

Required fields are shown with yellow backgrounds and asterisks.

Page 1 of * 91	SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549 Form 19b-4		File No.* SR - 2016 - * 79	Amendment No. (req. for Amendments *)
Filing by NASDAQ PHLX LLC Pursuant to Rule 19b-4 under the Securities Exchange Act of 1934				
Initial * <input checked="" type="checkbox"/>	Amendment * <input type="checkbox"/>	Withdrawal <input type="checkbox"/>	Section 19(b)(2) * <input checked="" type="checkbox"/>	Section 19(b)(3)(A) * <input type="checkbox"/>
			Section 19(b)(3)(B) * <input type="checkbox"/>	
Pilot <input type="checkbox"/>	Extension of Time Period for Commission Action * <input type="checkbox"/>	Date Expires * <input type="text"/>	Rule <input type="checkbox"/> 19b-4(f)(1) <input type="checkbox"/> 19b-4(f)(4) <input type="checkbox"/> 19b-4(f)(2) <input type="checkbox"/> 19b-4(f)(5) <input type="checkbox"/> 19b-4(f)(3) <input type="checkbox"/> 19b-4(f)(6)	
Notice of proposed change pursuant to the Payment, Clearing, and Settlement Act of 2010			Security-Based Swap Submission pursuant to the Securities Exchange Act of 1934	
Section 806(e)(1) * <input type="checkbox"/>	Section 806(e)(2) * <input type="checkbox"/>	Section 3C(b)(2) * <input type="checkbox"/>		
Exhibit 2 Sent As Paper Document <input type="checkbox"/>	Exhibit 3 Sent As Paper Document <input type="checkbox"/>			
<b>Description</b>				
Provide a brief description of the action (limit 250 characters, required when Initial is checked *).				
<input type="text" value="Proposal to amend Rule 1017, Openings in Options."/>				
<b>Contact Information</b>				
Provide the name, telephone number, and e-mail address of the person on the staff of the self-regulatory organization prepared to respond to questions and comments on the action.				
First Name *	<input type="text" value="Angela"/>	Last Name *	<input type="text" value="Dunn"/>	
Title *	<input type="text" value="Associate General Counsel"/>			
E-mail *	<input type="text" value="Angela.Dunn@nasdaq.com"/>			
Telephone *	<input type="text" value="(215) 496-5692"/>	Fax	<input type="text"/>	
<b>Signature</b>				
Pursuant to the requirements of the Securities Exchange Act of 1934,				
has duly caused this filing to be signed on its behalf by the undersigned thereunto duly authorized.				
(Title *)				
Date	<input type="text" value="08/04/2016"/>	<input type="text" value="Executive Vice President and General Counsel"/>		
By	<input type="text" value="Edward S. Knight"/>	<input type="text"/>		
(Name *)				
NOTE: Clicking the button at right will digitally sign and lock this form. A digital signature is as legally binding as a physical signature, and once signed, this form cannot be changed.				
		<input type="button" value="edward.knight@nasdaq.com"/>		

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

For complete Form 19b-4 instructions please refer to the EFFF website.

**Form 19b-4 Information \***

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The self-regulatory organization must provide all required information, presented in a clear and comprehensible manner, to enable the public to provide meaningful comment on the proposal and for the Commission to determine whether the proposal is consistent with the Act and applicable rules and regulations under the Act.

**Exhibit 1 - Notice of Proposed Rule Change \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 1A- Notice of Proposed Rule Change, Security-Based Swap Submission, or Advance Notice by Clearing Agencies \***

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The Notice section of this Form 19b-4 must comply with the guidelines for publication in the Federal Register as well as any requirements for electronic filing as published by the Commission (if applicable). The Office of the Federal Register (OFR) offers guidance on Federal Register publication requirements in the Federal Register Document Drafting Handbook, October 1998 Revision. For example, all references to the federal securities laws must include the corresponding cite to the United States Code in a footnote. All references to SEC rules must include the corresponding cite to the Code of Federal Regulations in a footnote. All references to Securities Exchange Act Releases must include the release number, release date, Federal Register cite, Federal Register date, and corresponding file number (e.g., SR-[SRO]-xx-xx). A material failure to comply with these guidelines will result in the proposed rule change, security-based swap submission, or advance notice being deemed not properly filed. See also Rule 0-3 under the Act (17 CFR 240.0-3)

**Exhibit 2 - Notices, Written Comments, Transcripts, Other Communications**

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Exhibit Sent As Paper Document

Copies of notices, written comments, transcripts, other communications. If such documents cannot be filed electronically in accordance with Instruction F, they shall be filed in accordance with Instruction G.

**Exhibit 3 - Form, Report, or Questionnaire**

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Exhibit Sent As Paper Document

Copies of any form, report, or questionnaire that the self-regulatory organization proposes to use to help implement or operate the proposed rule change, or that is referred to by the proposed rule change.

**Exhibit 4 - Marked Copies**

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The full text shall be marked, in any convenient manner, to indicate additions to and deletions from the immediately preceding filing. The purpose of Exhibit 4 is to permit the staff to identify immediately the changes made from the text of the rule with which it has been working.

**Exhibit 5 - Proposed Rule Text**

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The self-regulatory organization may choose to attach as Exhibit 5 proposed changes to rule text in place of providing it in Item I and which may otherwise be more easily readable if provided separately from Form 19b-4. Exhibit 5 shall be considered part of the proposed rule change.

**Partial Amendment**

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If the self-regulatory organization is amending only part of the text of a lengthy proposed rule change, it may, with the Commission's permission, file only those portions of the text of the proposed rule change in which changes are being made if the filing (i.e. partial amendment) is clearly understandable on its face. Such partial amendment shall be clearly identified and marked to show deletions and additions.

1. Text of the Proposed Rule Change

(a) NASDAQ PHLX LLC (“Phlx” or “Exchange”), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)<sup>1</sup> and Rule 19b-4 thereunder,<sup>2</sup> is filing with the Securities and Exchange Commission (“SEC” or “Commission”) a proposal to amend Rule 1017, Openings in Options, as described in detail below.

A notice of the proposed rule change for publication in the Federal Register is attached as Exhibit 1. The text of the proposed rule change is attached as Exhibit 5.

(b) Not applicable.

(c) Not applicable.

2. Procedures of the Self-Regulatory Organization

The proposed rule change was approved by the Board of Directors of the Exchange (the “Board”) on November 24, 2015. Exchange staff will advise the Board of any action taken pursuant to delegated authority. No other action is necessary for the filing of the rule change.

Questions and comments on the proposed rule change may be directed to:

Angela Saccomandi Dunn  
Associate General Counsel  
Nasdaq, Inc.  
215-496-5692

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<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

3. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

a. Purpose

The Exchange is proposing to amend its rules relating to its opening process. This rule change proposes to amend the current functionality of the Exchange's trading system ("system")<sup>3</sup> regarding the opening of trading in an option series.

Definitions

First, the Exchange proposes to adopt a "Definitions" section as new Rule 1017(a)<sup>4</sup> to define several terms that are used throughout the Rule. The new section will state that the Exchange conducts an electronic opening for all option series<sup>5</sup> traded on Phlx using its trading system (hereinafter "system").<sup>6</sup>

The Exchange proposes to define the following terms, which are described below: "Opening Process," "Opening Price," "Potential Opening Price," "ABBO," "Phlx Electronic Market Maker," "Pre-Market BBO," "Quality Opening Market," "Valid Width Quote," and "Zero Bid Market."

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<sup>3</sup> The Exchange is replacing references to Phlx XL II with the word "system" to reflect current usage.

<sup>4</sup> The current text of Rule 1017(a) is being deleted and replaced by proposed Rule 1017(a)(iii), as described below.

<sup>5</sup> Rule 1017 only applies to simple (non-Complex) orders; the opening process for Complex Orders is described in Rule 1080.07.

<sup>6</sup> The Exchange notes that Rule 1017 describes the Exchange's opening process for its electronic order book. Rule 1017 does not apply to trading on the Exchange's trading floor.

The Exchange defines “Opening Process” by cross-referencing Rule 1017(d).<sup>7</sup> The Exchange defines “Opening Price” by cross-referencing Rule 1017(i) and (k).<sup>8</sup> The Exchange defines “Potential Opening Price” by cross-referencing Rule 1017(h).<sup>9</sup> The Exchange defines “ABBO” as the Away Best Bid or Offer.<sup>10</sup> The ABBO does not include Phlx’s market. The Exchange defines “market for the underlying security” as either the primary listing market or the primary volume market (defined as the market with the most liquidity in that underlying security for the previous two calendar months), as determined by the Exchange by underlying and announced to the membership on the Exchange’s web site.<sup>11</sup> Currently, this term is defined in Rule 1017(j) as either the primary listing market or 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 an issue-by-issue basis and announced to the membership on the Exchange’s web site. In practice, the Exchange does not and has not considered the first market to open in determining the primary market for an underlying, and therefore the new definition will not refer to it. The existing language in Rule 1017(j) regarding the first market to open is thus being deleted.

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<sup>7</sup> See proposed Rule 1017(a)(i).

<sup>8</sup> See proposed Rule 1017(a)(ii).

<sup>9</sup> See proposed Rule 1017(a)(iii).

<sup>10</sup> See proposed Rule 1017(a)(iv). This term is also used in Phlx Rule 1082(a)(ii)(B)(3)(g).

<sup>11</sup> See proposed Rule 1017(a)(v).

The term “Phlx Electronic Market Makers” is defined as a Specialist,<sup>12</sup> Streaming Quote Trader or “SQT,”<sup>13</sup> and Remote Streaming Quote Trader or “RSQT”<sup>14</sup> who is required to submit continuous two-sided electronic quotations pursuant to Rule 1014(b)(ii)(D).<sup>15</sup> Currently, Rule 1017(a) utilizes the term “Phlx XL Participant” which is not as precise as the term “Phlx Electronic Market Makers” as it also includes non-SQT Registered Options Traders or ROTs.<sup>16</sup> This is incorrect because non-SQT ROTs cannot submit quotes electronically and therefore should not be subject to Rule 1017, which applies only to electronic trading. By definition, these non-SQT ROTs make markets verbally and thus provide on-floor liquidity; they have chosen not to submit quotes electronically to the Exchange. To be considered in the Opening Process, orders represented by Floor Brokers must be entered electronically.<sup>17</sup> The next definition is “Pre-Market BBO” defined as the highest bid and the lowest offer among Valid Width

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<sup>12</sup> A Specialist is an Exchange member who is registered as an options specialist pursuant to Rule 1020(a). An options Specialist includes a Remote Specialist which is defined as an options Specialist in one or more classes that does not have a physical presence on an Exchange floor and that is approved by the Exchange pursuant to Rule 501.

<sup>13</sup> An SQT is defined in Exchange Rule 1014(b)(ii)(A) as an ROT who has received permission from the Exchange to generate and submit option quotations electronically in options to which such SQT is assigned.

<sup>14</sup> An RSQT is defined in Exchange Rule in 1014(b)(ii)(B) as an ROT that is a member affiliated with an RSQTO with no physical trading floor presence who has received permission from the Exchange to generate and submit option quotations electronically in options to which such RSQT has been assigned.

<sup>15</sup> See proposed Rule 1017(a)(vi).

<sup>16</sup> A non-SQT ROT is an ROT who is neither an SQT nor an RSQT. See Rule 1014(b)(ii)(C).

<sup>17</sup> See current rule 1017(c).

Quotes.<sup>18</sup> The rule currently refers to the highest bid and the lowest offer multiple times, so defining the term is more efficient and consistent. References to determining the highest quote bid and lowest quote offer are being replaced with the new term, “Pre-Market BBO” throughout. The term “Quality Opening Market” is defined as a bid/ask differential applicable to the best bid and offer from all Valid Width Quotes defined in a table to be determined by the Exchange and published on the Exchange’s web site.<sup>19</sup> This definition appears in current Rule 1017(l)(v)(B) and is being deleted. Next, a “Valid Width Quote” is defined as a two-sided electronic quotation submitted by a Phlx Electronic Market Maker that consists of a bid/ask differential that is compliant with Rule 1014(c)(i)(A)(1)(a).<sup>20</sup> This term appears in current Rule 1017(l)(ii) and is being deleted. The term “Zero Bid Market” is where the best bid for an options series is zero.<sup>21</sup> The Exchange currently uses this concept in other rules.<sup>22</sup>

#### Reorganization of Certain Provisions

New rule text is being added to Rule 1017 and certain provisions are being relocated within the rule for better organization and understanding.

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<sup>18</sup> See proposed Rule 1017(a)(vii). Valid Width Quotes is defined at proposed Rule 1017(a)(ix).

<sup>19</sup> See proposed Rule 1017(a)(viii).

<sup>20</sup> See proposed Rule 1017(a)(ix).

<sup>21</sup> See proposed Rule 1017(a)(x).

<sup>22</sup> See Rule 1080(i)(A)(1) and Rule 1082(a)(ii)(B)(4)(C); a zero priced bid equates with a Zero Bid Market.

### Eligible Interest

The Exchange proposes to move the language from current Rule 1017(l)(vii) to new Rule 1017(b), with minor changes. Specifically, the Exchange proposes to adopt in new paragraph (b) a provision that eligible opening interest includes: (i) Valid Width Quotes; (ii) Opening Sweeps; and (iii) orders. Specialists, SQTs, and RSQTs may submit quotes,<sup>23</sup> Opening Sweeps and orders, but quotes other than Valid Width Quotes will not be included in the Opening Process. Non-SQT ROTs may submit orders; provided they are submitted electronically.<sup>24</sup>

New Rule 1017 paragraph (b) will provide that all-or-none (“AON”) interest<sup>25</sup> that can be satisfied is considered for execution and in determining the Opening Price throughout the Opening Process. The rule is currently silent on the eligibility of AON interest on the opening, from which it can be inferred that they are accepted; nevertheless, the Exchange is proposing to add this specific provision to add detail to the rule. The Exchange is specifically addressing AON interest to make clear that this type of contingency market or limit order which would be executed in its entirety or not at all, will be considered for execution within the Opening, provided that this interest can be satisfied.

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<sup>23</sup> Rule 1017(l)(vii) currently provides that quotes may be submitted; the Exchange is now specifying that these must be Valid Width Quotes, which will be defined in proposed Rule 1017(a)(ix).

<sup>24</sup> See note 17 above.

<sup>25</sup> All-or-none (“AON”) means a contingency market or limit order which is to be executed in its entirety or not at all.



### Opening Sweep

Proposed new Rule 1017(b)(i) provides that an Opening Sweep is a one-sided electronic quotation submitted for execution against eligible opening trading interest in the system.<sup>26</sup> A Phlx Electronic Market Maker assigned in a particular option may only submit an Opening Sweep if, at the time of entry of the Opening Sweep, that Phlx Electronic Market Maker has already submitted and maintained a Valid Width Quote. All Opening Sweeps in the affected series entered by a Phlx Electronic Market Maker will be cancelled immediately if that Phlx Electronic Market Maker fails to maintain a continuous quote with a Valid Width Quote in the affected series.<sup>27</sup>

Opening Sweeps may be entered at any price with a minimum price variation applicable to the affected series, on either side of the market, at single or multiple price level(s), and may be cancelled and re-entered. A single Phlx Electronic Market Maker may enter multiple Opening Sweeps, with each Opening Sweep at a different price level. If a Phlx Electronic Market Maker submits multiple Opening Sweeps, the system will consider only the most recent Opening Sweep at each price level submitted by such Phlx Electronic Market Maker in determining the Opening Price. Unexecuted Opening Sweeps will be cancelled once the affected series is open.<sup>28</sup> Except as described above, most of the language mimics current Rule 1017(l)(vii); it is being relocated because it is more logical to refer to the types of eligible opening interest in the beginning of the rule.

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<sup>26</sup> This rule text is currently located in current Rule 1017(l)(vii)(A). This rule text is being relocated with this rule change.

<sup>27</sup> See proposed Rule 1017(b)(i)(A).

<sup>28</sup> See proposed Rule 1017(b)(i)(B).

Proposed new Rule 1017(b)(ii) generally tracks current Rule 1017(l)(vii)(B) in stating that the system will aggregate the size of all eligible interest for a particular participant category at a particular price level for trade allocation purposes. For example, all Phlx Electronic Market Maker (a participant category) quotes, Opening Sweeps, and orders are thus aggregated in determining the pro-rata allocation. The proposed rule is broader than the existing language, which is limited to Opening Sweeps, because it includes quotes and orders. The Exchange believes it is appropriate to amend the rule to expressly state that the Exchange currently considers this interest because there is no need to exclude quotes and orders, which contribute liquidity just like Opening Sweeps.

Proposed Rule 1017(c) simplifies the current rule text to simply provide that to be considered in the Opening Process, orders represented by Floor Brokers must be entered electronically.

Proposed new Rule 1017(d) is based on existing paragraph Rule 1017(k). The Exchange seeks to organize this rule more logically by describing when the Opening Process can begin and adding more detail related to specific time-related triggers. Specifically, Phlx Electronic Market Maker Valid Width Quotes and Opening Sweeps may start at 9:25 AM and are included in the Opening Process. Orders may be entered at any time before an options series opens and are included in the Opening Process. This proposed language adds greater specificity to the rule regarding the submission of orders. The 9:25 AM trigger is intended to tie the option Opening Process to quoting in the underlying security<sup>29</sup>; it presumes that option quotes submitted before any indicative quotes have been disseminated for the underlying security may not be reliable or

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<sup>29</sup> For purposes of this rule, the underlying security can also be an index.

intentional. Therefore, the Exchange has chosen a reasonable timeframe at which to begin utilizing option quotes, based on the Exchange's experience when underlying quotes start becoming available.

