2016 GOLD CIRCLE AWARDS

CASTRO ROOFING'S MASTERPIECE
SMU OWEN ARTS CENTER

The Owen Arts Center was designed by architect George L. Dahl and consists of three main buildings: Mudge Art Building, Forbes Music Building and the Ruth Sharp Collins Drama Building.

AWARD BOOK CONTENT

- Application
- Client Introduction
- General Information
- Uniqueness
- Challenges
- Existing Roof Failure
- Safety
- Commendations
- Project Photographs

SMU Owen Arts Center consisted of multiple roof elevation levels & roof systems

2016 GOLD CIRCLE APPLICATION

2016 Gold Circle Awards
Official Nomination Form

Please complete this form and include it with your nomination package.

Nominated company information

✓ Outstanding Workmanship - low slope
Outstanding Workmanship - steep slope
Innovative solutions - new construction
Innovative solutions - reroofing
Service to the community
Service to the industry

All entries received will be reviewed for safety for safety preparedness and performance.
Companies demonstrating superior safety measures will be honored with an NRCA Gold Circle Safety Award.

Date of commencement	October 2014 - February 2015
Official project name	SMU Owens Arts Center
Contact name	John Hennenway - Project Manager Southern Methodist University 214.768.2000
Contractor's Name	Castro Roofing
Address	4854 Olson Drive, Dallas TX 75227
Phone Number	214.381.8108
Project Foreman	Gildardo Leon
Project Consultant, Engineer or Architect	SMU
Other companies involved	SOPREMA , GAF, Hunter Panel , Tru-fast Fasteners, 3M, Oldham Lumber Olympic Fasteners, Conner-legrand, Mecam Skylights, Berridge , Miro
Submitted by:	Rodolfo Rodriguez
Title:	President and CEO
Date:	10-06-15


BOB

CLIENT INTRODUCTION

The Owen Arts Center was designed by architect George L. Dahl and consists of three main buildings: Mudge Art Building, Forbes Music Building and the Ruth Sharp Collins Drama Building. The center is home to dance, music and theatre performance and rehearsal spaces, art galleries and studios, the administrative offices of the Temerlin Advertising Institute and the Meadows Art, Art History, Arts Management and Arts Entrepreneurship, Dance, Music and Theatre departments.

Public performance spaces within the Owen Arts Center include Caruth Auditorium, Bob Hope Theatre, Greer Garson Theatre, Margo Jones Theatre, O'Donnell Lecture-Recital Hall, Sharp Studio and Taubman Atrium. Art spaces include the Doolin Gallery and Free Museum of Dallas. Students participate in lectures, film screenings, set construction and music lessons and take advantage of opportunities to form relationships and collaborations across many art forms. The inspiring and challenging environment creates a nexus of energy, creativity and commitment.

What is now the Meadows School of the Arts began as the School of Music in 1917. It became the School of the Arts in 1964, incorporating studies in art and theatre. In 1969, through the generosity of Algur H. Meadows, his family and The Meadows Foundation, the school was named the Algur H. Meadows School of the Arts. Mr. Meadows, a businessman from East Texas, built General American Oil Company of Texas into one of the nation's most successful independent oil and gas production companies. Believing that his own life was greatly enriched by giving, he generously shared his wealth with many charitable causes, including SMU, benefitting the people of the state that had been so kind to him.
Today, the Meadows School has achieved prominence as one of the foremost arts education institutions in the United States and offers training in an unusual mix of the arts - visual (art and art history), performing (dance, music and theatre) and communications (advertising, cinema-television, corporate communications and public affairs, and journalism) - as well as a preeminent program in arts administration. To this day, the legacy of the school remains linked to important names of the past.

The Meadows Museum is one of the most important chapters of the Meadows school story. After Algur Meadows made a gift of his Spanish art collection to SMU, it became one of the most significant academic resources of the University and is now considered one of the finest and most comprehensive collections of Spanish art outside of Spain. Housed in the Owen Arts Center for over thirty years, it now resides in its own building prominently located on Bishop Boulevard at the entrance to the campus. Inaugurated by His Majesty Juan Carlos and Her Majesty Sofia of Spain, the Meadows Museum was reopened with great fanfare in 2001. It remains an important cultural and educational institution and one of the Meadows School's and SMU's most important assets.

The Center for Fine and Performing Arts cost approximately $11 million and was the final piece of the Galleria Complex. The five connected buildings began with the Library, and also include the Audio-Visual Classroom Center, Math-Science Center and Student Health and Activities Center, and concluded with the Center for Fine and Performing Arts.

