

Fire Alarm System For NEW POOL/CONCESSION BUILDING

COLLEGE OF SAN MATEO
1700 W. Hillsdale Boulevard
San Mateo, California 94403

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FIRE ALARM EQUIPMENT LIST

CATE-GORY	ITEM NO.	SYMBOL	QTY	MODEL NUMBER	DESCRIPTION	MANUFACTURER	DATA SHEET NUMBER	CALIFORNIA STATE FIRE MARSHAL LISTING NUMBER
	1	HD	2	FPT-11	INTELLIGENT THERMAL FIRE DETECTOR	SIEMENS	6176	7270-0067:202
	2		2	DB-11	DETECTOR BASE FOR FP-11 DETECTOR	SIEMENS	6175	7300-0067:134
	3	⊗	3	MSI-10B	INTELLIGENT MANUAL PULL STATION	SIEMENS	6187	7150-0067:036
	4		3	SB-5R	SURFACE MOUNTING BOX	SIEMENS	6187	-----
	5	SL-15cd	2	RSS-24MCW-FR	MULTI CANDELA WALL-MOUNTED STROBE, 15 Candela	WHEELLOCK	---	7125-0785:141
	6	SL-30cd			MULTI CANDELA WALL-MOUNTED STROBE, 30 Candela	WHEELLOCK	---	7125-0785:141
	7	SL-75cd			MULTI CANDELA WALL-MOUNTED STROBE, 75 Candela	WHEELLOCK	---	7125-0785:141
	8	SL-110cd			MULTI CANDELA WALL-MOUNTED STROBE, 110 Candela	WHEELLOCK	---	7125-0785:141
	9		2	PSBB-R	MOUNTING BACK BOX	WHEELLOCK	---	-----
	10	▽ 15cd	1	NS-24MCW-FR	MULTI CANDELA WALL-MOUNTED HORN/STROBE, 15cd	WHEELLOCK	---	7125-0785:142
	11	▽ 30cd			MULTI CANDELA WALL-MOUNTED HORN/STROBE, 30cd	WHEELLOCK	---	7125-0785:142
	12	▽ 75cd			MULTI CANDELA WALL-MOUNTED HORN/STROBE, 75cd	WHEELLOCK	---	7125-0785:142
	13	▽ 110cd			MULTI CANDELA WALL-MOUNTED HORN/STROBE, 110cd	WHEELLOCK	---	7125-0785:142
	14		1	PSBB-R	MOUNTING BACK BOX	WHEELLOCK	---	-----
	15	▽ 75cd WP	1	ASWP-2475-FR	WEATHER PROOF HORN/STROBE WALL-MOUNTED 75 CD	WHEELLOCK	---	7125-0785:131
	16		1	WPBB-R	WEATHER PROOF BACK BOX	WHEELLOCK	---	-----
MISC.	18	FACP		FACP	EXISTING MXL LOCATED IN BUILDIN 8	Siemens	---	7165-0067:144

