

THE CORPORATION OF THE TOWNSHIP OF LANGLEY

PUBLIC SAFETY RADIO BUILDING AMPLIFICATION SYSTEM BYLAW 2017 NO. 5319

EXPLANATORY NOTE

Bylaw 2017 No. 5319 requires that certain buildings and alterations, reconstructions and renovations of certain buildings, have radio amplification systems to support the uninterrupted operation of the Township's public safety communications service provider as experienced by its users, including but not limited to fire services and law enforcement personnel.

This Bylaw is enforceable by Bylaw Offence Notices pursuant to the Township of Langley Bylaw Notice Enforcement Bylaw 2008 No. 4703 as amended.

- (e) "Farm Business" has the meaning given to it in the *Farm Practices and Protection (Right to Farm) Act*, RSBC 1996, c 131;
- (f) "Farm Operation" has the meaning given to it in the *Farm Practices and Protection (Right to Farm) Act*, RSBC 1996, c 131;
- (g) "Fire Chief" means the person appointed by the Township to be in charge of the Protective Services and firefighting personnel of the Township, including a Deputy Fire Chief, Assistant Fire Chief and any other person authorized thereby to act on behalf of the Fire Chief;
- (h) "Final Inspection" means the permission or authorization in writing by the Building Official to occupy a building;
- (i) "gross floor area" means the sum of the area of each floor of a building including exterior walls;
- (j) "occupancy" means the use or intended use of a building or part thereof for the shelter or support of persons, animals or property;
- (k) "owner" includes the registered owner of an estate in fee simple of land, and as applicable:
 - i. a tenant for life under a registered life estate;
 - ii. a registered holder of an agreement for sale;
 - iii. a holder or occupier of land held in the manner set out in sections 228 and 229 of the Community Charter; and
 - iv. a lessee with authority to build on the land;
- (l) "Permit" means authorization in writing by the Building Official to perform construction regulated by Township Building Bylaw, 2008, No. 4642, as amended; and
- (m) "Shadowed Area" means an area that suffers attenuation or obstruction of radio signals to or from the area as a result of the interposition of all or any part of the building in the radio signal path between the area and the transmitting/receiving site of the Township's public safety communications service provider; and
- (n) "Township" means The Corporation of the Township of Langley.

Requirements to Provide a Radio Communications System Support

General

4. Except as otherwise provided, no person shall erect, construct, change the use of or provide an addition of more than 20% to the gross floor area of any building or any part thereof, or cause the same to be done, which fails to support adequate radio coverage provided by the Township's public safety communications service provider (including but not limited to E-Comm and its successors) as experienced by its users,

Amplification Systems Allowed

5. Where a building requires an Amplification System to achieve adequate radio communication coverage, such system shall include any of the following that are sufficient to achieve the required coverage:
 - (a) passive antenna systems or radiating cable systems;
 - (b) distributed antenna systems with uni-directional or bi-directional amplifiers as needed;
 - (c) voting receiver systems; or
 - (d) any other system acceptable to the Fire Chief, as signified in writing on a case by case basis.
6. If any part of the installed Amplification System contains an electrically powered component, the system shall be equipped to operate on an independent "Uninterruptible Power Supply" (UPS), using a battery and/or generator system, for a period of at least four hours without external power or maintenance. All amplifiers and electronics required by the system shall be protected by NEMA type 4 or higher enclosures. The UPS shall automatically charge the batteries in the presence of external power. The UPS shall provide a monitored alarm signal to indicate failure of primary power, failure of the UPS system power output, and/or discharge of the batteries. Silencing of this alarm shall be the responsibility of the person maintaining the equipment. The building owner will ensure that the Township of Langley Fire Department is notified of any failure, either immediately that the failure is detected, but not later than (2) hours after the initial failure occurred.
7. The building owner will ensure that critical alarms detected by the equipment regarding battery condition and amplifier performance are reported to the Township of Langley Fire Department immediately.
8. A system summary alarm, consisting of a relay contact closure or equivalent, shall be connected to the fire panel of the building via a hard wired connection.
9. Radio equipment shall only be selected from the ISED Radio Equipment List and all active systems shall be licensed by the federal regulator, Innovation, Science & Economic Development Canada (ISED), and shall comply with the applicable Standard Radio Systems Plan (SRSP). Any license required shall be renewed annually by the building owner and the cost of the licensing borne solely by the building owner.