Furthermore, the Opening Process for an option series will be conducted pursuant to paragraphs (f) – (k) on or after 9:30 AM if:<sup>30</sup> the ABBO, if any, is not crossed;<sup>31</sup> and if the system has received, within two minutes (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) of the opening trade or quote on the market for the underlying security in the case of equity options or, in the case of index options, within two minutes of the receipt of the Opening Price in the underlying index (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site), or within two minutes of market opening in the case of U.S. dollar-settled FCO (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) either:

- (A) the Specialist's Valid Width Quote;
- (B) the Valid Width Quotes of at least two Phlx Electronic Market Makers other than the Specialist; or
- (C) if neither the Specialist's Valid Width Quote nor the Valid Width Quotes of two Phlx Electronic Market Makers have been submitted within

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<sup>30</sup> The new reference to 9:30 AM adds detail; of course, the market cannot open before 9:30 AM.

<sup>31</sup> The crossed ABBO is currently referred to in Rule 1017(l)(x), which provides that: "If at any point during the Opening Process the ABBO becomes crossed (e.g., 1.05 bid, 1.00 offer), the opening process will be terminated and the Exchange will not open the affected series. A new opening process for the affected series will commence at the time the ABBO is uncrossed."

such timeframe, one Phlx Electronic Market Maker has submitted a Valid Width Quote.

These requirements are intended to tie the option Opening Process to receipt of liquidity. These requirements are the same as those of current Rule 1017(k) and are reorganized.

In addition, the Exchange is proposing to state in proposed Rule 1017(d)(ii) that the underlying security, including indexes, must be open on the primary market for a certain time period for all options to be determined by the Exchange. The Exchange is proposing that the time period be no less than 100 milliseconds and no more than 5 seconds. The Exchange currently applies a minimal delay of 500 milliseconds. This proposal is intended to permit the price of the underlying security to settle down and not flicker back and forth among prices after its opening. The Exchange is adding this detail to Rule 1017(d)(ii). It is common for a stock to fluctuate in price immediately upon opening; such volatility reflects a natural uncertainty about the ultimate Opening Price, while the buy and sell interest is matched. The Exchange is proposing a range of no less than 100 milliseconds and no more than 5 seconds in order to ensure that it has the ability to adjust the period for which the underlying security must be open on the primary market. The Exchange may determine that in periods of high/low volatility that allowing the underlying to be open for a longer/shorter period of time may help to ensure more stability in the marketplace prior to initiating the Opening Process.

The Exchange is proposing to relocate the obligations of Phlx Electronic Market Makers to new paragraph (d) as well. They are unchanged. The Specialist assigned in a particular equity option must enter a Valid Width Quote not later than one minute

following the dissemination of a quote or trade by the market for the underlying security or, in the case of index options, following the receipt of the Opening Price in the underlying index. The Specialist assigned in a particular U.S. dollar-settled FCO must enter a Valid Width Quote not later than 30 seconds after the announced market opening.<sup>32</sup>

Furthermore, a Phlx Electronic Market Maker other than a Specialist that submits a quote pursuant to Rule 1017 in any option series when the Specialist's quote has not been submitted shall be required to submit continuous, two-sided quotes in such option series until such time as the Specialist submits his/her quote, after which the Phlx Electronic Market Maker that submitted such quote shall be obligated to submit quotations pursuant to Rule 1014(b)(ii)(D). This is also substantially unchanged.<sup>33</sup>

The Exchange is proposing to state in Rule 1017(d)(iv) that the Opening Process will stop and an option series will not open if the ABBO becomes crossed or when the requisite number of Valid Width Quotes pursuant to Rule 1017(d)(i) are no longer present. Once each of these conditions no longer exists, the Opening Process in the affected option series will start again pursuant to Rule 1017(f) – (k). All eligible opening interest will continue to be considered during the Opening Process when the process is re-started. The Exchange is amending Rule 1017 to add this detail, which the Exchange believes is implied from the conditions that trigger the Opening Process.

Overall, as explained above, new Rule 1017(d) is the same as current Rule 1017(k), except the reference at the end of paragraph (k) to Intermarket Sweep Orders

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<sup>32</sup> See proposed Rule 1017(d)(iii).

<sup>33</sup> See proposed Rule 1017(d)(iv).

(“ISOs”)<sup>34</sup> will now appear in new subparagraph (k)(C)(3)(i) and a reference is being added to the Immediate-or-Cancel (“IOC”) designation. In addition, the proposed Rule 1017(d) is more closely tied to specific time periods, like 9:25 AM for the receipt of quote and Opening Sweeps, and 9:30 AM for the beginning of the actual Opening Process. The proposed rule also reflects that the ABBO cannot be crossed because it is indicative of uncertainty in the marketplace of where the option series should be valued. In this case, the Exchange will wait for the ABBO to become uncrossed before initiating the Opening Process to ensure that there is stability in the marketplace in order to assist the Exchange in determining the Opening Price. These additions are intended to provide additional detail to the rule that the Exchange believes will be helpful to the reader.

New Rule 1017(e) states that the procedure described in this Rule may be used to reopen an option after a trading halt. This is currently in Rule 1017(h). The Exchange is adding that if there is a trading halt or pause in the underlying security, the Opening Process will start again irrespective of the specific times listed in Rule 1017(d). This is because these times relate to the normal market opening at 9:30 AM. Most of this language is in Rule 1017 at current paragraph (h), except the aforementioned reference to specific times provides additional detail.

#### Opening with a PBBO

New Rule 1017(f) will now be titled “Opening with a PBBO (No Trade)” and provide that if there are no opening quotes or orders that lock or cross each other and no routable orders crossing the ABBO, the system will open with an opening quote by disseminating the Exchange’s best bid and offer among quotes and orders (“PBBO”) that

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<sup>34</sup> Current Rule 1017(k), which is being deleted, provides: Any order volume that is routed to away markets pursuant to this Rule 1017 will be marked as an ISO.

exist in the system at that time, unless the following three conditions exist: (i) a Zero Bid Market; (ii) no ABBO; and (iii) no Quality Opening Market. If all of these conditions exist, the Exchange will calculate an Opening Quote Range pursuant to paragraph (j) and conduct the Price Discovery Mechanism or “PDM” pursuant to paragraph (k) below. These three conditions exist in the system today, but do not appear in Rule 1017. The existence of all three conditions being present at the same time is very rare. The Exchange believes that when all three of these conditions exist, further price discovery is warranted to validate or perhaps update the Potential Opening Price and to attract additional interest to perhaps render an opening trade possible, because: (i) a Zero Bid Market reflects a lack of buying interest that could benefit from price discovery; (ii) the lack of an ABBO means there is no external check on the Exchange’s market for that options series; and (iii) the lack of a Quality Opening Market indicates that the Exchange’s market is wide. If no quotes or orders lock/cross each other, nothing matches and there can be no trade. This is the same as Rule 1017(l)(i). The Exchange believes that when these conditions exist, it is difficult to arrive at a reasonable and expected price.

#### Further Opening Processes

If an opening did not occur pursuant to proposed Rule 1017(f) and there are opening Valid Width Quotes or orders that lock or cross each other, the system will calculate the Pre-Market BBO. This new rule text is located in new Rule 1017(g), which is the same as current Rule 1017(l)(ii), except the term Pre-Market BBO is now specifically defined in proposed Rule 1017(a)(vii).

Proposed new Rule 1017 (h) describes the general concept of how the system calculates the Potential Opening Price under all circumstances once the Opening Process

is triggered. Specifically, the system will take into consideration all Valid Width Quotes, Opening Sweeps and orders (except AON interest that cannot be satisfied)<sup>35</sup> for the option series and identify the price at which the maximum number of contracts can trade (“maximum quantity criterion”). This concept of maximizing the number of contracts that can trade currently appears in current Rule 1017(l)(ii), and is intended to find the most reasonable and suitable price, relying on the maximization to reflect the best price. However, current Rule 1017(l)(ii) states that if the Opening Price calculation leaves no imbalance, the Exchange will open at that price, executing marketable trading interest, as long as the Opening Price includes only Exchange interest. This only occurs under certain circumstances, which is now explained in new Rule 1017(i).

The Exchange proposal further states that when two or more Potential Opening Prices would satisfy the maximum quantity criterion and leave no contracts unexecuted, the system takes the highest and lowest of those prices and takes the mid-point; if such mid-point is not expressed as a permitted minimum price variation, it will be rounded to the minimum price variation that is closest to the closing price for the affected series from the immediately prior trading session. If there is no closing price from the immediately prior trading session, the system will round up to the minimum price variation to determine the Opening Price.<sup>36</sup> This is similar to current Rule 1017 (l)(ii)(B).

If two or more Potential Opening Prices for the affected series would satisfy the maximum quantity criterion and leave contracts unexecuted, the Opening Price will be

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<sup>35</sup> See proposed Rule 1017(b).

<sup>36</sup> See proposed Rule 1017(h)(A).



either the lowest executable bid or highest executable offer of the largest sized side.<sup>37</sup>

This, again, bases the Potential Opening Price on the maximum quantity that is executable. The Potential Opening Price is limited by the away market price that cannot be satisfied with the Exchange routable interest.<sup>38</sup> The Exchange does not open with a trade that trades through another market. The Exchange is amending Rule 1017 to provide detail to the rule not contemplated by the current language. This process, importantly, breaks a tie by considering the largest sized side and away markets, which are relevant to determining a fair Opening Price.

The system applies certain boundaries to the Potential Opening Price to help ensure that the price is a reasonable one by identifying the quality of that price; if a well-defined, fair price can be found within these boundaries, the option series can open at that price without going through a further price discovery mechanism. Accordingly, new Rule 1017(i),<sup>39</sup> entitled “Opening with Trade,” will state at Rule 1017(i)(A) the Exchange will open the option series for trading at the following Opening Price if any of these conditions occur: (i) the Potential Opening Price is at or within the best of the Pre-Market BBO and the ABBO; (ii) the Potential Opening Price is at or within the non-zero bid ABBO if the Pre-Market BBO is crossed; or (iii) where there is no ABBO, the Potential Opening Price is at or within the Pre-Market BBO which is also a Quality Opening Market.

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<sup>37</sup> See proposed Rule 1017(h)(B).

<sup>38</sup> See proposed Rule 1017(h)(C).

<sup>39</sup> The deletion of current paragraph (i) is discussed below.

These boundaries serve to validate the quality of the Opening Price. This concept is defined in current Rule 1017(l)(ii) in a limited manner, which provides that, “If the price is within the highest quote bid and lowest quote offer and leaves no imbalance, the Exchange will open at that price, executing marketable trading interest, as long as the opening price includes only Exchange interest.” New Rule 1017(i) provides that the Exchange will open with a trade as long as it is within the defined boundaries regardless of any imbalance. The Exchange believes that since the Opening Price can be determined within a well-defined boundary and not trading through other markets, it is fair to open the market immediately with a trade and to have the remaining interest available to be executed in the displayed market. Using a boundary-based price counterbalances opening faster at a less bounded and perhaps less expected price and reduces the possibility of leaving an imbalance.

If there is more than one Potential Opening Price which meets the conditions set forth in proposed Rule 1017(i)(A), where (1) no contracts would be left unexecuted and (2) any value used for the mid-point calculation (which is described in Rule 1017(h)) that crosses either: the Pre-Market BBO or the ABBO, then the Exchange will open the option series for trading with an execution and use the best price which the Potential Opening Price crosses as a boundary price for the purpose of the mid-point calculation.<sup>40</sup> The proposed rule now better explains the boundary as well as the price basis for the mid-point calculation for immediate opening with a trade, which improves the detail included in the rule. The Exchange believes that this process is logical because it seeks to select a fair and balanced price.

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<sup>40</sup> See proposed Rule 1017(i)(B).

Proposed Rule 1017(j) will provide that the system will calculate an Opening Quote Range (“OQR”) for a particular option series that will be utilized in the PDM. The OQR is an additional type of boundary beyond the boundaries mentioned in Rule 1017 at proposed paragraph (i). OQR is intended to limit the Opening Price to a reasonable, middle ground price and thus reduce the potential for erroneous trades during the Opening Process. Although the Exchange applies other boundaries such as the BBO, the OQR is outside of that and provides a price that can satisfy more size without becoming unreasonable.

Specifically, to determine the minimum value for the OQR, an amount, as defined in a table to be determined by the Exchange,<sup>41</sup> will be subtracted from the highest quote bid among Valid Width Quotes on the Exchange and on the away market(s), if any, except as provided in proposed Rule 1017(j)(3) and (4).<sup>42</sup> To determine the maximum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest quote offer among Valid Width Quotes on the Exchange and on the away market(s), if any, except as provided in proposed Rule 1017(j)(3) and (4).<sup>43</sup> However, if one or more away markets have disseminated opening quotes that are not crossed, and there are Valid Width Quotes on the Exchange that cross each other or that cross away market quotes, then the minimum value for the OQR will be the highest quote bid among quotes on away market(s).<sup>44</sup> In addition, the maximum value for the OQR

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<sup>41</sup> The table will be available on the Exchange’s website.

<sup>42</sup> See proposed Rule 1017(j)(1).

<sup>43</sup> See proposed Rule 1017(j)(2).

<sup>44</sup> See proposed Rule 1017(j)(3)(a).

will be the lowest quote offer among quotes on away market(s).<sup>45</sup> And if, however, there are opening quotes on the Exchange that cross each other, and there is no away market in the affected option series, the minimum value for the OQR will be the lowest quote bid among Valid Width Quotes on the Exchange, and the maximum value for the OQR will be the highest quote offer among Valid Width Quotes on the Exchange.<sup>46</sup> This is the same as existing Rule 1017(l)(iii) and (iv), except that the new Rule 1017(j) combines those concepts into a single provision.

If there is more than one Potential Opening Price possible where no contracts would be left unexecuted, any price used for the mid-point calculation (which is described in new Rule 1017(h)) that is through the OQR will be restricted to the OQR price on that side of the market for the purposes of this calculation. This, in Rule 1017(j) at new subparagraph (5), continues the theme of relying on both maximizing executions and looking at the correct side of the market to determine a fair price.

New Rule 1017(j) (6) deals with the situation where there is an away market price involved. If there is more than one Potential Opening Price possible where no contracts would be left unexecuted and any price used for the mid-point calculation (which is described in new Rule 1017(h)) is an away market price when contracts will be routed, the system will use the away market price as the Potential Opening Price. Because the system may need to route to other markets it uses the away market price as the Opening Price.

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<sup>45</sup> See proposed Rule 1017(j)(3)(b).

<sup>46</sup> See proposed Rule 1017(j)(4)(a) and (b).

If non-routable interest can be maximum executable against Exchange interest after routable interest has been determined by the system to satisfy the away market, then the Potential Opening Price is the price at which the maximum volume, excluding the volume which will be routed to an away market, may be executed on the Exchange as described in Rule 1017 at new paragraph (h). The system will consider routable Customer interest in price/time priority to satisfy the away market.<sup>47</sup> This is consistent with the price/time handling of Customer interest outside of the Opening Process.<sup>48</sup> This continues the theme of trying to satisfy the maximum amount of interest during the Opening Process.

If the Exchange has not opened pursuant to proposed Rule 1017 paragraphs (f) or (i), the Exchange will conduct a PDM pursuant to new Rule 1017(k). The PDM is the process by which the Exchange seeks to identify an Opening Price having not been able to do so following the process outlined thus far. The principles behind the PDM are, just like above, to satisfy the maximum number of contracts possible by identifying a price that may leave unexecuted contracts. However, the PDM applies a new, wider boundary to identify the Opening Price and the PDM involves seeking additional liquidity.

Currently, the price discovery process, known as the “imbalance process” in current Rule 1017, is triggered only by unexecuted contracts at the price at which the maximum number of contracts can trade. Instead, the situations in proposed Rule 1017(f)

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<sup>47</sup> See proposed Rule 1017(j)(7).

<sup>48</sup> See Rule 1014(vii).

and (j) also result in the initiation of an imbalance process.<sup>49</sup> The Exchange believes that conducting the price discovery process in these situations protects opening orders from receiving a random price that does not reflect the totality of what is happening in the markets on the opening and also further protects opening interest from receiving a potentially erroneous execution price on the opening. Opening immediately has the benefit of speed and certainty, but that benefit must be weighed against the quality of the execution price and whether orders were left unexecuted. The Exchange believes that the proposed rule strikes an appropriate balance.

In addition, the current rule takes away market interest into account at the beginning of the imbalance process, while the proposed rule attempts to open using Exchange interest only to determine an Opening Price, provided certain conditions contained in new paragraph (i) are present to ensure participants receive a quality execution in the opening. This is reflected beginning in current Rule 1017(l)(ii)(C). The proposed rule does not consider away market liquidity until the price discovery process. As a result, the Exchange might open without routing if all of the conditions described above are met. The Exchange believes that the benefit of this process is a more rapid opening with quality execution prices.

