

GUIDELINES FOR PROFESSIONAL SERVICES

DIVISION 28 – ELECTRONIC SAFETY AND SECURITY

The following items are to be included on the drawings and in the specifications by the Design Professional:

I. FIRE ALARM SYSTEMS

A. GENERAL

1. Furnish, install and place in operating condition an electronically operated fire alarm system. All units on the fire alarm system shall be listed by Underwriters' Laboratories, Inc. (U.L.) for fire alarm use, and the control panel shall bear the UL label.
2. The Fire Alarm contractor shall include a 12 month full service warranty contract from the date of substantial completion, and shall re-certify the system at the end of this period. The re-certification shall be conducted in the presence of The Permitting Divisions Building Inspector and The School Board's Fire Safety Inspector.
3. All Fire Alarm wiring shall be installed in a dedicated raceway.

B. CONTROL PANEL

1. Acceptable manufactures subject to compliance with requirements, provide complete fire alarm and detection systems of one of the following:
 - Siemen's Building Technologies, Inc.
 - Silent Knight
 - Simplex Grinnell
2. Proprietary network systems that cannot interface to existing addressable fire alarm systems or systems requiring the use of "dry contact" or "voltage monitoring" interface shall not be accepted.
3. The system shall allow a mixture of different technologies and manufacturers' equipment to operate on the same network and provide the operator with a consistent look and operation for all monitored equipment and devices.

C. ELEVATOR SHAFTS

1. Elevator shafts shall contain a heat detector at the top of the shaft and a sprinkler at the bottom of the shaft. Additionally, a smoke detector is recommended at the top of the shaft for early notification and recall.

D. FIRE MAIN BACKFLOW PREVENTERS

1. Tamper and flow switches shall not be installed at fire main backflow preventers, nor at post indicator valves. These backflow preventer valves shall be chained and locked.

E. LIGHTNING PROTECTION

1. Furnish and install an isolated loop circuit protector (ILCP) device on all fire alarm initiating device circuit, signaling line circuit, audio riser, telephone riser or circuit, wiring, including shields, which extends beyond the main building by either aerial, underground or other methods, walkways, bridges or other above-ground connectors.
2. The ILCP shall be located as close as practical to the point at which the circuits leave or enter a building.

II. SECURITY SYSTEM

Install and place in operating condition, an electronically operated security alarm panel as described herein.

A. GENERAL

1. The Security System shall consist of a control panel that will provide from 16 to 128 zones of protection. Each zone will consist of (1) security device, door contact, motion detector, etc. When the panel is armed and an intrusion is detected from a zone or zones, it will activate the digital dial to notify the central security and a siren, which will be mounted on the exterior of the building, will also activate.
2. The panel shall be capable of being divided into 8 separate partitions. Each partition shall have its own account number and be able to arm or disarm. Panel shall communicate to central station with Contact I.D. format.
3. Panel shall have the capability to upload and download information from a remote location and compatible with the existing computer software.
4. Owner shall be responsible for the layout of the system, the number of systems, location of motion detectors, location of zones in a partition, final termination at the control panel, and all programming.

5. Control panel shall be capable of using a minimum of 128 to 1000 user I.D. code numbers.
6. All exterior doors (classroom, electrical/mechanical rooms, custodial, restrooms, office/administration, hallways / lobby's) shall have security contacts wired to the security system.
7. All door/hatches/roof access points shall have security contacts wired to the security system.

B. ACCEPTABLE MANUFACTURERS

1. The main control panels shall be a DSC-PC-4020 V-3 by Digital Security Controls Ltd. Sub control panels shall be DSC-PC-4050C that may be equipped with PC-108, PC-4116, or a PC-4204 with battery's.
2. The keypads shall be a DSC-PC-4501.

C. PANELS

1. End of the line resistors (ELR) shall be located in the control panel. All zone loops will be equipped with an ELR.
2. A phone line shall be provided from the RJ-21X in the telephone room to the security panel.
3. The keypad shall be mounted at a height of 58" from the finish floor to the bottom of the keypad.

D. DETECTORS

1. Motion detectors shall be of dual element type logic. They shall have microwave and passive infrared technology.
2. Depending on location of detectors, different types of detectors will be for different applications, as per Owner.
3. Manufacturer of detectors

a. Detectors shall be as follows:

C & K DT-906 200' x 15'
 C & K DT-900 90' x 70'
 Rokonet RK-110FC 30'
 Rokonet RK-115FC 50'
 Rokonet RK-125FC 125'

4. All freezers shall be equipped with a temperature switch that will be wired into one of the zones in the control panel. The temperature switch shall be a BGE T-280 with BGE

T-280R remote probe by Blue Grass Electronics, Inc.

