Florida SMACNA Inc.

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TECH/SPEC NEWS

MARQUEE CANOPY TRIM, FT. HARRISON HOTEL, CLEARWATER, FL

SHEET METAL CONTRACTOR: METALFAB, INC., SAN ANTONIO, FL

MARQUEE CANOPY TRIM, FT. HARRISON HOTEL, CLEARWATER, FL

Architect: OP X Architecture Interiors, Washington, D.C.
Contractor: Nova Hotel Renovation & Construction, Clearwater, FL
Sheet Metal Contractor: METALFAB, Inc., San Antonio, FL

Participating in the total renovation of an 80 year old hotel building, Metalfab, Inc. of San Antonio, Florida fabricated and installed 140 feet of custom Marquee Canopy trim for the Ft. Harrison Hotel in Clearwater, Florida. The Marquee Canopy trim is fabricated of laser cut steel, with a bull nose molding and custom form radius eave drip edge. The canopy trim was painted in three different colors to highlight the historical hotel exterior.

One of the major challenges of the project was the short time frame of the renovation. The project started on December 21, 2008 and had a completion date of March 5, 2009. Extensive coordination was required to be able to meet the opening date. Metalfab worked various schedules and around many other crafts as all crafts were on the same schedule and had to be on the job working simultaneously.

The owner and contractor of the Ft. Harrison Hotel were pleased with the performance and professionalism of the folks at Metalfab, Inc. They have already discussed Metalfab's participating in the construction of their convention center being built next door to the hotel.

COCA COLA SPD FACILITY,
APOPKA, FL

Architect: Hixson Architecture Interiors, Cincinatti, OH
Lead Construction Administrator: Michael J. Meyer

Engineer: Hixson Engineering, Cincinatti, OH
Lead Construction Administrator:
Michael J. Meyer

General Contractor: Aagaar-Juergensen, Inc., Orlando, FL
Project Manager: Carl Specht
Superintendent: Matt Thomas

Mechanical Contractor: W. W. Gay, Orlando, FL
Project Manager: Audie Bailey

Sheet Metal Contractor: McDonald Air & Sheet Metal, Inc., Orlando, FL
Project Manager: Jim Sheer
Superintendent: Ron Turmenne
Jobsite Foreman: John Cronin

COCA COLA SPD FACILITY, APOPKA, FL

The scope of the Coca Cola SPD Facility project for McDonald Air and Sheet Metal, Inc. was to manufacture and install HVAC ductwork, to install a 50-ton roof top unit, exhaust fans, two wall props, and one power roof ventilator exhaust fan.

The purpose of the new plant is to mix different coke flavors (cherry coke, etc.).

The plant is a one-story with mezzanine, 6650 square foot facility constructed of block and precast panels. The six month project began on February 15, 2009 and has a completion date of May 1. It will require 900 manhours in the field and 500 in the shop. The project is within budget and is progressing according to the schedule.

The project required 12,000 pounds of six inch wg welded eighteen ga duct. All of the duct supply air, exhaust air and return air duct was welded according to SMACNA Industrial Duct Standards. All air distribution serving the main areas are stainless steel. Les Jones, McDonald's shop manager, pre-assembled the largest pieces of duct possible for ease of installation.

This job was unusual because of the large amount of process piping that is installed under the ductwork so the ductwork had to be installed first. There was a lot of ductwork to coordinate in the ceiling space and the ductwork ultimately came through the ceiling and is exposed to view.

The very aggressive completion schedule also presented challenges on this project. The main trunk lines had to be installed before the two large process tanks were set in place. This required a fast track fabrication schedule in the shop. Lead welder Bobby Burton and two other full-time welders were assigned to the project in the shop. The field crews also had to strategically place their ladders in certain spots to hang duct while working around the tanks and process piping that were being installed for the processing plant.

Also challenging was coordinating places to run the ductwork in a short ceiling cavity and resolving the matter in a short time span. Due to the space constraints created by the process piping in the way, McDonald's had to redesign portions of the project between the return air, supply air and exhaust air trunk lines and work the HVAC systems around the other trades.

In making changes to the construction drawings, McDonald's utilized its 3-dimensional CAD duct drawing program

to show where the conflicts were and what they could do to resolve the conflicts The three dimensional views gave all parties involved a visual 3-D solid view both of the ductwork and where the other trades material was in relation to the steel and walls so that coordination was facilitated.

Because of the height, above the mezzanine level, and their location and coordination with the remaining tanks, the louvers will need to be installed with a special boom lift. The louvers will be installed last.

"John Cronin, Jobsite Foreman, under the supervision of Ron Turmenne, Superintendent, did a great job in relation to the schedule staying ahead of the other trades" said Jim Sheer, McDonald's Project Manager.

COPPER UPDATE: COPPER ISN'T JUST FOR BUILDING AND LOOKING PRETTY – IT GAINS GROUND AS A GERM KILLER

Anti-microbial soaps, lotions, disinfectants abound, but copper, previously thought of as another construction material, isn't just sitting there and looking good – it is gaining ground as a killer of germs including the "super bugs," which are a common cause of infection in hospitals.

The use of copper alloy surfaces to kill germs received a boost from a recent Environmental Protection Agency (EPA) decision and Congressional funding for testing. Its rise as a germ fighter likely means greater use in hospitals, educational institutions, homes and in HVAC systems, thereby increasing work for the sheet metal industry.

This past March, the EPA approved the registration of antimicrobial copper alloys with public health claims that the metals can kill potentially deadly bacteria. Copper, brass and bronze are the first solid surface materials to receive this type of EPA registration.