Specifically, new Rule 1017(k)(A) provides that the system will broadcast an Imbalance Message (which includes the symbol, side of the imbalance (unmatched contracts), size of matched contracts, size of the imbalance, and price of the affected series (which must be within the Pre-Market BBO) to participants, and begin an

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<sup>49</sup> Today, in these situations, the option series would not open immediately. Rather an imbalance would occur where there is unexecutable trading interest at a certain price.

“Imbalance Timer,” not to exceed three seconds. The Imbalance Message is intended to attract additional liquidity, much like an auction is, using an auction message and timer.<sup>50</sup>

The Imbalance Timer will be for the same number of seconds for all options traded on the Exchange. This is the same as the existing rule, except that the Exchange is adding more detail to this provision, to provide that the price in the imbalance message must be within the Pre-Market BBO. This is intended, as some of the other boundaries applied in the Opening Process, to help ensure that the price is reasonable in light of the price discovery needed to determine an Opening Price.

New Rule 1017(k)(B), states that any new interest received by the system will update the Potential Opening Price. This amendment adds detail to the rule. If during or at the end of the Imbalance Timer, the Opening Price is at or within the OQR the Imbalance Timer will end and the system will execute at the Opening Price if the executions consist of Exchange interest only without trading through the ABBO and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price. If no new interest comes in during the Imbalance Timer and the Opening Price is at or within OQR, the Exchange will open at the end of the Imbalance Timer. This reflects that the Exchange is seeking to identify a price on the Exchange without routing away, yet which price may not trade through another market and the quality of which is addressed by applying the OQR boundary.

Currently, Rule 1017(l)(vi)(B) provides that if opening quotes, Opening Sweeps and orders submitted during the Imbalance Timer, or other changes to the ABBO, would allow the entire imbalance amount to trade at the Exchange at or within the OQR without

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<sup>50</sup> See COOP and COLA descriptions in Rule 1080.07.

trading through the ABBO, the Imbalance Timer will end and the system will execute at the appropriate Opening Price. Accordingly, the current rule takes away market prices and volume into account at this step, while the system functionality does not. This is intended to foster trading on the Exchange before routing away.

Next, current Rule 1017(l)(vi)(C) is being reorganized with additional detail, and introduces the process of routing away. Provided the option series has not opened pursuant to proposed Rule 1017(k)(B), the system will send a second Imbalance Message with a Potential Opening Price that is bounded by the OQR (without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price) and includes away market volume in the size of the imbalance to participants; and concurrently initiate a Route Timer, not to exceed one second.<sup>51</sup> The Route Timer is intended to give Exchange users an opportunity to respond to an Imbalance Message before any opening interest is routed to away markets and, thereby, maximize trading on the Exchange. If during the Route Timer, interest is received by the system which would allow the Opening Price to be within OQR without trading through other markets and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price, the system will trade and the Route Timer will end. The system will monitor quotes received during the Route Timer period and make ongoing corresponding changes to the permitted OQR to reflect them.<sup>52</sup> This is being

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<sup>51</sup> The Route Timer is a brief timer that operates as a pause before an order is routed to an away market. The Route Timer is currently set at 200 milliseconds, which the Exchange has determined is a reasonable time period to gather additional interest on the Exchange before routing away. The Exchange has only changed this timer a few times over the past several years.

<sup>52</sup> See proposed Rule 1017(k)(C)(1) and (2).



changed to eliminate the requirement that there be no imbalance, which means it is more likely that an Opening Price will be discovered. It also widens the boundary of available Opening Prices, which should similarly increase the likelihood that an Opening Price can be determined. The Route Timer, like the Imbalance Timer, is intended to permit responses to be submitted and considered by the system in calculating the Potential Opening Price. The system does not route away until the Route Timer ends.

Proposed Rule 1017(k)(C)(3) will provide that when the Route Timer expires, if the Potential Opening Price is within OQR (without trading through the limit price(s) of interest within OQR that is unable to be fully executed at the Opening Price), the system will determine if the total number of contracts displayed at better prices than the Exchange's Potential Opening Price on away markets ("better priced away contracts") would satisfy the number of marketable contracts available on the Exchange. This is largely unchanged in terms of applying the OQR as a boundary before considering away markets. The Exchange is adding reference to the limit price, because the limit price of interest within the OQR serves as a boundary as well. This protects the unexecuted interest and should result in a fairer price. The Exchange is adding rule text to state that the Exchange will open the option by routing and/or trading on the Exchange, pursuant to proposed Rule 1017(k)(C)(3)(i)-(iii).

Proposed Rule 1017(k)(C)(3)(i) will provide that if the total number of contracts displayed at better prices than the Exchange's Potential Opening Price on away markets ("better priced away contracts") would satisfy the number of marketable contracts available on the Exchange on either the buy or sell side, the system will route all marketable contracts on the Exchange to such better priced away markets as ISO IOC

orders, and determine an opening PBBO that reflects the interest remaining on the Exchange. The system will price any contracts routed away to other markets at the Exchange's Opening Price or proposed Rule 1017(k)(C)(3)(ii) or (iii) described hereinafter. Currently, Rule 1017 states that contracts routed away are priced at the better away market price. This is incorrect. Routing away at the Exchange's Opening Price is intended to achieve the best possible price available at the time the order is received by the away market.

Proposed Rule 1017(k)(C)(3)(ii)<sup>53</sup> will provide that if the total number of better priced away contracts would not satisfy the number of marketable contracts the Exchange has, the system will determine how many contracts it has available at the Exchange Opening Price. If the total number of better priced away contracts plus the number of contracts available at the Exchange Opening Price would satisfy the number of marketable contracts on the Exchange on either the buy or sell side, the system will contemporaneously route a number of contracts that will satisfy interest at other markets at prices better than the Phlx Opening Price, and trade available contracts on the Exchange at the Exchange Opening Price. The system will price any contracts routed to other markets at the better of the Exchange Opening Price or the order's limit price pursuant to Rule 1017(k)(vi)(C)(3)(ii) at the better of the Exchange Opening Price or the order's limit price. Currently, the rule states that the Exchange will execute only at the Opening Price, but in actuality the system uses the better of the Opening Price or the order's limit price to route to away markets. This continues with the theme of maximum possible execution of the interest in Phlx or away markets. The addition of the reference

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<sup>53</sup> This is currently subparagraph 4.

to the buy or sell side is intended to provide additional detail and accuracy to the description.<sup>54</sup>

Proposed Rule 1017(k)(C)(3)(iii)<sup>55</sup> will provide that if the total number of better priced away contracts plus the number of contracts available at the Exchange Opening Price plus the contracts available at other markets at the Exchange Opening Price would satisfy the number of marketable contracts the Exchange has on either the buy or sell side, the system will contemporaneously route a number of contracts that will satisfy interest at other markets at prices better than the Exchange Opening Price (pricing any contracts routed to other markets at the better of the Exchange Opening Price or the order's limit price), trade available contracts on the Exchange at the Exchange Opening Price, and route a number of contracts that will satisfy interest at other markets at prices equal to the Exchange Opening Price. Much of this appears in the current rule but is supplemented by the reference to the order's limit price, as discussed above. This provision, like the existing one, is intended to introduce routing to away markets potentially both at a better price than the Exchange Opening Price as well as at the Exchange Opening Price to access as much liquidity as possible to maximize the number of contracts able to be traded as part of the Opening Process. The Exchange routes at the better of the Exchange's Opening Price or the order's limit price to first ensure the order's limit price is not violated. Routing away at the Exchange's Opening Price is intended to achieve the best possible price available at the time the order is received by the away market.

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<sup>54</sup> This addition is proposed in several places in Rule 1017 for the same reason.

<sup>55</sup> This is currently subparagraph 5.

Proposed Rule 1017(k)(C)(4)<sup>56</sup> is proposed to state that the system may send up to two additional Imbalance Messages<sup>57</sup> (which may occur while the Route Timer is operating) bounded by OQR and reflecting away market interest in the volume. The reference to two additional Imbalance Messages is intended to replace in a clearer way the current reference to repeating the “Imbalance Process” (a term no longer being used in this rule) three times. The reference to the OQR and away market interest, again, amends the rule by adding detail to make clear that both are boundaries. These boundaries are intended to assist in determining a reasonable price at which an option series might open.

This provision is proposed to further state that after the Route Timer has expired, the processes in proposed Rule 1017(k)(C)(3) will repeat (except no new Route Timer will be initiated). No new Route Timer is initiated because the Exchange believes that after the Route Timer has been initiated and subsequently expired, no further delay is needed before routing contracts if at any point thereafter the Exchange is able to satisfy the total number of marketable contracts the Exchange has by executing on the Exchange and routing to other markets.

Proposed Rule 1017(k)(vi)(C)(5),<sup>58</sup> entitled “Forced Opening,” will describe what happens as a last resort in order to open an options series when the processes described above have not resulted in an opening of the options series. Under this process, called a

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<sup>56</sup> This is currently subparagraph 6.

<sup>57</sup> The first two Imbalance Message always occur, while the next two may or may not occur based on whether or not the Exchange has been able to open before repeating the Imbalance Process.

<sup>58</sup> This is currently subparagraph 7.

Forced Opening, after all additional Imbalance Messages have occurred pursuant to proposed Rule 1017(k)(4),<sup>59</sup> the system will open as many contracts as possible by routing to other markets at prices better than the Exchange Opening Price for their disseminated size, trading available contracts on the Exchange at the Exchange Opening Price bounded by OQR (without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price). The system will also route contracts to other markets at prices equal to the Exchange Opening Price at their disseminated size. In this situation, the system will price any contracts routed to other markets at the better of the Exchange Opening Price or the order's limit price. Any unexecuted contracts from the imbalance not traded or routed will be cancelled back to the entering participant if they remain unexecuted and priced through the Opening Price, unless the member that submitted the original order has instructed the Exchange in writing to re-enter the remaining size, in which case the remaining size will be automatically submitted as a new order. Currently, the rule provides that before the order is cancelled back or reentered, it will be displayed in the Exchange quote at the Opening Price for the remaining size for a period not to exceed ten seconds; this does not occur since the Exchange has set this period of time to zero seconds. The Exchange is amending this rule to add the boundaries of OQR and limit prices within the OQR to provide additional detail. A majority of this paragraph is not being amended. These boundaries are intended to ensure a quality Opening Price as well as protect the unexecutable interest entered with a limit price which may not be able to be fully executing at the Opening Price.

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<sup>59</sup> The reference to subparagraph (4) helps link these provisions.

Although much of new Rule 1017(k)(vi)(C)(5) is the same as current subparagraph (7), the Exchange is proposing to delete the sentence that provides that during the display time period, the system will disseminate, on the opposite side of the market from remaining unexecuted contracts: (i) a non-firm bid for the price and size of the next available bid(s) on the Exchange if the imbalance is a sell imbalance, or (ii) a non-firm offer for the price and size of the next available offer(s) on the Exchange if the imbalance is a buy imbalance. This language is obsolete, because this does not occur as there is currently no display time period.

Proposed Rule 1017(k)(viii), currently Rule 1017(l)(viii), as amended, provides that the system will give priority to market orders first in time priority, then to resting limit orders at the Opening Price. Market orders have priority because they are considered to be the most aggressively priced, consistent with price priority. The Exchange is proposing to amend the existing rule text which provides that limit orders are treated as market orders, because they are not. The Exchange proposes to state that limit orders are prioritized based on their limit price and capacity (participant type) as they are during normal trading (outside the opening). Accordingly, the Exchange is proposing to amend this rule text to state that the system will give priority to market orders first in time, then to resting limit orders. Further, the allocation provisions of Rule 1014(g)(vii) will apply.

The Exchange proposes to delete rule text in current Rule 1017(i), which is incorrect. It currently provides that a limit order to buy which is at a higher price than the price at which the option is to be opened and a limit order to sell which is at a lower price than the price at which the option is to be opened, shall be treated as market orders. The

Exchange proposes to remove this rule text. The Exchange continues to treat these orders as limit orders, which is consistent with their handling during normal trading. The Exchange does not believe that limit orders should be handled differently on the opening and believes that this is consistent with users' expectations. Presumably, market participants choose to enter limit orders for the protection associated with a limit price, and they understand that market orders may be executed before limit orders as a matter of priority, which is an acceptable outcome because they are not willing to take the risks associated with market orders.<sup>60</sup>

The Exchange proposes to amend Rule 1017 to add new section (k)(F) which would provide that when an option series opens, the system disseminates the price and size of the PBBO. This amendment adds more detail to the rule. The Exchange must necessarily disseminate the PBBO not just on the opening but throughout the day.

The Exchange proposes to delete current Rule 1017(l)(ix) which provides for a brief delay to calculate the opening. The current rule provides that the period will not exceed .25 of one second, but it has long been set at zero. The Exchange's technology does not require a delay in order to open and therefore the provision is obsolete.

The Exchange also proposes to delete current Rule 1017(l)(x), which deals with when the ABBO becomes crossed. The impact of the ABBO on the Exchange's opening is now discussed throughout the proposed rule and therefore this provision is unnecessary.

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<sup>60</sup> See Rule 1014(g)(vii).

b. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,<sup>61</sup> in general, and furthers the objectives of Section 6(b)(5) of the Act,<sup>62</sup> in particular, in that it is designed to promote just and equitable principles of trade. Specifically, the changes to paragraphs (a) through (e) and (g) amend the current rule by adding details concerning the manner in which the Opening Process occurs in an option series. The amendment also adds detail to the rule and removes outdated language. The proposed rule is also re-organized in a more logical way and deletes “reserved” paragraphs, all of which improves the readability of the rule. For all of these reasons, paragraph (a), which adopts the term “Opening Process” to be used throughout the rule and which defines it, along with several other new definitions, should promote just and equitable principles of trade.

The proposed additions to Rule 1017(b) promote just and equitable principles of trade because the new language spells out in greater detail what interest is included in the Opening Process, which, in turn, helps investors determine what to submit. New Rule 1017(b) will specifically state that AON interest that can be satisfied will be considered for execution in determining the Opening Price throughout the Opening Process. The rule is currently silent on the eligibility of AON interest on the opening. It is consistent with the Act to include AON interest on the opening because this contingency market or limit order will execute in its entirety or not at all, provided that this interest can be satisfied. The Exchange believes that AON should be included, similar to other orders, if

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<sup>61</sup> 15 U.S.C. 78f(b).

<sup>62</sup> 15 U.S.C. 78f(b)(5).



it can be satisfied. This treatment is consistent with the treatment of AON in other market sessions.

The additions to Rule 1017(d) regarding the 9:25 A.M. trigger and providing that orders entered at any time before an options series opens are included in the Opening Process should promote just and equitable principles of trade, because a reasonable time period has been selected after which eligible interest is included balanced against accepting as much interest as possible to result in a robust Opening Process. The 9:25 AM trigger is intended to tie the option Opening Process to quoting in the underlying security; it presumes that option quotes submitted before any indicative quotes have been disseminated for the underlying security may not be reliable or intentional. Therefore, the Exchange has chosen a reasonable timeframe at which to begin utilizing option quotes, based on the Exchange's experience with when underlying quotes start becoming available. In addition, the Exchange is proposing to state in proposed Rule 1017(d)(ii) that the underlying security, including indexes, must be open on the primary market for a certain time period for all options to be determined by the Exchange. The Exchange is proposing that the time period be no less than 100 milliseconds and no more than 5 seconds. The Exchange currently applies a minimal delay of 500 milliseconds. This proposal is consistent with the Act because it is intended to permit the price of the underlying security to settle down and not flicker back and forth among prices after its opening. It is common for a stock to fluctuate in price immediately upon opening; such volatility reflects a natural uncertainty about the ultimate Opening Price, while the buy and sell interest is matched. The Exchange is proposing a range of no less than 100 milliseconds and no more than 5 seconds in order to ensure that it has the ability to adjust

the period for which the underlying security must be open on the primary market. The Exchange may determine that in periods of high/low volatility that allowing the underlying to be open for a longer/shorter period of time may help to ensure more stability in the marketplace prior to initiating the Opening Process. Rule 1017(e) specifically describes the manner in which a trading halt would impact a reopening process. This paragraph is based on existing Rule 1017(h). This rule text makes clear that a reopening is not tied to the 9:25 A.M. time period of Rule 1017(d). This language should promote just and equitable principles of trade by specifically addressing the manner in which a reopening will occur after a trading halt.

The Exchange believes that new Rule 1017(f) promotes just and equitable principles of trade, because the proposed conditions involving Zero Bid Markets, no ABBO and no Quality Opening Market trigger the price discovery mechanism rather than an immediate opening in order to validate the Opening Price against away markets or by attracting additional interest to address the specific condition. This is consistent with the Act because it should avoid opening executions in very wide or unusual markets where an opening execution price cannot be validated. This process will occur if there are no routable orders that cross the ABBO.

Similarly, new Rule 1017(h) promotes just and equitable principles of trade, because it better describes how the system calculates the Potential Opening Price, which should provide a better understanding of this part of the process, which has many elements. Once the price at which the maximum number of contracts can be executed is determined, applying additional criteria promotes just and equitable principles of trade, because it helps arrive at a price that is logical and reasonable in light of away markets

and other interest present in the system. Where there are no away markets, applying the boundary of a Quality Opening Market promotes just and equitable principles of trade also to help arrive at a reasonable Opening Price. When choosing between multiple Opening Prices when some contracts would remain unexecuted, using the lowest bid or highest offer of the largest sized side of the market promotes just and equitable principles of trade because it uses size as a tie breaker. The Exchange's method for determining the Potential Opening Price and Opening Price is consistent with the Act because it seeks to arrive at reasonable price in light of interest present in the system and away market interest. The Exchange's method seeks to validate the Opening Price and avoid opening executions in very wide or unusual markets where validation cannot occur.