5. Failure of the main electrical panel surge suppressors shall alarm through the Security System.

E. DOOR CONTACTS

1. Concealed type contacts shall be used in all doors, recessed in the top of the door and recessed in the jam on strike side of door.

2. Contact shall have a gap of a minimum of $\frac{3}{4}$ " and of a quality that will be compatible with steel doors and jams.

3. Manufacturers of contacts

a. For concealed application G.R.I. 8080TWG shall be used.

b. For overhead door application Amesco ODC-59A shall be used.

F. SIGNAL DEVICE

1. A siren shall be installed on the outside of the building to sound in the event of an alarm. Some systems may require more than one siren.

2. Siren should be ELK-150T siren for the outside

3. Interior sirens shall be MPI-47E.

G. WIRING

1. Refer to the attached Security Door Information Drawing.

2. All door contacts, keypads (combus), and motion detectors will be HOME RUN to a Hoffman 24" x 24" x 6" can and terminated on 66 blocks with a wire legend. All wires to be tested for labeling and to ensure contact function.

3. Wire shall be 224 STJM four conductor and be used for door contacts and motion detectors.

4. Wire shall be Commscope 5NF4 outdoor CAT5E cable between buildings. A CAT5E Cable shall be run between IDF's and MDF per system layout.

5. All keypads shall be run in CAT5E cable.

H. KEY VAULTS

1. Two Knox rapid entry system key boxes shall be installed, one (model 3275) in the front of the building (office) and readily accessible, and one (model 1307) in an area to be

defined by the Owner. Model 3275 shall be recessed into the wall. Model 1307 vault will be surface mounted installed 60" from the bottom of the vault to finish grade.

2. Acceptable manufacturer – Knox Co., Model 3275 and Model 1303. Model 3290 mounting kit is required for the model 3275 recess installation.
3. Conduit shall be connected to the mounting rough-in box and stubbed above ceiling. The vaults tamper switch shall be wired into a zone at the security system.
4. Owner will furnish Knox boxes and mounting kit.

I. LIGHTNING PROTECTION

1. Provide lightning protection on both ends of all Commscope 5NF4 outdoor CAT5E communication wire runs between any and all buildings.

III. SECURITY CAMERAS AND ACCESS CONTROL

A. DESCRIPTION OF WORK – SECURITY CAMERAS

1. Furnish and install conduit, low voltage cabling, and 110 volt power for video security cameras and access control devices. The low voltage cabling specifications to be determined with the Owner and A/E.
2. Location of devices to be determined by Owner and A/E.
3. Cameras, recording devices, and access control equipment shall be provided by the Owner.
- 4a. Each interior camera shall have one an RG-6 and one CATx (x = current standard) run from each camera to closest IDF/MDF.
- 4b. Each exterior camera shall have one RG6, one 18/2 and one CATx (x = current standard) run from each camera to closest IDF/MDF.
5. Each exterior pole camera shall have a 6 count single mode fiber and 110AC power (continuous on) run from poles to the closest building IDF/MDF and electrical room.
6. Provide fiber for security cameras from all IDF's to MDF. Fiber count to be determined per individual system design.
7. Provide 6 count fiber from IDF/MDF to security office when area is specified in design.
8. Run one (1) RG6 from office building IDF/MDF to front office with 50' loop.

