



Security Gates - Policy

[revised 10/03/2017]

Submittals and gates must comply with the latest published version of this policy. Policies and updated application forms are available at www.cor.net/fire/permits.

I. General

Security gates across fire apparatus access roads must comply with this Policy. Pedestrian gates and similar barriers that obstruct Fire Department access, when required by the fire code official, must comply with this Policy.

II. Authority

2015 International Fire Code as amended and adopted by the City of Richardson [ord. 4007]:

202 GENERAL DEFINITIONS: ...FIRE APPARATUS ACCESS ROAD. A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term inclusive of all other terms such as fire lane, public street, private street, parking lot lane and access roadway.

503.1.1 Buildings and facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

506.1 Where required. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes, the fire code official is authorized to require a key box to be installed in an approved location. The key box shall be of an approved type listed in accordance with UL 1037, and shall contain keys to gain necessary access as required by the fire code official.

506.1.1 Locks. An approved lock shall be installed on gates or similar barriers when required by the fire code official.

III. Residential Vehicular Gates

All automatic security gate systems that cross utility access easements and/or fire apparatus access roads in residential locations shall comply with all the following:

- A. Radio Receiver, Key Switch, and Keypad: Each gate shall be provided with BOTH an approved radio transmitter/receiver system AND an approved key switch. Except where specifically approved, an approved keypad will also be provided:
 1. Radio transmitter/receiver system:
 - a. The receiver shall be a 2-channel modular receiver in the 400+ MHZ frequency range, preset to a specific digital code designated by the Fire Marshal [programmer can contact Fire Marshal's Office for code];
 - b. The receiver shall have an external, weather tight, antenna assembly;
 - c. The receiver shall be located to receive a clear signal from a transmitter inside the emergency vehicle, at least 100 feet away.
 2. Key Switch:
 - a. Knox key switch [3500-series] using Richardson Fire Department's Knox security key;
 - b. When requested by the Fire Chief, key switch operation shall open multiple gates;
 - c. The key switch shall be a minimum of ten (10) feet from the gate, on the left side of the approach;
 - d. The key switch shall be on a pedestal with the key switch facing the approach side of the fire lane;
 - e. The switch shall be minimum four feet-six inches (4'6") to maximum five feet-five inches (5'5") high;

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3. Keypad:
 - a. Unless specifically approved, each gates shall open automatically for Fire, Police, and Sanitation services, using two, four-digit codes, [System programmer can contact Fire Marshal's Office for codes];
 - b. The keypad shall be on the left side of the approach, easily accessible from within a full size standard vehicle;
 - c. The flashing red alert lamp [see below] shall not activate on keypad use.
4. Other requirements:
 - a. A flashing, 115 volt, external lamp assembly, with a red globe, mounted separately from the receiver, clearly visible from the entry side of the gate, that operates on radio or key-switch activation of the gate opener, [See Diagram A, attached];
 - b. The gate shall remain open, and the lamp shall continue flashing, for sixty minutes. After sixty minutes, the system will reset automatically, or can be manually reset, if necessary;
 - c. Activation of the radio receiver and/or key-switch shall override all other gate operating systems;
 - d. All components shall be protected from weather and physical damage as necessary;
 - e. Gate shall operate at minimum one foot per second at its edge.
- B. Manual Back up Required: A back-up system shall provide access in event of power, or other failure of the system:
 1. Swinging gates and barrier arms:
 - a. Shall be operable by one person, upon removal of an approved Knox padlock and/or pin secured in the gate arm;
 - b. The Knox padlock and/or pin shall be clearly visible and easily accessible from the entry side of the gate.
 2. Sliding gates:
 - a. Shall be operable by one person, after activating an approved manual release device;
 - b. The manual release device shall be protected in a weatherproof box that is:
 - Red in color;
 - At least 5 inches high, 5 inches wide, and 1 ½ inches deep;
 - Clearly and permanently labeled, "FIRE DEPT" in white block letters 1" tall with a ¼" inch stroke;
 - Located within 10 feet from the entry side of the gate;
 - Clearly visible and easily accessible from the entry side of the gate; and
 - Secured with an approved Knox padlock.
 3. Other back-up systems must be approved by the Fire Marshal.

