



FLOWER MOUND FIRE DEPARTMENT

FIRE MARSHAL'S OFFICE

3911 SOUTH BROADWAY AVENUE | FLOWER MOUND, TEXAS 75028

PHONE (972) 874.6270 | www.flower-mound.com

EMERGENCY ACCESS CONTROLLED GATE SYSTEMS

Emergency vehicle access onto properties equipped with automatic security gates or vehicle access/egress gates installed across required fire lanes shall follow the following installation rules. Existing gates shall comply with these rules within six months of notification of the deficient system. Each gate requires a separate permit.

I) GENERAL NOTES

- A) A separate permit is required for each automatic gate. (An approved site plan **is not** a permit)
- B) The gate motor shall be the type where the drive gear disengages on power failure.
- C) The Town approved Knox® key switch (KS2) shall be used for 24-hour Fire Department access. The emergency key switch, when activated, shall bypass any occupant control and loop systems. When activated, the gate will remain in the open position for 20 minutes.
- D) Only when the gate control equipment times out after 20 minutes will the gate resume normal operations
- E) The key switch shall open both the entrance and exit gates when gates are near each other.
- F) The Knox® key switch shall be mounted 5 ½ feet above grade. (*See Figure 1- Location Shown on Plan*)
- G) The key switch shall be located below a sign labeled "FD ACCESS." (*See Figure 2 – Control Equipment Installation Diagram*)
- H) The minimum clear opening width shall not be less than the width of the required fire lane or access drive. The gate and its components shall not encroach on the minimum fire lane width (24 feet or 26 feet), and the minimum unobstructed height of 14 feet shall be maintained.
- I) Gate operator(s) shall open at a rate of one foot per second. Parking barrier arms will open or clear in approximately two seconds.
- J) In the event of power failure, the gate shall open freely. It shall be capable of manual opening by one person of average stature.
- K) Gate systems shall comply with UL 325 and ASTM F2200.

II) PRIMARY OR MAIN GATE

- A) The primary gate is defined as the drive or access point(s) designed as a primary point of ingress/egress for emergency vehicles.
- B) Gate signage shall comply with *Flower Mound Sign Requirements*
- C) The following access systems shall be installed on all Primary Gates:
 - 1) Opticom IR platform receiver switches and transmitters. *When activated via the Opticom receiver, the system will require a manual reset to close the gates after emergency activation. The Red emergency light shall remain activated while the gates are open.*
 - 2) KS2 Knox® Switches
 - 3) Electrical Disconnect
 - 4) Red Emergency Activation strobe



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III) AUTOMATIC SECONDARY GATES (INCLUDING MAIN GATES TO STORAGE FACILITIES)

- A) A Secondary Gate is the drive or access point designed as a secondary or backup means of ingress/egress for emergency vehicles.
- B) The following access systems shall be installed on all Secondary Gates:
 - 1) KS2 Knox® Switches
 - 2) Electrical Disconnect
 - 3) Red Emergency Activation Strobe Light
 - 4) "Exit Only Sign" (*See Figure 3*, must meet Flower Mound sign requirements)

IV) PEDESTRIAN GATE

- A) Pedestrian gates shall open fully with a minimum clear span of 48 inches and be provided with a latch or other means of securing them in the open position. Automated pedestrian gates shall open freely upon loss of power. When required by the Fire Marshal, one or multiple pedestrian gates shall be released by a Knox Lock or a key switch mounted in an approved box.

SYSTEM ACCESS COMPONENTS

I) OPTICOM IR PLATFORM RECEIVER

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

II) KNOX® SERIES 3500 KEY SWITCH

- A) Knox® key switches shall be provided as a manual backup.
- B) The entrance Knox® switch shall be located above the property's keypad, 5 ½ feet from grade.
- C) The exit Knox® switch shall be located on the 4" x 4" preemption post, **recessed** 5 ½ feet from grade with the detectors.
- D) Upon activation of the key switch, the affected gate shall automatically open to a locked open and disabled condition. After emergency activation, the system will require a manual reset to close the gates.
- E) A "FD ACCESS" sign shall be mounted above the KS2 Switch. *See Flower Mound Sign Requirements.*



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III) RED EMERGENCY ACTIVATION STROBE

- A) All automated gates must also be equipped with one flasher unit and one external lamp assembly with a red globe and guard to be mounted separately from the enclosure.
- B) The 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 entrance activated by the Opticom IR platform system or key switch.
- C) The strobe shall continue to flash as long as the gate is held open by the emergency access system.

IV) NUMBERED KEYPAD

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

V) ELECTRICAL DISCONNECT

- A) The gate shall be opened using an electrical power disconnect switch in a weatherproof box:
- B) The box shall be red
- C) The box shall be mounted on the entry side of the gate within five (5) feet of the gate
- D) The box shall be at least five (5) inches high and five (5) inches wide
- E) The box shall be clearly labeled "Fire Dept." in white letters one inch tall with a one-quarter inch stroke
- F) A Knox® padlock shall secure the box
- G) The box must be visible and accessible

VI) ELECTRICAL EQUIPMENT PROTECTION

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

VII) 911 PIN-LOCK SYSTEM FOR SWING-TYPE GATES

- A) The 911 Pin-Lock system shall be incorporated into all swing-type security gates to provide a manual release for the fire department. In addition, the owner can disconnect the swingarm without contacting the fire department. (*See Figure 4 – 911 Pin-Lock System*).

