

Anna Fire-Rescue Life Safety Division



Automatic Gates

Scope: This policy is designed to facilitate emergency vehicle access into properties that are equipped with automatic security gates or vehicle access/egress gates installed across required fire lanes.

GENERAL NOTES:

- A **separate** fire permit is required for automatic gate systems. (An approved site plan **is not** a permit.)
- Gate motor shall be the type that the drive gear disengages on power failure.
- The City approved Knox Key Switch (Model 3502) KS2 shall be used for 24-hour Fire Department access. The emergency key switch, when activated, shall by-pass any occupant control and/or loop systems. When activated, the gate will remain in the open position until de-activated by the Fire Department.
- Only when deactivated will the gate resume normal operation.
- The key switch shall open both the entrance and exit gate(s) when gate(s) are in close proximity to each other.
- The Knox key switch shall be mounted 5 ½ feet from grade (location shown on plan).
- The key switch shall be located below a sign labeled "FD ACCESS" constructed per Anna FD Sign Specifications. Additional signs may be required for special situations.
- The minimum clear opening width shall not be less than the width of the required fire lane or access drive. The gate and/or its components shall not encroach on the minimum fire lane width (24 or 26 feet) and the minimum unobstructed height of 14 feet shall be maintained.
- Gate operator(s) shall open at a rate of one foot per second. Parking barrier arms will open or clear in approximately two (2) seconds.
- The primary drive gate type that may be installed across fire lanes shall be the sliding type.
- In the event of power failure the gate shall open freely. It shall be capable of being opened manually by one person of average stature.
- Gate systems shall comply with UL 325 and ASTM F 2200.

Primary or Main Gate

- Primary gate is defined as the drive or access point designed as the primary point or one of several primary points of ingress/egress for emergency vehicles.
- All gate signage shall comply with the Anna Fire Department Sign Specification Guide.
- The following access systems shall be installed on Primary Gates.
 - "Opticom" receiver switches
 - KS2 Knox Switches (Model 3502)
 - Electrical Disconnect
 - Red Emergency Activation strobe/beacon

Automatic Secondary Gates (including Main Gates to Storage Facilities)

- A Secondary Gate is the drive or access point designed as a secondary or back-up means of ingress/egress for emergency vehicles.
- The following access systems shall be installed on Secondary Gates.
 - KS2 Switches (Model 3502)
 - Electrical Disconnect
 - Red Emergency Activation strobe/beacon
 - "Exit Only Sign" (see illustrations below, must meet Anna Fire Department Sign Specification Guide)

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"Opticom" Receiver

- Shall be mounted 8 to 10 feet from grade.
- Shall be located behind the access gate (property side).
- Shall be mounted on a 4"x 4" metal post, not on guidepost and cemented 18" below grade.
- Detectors shall activate 150 feet from gate.
- Each gate shall have two individual detectors or an approved Tomar dual-strobe switch, Model 2795-2.
- Detectors shall point toward the **APPROACH** and **EXIT** path of the emergency vehicle.
- Detectors' sight path shall be free of visual obstructions such as signs, covered parking canopies, and vegetation.
- Individual detectors shall be mounted together with the power module in a dual detector mounting box or with an approved Tomar dual-strobe switch. *A three-head detector shall be used for 90 degree turning layouts.*

KS-2 Switch (Model 3502)

- Knox key switches shall still be provided as a manual backup.
- The entrance Knox switch shall be located above the residence's keypad, 5 ½ feet from grade.
- The exit Knox switch shall be located on the 4"x 4" preemption post, **recessed** 5 ½ feet from grade, with the detectors.
- Upon activation of the KS2 Switch, the affected gate shall automatically open to a locked open and disabled condition. The system will require manual reset to close the gates after emergency activation.
- A sign identifying "FD ACCESS" shall be mounted above the KS2 Switch. *(See Anna FD Sign Specification Guide)*

Red Emergency Activation Strobe/Beacon

- All automated gates must also be equipped with one flasher unit and one external strobe/beacon assembly with guard to be mounted separate from the enclosure.
- The red strobe light shall be visible from both sides of the gate, mounted at the top of the fence within two (2) feet of the gate opening, and flash upon the gate being activated by the strobe switch system or Model 3502 KS2 switch.
- The strobe must continue to flash as long as the gate is being held open by the emergency access system.

Numbered Keypad.

- Public safety access shall be installed at a readily accessible location at each automated drive gate for public safety personnel who may require entry for other emergencies.
- The numbers making up the code shall be determined by the Fire Marshal and shall be consistent on all gate systems installed throughout the City. The numbers shall not be changed unless ordered by a written, notarized directive from the Fire Marshal.

