

# WESTERN WALL & CEILING CONTRACTORS ASSOCIATION - 10/2014

# THE RIGHT ANGLE

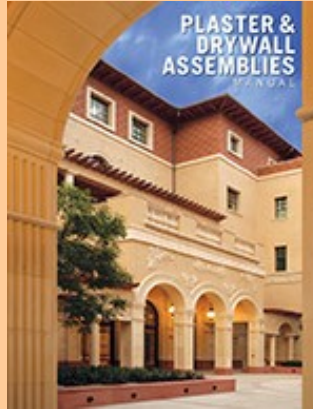


## WWCCA November Membership Meeting—Orange County

**Tuesday, November 18, 2014 3:00 pm**

Phoenix Club, Anaheim, CA

Our technical team will give a brief overview of each chapter. Learn first hand more about this manual from the authors.



## WWCCA November Membership Meeting—Las Vegas

**Wednesday November 19, 2014 4:30 pm**

Panevino Restaurante, Las Vegas, NV

12th Annual Labor Night

Labor Representatives will review the current state of industry as well as their thoughts for the future. WWCCA/TSIB unveils long awaited revised Plaster and Drywall Assemblies manual.

## WWCCA Open House

**Thursday, December 11, 2014 11:30am-3:30 pm**

WWCCA Offices, Orange, CA

Please come and join us for a great opportunity to mingle and celebrate the upcoming Holidays.

## WWCCA January Membership Meeting—Orange County

### Walter Pruter Annual Project of the Year Awards

**Tuesday, January 20, 2015 3:00 pm**

Phoenix Club, Anaheim, CA

Please make sure you have submitted your project to be recognized.

## 2015 Orange County Meetings—Phoenix Club

January 20, March 17, May 19, September 15, November 17

## 2015 San Diego Meetings—Butcher Shop

February 4, April 8, June 3, October 14

## 2015 Ron Huff Charity Tournament—Hacienda—March 2

## 2015 Coastal Classic—Sheraton Carlsbad—June 26-28

DETAILED CALENDAR

PRESS RELEASES  
LEGAL

LEGAL CORNER

NEWS

NEWS  
LEGAL

TSIB TRADE TALK

TSIB TRADE TALK

CALENDAR

# Announcements

## PRESS RELEASE

Jeannie Simpelo has accepted the position of Executive Director of the Northern California Allied Trades Association (NCAT) effective January 1, 2015, association President Marian Bourboulis announced today. Ms. Bourboulis added that Ms. Simpelo was elected by unanimous decision of the NCAT Board of Directors.

NCAT is the umbrella association for Northern California Painting and Finishing Contractors Inc. (NCPFC), and the Northern California Glass Management Association (NCGMA), which represents hundreds of union painting and glazing contractors throughout Northern California.

Ms. Simpelo is an ambitious and motivated Labor Relations professional with 21 years of experience that includes and exemplary track record of growth and technical proficiency in all aspects of collective bargaining, labor relations, human resources, and business managements.

Northern California Allied Trades  
5677 Horton Street, Emeryville, CA 94608  
Phone 510-428-9486 Fax 510-428-9489  
Northern California Allied Trades Association  
ncgma@ncgma.net

## PRESS RELEASE

Frank E. Nunes, Wall and Ceiling Alliance (WACA), Executive Director, is appointed to the ICC-ES Boards of Managers.

Pleasanton, Calif., August 13, 2014—Frank E. Nunes, Executive Director for the Wall and Ceiling Alliance (WACA), has been appointed to serve on the ICC Evaluation Service, Inc. (ICC-ES) Board of Managers. The appointment to the ICC-ES Board is a two-year, and will commence on September 28, 2014.

*"I'm confident that Frank is going to make an important and positive impact on the ICC-ES Board," said Nancy Brindkerhoff, WACA Board President, and CEO of Ironwood Commercial Builders, Inc.*

Frank has been in the wall and ceiling industry for over 34 years. In 2010, Frank was appointed by the WACA Board of Directors as Executive Director for the wall and ceiling association. Prior to working of WACA, Frank was the Executive Director of the Lathing & Plastering Institute from 198 to 2011. In addition, Frank has over 20 years of extensive experience working as a wall and ceiling consultant.

*"I'm extremely honored to have this opportunity to be part of the International Code Council ES Board, and to be able to provide a voice for our wall and ceiling community," said Frank E. Nunes.*

ICC-ES is an organization that conducts technical evaluations of building products, components, methods and materials. The evaluation process culminates with the issuance of technical reports that, because they directly address the issue of code compliance, are extremely important to both regulatory agencies and building-product manufacturers.

