sapphire Book, cancelled, executed, or routed in accordance with MIAX Sapphire Rule 529.

After all possible interest has been traded at the Opening Price, free trading will begin. Any interest from the Opening that was priced equal to, or through, the Opening Price, along with any new interest received during the Opening, will be introduced into the System in sequence based upon the time of order receipt

More information regarding Opening on the Exchange can be found in MIAX Sapphire Rule 503.

System Settings

All current System settings are posted in the Regulatory Circulars located under the Regulatory tab on the Exchange's website: https://www.miaxglobal.com/markets/us-options/sapphire-options/regulatory-circulars. Changes to System settings are also published by the Exchange as either Regulatory Alerts or Regulatory Circulars, as required. Please be sure to check the Exchange's website for the most current information.

Trading Halts and Trading Pauses

The System automatically halts trading when the primary market for the underlying security disseminates a halted or paused condition. Under certain circumstances, in the interest of a fair and orderly market, the Exchange may elect to manually halt trading in an individual option class, a group of option classes or all option classes Exchange wide.

The Opening Process will not begin if the underlying security is halted or paused. If the Opening Process is in progress at the time of the halt, the System will interrupt the Opening Process prior to its completion, will halt trading in options already opened and will prevent unopened options from opening. After a trading halt on MIAX Sapphire, the System will reopen following the same processes as the Opening Process, except that the Primary Listing Exchange for the underlying security will be used in place of the any other exchange that may have been designated as the MIAX Sapphire Exchange for Opening. The designated MIAX Sapphire Exchange for Opening is disseminated via Regulatory Circular and is available on the Exchange's website.

Notifications Prior to Re-Opening:
- The Post Halt Notification period is the length of time prior to reopening after a manual trading halt prior to which a System notice is distributed over the Exchange's data feeds.
    o 20 Seconds
- The Reopening Delay period is the length of time prior to reopening after an automatic trading halt (a System initiated interruption of trading resulting from a halt or pause in the underlying security on its primary listing exchange) prior to which a System notice is distributed over the Exchange's data feeds.
    o 5 Seconds

Limit Up/Limit Down (LULD)

LULD functionality on MIAX Sapphire is in effect when the underlying NMS Stock has entered into a Limit State or Straddle State. Once an NMS Stock has entered either a Straddle State or
Limit State:
- The Exchange will not open an affected option.
- If an LULD state is entered after the opening, the Exchange will:

- o   reject all incoming market orders submitted into the Exchange System, and
- o   cancel all unexecuted market orders existing within the Exchange System, except that market orders to sell an option received when the national best bid is zero and the Exchange's disseminated offer is equal to or less than $0.10 that have been converted to limit orders to sell pursuant to MIAX Sapphire Rule 519(a) (1) will not be cancelled by the Exchange's System.

In addition, once an NMS Stock has entered either a Limit or Straddle State, the Exchange shall relieve Exchange Market Makers from the following quotation obligations for options on the affected underlying NMS Stock:

- the minimum size requirement set forth in MIAX Sapphire Rule 605(a);
- the requirement to submit two-sided quotes set forth in MIAX Sapphire Rule 605(b); and
- the continuous quoting obligation set forth in MIAX Sapphire Rule 605(d).

When an underlying NMS Stock is subject to a Trading Pause, the Exchange System will halt trading in options overlying the affected NMS Stock pursuant to MIAX Sapphire Rule 504(c).

Market Wide Circuit Breakers (MWCB)

MWCB halts are treated by the System in the same fashion as a Regulatory Trading Halt on the Primary Listing Market.

8. Trading on the Exchange Floor

Registration

Each Floor Broker, Floor Market Maker and registered representative must successfully complete and maintain appropriate registration and examination requirements
- Non-Participant/Clerk Registration
  - o All Trading Floor personnel, including clerks, interns, stock execution clerks and any other associated persons must also successfully complete and maintain appropriate registration and examination requirements

Trading Floor Hours

Dealings upon the Trading Floor shall be limited to Exchange's normal trading hours. Reference Chapter 15. Hours of Operation

Responsibilities of Floor Brokers

General Responsibility
- Floor Broker shall ascertain that at least one Floor Market Maker is present in the Crowd Area prior to announcing an order for execution
- Must use due diligence to cause the order to be executed at the best price
- Must make reasonable effort to determine whether an order is for the account of a Priority Customer or broker-dealer when informing the trading crowd

Contingency Order
- Floor Broker shall be responsible for satisfying any dependency requirement when handling a contingency order

Order Recordation
- Floor Broker or Floor Broker's employees shall, contemporaneously upon receipt of an order, and prior to the announcement of such an order in the trading crowd, record all options orders and required order information represented by such Floor Broker onto the Floor Broker's order entry mechanism

Announcement
- Floor Broker must announce an agency order that the Floor Broker is representing to the trading crowd before submitting the order to the Exchange's System for execution

Qualified Floor Orders

Orders on the Trading Floor must be announced to the trading crowd. Floor Brokers must submit the agency order as part of a two-sided order (Qualified Floor Order or "QFO") to the Exchange's System for execution.

- QFO sent to the system is not deemed executed until it is processed by the System
- All transactions occurring from the Trading Floor must be processed by the System
- Floor Brokers are responsible for handling all orders in accordance with the Exchange priority and trade-through rules

QFO functionality will assist the Floor Broker in respecting the Electronic Book, consistent with Exchange priority rules

- A QFO will have an initiating side and a contra-side
    - The initiating side is the order which must be filled in its entirety
    - The contra-side must guarantee the full size of the initiating side
    - The QFO may provide a maximum surrender size
    - The contra-side may include solicited interest from the trading crowd and/or the Floor Broker Provided contra-side interest
- QFO will be limited solely to the Trading Floor
- Only Floor Brokers may use QFOs
- QFOs may be complex orders (cQFOs)
- QFO will be rejected and a reject message sent to the Floor Broker if any components are not open for trading
- A Complex QFO will be rejected if any of the components are not open for trading
- QFO will not route to an away exchange
- QFO will not trade through an away exchange displaying a better price

Submission of QFOs

- Once the Floor Broker submits the QFO to the System the terms of the QFO cannot be changed
- After announcing the QFO to the trading crowd, the Floor Broker must submit the QFO to the System without undue delay
- When a Floor Broker executes a single-leg QFO, the execution price must be equal to or better than the NBBO
    - May not trade through any equal or better priced Priority Customer bids or offers on the Simple Order Book, or
    - Trade through any interest on the Simple Order Book that is priced better than the proposed execution price

