



Proposal for HVAC & Duct Cleaning

City Hall – Green Cove Springs

ID:53676

Date: 3-16-2023

To:

Air-Max Heating and Cooling
Mike Taylor
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Job Location:

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32043

Proposal By:

DUCTZ of E Jacksonville
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This scope/proposal contains data about your project with a price for performing those services. The first section supplies gross totals of each mechanical component to be serviced. It also describes in a narrative format, each component and what tasks we will perform during servicing. This DUCTZ proposal integrates standards and guidelines from the National Air Duct Cleaners Association (NADCA), the Environmental Protection Agency (EPA), The IICRC, or the Institute of Inspection, Cleaning and Restoration Certification. A senior project manager holding both a NADCA (ASCS) Air System Cleaning Specialist and a (CIE) Certified Indoor Environmentalist designation conducts project oversight. DUCTZ does not allow the distribution of this document in any form unless express written permission is granted.

We will perform the following tasks:

Cleaning of Components

Clean 15 AC systems, including all return/supply branch and trunk lines. Remove and clean all diffusers. Clean the Air Handling Units, including the blower, coil and inside the AHU cabinet.

System Component and Task Specifications

Cleaning of Components

The mechanical system is shut down during the cleaning process. Engineering controls will be established to prevent cross-contamination. All internal airside components including the evaporator coil, drain pan, blower wheel, and housing, heating components, and fiberglass liner are HEPA vacuumed. All porous surfaces, bearings, and electrical components are protected with plastic sheeting before any moisture is introduced to the system. Wet or Type 2 cleaning methods are utilized for evaporator coils, blower components, and drain pans utilizing a specialized coil

cleaner. A high-pressure water source is utilized for rinsing the coils. Note: Not all evaporator coils can be completely restored to their original condition. Some coils may require restoration beyond this initial process, in some cases, the process of reconditioning a coil from severe impaction back to its original design criteria can take several separate cleanings over a period of time to dislodge embedded particulate. This determination can only be made after the initial restoration process has been completed. During the cleaning process of this component, we will be utilizing provisions from the NADCA ACR2021 national

4.6 Air-Handling Unit (AHU) Cleaning: It is recommended that air-handling coils, fans, condensate pans, drains, and similar non-porous surfaces be wet cleaned in conjunction with mechanical methods.

4.11.1.2 When the preliminary visual inspection reveals suspect microbial matter on any portion of the coil or drains pan, Type 2 cleaning methods shall be performed.

4.11.1.3 When the metal fins of the coil are damaged, deteriorating or showing signs of corrosion, replacement may be necessary. If cleaning will result in further damage to the coil, replacement is recommended.

4.11 Coil Surface Cleaning: When coil cleaning is performed, both upstream and downstream sides of each coil section shall be accessed for cleaning. When both sides of a coil are not accessible for cleaning then removal and/or replacement may be required.

4.11.2 Type 1 Coil Cleaning (Dry Cleaning): Type 1 methods of coil cleaning shall be used for removing loose dust, dirt or debris collected upon coil surfaces. Negative air machines shall be operated continuously during Type 1 coil cleaning process. The coil shall be isolated from the duct system during the cleaning process to ensure disrupted particulate does not migrate to, or redeposit on, unintended areas. Physical removal of debris may be accomplished through a variety of methods which may include:

- HEPA-filtered contact vacuuming
- Brushes for penetrating between coil fins
- Compressed air
- Fin straightening tools

4.11.3 Type 1 Post-Cleaning Inspection: This inspection shall be performed after Type 1 coil cleaning has been completed. If debris still remains on the coil or the coil is impacted, Type 2 cleaning shall be performed.

4.11.4 Type 2 Coil Cleaning (Wet Cleaning): Type 2 cleaning methods are appropriate for removing adhered debris on all coil, drain pan and drain line surfaces. Type 2 cleaning shall be performed after non-adhered substance has been removed using Type 1 methods. Type 2 cleaning may include the following methods: All methods under Type 1

- Water washing at normal water line pressure
- Pressure washing equipment
- Hot water or steam cleaning equipment

4.11.4.1 The condensate drain pan and drain line shall be cleaned and flushed. The condensate drain pan shall be inspected to verify proper drainage operation before and after cleaning.

4.11.4.2 Cleaning methods and products shall not cause damage to, or erosion of, the coil surface or fins and shall conform to coil manufacturer recommendations when available. It is recommended that only coil cleaning solutions that are as close to pH neutral as possible are used.

4.11.8 Electric Resistance Coils: When cleaning electric resistance coils, the power source to the coils shall be de-energized and locked out/tagged out. When wet process cleaning is used, only non-corrosive detergents shall be used, and the coil shall be rinsed free of chemicals and thoroughly dried prior to being re-energized.

