



CURRICULUM VITAE

Don Putnam

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roofconsulting.com

Don Putnam has worked in the roofing and building envelope industry for more than 50 years, first as a residential and commercial roofing contractor and then, beginning in 1984, as an independent consultant. Don currently serves as Senior Consultant for **Putnam Consulting Inc**, a company owned by his daughter, Stacie Putnam.

PROFESSIONAL EXPERIENCE

2019 – Present	Putnam Consulting Inc - Senior Consultant	Austin, Texas
1991 – 2019	Putnam Construction Consulting – Owner	Austin, Texas
1984 – 1991	Austech Roof Consultants – Founder and Pres	Austin, Texas
1980 - 1984	Bar-Mac Reroofing Inc – Partner	Austin, Texas
1969 - 1980	Don Putnam Roof Contractor - Owner	Austin, Texas
1966 – 1969	Don Putnam Leak Repair – Owner	Austin, Texas

EDUCATION

1966-1969	Austin High School	Austin, Texas
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Don Putnam

Background and Experience – a Summary

Don Putnam is a roof and building envelope expert with more than 50 years industry experience, including 15+ years as a residential and commercial roofing contractor and more than 35 years as a roof and building envelope consultant. Putnam has provided expert witness testimony in state and federal courts and has created and taught roofing educational programs for the Texas Association of Real Estate Inspectors, Texas A&M Engineering Extension Services, and the U.S. Department of the Interior.

Putnam was engaged by the Fulbright & Jaworski law firm in 2009 to serve as an expert for the Texas Windstorm Insurance Association (TWIA) in a case brought against TWIA by the Texas Department of Insurance regarding the so-called “lifted shingle” claims following Hurricane Ike (SOAH Docket No. 454-09-6187.C). When finding in favor of Putnam’s client in this landmark case, Administrative Law Judge, Renee M. Rusch wrote, “Of the witnesses designated as experts, Dr. Peterka (wind tunnel expert) and Mr. Putnam had more relevant experience and more credibly analytical explanations of the bases for their opinions ”. It should be noted that Putnam’s opposition expert witnesses in this case included the past President of the National Association of Public Insurance Adjusters (NAPIA) and the entire engineering staff of the Texas Department of Insurance.

Putnam has evaluated several thousand roofs for hail and wind damage during the last 50 years. He has completed trainings by the Windstorm Insurance Network (WIND) and is a Certified Insurance Property Appraiser and a Certified Insurance Property Umpire. He is a long-time member of the Roof Consultants Institute (RCI), now known as the International Institute



of Building Enclosure Consultants (IIBEC) and has remained current in his field by attending an extensive curriculum of RCI/IIBEC and other technical trainings over the last 20 years. A full list of these trainings is provided below.

Putnam is also a member of the Roofing Industry Committee on Weather Issues (RICOWI). RICOWI is a non-profit, non-partisan organization devoted to research and education on weather issues that impact roofing and building envelopes. RICOWI deploys diverse teams of experts into the field after major hurricane and hailstorm events to investigate and collect data to be shared with manufacturers, code bodies, and design, consulting, and construction professionals regarding the performance and failure mechanisms of various materials and roof systems.

Putnam's client list remains generally balanced between plaintiff and defense work, and between policyholders and insurers. Additional information about Putnam Consulting Inc. and the services provided can be found at the website www.roofconsulting.com



CERTIFICATIONS AND TRAININGS

(I have not kept these certifications current)

