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SOLUTIONS BEFORE  
SOLUTIONS AFTER

# About Us

SBSA is a team of experts whose unique and diverse training, experience, and education qualify us to evaluate building elements, from how the foundation interacts with the soil, to the superstructure, to the air/weather barrier, to facades, to the overall performance of the building.

SBSA's business is built on the cornerstones of honesty and consistency. We are committed to reporting and testifying to the facts based on established industry documentation. We are committed to adhering to our keystones of standards, ethics and providing consistent, supportable solutions. Our goals are integrated with our values to help us create and deliver an assortment of solutions for our clients. SBSA's solutions reflect our experience, knowledge, training and capabilities.

We serve the design, construction, management and real estate markets. Our clients benefit from our expertise, honesty, standards, and integrity. We offer a comprehensive range of services, including:

- Design services, including those for rehabilitation and repair, new design and property claims
- Construction quality oversight and owners representative services
- Advice and analysis to support sound financial decisions regarding property and real estate concerns, and long-term solutions to the viability of a site's components
- Construction compliance observations for litigation and non-litigation purposes

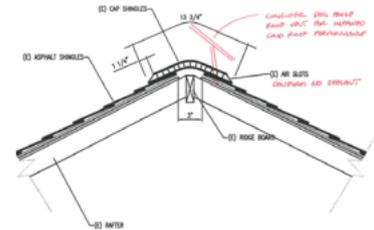


# Plans: Peer Review

## Before Construction

### SBSA can review construction documents to ensure:

- there is a sufficient level of detail
- compliance with codes and standards
- disciplines are integrated
- risk is communicated
- continuity of air, retarders, thermal and water barriers

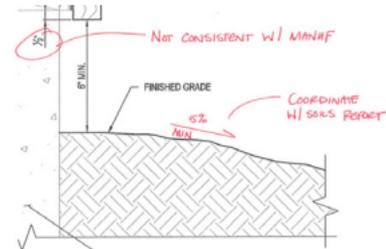


### These reviews determine:

- soil-foundation interaction
- areas that require more rigorous detailing
- areas that are lacking enough information to convey the owner's intent
- key detailing
- risk assessments

### Poor construction can sometimes be a result of:

- a bad plan design
- poor or unclear detailing
- a lack of information



Comprehensive reviews of plans and specifications are intended to identify areas that may not meet code, may not perform well, or where the contractor may have trouble constructing because not enough information is provided. When analyzing defective construction, we refer to the plans as part of understanding the construction process for that particular project.



# New Design

SBSA's design team offers a full complement of professionals who provide thoughtful attention to every step of our client's new construction project.

Our team of experienced engineers, architects, and construction administration specialists provide an interactive design approach combined with the technology to integrate functionality with aesthetics to achieve beauty and performance.

Our team endeavors to create buildings that showcase visual character, architectural ambition, and sustainability, while performing to necessary standards of construction.

## **Our Design & Construction services currently include:**

- Corporate and Commercial Properties
- Office Buildings
- Sustainability
- ADA Requirements
- Multi-Family Design
- Recreational and Aquatic Facilities
- Peer Review



# Performance Testing & Analysis

Our services include testing and exposure of various components of a building to support or refute claims of construction deficiencies. Testing services include level surveys, infrared scans, intrusive testing, ASTM E1105 testing of windows and doors, (1) ASTM E2357 Air Barrier, (2) E779 Pressurization, (3) and E283 Air Leakage, (4) ASTM 1186 Air Leakage, (5) ASTM C1060 Thermal Inspective, (6) ASTM D6381 Shingle Uplift, (7) ASTM C719 Sealant Test. Each of these evaluations help SBSA determine any defects in construction, possible causes, and manifestations of damage.

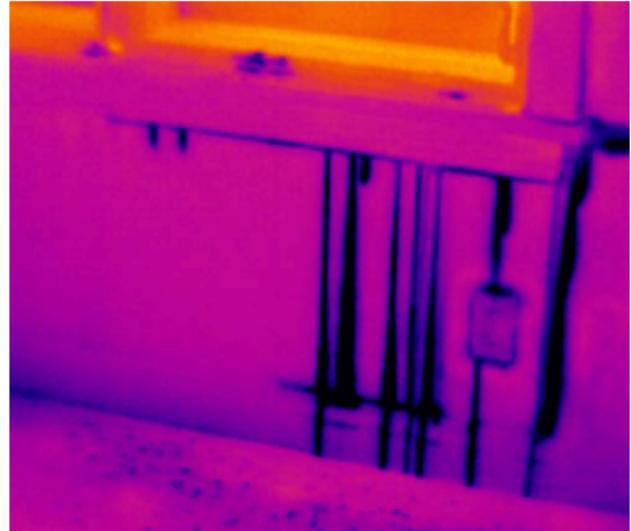
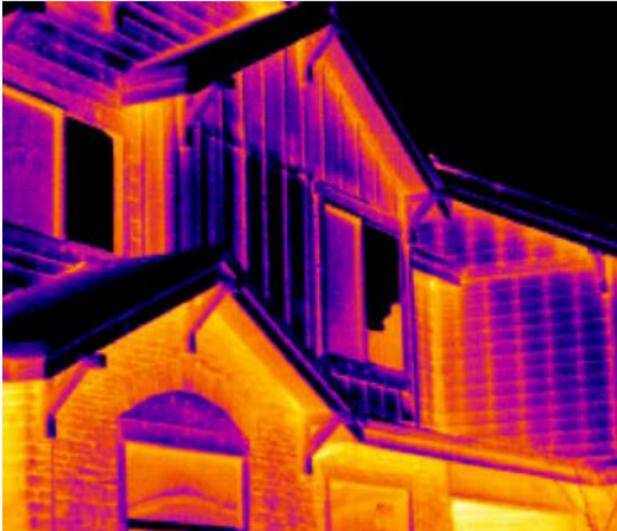
## **Our testing and analysis can include:**

