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CLADDING MOISTURE REPORT



INSPECTED FOR TEST STUCCO

TX

June 4, 2020

Cladding Inspection Report

Prepared For	: <u>TEST STUCCO</u>	
Subject Prop	erty : _, TX	
Evaluator:	Chris Murphy, Lic #20503	06/04/2020
	(Name of Inspector)	(Date)

PURPOSE, LIMITATIONS AND INSPECTOR / CLIENT RESPONSIBILITIES

It is important that you carefully read ALL of this information. This report contains technical information, if you have questions or is unclear regarding the reported findings; please feel free to call our office for consultation. If you were not present during this inspection, please call the office to arrange for a consultation with your inspector. If you choose not to consult with the inspector, the inspector cannot be held liable for your understanding or misunderstanding of the reports content.

For edification purposes it should be understood that the primary objective of inspecting the exterior cladding of any existing structure is to determine whether or not it is performing adequately. Simply comparing the structures existing details to current published guidelines fails to accomplish this objective. An inspection should identify repairs that are necessary, effective and economical. Strict conformance to a manufacturer's published details does not answer the question: "Is a repair necessary, and will it be effective?"

Inspection reports that identify existing details and conditions as "defective" because they deviate from current published manufacturers' guidelines can mislead clients, home owners, buyers, real estate agents, or other parties into initiating unnecessary remedial work. This is especially true if there is positive evidence that the existing details are performing effectively. Simply put: "Is the exterior cladding performing adequately?" "Is the exterior cladding effectively keeping the moisture out of the wall cavity?"

It should be noted that this inspection is limited in scope "non-destructive" and is not intended to be a full comprehensive analysis of the cladding application and performance. This report scope is limited for an evaluation to determine if further in depth inspection and analysis "destructive inspections or testing" is warranted based upon this limited inspection. Please read the report in its entirety, this is a cursory limited visual inspection and does not warrant or guarantee all defects to be found.

The digital pictures in this report are a sample of the damages in place and should not be considered to show all of the damages or deficiencies found. There will be some damage or deficiencies not represented with digital imaging.

As with all cladding systems, maintaining a proper surface seal is a critical function as a weather tight cladding. The condition of the surface and the termination details are vitally important to maintaining a moisture barrier against water and moisture intrusion into the cladding system. The cladding industry has published specifications that detail the application requirements to install the stucco system. The application information comes in the form of the International Building Code, Texas Lathing & Plastering Contractors Guide, the Exterior Design Institute (EDI) Typical Details and other industry guidelines. This information is the primary criteria regarding the application of the system.

An inspection addresses only those components and conditions that are present, visible, and accessible at the time of the inspection. While there may be other parts, components or systems present, only those items specifically noted as being inspected were inspected.

This inspection is not an exhaustive inspection of all of the systems or components and is intended to help discover major defects. The inspection may not reveal all deficiencies. An inspection helps to reduce some of the risk involved in building or purchasing a building, but it cannot eliminate these risks, nor can the inspection anticipate future events or changes in performance.

When a deficiency is reported, it is the client's responsibility in having the repairs performed by those parties reasonable for the repairs. Any such follow-ups or repairs should take place before the project progresses to a point that makes the repairs impossible or unpractical. Additional evaluations by other qualified tradesmen may lead to the discovery of additional deficiencies.

The inspection does NOT imply insurability or warrantability of the structure or its components. This report is not intended to be used for determining insurability or warrantability of the structure and may not conform to the Texas Department of Insurance guidelines for property insurability.

This report is provided for the specific benefit of the client named above and is based on observations at the time of the inspection. If you did not hire the inspector yourself, reliance on this report may provide incomplete or outdated information. Repairs, professional opinions or additional inspection reports may affect the meaning of the information in this report. It is recommended that you hire a licensed inspector to perform an inspection to meet your specific needs and to provide you with current information concerning this property.

The Client, by accepting this Property Inspection Report or relying upon it in any way, expressly agrees to the SCOPE OF INSPECTION, GENERAL LIMITATIONS and INSPECTION AGREEMENT included in this inspection report.

TREC Notice: This report was prepared for our client named on the cover page of this report in accordance with the client's requirements. The report addresses the cladding system only and is not intended as a substitute for a complete standard inspection of the property. Standard inspections performed by a Texas Real Estate Commission licensee and reported on Texas Real Estate Commission "TREC" promulgated report forms may contain additional information a buyer should consider in making a decision to purchase.

