



**EAST LAKE TARPON
SPECIAL FIRE CONTROL DISTRICT**
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Information Bulletin: Two-Way Radio Communication Enhancement System requirements

This document is intended to provide two-way radio communication guidance to building owners and or developers who have or are building in East Lake Tarpon Special Fire Control District. Per the Florida Fire Prevention Code 6th edition NFPA 1 Chapter 11.10, all new buildings and existing buildings minimum radio signal strength shall be provided.

Modern building design and construction techniques, especially those required to satisfy requirements for LEED-certified building designs, make it difficult or impossible for Pinellas County's 911 system to provide reliable two-way radio coverage for first responders (Fire Rescue/Law Enforcement/EMS) operating inside of buildings. Two-way radio communications enhancement systems help ensure the safety of building occupants and first responders by extending the coverage of a public safety communications system to the interior areas of the building through the use of special bi-directional amplifiers (BDAs) and a network of indoor antennas strategically located to provide reliable public safety radio system coverage throughout the interior of a building.

The BDA and network of antennas is known collectively as a Distributed Antenna System (DAS). DAS systems must be designed, installed, maintained and repaired by qualified personnel to ensure that they meet the coverage reliability requirements of NFPA 72-2013 and do not cause unintended harmful interference to the County's radio system or other users of the RF spectrum licensed by the Federal Communications Commission (FCC).

Radio Communications Enhancement System Initial Testing

All buildings as determined by the Deputy Chief shall have an approved third-party integrator to provide a spectrum analysis grid test of the building and provide a copy of the analysis of the radio signal strength and recommendations for compliance to the Deputy Chief.

The use of a predictive analysis software such as IB WAVE can be used in plan submittal for permitting. However, final testing will be required at completion of the building construction prior to obtaining the certificate of occupancy.

The signal strength shall meet the requirements of the Florida Fire Prevention Code 6th edition; NFPA 1 11.10; and NFPA 72-2013 edition 24.5.2.2, 24.5.2.3; and must be tested in accordance with the provisions set forth in NFPA 72-2013 14.4.10 (1-6) and A14.4.10 (1-3).

Implementation Process

Submit permit application through the Pinellas County Building Department to include an NFPA 72-2013 compliant two-way radio communication enhancement system in the design requirements for the project. A qualified integrator or installation firm is hired to design, install, and activate the two-way radio communications enhancement system as a part of the building project. The applicant must obtain a separate low-voltage permit to cover the installation of the two-way radio communication enhancement system. The fire alarm contractor is responsible for the fire alarm permit application, and integration of the radio communications enhancement system into the fire alarm supervisory notification/alarm panel.

Final testing for permit close out shall include witnessed spectrum analysis by fire inspection personnel. Integration with supervisory notification/alarm panel(s) must be compliant with the requirements of NFPA 72-2013 and must be completed prior to fire alarm and two-way radio communication enhancement system testing.

Building owners/developers must submit all test documentation and a Certificate of Radio Coverage Compliance, signed and sealed by the engineer of record, stating that the public safety radio system coverage reliability within the occupancy meets the requirements set forth in NFPA 72-2013 24.5.2.2, 24.5.2.3, and was tested in accordance with the provisions set forth in NFPA72-2013 14.4.10 (1-6) and A14.4.10.

The Certificate of Radio Coverage Compliance shall be posted at the fire alarm control panel, or at the main electrical panel if no fire alarm control panel is present. For buildings not equipped with two-way radio communications enhancement systems as part of the original design drawings, testing for coverage reliability compliance and certification must be performed when all construction and interior finishing work was complete.

Please contact Deputy Chief Jason Gennaro at 727.784.8668 ext. 205 or via email at jgennaro@elfr.org if you have additional questions regarding Two-Way Radio Communication Enhancement System requirements.