Proposed new Rule 1017(i) promotes just and equitable principles of trade by establishing when the Exchange opens immediately and which conditions are relevant, based on the Potential Opening Price determined in Rule 1017(h). The rule text in Rule 1017(i) concerning opening with a trade, is consistent with the Act because it enables an immediate opening to occur within a certain boundary without need for the price discovery process. The boundary provides protections and ensures a reasonable Opening Price. Throughout the Opening Process, there is no different impact to any particular participant; executions occur at the most reasonable price possible regardless of participant type.

The OQR described in proposed Rule 1017(j) promotes just and equitable principles of trade by establishing a reasonable boundary to be applied during the PDM. The OQR operates the same way today and serves to provide a level of protection for potential opening executions. This is consistent with the Act because OQR continues to

act as a protection for the Opening Price because it protects away market prices and also protects against extreme volatility which may impact the Opening Price.

New Rule 1017(j)(5) concerning more than one Potential Opening Price is consistent with the Act because it provides price protection because it forces the Potential Opening Price to fall within the OQR boundary. Specifically, the mid-point calculation balances the price among interest participating in the Opening when there is more than one price at which the maximum number of contracts could execute. Limiting the mid-point calculation to the OQR when a price would otherwise fall outside of the OQR ensures the final mid-point price will be within the protective OQR boundary.

New Rule 1017(j)(6) deals with the situation where there is more than one Potential Opening Price and an away market price involved. If there is more than one Potential Opening Price possible where no contracts would be left unexecuted and any price used for the mid-point calculation is an away market price when contracts will be routed, the system will use the away market price as the Potential Opening Price. This result is consistent with the Act, because the system may need to route to other markets and therefore it uses the away market price as the Opening Price. These boundaries serve to validate the quality of the Opening Price. OQR is intended to limit the Opening Price to a reasonable, middle ground price and thus reduce the potential for erroneous trades during the Opening Process. Although the Exchange applies other boundaries such as the Pre-Market BBO, the OQR is outside of that and provides a price that can maximize the number of executions at a reasonable price. The PDM in new Rule 1017(k) reflects what is generally known as an imbalance process. The process is intended to attract liquidity to improve the price at which an option series will open as well as to maximize the

number of contracts that can be executed on the opening. The Exchange believes that this is consistent with just and equitable principles of trade. The Exchange is adding various references to the applicable boundaries throughout this paragraph, as explained above, which should help investors receive reasonable prices, which is the case throughout the Opening Process. In addition, the handling of routing on the opening should promote just and equitable principles of trade by incorporating away markets into the process in a clearer and more detailed way. The PDM also promotes just and equitable principles of trade by taking into account whether all interest can be fully executed, which helps investors by including as much interest as possible in the Opening Process.

The current rule takes away market interest into account at the beginning of the imbalance process, while the proposed rule proposes to open using Exchange interest only within the Pre-Market BBO to determine an Opening Price, provided certain conditions contained in new Rule 1017(i) are present to ensure participants receive a quality execution in the opening. This is reflected beginning in current Rule 1017(l)(ii)(C). It is consistent with the Act to not consider away market liquidity until the price discovery process occurs because this proposed process provides for a swift, yet conservative opening. The Exchange is bounded by the Pre-Market BBO when determining an Opening Price. The away market prices would be considered, albeit not immediately.

The Exchange believes that amending the rule text of current Rule 1017(l)(viii) to describe the manner in which limit orders are executed in comparison to market orders promotes just and equitable principles of trade because it provides investors with the

proper method in which the system will execute orders at the opening. It is consistent with the Act to execute market orders before limit order because those order types are by definition at the best price.

The Exchange believes that the deletion of current Rule 1017(l)(ix) promotes just and equitable principles of trade because eliminating an obsolete timer will provide investors with accurate information concerning the operation of the Exchange's opening. Deleting the timer is consistent with the Act because the timer is no longer necessary and its removal results in potentially faster processing of interest received after the opening occurs.

Similarly, the Exchange believes that the deletion of current Rule 1017(l)(x) promotes just and equitable principles of trade, because the proposed rule will continue to describe the impact of a crossed ABBO, but in specific parts of the rule, where appropriate, which adds more context and clarity to the description of the opening. The Exchange is not adding this concept to the rule, rather just relocating the concept within the rule. It is consistent with the Act to terminate the opening process when the ABBO becomes crossed because it protects against potential pricing anomalies in the market.

4. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. The proposal does not change the intense competition that exists among the options markets for options business including on the opening. Nor does the Exchange believe that the proposal will impose any burden on intra-market competition; the Opening Process involves many types of participants and interest.

5. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others  
No written comments were either solicited or received.
6. Extension of Time Period for Commission Action  
Not applicable.
7. Basis for Summary Effectiveness Pursuant to Section 19(b)(3) or for Accelerated Effectiveness Pursuant to Section 19(b)(2)  
Not applicable.
8. Proposed Rule Change Based on Rules of Another Self-Regulatory Organization or of the Commission  
Not applicable.
9. Security-Based Swap Submissions Filed Pursuant to Section 3C of the Act  
Not applicable.
10. Advance Notices Filed Pursuant to Section 806(e) of the Payment, Clearing and Settlement Supervision Act  
Not applicable.
11. Exhibits
  1. Notice of proposed rule for publication in the Federal Register.
  5. Text of the proposed rule change.

**EXHIBIT 1**

SECURITIES AND EXCHANGE COMMISSION  
(Release No. \_\_\_\_\_ ; File No. SR-Phlx-2016-79)

August \_\_, 2016

Self-Regulatory Organizations; NASDAQ PHLX LLC; Notice of Filing of Proposed Rule Change to Amend Rule 1017, Openings in Options

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (“Act”)<sup>1</sup>, and Rule 19b-4 thereunder,<sup>2</sup> notice is hereby given that on August 4, 2016, NASDAQ PHLX LLC (“Phlx” or “Exchange”) filed with the Securities and Exchange Commission (“SEC” or “Commission”) the proposed rule change as described in Items I, II, and III, below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization’s Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend Rule 1017, Openings in Options, as described in detail below.

The text of the proposed rule change is available on the Exchange’s Website at <http://nasdaqphlx.cchwallstreet.com/>, at the principal office of the Exchange, and at the Commission’s Public Reference Room.

II. Self-Regulatory Organization’s Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it

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<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.



received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange is proposing to amend its rules relating to its opening process. This rule change proposes to amend the current functionality of the Exchange's trading system ("system")<sup>3</sup> regarding the opening of trading in an option series.

Definitions

First, the Exchange proposes to adopt a "Definitions" section as new Rule 1017(a)<sup>4</sup> to define several terms that are used throughout the Rule. The new section will state that the Exchange conducts an electronic opening for all option series<sup>5</sup> traded on Phlx using its trading system (hereinafter "system").<sup>6</sup>

The Exchange proposes to define the following terms, which are described below: "Opening Process," "Opening Price," "Potential Opening Price," "ABBO," "Phlx

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<sup>3</sup> The Exchange is replacing references to Phlx XL II with the word "system" to reflect current usage.

<sup>4</sup> The current text of Rule 1017(a) is being deleted and replaced by proposed Rule 1017(a)(iii), as described below.

<sup>5</sup> Rule 1017 only applies to simple (non-Complex) orders; the opening process for Complex Orders is described in Rule 1080.07.

<sup>6</sup> The Exchange notes that Rule 1017 describes the Exchange's opening process for its electronic order book. Rule 1017 does not apply to trading on the Exchange's trading floor.

Electronic Market Maker,” “Pre-Market BBO,” “Quality Opening Market,” “Valid Width Quote,” and “Zero Bid Market.”

The Exchange defines “Opening Process” by cross-referencing Rule 1017(d).<sup>7</sup> The Exchange defines “Opening Price” by cross-referencing Rule 1017(i) and (k).<sup>8</sup> The Exchange defines “Potential Opening Price” by cross-referencing Rule 1017(h).<sup>9</sup> The Exchange defines “ABBO” as the Away Best Bid or Offer.<sup>10</sup> The ABBO does not include Phlx’s market. The Exchange defines “market for the underlying security” as either the primary listing market or the primary volume market (defined as the market with the most liquidity in that underlying security for the previous two calendar months), as determined by the Exchange by underlying and announced to the membership on the Exchange’s web site.<sup>11</sup> Currently, this term is defined in Rule 1017(j) as either the primary listing market or 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 an issue-by-issue basis and announced to the membership on the Exchange’s web site. In practice, the Exchange does not and has not considered the first market to open in determining the primary market for an underlying, and therefore the new definition will not refer to it.

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<sup>7</sup> See proposed Rule 1017(a)(i).

<sup>8</sup> See proposed Rule 1017(a)(ii).

<sup>9</sup> See proposed Rule 1017(a)(iii).

<sup>10</sup> See proposed Rule 1017(a)(iv). This term is also used in Phlx Rule 1082(a)(ii)(B)(3)(g).

<sup>11</sup> See proposed Rule 1017(a)(v).

The existing language in Rule 1017(j) regarding the first market to open is thus being deleted.

The term “Phlx Electronic Market Makers” is defined as a Specialist,<sup>12</sup> Streaming Quote Trader or “SQT,”<sup>13</sup> and Remote Streaming Quote Trader or “RSQT”<sup>14</sup> who is required to submit continuous two-sided electronic quotations pursuant to Rule 1014(b)(ii)(D).<sup>15</sup> Currently, Rule 1017(a) utilizes the term “Phlx XL Participant” which is not as precise as the term “Phlx Electronic Market Makers” as it also includes non-SQT Registered Options Traders or ROTs.<sup>16</sup> This is incorrect because non-SQT ROTs cannot submit quotes electronically and therefore should not be subject to Rule 1017, which applies only to electronic trading. By definition, these non-SQT ROTs make markets verbally and thus provide on-floor liquidity; they have chosen not to submit quotes electronically to the Exchange. To be considered in the Opening Process, orders

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<sup>12</sup> A Specialist is an Exchange member who is registered as an options specialist pursuant to Rule 1020(a). An options Specialist includes a Remote Specialist which is defined as an options Specialist in one or more classes that does not have a physical presence on an Exchange floor and that is approved by the Exchange pursuant to Rule 501.

<sup>13</sup> An SQT is defined in Exchange Rule 1014(b)(ii)(A) as an ROT who has received permission from the Exchange to generate and submit option quotations electronically in options to which such SQT is assigned.

<sup>14</sup> An RSQT is defined in Exchange Rule in 1014(b)(ii)(B) as an ROT that is a member affiliated with an RSQTO with no physical trading floor presence who has received permission from the Exchange to generate and submit option quotations electronically in options to which such RSQT has been assigned.

<sup>15</sup> See proposed Rule 1017(a)(vi).

<sup>16</sup> A non-SQT ROT is an ROT who is neither an SQT nor an RSQT. See Rule 1014(b)(ii)(C).

represented by Floor Brokers must be entered electronically.<sup>17</sup> The next definition is “Pre-Market BBO” defined as the highest bid and the lowest offer among Valid Width Quotes.<sup>18</sup> The rule currently refers to the highest bid and the lowest offer multiple times, so defining the term is more efficient and consistent. References to determining the highest quote bid and lowest quote offer are being replaced with the new term, “Pre-Market BBO” throughout. The term “Quality Opening Market” is defined as a bid/ask differential applicable to the best bid and offer from all Valid Width Quotes defined in a table to be determined by the Exchange and published on the Exchange’s web site.<sup>19</sup> This definition appears in current Rule 1017(l)(v)(B) and is being deleted. Next, a “Valid Width Quote” is defined as a two-sided electronic quotation submitted by a Phlx Electronic Market Maker that consists of a bid/ask differential that is compliant with Rule 1014(c)(i)(A)(1)(a).<sup>20</sup> This term appears in current Rule 1017(l)(ii) and is being deleted. The term “Zero Bid Market” is where the best bid for an options series is zero.<sup>21</sup> The Exchange currently uses this concept in other rules.<sup>22</sup>

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<sup>17</sup> See current rule 1017(c).

<sup>18</sup> See proposed Rule 1017(a)(vii). Valid Width Quotes is defined at proposed Rule 1017(a)(ix).

<sup>19</sup> See proposed Rule 1017(a)(viii).

<sup>20</sup> See proposed Rule 1017(a)(ix).

<sup>21</sup> See proposed Rule 1017(a)(x).

<sup>22</sup> See Rule 1080(i)(A)(1) and Rule 1082(a)(ii)(B)(4)(C); a zero priced bid equates with a Zero Bid Market.

### Reorganization of Certain Provisions

New rule text is being added to Rule 1017 and certain provisions are being relocated within the rule for better organization and understanding.

### Eligible Interest

The Exchange proposes to move the language from current Rule 1017(l)(vii) to new Rule 1017(b), with minor changes. Specifically, the Exchange proposes to adopt in new paragraph (b) a provision that eligible opening interest includes: (i) Valid Width Quotes; (ii) Opening Sweeps; and (iii) orders. Specialists, SQTs, and RSQTs may submit quotes,<sup>23</sup> Opening Sweeps and orders, but quotes other than Valid Width Quotes will not be included in the Opening Process. Non-SQT ROTs may submit orders; provided they are submitted electronically.<sup>24</sup>

New Rule 1017 paragraph (b) will provide that all-or-none (“AON”) interest<sup>25</sup> that can be satisfied is considered for execution and in determining the Opening Price throughout the Opening Process. The rule is currently silent on the eligibility of AON interest on the opening, from which it can be inferred that they are accepted; nevertheless, the Exchange is proposing to add this specific provision to add detail to the rule. The Exchange is specifically addressing AON interest to make clear that this type of contingency market or limit order which would be executed in its entirety or not at all,

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<sup>23</sup> Rule 1017(l)(vii) currently provides that quotes may be submitted; the Exchange is now specifying that these must be Valid Width Quotes, which will be defined in proposed Rule 1017(a)(ix).

<sup>24</sup> See note 17 above.

<sup>25</sup> All-or-none (“AON”) means a contingency market or limit order which is to be executed in its entirety or not at all.

will be considered for execution within the Opening, provided that this interest can be satisfied.

#### Opening Sweep

Proposed new Rule 1017(b)(i) provides that an Opening Sweep is a one-sided electronic quotation submitted for execution against eligible opening trading interest in the system.<sup>26</sup> A Phlx Electronic Market Maker assigned in a particular option may only submit an Opening Sweep if, at the time of entry of the Opening Sweep, that Phlx Electronic Market Maker has already submitted and maintained a Valid Width Quote. All Opening Sweeps in the affected series entered by a Phlx Electronic Market Maker will be cancelled immediately if that Phlx Electronic Market Maker fails to maintain a continuous quote with a Valid Width Quote in the affected series.<sup>27</sup>

Opening Sweeps may be entered at any price with a minimum price variation applicable to the affected series, on either side of the market, at single or multiple price level(s), and may be cancelled and re-entered. A single Phlx Electronic Market Maker may enter multiple Opening Sweeps, with each Opening Sweep at a different price level. If a Phlx Electronic Market Maker submits multiple Opening Sweeps, the system will consider only the most recent Opening Sweep at each price level submitted by such Phlx Electronic Market Maker in determining the Opening Price. Unexecuted Opening Sweeps will be cancelled once the affected series is open.<sup>28</sup> Except as described above,

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<sup>26</sup> This rule text is currently located in current Rule 1017(l)(vii)(A). This rule text is being relocated with this rule change.

<sup>27</sup> See proposed Rule 1017(b)(i)(A).

<sup>28</sup> See proposed Rule 1017(b)(i)(B).

most of the language mimics current Rule 1017(l)(vii); it is being relocated because it is more logical to refer to the types of eligible opening interest in the beginning of the rule.

Proposed new Rule 1017(b)(ii) generally tracks current Rule 1017(l)(vii)(B) in stating that the system will aggregate the size of all eligible interest for a particular participant category at a particular price level for trade allocation purposes. For example, all Phlx Electronic Market Maker (a participant category) quotes, Opening Sweeps, and orders are thus aggregated in determining the pro-rata allocation. The proposed rule is broader than the existing language, which is limited to Opening Sweeps, because it includes quotes and orders. The Exchange believes it is appropriate to amend the rule to expressly state that the Exchange currently considers this interest because there is no need to exclude quotes and orders, which contribute liquidity just like Opening Sweeps.

Proposed Rule 1017(c) simplifies the current rule text to simply provide that to be considered in the Opening Process, orders represented by Floor Brokers must be entered electronically.

Proposed new Rule 1017(d) is based on existing paragraph Rule 1017(k). The Exchange seeks to organize this rule more logically by describing when the Opening Process can begin and adding more detail related to specific time-related triggers. Specifically, Phlx Electronic Market Maker Valid Width Quotes and Opening Sweeps may start at 9:25 AM and are included in the Opening Process. Orders may be entered at any time before an options series opens and are included in the Opening Process. This proposed language adds greater specificity to the rule regarding the submission of orders. The 9:25 AM trigger is intended to tie the option Opening Process to quoting in the

underlying security<sup>29</sup>; it presumes that option quotes submitted before any indicative quotes have been disseminated for the underlying security may not be reliable or intentional. Therefore, the Exchange has chosen a reasonable timeframe at which to begin utilizing option quotes, based on the Exchange's experience when underlying quotes start becoming available.