People Present		Buyer							
Weather Conditions:		Sunny		Temperature at time of inspection:		90 °+			
Humidity:		% rh		Last Rain Fall:		Within 48 hours			
Age of Property:				Age of System:					
Name	of Installer:	Unknown		Installers Phon	ie #:	Unknown			
Name	of Builder:	Unknown		Builders Phone #:		Unknown			
System	m Manufacturer:	Unknown		How Verified:		Unknown			
Mesh	Color:	Not Visible		Type of Mesh:		Not Visible			
Type	of Windows:	Metal		Substrate Type:		Wood			
Occupied:		Yes		Orientation of Structure: (For Purpose Of This Report Front Faces):		South			
C.	T								
	o Locations: Locations	\square N/A \square Front	☑ Right Side □ Right Side	☑ Left Side	☑ Rear	□ Chimney □ Chimney	□ Other:		
Stolle	Locations	⊠ N/A □ Front	LI Right Side	□ Left Side	□ Rear		□ Other:		
			Type of C	ladding Presen	nt				
	EIFS/Synthetic St	ucco. Exterior Insu				etimes referred	to as Synthetic Stucco		
	EIFS/Synthetic Stucco: Exterior Insulation and Finishing System (EIFS) sometimes referred to as Synthetic Stucco typically consists of five components: adhesive, insulation foam board, and a fiberglass mesh which is embedded with a base coat and / or decorative acrylic coat of 1/8 inch or less. This system typically does not have any house wrap or drainage system (Weep Screed) and the components are applied directly to wood or wood composition substrate.								
	Cement Base Stucco/Traditional Stucco: This type of stucco is made from Portland cement and is applied either by hand or machine to the exterior wall surface in two or three coats. It may be applied directly to a solid base such as masonry or concrete walls, or it can be applied to a metal lath attached to frame construction, solid masonry, or concrete construction. Thickness of this system ranges from ½" to more than 1" and is very heavy and rigid.								
	Decorative Trim: This is often referred to as EIFS but is only EPS type materials that are not installed as an EIFS system. The EPS decorative trim bands are applied directly to the top of a traditional stucco, hybrid stucco, brick or concrete as the substrate.								
Hybrid System: This type of cladding may incorporate all or some of the materials/components of both Traditional Hard Coat and EIF type materials but are applied in a fashion that do not meet the definitions of the other two types of stucco cladding. This type of cladding typically consists of insulation foam board, a polymer/cement base coat that is 3/8" to 5/8" in thickness, and a wire or fiberglass mesh applied over the substrate. These systems typically have a house wrap/moisture barrier and a drainage system.									
Pre-Manufactured Stucco Type Panels: There are pre-manufactured stucco type panels that are common in Tudor style homes. These panels are designed to look like traditional stucco and are generally single piece construction. These panels are often produced in 4' x 8' sheets and made of a composite material that can be painted to the desired color.									
	Dimension Stone Cladding: Dimension stone can be defined as natural rock material quarried for the purpose of obtaining blocks or slabs that meet specifications as to size (width, length, and thickness) and shape for use in building construction and exterior cladding.								
	Adhered Manufactured Stone Veneer (AMSV): Lightweight, architectural, non load-bearing product that is manufactured by wet cast blending cementitious materials and aggregates, with or without pigments, admixtures, or other materials to simulate the appearance of natural stone and other masonry materials.								

General Information

Verification Methods			
Sounding / Tapping:	□ Hollow	☑ Solid	
Removed Trim/Outlets/ Fixtures, etc.	□ Door	□ Window	
	\Box Outlet(s)	□ Light Fixture	
	□ Other:		
Thickness of base & finish combined:	0.50"		
EIFS Insulation board "EPS" thickness:	1"		

General Observations

	Red Indicates Non-Compliance U/D = Unable to Determine N/A = Not Applicable	Yes	No	U/D	N/A
1.	1. Are all terminations property back wrapped?				$\mathbf{\nabla}$
2.	2. Does the cladding system terminate above grade?		V		
3.	Does the cladding system terminate 2-inches above roofing?	\mathbf{N}			
4.	4. Are there any areas with cracking or surface damage?				
5.	Are sealant joints present at windows and doors?	V			
6.	Are sealant joints present at all intersections of the cladding system and dissimilar materials other than windows and doors?	\mathbf{N}			
7.	Are there areas that the sealant is failing and needs repaired/replaced?				
8.	Are there diverter (kickout) flashing details properly installed in required locations?		V		
9.	Are window and door flashing details installed properly?	M			
10.	Are downspouts installed properly?	\mathbf{N}			
11.	Are chimney flashing details installed properly?				$\mathbf{\nabla}$
12.	Are all exterior fixtures installed properly?		V		
13.	Are all utility penetrations properly sealed?		M		
14.	Are all decks installed properly?				$\mathbf{\nabla}$
15.	Are all deck flashing details installed properly?				$\mathbf{\nabla}$
16.	Are all trim elements properly sloped?	M			
17.	Where there elevated moisture readings observed?	N			
18.	Are horizontal cross grain movement joints present?	M			
19.	Are there any areas with impact or mechanical damage?		Ŋ		
20.	Are the sprinkler heads installed at least 12-inches from the exterior walls?		V		
21.	Is the vegetation and foliage trimmed at least 18-inches from the exterior walls?		V		

I. OBSERVATIONS AND COMMENTS <u>Front Side of Structure</u>





Observations and Comments:

Item Number 1

• The stucco has poor clearance from the concrete flatwork. Under current installation standards, there should be at least 1.5 to 2-inches of clearance between the concrete flatwork and the stucco material. There are no visible defects related to this application at this time and no remedial repairs are recommended.



