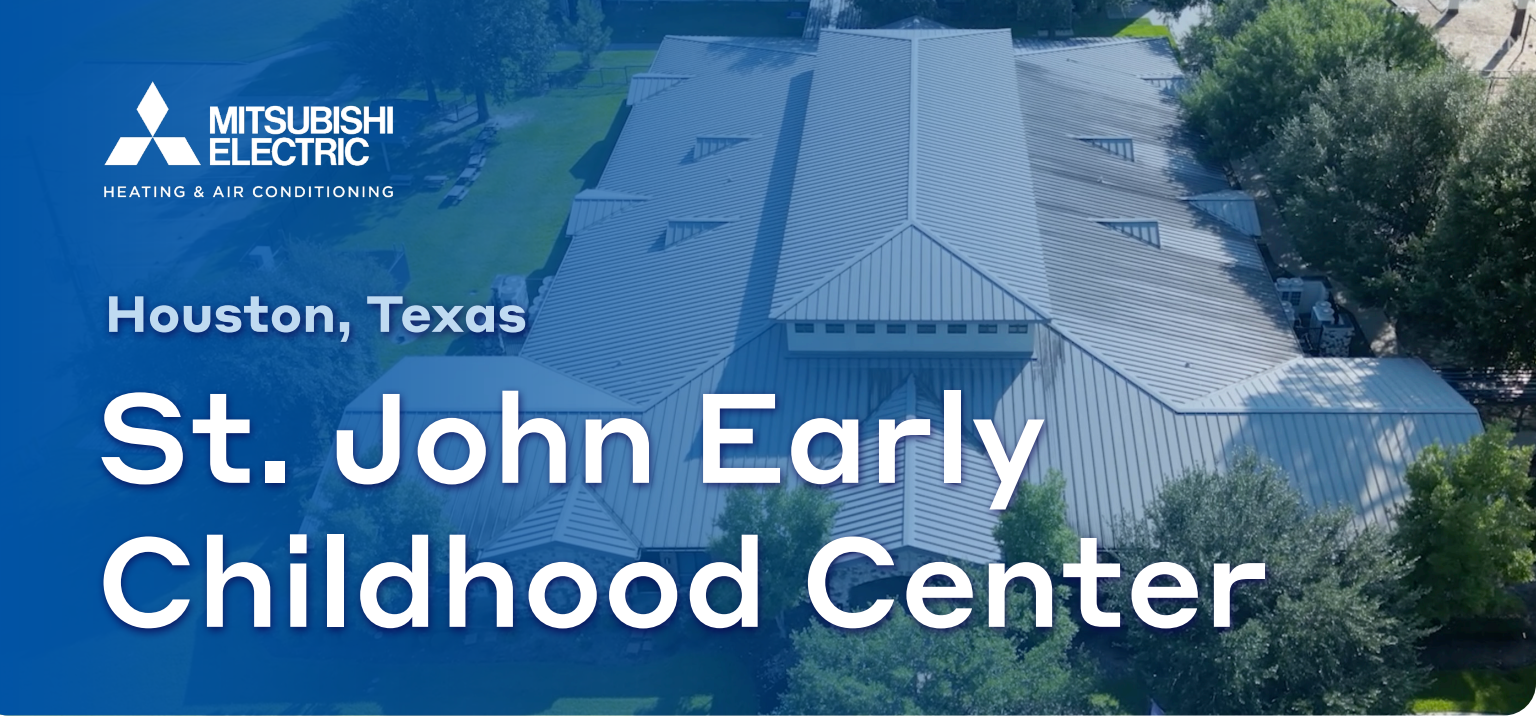


MITSUBISHI ELECTRIC
HEATING & AIR CONDITIONING

Houston, Texas

St. John Early Childhood Center

Challenge

Persistent humidity, uneven cooling, and frequent HVAC failures created safety concerns and daily comfort complaints throughout the school.

Solution

A Mitsubishi Electric VRF system delivered zoned comfort and improved humidity control without disrupting school operations.

Result

Consistent comfort, drier floors, quieter operation, and a reliable system that reduced maintenance issues.

Learn more

https://youtu.be/VbeS6W39fvs

Creating a more comfortable learning environment

For an early childhood learning center, comfort is about more than temperature — it's about safety, comfort, and creating an environment where children and teachers can thrive. At St. John Early Childhood Center, persistent humidity and inconsistent cooling were more than inconveniences; they became daily operational challenges that affected the entire building.