Course Description			Hours
<u>Level I Indoor Air Quality Technician - Mold Investigator Training</u>	2001	Lubbock, TX (Texas Tech University)	16.0
<u>Level II Baseline Investigator - Mold Investigator Training</u>	2002	Lubbock, TX (Texas Tech University)	16.0
<u>Property and Casualty Adjuster Training</u>	2010	Austin, TX (Kaplan)	40.0
<u>Certified Tile Roof Installer</u>	2013	Austin, TX (Tile Roof Institute)	8.0
<u>Certified Tile Roof Specialist</u>	2013	Austin, TX (Tile Roof Institute)	8.0
<u>Level I Thermography</u>	2013	Las Vegas, NV (FLIR Infrared Training Center)	30.0
<u>Level II Thermography</u>	2014	Las Vegas, NV (FLIR Infrared Training Center)	30.0
<u>Investigative and Quality Assurance Testing -Windows and Doors</u>	2014	Minneapolis, MN (Sovell)	20.0
<u>ASTM and AAMA Testing Masters Training - Windows and Doors</u>	2014	Minneapolis, MN (Sovell)	20.0
<u>Stucco Detailing for Buildings with Unique Geometry</u>	2015	San Antonio, TX (Roof Consultants Institute) (RCI)	1.5
<u>The Problems with and Solutions for Ventilated Attics</u>	2015	San Antonio, TX (Roof Consultants Institute) (RCI)	1.5
<u>Understanding Low-Sloped Standing Seam Roofs</u>	2015	San Antonio, TX (Roof Consultants Institute) (RCI)	1.5
<u>Exterior Concrete</u>	2015	Chicago, IL (Roof Consultants Institute) (RCI)	16.0
<u>Masonry Wall Systems</u>	April 2015	Chicago, IL (Roof Consultants Institute) (RCI)	12.0



<u>Waterproofing</u>	(Roof Consultants Institute) (RCI)	May 2015	Seattle, WA	16.0
<u>Exterior Walls Technology & Science</u>	(Roof Consultants Institute) (RCI)	Oct 2015	Houston, TX	12.0
<u>Stucco</u>	(Roof Consultants Institute) (RCI)	Oct 2015	Houston, TX	12.0
<u>2015 Building Envelope Symposium</u>	(Roof Consultants Institute) (RCI)	Nov 2015	Nashville, TN	12.0
<u>Testing and Results of Severe Hail Exposure</u>	(Roof Consultants Institute) (RCI)	Mar 2016	Orlando, FL	1.5
<u>Concrete Deck Moisture Issues: Causes and Preventive Measures</u>	(Roof Consultants Institute) (RCI)	Mar 2016	Orlando, FL	1.5
<u>Recent Developments in Below-Grade and Plaza Waterproofing Systems</u>	(Roof Consultants Institute) (RCI)	Mar 2016	Orlando, FL	1.5
<u>Condensation in Wall Assemblies: Can Vapor Diffusion Through Highly Permeable Air Barriers Increase the Risk?</u>	(Roof Consultants Institute) (RCI)	Mar 2016	Orlando, FL	1.5
<u>Avoiding Common Oversights in Design</u>	(Roof Consultants Institute) (RCI)	Mar 2016	Orlando, FL	1.5
<u>Designing and Building Resilient Wall Systems</u>	(Roof Consultants Institute) (RCI)	Mar 2016	Orlando, FL	1.5
<u>Hurricane Coastline: Lessons Learned During Sliding Glass Door Replacement and Concrete Balcony Repairs</u>	(Roof Consultants Institute) (RCI)	Mar 2016	Orlando, FL	1.5
<u>Windows and Doors: How to do it Right and Still Get it Wrong</u>	(Roof Consultants Institute) (RCI)	Mar 2016	Orlando, FL	1.5
<u>ASTM in the Real World - Testing Windows and Doors</u>		2016	Orlando, FL	1.5



(Roof Consultants Institute) (RCI)