• Some minor cracking of the stucco finish was observed in one or more locations at the time of this inspection. The cracks observed were less than 1/16-inch and are consistent to be within accepted industry standards and no remedial repairs are recommended.



Item Number 3

• There is no visible through wall flashing (head flashing) above the doors. Under current stucco installation standards, there should be through wall flashing continuously above all doors to help prevent water intrusion at these locations.



Item Number 4

- There is missing kickout flashing details at the lower bottom edge of the roof line interface and the sidewall that continues past the edge of the roof. The lack of this kickout flashing will allow water to penetrate at these points. It is recommended to have kickout flashing details installed to help prevent future water intrusion at this locations.
- The substrate (sheathing) behind the stucco finishes appear to be compromised. The stucco is bulging and very spongy to the touch. This condition needs to be further evaluated and repaired as necessary. It is my professional opinion that the stucco in the affected areas will need to be removed, the substrate replaced and the stucco finishes replaced.
- There is visible evidence of water intrusion through the stucco cladding system. This condition has caused some visible damage to the stucco cladding. This condition should be further evaluated and repairs are recommended.
- Rust was observed on the stucco finish. This is an indication that water intrusion behind the stucco finish has occurred. Repairs are recommended.
- Elevated moisture levels were detected in the wall finished surfaces.





• There is visible bulging and/or releasing of the stucco finish observed. This condition needs to be further evaluated and repairs are recommended.



Item Number 6

• The ants have built a nest behind the stucco veneer. It is recommended to remove the nest to prevent moisture damage behind the stucco.



- There is missing kickout flashing details at the lower bottom edge of the roof line interface and the sidewall that continues past the edge of the roof. The lack of this kickout flashing will allow water to penetrate at these points. It is recommended to have kickout flashing details installed to help prevent future water intrusion at this locations.
- The substrate (sheathing) behind the stucco finishes appear to be compromised. The stucco is bulging and very spongy to the touch. This condition needs to be further evaluated and repaired as necessary. It is my professional opinion that the stucco in the affected areas will need to be removed, the substrate replaced and the stucco finishes replaced.





- There is missing kickout flashing details at the lower bottom edge of the roof line interface and the sidewall that continues past the edge of the roof. The lack of this kickout flashing will allow water to penetrate at these points. It is recommended to have kickout flashing details installed to help prevent future water intrusion at this locations.
- The stucco weep screed was observed to be missing.





- There is missing kickout flashing details at the lower bottom edge of the roof line interface and the sidewall that continues past the edge of the roof. The lack of this kickout flashing will allow water to penetrate at these points. It is recommended to have kickout flashing details installed to help prevent future water intrusion at this locations.
- The substrate (sheathing) behind the stucco finishes appear to be compromised. The stucco is bulging and very spongy to the touch. This condition needs to be further evaluated and repaired as necessary. It is my professional opinion that the stucco in the affected areas will need to be removed, the substrate replaced and the stucco finishes replaced.



• The ants have built a nest behind the stucco veneer. It is recommended to remove the nest to prevent moisture damage behind the stucco.



Item Number 11

• Impact damage was observed in one or more locations. Repairs are recommended.



<u>Right Side of Structure</u>





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Observations and Comments:

Item Number 1

• There is foliage in contact with the exterior stucco finishes. It is recommended to trim the foliage at least 18-inches off the exterior walls.



Item Number 2

• The area between the exterior cladding / veneer and all of the wall penetrations / openings need to be properly sealed. Areas such as utility connections, downspouts, hose bibbs, lighting fixtures, receptacles etc. It is recommended to use an elastomeric caulking / sealant.



Item Number 3

• There is missing kickout flashing details at the lower bottom edge of the roof line interface and the sidewall that continues past the edge of the roof. The lack of this kickout flashing will allow water to penetrate at these points. It is recommended to have kickout flashing details installed to help prevent future water intrusion at this locations.



Left Side of Structure



Observations and Comments:

Item Number 1

• The area between the exterior cladding / veneer and all of the wall penetrations / openings need to be properly sealed. Areas such as utility connections, downspouts, hose bibbs, lighting fixtures, receptacles etc. It is recommended to use an elastomeric caulking / sealant.



