



Condominiums



Apartments

Moisture Management & Quality Control (M²QC)

MANAGE YOUR PROJECT INSTEAD OF PROBLEMS.



Senior Living



Hospitality



When Buildings Talk, We Listen.



Why Implement the M²QC Program?

Your project is unique, but it is not immune to water-related issues and the resulting risk common to almost every construction project. The SkyeTec Moisture Management & Quality Control (M²QC) program is designed to identify, document, and report these issues early in order to reduce liability associated with water damage. As a third party consultant, SkyeTec targets those conditions that either lead to water damage or are currently impacting building materials. This comprehensive assessment program is designed to integrate a preventative approach with concise diagnosis and unbiased analysis to mitigate indoor environmental concerns. SkyeTec provides a practical and cost-effective program that brings value to your project through higher quality, market differentiation, reduced long-term maintenance, and limited risk and liability for indoor environmental issues, including mold.

Verify and document your project conditions throughout the construction process.

When it comes to commercial building, construction time is of the essence. SkyeTec's reporting of moisture related items and envelope infiltration helps to alleviate the constraints of time by simplifying and expediting project and trade management for the contractor.

The M²QC program is a combination of detailed quality control and moisture intrusion inspections, performed at critical points during construction. M²QC identifies issues before they turn into costly problems. Early detection of moisture or quality issues provides the contractor and their trades with the ability to make corrections during construction, helping maintain the construction schedule and keep correction costs down.

Our technology allows for real-time field verification that delivers concise reporting and visual support of all findings. These findings are clearly identified and can be sorted into trade specific findings reports.

“An ounce of prevention is worth a pound of cure.” The M²QC program provides you with the ability to manage the project, instead of problems, and offers a variety of benefits including:

- Reduced risk and liability for moisture and indoor air quality concerns
- Validation of construction
- Improved quality
- Third-party validation
- Reduced warranty costs
- Lower long-term maintenance costs
- Clear overview of trade performance and issue resolution
- Enhanced control over corrections and repairs
- Improved customer satisfaction



Did you know?

The average cost for kitchen replacement and repair from a water event is \$15,000-\$25,000



When Buildings Talk, We Listen.

SCOPE OF SERVICES

MANAGE YOUR PROJECT INSTEAD OF PROBLEMS.

Moisture Management & Quality Control:

- 1. Pre-Drywall Inspection**
- 2. Trim IR Inspection**
- 3. Final IR Inspection**

1. PRE-DRYWALL INSPECTION



PRE-DRYWALL INSPECTION



Pipe penetrations not sealed



Visible mold growth present



Ductwork termination unprotected

The pre-drywall inspection is the first inspection leading to SkyeTec Verification of each residential unit. The goal of the pre-drywall inspection is to visually validate and document observable conditions from the interior at the time of the inspection, including but not limited to:

- Unsealed exterior wall penetrations (only readily observable from an interior vantage point)
- Unsealed floor-to-floor penetrations
- Installed duct work that has tears, holes, or is disconnected
- Location of plumbing rough-ins within the wall cavity
- High moisture content of installed or stocked materials

The result of this inspection provides the contractor with a report documenting observed conditions at the time of inspection, so that they may make corrections to help prevent future indoor moisture related environmental issues.

This is an initial inspection that is followed by subsequent inspections to further validate environmental conditions, and provide a comprehensive “snapshot” of the overall construction process. This inspection must be scheduled in a timely manner, prior to cover-up.

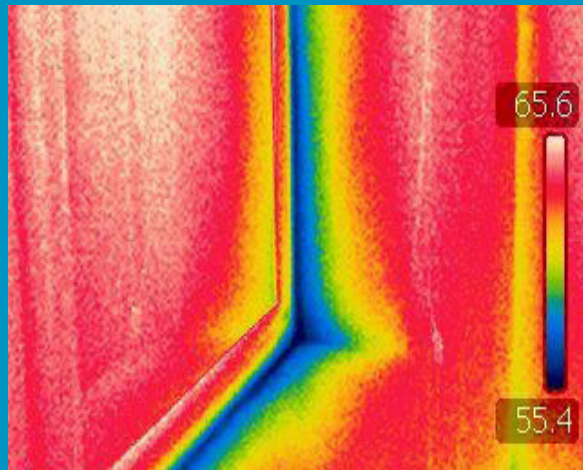
Prerequisites

- Mechanical, electrical, and plumbing rough-in should be completed
- Roofing materials, exterior wall finish, doors, and windows should be installed to create a dried-in condition
- Insulation may be installed but is not preferred in order to see penetrations through exterior walls and also floor-to-floor

