

TechTalk



VOL 2- JUNE 2023

HAPPENINGS

SMA MARCH MEMBERSHIP MEETING

The SMA membership meeting was good and to see SMA members again was great. Jacob Belk (economist) gave a very informative presentation on the economy and the construction industry. While it was not what we wanted to hear, it could have been worse. His prediction was based on data from a variety of sources. **OVERVIEW:** Home sales will likely continue to fall. Mr. Belk explained that home builders once used a “buydown” method to combat higher interest rates, but that will likely stop as rates climb above 6% and little signs of it coming back down. He stated most people are stuck in their current home and new buyers are simply priced out of the market. Many could not afford their current home, this means the remodeling industry will boom.

The virtual meeting for out of areas members was well attended. The SMA is working on making the virtual meetings better in the future.

CAVEAT: CEMENT PLASTER CEILINGS

Cement plaster has been used for ceilings for schools, hospitals and other structures for decades and has had very few issues. It is industry practice to attach the lath to the underside of the joist or a suspended cold-rolled channel system (CRC). Both assemblies were prescriptive by code and meet ASTM standards. The last few decades witnessed the growth of another ceiling system, DAS or Direct Applied Systems. The DAS is a high-performance glass mat gypsum sheathing or cement board attached to the underside of joists or furring. The panel is skimmed with polymer enriched cement and a fiberglass mesh is troweled into the wet skim coat. The finish coat, typically an acrylic product, is then applied. The DAS system is proven to provide equivalent fire protection, cracks

SMA STUCCO QUIZ:
EACH QUESTION HAS AN SMA TECH BULLETIN FOR A DETAILED EXPLANATION

1. The 2021 International Building Codes mandates rainscreen for exterior cement plaster
 - a. Only on commercial work
 - b. Only on residential work
 - c. With wood sheathing in 2 Climate Zones
 - d. With wood sheathing in all Climate Zones
2. The SMA generally does not recommend elastomeric coatings for cement plaster on framing because
 - a. of vapor drive issues
 - b. lack color choices
 - c. violates ASTM C 1063
 - d. Paint companies are not SMA members.
3. If a designer wants a sheathing and water-resistant barrier on a soffit, which system does the SMA recommend?
 - a. Three-coat cement
 - b. One-Coat stucco
 - c. One-Coat with EPS foam
 - d. A cement or glass mat faced gypsum board system

and weighs less than three-coat cement plaster ceilings. The SMA supports the use of DAS for ceilings as well as three-coat stucco ceilings.

NEW TREND?

The SMA is seeing a resurgence of three-coat cement plaster ceilings. However, designers want to add a sheathing. While this sounds harmless, it can have issues. Cement plaster applied to a metal lath ceilings is pushed up through the small openings of the metal lath. If pushed with sufficient pressure, the cement fully keys to the lath through the openings (see picture) . Should the plasterer fail to push the cement with sufficient pressure to fully key, the lath flexes slightly back down and the plaster falls off. This is a self-policing method to ensure the cement is fully keyed to the overhead lath. This is critical as ceilings with plaster are under gravity pressure 24 /7. This method has worked for decades.

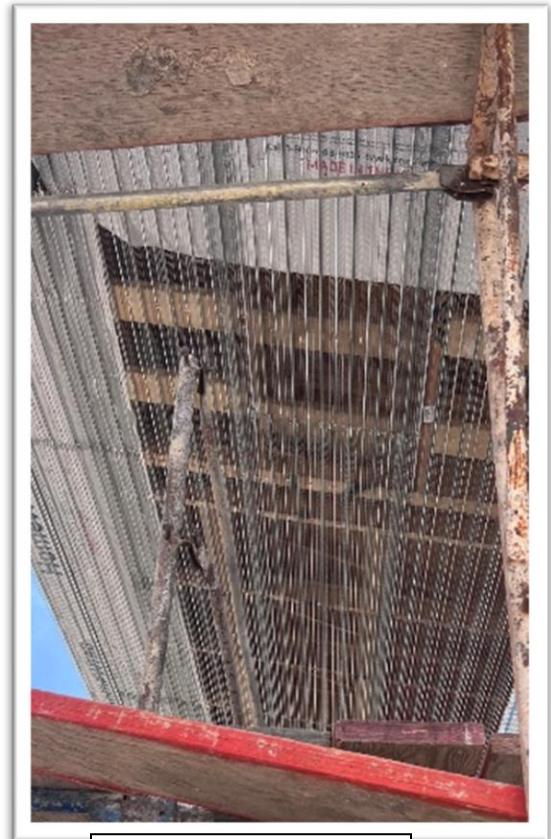
Putting a “backing” behind the lath on ceilings defeats the self-policing effect for three reasons. The lath does not bend or flex with a backing. The backing will also help hold the cement, temporarily. The backing removes the space to allow cement to key to the lath.

