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Section**

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THE PROFESSIONAL GRINDING & POLISHING CONTRACTORS' GUIDE

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Specialized Construction Services Inc. worked with D & B Industrial Floor Coatings to create these gleaming concrete floors at the Rothwell Student Center, University of Wisconsin-Superior. The floors are polished to only a 400-grit resin finish, but were burnished high-speed with a glossy protective treatment from Prosoco Inc. containing lithium silicate.

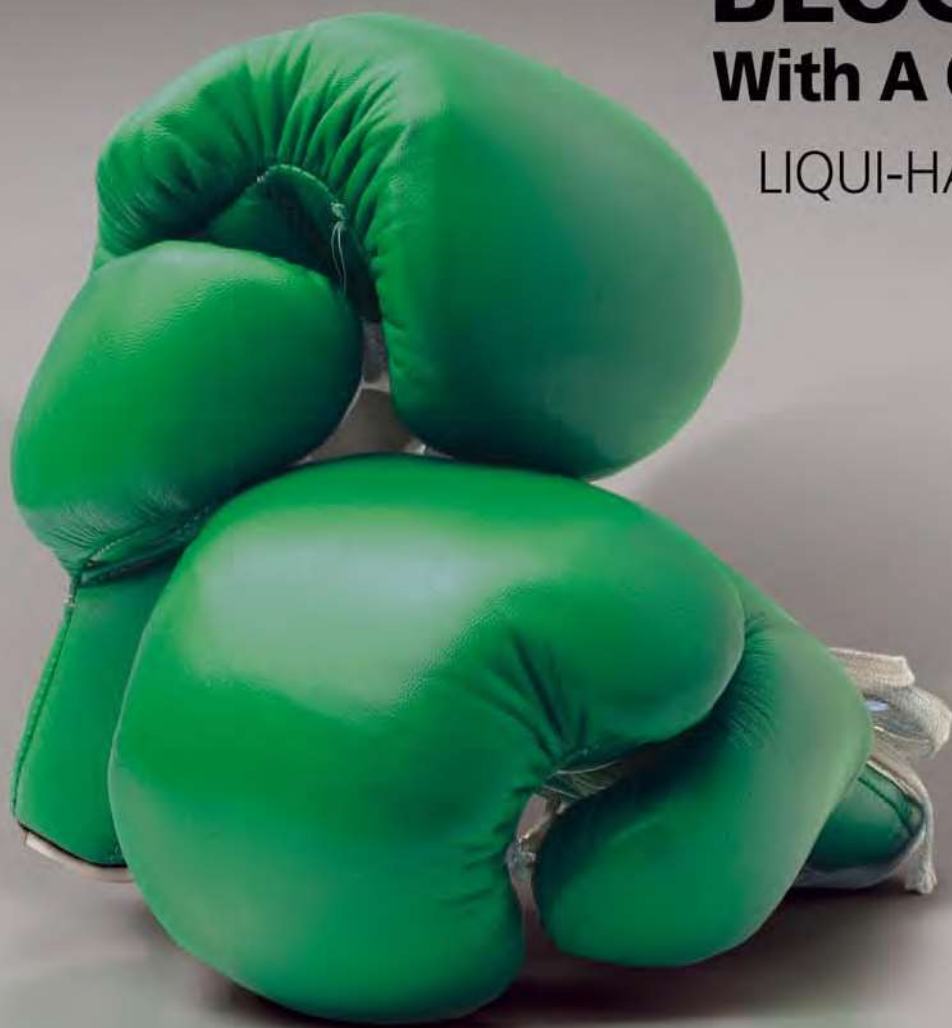
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Polished Concrete In Schools

A Guide for Contractors and Clients

Photo courtesy of Clint Buswell

Clint Buswell, Concrete by Design, Alberta, Canada, created the floor in this hallway at St. Matthew's Middle School, Rocky Mountain House, Alberta. He used Prosoco's Consolideck LS lithium-silicate hardener/densifier and a caramel-color acetone stain to do it. The floor is polished to an 800-grit resin finish, and the glossy microthin lithium-silicate-containing protective coating has been burnished in at 3,000 rpm.

by Gary Henry

School flooring has long been the domain of carpet and vinyl.

That's changing. Officials who run elementary and secondary schools (and even colleges) are becoming aware of concrete flooring as an option. And concrete flooring professionals have begun to notice schools as a market.

That said, decorative concrete is better suited for some areas of a school than others, an important fact to keep in mind when bidding and designing projects.

Areas where concrete works

Concrete flooring is ideal for most areas in schools, with a few exceptions and considerations. That's according to Prosoco representative Ron Saunders, who estimates he's worked on or consulted on more than 60 schools during his 20-plus years in construction.


