

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Committee on Community Affairs

BILL: SB 1614

INTRODUCER: Senator Rodriguez

SUBJECT: Public Safety Emergency Communications Systems

DATE: March 21, 2023

REVISED: _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Hackett	Ryon	CA	Favorable
2.	_____	_____	BI	_____
3.	_____	_____	RC	_____

I. Summary:

SB 1614 provides that a qualified third party must certify that a jurisdiction’s public safety emergency communications system meets or exceeds certain minimum criteria before the local fire authority may require an assessment of the need for a two-way radio communications enhancement system. The bill also provides that such assessment may only be required once every three years for high-rise buildings or once every five years for any other building.

The bill provides that if such an assessment determines that installation of a two-way radio communications enhancement system is required, the local government may not withhold the issuance of a certificate of occupancy for the building if the registered architect or professional engineer who designed the building determines that such a system is not necessary for the building to meet minimum standards for radio coverage and signal strength. Installation of the enhancement system cannot be required until at least 90 days after a building’s assessment report is completed.

The bill takes effect July 1, 2023.

II. Present Situation:

Florida Fire Prevention Code

The State Fire Marshal, by rule, adopts the Florida Fire Prevention Code (Florida Fire Code), which contains all firesafety laws and rules that pertain to the design, construction, erection, alteration, modification, repair, and demolition of public and private buildings, structures, and facilities, and the enforcement of such firesafety laws and rules.¹ The State Fire Marshal adopts a new edition of the Florida Fire Code every three years.² The Florida Fire Code is largely based

¹ Fla. Admin. Code R. 69A-60.002.

² Section 633.202(1), F.S.

on the *National Fire Protection Association's (NFPA) Standard 1, Fire Prevention Code*, along with the current edition of the *Life Safety Code, NFPA 101*.³ The 7th, and current, edition took effect on December 31, 2020.⁴ State law requires all municipalities, counties, and special districts with firesafety responsibilities to enforce the Florida Fire Code as the minimum fire prevention code to operate uniformly among local governments and in conjunction with the Florida Building Code.⁵ The Florida Fire Code applies to every building and structure throughout the state with few exceptions.⁶ Municipalities, counties, and special districts with firesafety responsibilities may supplement the Florida Fire Code with more stringent standards adopted in accordance with s. 633.208, F.S.⁷

Radio Signal Strength for Fire Department Communications

The life safety of firefighters and citizens depends on reliable, functional communication tools that work in the harshest and most hostile of environments. All firefighters, professional and volunteer, operate in extreme environments that are markedly different from those of any other radio users. The radio is the lifeline that connects the firefighters to command and outside assistance when in the most desperate of situations.⁸

Modern focus on radio signal strength stems from difficulties experienced by firefighters attempting rescue operations on September 11, 2001, in the World Trade Towers, who found that in certain areas of the building their radio signal degraded, making live communication difficult or impossible.⁹

Two-way radio communication enhancement systems are devices installed after a building is constructed that accept and then amplify radio signals used by first responders. A radio frequency site survey may be conducted in a building to determine areas where radio signal strength drops due to materials used in construction, such as thick walls, metal construction, underground structures, and low-emissivity glass windows. The generally desired effect is that radio signal strength at ground level, where a fire rescue operation might be based, is equal to the radio signal strength in all locations throughout the building, to ensure consistent communication. Several devices are available to boost signal strength to meet required radio

³ Section 633.202(2), F.S.

⁴ Division of State Fire Marshal, *Florida Fire Prevention Code*, available at <https://www.myfloridacfo.com/division/sfm/bfp/florida-fire-prevention-code> (last visited Mar. 18, 2023).

⁵ Sections 633.108 and 633.208, F.S.

⁶ Section 633.208, F.S., and Fla. Admin. Code R. 69A-60.002(1).

⁷ Section 633.208(3), F.S., and Fla. Admin. Code R 69A-60.002(2).