GENERAL INFORMATION

Roof System Specs
Modified Bitumen Roof System

Property
SMU Owen Arts Center
6101 Bishop Blvd.
Dallas, TX 75205

Owner
SMU
3050 Dyer St
Dallas, TX 75225

Architect
George Dahl

Before Re-roof
Existing coal tar pitch

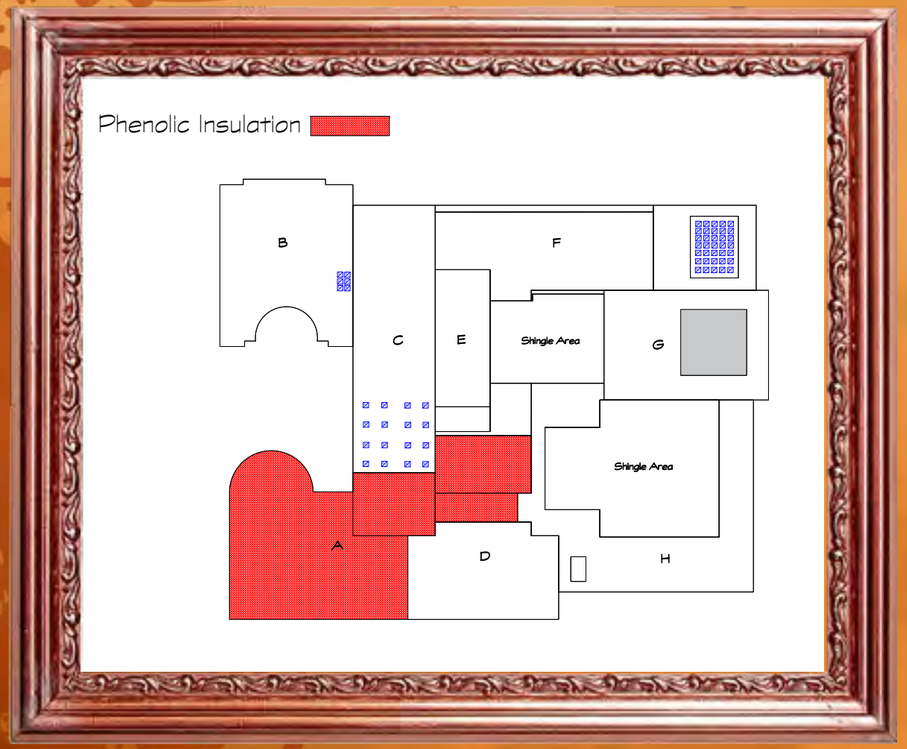
Scope of Work

- Modified Bitumen Roof System (102,600 sq. ft.)
  - Tear-off down to structural decks
    - 22 gauge metal
    - Insulation light-weight concrete
    - Structural Concrete
  - At light-weight concrete areas installed roof system as follows:
    - Mechanically attached base sheet
    - Torched Soprema base sheet
    - Torched Soprema cap sheet
  - At metal and structural concrete decks installed roof system as follows:
    - Mechanically attached polisocyanurate insulation
    - Sopraboard
    - Torched Soprema base sheet
    - Torched Soprema cap sheet
- Composition Shingle Roof System (5,300 sq. ft.)
  - Tear-off down to structural wood deck
  - Install new underlayment
  - Install new GAF Slateline composition shingles
- Skylights (78 Skylights)
  - Replaced fifty four skylights
- Lightning Protection
  - Removed and re-installed the lightning protection system
- Roof Elevations
  - 18 different roof elevations

54 skylights out of 78 on the entire project were removed and replaced. Special care was taken at the interior during demolition so as to protect both the students and staff from any possible dangers.

UNIQUENESS

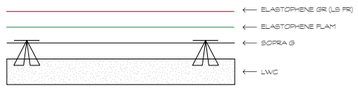
Multiple metal deck areas contained phenolic insulation, a very corrosive insulation when wet that can easily cause catastrophic metal deck failure. Fortunately the metal deck areas with phenolic were painted decks and not galvanized therefore no discernible damage was identified at these areas at the time of tear-off activities.



Phenolic insulation location

Removal of the phenolic insulation

ROOF ASSEMBLY

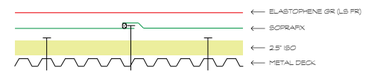


Detail Number:	Date: 9/10/2014	Castro Roofing 4854 Olson Dr., Dallas, Texas 75227 Tel: 214.381.8108 Fax: 214.381.8109
1	Drawn by: GUS	
	Scale: N/A	Project: Owen Arts Center

ROOF ASSEMBLY

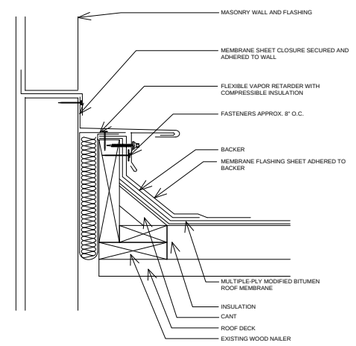
Detail Number:	Date: 9/10/2014	Castro Roofing 4854 Olson Dr., Dallas, Texas 75227 Tel: 214.381.8108 Fax: 214.381.8109
2	Drawn by: GUS	
	Scale: N/A	Project: Owen Arts Center

ROOF ASSEMBLY

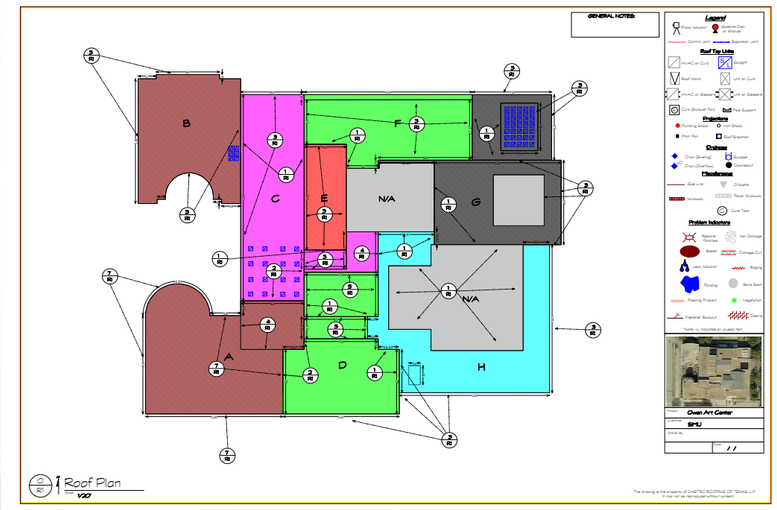


Detail Number:	Date: 9/10/2014	Castro Roofing 4854 Olson Dr., Dallas, Texas 75227 Tel: 214.381.8108 Fax: 214.381.8109
3	Drawn by: GUS	
	Scale: N/A	Project: Owen Arts Center