The claim included with the registration for copper states that when cleaned regularly, antimicrobial copper alloy surfaces kill more that 99.9 percent of (specific) bacteria within two hours and continue to kill more than 99 percent of (these) bacteria even after repeated contamination.

But another statement included with the registration qualifies the use of the copper alloys as a disinfectant, saying the use of a copper alloy surface is a supplement to and not a substitute for standard infection control practices related to cleaning and disinfection of environmental surfaces.

Testing under EPA-approved guidelines has shown that copper, brasses and bronzes are effective against a number of disease-causing bacteria, including the Methicilin-resistant Staphylococcus aureus (MRSA), one of the most virulent strains of antibiotic resistant bacteria and a common cause of hospital-and community-acquired infections.

For the press release on the topic and more information, visit CopperDevelopment Association Inc.

In another development concerning antimicrobial copper alloys, the Copper Developoment Association received Congressional appropriated funds in 2007 to continue clinical trials determining the antimicrobial effectiveness of copper, brass and bronze.

One study focuses on the ability of copper alloy surfaces to kill deadly pathogens and impede cross-contamination. The other is designed to demonstrate the effectiveness of copper components in heating, ventilating and air conditioning (HVAC) systems in reducing the incidence of harmful microbes that spread through buildings and other air environments.

For more information and the press release on the topic, link to Copper Development Association Inc.

From: Architectural Metal, Volume 14, Issue Number 1,

FLORIDA SMACNA, INC. MEMBER FIRMS

In the sheet metal and air conditioning business, nobody knows excellence quite the way SMACNA Contractors do. After all, they wrote the book on it. Why take a chance on doing business with anyone who offers less.

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Conquest Mechanical
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D&J Sheet Metal
DKG & Associates
Day and Zimmerman
Digital Climate & Control
Energy Services Ins, Inc.
Florida Metal Art
FCR Mechanical Contractors
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JV Installation
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CODE CHANGES ON GREASE DUCT

Rectangular kitchen grease duct has been commonly joined using a turned out flange that was edge welded. This was shown as an acceptable method in NFPA 96 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations among other standards and codes along with telescoping-type and bell-type duct connections.

The 2003 and 2006 International Mechanical Codes (IMC) which are widely used in almost all States only specifically allowed for the telescoping and bell type connections.

These can be difficult connections to utilize when installing rectangular duct. Omitting the use of a welded flange connection may have been an oversight, but per code was not specifically permitted.

This required contractors to submit special requests to make use of a welded flange connection to comply with the codes. Many contractors continued to use the welded flange connection for grease duct unaware that the IMC no longer specifically addressed that type of connection.

During the recent (September, 2008) International Code Council Final Action hearings language has successfully been implemented into the 2009 IMC that specifically addresses and permits the use of welded flange connections on grease duct.

Section 506.3.2.1 of the 2009 IMC will now include the following language: Duct Joint Types. Duct Joints shall be butt joints, welded flange joints with a maximum flange depth of 0.5 inch (12.7mm) or overlapping duct joints of either telescoping or bell type.

SMACNA Technical Resources Bulletin January 6, 2009, TRB #1-09

Florida SMACNA Inc.

- **SMACNA'S CONSTRUCTION STANDARDS**
  - Accepted Industry Practices for Sheet Metal Lagging.
  - Architectural Sheet Metal Inspection Guide.
  - Architectural Sheet Metal Manual,CADD Version 2.0
  - Fire Smoke and Radiation Damper Installation Guide for HVAC Systems.
  - Guide for Steel Stack Construction.
  - Guidelines for Roof Mounted Outdoor Air-Conditioner Installations.
  - HVAC Duct Systems Inspection Guide.
  - Kitchen Ventilation Systems & Food Service Equipment Fabrication & Installation Guidelines.
  - Residential Sheet Metal Guidelines.
  - Seismic Restraint Manual: Guidelines for Mechanical Systems.
  - Sheet Metal Welding Guide.
  - SMACNA/ASHRAE Seismic Restraint Applications CD-ROM.
  - Standard Practice in Sheet Metal Work.
- **SMACNA'S DESIGN GUIDES**
  - Duct System Calculator - Imperial.
  - Ducted Electric Heat Guide for Air Handling Systems.
  - Guidelines for Change Orders
  - HVAC Systems - Duct Design.
- **SMACNA'S DUCT STANDARDS**
  - Accepted Industry Practice for Industrial Duct Construction.
  - Fibrous Glass Duct Construction Standards.
  - HVAC Air Duct Leakage Test Manual.
  - HVAC Duct Construction Standards - Metal and Flexible.
  - Rectangular Industrial Duct Construction Standards.
  - Residential Comfort System Installation Standards Manual.
  - Round Industrial Duct Construction Standards.
  - Round Industrial Duct Construction Standards (RIDCS) Software Version 2.0.
  - Thermoplastic Duct (PVC) Construction Manual.
  - Thermoset FRP Duct Construction Manual.
- **SMACNA'S ENVIRONMENTAL PUBLICATIONS**
  - Building Systems Analysis and Retrofit Manual.
  - Energy Systems Analysis and Management.
  - HVAC Systems - Applications.
  - HVAC Systems - Commissioning Manual.
  - HVAC Systems - Testing, Adjusting & Balancing.
  - IAQ Guidelines for Occupied Buildings Under Construction.
  - Indoor Air Quality - A Systems Approach.
  - TAB Procedural Guide.

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