Allocation of QFOs

- First, the initiating side of the QFO (cQFO) will match against any bids or offers on the Simple Order Book (Strategy Book) priced better than the contra-side, subject to adequate maximum surrender size. Multiple bids or offers at the same price are matched based on time priority.
- Next, at the same price as the contra-side of the QFO (cQFO), if any contracts (strategies) of the initiating side remain, the initiating side of the QFO (cQFO) will match against Priority Customer Orders on the Simple Order Book (Strategy Book), along with any bids or offers of non-Priority Customers ranked ahead of such Priority Customer Orders on the Simple Order Book (Strategy Book), subject to adequate maximum surrender size. Multiple bids or offers at the same price are matched based on time priority.
- Last, the remaining balance of the initiating side of the QFO (cQFO), if any, will then be matched by the System against the contra-side of the QFO (cQFO), regardless of whether the contra-side order submitted by the Floor

Broker is ultimately entitled to receive an allocation pursuant to the first and last bullets below. If no Floor Participant, other than the executing Floor Broker, is entitled to an allocation, then no further steps are necessary. If however, Floor Participants are entitled to an allocation, the remaining balance of the initiating side of the QFO (cQFO) will be allocated as described below.

- o First, if the QFO (cQFO) satisfies the eligible order size requirement, the executing Floor Broker is entitled to 40% of the remaining quantity of the initiating side of the QFO (cQFO).
- o Next, Floor Participants that responded with interest when the executing Floor Broker announced the QFO (cQFO) to the trading crowd are allocated. When multiple Floor Participants respond with interest, priority is established pursuant to MIAX Sapphire Rule 2045.
- o Last, if interest remains after Floor Participants that responded with interest receive their allocation, the remaining quantity of the initiating side of the QFO (cQFO) will be allocated to the executing Floor Broker

- After the execution of the QFO (cQFO), the executing Floor Broker must provide the correct allocations to an Options Exchange Official in writing, without unreasonable delay

Guarantee

- Floor Brokers holding an order of eligible order size or greater, the Floor Broker is entitled to cross a certain percentage of the order. The exchange may determine, on an option by option basis, the eligible order size subject to this guarantee, however, the eligible order size may not be less than 50 contracts.

Not Held Order

- An order entrusted to a Floor Broker will be considered a Not Held Order, giving discretion as to the price or time at which such order is to be executed.

Maximum Surrender Size

- A Floor Broker may optionally provide a maximum surrender size. The maximum surrender size is the number of contracts, if any, of the initiating side of a QFO that the Floor Broker is willing to relinquish to orders and quotes on the Electronic Book that have priority. If the number of contracts on the Electronic Book is greater than the maximum surrender size, then the QFO will be rejected. If the number of contracts is less than or equal to the maximum surrender size, then the QFO will execute.

Priority on Split-Price Transactions Occurring in Open Outcry

- If a Floor Participant buys (sells) one or more contracts of a particular series at a particular price or prices, the Floor Participant must, at the next lower (higher) price at which another Floor Participant bids (offers), have priority in buying (selling) up to the equivalent number of option contracts of the same series that the Floor Participant bought (sold) at the higher (lower) price or prices, provided that the Floor Participant's bid (offer) is made promptly and continuously and that the purchase (sale) so effected represents the opposite side of a transaction with the same order or offer (bid) as the earlier purchase or purchases (sale or sales).

- o Split-Price priority only applies to transactions effected on the Trading Floor
- o The transaction must meet the minimum qualifying order size
- o Complex QFO is also afforded Split-Price price priority
- o If the width of quote for a series is the minimum increment for that series and there is a Priority Customer resting on the Electronic Book, split-price priority is not available until the Priority Customer resting on the Electronic book is cancelled or trades

Additional Trading Floor Considerations

- Floor Broker must disclose all securities that are components of the Priority Customer order which is subject to crossing before requesting bids and offers for the execution of all components of the order
- Once the trading crowd has provided a quote, it will remain in effect until: i) a reasonable amount of time has passed, or ii) there is a significant change in price of the underlying security, or iii) the market given in response to the request has been improved
- Participants of the trading crowd who established the market will have priority over all other orders that were not announced in the trading crowd at the time that the market was established
    - Except Priority Customer orders on the Electronic Book or any non-Priority Customer orders that have priority over such Priority Customer orders on the Electronic Book, or
    - Orders that improve upon the market
- Floor Participants who established the market are responsible to alert the Floor Broker they have priority
- Floor Participants may not prevent a complex order from being completed by giving a competing bid or offer for one component of such order
- A Floor Broker crossing a Priority Customer Order with an order that is not a Priority Customer Order, when providing for a reasonable opportunity for the trading crowd to participate in the transaction, shall disclose the Priority Customer Order that is subject to crossing.
- Floor Brokers are permitted to execute "tied hedge" transactions; i.e. buying or selling a stock, security futures, or futures position following receipt of an option order or complex order
    - The order must be in a class designated as eligible for "tied hedge"
    - Must satisfy the minimum size parameter determined by the Exchange and may not be smaller than 500 contracts per order
        - Multiple orders cannot be aggregated to satisfy the size parameter
        - For complex orders at least one component must meet the minimum size requirement
    - Floor Broker must create an electronic record that is it engaging in a tied hedge in a manner prescribed by the Exchange. The order must be:
        - Tied hedge eligible
        - Brought without undue delay to the trading crowd and announced concurrently with the option order
        - Offered to the trading crowd in its entirety, and
        - Offered, at the execution price received by the Floor Broker introducing the option, to any in-crowd Floor Participant who has established parity or priority for the related options
    - The hedging position must not exceed the option order on a delta basis
    - For all tied hedge transactions
        - The Exchange's open outcry allocation and reporting procedures apply
        - Are subject to existing trade-through requirements for options and stock as applicable
        - When the option order is a simple order, the execution of the option leg of a tied hedge transaction does not qualify for the NBBO trade-through exception for a Complex Trade
        - Trading crowd Floor Participants that participate in the option transaction must also participate in the hedging position and may not prevent the option transaction from occurring by giving a competing bid or offer for one component of such order
        - In the event the conditions in the non-options market prevents the execution of the non-option leg(s) at the agreed prices, the trade representing the options leg(s) may be cancelled

- ▪ Floor Broker must deliver to the customer a written notification informing the customer that his order may be executed using the Exchange's tied hedge procedures

Priority in the Trading Crowd

The highest bid and lowest offers shall have priority, but where two or more bids (offers) for the same option contract represent the highest price (lowest price), priority shall be afforded to such bids (offers) in the sequence in which they are made. If, however, the bids (or offers) of two or more Floor Participants are made simultaneously, or if it is impossible to determine clearly the order of time in which they are made, such bids (or offers) will be deemed to be on parity and priority will be afforded to them, insofar as practicable, on an equal basis.