More evidence supporting the proven industry practice is found in the building code. One-hour fire rated ceilings with cement plaster ceilings are listed without a sheathing, unlike walls that allow for a sheathing to improve fire-ratings. The old Uniform Building Code expressly omitted backing for lath on ceilings.

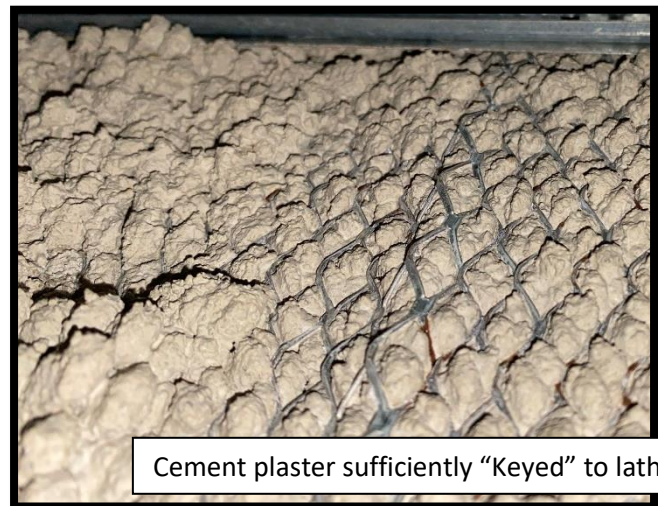
CAVEAT:

SMA recommends being careful applying cement plaster to ceilings with a lath applied to sheathing. Should an SMA contractor be directed to apply cement plaster to ceiling with lath over a sheathing or backing, it would be advised to talk about it with the design team. In some occasions it could be considered acceptable. Contact the SMA for more information.

The SMA typically will strongly recommend the designers use a proven DAS with glass mat gypsum or a cement board. SMA will write letters for members.



Lath on Open Joists



Cement plaster sufficiently “Keyed” to lath

Science, Code and Liability

The Uniform Building Code specially stated that omitting a water-resistant barrier behind cement plaster on ceilings was permitted. Section 1707 # 6 *“Weather Protection may be omitted behind Portland cement plaster applied to undersides of roofs and eaves”*.

The International Building Code supplanted the Uniform Building Code and simply left this language out. Leaving some to believe since there is no mention now, it must be required on cement plaster

That plaster ceiling needs an air barrier (sheathing) is incorrect per the 2021 International Energy Conservation Code

The need for an air barrier is covered by the International Energy Code (IECC 2021) Section C402.5.1.3 item number 12 states cement plaster at 5/8-inch thickness is a generic code compliant air barrier. 5/8-inch cement plaster is also one-hour fire rated.

A large home builder recently called the SMA and was concerned with a cement plaster ceiling not having backing. The SMA explained the concerns already noted in this article. It was agreed to allow the plasterer to apply cement plaster with no sheathing on the ceiling.

WHAT DOES THE SMA DO FOR STUCCO ?

The SMA handles many calls and emails on cement plaster issues from all over the USA. Designers and homeowners are looking for help or guidance on lath and plaster regarding product selection, details, code as well as fire and sound ratings. The SMA has an extensive library on lath and plaster data, including fire and sound ratings. In addition, letters on SMA letter head can carry weight with code authorities. The code and standards cannot cover every issue, the SMA helps with explaining established industry practice. Troubling shooting stucco issues is also popular. Be it cracks, painting or color issues, building owners want someone to trust. The SMA helps calm their fears and provides unbiased assistance, not to sell, but help them on their way. It is clear the SMA is becoming the lath and plaster hotline to the industry.