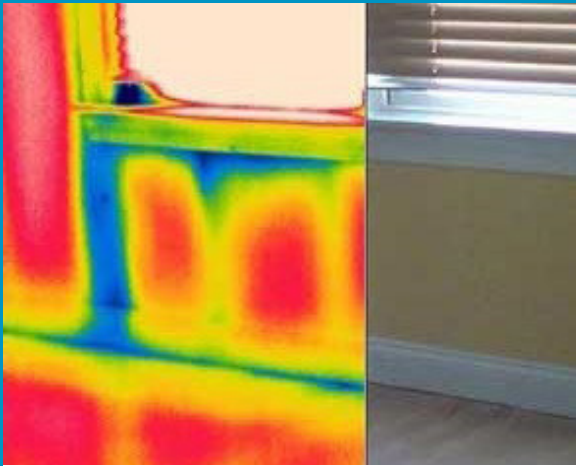
2. TRIM IR INSPECTION



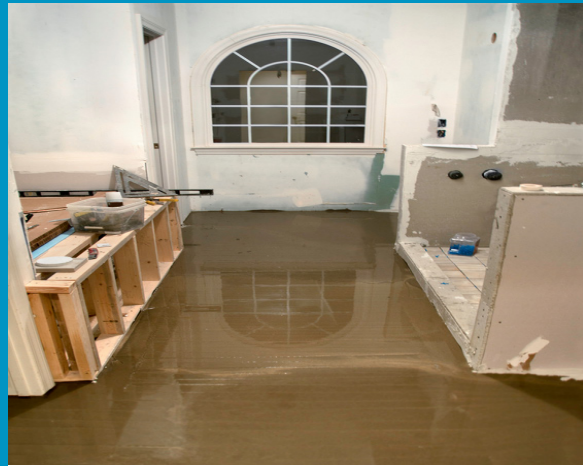
TRIM IR INSPECTION



IR photo of air leakage around window



IR photo of missing insulation



2" of water present on floor

The Trim IR inspection is conducted after the building is dried-in. Using infrared thermography, it provides validation and documentation of air infiltration and high moisture content at the time of the inspection, including but not limited to:

- Air infiltration from exterior walls (only readily observable from an interior vantage point)
- High moisture content of installed or stocked materials
- Missing insulation
- High temperature and relative humidity inside of the unit which could result in visible mold growth on finish materials
- All interior wall and ceiling surfaces are scanned with infrared to detect any thermal anomalies and to measure temperature and relative humidity

The Trim IR inspection provides the contractor with a report documenting observed conditions at the time of the inspection so that corrections may be made in order to help prevent future indoor moisture related environmental issues.

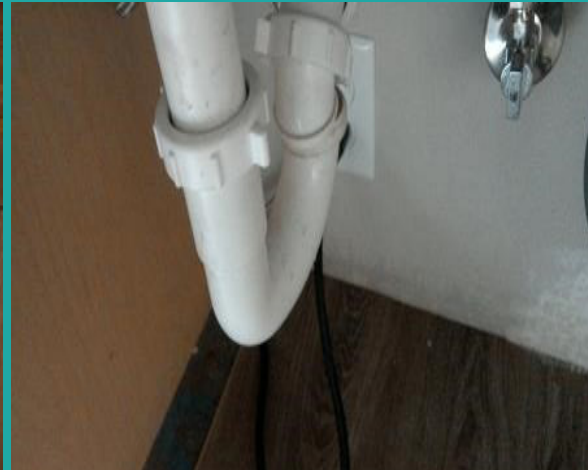
Prerequisites

- The building must be dried-in with interior temperature and humidity controlled but not conditioned
- Gypsum board installation should be complete, cabinets should be installed or in the process of being installed, and the prime coat of paint may be applied
- No millwork trim should be installed to facilitate inspection of gypsum board surfaces
- If possible, domestic water should be turned on for the floor being inspected

3. FINAL IR INSPECTION



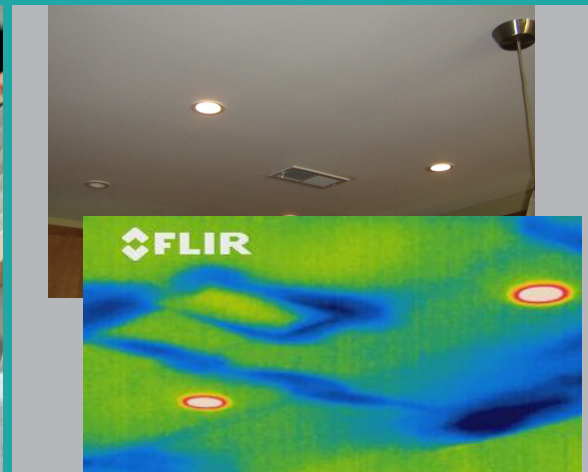
FINAL IR INSPECTION



Active drain leak



Dirty air filter



IR photo of water leak above the ceiling

The last inspection is the Final IR. Conducted after all finish materials are installed, and water, power, and AC are turned on, this inspection provides validation and documentation of observable conditions (from an interior vantage point) at the time of inspection. Water is turned on at tubs, sinks, showers and lavatories, and toilets are flushed to determine evidence of active leaks. All interior wall and ceiling surfaces are scanned with infrared thermography, and temperature and relative humidity are measured. The Final IR inspection includes, but is not limited to, the documentation of observable thermal anomalies that can help identify:

