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ROUND ROCK FIRE DEPARTMENT

FIRE MARSHAL'S OFFICE

EMERGENCY RADIO RESPONDER SYSTEM

PRE-ENHANCEMENT RADIO SURVEY REQUIREMENTS

This document is designed to provide criteria to determine which buildings shall require, at minimum, a pre-enhancement radio survey within Round Rock Fire Department's jurisdiction. All buildings that meet the below criteria shall require a pre-enhancement radio survey performed by a company or individual with a current FCC-issued radio operator's license (GROL). The radio survey shall be required at the 80% construction phase which includes floors, walls, windows, and doors placement, at a minimum. This stage of construction will give a more accurate representation of what actual radio coverage will be at the building's final stage. After pre-enhancement radio survey completion at the 80% construction phase, the signal strength results provided by the survey shall meet the International Fire Code, NFPA 72 & 1221 standards of -95dbm over 95% in noncritical areas & 99% in critical areas. If the survey results meet the minimum standard, no further action shall be required. If the results show signal strengths lower than the minimum standards, plan submittal, permit, installation of an ERRC system, and fire marshal acceptance test shall be required. In addition, if a building requires a survey based on the criteria below, it is strongly recommended that during the building design phase, the architect designs the building with proper fire ratings for all cabling, vertical risers, and rooms that house system components to avoid delays or unnecessary cost during construction. The following criteria are set forth by the Round Rock Fire Marshal's Office to determine the need for a professional pre-enhancement radio survey in new buildings or site projects:

PRE-ENHANCEMENT RADIO SURVEY REQUIREMENTS:

- Greater than 5 Stories:** any building greater than 5 stories shall have a pre-enhancement radio survey performed by a licensed contractor with the ability to provide an accurate signal strength survey report.
- Below Grade Plane:** any building with floors below grade plane shall have a pre-enhancement radio survey performed by a licensed contractor with the ability to provide an accurate signal strength survey report.
- Wood Frame Construction:** any wood-framed construction building, or project classified as Type III-Type V by the International Building Code, with a total area greater than **50,000 square feet**, shall have a pre-enhancement radio survey performed by a licensed contractor with the ability to provide an accurate signal strength survey report. The square footage shall be calculated by the summation of the total area square footage of all buildings involved in the overall project.
 - Exception:** buildings permitted to install NFPA 13D automatic sprinkler systems such as one- and two-family dwellings, Group R-3; Group R-4 Condition 1 and townhouses shall not be required to perform a pre-enhancement radio survey for the project unless any single proposed building of the total project is greater than **25,000 square feet**. Only buildings greater than 25,000 square feet shall require a survey.
- Concrete or Metal Framed Construction:** any concrete or metal-framed construction building, or project classified as Type I-Type II by the International Building Code, with a total area greater than 25,000 square feet shall have a pre-enhancement radio survey performed by a licensed contractor with the ability to produce an accurate signal strength survey report.