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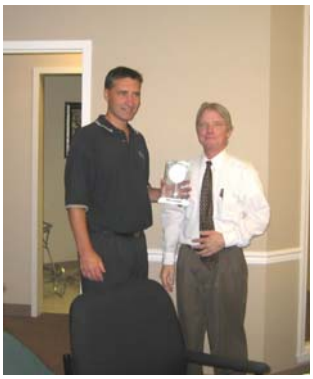
KIBART CHRONICLE

Kibart Chronicle

August 15, 2005

CONGRATULATIONS

With great honor and pride, we wish to congratulate Farshad Kassiri and Karl Gumnick as Kibart's newest registered Professional Engineers. Both Farshad and Karl sat for the Professional Engineering Exam in April, 2005, and both were notified that they had passed the exam in the Spring of this year. As a company, we understand and recognize the amount of time, dedication, and effort it takes to successfully complete the PE exam. Farshad has a BS in mechanical engineering from University of Colorado and 18 years of practical experience. Karl possess an electrical engineering degree from Johns Hopkins University and has 24 years of practical experience. They truly have much to offer the engineering community in the Baltimore metropolitan area. This accomplishment is a tremendous boost to both Karl and Farshad individually, as well as the entire Kibart organization. Congratulations again to both of you.



KIBART BREAKS NEW GROUND

The city of Baltimore is undergoing a Renaissance in a number of areas, including East Side Waterfront redevelopment, Johns Hopkins School of Medicine expansion, and the Brewer's Hill development. We will soon be announcing our involvement in a few of these projects, but for this newsletter we will focus on the West Side Urban Renewal in and around the University of Maryland Hospital and School of Medicine.

We are fortunate to be associated with Gaudreau Architects in the design of the second building at the new UMB Bio-technology business park. This building will be a 200,000 SF high rise bio-tech research and development facility, whose primary tenant will be the University of Maryland Baltimore, which will be LEED-Silver accredited. The developer of the project, Townsend Capital is seeking a $1,250,000 LEED energy tax credit from the Maryland Energy Administration. This tax credit is only available for projects exceeding a 35% reduction in energy consumption beyond the ASHRAE 90.1 energy baseline. This type of energy reduction is a significant goal and will require innovative and creative design concepts on behalf of Kibart, Inc. System features will include high efficient glazing, high efficient chillers and boilers, waterless urinals, a green roof, certified commissioning (by Kibart), etc.

We look forward to not only being involved with the shell and core design of this building, but also the lab tenant fit-out work, and hopefully the four remaining research and development buildings located within the park.

Inside this issue:

KIBART, INC.

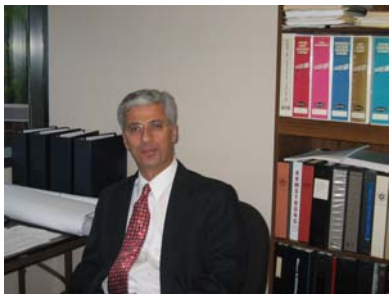
MAKING CONCEPTS REALITY

EXCITING CHANGES

Kibart, Inc. would like to take this opportunity to welcome the newest member to our family and formally announce Dan Gardner's new role within the company.

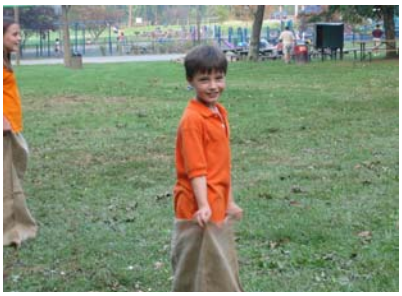
As our company continues to grow, we have recognized the need for a true utility infielder, and Dan is our man. Dan will now be in charge of all large field investigation/as-built verification efforts for the mechanical department. He will also be performing construction inspections, project punch-outs, handling small design projects, and will help grow our Commissioning related work, too. His new title will be "Project Manager—Construction and Field Services."

In order to fill the position opened by Dan's move, we are glad to announce Mr. Abbas Lohrasbi has joined the Kibart staff. Abbas will serve the role of Project Manager and will take-over management of Dan's group. Abbas is a graduate of Tennessee Technological University and has over 20 years experience in the HVAC industry. In the past, Abbas was the Mechanical Project Manager and responsible for design of the Camden Yards baseball stadium for the Baltimore Orioles, as well as renovation of the Social Security Complex in Woodlawn. Abbas spent 5 years working in the State of Israel, designing a $250 million state-of-the-art complex. After spending the last year and a half working in the Nashville, Tennessee area, Abbas is retuning to Baltimore and hopefully finishing his career with the Kibart family. Abbas looks forward to having his wife Mahta and two children, Munib age 13, and Bushra age 7, relocated into their new home here in Baltimore by the end of this year.



UPCOMING ACTIVITIES

The summer picnic is set for September 24, 2005 at the Westinghouse Pavilion in the Oregon Ridge Park. We've been guaranteed by the Entertainment Committee that the crabs will be huge and tasty as usual, and we understand that some new games for the kids are in the planning. The format of the annual Bingo contest will change slightly with the introduction of both cash and non-cash prizes for the adults. So, remember to mark you calendar and bring your appetite.



Ryan Abbott gears up for 3-legged race

Seminars / Training

July:

Boiler Design/Selection, presented by Dan Gardner

Siesmic Controls for Mechanical / Electrical Systems, presented by Ed Abbott.