EXPANSION JOINT

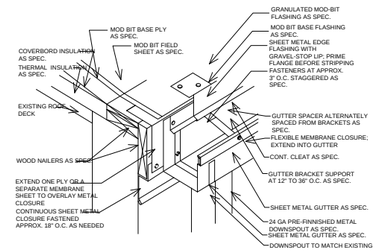


Detail Number:	Date: 2/5/2014	
2 / R1	Drawn By: Gus	
	Scale: N/A	Project: SMU Owen Art Center



Roof Plan

GUTTER

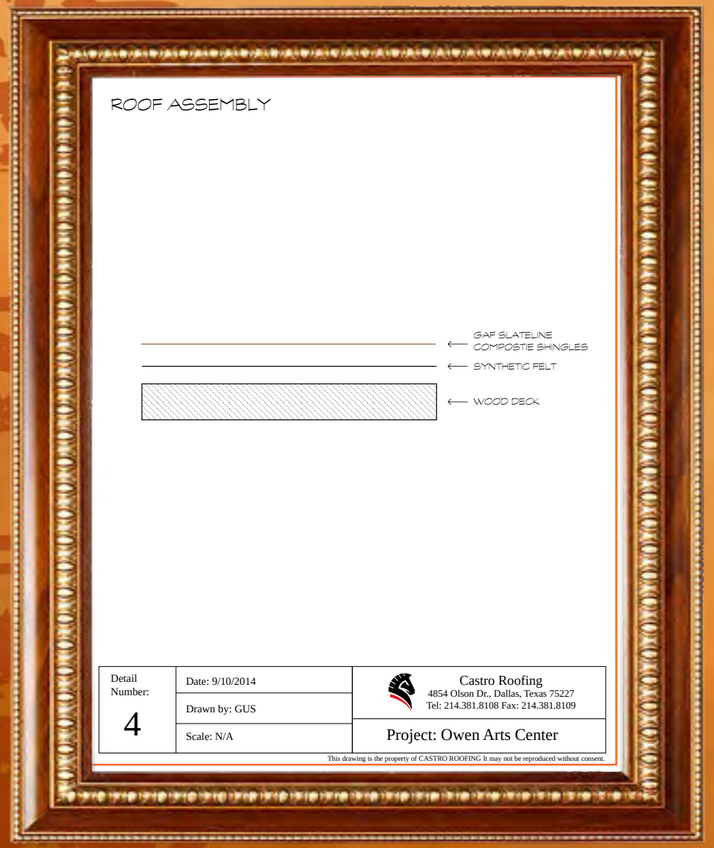


Detail Number:	Date: 2/5/2014	
8 / R1	Drawn By: Gus	
	Scale: N/A	Project: SMU Owen Art Center

All architectural shop drawings were created in-house by our design project consultant

UNIQUENESS

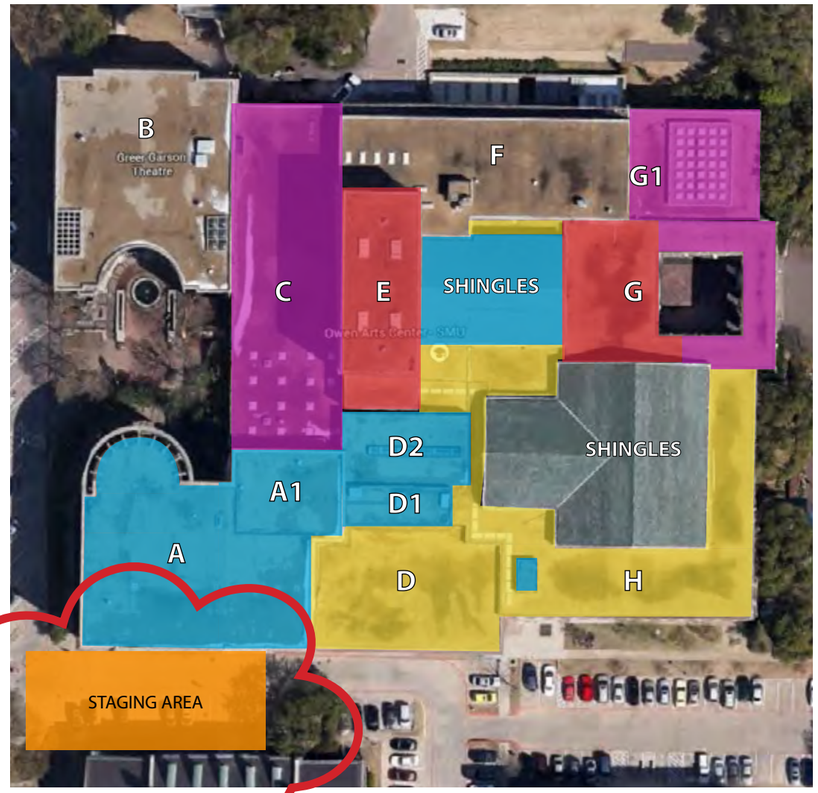
The complexity of the different roofs and assemblies required was unique. In all, four different roof assemblies were used and needed to complete all areas within the scope of work. From the composition GAF Slateline roof system to the Soprema Modified Bitumen roof system over light-weight concrete, all required coordination with the manufacturer to ensure warranty compliance regardless of the different assemblies needed.



