

#### Moisture Assessment Report

## Alex and Julia Khachatryan

2714 Newman Street

Houston, TX 77098

4/5/2017



Lone Star Stucco, LLC 90 Stone Ct, Conroe, TX 77304 Inspector's Cell: (936) 661-6612 (preferred text) Office: (936) 228-2268 Email: lonestarstucco@outlook.com



#### **Project Information**

PROPERTY	INFORMATION	INSPECTION	INFORMATION
Client Name	Alex and Julia Khachatryan	Type of Inspection	Moisture Assessment
Property Address	2714 Newman Street	Date of Inspection	4/5/2017
City, State, ZIP	Houston, TX 77098	Temperature	74 Degrees
Phone	281.389.3580	Weather	Clear
Square Footage (estimated)	4,262	Last Rain	1-2 Days
Approximate Age of Property	2006	In Attendance	No
Stories	3	Inspector	Gregg Morgan
Type of Exterior	Traditional Hard Coat/ Siding		
Substrate	Plywood		
Windows	Metal/ Double Hung/ Fixed		

Inspection Test Equipmen	t	
Equipment Description	Test Range	Setting
Delmhorst Moisture Probe Meter- BD 2100	Low 6-13 /Medium 13-19 /High 19+	1
Important Note: The test equipment is used to help locate problem areas. It must be understood that the test equipment is not an exact science but rather good tools used as indicators of possible problems. At times, because of hidden construction within the wall cavity, the meters get false readings or no readings at all. Some meters will pick up on metals, wiring, unique wall finishes, etc. Positive readings do not always mean there is a problem, nor do negative readings necessarily mean there is not a problem. We do not use the equipment to obtain exact moisture content, but rather to obtain relative readings between suspected problem areas and non problem areas. this information is then used to help determine potential problem areas which may warrant more investigation.		



Caulking	Good	Not Adequate	N/A	Comments
Caulking Around Window Frame	x			
Caulking At Window Joints / Miters	x			
Caulking Around Door Frame	x			
Caulking At Door Joints / Miters	Partial			
Caulking Around Other Breaches	Partial			
Flat Accents Caulked or Angled	x			
Soffit, Frieze & Facia Boards Caulked	x			
Flashings / Diverters	Good	Not Adequate	N/A	Comments
Kickout Flashings / Roof / Wall	x			
Balcony Flashings	Partial			Touch Up Sealants
Other Attachment Flashings			X	
Porches / Stoop Flashing	x			
Chimney Cap			X	
Chimney Cricket			x	
Window Head Flashing	x			
Door Head Flashing	x			
Column Flashing	x			
Terminations	Yes	No	N/A	Comments
Stucco In Contact With Flat Work	x			
Stucco In Contact With Soil		X		
Miscellaneous	Yes	No	N/A	Comments
Evidence Of Sprinkler Overspray		X		
Gutters Clean & Functioning			x	
Cracks or Impact Damage		X		
Exterior Evidence of Pest Infestation		X		
Control Joints Noted On System	x			



#### Summary Page

- Lone Star Stucco, LLC recommends to consult with a stucco waterproofing contractor to touch up or seal all doors, windows, and penetrations as needed in an effort to avoid moisture intrusion.
- Door trim sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photos #4.2, #4.3 and #4.4 for more detail.
- Balcony flashing sealants are separated. The inspector suggests to touch up or seal as needed in an effort to prevent moisture intrusion. Please refer to photos #4.5 and #4.6 for more detail.
- Penetration sealants are separated in several areas. The inspector suggests to seal these areas in an effort to prevent moisture intrusion. Please refer to photo #5.2 for more detail.
- Rust stains are noted in this area, the inspector suggests to clean with a wire brush and then paint as needed. Please refer to photos #5.3, #5.4 and #8.6 for more detail.
- The door trim/threshold termination sealants are separated. The inspector suggests to seal all terminations in an effort to prevent moisture intrusion. Please refer to photos #6.2 and #6.3 for more detail.
- Efflorescence has been noted in this area of the home. This is when a naturally occurring salt migrates to the surface of the system causing a coating. The inspector suggests to consult with a stucco contractor to treat this area with commercial cleaners or contact the system manufacturer for the best explanation of removal. Please refer to photos #6.4 and #6.5 for more detail.
- Note the different color sealant used on the third floor right door. The inspector suggests to change the sealants in an effort to match the rest of the home. Please refer to photo #7.2 for more detail.
- Penetration sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photo #7.3, #8.2, #11.2, #13.3, #13.4 and #14.2 for more detail.
- The stone/stucco termination sealants are missing flex caulk. The inspector suggests to clean out the grout and seal all stone/stucco terminations with NP1 or like sealant in an effort to prevent moisture intrusion. Please refer to photo #8.3 for more detail.



