

36 Richards Ave, Portsmouth NH 03801

ReVision Energy, Inc. in conjunction with our customer, Rhonda Stacy-Coyle, are requesting a variance to install a 24,000 BTU Mitsubishi Multi-Indoor Inverter Heat-Pump System on the parcel of land stamped Map 136 Lot 14, 36 Richards Ave.

Granting the variance would not be contrary to the public interest because the unit is clean, efficient, and environmentally safe. The unit is stationary and poses no threat to public safety. It will not be visible from the road or abutting properties due to decorative fencing surrounding the unit, which has been agreed upon by both our customer and the Historic District Committee.

The spirit of the ordinance is observed because the unit will not hinder, nor harm the general public and will have no substantial effect on surrounding properties. The heat pump system will provide energy efficient heating and cooling to the home. It will create minimal noise, and no smoke, glare, traffic obstructions, or a demand on water.

Substantial justice will be done due to the limited outdoor space. There is a single location for ideal placement. These circumstances are related to the constraints of the property and are not a common hardship. The residence itself is outside setback parameters.

The values of surrounding properties will not be diminished. The outdoor unit will be hidden from view. It also does not create odors, smoke, gas, dust, glare, heat or other pollutants.

Literal enforcement of the provisions of the Ordinance would result in an unnecessary hardship because of the limited outdoor space available. The outdoor unit will sit in a flower bed located behind the stairs that lead to the entrance of the residence.

The Historical District Committee has approved the installation of the unit with the condition there be a decorative fence surrounding it. Both the unit and the fencing are fully on the property but come close to the edge of the property line.

### Permit Authorization

**Owner:**

Rhonda Stacy-Coyle  
36 Richards Ave  
Portsmouth, NH 03801

7/16/2020

Owner hereby authorizes ReVision Energy to act as Owner's Agent for the limited purpose of applying for and obtaining any permit or approval from each Authority Having Jurisdiction that may be required for the installation of the Air Source Heat Pump System described in this Contract to be located on Owner's property.