Procedures to Verify and Maintain Compliance

10. Tests and measurements to verify and maintain compliance shall be made at the sole expense of the building owner. The procedures used shall be developed by the building owner, subject to acceptance by the Fire Chief, and in compliance with the following guidelines:

test. If the Amplification System fails the 40-area test, the building owner shall have the system altered to meet the 90% coverage requirement; otherwise the Amplification System will not be accepted.

- (v) If the Amplification System fails to provide acceptable communication in any of the fire command centre, any portion of a stairwell, protect-in-place areas, lobby refuge areas, equipment rooms, or high-hazard areas, the building owner shall have the system altered to meet the 100% coverage requirement for these areas, otherwise the Amplification System will not be accepted.
- (vi) Backup batteries and power supplies shall be tested under full load by generating communication traffic automatically for a duration of at least one hour. If within the one-hour period, the battery shows no symptom of failure or impending failure, the test shall be continued for additional one-hour periods to determine the integrity of the battery. The battery shall not fail within a four-hour continuous test period.

The gain values of all amplifiers shall be measured, using a service monitor that has been calibrated by a certified laboratory within the past 12 months, and the results shall be kept on file by the building owner for future verification and monitoring of performance. The gain records file must have multiple back-ups and be stored in more than one location.

(b) Annual Tests

At least annually, the building owner shall test all active components of the Amplification System, including but not limited to all amplifiers, power supplies and back-up batteries, and shall keep a record of such tests as part of the Fire Safety Plan for inspection by the Fire Chief or other inspector designated by the Township. Amplifier gain shall be adjusted if necessary to re-establish the gain recorded upon acceptance testing, and batteries and power supplies shall be tested under load for a period of at least one (1) hour to verify that they will function properly during a power outage.

Additional tests or inspection of records may be conducted from time to time by the Fire Department at the discretion of the Fire Chief, after giving reasonable notice to the building owner. If communications within the building, or within the Shadowed Area appear to have degraded, or if the tests show unacceptable communications performance, the owner of the building is required to remedy the problem and restore the Amplification System in a manner consistent with the original acceptance criteria, unless the building owner can demonstrate conclusively that the degradation is solely the result of external changes not under his or her control.

(c) Qualifications of Testing Personnel and Test (Measurement) Equipment

Tests and measurements to be performed pursuant to this Bylaw shall be performed by or under the direct supervision of a professional engineer

14. When a professional engineer, or other person provides certification or other documentation to the Township under this Bylaw confirming that a building has adequate radio communication coverage as required by this Bylaw or otherwise complies with all other health and safety requirements established by applicable enactments as amended from time to time, the Township will rely solely on such certification and documentation as evidence of conformity with these requirements.

Permit and Occupancy Conditions

15. No Permit shall be issued or Final Inspection shall be approved for any building until the requirements of this Bylaw have been met to the satisfaction of the Building Official and the Fire Chief.

Right of Entry

16. Every owner or occupant of a building shall, at all reasonable times, permit the Building Official or the Fire Chief to enter into and inspect any building to ascertain whether the regulations and provisions of this Bylaw are being obeyed and any person who refuses entry shall be in violation of this Bylaw and shall be liable to the penalties hereby imposed.

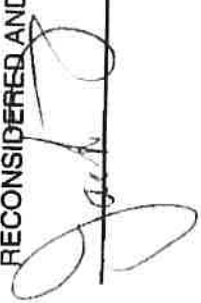

Deemed Nuisance

17. The construction or erection of a building which interferes with the Township's fire services, law enforcement and other emergency related telecommunications networks shall constitute a nuisance because it threatens the health, safety and welfare of the residents and visitors to the Township of Langley. In addition to any other remedies or enforcement procedures provided herein, the Township may seek an injunction to restrain such a nuisance.

Offences and Penalties

18. Any person who violates a provision of this Bylaw commits an offence under this Bylaw and, in addition to being subject to any remedies or penalties available to the Township under provincial law (including a bylaw notice issued pursuant to the Bylaw Notice Enforcement Bylaw 2008 No.4703), as amended or replaced from time to time) is also subject to prosecution and, upon summary conviction be liable to a penalty of not less than \$200 and not more than \$5,000 plus the cost of the prosecution, or a term of imprisonment not exceeding thirty (30) days, or both. Where a violation is a continuing one, each day that a violation of the Bylaw occurs, or is allowed to continue, constitutes a separate offence.

READ A FIRST TIME the 23 day of October , 2017
READ A SECOND TIME the 23 day of October , 2017
READ A THIRD TIME the 23 day of October , 2017
RECONSIDERED AND ADOPTED the 06 day of November , 2017

 Mayor  Township Clerk