- The stucco is in contact with the flat work in this location. The proper application of kant bead was noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photos #8.4, #8.5 and #12.2 for more detail.
- Balcony flashing sealants are aged or separated. The inspector suggests to touch up or seal as needed in an effort to prevent moisture intrusion. Please refer to photos #9.2, #9.3 and #9.4 for more detail.
- Window trim sealants are separated in several areas. The inspector suggests to touch up or seal these areas in an effort to prevent moisture intrusion. Please refer to photo #10.2, # 13.1and #14.1 for more detail.
- The porch flashing sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photos #10.3 and #10.4 for more detail.
- Balcony flashing sealants are proper. The inspector states that this is a positive detail and suggests to maintain to all sealants in an effort to prevent moisture intrusion.. Please refer to photos #11.3 and #11.4 for more detail.
- Note the balcony and stucco termination is properly sealed with kant bead. The inspector states that this is a positive detail and suggests to maintain to all sealants in an effort to prevent moisture intrusion. Please refer to photo #11.5 for more detail.
- Note the proper termination of the pilaster and column with the flat work. The inspector states that this is a positive detail. Please refer to photos #12.3 and #12.4 for more detail.
- Window sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photo #13.2 for more detail.
- Door miter sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photo #13.5 for more detail.
- You have several areas that are showing signs of elevated moisture. Please refer to the attached report for more detail.



- **LIMITATIONS OF LIABILITY:** Because this is a limited inspection, we can make no guarantee, express or implied, that our observations and random moisture readings offer conclusive evidence that no installation or moisture problems exist, or that problems found are all-inclusive. This inspection company, its employees and any divisions shall not be liable for non-visual defects, unseen defects, unspecified defects or hidden damage and conditions existing on the subject property and hereby disclaims any liability or responsibility thereof. All parties concerned agree to hold harmless and indemnify this inspection company involving any liabilities that may result.
- FURTHER TESTING / INVESTIGATION: Our policy is to rely on moisture meter readings as an indicator of relative moisture values between different test spots, not as an absolute value of water content in the substrate. It is difficult to determine if the structural wood of your home has been damaged in areas of high readings without 'probing' and/or removing a core sample of the stucco to allow for visual inspection. Should we feel that further investigation is needed this will be indicated in the summary section of the report.
- **REPAIR FOLLOW-UP AND ANNUAL INSPECTIONS:** A repair follow-up inspection should be conducted within three months after completion of the repairs to assess the effectiveness of the moisture modifications. This is extremely important. Annual inspections should also be scheduled to ensure that your stucco system remains dry. This way any sealant failures, stucco cracks, etc. can be caught and repaired promptly. Testing and maintaining your home on a regular basis is the best way to prevent costly repairs associated with moisture damage. Also, should you decide to sell your home, annual inspections and maintenance documentation will be a valuable selling tool, providing evidence to show that your home has been inspected and maintained on a regular basis by a reputable and qualified firm.
- **PLEASE NOTE:** Lone Star Stucco, LLC is not a home inspection company, and does perform home inspections. This reports primary use is to show the areas that are likely to have moisture intrusion in an effort to help control mold. This report and all its contents area sanctioned by the Texas Department of State and Health Services in guidelines for mold prevention.



