



THE LONG ISLAND SOUNDER



ASHRAE Long Island Chapter, Region I...Founded in 1957

www.ashraeli.org

American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.

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President's Message

Welcome to the April issue of the Long Island Sounder. We thank all of those who braved the weather in order to attended last month's meeting. Trane's Justin Wieman, an ASHRAE Distinguished Lecturer, gave an interesting and well received presentation on the topic of chillers. We appreciate Trane for helping to arrange Justin's presentation.



We will be voting for next year's BOG very shortly. Please keep an eye out for our ballets, they will be in the mail soon. Be sure to sign the back of the envelope. Unsigned envelopes will not be counted. They need to be received

by May 4th, so please return them promptly. If you are interested in getting more involved, reach out to any board member.

Our Annual ASHRAE Long Island golf outing will be held on Monday, May 7 at Cherry Valley Club in Garden City. We always have a great turnout so please don't wait to make a reservation. I want to emphasize that the level of success of the event is dependent on the contributions from our sponsors. We are looking for new and continued sponsors, whether they are individual or company, for the outing. They include the pro shop raffle prizes at dinner, food and beverage services on the course and giveaways during check in. This is a great event and we keep the per golfer fee to a minimum so everyone has the flexibility to give what they can. Please consider sponsoring if you can.

CHAPTER MONTHLY MEETING

DATE:	Tuesday, April 10, 2018
TIME:	ANNUAL FIELD TRIP SEE PROGRAM SECTION FOR DETAILS ON PAGE 7
LOCATION:	SEE PROGRAM FOR DETAILS ON PAGE 7
FEES:	Members = \$45 pp Guests = \$50 pp Students = \$15 pp

Hope to see you there!

I look forward to seeing everyone at Mather Hospital to tour their new ice storage facility for our April field trip. It's our usual second Tuesday, but we will be meeting early at 5:00. We will hear from the operational personal (Mather Hospital), the engineer (Steve Sonmez from Lizardos), and the manufacturer (Trane). We thank Mather Hospital for giving us this opportunity. After the tour we will dine at Fifth Season in Port Jeff. Andy Manos set up dinner, so it should be worthwhile.

Andrew B. Dubel, P.E., LEED AP
President
Long Island Chapter

Check the ASHRAE Website for Society news and to join/renew membership!

http://www.ashraeli.org

Long Island Chapter Officers & Committees

ASHRAE 2017/2018 OFFICERS

POSITION	NAME	PHONE	EMAIL
President	Andrew B. DuBel, PE	516.484.1020	president@ashraeli.org
President-Elect	Richard Halley	718.269.3809	president_elect@ashraeli.org
Vice President	Frank Paradiso	631.632.2791	vice_president@ashraeli.org
Financial Secretary	James Hanna	718.269.3768	finsec@ashraeli.org
Treasurer	Bill Artis	201.395.3750	treasurer@ashraeli.org
Secretary	Matthew Vitrano	212.643.9055	secretary@ashraeli.org
Board of Governors	Murat Bayramoglu	631.312.8818	bog1@ashraeli.org
Board of Governors	Michael Nigro	212.643.9055	bog2@ashraeli.org
Board of Governors	Elizabeth Jedrlinic	516.490.1621	bog3@ashraeli.org
Board of Governors	Andrew Blom	631.626.1695	bog4@ashraeli.org
Board of Governors	Donald W. Kane, PE	516.524.7258	bog5@ashraeli.org

ASHRAE 2017/2018 COMMITTEES

COMMITTEE	NAME	PHONE	EMAIL		
Programs & Special Events	Richard Halley	718.269.3809	programs@ashraeli.org		
Membership (MP)	Bill Artis	201.395.3750	membership@ashraeli.org		
Refrigeration	Bill Artis	201.395.3750			
Chapter Technology Transfer (CTTC)	Matthew Vitrano	212.643.9055	cttc@ashraeli.org		
Grassroots Government Activities (GGAC)	Andrew Blom	631.626.1695	ggac@ashraeli.org		
Newsletter Editor	Liset Cordero	212.643.9055	editor@ashraeli.org		
Research Promotion (RP)	Frank Paradiso	631.632.2791	rp@ashraeli.org		
Historian	Michael Nigro	212.643.9055	historian@ashraeli.org		
Student Activities (SA)	Murat Bayramoglu	631.312.8818	sa@ashraeli.org		
Young Engineers in ASHRAE (YEA)	Elizabeth Jedrlinic	516.490.1621	yea@ashraeli.org		
Webmaster			web@ashraeli.org		
Nominating	Michael Gerazounis, PE, LEED AP	212.643.9055	nominating@ashraeli.org		
Reception & Attendance	Andrew Blom	631.626.1695	reception@ashraeli.org		
PR & Engineering Joint Council of LI (EJCLI) Liaison	Andrew Manos, LEED AP	631.632.2791	pr@ashraeli.org		
Golf Outing	Peter Gerazounis, PE LEED AP	212.643.9055	golf@ashraeli.org		
Awards	Brian Simkins	203.261.8100	bsimkins@accuspecinc.com		
ASHRAE LI, P.O. Box 79, Commack, NY 11725					