<u>Stucco & Exterior Finish Cladding Systems</u> (Roof Consultants Institute) (RCI)	2017	San Francisco	12.0
<u>Extreme Hail and Wind -Forensics and Reporting</u> (Roofing Industry Committee on Weather Issues Inc) (RICOWI)	2018	Houston, TX	5.8
<u>Litigation Support Services for Building Envelope Experts</u> (Roof Consultants Institute) (RCI)	2018	Houston, TX	12.0
<u>Avoiding Condensation in Low-Slope Roofing Assemblies</u> (Roof Consultants Institute) (RCI)	2018	Houston, TX	1.5
<u>Waterproofing and Integration of Exposed Air Handling Unit Cladding with the Building Envelope</u> (Roof Consultants Institute) (RCI)	2018	Houston, TX	1.5
<u>Remediation of Balcony Waterproofing and Structural Framing</u> (Roof Consultants Institute) (RCI)	2018	Houston, TX	1.5
<u>Architectural Sheet Metal Flashing Design</u> (Roof Consultants Institute) (RCI)	2018	Memphis, TN	8.0
<u>Metal Roofing</u> (Roof Consultants Institute) (RCI)	2018	Memphis, TN	8.0
<u>Changes to Building Codes</u> (International Institute of Building Enclosure Consultants) (IIBEC)	2019	Austin, TX	1.5
<u>Forensic Water Testing</u> (International Institute of Building Enclosure Consultants) (IIBEC)	2019	Austin, TX	1.5
<u>Hail on Metal Roofs</u> (International Institute of Building Enclosure Consultants) (IIBEC)	2019	Austin, TX	1.5
<u>Thermoplastic Roof Membranes, TPO vs PVC</u> (International Institute of Building Enclosure Consultants)	2019	Austin, TX	1.5



(IIBEC)

Roof Systems Thermal & Moisture Design 2019 Dallas, TX 8.0
 (International Institute of Building Enclosure Consultants)
 (IIBEC)

Certified Appraiser Training 2021 Virtual 3.5
 (Windstorm Insurance Network) (WIND)

Certified Umpire Training 2021 Virtual 3.5
 (Windstorm Insurance Network) (WIND)

Tips and Tricks: All Things Related to Metal Roofing 2021 Virtual 3.0
 (International Institute of Building Enclosure Consultants)
 (IIBEC)

The Fundamentals of Clay Roof Tile 2023 Virtual 1.5
 (Ludowici)

The Art of Terra Cotta & Color 2023 Virtual 1.0
 (Ludowici)

2023 Austin, TX 1.0

**Electronic Leak Detection for Roofing, Waterproofing
 and the Building Envelope (AIA-Building Enclosure
 Council)** 2023 Virtual 1.0

Wind Tunnel Testing of Edge Metal 2003 Virtual 1.0
 (International Institute of Building Enclosure Consultants)
 (IIBEC)

Total Training Hours to Date..... 364.5



Teaching Experience

Texas A&M Engineering Extension Services

College Station, Texas 1984

Created course entitled: *Residential Roof Inspection*; provided course instruction for 30-50 architects, engineers, and real estate inspectors in preparation for state certification exam. Participants' passing rate on state exam reported 100%.

Texas Association of Real Estate Inspectors (TAREI)

Dallas and Austin, Texas 1985 to present.

Created course series entitled: *Residential Roof Inspection*; provided instruction, inspection procedures and checklists. Provide year-round, statewide technical support to members.

International Conference of Construction Consultants

Dallas, Texas 1996

Co-authored and taught course entitled: *Residential Roof Consultants Course*, 40 attendees.

U.S. Department of the Interior / National Park Service

Austin, Texas 1993

Created one-week course entitled: *Successful Roofing Projects*; provided course instruction for 250 USDI/NPS Architects, Engineers, and Project Supervisors.

Texas Historic Commission

Austin, Texas 2010

Created program entitled: *Roof Management for Texas Historic County Courthouses*; presented in Austin to 100-125 county judges, county commissioners, and executive staff.

Texas Historic Commission

Austin, Texas 2011

Created program entitled: *Exterior Water Leaks in Texas Historic County Courthouses*; presented in Austin to 100-125 county judges, county commissioners, and executive staff.



Professional Affiliations

International Institute of Building Enclosure Consultants (IIBEC)

Roofing Industry Committee on Weather issues (RICOWI)

Windstorm insurance Network (WIND)

Litigation/ Arbitration

Served as consulting and/or testifying expert in defective construction and water intrusion-related matters, both roof and building envelope; approximately 100+ cases to date.

Round Rock ISD

Round Rock, Texas 1989

Served as plaintiff's expert to evaluate defective construction of modified bitumen membrane roofs on three new elementary schools; provided litigation support and courtroom testimony.