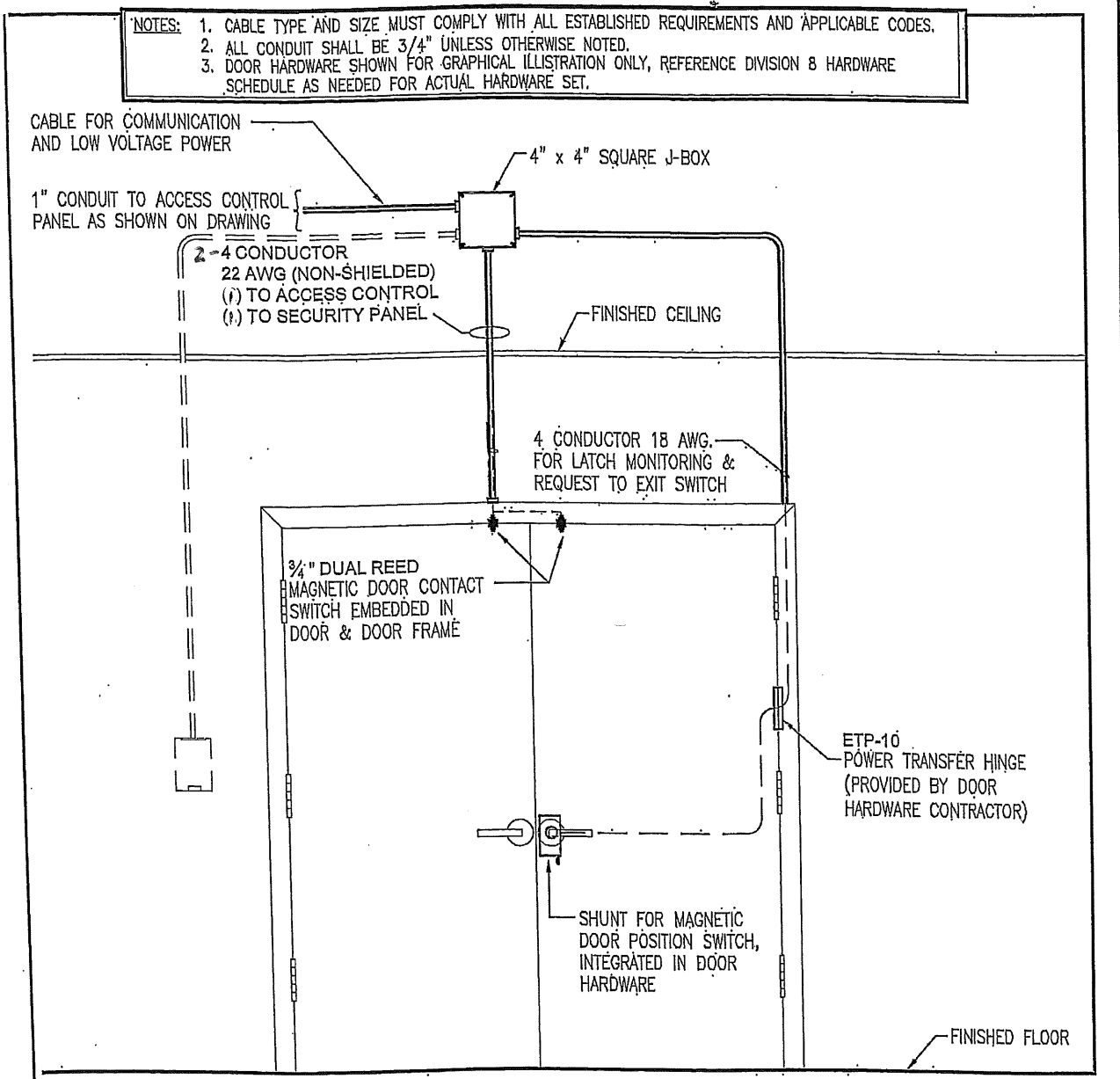
B. DESCRIPTION OF WORK – ACCESS CONTROL

1. Access control system layout and design shall be determined by owner and meet district standardization guidelines.
2. All exterior doors (stairs, hallways, classrooms, administrative) shall be provided access control. Refer to the attached Security Door Information Drawing.
3. All MDF/IDF doors shall be provided access control.
4. Doors leading from lobby areas to secured areas shall be provided an electronic release switch from the reception/office area.
5. Wire types and quantities are illustrated in the attached Security Door Information drawing..
6. Door contractor shall be responsible for installing, mounting, and terminating all access control door hardware on door.
7. Door and door component descriptions and part numbers are: Von Duprin Panic Devices E-998L-F-996 for a fire rated interior panic device (must verify voltage options); Schlage with Electric Trims: E-HH-98L-996L for an exterior hurricane rated panic w/lever trim; ND80PDEU RHO 626 Electric Storeroom Function Lockset (must verify voltage options); Von Duprin EPT-2 Power Transfers; Von Duprin 6211 Electric Strike (must specify fail-safe or secure and 12 or 24v).
8. All access control doors shall be wired for and equipped with a Request to Exit motion detector and door contacts for door forced alarm integration. Request to Exit motion detector and door contacts are specified by customer.
9. In addition to keypad and/or prox reader devices all electrically operated gates shall include a Knox key switch (model 3509) for Fire Department use.