Wall and Ceiling Alliance/News Contact:  
Carmen Castillo/Julie Dunaway  
925-600-0475 carmen@wallandceiling.org

## E&R'S TOP 4 WALL AND CEILING CONTRACTORS IN THE COUNTRY ARE WWCCA MEMBERS AND A TOTAL OF 6 IN THE TOP 20.

| RANK |      | FIRM                                   | (\$ MIL.)<br>2013 REV. | % CHANGE<br>'12-'13 |
|------|------|--|------------------------|---------------------|
| 2014 | 2013 |  |                        |                     |
| 1    | 1    | PERFORMANCE CONTRACTING GROUP INC.     | 538.0                  | +7                  |
| 2    | 2    | KHS&S CONTRACTORS                      | 283.6                  | +9                  |
| 3    | 4    | STANDARD DRYWALL INC.                  | 156.1                  | +7                  |
| 4    | 7    | THE RAYMOND GROUP                      | 132.4                  | +44                 |
| 5    | 5    | PRECISION WALLS INC.                   | 130.8                  | +20                 |
| 6    | 6    | BAKERTRIANGLE                          | 125.9                  | +23                 |
| 7    | 3    | ACOUSTI ENGINEERING CO. OF FL          | 122.4                  | -19                 |
| 8    | 9    | CALIFORNIA DRYWALL                     | 110.3                  | +45                 |
| 9    | 8    | NATIONAL CONSTRUCTION ENTERPRISES INC. | 92.0                   | +1                  |
| 10   | **   | F.L. CRANE & SONS INC.                 | 77.5                   | NA                  |
| 11   | **   | NEVELL GROUP INC.                      | 55.0                   | NA                  |
| 12   | 12   | BAYSIDE INTERIORS INC.                 | 49.5                   | +6                  |
| 13   | 13   | GROUP BUILDERS INC.                    | 48.3                   | +10                 |
| 14   | 11   | DALEY'S DRYWALL                        | 47.9                   | -4                  |
| 15   | 15   | CENTRAL CEILINGS INC.                  | 35.1                   | +3                  |
| 16   | **   | CIRCLE B CONSTRUCTION SYSTEMS LLC      | 32.2                   | +55                 |
| 17   | **   | TARLTON AND SON INC.                   | 31.2                   | +3                  |
| 18   | 19   | TJ WIES CONTRACTING INC.               | 29.5                   | -6                  |
| 19   | **   | SHIELDS INC.                           | 29.5                   | +52                 |
| 20   | 16   | ACOUSTIC CEILING AND PARTITION CO.     | 27.5                   | -17                 |

NA=NOT AVAILABLE. \*\* =NOT PREVIOUSLY RANKED.

## PRESS RELEASE

The Mike Sweeney Press Award was created in 2012, in memory of the late Mike Sweeney who handled media relations for STO Corp. Until his death in 2011, Mike was a dedicated and enthusiastic participant in EIMA's communications committee and greatly advanced the work of EIMA. The award is given to an author and their story that shows the advantages of using EIFS as an exterior cladding system. This year the award went to our very own Albert Carrillo, Arizona Manager, for his article in Walls & Ceiling Magazine titled *Barrier vs. Drainage EIFS*. The article highlights the differences between the two systems but also stresses that both are successful, high-performance exterior wall claddings. The award was presented by EIMA President Peter Balint, to Albert at the annual EIMA held this year in Las Vegas. From left to right; Dave Johnston – CEO/ Executive Director EIMA, Albert Carrillo, Peter Balint –President EIMA/ President Dryvit Systems Inc



# Legal Corner

## NEW CALIFORNIA LAW REQUIRES TRAINING TO PREVENT WORKPLACE BULLYING

California employers will soon be required to train supervisory employees on the subject of workplace bullying. On September 9, 2014, Governor Brown approved a bill that requires employers to add this subject to the biennial anti-harassment training they are already required to provide to supervisory employees.

Currently, California employers with 50 or more employees must provide training to all supervisory employees every two years regarding prevention of sexual and other unlawful harassment, and prevention of unlawful discrimination and retaliation in the workplace. Starting January 1, 2015, the training will also have to address the prevention of “abusive conduct.”

At first blush, employers might not view the addition of such training as particularly significant. One would expect employers with anti-harassment policies to include “bullying” or “abusive conduct” as examples of prohibited workplace conduct. But, in fact, the anti-bullying training portends the addition of a new and potentially troubling dimension to an employer’s legal obligations in governing the work environment.

Under the new law, the definition of “abusive conduct” is very broad. It includes “conduct of an employer or employee in the workplace, with malice, that a reasonable person would find hostile, offensive, and unrelated to an employer’s legitimate business interests.” Examples of abusive conduct include “repeated infliction of verbal abuse, such as the use of derogatory remarks, insults, and epithets, verbal or physical conduct that a reasonable person would find threatening, intimidating, or humiliating, or the gratuitous sabotage or undermining of a person’s work performance.” A single act, however, does not constitute “abusive conduct,” unless it is especially severe and egregious.