Palo Alto Community College

San Antonio, Texas 1989

Served as plaintiff's expert to perform roof inspection and evaluation of widespread leakage through modified bitumen membrane roofs, metal roofs, and EIFS (synthetic stucco) on 10 new buildings. Performed systematic water-testing and other investigative/diagnostic procedures; identified and proved 200+ leaks; provided report with photos and video; served as expert in arbitration.

Commercial Roofing Contractor

Austin, Texas, 2000-2001

Served as contractor's defense expert for the evaluation of slate roofs and expansive copper valleys and crickets on the **Victoria County Courthouse**. Demonstrated that client installed all work in accordance with project requirements.

Pharr-San Juan-Alamo ISD

South Texas 2002-2003

Served as plaintiff's expert to perform roof inspection and investigation and provide construction defect analysis of modified bitumen and structural metal panel roofs at **PSJA High School**. Investigated and proved causation of widespread water intrusion and mold growth in the building envelope. Provided litigation support and expert testimony.



Edinburg ISD

South Texas 2002-2003

Served as plaintiff's expert to investigate and provide construction defect analysis of modified bitumen membrane roofs and building envelope at **Economedes High School**. Performed diagnostic water testing and selective deconstruction of exterior masonry walls and aluminum storefront assemblies per ASTM E2128 protocols. Evaluated and proved causation of widespread leakage. Performed moisture survey of membrane roofs and gymnasium floors to determine extent of water intrusion and to identify boundaries of concealed moisture damage. Provided litigation support and expert testimony. Reviewed and provided consultation regarding architect's renovation/repair specifications and performed quality control inspection during replacement of roofs.

San Benito ISD

South Texas 2002-2003

Served as plaintiff's expert to investigate and provide construction defect analysis of gravel surfaced built-up roofs and building envelope at **Cabaza Middle School** and **Garza Elementary School**. Performed diagnostic water testing and selective deconstruction of exterior masonry walls and aluminum storefront assemblies per ASTM E2128 protocols. Evaluated and proved causation of widespread leakage. Provided litigation support and expert testimony regarding building envelope and water intrusion issues.

Corpus Christi ISD

Corpus Christi, Texas 2002

Served as plaintiff's expert to investigate and prove causes of water intrusion and mold growth at **Ella Barnes Elementary School**. Provided litigation support regarding building envelope and water intrusion issues.

Texas Department of Mental Health and Mental Retardation

Edinburg, Texas 2002

Served as plaintiff's expert to investigate and prove causes of water intrusion and mold growth at the **Tropical Texas Center for Mental Health**; provided litigation support.

Fireman's Fund Insurance Company

Austin, Texas, 2002

Served as defense expert to evaluate water intrusion at **Villas on Travis Condominiums**; determined percentage of contractor or manufacturer liability in construction of roofs, windows, and stucco walls.



Commercial Roofing Contractor

Austin, Texas,

Served as defendant contractor's roof expert for the evaluation of a gravel surfaced built-up roof and sheet metal work installed on a commercial building in Austin, Texas. Demonstrated that client installed work in accordance with project requirements and that leaks were due to causes other than the roof.

Liberty Park Condominiums

Austin, 2002-2003

Investigated failure of the concrete tile roof and widespread moisture intrusion through the building envelope. Designed and prepared specifications for replacement of tile roof. Provided litigation support and expert testimony.

General Contractor

Austin, Texas, 2003

Served as defendant contractor's roof expert to evaluate the modified bitumen membrane roof and preexisting polyurethane foam roof on **Avenue Lofts Condominiums**. Performed diagnostic water penetration testing of windows and various elements of the building envelope and documented testing by others. Provided litigation support.

Brooks County ISD

Falfurrias, Texas 2006

Served as plaintiff's roof expert to investigate and provide construction defect analysis of retrofit metal roof systems installed over gravel surfaced built-up roofs on four school campuses.

Identified and proved causation of widespread leakage. Provided litigation support and expert testimony.