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Chapter Monthly Meeting - Program for	2017/2018		
September 12, 2017 * At Westbury Manor	March 13, 2018 * At Westbury Manor		
Dinner Presentation – Basic Principles of Grooved Mechanical Joints Presenter: Stanley Funk **1 PDH**	Dinner Presentation - Chillers! Chillers! Chillers! Presenter: Justin Wieman **1 PDH** YEA Night		
Refrigeration Night	-		
October 10, 2017 * At Westbury Manor	April 10, 2018		
Dinner Presentation— Boiler Efficiency & Performance Presenter: Ian Rowburrey **1 PDH**	Annual Field Trip		
November 14, 2017 * At Westbury Manor	May 7, 2018 * Cherry Valley Club, Garden City, NY		
Dinner Presentation Revised Duct Construction Standard Presenter: Mark Terzigni, SMACNA National Director	ANNUAL GOLF OUTING		
1 PDH Joint meeting with SMACNA Membership Promotion Student Activities Night and YEA Night Resource Promotion Night			
December 12, 2017 * At Westbury Manor	May 8, 2018 * At Westbury Manor		
Dinner Presentation Responsible Use of Refrigerants Presenter: Julian R. de Bullet, ASHRAE Distinguished Lecturer	Dinner Presentation - Chemical Treatment Presenter: Jerry Union **1 PDH**		
1 PDH	Refrigeration Night Student Activities Night		
January 9, 2018 * At Westbury Manor	June 12, 2018 * At Westbury Manor		
Dinner Presentation— NYSERDA Rebates Presenter: Donavan Gordon **1 PDH**	Free Buffet Dinner for Members		
Tresenter. Benavan Gordon	PAST PRESIDENTS NIGHT & OFFICER INSTALLATION STUDENT SCHOLARSHIPS TO BE AWARDED ASHRAE History Quiz and prize Give-A-Ways		
January 20-24, 2018 🛩	June 2018 (4pm-8pm) * Dixie II @ Captree State Park Boat Basin, NY		
ASHRAE Winter Meeting Chicago, IL	ANNUAL FISHING TRIP		
February 13, 2018 * At Westbury Manor –	June 14, 2018		
Dinner Presentation– Energy Efficient HVAC Strategies Presenter: Daniel H. Nall, P.E. **1 PDH**	Joint YEA Event with LI, NYC & Westchester (Details to follow)		
Membership Promotion Night Resource Promotion Night			
February 18-24, 2018 🛩	August 16-18, 2018		
NATIONAL ENGINEERS WEEK	CHAPTERS' REGIONAL CONFERENCE (CRC) REGION I JERSEY CITY, NJ		
EJCLI Seminars			
February 27, 2018 🛫			
YEA Event - Go Kart @ 6PM RPM Raceway Farmingdale, NY			

Lon	g Island Chapter -	Pas	t Presidents
1958	H. Campbell, Jr. PE	1988	Michael O'Rouke
1959	Clyde Alston, PE	1989	Mel Deimel
1960	Sidney Walzer, PE	1990	Robert Rabell
1961	Sidney Gayle	1991	Gerald Berman
1962	William Kane	1992	Donald Stahl
1963	Louis Bloom	1993	Ronald Kilcarr
1964	Milton Maxwell	1994	Jerald Griliches
1965	Will Reichenback	1995	Walter Stark
1966	Joseph Minton, PE	1996	Joe Marino
1967	Irwin Miller	1997	Norm Maxwell, PE
1968	Walter Gilroy	1998	Alan Goerke, PE
1969	Charles Henry	1999	Frank Morgigno
1970	William Wright	2000	Michael Gerazounis, PE, LEED AP
1971	Louis Lenz	2001	Ray Schmitt
1972	Ronald Levine	2002	Steven M. Stein, PE
1973	Henry Schulman	2003	Andrew Braum, PE
1974	Myron Goldberg	2004	Claudio Darras, P.E.
1975	John N. Haarhaus	2005	Craig D. Marshall, P.E.
1976	Richard K. Ennis	2006	John Nally
1977	Kenneth A. Graff	2007	Peter Gerazounis, PE, LEED AP
1978	Evans Lizardos, PE, LEED AP	2008	Steven Friedman, PE, HFDP, LEED AP
1979	Albert Edelstein	2009	Steven Giammona, P.E., LEED AP
1980	Ralph Butler	2010	Nancy Román
1981	Robert Rose, PE	2011	Carolyn Arote
1982	Timothy Murphy, PE	2012	Brian Simkins, LEED AP
1983	Leon Taub, PE	2013	Andrew Manos, LEED AP BD+C
1984	Raymond Combs	2014	Richard L. Rosner, P.E.
1985	Edward W. Hoffmann	2015	Thomas J. Fields, P.E., LEED AP
1986	Jerome T. Norris, PE	2016	Donald Kane, P.E.
1987	Abe Rubenstein, PE		

PAOE POINTS FOR 2017/2018									
Chapter Members	Membership Promotion	Student Activities	Research Promotion	History	Chapter Operations	СТТС	GGAC	Electronic Communications	Chapter PAOE Totals
282	1,235	495	860	300	1,105	450	500	225	5,170

March Meeting Photos















March Meeting Photos













April Field Trip

ASHRAE LI CHAPTER'S ANNUAL FIELD TRIP TUESDAY, APRIL 10, 2018



Mather Hospital, 75 N Country Road, Port Jefferson, NY 11777

DATE:	TUESDAY, APRIL 11, 2017
ITINERARY:	<u>5:00 – 7:00PM</u> : Mather Hospital Technical Tour
	After the tour all attendees are invited to The 5 th Season for food and drinks.
	(PLEASE DO NOT BE LATE)
FEE:	Members \$45 pp / Guests \$50 pp / Students \$15 pp
LOCATION:	Mather Hospital 75 N Country Road, Port Jefferson, NY 11777
ABOUT THE TOUR:	Will describe the strategy behind moving chilled water demands from peak to off-peak rates, articulate methods to reduce capital costs through the use of utility company incentives for demand reduction and identify the components of a strategy to create energy efficiencies and flexibility through the use of a thermal (ice) storage chilled water system. A tour of the physical plant will follow the presentation. All attendees will receive 1 PDH
ABOUT OUR TOUR GUIDE	Kevin Koubek is Director of Engineering, Design and Construction at Mather Hospital, Northwell Health. He oversees all Hospital facility functions for operation and compliance as well as the design and construction of all renovation and expansion projects associated with the Hospital. Koubek has been the driving force in the investigation and implementation of energy efficiency projects throughout the Mather facility and site. The completion of these many energy efficiency projects has placed Mather in a position to be one of the leading energy efficiency facilities within the Northwell Health network. He received a bachelor's degree in Mechanical Engineering from Rutgers University and a master's degree in Mechanical Engineering from NYU, Tandon School of Engineering and is a licensed professional engineer in the State of New York.
RSVP	Please RSVP to andrew.dubel@leapc.com

Young Engineers in ASHRAE (YEA)

ASHRAE offers a wide variety of offerings for YEA members. Last meeting I gave presentation on some of these offerings.