GENERAL ELECTRICAL NOTES

- ALL WIRING AND INSTALLATION MUST CONFORM WITH PROJECT SPECIFICATIONS, APPLICABLE CODE SUMMARIES, DRAWINGS AND REQUIREMENTS ADOPTED BY NFPA.
- SMOKE DETECTORS SHALL NOT BE LOCATED IN A DIRECT AIRFLOW NOR CLOSER THAN 3 FEET FROM AIR SUPPLY DIFFUSER OR RETURN AIR OPENING PER NFPA 72 (CHAPTERA-5.7.4.1) 2002 EDITION.
- ALL SMOKE DETECTORS AND INITIATING DEVICES WIRING SHALL BE INSTALLED MINIMUM 3 FEET FROM ELECTRONIC BALLAST (LIGHTING FIXTURES).
- WHEN INSTALLING INITIATING AND NOTIFICATION DEVICES, POLARITY MUST BE OBSERVED.
- ALL NOTIFICATION CIRCUIT WIRES MUST BE SUPERVISED. HENCE, NO PARALLEL BRANCHING OF WIRES IS PERMISSIBLE (T-TAPPING). ALL AUDIBLE SIGNALING DEVICES SHALL PRODUCE A DISTINCTIVE THREE-PULSE TEMPORAL TONE, AUDIBLE SIGNALS SHALL HAVE A SOUND LEVEL OF NOT LESS THAN 75dba AT 10' OR AT LEAST 15dba ABOVE THE AVERAGE AMBIENT SOUND LEVEL, WHICHEVER IS GREATER, BUT NOT MORE THAN 110dba AT THE MINIMUM HEARING DISTANCE FROM THE AUDIBLE APPLIANCE (PER NFPA 72 CH. 4, 1999 ED.) WHEN MORE THAN TWO (2) VISUAL DEVICES ARE IN THE SAME VIEWING PLANE THE VISUAL DEVICES SHALL BE SYNCHRONIZED AS REQUIRED BY NFPA 72 CH. 4, 1999 EDITION.
- DO NOT INSTALL ADDRESSABLE DEVICES PRIOR TO PROGRAMMING. (SEE NOTE 15)
- ALL 24 VDC WIRE TO BE INSTALLED IN DEDICATED CONDUIT SEPARATE FROM 120 VAC WIRING, IN ACCORDANCE WITH CURRENT NATIONAL AND STATE ELECTRICAL CODES.
- CONDUIT SIZING TO BE DETERMINED BY THE ELECTRICAL CONTRACTOR AND SHALL CONFORM TO CONDUIT FILL CAPACITIES AS PER REQUIREMENTS OF CURRENT EDITIONS OF NATIONAL AND STATE ELECTRICAL CODES.
- DO NOT APPLY 120 VAC POWER TO CONTROL PANEL UNTIL A SIEMENS FIRE SAFETY SERVICE TECHNICIAN HAS INSPECTED ALL SYSTEM WIRING CONNECTIONS AND HAS APPROVED THE SYSTEM TO BE TURNED ON.
- ALL PLUG-IN TYPE DETECTORS REQUIRE A 4" OCTAGONAL, 1-1/2" OR DEEPER MOUNTING BOX. REFER TO DETAIL DRAWINGS FOR DEVICE WIRING AND MOUNTING CONDITIONS.
- 120 VAC INPUT CONNECTIONS TO THE FIRE ALARM CONTROL PANEL LIGHT AND POWER SERVICE SHALL BE ON DEDICATED BRANCH CIRCUIT(S). THE CIRCUIT(S) AND CONNECTIONS SHALL BE MECHANICALLY PROTECTED. CIRCUIT DISCONNECTION MEANS SHALL HAVE A RED MARKING, SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL, AND SHALL BE IDENTIFIED AS FIRE ALARM CIRCUIT CONTROL. THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.
- INSTALLATION MATERIALS SUCH AS CONDUITS, FITTINGS, JUNCTION BOXES, TERMINAL CABINETS, PULL BOXES, HANGERS, ETC. ARE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. ALL WIRING IS TO BE FROM DEVICE TERMINAL TO DEVICE TERMINAL SPLICES AND WIRE NUTS ARE NOT ACCEPTABLE.
- ANY DEVIATION FROM THE DESIGN AND LOCATION OF EQUIPMENT SHOWN MUST FIRST HAVE A WRITTEN APPROVAL FROM SIEMENS FIRE SAFETY. ANY DEVIATION FROM DESIGN MUST ALSO BE INDICATED ON SIEMENS FIRE SAFETY SHOP DRAWINGS (BLUEPRINTS) AND RETURNED TO SIEMENS FIRE SAFETY AT TIME OF JOB COMPLETION.
- SHOWN IN THIS DRAWING SET IS SIEMENS FIRE SAFETY ENGINEERED FIRE ALARM SYSTEM PER CONTRACTUAL DESIGN DRAWINGS AND SPECIFICATIONS.
 - CONTRACTOR SHALL NOT DEVIATE BY NOT MORE THAN 5% FROM THE FINAL APPROVED SHOP DRAWINGS.
 - WIRE RUNS HAVE BEEN ENGINEERED TO COMPLY WITH SPECIFIC VOLTAGE DROP REQUIREMENTS. ANY DEVIATION FROM SHOWN WIRE RUNS WHICH RESULTS IN NONCOMPLIANCE WITH VOLTAGE DROP REQUIREMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
 - THESE SUBMITTED SHOP DRAWINGS ARE COMPLETE. SIEMENS FIRE SAFETY SHALL NOT BEAR ANY ADDITIONAL COSTS OF RE-ENGINEERING RECORD DRAWINGS (AS-BUILTS).
- ALL SMOKE DETECTORS (NEW OR EXISTING) SHALL BE PROTECTED FROM DUST AND DEBRIS DURING CONSTRUCTION. SMOKE-SENSING DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER THE CONSTRUCTION CLEANUP OF ALL TRADES IS COMPLETE AND FINAL. PER NFPA 72 (5.7.1.11) 2002 EDITION.
Exception: WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION FOR PROTECTION DURING CONSTRUCTION. DETECTORS THAT HAVE BEEN INSTALLED DURING CONSTRUCTION AND FOUND TO HAVE A SENSITIVITY OUTSIDE THE LISTED AND MARKED SENSITIVITY RANGE SHALL BE CLEANED OR REPLACED AT AN ADDITIONAL COST TO THE CONTRACTOR.
- POWER SERVICES SHALL BE ON A DEDICATED BRANCH CIRCUIT WITH A RED MARKING AND IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL"
- PROVIDE TEMPORAL-THREE DISTINCTIVE FIRE ALARM SOUND.
- THE STROBE FLASH RATE SHALL NOT EXCEED TWO (2) FLASHES PER SECOND NOR BE LESS THAN ONE FLASH PER SECOND.
- FINAL FIRE ALARM TEST SHALL BE MADE WITH THE DSA INSPECTOR OF RECORD (IOR). LOCAL FIRE AUTHORITY SHALL BE NOTIFIED OF DATE AND TIME OF FINAL FIRE ALARM TESTING AND SHALL ASSIST/WITNESS SUCH TESTING WHEN ABLE.
- FIRE ALARM CONTRACTOR SHALL PROVIDE A "RECORD OF COMPLETION" TO THE INSPECTOR OF RECORD (IOR)/DSA AFTER COMPLETION OF OPERATIONAL ACCEPTANCE TEST.