But more significant is the next potential development in the field of employment law. Standing alone, the new law is somewhat odd because it requires training to prevent “abusive conduct,” but it does not outlaw the conduct itself. It is likely that California employers will soon be faced with a new law that actually prohibits “abusive conduct” in the workplace. Such a law, if enacted, would represent a significant change for employers. Under existing law, California employers are required to prevent harassment that is “based on” or “because of” a legally-protected status or characteristic, e.g. race, gender, religion, etc. However, it has long been held that such laws are not intended to guarantee general workplace civility, and that employers cannot be subject to civil liability merely because employees allege to have been subjected to generic harassment or other uncivil conduct. Allegations of generic harassment, to the extent they result in any employee injury, have been subject to the sole and exclusive remedy of workers’ compensation. A new law that uncouples abusive or harassing conduct from the reasons or motivations for such conduct would be transformative. It would create a workplace civility law and open a new legal basis for civil actions against California’s employers.

Undoubtedly, most employers already prohibit conduct that is covered by the new training law. Yet given the inherent vagaries of what a “reasonable person” might find “threatening, intimidating, or humiliating,” or what constitutes “gratuitous sabotage or undermining of a person’s work performance,” it is quite another matter to attach potential civil liability for failing to prevent such conduct. It raises the specter that interpersonal or other types of common workplace disputes, coupled with the mere allegations of “abusive conduct,” could form the basis of claims in civil litigation – a very unwelcome prospect for California employers.

## NEW CALIFORNIA LAW—continued

Whether such a new law is enacted and its scope remain to be seen. In the meantime, California employers should make note of the new training requirement and implement changes to their harassment policies and training programs to bring them into compliance with the new law. Employment counsel at Hill Farrer can provide assistance with updating the content of your current harassment training program to comply with the new law.

## MINIMUM WAGE INCREASE EFFECTIVE JULY 1, 2014-WHAT YOU NEED TO KNOW

Today, the California Supreme Court issued its long-awaited decision in *Iskanian v. CLS Transportation Los Angeles, LLC*, regarding the enforceability of class-action waivers in arbitration agreements. The Court finally acknowledged precedent from the United States Supreme Court and held that the Federal Arbitration Act (FAA) preempts any state law that would preclude an employee from waiving the right to bring a class-action proceeding in arbitration. As a result, employers can require employees to individually arbitrate any claims that are typically asserted on a class-wide basis, such as relief for alleged wage and hour violations. The Court also rejected the argument that the type of class-action waiver at issue in *Iskanian* was unlawful under the National Labor Relations Act because that statute’s general protection of concerted activity does not bar class-action waivers.

Despite ruling that class-action waivers are enforceable, the Court did hold that employees cannot be required to waive the right to bring representative actions under the Private Attorneys General Act of 2004 (PAGA). Under PAGA, employees can seek civil penalties from the employer for certain Labor Code violations, although the majority of proceeds are paid to the state. However, PAGA actions may still be arbitrable where the parties express a preference to resolve such claims through arbitration, and other approaches may exist to lessen the significance of the Court’s PAGA holding.

On balance, the *Iskanian* decision is welcome news for the state’s employers, which have been beleaguered in recent years by costly and disruptive class-action litigation. In light of the Court’s ruling, we strongly recommend that employers with arbitration policies have counsel review them immediately to confirm that they are governed by the FAA, and that they are drafted to maximize the potential benefits afforded under applicable law. Any employers considering whether to implement arbitration policies should recognize the benefits of doing so, especially now that class-action waivers are enforceable.

If you are interested in reviewing your arbitration policy, or implementing such a policy, please contact your Labor and Employment counsel at Hill Farrer. We are specialists in crafting cutting-edge, enforceable arbitration agreements that meet the needs of our clients.

Also, clients and other interested employers are invited to attend our Firm’s Annual Employment Law Seminar, which will be held on October 21, 2014. One of the topics of discussion will be the *Iskanian* decision and what employers can do to keep their arbitration agreements up to date. The seminar will be held at DoubleTree Suites, 2085 S Harbor Blvd, Anaheim, California 92802. Anyone interested in attending should contact Sara Mizuno at (213) 621-0825 or [smizuno@hillfarrer.com](mailto:smizuno@hillfarrer.com).

# NEWS



## SINKING UNDERGROUND THE GROWING INFORMAL ECONOMY IN CALIFORNIA CONSTRUCTION

A report recently released by the Economic Roundtable highlight the growing trend in miss classification of workers and the financial drain this disturbing trend has had on the state of California. The Economic Roundtable is a nonprofit research organization that collects and analyzes critical data that impact social, economic and environmental conditions. Founded in 1983, the Los Angeles board of supervisors voted in 1991 to make the roundtable an independent research group and focus on building a sustainable economy which is inclusive of all communities.

