

Florida

SMACNA Inc.

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TECH / SPEC NEWS

**CUSTOM COPPER KITCHEN HOOD
PRIVATE RESIDENCE, WINDERMERE, FL**



Sheet Metal Contractor: Vickers Metal Works, Orlando, FL

CUSTOM COPPER KITCHEN HOOD PRIVATE RESIDENCE, WINDERMERE, FL



The scope of the project for Vickers Metal Works, Inc. of Orlando, Florida was to take a design concept from a photograph supplied by Reiche-Silliman, Inc., the custom home builder, and interpret the design concept from the photograph in order to design and fabricate this custom copper kitchen hood.

Vickers then prepared and submitted details for approval to the builder prior to fabrication of the hood.

The custom copper hood with antique finish was fabricated in two sections—top and bottom, with all seams welded and finished to give a seamless appearance.

The contractor supplied the custom stainless steel filter and light housing which was installed during fabrication.

The custom copper kitchen hood, which measures 28" x 60" tall is constructed of 48 oz. copper.

It required approximately 100 man-hours to fabricate.

Custom Home Builder: Reiche-Silliman, Inc., Orlando, FL
Sheet Metal Contractor: Vickers Metal Works, Orlando, FL
Custom Antique Finish: American Metal Refinishers, Orlando, FL

ASHRAE PUBLISHES USER'S MANUAL FOR STANDARD 62.3

A new book from ASHRAE will aid users in designing and constructing homes and apartments that comply with its residential ventilation and indoor air quality standard.

The User's Manual is the first for ASHRAE Standard 62.2-2004, Ventilation and Acceptable Indoor Air Quality In Low-Rise Residential Buildings, which provides the minimum requirements necessary to achieve acceptable indoor air quality for dwellings. The manual was co-developed by the Indoor Air Quality Association.

"The 62.2 User's Manual will provide HVAC engineers and IAQ consultants

with practical information to ensure that ventilation positively affects the indoor environment," Robert G. Baker, IAQA president and ASHRAE member said. "IAQA was pleased to be a co-sponsor of this dynamic publication."

The manual explains how to comply with all the requirements of the standard, provides examples illustrating specific methods of complying with sections of the standard and includes background material explaining why many of the requirements of the standard exist, according to Roger Hedrick, who co-authored the book.

The manual is targeted toward builders and subcontractors, but will also be useful

for code officials, researchers and interested homeowners.

"The manual has been developed as a document that will accompany Standard 62.2 and provide guidance for applying its requirements to the design and construction of residential buildings." David Grimsrud, chair of the Standard 62.2 committee stated. "It serves as a guide to clarifying issues for users."

The cost of the 62.2 Users Manual is \$45 (\$36 ASHRAE Members). To order contact ASHRAE Customer Service at 1-800-527-4723 or visit the ASHRAE.org bookstore at www.ashrae.org.

REPLACEMENT OF ROOF TOP AIR HANDLING UNITS FOR LOCKHEED MARTIN CORPORATION, LAKE UNDERHILL FACILITY, ORLANDO, FL



Shop Manager, Les Jones and Lead Welder, Bobby Burton check the first completed curb adaptor at McDonald’s shop.

Sheet Metal Contractor: McDonald Air & Sheet Metal, Inc., Orlando, FL

Lockheed Martin Corporation contracted with McDonald Air & Sheet Metal, Inc. of Orlando to replace four, 100-ton, roof top air handling units on building E-9 at its Lake Underhill facility.

The project presented several challenging conditions that the contractor had to address. First, the existing roof top units were made by Carrier, who no longer manufactures the matching units which will fit the existing curbs, so an exact change-out was not feasible.

The replacement units used on this project were manufactured by McQuay and engineered by Bruce Hawkins of



Shop Manager, Les Jones and Shop Foreman, Jim Tapan (forklift) positioning the curb adaptor in McDonald’s storage area.

REPLACEMENT OF ROOF TOP AIR HANDLING UNITS FOR LOCKHEED MARTIN CORPORATION, LAKE UNDERHILL FACILITY, ORLANDO, FL



Shows the difficulty of rigging and moving the 23'-2" x 14'-4" and nearly one ton adaptor through the twelve foot wide delivery doors.



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Carroll Air in Atlamonte Springs Florida.

Hawkins worked with Lockheed Engineer, Rob Carey, to put together the custom made units that would best meet Lockheed's requirement and on a fast track for manufacturing and delivery schedule.

The second issue was the delivery of the huge custom curb adaptors manufactured at McDonald's shop. Special permitting was required to move the fully assembled adaptors across town.

This was accomplished by Alex Miller Trucking in two separate deliveries. The special permitting allows not only the oversized load to be transported, but also only allows movement during a limited time period which cannot begin until 9:00 A. M.

