ANNUAL REPORT

2020

Addressing the Fire Prevention Needs of The University of Texas at Austin
FSSS technician and FPS inspectors Stacey Alley and Francisco Gutierrez preparing for a fire drill
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OVERVIEW

ABOUT US

The University of Texas at Austin Fire Prevention Services (FPS) office ensures a safe environment for faculty, staff, students and visitors by providing a comprehensive fire prevention program. Our fire safety professionals are charged with monitoring all university buildings for compliance with local and state requirements. They partner with our community stakeholders to perform the inspections and drills necessary for risk reduction and the potential negative impacts of fire on campus.

As part of our continual effort to improve campus safety and emergency preparedness, FPS serves as the University’s liaison with the Texas State Fire Marshal’s Office and local emergency responders. Our organization ensures that new construction projects comply with applicable codes, as well as to develop compliance solutions for existing structures. We dedicate ourselves to the campus community through a comprehensive program of inspection, prevention, plan review and public education efforts designed to minimize risk and maximize campus fire safety.

Fire Prevention Services is under the Campus Safety office within the Financial and Administrative Services portfolio. Units under this portfolio support and enhance the University’s core mission to be more effective, efficient, and achieve operational excellence.

FINANCIAL AND ADMINISTRATIVE SERVICES
DARRELL BAZZELL, SENIOR VICE PRESIDENT AND CHIEF FINANCIAL OFFICER

CAMPUS SAFETY
JIMMY JOHNSON, ASSISTANT VICE PRESIDENT

FIRE PREVENTION SERVICES
WAYMON JACKSON, DIRECTOR
PROGRAMS AND SERVICES

PROGRAM AREAS

INSPECTIONS
• Fire Inspections
• Food Truck Inspections
• Dormitory Inspections

PLANS REVIEW
• Design/Construction Drawings
• Specifications
• Alternate Means and Methods
• Fire Department Access
• Shop Drawings

FIRE EXTINGUISHER MAINTENANCE
• Annual Maintenance and Inspections
• Replacing Discharged and out of Service Fire Extinguishers
• Servicing Fire Extinguishers
• Returning Fire Extinguishers into Service

RESPONSIBLE ENGINEER PROGRAM
• Consulting with Stakeholders on Fire and Life Safety Issues
• Liaison with State and Local Authorities

MCD FIRE MARSHAL
• Fire Inspections
• Fire Protection System Inspections, Testing, and Maintenance
• Wildfire Prevention and Response
• Safety Training

SERVICES

TRAINING
• Fire Extinguisher Training
• Crowd Manager Training

FIRE DRILLS
• Coordinating Fire Drills with Building Managers and FSSS
• Monitoring and Evaluating Drills

SPECIAL EVENTS
• Assisting with Event Fire Safety Planning
• Pre-Event Inspections
• Monitoring Events/Fire Watch
• Pyrotechnics Inspection and Monitoring

OUTREACH
• Community Engagement
• Social Media
• Live Demonstrations

LIFE SAFETY ENHANCEMENTS
• Fire Alarm Installations/Upgrades
• Fire Suppression Installations/Upgrades
• Emergency Lighting Installations/Upgrades

WILDFIRE PROTECTION PLANNING
• Wildfire Response Plans
• Wildfire Prevention
• Controlled Burns
• Emergency Response
• Landscape Management
I am pleased to present our 2020 Annual Report and thank you for taking the time to review our ongoing activities and achievements in what has proven to be an exceptionally challenging year. On Friday, March 13, 2020 the University closed for what I had would have been one month at the most, and all FPS staff began conducting their work remotely. One year later, university operations continue to be impacted by our response to the COVID-19 pandemic.

When it became clear that the suspension of in-person activities would extend for multiple months the FPS team adapted operations to complete our critical work in a remote environment. FPS engineering staff has worked primarily from their homes since the campus began operating in a largely remote environment. Fire inspectors, due to the nature of their work, began their return to campus within weeks initially working in shifts to promote social distancing, and eventually returning to campus full time as were able to make changes to our office accommodations.