Leadership Weekend/ Leadership Weekend 2.0

These weekends are designed to help YEA members get leadership training, career advice and networking skills. They occur three times a year all over the country. Scholarships are available for Region I members.

https://www.ashrae.org/communities/young-engineers-in-ashrae-yea/yea-events-and-programs/yea-leadership-weekend

LeaDRS

This Regional program allows for the development of future Regional leaders through their shadowing of current DRCs and support from the Region. LeadDRS would be a program that is run, funded, and administered by each Region in order to develop incoming or new Regional leadership. As a participant in this program, the DRC would select a participant from the Region to shadow the DRC at a Society Winter or Annual conference. The participant's travel expense would be covered by the Region as an investment in the development of their future leadership.

https://www.ashrae.org/File%20Library/Communities/Young%20Engineers%20in%20ASHRAE%20(YEA)/YEA% 20Events%20and%20Programs/LeaDRS-Program-Description.pdf

Please reach out to me if you have any questions on these experiences.

Upcoming YEA Events:

Joint NYC, LI, Bistate event in NYC:

Career Panel Discussion and Happy Hour:

May 3, 2018

Elizabeth Jedrlinic
YEA Chair
Elizabeth.iedrlinic@trane.com

Research Promotion

My name is Frank Paradiso and I am your RP chair for the 2017-2018 year for the Long Island ASHRAE chapter.

ASHRAE has a \$2.5 million dollar funding raising goal. This supports 140 research projects with a combined value of more than 15 million. The bar has been set pretty high by our former RP Chairs for our chapter's goals. This year we have a goal of \$19,000. Every year we try to exceed our goal and reach towards challenge goal. With your help I believe we can achieve it.



Our current RP year to date amount is \$14,272 which is about 75% of our goal.

I would like to acknowledge and thank all those who were generous enough to have donated early in ASHRAE's 2017-2018 RP campaign:

INDIVIDUALS

Peter Gerazounis, PE John D Nally Donald W Kane, PE Andrew E Manos Andrew B Dubel Matthew Vitrano Andrew B Dubel Michael Nigro Frank Paradiso Ronald J Kilcarr, PE, CEM James Hanna William Artis, Jr Murat Bayramoglu, MS Thomas Fields, PE Richard I Halley Andrew Charles Blum Steven Benkovsky Richard J. Pearson James R. Tauby, PE Timothy T. Davis Marcel A. Bally Anthony J. Rosasco, Sr. Mitch Castell

COMPANIES

Catan Equipment Sales
Wales Darby Incorporated
Platsky/Marplat
Technical Air Systems, Inc.
Dagher Engineering, PLLC
Accuspec, Inc
Gil-Bar Industries, Inc.
Dagher Engineering
ADE Systems Inc
VMC East Inc
SRS Enterprises Inc.
Wallace Eannace Associates Inc.
ACS Analytical & Combustion
Systems

Mason East Inc EMTEC Consultants RPG Associates Vertiv/Liebert Carrier Chimney Design Solutions Delta Cooling Towers Anron

CONTRIBUTIONS CAN BE MADE IN THE FOLLOWING WAYS:

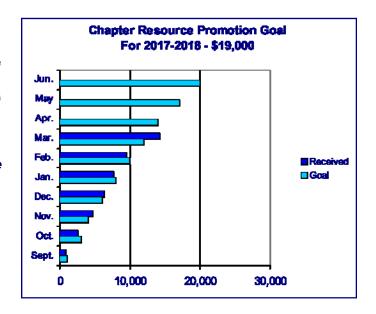
1) You can mail your checks, made out to ASHRAE Research Promotion, to:

Frank Paradiso
ASHRAE Research Promotion Chair
c/o Stony Brook University Research and Support Services,
Suite 160 Development Drive
Stony Brook, NY 11794-6010

- 2) You can bring your check to any of the meetings and give it to me. I will mail it into headquarters.
- 3) You can contribute via PayPal from the ASHRAE LONG ISLAND web site, just click on the donate button.
- 4) You can contribute directly on-line. www.ashrae.org
- * Please make sure you accredit your contribution to the LONG ISLAND CHAPTER 006 *

Thank you again for all of your support!

Frank Paradiso
Research Promotion Chair



Membership Promotion

The HVAC business is hiring, and opportunities are abundant! Over the past few months, multiple businesses dealing with various aspects of the HVAC industry have asked me if the Long Island Chapter could help them find good people to help their businesses grow. Employers value your ASHRAE membership. Our members demonstrate a genuine interest in their continued personal and professional development along with a willingness to learn. Quite simply, our members go above and beyond to contribute meaningfully to the HVAC community. Our membership remains strong and the networking opportunities grow stronger every day. With graduation right around the corner, this is an excellent time to be a student member of ASHRAE. Unfortunately, these opened doors will close if you allow your membership to lapse. Renewing is easy at www.ashrae.org. Just log in and click "renew!" If you are currently enjoying a student membership, this is the perfect time to check out our Smart Start program. This program allows you to benefit from ASHRAE membership for years at a deeply discounted price.



Bill Artis Membership Chair

CTTC

Welcome, everyone, to the April Sounder! I hope to see you all at the upcoming field trip this month.