IV. **Non-Residential Vehicular Gates**

All automatic security gate systems that obstruct utility access easements and/or fire apparatus access roads in non-residential locations shall comply with all of the following:

- A. Automatic [Electromechanically Operated] Gates:
 1. Key Switch:
 - a. Knox key switch [3500-series] using Richardson Fire Department's Knox security key;
 - b. When requested by the Fire Chief, key switch operation shall open multiple gates;
 - c. The key switch shall be a minimum of ten (10) feet from the gate, on the left side of the approach;
 - d. The key switch shall be on a pedestal with the key switch facing the approach side of the fire lane;
 - e. The switch shall be minimum four feet-six inches (4'6") to maximum five feet-five inches (5'5") high;
 2. Keypad:
 - a. Unless specifically approved, gates shall open automatically for Fire, Police, and Sanitation services, using two, four-digit codes, [System programmer can contact Fire Marshal's Office for codes];
 - b. The keypad shall be on the left side of the approach, easily accessible from within a full size standard vehicle;
 - c. NO alert lamp is required.
 3. Manual Back up Required: A back-up system shall provide access in event of power, or other failure of the system:
 - a. Swinging gates and barrier arms:
 - Operable by one person, upon removal of an approved Knox padlock and/or pin secured in the gate arm;
 - The Knox padlock and/or pin shall be clearly visible and easily accessible from the entry side of the gate.

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- b. Sliding gates:
 - Operable by one person, after operating an approved manual release device;
 - The manual release device shall be protected in a weatherproof box that is:
 - Red in color;
 - At least 5 inches high, 5 inches wide, and 1 ½ inches deep;
 - Clearly and permanently labeled, "FIRE DEPT" in white block letters 1" tall with a ¼" inch stroke;
 - Located within 10 feet from the entry side of the gate;
 - Clearly visible and easily accessible from the entry side of the gate; and
 - Secured with an approved Knox padlock.
 - c. Other back-up systems must be approved in advance.
4. Other requirements:
- a. Activation of the key-switch shall override all other gate operating systems;
 - b. All components shall be protected from weather and physical damage as necessary;
 - c. Gate shall operate at minimum one foot per second at its edge, and shall close after a reasonable period.

B. Manually Operated Gates:

When locked, gates shall be operable using Richardson Fire Department Knox security key to unlock an approved Knox padlock [model 3770], or other approved device, accessible from the approach side.

V. Pedestrian Gates - Residential and Non-Residential

Where pedestrian gates, doors, and similar barriers restrict access to a building, they shall comply with the following:

A. Mechanically secured gates, doors, and similar barriers shall be operable by at least one of the following:

- 1. Key-locking hardware with cylinder on approach side. All cylinders shall be master-keyed. The master key shall be maintained and secured in each "KNOX-BOX" on the property; or,
- 2. An access panel secured with a Knox Padlock [model 3770], or other approved device, accessible from the approach side, installed such that the gate can be easily operated from the approach side when the panel is open. [See example detail on page 6]; or,
- 3. Other method specifically approved and permitted in advance.

B. Electromechanically secured gates, doors, and similar barriers shall be operable by the following:

- 1. One of the options in A, above; AND,
- 2. At least one of the following:
 - a. "KNOX Key Switch" [model 3501 or 3502], accessible from the approach side, at each gate; or,
 - b. "KNOX-VAULT 4500 Series Power Shutdown", at an approved location; or,
 - c. Keypad, using four-digit codes assigned by the Fire Marshal [System programmer can contact Fire Marshal's Office for codes]; or,
 - d. Other method specifically approved and permitted in advance of installation.

