



INSIDE ASHRAE

DETROIT CHAPTER • AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR CONDITIONING ENGINEERS

TUESDAY NOVEMBER 5, 2002

LOCATION:

FORD FIELD
PARKING LOT G (\$3 CHARGE)
SEE MAP ON REVERSE

TIME:

TOUR 4:30-5:30
TOURS WILL LEAVE EVERY 15 MINUTES
THE LAST GROUP LEAVES AT 5:00
COCKTAIL RECEPTION 5:30-6:45
SOUTH STADIUM CLUB
DINNER 6:45-7:30
DINNER PRESENTATION 7:30

COST:

FREE TO ALL ASHRAE AND ASPE MEMBERS
GUESTS: \$40, PAYABLE AT GATE
(CHECKS PAYABLE TO ASHRAE)

SPONSORED BY:

JOHNSON CONTROLS, INC.
BUILDING AUTOMATION & ENERGY
MANAGEMENT SYSTEMS
SARMENTO MECHANICAL SALES, INC.
"BALTIMORE AIR-COIL" COOLING TOWERS
K.L. MCCOY AND ASSOCIATES, INC.
"TACO" PUMPS
KEELAN AND ASSOCIATES, INC.
"PVI" GAS-FIRED WATER HEATERS
RIDGID/VIEGA PRO-PRESS*SYSTEM
PRO-PRESS PIPE JOINING SYSTEM

FOR RESERVATIONS:

BY NOVEMBER 1, CONTACT PHILIP STEELE,
PREFERABLY BY EMAIL:
PHILLIP.STEELE@MICHIGANAIR.COM
OR BY FAX @ 248.837.7004

INCLUDE NAME, COMPANY, ASHRAE
OR ASPE MEMBER OR GUEST, AMOUNT
DUE AT GATE (\$40 PER GUEST)



FORD FIELD STADIUM TOUR AND PRESENTATION WELCOME DETROIT ASHRAE, TOLEDO ASHRAE, ASPE MEMBERS, AND GUESTS

by Rick Sutkiewicz

Come and see the gem that is the envy of every other NFL franchise. Ford Field is 1.85 million square feet of completely air-conditioned space. The stadium incorporates the old Hudson's Warehouse into the design of this state of the art facility. Groundbreaking was November 16, 1999, with the first caissons being installed in February, 2000.

John D. Richards, P.E., Studio Leader for the Technologies Studio at SmithGroup and Project Mechanical Engineer for Ford Field will discuss Ford Field HVAC and Plumbing facts, major design issues, control strategies and system selection. The presentation will also include a look at HVAC equipment that we were not able to access on the tour and many other images of Ford Field.



**SEE BACK FOR MAP, PARKING,
AND ENTRANCE INSTRUCTIONS**

PRESIDENT'S MESSAGE

ALAN DEAL



WOW! What an opening meeting- lots of food, fellowship and plenty of flash. Those of you who attended the laser light show, now know what the 60's psychedelic era was like (in case you weren't around then or are unable to recall because you were there!). Thanks again to Griffin International and Mammoth, for their very gracious sponsorship of the meeting at such a beautiful setting as Cranbrook. Their generosity was extended further by making the event free for all attendees, not just members.

I also would like to thank Chris Kirchner, our chapter Technical, Energy and Government Affairs Chair, for coordinating the speakers from Peter Basso Associates and Albert Kahn Associates and for presenting their chapter and regional awards. Hopefully these regional award winning designs will go on to receive Society level recognition. If history is any predictor of the future, their chances for success are very good.

Our October meeting which is being held in November promises to be a big event both in stature and attendance. We have invited the Eastern Michigan Chapter of the American Society of Plumbing Engineers and the Toledo Chapter of ASHRAE to join us for a tour of the new Ford Field, home of the Detroit Lions. Many thanks to John Richards for helping us to access this facility, and to our sponsors for providing such a grand event.

