

# Helping Firefighters by Providing Access to Additional Breathing Air During Large Structure Fires

Frisco, TX uses Firefighter Air Replenishment Systems (FARS) to help manage building growth and make a dangerous job safer for its first responders.



Over the past few decades, Frisco, TX has experienced explosive population growth and transformational development that dramatically altered the city's skyline and challenged city leaders to find innovative ways to address the public safety risks posed by this boom in construction.

Fortunately for Frisco's firefighters, Firefighter Air Replenishment Systems ("FARS") figured prominently in the city's plans. FARS are a lifesaving technology designed to help provide first responders with quick, easy access to replenish breathing air during a large structure fire.

## A Life-saving Standpipe for Air

FARS are standpipes for air, permanently installed in large structures like high-rises, big-box buildings, and tunnel systems. The system is designed to refill Self-Contained Breathing Apparatus ("SCBA") bottles at fill stations located throughout a structure in two minutes or less.

Without FARS, delivery of replacement air bottles for firefighters is slow and antiquated. A "bottle brigade" of firefighters would be tasked with hauling the extra SCBA bottles up numerous flights of stairs or deep into horizontal structures.

## Case study

Just as water standpipes replaced hand buckets as a delivery system for water, FARS, a building-installed standpipe for air, replaces the hand-delivery of replacement air bottles.



This is a time-consuming, labor-intensive process that can take firefighters on the scene away from critical tasks like fire attack and search and rescue operations.

It's akin to the slow and ineffective method of bringing water to a fire in hand buckets.

FARS changed that. Just as water standpipes replaced hand buckets as a delivery system for water, FARS is replacing the air bottle brigade delivering air. Crews no longer have to wait for replacement SCBA bottles to arrive. Instead, they can use the FARS to refill their existing SCBA. FARS greatly helps to reduce the risk of firefighters running out of air and breathing toxic smoke, a situation that can turn deadly fast.

### The Foresight to Act

In 2019, a slate of new construction projects was coming online in Frisco. One of the largest was a \$1.5 billion project. The 91-acre property would include hotels,

residential high-rises, restaurants, meeting facilities, an indoor stadium, and more.

Recognizing the resources that would be needed to defend a multitude of large, complex buildings in a fire emergency, the

**“(FARS are) quicker, less manpower, more effective, more efficient,” says a Frisco Fire Department Battalion Chief familiar with the system. “Overall, it’s a game changer.”**

Frisco fire chief recommended that the city require FARS in new buildings of five floors or higher. The Frisco City Council approved the requirement, and the city adopted Appendix L of the International Fire Code, the code standard for FARS.

Just two years later, at a luxury high-rise apartment building on the property, the Frisco Fire Department made history by becoming the first fire department in Texas to use FARS in a working fire. And they did so with exceptional results.

### A Positive Outcome Using FARS

The fire broke out on the 12th floor of a 17-story high-rise. Attack crews could quickly refill their second bottles at a fill station located on the 11th floor and

immediately return to fighting the fire. Without FARS, a bottle brigade consisting of multiple firefighters would have repeatedly had to haul air bottles up 10 flights of stairs to a staging area two floors below the fire floor.

Firefighters on the scene praised the FARS' speed, reliability, and ease of use. With crews operating at peak efficiency, the fire was quickly extinguished about an hour after the first alert.

## Case study

**“We’ve lost too many firefighters to the devastating effects of fire smoke,” says Mike Gagliano, veteran firefighter and co-author of the textbook *Air Management for the Fire Service*. “Thanks to the visionary fire chiefs across the country who have brought FARS to their cities, a dangerous job is being made safer with FARS.”**



### Now, A Regional Recommendation for FARS Codes

In 2021, the North Central Texas Council of Governments (“NCTCOG”) took notice. Based on input from fire departments in the region, the organization recommended that all of its 230-member jurisdictions adopt codes requiring FARS in certain new construction buildings.

In addition to Frisco, other cities in the NCTCOG region have adopted FARS codes, such as Ft. Worth, McKinney, Plano, and Southlake.

And more nearby jurisdictions are expected to adopt a FARS code as they cycle through their code review processes, helping this fast-growing region of the country keep pace with development,

ensure regional consistency, and help first responders with access to resources for breathing air.

For more information on FARS and our smart building technology, go to **[rescueair.com](https://rescueair.com)**.

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