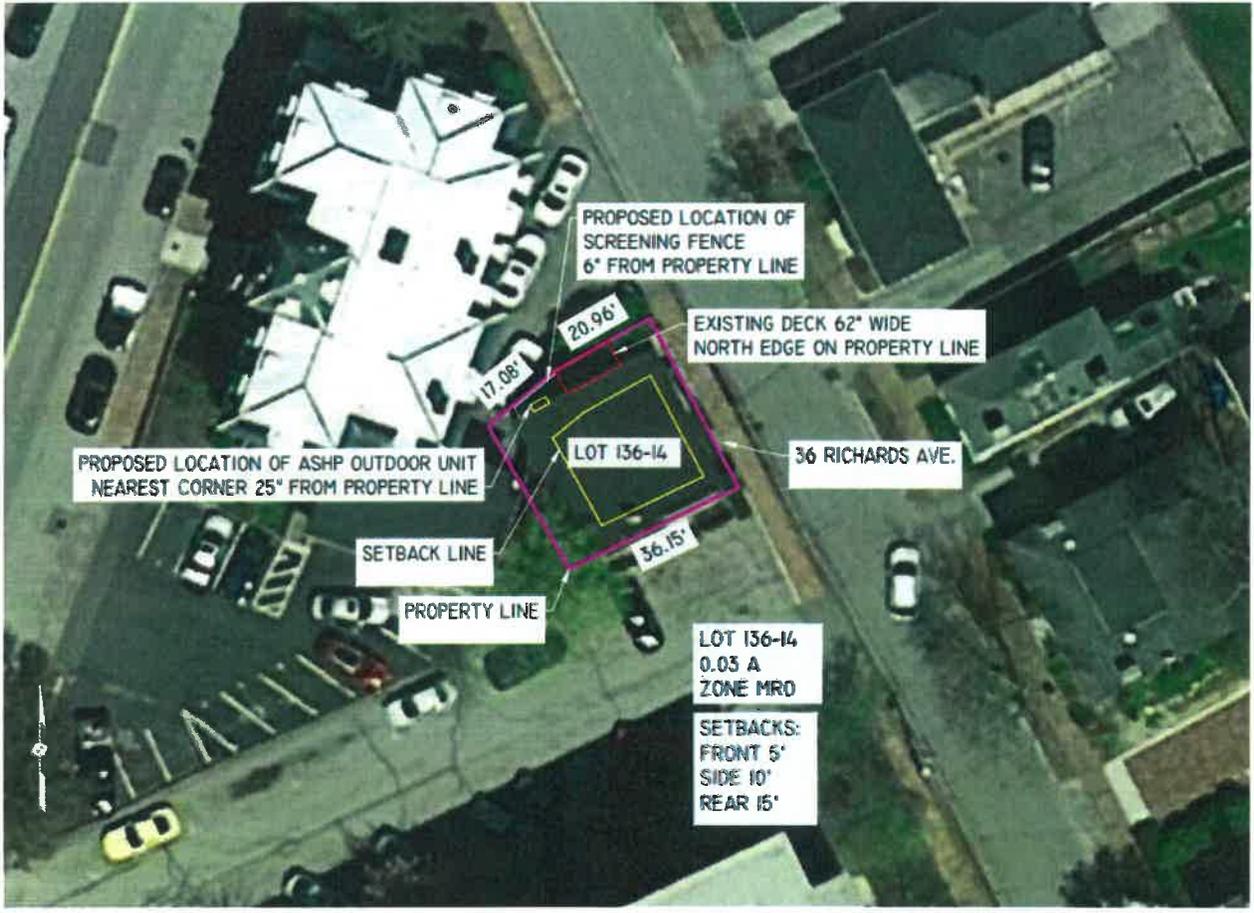


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Owner Signature

# 36 RICHARDS AVE PHOTOS

## AERIAL PHOTO WITH PLACEMENT AND MEASUREMENTS



# PLACEMENT OF OUTDOOR UNIT



**EXAMPLE OF INSTALLED OUTDOOR UNIT**



**EXAMPLE OF SURROUNDING FENCING**



Job Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 System Reference: \_\_\_\_\_



Outdoor Unit: MXZ-3C24NAHZZ

### ACCESSORIES

- The outdoor unit is delivered with the base pan heater factory installed.
- Airflow Guide (PAC-SH96SG-E)
  - 3/8" x 1/2" Port Adapter (MAC-A454JP-E)
  - 1/2" x 3/8" Port Adapter (MAC-A455JP-E)
  - 1/2" x 5/8" Port Adapter (MAC-A456JP-E)
  - M-NET Adapter (PAC-IF01MNT-E)