⁸ Federal Emergency Management Agency, United States Fire Administration. *Voice Radio Communications Guide for the Fire Service* (June 2016), p. 1, available at https://www.usfa.fema.gov/downloads/pdf/publications/Voice_Radio_Communications_Guide_for_the_Fire_Service.pdf (last visited Mar. 18, 2023).

⁹ See *Assessment of Total Evacuation Systems for Tall Buildings: Literature Review*, National Fire Protection Association's (NFPA), available at <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Executive-summaries/evacsystemstallbuildingsliteraturereviewexecsum.ashx#:~:text=According%20to%20the%20definition%20of,floor%20of%20the%20highest%20occupiable> (last visited Mar. 18, 2023) and Fire Engineering, *World Trade Center Disaster: Initial Response*, <https://www.fireengineering.com/firefighting/world-trade-center-disaster-initial-response/#gref> (Sep 1, 2002) (last visited Mar. 18, 2023).

signal strength. These include bi-directional amplifiers and networks of indoor antennae, referred to collectively as a distributed antenna system.¹⁰

Minimum Radio Signal Strength

Section 633.202(18), F.S.,¹¹ and the Florida Fire Code provide that all new and existing buildings must maintain minimum radio signal strength at a level determined by the authority having jurisdiction (local fire authorities).¹² The requirements set by the local authority must be based on the existing radio signal coverage levels provided by the jurisdiction's infrastructure as measured at the exterior of the building.¹³

Two-way radio communication enhancement systems or their equivalent may be used to comply with these minimum signal strength requirements. Radio signal enhancement systems involve powered devices which accept and amplify radio signals within a building. There are many factors which vary costs associated with these systems, from building design to structural impediments to radio signal strength.

Where required by a local fire authority, two-way radio communication enhancement systems must comply with federal standards for installation, maintenance, and use of emergency services communications systems.¹⁴ An enhancement system may not be required if the existing radio signal coverage as measured at the building's exterior is not strong enough to deliver.¹⁵ Such a system, by statute, may not be required in an apartment building provided that it is 75 feet or less in height, constructed with wood framing, contains fewer than 150 dwelling units, and each unit discharges to the exterior or to a corridor leading directly to an exit.¹⁶

Existing high-rise¹⁷ buildings are not required to comply with minimum radio strength requirements until January 1, 2025.¹⁸ However, by January 1, 2024, 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

¹⁰ See *High-Rise Public Safety System Integrators*, Treasure Island Fire Department, available at https://www.mytreasureisland.org/residents/departments/fire_dept/local_high-rise_public_safety_system_integrators.php (last visited Mar. 18, 2023); *Information Bulletin: Two-Way Radio Communication Enhancement System Requirements*, East Lake Tarpon Special Fire Control District, available at

<https://www.elfr.org/files/e2eae3cb2/Bulletin+East+Lake+Two+Way+Communications.pdf> (last visited Mar. 18, 2023).

¹¹ Enacted in 2016 and recently amended in 2021 and 2022. Chs. 2016-129, s. 27; 2021-113, s. 25; and 2022-210, L.O.F.

¹² Florida Fire Prevention Code (7th ed.) s. 11.10.1. The "authority having jurisdiction" is typically the designated head fire and rescue officer of the county, municipality, or special district with fire safety responsibilities over an area.

¹³ Florida Fire Prevention Code (7th ed., as amended Apr. 2022) s. 11.10.1.

¹⁴ Florida Fire Prevention Code (7th ed.) s. 11.10.2.

¹⁵ Florida Fire Prevention Code (7th ed., as amended Apr. 2022) s. 11.10.1.1, requires a delivered audio quality of 3.4, which is defined as "speech understandable with repetition only rarely required, and with some noise and/or distortion." P25 Best Practice, *Coverage Needs*, available at <https://www.p25bestpractice.com/specifying/coverage-needs/#:~:text=DAQ%203.4%20is%20defined%20as,noise%20and%20For%20distortion.%E2%80%9D> (last visited Mar. 16, 2023).

¹⁶ Section 633.202(18), F.S.

