



## MECHANICAL A NEW LOOK FOR AN OLD FRIEND

Grunau Company's long-standing relationship with Marquette University helped the team work with Marquette very early in the schematic phase of plans for the new Zilber Hall on the university's campus in Milwaukee.

Marquette wanted to design a building that fit with the campus' modern look and was capable of housing several university services under one roof. Grunau offered input on everything from the building's shape to energy-saving strategies that would help the new hall earn LEED certification.

After nine months of planning, Grunau provided onsite work for Zilber Hall's HVAC, plumbing and fire protection systems. The team used 3D Building Information Modeling (BIM) technology to proactively ensure that plumbing and HVAC systems didn't interfere with any other systems or trades that also were on site.

"It was a great working environment," said project manager Rachel Rueckert. "Marquette really looks at you as one of the team."

During construction, Grunau twice had to use creative thinking to install systems beneath the heavily-traveled roads surrounding Marquette. When technicians brought steam lines across one street to Zilber Hall, they had to be careful to avoid other utilities already in the area.

While connecting the new building to the campus chilled water system, Grunau faced another challenge with roads. The campus chilled water was located on the opposite side of a major street from Zilber Hall. Pipes needed to run beneath the street without impeding traffic. Grunau solved the problem by digging two pits—one at either end of the street—and boring a tunnel through which the 14-inch chilled water lines could be pushed.

Inside the building, Grunau also used its ingenuity to install systems within a crowded ceiling space. Since Zilber Hall was aiming for LEED certification, its design relied on tall exterior windows for daylighting. That meant high ceilings on the building's outer rim but low ceilings in the middle, where many of the systems needed to be placed. Grunau completed the work without issues.

"Grunau was fantastic on this project," said Marquette University project manager Mike Jahner. "They helped us from design right through construction."



Photo by: Jim Morrill of J/J

▲ *Grunau Company helped design Marquette's new Zilber Hall from the ground up – because of a long-standing relationship with Marquette, Grunau got involved in the project's early planning stages.*

I hope this issue of the GrunauGram finds you all in good health, both personally and professionally. Times have been tough for many, and the construction industry is feeling pains as well. The Grunau Company was fortunate to have a good year in 2009. We look forward to opportunities in 2010 – our 90th year in business. We believe this success is a direct result of our "Customer Focused. Built on Values." approach.

To help us stay true to that business mantra, we engaged our customers and peers in last year's online survey. We want to thank those of you who participated. Your feedback is truly helpful. Although the survey results were mostly positive, we learned about key areas of improvement as well.

Interestingly, many of our customers and peers seem misinformed in their understanding that we only do large projects. In fact, we perform literally thousands of projects of all sizes – from \$50 to \$50 million! This issue of the GrunauGram introduces a new section that highlights a few of the smaller projects that make up our day-to-day operations.

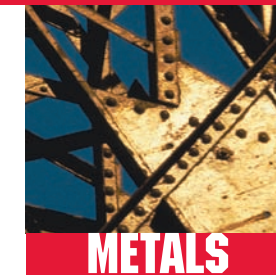
This issue also features projects that emphasize our strengths. For Marquette University's Zilber Hall and Advanced Healthcare's Grafton clinic, we worked with long-term customers who have entrusted us with their multi-discipline, design/build projects many times over the years. The Ember Lane Dock project demonstrates the effectiveness of Grunau Metals, even in unusual working conditions on the Milwaukee River. Likewise, our work for Port Orleans reiterates the value of our fire protection branches and how our expertise has built trusted relationships within Disney.

Finally, I'm excited to announce that Mark Gall is now our new Milwaukee branch manager. Many of you know Mark from his 32 years with the Grunau team, during which he has helped grow our Grunau Metals business. He brings a great energy to his additional role. Be sure to congratulate Mark when you have a chance!