**(For data on specific indoor units, see the MXZ-C Technical and Service Manual.)**

| Specifications   |                               |                       | Model Name                                  |
|--|-------------------------------|-----------------------|---|
| Unit Type  |                               |                       | MXZ-3C24NAHZZ                               |
| Cooling*<br>(Non-ducted / Ducted)  | Rated Capacity                | Btu/h                 | 22,000 / 23,600                             |
|  | Capacity Range                | Btu/h                 | 12,600 - 23,600                             |
|  | Rated Total Input             | W                     | 1,630 / 2,360                               |
| Heating at 47°F*<br>(Non-ducted / Ducted)  | Rated Capacity                | Btu/h                 | 25,000 / 24,600                             |
|  | Capacity Range                | Btu/h                 | 11,400 - 30,600                             |
|  | Rated Total Input             | W                     | 1,725 / 1,871                               |
| Heating at 17°F*<br>(Non-ducted/Ducted)  | Rated Capacity                | Btu/h                 | 14,000 / 14,000                             |
|  | Maximum Capacity              | Btu/h                 | 25,000 / 24,600                             |
|  | Rated Total Input             | W                     | 1,622 / 1,635                               |
| Heating at 5°F*  | Maximum Capacity              | Btu/h                 | 25,000                                      |
| Connectable Capacity   |                               | Btu/h                 | 12,000 - 27,000                             |
| Energy Star® (ENERGY STAR products are third-party certified by an EPA-recognized Certification Body.) |                               |                       | Yes   |
| Electrical Requirements  | Power Supply                  | Voltage, Phase, Hertz | 208 / 230V, 1-Phase, 60 Hz                  |
|  | Recommended Fuse/Breaker Size | A                     | 40  |
|  | MCA                           | A                     | 30.5  |
| Voltage  | Indoor - Outdoor S1-S2        | V                     | AC 208 / 230                                |
|  | Indoor - Outdoor S2-S3        | V                     | DC ±24                                      |
| Compressor   |                               |                       | DC INVERTER-driven Twin Rotary              |
| Fan Motor (ECM)  |                               | F.L.A.                | 2.43  |
| Sound Pressure Level   | Cooling                       | dB(A)                 | 54  |
|  | Heating                       | dB(A)                 | 58  |
| External Dimensions (H x W x D)  |                               | In<br>mm              | 41-9/32 x 37-13/32 x 13<br>1048 x 950 x 330 |
| Net Weight   |                               | Lbs / kg              | 189 / 86                                    |
| External Finish  |                               |                       | Munsell No. 3Y 7.8/11                       |
| Refrigerant Pipe Size O.D.   | Liquid (High Pressure)        | In / mm               | 1/4 / 6.35                                  |
|  | Gas (Low Pressure)            | In / mm               | A:1/2 / 12.7 ; B,C: 3/8 / 9.52              |
| Max. Refrigerant Line Length   |                               | Ft / m                | 230 / 70                                    |
| Max. Piping Length for Each Indoor Unit  |                               | Ft / m                | 82 / 25                                     |
| Max. Refrigerant Pipe Height Difference  | If IDU is Above ODU           | Ft / m                | 49 / 15                                     |
|  | If IDU is Below ODU           | Ft / m                | 49 / 15                                     |
| Connection Method  |                               |                       | Flared/Flared                               |
| Refrigerant  |                               |                       | R410A                                       |

\* Rating Conditions per AHRI Standard:

Cooling | Indoor: 80° F (27° C) DB / 67° F (19° C) WB

Cooling | Outdoor: 95° F (35° C) DB / W.B. 23.9° C (75° F)

Heating at 47°F | Indoor: 70° F (21° C) DB / 60° F (16° C) WB

Heating at 47°F | Outdoor: 47° F (8° C) DB / 43° F (6° C) WB

Heating at 17° F | Indoor: 70° F (21° C) DB

Heating at 17° F | Outdoor: 17° F (-8° C) DB / 15° F (-9° C) WB

# SPECIFICATIONS: MXZ-3C24NAHZ2

## OPERATING RANGE:

|         | Outdoor                                  |
|---------|--|
| Cooling | D.B. 14 to 115° F [ D.B. -10 to 46° C]*1 |
| Heating | W.B. -13 to 65° F [ W.B. -25 to 18° C ]  |

\*1. D.B. 5 to 115° F [ D.B. -15 to 46° C ], when an optional Air Outlet Guide is installed.

## ENERGY EFFICIENCIES:

| Indoor Unit Type          | SEER | EER   | HSPF | COP @ 47°F | COP @ 17°F |
|---------------------------|------|-------|------|------------|------------|
| Non-ducted (06 + 06 + 09) | 19.0 | 13.5  | 10.0 | 4.25       | 2.53       |
| Ducted and Non-ducted     | 17.3 | 11.75 | 9.5  | 4.03       | 2.52       |
| Ducted (09 + 09 + 09)     | 15.5 | 10.0  | 9.0  | 3.80       | 2.51       |

## NOTES:

- Minimum of two Indoor Units must be connected to the MXZ-3C24NAHZ2.
- Minimum installed capacity cannot be less than 12,000 Btu/h.
- Total connected capacity must not exceed 130% of outdoor unit capacity.
- System can operate with only one Indoor Unit turned on.
- Information provided at 208/230V.
- For Reference:
  - MXZ-C Technical & Service Manual for detailed specifications and additional information per Indoor Unit Combination.
  - MXZ Series Multi-Zone Indoor/Outdoor Combination Table for allowed unit combinations.

