# The ABCs of Stucco

# The purpose of siding is to protect the structure.

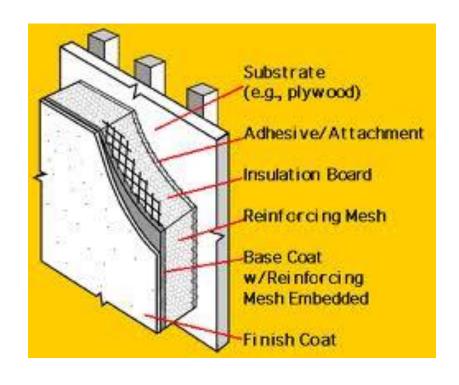


# When we are in the super market and we buy eggs



### The issue first raised its ugly head with EFIS (Exterior Insulation and Finish System).





Stucco is not a "bad" material.

When properly installed

it is

actually a wonderful material.

#### There are three types of masonry siding-

stone, brick,



and stucco which is the thinnest, weakest, lightest, cheapest



# The problem with poor application is wood rot



# All masonry sidings are porous. They absorb water.



### There were two common vapor barriers-.

Tar paper







# The vapor barrier is the critical membrane!!

#### It is all about the application

#### Stucco over masonry-

Old Pennsylvania stone farmhouse

Stucco over block





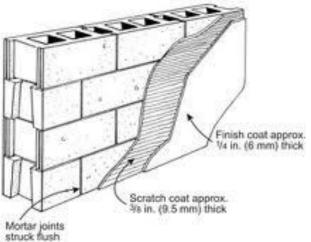
"Old time"- translate Italian stone mason full of pride, great workmanship, one and done, more is better. Craftsmanship so good



#### Number of stucco coats

#### **Parging**



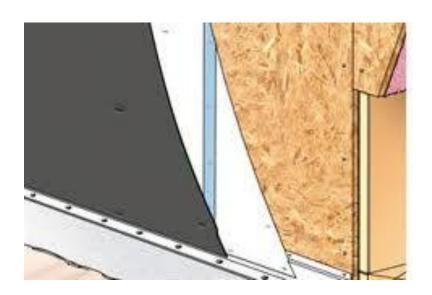


Stucco over wire scratch, brown, finish coats

#### Traditional (3 Coat) Stucco Components



Installed over wood- planking, solid sheathing- plywood, OSB, or insulated sheathing









# It is not the material, it is the application.



# Where were the county/township inspectors? The codes were always there, they just weren't enforced.





# Time showed us the problems. We thought stucco was permanent and maintenance free



#### Stucco installation issues:

- No weep screed installed at the intersection of house framing and the foundation.
- No caulk gap at all stucco terminations around windows, doors, utility penetrations and trim.
- Earth and roof contact allowing capillary action.
- Missing kickouts, drip cap and expansion joints.

#### More Installation Issues

- Dark stains on stucco indicating the wood structure may be holding moisture.
- Cracks and holes.
- Previous repairs.
- Rust shows through were installed thin at lath.
- Inspector could not determine the thickness or see the window flashings.

# Consider all of the penetrations through the stucco in your home

No caulk gap at all stucco terminations around windows, doors, utility penetrations and trim.









#### **Electrical**



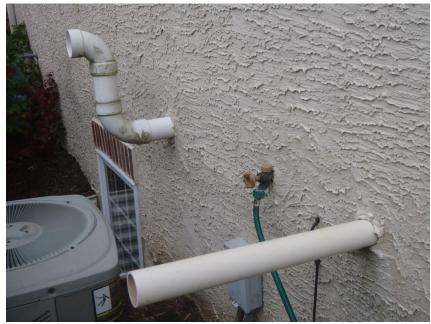






#### Plumbing penetrations



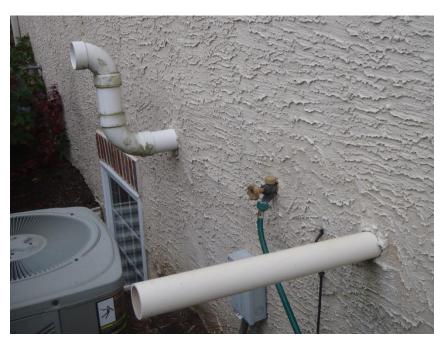


#### A/C





#### Flues





#### Misc.





#### Dryer vent. Gas pipe





#### Installation issues

# No weep screed installed at the intersection of house framing and the foundation.





# Developing cracks





#### Bulges are bad





#### Repaired bulge or crack



#### Drip cap or the lack there of





### No caulk gap





#### Roof contact





#### Kick outs or the lack there of





#### Results from no kickouts





### **Expansion Joints**





# Black stains indicating water penetration





## The larger, more surface area and blacker the more serious



### Chimneys





### Rust through stucco





## Inspector could not determine the thickness or see the window flashings.





## Add up all the deficiencies and over time they show a major problem





Anyone want to be a stucco inspector- no licensing (not that I am a big fan of licensing)

New industry.

No true "standards."

# Flir testing- no holes, infrared technology



## Intrusive- drilling holes in prescribed locations



### Repairs

OCCASIONALLY NO REPAIRS ARE NEEDED. IT WAS INSTALLED PROPERLY.

Typically there are what I call surgical repairs- strengthening the vulnerable spots around windows and doors, chimneys, etc.

Regrettably, there is the occasional tear off. I have had situations where I have reached in behind the wall and pulled out hands full of rotted, wet, delaminated sheathing. If the stucco was installed improperly, then it all may have been installed improperly and consequently need to be replaced.

Sadly sometimes it is what I call melanoma, or bone cancer. Looks good and healthy and you only find out after testing that there is an extremely serious problem and costly solution.

#### Thank You

Hope you learned a lot.

Now here is nice stucco

