Letter From a Principal

This is a time when I'm feeling very blessed. This past October, I reached my 15th anniversary at Western Allied. And this year marks my 40th year in this wonderful industry. And I'm not finished yet!

Of course I’ve witnessed some amazing transformations in HVAC contracting. Everything in construction was hand drawn when I began; it was not that long ago computers first appeared in our lives. The thought that BIM would be the regular way for our work to be coordinated was in the realm of science fiction. I think we are so lucky to be at Western Allied in this time. Among our fortunes are the many bright young people in our company. They keep it fresh and progressive. Western Allied was created by three individuals who had a vision of a company to go onward forever, and our future is extremely bright.

We have the engineering team who can keep us at the front. They have pushed forward from AutoCAD to create most of our work in Revit, which we see becoming the language of modern construction. Our recognition for designing and constructing truly high performance systems is well earned.

Western Allied plays an important role in the adoption of advanced technologies, from VRF to chilled beams; even net-zero facilities. Frankly some are not yet ready for prime time, but others will rapidly take over from the more classic designs, as the built environment evolves. From new construction to special projects, even in service, our demonstrated ability to tackle complex work has always served us well.

I have a lot of confidence in our ability to pick out the emerging technologies that have the greatest positive impact. Witness that we are the first contractor in the Bay Area to commit to the revolutionary KoolDuct and ThermoDuct duct systems, which you can read more about in this edition of our newsletter.

When I stop to think what most represents the spirit of WAM, it is the absolute determination to deliver the very best product possible. I feel it in the project management teams. It’s true in the sheet metal, piping, controls and start-up, and commissioning teams. It’s true in ownership, accounting and service. And certainly in our focus on safety! It is true throughout and we are truly proud of that.

Continued on page 3
KoolDuct and ThermaDuct

By Angie Simon

Western Allied Mechanical is on the cutting edge of new technology with the decision to manufacturer and sell the KoolDuct and ThermaDuct product. We have set up all the tooling required in the shop (see pictures below) and will be manufacturing our first duct runs in the next few weeks. The following is a description of the product and a brief history of how it came to be.

KoolDuct is a phenolic pre-insulated product manufactured by Kingspan Insulation LTD. The history of the Kingspan KoolDuct Systems dates back to 1965, when the world’s first system of pre-insulated HVAC ductwork was established by Claudio Ferraro. It used aluminum-faced rigid polyurethane (PUR) insulation boards in place of fiberglass insulated ductwork. Since that time there have been many innovations in material science that have improved the fire resistance and thermal performance. In 1970, the material was changed to a rigid polystyrene, today it is a closed-cell phenolic product.

In 1996, Kingspan group acquired the product and proceeded to launch it in both the UK and Ireland. Four years later, ductwork fabricated from this system became UL Listed to Standard for Safety (UL 181). In 2009, Kingspan was able to expand its market to include the United States and Canada, making it truly a global product.

The Kingspan KoolDuct system can only be fabricated by specially-trained fabricators who have completed the Kingspan KoolDuct system training course and whose competencies are regularly reviewed. Harvey and Randy have been to Ohio for this training and a trainer came to our shop to train our personnel.

KoolDuct is designed for use in both new buildings and retrofit projects. It is especially suitable for use in non-ferrous applications, such as MRI scanning units in hospitals. It is also commonly used in the following applications:

- The food, beverage and pharmaceutical industries;
- Clean air and hygiene-controlled environments;
- High relative humidity environments;
- Sterile areas in medical research and healthcare facilities, as well communication/server rooms in data centers

Ductwork fabricated from KoolDuct can be installed indoors, outdoors, visibly mounted, concealed above false ceilings, concealed below raised floors or within confined enclosures.

For outdoor applications, WAM has also invested in ThermaDuct. This is the Koolduct product with a golf ball like material on the outside that is weather and UV resistant.

This product is sold in sheets with the outer coating on the sheet. The bends are formed with a heat process. Then the joints are connected in the equivalent of a sleeve with a sleeve of the same material. This product is equivalent to an R-8 insulation which exceeds the T-24 requirement for outdoor duct. It saves time on the schedule because an insulator is no longer needed to wrap the roof duct. This is a finished product. Many times we have to wait for the insulator to get some dry days to install the ductwork wrap. This is no longer required.