IECC C402.5.1.3 Materials

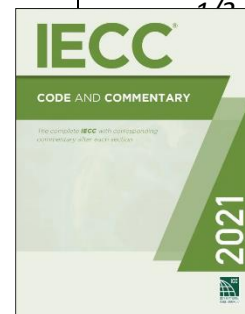
Materials with an air permeability not greater than 0.004 cfm/ft² (0.02L/s x m²) under a pressure differential of 0.3-inch water gauge (75 Pa) when tested in accordance with ASTM E2178 shall comply with this section. Materials in items 1-16 shall be deemed to comply with this section, provided that joints are sealed, and materials are installed as air barriers in accordance with manufacturer’s instructions.

Item 12. - A Portland cement/sand parge (plaster), or gypsum plaster having a thickness of not less than 5/8 inch (15.9mm)

C402.5.1.4 Assemblies

IECC Approves only three generic assemblies.

1. Concrete masonry walls
2. Masonry walls of clay or shale nominally 4 inches wide
3. Portland cement plaster (stucco) not less than 1/2 inch (12.7mm) in thickness



OSHA – NEW IBI RULE

In January of 2023 OSHA published a memorandum to Compliance Officers on the revised IBI (Instance by Instance) ruling. OSHA felt stronger measures were warranted to curb repeat or willful violations to the safety of their workers and OSHA regulations. Simply stated, the Compliance Officer now has the right to cite an employer for multiple violations on the same issue. An example would be if an employer failed to install proper guards on his machines, historically they might get one citation. If in the judgement of the Compliance Officer the violations were flagrant or due to willful neglect, they may now impose the Instance-by-Instance (IBI) rule. This allows them to cite each machine or worker. In addition, they can return the next day and recite again.

The memorandum goes on to advise on what areas Compliance Officers should be targeting. These areas are falls, trenches, machine guards, respiratory protection, permit for confined spaces, lockout tagout and other-than-serious violations specific to record keeping. The new penalty amounts are \$15,625.00 violation and willful or repeated violations are \$ 156, 259.00. This shows OSHA is serious.

Contractors would be well advised to review all company safety protocols and verify employee safety practices are being followed. Employers should also keep their copy of their SMA Exposure Control plan for Silica Dust on site and check on Competent Person training on our SMA website.

OSHA's Mission

With the Occupational Safety and Health Act of 1970, Congress created the Occupational Safety and Health Administration (OSHA) to ensure safe and healthful working conditions for workers by setting and enforcing standards and by providing training, outreach, education and assistance.



SAFETY and NEW EMPLOYEES

The SMA has created a new safety video for new hires. The intent was to create a short video for workers unfamiliar with construction and the potential dangers. The video is 10 minutes long and not an OSHA 10 or 30 class. However, it does warn the employee to stay alert and be safe. Persons Protective Equipment (PPE) is covered as well as the caustic nature of cement and what is needed to protect their skin. Scaffolding is discussed to advise workers to inspect scaffold before using it for bracing and lack of handrails. The goal is to be safe and return home each day to your families safe and sound.

The video is in English and available in Spanish as well. The Spanish translation was compliments of the Texas Lath and Plaster Bureau (TLPCA).



CONRATULATIONS!

The TLPCA has awarded SMA Certified contractor member Flavio Ronzani of RONPARCO the Lifetime Achievement Award at their 2023 convention

*Photo courtesy of
Walls and Ceilings Magazine*

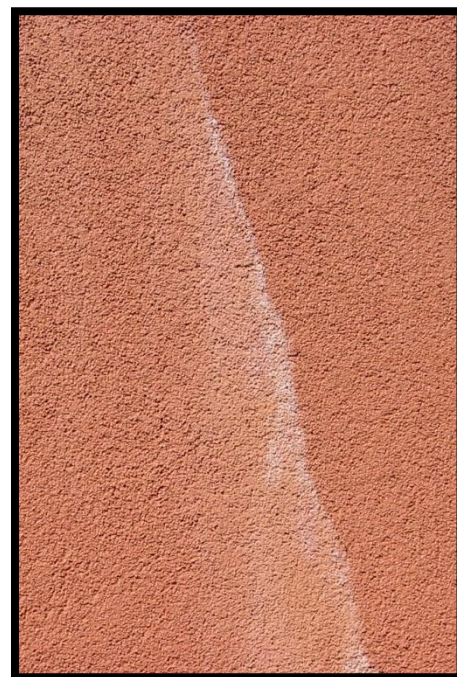
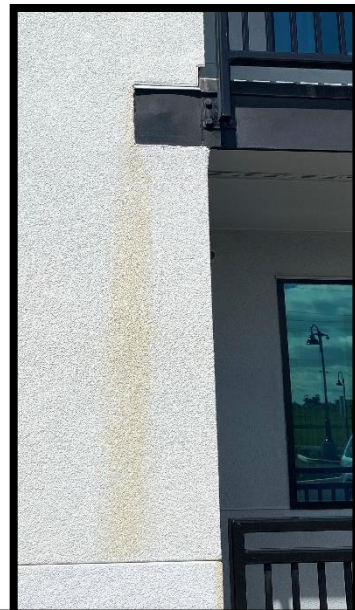
EFFLORESCENCE AND BROWN STAINS ON STUCCO?

