

INVASIVE STUCCO INSPECTION



Date: February 22, 2018 **Date of Inspection:** February 22, 2018

Prepared for:

Concerning:

Contact: ■

I. Methodology and notes:

- a. Conventional 3 coat "Hard Coat" cement-based stucco was used for the balcony and front cantilever on this home.**

Comments:

The purpose of an invasive stucco inspection:

- a. To determine the type of stucco that is applied as the cladding on the home's exterior wall
- b. To check for the presence and proper installation of specialized stucco flashings and also roofing-required flashings.
- c. Testing for moisture content and deterioration level of the wall sheathing and framing (wall sheathing is the panel underneath the stucco).
- d. Determine whether deterioration has occurred from chronic water penetration at suspected areas and where it is coming from.

By performing this invasive testing, we can state with a higher percentage of certainty where and how moisture has penetrated and where stucco removal and replacement is needed.

Property Identification:

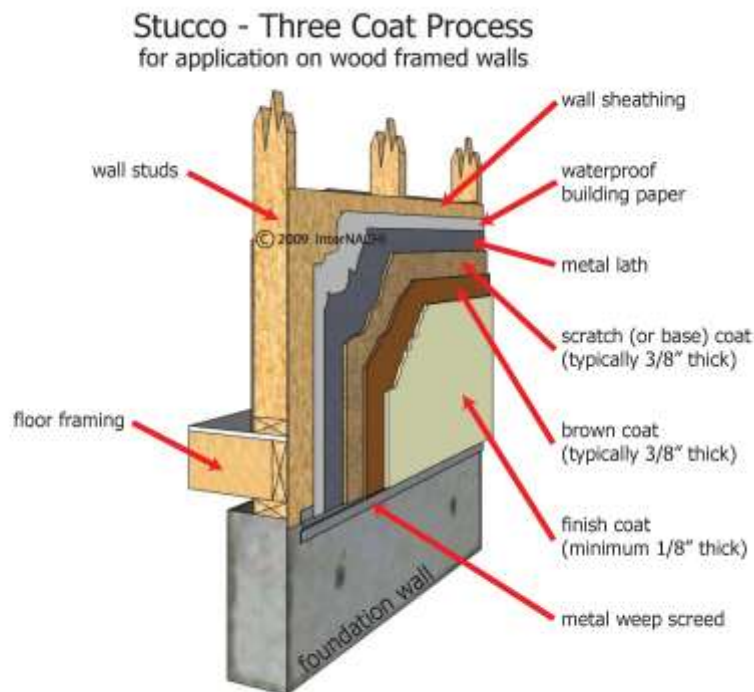
The first method for determining where water has penetrated through the stucco cladding and into the inner wall cavity is a visual assessment. We look for signs such as:

- a. cracks
- b. discolorations
- c. improper installation or lack of flashing
- d. the condition of or the lack of caulking around windows and door trim

These and other factors are taken into consideration to assure that any potential high-moisture compromised areas exist, they will be tested.

Directions given in this report are as though standing in the common driveway or facing the front door unless otherwise noted.

The following terminology is used for this report



The following items affect the performance of stucco:

II. Grading and Flashing Visibility:

Comments:

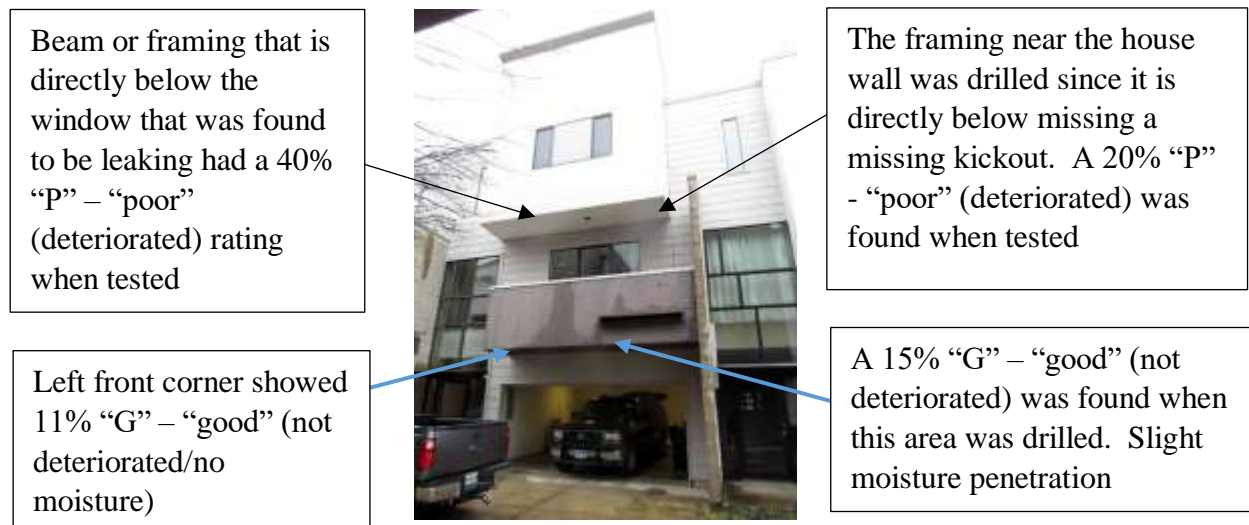
1. Why is grading and/or slab visibility important? yes
 - a. Viewable at house cement sidewall, between the stucco and the finish flooring, such as porches, and roof shingles should have a MINIMUM of 2" visibility. Splash-back

Property Identification:

rainwater or incoming water is easily absorbed into the wall sheathing with less than 2" and especially when the stucco is sitting directly on the finish flooring. The area around the interior perimeter of the balcony had a "trough" with stones. There was no 2" visibility of the flashing.

III. Exterior Drilling:*Comments:*

1. Framing that supports the cantilever and the balcony are drilled to determine the condition of the wood within. The following was found:



Reference scale **for wood (#1)** is as follows:

6%-13% normal moisture content for the Houston area

13.1%-17% shows higher than normal moisture

Over 17% shows excessive and/or recent moisture

*) "P" – poor or "G" – good, signifies the condition of the wall sheathing, which ultimately is more important than the moisture readings.

Summary: The cantilever for the third-floor front windows is deteriorated and very wet, due to both window leaking and also missing kickout on right (left side kickout could not be tested but is also missing.)

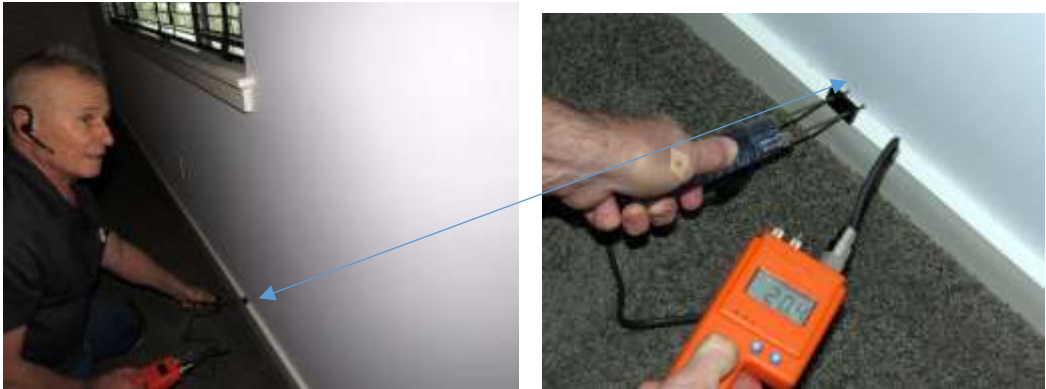
The lower balcony was found to be in good condition – no deterioration at either area drilled, however, slight water penetration on the right side under the scupper was found.