The call for volunteers has been heard and answered by five new committee members and a new committee chair. I would like to direct your attention to the revised chapter organization chart included in the newsletter – hopefully I got it correct this time! While you are looking, pick a committee that fits your interest and contact the chairperson to see how you can help out - don't wait for us to call you!

The coming year has many challenges and opportunities in store for all of us. This is true for ASHRAE society as well as our local chapter. Our chapter committees are busy turning these challenges into goals, and these goals into an action plan by building on our past successes and moving on to higher levels of chapter involvement. These plans are quite simple- give our membership more of what they desire. As we progress through the year let us hear from you. Tell us what you think we should know so this organization can best serve you.

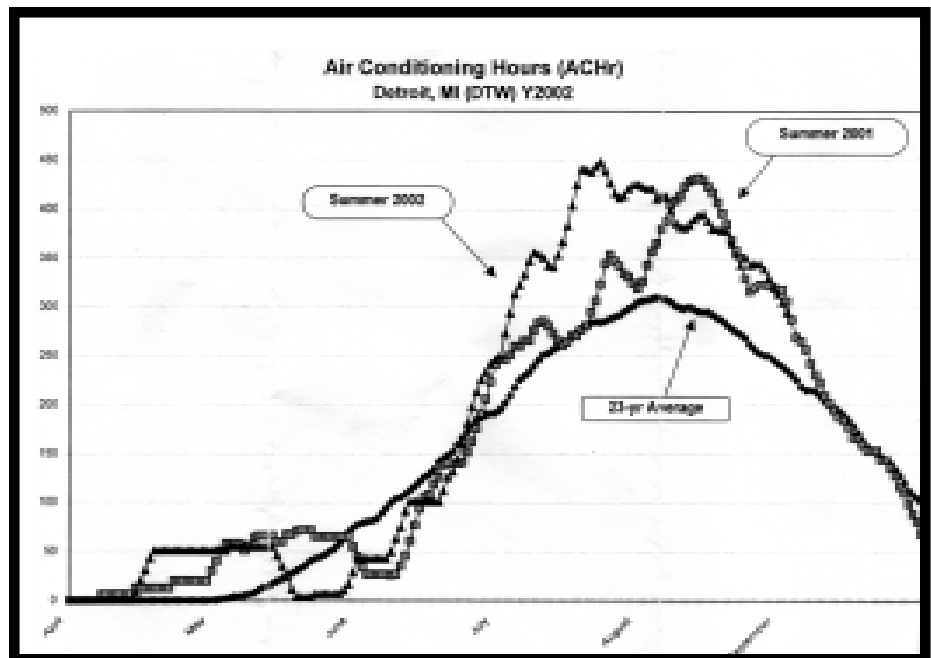
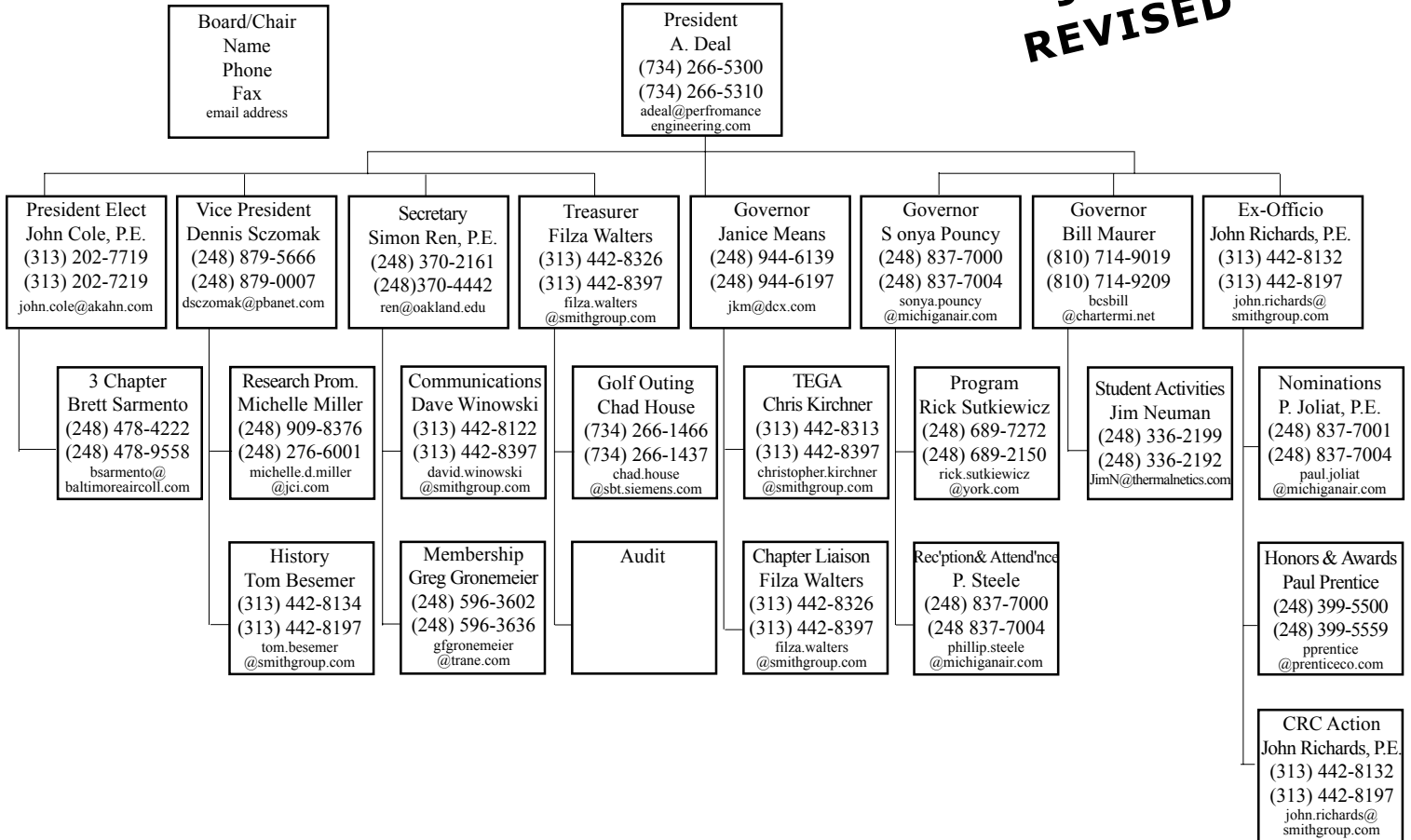


