

President's Column

We have some words on our walls about Grunau's mission & values; words we live by. Our basic mission is to be the Benchmark of Excellence upon which our competition measure themselves. Since we started in 1920, Grunau has been a leader in our industry and we do everything in our power to keep that status. That doesn't mean we are a leader in high prices, but rather a leader in quality service for the best price; we bring value to our customers and each of their projects. We are a leader in doing what is ethically right; we stand behind all our work and all our employees.

Some of our recent projects shared in this newsletter tell stories of not only our capabilities, but the people behind getting the job done right. We value our employees and this year, started a new tradition to memorialize those who have served at Grunau 20 years or more by placing their photo on a special wall at our headquarters that was designed & installed by our Grunau sheet metal experts.

Our cover story explains a Lean construction process that our industry has been hearing more and more about: Integrated Project Delivery or IPD. This is one example of how Grunau continues to bring extra value to the table.

As 2014 winds down & the new year approaches, we look forward to all our new projects, some that are still in the planning stages.

Happy New Year! Let us know how Grunau can help your project be successful in 2015.



Lawrence E. Loomis
President, Grunau Company

IPD is an acronym for "Integrated Project Delivery" and is one of the Lean Construction processes that Grunau Company has participated in to provide better value to our customers. IPD is a proactive approach to coordinating all parties of a construction project including the owner, owner's rep, architect, engineers, construction manager, and all subcontractors / trade partners so the job is run as efficiently as possible.

Grunau's Youngstown fire protection office partnered in an IPD project at the 369,000 sq ft Akron Children's Hospital, Critical Care Tower (ACH) which is being built in Ohio. The 7-story medical tower broke ground in April 2013 and is targeted to open in spring 2015.

One efficient process used was the use of TAKT areas for delivery and installation. ACH was split into 3 or 4 TAKT areas on each floor of the building (see example in photo). Every trade was then scheduled to move through each TAKT area in a specific order like a big train. Each trade had exactly 1 week to get in and out of each TAKT area. Like any train, the success of the whole is dependent on each piece so if one train car falls off the track, the momentum of the entire train is negatively affected. With the installation of 3,427 sprinkler heads, Grunau had an average of 130-150 heads to rough-in for each TAKT area each week. By implementing just-in-time material delivery and organizing material for efficient installation, Grunau was able to come in under estimate and pass along those savings to the project.



When delivered, sprinkler pipe was organized on pipe trees in the order that it would be installed so there was no wasted time to find the piece needed. Purchasing workstations for fittings, hardware, and tools on 19' scissor lifts reduced fitters' wasted movement while installing 6" standpipes that ran through 3 stairwells to feed the hospital's 26 separate fire protection systems. A Baker scaffold was often used as a print table on this job and pipe ID labels and sprinkler heads were easily stored underneath so they were close at hand. Even a simple idea of adding a coat hook to a corner of the Fab box allowed Grunau's TAKT crew to keep jackets easily accessible while moving between areas of various temperature extremes.



A complete team effort is necessary to ensure success. From the truck driver to the project manager, the foreman to the BIM/CAD designer, to those with administrative duties, everybody in Youngstown played a role in making sure Grunau executed this IPD project successfully. The IPD process, like any Lean Construction activity, emphasizes continuous improvement. Being "just good enough" will never bring great value to any customer. Asking oneself how they can do something better, and then actively taking those steps to make that change happen, is what this project was all about.

Let the Engines Roar

Grunau Metals

Grunau Metals has been working with Jacobs Technology Inc. on a state-of-the-art wind tunnel for a U.S. automotive manufacturer. Wind tunnels are widely used throughout the automotive industry to test aerodynamics and acoustics on model vehicles. This project began in January 2014 and once it is up and running in mid-2015, it is expected to be the most technologically advanced wind tunnel in the world.



This wind tunnel circuit is approximately 275 feet in length, and individual fittings can range up to 26 feet in height and weigh as much as 8,000 pounds.



With air quality being the most important aspect of the design, it takes a full team of structural, mechanical, and aerodynamic engineers to design a wind tunnel that meets the clients' needs. Grunau Metals teamed up with multiple machinists, heat treating, and plating companies to provide a turnkey solution to Jacobs Technology for the fabrication component of this wind tunnel. Grunau partnered with Jacobs on multiple wind tunnels in the past and it has always been trust and consistency that keeps this relationship moving forward.

20+ Years in Strength

Grunau's new Metal Wall at the headquarters office symbolizes the strength of our employee talent & experience on the strength of a steel wall. Employees who have been with Grunau Company 20 years or more as of 2014 are now pictured on the wall and if they retire from the Company, their photo will remain on the Metal Wall forever. New photos will be added each year as employees celebrate their 20th service anniversary.

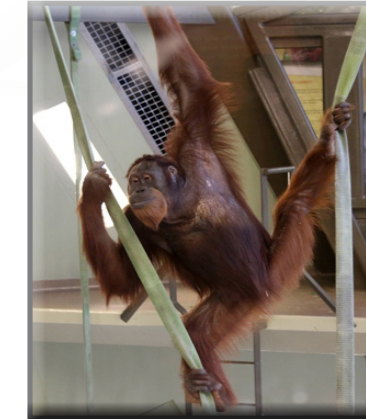
Before the wall was installed, folks had a bit of fun signing their names to be memorialized into eternity.



Monkey Business

Grunau Indy completes annual fire alarm inspections for all the buildings and exhibits throughout the Indianapolis Zoo.

When the Zoo was completing their new Simon Skjodt International Orangutan Center which is touted as "one of the most significant zoo exhibits anywhere in the world", they asked if Grunau Company could donate any old fire hoses for the new exhibit.