This month I would like to point out an article from the ASHRAE Journal about selecting filters to reduce the concentration of particles smaller than 25 um, or PM2.5. Exposure to particles larger than PM2.5 can cause health concerns. Many of the larger cities around the world (including NY) have a MERV rating assigned by ASHRAE as a guideline on what filters to use. The MERV rating is determined by testing for filtering out three different size of particles during varied loading conditions. The bottom line is we have to be careful what filters we specify/install on outdoor air units. These filters, even in just a general make-up air environment, can have a huge effect on the IAQ of the space.



For much more detail, a chart of MERV levels, and ventilation filtration levels, see the full article at the ASHRAE Journal portal linked below:

https://technologyportal.ashrae.org/Journal/ArticleDetail/1738

Matthew J. Vitrano CTTC Chairman

Refrigeration

Reprinted from: http://www.coolingpost.com/world-news/co2-refrigeration-now-mainstream/

USA: The growing acceptance of CO2 refrigeration as a mainstream technology amongst both OEMs and end users in the USA is highlighted in a new study by Danfoss. According to the new survey of over 1,000 individuals with an interest in commercial and industrial refrigeration in North America, 82% of OEMs and 91% of consultants said they saw CO2 as a viable mainstream refrigeration technology.

In addition, about half of the OEMs who responded saw CO2 refrigeration as being at least 16% of their business within the next five years. In a similar study conducted in 2012, less than 20% of OEMs saw CO2 comprising at least 16% of their business.

The majority of commercial refrigeration consultants and end users are today engaged in CO2 projects, citing pending legislation/regulations and corporate sustainability goals as key drivers in the decision to use CO2. However, at the same time, they identified the high initial system cost as a primary barrier to deployment.

The survey also identified similar acceptance in the industrial refrigeration market. 57% of responding OEMs and contractors and 43% of consultants and end users indicated that they have already either been involved in a CO2 refrigeration project or have plans to be. However, OEMs and contractors do not see CO2 becoming a significant part of their business in the near future.

OEMs and contractors identified the removal of ammonia, in terms of improved safety and reduced ammonia charge, as key drivers in using CO2. Consultants and end users agreed, but also cited pending legislation/regulation as important factors. In contrast to the commercial refrigeration industry, industrial refrigeration respondents said the primary barrier to further CO2 use is the result of end user and contractor familiarity and training.

This industry indicator on CO2 was conducted as a follow up to a similar survey conducted by Danfoss in 2012 to gauge the market acceptance of CO2 refrigeration. The survey was distributed via email to approximately 1,100 people that do business in commercial or industrial refrigeration applications.

"The results of this survey validate the ongoing growth we are seeing in CO2 projects across North America," said Peter Dee, Danfoss' sales and services director – food retail. Globally, Danfoss says it has been involved in more than 10,000 CO2 refrigeration projects.

Bill Artis Refrigeration Chair



Student Activities

STUDENT ACTIVITIES DEADLINES

Below I would like to share a summary of the upcoming deadlines for Student Activities. These deadlines are provided by the society. If any further information is needed, you can either contact directly the ASHRAE Society, or me. Please see my contact information at the end of the list.

Katie Thomson Assistant Manager of Student Activities ASHRAE 1791 Tullie Circle NE Atlanta, GA 30329 Tel: 678-539-1212 KThomson@ashrae.org www.ASHRAE.org





May 30, 2018: K-12/STEM Leadership Award - The award is earned if each of the Chapters Officers and its Chapter Student Activities chair participate in one qualifying K-12/STEM related activity within their Chapters area. More info available here.

May 31, 2018: Annual Student Branch Report – The report can be submitted electronically by the Student Branch Advisor using the <u>online form</u> available on the Student Zone. The annual report is required to retain active status in the Society. Branches that do not submit a report may be put on inactive status.

June 10, 2018: SBA of the Year - Chapters Presidents or Student Activities Chairs should submit their Chapter's best nomination to their Regional Vice Chair for Student Activities no later than June 10th. If they wish, Chapters can solicit nominations from active student members and Student Branch Advisors. More info available here.

Student Activities (Cont'd from Page 12)

2018 ASHRAE Winter Conference Recap



Design Competition Timeline

May 4, 2018 – all entries for HVAC Design Calcs, System Selection, and ISBD must be submitted electronically to the ASHRAE Society FTP site. If there is more than one entry per category per Chapter/Region then additional judging is required.

May 18, 2018 - if there is more than one entry in a category for a particular chapter, I will contact the SA Chair and provide them with the submissions and they will have until the May 18 deadline to forward their selection of the best entry in each category to their Student Activities Regional Vice Chair (RVC) and ASHRAE Headquarters.

June 1, 2018 - if there is more than one entry in a category for a particular region, I will contact the SA RVC and provide them with the submissions and they will have until the June 1 deadline to forward their selection of the best entry in each category to ASHRAE Headquarters for national judging.

All entries that pass regional judging will be submitted to the full SA Committee for final judging. Each committee member will be assigned to judge one of the four categories. The Applied Engineering Challenge is only judged at the society level so students must adhere to the final June 1 deadline.

June 23, 2018 - National level competition under the direction of the Student Activities Design Competition Subcommittee will complete evaluation of national level entries, and will select 1st, 2nd and 3rd place winners in each category. In order to encourage additional schools to participate in the competition, a "Rising Star" winner will be chosen within each category from among those schools that have not had a winning entry in the previous three years.

Murat Bayramoglu
Student Activities Chair
Muratbayramoglu.mb@gmail.com
631-312-8818

Grassroots Government Activities Committee (GGAC)

Day on the Hill:

Just a reminder, we're actively in the process of planning an event for GGAC called a "Day on the Hill". We'd love to have a few volunteers to come by and get involved. If you're interested, please let me know as soon as you can.

The date we have set for our Day on the Hill will be **June 5th 2018**. We need as many people as we can get to accompany us to Albany and meet with Legislatures. We're planning this with several regional chapters and I would greatly appreciate any participation.

