



Public Hearing for Ord. 1423, Allowing Electric Security Fences on Certain Industrial Properties

Petitioner: Amarok, on behalf of Electric
Motor Supply Company

City Council
May 13, 2024



Request

- The petitioner requests a text amendment to allow 10 foot tall electric security fences at all properties not zoned exclusively for residential use.
 - *Applicant has previously requested Interim Use Permits for Electric Security Fences at 3737 East River Road (approved on Dec. 11, 2023) and 4650 Main Street (denied on March 11, 2024)*



October 19, 2023

RE: Letter of Authorization

To whom it may concern,

Please accept this letter as authorization for AMAROK, LLC of Columbia, SC (Cindy Williams, Michelle Affronti, Michael Pate), to represent Ted White, EMSCO in applying, processing, and advancing any variance requests or permits required to install the AMAROK/Security Fence on our site.

Please feel free to contact me with any questions or concerns.

Regards,

 _____ 10-28-23

Hand signature Date

Name *Ted White*

Title *Operations Manager*

Contact Information

763-248-4044

Twhite@emscow.com

ULTIMATE PERIMETER SECURITY



Requested Approval: Text Amendment

- The City has broad discretion in deciding to adopt an ordinance (or amendment)
 - Zoning & Land Use regulations should implement the Comprehensive Plan
 - The Comprehensive Plan does not address electric security fences
- Per the City Attorney, ordinance amendments are not bound by the "60-day rule" found in MS 15.99
 - State pre-emption legislation & zoning ordinance recodification may have bearing



Review

- Security fences can provide a benefit to businesses & law enforcement
- Code currently includes allowances for barbed wire security fences in the side/rear yard of industrial properties, or on all sides of utility & defense contractor facilities
- Staff suggests mirroring those allowances for electric security fences

3. Industrial districts – Fences located in front of the principal structure shall not exceed four (4) feet in height. Fences in the side and rear yard shall not exceed eight (8) feet in height.

In addition to an eight (8) foot fence, up to three (3) strands of barbed wire, which are not to exceed eighteen (18) inches in height, may be affixed to the top of the eight (8) foot fence and mounted on standard barbed wire arms designed specifically for that purpose. These barbed wire arms may be used in the M-1, M-2, M-3, M-4, and S-3 districts, under the following conditions:

- a. Barbed wire may be used on all sides of public utility and defense contractor facilities for protection.
- b. Barbed wire may be used in the side and rear yard of those properties that have approved special use permits for outdoor storage areas or outdoor sales lots.
- c. With City approval, during times of national emergency, properties may be authorized additional usage of barbed wire to include temporary barriers made of barbed wire and barbed wire used to top temporary security fences.




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Planning Commission Recommendation

- Allow electric fences as defined, including referencing to a manufacturing standard
 - IEC (International Electrotechnical Commission) vs ASTM (American Society for Testing and Materials)
- IEC is not broadly adopted in Minnesota; Fridley's Building Official and Electrical Inspector recommend ASTM standard

This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

 Designation: F3296 – 19

Standard Practice for Commercial Application of Electric Security Fences¹

This standard is issued under the fixed designation F3296; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 The purpose of this practice is to provide advice for the selection and use of electric security fences to deter, detect, and delay an unauthorized breach of the perimeter in a commercial application.

1.2 *Units*—The values stated in SI units are to be regarded as the standard. No other units of measurement are included in this standard. The tolerance on physical dimensions is $\pm 10\%$ unless otherwise specified.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *BSI Standard:*²
BS EN 60335-2-76 Household and similar electrical appliances – Safety – Part 2-76: Particular requirements for electric fence energizers

2.2 *IEC Standards:*³
IEC 60335-1 Household and similar electrical appliances – Safety – Part 1: General requirements
IEC 60335-2-76 Household and similar electrical appliances – Safety – Part 2-76: Particular requirements for electric fence energizers

2.3 *NFPA Standard:*⁴
NFPA 70 National Electrical Code

2.4 *UL Standard:*⁵
UL 69 Standard for Electric-Fence Controllers

3. Terminology

3.1 *Definitions:*

3.1.1 *electric fence energizer, n*—electrical device that is used to convert continuous power to a short-duration pulse using a fast-discharge electrical storage unit; it is also known as a controller.

3.1.2 *electric security fence zone, n*—predetermined section of the fence line that is monitored separately from another section of the fence line.

3.1.3 *grippler, n*—wire torque-tensioning device that incorporates a ceramic roller as the main tension ratchet part.

3.1.4 *pulse, n*—burst of electricity for a short period of time on a regular interval as opposed to continuous power.

3.1.5 *pulse rate, n*—number of pulses per second.

3.1.6 *security alarm panel, n*—device that detects a drop in the power of the pulse and, based on a specific algorithm, initiates an alarm.

4. Significance and Use

4.1 Electric security fences, in view of their high-deterrent impact, are a safe method to reduce security costs or enhance existing security. They are deployed in a wide variety of environments and geographies. In particular, electric security fences are used to decrease the need for security guards and other security systems.

4.2 This practice provides information to users and manufacturers of electric security fences, filling a void.

Proposal: Allow electric security fences, provided

- Commercially-available equipment
- Fence is on an industrial property that
 - Abuts the railroad, and
 - Has an approved outdoor storage use
- There is a solid physical barrier 'outside' the electric fence
 - Required 8' height
 - Prevents casual contact
 - Ensures building permit is issued
- Prominent warning signs posted
- Vegetation is removed within 3' of fence



Figure 1: A Fridley staff member views the solar-powered battery for the electric fence at 3737 East River Road during a site visit on September 14, 2023. The existing fence and corrugated metal barrier are visible in the background.

Staff Recommendation

- In recognition of local business' interest in installing electric fences, staff recommends approval of the ordinance amendment as prepared



Additional Considerations

- The City may also delay consideration until state pre-emption legislation is addressed, or the Fence ordinance is recodified.



