



## B.O.C.O.N.E.O. Officers

### President

Jerry Flanik  
Lake County

### First Vice President

James Decker  
Mentor, Ohio

### Second Vice President

James McReynolds  
Eastlake, Ohio

### Secretary

Gregory Fort  
Mayfield Heights

### Treasurer

Mike Skvasik  
Village of Glenwillow

### Education Co-Chairmen

James McReynolds  
Michael Gero

### Cooperating Member

Doug Leovic  
Wickliffe Fire Dept.

### Past President

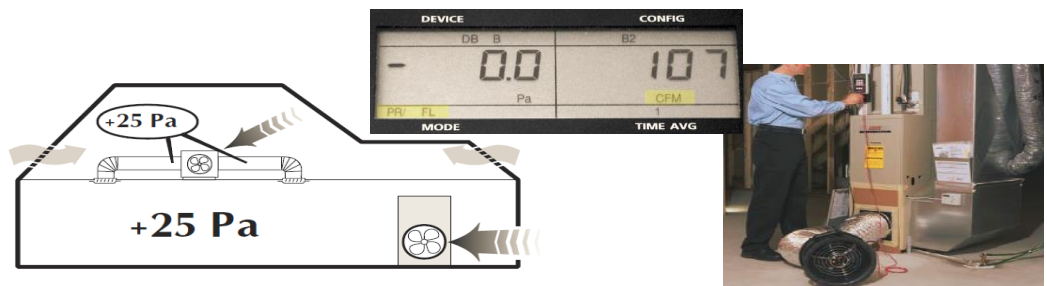
Paul Kowalczyk  
South Euclid, Ohio

# President's Message

## Duct Tightness Testing

Total duct leakage or leakage to outdoors. What is the difference? Total duct leakage is a testing method that measures how much leakage there is for all of the ductwork connected to the HVAC system. Duct leakage is measured in CFMs at a pressure of 25Pa. This testing method can be used either at the time of rough-in (with or without the air handler installed) or at the time of post construction.

Leakage to outdoors is a testing method that utilizes both a blower door test assembly in conjunction with a duct tightness test assembly. The method of this particular test is to turn on the duct tester fan and increase the air flow until the pressure inside the duct system is 0.0 ( $\pm 0.1$  Pa) with reference to the home. When both the house and the ducts are pressurized to 25 Pa with respect to outdoors, there should be no air flowing through duct leaks into the house. Measuring the air flow in CFMs on the duct testing manometer will give the "leakage to outdoors" needed to equalize pressure in ducts to 0 Pa. Thus, the amount of duct leakage to outside the building envelope.



### This Month's Meeting

#### Four Steps to Safe Truss Installations Concepts Overview

Kirk Grundahl, Structural Building Components Association  
3 Hours for BO, MPE, BI, RBO, RPE, RBI, NRIUI, RIUI  
BBS2014-125

[Click To Register Here](#)

#### Plumbing Roundtable

@ 10:30 AM

&

#### Electrical Roundtable

@ 10:30 AM



## B.O.C.O.N.E.O. Officers

### President

Jerry Flanik  
Lake County

### First Vice President

James Decker  
Mentor, Ohio

### Second Vice President

James McReynolds  
Eastlake, Ohio

### Secretary

Gregory Fort  
Mayfield Heights

### Treasurer

Mike Skvasik  
Village of Glenwillow

### Education Co-Chairmen

James McReynolds  
Michael Gero

### Cooperating Member

Doug Leovic  
Wickliffe Fire Dept.

### Past President

Paul Kowalczyk  
South Euclid, Ohio

The following information indicate the OHBA and IECC requirements regarding duct tightness testing.

## OHBA Duct Tightness Post Const. Test

**1105.3.2.2 Sealing.** Ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed. Joints and seams shall comply with Section M1601.4. Duct tightness shall be verified by either of the following:

1. Post-construction test: Post-construction duct tightness shall be verified to meet the values prescribed in Table 1105.3.2.2(a) by testing either the "Leakage to Outdoors" or the "Total Leakage" in accordance with the chosen compliance path. Testing shall be conducted at a pressure differential of 0.1 inch w.g. (25 Pa) across the entire system, including the manufacturer's air handler end closure. All register boots shall be taped or otherwise sealed during the test.

**Note:** Duct tightness testing will take place on January 1, 2014 (Approvals dated on and after this date).

TABLE 1105.3.2.2(a)  
POST-CONSTRUCTION DUCT TIGHTNESS TESTING

	Leakage to Outdoors	Total Leakage
	(per 100 ft <sup>2</sup> (9.29 m <sup>2</sup> ) of conditioned floor area)	(per 100 ft <sup>2</sup> (9.29 m <sup>2</sup> ) of conditioned floor area)
Compliance Path #1	≤ 6 cfm (2.83 L/s)	≤ 9 cfm (4.24 L/s)
Compliance Path #2	≤ 4 cfm (1.89 L/s)	≤ 6 cfm (2.83 L/s)

**Exception:** Duct tightness test is not required if the air handler and all ducts are located within conditioned space.