PLEASE JOIN US NOVEMBER 5 FOR THIS HISTORIC TOUR OF FORD FIELD.

THANK YOU!
Thank you again to Griffin International for their sponsorship of the entire event at the Cranbrook Science Center on September 17th!!!

2002-2003 DETROIT ASHRAE ORGANIZATION CHART AND COMMITTEE RESPONSIBILITIES

JUST
REVISED



2002-2003 AGENDA

11/5/02	FORD FIELD TOUR (STADIUM DESIGN)
12/3/02	DEARBORN INN—DEARBORN
1/21/03	PENNA'S OF STERLING HEIGHTS
2/11/03	ITALIAN-AMERICAN CENTER
3/18/03	UKRANIAN CULTURAL CENTER
4/15/03	MARRIOTT-CENTERPOINT
5/13/03	FUN NIGHT
6/16/03	GOLF OUTING



Jim Gartner (Regional Vice-Chairman-TEGA) highlights the introduction of the technology award winners.

SEPTEMBER MEETING



Alan Deal (center) presents token of appreciation to technical session speakers Bill Haugh (left) and Gary Johnson (right) of Mammoth.

Chris Kirchner & Jim Gartner present awards to Brian Runde (Peter Basso). Other recipients: Bob Roop (Peter Basso Associates); Phil Leader (Albert-Kahn Associates); Derek Crowe (Peter Basso); Brenda Pesmark (Albert-Kahn)



CRANBROOK SCIENCE CENTER MEETING RECAP

by Rick Sutkiewicz

Our first meeting of the 2002-2003 ASHRAE calendar year was held in grand style at the Cranbrook Science Center. The event kicked off with an excellent technical presentation by Bill Haugh and Gary Johnson of Mammoth. The session was immediately followed by a social hour held in the exhibit area accompanied by some delicious appetizers and desserts. The main program was led off by the formal passing of Chapter Leadership from Ex-Officio John Richards to current President Alan Deal. Jim Gartner (Regional Vice Chair of TEGA) then presented a brief overview of the technology awards program. Chris Kirchner (Detroit TEGA Committee Chairperson) then presented awards for submission of prior year projects. Award recipients included three individuals from Peter Basso Associates (Derek Crowe / Bob Roop / Brian Runde) and two individuals from Albert-Kahn Associates (Phil Leader / Brenda Pesmark). The evening concluded with a laser light show held in Cranbrook's planetarium.

In summary, this was a great start to the new year! Congratulations to our award recipients and many thanks to our event sponsor, Griffin International.

DETROIT CHAPTER NEWSLETTER

EDITED BY MIKE DALY, MCFI

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Fax: 404•321-•5478 Phone: 800•527•4723

STUDENT ACTIVITIES COMMITTEE

by Jim Newman, C.E.M.

Once again, the S.A.C. is off to a flying start.

We will be attending a Workforce Summit sponsored by the Air Conditioning, Heating and Refrigeration News and Oakland Schools at the Oakland Schools Technical Campus in Royal Oak on October 14 to discuss ways to attract Oakland County students to the construction industry.

Another group we've been working with is the National Foundation for Energy Education (NFEED). They conduct seminars for middle school science teachers to help them make their classes more interesting relative to the types of things we also are interested in, like temperature, thermal equilibrium, expansion and contraction of solids, liquids and gases, refrigeration cycle and, most importantly, (and this is where we come in), careers in the HVAC industry.

Last year they trained 14 teachers in Macomb and St. Clair counties. This year they will be training Wayne County teachers on 10/30 at the Wayne County Math and Science Center, 33500 Van Born Rd in Wayne, and the Oakland County teachers on 10/31 at the Oakland County Science, Math and Technology Center, 1480 Scott Lake Rd in Waterford.

The sessions go from 8:00 a.m. to 3:15 p.m., with a lunch provided by their sponsors (of course our chapter is a sponsor) from 11:45-12:30. We are invited to attend lunch or as much of the training as we want (and the training is really very interesting). Just let me know if you would like to go by calling 248-336-5550 or e-mailing Jimn@thermalnetics.com.

This is a terrific opportunity to get involved in something which will give you a great deal of personal satisfaction, and is not hard to do. NFEED has provided us with the tools to make it easy for us to go into these classrooms to be the "experts from the HVAC industry" to help get these young people more interested in engineering, and especially HVAC engineering.

We need to "get 'em while they're young" to show them how exciting engineering can be. So let's have lots of volunteers turn out for this one. Thanks a lot for your help.

TIPS FROM THE FAN MAN

by Jim Newman, C.E.M.

Keep in mind that there are 2 main differences between forward curved (f.c.) and backwardly inclined (b.i.) fans. The first is that the f.c. fan has a flatter operating curve, which means that, for a given change in pressure, e.g., the loading of filters with dirt over time, there will be a greater change in the volume of air handled than with the b.i. (or airfoil) wheel.

The second is that the f.c. fan has a constantly rising HP characteristic, as opposed to the non-overloading form of the b.i. fan. This can lead to overloading of the motor on the f.c. fan, which are supplied with many rooftop units, at time of startup, when the filters are clean. Why? The static pressure in the system will be less than designed, so the fan will handle more air than the design cfm, and the BHP will typically go much higher on the f.c. fan than on the b.i. fan, depending on where they are picked on the fan curve, of course.