Concrete flooring, with its durability, aesthetic potential and low maintenance requirement, is ideal for classrooms, restrooms, offices, and common areas like lobbies, auditoriums and hallways. A consideration — some might say

drawback — is that areas with hard flooring can be noisy. Saunders calls noise ricocheting off hard surfaces "sound-slap." He notes that auditoriums usually have sound-deadening panels on the walls.

Carpet can quiet noisy classrooms — it just goes on the walls, not the floors, Saunders says. Carpet takes much less of a beating and lasts longer on walls than on floors. Concrete is meant to take a beating, so the classroom floor is a good place for it.

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This auditorium at Millstone Township Middle School, N.J., features a combination of carpet and exposed concrete. Joe Smith, Natural Stone Care, Media, Penn., hardened and densified the floor and polished to an 800-grit resin finish.

provides children in classrooms while maintaining the considerable advantages of concrete flooring. Rubber antifatigue mats can make standing on concrete floors comfortable for cafeteria workers.

The Asthma Regional Council of New England names concrete flooring as a top choice over carpet and vinyl for schools. In the group's 2005 white paper "Health Considerations When Choosing School Flooring," author and certified industrial hygienist Frances Gilmore, M.S., writes: "A number of pollutants that are associated with respiratory illnesses, including dusts, mold and mildew, are captured and can grow in carpets and then get released into the air. Vinyl is also subject to mold and mildew when water pools below it. Vinyl is also the most toxic flooring material to manufacture and to dispose of."

Gilmore gives concrete floors high marks for lower maintenance, higher durability, being better for health and having less environmental impact than carpet and vinyl.

Vocational "shop" classrooms are good choices for concrete floors, says architect Mark Muller, of Treanor Architects, Lawrence, Kan. And concrete floors are always appropriate for janitorial, electrical and other utility spaces — anywhere there could be wheeled traffic or other heavy use.

All these floors, at a minimum, require dustproofing with a hardener/densifier or film-forming sealer.

Areas of concern for concrete floors

While concrete is OK for outdoor basketball courts, Saunders says wood is the best choice for indoor courts — but only because it's traditional.

Kitchens are too spill-prone to make concrete a good floor choice there, he says. Concrete is porous and soaks up all the stuff that gets spilled on it. Juices, vinegars and even milk can etch the concrete. Water repellents and oil repellents can afford some protection, but an impermeable surface like glazed clay tile is a better choice, he says. Even then, the grout needs a protective treatment.

Muller suggests caution when planning concrete floors in school labs where students might handle acids or reagents. Concrete floors in art rooms where dyes and paints could be spilled also merit extra consideration.

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Benefits and expectations

Officials in cash-strapped schools will weigh the cost of grinding and other surface prep against simply putting down resilient flooring, Muller says. But eliminating waxing, buffing and stripping can save schools quite a bit of money over the course of a year, a decade or a bond issue.

That's a crucial step in making concrete floors attractive to school decision-makers, Muller says, many of whom are much more familiar and comfortable with traditional carpet and vinyl flooring choices.

"Be sure to educate the maintenance staff on that point, too," he added. "Some maintenance technicians are of the opinion that if it's horizontal and doesn't have carpet, it should be waxed and buffed no matter what."

Making sure the concrete floor meets client expectations is important for getting additional work, says David Stephenson, co-owner of American

Concrete Concepts Inc., Springdale, Ark. The best way to do that is to manage the client's expectations from the start.

"I had a school district superintendent who was paying under \$5 a square foot, but who wanted a perfect \$22-to-\$23-per-square-foot terrazzo finish," Stephenson says. "Instead of telling him right away I could do it, I had the general contractor pour a 20-square-foot sample to the same specs as the 80,000-square-foot slab that was planned."

Stephenson and his crew then ground and polished the sample for the superintendent. Though it wasn't a terrazzo finish, it looked good, Stephenson says.

"We went after it aggressively and exposed a lot of black, white and gray aggregate. The superintendent was extremely satisfied once he understood the process and knew what to expect."

No matter how good the job looked, Stephenson says, he probably

would have been in trouble if he hadn't managed expectations by creating the sample. That's because you can't match the image in the client's head unless it's an image you put there yourself.

Environmental concerns

Polished concrete floors have green benefits, some of which are better known than others. Here's one: New concrete is usually produced locally, so a client will avoid the energy consumption required for lengthy transport of heavy rolls of carpet and boxes of tile, Muller points out.

Old concrete subfloors, stripped of worn carpet or failing vinyl, are already there. They don't even demand the limited transport cost of a concrete truck.