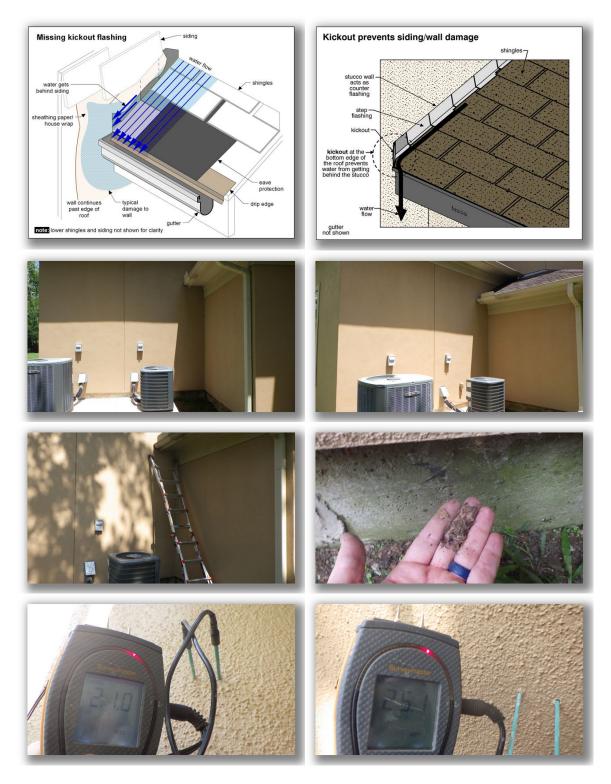
Back Side of Structure



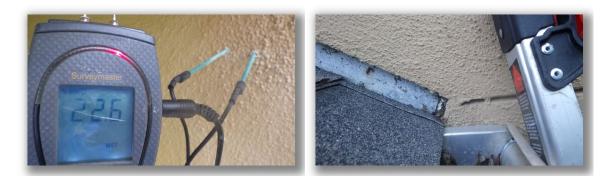


Observations and Comments:

• There is missing kickout flashing details at the lower bottom edge of the roof line interface and the sidewall that continues past the edge of the roof. The lack of this kickout flashing will allow water to penetrate at these points. It is recommended to have kickout flashing details installed to help prevent future water intrusion at this locations.



• There is missing kickout flashing details at the lower bottom edge of the roof line interface and the sidewall that continues past the edge of the roof. The lack of this kickout flashing will allow water to penetrate at these points. It is recommended to have kickout flashing details installed to help prevent future water intrusion at this locations.



Item Number 3

• The stucco weep screed was observed to be missing.



Item Number 4

• The area between the exterior cladding / veneer and all of the wall penetrations / openings need to be properly sealed. Areas such as utility connections, downspouts, hose bibbs, lighting fixtures, receptacles etc. It is recommended to use an elastomeric caulking / sealant.





• There is missing kickout flashing details at the lower bottom edge of the roof line interface and the sidewall that continues past the edge of the roof. The lack of this kickout flashing will allow water to penetrate at these points. It is recommended to have kickout flashing details installed to help prevent future water intrusion at this locations.



II. PHOTO SUMMARY

III. CLADDING MOISTURE EVALUATION AGREEMENT

This Inspection Agreement (herein after known as the Agreement) is entered into on this day, 06/10/2020, between TEST STUCCO (herein known as the Client) and A-Action Home Inspection Group (herein known as the Inspector) for the purpose of performing a general property condition inspection concerning (herein known as the property).

PURPOSE

The purpose of this moisture inspection is to help assess the condition of the cladding system by looking for visible installation flaws, inadequate water diversion and sealant failures and conduct random moisture readings using electronic moisture scan devices. Please note that the provision of a scope of work for remedial repairs is not the purpose of this inspection. Further investigation may be needed to determine the extent of water damage, if any, and how best to modify your home to address any moisture problems that may be indicated by this inspection.

I. SCOPE OF SERVICES

- A. The purpose of the inspection is to provide the Client with information regarding the general condition of the cladding system at the time of inspection. Provide detailed information on typical moisture-related problems in the cladding system to assist the Client in maintaining the value of your home. The Inspector will conduct random electronic moisture scanning of the building envelope and prepare a report of observations of potential problem areas and recording any high readings found.
- B. A moisture inspection is a non-technically exhaustive, limited visual survey and basic performance evaluation of the cladding system and components of a building envelope such as; cladding, exterior sealants, flashing, windows, doors, roof-to-cladding transitions, parapets, gutters, deck-to-building connections, cladding terminations and any penetrations through the cladding.
- C. In exchange for the inspection fee paid (\$) by the Client, the Inspector agrees to provide the Client with an Cladding Moisture Report setting out the Inspector's professional opinions concerning the condition of the cladding system further described in the report. The inspection will be performed in accordance with the inspection protocol promulgated by the Exterior Design Institute. Inspector will attempt to identify major defects and problems with the cladding system. However, Client acknowledges that the Cladding Moisture Report may not identify all defects or problems.
- D. The inspection is limited to those items which are easily accessible, seen, viewed or capable of being approached, entered and/or operated by the Inspector at the time of the inspection as set out in the Inspection Report. The Inspector will not climb over obstacles, move furnishings or large, heavy, or fragile objects, remove walls, floors, wall coverings, floor coverings and other obstructions in order to inspect concealed items. Systems, components and conditions which are not specifically addressed in the Cladding Moisture Report are excluded.
- E. The Cladding Moisture Report may indicate one of the following opinions of the Inspector regarding a particular item:
 - 1. The cladding system and components are performing its intended function, achieving an operation, function or configuration relative to accepted industry standard practices with consideration of age and normal wear and tear from ordinary use at the time of the inspection;
 - 2. The cladding system or components are in need of replacement, maintenance or repair; or
 - 3. Further evaluation or core sampling needs to be performed by a qualified by an expert.