The Roundtable are experts in compiling complex information into clear objective reports for public officials and the overall community. The report "Sinking Underground" is just another example of a job well done after years of hard work. The report is being distributed around the state and clearly demonstrates that signatory contractors, like WWCCA contractors, are part of a solution to a growing problem. The report has received praise from influential leaders:

"Safeguarding working people and providing a level playing field for honest employers to prosper is essential for the vitality of California's economy. A just day's pay for a hard day's work should be a reality in every workplace. Information from this report identifying abuses in the construction industry is a valuable tool for protecting workers as well as employers who play by the rules."

— **JULIE A. SU**, California Labor Commissioner

"The abuses uncovered in this report are both unfair and very costly for America. In addition to chopping away the rights of workers, unreported work and misclassified work steal away the revenue needed to fund public investments like Medicare, education and infrastructure that build our economy and security in the long-run. Employers who commit these abuses are stealing not just from their workers, but from the nation at large."

— **ROBERT MCINTYRE**, Director, Citizens for Tax Justice

To download a free copy, go to [www.economicirt.org](http://www.economicirt.org)

## CHARTER CITIES

If you have not heard, Charter Cities are the new craze in California. A city that becomes a charter city is governing itself by its own rules rather than by state, regional or national laws. Examples of local charter cities are Newport Beach, San Bernardino and Irvine. Charter cities are allowed to establish rules and regulations with regard to many areas of city management, including pay scales for city managers, council, etc. The city of San Bernardino re-structured salaries, mostly upward for high ranking managers and then followed by filing for bankruptcy. This should sound familiar as it also occurred in the city of Bell back in 2010. Ironically, the city of Bell was also a charter city.

The primary fight for a municipality to become a charter city is to avoid the cost of prevailing wage. While other reasons are often cited, this is the real driving force. Attending any city council meeting where the Charter city debate is on the agenda, the city manager will point to the lower cost of construction if they could just do away with prevailing wage rules. Most city managers have no idea how important apprenticeship is and using a trained work force is less costly in the long run. While a cheap bid looks enticing, the added final cost of time delays and construction defects generally outweigh any initial "low bid" savings. The excuse that inspectors will catch any of those defects should take to the owners of the Harmon tower in Las Vegas. The Harmon project was halted in 2008 for suspected defects in structural design and construction, the project was inspected regularly and never completed, it will be torn down soon. This was not even a case where the super low "charter city" bid was taken, and it should be a lesson to cities.

### SB7 to the rescue

Senate Bill 7 was passed and codified in 2013, the new law was to allow the state to have some voice on how funds they provide to the city would be spent. Many feel it is a law designed to prevent municipalities from destroying themselves and protect the public interests with regard to fiscal responsibility. The new law did not prevent cities in becoming charter city or even eliminating the prevailing wage rules. They are free to take the cheapest of the cheap bid they could get, but with a caveat: Not on state funding. The state would withhold funding dollars on projects where prevailing wage rules, which includes apprenticeship, safety training and mentorship, are ignored.

The Charter city proponents have always maintained it is not about prevailing wage rules, but about the right to govern themselves as they see fit, not what the state of California dictates. It took less than six months and the truth has become abundantly apparent. Several charter cities have banded together and filed a lawsuit against the state of California. They state that SB7 "unconstitutionally interferes with the reserved right of the electorate to adopt and amend city charters in order to govern the municipal affairs of a charter city as established in Article XI sections 3 and 5 of the California Constitution." In short, they want the money, but not to play by the rules established to get that money. While the state of California is not perfect, do we really want the city of Bell or San Bernardino running the show with no oversight?

# NEWS/LEGAL

## LIVING IN PARADISE

Mention California in regards to construction and most consider California a good test for earthquakes, but not weather. The phrase “that may work in California, but won’t work here”, is common in other parts of the country. There is some truth to that claim, but it is also misses other important criteria. While Southern California does not have the heavy snow of Anchorage, the steady rain of Seattle or the brutal heat of Phoenix. We do get significant temperature swings. Materials expand and contract with swings in temperature, and it is how fast the swing occurs that create a majority of the temperature problems. The most impactful swings are in the 40 to 90 degree range. Materials at 32 degrees do not contract much more, if any, when they hit minus 10 degrees. Conversely, materials at 100 degrees do not expand significantly more at 140 degrees. Consider that winter in Southern California can have 80 degrees during the day, and the temperature drop the low 40’s in a few hours. That change is dramatic and far more impactful than a high of 40 degrees dropping to zero. All building materials expand and contract with temperature swings and depending on the material we need to aware of what materials need a little extra attention. Often times the contractor is blamed for what is the physics of nature. The extra stress on materials, even in paradise, is a prime reason for control and expansion joints. When a perceived failure occurs, such as a crack or separation of materials, some owners start looking who to blame. Did the designers design it correctly? Did the contractor install it correctly? Where the materials faulty or inappropriate? After all, here in California, we have no weather issues.