Some of the advantages of KoolDuct and ThermaDuct are as follows:

- Weight – Ductwork systems fabricated with KoolDuct can weigh up to 72% less than ductwork fabricated with galvanized sheet metal. This low weight can enable easier installation and lower material handling costs. One person can carry a 13’ foot main that is 24x48 onto the floor by themselves. This should assist in installation time on job sites. Also, it is easy to pre-fab larger assemblies as they do not get too heavy to handle. Seismic requirements will be greatly reduced. By current California seismic code – ductwork under the size of 84 x 60 will fall under the exception for seismic and will not require any seismic supports!
- Installation Speed – This ductwork is lighter, easier to handle, and requires less hangers, therefore should be faster to install. Also there is no need for an insulator to be scheduled after WAM installs the ductwork, as it is already insulated. This will speed up the schedule and allow the ductwork to be snugged up to the structure.

Western Allied is very excited about this new venture and look forward to installing this product on many of our projects. If you stop by our shop and want to see the tooling in action, talk with Harvey and he will show you the process!
Letter from a Principal Continued

Continued from page 1

The Bay Area is a strong marketplace, which we share with some great competitors. Some are larger than we are. While we have experienced a very significant amount of growth, being the largest will never be our goal. Rather we will always strive to be the company of choice. When clients are looking for the finest company, with the very best people, they are going to consider Western Allied. And we will continue to earn that honor.

HVAC is absolutely a people business. Clients choose us because of the strengths of our people. They want to do business with people they trust and they know we always have their best interests in mind. They seek out and lock on to professionals who make the effort to truly understand what they are striving to achieve in the most important project of all, their project.

I am so very proud to work with you all!

Bob Dills

SLAC Radiant Floors

by Loek Vaneveld

Our SLAC job is a completely new building, providing an innovative and challenging experience for us, in yet another advanced technology project.

The building is four stories, with four distinct designs, and can be thought of as two buildings with a small connecting lobby. Each area has unique design features, which are described in detail below.

Central Lobby
This creative lobby is one story at the south end, two stories in the center, and four stories at the north end. Except for the single-story portion, the lobby has expansive areas of glass and exterior doors. The entire lobby provides a return and relief air path for the building, and is heated and cooled by in-floor radiant piping at the first and third floors. The lobby includes a number of motorized windows, which provide ventilation and natural cooling.

Auditorium
South of the lobby are an auditorium and some auxiliary spaces, which are partially underground. They are served by a VAV reheat system. The auditorium itself has 350 seats and a living roof. The single-story portion of the lobby extends into this section, acting as a main hallway.

Conference Tower
The conference tower is on the west side of the north building. This conference center consists of four stories of conference rooms, and is served by the same VAV reheat system as the auditorium.

The air handler serving the auditorium and conference center is a custom unit that includes an economizer, a chilled-water coil, and a direct-evaporative-cooling section. The system utilizes the central lobby as its relief air path, as well as return air path from most of the spaces served.
How to Lose Extra Weight
By Terry Juri

New year… new you! How’s that resolution coming to lose some weight this year? Here’s a little nudge to keep it going!

Calories In vs. Calories Out – The “Simple” Math

Eating 3,500 calories is equal to 1 pound of body weight. If you burn 3,500 calories more than you eat, then you will lose 1 pound. Unfortunately, if you eat 3,500 calories more than you burn, you will gain 1 pound. **Simple Math: Eat fewer calories, get more exercise.**

Exercise

Regular exercise is crucial to managing your weight. The best way to keep moving is to choose something you like doing, whether that is walking, running, biking, yoga, or a team sport. If you haven’t found your favorite exercise, keep trying new things!

Healthy Eating for Weight Loss Management

A healthy diet will help you lose the right kind of weight. Eating the right amount of healthy, low-calorie foods allows you to feel satisfied while cutting calories. You’ve heard it all before:

- Eat plenty of fruits and vegetables
- Instead of starches, get your whole grains
- Go for low-fat protein: skinless chicken, lean cuts of beef, fish, beans
- Choose low-fat or nonfat dairy foods
- Watch your portions – don’t eat too much of this good food
- Avoid empty calories and high-fat foods – eat them in moderation.
- Don’t go hungry – get plenty of fluids, eat breakfast every day, choose healthy snacks

How to Keep it Going

- Consider finding an exercise partner or group to make it more enjoyable and to help you stay motivated. WAM fitness classes are still being offered at lunch on Tuesdays and Thursdays, and on Tuesday evenings.
- Vary your activities to keep it interesting.
- Remind yourself why you are committed to being fit – being fit feels better than that donut is going to taste for 1 minute.
- Keep a log of your eating and exercising – you’ll eat less if you have to write it down.
- Consider making long-term goals. Aim for a race or charity event.