Furthermore, the Opening Process for an option series will be conducted pursuant to paragraphs (f) – (k) on or after 9:30 AM if:<sup>30</sup> the ABBO, if any, is not crossed;<sup>31</sup> and if the system has received, within two minutes (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) of the opening trade or quote on the market for the underlying security in the case of equity options or, in the case of index options, within two minutes of the receipt of the Opening Price in the underlying index (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site), or within two minutes of market opening in the case of U.S. dollar-settled FCO (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) either:

(A) the Specialist's Valid Width Quote;

(B) the Valid Width Quotes of at least two Phlx Electronic Market Makers other than the Specialist; or

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<sup>29</sup> For purposes of this rule, the underlying security can also be an index.

<sup>30</sup> The new reference to 9:30 AM adds detail; of course, the market cannot open before 9:30 AM.

<sup>31</sup> The crossed ABBO is currently referred to in Rule 1017(l)(x), which provides that: "If at any point during the Opening Process the ABBO becomes crossed (e.g., 1.05 bid, 1.00 offer), the opening process will be terminated and the Exchange will not open the affected series. A new opening process for the affected series will commence at the time the ABBO is uncrossed."



(C) if neither the Specialist's Valid Width Quote nor the Valid Width Quotes of two Phlx Electronic Market Makers have been submitted within such timeframe, one Phlx Electronic Market Maker has submitted a Valid Width Quote.

These requirements are intended to tie the option Opening Process to receipt of liquidity. These requirements are the same as those of current Rule 1017(k) and are reorganized.

In addition, the Exchange is proposing to state in proposed Rule 1017(d)(ii) that the underlying security, including indexes, must be open on the primary market for a certain time period for all options to be determined by the Exchange. The Exchange is proposing that the time period be no less than 100 milliseconds and no more than 5 seconds. The Exchange currently applies a minimal delay of 500 milliseconds. This proposal is intended to permit the price of the underlying security to settle down and not flicker back and forth among prices after its opening. The Exchange is adding this detail to Rule 1017(d)(ii). It is common for a stock to fluctuate in price immediately upon opening; such volatility reflects a natural uncertainty about the ultimate Opening Price, while the buy and sell interest is matched. The Exchange is proposing a range of no less than 100 milliseconds and no more than 5 seconds in order to ensure that it has the ability to adjust the period for which the underlying security must be open on the primary market. The Exchange may determine that in periods of high/low volatility that allowing the underlying to be open for a longer/shorter period of time may help to ensure more stability in the marketplace prior to initiating the Opening Process.

The Exchange is proposing to relocate the obligations of Phlx Electronic Market Makers to new paragraph (d) as well. They are unchanged. The Specialist assigned in a particular equity option must enter a Valid Width Quote not later than one minute following the dissemination of a quote or trade by the market for the underlying security or, in the case of index options, following the receipt of the Opening Price in the underlying index. The Specialist assigned in a particular U.S. dollar-settled FCO must enter a Valid Width Quote not later than 30 seconds after the announced market opening.<sup>32</sup>

Furthermore, a Phlx Electronic Market Maker other than a Specialist that submits a quote pursuant to Rule 1017 in any option series when the Specialist's quote has not been submitted shall be required to submit continuous, two-sided quotes in such option series until such time as the Specialist submits his/her quote, after which the Phlx Electronic Market Maker that submitted such quote shall be obligated to submit quotations pursuant to Rule 1014(b)(ii)(D). This is also substantially unchanged.<sup>33</sup>

The Exchange is proposing to state in Rule 1017(d)(iv) that the Opening Process will stop and an option series will not open if the ABBO becomes crossed or when the requisite number of Valid Width Quotes pursuant to Rule 1017(d)(i) are no longer present. Once each of these conditions no longer exists, the Opening Process in the affected option series will start again pursuant to Rule 1017(f) – (k). All eligible opening interest will continue to be considered during the Opening Process when the process is re-

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<sup>32</sup> See proposed Rule 1017(d)(iii).

<sup>33</sup> See proposed Rule 1017(d)(iv).

started. The Exchange is amending Rule 1017 to add this detail, which the Exchange believes is implied from the conditions that trigger the Opening Process.

Overall, as explained above, new Rule 1017(d) is the same as current Rule 1017(k), except the reference at the end of paragraph (k) to Intermarket Sweep Orders (“ISOs”)<sup>34</sup> will now appear in new subparagraph (k)(C)(3)(i) and a reference is being added to the Immediate-or-Cancel (“IOC”) designation. In addition, the proposed Rule 1017(d) is more closely tied to specific time periods, like 9:25 AM for the receipt of quote and Opening Sweeps, and 9:30 AM for the beginning of the actual Opening Process. The proposed rule also reflects that the ABBO cannot be crossed because it is indicative of uncertainty in the marketplace of where the option series should be valued. In this case, the Exchange will wait for the ABBO to become uncrossed before initiating the Opening Process to ensure that there is stability in the marketplace in order to assist the Exchange in determining the Opening Price. These additions are intended to provide additional detail to the rule that the Exchange believes will be helpful to the reader.

New Rule 1017(e) states that the procedure described in this Rule may be used to reopen an option after a trading halt. This is currently in Rule 1017(h). The Exchange is adding that if there is a trading halt or pause in the underlying security, the Opening Process will start again irrespective of the specific times listed in Rule 1017(d). This is because these times relate to the normal market opening at 9:30 AM. Most of this language is in Rule 1017 at current paragraph (h), except the aforementioned reference to specific times provides additional detail.

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<sup>34</sup> Current Rule 1017(k), which is being deleted, provides: Any order volume that is routed to away markets pursuant to this Rule 1017 will be marked as an ISO.

### Opening with a PBBO

New Rule 1017(f) will now be titled “Opening with a PBBO (No Trade)” and provide that if there are no opening quotes or orders that lock or cross each other and no routable orders crossing the ABBO, the system will open with an opening quote by disseminating the Exchange’s best bid and offer among quotes and orders (“PBBO”) that exist in the system at that time, unless the following three conditions exist: (i) a Zero Bid Market; (ii) no ABBO; and (iii) no Quality Opening Market. If all of these conditions exist, the Exchange will calculate an Opening Quote Range pursuant to paragraph (j) and conduct the Price Discovery Mechanism or “PDM” pursuant to paragraph (k) below. These three conditions exist in the system today, but do not appear in Rule 1017. The existence of all three conditions being present at the same time is very rare. The Exchange believes that when all three of these conditions exist, further price discovery is warranted to validate or perhaps update the Potential Opening Price and to attract additional interest to perhaps render an opening trade possible, because: (i) a Zero Bid Market reflects a lack of buying interest that could benefit from price discovery; (ii) the lack of an ABBO means there is no external check on the Exchange’s market for that options series; and (iii) the lack of a Quality Opening Market indicates that the Exchange’s market is wide. If no quotes or orders lock/cross each other, nothing matches and there can be no trade. This is the same as Rule 1017(l)(i). The Exchange believes that when these conditions exist, it is difficult to arrive at a reasonable and expected price.

### Further Opening Processes

If an opening did not occur pursuant to proposed Rule 1017(f) and there are opening Valid Width Quotes or orders that lock or cross each other, the system will

calculate the Pre-Market BBO. This new rule text is located in new Rule 1017(g), which is the same as current Rule 1017(l)(ii), except the term Pre-Market BBO is now specifically defined in proposed Rule 1017(a)(vii).

Proposed new Rule 1017 (h) describes the general concept of how the system calculates the Potential Opening Price under all circumstances once the Opening Process is triggered. Specifically, the system will take into consideration all Valid Width Quotes, Opening Sweeps and orders (except AON interest that cannot be satisfied)<sup>35</sup> for the option series and identify the price at which the maximum number of contracts can trade (“maximum quantity criterion”). This concept of maximizing the number of contracts that can trade currently appears in current Rule 1017(l)(ii), and is intended to find the most reasonable and suitable price, relying on the maximization to reflect the best price. However, current Rule 1017(l)(ii) states that if the Opening Price calculation leaves no imbalance, the Exchange will open at that price, executing marketable trading interest, as long as the Opening Price includes only Exchange interest. This only occurs under certain circumstances, which is now explained in new Rule 1017(i).

The Exchange proposal further states that when two or more Potential Opening Prices would satisfy the maximum quantity criterion and leave no contracts unexecuted, the system takes the highest and lowest of those prices and takes the mid-point; if such mid-point is not expressed as a permitted minimum price variation, it will be rounded to the minimum price variation that is closest to the closing price for the affected series from the immediately prior trading session. If there is no closing price from the

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<sup>35</sup> See proposed Rule 1017(b).

immediately prior trading session, the system will round up to the minimum price variation to determine the Opening Price.<sup>36</sup> This is similar to current Rule 1017 (l)(ii)(B).

If two or more Potential Opening Prices for the affected series would satisfy the maximum quantity criterion and leave contracts unexecuted, the Opening Price will be either the lowest executable bid or highest executable offer of the largest sized side.<sup>37</sup> This, again, bases the Potential Opening Price on the maximum quantity that is executable. The Potential Opening Price is limited by the away market price that cannot be satisfied with the Exchange routable interest.<sup>38</sup> The Exchange does not open with a trade that trades through another market. The Exchange is amending Rule 1017 to provide detail to the rule not contemplated by the current language. This process, importantly, breaks a tie by considering the largest sized side and away markets, which are relevant to determining a fair Opening Price.

The system applies certain boundaries to the Potential Opening Price to help ensure that the price is a reasonable one by identifying the quality of that price; if a well-defined, fair price can be found within these boundaries, the option series can open at that price without going through a further price discovery mechanism. Accordingly, new Rule 1017(i),<sup>39</sup> entitled “Opening with Trade,” will state at Rule 1017(i)(A) the Exchange will open the option series for trading at the following Opening Price if any of these conditions occur: (i) the Potential Opening Price is at or within the best of the Pre-Market

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<sup>36</sup> See proposed Rule 1017(h)(A).

<sup>37</sup> See proposed Rule 1017(h)(B).

<sup>38</sup> See proposed Rule 1017(h)(C).

<sup>39</sup> The deletion of current paragraph (i) is discussed below.

BBO and the ABBO; (ii) the Potential Opening Price is at or within the non-zero bid ABBO if the Pre-Market BBO is crossed; or (iii) where there is no ABBO, the Potential Opening Price is at or within the Pre-Market BBO which is also a Quality Opening Market.

These boundaries serve to validate the quality of the Opening Price. This concept is defined in current Rule 1017(l)(ii) in a limited manner, which provides that, “If the price is within the highest quote bid and lowest quote offer and leaves no imbalance, the Exchange will open at that price, executing marketable trading interest, as long as the opening price includes only Exchange interest.” New Rule 1017(i) provides that the Exchange will open with a trade as long as it is within the defined boundaries regardless of any imbalance. The Exchange believes that since the Opening Price can be determined within a well-defined boundary and not trading through other markets, it is fair to open the market immediately with a trade and to have the remaining interest available to be executed in the displayed market. Using a boundary-based price counterbalances opening faster at a less bounded and perhaps less expected price and reduces the possibility of leaving an imbalance.

If there is more than one Potential Opening Price which meets the conditions set forth in proposed Rule 1017(i)(A), where (1) no contracts would be left unexecuted and (2) any value used for the mid-point calculation (which is described in Rule 1017(h)) that crosses either: the Pre-Market BBO or the ABBO, then the Exchange will open the option series for trading with an execution and use the best price which the Potential Opening Price crosses as a boundary price for the purpose of the mid-point calculation.<sup>40</sup>

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<sup>40</sup> See proposed Rule 1017(i)(B).

The proposed rule now better explains the boundary as well as the price basis for the mid-point calculation for immediate opening with a trade, which improves the detail included in the rule. The Exchange believes that this process is logical because it seeks to select a fair and balanced price.

Proposed Rule 1017(j) will provide that the system will calculate an Opening Quote Range (“OQR”) for a particular option series that will be utilized in the PDM. The OQR is an additional type of boundary beyond the boundaries mentioned in Rule 1017 at proposed paragraph (i). OQR is intended to limit the Opening Price to a reasonable, middle ground price and thus reduce the potential for erroneous trades during the Opening Process. Although the Exchange applies other boundaries such as the BBO, the OQR is outside of that and provides a price that can satisfy more size without becoming unreasonable.

Specifically, to determine the minimum value for the OQR, an amount, as defined in a table to be determined by the Exchange,<sup>41</sup> will be subtracted from the highest quote bid among Valid Width Quotes on the Exchange and on the away market(s), if any, except as provided in proposed Rule 1017(j)(3) and (4).<sup>42</sup> To determine the maximum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest quote offer among Valid Width Quotes on the Exchange and on the away market(s), if any, except as provided in proposed Rule 1017(j)(3) and (4).<sup>43</sup> However, if one or more away markets have disseminated opening quotes that are not

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<sup>41</sup> The table will be available on the Exchange’s website.

<sup>42</sup> See proposed Rule 1017(j)(1).

<sup>43</sup> See proposed Rule 1017(j)(2).



crossed, and there are Valid Width Quotes on the Exchange that cross each other or that cross away market quotes, then the minimum value for the OQR will be the highest quote bid among quotes on away market(s).<sup>44</sup> In addition, the maximum value for the OQR will be the lowest quote offer among quotes on away market(s).<sup>45</sup> And if, however, there are opening quotes on the Exchange that cross each other, and there is no away market in the affected option series, the minimum value for the OQR will be the lowest quote bid among Valid Width Quotes on the Exchange, and the maximum value for the OQR will be the highest quote offer among Valid Width Quotes on the Exchange.<sup>46</sup> This is the same as existing Rule 1017(l)(iii) and (iv), except that the new Rule 1017(j) combines those concepts into a single provision.

If there is more than one Potential Opening Price possible where no contracts would be left unexecuted, any price used for the mid-point calculation (which is described in new Rule 1017(h)) that is through the OQR will be restricted to the OQR price on that side of the market for the purposes of this calculation. This, in Rule 1017(j) at new subparagraph (5), continues the theme of relying on both maximizing executions and looking at the correct side of the market to determine a fair price.

New Rule 1017(j) (6) deals with the situation where there is an away market price involved. If there is more than one Potential Opening Price possible where no contracts would be left unexecuted and any price used for the mid-point calculation (which is described in new Rule 1017(h)) is an away market price when contracts will be routed,

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<sup>44</sup> See proposed Rule 1017(j)(3)(a).

<sup>45</sup> See proposed Rule 1017(j)(3)(b).

<sup>46</sup> See proposed Rule 1017(j)(4)(a) and (b).

the system will use the away market price as the Potential Opening Price. Because the system may need to route to other markets it uses the away market price as the Opening Price.

If non-routable interest can be maximum executable against Exchange interest after routable interest has been determined by the system to satisfy the away market, then the Potential Opening Price is the price at which the maximum volume, excluding the volume which will be routed to an away market, may be executed on the Exchange as described in Rule 1017 at new paragraph (h). The system will consider routable Customer interest in price/time priority to satisfy the away market.<sup>47</sup> This is consistent with the price/time handling of Customer interest outside of the Opening Process.<sup>48</sup> This continues the theme of trying to satisfy the maximum amount of interest during the Opening Process.

If the Exchange has not opened pursuant to proposed Rule 1017 paragraphs (f) or (i), the Exchange will conduct a PDM pursuant to new Rule 1017(k). The PDM is the process by which the Exchange seeks to identify an Opening Price having not been able to do so following the process outlined thus far. The principles behind the PDM are, just like above, to satisfy the maximum number of contracts possible by identifying a price that may leave unexecuted contracts. However, the PDM applies a new, wider boundary to identify the Opening Price and the PDM involves seeking additional liquidity.

Currently, the price discovery process, known as the “imbalance process” in current Rule 1017, is triggered only by unexecuted contracts at the price at which the

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<sup>47</sup> See proposed Rule 1017(j)(7).

<sup>48</sup> See Rule 1014(vii).

maximum number of contracts can trade. Instead, the situations in proposed Rule 1017(f) and (j) also result in the initiation of an imbalance process.<sup>49</sup> The Exchange believes that conducting the price discovery process in these situations protects opening orders from receiving a random price that does not reflect the totality of what is happening in the markets on the opening and also further protects opening interest from receiving a potentially erroneous execution price on the opening. Opening immediately has the benefit of speed and certainty, but that benefit must be weighed against the quality of the execution price and whether orders were left unexecuted. The Exchange believes that the proposed rule strikes an appropriate balance.

In addition, the current rule takes away market interest into account at the beginning of the imbalance process, while the proposed rule attempts to open using Exchange interest only to determine an Opening Price, provided certain conditions contained in new paragraph (i) are present to ensure participants receive a quality execution in the opening. This is reflected beginning in current Rule 1017(l)(ii)(C). The proposed rule does not consider away market liquidity until the price discovery process. As a result, the Exchange might open without routing if all of the conditions described above are met. The Exchange believes that the benefit of this process is a more rapid opening with quality execution prices.

