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PERSPECTIVE

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Our expertise is all aboard

BY JEFF MORASCH

USS Frank Cable, Chiller retrofit and sheet metal Navy work

MacDonald-Miller has been working on sheet metal and controls projects on ships for years, but for the first time we moved into the specialized market of Navy air conditioning and refrigeration work. First stop, VIGOR Shipyard in Portland, Oregon to get air conditioning and refrigeration plants up to 100% working order on the USS Frank Cable after many years of no maintenance, as the ship was on its way to retirement.

The biggest challenge on USS Frank Cable was to get it done in just 5 months – as ships leave port with or without work being completed! With the short timeline in mind, there were tons of parts ordered and subcontracts signed without change order PO#'s, resulting in many sleepless nights!

About our Marine team

Teamwork and commitment make both Robert Blessing and Cory Evans stand out. They possess a wealth of experience on Johnson Controls and York equipment in addition to specializing in Navy A/C and refrigeration systems. Robert also served for the US Navy on the USS Momsen.

These two guys have been traveling 4 hours from Snohomish to Portland weekly for 5 months and have been receiving compliments from Vigor Shipyards and Military Sealift Command (MSC) for the USS Frank Cable.

(CONTINUED ON PAGE 6)



TO CASEY O'HEARN

"I wanted to let you know that Casey O'Hearn was just a stud, very patient and full of customer service. We had some challenges that I thought should have been discovered much earlier by our design team that forced the project into a minor challenge; but I can assure you I was never worried. I could tell Casey was the kind of professional that wasn't going to let go until the client was happy! Very impressed with the young man.

I have been working high end residential with my own firm for 35+ years where it is all about customer service every day. I wanted to take a minute to say thank you. I hope to see Casey and MacMiller again."

Steve Williams, Owner The Williams Company, Seattle

Pictured left to right: Mitch Williams, Ken Sereduk, Travis Gooding, Erik Mandt, Chris Morrison, Gaije Duncan, Tim Tamas, Nate Ahlberg



Gus Simonds

President



Preparedness

We all have been touched by the reports of large scale disasters that have hit around the world this year. Some close to home, like the forest fires that hit BC and our NW. Some far away, like the hurricanes that slammed the Southeast and Caribbean, or the 8.2 earthquake that hit Southern Mexico. While we at MacDonald-Miller are not in the club of "first responders" to an emergency, we are part of an informal second tier of response to keep buildings working – especially important for healthcare and communication facilities in times of emergency. Some of you remember our "little" 6.8 earthquake almost 20 years ago – we responded to dozens of calls for help regarding building mechanical emergencies. Seattle lost electrical power but fortunately phones and radios still functioned.

What if we have the predicted 8.0+ earthquake and the phones went down too? And bridges became impassable? Being able to communicate with each other and our critical customers is the first step in navigating the myriad of issues that we will be faced with. To that end, in August we purchased satellite phones that will be assigned to our remote offices and managers to help us stay in contact with each other. I am also reaching out to our customers who have satellite phones to share our numbers so we can respond to their needs. It's a small but important step in our overall business continuity plan.

I encourage you to evaluate if you or family members must cross a bridge to access your home from your work place. If you do, make sure everyone understands that a long delay in returning home may not be a need for panic. Maybe our satellite phones can be a source of communication for alternate routes for our MacMiller families through the first responder community or another MacMiller office located nearby.

I know the many heroes that make up our MacMiller community will be ready to help one another if we are faced with a natural disaster. An awareness of our responsibility and understanding that it could happen to us is a huge step in being ready for the unexpected. Uptime is our time at MacMiller no matter how big the job!



A wave of new smiles!

■ BY KRIS JOHANSON

The purpose of the MacDonald-Miller Facility Solutions Giving Fund is to support our employees in their charitable work in our local communities and around the globe. It's about supporting our employees in their efforts to make a better neighborhood, region, and world. Here, Kris Johanson shares some insight about the non-profit he helped with this year with assistance from our Giving Fund.

Wake the World is a one-day experience aimed at giving foster kids and their foster families an opportunity to enjoy a day on the lake and connect. The organization has provided kids, many of whom have missed out on normal childhood experiences, with a chance to enjoy fun summer water activities.

The day begins with foster families arriving at the lake, being fitted with life jackets and wake/waterski gear, and then directed to a boat. Most of these kids have never been on a boat, let alone given the opportunity to wakeboard or water ski. When they stand up for the first time, their pride of overcoming fear and learning a new skill is heartwarming.

And when the water gets too rough, the swimming area fills up and everyone starts tubing. By the end of the day, the kids are worn out, but all smiles.