## OHBA Duct Tightness Rough-in Test

2. Rough-in test: Rough-in duct tightness shall be verified to meet the values prescribed in Table 1105.3.2.2(b) by testing the "Total Leakage" in accordance with the chosen compliance path. Testing shall be conducted at a pressure differential of 0.1 inch w.g. (25 Pa) across the roughed in system, including the manufacturer's air handler enclosure, if installed at the time of the test. All register boots shall be taped or otherwise sealed during the test.

TABLE 1105.3.2.2(b)  
ROUGH-IN DUCT TIGHTNESS TESTING

	Total Leakage - <u>with</u> air handler installed (per 100 ft <sup>2</sup> (9.29 m <sup>2</sup> ) of conditioned floor area)	Total Leakage - <u>without</u> air handler installed (per 100 ft <sup>2</sup> (9.29 m <sup>2</sup> ) of conditioned floor area)
Compliance Path #1	≤ 6 cfm (2.83 L/s)	≤ 4 cfm (1.89 L/s)
Compliance Path #2	≤ 4 cfm (1.89 L/s)	≤ 3 cfm (1.41 L/s)

**Exception:** Duct tightness test is not required if the air handler and all ducts are located within conditioned space.





## B.O.C.O.N.E.O. Officers

### President

Jerry Flanik  
Lake County

### First Vice President

James Decker  
Mentor, Ohio

### Second Vice President

James McReynolds  
Eastlake, Ohio

### Secretary

Gregory Fort  
Mayfield Heights

### Treasurer

Mike Skvasik  
Village of Glenwillow

### Education Co-Chairmen

James McReynolds  
Michael Gero

### Cooperating Member

Doug Leovic  
Wickliffe Fire Dept.

### Past President

Paul Kowalczyk  
South Euclid, Ohio

## 2009 IECC Duct Tightness Testing

**403.2.2 Sealing (Mandatory).** All ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed. Joints and seams shall comply with Section M1601.4.1 of the *International Residential Code*.

Duct tightness shall be verified by either of the following:

1. Postconstruction test: Leakage to outdoors shall be less than or equal to 8 cfm (226.5 L/min) per 100 ft<sup>2</sup> (9.29 m<sup>2</sup>) of conditioned floor area or a total leakage less than or equal to 12 cfm (12 L/min) per 100 ft<sup>2</sup> (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.
2. Rough-in test: Total leakage shall be less than or equal to 6 cfm (169.9 L/min) per 100 ft<sup>2</sup> (9.29 m<sup>2</sup>) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the roughed in system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 ft<sup>2</sup> (9.29 m<sup>2</sup>) of conditioned floor area.

**Note:** Duct tightness testing has been in place since January 1, 2013 (Approvals dated on and after this date). Required if the owner/owner's agent has selected the 2009 IECC energy option for the project.

**Exception:** Duct tightness test is not required if the air handler and all ducts are located within conditioned space.



The BOCONEO Annual Golf Outing will be held (again) at Grandview Golf Club with the proceeds going to the John Korinek Memorial Scholarship Fund. We need to secure hole sponsors and participants for this fine event. BOCONEO members, please do your part and consider attending the golf outing and obtaining hole sponsors. Information is available on our BOCONEO website.



Jerry Flanik  
President





January, 2014

## **B.O.C.O.N.E.O. Officers**

### **President**

Jerry Flanik  
Lake County

### **First Vice President**

James Decker  
Mentor, Ohio

### **Second Vice President**

James McReynolds  
Eastlake, Ohio

### **Secretary**

Gregory Fort  
Mayfield Heights

### **Treasurer**

Mike Skvasik  
Village of Glenwillow

### **Education Co-Chairmen**

James McReynolds  
Michael Gero

### **Cooperating Member**

Doug Leovic  
Wickliffe Fire Dept.

### **Past President**

Paul Kowalczyk  
South Euclid, Ohio

## *First Vice President's Report*

Once again the President of the United States has recognized Building Officials and design professionals for their commitment to public safety. This recognition raises the profile of building safety professionals everywhere and helps us realize our goal of creating safe, sustainable, resilient and more affordable communities.

The proclamation declares May 2014 as National Building Safety Month, a "time to celebrate the dedicated professionals who keep our buildings secure, and we recommit to maintaining resilient, energy-efficient infrastructure."

The president also says in the proclamation, "Joining with building officials, design professionals, scientists, and engineers, we continually develop new guidance and tools for increasing disaster-resistance and meeting building standards. ...From our homes to our high-rises, our museums to our malls, let us work to keep structures sound and up to code."

Building Safety Month has once again been recognized by the president. Addressing resiliency in the built environment and urging all Americans to learn more about how they can contribute to building safety at home and in their communities is what Building Safety Month is all about.

You can read the proclamation online at [www.whitehouse.gov/the-press-office/2014/04/30/presidential-proclamation-national-building-safety-month-2014](http://www.whitehouse.gov/the-press-office/2014/04/30/presidential-proclamation-national-building-safety-month-2014).