A Life Saved
By LeeRoy Young

I want to share a story of something that could happen to any of us and can be prevented by all of us. I have been in the safety profession for well over fifteen years and this incident still wakes me up some nights.

About a year ago, a friend that is a health and safety officer for another company sent me a lesson learned from one of his projects. This could have been a horrific tragedy, not only for the employee, but for a family as well.

While part of his crew left for lunch, they noticed a group of children playing near their parking area. After lunch was complete the driver of the company crew truck noticed a few children running from the area around his vehicle. As part of his company’s requirement, he performed his CIRCLE OF SAFETY 360 Walk Around Inspection before starting or moving his vehicle.

Many companies have adopted this policy to reduce accidents, primarily backing into stationary objects or vehicles. There are many names for this process: GOAL (Get Out and Look), Circle of Life, or just a Safety 360. For this employee, on this occasion, a young life was saved!

As the employee walked around his vehicle, he found a 5-year old girl hiding in the wheel well of his company vehicle. After the girl was safely removed, it was uncovered that her and a few other small children were playing hide-and-seek.

I don’t think any of us want to picture what would have happened if the employee had gotten in the truck and drove off without doing a walk around.

Please share this eye-opening, bone-chilling experience with not only people you work with but your family as well. This could happen to anyone at any time. Just another reason for us to do the vehicle walk-around before driving off in our vehicles; not only can you avoid a possible accident but it could save a life.
Employee Profiles

LeeRoy Young

LeeRoy was born and raised in Sacramento, California. He now lives in Campbell, California with his wife of 11 years Donna. LeeRoy has three children: Ryan (26), Alicia (21) and Travis (10). LeeRoy is a retired Navy Seabee of 21 years. He had tours in Spain, Quam, Morocco, Iraq, Kuwait, Turkey, and Norway, among other places. Before coming to Western Allied, LeeRoy worked for Remedial Construction Services for 7 years as their Senior Health and Safety Officer. He joined WAM at the beginning of January as our Health and Safety Coordinator, and already has made a huge difference in our safety culture. Although his time here so far has been short, it seems like he knows what we are all about. He said “I really like the people here. It feels like I fit in already and that’s nice.” LeeRoy also loves the fact that he doesn’t have the extensive travel schedule he previously had, and his son can grow up in one place. LeeRoy is an avid golfer, and is a member of both the NCGA and SCGA (Northern and Southern California Golf Associations). He also enjoys fishing and hunting, as well as woodworking/carpentry. Since he has already played golf in Scotland and Pebble Beach, his next desired location is Augusta National Golf Club in Georgia.

Mike Wilson

Mike was born in Castro Valley, and grew up in the East Bay. His father was a sheetmetal worker, so it was a natural move for him to get into the trade. While in high school, he enjoyed metal shop, welding, drafting, and working at a welding shop. Mike has been working at Western Allied since 1988, with a temporary diversion in 1994 at another company. Mike Wilson is a member of the elite WAM 25+ years club! Before coming to Western Allied, Mike worked for seven other mechanical companies. He feels that the employees of Western Allied, from management to labor, “all try to help make you successful, which you don’t see at other companies.” This month, Mike will celebrate 29 years of marriage to his high school sweetheart, Lori. Their son is carrying on the tradition as a sheetmetal worker; their daughter is an assistant manager at a gun store. In his personal life, Mike enjoys looking for ghost towns in the desert, going to garage sales and collecting coins. (Editor’s Note: Mike also loves to take random cell phone pics of any and everything!)