Since concrete floors don't need to be replaced, they don't take up space in landfills like other flooring types that have to be removed at the end of their service lives or because of accidents — floods or spills, for example. While many flooring manufacturers offer recycling options for their products, concrete stays serviceable for the life of the building.

All these factors, from durability and low maintenance to health and environmental concerns, make concrete increasingly attractive to school officials in markets large and small.

And that makes schools one more viable market for concrete flooring professionals. ♦♦

Gary Henry writes about construction issues and practices. He works for Prosoco Inc., a manufacturer of products for finished concrete flooring. Contact him at gary.henry@prosoco.com or call (785) 830-7343.

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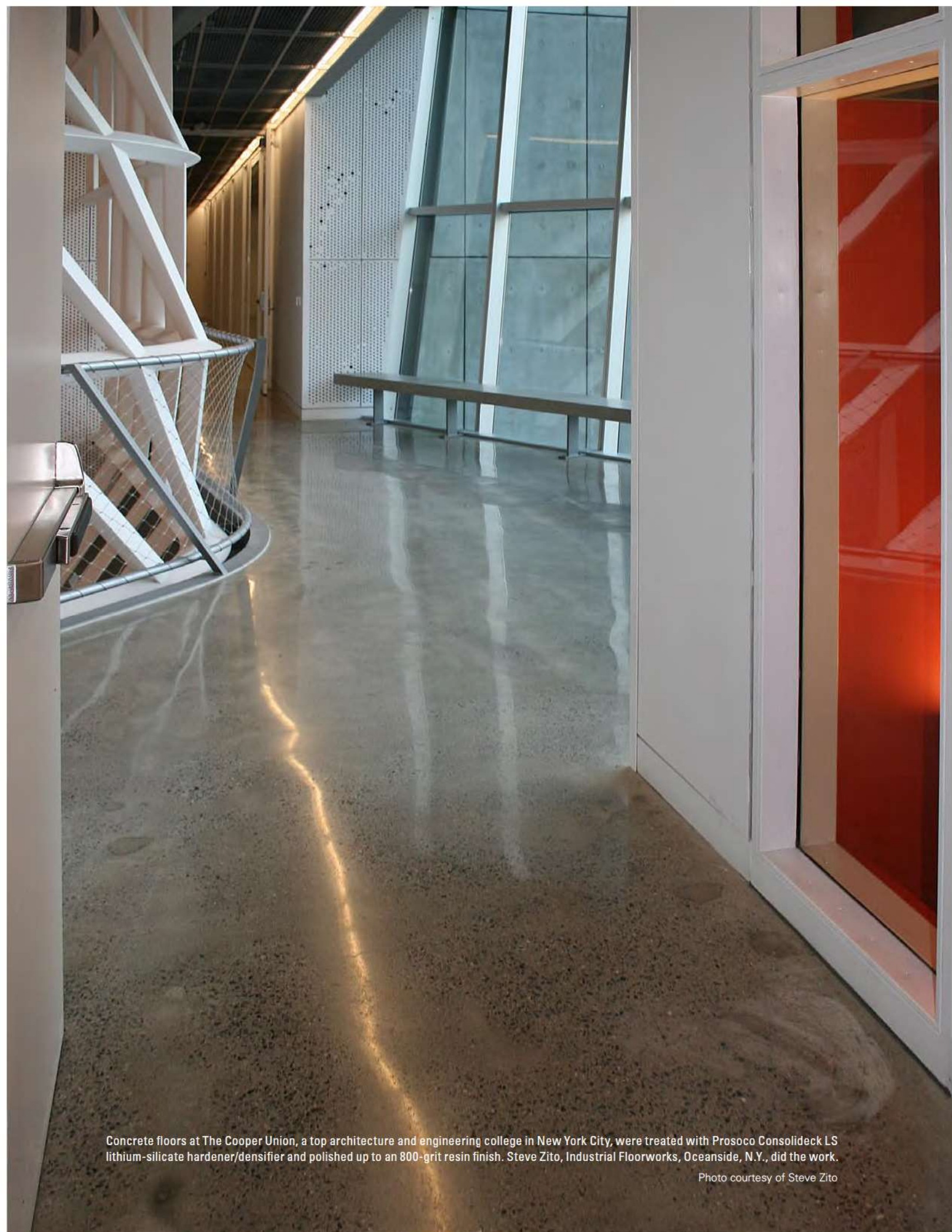
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The Asthma Regional Council's white paper "Health Considerations When Choosing School Flooring," by Frances Gilmore, is available online: asthmaregionalcouncil.org/uploads/IAQ/HealthConsiderationswhenChoosingSchoolFlooring.pdf



Concrete floors at The Cooper Union, a top architecture and engineering college in New York City, were treated with Prosoco Consolideck LS lithium-silicate hardener/densifier and polished up to an 800-grit resin finish. Steve Zito, Industrial Floorworks, Oceanside, N.Y., did the work.