Remove & replace with GAF Slateline composition shingles

HAWKVIEW CONSTRUCTION SCHEDULE:

WEEK OF NOVEMBER 24-28



ONE MONTH LOOK AHEAD

11/31/2014 - "COMPLETE CAP SHEET ROOF SECTION "D"
11/31/2014 - "COMPLETE CAP SHEET ROOF SECTION "G"
11/31/2014 - "COMPLETE CAP SHEET ROOF SECTION "H"

PAST SCHEDULE

9/29/2014 - START DATE
9/29/2014 - START ROOF SECTION "A1"
10/2/2014 - START ROOF SECTION "A"
10/10/2014 - COMPLETE CAP SHEET ROOF SECTION "A1"
10/31/2014 - COMPLETE CAP SHEET ROOF SECTION "A"
10/31/2014 - COMPLETE CAP SHEET ROOF SECTION "D1"
10/31/2014 - COMPLETE CAP SHEET ROOF SECTION "D2"

COMPLETED

GENERAL NOTES OF THE WEEK

DRY-IN FOR ROOF "D"
TEAR-OFF & DRY-IN "G" COURTYARD

RAIN DATES

10/6/2014
11/4/2014
11/5/2014
11/21/2014

OVERALL PROGRESS:

0 Sq. ft.

0% COMPLETE | 25% | 50% | 75% | 100%

LEGEND

- **TEAR-OFF & DRY-IN**
- **GRAVEL REMOVED**
- **FINISHED CAP SHEET OR SHINGLES INSTALLED**
- **DRY IN**
- **SUBSTANTIAL COMPLETED** (95% OF WORK COMPLETED, MINOR DETAILS TO BE FINALIZED)
- **COMPLETED** (FINAL PUNCH LIST COMPLETED AND APPROVED BY CLIENT OR ITS REPRESENTATIVE)
- **STAGING AREA**

CONTACTS

PROJECT MANAGER
Matt Smith
C: 214.405.6135

ROOFING SUPERINTENDENT
Gildardo Leon
C: 214.729.6917

MAIN OFFICE:
O: 214.381.8108
F: 214.381.8109
800.759.1879

PROJECT: SMU Owens Arts Center

CUSTOMER: SMU/Aramark

CASTRO ROOFING
4854 OLSON DRIVE - DALLAS TX 75227
T: 214.381.8108 F: 214.391.8109

In total there was basically only one area for raising and lowering materials and debris. Of course, this presented the challenge of having to move materials long distances to the debris lowering site. In addition, due to multiple roof areas and the multiple heights encountered in the different roof areas, materials had to be double and triple handled to finally be able to reach the final destination whether lowering or raising materials.

CHALLENGES - STAGING AREAS

The building is surrounded by either the street or other buildings. Meaning that between the accompanying foot traffic of a mayor university and the logistics involved due to the proximity of other buildings, landscaping, trees, and the street, the amount of staging area was very limited. Much effort was undertaken in coordination with the owner, roofing suppliers and manufacturers' deliveries to accommodate the staging areas available. Many deliveries were undertaken to supply the project through the construction months.

The staging area was limited to one location of 400 sq. ft. to roof 107,900 sq. ft. This presented logistical difficulties because of the traffic in and around the area. Of particular difficulty was removing full dumpsters and replacing the empty dumpsters. In some instances the dumpster company just wanted to leave without performing the dumpster swap-out because of the patience required to accomplish. We also had difficulty with professors and students attempting to enter restricted areas even though they were clearly marked. Special safety precautions were taken for the well-being of all pedestrians walking near the construction site.

Impossible staging area

18 different roof elevations

High roof was done using manual labor, no mechanical equipment was used.

This area could not be reached by crane (located in the middle of the roof). A chute was constructed to lower all debris down to a lower level and from there carried to the one debris lowering site. A very long ladder was also used from roof level to roof level to reach this area as there was no interior access via roof hatch. A hoist was used to raise the needed materials to this high roof area.

CHALLENGES - COAL TAR PITCH REMOVAL

The existing roof system consisted of multiple coal-tar pitch with a flood coat and gravel surfacing. Coal-tar roof systems are particularly difficult to remove in re-roofing projects such as this project. The coal-tar has a low softening point which causes the pitch to “run” in hot weather. Therefore, no demolition can realistically occur during hot days because the pitch turns into a “gooey” mess. Another aspect is that as the pitch roof system is removed it generates airborne particles that are irritating to the skin and specially so if there is sweat present. Special safety gear is worn to protect from this irritant. The above coupled with the logistics of the many multiple roof areas and the need to double and triple handle the debris made for a very difficult tear-off scenario.

Because this roof system’s adhesive, the coal-tar itself, has a low softening point, it tends to soften and “melt” during hot weather. Therefore, the lightning protection cables dug into the pitch flood coat and was actually surrounded by the pitch. Every cable was carefully removed one by one and then meticulously cleaned to remove the coal-tar for reapplication once the new roof system was made ready to receive the lightning protection.

Existing coal tar pitch roof was improperly repaired causing pre-mature roof system failure

REASON FOR ORIGINAL COAL TAR PITCH FAILURE

Coal Tar Pitch built-up roofing (BUR) systems consist of alternate layers of coal tar pitch and reinforcing felts, topped with a pouring of coal tar pitch into which an aggregate surface is embedded. Coal Tar built-up roofing provides one of the most durable roofing systems known due to its inherent waterproofing and weathering characteristics. An independent study completed showed that coal tar pitch roofing systems has not only the highest durability of any membrane roofing system on the market today (there are documented roofs lasting 75 years) but also the lowest life cycle cost and the highest percentage of roofs surviving after 30 years.

Coal Tar built-up roofing systems are considered the Mercedes of commercial roofing systems. The Coal Tar Pitch roof at Owen Art Center still had plenty of life left, but due to leak repairs being done incorrectly by other roofing contractors (using asphalt materials, leaving the felts exposed to the sun and not repairing the roof leaks) throughout its history caused the roof to fail prematurely.

This is a lesson learned for commercial building owners and managers to not only qualify the skill and experience level of the roofing company, but more importantly the crews actually doing the work.