Another and more relevant issue to those of us in Southern California is the humidity. While the swing in temperature is important, the swing in humidity may be more impactful than previously thought. This is where few can compare to Southern California. The problem that is somewhat unique to Southern California is combination of temperature swings are combined with the humidity swings. This is most apparent on materials classified as hydrophilic. Hydrophilic means materials that can absorb moisture, such as drywall, plaster and wood.

### Marine Layer:

Here in movie land, we have what is known as the marine layer. This is a temperature inversion somewhat unique to California. The inversion or marine layer is created by warm land mass air being cooled by the cold waters of the Pacific Ocean. The cool air becomes denser than the warmer air above, and becomes trapped along the coastal areas. The marine layer can thicken and a through a self-generating type of turbulence, force the marine layer to move inland. This action can result in a kind of wet fog along the coast. The relative humidity can be high enough to produce condensation on everything. This moisture laden air flows onshore nightly and permeates everything hydrophilic, including plaster, drywall and other building materials. As the warm morning sun comes out, the moisture is quickly driven off.

This change in humidity can have a dramatic effect on construction, particular sensitive finish materials. The swing in relative humidity can be from a high 80% to a low of 35% in a just hours.

This does not even account for our famous Santa Ana winds. These dry hot winds drive moisture out of everything in a hurry.

The relative humidity during the Santa Ana’s is often below 10%. If you think all this has a minimal effect on buildings, you would be mistaken and the testing at Monash University in Melbourne, Australia proves it. In the 1990’s, a group of researchers and construction experts from Australia and California were curious as to why certain regions experienced more cracking and crowning in drywall applications. Even when the best industry practices for installing drywall was followed, these paradise regions experienced problems with drywall cracking. The research included mock-ups that were exposed to swings in temperature and then swings in relative

humidity. Surprisingly, the swings in the humidity had the far greater impacts than previously thought possible.

### **Paradise Lost:**

While most in California consider our insurmountable amount of red tape as the big challenge, could be the perception we live in paradise? Especially at a time when designers and owners have been trending toward more smooth finishes and even higher levels of perfection. We at the TSIB are trying to keep abreast of the newest and latest trends, what works and what does not.

## GOOD NEWS FOR EMPLOYERS LOOKING TO AVOID CLASS ACTIONS

Today, the California Supreme Court issued its long-awaited decision in *Iskanian v. CLS Transportation Los Angeles, LLC*, regarding the enforceability of class-action waivers in arbitration agreements. The Court finally acknowledged precedent from the United States Supreme Court and held that the Federal Arbitration Act (FAA) preempts any state law that would preclude an employee from waiving the right to bring a class-action proceeding in arbitration. As a result, employers can require employees to individually arbitrate any claims that are typically asserted on a class-wide basis, such as relief for alleged wage and hour violations. The Court also rejected the argument that the type of class-action waiver at issue in *Iskanian* was unlawful under the National Labor Relations Act because that statute’s general protection of concerted activity does not bar class-action waivers.

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# CONTINUOUS INSULATION (CI): MYTH OR REALITY?

## Bryan Stanley, CSI, CEP

A question asked more and more frequently is, "You've been telling us about the energy codes for almost four years now. But I'm still not bidding or seeing many, if any, projects incorporating 'CI.' If it's part of the code, why aren't we seeing more?"

At the time of writing this article I am preparing for a panel discussion titled "Continuous Insulation Projects Are Heating Up." The panel's goal is provide to the wall and ceiling community a better understanding of what's driving the need for continuous insulation and what are the common issues facing the construction community today. With national and California energy codes becoming more stringent "on paper," the 2008 California Energy Code enacted in January 2010 was to have a direct impact on exterior cladding systems on commercial construction. To cut to the chase, continuous insulation would be specified — particularly on metal-framed exterior walls. Now with the 2013 Energy Code set to go into effect July 1, 2014, low-rise residential construction will also be affected.

As a passionate student of the energy codes (sounds silly but I really like studying this stuff), I have my opinions, but I'm not far off from the facts. However, before I explain, we should start with the basics or at least what I feel is a necessary understanding for the wall and ceiling contractor.

Two baseline terms to start with are U Factors and Climate Zones. Once they are discussed then we can tackle the world of CI.

### U FACTOR VS. R VALUE

Most of us in the construction business are aware that an R Value is a measurement of a product's (insulation) performance or how it slows down heat flow. *The higher the "R," the better the performance.* The U Factor (opposite of R value) measures the performance of a wall assembly and how much energy (heat) flows through it or is lost. This means that the lower the U factor, the better performance of the assembly.