VIII) PERFORMANCE TEST

- A) The Fire Marshal's Office shall test gates and gate systems upon completion of the installation.
- B) All Fire Department Signage must be in place before acceptance testing.
- C) Gates shall not be placed in operation until the acceptance test is complete and approved.
- D) Any deficient gate shall be left open until the Fire Marshal's Office passes the system.
- E) **Re-inspection fee** – If the system is red-tagged, there may be a re-inspection fee of **\$150 per re-inspection**.



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IX) EACH PLAN SUBMISSION SHALL INCLUDE:

- A) Town of Flower Mound Construction Permit Number.
- B) Site plan indicating the locations of all vehicle access gates.
- C) Type of gate to be used and a list or diagram of components shall be indicated at each location.
- D) Scope of Work.
- E) Manufacturer's Equipment Specification sheets.

Figure 1 - Property Side of Gate



NOTES:

- 1 DETECTORS SHALL BE MOUNTED ON 4" X 4" POST 8FT TO 10 FT FROM GRADE
- 2 FIRE DEPT. APPROVED DUAL STROBE SWITCH DETECTOR MODEL 2795-2
- 3 F.D. APPROVED KNOX KEY SWITCH MODEL #3502 FLUSH MOUNTED IN 4" X 4" POST

FRAME: PRE-GATE.DWG

REQUIRES PERMIT

FIRE DEPARTMENT
MULTI FAMILY
PREEMPTED AUTOMATIC GATE