SCOPE OF WORK

Presented herein is the fire alarm system for the new Pool/Concession Building. The building is non-sprinklered. Pull stations are located at the pool equipment room exits and area heat detection is provided for pool equipment rooms. ADA compliant notification has been provided for the pool equipment room and the concession room as well for the exterior areas of the building. Occupant notification will activate in the event of an alarm condition in the building. System status changes report to the campus fire alarm system and will then be sent to the existing campus monitoring company.

MXL - FIRE ALARM SYSTEM WIRING GUIDELINES

- ALL WIRING MUST COMPLY WITH LOCAL AND CALIFORNIA ELECTRICAL CODES. ALL WIRING MUST BE DONE AS DESCRIBED IN NOTES 2 & 6 BELOW, TO OBTAIN SAFE AND PROPER SYSTEM OPERATION.
- EARTH GROUND THE MXL ENCLOSURE PROPERLY; SEE LATEST EDITION OF NATIONAL ELECTRICAL CODES FOR APPROVED METHODS. CONDUIT GROUND IS NOT ADEQUATE.
- SEPARATE ALL WIRING FOR INITIATING DEVICES (i.e., DETECTORS, MANUAL STATIONS, TRI MODULES, ETC) FROM ALL OTHER WIRING IN THE MXL-IQ ENCLOSURE.
- INSULATE ALL CABLE DRAIN WIRES FROM ANY CONDUIT OR OTHER EARTH GROUNDED ELECTRICAL BOX, INCLUDING THOSE IN THE MXL ENCLOSURE.
- CONNECT SHIELD CABLE DRAIN WIRE ONLY AT SPECIFIED LOCATION INSIDE THE MXL ENCLOSURE.
- EARTH GROUND ALL CONDUIT RUNS THROUGHOUT THE INSTALLATION.
- LINE RESISTANCE IS MEASURED AT THE ALD-2I MODULE SCREW TERMINALS. THE END OF THE LOOP MUST BE SHORTED, THE ALD-2I MODULE MUST BE REMOVED FROM THE SCREW TERMINALS, AND NO ADDRESSABLE DEVICES MAY BE INSTALLED.
- LINE CAPACITANCE IS MEASURED AT THE ALD-2I MODULE SCREW TERMINALS THE END OF THE LOOP(S) MUST BE OPEN, THE ALD-2I MODULE MUST BE REMOVED FROM THE SCREW TERMINALS AND NO ADDRESSABLE DEVICES MAY BE INSTALLED.
- ALL 110/120 VAC CIRCUITS SHALL BE INSTALLED IN DEDICATED CONDUIT.
- ALD-2I LOOP WIRING MUST NOT BE IN THE SAME CONDUIT AS CODED AUDIBLE WIRING.
- ALL INITIATING CIRCUITS ARE RATED POWER LIMITED AND SHALL BE WIRED IN ACCORDANCE WITH APPLICABLE CODES.
- UNDERGROUND WIRING IS PERMISSIBLE IF ALL NEC WIRING REQUIREMENTS ARE MET.
- OVERHEAD OR EXTERIOR WIRING IS NOT RECOMMENDED.