## MVZ CONNECTION RULES:

- Only 1 MVZ may be used on any system.
- When an MVZ is connected, total connected capacity must be 100% or less.
- When an MVZ is connected, no P-Series indoor units can be used (PCA, PLA, or PEAD).

## NOTES:

# MXZ-5C24NAHZ2 OPERATIONAL PERFORMANCE

**NON-DUCTED:**

| # of indoor unit | Total Nominal Capacity (x1000 Btu/h) | Total Indoor Unit Capacity (Btu/h) | Operational Performance for Indoor Unit Combinations (Unit A + Unit B + Unit C) | Cooling Capacity Range (Btu/h) |        |        |
|------------------|--------------------------------------|------------------------------------|---|--------------------------------|--------|--------|
|                  |                                      |                                    |   | Heating Capacity Range (Btu/h) |        |        |
|                  |                                      |                                    |   | Unit A                         | Unit B | Unit C |
| 1                | 6                                    | 6,000                              | 6   | 6,000                          | -      | -      |
|                  |                                      | 7,400                              |   | 7,400                          | -      | -      |
| 1                | 9                                    | 9,000                              | 9   | 9,000                          | -      | -      |
|                  |                                      | 11,000                             |   | 11,000                         | -      | -      |
| 1                | 12                                   | 12,000                             | 12  | 12,000                         | -      | -      |
|                  |                                      | 14,400                             |   | 14,400                         | -      | -      |
| 1                | 15                                   | 14,000                             | 15  | 14,000                         | -      | -      |
|                  |                                      | 18,000                             |   | 18,000                         | -      | -      |
| 1                | 18                                   | 17,200                             | 18  | 17,200                         | -      | -      |
|                  |                                      | 21,600                             |   | 21,600                         | -      | -      |
| 2                | 12                                   | 12,000                             | 6 + 6   | 6,000                          | 6,000  | -      |
|                  |                                      | 14,800                             |   | 7,400                          | 7,400  | -      |
| 2                | 15                                   | 15,000                             | 6 + 9   | 6,000                          | 9,000  | -      |
|                  |                                      | 18,400                             |   | 7,400                          | 11,000 | -      |
| 2                | 18                                   | 18,000                             | 6 + 12  | 6,000                          | 12,000 | -      |
|                  |                                      | 22,000                             |   | 7,500                          | 14,500 | -      |
| 2                | 18                                   | 18,000                             | 9 + 9   | 9,000                          | 9,000  | -      |
|                  |                                      | 22,000                             |   | 11,000                         | 11,000 | -      |
| 2                | 21                                   | 20,000                             | 6 + 15  | 6,000                          | 14,000 | -      |
|                  |                                      | 22,000                             |   | 6,400                          | 15,600 | -      |
| 2                | 21                                   | 20,000                             | 9 + 12  | 8,600                          | 11,400 | -      |
|                  |                                      | 22,000                             |   | 9,500                          | 12,500 | -      |
| 2                | 24                                   | 21,800                             | 6 + 18  | 5,600                          | 16,200 | -      |
|                  |                                      | 22,000                             |   | 5,600                          | 16,400 | -      |
| 2                | 24                                   | 21,800                             | 9 + 15  | 8,500                          | 13,300 | -      |
|                  |                                      | 22,000                             |   | 8,300                          | 13,700 | -      |
| 2                | 24                                   | 21,800                             | 12 + 12   | 10,900                         | 10,900 | -      |
|                  |                                      | 22,000                             |   | 11,000                         | 11,000 | -      |
| 2                | 27                                   | 21,800                             | 9 + 18  | 7,500                          | 14,300 | -      |
|                  |                                      | 22,000                             |   | 7,400                          | 14,600 | -      |
| 2                | 27                                   | 21,800                             | 12 + 15   | 10,100                         | 11,700 | -      |
|                  |                                      | 22,000                             |   | 9,800                          | 12,200 | -      |
| 3                | 18                                   | 18,000                             | 6 + 6 + 6   | 6,000                          | 6,000  | 6,000  |
|                  |                                      | 22,200                             |   | 7,400                          | 7,400  | 7,400  |
| 3                | 21                                   | 18,000                             | 6 + 6 + 9   | 5,100                          | 5,100  | 7,700  |
|                  |                                      | 24,800                             |   | 7,100                          | 7,100  | 10,600 |
| 3                | 24                                   | 22,000                             | 6 + 6 + 12  | 5,500                          | 5,500  | 11,000 |
|                  |                                      | 25,000                             |   | 6,300                          | 6,300  | 12,300 |
| 3                | 24                                   | 22,000                             | 6 + 9 + 9   | 5,500                          | 8,300  | 8,300  |
|                  |                                      | 25,000                             |   | 6,300                          | 9,400  | 9,400  |
| 3                | 27                                   | 24,000                             | 6 + 6 + 15  | 5,500                          | 5,500  | 12,900 |
|                  |                                      | 25,000                             |   | 5,600                          | 5,600  | 13,700 |
| 3                | 27                                   | 24,000                             | 6 + 9 + 12  | 5,300                          | 8,000  | 10,700 |
|                  |                                      | 25,000                             |   | 5,600                          | 8,400  | 11,000 |
| 3                | 27                                   | 24,000                             | 9 + 9 + 9   | 8,000                          | 8,000  | 8,000  |
|                  |                                      | 25,000                             |   | 8,300                          | 8,300  | 8,300  |