One of the many things that makes this successful are the boat owners who volunteer their time and boats for the event. It's rewarding to see them as excited as the kids are to be joining in the activities. Several of the event veterans say that

they love hanging out with the kids, and that they enjoy encouraging and connecting with the foster parents. This was my first year of participating in WTW NW Oregon, next summer I'll be coordinating an event with them in Tacoma.

Stop by our new Everett office, the coffee's on us!

As the Puget Sound continues to grow, we're growing with it. We are committed to giving our customers the best service in the North End, supporting building operations and managing energy costs from the Ship Canal Bridge to the Canadian Border.

We have recently moved into our new location on the border of Lynwood/Everett which supports a team of field technicians specializing in HVAC, boilers, chillers, controls, plumbing, electrical, TAB, special projects and energy services. You are welcome to stop by our new space at any time or to schedule a site visit!

11512 Airport Road, Suite F-700, Everett, WA 98204



A sound stormwater solution

₩ BY TAMMY VANANTWERP

Did you know that MacDonald-Miller helps the aquatic habitat of Puget Sound? Since 2010, MacMiller pre-fabrication shop has been operating with a Stormwater Pollution Prevention Plan, otherwise known as a SWPPP. Part of this plan includes quarterly stormwater sampling, testing, and reporting to the Department of Ecology. The stormwater leaving the shop yard is tested for six different pollutants with benchmark levels not to be exceeded. Because of the nature of our business, for two of the pollutants, zinc and copper, it was nearly impossible to reach benchmark levels.

After trying many different filtration systems with no improvement, including an experiment with oyster shells in the catch basins, it was clear we needed a hard-core filtration system to lower the zinc and copper in the stormwater leaving the yard. In partnership with stormwater consultant SoundEarth Strategies,

designed by Matt Graves and Mary Mattix) was designed and built specifically for our site. In the summer of 2015, the MacMiller prefabrication shop yard at Norfolk looked like a construction zone! Jack hammers, backhoes, frontend loaders, oh my! Catch basins were piped together and a new vault, along with seven Grattix Boxes, was installed.

When the construction zone was cleaned up, the yard re-asphalted and the new pipes jetted and cleaned, we patiently waited for rain to test out the new system. When the rains came and the stormwater was tested it was obvious that the Grattix Box bio-filtration system was just what we needed, removing up to 51% of copper and 91% of zinc in the stormwater, putting those pollutants under benchmark. After two years in service the system continues to successfully remove all tested pollutants from the stormwater. MacMiller is doing its part to help preserve















An extremely healthy track record * BY MEG LANDIES

An interview with Ruben Cañas, Project Director for our dedicated Healthcare Team.

MacDonald-Miller as the healthcare

positioned ourselves as the healthcare leader in the Seattle area. Fortunately, the volume and variety of work performed (large to small TI's, retrofits, compliance, med-gas and general facility support)

over the past 8+ years has allowed us to become extremely diverse in our ability to support our healthcare clients, not to mention our "depth chart" relative to designing, executing and managing healthcare projects has grown substantially. Through experience, depth and established reputation, we've been able expand our healthcare footprint both North (Zone 4) and South (Zone 5). Healthcare projects in Zone 4 and 5 will represent more than 30% of the total volume for our Healthcare Group in 2017/2018.

Some of the interesting projects and sustaining work we are performing in Zones 4 and 5:

ZONE 4 (North Seattle, Everett and North Sound)

- Seattle Children's
- 164,000 CFM fan wall retrofits
- Ongoing critical environment air surveys
- Design-Assist Tenant Improvements
- NICU, Design-Assist TI, 26,500 SF

Northwest Hospital & Medical Center

- Humidification
- Surgery AHU Upgrades
- The Everett Clinic, Design-Build Tenant Improvement
- Swedish Ballard Campus, Heating Water Consolidation

ZONE 5 (Tacoma, Olympia and the South Sound)

- CHI Franciscan Health
- St. Anthony Hospital, Gig Harbor, Acute Care Expansion (26,000 SF TI)
- St. Joseph Medical Center, Tacoma, Multiple TI's
- Bonney Lake Medical Oncology Infusion Clinic, Design-Build TI

Q: What strengths do we bring to healthcare systems (or hospitals)?

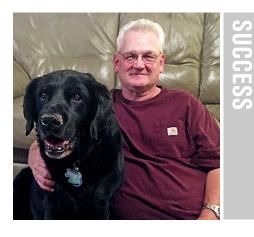
A: One of our biggest strengths as a full-service company is tapping into the knowledge and experience within the company. Hospital design and construction can be somewhat of a balancing act, managing the technical needs of healthcare, the comfort of patients, and compliance requirements can be extremely difficult. With our experience supporting large in-patient hospitals and surgery centers, we can integrate all the lessons learned, (what works, and what doesn't), early on in our design and provide informed consultation to our clients that stretches well beyond mechanical construction.

