

**Exhibit 5A**

New text is double-underlined;  
Deleted text is in [brackets]

**AMENDED AND RESTATED**  
**CERTIFICATE OF FORMATION**  
**OF**  
**MIAX EMERALD, LLC**

[**THIS IS TO CERTIFY** that there is hereby formed a limited liability company under and by virtue of the Delaware Limited Liability Company Act (the “Act”) (6 Del. C. §18-101, et. seq.).] This filing has been executed and filed in accordance with Section 18-208 of the Limited Liability Company Act. This document is being executed for the purpose of amending and restating the original Certificate of Formation, filed on January 30, 2018, under file number: 6528291.

1. The name of the limited liability company is **MIAX Emerald, LLC** (the “Company”).

2. The address of the registered office of the Company in the State of Delaware is 1209 Orange Street in the City of Wilmington, County of New Castle, ZIP Code 19801, and the name of the registered agent at such address for service of process is **The Corporation Trust Company**.

3. This Certificate shall be effective upon filing.

4. The duration of this limited liability company will be perpetual.

**IN WITNESS WHEREOF**, the undersigned, an authorized person, has signed this certificate this \_\_\_\_\_ day of \_\_\_\_\_, 2020[30<sup>th</sup> day of January, 2018].

**MIAX EMERALD, LLC**

By: \_\_\_\_\_

Barbara J. Comly  
EVP, General Counsel & Corporate Secretary

[ \_\_\_\_\_

BARBARA J. COMLY  
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