Specifically, new Rule 1017(k)(A) provides that the system will broadcast an Imbalance Message (which includes the symbol, side of the imbalance (unmatched contracts), size of matched contracts, size of the imbalance, and price of the affected

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<sup>49</sup> Today, in these situations, the option series would not open immediately. Rather an imbalance would occur where there is unexecutable trading interest at a certain price.

series (which must be within the Pre-Market BBO) to participants, and begin an “Imbalance Timer,” not to exceed three seconds. The Imbalance Message is intended to attract additional liquidity, much like an auction is, using an auction message and timer.<sup>50</sup> The Imbalance Timer will be for the same number of seconds for all options traded on the Exchange. This is the same as the existing rule, except that the Exchange is adding more detail to this provision, to provide that the price in the imbalance message must be within the Pre-Market BBO. This is intended, as some of the other boundaries applied in the Opening Process, to help ensure that the price is reasonable in light of the price discovery needed to determine an Opening Price.

New Rule 1017(k)(B), states that any new interest received by the system will update the Potential Opening Price. This amendment adds detail to the rule. If during or at the end of the Imbalance Timer, the Opening Price is at or within the OQR the Imbalance Timer will end and the system will execute at the Opening Price if the executions consist of Exchange interest only without trading through the ABBO and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price. If no new interest comes in during the Imbalance Timer and the Opening Price is at or within OQR, the Exchange will open at the end of the Imbalance Timer. This reflects that the Exchange is seeking to identify a price on the Exchange without routing away, yet which price may not trade through another market and the quality of which is addressed by applying the OQR boundary.

Currently, Rule 1017(l)(vi)(B) provides that if opening quotes, Opening Sweeps and orders submitted during the Imbalance Timer, or other changes to the ABBO, would

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<sup>50</sup> See COOP and COLA descriptions in Rule 1080.07.

allow the entire imbalance amount to trade at the Exchange at or within the OQR without trading through the ABBO, the Imbalance Timer will end and the system will execute at the appropriate Opening Price. Accordingly, the current rule takes away market prices and volume into account at this step, while the system functionality does not. This is intended to foster trading on the Exchange before routing away.

Next, current Rule 1017(l)(vi)(C) is being reorganized with additional detail, and introduces the process of routing away. Provided the option series has not opened pursuant to proposed Rule 1017(k)(B), the system will send a second Imbalance Message with a Potential Opening Price that is bounded by the OQR (without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price) and includes away market volume in the size of the imbalance to participants; and concurrently initiate a Route Timer, not to exceed one second.<sup>51</sup> The Route Timer is intended to give Exchange users an opportunity to respond to an Imbalance Message before any opening interest is routed to away markets and, thereby, maximize trading on the Exchange. If during the Route Timer, interest is received by the system which would allow the Opening Price to be within OQR without trading through other markets and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price, the system will trade and the Route Timer will end. The system will monitor quotes received during the Route Timer period and make

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<sup>51</sup> The Route Timer is a brief timer that operates as a pause before an order is routed to an away market. The Route Timer is currently set at 200 milliseconds, which the Exchange has determined is a reasonable time period to gather additional interest on the Exchange before routing away. The Exchange has only changed this timer a few times over the past several years.

ongoing corresponding changes to the permitted OQR to reflect them.<sup>52</sup> This is being changed to eliminate the requirement that there be no imbalance, which means it is more likely that an Opening Price will be discovered. It also widens the boundary of available Opening Prices, which should similarly increase the likelihood that an Opening Price can be determined. The Route Timer, like the Imbalance Timer, is intended to permit responses to be submitted and considered by the system in calculating the Potential Opening Price. The system does not route away until the Route Timer ends.

Proposed Rule 1017(k)(C)(3) will provide that when the Route Timer expires, if the Potential Opening Price is within OQR (without trading through the limit price(s) of interest within OQR that is unable to be fully executed at the Opening Price), the system will determine if the total number of contracts displayed at better prices than the Exchange's Potential Opening Price on away markets ("better priced away contracts") would satisfy the number of marketable contracts available on the Exchange. This is largely unchanged in terms of applying the OQR as a boundary before considering away markets. The Exchange is adding reference to the limit price, because the limit price of interest within the OQR serves as a boundary as well. This protects the unexecuted interest and should result in a fairer price. The Exchange is adding rule text to state that the Exchange will open the option by routing and/or trading on the Exchange, pursuant to proposed Rule 1017(k)(C)(3)(i)-(iii).

Proposed Rule 1017(k)(C)(3)(i) will provide that if the total number of contracts displayed at better prices than the Exchange's Potential Opening Price on away markets ("better priced away contracts") would satisfy the number of marketable contracts

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<sup>52</sup> See proposed Rule 1017(k)(C)(1) and (2).

available on the Exchange on either the buy or sell side, the system will route all marketable contracts on the Exchange to such better priced away markets as ISO IOC orders, and determine an opening PBBO that reflects the interest remaining on the Exchange. The system will price any contracts routed away to other markets at the Exchange's Opening Price or proposed Rule 1017(k)(C)(3)(ii) or (iii) described hereinafter. Currently, Rule 1017 states that contracts routed away are priced at the better away market price. This is incorrect. Routing away at the Exchange's Opening Price is intended to achieve the best possible price available at the time the order is received by the away market.

Proposed Rule 1017(k)(C)(3)(ii)<sup>53</sup> will provide that if the total number of better priced away contracts would not satisfy the number of marketable contracts the Exchange has, the system will determine how many contracts it has available at the Exchange Opening Price. If the total number of better priced away contracts plus the number of contracts available at the Exchange Opening Price would satisfy the number of marketable contracts on the Exchange on either the buy or sell side, the system will contemporaneously route a number of contracts that will satisfy interest at other markets at prices better than the Phlx Opening Price, and trade available contracts on the Exchange at the Exchange Opening Price. The system will price any contracts routed to other markets at the better of the Exchange Opening Price or the order's limit price pursuant to Rule 1017(k)(vi)(C)(3)(ii) at the better of the Exchange Opening Price or the order's limit price. Currently, the rule states that the Exchange will execute only at the Opening Price, but in actuality the system uses the better of the Opening Price or the

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<sup>53</sup> This is currently subparagraph 4.

order's limit price to route to away markets. This continues with the theme of maximum possible execution of the interest in Phlx or away markets. The addition of the reference to the buy or sell side is intended to provide additional detail and accuracy to the description.<sup>54</sup>

Proposed Rule 1017(k)(C)(3)(iii)<sup>55</sup> will provide that if the total number of better priced away contracts plus the number of contracts available at the Exchange Opening Price plus the contracts available at other markets at the Exchange Opening Price would satisfy the number of marketable contracts the Exchange has on either the buy or sell side, the system will contemporaneously route a number of contracts that will satisfy interest at other markets at prices better than the Exchange Opening Price (pricing any contracts routed to other markets at the better of the Exchange Opening Price or the order's limit price), trade available contracts on the Exchange at the Exchange Opening Price, and route a number of contracts that will satisfy interest at other markets at prices equal to the Exchange Opening Price. Much of this appears in the current rule but is supplemented by the reference to the order's limit price, as discussed above. This provision, like the existing one, is intended to introduce routing to away markets potentially both at a better price than the Exchange Opening Price as well as at the Exchange Opening Price to access as much liquidity as possible to maximize the number of contracts able to be traded as part of the Opening Process. The Exchange routes at the better of the Exchange's Opening Price or the order's limit price to first ensure the order's limit price is not violated. Routing away at the Exchange's Opening Price is

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<sup>54</sup> This addition is proposed in several places in Rule 1017 for the same reason.

<sup>55</sup> This is currently subparagraph 5.



intended to achieve the best possible price available at the time the order is received by the away market.

Proposed Rule 1017(k)(C)(4)<sup>56</sup> is proposed to state that the system may send up to two additional Imbalance Messages<sup>57</sup> (which may occur while the Route Timer is operating) bounded by OQR and reflecting away market interest in the volume. The reference to two additional Imbalance Messages is intended to replace in a clearer way the current reference to repeating the “Imbalance Process” (a term no longer being used in this rule) three times. The reference to the OQR and away market interest, again, amends the rule by adding detail to make clear that both are boundaries. These boundaries are intended to assist in determining a reasonable price at which an option series might open.

This provision is proposed to further state that after the Route Timer has expired, the processes in proposed Rule 1017(k)(C)(3) will repeat (except no new Route Timer will be initiated). No new Route Timer is initiated because the Exchange believes that after the Route Timer has been initiated and subsequently expired, no further delay is needed before routing contracts if at any point thereafter the Exchange is able to satisfy the total number of marketable contracts the Exchange has by executing on the Exchange and routing to other markets.

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<sup>56</sup> This is currently subparagraph 6.

<sup>57</sup> The first two Imbalance Message always occur, while the next two may or may not occur based on whether or not the Exchange has been able to open before repeating the Imbalance Process.

Proposed Rule 1017(k)(vi)(C)(5),<sup>58</sup> entitled “Forced Opening,” will describe what happens as a last resort in order to open an options series when the processes described above have not resulted in an opening of the options series. Under this process, called a Forced Opening, after all additional Imbalance Messages have occurred pursuant to proposed Rule 1017(k)(4),<sup>59</sup> the system will open as many contracts as possible by routing to other markets at prices better than the Exchange Opening Price for their disseminated size, trading available contracts on the Exchange at the Exchange Opening Price bounded by OQR (without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price). The system will also route contracts to other markets at prices equal to the Exchange Opening Price at their disseminated size. In this situation, the system will price any contracts routed to other markets at the better of the Exchange Opening Price or the order’s limit price. Any unexecuted contracts from the imbalance not traded or routed will be cancelled back to the entering participant if they remain unexecuted and priced through the Opening Price, unless the member that submitted the original order has instructed the Exchange in writing to re-enter the remaining size, in which case the remaining size will be automatically submitted as a new order. Currently, the rule provides that before the order is cancelled back or reentered, it will be displayed in the Exchange quote at the Opening Price for the remaining size for a period not to exceed ten seconds; this does not occur since the Exchange has set this period of time to zero seconds. The Exchange is amending this rule to add the boundaries of OQR and limit prices within the OQR to provide additional detail. A majority of this paragraph is not being amended. These

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<sup>58</sup> This is currently subparagraph 7.

<sup>59</sup> The reference to subparagraph (4) helps link these provisions.

boundaries are intended to ensure a quality Opening Price as well as protect the unexecutable interest entered with a limit price which may not be able to be fully executing at the Opening Price.

Although much of new Rule 1017(k)(vi)(C)(5) is the same as current subparagraph (7), the Exchange is proposing to delete the sentence that provides that during the display time period, the system will disseminate, on the opposite side of the market from remaining unexecuted contracts: (i) a non-firm bid for the price and size of the next available bid(s) on the Exchange if the imbalance is a sell imbalance, or (ii) a non-firm offer for the price and size of the next available offer(s) on the Exchange if the imbalance is a buy imbalance. This language is obsolete, because this does not occur as there is currently no display time period.

Proposed Rule 1017(k)(viii), currently Rule 1017(l)(viii), as amended, provides that the system will give priority to market orders first in time priority, then to resting limit orders at the Opening Price. Market orders have priority because they are considered to be the most aggressively priced, consistent with price priority. The Exchange is proposing to amend the existing rule text which provides that limit orders are treated as market orders, because they are not. The Exchange proposes to state that limit orders are prioritized based on their limit price and capacity (participant type) as they are during normal trading (outside the opening). Accordingly, the Exchange is proposing to amend this rule text to state that the system will give priority to market orders first in time, then to resting limit orders. Further, the allocation provisions of Rule 1014(g)(vii) will apply.

The Exchange proposes to delete rule text in current Rule 1017(i), which is incorrect. It currently provides that a limit order to buy which is at a higher price than the price at which the option is to be opened and a limit order to sell which is at a lower price than the price at which the option is to be opened, shall be treated as market orders. The Exchange proposes to remove this rule text. The Exchange continues to treat these orders as limit orders, which is consistent with their handling during normal trading. The Exchange does not believe that limit orders should be handled differently on the opening and believes that this is consistent with users' expectations. Presumably, market participants choose to enter limit orders for the protection associated with a limit price, and they understand that market orders may be executed before limit orders as a matter of priority, which is an acceptable outcome because they are not willing to take the risks associated with market orders.<sup>60</sup>

The Exchange proposes to amend Rule 1017 to add new section (k)(F) which would provide that when an option series opens, the system disseminates the price and size of the PBBO. This amendment adds more detail to the rule. The Exchange must necessarily disseminate the PBBO not just on the opening but throughout the day.

The Exchange proposes to delete current Rule 1017(l)(ix) which provides for a brief delay to calculate the opening. The current rule provides that the period will not exceed .25 of one second, but it has long been set at zero. The Exchange's technology does not require a delay in order to open and therefore the provision is obsolete.

The Exchange also proposes to delete current Rule 1017(l)(x), which deals with when the ABBO becomes crossed. The impact of the ABBO on the Exchange's opening

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<sup>60</sup> See Rule 1014(g)(vii).

is now discussed throughout the proposed rule and therefore this provision is unnecessary.

## 2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act,<sup>61</sup> in general, and furthers the objectives of Section 6(b)(5) of the Act,<sup>62</sup> in particular, in that it is designed to promote just and equitable principles of trade. Specifically, the changes to paragraphs (a) through (e) and (g) amend the current rule by adding details concerning the manner in which the Opening Process occurs in an option series. The amendment also adds detail to the rule and removes outdated language. The proposed rule is also re-organized in a more logical way and deletes “reserved” paragraphs, all of which improves the readability of the rule. For all of these reasons, paragraph (a), which adopts the term “Opening Process” to be used throughout the rule and which defines it, along with several other new definitions, should promote just and equitable principles of trade.

The proposed additions to Rule 1017(b) promote just and equitable principles of trade because the new language spells out in greater detail what interest is included in the Opening Process, which, in turn, helps investors determine what to submit. New Rule 1017(b) will specifically state that AON interest that can be satisfied will be considered for execution in determining the Opening Price throughout the Opening Process. The rule is currently silent on the eligibility of AON interest on the opening. It is consistent with the Act to include AON interest on the opening because this contingency market or

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<sup>61</sup> 15 U.S.C. 78f(b).

<sup>62</sup> 15 U.S.C. 78f(b)(5).

limit order will execute in its entirety or not at all, provided that this interest can be satisfied. The Exchange believes that AON should be included, similar to other orders, if it can be satisfied. This treatment is consistent with the treatment of AON in other market sessions.

The additions to Rule 1017(d) regarding the 9:25 A.M. trigger and providing that orders entered at any time before an options series opens are included in the Opening Process should promote just and equitable principles of trade, because a reasonable time period has been selected after which eligible interest is included balanced against accepting as much interest as possible to result in a robust Opening Process. The 9:25 AM trigger is intended to tie the option Opening Process to quoting in the underlying security; it presumes that option quotes submitted before any indicative quotes have been disseminated for the underlying security may not be reliable or intentional. Therefore, the Exchange has chosen a reasonable timeframe at which to begin utilizing option quotes, based on the Exchange's experience with when underlying quotes start becoming available. In addition, the Exchange is proposing to state in proposed Rule 1017(d)(ii) that the underlying security, including indexes, must be open on the primary market for a certain time period for all options to be determined by the Exchange. The Exchange is proposing that the time period be no less than 100 milliseconds and no more than 5 seconds. The Exchange currently applies a minimal delay of 500 milliseconds. This proposal is consistent with the Act because it is intended to permit the price of the underlying security to settle down and not flicker back and forth among prices after its opening. It is common for a stock to fluctuate in price immediately upon opening; such volatility reflects a natural uncertainty about the ultimate Opening Price, while the buy

and sell interest is matched. The Exchange is proposing a range of no less than 100 milliseconds and no more than 5 seconds in order to ensure that it has the ability to adjust the period for which the underlying security must be open on the primary market. The Exchange may determine that in periods of high/low volatility that allowing the underlying to be open for a longer/shorter period of time may help to ensure more stability in the marketplace prior to initiating the Opening Process. Rule 1017(e) specifically describes the manner in which a trading halt would impact a reopening process. This paragraph is based on existing Rule 1017(h). This rule text makes clear that a reopening is not tied to the 9:25 A.M. time period of Rule 1017(d). This language should promote just and equitable principles of trade by specifically addressing the manner in which a reopening will occur after a trading halt.

The Exchange believes that new Rule 1017(f) promotes just and equitable principles of trade, because the proposed conditions involving Zero Bid Markets, no ABBO and no Quality Opening Market trigger the price discovery mechanism rather than an immediate opening in order to validate the Opening Price against away markets or by attracting additional interest to address the specific condition. This is consistent with the Act because it should avoid opening executions in very wide or unusual markets where an opening execution price cannot be validated. This process will occur if there are no routable orders that cross the ABBO.

Similarly, new Rule 1017(h) promotes just and equitable principles of trade, because it better describes how the system calculates the Potential Opening Price, which should provide a better understanding of this part of the process, which has many elements. Once the price at which the maximum number of contracts can be executed is

determined, applying additional criteria promotes just and equitable principles of trade, because it helps arrive at a price that is logical and reasonable in light of away markets and other interest present in the system. Where there are no away markets, applying the boundary of a Quality Opening Market promotes just and equitable principles of trade also to help arrive at a reasonable Opening Price. When choosing between multiple Opening Prices when some contracts would remain unexecuted, using the lowest bid or highest offer of the largest sized side of the market promotes just and equitable principles of trade because it uses size as a tie breaker. The Exchange's method for determining the Potential Opening Price and Opening Price is consistent with the Act because it seeks to arrive at reasonable price in light of interest present in the system and away market interest. The Exchange's method seeks to validate the Opening Price and avoid opening executions in very wide or unusual markets where validation cannot occur.

