**Project**

**Name**
Mazza Residence

**Location**
West Islip, NY

**Completion Date**
October 26, 2014

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**The Team**

**HVAC Contractor**
WJM Air Conditioning & Htg. Inc.

**HVAC Distributor**
Blackman Plumbing Supply

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**Fujitsu Equipment**

3) AOU36RLXFZ Outdoor Unit

5) AUU9RLF Ceiling Cassette

7) AUU7RLF Ceiling Cassette

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**Designing to Be Felt, Not Seen**

This house is a million dollar modular home, 4400 sq.ft. living space, with 2 floors and a huge attic. It was built in Pennsylvania and shipped complete in 6 sections and assembled on site (100’ x 70’ approx.) in 2014, right on the water near Robert Moses Bridge. It replaced a home demolished by super storm Sandy. The new home is on top of pilings 11’ off the ground. The roofers didn’t finish assembling the roof and left it uncovered. Two days of rain followed and destroyed the inside of the home and it had to be gutted.

**Design Challenge**

Since the house is on the water, no ductwork was allowed under the house. The homeowners didn’t want to lose any closet space by running ducts from the attic to first floor, nor did they want to see grilles and returns. The attic will eventually be finished as a man cave/hang-out space, so there is limited space to supply ducting. They also did not want anything on the walls including baseboard. The homeowners also did not like forced hot air as heat and radiant heat was out of the budget.

**Solution**

There is a 12” space between sheetrock surface of ceiling joists on the first floor & bottom of floor joists for the second floor. Since the house was gutted, ceiling cassettes were recommended because they would be a perfect fit! The grilles are almost flush with the ceiling and each have their own condensate pump built into the unit. The ceiling cassettes were also ideal for the second floor as there was plenty of attic space above. All the refrigeration piping, communication wires and condensate drains were able to be run in the ceiling space and down inside of the 2”x6” walls. The customer loved the idea and agreed to the installation design.

**Result**

The system went in flawlessly and exactly as expected. Each cassette was suspended in the ceilings strategically spaced throughout the house on both floors, covering every room/area. Including one in the large master walk-in closet. All the drains run inside of the walls and pop out through the bottom floor of the house. Making them unseen from anywhere outside the home. All of the
re refrigeration lines run inside of the walls and ceilings on the first floor and behind knee walls in the attic, down inside the exterior walls. No piping is seen on the exterior of the home. The 3 condensers were mounted on wall brackets on one side of the house. Every wall is 2”x6” studs with best insulation including the inside walls, creating excellent insulating factor. The system is so quiet, you can only tell they are on by seeing the louvers moving. No wall stats were used. The house is still not complete, but the systems are keeping the house warm. Fitting with the customers tight budget, Fujitsu was a win win!

“It’s exactly what I wanted! Nothing on my walls, quiet and clean looking. Amazing!”

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