Date Corrected_____
Signature_____

INSPECTION REPORT - ROOFING

COMPANY Castro roofing
SUPERVISOR G Leon
CITY Dallas, Tx

LOCATION SMU
DATE 10/27/14
INSPECTOR Sam Lara

PROTECTIVE EQUIPMENT	OK	AN	NA
HARD HATS WORN	✓		
EYE / FACE PROTECTION AS REQUIRED	✓		
LONG SLEEVE SHIRT	✓		
PROPER FOOT WEAR	✓		
GLOVES	✓		
VEHICLE / EQUIPMENT			
SEAT BELTS			✓
GUARDS AVAILABLE			✓
WHEELS BLOCKED			✓
KETTLE GAUGES			✓
OPERATOR SAFETY			✓
TOOLS / EXTENSION CORDS			
GOOD CONDITION	✓		
GROUND WHERE AVAILABLE	✓		
INSULATION / GROUND PINS	✓		
GFCI ASSURED GROUNDING PROGRAM	✓		
CHUTE			
TARP SIDE OF BUILDING			✓
PLYWOOD ENCLOSED			✓
GUARD RAILS			✓
HOUSEKEEPING & SANITATION			
HOUSE KEEPING	✓		
DRINKING WATER / CUPS	✓		

FIRST AID & EMERGENCY	OK	AN	NA
FIRST AID SUPPLIES	✓		
OSHA REQUIRED POSTERS	✓		
MSDS / HAZ COM	✓		
JHA's	✓		
LADDERS	✓		
TIED OFF / 3' ABOVE LANDING	✓		
PROPER CONDITION / PLACEMENT	✓		
SECURED TO ROOF	✓		
FALL PROTECTION	✓		
FLOOR OPENINGS / SKYLIGHTS	✓		
GUARDRAILS		X	
WARNING LINES AVAILABLE	✓		
SAFETY HARNESS	✓		
LANYARD / ANCHOR POINTS			✓
SAFETY MONITOR			
PROPANE / OXY / ACET. BOTTLES		X	
STORED UPRIGHT & SECURED	✓		
FIRE EXTINGUISHERS	✓		
FUEL CANS CONDITION	✓		
MSDS LABELS	✓		
TRUCK / CRANE / SKYTRAK	✓		
ANNUAL INSPECTION	✓		
LOAD CHART / ANGLE INDICATOR	✓		
POWER LINES	✓		
HYDRAULIC LEAKS	✓		

OK = SATISFACTORY **AN** = ACTION NEEDED **NA** = NOT APPLICABLE

At the time of my visit I observed the following:

Proper PPE being used by all workers and aware of potential hazards.

Fall protection harness and lanyard in good condition at time of visit.
Warning lines need attention for openings.
First aid kit good and accessible to all workers.

General housekeeping conditions acceptable.

Roof access control lines erected as required.

Material storage acceptable at time of visit.

Tool/tool handles not in good condition at time of visit.
Broken handle on pick axe
Ladders in good condition at time of visit.

Propane tanks not secured at time if visit.

Safety report was done throughout the project

SAFETY

Our work at SMU Owen Art Center posed safety challenges that were unique, as in any job. Castro Roofing's regular on-site, "tool box talk" safety meetings were scheduled and held throughout the duration of the entire project. Foremen took the lead by administering the meeting and making recommendations on upcoming portions of the project. A third party job-safety expert was hired to provide an additional job-specific safety plan that was implemented whit out fail.

We can proudly report that **NO** accidents or injuries occurred the entire time that Castro Roofing worked on SMU Owen Building project.

Important Tool Box Talk Items:

- OSHA Safety Standard Review
- 100% tied-off rule in full effect
- student and staff environment safety requirement
- scaffolding
- hand tools
- eye protection
- protective wear (gloves, clothes, and shoes)
- hard hat safety
- back injury protection
- no horseplay on site

100% Tied-off

SMU.

Facility Services

October 8, 2015

Juan Rodriguez
Castro Roofing of Texas
4854 Olson Drive
Dallas, TX 75227

RE: OAC Roof Project - Letter of Appreciation

Dear Mr. Rodriguez,

The Owen Arts Center at SMU was designed by architect George L. Dahl and consists of three main buildings originally known as: The Mudge Art Building, The Forbes Music Building and the Ruth Sharp Collins Drama Building. This center is home to dance, music and theatre performances, art galleries and administrative offices. This center for performing arts is an integral part of our university.

The part that your company played in providing a new roof for these buildings was crucial to the continued use and operation of the facility and your quality of workmanship surpassed our every expectation. Our expectations were very high for this project and everyone at Castro Roofing conducted themselves in a very professional manner. This instilled a great deal of confidence for us during the construction process. Now that the project is complete, we are beyond pleased with the final results. Please except our gratitude and extend to all of your staff our thanks for a well-executed project.

To date you have proven that your company is capable of delivering results that align with our goals and expectations. Thanks again for a job well done.

Sincerely,

Genaro Lopez
Sr. Zone Manager
Office of Facilities Planning and Management

SMU Unbridled 100

Southern Methodist University · PO Box 750275 · Dallas TX 75275-0275
214 768-3494 Fax 214 768-4296

SMU.

Southern Methodist University
Office of Facilities Planning and Management

JANUARY 15, 2015

CASTRO ROOFING OF TEXAS
4854 OLSON DR.
DALLAS, TEXAS 75227

TO WHOM IT MAY CONCERN:

CASTRO ROOFING RECENTLY PERFORMED A COMPLEX MULTILEVEL ROOF REPLACEMENT FOR ONE OF OUR BUILDING ON CAMPUS. CASTRO COMPLETED THE WORK ON TIME AND UNDER BUDGET. THE CASTRO PROJECT MANAGER (A.J. RODRIQUEZ) AND CREW LEADER WERE VERY CONSCIOUSNESS OF THE SOUND BEING GENERATED BY ROOF REPLACEMENT AND OF THE SAFETY OF THE OCCUPANTS OF THE BUILDING AND THE ADJACENT BUILDINGS.