Geothermal Tax Credits Restored:

This an update from NY-Geo on the proposed NYSERDA geothermal tax credits:

(2018 02 09) – Congress restored the fedThis bill extends the residential and commercial tax credits until January 1, 2022. The residential income tax credit is retroactive back to January 1, 2017 at 30% and continues at that level until 2020 when it drops to 26% and then at 22% for 2021. It ends December 31, 2021.

The 10% commercial investment tax credit is extended until January 1, 2022 and the "placed in service language" has been replaced with "property the construction of which begins before Jan. 1, 2022.

Andrew Blom Grassroots Government Activities Chair



History

With baseball season officially kicked-off, I thought it be appropriate to have this month's History Topic around America's favorite pastime. Below is an interesting article about how baseball bats are manufactured. Full credit of this article goes to the Mary McNulty.

When the game of baseball was first played, sticks were used to hit the ball. By the time the game had been officially organized as a team sport, the players either whittled their own bats or bought them from a wood turner. League specifications set in 1863 were broad: any type of wood was permissible and the bats had to be round, not more than 2.5 inches (6.5 cm) in the thickest part. There were no length restrictions. Early bats ranged in weight from 48-50 ounces (1361-1417 g) with an average handle circumference of 4.5 inches (11.4 cm). The hefty weight meant home runs were rare. By the 1960s, however, players such as Hank Aaron were using

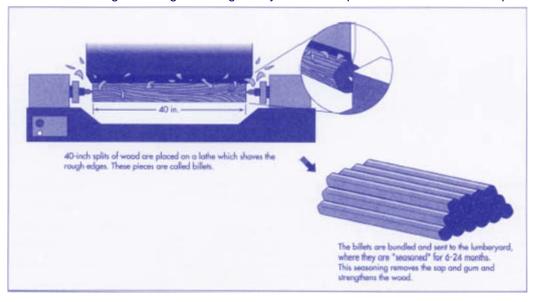


shorter, lighter bats to smash balls into the centerfield seats. Aaron's bat measured 35 inches (89 cm) long and 33 ounces (979 g) in weight.

Modern baseball rules limit bat lengths to 42 inches (107 cm) and the diameter to 2.75 inches (7 cm). There are no weight restrictions. The bats must be made of wood with no metal, cork, or other type of reinforcement inserted into the bat's center. Over the years, several major league players have tried to use a reinforced bat. A particularly colorful controversy surrounded a bat used by Albert Belle of the Cleveland Indians. Belle's bat was confiscated during a game between the Indians and the Chicago White Sox in July of 1994. The bat was stored in the umpires' locker room at Comiskey Park until it could be tested the next day. How-ever, it disappeared overnight. It was returned anonymously the next day and found to have a corked center. In spite of protests, Belle received a temporary suspension. The mystery of the bat's disappearance and reappearance has yet to be revealed.

Hillerich & Sons, a Kentucky wood-turning shop, was the first company to devote a full-time operation to the manufacturing of baseball bats. According to company lore, in 1884, John "Bud" Hillerich, the son of the company's founder, was attending a Louisville Eclipse baseball game when a player named Pete "Old Gladiator" Browning broke his bat. Bud invited Browning back to the shop where Bud custom-made a new bat from a piece of white ash. During the next day's game, Browning pounded three hits in three at-bats using the new bat. And the rest, as they say, is history. The ensuing requests for custom-made bats from other players helped Bud convince his father to add bat manufacturing to the family business. The company named its new product the "Louisville Slugger." (The company became Hillerich & Bradsby in 1911 when Frank Bradsby, a sporting goods magnate, joined the firm.)

Baseball players are notoriously particular about their bats, and have been so through-out the sport's history. Frank Frisch, who played in 50 World Series games for the New York Giants and the St. Louis Cardinals, cured his bats during the off-season by hanging them like sausages in a barn. Boston Red Sox slugger Ted Williams bathed his bats in alcohol to keep them cool during his many hitting streaks. Williams was also known to visit lumberyards looking for pieces of wood with narrow growth rings. The legendary Babe Ruth preferred his bats to have pin knots in the barrels.



History (Cont'd. from Page 15)

Traditionally, forty- to fifty-year-old ash trees are used to make baseball bats because of their strength, flexibility, and light weight.

Raw Materials:

Traditionally, ash trees from Pennsylvania and upstate New York are used to make baseball bats. The ash is valued for its strength, flexibility, and light weight. The best trees are those that grow in dense clusters where they are protected from the wind and forced to grow straight up towards the sunlight. Forty to fifty years of growth is required to bring an ash tree to the preferred trunk diameter of 14-16 inches (36-41 cm). Each tree yields approximately 60 bats.

When a tree has reached the proper height and width, a forester marks it with spray paint. A log cutter then uses a chain saw to bring down the tree. The top branches are removed and left in the forest. The tree trunks are sawed into 10-16-foot (3-5 m) lengths, loaded on a truck, and taken to the mill. At the mill, the logs are inspected for knots and uneven grains. Only half of what is cut in the forest is ultimately used to manufacture baseball bats. The logs that make the grade are rolled to a hydraulic wedge that cuts them into 40-inch (101 cm) splits.

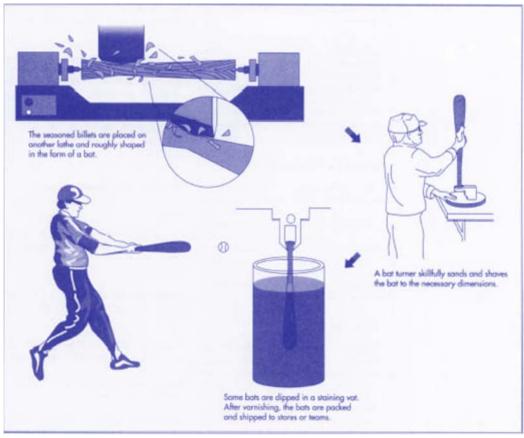
The Manufacturing Process:

Turning the splits into billet

A mill worker places each split onto an automatic lathe that shaves the rough edges off as it turns the wood. The
billets, as they are now called, are inspected again for straightness of grain. The billets are stacked and strapped
together into six-sided bundles. Workers paint the ends with a protective preservative to keep the wood from fraying
or rotting. The bundled billets are then trucked to the lumberyard of the bat manufacturer.

