



Annual Excellence Awards

December 1, 2011



Walls & Ceilings is honored to present the winners of our annual Excellence Awards contest. The categories awarded this year are Ceilings, Drywall, EIFS/Stucco, Interior Plaster/Ornamentation, Metal Framing and ICFs/SIPs. The entries were judged by a panel of W&C staff members and its Editorial Advisory Board (see this list on page 8 in the masthead).



Performance Contracting did the ceilings, plaster, drywall and more on the Kauffman Center for the Performing Arts project in Kansas City, Mo.

Category: Ceilings

Performance Contracting Inc.

Project Name:

Kauffman Center for the Performing Arts Project

Materials:

USG, G-P Gypsum, National Gypsum, Trim-Tex, Dryvit, ClarkDietrich. Radius Track, Fellert North America

The Kauffman Center for the Performing Arts is the newest member of an elite group of buildings designed for the fine arts in Kansas City, Mo. The 285,000-square-foot facility is now the new home of Kansas City Ballet, the Lyric Opera, and the Kansas City Symphony.

Encapsulated within this building are two distinct halls: the Muriel McBrien Kauffman Theater and the Helzberg Hall. With construction starting in early 2007 by locally based JE Dunn Construction, this building has redefined the standard for acoustical performance. With more than 72 primary subcontractors on site, Performance Contracting has been a major contributor in helping achieve the high acoustical requirements and the overall aesthetics of this project.

Performance Contracting was on a select bid list for this project because of the company's skills and experience with plastering and drywall. When you compile 1.93 million pounds of plaster, 1.3 million square feet of drywall, and 25,000 square feet of Fellert acoustical plaster with the complexity of the project, a well-rounded subcontractor was needed to achieve the end goal. After multiple bid revisions and months of scope reviews, PCI was awarded the drywall/plastering bid package which included the following scopes of work: metal framing, insulation, drywall, finish, metal lath, traditional plaster, two-coat veneer plaster, EIFS, fire resistant joint systems, fire/acoustical sealant, access doors, 3-D modeling of the Muriel and Helzberg ceilings and layout.

The 1.93 million pounds of plaster was comprised of traditional plaster in the two halls and nearly 50,000 square feet of veneer plaster in the four-story glass lobby. A majority of the traditional plaster was on the 11,500 square foot Muriel Theater Ceiling and the 10,800 square foot Helzberg Ceiling. These ceilings have complex curves with a 2½-inch-thick cross section of plaster which equates to a 25 to 30 psf density rating. The remainder of the plaster was comprised of acoustical wall bumps which were designed to dissipate and divert sound waves to specific locations. With up to nine different psf density requirements throughout the halls, the plaster work had to be precise to say the least.

The complex radius and density of the Muriel Ceiling and the Helzberg Ceiling were not only designed to be aesthetically pleasing but also were critical for peak acoustical performance. To achieve design criteria, both ceilings were 3-D modeled

and the stud locations were pre-determined to avoid clashes with critical light placement and other penetrations. Through the modeling process, PCI was able to engineer and have the 16 gauge, 4-inch ceiling members pre-bent to the designed radii. This allowed PCI to frame these two ceilings with a three-man crew over five months with very minimal modifications due to clashes with other trades. In addition, the Total Station (described below) was used to lay out support straps and radius studs in the Muriel and Helzberg Ceiling.

The construction of the wall systems were also a challenging process throughout the duration of this project. The layout of the walls was based on three different grid systems, one for each hall and one for the rest of the project. To add to the complexity, the majority of the gridlines were splayed, non-parallel and radiused. To help with the layout process, PCI elected to use a robotic Total Station by first plotting points using Auto Cad and then implementing them in the field using the Total Station equipment. Upon completion of layout, PCI had to decipher and process the staggering amount of variables associated with the wall types on the project. Having 68 wall types with each having three head of wall deflection criteria (0, 1 inch, 2 inch), PCI quickly had hundreds of variations in wall types. Combined with the addition of fire track, slotted track, double studded walls and up to six layers of drywall, one can only imagine the skill required to process and accurately execute the construction of the walls.



The Amway Center Project by Kenpat USA. The contractor installed more than 86 percent of 1.5 million square feet of gypsum board and wall assemblies.

Category: Drywall

Kenpat USA

Project Name:

Amway Center

Materials:

National Gypsum, USG, CertainTeed Gypsum, G-P Gypsum, Marino\Ware,

ClarkDietrich, Gordon, Fry Reglet, Alpro, Tectum, Kinetics, Decoustics, SoundSeal, Glasliner FRP Wall Panels

The Amway Center in Downtown Orlando, Fla., provides the finest entertainment experience for professional basketball and music fans in the United States.

This technologically advanced venue houses more than 72 suites, 68 loge boxes, 14 MVP tables, three club hospitality rooms, two All-Star decks, AirTran Flight deck, Kia deck and 37 restrooms. Kenpat performed more than 86 percent of the labor to construct 1.5 million square feet of gypsum board and finish assemblies and 44,000 square feet of acoustical wall panels in the new Amway Center during April 2009 through September 2010.