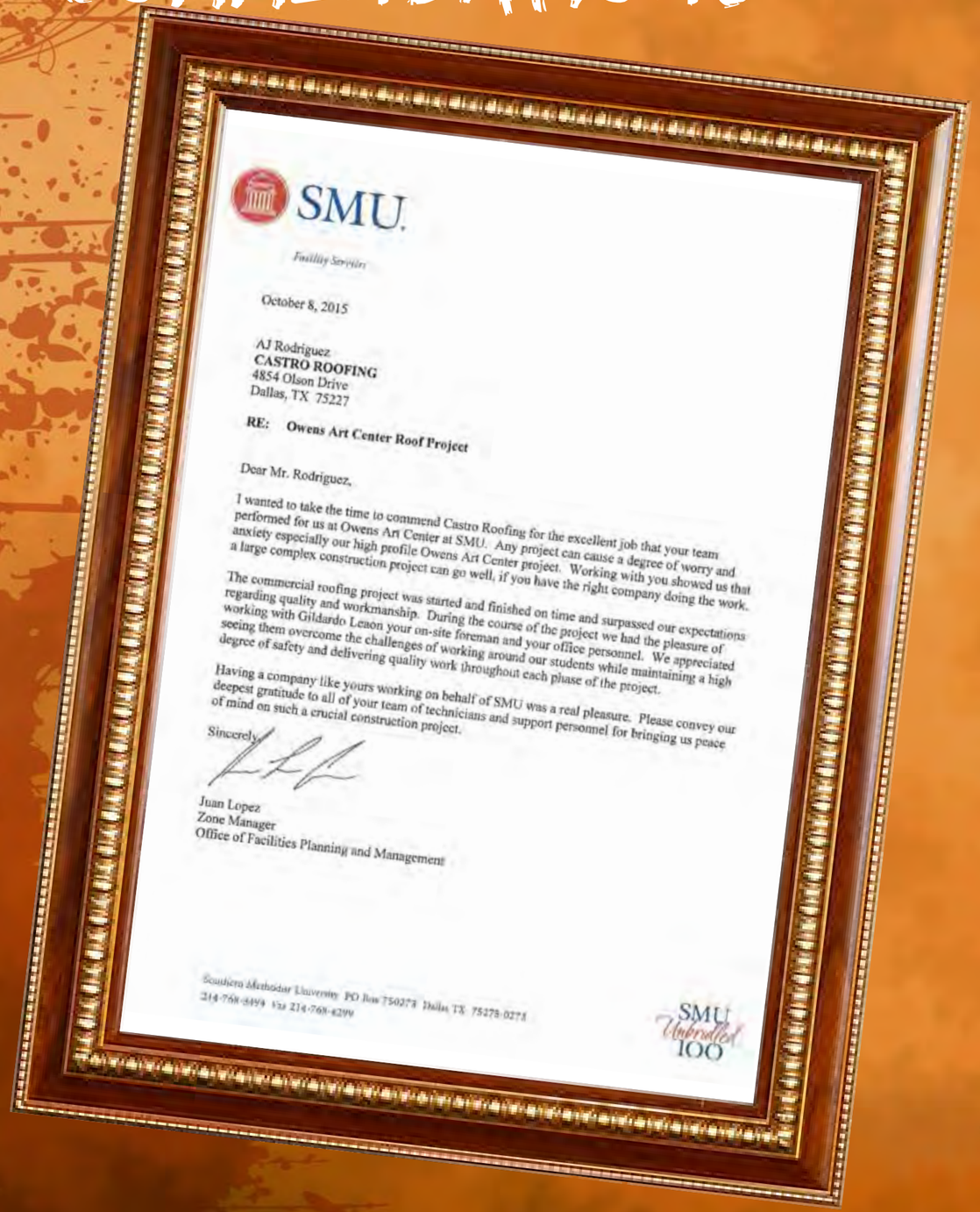
THE WHOLE CASTRO TEAM IS VERY SAFETY MINDED AND OFTEN DURING MY INSPECTIONS OF THE PROJECT, I WOULD ENCOUNTER THE SAFETY SUPERVISOR DOING ONSITE SAFETY CHECKS.

AS THE PROJECT MANAGER FOR THE ROOFING PROJECT THAT CASTRO COMPLETED. I CAN ATTEST TO THE JOB WELL DONE BY CASTRO ROOFING.

RESPECTFULLY,

JOHN HEMENWAY
PROJECT MANAGER
SOUTHERN METHODIST UNIVERSITY

COMMENDATIONS



SMU

Facility Services

October 8, 2015

AJ Rodriguez
CASTRO ROOFING
4854 Olson Drive
Dallas, TX 75227

RE: Owens Art Center Roof Project

Dear Mr. Rodriguez,

I wanted to take the time to commend Castro Roofing for the excellent job that your team performed for us at Owens Art Center at SMU. Any project can cause a degree of worry and anxiety especially our high profile Owens Art Center project. Working with you showed us that a large complex construction project can go well, if you have the right company doing the work.

The commercial roofing project was started and finished on time and surpassed our expectations regarding quality and workmanship. During the course of the project we had the pleasure of working with Gildardo Leaon your on-site foreman and your office personnel. We appreciated seeing them overcome the challenges of working around our students while maintaining a high degree of safety and delivering quality work throughout each phase of the project.