- Floor Broker will be responsible for determining the sequence in which bids or offers are vocalized on the Trading Floor
- Floor Participant that established priority must inform the Floor Broker of such priority when the Floor Broker announces the order
- disputes regarding a Floor Broker's determination of time priority sequence will be resolved by the Options Exchange Official
- Options Exchange Official may nullify a transaction or adjust its terms if they determine the transaction to have been in violation of Exchange's Rules
- Floor Participant with first priority is entitled to buy or sell as many contracts as the Floor Broker may have available to trade. If there are any contracts remaining, the Floor Participant with second priority will be entitled to buy or sell as many contracts as there are remaining in the Floor Broker's order, and so on, until the Floor Broker's order has been filled entirely.
- When Floor Participant bids or offers are made simultaneously, such bids or offers will be deemed to be on parity and priority will be afforded to them, insofar as practicable, on an equal basis
- When a Floor Broker requests a market in order to fill a large order, and the Floor Participants provide a collective response. In such situation, if the size of the trading crowd's market, in the aggregate, is less than or equal to the size of the order to be filled, the Floor Participants will each receive a share of the order that is equal to the size of their respective bids or offers.
  - o If the size of the trading crowd's market exceeds the size of the order to be filled, that order will be allocated on a size pro rata basis

Clerks

The term "Clerk" means any registered on-Floor person employed by or associated with a Floor Broker or Floor Market Maker and who is not eligible to effect transactions on the Trading Floor as a Floor Market Maker or Floor Broker
- Clerks shall display prominently at all times the badge(s) supplied to them by the Exchange
- Must comply with the registration requirement(s)
- Must disclose in detail to the Exchange, on an annual basis, the specific nature of such additional function(s)
- Must submit to the Exchange written supervisory procedures in relation to such Clerk's activities
- A Floor Broker who employs a Clerk:
  - o May have the Clerk enter an order under the direction of the Floor Broker by way of any order handling entry device
- Floor Market Maker Clerk is any on-floor Clerk employed by or associated with a Floor Market Maker

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- o Floor Market Maker Clerk is permitted to communicate verbal market information (i.e., bid, offer, and size) in response to requests for such information, provided that such information is communicated under the direct supervision of his or her Floor Market Maker employer
- o A Floor Market Maker Clerk may consummate electronic transactions under the express direction of his or her Floor Market Maker employer by matching bids and offers

Floor Market Makers

Floor Market Maker is a Floor Participant of the Exchange located on the Trading Floor who has received permission from the Exchange to trade in options for his own account providing price continuity and liquidity for purposes of maintaining a fair and orderly market

- Floor Market Makers must provide a two-sided market complying with the quote spread parameter requirements
- Market Makers shall provide such quotations with a minimum size of ten (10) contracts

More information regarding Trading on the Exchange Floor can be found in Chapters XX and XXI of the MIAX Sapphire Rules.

9. The MIAX Sapphire Complex Order System

The MIAX Sapphire Complex Order System is an execution platform providing for the execution of Complex Orders. A Complex Order is an order involving the simultaneous purchase and / or sale of two or more different options in the same underlying security (the "legs" or "components") for the same account for the purpose of executing a particular investment strategy. A Complex Order may have up to twelve components for all options, thirteen components when stock-tied, all settling into the same underlying security and executed at a single net price. The Complex Order System has the capability to match Complex Orders with other Complex Orders on the Strategy Book and to continually evaluate for possible execution (through matching) those Complex Orders that are resting on the Strategy Book.

MIAX Sapphire Complex Order functionality may be enabled or disabled via Regulatory Circular.

Complex Order Types

- **Market Orders**
  - An order to buy or sell a stated number of Strategies at the best price available at the time of execution.
- **Limit Orders**
  - An order to buy or sell a stated number of Strategies at or better than a specified price.
- **Day Limit Orders**
  - Day Orders will be available for immediate Strategy Match or placement on the Strategy Book upon arrival.
- **Immediate or Cancel Orders (cIOC)**
  - A cIOC order immediately trades to the extent possible and is then cancelled by the System.
- **Complex Qualified Contingent Cross Orders (cQCC)**
  - A cQCC Order is a Complex Order comprised of an originating Complex Order to buy or sell a Strategy consisting of at least 1,000 contracts of each option component coupled with a contra side order for the same Strategy which also consists of an NMS stock component. cQCC Orders are not valid during the opening rotation process described in MIAX Sapphire Rule 503.
- **Complex Customer Cross Orders**
  - A Complex Customer Cross Order is comprised of a Priority Customer Complex Order to buy and a Priority Customer Complex Order to sell at the same price and for the same Strategy. A Complex Customer Cross Order is not valid during the opening rotation process described in MIAX Sapphire Rule 503.
- **Complex Qualified Floor Order (cQFO)**
  - A complex QFO order consists of two strategy orders, submitted as a paired order, one buy and one sell, for the same strategy, where the buy and sell orders are to be matched at a price and are of equal size, unless subject to any must-fill quantity and Max Surrender Size (MSS) requirement. Complex QFO is a crossing order from the trading floor sent to the Exchange via the Floor Broker Workstation (FBW) API for processing. A cQFO order is not valid during the opening rotation process described in MIAX Sapphire Rule 503.

More information about Complex Order types can be found in MIAX Sapphire Rule 518.

Strategy Matching of Complex Orders

The Strategy Matching of Complex Orders may take place in free trading. Strategy Match may not take place when the price of one component of the Strategy would equal the price of a Priority Customer Order resting on the Simple Order Book, unless the Strategy is "Conforming" and the NBBO of at least one component of the Strategy is improved by at least one penny. If the Strategy is "Non-Conforming", all components of the Strategy with a price equal to a Priority Customer Order resting on the Simple Order Book must be improved by at least one penny.

Complex Orders are automatically executed against bids and offers on the Strategy Book in price-time priority. Within each price level, if there are two or more orders at the best price, trading interest will be executed in time priority

Complex Orders are not routed outside of the Exchange regardless of prices displayed by away markets. Complex Orders resting on the Strategy Book are continually re-evaluated for execution by the System. More information on the circumstances under which Strategy Matching can take place can be found in MIAX Sapphire Rule 518.