Donna ISD

Donna, Texas 2006

Served as plaintiff's roof expert to investigate and provide construction defect analysis of modified bitumen membrane and metal roof systems installed on three school campuses. Performed

water testing and selective deconstruction of brick masonry, steel-framed windows, and other affected assemblies to determine and prove causation of widespread leakage. Performed moisture survey of roofs and gymnasium floors to determine extent of water intrusion and to identify boundaries of concealed damage. Provided litigation support and expert testimony.



Texas Windstorm Insurance Association (TWIA)

Austin, Texas 2009-2010

Engaged by the Fulbright & Jaworski law firm to serve as a defendant's roof expert in Texas Department of Insurance v. TWIA, SOAH Docket No. 454-09-6187.c. Provided roof inspection; investigated 'lifted shingle' claims in coastal counties, prepared courtroom exhibits, and provided testimony before the State Office of Administrative Hearings. Demonstrated through testimony and courtroom exhibits that so-called 'lifted shingles' were in fact not 'lifted' and were not caused by hurricane winds. When finding in favor of the defense in this case, Judge Renee M. Rusch wrote, "Of the witnesses designated as experts, Dr. Peterka and Mr. Putnam had more relevant experience and more credibly analytical explanations of the bases for their opinions". It should be noted that Putnam's opposition expert witnesses in this case included the past President of the National Association of Public Insurance Adjusters (NAPIA) and the entire engineering staff of the Texas Department of Insurance.

Texas Windstorm Insurance Association (TWIA)

Austin, Texas 2011

Served as TWIA defense expert in hurricane wind damage claim on a warehouse in Brownsville, Texas. Provided roof inspection; investigated and provided analysis of structural standing seam metal roof. Demonstrated that no wind damage occurred and that leaks were instead caused by defective construction, defective repairs, damage by prior repair crews, and failure of improperly applied roof coating.

404 Rio Grande Apartments

Austin, Texas 2011

Engaged by the Bracewell Giuliani law firm to serve as Plaintiff's roof expert in litigation involving a failing TPO single-ply roof membrane system and a slate roof. Provided independent 3rd-party roof inspection; performed roof test cuts and a non-destructive RoofScan[®] using a Tramex DEC Scanner to locate and mark areas of water intrusion into the roof assembly. The case was settled favorable to the client.

Village Park Condominiums

Georgetown, Texas 2013

Served as plaintiff's roof expert in litigation. Provided independent 3rd-party roof inspection; investigated and documented defectively installed concrete tile roofs, defectively installed windows, and defectively installed stucco. Case was settled favorably to plaintiff. Prepared specifications for replacement of the concrete tile roof, stucco repairs, and reinstallation of



selected windows. Provided project management and administration of the construction contract.

Scott & White Hospital – Center for Advanced Medicine

Temple, Texas 2013

Engaged by the Chamberlain McHaney law firm as a defendant's roof expert for the helipad constructor. Reviewed other expert reports and provided analysis of the insulated PVC membrane roof and masonry and metal-clad wall systems.

Cantu vs State Farm

McAllen, Texas 2013-2015

Served as a roof expert for State Farm Insurance. Evaluated a concrete tile roof for hail damage. Testified in federal court that broken lower right corners of concrete tile were not caused by hailstone impact. Jury found in favor of State Farm.

Roma High School – Performing Arts Center

Roma, Texas 2016

Served as a defendant's roof expert in a defective construction claim involving a concrete tile roof, metal roof, and metal-clad wall panels. Performed systematic water penetration testing and selective disassembly of the tile roof.

River City Lofts

Austin, Texas 2013-2016

Served as plaintiff's roof expert in a defective construction claim involving the shingle roof, defective stucco, defective deck waterproofing, and leaking windows. Performed selective deconstruction of stucco and diagnostic water penetration testing of windows.

Wedding Venue

Austin, Texas 2017

Served as plaintiff's roof expert in a defective construction claim involving a trapezoidal metal roof, TPO membrane roof, stone masonry, and leaking windows. Performed systematic water penetration testing of the windows and stone masonry and a WallScan® of interior walls. Performed selective disassembly of the stone masonry. Provided recommendations for corrective action. The case was settled to the satisfaction of the client.