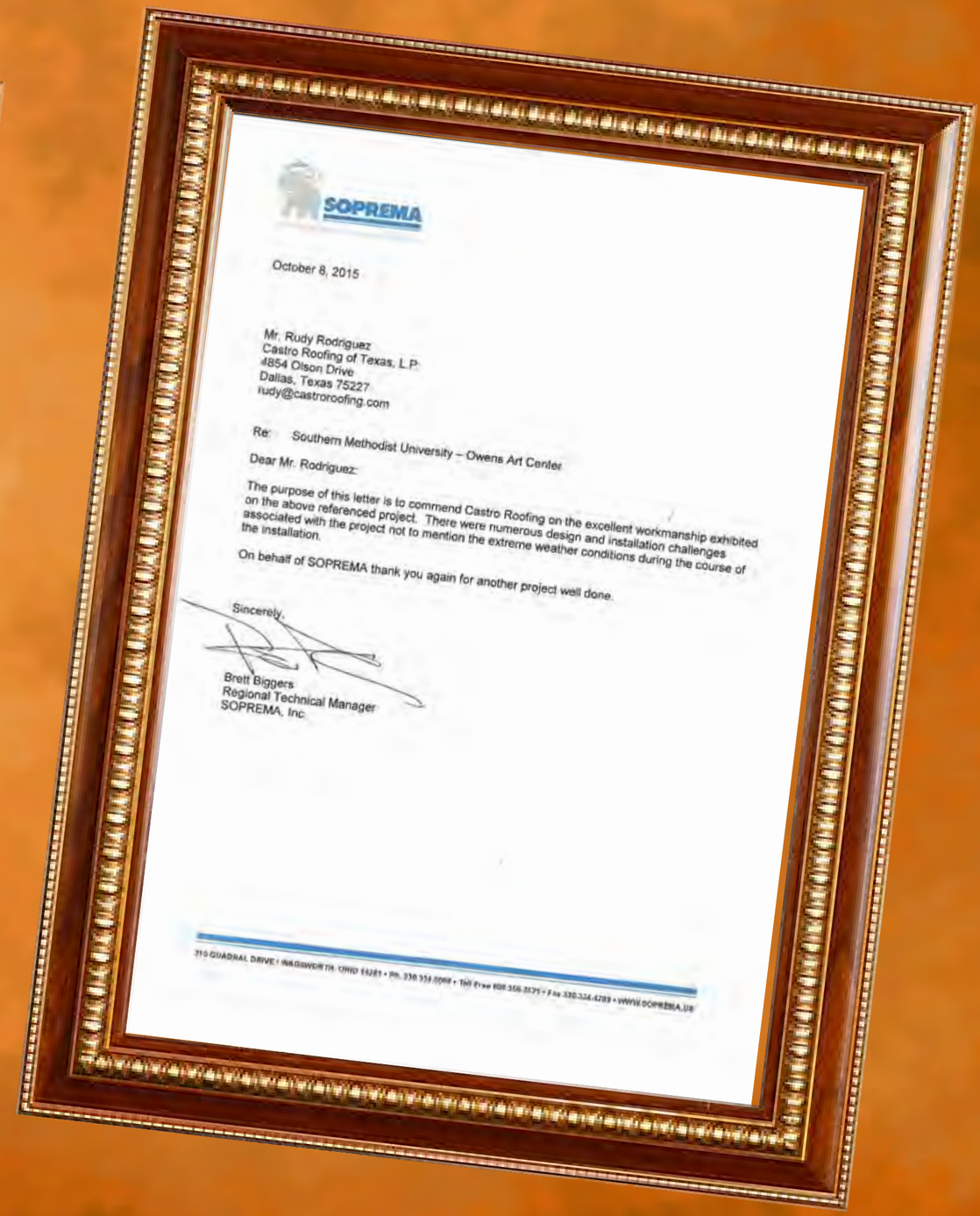
Having a company like yours working on behalf of SMU was a real pleasure. Please convey our deepest gratitude to all of your team of technicians and support personnel for bringing us peace of mind on such a crucial construction project.

Sincerely,

Juan Lopez
Zone Manager
Office of Facilities Planning and Management

Southern Methodist University PO Box 750378 Dallas TX 75275-0275
214-768-4494 Fax 214-768-4299

SMU Unbridled 100



SOPREMA

October 8, 2015

Mr. Rudy Rodriguez
Castro Roofing of Texas, L.P.
4854 Olson Drive
Dallas, Texas 75227
rudy@castroroofing.com

Re: Southern Methodist University – Owens Art Center

Dear Mr. Rodriguez:

The purpose of this letter is to commend Castro Roofing on the excellent workmanship exhibited on the above referenced project. There were numerous design and installation challenges associated with the project not to mention the extreme weather conditions during the course of the installation.

On behalf of SOPREMA thank you again for another project well done.

Sincerely,

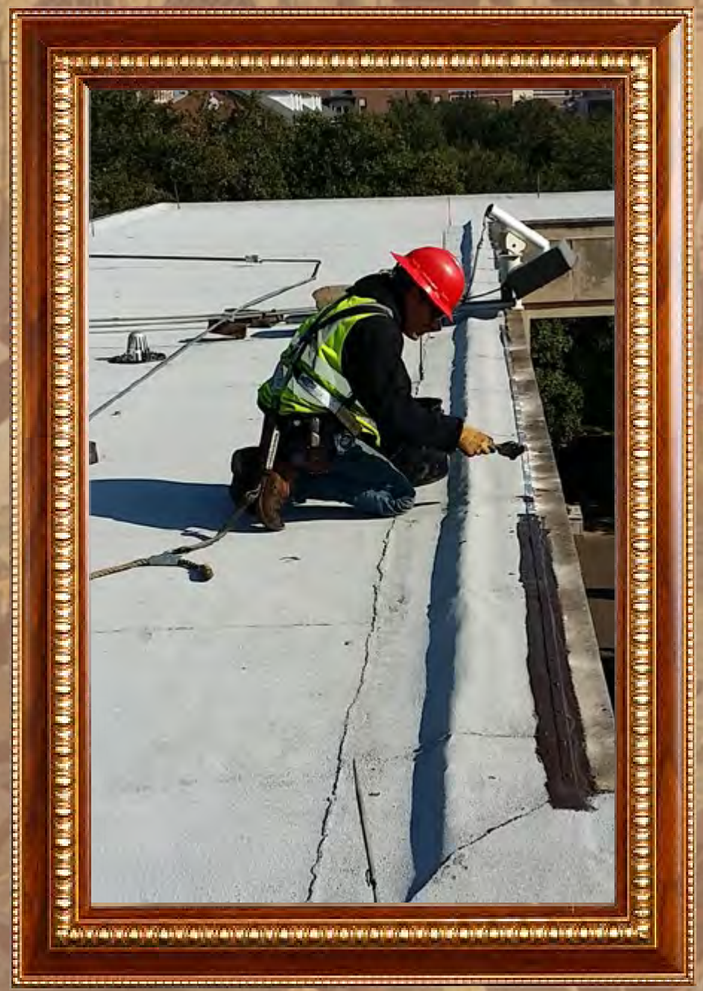
Brett Biggers
Regional Technical Manager
SOPREMA, Inc.