The timing was perfect since Grunau Milwaukee had previously removed 160 hoses from a distribution center. The hoses were shipped to Indianapolis, dyed green by Zoo employees to resemble natural vines and attached to the steel structure for the orangutans to swing on. Excess hoses were put to good use to clean other exhibits and for irrigation at the zoo.

Check out the amazing sights next time you're visiting the Indianapolis Zoo!

Sustainability: Re-Use Indiana Fire Protection



Florida Fire Protection

Protecting the Magic

What better place to work than at the World where dreams come true? The Grunau Orlando team has been involved in new construction and ongoing maintenance of fire protection systems at Disney World for decades.

One of the newest projects that was completed in April 2014, is the Seven Dwarf's Mine Train which was the final phase of the Fantasyland area expansion.

Grunau started in the summer of 2012 and coordinated with the architect and all trades using 3D BIM modeling which facilitated an effective design and construction process for this adventurous family coaster ride. Grunau's design-assist fire protection team coexisted in one location with the architect and owners' design team as they worked together during pre-planning and throughout construction. The 3D BIM process highlighted the intricate custom work that went into the design.



Speaking of Magic...

The Wizarding World of Harry Potter™ - Diagon Alley™ is now open at Universal Studios Orlando. This attraction's theme rides and shops are a fantasy experience based on the many stories of Harry Potter. Grunau completed its part over a 1½-year time frame to make the attraction fire safe for all visitors.

Grunau installed a complete fire protection system consisting of dry and wet pipe systems at the multi-dimensional thrill ride "Harry Potter and the Escape from Gringotts™", the Leaky Cauldron™ restaurant, King's Cross Station and Platform 9 ¾™ at the train station, and in the many shops throughout Diagon Alley™. The unique theme elements and specialty designed areas created challenges with installation and the ability to conceal the fire protection. Grunau used special care, design and ingenuity to complete the installation and created a seamless fantasy experience.



Dedication

Celebrating our Employees

Grunau is proud to announce the following employees' anniversaries celebrated in 2014:

10 Years: John Foerg, Wayne Parson, Darren Hill, Wes Dean, Ryan Clark, Dave Deering, Chris Fujinaka, Jason Litkowiec, Brian Perry, Justin Warzala, Mike White

15 Years: Don Sparks, Robert Taylor, Rick Gasior, Greg Klumb, Gary Mayer, John Mervin, Eric Vaa, Shane Schilcher

20 Years: Randy Rubesa, Brad Shepherd

25 Years: Vince Viglione, Jeff Kuhnke, Sue Wegner

30 Years: Rob Schmitz, Ray Braun, Dave Machajewski

35 years: Don Mateicka Jr.

40 years: Chuck Neumeyer





Grunau Company, Inc.
PO Box 479
Milwaukee, WI 53201

PRSR STD
U.S. Postage
PAID
Milwaukee, WI
PERMIT NO. 2502

Return Service Requested

Technical Contributors

Ohio: *Mike Rubesa, Project Manager*
Grunau Metals: *Nate Kane, Project Manager*
Sustainability: *Darren Hill, Indiana Service Dept Manager*
Florida: *Emily Johnson, Florida Administrative Assistant*
MKE Mechanical: *Shane Schilcher, Mech Systems Coordinator*

To receive the GrunauGram electronically, please e-mail info@grunau.com and include your first and last name and the name of your company. Please indicate "Receive Electronic GrunauGram" in the subject.

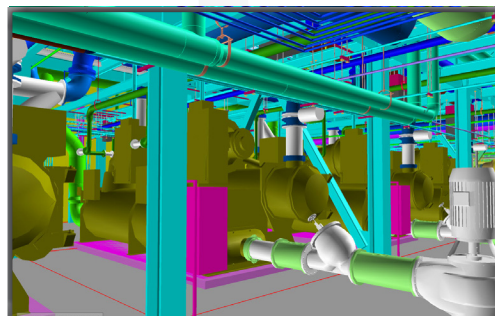
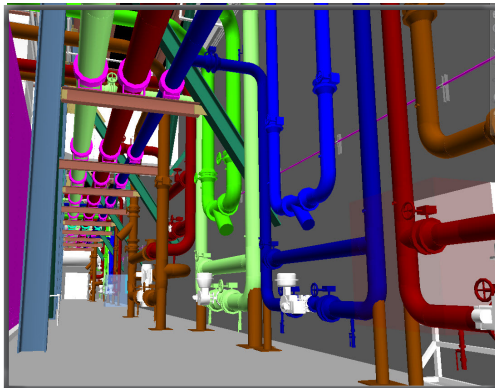
Coordinating a Monster

"You guys did a fantastic job...as close to zero rework as you could possibly hope for on a monster job like this with such a fluid design. Excellent experience. Let's do it again."

*~Todd Follis,
J.W. Danforth Senior Project Manager*

At 565,000 sq ft, the \$2 billion dollar Technical Development Center addition to Global Foundries' full-service semiconductor foundry in Malta, NY was one mammoth project. Grunau Company partnered with J.W. Danforth Company and provided the mechanical coordination services for this job.

J.W. Danforth (JWD) is a mechanical contractor in Buffalo, NY who shares many of the same Lean construction values as Grunau, including an exceptionally aggressive approach to streamlined mechanical pre-fabrication.



Milwaukee Mechanical

Grunau's expert problem-solving skills and CAD coordination drawings helped JWD to efficiently manage the project that had lots of challenges including 2 major repurposes of the building space, over 100% increase in all contract values via change orders, and no enclosure over the entire winter. Grunau helped identify better ways to provide the best possible final product that met the needs of the customer.

JWD considers Grunau to be not just another subcontractor, but an integral and critical part of the team. It is relationships like these that help build a bright future for all involved.