Seasoning the billets

• The billets that arrive at the lumberyard are considered "green" wood because they still contain sap and gum. In order to strengthen the wood, the sap and gum must be removed by an air-drying process called "seasoning." To achieve the proper seasoning, the billets are simply stacked in the yard for a period of six months to two years.



History (Cont'd. from Page 16)

The plant workers who create the final product are called bat turners. They are highly skilled artisans who have been specially trained for the intricate work. When an order is placed, the bat turner selects a billet from the storage bin and creates a replica of the desired model.

Shaping and sanding the billets

When the billets have dried completely, they are weighed and inspected for quality. A worker places each billet on an
automatic lathe and shapes it into a rough baseball bat shape with a narrowed neck. The bat forms are sanded, inspected once more, and then sorted according to weight.

Matching the bat to the model

• The bat manufacturer keeps a model of each bat made, typically identified by the baseball player who initially ordered it. When a player or team places an order, the order may look like this: six Johnny Bench models, ten Hank Aarons, four Mickey Mantles. The plant workers who create the final product are called bat turners. They are highly skilled artisans who have been specially trained for the intricate work. When an order is placed, the bat turner selects a billet from the storage bin that fits the called-for weight and length. The billet is placed on a lathe. The model bat is placed on a rack above and behind the lathe. The bat turner revolves the billet slowly on the lathe, sanding and shaving it to an exact replica of the model. Using calipers, the bat turner measures the billet every 1-2 inches (2.54-5 cm) and weighs it repeatedly until it is perfect.

Branding, staining, and varnishing the bats

• The bat is branded with the company trademark and the signature of the player associated with the model. The trademark is placed one-quarter of a turn from the sweet spot (the ideal spot where the ball should strike the bat). If the order calls for staining, the bat is dipped into a staining vat. All of the bats are then varnished, packed into cartons, and shipped to the player or team.

Quality Control:

The structural integrity of the baseball bats are monitored through repetitive impact testing. Some factories have compressed-air cannons that shoot baseballs at precise points on the bat. High-speed cameras record the impact while accelerometers measure the velocity. In other plants, robotic arms whack the balls off over-sized golf tees. Inspectors collect data on the frequency of bending and how the balls travel off the bat.

The Future:

In spite of manufacturers' assurances that the supply of ash trees is not decreasing, the development of composite and aluminum bats continues. The wood composite bat typically consists of a plastic foam core surrounded by woven layers of resin-impregnated synthetic fibers. One of the newest innovations is a bat made of "lanxide," a ceramic-enforced material. Proponents of non-wood bats point to their resistance to breakage. These bats also greatly alter hitting power: a player's batting average increases markedly with an aluminum bat. Although the composite and aluminum bats are popular with amateur and college base-ball players, they are required to use all-wood bats if they advance to the major leagues. It is doubtful that Major League Baseball will ever allow anything but pure wood for bats. The sport is steeped in tradition, and the use of aluminum or composite materials would alter the record books dramatically.

Where To Learn More:

Book:

Arnow, Jan. Louisville Slugger: The Making of a Baseball Bat. Pantheon Books, 1984.

Ashley, Steven. "High Tech Up at Bat." Popular Science, May 1992, pp. 108-11, 122-24.

Curreri, Joe. "Romance of the Bat." Antiques and Collecting Hobbies, May 1992, p. 26.

Pesky, Greg. "Expanded Coverage." Sporting News, June 1993, p.32.

"Lanxide Shows Mettle with New Material." Sporting Goods Business, July 1993, p. 36.

Michael Nigro History Chairman

Young Engineers Professional Development Workshop - May 3, 2018





Young Engineers Professional Development Workshop

Holiday Inn Plainview 215 Sunnyside Blvd, Plainview, NY Thursday, May 3rd 4PM-6PM

NO COST ADMISSION!

Register at ASHRAELI.COM

Join us for our first ever "Young Engineers Professional Development Workshop", where engineers will have to opportunity to learn from a panel of veteran Long Island engineers, and ASHRAE Distinguished Lec-

turer Pamela Duffy. The topic of the event will be about young engineers taking control of their career direction, and what soft and technical skills are needed to reach their desired progression. Ms. Duffy will share her experiences ranging from being a design engineer and her career progressions, and

tions.

Pamela Duffy P.E, LEED AP

Our Distinguished Panel Includes

our panel will discuss a series of central topics and take audience ques-

Thomas Fields, P.E- Director of MEP, MG Engineering Brian Simkins- Senior Sales Engineer, Accuspec Inc. Jonathan Da Silva- Johrden, P.E- President, JDJ Engineering Pamela Duffy, P.E- Senior Product Manager, Lennox International More to Be Announced

The Young Engineers of ASHRAE Long Island will be sponsoring a cocktail hour at Bistro 46, next door to the event room.

Agenda:

4PM: "How I Built My Career in HVAC "by Pamela Duffy **5PM:** Career Development

Panel Discussion 6PM: Cocktail Hour

Join Us at Our Monthly Meetings

Our monthly chapter meetings are held on the Meeting Includes: second Tuesday of every month, from September through June.

We hold our meetings at the Westbury Manor in Westbury NY; cocktail hour begins at 6pm, and the dinner seminar at 7pm. Check ASHRAELI.COM for monthly details.

- **Networking Happy Hour**
- Seated Dinner w. Open Bar
- Professional development program
- **Post Meeting YEA Social Meeting**

Chapter Member: \$45

Non-Member: \$50

Student Member: \$25

To join ASHRAE, please click the Join Now link below and select "Long Island" as your home chapter! Join at www.ashrae.org

^{*}Chapter does not act for Society

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Does It Cost More To Build Green? Benefits include reduced operating costs & construction waste.