315 QUADRAL DRIVE • WADSWORTH, OHIO 44281 • PH. 330.334.0066 • TOLL Free 800.356.3575 • Fax 330.334.4283 • WWW.SOPREMA.US

PROJECT PHOTOGRAPHS

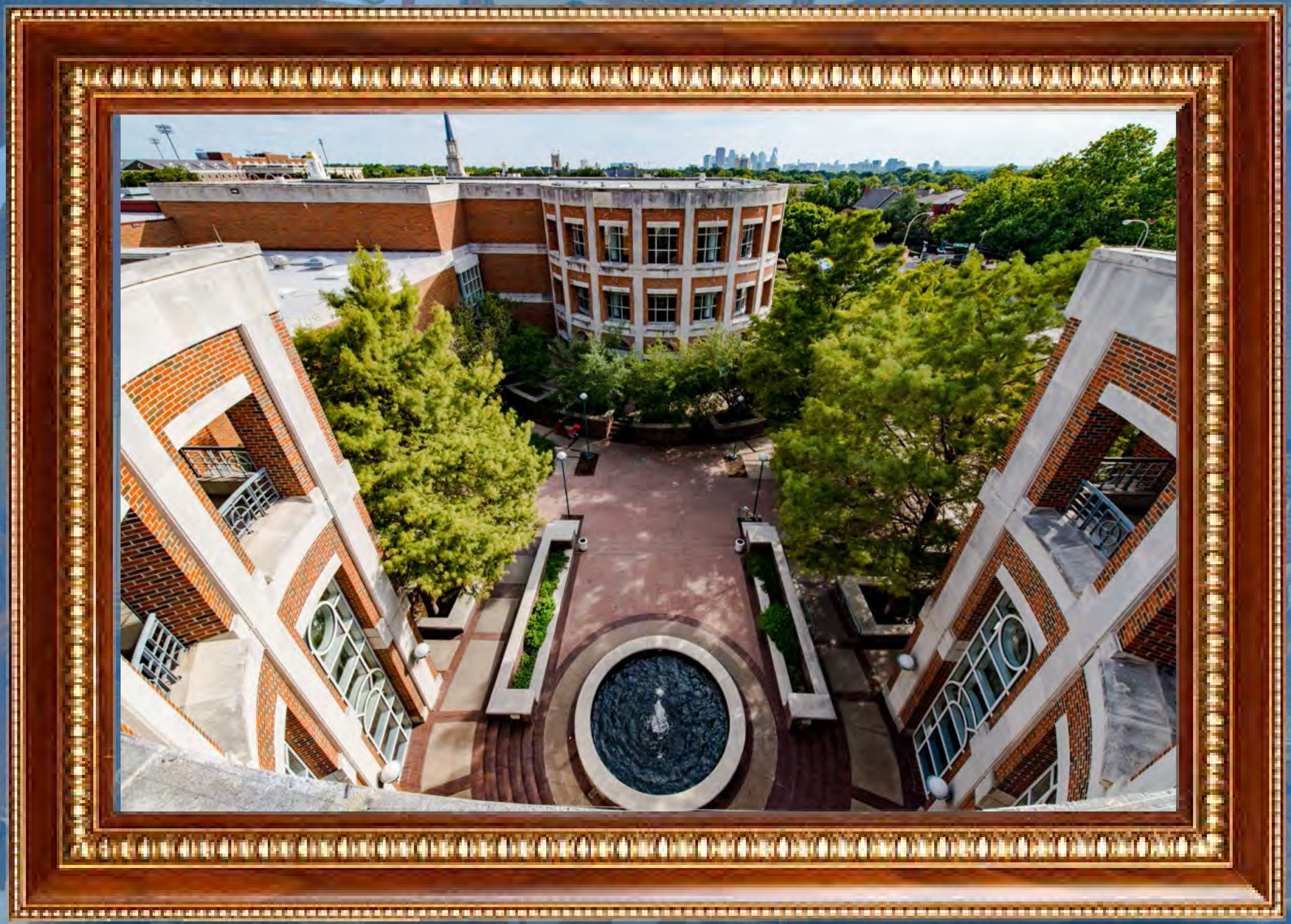
PROJECT PHOTOGRAPHS

PROJECT PHOTOGRAPHS



PROJECT PHOTOGRAPHS

PROJECT PHOTOGRAPHS



Over 5,000 linear feet of lightning protection was removed and re-installed

MEMBER INVOLVEMENT

This project was self-performed by Castro Roofing.
Under Castro Roofing contractors' scope of work the following companies contributed to the success of the SMU Owen Arts Center.

SOPREMA
GAF
Hunter Panel
TRUFAST Fasteners
3M
Oldham Lumber
Olympic Fasteners
Conner-Legrand
Maxim Skylights
Berridge Manufacturing
Miro Industries

EXPERIENCE. PASSION. PERFECTION

CASTROROOFING

www.CastroRoofing.com