DATE	12-19-08
FACILITY NO.	-
PARCEL NO.	-
SCHOOL NO.	-
PROPERTY ID	-
DRAWING NO.	-

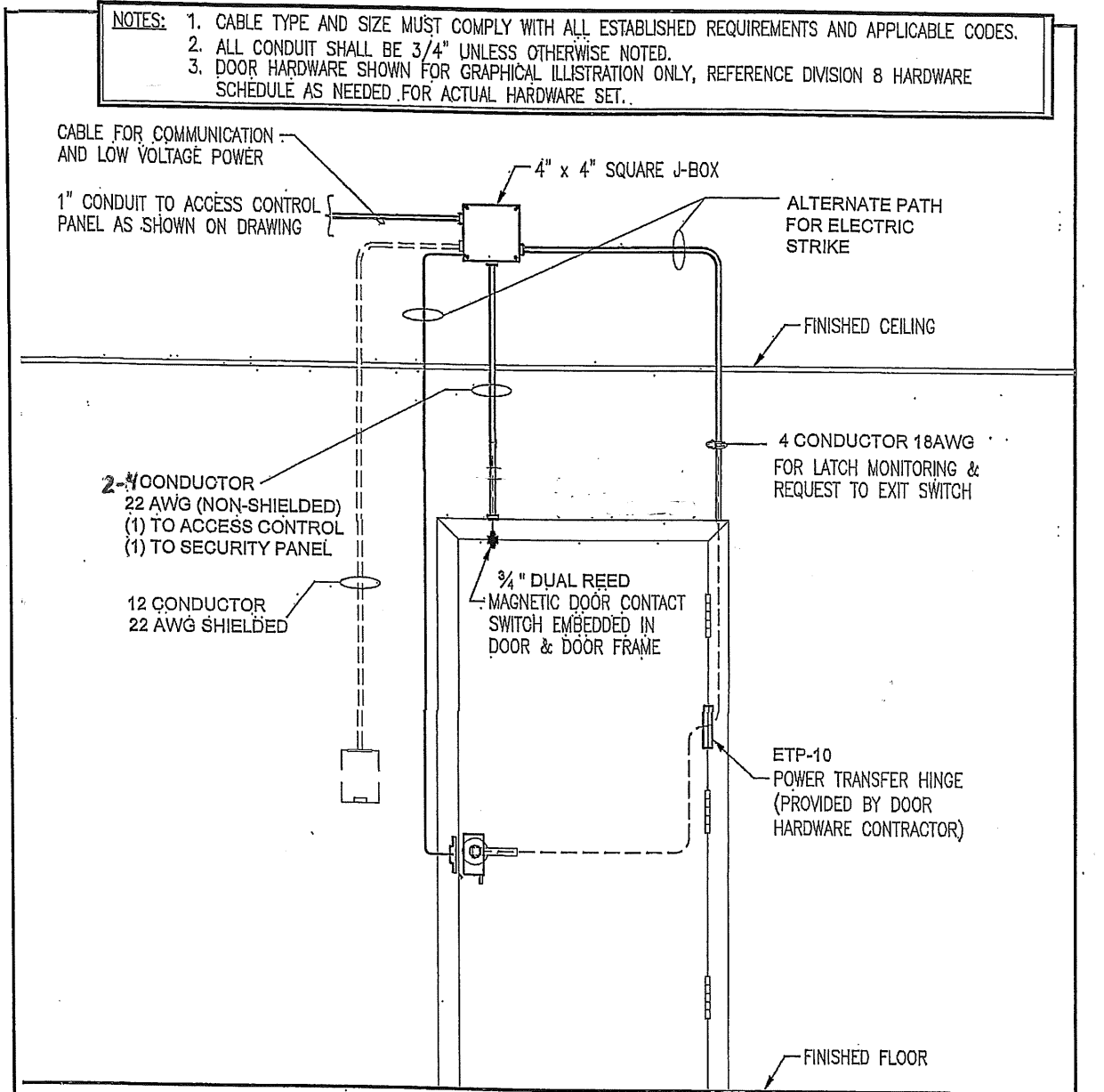
SECURITY DOOR INFORMATION

THE SCHOOL BOARD OF
SARASOTA COUNTY
CONSTRUCTION SERVICES DEPARTMENT
7895 FRUITVILLE ROAD
SARASOTA, FLORIDA 34240



NO SCALE

SECURITY DOUBLE DOOR - ELECTRIC MORTISE LOCK WITH CARD READER & DPS **2**



NO SCALE

SECURITY SINGLE DOOR - ELECTRIC MORTISE LOCK WITH CARD READER & DPS **1**