As the University began planning to return to in-person learning and research activities FPS inspectors and engineers worked closely with other university departments in planning and executing a safe return to campus. These special projects included developing plans for safely storing and deploying alcohol-based hand sanitizers throughout campus (a highly flammable substance, determining occupancy numbers, conducting fire inspections, and participating in the building reopening “Tiger Teams” that surveyed and prepared buildings for the return to classroom learning.

The FPS team has also had to implement several changes to our normal business operations to continue to serve the University community as most are working and learning remotely. FPS engineers have successfully transitioned to conducting plan reviews and consulting with clients from their homes. FPS inspectors have developed an online version of our fire extinguisher training that is available via UT Learn. Inspectors have also had to adjust their procedures for performing fire inspections and fire watches in an uncertain environment, adjusting to new procedures and PPE requirements that frequently changed as our understanding of COVID-19 expanded.

The year 2020 was very stressful and extraordinary in so many ways, but FPS staff rose to the occasion and approached every dilemma in a logical and pragmatic way. I am very proud of their perseverance and determination to serve the University's needs in these challenging times.

Waymon
WAYMON JACKSON
DIRECTOR,
FIRE PREVENTION SERVICES
Joshua Lambert
Assistant Director
Assistant Fire Marshal
- Engineering
- Technical Operations
- Special Projects

Francisco Gutierrez
Lead Inspector
Fire Inspections
- Fire Inspections
- Fire Drills
- Fire Extinguisher Maintenance

Total: 10 employees
FPS embraces diversity in all things that we do; from our approach to fire prevention, to our team members, and how we interact with the university community at large. FPS approaches the fire safety needs of The University of Texas at Austin community through three distinct practices: Enforcement, Engineering, and Education. This approach allows us to improve fire safety at the university by creating good habits, ensuring the construction of a safe built environment, and intervening when issues are discovered. The FPS team comes from a wide variety of backgrounds, bringing with them an array of experience that contributes to a well-rounded perspective on fire safety. Our team members have served in the fire service, multiple branches of the armed forces, municipal and state government, as fire protection contractors, and as consulting engineers in a variety of sectors. We strongly believe that fire safety is a community effort. FPS works closely with stakeholders from across the university community to achieve safety in all aspects of operations at The University of Texas at Austin. We also strive to improve the fire safety of students, faculty, staff, and visitors in their lives outside of the University through a wide array of outreach and educational activities including social media, community engagement, training, and large-scale fire demonstrations.

"We believe the best ideas are born from sharing viewpoints, opinions, and perceptions from colleagues with varied backgrounds and experiences."
**REOPENING TEXAS: “TIGER TEAMS”**

In order to help slow community spread of the virus that causes COVID-19 the university ceased most on-campus operations on March 13. As planning began for bringing students and faculty back to campus for the fall semester multidisciplinary teams, with members from across the FAS portfolio, were put together to ensure a safe return to campus for students, faculty, and staff. These teams, nicknamed “Tiger Teams,” were made of up representatives from Facilities Services, Project Management and Construction Services, Environmental Health and Safety, FPS staff, and building managers. These teams of diverse professionals worked tirelessly over a six-week period inspecting facilities, reconfiguring 240 general purpose classrooms, installing over 20,000 signs and 40,000 zipties, rearranging furniture, and completing 35 additional departmental project tasks. FPS is proud to have supported these efforts to bring our students and faculty back to campus safely for the fall semester to continue the important work of transforming lives for the benefit of society.