Thank you for your business,

James "Gregg" Morgan

90 Stone Ct

Conroe, TX 77304

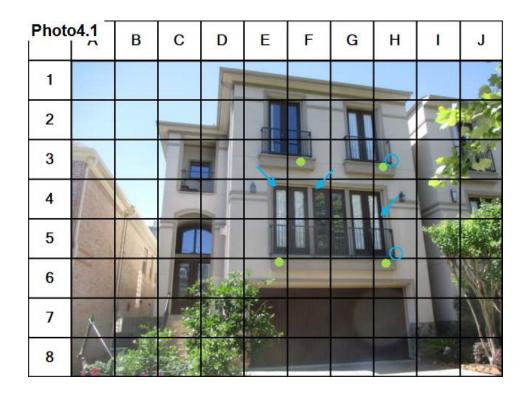
Texas Department of State Health Services

Mold Assessment Consultant

License Number: MAC 1299

Expiration July 2018







Door Trim Sealants/ Maintain



Door Trim Sealants/ Maintain



Door Trim Sealants/ Maintain



Balcony Flashing Sealants/ Seal



Balcony Flashing Sealants/ Seal

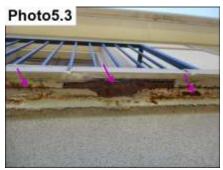
Grid Location	Item Description	Moisture Readings	Substrate Condition	Observations
Blue Arrows	Door Trim Sealants			Door trim sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photos #4.2, #4.3 and #4.4 for more detail.
Blue Circles	Balcony Flashing Sealants			Balcony flashing sealants are separated. The inspector suggests to touch up or seal as needed in an effort to prevent moisture intrusion. Please refer to photos #4.5 and #4.6 for more detail.
H6	Bottom Second Floor Balcony Right	15%	Firm	A moisture probe was made at the bottom of the second floor balcony right. The substrate was firm with no damage noted at this time.
E6	Bottom Second Floor Balcony Left	14%	Firm	A moisture probe was made at the bottom of the second floor balcony left. The substrate was firm with no damage noted at this time.
H3	Bottom Third Floor Balcony Right	12%	Firm	A moisture probe was made at the bottom of the third floor balcony right. The substrate was firm with no damage noted at this time.
F3	Bottom Third Floor Balcony Left	13%	Firm	A moisture probe was made at the bottom of the third floor balcony left. The substrate was firm with no damage noted at this time.







Penetration Sealants/ Seal

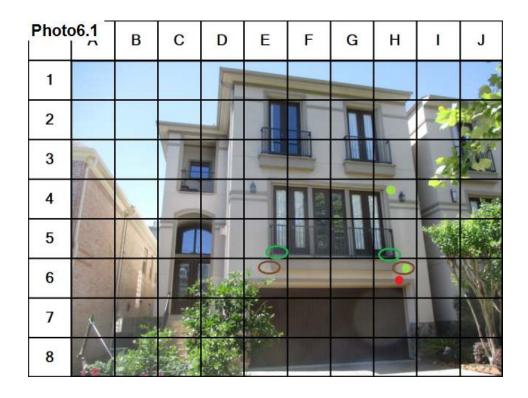


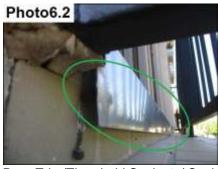


Rust Stains/ Clean And Paint

Grid Location	Item Description	Moisture Readings	Substrate Condition	Observations
Yellow Arrow	Penetration Sealants			Balcony penetration sealants are separated in several areas. The inspector suggests to seal these areas in an effort to prevent moisture intrusion. Please refer to photo #5.2 for more detail.
Purple Arrows	Rust Stains			Rust stains are noted in this area, the inspector suggests to clean with a wire brush and then paint as needed. Please refer to photos #5.3 and #5.4 for more detail.