(CONTINUED ON PAGE 6)



FACES OF SUCCESS

It takes people from a wide range of professional skills to make MacDonald-Miller the industry leader that it is today. It's the diverse personalities and backgrounds that seamlessly come together to create smart, successful project teams here at MacMiller. That's why in each issue of Perspective we take the time to highlight three members of MacMiller who've made invaluable contributions. It's a way to give you a little more insight into those that proudly represent us, and a way to further illustrate how three different individuals can make one team greatly successful.



Jack Baker

FITTING SUPERINTENDENT

Years with MacMiller:

21 years, 17 of them as Fitting Superintendent

Our growth is fitting:

Looking back, I realized that a normal day's work doing a small steam shut down to do a repair at Swedish Hospital in Seattle in 2006 was the beginning of a snowball effect for MacMiller in Hospital TI work. We had done work previously for Virginia Mason but this job seemed to kick things off in a much bigger way. Now we are doing work in four different hospitals, with a fifth one soon to come. All departments at MacMiller worked hard to get us to this point, but I would like to especially thank the Fitting Department for their contributions to our success.

You'll find me in the woods...

At the age of 60, I have taken up hiking (at least until fishing season starts).



The three MacMiller folks featured above are part of the Healthcare Team, detailed in the article on the left.



Kevin Vincent

PLUMBING SUPERINTENDENT

Years with MacMiller:

Everything is memorable here!

I've had so many memorable days with MacMiller it's hard to narrow it down to one. I was lucky enough to have both of our kids working at The Mac at one time. I am very proud of them. The things I value most are working with so many talented Foreman, Journeyman and Apprentices. They are truly the reason we're successful on so many projects. I would also like to thank the foreman and crews on First Hill for sacrificing weekends, early mornings, and time away from their families for a job

well done. Everyone on the Hill does an amazing job and represents MacMiller well.

Outside of work...

I enjoy coaching youth Lacrosse. It is a great way to relieve stress. Lacrosse is a sport that was not around when I was a kid so I had to learn the game watching and learning from our son Zach. My strengths in coaching kids are discipline and a good sense of humor:)



Nate Ostrander

PROJECT EXECUTIVE

Years with MacMiller:

October 31st will be 12 years

I'm with people who care.

I love being part of the healthcare team! I look forward to showing up to work every day knowing that I will be spending time with people I admire, respect, and whose company I truly enjoy! The healthcare industry is very relationship orientated and I feel lucky to have built such strong relationships with everyone from owners, to other contractors working in the healthcare facilities, and everyone in between.

An Olympic-sized love:

Back when I was in high school I had dreams of skiing moguls in the Olympics. When it came time to choose which college to go to, I chose Montana State University because of its proximity to two fantastic ski resorts (Big Sky & Bridger Bowl). Although I never became an Olympic skier, and don't make it up to the slopes nearly as much as I would like to, I still enjoy making it up to the mountain from time to time.



Extremely healthy CONTINUED FROM PAGE 4

Q: Tell us about a recent win.

A: We were recently awarded a very large retrofit project at Seattle Children's, two large aging centrifugal fans each rated at 84,000 cfm. Concerned about the fans failing condition, Seattle Children's and their facility staff had a budget established with a competitor for replacement, but there were two major issues: 1) The budget was more than they could get their heads around, and 2) there was no real plan on how they would be replaced, and what the impact would be to patients and to the critical services supported by the fans (sterile processing and compounding pharmacy).

Seattle Children's asked us to take a quick pass at a budget, and through our experience in fan wall retrofits we arrived at a design and budget they could afford. Additionally, we provided a detailed plan on how we would execute the project and what the impact would be at each phase of the retrofit.

Q: Anything else you would like folks to know about our healthcare team?

A: We do a lot of awesome work at MacMiller, and the healthcare team that works out of First Hill is just that, pretty darn awesome. There are huge compliments I can give to all the individuals that work on our healthcare jobs, but the one really cool thing is that we all speak the same language. When we talk about projects and work through tasks/issues/planning internally and externally, the dialect in which we communicate is healthcare, and every individual genuinely cares about positive actions and positive outcomes. It's truly awesome.

Vorking closely with hospitals allows us to be part of large retrofit projects, OR replacements and Tl's, but not many may know we perform regular compliance support that allows healthcare institutions to meet their regulatory compliance standards set by our government. Some of these services are medical gas systems maintenance, critical environment air surveys and fire damper testing. There are some years where we visually inspect and test over 2,500 fire/smoke dampers.









All aboard CONTINUED FROM PAGE 1

Robert and Cory spend most of their careers traveling to Japan, Guam, Thailand and Hawaii following the US Navy fleet.