One of the key components of the Amway project and the surrounding neighborhood was the creation of the Blueprint Program to create jobs in the local area and get the greatest utilization of local firms that were qualified as Minority or Women Owned Businesses. Kenpat embraced the challenge and exceeded the goal of 36 percent MWBE participation by an additional \$700,000. This was achieved by recruiting several local MWBE subcontractors to assist with field and administrative workload.



The Gallegos Corp. installed more than 250,000 square feet of stucco and synthetic stone veneer on the St. Anthony Hospital in Denver.

Category: EIFS/Stucco

The Gallegos Corp.

Project Name:

St. Anthony Hospital, Denver

Materials:

Omega, Sunset Stone, ArcusStone

St. Anthony's Hospital is a 673,000 square foot replacement facility for an existing building that could no longer expand due to site constraints. The new site provided significant opportunity for expansion and connectivity. This hospital was on a 32-month fast-track schedule that required precise coordination of trades and materials to be successful.

The Gallegos Corp. was selected as the subcontractor to install 200,000 square feet of hardcoat stucco and 52,000 square feet of synthetic stone veneer with precast concrete trims on the exterior façade and interior common areas. For the exterior enclosure package the company also provided the scaffold, flashing and caulking to ensure a water tight installation. Specialty items included multiple custom made-precast caps and sills, and limestone plaster coating over drywall to simulate stone in the interior public spaces. Fort Collins Precast provided the precast materials.

This was a challenging project due to the complexity of details, the multiple scopes performed, and the "fast-track" schedule. The large scale of the project, combined with the scaffold erection and weather protection during the winter months, and over 68,000 man hours in the field, made this dynamic project a consistent management challenge.

This project demanded the cooperation of multiple scopes and tradesmen, all working together to produce a quality and functional building that has significantly changed the landscape of the area and provides St. Anthony's Hospital with a state-of-the-art facility to help them continue to provide the exemplary medical treatment they are known for and give them an opportunity to expand the number of services they offer.



Ford Drywall & Stucco worked on this home in Naples, Fla.

Category: EIFS/Stucco (HONORABLE Mention)

Ford Drywall & Stucco

Project Name:

Naples Beach Home

Materials:

AMICO, Thoroseal, Florida Rock Stucco, ArcusStone

Ford Drywall & Stucco Inc. installed a custom limestone finish that not only lowered the client's costs but also provided them with a superior warranty while using "Made in the USA" products.

Ford Drywall President John Ford says his company was hired to do the exterior lath, waterproofing and stucco with limestone finishes. He says the original plans called for a "Barbados" stone finish on the outside of the residential home; he suggested an alternative—ArcusStone Coat.

He proposed using the hand-applied and formed product because it gives his workers the ability to create the same look as the Barbados stone at a cost and time savings. Another benefit of using the hawk-and-trowel product is that Ford's workers are able to make corrections to imperfections in the substrate that would have been much harder with the less-forgiving stone. The ArcusStone product was also good for making the molds and architectural profiles the job called for by hand. The bowed ceilings and arches were much easier to do compared to stone, Ford says.

There were other benefits to working with an American-made product, he says. There was no dealing with import/export officials, a far lighter product to handle and transport, and the benefit of getting a 12-year warranty from the manufacturer that might not have been available with the stone.

In all, Ford estimates his company saved several months and between \$600,000 and \$700,000 for the client. At the same time, the more than 40,000-square-foot project gave him and his workers a great deal of practice in turning out artistic finishes in the field. Allied Building Products supplied materials for the project.



The Hurry Back Home in Wisconsin is constructed using ICFs.

Category: ICFs/SIPs

Midwest Modern LLC

Project Name:

Hurry Back Home in Portage, Wis.

Materials:

Quad-Lock, Fry Reglet, Pella Windows, Rubio, Monocoat, Gris Belge, Buechel Stone

Planned as a 100 year-plus home, this Quad-Lock ICF project was designed with many generations in mind and has been designated in the estate plan. The project's 4,000 square foot size is large enough for extended family accommodations with small bedrooms on the basement floor, ADA accessibility for two regular inhabitants on the first floor with their place of business located on the second floor. Experienced with LEED commercial projects, the architect and builder designed the live/work home space with LEED guidelines in mind. Thus interior air quality, energy and water conservation, waste reduction and lower operating costs were primary goals of the project. The Quad-Lock ICF system was chosen to help achieve those goals.

Built into a rugged and hilly 35-acre site, the project juts into the horizon with large cantilevering rooflines whose forms appear to hover over the extensive glazing that allows expansive 20-mile panoramic views to the east, south and west over the historic Wisconsin River Valley and six neighboring towns. In addition to creating the sensation of being in a cave overlooking the vista; the overhanging, dark stained cedar and pine roof/ceiling forms temper the summer heat while holding back winter's chill. The largest of these seemingly floating double cantilevering roof forms is constructed out of site cast reinforced concrete that weighs an astonishing 20 tons.