Photo courtesy of Steve Zito

Project Profile



Photo courtesy of Matthew Wicklund, Diacon

The Diacon crew polished Solyndra's Fab 2 floor to a 400-grit finish.

Floors at Solyndra Facility Contractor: Diacon Inc.

by Stacey Enesey Klemenc

Nothing about the Solyndra Inc. project in Fremont, Calif., was easy or ordinary. And that's putting it mildly.

Solyndra broke ground for its second solar panel manufacturing plant, Fab 2, on Sept. 4, 2009, with a target completion date of July 15, 2010. The new, highly automated, environmentally friendly 609,000-square-foot facility, which offers a clean-energy alternative to oil, will produce up to 500 megawatts per year. The plant will enable the company to fulfill a contractual backlog of more than \$2 billion and create about 1,000 new jobs.

To accommodate the manufacturing robots that do the bulk of the work, the floors of Solyndra's two plants must be

very flat, level and durable, says Jonathan Williams, president of Diacon Inc., in Manteca, Calif. "We couldn't have any ridges or valleys that would cause them (the robots) to offshoot."

The task at hand was to produce functional factory floors that were also pleasing to the human eye.

Another floor came first

Diacon first came on board with Solyndra when C&L Coatings Inc. of Bakersfield hired it and Contract Installations of Sacramento to expose the concrete in an existing building right around the corner from Fab 2. Both subcontractors had modified Bobcat T250 concrete grinders that could turn

over a large amount of square footage in less time than conventional grinders.

From December 2009 until March 2010, the two companies prepped the 200,000-square-foot floor for a RetroPlate install. (RetroPlate materials are manufactured by Advanced Floor Products.) The refurbished area would be where Solyndra employees assemble, package and ship products.

What made this part of the project more complex, Williams says, was they had to break through a very hard topcoat of Stonhard ATK epoxy to expose a very soft mortar bed.

"The first few days were nerve-racking," says Robert Defraia, Diacon's chief financial officer. "We had to

Project at a Glance

Contractor: Diacon Inc., Manteca, Calif.

Client: Solyndra Inc. in Fremont, Calif., a cutting-edge company that designs and makes very thin solar panels and mounting hardware for the commercial roof market.

Project: Polish 270,000 square feet of newly installed RetroPlate flooring in Solyndra's new, highly automated Fab 2 manufacturing plant. The project also included removing 200,000-plus square feet of exposed concrete in the final assembly and packaging area of a nearby existing building in preparation for C&L Coatings Inc. of Bakersfield to install and polish a RetroPlate floor.

Challenge: The Fab 2 portion of the project was put on a fast-track schedule for delivery within 60 days from start to finish. To further complicate the job, the team was asked to finish part of the floor ahead of schedule to accommodate a stage and seating area for a visit by President Obama and California Gov. Arnold Schwarzenegger. Prior to and during the visit, work had to come to a grinding halt.

Problem: Uneven edge troweling and possible moisture variations on the Fab 2 floor resulted in unsightly white spots on and around the construction joints. The Diacon team had to devise a workable process to blend these spots without leaving divots or trenches.

continually mock up new scenarios that required us to lean on every piece of inventory we had."

Every time they thought they had it nailed down, he says, a new section of the floor would prove to need new tooling or a different combination of tooling.

"We had to use a soft-bonded diamond to cut through the epoxy," Defraia says. "Once we got to the mortar bed, we were at the opposite side of the spectrum, needing a hard-bonded diamond. If we didn't adapt the diamonds right, we would have gone through a set of 36 every 5 to 10 feet."

The crews constantly adjusted the diamonds to "what the floors were doing," Williams says, and were able to turn over the floor at a 30-grit resin level without having scarred the concrete.

"C&L Coatings took the floor from this point," he continues, "polishing with their modified polishing machines to produce a beautiful RetroPlate floor that the owner will enjoy for years to come."

Fab 2 and fabulous results

After this was completed, Diacon was hired as the prime polishing contractor for Fab 2, installing a RetroPlate floor, stopping at a level 1 finish that Williams says has a shine equivalent to a level 2. Work on the 270,000-square-foot floor began in mid-April and continued into early July. This time, Contract Installations and C&L Coatings were part of Diacon's team. Two crews of eight worked 16 hours a day, seven days a week, to complete the job.

