

Two-Way Radio Communication Enhancement System Requirements

This document is intended to provide guidance to building owners of existing high-rise buildings in the City of Treasure Island, specifically for testing radio signal strength to determine the need for Two-Way Radio Communication Enhancement Systems. **Per NFPA 101, Life Safety Code, 2015 edition - Ch. 3.29.6 High Rise Building. A building where the floor of an occupiable story is greater than 75 ft. (23m) above the lowest level of fire department vehicle access.**

Per Florida Statute 633.202 Florida Fire Prevention Code.—(18) The authority having jurisdiction shall determine the minimum radio signal strength for fire department communications in all new high-rise and existing high-rise buildings. Existing buildings are not required to comply with minimum radio strength for fire department communications and two-way radio system enhancement communications as required by the Florida Fire Prevention Code until January 2, 2022. However, by December 31, 2019, an existing building that is not in compliance with the requirements for minimum radio strength for fire department communications must apply for an appropriate permit for the required installation with the local government agency having jurisdiction and must demonstrate that the building will become compliant by January 1, 2022. Existing apartment buildings are not required to comply until January 1, 2025. However, existing apartment buildings are required to apply for the appropriate permit for the required communications installation by December 31, 2022.

Modern building design and construction techniques, especially those required to satisfy requirements for LEED-certified building designs, make it difficult or impossible for the County's 911 system to provide reliable two-way radio coverage for first responders 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 NFPA72-2013 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).

All high-rise buildings 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 Fire Inspector's Office.

The signal strength shall meet the requirements of the Pinellas County Radio & Technology Division.–Radio system regulations for buildings and 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 was tested in accordance with the provisions set forth in NFPA72-2103 14.4.10 (1-6) and A14.4.10 (1-3).

A 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. An additional copy shall be submitted to the Treasure Island Fire Inspector's Office.

If the radio signal strength testing indicates the need for the installation of a two-way radio communications enhancement system this shall be submitted for proper permits through the City building department.

The City of Treasure Island is not recommending any of these providers. These are the ones that we are aware of who are able to provide this service. Please see below for those providers.

These companies are placed in no specific order:

1. *Mann Wireless* - Andrew Mann - (727)216-6200 - 12423 62nd Street N, Largo, FL 33773
2. *EMEGC* - Jay Cook - (813)470-7215 - 3615 E. Lake Ave, Tampa, FL 33610
3. *Communications Technologies Services* - Rick Rausch - (772)204-4316 - 33 Lock Drive, Marlboro, MA 01752
4. *Smart RF* - Javier Herrero - (407)619-8297 - 10501 S. Orange Ave Suite 111, Orlando, FL 32824
5. *Bearcomm* - Guy Potter - (813)249-1605 - 6302 Benjamin Road Suite 408, Tampa, FL 33634
6. *Gabes Wireless Solutions* - Greg Akin - (321)446-0806 - 571 Haverty Court, Rockledge, FL 32955
7. *Advanced DF Technologies Inc.* - Jim Lilienfeld - (321)626-8596 - 3116 West Vanowen Street, Burbank, CA 91505 (Offices in Tampa)
8. *Radio One* - Surren Maraj - (407)458-4970 - 7041 Grand National Drive Suite 116, Orlando, FL 32819
9. *Advanced Telecom Systems* - Shannon Ray - (813)469-2938 - 6710 West Linebaugh Ave, Tampa, FL 33625
10. *Superior Fire Alarm & Communications* - Ruddy Puga - (813)818-4444 - 6201 Johns Rd #9, Tampa, FL 33634
11. *Radio One* - Sean Epperson - (727)575-7978 - 4902 Creekside Drive, Clearwater, FL 33760
12. *Two Way Technology* - Lenn Marella - (321)285-2525 - 5401 S. Kirkman Rd, Orlando, FL 32819
13. *Alpha-Omega Communications, LLC* - Tom Novak- 815-295-2863 - 1718 Independence Blvd., Suite C Sarasota, FL 34234

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