CODE SUMMARY

2007	CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
2007	CALIFORNIA BUILDING CODE PART 2, TITLE 24, CCR (2006 IBC AND 2007 CALIFORNIA AMENDMENTS)
2007	CALIFORNIA ELECTRICAL CODE PART 3, TITLE 24, CCR (2005 NEC AND 2007 CALIFORNIA AMENDMENTS)
2007	CALIFORNIA MECHANICAL CODE PART 4, TITLE 24, CCR (2006 UMC AND 2007 CALIFORNIA AMENDMENTS)
2007	CALIFORNIA PUMBING CODE PART 5, TITLE 24, CCR (2006 UPC AND 2007 CALIFORNIA AMENDMENTS)
2007	CALIFORNIA FIRE CODE PART 9, TITLE 24, CCR (2006 IFC AND 2007 CALIFORNIA AMENDMENTS)
2002	NFPA 72 NATIONAL FIRE ALARM CODE AND ALL AMENDMENTS IN ADDITIONS TO THE ABOVE

BUILDING CONDITIONS

PROJECT LOCATION: COLLEGE OF SAN MATEO
1700 WEST HILLDALE BOULEVARD
SAN MATEO, CA 94402

BUILDING OWNER: SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT
3401 CSM DRIVE SAN MATEO, CA 94402
TEL. 650-574-6512

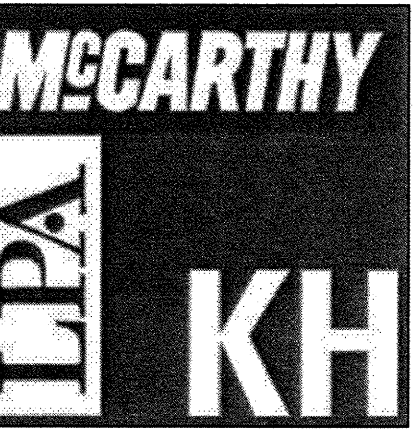
OCCUPANCY SUMMARY

BUILDING USE: CONCESSIONS AND POOL FILTRATION & HEATING EQUIPMENT U POOL EQUIPMENT.

CBC508.3.1 CONCESSION STAND IS <10% OF THE MAIN OCCUPANCY AND NOT CONSIDERED MIXED USE.

CBC TABLE 508.3.3 OCCUPANCY SEPERATION U TO M = 1HR SEPERATION.

CONSTRUCTION TYPE: CBC 602.5 TYPE V-B NON SPRINKLERED.



McCarthy Building Companies, Inc.
343 Sansome Street, 14th Floor
San Francisco, California 94104
P 415 | 364-1339
F 415 | 397-5999

Siemens Building Technologies, Inc.
Fire Safety Division
SAN FRANCISCO BRANCH
25621 Industrial Boulevard, Suite 300
Hayward, California 94545-2991
Tel (510) 783-6000 Fax (510) 293-2100
California State C10 License No. 758796
U.L. Certificate ID No. 324787-001



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE

APPL. # 01-110097

DATE: APR 09 2009

FILE NUMBER: APR 09 2009

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College of San Mateo
Site Package
San Mateo, CA

Date: _____
Revision Description: _____

Date: 19 SEPT 2008
19 SEPT 2008
09 APRIL 2009
DSA SUBMITTAL
DSA FINAL

Job No. 2708230
Date: 09 APRIL 2009
Drawn by: RB
Checked by: KR
Scale: AS SHOWN

COVER/ INDEX
EQUIPMENT
LIST

FA01