This last winter was a wet one for California. This resulted in more calls to the SMA on efflorescence. The heavy rains followed by warm sun, bring out the mineral or salts inherently in cement-based products. Efflorescence is particularly worse for darker colors. This is because the water seeps in at hairline cracks and sit dissolving minerals. The sun comes out and if the stucco is dark, the wall heats up faster, drawing the mineral laden mixture to the surface. The water evaporates, leaving the white bloom. Fortunately, this condition lessens over time as the minerals wash out. It is not a defect or damaging to the stucco. The SMA produces a Tech paper on cleaning efflorescence. As well as an explanation to building owners.

This year SMA also received calls about "brown" stains on stucco, mostly in California. Testing was inconclusive as to what the material was. In some cases, it was rust, dirt or asphaltic in nature. In one case it was a fire-retardant product. It was not



related to defective construction. Most cleaned off the walls with little issue, some had to be fog coated or painted. It was clear the walls had to be saturated with heavy rain and the plaster had to be recently applied to have this occur.



MEMBERSHIP FORUM

The SMA is looking to institute a forum or chat room for SMA contractors. Since no one person has all the answers, it is good to share experiences and knowledge to solve problems together. The SMA has a large group of contractors in 16 states. So this is a potentially big network of experts with real life experiences.

SMA MEMBERSHIP

YOUR MEMBERSHIP SUPPORTS and PROMOTES STUCCO. Stucco has the major market share for residential construction in the US (27% per 2022 Census Data) and still in demand commercially. Unlike pre-manufactured products that are installed by less skilled workers: lath and plaster requires skill, training and knowledge to install properly. Knowledge to identify problems, knowledge to know what materials will work with what materials and how to blend them. Skill in application and finishing walls and ceilings. Cement and sand companies find plaster is typically a small part of their overall corporate portfolio and business strategy, so its gets little attention. If you are a plastering contractor, promotion is up to you. Fiber cement, vinyl and wood siding are all marketing to take your share of the market.

Ironically interior lath and plaster is a common inquiry for the SMA, but no one even attempts promotion of this market. Owners and designers will pay a premium for genuine lath and plaster.

A ROSE BY ANOTHER NAME

Lath and plastering is unique. This includes the names we use for products:

Casing Bead: AKA Millcor or plaster stop

Corner Bead: AKA Corner AID

K-Lath-AKA welded wire lath

Stucco- AKA a cement based finish coat

Slicker – AKA Go Devil or Shillelagh

These alternates are not wrong, just a demonstration how regions and times change.

QUIZ ANSWERS:

1. C- enhanced drainage is required for stucco on wood-based sheathing in Climate Zones A and C
2. A- Elastomerics tend to have low permeability and can trap in moisture
3. D- Cement and gypsum board DAS systems are light weight, fire-rated and proven to work.

SMA PROMOTION EFFORTS

The SMA will be doing a live webinar this Fall targeting designers. The last live SMA webinar had over 2000 people log in to listen to the SMA present on stucco, code requirements and moisture management concerns. This seemed to correlate with people calling into the SMA office for help. It was clear there is a desire for designers to learn more about stucco and how to implement stucco into their projects.

Let Us Hear From YOU

SMA members are encouraged to contact the SMA when they encounter anything unusual. The SMA has a large library, alternate resources and contacts to help answer almost any question related to lath and plaster. Members qualify for letters to be written on their behalf to clarify an issue or concern. It is better to be safe than sorry. Let us know when calling or emailing you are an SMA member!

SMA office : (714) 473-9579

Marlene@stuccomfgassoc.com

Mark@stuccomfgassoc.com

www.stuccomfgassoc.com