### CLIMATE ZONE

We need to know U Factors because every climate zone in the state has been assigned a maximum U factor. National energy codes have placed the country into eight different climate zones. Every climate zone is assigned a maximum U Factor. For example, a wall built in National Climate Zone 3 must have a U Factor not to exceed .084. Many Climate Zones in colder areas have a more stringent U Factor of .064 (*remember: the lower the number, the better the energy efficiency.*)

Now when dealing with energy codes in our beloved state (yeah it's a mess but I wouldn't live anywhere else), the California Energy code has assigned the state our own 16 climate zones. *If you are not yet confused then give me a minute.* If you are doing a "federal" project in CA, then you are adhering to the International Energy Conservation Code.

6. Let's get back to understanding climate zones. The good news is you don't have 16 different climate zone requirements to deal with. We're going to

simplify things by referring to TSIB's technical bulletin 90.501 "California Climate Zones & Prescriptive U Factor Assemblies". This 90.501 bulletin is a quick reference "cheat sheet" allowing you to quickly get the required maximum U Factor for each project's location. Technical bulletin 90.500.00 will help regarding federal projects or any projects outside of California. Both Bulletins can be found at [www.tsib.org/technical.shtml](http://www.tsib.org/technical.shtml).

### CONTINUOUS INSULATION – PER THE CALIFORNIA ENERGY CODE

*Continuous Insulation: insulation that is continuous across all structural members without thermal bridges except fasteners and service openings. It is installed on the interior or exterior, or is integral to any opaque surface of a building envelope.* Sounds pretty straightforward, don't it?

### TWO METHODS OF COMPLIANCE: THE PRESCRIPTIVE AND THE PERFORMANCE METHOD

One method of complying with a maximum U Factor in a climate zone is known as the prescriptive method. The Energy Code supplies baseline U Factor requirements. With framed walls, the U Factor is achieved by using a combination of cavity insulation and continuous insulation.

A companion to the energy code "Reference Appendices" gives you options or combinations of Cavity Insulation and CI to achieve the U Factor. Tables JA4.3.1 "U Factors of Wood Framed Walls" and Table JA4.3.3 "U Factors of Metal Framed Walls For Non-Residential Construction" are particularly helpful. The California Energy Code and Reference Appendices can be found (free download) at <http://www.energy.ca.gov/title24/2013standards/>. The R Values listed in the tables "shall be equal to or greater than the R Value published. No Interpolation is permitted."

The performance method is more complicated and normally performed by a mechanical engineer. However this "alternative calculation" allows tradeoffs when we compare the overall performance of a project.

In plain English, the engineer uses California energy code-compliant software (CEC-Compliant software can be found at [www.energy.ca.gov](http://www.energy.ca.gov)) and compares the energy use of the different building components. This comparison allows for tradeoffs to occur.

For instance, the building HVAC system may be 2 or 3 times more efficient than the prescriptive requirement. The computer software basically averages out the energy use of the building, which may allow for a less energy-efficient wall envelope design.

### WHAT'S COMING JULY 1, 2014?

There are significant changes in store with the implementation of the 2013 California Energy Code. Fortunately for the wall and ceiling contractor only 3 changes will affect our scope of work:

mandatory insulation requirements  
air barrier requirements  
low-rise residential U factor requirements

### 1. Mandatory Insulation Requirements

Insulation requirements will now be required on commercial and residential walls regardless of what climate zone the project is in.

Residential mandatory rules are straightforward. A minimum of R 13 cavity insulation shall be used with walls built with nominal 2"x4" wood framing. R 19 insulation is required when nominal 2"x6" wood framing is used (this information can be found in section 150.0.c in the California Energy Code).

High-rise residential and commercial requirements are a little tricky so I will try to simplify it (actual definitions can be found in California Energy Code Section 120.7). All wood-framed construction requires a minimum R 11 cavity insulation. Metal framed walls will require R 21 cavity insulation and R 4 "CI."

### 2. Air Barrier Requirements

The California Energy Code has established a maximum air leakage rate (0.04 cfm/sf) in Climate Zones 10-16 for High-Rise Residential and Commercial Construction. For more information please refer to Technical Bulletin 1.003 on the WCC website ([www.wccinfo.org/](http://www.wccinfo.org/)).

### 3. Low-rise Residential U Factor Requirements

The good news (*there is some finally!*) is the California Energy Code Council has made a state-wide prescriptive U Factor requirement of .065. This is where the good news ends. According to Table JA4.3.1., in the Reference Appendices, there are 3 ways to comply. The first 2 require cavity insulation and "CI" R13 + R5 CI or R15+ R4CI. The third option does not use "CI," but there is a catch. Nominal 2"x8" wood studs with R19 insulation will achieve the .065 U Factor. A 2"x6" wood stud with R19 cavity insulation 16" on center only achieves a U Factor of .074. Surprisingly, R21 insulation and 2"x6" wood studs just miss the mark with a U Factor of .066. "CEC approved compliance software, however, may determine the U Factor for any amount of continuous insulation or for unusual construction assemblies". The statement means that systems such as "advanced framing" that utilize 24" oc framing can be verified to meet energy compliance.