- Active water leaks from plumbing fixtures and appliances
- Visible mold growth
- Air infiltration from exterior walls and ceilings
- High moisture content of installed materials
- Dirty air filters (at the time of inspection)
- High Temperature and relative humidity

Prerequisites

The units/areas to be inspected should be ready for occupancy and have:

- A fully operational HVAC system
- Completed interior finishes
- Plumbing fixtures installed and operational (water on)
- Utilities turned on
- Appliances should be installed and fully functional
- All other finish work completed

COMPREHENSIVE REPORTS



When Buildings Talk, We Listen.

Date: _____

Builder Name: _____

Builder Address: _____

Findings Report

Date: _____

Assignment: 037582

Report Type: _____

Service: CERT IR

Weather: _____

Notes: _____

Property

Property Address: _____

City, State: _____




Findings

X	Trade	Area	Category	Question	Photo
	Plumbing	Kitchen	Cabinets	Kitchen sink not sealed to countertop	
	Countertops	Kitchen	Cabinets	Backsplash not sealed to wall	
	Painting	Exterior Rear Elevation	Exterior Wall Surface	Hose bib not caulked to wall	

Notes: Caulk pipe penetration

UNIT INSPECTION REPORT



Real time Project Management & Statistical Reporting

Created By SkyeTec

Plumbing Punch List from 06/20/2014






Project: The Villages - Phase II

SkyeTec Customer: Contractor

Project Address: The Villages FL 32159

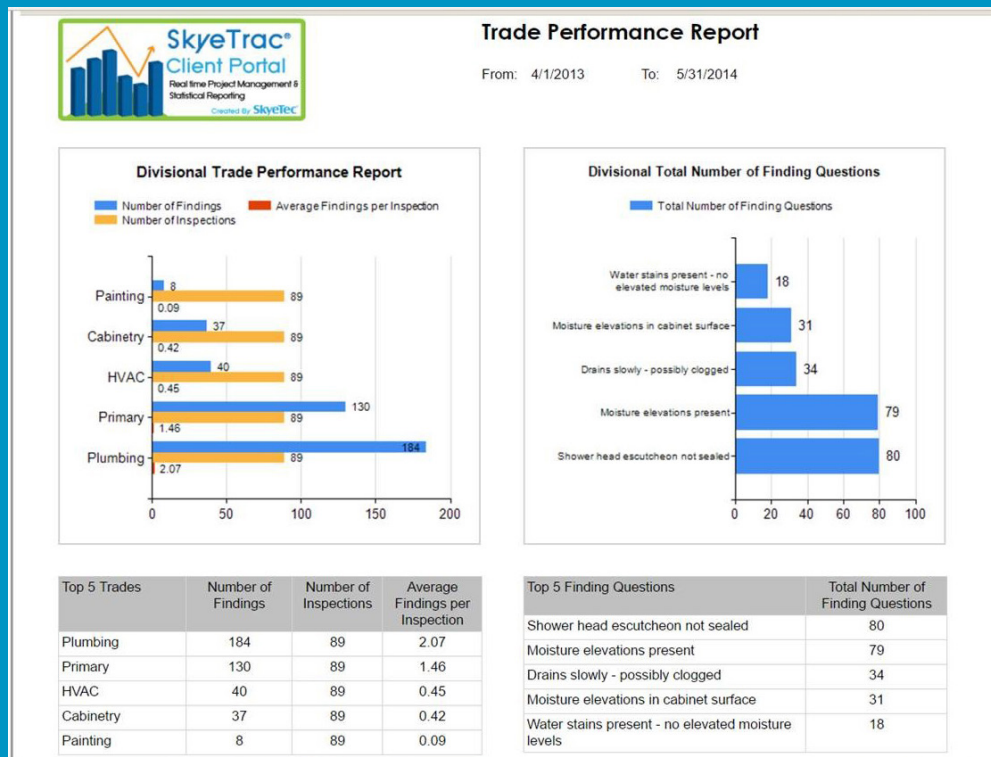
* Jobsite is translated as (Project unit/building/floor)

Please Correct findings below and date and initial finding once done.