Stock-Tied Strategies

Complex Orders tied to underlying securities (generally referred to as "Stock-Tied" orders) are available through the Complex Order System:

- **Clearing Arrangements for EEMs and Market Makers**
    o Prior to submitting Stock-Tied orders to the Complex Order System, firms must first establish one of the two clearing arrangements outlined below. To complete this process, contact MIAX Member Services at: Membership@miaxglobal.com:
        - **FINRA Transparency Services Uniform Executing Broker Agreement**
            — FINRA member firms that wish to participate in the Complex Order System for Stock-Tied orders are required to execute this agreement.
        - **QSR and Correspondent Clearing Relationships**
            — Firms that are not FINRA members and wish to participate in the Complex Order System should establish QSR and Correspondent Clearing relationships with MIAX's Stock Routing Broker Dealer.
- Stock-Tied orders are eligible for Book Match, cQCC, Complex Customer Cross and cQFO Cross.
- **Parity Price Protection.** A description of Parity Price Protection for Stock-Tied "Buy-Write" and "Married Put" Strategies consisting of a single Call or Put option component and an underlying security component consisting of exactly 100 shares is available in the Trade Protections for Complex Orders section below.

Wide Market Conditions

The Exchange uses special handling in the Complex Order Market to protect users and to prevent potential conflicts between the Complex Order Market and the Simple Order Market. With the exception of Complex Crossing Orders during Wide Market Conditions, trading in the Strategy will be suspended and the Strategy will remain in a pre-market

state until the condition is resolved. Complex Crossing Orders (cQCC, Complex Customer Cross and cQFO Cross) will be accepted and may trade during Wide Market Conditions:

- Wide Market Conditions exist when any component of a Strategy at the time of evaluation has a displayed SBBO quote width that is wider than the permissible Simple Market Valid Quote Width.

More information on System behavior during Wide Market Conditions can be found in MIAX Sapphire Rule 518.

Trade Protection for Complex Orders

- **ABBO Price Protection (APP)**
  - The implied away best bid or offer (ixABBO) is the best complex bid from each single exchange and best complex offer from each single exchange, taking into account each exchange trading the components of the Strategy on their respective Simple Market Order books. Orders marked APP will never trade at a price outside of the opposing ixABBO as measured at the time of execution.
- **RPM for Complex Orders**
  - RPM Protection is extended to Complex Orders:
    - Complex Orders count as a single order for the delivering MPID regardless of the number of components that make up the Complex Order.
    - Contract sides executed as a result of Complex Orders will be counted for each component of the Strategy.
- **Complex MIAX Order Monitor (cMOM) Price Protection**
  - Rejects incoming limit orders that are priced through the opposite side of the cNBBO by an amount to be determined by the Exchange.
  - cMOM price protection does not apply to Complex Crossing Orders (cQCC, Complex Customer Cross and cQFO Cross).
  - A full description of cMOM order price and size protections is contained under Trade Protections Chapter of this Manual.
- **Order Protections Based on Size and Quantity**
  - Order Protections based on size and quantity for Complex Orders function as described under the Trade Protections Chapter of this Manual.
- **MIAX Sapphire Price Collars (MPC) and MIAX Sapphire Strategy Protected Price (MSPP) for Complex Orders**
  - MPC is an Exchange-wide system that will prevent complex orders from executing at potentially erroneous prices by establishing temporary price limits (MPC Prices) beyond which the complex order will not be displayed or executed. Complex orders are displayed and/or executed according to normal complex order handling procedures until reaching the first of, i) their limit price, ii) their current MPC Price, or iii) their final MSPP collar price.
    - The MPC and MSPP Value is calculated as a dollar amount (MPC is expressed in pennies and MSPP is expressed in dollars and pennies).
      - The MPC Value and MSPP Value will be determined by the Exchange and communicated via Regulatory Circular.
      - The MPC Value and MSPP Value will apply equally to all Classes listed on the Exchange in which complex orders are available.
    - The MPC and MSPP Value amount is added to or subtracted from the opposite side Complex National Best Bid or Offer (cNBBO) at the time the MPC and MSPP Price is initially assigned,

upon receipt or upon Strategy Opening, to establish an initial MPC Price or final MSPP collar price.

- If the MPC or MSPP Price is less aggressive than the limit price of the complex order (i.e., the MPC/MSPP Price is lower than the complex order bid price for a buy, or the MPC/MSPP Price is higher than the complex order offer price for a sell), or if the complex order is a market order, the complex order will be displayed and/or executed according to normal complex order handling procedures up to its MPC or MSPP Price.
- Any time liquidity would otherwise i) trade or ii) post at a price more aggressive than the current MPC Price or final MSPP collar price, the System will initiate a Complex Liquidity Exposure Process (cLEP).
  - The cLEP Price is the MPC Price or MSPP Price.
- After a complex order has been subjected to a cLEP, its MPC Price will advance to a more aggressive level which will become its next MPC Price, unless the order has advanced to its final MSPP collar price and subject to cancellation. The next MPC Price is determined by adding (for protected buy interest) or subtracting (for protected sell interest) the MPC Value to/from the then existing MPC Price.
- MPC protection will continue until an order has been i) fully executed, ii) posted at its limit price, or iii) cancelled.

More information about MPC and MSPP behavior can be found in MIAX Sapphire Rule 532.

- **Vertical Spread Price Protection**
  - A configurable Vertical Spread Variance (VSV) can be added to the maximum spread value (the difference between the two strikes) or subtracted from the minimum spread value of zero to create an allowable trading range for the Strategy. Orders priced through the allowable trading range will be managed at the limit of the allowable trading range or optionally cancelled if a member is configured to use the Managed Protection Override (MPO). Sell limit orders priced through the minimum allowable trade value will be rejected.
  - The pre-set value of the VSV will be uniform for all option classes as determined by the Exchange and communicated to Members via Regulatory Circular.

- **Calendar Spread Price Protection**
  - A configurable Calendar Spread Variance (CSV) can be subtracted from the minimum spread value of zero (only one side is protected for a Calendar Spread). Orders priced through the minimum allowable trade value will be managed at the limit of the allowable trading range or optionally cancelled if a member is configured to use the Managed Protection Override (MPO). Sell limit orders priced through the minimum allowable trade value will be rejected.
  - The pre-set value of the CSV will be uniform for all American Style option classes as determined by the Exchange and communicated to Members via Regulatory Circular.
  - CSV protection applies only to Strategies in American Style option classes.

- **Butterfly Spread Price Protection**
  - A configurable Butterfly Spread Variance (BSV) can be added to the maximum spread value (the absolute value of the difference between the closest strikes (upper strike price minus the middle strike price or the middle strike price minus the lower strike price)) or subtracted from the minimum spread

value of zero to create an allowable trading range for the Strategy. Orders priced through the allowable trading range will be managed at the limit of the allowable trading range or optionally cancelled if a member is configured to use the Managed Protection Override (MPO). Sell limit orders priced through the minimum allowable trade value will be rejected.
- o The pre-set value of the BSV will be uniform for all option classes as determined by the Exchange and communicated to Members via Regulatory Circular.