James Decker  
First Vice President



## **B.O.C.O.N.E.O. Officers**

### **President**

Jerry Flanik  
Lake County

### **First Vice President**

James Decker  
Mentor, Ohio

### **Second Vice President**

James McReynolds  
Eastlake, Ohio

### **Secretary**

Gregory Fort  
Mayfield Heights

### **Treasurer**

Mike Skvasik  
Village of Glenwillow

### **Education Co-Chairmen**

James McReynolds  
Michael Gero

### **Cooperating Member**

Doug Leovic  
Wickliffe Fire Dept.

### **Past President**

Paul Kowalczyk  
South Euclid, Ohio

## *From Your Secretary*

At last months meeting we passed out almost half of the membership cards to current members. Please bring your membership card as you will need to show it in order to sign in each month.

If you have not yet received you membership card, please come to the membership table first before going to the registration table.

Most registrations are now current, but those that are not, will not be permitted to register nor receive class credits or lunch.

The membership card issued to you is permanent. It will be renewed and updated each year in the computer database. If you loose your card you will need to apply for a replacement card at the cost of \$10.00.

Our goal is to eventually be able to have members sign in and out with their cards instead of having to initial in as we do now. The state is very close to keeping electronic records so you will no longer have to keep paper certificates and send them in every three years.

I am working with Steve and Regina at the BBS to coordinate our system to be compatible with the system they are implementing. They are very interested in what we are doing and we may just end up being a precedent for the entire state. We are the "guinea pigs" for this electronic system moving forward.

Overall, I envision a much quicker and accurate system to keep track of your continuing education credits. I look forward to the day that we no longer have to keep paper certificates of all the classes we have attended. There will be some growing pains but I believe it will all be worth it in the end.



Gregory Fort  
Secretary



May 2014

## B.O.C.O.N.E.O. Officers

### President

Jerry Flanik  
Lake County

### First Vice President

James Decker  
Mentor, Ohio

### Second Vice President

James McReynolds  
Eastlake, Ohio

### Secretary

Gregory Fort  
Mayfield Heights

### Treasurer

Mike Skvasik  
Village of Glenwillow

### Education Co-Chairmen

James McReynolds  
Michael Gero

### Cooperating Member

Doug Leovic  
Wickliffe Fire Dept.

### Past President

Paul Kowalczyk  
South Euclid, Ohio

## *This Months Educational Presenter*

REMINDER! The electrical and plumbing roundtables have changed to a 10:30 a.m. starting time. Roundtables will run from 10:30 to 11:30 a.m. with lunch starting at noon.

May's class is "Four Steps to Safe Truss Installations Concepts Overview", BBS2014-125, presented by Kirk Grundahl, PE, Executive Director of the Structural Building Components Association. This 3-hour class offers continuing education credit for BO, MPE, BI, NRIUI, RBO, RPE, RBI, RIUI.

The roundtable classes are separate classes from the main class. Each class requires a distinctive sign in sheet. The BBS requires attendees to sign in within 15 minutes of the class beginning. Certificates of attendance are distributed at the end of the class. Sign in sheets are sent to the BBS to provide a list of attendees. Your certificate is required to be submitted to the BBS when you renew your certifications.

Just a couple of housekeeping reminders; if you would like a vegetarian type of lunch please email your request to [boconeo@gmail.com](mailto:boconeo@gmail.com) when you register so arrangements can be made for special diets. We will make every attempt to accommodate the requests.

Also, if you have registered for the class and find that you will not be able to attend, please send an email to [boconeo@gmail.com](mailto:boconeo@gmail.com) with that information so we can adjust the attendance count. We understand that schedules can change so we ask you to help us control some of the expenses with the courtesy of a cancellation notice. Thank you.

### Plumbing Roundtable Topic:

3" and above 90\* horizontal short bends and back outlet & side outlet tees & 90\*. Have everyone bring there O.P.C. Books



Michael Gero  
Co-Educational Chairman



## **B.O.C.O.N.E.O. Officers**

### **President**

Jerry Flanik  
Lake County

### **First Vice President**

James Decker  
Mentor, Ohio

### **Second Vice President**

James McReynolds  
Eastlake, Ohio

### **Secretary**

Gregory Fort  
Mayfield Heights

### **Treasurer**

Mike Skvasik  
Village of Glenwillow

### **Education Co-Chairmen**

James McReynolds  
Michael Gero

### **Cooperating Member**

Doug Leovic  
Wickliffe Fire Dept.

### **Past President**

Paul Kowalczyk  
South Euclid, Ohio

## *Jobs Report*

The following positions are posted on the website under "open positions".  
Please go to the Boconeo website for further information at:

<http://boconeo.org/category/open-positions/>

North Olmsted Building/Electrical Inspector

Euclid Housing Inspector

University Heights Building Inspector

Seasonal Property Maintenance Inspector

Full-Time Lake County Certified Building / Electrical Inspector

Richmond Heights Building Inspector



Gregory Fort  
Webmaster