FARMINGTON HISTORIC DISTRICT
COMMISSION

APPLICATION FOR CERTIFICATE OF APPROPRIATENESS

1) Name of Applicant: Miss Porter's School

2) Contact Person: Katie Bradley

3) Email Address: kbradley@missporters.org

4) Mailing Address: 60 Main St.

5) Phone Number: 800-306-4689

6) Name of Owner if other than applicant: 

7) Mailing Address of Owner: 

8) Location of Property: 54 Main Street / Brick Dorm

9) Describe proposed work:
   Replacement or Material Change:
   Site Improvements:
   New Construction/Addition: We would like to aircondition this building. Air handling units will need to be placed on the north side of the building.

Please complete attached guidelines specific to the project you are undertaking and submit all required documentation with your application.

Informal discussions are strongly encouraged prior to formal submission of an application. Informal discussions occur at the end of each regularly scheduled meeting.

HISTORIC DISTRICT POLICY: Applications for Certificates of Appropriateness require the posting of a sign on the subject property for the 7 days prior to the public hearing. A $35 deposit is required for such signs, refundable upon return of the sign.

DATE: 8/31/20

SIGNATURE OF APPLICANT (MUST BE OWNER OR HOLDER OF OPTION TO PURCHASE OR AGENT THEREOF)
## System Specifications

**US Ton (nominal)**: 8

**Capacity**
- Nominal / Rated Cooling: 96,000 / 92,000
- Nominal / Rated Heating: 108,000 / 103,000

**Compressor Modulation Down to (Blush)**: 7.513

**EER**
- Ducted / Non-Ducted: 11.90 / 12.70
- Ducted / Non-Ducted: 24.50 / 28.60

**High Heat COP**
- Ducted / Non-Ducted: 3.63 / 3.86

### Power

**Voltage**
- PAV(VHz): 3 / 208.230 / 60

**Maximum Circuit Breaker (MCCB/ELB/ECB)**: 50

**Minimum Circuit Ampacity (MCA)**: 37.8

**SCCR**: 5

**Total Capacity (%)**
- Indoor Unit Quantity: 50 - 184% Of Outdoor Unit Capacity

**Maximum Indoor Unit Quantity**: 16

**Compressor**
- Type: SSC Scroll X 2
- RLA (A): 12.5

**Refrigerant**
- R410A Factory Charge (lbs): 16.31

**Pipe Connections**
- Liquid X Suction (inches): 3/8 X 7/8

**Installation Limitation**
- Vertical Separation: ODU to IDU (feet)
  - ODU to IDU: 361
  - Highest/Lowest IDU: 164
  - Total Refrigerant Pipe (feet): 3,280

**Fan**
- Type: Propeller X 2
- Output (CFM): 9,182

**Condenser Fan**
- Type: DC
- Output (W): 820 X 2

**FLA (A)**: 3

**Max External Static Pressure (W)**: 0.31

**Dimensions**
- W X H X D: 51 x 66.3 x 30.1/8

**Weight**
- lbs: 619.1

**Shipping Weight**
- lbs: 680.5

**Sound Level**
- dBA: Max: 61

**Operating**
- Cooling: 23 - 120 (-13 - -75 with LACH guards)

**Heating**: 23 - 120 (-13 - -75 with LACH guards)

**Safety Certifications**
- ETL (UL 1995)

**Protection Devices**
- High pressure sensor, low pressure sensor, over-voltage protection, compressor over-current protection, current transformer, fan motor voltage protection, fan motor thermal protection, overheat protection, phase detection protection, high voltage fuses

**Accessories**

<table>
<thead>
<tr>
<th>Qty</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHG-T2</td>
<td>Top windshield guard (8 - 18 ton outdoor units)</td>
</tr>
<tr>
<td>WHG-SL</td>
<td>Left side wind guard (8 - 16 ton outdoor units)</td>
</tr>
<tr>
<td>WHG-GR</td>
<td>Right side wind guard (6 - 16 ton outdoor units)</td>
</tr>
<tr>
<td>WHG-R2</td>
<td>Rear windshieldguard (6 - 16 ton outdoor units)</td>
</tr>
<tr>
<td>LACH-2-KIT</td>
<td>Low ambient cooling and side guards (8 - 16 ton outdoor units)</td>
</tr>
<tr>
<td>LACH-3-KIT</td>
<td>Low ambient cooling side guards (8 - 16 ton outdoor units)</td>
</tr>
<tr>
<td>LACH-2-SIDE KIT</td>
<td>Low ambient cooling side guards (8 - 16 ton outdoor units)</td>
</tr>
<tr>
<td>MCM 1200D</td>
<td>Heat pump mode selector switch</td>
</tr>
<tr>
<td>MIM-B14</td>
<td>External contact control interface module (operation and error output, night silent mode manual activation)</td>
</tr>
</tbody>
</table>

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*Certified in accordance with the AHRI VSM Reagent Ral Flow Multi-Split Air-Conditioner and Heat Pump (VRF) Certification Program.*

**Compatibility**

- DVM S Indoor units (AM***N**"+"), AHU kits (MXD-K***AN), and LCK (MCM-211UN)

**Construction**

- The unit shall be galvanized steel with a baked-on powder coated finish

**Heat Exchanger**

- The heat exchanger shall be mechanically bonded fin to copper tube

**Controls**

- The outdoor unit shall have a removable EEPROM that stores unit serial number, startup information, system settings, system tagname, and other information.