 1 HFRT7 Detail 7.0 11/16 2003

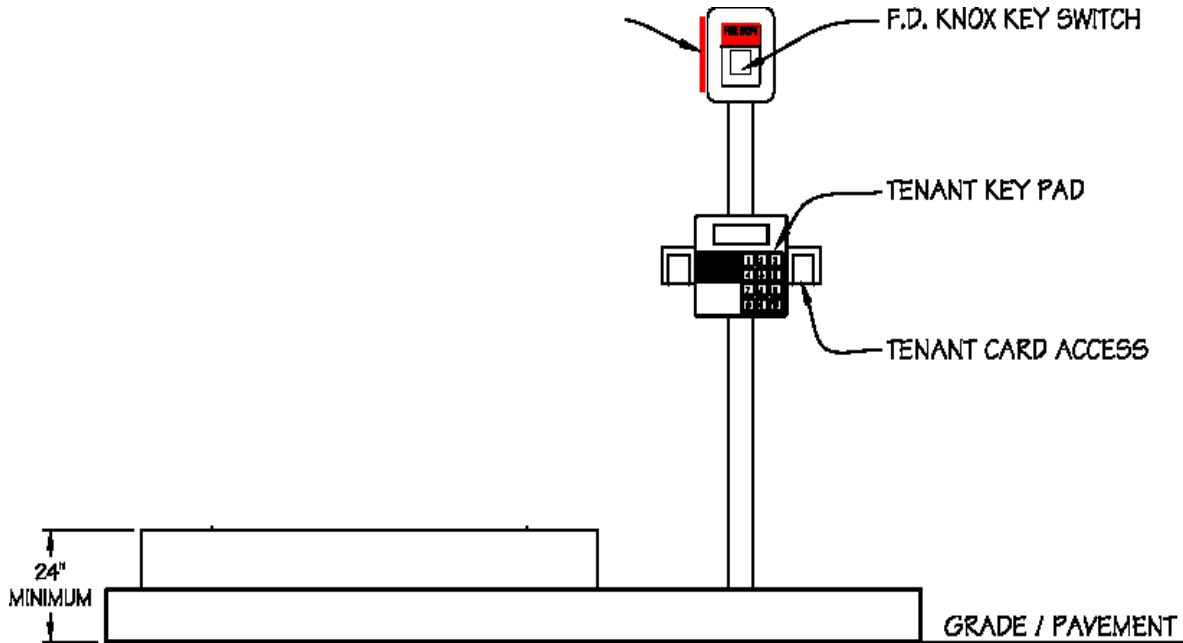


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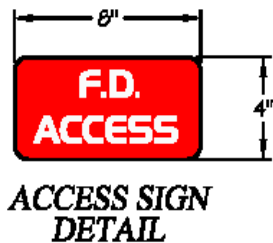
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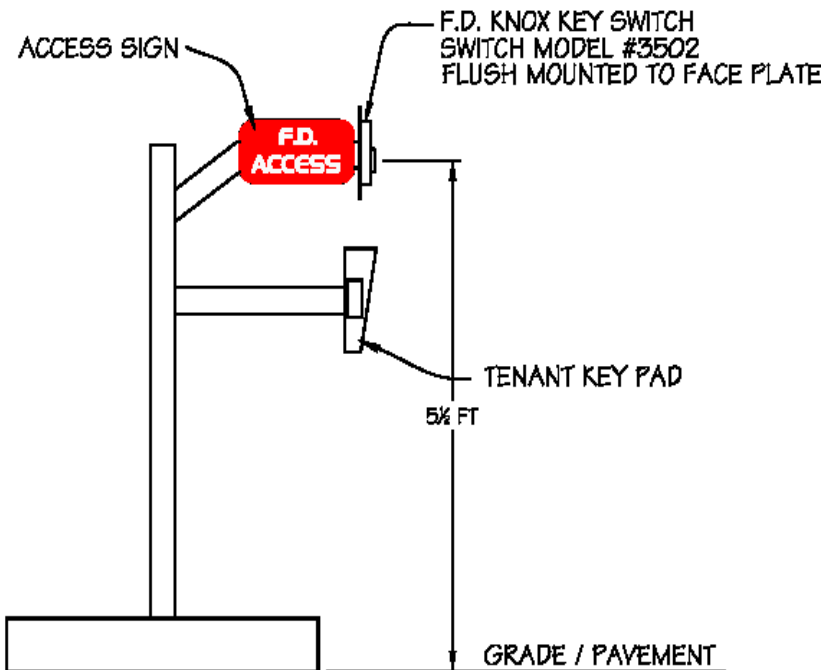
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**ENTRANCE ISLAND
ELEV. DETAIL (FRONT VIEW)**



**ACCESS SIGN
DETAIL**



**ACCESS PADS
ELEV. DETAIL (SIDE VIEW)**

Figure 2 - Entrance Diagram



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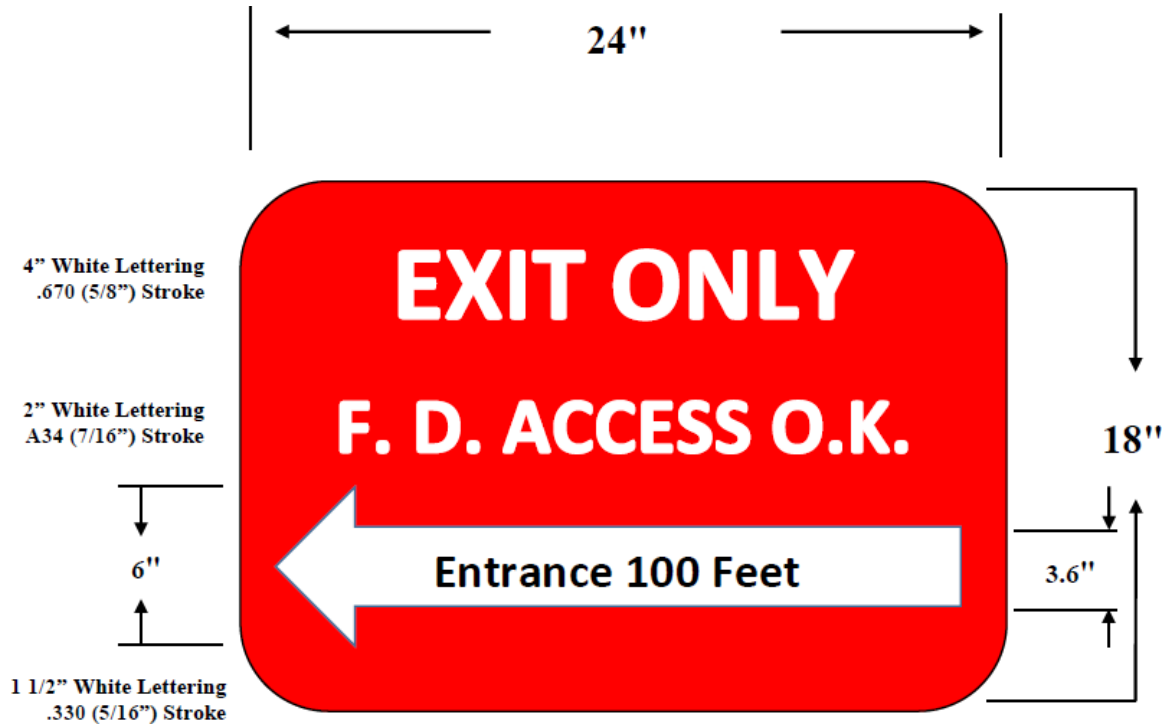
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Figure 3 - Exit Only Sign Diagram with FD Access





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Figure 4 – 911 Pin-Lock System for Swing Gates

The 911 Pin-Lock Too™ allows a swing gate to meet fire department requirements for a manual release while allowing the consumer to disconnect the gate arm from their entrance without calling the fire department.



The 911 Pin-Lock Too™ incorporates two blocks and one double pin.



Secure the bottom block with a 3/8" diameter and a 1" x 1" shackle padlock. Insert the other end of the pin-up through the gate bracket and the swing gate arm.



Place the other block on the pin and secure it with a Knox™ Padlock.