Regency Parc: Where Sustainability Meets Luxury



Regency Parc, a 20-story luxury residential building in Coral Gables, Florida, leverages VRF technology to deliver environmental sustainability to its tenants.

Quick Facts

Location: Coral Gables, FL
Industry: Commercial Real Estate
Products: Trane® / Mitsubishi Electric
Topics: Energy Efficiency | Water
Conservation | Sustainability

Services: VRF Consulting | Engineering |

Solution Installation

Results

20

Story Building Successfully Serviced

27

VRF Heat Pump Systems Installed

254

Indoor Units with Energy Apportionment



Highlights

- Comprehensive VRF solution replaced the need for water-consuming condenser systems, supporting aggressive water conservation goals.
- · Energy apportionment technology enables transparent tenant billing based on actual consumption.
- Strategic equipment placement across multiple floors enhanced flexibility while addressing acoustic requirements.
- Multi-year approach ensured project continuity during volatile construction market conditions.

The Challenge

Codina Partners, a distinguished real estate development and investment firm headquartered in Coral Gables, known as "The City Beautiful" for its Mediterranean Revival architecture and strict zoning regulations, faced the complex challenge of designing an HVAC system for a new 20-story luxury residential building, which would become the second-tallest structure in the historic city. The developer's vision extended far beyond conventional building systems. Water conservation stood as the primary driver for this project, reflecting both environmental responsibility and the practical realities of Coral Gables' carefully planned community. Traditional condenser water systems, while effective, conflicted with the owner's sustainability goals and would have required significant ongoing water consumption. "The owners' driver for this building was energy efficiency, indoor air quality (IAQ) and water conservation," explained Reny Urdaneta, VRF Account Manager, Florida Region. The developer's founder planned to live in the penthouse, creating additional acoustic requests to elevate equipment off the roof for noise control. This was a design consideration that would influence the entire system layout.



The Solution

With a strong commitment to innovation, sustainability and recognizing the need for a consultative approach, Codina Partners turned to Trane®. The solution emerged through a comprehensive evaluation of system alternatives and close collaboration with design partners.

Trane's team conducted a detailed life cycle cost analysis that compares air-cooled VRF systems against traditional Water-Source Heat Pump (WSHP) condenser water systems. VRF technology consolidates heating and cooling into one all-electric, multi-zone system, making it highly adaptive, comfort-focused, cost-effective and precise. The analysis revealed that VRF technology offered superior performance in three critical areas: water conservation, acoustics, and zoning flexibility; all key priorities for the project.

The selected system leveraged <u>Trane® / Mitsubishi Electric CITY MULTI®</u> outdoor and indoor units with their innovative two-pipe system, offering operational, design and application flexibility.

Equipment Configuration

27

CITY MULTI Y Series Heat Pump Systems

254

CITY MULTI Indoor Units With Energy Apportionment Capability

17

Ductless Mini Split Systems

5

Precedent® Rooftop Units

Integrated Trane BAS

Tracer® SC+ Building Automation System

Strategic Implementation

Trane's approach extended beyond equipment selection to encompass multi-year collaboration principles. The energy apportionment capability enables tenant billing through advanced control systems that can support multiple indoor units via touchscreen or web browser interfaces. This allows the developer to monitor and charge tenants for actual energy consumption, which is a key differentiator for luxury residential properties.

Trane's commitment to ensuring we had the technical support and knowledge we needed throughout the entire process, from design to installation, made all the difference in delivering a smooth, successful project.

Alejandro Hernandez Project Manager, Million Air Conditioning Corp



The system design addressed the building's unique acoustic requirements by strategically placing VRF outdoor units across the roof, 6th floor, and 3rd floor. This configuration, enabled by VRF's flexible piping design, minimized noise impact on the penthouse while maintaining improved performance across all 20 floors.

The collaborative approach proved essential to project success. "Working with Trane's VRF team was invaluable." said Alejandro. "Their expertise in VRF design, installation and system optimization guided us through every phase of the project".

Working closely with Mitsubishi Electric Trane HVAC U.S. and Million Air Conditioning Corp, the installing contractor, Trane provided comprehensive support, including pre-design consultation, equipment selection guidance, and ongoing construction phase assistance. The team prioritized this project for several years, ensuring continuity and flow, which were essential to maintaining strong relationships with all stakeholders.

The Results

The innovative VRF system delivered on multiple fronts, reinforced the positioning Regency Parc as a model for luxury residential sustainability in South Florida.

Environmental and Operational Success

By replacing traditional condenser water systems, the building achieved its primary water conservation goal and reduced ongoing operational complexity. The energy apportionment technology transformed the tenant experience, providing transparent consumption-based billing and real-time data that enables more sustainable choices.

Comfort and Performance

The all-electric system delivers superior energy efficiency and excellent acoustics, addressing the developer's dual priorities of environmental responsibility and resident satisfaction. Building-wide heat electrification supports both immediate sustainability goals and long-term decarbonization objectives. At the same time, VRF zoning capabilities offer precise comfort control and operational flexibility across diverse residential and commercial spaces.

Long-Term Value

The 10-year parts and compressor warranty provides significant value to the developer and peace of mind for long-term property ownership. Combined with Trane's ongoing service support, this ensures reliable performance and operational confidence throughout the critical initial decade.



Future-Ready Infrastructure

The integrated Tracer® SC+ building automation system positions Regency Parc for current and evolving energy management needs, delivering energy optimization and data analytics that help achieve ongoing decarbonization goals. By embracing innovative VRF technology while focusing on water conservation and operational transparency, the building's infrastructure supports current residents and future sustainability initiatives.

Collaborative Success

The project's success stemmed from the collaborative approach embraced by all stakeholders. Codina Partners, Million Air Conditioning Corp and Trane worked together toward shared goals of water conservation, energy efficiency, and operational excellence. This team-oriented approach allowed each party to contribute their expertise while demonstrating how successful building projects emerge when developers, manufacturers, and contractors unite around common sustainability and performance goals.



Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit *trane.com or tranetechnologies.com*.