II. INSPECTION REPORT

- A. The Cladding Moisture Report provided by the Inspector will contain the Inspector's professional, good-faith opinions concerning the need for replacement, maintenance or repair of certain observable items. All statements in the report are the Inspector's opinions and should not be construed as statements of fact or factual representations concerning the Property. By signing this Agreement, the Client understands that the services provided by the Inspector fall within the Professional Services Exemption of the Texas Deceptive Trade Practices Act ("DTPA") and agrees that no cause of action exists under the DTPA related to the services provided.
- B. Unless specifically stated, the report WILL NOT INCLUDE and should not be read to indicate OPINIONS AS TO;
 - 1. the presence, absence, or risk of environmental conditions such as asbestos, lead based paint, mold, mildew, corrosive or contaminated drywall "Chinese Drywall" or any other environmental hazard, environmental pathogen, carcinogen, toxin, mycotoxin, pollutant, fungal presence or activity, poison, presence of toxic or hazardous waste or substances;
 - 2. presence or absence of pests, termites, or other wood destroying insects or organisms;
 - 3. compliance with any ordinances, statutes or restrictions, code, listing, testing or protocol authority, utility sources, property association guidelines or requirements, manufacturer or regulatory requirements;
 - 4. insurability, efficiency warrantability, suitability, adequacy, compatibility, capacity, durability, quality reliability, marketability, operating costs, recalls, counterfeit products, product lawsuits, age, energy efficiency; or
 - 5. anticipate future life or future events or changes in performance of any item inspected.
- C. The Cladding Moisture Report is not a substitute for disclosures by sellers and real estate agents. Said disclosure statements

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should be carefully investigated for any material facts that may influence or effect the desirability and/or market value of the Property.

D. As noted above, the Cladding Moisture Report may state that further evaluation of certain items is needed by an expert in the field of the item inspected. 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 cladding to allow for visual inspection. By signing this Agreement, Client acknowledges that qualified experts may be needed to further evaluate such items as cladding's, exterior sealants, flashing, windows, doors, roof-to-cladding transitions, parapets, gutters, deck-to-building connections, cladding terminations and any penetrations through the cladding and other observable items as noted in the report. Any such follow-up should take place prior to the expiration of any time limitations such as option or warranty periods.

III. DISCLAIMER OF WARRANTIES

The inspector makes no guarantee or warranty, express or implied, as to any of the following:

- 1. That our observations and random moisture readings offer conclusive evidence that no installation or moisture problems exist, or that problems found are all-inclusive.
- 2. That all defects have been found or that the Inspector will pay for repair of undisclosed defects;
- 3. That any of the items inspected are designed or constructed in a good and workmanlike manner;
- 4. That any of the items inspected will continue to perform in the future as they are performing at time of the inspection; and
- 5. That any of the items inspected are merchantable or fit for any particular purpose.

IV. LIMITATION OF LIABILITY

BY SIGNING THIS AGREEMENT, CLIENT ACKNOWLEDGES THAT THE INSPECTION FEE PAID TO THE INSPECTOR IS NOMINAL GIVEN THE RISK OF LIABILITY ASSOCIATED WITH PERFORMING CLADDING MOISTURE EVALUATIONS, IF LIABILITY COULD NOT BE LIMITED. CLIENT ACKNOWLEDGES THAT WITHOUT THE ABILITY TO LIMIT LIABILITY, THE INSPECTOR WOULD BE FORCED TO CHARGE CLIENT MUCH MORE THAN THE INSPECTION FEE FOR THE INSPECTOR'S SERVICES. CLIENT ACKNOWLEDGES BEING GIVEN THE OPPORTUNITY TO HAVE THIS AGREEMENT REVIEWED BY COUNSEL OF HIS OR HER OWN CHOOSING AND FURTHER ACKNOWLEDGES THE OPPORTUNITY OF HIRING A DIFFERENT INSPECTOR TO PERFORM THE INSPECTION. BY SIGNING THIS AGREEMENT, CLIENT AGREES TO LIABILITY BEING LIMITED TO THE AMOUNT OF THE INSPECTION FEE PAID BY THE CLIENT. THE CLIENT HEREIN UNDERSTANDS THE INSPECTORS TOTAL LIMIT OF LIABILITY AS RELATED TO THIS PROPERTY IS \$.

V. DISPUTE RESOLUTION

In the event a dispute arises regarding an inspection that has been performed under this agreement, the Client agrees to notify the Inspector within ten (10) days of the date the Client discovers the basis for the dispute so as to give the Inspector a reasonable opportunity to reinspect the property. Client agrees to allow reinspection before any corrective action is taken. Client agrees not to disturb or repair or have repaired anything which might constitute evidence relating to a complaint against the Inspector. Client further agrees that the Inspector can either conduct the reinspection himself or can employ others (at Inspector's expense) to reinspect the property, or both. In the event a dispute cannot be resolved by the Client and the Inspector, the parties agree that any dispute or controversy shall be resolved by mandatory and binding arbitration administered by the American Arbitration Association ("AAA") pursuant to Chapter 171 of the Texas Civil Practice & Remedies Code and in accordance with this arbitration agreement and the commercial arbitration rules of the AAA.