Working with ATS Mechanical, the school set out to find a solution that could resolve long-standing comfort issues without disrupting daily operations. The result was a Mitsubishi Electric Variable Refrigerant Flow (VRF) system that transformed the way the building feels, functions, and supports those inside it.

Managing humidity in a high-occupancy learning environment

Located in a humid climate, St. John Early Childhood Center struggled to maintain consistent indoor conditions — especially during warmer months. Classrooms and common areas frequently felt stagnant, damp, and uncomfortable.

"When it was very humid outside, the floors in the classrooms and the lobby would get wet," said Tiffany Bunker, Administrator at St. John Early Childhood Center. "We were mopping floors, putting cones out, reminding parents to wipe their feet — it was a daily concern."

The moisture issues escalated beyond inconvenience. In one incident, a teacher slipped on a damp floor and broke her kneecap. Furniture, toys, and cabinets often felt damp to the touch, and staff complaints about hot classrooms became a near-daily occurrence.

“It was almost every day teachers would say, ‘It’s hot in my room,’ or ‘It’s hot in the entrance,’” said Letty Wilson, Assistant Director.

From a facility standpoint, the problems were persistent and costly. The original HVAC system, installed when the building was constructed, struggled from the start.

“No matter how often we changed filters or serviced the system, it was never enough,” said Richard Hurliman, facility leadership. “We were going through four or five compressors a year. It was costing us roughly a third of the replacement cost of the Mitsubishi system — every single year.” To make matters worse, the original system design was never properly warrantied due to airflow limitations, leaving the school stuck in a cycle of repairs and downtime.

Zoned VRF comfort without disruption

When ATS Mechanical was called in to address another system failure, the conversation quickly shifted from short-term repair to long-term solution.

“The front of the school was on one large system with a single thermostat,” explained Barry Granger of ATS Mechanical. “Once that thermostat was satisfied, the rest of the building would get hot.”

ATS Mechanical recommended a Mitsubishi Electric VRF system — a non-invasive approach that allowed the school to keep its existing infrastructure while dramatically improving comfort control.

“The beautiful thing about VRF is that it’s non-invasive,” said Kevin Kinsella. “We were able to optimize comfort in every classroom without tearing the building apart.”

Each classroom became its own zone, complete with individual temperature control. The heat recovery design allowed one room to heat while another cooled, depending on real-time needs — a critical advantage in a building with varying occupancy and usage throughout the day.

Installation was carefully planned to avoid disruption.

“We worked afternoons and evenings, six days a week,” said Granger. “The school never lost cooling, and teachers and kids didn’t experience a single day of downtime.”

Safer, quieter, healthier comfort

The difference was noticeable almost immediately.
“It was a pretty immediate change in how the building cooled — even during the hottest part of the day,” Hurliman said.

Instead of battling humidity and noise, classrooms became consistently comfortable. The quiet operation of the Mitsubishi Electric indoor units was another welcome change.

“You can stand next to the units and not even know they’re running,” Granger added. “The air just feels good — it feels healthy.”