- **Parity Price Protection**
  - o Parity Price Protection is available for Stock-Tied "Buy-Write" and "Married Put" Strategies consisting of a single Call or Put option component and a stock component consisting of exactly 100 shares.
  - o A configurable Parity Spread Variance (PSV) will be used to calculate a protected price below which a Strategy subject to Parity Price Protection will not trade. Orders priced through the minimum allowable trade value will be managed at the limit of the allowable trading range, or optionally cancelled if a member is configured to use the Managed Protection Override (MPO).
  - o The pre-set value of the PSV will be uniform for all option classes as determined by the Exchange and communicated to Members via Regulatory Circular.

- **Managed Protection Override**
  - o MPO provides member firms the ability to optionally cancel an order that would otherwise be subject to management pursuant to the following protections: Max Put Price Protection, Vertical Spread Protection, Calendar Spread Protection, Butterfly Spread Protection, and Parity Price Protection.

More information about all of the various Trade Protections for Complex Orders can be found in MIAX Sapphire Rule 532.

10. MIAX Sapphire Trade Protections

MIAX Sapphire Order Monitor (MOM)

In order to reduce the incidence of potential obvious or catastrophic errors on the Exchange, the MIAX Sapphire System includes the MIAX Sapphire Order Monitor (MOM), as described in MIAX Sapphire Rule 519. The MIAX Sapphire Order Monitor prevents certain orders that violate certain pre-defined price limits from executing or being placed on the MIAX Sapphire Book. These price protections include:

- Market orders to sell will be converted to limit orders to sell with a limit price of one Minimum Trading Increment when the national best bid is zero and the Exchange's disseminated offer is equal to or less than the Exchange default threshold setting or the Member designated threshold setting
- Rejection of market orders to buy or sell when the NBBO is $5.00 wide or greater.
- Rejection of limit orders priced though the opposite side NBBO by an amount greater than 50% of the NBBO or $2.50, whichever is less, with the exception of
  - When the NBO is less than or equal to $0.50, the Exchange will only reject orders to buy with a price that is greater than the NBO by $0.25 or more
  - When the NBB is less than or equal to $0.25, the Exchange will accept any properly submitted limit order to sell

Protections under the MIAX Sapphire Order Monitor do not apply to orders received prior to, or during the Opening Process, or to incoming orders marked as Intermarket Sweep Orders (ISO).

Max Put Price Protection

Simple market protection designed to limit incorrect pricing of a Put option by establishing a maximum trading price.

- A configurable Put Price Variance (PPV) can be added to the maximum trading price for a Put option (the strike price plus the PPV. Orders priced through the allowable trading range will be managed at the limit of the allowable trading range, or optionally cancelled if a member is configured to use the Managed Protection Override (MPO).
- The pre-set value of the PPV will be uniform for all option classes as determined by the Exchange and communicated to Members via Regulatory Circular

A full description of Max Put Price Protection is available in MIAX Sapphire Rule 532

MIAX Sapphire Complex Order Monitor (cMOM)

The MIAX Sapphire Complex Order System also includes the Complex MIAX Order Monitor (cMOM), as described in MIAX Sapphire Rule 518, Interpretations and Policies .03. cMOM prevents Complex Orders that violate certain pre-defined price limits from executing or being placed on the Sapphire Strategy Book. MIAX Sapphire Complex Order functionality may be enabled or disabled via Regulatory Circular. The cMOM price protection is as follows:

- Rejects incoming limit orders that are priced through the opposite side of the cNBBO by an amount to be determined by the Exchange and communicated to Members via Regulatory Circular, but which amount will not be greater than $2.50.
- The cMOM price protection feature does not apply to Complex Crossing Orders (cQCC/cQFO QCC, Complex Customer Cross/cQFO Customer Cross and standard cQFO Cross).

Order Protections Based on Size and Quantity

The MIAX Sapphire System offers protections from potentially erroneous executions or obvious errors based on the size of orders, number of open orders and number of open contracts. Protections are available for both the Simple Order and Complex Order Markets.

- o Members are required to submit global default settings for their firm as a part of the MIAX Sapphire Membership Application process for all protections based on size or quantity. Firms may provide updated settings by contacting the MIAX Sapphire Trading Operations staff. The most recent settings will remain effective in the MIAX Sapphire System until a subsequent update is received by the Exchange.

If triggered, the Simple Market Order protections referred to in this section will not affect the Firm's Complex Order Market functionality in any way, and if triggered, the Complex Market protections referred to in this section will not affect the Firm's Simple Market functionality in any way.

The following Exchange-wide Firm protections are available. These settings are not individually selectable by FOI connection, underlying security or MPID. Certain order protections are associated with functionality that may be enabled or disabled via Regulatory Circular.

Order Size
- Maximum size for a single Simple Market Order
- Maximum size for a Simple Market Crossing Order (includes; Customer Cross and Qualified Contingent Cross)
- Maximum size for a single Complex Market Order
- Maximum size for a Complex Market Crossing Order (includes; Complex Customer Cross and Complex Qualified Contingent Cross)

Maximum Number of Open Orders
- Maximum number of Simple Market open orders
- Maximum number of Complex Market open orders
- These settings include partially filled orders

Maximum Number of Open Contracts
- Maximum number of Simple Market open contracts
- Maximum number of Complex Market open contracts
- These settings include sum of any contracts remaining from unfilled and partially filled orders

For both Simple Market and Complex Crossing Orders, both the Agency side and Contra Order will each contribute to calculations for all Order Protections based on open orders and open contracts. For the Maximum size of a Crossing Order, only the Agency side (or the first side for Customer Cross and Qualified Contingent Cross Orders) will be counted.

For further information on the configuration of Order Protections Based on Size and Quantity, please contact MIAX Trading Operations: TradingOperations@miaxglobal.com.

MIAX Sapphire Variable Price Protection (MVP)

The System applies a price protection process, as described in MIAX Sapphire Rule 515(c), to all orders (other than ISO orders which are handled in accordance with subsection (f) of MIAX Sapphire Rule 515), limiting executions to no more than a specified number of MPVs through the NBBO as captured at time of order receipt. (If the Sapphire best bid (offer) on the same side as the liquidity being evaluated is crossed by the National best offer (bid), the Sapphire best bid (offer) will be used as the starting point for the MIAX Sapphire Variable Price protection in place of the National best offer (bid)).