C&L Coatings led the joint-fill operation by preparing the joints and filling with color-matched Metzger/McGuire RS 88, a semirigid polyurea. The custom color match took numerous mockups and owner meetings to determine the final look.

"Our participation goes back almost two years," says C&L vice president Jeff Mosley. "C&L worked with the engineers to



At the Diacon job, modified Bobcat T250s were used to remove Stonhard ATK from a slab in a building once occupied by Tandem Computers Inc.

Photos courtesy of Tim Stephen, Contract Installations



Diacon and Contract Installations worked with diamond manufacturers and established a process to successfully break through a hard topcoat of epoxy. C&L Coatings Inc. polished the floor to a beautiful shine.

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Crack repaired and polished.

Crack left open.

Project Profile

help design the joint layout to mitigate any cracking."

With their modified Bobcats, Diacon and Contract Installations were able to produce 7,000 square feet of finished polished concrete per day, assisting in meeting the fast-tracked, brutal schedule of Redwood, Calif., general contractor Rudolph and Sletten, as well as that of the owner.

"This floor had its own complexities

due to the method used to pour the concrete," Williams says. According to plan, the floor area was divided into quadrants and subdivided into 600-foot-long, 10-foot-6-inch-wide strips. The strips were filled with concrete in an alternating pattern — pour, gap, pour — at the rate of four to six strips a day. The infill rows were poured 10 days later, making for cold joints on three sides of each strip and creating the potential for

unevenness. Rows had saw-cut joints every 10 feet.

"The concrete company (that poured the concrete) was trying to achieve an ff/fl (floor flatness/floor levelness of) 40 or better — which they did, but at the cost of poor edges," Williams says. When the finishers ran the edge trowel down a joint, it was wet on one side and dry on the other. "This caused a lot of bouncing and created a lot of highs and lows on the edges."

This, in turn, caused a major glitch in the polishing portion of the project — worse than the diamond dilemma — involving unsightly white spots. Williams estimates that 90 percent of the discoloring was caused by the bouncing trowel and the remaining 10 percent by some type of moisture variation. "Stego Wrap was used as a vapor barrier," he says, "but there is some concern that when the stakes were placed for the forming they may have punctured it."

A visit from Obama

President Obama and California Gov. Arnold Schwarzenegger visited Solyndra Fab 2 on May 26. In preparation for this visit, the Diacon team was asked to finish an area of the floor ahead of schedule so the stage and seating could be placed.

"That really threw a monkey wrench into the scenario," says Jonathan Williams, president of Diacon Inc., adding that the Secret Service showed up May 22 and began setting up security. "We were the last crew there, cleaning the floor until about 2:30 in the morning. The president gave his speech about 10 a.m. but we weren't allowed to attend. By 1 p.m. our crew was back in there and going again. We were grinding while they were disassembling the stage around us."

During the presidential visit, Williams says, Diacon and Contract Installations' Bobcats served a federal purpose of their own: They were placed as barriers at the main entry.

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Whitish areas around the construction joints.



A water-based antique gray stain from Smith Paints turned out to be a perfect match for blending the whitish areas with the concrete.

Adrian Henry, Diacon's vice president of operations, says that when going into the project they noticed the whitened areas surrounding the construction joints, about 4 to 6 inches on each side. The crew used a 32-inch walk-behind to address any crowning issues that may have happened during the curing process, then continued to polish with the Bobcat. "Once we polished up to a 400 grit, these areas became more profound," Henry says. "We addressed this with the owner and general contractor but they didn't want to hear about any issue. They just wanted us to fix it."

So Diacon tried a number of things, which included using a 50-grit metal-bond diamond, first on the 32-inch walk-behind and then on the edger. "Once we found the right tool for the application, we changed the process a little and got good results," he says. They followed this

procedure with a 40-grit metal diamond down the center of the joint, overlapping the work the edger had previously done.

Next, the crew continued polishing those areas with the Bobcat and brought the floor up to a 400-grit finish. They cleaned the floor, applied RetroPlate densifier and let it dry. They cleaned the floor again. Some spots were glaringly still there.

They tried torching the area to get the moisture out, grinding deeper and using an efflorescence remover, a gray dye and guard darkening.

Finally, they applied a Smith Paints antique gray water-based stain to an area that had some cream showing. "It darkened it up and the color matched the floor," Henry says. "The blend was almost perfect."

They let the stain dry and then applied three coats of AFP's RetroGuard,


burnishing between each coat with a high-speed burnisher using an 800-grit diamond-impregnated pad. Eureka. They had found it.

