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**Prepared For:**

Alyssa Jones Wood, LEED Green Associate  
Green Initiatives Coordinator  
City of Hallandale Beach  
630 NW 2<sup>nd</sup> Street  
Hallandale Beach, FL 33009

**Project Location:**

Hallandale Municipal Complex  
400 Federal Highway  
Hallandale Beach, FL 33009

**Job Name:**

Replacement of 5- Existing FTU's

**Date:**

December 12, 2019

**USC Contract #: 15-JLP-023**

**USC Project #: 40-124415-19-004**

Trane is pleased to offer this proposal to remove and replace (5) existing Fan Terminal Units that currently serve the above referenced property. The FTU's being proposed for replacement are designated as FTU 2.5, 2.7, 2.12, 2.13 and 2.15. All of the scope within this proposal is within and included items from the awarded Agreement # 15-JLP-023 HVAC Products, Installation, Services and Related Products and Services

This proposal includes; New Trane equipment, associated installation labor, ductwork, miscellaneous material, subcontractors, supervision and project management, permits and inspections (***Permit fees if any, are not included***). The pricing below reflects all work to be coordinated and performed during normal weekday business hours. Our proposal and pricing is further defined by the following equipment and installation scope of work.

**Equipment Scope:**

**Tag Data - Variable Air Volume Fan Powered Terminal Units (Quantity-5)**

Item	Tag(s)	Quantity	Description	Model Number
A1	FTU-2.5	1	VAV Fan Powered Terminal Units (FP)	VPEF1000Q
A2	FTU-2.7	1	VAV Fan Powered Terminal Units (FP)	VPEF1200Q
A3	FTU-2.12	1	VAV Fan Powered Terminal Units (FP)	VPEF0800P
A4	FTU-2.13	1	VAV Fan Powered Terminal Units (FP)	VPEF1400U
A5	FTU-2.15	1	VAV Fan Powered Terminal Units (FP)	VPEF0600P

**Product Data - Variable Air Volume Fan Powered Terminal Units**

**All Units:**

- Parallel with electric heat
- Double wall with 1" matte faced insulation
- Flanged connection
- 277/60/1 motor voltage
- Single speed motor w/ SCR
- UC210 DDC controller w/ Modulating SCR Electric Heat Control
- Standard actuator
- Left hand controls connection
- Factory mounted wireless receiver
- Duct temperature sensor
- Disconnect switch
- Power fuse
- 1 stage of heat
- Electric heater air flow switch
- Wireless digital display sensor (Fld)

**Item: A1 / Quantity: 1 / Tag: FTU-2.5**

- 10" inlet
- 480 volt, 3 phase
- 8.0 kilowatt electric heater

**Item: A2 / Quantity: 1 / Tag: FTU-2.7**

- 12" inlet
- 480 volt, 3 phase
- 11.0 kilowatt electric heater



**Item: A3 / Quantity: 1 / Tag: FTU-2.12**

- 8" inlet
- 277 volt, 1 phase
- 4.0 kilowatt electric heater

**Item: A4 / Quantity: 1 / Tag: FTU-2.13**

- 14" inlet
- 480 volt, 3 phase
- 18.0 kilowatt electric heater

**Item: A5 / Quantity: 1 / Tag: FTU-2.15**

- 6" inlet
- 277 volt, 1 phase
- 3.0 kilowatt electric heater

**Not Included:** Warranty beyond Trane standard or as listed above, sound attenuators.

**Mechanical Installation Scope:**

1. During an agreed upon time period Trane will electrically lock-out and tag-out the existing equipment designated for replacement.
2. Removal and reinstallation of the existing lay-in type as needed to perform the existing equipment removal and installation of new equipment.
3. Mechanically and electrically disconnect the existing FTU's and components, including any associated ductwork, dismantle existing unit as required and prepare for removal.
4. Removal and proper disposal of all existing FTU's designated for replacement, including any associated material or debris.
5. Furnish all labor and material as needed to install the new FTU's where existing units are currently located.
6. Furnish and install new inlet and outlet ductwork and fittings, as required to reconnect the existing duct system to the inlet and outlet connections provided with new Trane equipment.
7. Make final ductwork terminations to new and/or existing ductwork as required, from duct connections provided with each of the new VAV boxes.
8. Reconnect existing power circuitry to the electrical connections provided with the new Trane equipment.
9. Make all final electrical terminations as required, for proper connection to new Trane FTU's.

**Controls Installation Scope:**

1. Install a Wireless Infrastructure to allow the new VAVs to communicate back to the Tracer SC+ main building controller.
2. Provide an additional five wireless sensors to allow for averaging space temperature control.
3. Optimize air handler programming found from Intelligent Services, including discharge air reset and VAV pressure optimization.

**General Conditions:**

1. Overtime labor is not included in this proposal.
2. Permit acquisition including application and inspections as required are included in our proposal.  
*(Permit Fees, if required are not included)*
3. Start-up and performance check of each new FTU to be performed by Trane Factory Technician, upon completion of installation.
4. One year installation warranty on new parts, labor and workmanship.

**Excluded Scope:**

1. Removal, or relocation of any existing infrastructure if required, such as electrical conduits, junction boxes, fire sprinkler piping or heads, smoke alarms, smoke detectors, or light fixtures.
2. MEP Design Engineering, Calculations and/or Drawings of any kind. **(Not required)**
3. Provisions for temporary cooling of any kind.
4. Architectural Design, Services, and/or Drawings of any kind.
5. Structural Engineering, Design and/or Drawings of any kind.
6. Independent Test and Balance.
7. Any fire alarm related controls, piping, wiring, components, smoke detectors, relays, panels, engineering, permits, inspections, or associated labor of any kind.
8. Any electrical upgrades or enhancements to the existing building electrical service, which are not included in the above scope of work.
9. Any building code upgrades or requirements not covered in the above scope.
10. Any changes or additions to the scope of work as described above.

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### Project Pricing:

**Total price to furnish and install (5) Trane Fan Terminal Units, as described above: \$ 50,415.00**

**Controls Associated Scope: Wireless Infrastructure & Intelligent Services Optimization: \$5,560.00**

Thank you for this opportunity. If you have questions concerning this proposal, feel free to contact us at any time.  
Respectfully,

David Wills  
Turnkey Account Manager  
**LEED Green Associate**

Nicole Albarano  
Energy Service and Controls  
**CEM**

**This agreement is subject to the attached Trane Terms and Conditions.**

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Proposal Date: December 12, 2019

**Customer Acceptance**

**Trane**

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Authorized Representative

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Authorized Representative

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Title

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Title

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Acceptance Date

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Acceptance Date