¹⁷ A high-rise building is a building greater than 75 feet in height where the building height is measured from the lowest level of fire department vehicle access to the floor of the highest story that can be occupied. NFPA 101, Life Safety Code, 2021 edition - Ch. 3.3.37.7.

¹⁸ Section 633.202(18), F.S.

government agency having jurisdiction and must demonstrate that the building will become compliant by January 1, 2025.¹⁹

III. Effect of Proposed Changes:

The bill amends s. 633.202(18), F.S., to provide that, before the local fire authority may require an assessment of the need for a two-way radio communications enhancement system, a qualified third party must certify that the jurisdiction's public safety emergency communications system, meaning the existing external radio signal coverage provided by the jurisdiction's infrastructure, meets or exceeds minimum radio coverage design criteria as provided by the NFPA.²⁰ Such certification remains valid until the following triennial adoption of the Florida Fire Code.

The bill provides that the local fire authority may only require an assessment of interior radio coverage and signal strength once every three years for high-rise buildings or once every five years for any other building.

If an assessment of radio coverage and signal strength for a new building determines that installation of a two-way radio communications enhancement system is required, the local government may not withhold the issuance of a certificate of occupancy²¹ for the building if the registered architect or professional engineer who designed the building determines, in his or her professional judgment, that such a system is not necessary for the building to meet minimum standards for radio coverage and signal strength. Installation of the enhancement system cannot be required until at least 90 days after a building's assessment report is completed.

The bill takes effect July 1, 2023.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

Article VII, section 18 (a) of the Florida Constitution provides in part that a county or municipality may not be bound by a general law requiring a county or municipality to spend funds or take an action that requires the expenditure of funds unless certain specified exemptions or exceptions are met. The bill requires that a third party certify a local fire authority's public safety emergency communications system before the authority may require a building's radio strength assessment, but does not explicitly state that a local fire authority is required to expend funds related to such requirements. Additionally, a similar requirement on local governments exists in the Florida Fire Code such that it is uncertain whether additional expenditures will be required.

¹⁹ *Id.*

²⁰ NFPA 1221 Section 9.6.13 requires that enhancement systems provide a delivered audio quality of 3, which means that speech is understandable with slight effort, and occasional repetition is required due to noise or distortion. Enhancement systems may be required by local authorities where interior radio signal strength does not meet standards set by the local authority.

²¹ A certificate of occupancy or equivalent certification is issued by local building authorities to allow for occupancy or use of a building or improvement upon completion. *See* section 558.002(4), F.S.

Article VII, section 18 (d) provides eight exemptions, which, if any single one is met, exempts the law from the limitations on mandates. Laws having an “insignificant fiscal impact” are exempt from the mandate requirements, which for Fiscal Year 2022-2023 is forecast at approximately \$2.3 million.^{22,23} However, any local government costs associated with the bill are speculative and not readily estimable for purposes of determining whether the exemption for bills having an insignificant fiscal impact applies.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

None identified.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

Builders may be positively impacted to the extent that buildings are subject to less frequent radio signal strength assessments and are entitled to receive an earlier certificate of occupancy than otherwise in certain circumstances.

C. Government Sector Impact:

The bill may negatively impact local governments to the extent that local fire authorities are required to expend funds to certify that their public safety communication systems meet current standards.

VI. Technical Deficiencies:

None.

²² FLA. CONST. art. VII, s. 18(d).

²³ An insignificant fiscal impact is the amount not greater than the average statewide population for the applicable fiscal year times \$0.10. See Florida Senate Committee on Community Affairs, *Interim Report 2012-115: Insignificant Impact*, (Sept. 2011), available at <http://www.flsenate.gov/PublishedContent/Session/2012/InterimReports/2012-115ca.pdf> (last visited Mar. 18, 2023).

VII. Related Issues:

None.

VIII. Statutes Affected:

This bill substantially amends section 633.202 of the Florida Statutes.

IX. Additional Information:

A. Committee Substitute – Statement of Changes:

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.

This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.