"Solyndra was happy with the results," Henry says, "but it took a lot of thinking outside the box. It certainly wasn't your typical way of doing polished concrete." ❖


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Diacon's modified Bobcat T250 concrete grinder didn't just help with the Solyndra project. It also served as an entry barrier during President Obama's visit to Fab 2 in May.



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Myth-Perceptions, Part One: Setting Up For Success or Failure

What is a myth-perception? Can it be only one person's perception, is it a truth, or is it purely a means to saddle the competition with a hurdle or diversion — intentional or not?

The one universal truth about the polished concrete industry is that, sadly enough, there is no universal truth. We don't agree about what defines polished concrete, what steps are important, or what is the best way to steer the industry. In fact, we have quite a bunker mentality. From my perspective I'd like to identify, to bring out in one forum, some of the basic building blocks of polishing, and to examine them in terms of myths or accurate perceptions. I will try to address each subject in sequential order.

(Note: Whenever I refer to polished concrete, I am referring to a concrete floor that has been ground, polished and chemically densified.)

Flatness: It's simple — how much the flatness of a concrete slab will affect your final floor is dependent on end use and visual expectations. Floor flatness creates a starting point for your work. It's your canvas. Is flatness required for proper and safe operation of equipment,

such as a high-cube warehousing operation? Is it simply a demand of the architect and/or end user for visual appearance? What control do you wield in all of this? With an existing floor, your starting point is out of your control, it's a crapshoot, but with a new pour and with prior knowledge of the floor's end use, your degree of control is dependent on your willingness and ability to insert yourself into the planning stages.

Curing method: The effect of a cure will be dependent on the methodology, along with the subsequent steps you will be taking. Fifty percent of the water in a portland cement concrete mix will come out of the mix through the hydration process that occurs during curing. Controlled curing/hydration will create more level, consistent concrete in performance and appearance. Curing can be controlled through additives, coatings, or simply water. This control is a dominant factor in the elimination of edge curl, cracks that occurs when hydration is not equalized throughout the slab, or crazing, when the slab isn't protected from air movement across the surface. However, each method will have a different effect on your ability to perform.

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by Peter Wagner

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or stain penetration. Are you aware that you will never receive a denser, more tightly consolidated floor than one that has been water-cured?

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- Solvent-based cures — Do you have a VOC issue? Will you be able to remove it all so it doesn't cause a barrier to penetration of densifiers and dyes?
- Wax-based cures — Make sure you have warm water

handy, as sanding may remove the surface wax but not the wax that has penetrated the pores.

- Plastic sheeting — A positive choice for holding in the moisture. However, any contact between the plastic and hydrating slab will leave permanent darkening at point(s) of contact, and if wood or metal is laid out to keep the plastic in place, expect permanent shading of those areas, or even worse, rust or tannin stains if they are placed underneath the plastic.

Aggregate exposure: Remember, it's just freaking concrete. You cannot simply set your machine down on a

surface, grind through two or three metal steps, and voila, you have a beautiful terrazzo-looking floor. During the troweling phase of concrete finishing you are actively pushing the aggregate down into the mix, while at the same time pulling up and consolidating the fines at the surface. If your customer wants an exposed aggregate finish, or poor man's terrazzo, you either have to make allowances to your mix design and finishing process or seed the surface. Either way, if your perception and that of the owner or architect aren't similar, you may learn an expensive lesson.

Densifiers: Plain and simple: You can polish without densifying, but you don't receive the increased hardness, repellency and elimination of natural dusting that occurs with concrete unless you chemically densify. Plain and simple.

Equipment and diamond pairing:

A + B = C? The number of variations possible when pairing grinding equipment and diamonds is exponential. Each piece of equipment differs, not only as to whether it is a planetary or nonplanetary grinder, but also in weight and configuration, or whether it's run wet or dry. Pretest your pairings prior to starting a project because a diamond that works on Manufacturer A's 30-inch machine may not work as well on Manufacturer B's 30-inch machine. If you are using multiple equipment manufacturers on a project make sure that Grinder C can remove the scratch pattern created by Grinder A.

Clarity and shine: Clarity and shine are both present on every floor that you polish, or are they? You can achieve surface shine without having achieved floor clarity, and you can achieve clarity without having a high shine. Are they independent in the grinding and polishing process? Clarity is achieved in your initial low-end grinding stages

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when you are removing the laitance and irregularities that are natural in concrete. You are creating a clean, consistent surface on which you can then craft your shine, your polish. But buyer beware. Is that shine completely mechanical, or is part of that shimmer created by melted resins, and if so, will it wear and dull with traffic?