**Refrigerant System**

- The compressors shall be Samsung hermetically sealed, inverter driven, direct flash injected, DC scroll type with soft-start capability.

**Other Features**

- Asymmetrical scroll design with rotating compressor operation/priority (where applicable).

- Advanced oil recovery cycle logic (maximum duration in cool mode: 5 minutes). Maximum duration in heat mode: 6 minutes. Desired cycles lasting over 3 minutes are considered recovery cycles. Oil recovery operation shall not interrupt heating or cooling operation.

- Optional night quiet modes to reduce outdoor unit sound (4 levels) with automatic activation or manual activation (with MIM-B14).

- Advanced intelligent defrost logic to significantly reduce defrost cycle frequency by monitoring air resistance across the condenser coil during heating operation to determine defrost operation initiation to prevent unnecessary defrost cycles.

- Optional snow blowing logic to prevent snow accumulation on idle outdoor units.

- Maximum current control of outdoor unit(s) to limit current (50% - 100% of design current) adjustable at outdoor unit or central control devices: DMS 2.5 (MIM-DD1ALUN), BACNet Gateway (MIM-B17UN), LON Gateway (MIM-B18BUN).

- Energy savings options to reduce system energy consumption when average indoor room temperatures are greater than average indoor set temperatures in heating mode or when average indoor room temperatures are lower than average indoor set temperatures in cooling mode.

- Samsung HVAC maintains a policy of ongoing development, specifications are subject to change without notice.

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SH-A-1200-0105/2020

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Intertek
Job Name: **Brick Dorr**

Purchaser: 

Submitted to: 

Unit Designation: 

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**System Specifications**

**US Ton (nominal)**: 3.0

**Capacity (Btu/h) - Nominal Cooling**: 38,000

**Nominal Heating**: 42,000

**Performance**

**System Modulation down to (Btu/h)**: 7,500

**SEER - Ducted / Non-Ducted**: 16.0 / 14.8

**EER - Ducted / Non-Ducted**: 11.2 / 11.2

**HSPF - Ducted / Non-Ducted**: 8.6 / 8.8

**Voltage (V/Hz)**:
- Maximum Circuit Breaker: 40
- Minimum Circuit Ampacity (MCA): 23

**Indoor Units**

- **Total Capacity (%)**: 50 - 130% of Outdoor Capacity
- **Maximum Indoor Unit Quantity**: 6

**Compressor**

- **Type**: RLA, A
- **Twin BLDC Rotary X1**: 17.3

**Refrigerant**

- **Type**: R410A
- **Factory Charge**: 7.0 lbs.

**Pipe Connections**

- **Liquid Suction**: 3/8 X 5/8
- **Max. Distance - ODU to IDU (feet)**: 492 (574 equivalent)
- **Vertical Separation ODU to IDU (feet)**: 164 / 131
- **Highest/Lowest IDU (feet)**: 49
- **Total Refrigerant Pipe (feet)**: 984

**Condenser Fan**

- **Fan Type**: Propeller X 2
- **Output (CFM)**: 3,885

**Condenser Motor**

- **Type**: BLDC
- **Output (W) / FLA (A)**: 125 X 2 / 0.6

**Dimensions**

- **W X H X D (inches)**: 37 X 47 5/8 X 13
- **Weight (lbs.)**: 220

**Sound Level (dBA)**

- **Max.**: 50

**Operating Temperature Range**

- **Cooling**: 0 - 118 °F
- **Heating**: -4 - 75 °F

**Wind Baffles**

- **Front**: WBF-1M2
- **Back**: WBB-2M

**Wi-Fi Adapter**: MIM-030JN

**Mode Selector Switch For HP Systems**: MCM-C200U

**Safety Certifications**

- **ETL (UL 1995)**
- **Intelligent logic to ensure proper operation within unit design limitations and operational parameters**

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**Compatibility**

Only compatible with Samsung DVM S indoor units (AM****N**CH/AA)

**Construction**

The unit shall be galvanized steel with a baked on powder coated finish

Refrigerant pipe connections inside unit chassis with penetrations available on front, back, right, and bottom sides for versatile installation

**Heat Exchanger**

The heat exchanger shall be mechanically bonded fin to copper tube.

Salt spray test method: ASTM-B117-18 - the heat exchanger showed no unusual rust or corrosion development to 2,280 hours.

**Controls**

The unit shall be operated via NASA Protocol with controls provided by Samsung

Controls shall integrate with Samsung central controls without additional interface modules

The unit shall integrate with the Samsung NASA Controls Network Solution

Control wiring shall be 16 AWG X 2 shielded wire.

**Refrigerant System**

The compressors shall be Samsung hermetically sealed, inverter driven, twin BLDC Rotary type.

Refrigerant flow shall be controlled by EEV (electronic expansion valve) throughout the system.

A flat plate subcooler device will improve capacity at extreme system refrigerant pipe lengths and reduce refrigerant noise.

**Other Features**

Optional night quiet modes to reduce outdoor unit sound

Optional snow blowing logic to prevent snow drifting on idle outdoor units

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View From Main Street Sidewalk

Compressor will be located in the alcove between buildings.
Parker Rd
View From
Park Rd