Heat Recovery Wheels, presented by Steve Brzezenski

August:

Gas Booster and Gas Piping Design, presented by Ed Abbott

The Importance of Construction Directives: What you say and how you say it, presented by Mike Ford

September/October:

Valves and Valve Selections, presented by NH Yates.

Multiple Boiler Systems Design, presented by NH Yates.

TECH KORNER

Things to remember when designing boiler systems:

- √ Do not oversize boilers, this wastes energy and adds unnecessary first costs.
- √ Typical 2 Boiler Building – Select/size using 2 methods:
  - o First, size each boiler at 2/3rd of the total heating load, using the Gross IBR output table.
  - o Second, size each boiler at 50% of the total heating load, using the Net IBR output table.
  - o Then, select the smaller boiler of the two sizing procedures.
- √ Condensing Boilers
  - o Design your heating system (AHU coils, VAV coils, etc.) for 130°F average water temp.; i.e. 140°F max supply water temp.
  - o Use manufacturer's data for sizing and designing venting systems. Watch out for the length of the vent route and the number of elbows.
  - o Specify the exact vent materials as required by the boiler manufacturer.

- √ Low Pressure Steam Boilers
  - o Always include a Hartford Loop
- √ Steam Boilers – General
  - o Always include swing joints on the piping header.
  - o 1 EDR = 240 BTU/HR
- √ Water Boilers – General
  - o Variable Volume Flow: Always keep minimum heating gpm above manufacturer's minimum flow requirements.
  - o Use constant volume thermal shock circulators sized at 25% - 30% of peak boiler gpm, when not using a primary/ secondary pumping system.
- √ All Boilers
  - o Must comply with CSD-1 for combustion air requirements, safety cut-offs, and emergency boiler shut-off switches.
  - o When using a combustion air fan for make-up air, the fan must energize and have airflow proven prior to energizing the boiler burner.
  - o Chillers and conventional boilers cannot be located within the same mechanical room.
  - o Use modulating burners on large boiler, i.e.: greater than 2,500 MBH.

New Requirements for Electrical Working Space and Egress:

Prior NEC editions (2002 and earlier) have always required two means of egress from the working space, or double working clearance when the equipment contained within was 1200 amps or greater AND over 6 feet long. With the 2005 NEC surely to be adopted in many jurisdictions, an important change has occurred. The 2005 NEC requires two means of egress, or double the working clearance in front of any 1200 Amp or higher rated equipment. The requirement for 6 feet of length has been eliminated. The impact is that most buildings now housing 1200 amp distribution panelboards will now require seven (7) feet of front clearance or two separate egress paths. Be sure to consider this during SD's and DD's as it may have impacts on electrical room sizing and layouts.

MIKE'S FIELD NOTES

Did you know?

- ? During the summer of 2006 over 200 million dollars of construction work is projected to hit the streets of Baltimore from local school systems alone. The majority of the work will be phased renovations.
- ? Venturi style flow meters have been a major source of harmonic noise in variable flow piping systems. We should consider alternate methods of measuring and regulating flow in variable flow systems. Call me for specifics.
- ? Make sure you don't process any Mechanical shop drawings without requiring the Contractors to utilize the shop drawing submittals forms in Section 15050.

Who would have guessed?

- ! We recently had a vendor submit a "substitute" Air Handling Unit without a filter section, without filters, and without a fan capable of utilizing filters, because the footprint of their unit wouldn't fit in the mechanical room if they put the filter section on their unit.

This month's thought:

THE DIFFICULT WE DO IMMEDIATELY, THE IMPOSSIBLE TAKES A LITTLE LONGER.

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Kibart's mission is to provide quality professional engineering services with a commitment to client service and response time, producing economical, energy efficient, and user friendly designs, delivered on time and within budget.

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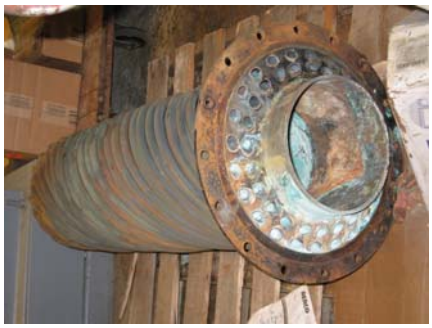

Forensic Engineering

WHAT IS IT?
WHAT DOES IT DO?
See next newsletter for answer.

BIRTHDAYS

July 27:	Ed Abbott
August 8:	Wsam Gazi
August 14:	Dean Harris

KIBART ANNIVERSARIES

Joe Del Pilar	19 years
Nadine Hawkins	18 years
Dan Gardner	13 years
Kathy Liberatore	10 years
Steve Brzezenski	1 year
Wsam Gazi	1 year

KIBART FAMILY NEWS

Congratulations to Kathy & Ron Liberatore on the wedding of their daughter, Lisa on September 10, 2005.

Billy Ford is working at Jefferson School and New Windsor Middle School while attending Graduate School at McDaniel College. Billy plans to become a teacher. Richie Ford will be attending Randolph-Macon College in the fall, like his father he has no idea what he wants to do after school.

ANNOUNCEMENTS

Congratulations to Ed Abbott

Ed became a Certified Commissioning Professional by passing the exam required by the Building Commissioning Association. Kibart is one of only 3 fully certified commissioning firms in Baltimore.

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Kibart is pleased to announce that Ed Tillman joined our firm as a Mechanical Designer on May 23.

Welcome Ed!

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We would like to take this time to say **thank you** to David Morse. It was a pleasure having David intern with us this summer. We wish him well as he continues his studies at UMCP this fall.