Proposed new Rule 1017(i) promotes just and equitable principles of trade by establishing when the Exchange opens immediately and which conditions are relevant, based on the Potential Opening Price determined in Rule 1017(h). The rule text in Rule 1017(i) concerning opening with a trade, is consistent with the Act because it enables an immediate opening to occur within a certain boundary without need for the price discovery process. The boundary provides protections and ensures a reasonable Opening Price. Throughout the Opening Process, there is no different impact to any particular participant; executions occur at the most reasonable price possible regardless of participant type.

The OQR described in proposed Rule 1017(j) promotes just and equitable principles of trade by establishing a reasonable boundary to be applied during the PDM.



The OQR operates the same way today and serves to provide a level of protection for potential opening executions. This is consistent with the Act because OQR continues to act as a protection for the Opening Price because it protects away market prices and also protects against extreme volatility which may impact the Opening Price.

New Rule 1017(j)(5) concerning more than one Potential Opening Price is consistent with the Act because it provides price protection because it forces the Potential Opening Price to fall within the OQR boundary. Specifically, the mid-point calculation balances the price among interest participating in the Opening when there is more than one price at which the maximum number of contracts could execute. Limiting the mid-point calculation to the OQR when a price would otherwise fall outside of the OQR ensures the final mid-point price will be within the protective OQR boundary.

New Rule 1017(j)(6) deals with the situation where there is more than one Potential Opening Price and an away market price involved. If there is more than one Potential Opening Price possible where no contracts would be left unexecuted and any price used for the mid-point calculation is an away market price when contracts will be routed, the system will use the away market price as the Potential Opening Price. This result is consistent with the Act, because the system may need to route to other markets and therefore it uses the away market price as the Opening Price. These boundaries serve to validate the quality of the Opening Price. OQR is intended to limit the Opening Price to a reasonable, middle ground price and thus reduce the potential for erroneous trades during the Opening Process. Although the Exchange applies other boundaries such as the Pre-Market BBO, the OQR is outside of that and provides a price that can maximize the number of executions at a reasonable price. The PDM in new Rule 1017(k) reflects what

is generally known as an imbalance process. The process is intended to attract liquidity to improve the price at which an option series will open as well as to maximize the number of contracts that can be executed on the opening. The Exchange believes that this is consistent with just and equitable principles of trade. The Exchange is adding various references to the applicable boundaries throughout this paragraph, as explained above, which should help investors receive reasonable prices, which is the case throughout the Opening Process. In addition, the handling of routing on the opening should promote just and equitable principles of trade by incorporating away markets into the process in a clearer and more detailed way. The PDM also promotes just and equitable principles of trade by taking into account whether all interest can be fully executed, which helps investors by including as much interest as possible in the Opening Process.

The current rule takes away market interest into account at the beginning of the imbalance process, while the proposed rule proposes to open using Exchange interest only within the Pre-Market BBO to determine an Opening Price, provided certain conditions contained in new Rule 1017(i) are present to ensure participants receive a quality execution in the opening. This is reflected beginning in current Rule 1017(l)(ii)(C). It is consistent with the Act to not consider away market liquidity until the price discovery process occurs because this proposed process provides for a swift, yet conservative opening. The Exchange is bounded by the Pre-Market BBO when determining an Opening Price. The away market prices would be considered, albeit not immediately.

The Exchange believes that amending the rule text of current Rule 1017(l)(viii) to describe the manner in which limit orders are executed in comparison to market orders promotes just and equitable principles of trade because it provides investors with the proper method in which the system will execute orders at the opening. It is consistent with the Act to execute market orders before limit order because those order types are by definition at the best price.

The Exchange believes that the deletion of current Rule 1017(l)(ix) promotes just and equitable principles of trade because eliminating an obsolete timer will provide investors with accurate information concerning the operation of the Exchange's opening. Deleting the timer is consistent with the Act because the timer is no longer necessary and its removal results in potentially faster processing of interest received after the opening occurs.

Similarly, the Exchange believes that the deletion of current Rule 1017(l)(x) promotes just and equitable principles of trade, because the proposed rule will continue to describe the impact of a crossed ABBO, but in specific parts of the rule, where appropriate, which adds more context and clarity to the description of the opening. The Exchange is not adding this concept to the rule, rather just relocating the concept within the rule. It is consistent with the Act to terminate the opening process when the ABBO becomes crossed because it protects against potential pricing anomalies in the market.

**B. Self-Regulatory Organization's Statement on Burden on Competition**

The Exchange does not believe that the proposed rule change will impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act. The proposal does not change the intense competition that exists among the options markets for options business including on the opening. Nor does the Exchange believe

that the proposal will impose any burden on intra-market competition; the Opening Process involves many types of participants and interest.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received from Members, Participants, or Others

No written comments were either solicited or received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 45 days of the date of publication of this notice in the Federal Register or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the Exchange consents, the Commission shall: (a) by order approve or disapprove such proposed rule change, or (b) institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic comments:

- Use the Commission's Internet comment form (<http://www.sec.gov/rules/sro.shtml>); or
- Send an e-mail to [rule-comments@sec.gov](mailto:rule-comments@sec.gov). Please include File Number SR-Phlx-2016-79 on the subject line.

Paper comments:

- Send paper comments in triplicate to Brent J. Fields, Secretary, Securities and Exchange Commission, 100 F Street, NE, Washington, DC 20549-1090.

All submissions should refer to File Number SR-Phlx-2016-79. This file number should be included on the subject line if e-mail is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's Internet Web site

<http://www.sec.gov/rules/sro.shtml>.

Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street, NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly.

All submissions should refer to File Number SR-Phlx-2016-79 and should be submitted on or before [insert date 21 days from publication in the Federal Register].

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.<sup>63</sup>

Robert W. Errett  
Deputy Secretary

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<sup>63</sup> 17 CFR 200.30-3(a)(12).

**EXHIBIT 5**

Proposed new language is underlined. Proposed deletions are enclosed in brackets.

**NASDAQ PHLX Rules****Rules of the Exchange**

\* \* \* \* \*

**Options Rules**

\* \* \* \* \*

**Rule 1017. Openings in Options**

(a) [Specialists, SQTs, RSQTs, and non-SQT ROTs who are required to submit continuous two-sided electronic quotations pursuant to Rule 1014(b)(ii)(E) are collectively, for purposes of this Rule 1017, “Phlx XL participants”.] Definitions. The Exchange conducts an electronic opening for all option series traded on Phlx using its trading system (“system”).

(i) The Opening Process is described herein in section (d).

(ii) The Opening Price is described herein in sections (i) and (k).

(iii) Potential Opening Price is described herein in section (h).

(iv) The ABBO is the Away Best Bid or Offer.

(v) The market for the underlying security is either the primary listing market or the primary volume market (defined as the market with the most liquidity in that underlying security for the previous two calendar months), as determined by the Exchange by underlying and announced to the membership on the Exchange's web site.

(vi) A Phlx Electronic Market Maker is a Specialist, Streaming Quote Trader (“SQT”) or Remote SQT (“RSQT”) who is required to submit continuous two-sided electronic quotations pursuant to Rule 1014(b)(ii)(D).

(vii) The Pre-Market BBO is the highest bid and the lowest offer among Valid Width Quotes.

(viii) A Quality Opening Market is a bid/ask differential applicable to the best bid and offer from all Valid Width Quotes defined in a table to be determined by the Exchange and published on the Exchange’s web site.

(ix) A Valid Width Quote is a two-sided electronic quotation submitted by a Phlx Electronic Market Maker that consists of a bid/ask differential that is compliant with Rule 1014(c)(i)(A)(1)(a).

(x) A Zero Bid Market is where the best bid for an options series is zero.

(b) [RESERVED]Eligible interest during the Opening Process includes Valid Width Quotes, Opening Sweeps and orders. Phlx Electronic Market Makers may submit quotes, Opening Sweeps and orders but quotes other than Valid Width Quotes will not be included in the Opening Process. Non-SQT Registered Options Traders (“ROTs”) may submit orders. All-or-none interest that can be satisfied is considered for execution and in determining the Opening Price throughout the Opening Process.

(i) Opening Sweep. An Opening Sweep is a one-sided electronic quotation submitted for execution against eligible interest in the system during the Opening Process.

(A) A Phlx Electronic Market Maker assigned in a particular option may only submit an Opening Sweep if, at the time of entry of the Opening Sweep, that Phlx Electronic Market Maker has already submitted and maintained a Valid Width Quote. All Opening Sweeps in the affected series entered by a Phlx Electronic Market Maker will be cancelled immediately if that Phlx Electronic Market Maker fails to maintain a continuous quote with a Valid Width Quote in the affected series.

(B) Opening Sweeps may be entered at any price with a minimum price variation applicable to the affected series, on either side of the market, at single or multiple price level(s), and may be cancelled and re-entered. A single Phlx Electronic Market Maker may enter multiple Opening Sweeps, with each Opening Sweep at a different price level. If a Phlx Electronic Market Maker submits multiple Opening Sweeps, the system will consider only the most recent Opening Sweep at each price level submitted by such Phlx Electronic Market Maker in determining the Opening Price. Unexecuted Opening Sweeps will be cancelled once the affected series is open.

(ii) The system will aggregate the size of all eligible interest for a particular participant category at a particular price level for trade allocation purposes.

(c) Orders Represented by Floor Brokers. To be considered in the [determination of the o]Opening [price]Process[ and to participate in the opening trade], orders represented by Floor Brokers must be entered [onto the book ]electronically.

(d) [Reserved.]Phlx Electronic Market Maker Valid Width Quotes and Opening Sweeps received starting at 9:25 AM are included in the Opening Process. Orders entered at any time before an option series opens are included in the Opening Process.

(i) The Opening Process for an option series will be conducted pursuant to paragraphs (f) – (k) below on or after 9:30 AM if: the ABBO, if any, is not crossed; and the system has received, within two minutes (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) of the opening trade or quote on the market for the underlying security in the case of equity options or, in the case of index options, within two minutes of the receipt of the Opening Price in the underlying index (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site), or within two minutes of market opening in the case of U.S. dollar-settled FCO (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) either:

(A) the Specialist's Valid Width Quote;

(B) the Valid Width Quotes of at least two Phlx Electronic Market Makers other than the Specialist; or

(C) if neither the Specialist's Valid Width Quote nor the Valid Width Quotes of two Phlx Electronic Market Makers have been submitted within such timeframe, one Phlx Electronic Market Maker has submitted a Valid Width Quote.

(ii) The underlying security, including indexes, must be open on the primary market for a certain time period for all options as determined by the Exchange. The time period shall be no less than 100 milliseconds and no more than 5 seconds.

(iii) The Specialist assigned in a particular equity option must enter a Valid Width Quote not later than one minute following the dissemination of a quote or trade by the market for the underlying security or, in the case of index options, following the receipt of the Opening Price in the underlying index. The Specialist assigned in a particular U.S. dollar-settled FCO must enter a Valid Width Quote not later than 30 seconds after the announced market opening.

(iv) A Phlx Electronic Market Maker other than a Specialist that submits a quote pursuant to Rule 1017 in any option series when the Specialist's quote has not been submitted shall be required to submit continuous, two-sided quotes in such option series until such time as the Specialist submits his/her quote, after which the Phlx Electronic Market Maker that submitted such quote shall be obligated to submit quotations pursuant to Rule 1014(b)(ii)(D). The Opening Process will stop and an option series will not open if the ABBO becomes crossed or when the requisite number of Valid Width Quotes pursuant to Rule 1017(d)(i) are no longer present. Once each of these conditions no longer exist, the Opening Process in the affected option series will start again pursuant to paragraphs (f) – (k) below.



(e) [Reserved.]Reopening After a Trading Halt. The procedure described in Rule 1017 will be used to reopen an option series after a trading halt. If there is a trading halt or pause in the underlying security, the Opening Process will start again irrespective of the specific times listed in paragraph (d).

(f) [Reserved.]Opening with a PBBO (No Trade). If there are no opening quotes or orders that lock or cross each other and no routable orders crossing the ABBO, the system will open with an opening quote by disseminating the Exchange's best bid and offer among quotes and orders ("PBBO") that exist in the system at that time, unless the following three conditions exist: (i) a Zero Bid Market; (ii) no ABBO; and (iii) no Quality Opening Market. If all of these conditions exist, the Exchange will calculate an Opening Quote Range pursuant to paragraph (j) and conduct the Price Discovery Mechanism pursuant to paragraph (k) below.

(g) [Reserved.]Pre-Market BBO Calculation. If there are opening Valid Width Quotes or orders that lock or cross each other, the system will calculate the Pre-Market BBO.

(h) [Respecting options traded on Phlx XL II, the procedure described in this Rule may be used to reopen an option after a trading halt.]Potential Opening Price. To calculate the Potential Opening Price, the system will take into consideration all Valid Width Quotes, Opening Sweeps and orders, except all-or-none interest that cannot be satisfied, for the option series and identify the price at which the maximum number of contracts can trade ("maximum quantity criterion").

(A) More Than One Potential Opening Price. When two or more Potential Opening Prices would satisfy the maximum quantity criterion and leave no contracts unexecuted, the system takes the highest and lowest of those prices and takes the mid-point; if such mid-point is not expressed as a permitted minimum price variation, it will be rounded to the minimum price variation that is closest to the closing price for the affected series from the immediately prior trading session. If there is no closing price from the immediately prior trading session, the system will round up to the minimum price variation to determine the Opening Price.

(B) If two or more Potential Opening Prices for the affected series would satisfy the maximum quantity criterion and leave contracts unexecuted, the Opening Price will be either the lowest executable bid or highest executable offer of the largest sized side.

(C) The Potential Opening Price is limited by the away market price that may not be satisfied with the Exchange routable interest.

(i) [Respecting options traded on Phlx XL II, in connection with an opening, a limit order to buy which is at a higher price than the price at which the option is to be opened and a limit order to sell which is at a lower price than the price at which the option is to be opened, shall be treated as market orders.]Opening with Trade. (A) The Exchange will

open the option series for trading at the following Opening Price if any of these conditions occur: (i) the Potential Opening Price is at or within the best of the Pre-Market BBO and the ABBO; (ii) the Potential Opening Price is at or within the non-zero bid ABBO if the Pre-Market BBO is crossed; or (iii) where there is no ABBO, the Potential Opening Price is at or within the Pre-Market BBO which is also a Quality Opening Market.

(B) If there is more than one Potential Opening Price which meets the conditions set forth in (A) above where:

(1) no contracts would be left unexecuted and

(2) any value used for the mid-point calculation (which is described in subparagraph (h) above) that crosses either:

(a) the Pre-Market BBO, or

(b) the ABBO,

then the Exchange will open the option series for trading with an execution and use the best price which the Potential Opening Price crosses as a boundary price for the purposes of the mid-point calculation.

(j) [For purposes of this Rule, "market for the underlying security" shall be 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 an issue-by-issue basis and announced to the membership on the Exchange's web site.]The system will calculate an Opening Quote Range ("OQR") for a particular option series that will be utilized in the Price Discovery Mechanism described below.

(1) Except as provided in sub-paragraphs (3) and (4) below, to determine the minimum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be subtracted from the highest quote bid among Valid Width Quotes on the Exchange and on the away market(s), if any.

(2) Except as provided in sub-paragraphs (3) and (4) below, to determine the maximum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest quote offer among Valid Width Quotes on the Exchange and on the away market(s), if any.

(3) If one or more away markets have disseminated opening quotes that are not crossed, and there are Valid Width Quotes on the Exchange that cross each other or that cross away market quotes:

(a) The minimum value for the OQR will be the highest quote bid among quotes on away market(s).

(b) The maximum value for the OQR will be the lowest quote offer among quotes on away market(s).

(4) If there are opening quotes on the Exchange that cross each other, and there is no away market in the affected option series:

(a) The minimum value for the OQR will be the lowest quote bid among Valid Width Quotes on the Exchange.

(b) The maximum value for the OQR will be the highest quote offer among Valid Width Quotes on the Exchange.

(5) If there is more than one Potential Opening Price possible where no contracts would be left unexecuted, any price used for the mid-point calculation (which is described in subparagraph (h) above) that is through the OQR will be restricted to the OQR price on that side of the market for the purposes of this calculation.

(6) If there is more than one Potential Opening Price possible where no contracts would be left unexecuted and any price used for the mid-point calculation (which is described in subparagraph (h) above) is an away market price when contracts will be routed, the system will use the away market price as the Potential Opening Price.

(7) If non-routable interest can be maximum executable against Exchange interest after routable interest has been determined by the system to satisfy the away market, then the Potential Opening Price is the price at which the maximum volume, excluding the volume which will be routed to an away market, may be executed on the Exchange as described in paragraph (h) above. The system will consider routable Customer interest in price/time priority to satisfy the away market.