Hermleigh ISD

Hermleigh, Texas 2018

Engaged by the Crenshaw, Dupree & Milam LLP law firm to serve as defense expert for the masonry contractor in a defective construction claim involving brick masonry, CMU and split-faced masonry, leaking windows, and gravel-surfaced built-up roof (BUR). Monitored diagnostic water penetration testing by the plaintiff's expert and provided analysis and rebuttal report.

Sierra Royale vs. Everest Insurance

San Antonio, Texas 2021

Engaged by the Thompson Coe law firm to serve as a roof expert for Everest Insurance Company. Inspected concrete tile roofs on 14 buildings and prepared an expert report demonstrating that broken lower right tile corners were not caused by hail. The case settled to the satisfaction of the parties.

Current Litigations

Nine cases currently. Serving about equally on plaintiff and defense teams; and equally as expert for Insurers and policyholders.

Construction Consulting / Project Experience

The following are a few key projects from 1984 to present.

Round Rock ISD

Round Rock, Texas 1985

Provided design or design review, specifications, and quality control inspection on 41 school projects. Performed facilities audit; surveyed and evaluated 50+ roofs, prioritized work, established budget and 5-year roofing program.

City of Austin

Austin, Texas 1987

Designed and prepared specifications for replacement of the built-up roof on the **Decker Power Plant**; provided contract administration and quality control inspection during roof replacement.

Sam Houston State University

Huntsville, Texas 1988

Designed and prepared specifications for replacement of built-up roof and asbestos abatement at the **University Theatre Center**.



Texas State Board of Registration for Professional Engineers

Austin, Texas, 1990

Designed and prepared specifications for replacement of the built-up roof on the Board's headquarters building. Provided contract administration and quality control inspection during construction.

Texas Department of Mental Health/Mental Retardation

Austin, San Antonio, Texas 1991

Surveyed and established scope of roof replacement on approximately 10 buildings across five campuses. Designed and prepared specifications and bidding documents for replacement of coal tar built-up roofs and standing seam metal roofs; performed quality control inspection during construction.

U.S. Department of the Interior / National Park Service

Historic Fordyce Bathhouse

Hot Springs, AK, 1990

Investigated extensive leaks and water infiltration through new single-ply membrane roof, standing seam copper roof, structural skylight, structural brick walls, and doors and windows openings in newly restored historic building. Designed replacement roof. Redesigned structural skylight, including reincorporation of historic wired glass and other elements of historic fabric.

Wetlands Acadian Culture Center

Thibodaux, LA, 1991.

Investigated widespread leaks in coal tar built-up roof, brick walls, and wood windows in restored historic building; designed, specified, and supervised repairs.

Prairie Acadian Culture Center

Eunice, LA, 1993

Investigated condition of coal tar built-up roof and leaks in historic brick walls, wood windows, and foundation; designed, specified, and supervised repairs.

Barataria Environmental Education Center

Marrero, LA, 1993

Investigated leaks in new metal roof and moisture intrusion at exterior walls; provided recommendations for corrective work.



Chamizal National Memorial Visitors Center

El Paso, Texas 1993

Investigated leaks in built-up roof, standing seam metal roof, and clerestory windows. Designed, specified, and performed/supervised repairs.

Red Hills Visitor Center

Tucson, AZ, 1995

Reviewed roof design, evaluated new single-ply roof, provided recommendations.

Mission San Jose Visitors Center

San Antonio, Texas 1996

Investigated and performed diagnostic water testing to identify roof, wall, and plumbing leaks during construction of new building; redesigned construction details; performed quality control inspection during completion of roof.

University of Texas

Austin, Texas 1991

Evaluated waterproofing requirements of pre-cast concrete wall panels at the **Frank Erwin Center**. Inspected and measured widths of 3-4 story wall sealant joints using surveyor's optics and triangulation method, significantly reducing the cost of the inspection.

Southwest Texas State University

San Marcos, Texas 1993

Scope: Designed and prepared specifications for replacement of built-up roof and structural skylight on the **LBJ Student Center**, provided quality control inspection and contract administration during construction.

St. Martin's Lutheran Church

Austin, Texas, 1993

Designed and prepared specifications for replacement of coal tar built-up roof and double-locked standing seam copper roof. Provided quality control inspection and contract administration during construction.