The mechanical system is shut down during the cleaning process. Engineering controls will be established to prevent cross-contamination. All ductwork is accessed through service openings, which are unique to DUCTZ™. These openings allow maximum closure strength and preserve the structural integrity of the duct system. HEPA-filtered contact vacuuming is used extensively on insulated ductwork to ensure that the compressed fiberglass matrix has been cleaned to the deepest level possible. Rotating brushes, air whip tools, and robotics are used on metallic and flexible duct systems. The cleaning is conducted with high-efficiency HEPA filtered negative air machines, to prevent cross-contamination and capture particulate.

Ductboard and fiberglass insulated ductwork4.1 Negative Duct Pressurization: Prior to and throughout the duration of the cleaning process, the HVAC system and associated air duct shall be kept at an appropriate negative pressure differential relative to the indoor non-work area. This negative pressure differential shall be maintained between the portion of the HVAC duct system being cleaned and surrounding indoor occupant spaces.

4.1.1 Verifying Negative Pressure Differential: Under all circumstances, you shall verify the pressurization differential during the project.

4.1.2 Equipment Exhausting Indoors: When utilizing vacuum collection equipment exhausting indoors it shall be HEPA-filtered and be capable of retaining dislodged debris.

4.1.3 Equipment Exhausting Outdoors: All equipment used to create negative duct pressurization that does not have HEPA filtration shall be exhausted outdoors.

4.7 Air Duct Cleaning: Air ducts shall be cleaned to remove all non-adhered substances and shall be capable of passing NADCA cleanliness verification tests.

4.7.1 Air ducts shall be accessed through service openings in the system that are large enough to accommodate mechanical cleaning procedures and allow for cleanliness verification.

4.7.2 Air ducts shall be cleaned using mechanical agitation methods to remove particulate, debris, and surface contamination.

4.7.3 Dislodged substances shall be captured with a vacuum collection device.

4.7.4 Cleaning activities shall not damage any HVAC components.

4.8 Dampers: Dampers and any air-directional mechanical devices shall have their position marked prior to cleaning and shall be restored to their marked position after cleaning.

Flexible duct4.1 Negative Duct Pressurization: Prior to and throughout the duration of the cleaning process, the HVAC system and associated air duct shall be kept at an appropriate negative pressure differential relative to the indoor non-work area. This negative pressure differential shall be maintained between the portion of the HVAC duct system being cleaned and surrounding indoor occupant spaces.

4.1.2 Equipment Exhausting Indoors: When utilizing vacuum collection equipment exhausting indoors it shall be HEPA-filtered and be capable of retaining dislodged debris.

4.8 Air Duct Cleaning: Air ducts shall be cleaned to remove all non-adhered substances and shall be capable of passing NADCA cleanliness verification tests.

4.8.1 Air ducts shall be accessed through service openings in the system that are large enough to accommodate mechanical cleaning procedures and allow for cleanliness verification.

4.8.2 Air ducts shall be cleaned using mechanical agitation methods to remove particulate, debris, and surface contamination.

4.7.3 Dislodged substances shall be captured with a vacuum collection device.

Non-Porous Metal Ductwork4.1 Negative Duct Pressurization: Prior to and throughout the duration of the cleaning process, the HVAC system and associated air duct shall be kept at an appropriate negative pressure differential relative to the indoor non-work area. This negative pressure differential shall be maintained between the portion of the HVAC duct system being cleaned and surrounding indoor occupant spaces.

4.1.2 Equipment Exhausting Indoors: When utilizing vacuum collection equipment exhausting indoors it shall be HEPA-filtered and be capable of retaining dislodged debris.

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4.7.2 Air ducts shall be cleaned using mechanical agitation methods to remove particulate, debris, and surface contamination.

4.7.3 Dislodged substances shall be captured with a vacuum collection device.

4.7.4 Cleaning activities shall not damage any HVAC components.

4.8 Dampers: Dampers and any air-directional mechanical devices shall have their position marked prior to cleaning and shall be restored to their marked position after cleaning.

- The DUCTZ safety manual is available to you upon request. We recommend pre-informing building occupants before any remediation occurring. Security systems and/or normal facility protocols may be altered while performing our service. We recommended the client coordinate a safety meeting by all materially interested parties before a project begins. When facility requirements such a permit-required confined space or other site-specific safety protocols are needed it will be the owners, owner's representative, or contracting agent's responsibility to coordinate the specifics with DUCTZ.

The terms set forth in this proposal are valid through 4/16/2023

The price to perform the stated work is	\$34,987.00
Total Price	\$34,987.00

Days for completion: 10

Accepted by:
Mike Taylor

Accepted by:
DUCTZ of E Jacksonville