### WHAT'S THE QUESTION AGAIN?

Now that you have read everything about the energy codes that you didn't want to know, let's go back to the question of, "Why aren't we seeing more projects with continuous insulation?" My response is what I call "The Perfect Storm" (NOT a reference to my least-favorite movie of all time).

### Storm Number One: The Great Recession

At the time of the new energy code enactment, we were in a severe recession. Countless projects were put on hold. To this day, some projects are still being built under the 2007 Building Code. The recession also affected code-enforcement groups.

## CONTINUOUS INSULATION (CI): MYTH OR REALITY?

Bryan Stanley, CSI, CEP - continued

For instance, for CALBO (California Office of Building Officials), membership was severely diminished. Local jurisdictions suffered with hundreds of layoffs, and workloads for the remaining officials jumped. Then the lack of funds meant a lack of training. State building codes may change, but it's still up to the local building official to enforce the code — but without the proper training, how could the code be enforced? Attempts to fix this problem didn't have the intended effect, which can be seen in the midst of...

#### Storm Number Two: The Recovery and Reinvestment Act of 2009

One intention of this act was to pump money back into the system in an effort to boost the economy and deal with sky-high unemployment rates. The act also included a federal incentive-laden program to promote states to increase their energy codes. Coincidentally, Governor Arnold (I can't spell his last name and neither can spell-check) went on to mandate the 2008 Energy Code to go to effect by January 1, 2010. Software programs were not finished and very little training at the local enforcement level took place.

#### The issue: Life safety versus saving energy

I believe most of us would agree with this statement unless you like to tie yourself up to a tree for two months to "save" it. Let's face it, if we find ourselves in the unfortunate circumstance of being immobile in a hospital, we would all agree we would want that hospital built to withstand earthquakes and protect us in case of a fire. It may be another coincidence, but most California projects labeled "institutional" are exempt from the energy codes. If an institutional project has a bed in it, then it's exempt. This includes hospitals and even prisons.

#### WHAT CI OPTIONS ARE AVAILABLE FOR THE PLASTERING CONTRACTOR?

##### Exterior Insulation Finish Systems (EIFS)

On the surface EIFS is the perfect continuous insulation system. Introduced to the US back in 1969, the national commercial industry grasped the lightweight and design-friendly system (a great example is the Las Vegas Strip). The eastern United States turned to EIFS as alternative to brick and portland cement plaster on residential projects. However, home failures in the southeast back in the mid-1980s triggered massive lawsuits and turned EIFS into a bad four-letter word. Insurance companies were not providing liability insurance and the design community treated EIFS like it was the "Great Plague."

Energy code changes are forcing the design community to reevaluate EIFS. Look at the improvements: thousands of hours of testing, and as of 2012, EIFS is now part of the International Building Code. EIMA (EIFS Industry Manufacturer's Association) has rebounded from decades of defending EIFS to promoting it "as the only true CI system."

##### Insulated One Coat Stucco System

One-coat stucco is another option for designers and contractors to consider for energy efficient claddings. One-coat stucco has been a popular and successful cladding for residential construction throughout the South-

western United States for over 40 years. This system was developed in the southwestern United States during the 1970s energy crisis. New requirements for more R-Value in the exterior wall cavity meant builders needed to go from traditional 2"x4" studs to 2"x6" studs in order to make room for thicker insulation. The plaster industry responded to the need and created the "one-coat stucco system" which allowed builders to continue using the "two-by-four" wood studs and meet the higher R-Values set by the energy code. The one-coat stucco system was initially designed to be placed over one inch of tongue and groove rigid foam. The rigid foam added the required R value.

One-coat stucco is a proprietary system incorporating blended cement typically applied over a rigid EPS foam sheathing board. The systems are generally considered by plaster bureaus more appropriate for residential and low-rise commercial projects. One-coat stucco has had good success when applied per manufacturer's recommendations and with an approved finish coat. For more information about one-coat stucco, visit [www.nocsa.org](http://www.nocsa.org).