# MXZ-3C24NAHZ2 OPERATIONAL PERFORMANCE, CONTD.

**DUCTED:**

| # of indoor unit | Total Nominal Capacity (x1000 Btu/h) | Total Indoor Unit Capacity (Btu/h) | Operational Performance for Indoor Unit Combinations (Unit A + Unit B + Unit C) | Cooling Capacity Range (Btu/h) |        |        |
|------------------|--------------------------------------|------------------------------------|---|--------------------------------|--------|--------|
|                  |                                      |                                    |   | Heating Capacity Range (Btu/h) |        |        |
|                  |                                      |                                    |   | Unit A                         | Unit B | Unit C |
| 1                | 9                                    | 9,000                              | 9   | 9,000                          | -      | -      |
|                  |                                      | 10,900                             |   | 10,900                         | -      | -      |
| 1                | 12                                   | 12,000                             | 12  | 12,000                         | -      | -      |
|                  |                                      | 13,600                             |   | 13,600                         | -      | -      |
| 1                | 15                                   | 15,000                             | 15  | 15,000                         | -      | -      |
|                  |                                      | 18,000                             |   | 18,000                         | -      | -      |
| 1                | 18                                   | 17,200                             | 18  | 17,200                         | -      | -      |
|                  |                                      | 21,600                             |   | 21,600                         | -      | -      |
| 2                | 18                                   | 18,000                             | 9 + 9   | 9,000                          | 9,000  | -      |
|                  |                                      | 21,800                             |   | 10,900                         | 10,900 | -      |
| 2                | 21                                   | 21,000                             | 9 + 12  | 9,000                          | 12,000 | -      |
|                  |                                      | 21,800                             |   | 9,700                          | 12,100 | -      |
| 2                | 24                                   | 21,800                             | 9 + 15  | 8,200                          | 13,600 | -      |
|                  |                                      | 21,800                             |   | 8,200                          | 13,600 | -      |
| 2                | 24                                   | 21,800                             | 12 + 12   | 10,900                         | 10,900 | -      |
|                  |                                      | 21,800                             |   | 10,900                         | 10,900 | -      |
| 2                | 27                                   | 21,800                             | 9 + 18  | 7,500                          | 14,300 | -      |
|                  |                                      | 21,800                             |   | 7,300                          | 14,500 | -      |
| 2                | 27                                   | 21,800                             | 12 + 15   | 9,700                          | 12,100 | -      |
|                  |                                      | 21,800                             |   | 9,400                          | 12,400 | -      |
| 3                | 27                                   | 23,600                             | 9 + 9 + 9   | 7,900                          | 7,900  | 7,900  |
|                  |                                      | 24,600                             |   | 8,200                          | 8,200  | 8,200  |