In the last year, we have become a vendor for NAVSEA, Military Sealift Command (MSC), BAE Systems in Hawaii, Vigor Shipyards Seattle and Portland, and are now working on National Steel and Shipbuilding Co. (NASSCO).

Scope of work:

200-Ton Centrifugal A/C Plants

- Replacement of 1,100 copper nickel tubes in condenser bundles
- Acid cleaning, pressure washing and dehydrating inside of three evaporators and condensers
- Rebuilding of two 200-ton centrifugal compressors
- Rebuilding of two 400 hp electric motors
- Rebuilding of seawater regulating valves & actuators
- Welding on vessels where acid found corrosion
- Cleaning of 2600# of R-236FA refrigerant to like-new state

Refrigeration Freezers & Coolers

- Perform full groom of all refrigeration equipment
- Repair all leaks
- Replace all 404A refrigerant and oil

Our Largest Sheet Metal job on a ship to date!

- 5 vaneaxial fans
- 23 steam coils
- 12 chilled water coils
- One complete new-air supply system to the engine room
- Duct replacement in approximately 35 various fan room and compartments
- Approximately 40,000 lbs of galvanized and stainless-steel duct work
- Replacement of approximately 750 duct access doors
- Crew of 8 for most of the duration





FROM LEFT TO RIGHT: D'Wayne Kendrick (MacMiller Account Executive), Ron Wren (SNBL Director of Facility Operations), Robert Wagner (MacMiller Sheet Metal Foreman), Steve Saparto (SNBL Facility Supervisor), Zach Simard (MacMiller PM).

Our natural habitat: energy savings

¥ BY 7∆CH SIMARD

SNBL, Everett, Washington

Our design-build project with SNBL, a Japanese owned contract research organization in Everett, Washington, started as a simple coil replacement 5 years ago. And it has significantly evolved – this energy efficiency project is the first participant in SnoPUD's Energy Savings Purchasing Program and includes a \$1.1 million conservation incentive from PSE.

"The program is enabling SNBL to address many of our aging infrastructure needs. We are getting this work done as a program instead of many small projects over multiple years. In fact, the lighting improvements to LED would have never been funded."

— Ron Wren, Director, Facilities Operations and Cost Reduction at SNBL USA

The project consists of habitat and office space covering 4 buildings of over 120,000 SF. The existing habitat mechanical system consists of 24/7, 100% outside air, constant volume rooftop units and paired exhaust fans. Our project replaces all 13 habitat rooftop units, and 24 exhaust fans with variable controlled fans, and air-to-air heat exchangers. These habitats will be controlled 24/7 using volatile organic compound sensors which will allow the zones to ramp down to 6 air changes per hour during off-peak animal activity periods and modulate up to 10 air changes per hour during higher activity periods. The reduced air changes and heat exchanging of all exhaust air in addition to the LED lighting improvements will result in dramatic energy savings and improved comfort.

As of the end of August, all below roof structural steel upgrades were completed. This will be followed by the setting of 13 rooftop mechanical skids which will include heat exchangers, exhaust fans, and controls. Close coordination with SNBL will result in 13 zone-by-zone rooftop unit shutdowns. SNBL has provided certain windows of habitat spaces being vacated when a shutdown will occur. The existing RTU will be picked off the roof, new curb adapter and new unit installed, and then tied into the new skid assembly, started up and checked out. Many





TO DAN WRIGHT & JAKE BROWN

"I can't express enough gratitude for the recent efforts of MacDonald-Miller on addressing our latest outage. I am so impressed with how professionally and expeditiously your team worked to get the Deschutes Public Library's Air Conditioning Unit back online in just two days! From the moment I notified Jake (Jacob) Brown and the Help Desk that we were down (6:30pm on Tuesday night), things were put in motion. Dan Wright was here at 7:30am Wednesday, identified the problem within minutes, quickly had the part ordered, and helped us put a work-around in place to supply the second floor with some minimum cooling on what was promised to be one of the hottest days in weeks!

In what could have been a series of unfortunate events, the same air handling unit blew a fan belt that set off some new alarms! But once again, Dan and Jake responded to my call and walked me through the issue. The belt was quickly replaced, and I was advised that the new part for the final fix was being overnighted from the Trane Factory, and that we were getting one of only two that were available in the United States. We managed to keep our staff and patrons from melting, with many fans placed strategically around the building where temperatures hovered in the high 80's.

The part was delivered by 1:30pm Thursday, Jamison Atchley was onsite by 2pm and had the connections made in less than an hour. Dan showed up shortly thereafter, ran it through some diagnostics and stayed while the compressors cycled through and the temps on the discharge air started dropping significantly.

Technology, expertise, teamwork, communication and partnership – your team is truly stellar!"

Denise Senner, Business Services Manager Deschutes Public Library

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