REPLACEMENT OF ROOF TOP AIR HANDLING UNITS FOR LOCKHEED MARTIN CORPORATION, LAKE UNDERHILL FACILITY, ORLANDO, FL



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The third challenge was timing. The window in which the project had to start and be completed was from December 22, 2006 until December 31, 2006. At the beginning of the shutdown, Orlando experienced three days of rain and nasty weather. The fourth day (Monday) was Christmas Day. On the fifth day, the weather cleared somewhat and McDonald's was able to begin the transferring from old to new. By Friday morning, December 29, 2006 the transfer of all equipment was completed, leaving the final piping, electrical and controls tie-ins to be finished.

Ralph Carver, President of McDonald Air & Sheet Metal, Inc., gave a special thanks to the company's field superintendent, Mike Rausch, who was in charge of the day-to-day operations and coordinated with the various trades. "Mike makes the toughest jobs look easy."

The piping was completed by Florida Steam, controls by Siemens, electrical

work by Kelly Electrical and the 240 ton crane operated by Beyel Brothers.

McDonald's other field superintendent, who works primarily at Lockheed's Sand Lake Facility, Mike Hess helped with the original bid, pre-work conferences and bringing together the team of subcontractors who made the project possible.



supply air opening with insulation caps



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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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Tim Vickers

OTHER CONTRIBUTORS TO THE FLORIDA SHEET METAL INDUSTRY

Air Duct, Inc.

Apollo Construction & Engineering

D&J Sheet Metal

Draft-Tronics

EK Installations

FCR Mechanical Contractors

Florida Metal Art

1st Plumbing and Air

Conditioning of Florida

Industrial Steel

JP Sheet Metal

JV Installation

MFH Sheet Metal Fabricators, Corp.

Precision Mechanical, Inc.

Quality Metal Works, Inc.

SDB Engineers and Constructors, Inc.

Triple M Roofing Corp.

Universal Fabrication Services

Walt Disney World Company

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ANSI APPROVES SMACNA'S NEW "HVAC DUCT CONSTRUCTION STANDARDS"

The American National Standards Institute (ANSI) announced that the Sheet Metal and Air Conditioning Contractors' National Association's (SMACNA) new "HVAC Duct Construction Standards - Metal and Flexible" third edition has been approved as an American National Standard designated ANSI/SMACNA 006-2006.

ANSI recognition increases the potential that SMACNA's standards are internationally adopted for industry and regulatory use. The approval will also encourage wider domestic use of SMACNA's standard by state and local code governing bodies as well as the design and engineering community.

The 390 page "HVAC Duct Construction Standards - Metal and Flexible" manual is intended primarily for commercial and institutional duct construction. The stan-

dard contains tables and details for constructing duct work for 1/2 inch to 10 inch wg positive and negative pressures.

This updated edition features expanded pressure class tables, separate tables for TDC/TDF construction and expanded tables for round duct construction including 6 inch wg positive and negative pressure and sizes up to 96 inches.

New in this edition is an engineering and design chapter to provide additional information to design professionals, double-wall construction details, new casing construction details and additional accessory items.

The standard is applicable for construction using uncoated steel, galvanized and stainless steels and a limited range of aluminum ducts. This standard has been adopted in the ICC International

Mechanical Code.

Architects and engineers may purchase the new publication at the discounted price of \$151 for the book, \$178 for the CD-ROM, \$204 for the CD/Book Combo and \$151 for the PDF download. The list price for the book is \$215, the CD-ROM is \$255, the CD/Book Combo is \$339 and the PDF download is \$215.

ANSI does not develop American National Standards. It facilitates standard development by assuring that consensus is established among qualified and affected interest groups. The Institute ensures that the guiding principles of consensus, due process and openness are adhered to by organizations developing standards under its review to provide a coherent U.S. Standards strategy.

Florida **SMACNA** Inc.

• **SMACNA'S CONSTRUCTION STANDARDS**

- Accepted Industry Standards for Sheet Metal Lagging.
- Architectural Sheet Metal Manual.
- 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 Guidelines.
- Managers' Guide for Welding.
- Residential Sheet Metal Guidelines.
- Seismic Restraint Manual: Guidelines for Mechanical Systems.

- SMACNA/ASHRAE Seismic Restraint Applications CD-ROM.
- Standard Practice in Sheet Metal Work.

• **SMACNA'S DUCT STANDARDS**

- Duct Research Destroys Design Myths (Bubble Video).
- Duct System Calculator - Imperial.
- Ducted Electric Heat Guide for Air Handling Systems.
- HVAC Duct Design Home Study
- HVAC Systems - Duct Design.

• **SMACNA'S DESIGN GUIDELINES**

- 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 InstallationStandards 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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