The home is situated directly atop a 60-foot deep wooded ravine along the north side. This juxtaposition sets the stage for the underlying story of the home that is seen in the interplay between the form and the material palate. Themes of dark and light, heavy and delicate, solid and void, expansion and contraction, rustic and refinement can be seen throughout the home.

This project is exemplary in its well thought-out planning and execution of details. High performance building systems, such as in-floor radiant heat and high velocity air handling coupled to a vertical geothermal field are deftly integrated and are barely noticed while allowing the home to function at energy costs lower than a project half the size. The thermal mass and airtight construction achieved with the

use of Quad-Lock ICF walls, floors and roof create a quiet and pleasant atmosphere during the harsh months while the shaded interior can also be opened up to the wonderful cross breezes the elevated site enjoys during the summer months.



Professio by Matt Henson did the plaster and finishing work on The Harris County Courthouse project.

Category: INTERIOR Plaster/Ornamental

Professio by Matt Henson Inc.

Project Name:

1910 Harris County Courthouse Restoration

Materials:

USG, Sherwin Williams, Benjamin Moore

This 1910 courthouse plaster ornamentation was completely restored. Work included salvaging the ornamentation, which was reconstructed and recreated with the aid of historic photographs. Professio by Matt Henson's team did the art drawings, mold making, casting, installation and historic paint finish. The large capital in the Rotunda is 13 feet across and 11 feet high. It was reconstructed in total from designs taken from the site to match the vernacular of the "Sullivanistic" design. Professio by Matt Henson is responsible for the design, creation and installation of all elements.

The project took more than two years to complete and it restored a building that is a marvelous example of craftsmanship from the industrial age. In total, there were 37 different ornamental castings—seven of which didn't exist (both courtrooms ornaments were completely missing) and had to be recreated from pictures. The large capital, however, did not have a photo to use as a reference and had to be designed from scratch to fit the building. The decorative ceiling on the sixth floor barely had enough ornaments left to work with.



The Cosmopolitan in Las Vegas, with work performed by KHS&S. Copyright Rick Fowler.

Category: Metal Framing

KHS&S Contractors

Name:

The Cosmopolitan of Las Vegas

Materials:

USG, G-P Gypsum, Monokote, Johns Manville, ZNZ Manufacturing, Western Architectural and Formglas, ClarkDietrich, CEMCO, Sherwin Williams, Vista, Dunn Edwards, Modern Mastery and Schuff Masters, Dryvit, Texston (Venetian), Armstrong Wall Systems

The Cosmopolitan Resort and Casino project was originally budgeted at \$2 billion (KHS&S scope approximately \$75.3 million) when KHS&S began work on the project in October 2007. The scope originally included all the metal framing and drywall for the interior of the podium and recreation deck, exterior EIFS at the podium and recreation deck and thematic items throughout the podium.

KHS&S was contracted to provide design-assist services for all new venues. The opportunity to be a part of the design-assist process made it possible to work side-by-side with the project designers, architects, Perini's project and field management as well as the new owners. This allowed KHS&S to streamline pricing and design and offered an opportunity to improve the contractor's relationship with all parties.

The redesign of the Cosmopolitan also created an opportunity for KHS&S to nearly double its contract value to approximately \$146 million by completing the metal framing and drywall for the 1.85 million square feet of podium space. The owner never stopped changing the design, but they also did not spare any expense to create the final product they envisioned. The project was successful; it was delivered on time and within budget.

Constructing the interiors and exteriors of the Cosmopolitan indeed had its fair share of challenges. Most of the exterior walls were designed with faceted and undulating geometry and not the typical vertical wall as seen on most buildings. Combine this with wall spans of 100-feet plus and a still-under development building design all made for rather unique obstacles to overcome. For the north and south exterior walls of the podium, as well as the night club, KSH&S used a light gauge metal truss system manufactured by M-Truss normally used to frame roofs. The design is similar in nature but in this application the roof would be tilted vertically and attached with metal clips back to the building structure. Throughout the course of construction, the interior walls, ceilings and soffits were under constant design and redesign. In the end, what was initially scheduled for six months of preconstruction design turned into almost three years.

Due to delays caused by the redesign of the schematic layout of the podium levels, the construction means and methods had to be altered. The “attic” space, what would become the finished ceiling, was being filled in with MEP lines and equipment, and the building structure above was many times no longer accessible. Most of the Level 1 casino ceiling required the installation of a 4-foot-by-4-foot tube steel grid that was suspended from the concrete deck above. This gave a flat level surface for which to suspend the light gauge metal soffits from. So somewhere between schedule, cost, design, ownership change and designer change, KHS&S managed to draw, review, build, redraw, tear down and rebuild the interior walls, ceilings and soffits twice.