VI. ATTORNEY'S FEES

The Inspector and the Client agree that in the event any dispute or controversy arises as a result of this Agreement, and the services provided hereunder, the prevailing party in that dispute shall be entitled to recover all of the prevailing party's reasonable and necessary attorneys' fees and costs incurred by that party.

VII. EXCLUSIVITY

The Cladding Moisture Report is to be prepared exclusively for the Client and is not transferable to anyone in any form. Client gives permission for the Inspector to discuss report findings with real estate agents, specialists, or repair persons for the sake of clarification. A copy of the Cladding Moisture Report may be released to the Clients Real Estate Agent.

IV. CLADDING MAINTENANCE INFORMATION

The beautiful architectural designs made possible by synthetic cladding systems make these homes very desirable and marketable. It is critical, however, to carefully maintain these systems to prevent water intrusion and deterioration. With the proper care and maintenance, your cladding system should give you many years of beauty and function. It is very important that the five following steps be followed to protect your investment.

(1) Semi-annually (at least annually) inspect all sealant around windows, doors, penetrations through the cladding, cladding transitions (such as cladding to brick, cladding to stone), and cladding terminations (at roof, at grade, at patios or walkways). Arrange for prompt repair of any areas of caulk that is split, cracking, crazing or is losing adhesion. Also, promptly repair any cracks in the cladding.

(2) Any leaks, cracks, areas of discoloration, mold or mildew should be promptly investigated by a certified EIFS inspector. Repairs should be proper and prompt.

(3) Anytime you make a penetration though the cladding such as to mount a satellite dish, add shutters, new wiring, cables, plumbing, security systems, etc., the perimeters must be sealed with a quality sealant approved for EIFS.

(4) Modifications, additions or renovations (including roof replacement) to the structure of any kind should be inspected by a qualified EIFS inspector to ensure waterproofing of critical details is properly performed.

(5) Periodic cleaning of the cladding is necessary to maintain its appearance and prevent permanent staining. Pressure cleaning equipment must be calibrated to the cladding manufacturer's recommended pressure level (low) to prevent damage to your cladding. Select a firm with experience in cleaning these EIFS systems.

V. GLOSSARY OF TERM & DEFINITIONS

- Accessory Any component installed in conjunction with an cladding system manufactured by that other than the systems manufacturer other than specific system components such as Portland cement and fiberglass reinforcing mesh. (i.e. starter tract, control joints, mechanical fasteners)
- Aesthetic Joint/Reveal An aesthetic joint/reveal is a shaped groove cut into the insulation board prior to the installation of base coat and mesh. It serves as a design feature as well as providing a natural stopping point during the installation of the finish material. At no time can any portion of an aesthetic joint/ reveal be a flat horizontal surface.
- Adhesive Cementitious and Non-cementitious adhesives. Cementitious, either premixed dry base or polymer based adhesive that is to be mixed with cement. Typically used for the attachment of EPS to gypsum, cement board or unpainted masonry substrates. Non-cementitious adhesive is a one part incombustible adhesive typically used for the attachment of EPS to wood substrates.
- AMSV Adhered Manufactured Stone Veneer
- **Backer Rod** A closed cell foam rod installed in a joint that is to receive sealant. Its purpose is to control joint depth and configuration as well as prevent three-sided adhesion.
- Backup The interior or exterior assembly to which AMSV systems are installed.
- **Base Coat Adhesive -** Cementitious and Non-cementitious base coats applied to the face of the insulation board and which the reinforcing mesh is imbedded.
- **Bond Breaker -** Normally in tape form. Used to ensure adhesion on both sides of the joint in joints of limited depth and where a backer rod or other joint filler is not practical.
- **Brown Coat** The second coat of Portland cement plaster installed in a conventional hard coat stucco system. This coat if for leveling the wall surface in preparation for the installation of the finish material.
- **Casing Bead** Used as a stucco stop and exposed to eliminate the need for wood trim around window and door openings; also recommended at junction or intersection of plaster an other wall or ceiling finishes, and as a screed.
- **Cladding System -** All components of the exterior of a building including but not limited to cladding material, windows, roof, flashings and sealants.
- **Class PB EIFS -** A polymer based system applied over expanded polystyrene (EPS) board attached to the substrate with adhesive and/ or mechanical fasteners. Base coat thickness will vary depending on weight of fiberglass reinforcing mesh and number of mesh layers covering the entire surface. Primer may be installed over cured base coat, but is optional or by system specification. Textured or non-textured finish coat is applied to primed or non-primed base coat.
- **Class PI EIFS -** A polymer based system applied over polyisocyanurate (PI) board attached over open (steel stud) framing or a solid substrate. Base coat thickness will vary depending on weight of fiberglass reinforcing mesh and number of mesh layers covering the entire surface. Primer may be installed over cured base coat, but is optional or by system specification. Textured or non-textured finish coat is applied to primed or non-primed base coat.
- **Class PM EIFS** A polymer modified, mechanically fastened EIFS. Insulation board and fiberglass reinforcing mesh are both mechanically attached to the framing and/ or substrate. Typically PM systems call for vinyl or zinc coated trim accessories. Base coat material ranges in thickness from ¹/₄ to 3/8 inches. The base coat can be coated with a primer, depending on specifications. Finish material is applied over the primed or unprimed base coat.
- CMU Concrete masonry unit.
- **Coating** A material applied to the surface of an AMSV assembly following construction for aesthetic purposes or to enhance one or more physical properties, such as resistance to staining or moisture penetration.
- **Cold Joint -** Occur when a wet edge is not maintained. This can typically be avoided with proper scaffold, sufficient manpower and aesthetic reveal/ joints.
- **Corner Bead Expanded** A general-purpose corner bead is economical and most generally used. Has wide expanded flanges that are easily flexed. Preferred for irregular corners. Provides increased reinforcement close to nose of bead.