- Relative Level Surveys aid in the assessment of structural movement.
- Window Performance Testing can help to ascertain sources of water leaks, as well as the general performance and installation of windows, doors, and the surrounding assembly.
- Infrared Imaging are used to identify potential anomalies that may be sources of air loss or water infiltration.
- Blower Door Testing can help evaluate the weather- and air-tightness of a building.
- Intrusive Testing allows our investigators to confirm as-built construction and chase water infiltration. Samples collected during intrusive testing are sent to independent, certified testing labs to confirm what, if any, biological growth or toxins are present.



# Infrared Thermography

In the field of forensic engineering, infrared thermography provides an indication of potential resultant damages from air, water or thermal changes. The thermal image provides a visual illustration of the extent of damages from component failures. SBSA's staff uses infrared thermography to thoroughly analyze building systems. Not only can it help investigators determine areas of thermal loss, but it can help identify areas of moisture infiltration and direct intrusive testing efforts. Thermographic imaging is non-intrusive, so it can reduce your costs in identifying and analyzing the issues.



# Using Infrared Thermography in SBSA's investigations can:

- Determine or verify damage associated with water claims
- Identify moisture or air migration paths
- Identify thermal anomalies

## **Roofing**

- Determine performance of cold or super-insulated roofs
- Identify dead spots and coverage of ice melt systems
- Determine the extent of damage from water
- Snow melt system performance monitoring

## **The Building Envelope**

- Detect areas of moisture infiltration
- Determine the migration path of moisture
- Identify potential areas for further intrusive testing, as a result minimizing the need for intrusive examinations
- Provide visual illustration of thermal losses

## **In-Floor Radiant Heat Systems**

- Evaluate in-floor radiant heat systems
- Locate effective/ineffective heat zones, breaks or ruptures in the lines, improper line placement
- Determine operating temperatures
- Allow preventative maintenance of system
- Identify location of lines to allow for drilling or intrusive examination

## **Plumbing Breaks**

- Locate water-damaged components or materials that require fixing
- Determine plumbing line locations behind walls, ceilings and floors
- Provide an understanding of leak

## **Construction Compliance**

- Insulation Inspections
- Structural Assessment
- Air Leakage



# Window Testing



Building codes now require spray testing of walls where there's at least one opening—this testing ensures that the entire building envelope resists wind-driven rain and moisture. Because windows interrupt the continuity of the façade, it's important that all windows are properly integrated with the building's envelope, the underlying weather-resistive barrier, and other moisture-management materials.

Testing windows and their installation verifies that both the window product and the way it's installed will keep water out of the interior wall assemblies, complying with the building codes, industry standards, and good practice.

## **SBSA's window spray tests determine at least two things:**

1. If the window product itself will prevent water infiltration at the defined performance standards; and
2. If the window is properly installed and integrated with adjacent moisture-management materials to keep water out of the walls.



# Property Condition Assessments

When preparing to purchase a property, investors often look to property condition professionals to assess the site and determine any deficiencies that may affect the financial viability of the property.

This evaluation serves to inform investors of risks with a property, as well as giving them a means to negotiate a fair value for the property. SBSA's professionals are qualified to fully evaluate properties for this purpose, and estimate costs to cure based on the findings. SBSA's team of experts works interactively, both during and after the physical evaluation phase of the project, to provide a comprehensive assessment in a timely manner.

Additionally, like property condition assessments, reserve studies are specifically tailored to Homeowners Associations to evaluate the condition of their property and the common elements that the HOA may be responsible for. These recommendations include both ongoing maintenance to the physical site, and value-based financial recommendations for the allocation of funding.

SBSA's assessments comply with both the ASTM Standard Guide E-2018-08 and Standard and Poors' (S&P) Property Condition Assessment Criteria.



“SBSA is a diverse team of experts providing honest, consistent analyses and supportable solutions for property, design, and construction. We report and testify to the facts based on established industry standards and the application of our experience.”