##### Specifying Insulated One Coat Stucco

The one-coat system is actually a two-coat process: the base coat and the final or "finish" coat. Acrylic or elastomeric finishes can be used to add performance and crack reduction. The system is generally less in cost per square foot than EIFS and can be less than conventional three-coat stucco (in the right market). The following are recommendations when specifying "one-coat stucco":

- One-coat stucco is not recommended for smooth or fine sand finish textures.
- 1 ½ inch x 17 gauge woven wire is preferred over the minimum 1 inch x 20 gauge woven wire.
- One-coat stucco should be limited to Type V construction.
- The nominal thickness of the one coat base should be 1/2 inch rather than the code minimum 3/8 inch.
- One-coat stucco may be applied over gypsum sheathing, rigid foams or wood based sheathings.
- Follow all manufacturers recommendations
- A Water-Resistant Barrier (WRB) compliant with the manufacturers' recommendation should be placed behind the rigid foam sheathing.
- A Water-Resistant Barrier (WRB) compliant with manufacturers recommendations should be placed over gypsum and wood based sheathings. Attach lath/wire approximately six to seven inches on center along framing supports.

Detailing for one-coat stucco is similar to conventional three-coat cement stucco. Flashings must be designed and installed to minimize water entry and allow for incidental moisture to "weep."

The degree and type of flashing will depend largely on the type of building, region of the country and exposure to water. It is advised to contact a local reputable source for best practices in that region of the country with re-

gard to one-coat stucco. This would include plaster bureaus, suppliers, manufacturers and established contractors with a proven track record.

One more thought about one-coat stucco; the State of California has modeled its energy code requirements for metal and wood-framed walls with one-coat stucco as the cladding.

##### Insulated Three-Coat Plaster/Stucco Assembly

Back in 2010 when the 2008 California Energy Code went into effect there was a genuine fear that three-coat plaster over metal stud framing would go the way of the dinosaurs. If and when the energy codes were enforced, generic three-coat would be in jeopardy. The Wall and Ceiling Conference (WCC) published a brochure called "The Energy Code and Plaster Assemblies." The brochure offered 3 different generic assemblies using CI with three-coat plaster. The options were introduced to offer a "stop gap" until new systems could come on the market.

Stucco, EIFS, insulation and even plaster accessory manufacturers are introducing new systems that are tested and meet fire codes. However, if a system or assembly deviates from the code, the system should have a code-approved evaluation report.

It remains to be seen what system or assembly will be the most prevalent. Two concerns will be addressed: *complexity* and *cost*. Regarding *complexity*, the system should be as simple as possible in order to cut down on installation errors. *Cost* will be the ultimate factor. Among its many positive features, three-coat plaster has always been a very cost-effective cladding. The rising costs of a three-coat plaster and stucco systems take away from this advantage.

#### KEEP PLASTERING CONTRACTOR BUSY AND OUT OF TROUBLE

The last item to leave you with is, "What does the plastering contractor do if they know the project doesn't meet the energy code?"

If the project is "design build" or "design assist," the contractor should raise the question through the RFI process and proceed as directed. The verdict is still out when it comes to "plans and specs" projects. However, this is just one of many future issues with the energy codes yet to be resolved.

As we have seen, CI does exist. It is a complicated reality, but not a myth. And only by continuing to educate ourselves and further understand the options available to plaster contractors are we able to use these options to the best of our abilities, to best benefit our clients and our communities.

2009 International Efficiency Conservation Code  
ibid  
2013 Reference Appendices Table JA4.3.1  
Reference Appendices: Table JA4.3

# November



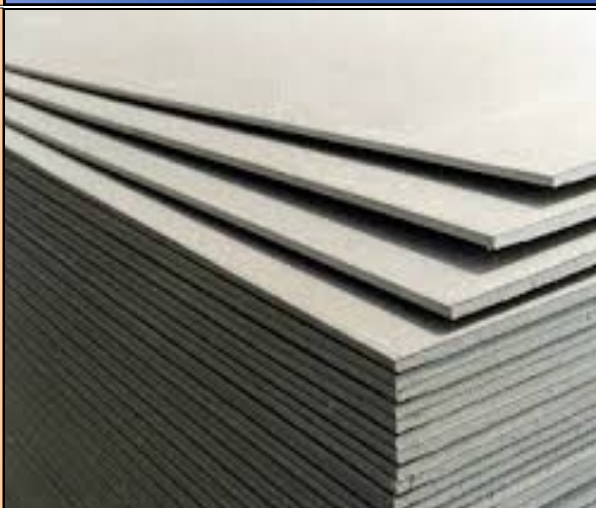
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# December



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# January



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|-------------|---|
| November 11 | Veterans Day  |
| November 18 | WWCCA Membership Meeting—Phoenix Club                       |
| November 19 | WWCCA Nevada Membership Meeting—Las Vegas                   |
| November 27 | Thanksgiving Day  |
| December 11 | WWCCA Open House-WWCCA Offices—Orange, CA                   |
| December 17 | First Day of Hanukkah                                       |
| December 21 | First Day of Winter   |
| December 25 | Christmas Day   |
| December 29 | Kwanzaa Begins  |
| January 1   | New Years Day   |
| January 19  | Martin Luther King Day                                      |
| January 20  | Walt Pruter Project of the Year Awards Meeting—Phoenix Club |