**PROTECT TEXAS: HAND SANITIZER IS HAZARDOUS?**

Frequent hand washing is one of the key measures in preventing the spread of COVID-19. Alcohol-based hand sanitizers are a key part of our toolbox to keep our hands clean while out in public and hand sanitizing stations are now a common sight in our daily lives. The CDC recommends using a hand sanitizer that contains at least 60% alcohol, many hand sanitizers contain up to 80% alcohol. However, the alcohol that makes hand sanitizers effective against viruses also makes it a hazardous material from a fire prevention perspective. Fire codes heavily regulate the storage and use of flammable and combustible liquids in buildings. Alcohol based hand sanitizer is a Class 1 flammable liquid, the highest hazard rating, and the fire codes have special requirements and provisions for hand sanitizers in recognition of the hazard that they can present as well as the important and useful part that they play in maintaining hygienic environments. As the COVID-19 pandemic unfolded the University began to incorporate hand sanitizer stations throughout campus on a large scale. Thousands of hand sanitizer dispensers were deployed and provisions for local and bulk storage were required to keep operations running smoothly. Finding suitable locations for bulk storage of thousands of gallons of these flammable liquids was particularly challenging and required a great deal of careful coordination and creativity. FPS worked closely with Facilities Services, Project Management and Construction Services, building managers, and other groups on campus to safely set up these operations.
Fire risks are constantly evolving as new technology emerges and the way we use and interact with our built environment changes. Research activities across the University force FPS to adopt a proactive approach to protect students, faculty, and staff from unconventional fire risks. To meet these challenges FPS staff is continuously learning and developing new skills and actively participates in developing new national codes and standards in order to stay up to date with the cutting edge of fire protection technologies and best practices. One way that FPS helps keep the University safe in this dynamic environment is by providing unique training experiences to empower the university community to be partners in our mission to protect The University of Texas from fire. Over the coming year FPS will continue to implement a range of new web based resources to enhance our educational activities and improve how stakeholders interact with FPS on matters of fire safety. FPS has also transitioned to a new inspection management system in 2020. FPS inspectors worked closely with the software developers to beta test features to ensure that the new system meets the needs of the University.

We are creative and innovative in our service to the campus community.

FPS Inspector Daniel Cardona conducts fire extinguisher training for faculty and staff at The University of Texas Marine Science Institute in Corpus Christy, Texas
FIRE EXTINGUISHER TRAINING

FPS’ fire extinguisher training program continues to be an essential component of the University’s fire prevention efforts. Any member of the University community can sign up for these classes on UTLearn. For some individuals, this training is required to be completed on an annual basis. Students learn how to effectively operate portable fire extinguisher and when it is safe to do so. Traditionally, classes have been scheduled for 1-hour sessions and include a 15-20 minute in person lecture and 30 minutes of hands-on demonstration with FPS’ live fire training prop, where each student gets personal experience and training using an actual fire extinguisher. The COVID-19 pandemic required FPS to pivot on how this training is delivered in order to continue providing this required recurring training to researchers on campus as they returned to their labs. In order to meet this need FPS developed an online fire extinguisher training program. FPS inspectors reached out to UT Learn and Environmental Health and Safety (EHS) to learn more about how EHS has implemented their on line training courses for the University community. EHS provided invaluable assistance in helping to convert the in person program to an online format. After having no in person training since February 27th, the new online program went live on August 23rd, 2020 and over 500 students have completed the program through the fall semester. Once online, this innovative new program has allowed FPS to deliver fire extinguisher training for the University community at a similar rate to previous in-person only offerings. FPS hopes to resume in-person training with our live fire training prop once it is safe to do so.
The safety of students, faculty, staff, and visitors is the number one priority for The University of Texas at Austin. FPS works to keep the University in compliance with state and federal requirements for fire safety including conformance with fire and building codes and reporting requirements.

FPS engineers perform in-depth reviews to ensure that project plans and specifications conform to the applicable NFPA and ICC codes and standards, The university’s Design and Construction Standards, and the Texas Accessibility Standard. FPS staff conduct periodic installation inspections and witness tests of fire protection systems to ensure that buildings are constructed in accordance with approved plans and reference standards.