Lawrence E. Loomis  
President, Grunau Company

# GRUNAUGRAM

Spring 2010



## METALS

## GRUNAU METALS KEEPS ROLLIN' ON THE RIVER

City of Milwaukee officials needed to install a kayak dock along the Milwaukee River as part of the Ember Lane River Restoration Project. They came to Grunau Metals to get it done.

Grunau Metals fabricated and installed an accessible pier, gangway and floating boat launch, or dock. Installing the dock meant the team had to conduct most of its work over the water. They used a barge and an aluminum boat to house supplies and support ironworkers during the project. The barge also transported the 8 x 20-foot floating dock down the river.

"It was a lot of activity to coordinate in a small area," said project manager Dan Cypcar. Grunau Metals partnered with Performance Yacht and Area Erectors to complete the job.

The team demonstrated its metals expertise by fabricating the structural steel main dock section, which nestles between two previously installed steel pilings and extends into the river. Grunau relied on a crane to help position the

dock. The team also placed a 31-foot aluminum gangway ramp and installed specialized "Triple Shoot" handrailing mesh, created locally in southeastern Wisconsin.

Since the entire dock is exposed to the elements year-round, Grunau Metals used stainless steel bolts on the ornamental hand railing. The railing supports were hot dip galvanized, and a three-coat, zinc-rich paint system was utilized on the main structural frame to prevent rust.

Another unique aspect of this project was applying Grunau Metals' skill to...wood. The team oversaw the placement of handrails made of Garapa, an exotic wood from Brazil that works especially well outdoors because of its hardness.

"Overall the project turned out very nicely," said James Leedom of The Sigma Group, the job's architect. "Grunau Metals provided quality work within our budget."



▲ *The Grunau Metals team worked over water during the installation of this kayak dock along the Milwaukee River.*







## MECHANICAL

### GRUNAU INSTALLS SYSTEMS FOR CLINIC UPGRADE

When the Aurora Advanced Healthcare clinic in Grafton, Wis. needed an update, it turned to Grunau Company for design/build expertise.

Advanced Healthcare planned to build its new one-story clinic on the same site as its existing clinic and then demolish the old building once construction on the new one was complete. Grunau got involved during the project's early planning stages and provided HVAC, plumbing and fire protection during construction.

Among other items, the Grunau team installed two hot water boilers, which supply hot water to the coils for the clinic's rooftop units and reheat coils throughout the building.

Grunau took extra care to place its pipes and fire protection sprinklers above or below the wooden trusses on the building's structure. Since attaching systems to a wood frame is much different than attaching to metal, Grunau also paid close attention to weight limits.

The project relied on 2D hand coordination rather than Building Information Modeling (BIM) technology, and all systems went in very smoothly. Work wrapped up on time, and the existing clinic and parking lot remained open for patients throughout construction.

"Advanced Healthcare is a great customer," said project manager Rachel Rueckert. "Our work with them is an example of the benefits of building long-term relationships."



▲ Aurora Advanced Healthcare relied on Grunau for HVAC, plumbing and fire protection in its new Grafton clinic.



## FIRE PROTECTION

### GRUNAU PROTECTS PORT ORLEANS' CAJUN SPIRIT

Port Orleans is a popular hotel at Walt Disney World in Florida, famous for its Louisiana flair. So, when park officials discovered that existing fire protection piping on the hotel's roof was beginning to have corrosion problems, they called Grunau to find a solution that kept the hotel in operation during the fix.

Grunau's Orlando office sprang into action. The team replaced the original black steel piping and fittings with stronger versions made from galvanized steel. Grunau swapped out nearly a mile of piping across all seven buildings that make up the Port Orleans hotel complex.

Due to the pipes' positioning on the roof, Grunau had to be extremely careful not to damage the roof covering while fitting the new system. Technicians used sheets of plywood to act as buffers and prevent scratches, dents or tears in their work and equipment areas.

The team also faced added challenges in working on a fully-operational hotel. When Grunau replaced control valves for the fire protection system, its technicians turned the water and fire alarm systems off during the day for installation, and turned them back on each night to protect guests.