Steve Billberry

Steve is originally from Clovis, California, but currently resides in Newark with his wife Lori. Steve and Lori’s son Dustin has been working here at Western Allied for the last 4 years. Before coming to Western Allied, Steve worked for Marelich Mechanical as a pipefitter for 20 years. Eight years ago, Steve joined Western Allied as a pipefitter. One of his favorite things about work is that he lives so close! He enjoys working with his team and likes the smaller atmosphere of Western Allied. “I like that the company is privately owned and the door is always open to go and talk to management. Where I came from before, I was just a number.” Steve also loves to golf; in fact, that may be an understatement. His favorite place to golf locally is the Ritz Carlton at Half Moon Bay, where his wife Lori frequently caddy’s for him on the weekends. Besides Lori and golf, riding Harley’s is the other love of his life. Steve is a retired commercial fisherman and has done the “Alaska fishing thing.” So what does he want to do now? He would like to golf through all the courses he hasn’t played yet! Good luck Steve!

Jim Jeffrey

Jim Jeffrey started at WAM as our new Operations Manager on August 11, 2014, bringing with him 16 years of HVAC experience, in addition to his 15 years in manufacturing and food process. He comes from New Brunswick in Atlantic Canada, where he also studied mechanical engineering at the University of New Brunswick. In addition to getting his Bachelors of Science in Engineering, he also holds a Canadian PE designation in 4 provinces. Jim was drawn to WAM by “the vitality and energy of the company, the people, and the owners’ vision of growth and the change that goes along with it.” Jim lived in Orange County for the last 17 years, so when he is not working, he is interested in exploring his new environment in the Bay Area. He enjoys golf, hiking with his wife, and exploring the vineyards in the southern counties. An interesting fact about Jim is that he was an intern during construction and commissioning phase of one of the last nuclear plants to come on line in North America.
Celebrating Service Awards

The anniversaries listed are for employees celebrating significant milestones with the company. Congratulations and thank you to all!

30 Years
Rob Chalfant Jan. 2015

25 Years
Dave Lazzari- Apr. 2015
Jeff Seidl-July 2015

20 Years
Dave Thompson-Mar. 2015
Chad Kruckewitt-Apr. 2015
Billy Gee- Aug. 2015

15 Years
Kevin Trew- May. 2015
Loek Vanevel- July 2015
John Andre- Aug. 2015

10 Years
Jeremy Goodland- July 2015

5 Years
Dustin Billerry- Feb. 2015
Aaron Stender- Apr. 2015
Sean Kent- May 2015
Andrew Workman- June 2015
Kathy Sinfield-July 2015
Ted Tiongco- July 2015

Office Tower

The office tower design is the most interesting and unusual. It is a four-story section on the east side of the north building. This section is naturally ventilated using operable windows. There is no direct fan-powered ventilation of this section; the primary cooling and all of the heating is provided by in-floor radiant piping. The floors will be polished concrete, with no covering.

The radiant piping is embedded in a 3-inch topping slab, poured over the structural slab. On the first and second floors, the topping slab is separated from the structural slab by a layer of insulation; on the third and fourth floors, the topping slab will be directly installed on the structural slab, with no separation. This area requires some supplemental cooling, primarily for a few of the conference rooms and south-facing perimeter offices. The supplemental cooling is provided by fan coils and chilled sails.

Chilled sails are radiant-cooling panels that have chilled water piped to them and are suspended below the ceiling.

The overall building is served by chilled water and hot water from a central plant, which is located across campus. The lobby and office tower radiant zones are served by tempered chilled water and hot water provided from secondary systems off the campus loops, as they must be operated within very restricted temperature ranges. The tempered chilled water cannot run below 55 deg F and the tempered hot water cannot exceed 110 deg F. Ultimately we need to maintain the floor slab surface temperature between a maximum value of 85F for heating and a minimum of 65F for cooling. Therefore the building has four independent water supply systems for heating and cooling, two each.

As always, we are grateful that the design and construction communities turn to Western Allied when they have an edgy new concept to deliver. And we came through for them again!

Family Events!

Scott Kirkpatrick and his wife Laurie welcomed their second child Lillian Ivy on 11/10/2014! Congrats!!!

Mike Henderson and his wife Jen welcomed their second child Lillian Ivy on 11/10/2014! Congrats!!!

Leon Matthews and wife Krystal welcomed their second child, baby boy Daniel Hunter Matthews on 1/10/2015! Congrats!

Eddie and Danielle Patterson welcomed their second child, Dominic Steven Patterson on 2/21/2015. Congrats Patterson family!

Congratulations to Si Upton on his retirement! We miss him already!