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Electrical Disconnect

The gate shall be opened by means of an electrical power disconnect switch in a weather proof box:

- The box shall be red.
- The box shall be mounted on the entry side of the gate within five (5) feet of the gate.
- The box shall be at least five (5) inches high and five (5) inches wide.
- The box shall be clearly labeled "Fire Dept." in white letters one inch tall with one-quarter inch stroke.
- An exterior rated Knox long throw padlock shall secure the box.
- The box must be clearly visible and accessible.

Electrical Equipment Protection.

- All electrical equipment shall be protected from physical damage and weather by approved weather tight boxes or housings per NFPA 70.

Performance Test.

- Gates and gate systems shall be tested by the Fire Department upon completion and pre-testing of the installation.
- All Fire Department signage must be installed prior to acceptance testing.
- Gates shall not be placed into operation until after acceptance testing is approved.



Figure 1 - Property Side of Gate

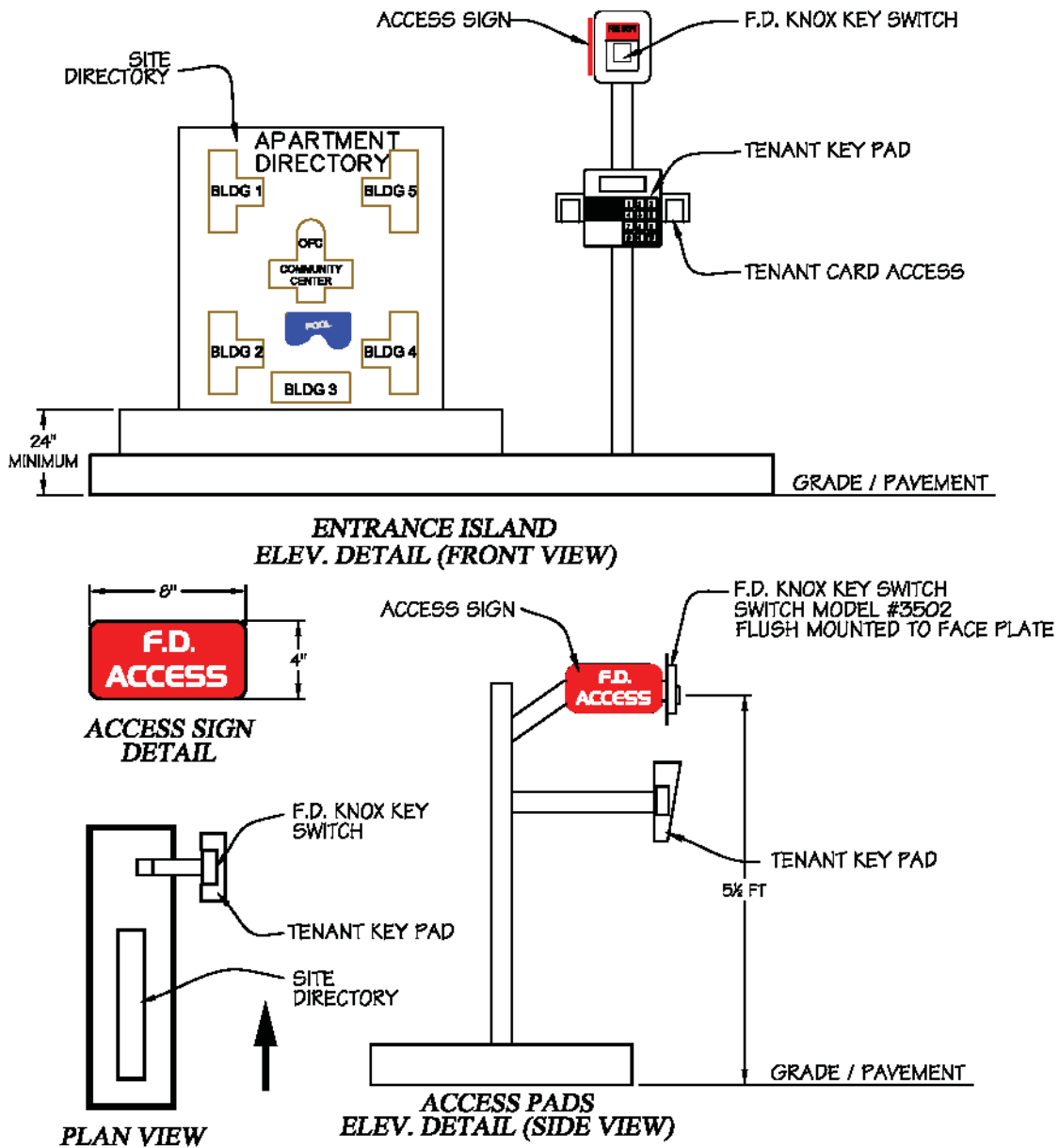


Figure 2 - Entrance

**SPECIAL FIRE DEPARTMENT
ACCESS O.K. SIGN**

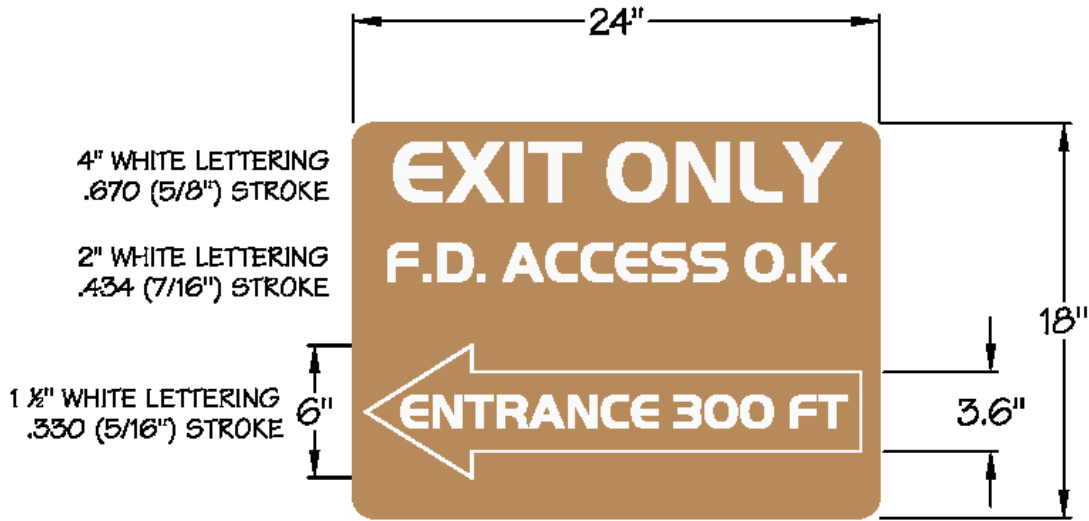


Figure 3 - Exit Only Gates

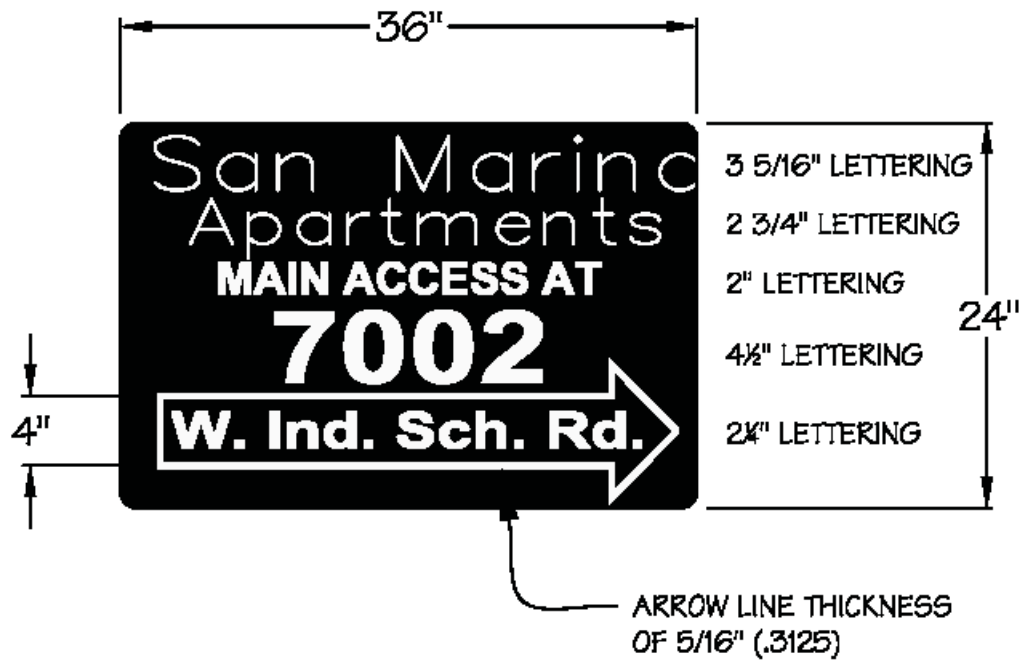


Figure 4 - Exit Gate Sign (main gate on different street or at a distant location)

NOTES:

- All signs must meet specifications as outlined in the Anna Fire Department Sign Specification Guide.
- The Fire Marshal may require an "Opticom" system on any gates crossing fire lanes as deemed necessary.