- **Cornerite** This product is a strip of painted or galvanized Diamond Mesh Lath used as reinforcement. Cornerite, bent lengthwise in the center to form a 100-degree angle, should be used in all internal stucco angles where metal lath is not lapped or carried around; over substrate, anchored to the substrate, and over internal angles of masonry construction.
- **Control Joint** Designed to relieve stresses of both expansion and contraction in large cladding areas. Made from roll-formed zinc alloy, it is resistant to corrosion in both interior and exterior with gypsum or Portland cement plaster. An open slot, ¹/₄" wide and ¹/₂" deep, is protected by a plastic tape that is removed after plastering is completed. The short flanges are perforated for keying and attachment by wire-tying to metal lath or by stapling to gypsum lath. Thus the plaster is key-locked to the control joint, which not only provides plastering grounds but can also be used to create decorative panel designs.
- **Corrosion (Degradation) Resistant** A material that is intrinsically resistant to degradation or physically or chemically treated to be so under expected exposure conditions. Examples include plastic-based materials stabilized for exposure to UV light, galvanized ferrous metals, and stainless steel.
- **Curing -** This is one of the most critical aspects of good stuccowork. Cement is plaster requires water for hydration and to develop its full strength. If inadequate water is present, cement hydration is incomplete, producing weaker stucco. Curing during the early days of each coat is essential since shrinkage stresses tend to be high while the plaster has not yet gained full strength. Curing does not reduce overall shrinkage but it does delay it so hat the plaster can gain strength and is thus better able to resist shrinkage stresses when the plaster dries later.
- **Direct-Applied Exterior Finish System (DEFS)** An exterior finish system without insulation board. Base coat, regular or fiber reinforced, fiberglass-reinforcing mesh, if required by system manufacturer and finish coat applied directly to an un-insulated substrate.
- **Drainage Mat** One type is a three dimensional core consisting of fused, entangled filaments and a second is a non-woven fibrous, plastic mesh. Both are used as a spacer to create a drainage plane.
- **Drainage Plane/Cavity** The space between the EPS insulation board and the weather/ moisture barrier through which incidental moisture can intercepted, conveyed and drained to the face of the cladding system. Two types are drainage mat and fluted EPS.
- **Efflorescence -** A crystalline deposit, usually white, that may develop on the face of a cementitious base coat, possibly from exposure to rain or damp conditions. Efflorescence deposited on the face coat is a bond breaker, and will prevent adhesion of the finish or coating.
- **EIFS Exterior Insulation and Finish System -** A non-load bearing exterior wall cladding system consisting of a thermal insulation board, adhesively and/ or mechanically attached to the substrate, base coat with reinforced fiberglass mesh and a textured finish coat.
- **EIFS-MD** EIFS with a drainage plane. A non-load bearing exterior wall cladding system consisting of a thermal insulation board, adhesively and/ or mechanically attached to the substrate, base coat with reinforced fiberglass mesh and a textured finish coat with a drainage plane allowing incidental moisture to drain to the face of the cladding system.
- Embed A method implemented to encapsulate the fiberglass reinforcing mesh in the base coat
- **EPS:** (See Insulation board)
- **Expansion Joint -** A complete structural separation of building elements that allows for independent movement of abutting elements without damage to the assembly. Typically this is a separation through the cladding system / EIFS as well as the substrate and framing or masonry.
- Factory Mixed A material that is delivered from the manufacturer ready to use from the container. (i.e. finish coatings and non-cementitious base coat)
- Field Mixing the mixing of a manufacturer supplied material with additional materials not manufactured by the system manufacturer. (i.e. EIFS base coat and Portland cement)
- Fascia Any flat horizontal member, generally between molding's, most frequently used when referring to elements of a classical architecture cornice adjacent to the roof / soffit.
- Fasteners (Stucco) Plastic washers used in conjunction with non-corrosive screws to attach both Class PB and PM insulation

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to substrate and/ or framing. There is a great difference in the plastic washer used in the two different systems. Fasteners are considered an EIF System accessory.