If size remains from a limit order priced though the NBBO (at the time of receipt) by more than the specified number of MPVs or a market order, and the order has exhausted its ability to execute on the NBBO within the MVP limit, the balance of the order will be cancelled back to the submitting Member.

The number of MPVs through the NBBO at the time of order receipt that the order will be allowed to execute may be specified in the order at the time it is submitted to the Exchange though the MIAX Sapphire FIX Order Interface.

The acceptable value range for MIAX Sapphire Variable Price Protection is:
- 0 to 20
  - A selection of 0 will indicate that the order will not be allowed to trade at a price inferior to the NBBO at the time the order was received.

In the absence of a specified MVP value in the order at the time of submission, an Exchange default value for MVP will be applied. The MVP Exchange default value is five (5) MPVs.

Orders that participate in the MIAX Sapphire Opening Process will always use an MVP value of zero (0) regardless of whether another value has been specified in the order at the time of submission.

MIAX Sapphire Aggregate Risk Manager (ARM-M)

The MIAX Sapphire Aggregate Risk Manager (ARM) protects Market Makers who choose to participate (collectively ARM Participants) by limiting the number of contracts executed for a submitting MPID as a result of orders entered through MEO in a single class within a brief period of time as described in MIAX Sapphire Rule 517A.

MIAX Sapphire ARM tracks the number of contracts traded by an ARM Participant (represented as a percentage of their bid or offer size) in an assigned option class within a specified time period. The ARM Participant establishes a percentage of the number of contracts that they are bidding for or offering (Allowable Engagement Percentage) and the time period for each option class. When an execution against an ARM Participant's ARM Eligible Order occurs, the System looks back over the specified time period to determine whether the execution is of sufficient size to trigger the Aggregate Risk Manager. As described in MIAX Sapphire Rule 517A, the Market Maker Counting Programs include all orders submitted by a Market Maker with the exception of Immediate-or-Cancel (IOC) orders.

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The System engages the Aggregate Risk Manager when it has determined that an ARM Participant has traded a number of contracts equal to or above their Allowable Engagement Percentage during the time period. The Aggregate Risk Manager then automatically cancels and removes the ARM Participant's orders from the Exchange's disseminated quotation in all series of that particular option class and rejects new orders by the ARM Participant in all series of that particular option class submitted using the MEO Interface until the ARM Participant sends an ARM Protection Reset Message and submits a new order in the affected class. Orders submitted through FIX are not counted or cancelled by the Aggregate Risk Manager.

ARM^2

ARM^2 is an enhancement to the ARM functionality. ARM^2 further protects MIAX Sapphire Market Maker firms with two additional ARM-derived counting programs, ARM^2 Class Protection and ARM^2 Firm Protection.

- **ARM^2 Class Protection**. ARM^2 Class Protection counts the number of ARM protections in a Class for a Market Maker MPID over an ARM^2 Counting Period specified by the firm. If the ARM^2 Class Protection Rate is met by a number of ARM Triggers in any Class, ARM^2 will trigger ARM^2 Class Protection for that MPID in the affected Class. ARM^2 Class Protection will prevent automated re-entry of MEO orders. Protections will remain until a manual re-enablement is accomplished by MIAX Sapphire Trading Operations, allowing an ARM Protection Reset Message to be submitted
- **ARM^2 Firm Protection**. ARM^2 Firm Protection counts the total number of unique Classes that trigger ARM for a firm over a Counting Period specified by the firm. If the number of unique Classes that trigger Primary ARM meets or exceeds the ARM^2 Firm Protection Rate, ARM^2 will trigger Secondary ARM protection for all Classes for the Market Maker firm. Secondary ARM protection will prevent the automated entry or re-entry of MEO orders. Protections will remain until a manual re-enablement is accomplished by MIAX Sapphire Trading Operations allowing an ARM Protection Reset Message to be submitted.
  - o ARM^2 Market Maker Firm Protection applies to all of a Market Making firm's MPIDs across all classes.
- **Configuration of ARM^2 Settings**
  - o As with ARM settings, ARM^2 Class Protections are entered into the System via that MIAX Sapphire Express Order Interface (MEO). Using MEO, the firm can at any time create, edit or delete:
    - The settings for how many Primary ARM protections are required to trigger ARM^2 for any Class/MPID combination.
    - The Counting Period settings for any Class/MPID combination.
  - o To create, edit or delete ARM^2 Firm Protections, the firm must submit a completed Protection Template to MIAX Sapphire Trading Operations describing the ARM^2 Firm Protection settings desired including the following:
    - The total number of unique Classes that must be protected by ARM across all MPIDs in the firm required to trigger ARM^2 Firm Protection.
    - The Counting Period setting for ARM^2 Firm Protection.

Single Side Protection (SSP) for binary orders in the Complex and Simple Order Markets

MIAX Sapphire Single Side Protection removes the risk of trading multiple MEO orders on the same side of the market for an option or Complex Order Strategy. In order for protection to be in effect, SSP must be enabled for an MPID by contacting Sapphire Trading Operations. A single setting will enable (or disable) SSP for both the Simple Order Market and Complex Order Market, although the protections will operate separately (i.e., a Simple Order Market trigger will not affect Complex Order Market quotations or vice-versa.).

If enabled, SSP will be triggered when the full remaining size of a Simple or Complex MEO order is exhausted by a trade.

Once triggered in either the Simple Market or Complex Market, the Member will be notified and the following actions affecting that Member will be taken:

- Any Simple Market or Complex Market MEO order on that side of that option or Strategy for that Member will be cancelled
- All new Simple Market or Complex Market MEO orders on that side of that option or Strategy for that Member will be blocked
- A reset message will be required before the Member can reenter MEO orders on that (sell or buy) side of that option or Strategy.
- ISO orders are unaffected (are not cancelled or blocked) and will never cause a protection to be triggered.

SSP Operates separately from any other MIAX Sapphire trade protection and requires a separate reset to re-enable trading for that MPID for that side of the affected option or Strategy.

MIAX Sapphire Risk Protection Monitor for Orders Entered via the FIX Interface (RPM-FIX)

The MIAX Sapphire Risk Protection Monitor (RPM) is responsible for monitoring risk from the transmission and execution of an EEM's orders, submitted by a specific order interface (FOI), Exchange-wide. When an order is received or an execution from an order occurs, RPM will look back over the specified time frame and calculate the number of orders or executed contracts for that firm on that interface. When the number of orders or executed contracts from orders for that firm exceeds a predetermined level, RPM will automatically trigger RPM Safeguards for the firm as described in MIAX Sapphire Rule 519A.