Continued from page 3

Left: Radiant piping before the topping slab is poured.
Below: Radiant piping connecting to manifold.
Some Current Large WAM Projects

**UCSF CSB**  Angie Simon  An 8-level build project for a historical building on UCSF Parnassus Campus in San Francisco. This is a targeted LEED Gold building with natural ventilation and no mechanical cooling design challenge. We are also going to use DDC Thermausers to provide individual comfort control.

**Refactored Materials**  Angie Simon  A design build project, about 27,130 SF of renovated lab space in Emeryville, that we re-engineered and re-purposed the existing ductwork system for the clients need. This startup company has some very unique custom-made bath enclosures in their fiber lab.

**Stanford Children’s Specialty Clinic**  Zach Russi  75,000 square foot fertility clinic in Sunnyvale. This is a full design/build project with Stanford Health and Level 10 construction. The project included new rooftop equipment, a specialty IVF suite HVAC system, and interior TI. The building will be LEED Silver and is being BIM-coordinated by our engineering and detailing staff.

**CGI Orchard Parkway**  Zach Russi  The first building is an 80,000 square foot lab/office building with central chilled and hot water plant, lab air handling units with humidity control and a full interior tenant improvement. WAM DDC controls will be implemented in the facility.

**Stanford Hoover Pavilion**  Zach Russi  The Hoover Institute is expanding on campus and building a ground up 55,000 square foot multipurpose building including office space, auditorium, pavilion, multi-purpose room, and a small kitchen. Hathaway Dinwiddie is the contractor for this high profile project located behind the landmark Hoover tower on the Stanford campus.

**VF Outdoor South**  Zach Russi  This is the first of three new buildings that VF Outdoor is adding to their new Alameda campus. This is a ground up 50,000 square foot facility. VF Outdoor is the parent company for The North Face, Jansport, Lucy, Timberland, Vans, and others. Their new campus that was completed in 2013 is a LEED Platinum ground up (4) building campus, that we designed, installed, and provide service and now is going to expand.

---

**Attaboys**

**Mike Wilson & Kevin Asti**
- A great job to both Mike and Kevin for running a very difficult job on one of our UCSF projects. You deserve a big pat on the back for this one!

**Michael Tung**
- It’s such a great experience to work with Michael on the UCSF CSB project. He is on top of it!! He knows his deadlines well and he takes great detailed notes during meetings!

**Rob Monaghan, Henry Sanchez and Team**
- “A very special Thank You to you and all the Western Allied employees especially Henry) that make my job easier when dealing with HVAC related issues! It is much appreciated!”
  - Customer

**Sheila Thompson**
- “This last week we ran into a very difficult situation in which large repairs had to be approved and completed ASAP for one of our tenants. While it was a very stressful situation, working with Sheila Thompson through the entire ordeal made things much easier!! She kept me updated on a daily basis, spoke with our tenant to coordinate the delivery and pick up of portable fans while we waited for the part to come in for the replacement and I didn’t ever have to worry as I was confident that she would make sure everything would get done as promised. This situation/repair would not have gone as smoothly without her and I wanted to make sure you were aware of how much we appreciate all of her assistance. She is always a pleasure to work with and I feel like she goes above and beyond to make sure we are taken care of.”
  - Customer

**James Kastelic, Kevin Trew, John Barbucia, Ken Kalning, & Mike Aurelio**
- “Just wanted to thank you and the crew for a very well planned/executed HVAC project. The work performed was clean and professional as well as on time.”
  - Customer

**Steve Billberry**
- “As the SESI project winds down, Adam and I would like to compliment the work of Steve Billberry and the WAM crews. Steve is truly a team player and a pleasure to work with. He took ownership of the work and his preparation and execution showed. Although subtle it didn’t go unnoticed that Steve mentored and guided the young WT engineers. Thanks for making SESI a successful project and we look forward to our next job together.”
  - Customer

**Rob Monaghan & Bruce Garrett**
- “I would like to thank you and your team for the work that was performed over the holidays. Your team worked professionally and performed all activities timely and were able to complete the task on schedule. I would also like to acknowledge the work that Bruce Garrett performed. His knowledge was apparent as we worked on both tasks. I would like to thank him for his professionalism and follow-up; he should be commended on his work.”
  - Customer

**Andre Moore**
- Caller claims driver was doing a good job, allowing vehicles to merge, a safe, courteous, and professional driver.