- Fasteners Corrosion resistant hardware used to secure lath, screed, and flashing materials to backup system.
- **Flashing -** A non-corrosive material of metal or plastic at a systems termination or interface with an opposing cladding component used to drain moisture to the face of the wall assembly.
- Finish A textured and colored material, trowel or spray applied over the reinforced base coat with graded aggregate of either silica or marble.
- **Insulation Board -** Aged, molded, expanded or extruded polystyrene (EPS) foam. One pound expanded polystyrene is used with a Class PB or MD EIF System. Extruded polystyrene is used with a Class PM EIF System. Also, there is Polyisocyanurate insulation that is typically used with a Quick R system.
- **Kickout Flashing -** A diverter flashing that is installed as the first piece of flashing at the end of the roof where it intersects the wall. Intended to prevent channeling of moisture behind systems at the roof/wall or roof/chimney intersections.
- Lamina Base coat, fiberglass-reinforcing fabric/ mesh and finish coat as a composite unit. Sometimes a primer coat is also incorporated, depending on the application and manufacturers system requirements.
- **Metal Lath -** Metal lath embedded within the cladding provides reinforcement. It is readily shaped to ornamental contours to a degree not possible with other cladding bases. Metal lath is a mesh material formed from sheet steel that has been slit and expanded to form a multitude of small openings. It is made in Diamond Mesh and Rib lath types and in two different weights for most types. Manufactured from steel protected by a coating of black asphaltum paint. Diamond Mesh and 3/8" Rib lath are also available in galvanized steel.
- **Mortar** A mixture of cementitious material, water, and aggregate, with or without the addition of admixtures or additives to alter one or more plastic or hardened properties, used to bond masonry construction materials together and fill spaces between.
- Mortar Pointing Mortar mixture used to fill joints and cavities in AMSV construction, also called grouting mortar.
- Mortar Scratch Coat Base coat of mortar used during the installation of AMSV; cross-raked to improve bond of subsequent mortar layers.
- Mortar Screen Sheet material installed to prevent the mortar scratch coat from filling the drainage space behind the AMSV assembly.
- Mortar Setting Bed Mortar used to adhere the AMSV to the substrate or scratch coat.
- **One Coat Stucco (OCS)** A factory blended, fiber-reinforced, Portland cement stucco base coat formulated for assured strength and durability.
- **Penetration -** Any location in an EIF System where an object passes through all components of the system such as a window, door, light box, etc.)
- **Primer** A paint-like coating (tinted or untinted) installed over the base coat to enhance adhesion, equalize suction and improve workability of the finish material.
- **Reinforcing Mesh -** Standard reinforcing mesh is a nominal 4.5 oz./sq. yd., symmetrical, interfaced open-weave glass fiber fabric made with minimum 20 percent by weight alkaline resistant coating for compatibility with base coats.
- **Reinforcing Mesh High Impact Mesh -** Minimum 15 oz./ sq. yd., high impact, double strand, interwoven, open-weave glass fiber fabric with alkaline resistant coating for compatibility with base coats. High impact mesh is also available in 20 oz./ sq. yd. from most EIFS manufacturers.
- **Sealant** (also referred to as caulking) Installed with or without a backer rod for the purpose to allow thermal expansion and contraction of dissimilar cladding components to prevent moisture intrusion at system penetration and terminations.
- Sealant System The use of primer, backer rod or bond breaker in conjunction with the installation of sealant.
- Scratch Coat The first coat of Portland cement stucco installed over metal wire or lath. This first coat should be a minimum of ¹/₄" thick, measured from the backing to adequately cover the metal wire or lath and still leave enough stucco to permit deep scratching (horizontally) to give a good mechanical key for the next coat which is the brown coat.

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- **Stucco Conventional Hard Coat -** A solid cement plaster cladding of Portland cement and sand often containing lime, plasticisers or other admixtures, applied over rigid or non-rigid backing fixed to wood or steel stud framing and reinforced with metal wire mesh or lath.
- **Substrate or Sheathing -** The wall surface to which the EIFS is attached. Acceptable substrates include exterior grade plywood, oriented strand board, exterior grade gypsum sheathing, glass faced gypsum board, cement board, clean unpainted masonry, concrete free of paint sealers and oils or contaminants, structurally sound unpainted clean Portland cement stucco.
- **Surface Mounted Objects -** Anything attached to the face of the EIFS that penetrates the lamina. (i.e. light fixtures, downspouts) Each EIFS manufacturer has specific details for the attachment of surface mounted objects.

Strip lath - (see Cornerite)

- **Terminations -** Any place a wall system ends. Terminations can be windows or door openings, the top or bottom of a wall or both sides of an expansion joint. In any case, all terminations must be totally encapsulated with base coat and mesh and a sealant to or flashing with appropriate backer rod installed to prevent water moisture infiltration.
- Weather/Moisture Barrier A sheet good or wet applied coating installed at the face of the substrate as a moisture barrier or drainage plane. Material used to restrict the transmission of water to the surface behind.
- **Weep Screed -** A building accessory, usually made of galvanized steel or thermoplastic material, installed along the base of an exterior stucco wall. Most commonly on roofs ad above grade, the weep screed allows incidental moisture to escape. Generally, stucco industry guidelines and/or local building codes specify where these screeds should be placed in relations to the ground or roof to ensure sufficient drainage.
- Wrapping The process of totally encapsulating all EPS to seal and strengthen the system by bringing reinforcing mesh around the system terminations, embedded in base coat. Wrapping is also referred to as back wrap or edge wrap.