AIR CONDITIONING HOURS

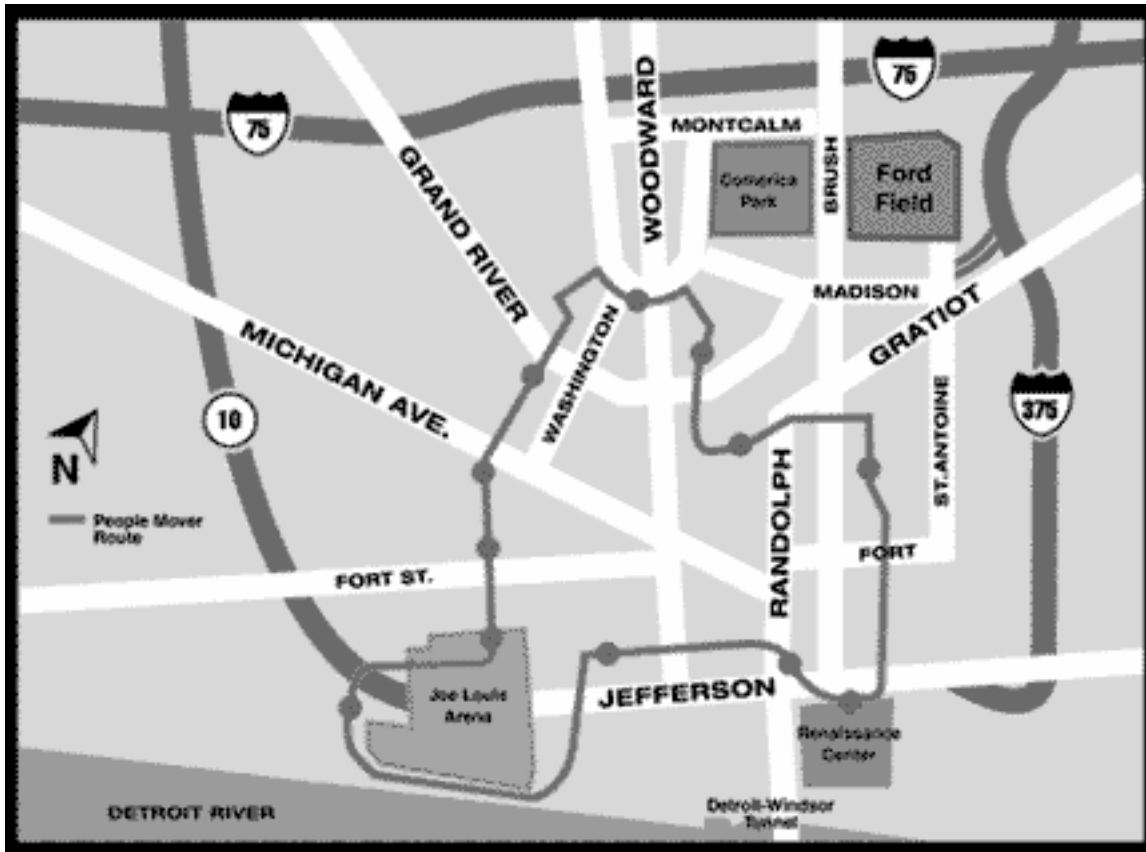
by Pat Dwyer

	Normal	2001	2002
May	71	65	31
June	190	241	248
July	317	331	441
Aug	256	323	316
Sept	90	63	
Season	924	1023	1036

HEATING DEGREE DAYS

by Pat Dwyer

	Normal	2001-02	2002-03
Sept	102	131	0
Oct	435	382	
Nov	744	514	
Dec	1138	898	
Jan	1305	992	
Feb	1109	891	
Mar	908	929	
Apr	531	480	
May	243	342	
Season	6515	5559	



FORD FIELD PARKING:

Park in lot 6 located on the east side of the stadium. Enter parking from St. Antoine St. \$3 parking charge.

Enter the stadium at Gate G, (the main east entrance of the stadium.) Registration will be at Gate G and the tour will start from there.



Simon J. Ren, PE, CEM
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