FPS regularly inspects all university facilities to assess and mitigate potential fire and life safety hazards in university facilities. Fire inspections focus on identifying fire safety hazards and deficiencies in buildings to ensure that buildings are well maintained and safely operated. All FPS inspectors are certified by the National Fire Protection Association as Fire Inspector 1, and many have received supplemental training and certifications in specialty areas such as pyrotechnic displays.
FIRE INSPECTIONS

FPS strives to inspect all university facilities at least annually. With over 200 facilities, and over 25 million square feet, on the main campus alone and well over 100 additional buildings spread throughout the state, this is a daunting task. The COVID-19 pandemic has greatly impacted FPS inspection activities over the past year. The campus closure in early spring and a hybrid staffing model for the return to campus has limited the number of inspections that FPS inspectors can perform. The 141 inspections performed in 2020 is roughly half the number of inspections performed in 2019.

PLAN REVIEW

The number of plan review requests continues to rise with 29 more requests for review in 2020 than the previous year. Accommodating this increasing workload continues to strain FPS’ ability to provide reviews that are both timely and thorough. The large number of CPC projects in the construction phase has been a major driver of reviews for 2020. While the COVID-19 pandemic caused a brief pause in review requests concurrent with the campus closure in the spring, there was little to no impact to the overall number of reviews for the year. FPS engineering staff have continued to perform well during the transition to remote work.
CORE VALUE

SERVICE

FPS serves the entire University community by working to create a safe environment for learning, research, cultural enrichment, and entertainment. Whether we are conducting inspections and plan reviews, consulting on fire protection issues, or assisting in the planning and operations of special events FPS works diligently to help our customers achieve their goals while providing for the safety and well being of the University’s students, faculty, staff, and visitors. FPS supports construction activities at the university from initial project programming through design and final construction. In addition to ensuring compliance with building and fire codes FPS staff often provides supplemental advice and consultation to project teams to help ensure that their projects are successful and meet the needs of the University. Likewise, for special events FPS is often involved early, assisting with planning, reviewing floorplans and site plans, and evaluating potential hazardous activities. FPS strives to be responsive, collaborative, and thoughtful members of the teams that build and showcase The University of Texas at Austin.

Fire protection riser room in the Engineering Education and Research Center
SPECIAL EVENT STAFFING / FIRE WATCH

FPS typically provides staffing for over 200 special events each year including athletic events, concerts, performing arts events, conferences, and other mass gatherings. The COVID-19 pandemic has greatly reduced the number of events and gatherings for 2020. The second quarter, typically the busiest time of the year, had zero special event assignments. The sharp decline in the number of special events has great impact to the amount of overtime income that FPS inspectors would typically receive in comparison to a normal year.

![Fire Watches / Events Chart]

TESTING AND ACCEPTANCE ACTIVITIES

FPS inspectors witness acceptance testing of fire protection systems for newly constructed buildings and renovations of existing buildings. The increase in CPC projects under construction and large PMCS projects resulted in an increase in the number of acceptance testing activities witnessed by FPS for 2020. FPS expects the number of testing activities to continue to rise as construction activity on major projects continues through 2021.

![Acceptance Testing Chart]
CORE VALUE

STEWARDSHIP

We are exceptional caretakers of the resources entrusted to FAS.