Despite the challenges, Grunau finished the project ahead of schedule and within budget.

"They exceeded my expectations of how a contractor should perform," said Eddie Hendrix of Disney's facility asset management. "They were dedicated to getting the work done from the start. All these guys have my utmost gratitude for a great job."



▲ Grunau's fire protection office in Orlando, Fla. replaced corroded fire protection equipment on the roof of Disney's Port Orleans hotel.

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## GRUNAU PROJECT SNAPSHOTS

Grunau Company is involved with a wide variety of projects – both large and small – on any given day. These "Project Snapshots" give you an idea of what we've accomplished for our clients on several recent jobs.

### Customer: Samuel and Sons

**Project Manager:** Aaron Block

**Contract Amount:** \$10,412 Time & Material (T&M)

**Request:** Provide services to plasma cutter

**Solution:** Michigan-based Samuel and Sons rented a manufacturing space in Milwaukee and relocated one of its existing plasma cutters. The plasma cutter needed air, oxygen, and natural gas connections before production could begin. Grunau installed an owner-supplied air compressor and air dryer to provide air, connected a gas accelerator to the building's sub-metered gas supply, and installed an oxygen manifold to supply the oxygen. Our sheet metal department also provided stainless steel exhaust ductwork from the unit to a dust collector, and fabricated a ramp over the air compressor's condensate drain to alleviate a trip hazard.

**Result:** Work was done on a T&M basis under budget even though a condensate drain and sheet metal ramp were added to the project.

**Solution:** Remodeled existing HVAC, plumbing and fire protection systems for a new space use that utilized existing major equipment and services. Provided value engineering to reduce overall project cost.

**Result:** Budget updates throughout project allowed owner to use savings from mechanical systems for upgrades to other areas of the project.

### Customer: Medical College of Wisconsin

**Project Manager:** Ken Bhatia

**Contract Amount:** \$174,885

**Request:** Provide design/build for heat recovery system at healthcare complex.

**Solution:** Recover heat from steam condensate to pre heat 100 percent outside air and provide snow melt system.

**Result:** Payback in 1.5 years.

### Customer: City of Milwaukee Meter Pit – 6 Locations

**Project Manager:** Josh Liegler/Kyle Falvey

**Contract Amount:** Average per location \$9,000 - fixed price

**Request:** Update existing water metering stations

**Solution:** Replaced existing meters with new remote read-capable Mag Meters, and updated control wiring and devices. At National Avenue, Grunau also provided a new free-standing weatherproof enclosure to house electrical service and control panels for both Milwaukee and West Allis. Grunau recommended an alternative to the original enclosure design. The changes were higher quality, provided more options and cost 30 percent less.

**Result:** Customer appreciated the care that our crews took during these projects. They worked safely and efficiently, while maintaining infrastructure integrity. The recommended changes to the weatherproof enclosure are now specified for these projects.



▲ City of Milwaukee Meter Pit

### Customer: Tenant Remodel at Plaza East

**Project Manager:** Ron Kwiatkowski

**Contract Amount:** \$11,619

**Request:** Provide complete all-trade design/build proposal for the remodel of existing law offices

**Solution:** Surveyed existing space, reviewed building standards for construction criteria and requirements, identified owner's needs and phasing, and designed complete mechanical system to meet all.

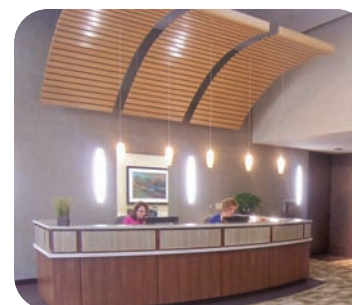
**Result:** Provided design to meet new space requirements without disruption of daily operations and within project budget.

### Customer: Health Clinic in Southeastern Wisconsin

**Project Manager:** Sarah Meyer

**Contract Amount:** \$89,900

**Request:** Build health clinic in existing office building



◀ A health clinic reception desk at one of Grunau's recent projects.