# **PUBLIC SCHOOL** FIRE ALARM SYSTEM

- THE FIRE ALARM SYSTEM SHALL CONFORM TO ARTICLE 760, CA ELEC. CODE. WIRING MUST BE LISTED FOR USE AS REQUIRED BY TITLE 24/CEC, ARTICLE 760. MINIMUM WIRE SHALL BE TWO (2) #16 AMG FOR INITIATING CIRCUITS AND TWO (2) #12 AWG FOR INDICATING CIRCUITS.
- WIRE USED IN WET LOCATIONS SHALL BE OF AN APPROVED TYPE IN ACCORDANCE WITH 3-310-8, T24/CEC (i.e. THHM OR EQUAL).
- UNDER GROUND AND EXTERIOR CONDUITS TO HAVE WATERTIGHT FITTINGS AND WIRES APPROVED FOR WET LOCATION.
- ALL CONDUCTORS SHALL BE ROUTED IN CONDUIT UNLESS SPECIFICALLY NOTED OTHERWISE ON PLANS. MINIMUM CONDUIT SIZE
- THE CONDUIT AND WIRE SHOWN ON THESE PLANS ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD TO SUIT FIELD CONDITIONS. "AS-BUILT" PLANS SHALL BE MAINTAINED AND BE PROVIDED AS REQUIRED BY THE PROJECT INSPECTOR OF RECORD.
- PENETRATIONS OF FIRE RATED WALLS SHALL BE PROTECTED IN ACCORDANCE WITH CALIFORNIA BUILDING CODE, CHAPTER 7,
- ALL DEVICES SHALL BE "CSFM" LISTED.
- EXTERIOR DEVICES SHALL BE LISTED FOR EXTERIOR USE BY "CSFM."
- AUDIBLE ALARM PRODUCED BY THE FIRE ALARM SYSTEM SHALL BE CAPABLE OF PRODUCING A DISTINCTIVE THREE-PULSE TEMPORAL PATTERN FIRE ALARM EVACUATION SIGNAL.
- AUDIBLE DEVICES TO BE AT LEAST 15 dBA ABOVE THE EQUIVALENT SOUND LEVEL BUT NOT LESS THAN 75 dBA AT 10 FEET OR MORE THAN 110 dBA IN TOTAL, THROUGHOUT.
- WHERE VISUAL DEVICES ARE REQUIRED, VISUAL DEVICE SHOULD NOT EXCEED 2 FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN I FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELA. NO PLACE IN ANY ROOM SHALL BE MORE THAN 50 FEET FROM A DEVICE.
- CONTRACTOR SHALL PROVIDE COPIES OF APPROVED PLANS TO THE PROJECT INSPECTOR OF RECORD PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL SUBMIT SUBMITTAL BOOKLET TO ENGINEER PRIOR TO PURCHASE FOR REVIEW. THE FIRE PROTECTION SYSTEM SHALL NOT BE INSTALLED UNTIL SUBMITTAL BOOKLETS HAVE BEEN SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD.
- FINAL TEST SHALL BE MADE WITH DSA INSPECTOR OF RECORD (IOR). LOCAL FIRE AUTHORITY HAVING JURISDICTION SHALL BE NOTIFIED OF DATE AND TIME OF FIRE ALARM TESTING AND SHALL ASSIST/WITNESS SUCH TESTING WHEN ABLE. CONTRACTOR SHALL REPEAT TESTING AS NECESSARY UNTIL SATISFACTORY RESULTS ARE ACHIEVED.
- (14) FIRE ALARM CONTRACTOR SHALL PROVIDE A "RECORD OF COMPLETION" TO THE INSPECTOR OF RECORD (IOR)/DSA AFTER COMPLETION OF OPERATIONAL ACCEPTANCE TESTS.
- POWER SERVICE SHALL BE ON A DEDICATED BRANCH CIRCUIT WITH A RED MARKING AND IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL
- ALL ALARM SIGNALS ARE TO BE TRANSMITTED TO AN APPROVED 4 LISTED SUPERVISING STATION AND SHALL COMPLY WITH SB 575 POLICY.
- THE MAXIMUM SPACING OF SMOKE AND HEAT DETECTORS SHALL BE 30 FEET OF SEPARATION. IN THE EVENT AN ACCESSIBLE CEILING SPACE IS DISCOVERED DURING THE COURSE OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE ADDITIONAL HEAT DETECTORS.
- (18) PROJECT INSPECTOR SHALL FIELD VERIFY CANDELA SETTING ON STROBES DUE TO FIELD ADJUSTABILITY.
- EACH SIGNALING LINE CIRCUIT FOR FACP IS CAPABLE OF SERVING 159 DETECTORS AND 159 MODULES.
- PROVIDE A PERMANENT SIGN ON THE EXTERIOR DOOR STATING "FIRE ALARM PANEL" FOR ALL ROOMS WITH REMOTE POWER SUPPLIES OR FACP'S. CONTRACTOR TO PROVIDE FABRICATED NAMEPLATE SIGN. PROVIDE AND OBTAIN APPROVED STANDARDS FROM DISTRICT. PROVIDE SUBMITTALS FOR ARCHITECTS
- PROJECT INSPECTOR SHALL VERIFY THAT THERE ARE NO ACCESSIBLE CEILING SPACES FOR THE ROOMS IN THE SCOPE OF WORK.