C. Activation of a building's fire alarm/fire sprinkler monitoring system shall cause electromechanically secured pedestrian gates, doors, and similar barriers to unlock;

D. Building "Access Control Systems" are permitted through Building Inspections [(972) 744-4180].

VI. Review Procedure

A. Development Services Review:

The fence/gate(s) must first be approved by the Development Review Team. Contact the Development Coordinator for information [(972) 744-4240].

B. Building Inspections Review:

A fence permit must be obtained from the Building Inspections Department [(972) 744-4180]. The fence permit will be issued subject to the approval of the Fire Marshal's Office.

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- C. Fire Department Review – A Security Gate Construction Permit is required prior to commencing installation. Applications and submittals shall include:
1. A completed and signed Richardson Fire Department *Security Gate Across Fire Apparatus Access Roads Construction Permit Application* [available at www.cor.net/fire/permits];
 2. Submittals:
 - a. PAPER: 1 SET, UNSTAPLED, UNBOUND [clips only], and LOOSELY ROLLED plans with a paper Application; OR,
 - b. ELECTRONIC: USB drive or CD/DVD, with unprotected .PDF files, ONLY, with a PAPER Application.
 3. **Documentation and details necessary to indicate how each specific requirement of this Policy is met:**
 - a. Plans shall be to scale, and shall indicate the location of the keypad, fence and gate(s), radio receiver, beacon, manual release, property lines, fire lanes, fire apparatus access roads, fire hydrants, fire department connections, buildings and any other applicable element(s);
 - b. Manufacturer’s cut-sheets/installation instructions for operators, keypads, release systems, radio receivers, etc., shall be submitted with the Application;
 - c. **Adequate details [drawings] and other submittals necessary to demonstrate compliance with this Policy - Do not copy and paste this Policy in lieu of details;**
 - d. Plans that do not specifically address the requirements of this policy should not be included, e.g. “Tree Schedule”, or “Building Elevations” should not be submitted unless applicable to the permit.
 4. Permit and Inspection Fee [Resolution 08-14]:
 - a. Permit fee is \$100 per gate;
 - b. Permit fees are payable upon issue, by check to “City of Richardson”, or credit card. Permit fees are not payable in advance;
 - c. **For work commenced prior to obtaining a permit, the permit fee will be doubled;**
 - d. First inspection and one re-inspection are included in permit fee - for each subsequent inspection, a fee of \$100 will be assessed.

VII. **Acceptance Testing and Maintenance:**

- A. Acceptance Testing:
1. Permit holder shall not request inspection until all work to be approved is completed and pre-tested;
 2. Permit holder shall request inspections by emailing firepermits@cor.gov, or by calling (972) 744-5750, at least one full business day in advance. Fire Marshal’s Office will try to accommodate, but cannot guarantee availability for the requested time;
 3. Applicant shall ensure that person(s) familiar with the permitted work are present during inspection;
 4. *Initial inspection and first re-inspection of any permitted system or commercial fire inspection, no fee is assessed. For each necessary inspection thereafter, a fee of one hundred dollars (\$100) per inspection shall be assessed. [per Resolution 08-14].*
- B. Maintenance: All components of the gate operating system including radio receivers, Knox key switch, Knox padlocks, and other devices, shall be maintained by the property owner;
- C. Richardson Fire Department may conduct routine tests of each permitted gate opening system;
- D. When any gate opening system fails to perform as approved, the property owner shall disable the operator, and secure [lock] the gate in the open position until repaired. Richardson Fire Department may require a test of the system prior to permitting the owner to return it to service.