All Members who enter orders on the Exchange may establish basic risk protections for trading on MIAX Sapphire. A participating Member may establish specified time periods for both an Allowable Order Rate and an Allowable Contract Execution Rate. The maximum duration of each specified time period will be established by the Exchange and announced via Regulatory Circular.

When a Member's order is entered, or when an execution of a Member's order occurs, the
System will look back over the specified time period to determine whether the order entered or the execution that occurred triggers the Risk Protection Monitor.
- Members may establish whether the Risk Protection Monitor, when triggered, will:
  - o Prevent the System from receiving any new orders in all series in all classes from the Member; or

- o Prevent the System from receiving any new orders in all series in all classes from the Member and cancel all existing Day orders in all series in all classes from the Member; or
- o Send a notification that the Risk Protection Monitor has been triggered without any further preventative or cancellation action by the System

RPM Groups

- Members may also elect to group with other Members to enable the Risk Protection Monitor to apply collectively to the Group. The Members in the Group must designate a Group owner. Members may elect to group provided that either:
  - o There is at least 75% common ownership between the firms as reflected on each firm's Form BD, Schedule A; or
  - o There is written authorization signed by all Members in the Group and the Group owner maintains exclusive control of all orders sent to the Exchange from each MPID within the Group.
- A clearing firm may also elect to group several Members to enable the Risk Protection Monitor to apply collectively to the Group with the clearing firm designated as the Group owner, provided that the clearing firm serves as the clearing firm for all the MPIDs of the Group and there is written authorization signed by the clearing firm and each Member of the Group. A clearing firm that has grouped several Members may only receive warning messages, unless one Member of the Group maintains exclusive control of all orders sent to the Exchange from each MPID within the Group.
- The Risk Protection Monitor for Groups will operate in the same manner as described above, except that: (i) the counting program will count the number of orders entered and the number of contracts traded resulting from an order entered by all MPIDs in the Group collectively; (ii) the System will trigger the Risk Protection Monitor when the Group collectively exceeds either the Allowable Order Rate or Allowable Contract Execution Rate for the Group; (iii) once engaged, the Risk Protection Monitor will then either automatically prevent the System from receiving any new orders in all series in all classes from each MPID in the Group, and, if designated by the Group owner's instructions, cancel all existing Day orders in all series in all classes from the Group or send a notification without any further preventative or cancellation action by the System; and (iv) only the designated Group owner may request the Exchange to enable the acceptance of new orders for all the Members of the Group.
  - o Subject to the above, a Member may establish more than one Group.

Crossing Order Handling in RPM

- The System does include the following paired order types in the counting program. Each side to be counted as two orders for the purpose of calculating the Allowable Order Rate:
  - o Simple and Complex QCC Orders
  - o Simple and Complex Customer Crossing Orders
- Once engaged, the Risk Protection Monitor will block, but will not cancel any existing:
  - o Complex Crossing Orders (Stopped orders or immediately executed orders)
  - o QCC, cQCC, C2C and cC2C orders do not exist on the book and are therefore not subject to cancellation

Such eligible orders will remain in the System available for trading and management when the Risk Protection Monitor is engaged.

RPM Warnings

- Members may also elect to receive warning notifications indicating that a specific percentage of an Allowable Order Rate or an Allowable Contract Execution Rate has been met for all metrics.

For further information on the configuration and operation of the Risk Protection Monitor, please contact MIAX Sapphire Trading Operations: TradingOperations@miaxglobal.com.

FIX Auto Cancel on Disconnect Protection (FIX ACOD)

FIX ACOD allows MIAX Sapphire EEMs to limit their exposure during all losses of FIX connectivity other than MIAX Sapphire induced losses by instructing MIAX Sapphire to automatically cancel designated FIX orders upon a loss of connectivity with the MIAX Sapphire FIX Order Interface (FOI).

FIX ACOD protection can be specified on a per-session (the MIAX Sapphire System will automatically mark all new FIX orders received during that session for ACOD protection) or on a per-order basis. When operating on a per-order basis, the user will mark only those orders to be protected when the order is submitted to the Exchange though the MIAX Sapphire FOI.

FIX ACOD protection is not invoked during a MIAX Sapphire induced loss of connectivity. During a MIAX Sapphire induced loss of connectivity, users may contact MIAX Sapphire Trading Operations for status or to cancel open orders.

For more details on FIX ACOD functionality, please see the MIAX Sapphire FIX Order Interface Functional Specification on the MIAX Sapphire website: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/interface-specifications.

MEO Auto Cancel on Disconnect Protection (MEO ACOD)

The MEO ACOD provides MIAX Sapphire Members using the MEO Interface to a way limit their exposure during connectivity outages by instructing the MIAX Sapphire System to automatically cancel all MEO orders upon a loss of connectivity with the MIAX Sapphire MEO Interface.
- The behavior is always on for all Members for all MEO connections.
- The default behavior is that all MEO orders entered by a firm to an engine will be removed upon disconnect of that firm's last MEO connection to that engine.
- All orders received for any MPIDs that send orders on a port group, will be purged when the last port in that port group is disconnected
- Firms may request custom configurations by delivering MPID and port combinations.

For more details on MEO ACOD functionality, please see the MIAX Sapphire MEO Order Interface Functional Specification on the MIAX Sapphire website: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/interface-specifications.

Mass Cancellation Trading Interest

A Member may cancel all of its quotations and/or all or any subset of its orders in the System by contacting the MIAX Sapphire Trading Operations Desk. The MIAX Sapphire Trading Operations Desk will manually execute the Member's request.

Self-Trading Protection

The MIAX Sapphire System contains certain protections to prevent Market Makers and protected EEM MPIDs from interacting with their own orders.

Market Makers may choose to have self-trade protection implemented at the MPID level or at the Firm level. In the event that a Market Maker sends an order priced at a limit that would allow it to interact with another order from that same Market Maker Firm (if Firm level protection is selected) or MPID (if MPID level protection is selected) that is resting on the opposite side of the market, the appropriate resting order identified with that Market Maker MPID or Firm will be cancelled by the System and the new order will be accepted by the System. Self-Trade Protection is available for all Market Maker orders entered via the MEO Interface without regard as to whether the other orders involved were received over the MIAX Sapphire FOI or MEO Interfaces.