Online Thermal Comfort Compliance Tool Included In New ASHRAE User's Manual.

87% of households in the US have #AC, 5% do in India. India's tough choice on air-conditioning and climate.



The November issue of the Journal is tested for binding strength to see how many times a page can be turned before the binding would fail.

Harvard & SUNY Upstate Medical University find that workers are healthier and happier in certified green buildings.

ASHRAE Standard 90.1 has been redefining energy savings since 1975. A new version is available now.

Adapting historical buildings for sustainable reuse.



ASHRAE CERTIFICATIONS

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ASHRAE, accredited by ANSI under ISO/IEC 17024 for the High-Performance Building Design Professional (HBDP) program, has certified more than 2,000 Built Environmental Professionals.

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Energy Modeling

Commissioning

Healthcare Facility Design

High-Performance Building Design

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ASHRAE certification programs:

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- · Serve as a springboard for continued professional development
- · Offer an easy-to-apply process

FOR MORE INFORMATION GO TO - https://www.ashrae.org/education--certification/certification

Email: peter.gerazounis@mgedpc.net

ASHRAE Golf Outing - Monday, May 7, 2018



19th Annual LI ASHRAE GOLF OUTING

Monday - May 7, 2018

Place: Cherry Valley Club

Brunch: 11:00 am Shotgun: 12:30 pm

Reception: 5:30 pm

Dinner: 6:30 pm

This Event fills up fast, to guarantee a spot RSVP Soon.

(2) Foursome Limit Per Company.

Proper golf attire and shoes are required. Locker room and shower privileges are included.

CHECKS MUST BE IN BY APRIL 9, 2018 (No Exceptions)

Fax, Email or Mail entire sheet or cut this half and return

Name: Company: Address: Phone: City, State, Zip: Fax: I have read and understand the Cherry Valley Rules and Regulations (Signature): Guest 1: Company: Guest 2: Company: Guest 3: Company: Fund raising is primarily through the contributions of our sponsors. Please consider our sponsorship opportunities listed below. **Golf & Meals:** \$ 375 pp x ____ Reception & Dinner: \$ 150 pp x ____ Please make check payable to: **Sponsor Dinner:** \$1,000 ASHRAE - Long Island Chapter \$ 500 **Sponsor Lunch:** Yes Mail Checks To: MG Engineering D.P.C. = \$____ **Sponsor Reception:** 500 Yes Attn: Peter Gerazounis, P.E. LEED AP **Sponsor Prizes:** 500 Yes 116 West 32nd Street New York, NY 10001 **Sponsor Beverage Cart:** \$ 500 = \$_____ Yes Fax No.: (212) 643-0503

Sponsor Hole:

200

= \$

ASHRAE Golf Outing - Monday, May 7, 2018

Cherry Valley Club 28 Rockaway Avenue at Third Street Garden City, NY Telephone: (516)746-4420

Fax: (516)746-4421



Program:

11 a.m. Brunch in the Clubroom & Lounge – including Omelet station, deluxe deli board with rolls, chicken scarpiello, danish, croissants, bagels & cream cheese, sliced nova, fresh fruit and cheeses, Good Humor ice cream cart.

12:30 p.m. Shotgun Start Golf – Playing individual scores. Prizes for long drive, closest to the pins, low gross and callaway. Refreshments at the halfway house will include packaged snacks and whole fresh fruit, hot dogs, beer & soda. A snack cart will also be on the course. Carts, forecaddies, driving range, locker room and showers are all included in the price.

5:30 p.m. Following Golf - Open Bar with hot and cold horsd'ouvres in the Main Lounge. Fresh mozzarella with sundried tomatoes, cajun chicken, spring rolls, baby lamb chops, sesame chicken, turkey canapés, fried oysters, cheeses, fresh fruit, lobster halves, fresh clams & oysters, shrimp and crab claws.

6:30 p.m. Reception Dinner – Awards and raffle in the Main Dining Room. Carving stations of beef tenderloin & turkey breast. Chafing dishes of chicken & salmon featuring the chef's specialty, pasta station with marinara or vodka sauce, and choice of tossed or Caesar salad. Viennese dessert table following the dinner featuring pastries, fruit, cookies, assorted cakes and pies. Full beverage service throughout is included.

Women are also invited to attend and participate. There are locker room facilities available. The Cocktail hour and Dinner will also be available for those who cannot attend during the day for the golf.

Note: We are limited to 128 golfers. Openings will be filled on a first come-first serve basis. Corporate sponsorships will be available and raffle items will be welcome. Proper golf attire is a requirement for the golf course. Soft spikes are required. Please wear a jacket for the dinner.

Directions:

From the North Shore of Long Island: Take the Long Island Expressway to Exit 34 South (New Hyde Park Road Southbound), Grand Central Parkway (Northern State Parkway) to Exit 26 South (New Hyde Park Road Southbound) or Jamaica Avenue (Jericho Turnpike) Eastbound to New Hyde Park Road. Travel Southbound on New Hyde Park Road for approximately 5 to 7 miles to Stewart Avenue (You will cross over a set of railroad tracks). Take Stewart Avenue eastbound for approximately 1-1/2 miles to Cherry Valley Avenue. Travel Southbound on Cherry Valley Avenue for 1/2 mile, Cherry Valley Avenue becomes Rockaway Avenue. Continue on Rockaway Avenue and the entrance to Cherry Valley Club will be on your right.

From Local Points North: Take Old Country Road or Stewart Avenue to Franklin Avenue. Travel Southbound on Franklin Avenue to Fourth Street (just after crossing over railroad tracks). Turn right on Fourth Street and continue until it ends (Rockaway Avenue). Cross over Rockaway Avenue into the Cherry Valley Club's parking lot.