Trowel marks and stun marks — why can I see them, but not feel them? There are similarities in these markings, but they occur at different stages. Trowel marks are created by excess and uneven pressure on the blades of the trowel during the final finishing steps of a concrete pour, while stun marks are created by excess pressure on the diamonds by the grinder during initial cutting stages, particularly with metals.

Trowel marks are generally easier to understand because you can see the action that creates the marks, but stun marks are not as easy to visualize. An analogy for stun marks might be the effect of a woman's high-heel shoe on a marble floor. The extreme pressure caused by all the weight bearing on a stiletto heel (1,600 psi for a 100-pound woman on a quarter-inch-square heel) will cause stun marks on the marble. These marks can be seen, but when you run your hand on the floor they don't present a physical profile to feel. What has happened here is similar to what happens when excess weight and pressure bear down on a metal diamond in the early grinding stage — it cause subsurface crystal damage that can be seen, but not felt. This is apt to happen more often on uneven floors where you're having to run your head speed at a lower rate, thus allowing more torque on the individual heads.

Does each successive diamond step tightens the floor? No. There is simply no myth that is so greatly perpetuated, yet so wrong. In understanding the pore structure of concrete, it is imperative you know that the pores are neither uniform in shape nor in placement throughout the slab. In Grinding 101 we learned about scratch patterns and how each successive diamond lowers the scratch profile of the previous diamond. This action DOES NOT TIGHTEN THE FLOOR. It merely eliminates some pores, while at the same time opening or exposing new pores. It is true that as you grind and polish, you are minimizing exposed surface area, but your diamond steps do not tighten the floor.

My next column, "Myth-Perceptions: Part Two," will focus on methods, densifiers, decorative dyes and acid stains. If you have any comments on Part One, or you can think of areas you would like covered in Part Two, please e-mail me at pbwagner@comcast.net. ✉

Photo courtesy of FGS/PermaShine, L&M Construction Chemicals Inc.



Harvey Construction, in Snohomish, Wash., completed this job at The Commons, on the Microsoft campus in Redmond, Wash. The FGS/PermaShine system from L&M Construction Chemicals Inc. was used, along with Deco-Pour water-based dyes, all covering 60,000 square feet.

Peter Wagner has been involved in the polished concrete industry for the past decade, both as an applicator and as director of marketing and training for several densifier and dye manufacturers. He is currently working with Deco-Pour and Revolutionary Concrete Chemicals, helping bring water-based concrete dyes and a polished concrete cleaner to market. He may be reached at pbwagner@comcast.net.

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The Mission of Our Organization

It is my personal belief that you must know and understand the limitations of your products, business and skills to be successful in any trade, but most especially in the polished concrete industry. Each job brings a unique set of challenges to the polishing process. Understanding what concrete is, how it is placed, and the many variations that can take place from region to region are just a few of the crucial steps when specifying or contracting. Often, the customer is sold a product from a picture and doesn't understand the complex issues involved in making that product materialize. Although our industry parallels the wood flooring and natural stone trades, we are not dealing with a manufactured product. Each project is hand-crafted on-site and goes through many environmental and mechanical challenges before the end.

While we may not be able to control many of the variables related to concrete and the polishing process, we are able to expand our threshold of personal and business limitations. We do this every day by learning from either our own mistakes or those made by others (and some can be rather costly!). Gaining knowledge from reputable resources is always a



by Brad Burns

valuable investment. Networking with other contractors and getting feedback on major issues and processes can also be extremely valuable.

The Concrete Polishing Association of America strives to fill this void in our industry. We are constantly looking at ways to better inform the contractor, architect, designer, general contractor and consumer of the benefits and limitations associated with polished concrete. We offer monthly training classes that go far beyond the basics and help teach the mechanics of the polishing process. This equips the mechanic with the knowledge to adjust to the changing variables at the job site. We have also accumulated a glossary of terms to assist with communication and understanding of the products and processes.

But that is just one aspect of what the CPAA is doing for the industry. As a business owner and polishing contractor, it is comforting for me to know that there is an independent, nonbiased organization that shares my concerns at the job site. What I mean by that is this: With the onset of "industry standards" involving procedures and methods, I don't just have Mr. I.E. Smith (I.E. stands for Internet-educated) trying to tell me, the trained professional, how to polish a floor. Instead, I have a general procedural outline to follow, designed by other quality contractors who have

been through the turmoil and job-site issues and emerged on the other side wiser and willing to share their experience. I also have a formal organization to refer to when there are questions concerning job-site procedures. The CPAA is a resource for architects, general contractors and polishing contractors to alleviate job-site practices that are detrimental to the polished concrete industry and/or the final product for the customer. The common goal of the CPAA and the contractor is to ensure the customer gets the best quality possible and the final product is properly processed to offer exceptional performance.