City of Austin

Austin, Texas 1995

Investigated and performed failure analysis of partial blow-off of new, structural standing seam metal roof on the **St. Elmo Vehicle Maintenance Facility**.



The Villas of Anderson Mill HOA

Austin, Texas 1999 to 2002

Scope: Performed hail damage inspection, prepared report that led to reopening and approval of insurance claim; prepared reroofing specifications; provided contract administration and quality control monitoring during roof replacement on 22 buildings.

Liberty County

Liberty, Texas 2002

Evaluated PVC single-ply roof membrane and standing seam metal roof on the **Liberty County Courthouse**. Identified sources of leakage at steel-framed windows, deteriorated exterior building finishes, and various elements of the building envelope. Eliminated PVC membrane as cause of leaks. Provided recommendations for corrective action.

City of Cedar Park, Building Inspection Dept.

Cedar Park, Texas 2002

Investigated and identified sources of approximately 40-45 leaks in the newly constructed addition to the **Cedar Park Library**. Evaluated structural metal roof 'R' panels, batten seam radius panels, modified bitumen membrane roof, parapet walls and metal coping, building walls above roof level, thru-wall flashings in brick walls, and aluminum storefront windows. Performed a non-destructive roof moisture survey using a Tramex Moisture Scanner and eliminated the modified bitumen membrane as a leak source. Identified areas of mold growth in ceilings, wall cavities, and behind vinyl wall coverings. Provided recommendations for corrective action.

First National Bank

Floresville, Texas 2004

Investigated and provided construction defect analysis of modified bitumen membrane roof and building envelope per ASTM E2128 protocols. Performed diagnostic water testing and selective deconstruction of exterior insulated finish system (EIFS), steel-framed windows and glazing system, wood and steel doors, and other affected assemblies to determine and prove causation of widespread leakage. Identified and proved causation of leakage due to non-building envelope deficiencies, including uncontrolled roof drainage, poorly positioned irrigation heads, poor ground drainage and problems relating to elevation of foundation relative to grade and adjacent concrete flatwork. Performed non-destructive roof moisture



survey of insulated roof and EIFS to determine extent of water intrusion and to identify boundaries of concealed water damage. Provided litigation support and expert testimony.

Department of Public Safety

Austin, Texas 2005

Scope: Performed water-testing during construction of the project entitled: **Building "I" Renovations** per AAMA 501.2-03 Quality Assurance and Diagnostic Water Leakage Field Check of installed Storefronts, Curtain Walls, and Sloped Glazing Systems.

Fourteenth Fairway Condominiums

Austin, Texas 2006

Inspected concrete tile roofs for hail damage; prepared report that led to reopening and approval of insurance claim. Prepared reroofing specifications and managed bidding process. Prepared contract for construction using AIA A107 - Abbreviated Standard Form of Agreement Between Owner and Contractor for Construction Projects of Limited Scope. Provided contract administration and quality control monitoring during roof replacement on 9 buildings. Coordinated structural wall repairs due to extensive hidden water damage. Investigated and located areas of mold contamination; coordinated services of mold assessment consultant, mold remediation contractor, and restoration contractor. Performed stucco survey and identified deficiencies. Moisture surveyed hardwood floors and identified sources of water intrusion. Designed under-floor vapor barrier with perimeter water-dam to prevent recurrence of leakage under new floor.

Caribbean Condominiums

Lago Vista, Texas 2006

Performed hail damage inspection of single-ply PVC membrane roofs, gravel-surfaced BUR, concrete tile, and modified bitumen roofs; identified and documented hail damage at aluminum gutters and aluminum windows. Provided expert report.

Capital View Center

Austin, Texas 2013

Prepared specifications and bidding documents for replacement of a failed EPDM roof with a new, adhered TPO roof membrane system. Provided quality control inspection and administration of the contract.



Luxury Apartments

Texas 2014-2017

Provided roof inspection and analysis of window and wall leaks for luxury apartment builder on approximately 150 apartment buildings in cities all across Texas.

END