From the South Shore of Long Island: Take the Southern State Parkway to Exit 19 (Peninsula Boulevard-Hempstead/Garden City). Travel Northbound on Peninsula Boulevard for approximately 1/2 mile to President Street. Bear left on President Street (Northbound) for approximately one mile and cross over Hempstead Turnpike. President Street will become Cathedral Avenue. Continue on Cathedral Avenue for one mile to Fourth Street. Make a left on Fourth Street (Westbound) and continue until it ends (Rockaway Avenue). Cross over Rockaway Avenue into the Cherry Valley Club's parking lot.

From Local Points South: Take Hempstead Turnpike to Franklin Avenue. Travel Northbound on Franklin Avenue to Fourth Street. Turn left on Fourth Street and continue until it ends (Rockaway Avenue). Cross over Rockaway Avenue into the Cherry Valley Club's parking lot.

ASHRAE Golf Outing - Monday, May 7, 2018

Cherry Valley Club Golf Outing Guidelines



To add the enjoyment of your day, we ask that you abide by Cherry Valley Club's basic rules of The Club, dress, golf etiquette & safety, golf carts, and care of the course.

Club Rules

- 1. Smoking is not permitted in the Club House.
- 2.Cell Phones are permitted in the parking lot only. Use of Cell Phones beyond the parking lot is strictly prohibited. This includes the Golf Course.

Dress Code

- 1. Jeans, designer or otherwise, are not acceptable on club property. This not only includes pants, but skirts, and cutoffs.
- 2. T-shirts and tank tops are not in keeping with the atmosphere of the club and as such, are not acceptable. The definition of T-shirt includes those with psychedelic coloring or suggestive printing.
- 3. If the Main Dining room is going to be utilized for any purpose, jackets are required.
- 4. Short shorts are not permitted on the golf course, practice tee or putting green by either male or female. Bermuda shorts of acceptable length are permitted. Jogging attire and denim pants are not considered proper attire for the golf course.
- 5. **Soft spikes** are mandatory at all times on our fine golf course. If your shoes need soft spikes, arrive early so we can change them. There is a nominal fee. There is **no** exception to this rule.

Golf Etiquette and Safety

- 1. Slow play shows lack of consideration for the players in your group and, more important, for the players behind you. Golf is made much more enjoyable if all players adhere to the following points in the conduct of play:
 - Minimize the time spent looking for balls by watching the flight of balls hit by everyone in your group. If a ball appears to be lost or out of bounds, hit a provisional ball before leaving the tee.
 - Signal the players behind you to play through if it becomes apparent that a ball will not easily be found and you are holding up play.
 - Don't rush addressing and striking the ball but move briskly between shots.
 - If your ball is some distance from the golf cart and the exact club selection is in doubt, take several clubs with you when you leave the cart to walk to the ball.
 - When play reaches the area of the green, park the golf cart(s) behind the green or adjacent to the next tee. Walk briskly off the rear or side of the green after putting out. Mark your score cards after your group is off the green.
 - Once a score of double par has been posted, pick up and move on to the next hole.
- 2.No player should play until the players in front are out of range.
- 3.If your ball appears headed for a player or group of players immediately shout "fore" in a loud clear voice.
- 4.No one should move, talk or stand close to or directly behind the ball or the hole when a player is addressing the ball or making a stroke.

BOG Meeting Minutes

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.

BOG Meeting, Long Island Chapter Tuesday, March 13, 2018 5 PM Westbury Manor

Call to Order

Secretary (Matthew Vitrano)

Meetings minutes - Comments/Additions- approval last meeting

President (Andrew Dubel) Chapter Operations [min-600/Par-1200/980](2720)

- PAOE- Keep updated
- Sounder Articles
- Due March 20th

Programs (Richard Halley)

- Field Trip April. Iceplant, Mather Hospital ice storage, 5th Season for dinner
- Cocktail Hour Sponsors Ongoing
- Fill out schedule for sounder

Chapter Technology Transfer (Matthew Vitrano) [min-450/par-1050/150] (1775)

- DL Request Update with actual date. Coordinate with Bill. Pam Duffy April
- Facebook Updates Event and blast every month.

Treasurer (Bill Artis)

- Current Balance
- Outstanding expenses all paid
- Chapter Budget Status

Grassroots Government Advocacy (Andrew Blom) [min-500/par-650/0] (1800)

- Activities? Bethpage water commissioner in May. Water savings.
- USGBC or ? June 5, Tuesday

Historian (Michael Nigro)[min-100/par-300/300] (1415)

- Articles/interviews of past presidents Potential life-members/fellows
- Digitizing records –Status

Honors and Awards Chair (Brian Simkins)

- Service awards/Technical Awards potential
- Candidate Projects

Research Promotion (Frank Paradiso) [min-800/par-1050/0)] (3032)

- Vendor Book Printing? Done
- 50/50 Ongoing
- Goal 30? Next goal \$19,000

Refrigeration (Bill Artis)

Updates? None

BOG Meeting Minutes (Cont'd. from Page 16)

Field trip

Membership Promotion (Bill Artis) [min-500/par-800/805] (1495)

- Membership Upgrades
- Delinquency report?
- New Members this month? +3 for the year
- Planned Events?

Events Budget?

Student Activities (Murat Bayramoglu) [min-300/par-500/50] (770)

- Scholarships due May 1st
- Student membership update.
- Stony Brook Chapter
- Suffolk
- Hofstra in the works
- NYIT –

YEA (Elizabeth Jedrlinic)

- Events? Joint Event coming up. More info soon
- Budget?

Reception & Attendance (Mike Nigro)

Electronic Communications[min-250/par-500/225](0)

- Temp address
- New site active!
- Recovery of old address Ongoing

Golf (Peter Gerazounis/Tom Fields) New date?

ivew date?

New Business

Time/Place of next BOG Meeting – April 9, 2018 – Conference Call – 4:30 PM

Motion to Adjourn

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