Door Trim/Threshold Sealants/ Seal



Door Trim/Threshold Sealants/ Seal



Efflorescence Noted



Efflorescence Noted

Grid Location	Item Description	Moisture Readings	Substrate Condition	Observations
Green Circles	Door Trim/Threshold Sealants			The door trim/threshold termination sealants are separated. The inspector suggests to seal all terminations in an effort to prevent moisture intrusion. Please refer to photos #6.2 and #6.3 for more detail.
Brown Circles	Efflorescence			Efflorescence has been noted in this area of the home. This is when a naturally occurring salt migrates to the surface of the system causing a coating. The inspector suggests to consult with a stucco contractor to treat this area with commercial cleaners or contact the system manufacturer for the best explanation of removal. Please refer to photos #6.4 and #6.5 for more detail.
H6	Bottom Wall	20%	Firm	A moisture probe was made at the bottom wall. An elevated moisture reading was noted with a firm substrate.
H6/ Green Dot	Wall Above Accent	18%	Firm	A moisture probe was made at the wall above the accent. The substrate was firm with no damage noted at this time.
H4	Wall Above Accent	12%	Firm	A moisture probe was made at the wall above the accent. The substrate was firm with no damage noted at this time.







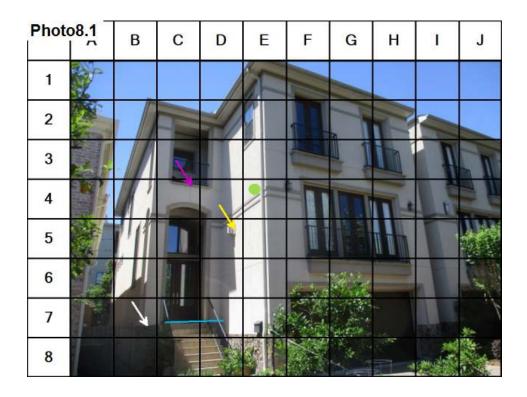
Different Color Sealants/ Touch Up

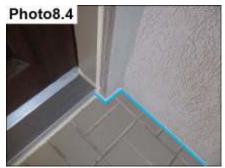


Penetration Sealants/ Maintain

Grid Location	Item Description	Moisture Readings	Substrate Condition	Observations
Blue Box	Different Color Sealant			Note the different color sealant used on the third floor right door. The inspector suggests to touch up sealants in an effort to match the rest of the house. Please refer to photo #7.2 for more detail.
Yellow Arrow	Penetration Sealants			Penetration sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photo #7.3 for more detail.
E3	Above Door Header Left	16%	Firm	A moisture probe was made above the door header left. The substrate was firm with no damage noted at this time.