FPS strives to utilize resources in ways that maximize the impact to fire and life safety for the University community. FPS incorporates the maintenance of portable fire extinguishers at Main Campus, the Pickle Research Center, and the McDonald Observatory into our annual inspections of university buildings, saving time and money while reducing the impact of these maintenance activities on building occupants. FPS continuously monitors and assesses life safety systems and features in university buildings and reviews fire inspection reports generated by the State Fire Marshal's Office and FPS fire inspectors. This information, along with FPS' database on building fire protection systems, is analyzed to conduct a risk assessment for the purposes of identifying and prioritizing projects for corrective actions. Using this system FPS can ensure that the University's limited funds are put to the best use to positively impact the safety of students, faculty, and staff.
FIRE EXTINGUISHER MAINTENANCE
Annual maintenance for portable fire extinguishers consists of an in-depth external inspection of the extinguisher and its components. Fire extinguishers periodically require internal inspection and/or pressure testing. FPS manages a contract with an outside service firm to conduct this work. Extinguishers that are due for internal maintenance are rotated out of service and sent to the contractor for these services. The rotation of extinguishers for internal maintenance and hydrostatic testing can cause fluctuations in the number of fire extinguishers that are serviced each year. The COVID-19 pandemic had a significant impact on the number of fire extinguishers that FPS was able to service.

LIFE SAFETY ENHANCEMENTS
With the assistance of Project Management and Construction Services and other university stakeholders FPS completed a number of projects in 2020 to rehabilitate and upgrade existing life safety systems, install new fire suppression and life safety systems, and enhance fire department access across the University:

- ARL - Fire Sprinkler System Retrofit
- BEL - Door Hold Open Devices and Smoke Detector Installation
- UA9 - Fire Alarm System Retrofit
- BE1 - Fire Sprinkler System Retrofit
- EME - Fire Sprinkler and Gas Detection Connection to the Campus Proprietary Monitoring System
- JHH - Fire Alarm System Upgrade
- CPC - Fire Alarm System Installations with Complete Smoke Detection
- LCH - Complete Smoke Detection Installation
- ECJ - Building Emergency Lighting
- ICC - Building Emergency Lighting
- Knox Box Installations at WIN, WEL, N24, ETC, MHD, RHD, BHDm JES, SIB, SBS, AHG, BUR, ECJ, HTB, HLB, HDB, and MR1
CORE VALUE

TEAMWORK

We work collaboratively across our organizations on common objectives and develop efficient and cost effective systems and processes for campus.

FPS follows a community-oriented approach to fire prevention and partners with departments and individuals throughout the entire University to facilitate the mission of The University of Texas at Austin and ensure the safety of its students, faculty, staff, and guests. Whether conducting inspections, reviewing construction documents, educating and preparing the university community, or working to solve unique challenges with our peers, teamwork is at the heart of how FPS approaches our mission to protect lives and property at the university. We strive to collaborate with our partners to find ways to achieve their goals in a safe manner that meets regulatory requirements and fire safety best practices. We all have a role to play in protecting the university from the threat of fire through creating a safer built environment, operating and using facilities in a safe manner, and even practicing fire safety in our homes. FPS is proud to work together to make The University of Texas a safe place to learn and discover.
Bringing fans back to campus was a major part of maintaining some degree of normalcy through the COVID-19 pandemic. Athletic competition is an important part of student athletes’ time at the University and sports provide a venue for the University community to come together and celebrate and maintain connection to the University of Texas at Austin. In a year unlike any other, inviting the University community to campus to support Longhorn student athletes during a pandemic was an incredible challenge. Team members from throughout the University came together to quickly develop flexible plans for safely hosting athletics competitions in an uncertain environment.

From a fire prevention perspective providing adequate hand sanitizing stations to promote healthy fan behavior was a major concern. As previously noted, alcohol-based hand sanitizer is considered a fire hazard and is heavily regulated in fire codes. The limits imposed by the fire codes cannot support the need during this pandemic to provide enough hand sanitizer for the thousands of fans and staff in attendance. FPS worked closely with Athletics staff and their vendors to develop and implement an alternative protection plan that permitted the quantities of hand sanitizer required to support public health while ensuring fire safety of all in attendance.
Sparky the Fire Dog and Widget at Safety Week
FPS team members Roosevelt Easley and Francisco Gutierrez participate in a planning meeting for 2019 Commencement ceremonies with Emergency Preparedness and Campus Safety.