ALEJANDRO RIVAS, PE, HFDP, LEED AP BD+C

Miami, FL 33122 ● (405) 413-3082 ● arivasprieto@gmail.com

Professional Engineer in the State of Florida with an M.S. in Mechanical Engineering, 7+ years of experience in HVAC systems design, HFDP certified and LEED AP BD+C with experience in Healthcare, Laboratories, Clean Rooms, Higher Education and Commercial markets. ASHRAE 2017 Technical Paper Award winning author

EXPERIENCE & RELEVANT PROJECTS

HCS Engineers LLC, Miami, FL, *MECHANICAL ENGINEER*, September 2018 – Present

- Produce CD sets for Board room fit-out and Surgical Waiting Room renovation projects at Baptist South Miami Hospital in Miami, FL
- Generate DD and CD sets for new USP 797 & 800 clean room and renovation of Pharmacy at Nicklaus Children's Hospital – Tamiami in Miami, FL
- Produce CD set for Urology Department renovation project at Mount Sinai Medical Center in Miami Beach, Florida
- Develop CD sets for MRI fit-out and renovations at Aventura Hospital and A1 Imaging in Miami, Florida
- Complete CD set of drawings for treatment, pharmacy and hazardous drugs prep area in compliance with USP 797 & 800 at Leon Medical Centers Chemotherapy Center in Doral, FL
- Deliver CD set of drawings for 12,000 SF fit-out project of School of Nursing for Cambridge College of Healthcare and Technology in Miami, FL
- Lead mechanical design for DD and CD sets for 15,000 SF renovation project of Critical Care Unit at Baptist South Miami Hospital in Miami, FL
- Set-up Revit MEPFP models, views and sheets of all incoming projects to maintain uniformity of drawing standards

Ross & Baruzzini, Miami, FL, *MECHANICAL ENGINEER*, June 2017 – August 2018

- Produced SD and CD sets for a 40,000+ SF renovation of laboratories and administration floors at the Miami-Dade College, Miami, Florida
- Generated DD and CD sets for 65,000 SF 2nd Floor, Behavioral Health, Pediatrics renovation and 5,000 SF Intensive Care Unit fit-out projects at the Jackson South Hospital in Miami, Florida
- Selected and sized equipment, and produce CD set for renovation of 1,800 TON of cooling capacity CEP at Jackson South Hospital in Miami, Florida
- Generated CD set for new 5,000+ SF expansion of American Express Centurion Lounge at the Miami International Airport

Harley Ellis Devereaux, Chicago, IL, *MECHANICAL ENGINEER*, January 2017 – May 2017

- Led the SD concept of a brand new three-story 20,000 SF science and technology building for Cornerstone University, Grand Rapids, Michigan
- Produced DD set of HVAC floor plans for new construction/major renovation project of five-story 36,000+ SF of the Mechanical Engineering Building at the University of Illinois Urbana-Champaign
- Created and implemented workflow for moving information between BIM platforms – Revit, Trane Trace, and HVAC Solution

University of Oklahoma, Norman, OK, *GRADUATE RESEARCH ASSISTANT*, January 2015 – December 2016

- Developed and tested new control strategies and technologies for enhancing HVAC systems performance at Tinker AFB Clinic
- Generated and performed calibration procedures for research project sponsored by the DoD ESTCP at Tinker AFB Clinic
- Performed retro-commissioning of VAV Terminal Units at Tinker AFB Clinic to comply with AIA FGI and ASHRAE Std. 170

Covenca Ventilacion, C.A., Caracas, Venezuela, *MECHANICAL ENGINEER*, June 2014 – December 2014

- Produced CD sets of HVAC floor plans for full renovation project of food court and restaurants at Lord Center's Food Court in Caracas, Venezuela

Ingenaire, C.A., Caracas, Venezuela, *MECHANICAL ENGINEER*, June 2013 - June 2014

- Generated CD sets of HVAC floor plans for multiple bank office branches, business offices, restaurants, and residential projects in Venezuela

Central Madeirense, C.A., Caracas, Venezuela, *MECHANICAL ENGINEER*, December 2010 - May 2013

- Led production of SD, DD and CD sets of HVAC&R and Plumbing floor plans for a brand new 50,000 SF Branch Store #29 in Barquisimeto, Venezuela
- Produced complete CD set of HVAC&R and Plumbing floor plans for renovation project of a 30,000 SF of Branch Store #40 in Maracay, Venezuela

CERTIFICATIONS, AWARDS & PROFESSIONAL ASSOCIATIONS

- Professional Engineer – FL
- Healthcare Facility Design Professional - ASHRAE
- LEED AP Building Design + Construction – GBCI
- 2017 Technical Paper Award - ASHRAE
- 2016 Tom J. Love Student Member Award - ASME
- ASHRAE Member
- ASPE Associate Member

SKILLS & STRENGTHS

Healthcare	Field Survey	NFPA, IBC, IMC, ASHRAE	Greenheck CAPS
Laboratories	Load calculations	AHCA Experience	English (proficient)
Higher Education	HVAC systems layout	AutoCAD & Revit	Spanish (native)
Equipment selection & sizing	Submittals revision	Trace 700 and HAP	

PUBLICATIONS

- **Rivas Prieto, A.**, Thomas, W., Song, L., Wang, G. 2017. In-Situ Fan Curve Calibration for Virtual Airflow Sensor Implementation in VAV Systems. *ASHRAE Transactions - ASHRAE Winter Conference* (Vol. 123, pp. 215-229). ASHRAE Inc
- **Rivas Prieto, A.** 2016. Uncertainty Analysis for In-Situ Fan Curve Calibration in Variable Air Volume Systems. M.S. Thesis, School of Aerospace and Mechanical Engineering, University of Oklahoma, Norman, OK
- **Rivas Prieto, A.**, Elizondo, J., Song, L., Wang, G. 2016. Uncertainty Studies of Airflow Measurements in Non-Ideal Conditions in Variable Air Volume Air Handling Units. *Conference Proceedings - ASHRAE Annual Conference*, St. Louis, MO
- Kiamehr, K., **Rivas Prieto, A.**, Thomas, W., Gang, W., Song, L. 2016. Evaluation of Fault Detection and Diagnosis Methods for Air and Water Distribution Systems Using Virtual Flow Meters. *Conference Proceedings - ASHRAE Annual Conference*, St. Louis, MO
- Shahahmadi, S., **Rivas Prieto, A.**, Song, L., Wang, G. 2017. Energy Savings Potential in a Medical Facility through Custom Minimum Airflow Resets. *AEI 2017: Resilience of the Integrated Building – ASCE Conference* (pp. 419-431), Oklahoma City, OK

CONFERENCE PRESENTATIONS

- **Rivas Prieto, A.** "Uncertainty Studies of Airflow Measurements in Non-Ideal Conditions in Variable Air Volume Air Handling Units": presented at the ASHRAE Annual Conference, Conference Paper Session 11, St. Louis, MO. June 27th, 2016
- **Rivas Prieto, A.** "In-Situ Fan Curve Calibration for Virtual Airflow Sensor Implementation in VAV Systems": presented at the ASHRAE Winter Conference, ASHRAE Transactions Poster Session, Las Vegas, NV. January 30th, 2017

EDUCATION

M.S. Mechanical Engineering ● December 2016 ● University of Oklahoma, Norman, OK
M.S. Reliability of Industrial Systems ● April 2014 ● University Simon Bolivar, Caracas, Venezuela
B.S. Mechanical Engineering ● October 2010 ● University Simon Bolivar, Caracas, Venezuela