[(k) Respecting options traded on Phlx XL II, the automated opening process can only begin when either (A) the specialist's quote has been submitted; (B) the quotes of at least two Phlx XL II participants have been submitted within two minutes (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) of the opening trade or quote on the market for the underlying security in the case of equity options or, in the case of index options, within two minutes of the receipt of the opening price in the underlying index (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site), or within two minutes of market opening in the case of U.S. dollar-settled FCO (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site); or (C) if neither the specialist's quote nor the quotes of two Phlx XL II participants have been submitted within two minutes (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site) of the opening trade or quote on the market for the underlying security in the case of equity options or, in the case of index options, within two minutes of the receipt of the opening price in the

underlying index (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site), or within two minutes of market opening in the case of U.S. dollar-settled FCO (or such shorter time as determined by the Exchange and disseminated to membership on the Exchange's web site), one Phlx XL II participant has submitted their quote.

The specialist assigned in a particular equity option must enter opening quotes not later than one minute following the dissemination of a quote or trade by the market for the underlying security or, in the case of index options, following the receipt of the opening price in the underlying index. The specialist assigned in a particular U.S. dollar-settled FCO must enter opening quotes not later than 30 seconds after the announced market opening.

A Phlx XL II participant that submits a quote pursuant to this Rule 1017 in any series when the specialist's quote has not been submitted shall be required to submit continuous, two-sided quotes in such series until such time as the specialist submits his/her quote, after which the Phlx XL II participant that submitted such quote shall be obligated to submit quotations pursuant to Rule 1014(b)(ii)(D).

Any order volume that is routed to away markets pursuant to this Rule 1017 will be marked as an ISO.]

#### [(1) Opening Process

- (i) If there are no opening quotes or orders that lock or cross each other, the system will open by disseminating the Exchange's best bid and offer among quotes and orders that exist in the Phlx XL II system at that time (because if no quotes or orders lock/cross each other, nothing matches and there is no trade).
- (ii) If there are opening quotes or orders that lock or cross each other, the Phlx XL II system will take the highest bid and the lowest offer among quotations received that have a bid/ask differential that is compliant with Rule 1014(c)(i)(A)(1)(a) ("valid width quotes"), to determine the highest quote bid and lowest quote offer. To calculate the opening price, the Phlx XL II system will take into consideration all valid width Exchange quotes, sweeps (defined below) and orders together with other exchanges' markets for the series and identify the price at which the maximum number of contracts can trade. If that price is within the highest quote bid and lowest quote offer and leaves no imbalance, the Exchange will open at that price, executing marketable trading interest, as long as the opening price includes only Exchange interest.
  - (A) An "imbalance" occurs where there is unexecutable trading interest at a certain price.
  - (B) When two or more prices within the range of the lowest quote bid and highest quote offer for the affected series would satisfy the maximum quantity criterion,

- the Phlx XL II system takes the highest and lowest of those prices and takes the mid-point for the opening price; if such mid-point is not expressed as a permitted minimum price variation, it will be rounded to the minimum price variation that is closest to the closing price for the affected series from the immediately prior trading session to determine the opening price. If there is no closing price from the immediately prior trading session, the Phlx XL II system will round up to the minimum price variation to determine the opening price.
- (C) If the opening price included interest other than solely Exchange interest, the system will initiate a "Route Timer," not to exceed one second. If no new interest is received during the Route Timer, the Phlx XL II system will route to other markets disseminating prices better than Exchange's opening price, execute marketable interest at the opening price on the Exchange, and route to other markets disseminating prices equal to the Exchange opening price if necessary.
- (1) Orders that are routed and executed may receive executions at multiple prices.
- (2) Orders will be routed as IOC orders with a limit price equal to or better than the Exchange's opening price.
- (D) If interest is received during the Route Timer, the Phlx XL II system will recalculate the opening price taking such new interest into account. Then, if there is no imbalance, the Phlx XL II system will execute marketable interest at the opening price on the Exchange and route the remainder to other markets.
- (E) A different opening price will not require the Phlx XL II system to repeat the entire opening process
- (iii) Where there is an imbalance at the price at which the maximum number of contracts can trade that is also at or within the highest quote bid and lowest quote offer and one or more away markets have disseminated opening quotes in the affected series:
- (A) the Phlx XL II system will calculate an Opening Quote Range ("OQR") for a particular series.
- (1) Except as provided in sub-paragraph (3) below, to determine the minimum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be subtracted from the highest quote bid among valid width quotes on the Exchange and on the away market(s).
- (2) Except as provided in sub-paragraph (3) below, to determine the maximum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest quote offer among valid width quotes on the Exchange and on the away market(s).

- (3) If one or more away markets have disseminated opening quotes that are not crossed, and there are valid width quotes on the Exchange that cross each other or that cross away market quotes:
  - (a) The minimum value for the OQR will be the highest quote bid among quotes on away market(s).
  - (b) The maximum value for the OQR will be the lowest quote offer among quotes on away market(s).
- (iv) Where there is an imbalance at the price at which the maximum number of contracts can trade that is also at or within the highest quote bid and lowest quote offer and no away markets have disseminated opening quotes in the affected series:
  - (A) the Phlx XL II system will calculate an Opening Quote Range ("OQR") for a particular series.
    - (1) Except as provided in sub-paragraph (3) below, to determine the minimum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be subtracted from the highest quote bid among valid width quotes on the Exchange.
    - (2) Except as provided in sub-paragraph (3) below, to determine the maximum value for the OQR, an amount, as defined in a table to be determined by the Exchange, will be added to the lowest quote offer among valid width quotes on the Exchange.
    - (3) If there are opening quotes on the Exchange that cross each other, and there is no away market in the affected series
      - (a) The minimum value for the OQR will be the lowest quote bid among valid width quotes on the Exchange.
      - (b) The maximum value for the OQR will be the highest quote offer among valid width quotes on the Exchange.
  - (B) If there is sufficient size on the Exchange and on away markets on the opposite side of the market from the imbalance to execute all opening marketable interest at a price that is at or within the established OQR and the Away Best Bid or Offer ("ABBO") without leaving an imbalance, the Phlx XL II system will open the affected series for trading at that price by executing opening marketable interest on the Phlx XL II system, as long as the system does not trade through the ABBO. If it would trade through the ABBO, the Phlx XL II system will initiate a "Route Timer," not to exceed one second. If no new interest is received during the Route Timer, the Phlx XL II system will then route to other markets disseminating prices better than the Exchange's opening price, execute marketable interest at the

opening price on the Exchange, and route to other markets disseminating prices equal to the Exchange opening price if necessary.

(v) (A) If there is an imbalance, or

(B) if there is no imbalance, and (1) no other U.S. options exchange has opened the affected series for trading, and (2) there is not a "quality opening market" (as defined in a table to be determined by the Exchange and published on the Exchange's web site), present on the Exchange in such option series, the PHLX XL system will begin the imbalance process.

(vi) Imbalance Process. If all opening marketable size cannot be completely executed at or within the OQR without trading through the ABBO, the Phlx XL II system will automatically institute the following imbalance process:]

(k) Price Discovery Mechanism. If the Exchange has not opened pursuant to paragraphs (f) or (i) above, after the OQR calculation in paragraph (j), the Exchange will conduct the following Price Discovery Mechanism.

(A) First, the [Phlx XL II ]system will broadcast an Imbalance Message (which includes the symbol, side of the [market ]imbalance (unmatched contracts), size of matched contracts, size of the imbalance, and price of the affected series which must be within the Pre-Market BBO) to [Phlx XL II ]participants, and begin an "Imbalance Timer," not to exceed three seconds. The Imbalance Timer will be for the same number of seconds for all options traded on the Exchange. [Phlx XL II participants may enter opening quotes, Opening Sweeps (as defined below) and orders during the Imbalance Timer.]

(B) Any new interest received by the system will update the Potential Opening Price. If during or at the end of the Imbalance Timer, the Opening Price is at or within the OQR[If opening quotes, Opening Sweeps and orders submitted during the Imbalance Timer, or other changes to the ABBO, would allow the entire imbalance amount to trade at the Exchange at or within the OQR without trading through the ABBO], the Imbalance Timer will end and the [Phlx XL II ]system will execute at the [appropriate]O[o]pening P[p]rice if the executions consist of Exchange interest only without trading through the ABBO and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price. If no new interest comes in during the Imbalance Timer and the Opening Price is at or within OQR, the Exchange will open at the end of the Imbalance Timer.

(C) Next, provided the option series has not opened pursuant to (k)(B) above, [If opening quotes, Opening Sweeps and orders submitted during the Imbalance Timer, or other changes to the ABBO, would not allow the entire imbalance amount to trade at the Exchange at or within the OQR without trading through the ABBO,]the [Phlx XL II ]system will:

- (1) send a [new]second Imbalance Message with a Potential Opening Price that is bounded by the OQR (without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price) and includes away market volume in the size of the imbalance to [Phlx XL II ]participants; and concurrently
- (2) initiate a Route Timer, not to exceed one second. The Route Timer operates as a pause before an order is routed to an away market. If during the Route Timer, interest is received by the [Phlx XL II ]system which would allow the Opening Price to be within OQR[all interest to trade on the Phlx XL II system (i.e., there is no longer an imbalance) at the opening price ]without trading through other markets and without trading through the limit price(s) of interest within OQR which is unable to be fully executed at the Opening Price, the [Phlx XL II]system will trade and the Route Timer will end. The [Phlx XL II ]system will monitor quotes received during the Route Timer period and make ongoing corresponding changes to the permitted OQR to reflect them.
- (3) [If]When the Route Timer expires, if the Potential Opening Price is within OQR (without trading through the limit price(s) of interest within OQR that is unable to be fully executed at the Opening Price),[the End of Route Timer Process will ensue. Under the End of Route Timer Process, ]the [Phlx XL II ]system will determine if the total number of contracts displayed at better prices than the Exchange’s P[p]otential O[o]pening P[p]rice on away markets (“better priced away contracts”) would satisfy the number of marketable contracts available on the Exchange. The Exchange will open the option by routing and/or trading on the Exchange, pursuant to (i)-(iii) below.
- (i) If [so]the total number of contracts displayed at better prices than the Exchange’s Potential Opening Price on away markets (“better priced away contracts”) would satisfy the number of marketable contracts available on the Exchange on either the buy or sell side, the [Phlx XL II ]system will route all marketable contracts on the Exchange to such better priced away markets as an Intermarket Sweep Order (“ISO”) designated as an Immediate-or-Cancel (“IOC”) order(s), and determine an opening Phlx Best Bid/Offer (“PBBO”) that reflects the interest remaining on the Exchange. The [Phlx XL II ]system will price any contracts routed away to other markets at the Exchange’s Opening Price[better away market price.]; or
- ([4]ii) If the total number of better priced away contracts would not satisfy the number of marketable contracts the Exchange has, the [Phlx XL II ]system will determine how many contracts it has available at the Exchange O[o]pening P[p]rice. If the total number of better priced away contracts plus the number of contracts available at the Exchange O[o]pening P[p]rice would satisfy the number of marketable contracts on



the Exchange on either the buy or sell side, the [Phlx XL II]system will contemporaneously route a number of contracts that will satisfy interest at other markets at prices better than the Phlx Opening Price and trade available contracts on the Exchange at the Exchange Q[o]pening P[p]rice. The [Phlx XL II ]system will price any contracts routed to other markets at the better of the Exchange Opening Price or the order's limit price pursuant to this sub-paragraph at the Exchange Q[o]pening P[p]rice [.]; or

([5]iii) If the total number of better priced away contracts plus the number of contracts available at the Exchange Q[o]pening P[p]rice plus the contracts available at other markets at the Exchange Opening Price would [not]satisfy the number of marketable contracts the Exchange has on either the buy or sell side, the [Phlx XL II ]system will [determine how many contracts are available at other markets at the Exchange opening price. If the total number of better priced away contracts plus the number of contracts available at the Exchange opening price plus the contracts available at other markets at the Exchange opening price would satisfy the number of marketable contracts the Exchange has, the Phlx XL II system will] contemporaneously route a number of contracts that will satisfy interest at other markets at prices better than the Exchange Q[o]pening P[p]rice (pricing any [such] contracts routed to other markets at the better of the Exchange Q[o]pening P[p]rice or the order's limit price), trade available contracts on the Exchange at the Exchange Q[o]pening P[p]rice, and route a number of contracts that will satisfy interest at other markets at prices equal to the Exchange Q[o]pening P[p]rice.

([6]4) [If the total number of better priced away contracts plus the number of contracts available at the Exchange opening price plus the contracts available at other markets at the Exchange opening price would not satisfy the number of marketable contracts the Exchange has, t]The [Phlx XL II ]system may send up to two additional Imbalance Messages (which may occur while the Route Timer is operating) bounded by OQR and reflecting away market interest in the volume[will repeat the Imbalance Process. The Phlx XL II system may repeat the Imbalance Process up to three times (as established by the Exchange)]. After the Route Timer has expired, the processes in subparagraph (3) will repeat (except no new Route Timer will be initiated).

([7]5) Forced Opening. [If a]After [that number of times]all additional Imbalance Messages have occurred pursuant to (4) above, [the Phlx XL II system still cannot route and/or trade the entire imbalance amount,]the [Phlx XL II ]system will open as many contracts as possible by routing to other markets at prices better than the Exchange Q[o]pening P[p]rice for their disseminated size, trading available contracts on the Exchange at the Exchange Q[o]pening P[p]rice bounded by OQR (without trading through the limit price(s) of interest within OQR which is unable to be fully

executed at the Opening Price), and routing contracts to other markets at prices equal to the Exchange O[o]pening P[p]rice at their disseminated size. In this situation, the [Phlx XL II]system will price any contracts routed to other markets at the better of the Exchange O[o]pening P[p]rice or the order's limit price. Any unexecuted contracts from the imbalance not traded or routed will be [displayed in the Exchange quote at the opening price for the remaining size for a period not to exceed ten seconds and subsequently]cancelled back to the entering participant if they remain unexecuted and priced through the O[o]pening P[p]rice, unless the member that submitted the original order has instructed the Exchange in writing to re-enter the remaining size, in which case the remaining size will be automatically submitted as a new order. [During this display time period, the Phlx XL II system will disseminate, on the opposite side of the market from remaining unexecuted contracts: (i) a non-firm bid for the price and size of the next available bid(s) on the Exchange if the imbalance is a sell imbalance, or (ii) a non-firm offer for the price and size of the next available offer(s) on the Exchange if the imbalance is a buy imbalance.]

[(8)6] The [Phlx XL II]system will execute orders at the O[o]pening P[p]rice that have contingencies (such as, without limitation, [A]all-or-[N]none) and non-routable orders, such as a “Do Not Route” or “DNR” Orders, to the extent possible. The [Phlx XL II]system will only route non-contingency customer orders.

(D) The [Phlx XL II]system will: (1) re-price Do Not Route orders (that would otherwise have to be routed to the exchange(s) disseminating the ABBO for an opening to occur) to a price that is one minimum trading increment inferior to the ABBO, and (2) disseminate the re-priced DNR Order as part of the new PBBO.

[(vii) Permitted responses to Imbalance Message. During the Opening Process, permitted responses to an imbalance notification are quotes, Opening Sweeps (as defined more fully below), and orders. Specialists, SQTs, and RSQTs may submit quotes, Opening Sweeps and orders in response to an Imbalance Message. Non-SQT ROTs may submit orders in response to an Imbalance Message.

(A) Opening Sweep. An Opening Sweep is a one-sided electronic quotation submitted for execution against opening trading interest in the Phlx XL II system. A Phlx XL II participant assigned in a particular option may only submit an Opening Sweep if, at the time of entry of the Opening Sweep, they have already submitted and maintained a valid opening-width quote. All Opening Sweeps in the affected series entered by a participant will be cancelled immediately if that participant fails to maintain a continuous quote with a permitted opening bid/ask differential in the affected series.

(B) Opening Sweeps may be entered at any price with a minimum price variation applicable to the affected series, on either side of the market, at single or multiple price level(s), and may be cancelled and re-entered. A single Phlx XL II participant may enter multiple Opening Sweeps, with each Opening Sweep at a different price level. If a Phlx XL II participant submits multiple Opening Sweeps, the Phlx XL II system will consider only the most recent Opening Sweep at each price level submitted by such Phlx XL II participant in determining the opening price. The Phlx XL II system will aggregate the size of all Opening Sweeps (i.e., for all Phlx XL II participants) at a particular price level for trade allocation purposes. Unexecuted Opening Sweeps will be cancelled once the affected series is open.]

[(viii)E] [The Phlx XL II] The system will give priority to market orders first in time priority [(including limit orders that are treated as market orders)], then to resting limit orders. [at the opening price.] The allocation provisions of Rule 1014(g)(vii) will apply.

(F) When the option series opens, the system disseminates the price and size of the Exchange's best bid and offer (PBBO).

[(ix) Inbound orders, Opening Sweeps and quotes will not be included in the calculation of the opening price for a brief period established by the Phlx XL II system while the Phlx XL II system is in the process of completing the opening trade. This brief period will not exceed .25 of one second. After such brief period, inbound orders, Opening Sweeps and quotes received during the period will be entered into the Phlx XL II system in order of their arrival.

(x) If at any point during the opening process the ABBO becomes crossed (e.g., 1.05 bid, 1.00 offer), the opening process will be terminated and the Exchange will not open the affected series. A new opening process for the affected series will commence at the time the ABBO is uncrossed.]

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