Contractors that I have talked to want to do their best for the customer. Some are better equipped than others in equipment, business practices, talents and experience. But nonetheless, they all want the same thing — a happy customer that will refer them for future work.

I think it's about time that we combine our efforts and resources to support the CPAA. We need to work together to ensure we have mechanical and ethical standards for everyone to follow. Together, we can ensure that polished concrete will be a viable alternative to traditional floor coverings in the future.

The CPAA is growing to meet the demands of the industry. We have already posted a Commercial New Construction concrete polishing specification on our Web site. Within a few months, we will add Residential New Construction as well as several versions of renovation specifications. Members who want to be a part of leading the industry are urged to roll up their sleeves and pitch in. The CPAA is not an organization for the elite contractor, but it helps the contractor become elite.

Where are we going? We are forging a path for others to follow that will lead to a sustainable industry.

What are we doing? What must be done to ensure the future of our industry. The only other question is, who is willing to help? ❖

Brad Burns has 28 years experience in the flooring industry. He is president of First American Floor Co. LLC, a family-owned business providing floor coatings, coverings and decorative concrete in Texas, Louisiana, Arkansas and Oklahoma. He also serves as president of the board of directors of the Concrete Polishing Association of America. He strives for quality and continued education in the concrete flooring industry. He may be reached at brad@polishinginstitute.org.

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The Importance of Managing Expectations

by Josh Vander Veen

Possibly one of the most-discussed topics in the concrete polishing industry today is managing the customer's expectations. Many an instance has occurred in which the floor has been ground, honed and polished within a hair's thickness of perfection in the contractor's eyes, only for him to be informed at collection time that it isn't what the customer had in mind. The workmanship and quality of finish may be the bee's knees, but if it isn't how the customer envisioned it, then you have not delivered on expectation.

There are many ways for you to manage the expectations of customers. Quite frankly, if you have been unable to collect on more than a few jobs due to this issue, then my advice would be that this part of your business needs urgent attention — stick this at the top of your next-30-days priorities list, because 90 days is probably too long to wait.

A portfolio of your previous completed works is a great place to start. This shows prospective customers what they can expect as a typical outcome, and it also shows what you are capable of delivering. If you don't have a lot of your own pictures, ask any of your friends in the business if you can include some of theirs, but be sure to be upfront with your customers and let them know those pictures are not your work, just an example of what is possibly achievable with their floors. Show them the ugly stuff too — there is an element of risk and they should be aware of this before proceeding.

When possible, complete an on-site mockup so the customer can make a judgment call on whether to proceed with the process. You can do these for free, or you can charge for them if the project doesn't go ahead. You determine what best suits you and your approach. This will also give you an idea of whether you wish to proceed as well as give some indication of the best way to tackle the project.

Compile a checklist for you (or your salesperson) to incorporate into your sales process. It should include things such as:

- Customer understands polished concrete and its limitations — check.
- Customer has seen our portfolio and has acknowledged level of workmanship is sufficient in reference to scope of works — check.
- On-site mockup performed as indication of expected outcome. Customer has inspected mockup and acknowledges it is an indication of expected outcome — check.

Of course there are many things you can add to the checklist to ensure that you have done your job of informing the customer to the best of your ability, clearly highlighting the possible variations in the final finish and so on. When the checklist is complete, have the customer sign it in acknowledgement.

Also include a post-completion section to the checklist and have the customer sign it upon completion acknowledging that they are satisfied with the works carried out. You can write

something yourself, but if this is not your strength, you can have a list compiled by a solicitor at a price. Whichever way you go, it is a good thing to have, as you will know you have fulfilled your part of the deal on all possible fronts and they have formally acknowledged so. This will not promise you that you will get paid in a timely manner in full. However, it will certainly bolster your position should you have any issues collecting your hard-earned payment.

Of course, there are many more tools that you can utilize to maximize your performance, but I believe there are books and seminars for that.

At the end of the day, if you feel you have sharpened every tool that you have and you are convinced the spec in front of you merits a higher price, then it is possible that the customer is dreaming. Don't be afraid to pick up the phone and speak with representatives of the companies in the specification in front of you for additional information. Their customer may have misconceptions of the cost and process involved. They also may have selected the wrong process for their budget.

Worst-case scenario, if you know the bid is too low for you to compete, walk away. Chances are, if everyone does the same thing when they see the low bid, the market will respond accordingly. ☘

Josh Vander Veen is sales/product manager, surface preparation, for Husqvarna Construction Products. Reach him at josh.vanderveen@husqvarna.com.au.



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