## PROJECT DESCRIPTION

- I. OCCUPANCY: B, COLLEGE TENNIS COURTS
- 2. TYPE OF SYSTEM: (E) FULLY AUTOMATIC ADDRESSABLE FIRE ALARM SYSTEM FOR BUILDING 30 INSTALLED UNDER DSA #01-111618.
- 3. SCOPE OF WORK: PROVIDE (N) FIRE ALARM FIELD DEVICES AND CONECT TO (N) MODULAR RESTROOM/STORAGE BUILDING. CONNECT (N) FIRE ALARM DEVICES TO (E) FACP LOCATED IN BUILDING 30 INSTALLED UNDER DSA #01-111618.
- 4. FIRE ALARM SYSTEM SIGNALING LINE CIRCUIT IS CLASS B, STYLE 4; INITIATION DEVICE CIRCUIT IS CLASS B, STYLE B; NOTIFICATION CIRCUIT IS CLASS B, STYLE Y.

### APPLICABLE FIRE ALARM CODES, STANDARDS AND GUIDES.

- 2010 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
- 2. 2010 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
- 3. 2010 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
- 4. 2010 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R.
- 5. 2010 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
- 6. 2010 CALIFORNIA ENERGY CODE.
- 7. 2010 CALIFORNIA FIRE CODE.
- 8. TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.

#### STANDARDS AND GUIDES:

. NFPA 72, NATIONAL FIRE ALARM CODE, 2010 EDITION WITH CALIFORNIA AMENDMENTS.

#### FIRE ALARM SYSTEM OPERATIONAL MATRIX REMARKS CAUSE HIGH HEAT DETECTORS ATTIC HEAT DETECTORS AC POWER FAILURE SIGNAL SILENCE SYSTEM RESET 0 0 0 FIRE ALARM TROUBLE (OPEN, SHORTS, OR GROUNDS) ON

### SYMBOL LIST.

PLAN, DETAIL OR SECTION DESIGNATION.

201

SHEET REFERENCE SYMBOL - SEE ASSOCIATED NOTE ON SAME SHEET.

#### WIRING & CONDUIT RUN SYMBOLS

ROOM NUMBER.

CONDUIT - CONCEALED IN WALLS OR CEILING.

CONDUIT - IN OR BELOW FLOOR: 3/4"MIN.

CONDUIT - HOME RUN TO PANEL, TERMINAL CABINET, ETC. RUNS MARKED WITH CROSSHATCHES INDICATE NUMBER OF #12 AWG WIRES. CROSSHATCH WITH SUBSCRIPT "G" INDICATES GREEN GROUND WIRE. SIZE CONDUIT ACCORDING TO SPECIFICATIONS AND APPLICABLE CODE. CROSSHATCHES WITH "#IO" INDICATES WIRE SIZE OTHER THAN #12'S.

FLEX CONDUIT WITH CONNECTION.

CONDUIT - STUB UP.

CAPPED CONDUIT.

CONDUIT - STUB DOWN.

CONDUIT CONTINUATION.

POWER DISTRIBUTION SINGLE LINE SYMBOLS

CIRCUIT BREAKER.

#### FA EQUIPMENT DEVICE

END OF LINE RESISTOR

### FIRE ALARM CABLE SCHEDULE:

- A (2) #12 FOR NOTIFICATION APPLIANCE CIRCUITS (NAC)
- B (I) #14 SHEILDED TWISTED PAIR FOR SIGNALING LINE CIRCUITS (SLC)

### EQUIPMENT SCHEDULE

H <b>X</b> IA≨	ALARM: WEATHER PROOF HORN MODEL: WHEELOCK AH-24WP-R CSFM: 7125-0785:131
HX 45	FIRE ALARM: STROBE 15 CANDELA MODEL: WHEELOCK RSS-24MCW-FR CSFM: 7125-0785:141
F <sub>3</sub>	FIRE ALARM: SMOKE DETECTOR MODEL: SIEMENS FP-II CSFM: 7272-0067:203
	FIRE ALARM: SMOKE DETECTOR BASE MODEL: SIEMENS DB-11 CSFM: 7272-0067:134
⊕ <sup>^</sup>	FIRE ALARM: ATTIC HEAT DETECTOR MODEL: SIEMENS DT-200R CSFM: 7270-0067:156
<b>₽</b>	FIRE ALARM: HIGH HEAT DETECTOR MODEL: SIEMENS DT-200R CSFM: 7270-0067:156
M	FIRE ALARM: MONITOR MODULE MODEL: SIEMENS TRI-S CSFM: 7300-0067:146
豆	FIRE ALARM: MANUAL PULL STATION MODEL: SIEMENS MSI-IOB CSFM: 7150-0067:036
RP5	FIRE ALARM: EXISTING REMOTE POWER SUPPLY MODEL: SIEMENS PSR-I CSFM: 7100-0067:154
FACP	FIRE ALARM: EXISTING FIRE ALARM CONTROL PANEL MODEL: SIEMENS MXL CSFM: 7170-0067:172



VERDE DESIGN LANDSCAPE ARCHITECTURE CIVIL ENGINEERING SPORT PLANNING & DESIGN

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SHEET TITLE

FIRE ALARM NOTES, SYMBOL LIST & EQUIPMENT **SCHEDULE** 

PROJECT NAME

CANADA COLLEGE TENNIS FACILITY **IMPROVEMENTS** 

PROJECT ADDRESS

4200 FARM HILL BLVD REDWOOD CITY, CA 94061

SUBM	SUBMITTAL				
90%	90%				
BID SI	08/21/12				
ADDE	08/31/12				
CONF	09/24/12				
NO.	REVISIONS		DATE		
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08/21/12

FA0.1 35 OF 39 SHEETS

AS NOTED