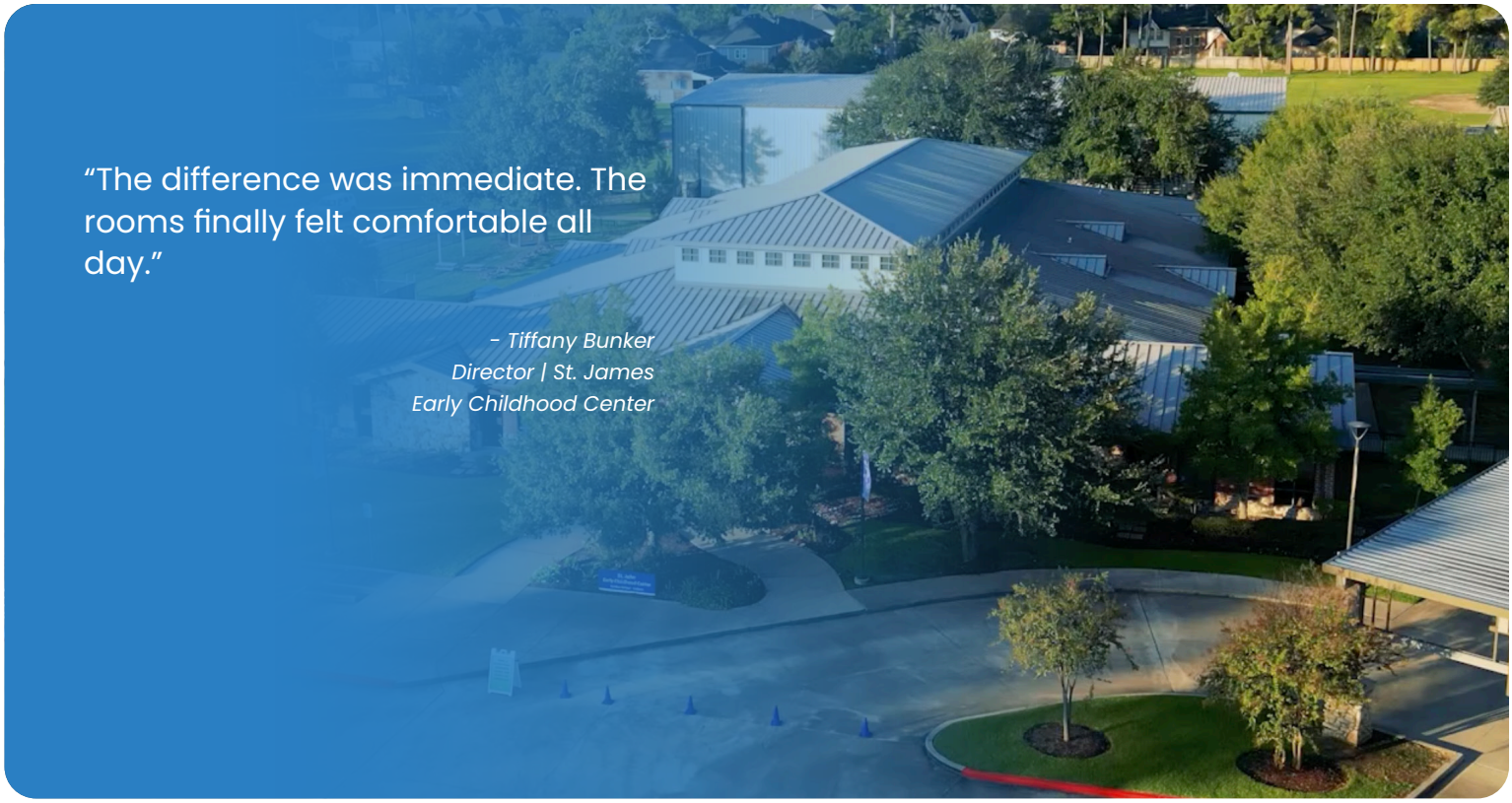
For staff members, the improvement went beyond comfort.

“I have chronic asthma,” Bunker shared. “I haven’t had an asthma attack in this office in probably four months.”

With humidity under control, floors stayed dry, air felt fresher, and safety concerns were dramatically reduced. Teachers no longer needed to manage uncomfortable classrooms, allowing them to focus fully on their students.

A long-term investment in comfort and care

Today, the Mitsubishi Electric VRF system continues to support a healthier learning environment at St. John Early Childhood Center. By breaking free from the cycle of constant repairs and inconsistent performance, the school has gained confidence in a solution designed to last.
“It’s been a huge blessing,” Wilson said. “We’re very happy — and looking forward to the next 25 years.”



"The difference was immediate. The rooms finally felt comfortable all day."

- Tiffany Bunker
Director | St. James
Early Childhood Center

Equipment

City Multi®

- 35 PLFY-P12NFMU-E Ceiling-cassette
- 2 PEFY-P48NMAU-E4 Ceiling-concealed
- 4 PEFY-P12NMAU-E4 Ceiling-concealed
- 2 PKFY-P18NLMU-E.TH Wall mounted
- 3 PEFY-AF1200CFMR-E DOAS ceiling
- 20 CMY-Y102SS-G2 branch joint
- 1 CMY-Y202S-G2 branch joint
- 2 CMY-Y102LS-G2 branch joint
- 1 CMY-R300NCBK twinning kit
- 1 TE-200A system remote controller
- 1 EW-50A System Remote Controller
- 1 PAC-SF46EPA-G Transmission Booster
- 35 SLP-18FAU Decoration Panel
- 38 BV38BBSI Ball Valve 3/8"
- 38 BV58BBSI Ball Valve 5/8"
- 1 CMY-R304S-G1 Reducer
- 1 CMY-R305S-G1 Reducer
- 1 CMY-R306S-G Reducer
- 3 CMY-R301S-G Reducer

Project Team

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