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Attachments:

- Diagram A – Installations
- Diagram B – Pedestrian Walkway Security Gates

INSTALLATIONS

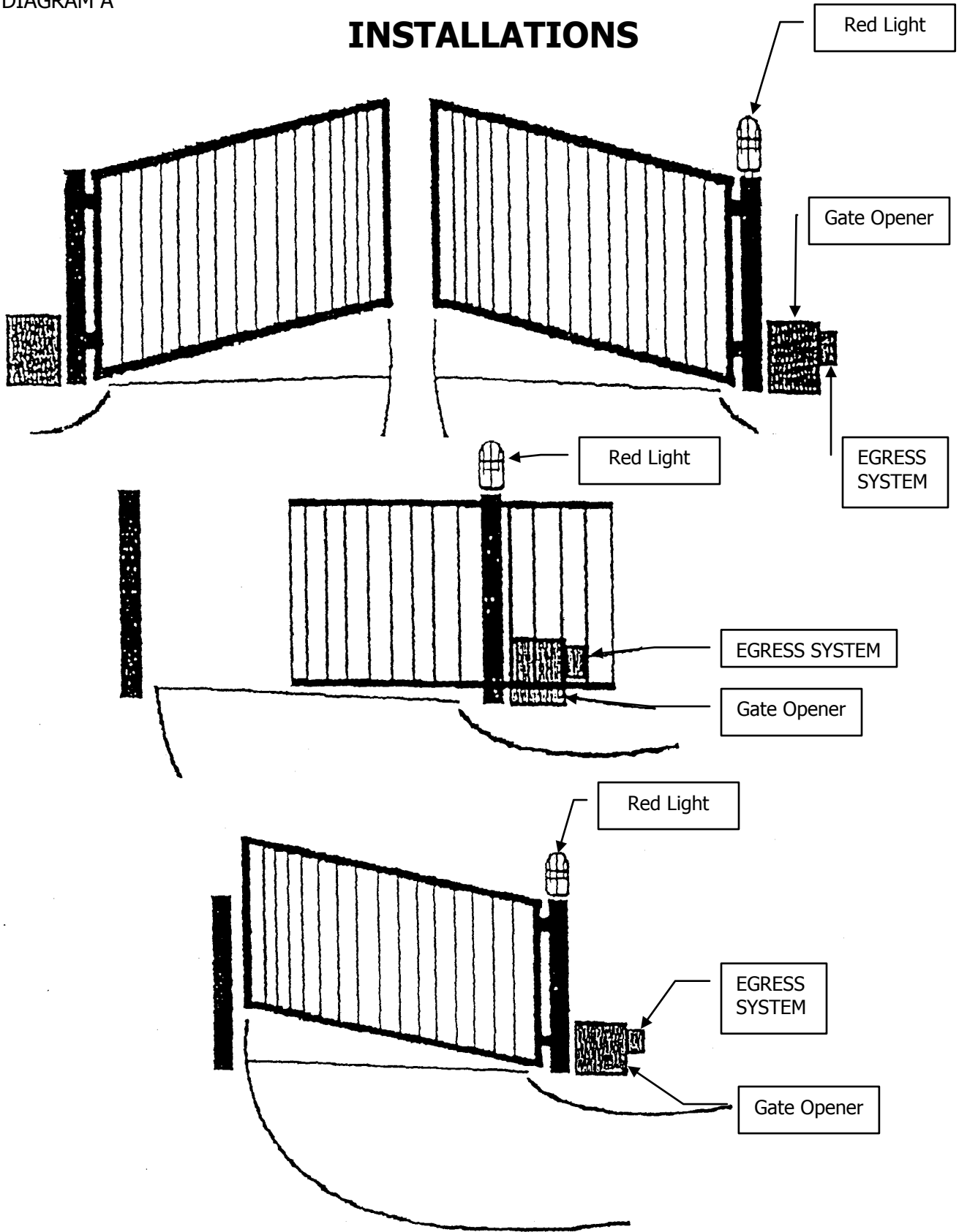
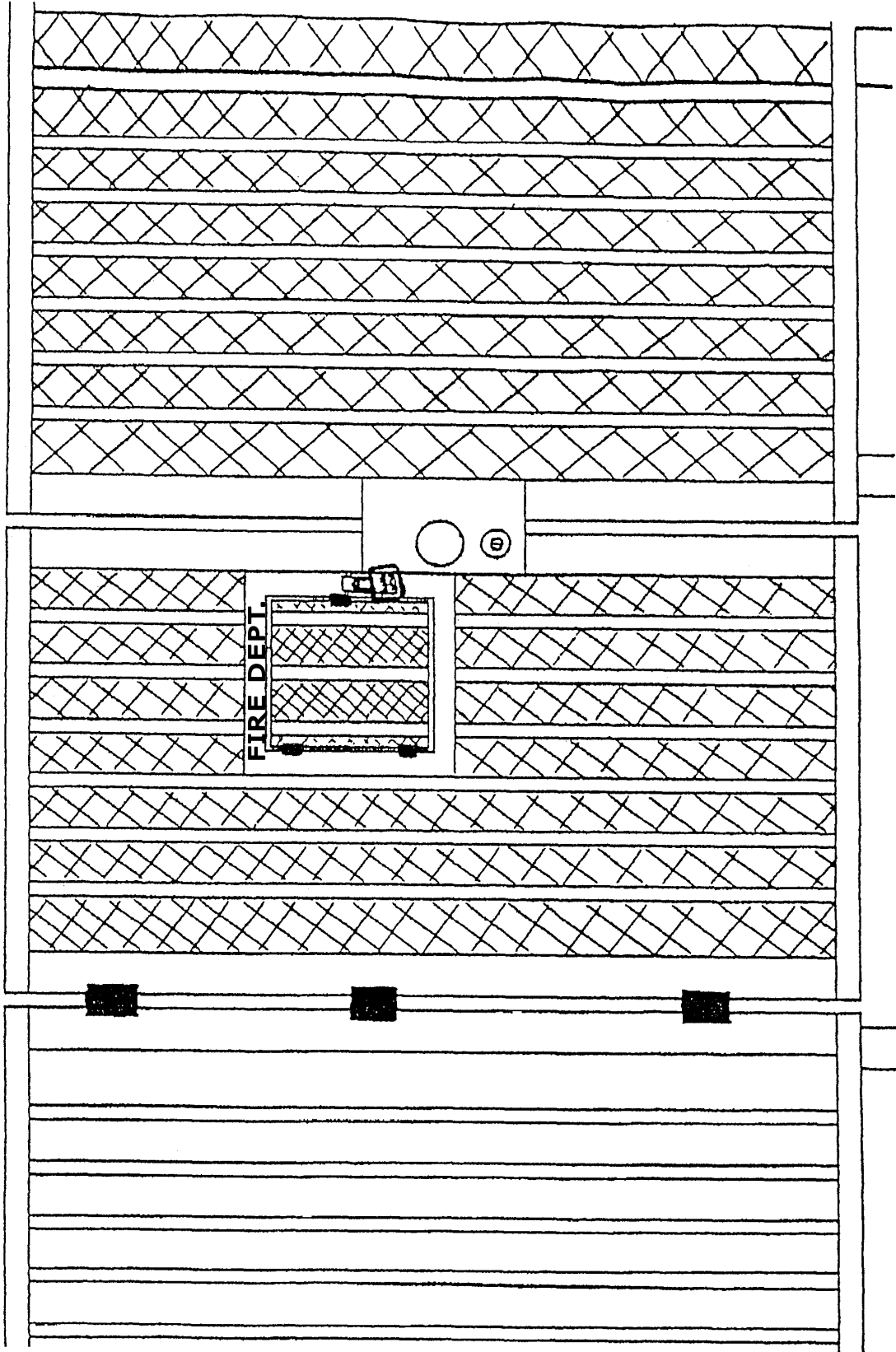


DIAGRAM B

PEDESTRIAN WALKWAY SECURITY GATES



**KEY ACCESS GATE
FREE EXIT**