IV. Penetrations into stucco – window probing

1. Window on stucco was only on the cantilever

Comments:

Location	Floor	Left	Center	Right
Front window (looking at the house from the street)	3	20.4%P	-	13%G



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Summary: The window has allowed enough moisture into the structure that it has deteriorated the wall sheathing below (the wood that holds the stucco) and also down into the cantilevered area, which is deteriorated (See 3. #1)

2. Kickout flashings* – wherever roofs meet stucco sidewalls, such as at both sides of the cantilevered window area, kickout flashing **MUST** be present. The right side of the cantilever was drilled, which was found to be wet and deteriorated (see 1. #3)

We recommend that Wind-Lock brand be used, shown at the end of this report. Stucco work should include “following the water trail” to assure that all deterioration is found, and source identified. Replacement of wall sheathing must be with plywood (not treated).

Property Identification:



Locations where kickout flashing is required

V. RECOMMENDATIONS:

CANTILEVER REPAIRS

1. Removal of the front cantilevered wall underneath in order to repair/replace any deteriorated structure within and removal up to bottom of window in order to positively identify water penetration point and also replace rotted wall sheathing - continue to follow water trail until the source is identified.
2. Removal of stucco from around cantilevered wall where the roof lines meet on both left and right sides. Install Wind-Lock kickout flashings, see end of report. Replace any deteriorated wall sheathing with plywood

BALCONY REPAIRS

1. Removal of existing caulk from around metal cap/coping and from around scupper in order to use NP1 urethane
2. Remove stucco from underneath area of balcony in order to identify and repair any water penetrations, particularly around the scupper. Install 75 FPM moisture screed underneath the edge. Remove rocks from edge to allow viewing of perimeter.



Areas outlined in blue show where stucco removal is needed

Property Identification:

Respectfully submitted,



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Associations and Accolades:

Member of Indoor Air Quality Association

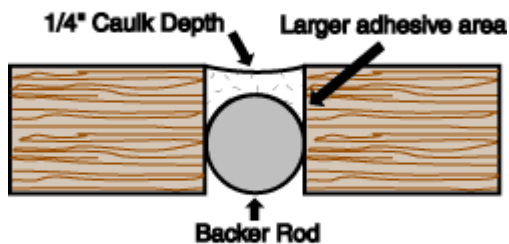
Member of BBB with an A rating

Recommended by Angie's List, 2007, 2008, 2009 , 2010, 2011. 2012, 2013, 2014 "Super Service Award" winners



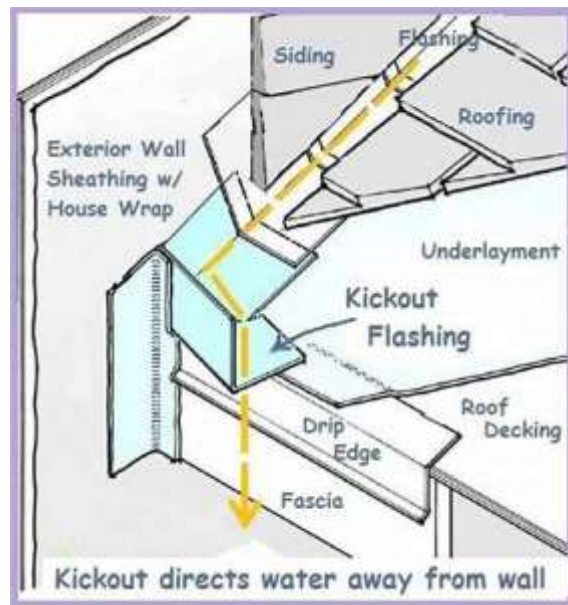
Learning? For good reads on a variety of topics, follow this link: <http://www.nachi.org/articles.htm>

* **Backer rod method of water penetration between dissimilar materials, such as window and door frames calls for a 3/8" gap (1/2" for polystyrene) between the metal lath and the window or door frame, then the backer rod is inserted and caulked with a low modulus caulking such as NP1 urethane.**



***Kickout Flashings – below is prefabricated aluminum type (vs job made)**



Property Identification:

R903.2.1 Locations. Flashings shall be installed at wall and roof intersections, wherever there is a change in roof slope or direction and around roof openings. A flashing shall be installed to divert the water away from where the eave of a sloped roof intersects a vertical sidewall. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019 inch (0.5 mm) (No. 26 galvanized sheet).

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