Order Purges

- **Firm Initiated and firm Requested Purges**
  - o Firms may initiate order purges via MEO with a single request
    - **Underlying Security Purges**. Purge all orders in a class or classes associated with a specific underlying security for a given MPID.
      - Can apply to Simple Market orders, Complex Market orders or both
      - A Reset Message is required to resume the submission of any orders in that Class
    - **Hybrid Underlying Security Purges**. Purge all orders with a time in force of Day in a class or classes associated with a specific underlying security for a given MPID. IOC and ISO are not affected.
      - A Reset Message is required to resume the submission of Day orders in affected classes
      - IOC and ISO orders are not blocked and continue to be accepted without the requirement of a Reset Message
  - o MIAX Sapphire Trading Operations has the ability to quickly cancel all orders by firm request for the following categories
    - Underlying security and MPID
    - Globally by MPID
    - Globally by firm
- **MIAX Sapphire Initiated and Automatic Purges**
  - o **Port Disconnect Purges**
    - **Default Behavior.** If all ports for a given firm on a specific matching engine disconnect, all orders for all of that firm's MPIDs will be purged for that matching engine.
      - **Port Grouping.** Allows firms to specify custom port groupings and regulate automatic purge behavior by group. Contact MIAX Sapphire Trading Operations for details.
    - Port Disconnect Purges can be configured to apply to Simple Market orders, Complex Market orders or both.
  - o **Loss of Heartbeat**
    - If all MEO applications on a specific matching engine fail for a given firm, all orders are purged for all of that firm's MPIDs on that matching engine.

- ▪ **Port Grouping.** Allows firms to specify custom port groupings and regulate automatic purge behavior by group. Contact MIAX Sapphire Trading Operations for details.

Additional information about Order Purges can be found in the MIAX Sapphire Express Interface Functional Specification on the MIAX website: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/interface-specifications.

ABBO Crossing Protection (Management of Non-Routable Liquidity)

The MIAX Sapphire Exchange System will not disseminate a locked or crossed market unless such dissemination is done in accordance with Exchange Rules or a National Market System plan (NMS) governing locked and crossed markets. When the System receives a non-routable order that would lock or cross an away market, the System will display the non-routable order at a price that is one MPV away from the current opposite side NBBO and book the order at an undisplayed price that will lock the current opposite side NBBO. Should the NBBO price change to a price that is inferior to the price of the undisplayed booked order, the order's undisplayed price will continuously re-price to lock the new NBBO, and the order's displayed price will continuously re-price one MPV away from the new NBBO until the order reaches its MIAX Sapphire Variable Price Protection limit or its original limit price, is fully executed, or is cancelled.

11. MIAX Sapphire Member Firm Portal

The Member Firm Portal (MFP) is a member-facing application available via the internet. The MFP provides Members with the tools needed to search for trade data, apply same-side clearing trade corrections and perform market maker symbol self-assignments.

The Member Firm Portal is available for search queries at all times. The trade information clearing correction function is available from 09:30 AM ET until System shutdown which occurs at approximately 5:15 PM ET. Market maker symbol self-assignments entered via the Member Firm Portal prior to 6:00 PM are effective for the following trading day. Use of the Member Firm Portal for symbol assignment changes is mandatory. Same day self-assignments are not available through the Member Firm Portal.

Additional information regarding the Member Firm Portal can be obtained by contacting MIAX Sapphire Trading Operations at: TradingOperations@miaxglobal.com.

12. MIAX Sapphire Rules

A copy of the complete MIAX Sapphire Rulebook is available in the Regulatory Section of the Exchange's website: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/rulebooks.

Throughout this User Manual reference is made to MIAX Sapphire Rules, in the event of any conflict between a description or discussion of a Rule in this User Manual and the Rules set forth in the MIAX Sapphire Rulebook, the Rulebook shall prevail.

13. MIAX Sapphire Fees

MIAX Sapphire Fee Schedule

MIAX Sapphire operates under a taker-maker fee structure in which the Exchange generally pays its Members a rebate to remove liquidity and generally charges Members a fee to provide liquidity. MIAX Sapphire may choose to apply volume discounts or other incentives to some of its transaction fees.

MIAX Sapphire also charges membership fees, application fees, market data fees, connectivity fees, bandwidth fees and testing fees. A link to a copy of the complete MIAX Sapphire Fee Schedule is available on the Exchange's website under the Fee Summary tab: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/fees .

14. Nullification and Adjustment of Options Transactions including Obvious Errors Policy

The Exchange's Erroneous Execution Policy is set forth in MIAX Sapphire Rule 521 and 522.

Participants who believe they may have been a party to an erroneous transaction are encouraged to contact MIAX Sapphire Regulation immediately at: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/regulatory-forms. MIAX Sapphire Regulatory Control (MRC) will review the transaction to determine whether, in fact, the transaction was the result of an obvious or catastrophic error. Upon final Exchange official action, the MRC, in conjunction with the MIAX Sapphire Operations Center, where appropriate, will promptly notify both parties to the trade and will either nullify or adjust the execution price of the transaction if it qualifies as an obvious or catastrophic error. A Member may appeal the decision by Exchange officials to the Chief Regulatory Officer (CRO).

15. Hours of Operation

Normal Trading Hours

Pre-Opening System Availability   7:00 am to 9:30 a.m. Eastern Time
Regular Trading Session (Equity options)   9:30 am to 4:00 p.m. Eastern Time
Regular Trading Session (Defined list of ETF options)   9:30 am to 4:15 p.m. Eastern Time

Holiday Schedule and Altered Trading Hours

The Holiday Schedule and any deviations from the Normal Trading Hours listed above can be found on the Exchange's website: https://www.miaxglobal.com/markets/us-options/all-options-exchanges/trade-hours-calendar.

16. Contact MIAX Sapphire

Miami International Holdings, Inc.

Address: 7 Roszel Road, Suite 1A Princeton, NJ 08540

Phone: (609) 897-7300

Area of Interest	Department	Email
Investor Inquiries	Investor Relations	Investor.Relations@miaxglobal.com
Business Development	Business Development	info@miaxglobal.com
Regulatory	Regulatory	Regulatory@miaxglobal.com Primary: (609) 897-7309
Membership	Membership	Membership@miaxglobal.com
Market Operations	Trading Operations	TradingOperations@miaxglobal.com Primary: (609) 897-7302
Connectivity	Trading Operations	TradingOperations@miaxglobal.com Primary: (609) 897-7302
Certification Testing	Trading Operations	TradingOperations@miaxglobal.com Primary: (609) 897-7302
Interface Development	Trading Operations	TradingOperations@miaxglobal.com Primary: (609) 897-7302
Market Data Requests	Market Data	MarketData@miaxglobal.com
Market Data Usage Reporting	Market Data	MarketDataUsage@miaxglobal.com
Listings	Listings	Listings@miaxglobal.com Primary: (609) 897-7308
Sales and Marketing	Business Development	Sales@miaxglobal.com Primary: (609) 897-8177
Billing	Billing	Billing@miaxglobal.com

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