Stucco In Contact With Raised Flat Work/ Kant Bead Present/ Positive



Stucco In Contact With Raised Flat Work/ Kant Bead Present/ Positive



Penetration Sealants/ Maintain



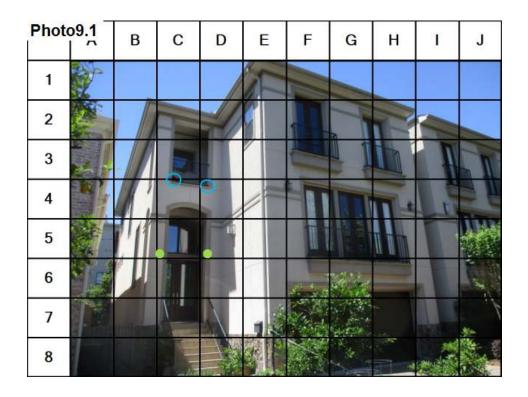
Stone/Stucco Termination Sealants/ Seal



Rust Stains/ Clean And Paint

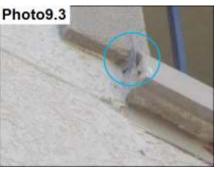
	Readings	Substrate Condition	Observations
Penetration Sealants			Penetration sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photo #8.2 for more detail.
Stone/Stucco Termination Sealatns			The stone/stucco termination sealants are missing flex caulk. The inspector suggests to clean out the grout and seal all stone/stucco terminations with NP1 or like sealant in an effort to prevent moisture intrusion. Please refer to photo #8.3 for more detail.
Stucco In Contact With Raised Flat Work			The stucco is in contact with the flat work in this location. The proper application of kant bead was noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photos #8.4 and #8.5 for more detail.
Rust Stains			Rust stains are noted in this area, the inspector suggests to clean with a wire brush and then paint as needed. Please refer to photo #8.6 for more detail.
Window Lower Right	17%	Firm	A moisture probe was made below the third floor window right. The substrate was firm with no damage noted at this time.
-	Stone/Stucco Termination Sealatns Stucco In Contact With Raised Flat Work Rust Stains	Stone/Stucco Termination Sealatns Stucco In Contact With Raised Flat Work Rust Stains	Stone/Stucco   Termination Sealaths   Stucco In Contact   With Raised Flat   Work   Rust Stains







Balcony Flashing Sealants/ Seal



Balcony Flashing Sealants/ Seal



Balcony Flashing Sealants/ Seal



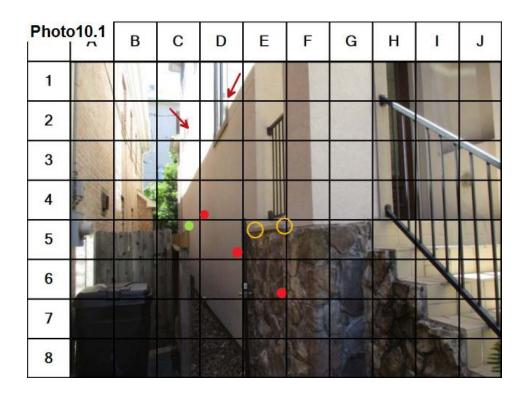
Moisture Probe/ Left Side Of Column Below Balcony



Moisture Probe/ Right Side Of Column Below Balcony

Grid Location	Item Description	Moisture Readings	Substrate Condition	Observations
Blue Circles	Balcony Flashing Sealants			Balcony flashing sealants are aged or separated. The inspector suggests to touch up or seal as needed in an effort to prevent moisture intrusion. Please refer to photos #9.2, #9.3 and #9.4 for more detail.
C5	Left Side On Column Below Balcony	18%	Firm	A moisture probe was made at the left side of the column below the balcony. The substrate was firm with no damage noted at this time. Please refer to photo #9.5 for more detail.
D5	Right Side Of Column Below Balcony	17%	Firm	A moisture probe was made at the left side of the column below the balcony. The substrate was firm with no damage noted at this time. Please refer to photo #9.6 for more detail.







Window Trim Sealants/ Seal



Porch Flashing Sealants/ Maintain



Porch Flashing Sealants/ Maintain

Grid Location	Item Description	Moisture Readings	Substrate Condition	Observations
Maroon Arrow	Window Trim Sealants			Window trim sealants are separated in several areas. The inspector suggests to touch up or seal these areas in an effort to prevent moisture intrusion. Please refer to photo #10.2 for more detail.
Orange Circles	Porch Flashing Sealants			The porch flashing sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photos #10.3 and #10.4 for more detail.
E6	Below Porch Flashing	19%	Firm	A moisture probe was made below the porch flashing. An elevated moisture reading was noted with a firm substrate.
D6	Window Bottom Right	20%	Firm	A moisture probe was made at the window bottom right. An elevated moisture reading was noted with a firm substrate.
D4	Window Bottom Left	20%	Firm	A moisture probe was made at the window bottom left. An elevated moisture reading was noted with a firm substrate.
C5	Window Bottom Left	17%	Firm	A moisture probe was made at the window bottom left. The substrate was firm with no damage noted at this time.