JobSite	Finding	Area	Category	Notes	Picture	Date	Sign-Off Initials
PRBB (04/1/1)	Plumbing pipe protection missing	General Interior	Interior Wall Surface	Entry and bathroom.			
PRBB (05/1/1)	Plumbing pipe protection missing	General Interior	Interior Wall Surface	Entry and bathroom.			
PRBB (06/1/1)	Plumbing pipe protection missing	General Interior	Interior Wall Surface	Entry and bathroom.			
PRBB (07/1/1)	Plumbing pipe protection missing	General Interior	Interior Wall Surface	Entry and bathroom.			
PRBB (08/1/1)	Plumbing pipe protection missing	General Interior	Interior Wall Surface	Entry and bathroom.			

Page 1

TRADE SPECIFIC PUNCH LIST



TRADE PERFORMANCE REPORT

Real-Time Reporting and Project Management

Following the M²QC inspection, an electronic report that lists all of the residential units inspected and the type of inspection conducted, is emailed to the contractor. Delivered the morning after the inspection, this report provides a detailed look at all of the inspection findings. We also include a link to the Trade Specific Punch Lists for those units inspected, which provides a comprehensive report of issues for the individual trade's responsibility. Each trade report includes a description of the issue(s), the location(s), and photograph(s) for correction.

Throughout the project the contractor is able to track trade performance and easily identify recurring issues for further training and resolution.

The Letter of Assessment

The culmination of the M²QC program is the SkyeTec Letter of Assessment (LOA) which confirms that the residence/guest room has passed the Final IR Inspection and that there is no evidence of unusual moisture or mold, nor were the conditions conducive for potential moisture intrusion or mold growth at the time of inspection. This letter is used by the builder to validate to the Owner that he has gone above and beyond to provide a higher quality product, with fewer water related issues. Also, the Owner may use it as added property value and proof of due diligence in the future.



Date

Customer

Street Address

City, State Zip

Final Inspection Report For:

VMT 916/1/9

Wilkinson Drive

Atlanta, GA 30303

SkyeTec has completed a third-party on-site inspection for this property resulting in SkyeTec Verification of the residence according to the **SkyeTec Moisture Management & Quality Control Program**. The focus of our inspection was to identify, document, and provide recommendations for moisture & air intrusion, potential moisture intrusion, interior temperature and relative humidity, and visible microbial growth during the construction process. Based upon our inspection, the environmental conditions present in the property at the time of the Final Inspection do not indicate abnormal moisture or microbial related issues as of the date of this letter.

Scope of Work Overview

SkyeTec's moisture management program assists the builder in identifying, documenting, and correcting moisture related conditions during construction and delivering a residence with good indoor air quality. A summary of our Verification Inspection is provided below; however some of these items are dependent on the home's actual conditions and may not be a part of every inspection:

- Infrared Thermal Imaging of interior wall surfaces, ceilings, and cabinetry
- Verification of absence of elevated moisture content in building materials
- Verification that plumbing fixtures & appliances are operating without active leaks
- Relative Humidity measurements are within ASHRAE required range
- General visual inspection of property exterior (walls, windows, doors, roof & grading)
- Caulking & sealants are present in visible locations to prevent moisture or air intrusion
- Verification of no visible microbial growth

The assessment represented in this letter is based in part or in full on the following list of references and/or guideline materials as they pertain to thermal imaging, identification & documentation of IAQ issues, maintaining good indoor air quality, and proper steps for mitigation or remediation of mold or water damaged materials.

Industry Standards & Guidelines

1. American Conference of Governmental Industrial Hygienists: Bio-aerosols: Assessment and Control ACGIH Cincinnati, OH (1999)
2. ASHRAE: Standard 62.1-2010 Ventilation for Acceptable Indoor Air Quality. American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. Atlanta, GA (2010)
3. IICRC S520: Standard and Reference Guide for Professional Mold Remediation. Institute of Inspection, Cleaning and Restoration Certification. Vancouver, Washington. (2008)
4. Energy and Environmental Building Alliance (EEBA). Builder's Guide to Mixed - Humid Climates Minneapolis, MN (2005)
5. ISO 6781:(1983) Infrared Method for Thermal Insulation - Qualitative detection of thermal irregularities in building envelopes
6. ASTM C1060-11a: Standard Practice for Thermographic Inspection of Insulation Installations in Envelope Cavities of Frame Buildings

Should you have any questions regarding our inspection, please contact our corporate office at **1.866.SKYETEC (1.866.759.3832)**.

Sincerely,



Edwin Nelson, Founder

SkyeTec Environmental Building Solutions

9570 Regency Square Blvd. Suite 410 | Jacksonville, FL | 32225| www.SkyeTec.com

LETTER OF ASSESSMENT

SkyeTec Services:

- Moisture Management & Quality Control
- Energy Ratings
- Blower Door Testing
- Duct Leakage Testing
- Quality Control Inspections
- Mold Assessments
- Asbestos Surveys
- Lead Based Paint Assessments
- Water Event Response



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