Penetration Sealants/ Maintain



Balcony Flashing Sealants/ Seal



Balcony Flashing Sealants/ Seal



Balcony/Stucco Termination Properly Sealed/ Positive Detail

Grid Location	Item Description	Moisture Readings	Substrate Condition	Observations
Yellow Arrow	Penetration Sealants			Penetration sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photo #11.2 for more detail.
Blue Circles	Balcony Flashing Sealants			Balcony flashing sealants are proper. The inspector states that this is a positive detail and suggests to maintain to all sealants in an effort to prevent moisture intrusion Please refer to photos #11.3 and #11.4 for more detail.
Purple Line	Balcony/Stucco Termination Sealants			Note the balcony and stucco termination is properly sealed with kant bead. The inspector states that this is a positive detail and suggests to maintain to all sealants in an effort to prevent moisture intrusion. Please refer to photo #11.5 for more detail.





Photo12.2



Stucco In Contact With Raised Flat Work/ Kant Bead Present/ Positive



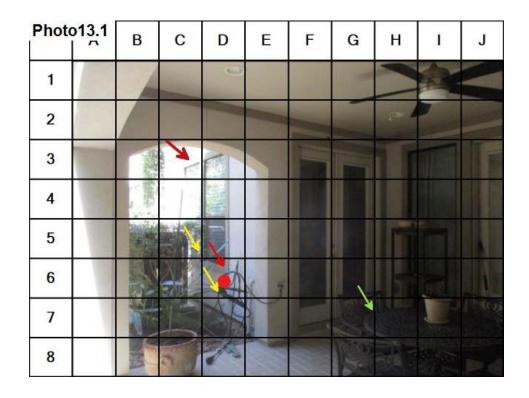
Proper Pilaster and Column/Flat Work Termination/ Positive Detail



Proper Pilaster and Column/Flat Work Termination/ Positive Detail

Grid Location	Item Description	Moisture Readings	Substrate Condition	Observations
Blue Line	Stucco In Contact With Raised Flat Work			The stucco is in contact with the flat work in this location. The proper application of kant bead was noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photo #12.2 for more detail.
Purple Circles	Proper Pilaster And Column/Flat Work Termination			Note the proper termination of the pilaster and column with the flat work. The inspector states that this is a positive detail. Please refer to photos #12.3 and #12.4 for more detail.







Window Sealants/ Maintain



Penetration Sealants/ Maintain



Penetration Sealants/ Maintain



Door Miter Sealants/ Maintain

Grid Location	Item Description	Moisture Readings	Substrate Condition	Observations
Maroon Arrow	Window Trim			Window trim sealants are separated in several areas. The inspector suggests to touch up or seal these areas in an effort to prevent moisture intrusion. Please refer to photo #13.1 for more detail.
Red Arrow	Window Sealants			Window sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photo #13.2 for more detail.
Yellow Arrows	Penetration Sealants			Penetration sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photos #13.3 and #13.4 for more detail.
Green Arrow	Door Miter Sealants			Door miter sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photo #13.5 for more detail.
D6	Window Bottom Right	24%	Firm	A moisture probe was made at the window bottom right. An elevated moisture reading was noted with a firm substrate.



Photo	14.1	В	С	D	Е	F	G	н	Т	J
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Penetration Sealants/ Maintain

Grid Location	Item Description	Moisture Readings	Substrate Condition	Observations
Maroon Arrow	Window Trim Sealants			Window trim sealants are separated in several areas. The inspector suggests to touch up or seal these areas in an effort to prevent moisture intrusion. Please refer to photo #14.1 for more detail.
Yellow Arrow	Penetration Sealants			Penetration sealants are noted. The inspector states that this is a positive detail and suggests to maintain all sealants in an effort to prevent moisture intrusion. Please refer to photo #14.2 for more detail.
F5	Above Accent	15%	Firm	A moisture probe was made above the accent. The substrate was firm with no damage noted at this time.