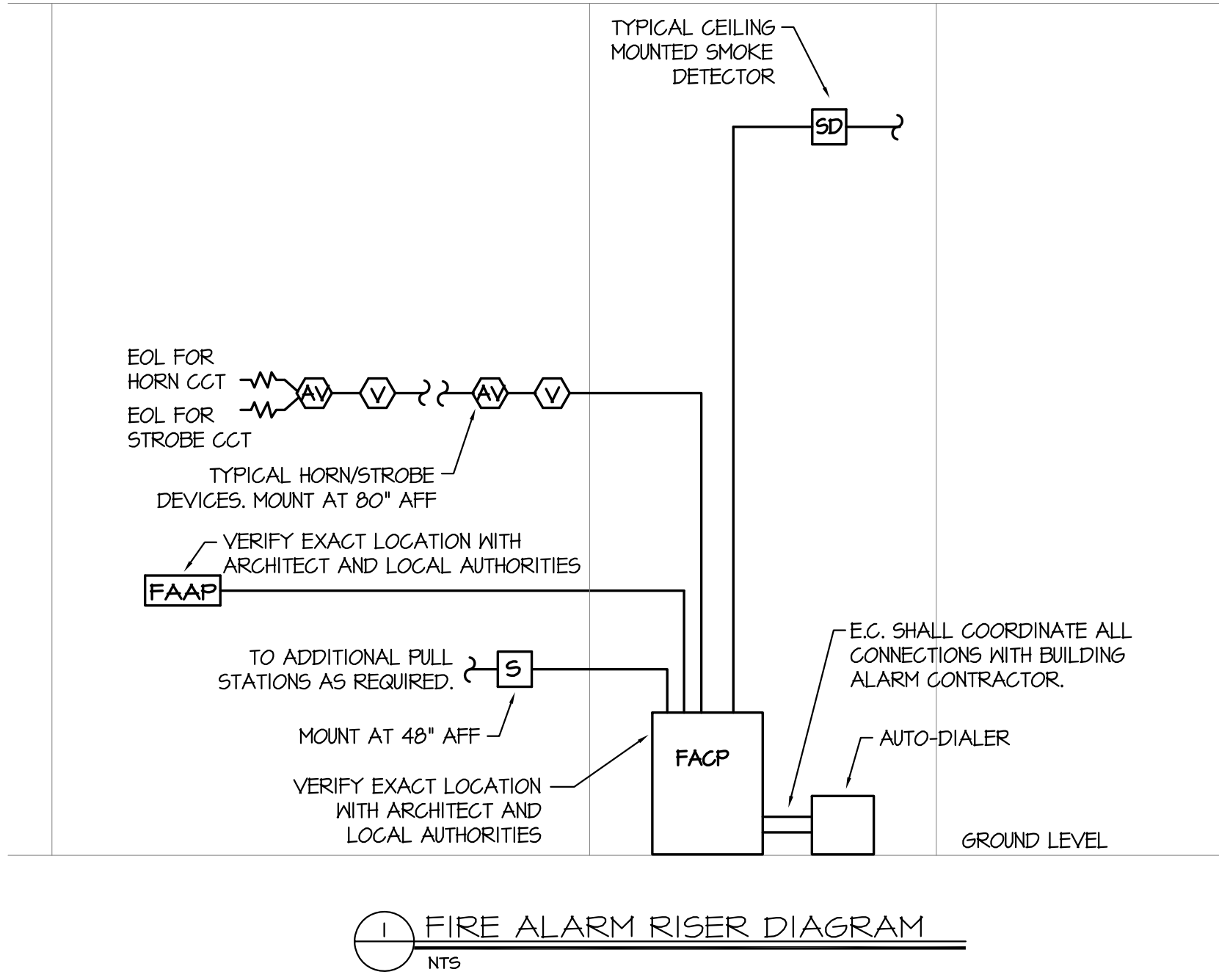


EQUIPMENT SCHEDULE														
EQUIP. ID	DESCRIPTION	BRANCH VOLTAGE	BRANCH WIRING	CONDUIT	PANEL (SEE DWGS)	CCT NO. (SEE DWGS)	LOCAL DISC.		LOADS			STARTER		REMARKS
							SIZE	TYPE	KW	HP	AMPS	SIZE	TYPE	
DC-1	DRY COOLER	208V/3P	3#10 & 1#10 GRD	3/4"	HP-1		30A	NF/WP				18		
HP-1	HEAT PUMP	208V/3P	3#8 & 1#10 GRD	3/4"	HP-1		BY MFG.					25.7	BY MFG.	
HP-2	HEAT PUMP	208V/3P	3#12 & 1#12 GRD	3/4"	HP-1		BY MFG.					9.4	BY MFG.	
HP-3	HEAT PUMP	208V/3P	3#10 & 1#10 GRD	3/4"	HP-1		BY MFG.					15	BY MFG.	
HP-4	HEAT PUMP	208V/3P	3#10 & 1#10 GRD	3/4"	HP-1		BY MFG.					16.4	BY MFG.	
HP-5	HEAT PUMP	208V/3P	3#8 & 1#10 GRD	3/4"	HP-1		BY MFG.					23.4	BY MFG.	
GFB-1	HOT WATER BOILER	120V/1P	2#12 & 1#12 GRD.	3/4"	HP-1		①②③T					1.5		
GP-1	GLYCOL PUMP	120V/1P	2#12 & 1#12 GRD.	3/4"	HP-1		①②③T			1/2				
CF-1	CEILING FAN	120V/1P	2#12 & 1#12 GRD	3/4"	HP-1		①②③T		80W					SEE NOTE #7
EF-1	EXHAUST FAN	120V/1P	2#12 & 1#12 GRD	3/4"	HP-1		①②③T		822W					SEE NOTE #3
EF-3	EXHAUST FANS	120V/1P	2#12 & 1#12 GRD	3/4"	HP-1		①②③T		80W					SEE NOTE #6
EF-4	EXHAUST FAN	120V/1P	2#12 & 1#12 GRD	3/4"	HP-1		①②③T		130W					SEE NOTE #6
IFE-1	EXHAUST FAN	120V/1P	2#12 & 1#12 GRD	3/4"	HP-1		①②③T		20W					
P-1,2	CONDENSER PUMPS	208V/3P	3#12 & 1#12 GRD.	3/4"	HP-1		30A			1 1/2				VFD4D/5 BY OTHERS
P-3,4	HOT WATER PUMPS	208V/3P	3#12 & 1#12 GRD	3/4"	HP-1		30A			3/4				VFD4D/5 BY OTHERS
P-5	BOILER PUMP	120V/1P	2#12 & 1#12 GRD	3/4"	HP-1		①②③T			1/4				
DWH-1	DOMESTIC WATER HEATER	120V/1P	2#12 & 1#12 GRD	3/4"	HP-1		①②③T					5		
RCP-1	DOMESTIC RECIRC PUMP	120V/1P	2#12 & 1#12 GRD	3/4"	HP-1		①②③T			1/2				
EW-1	ELECTRIC WALL HEATER	208V/1P	2#12 & 1#12 GRD	3/4"			30A	NF	2					SEE NOTE #8
EUH-1	ELECTRIC UNIT HEATER	208V/3P	3#12 & 1#12 GRD	3/4"	HP-1		30A	NF	5					SEE NOTE #2
CUH-1	HOT WATER UNIT HEATER	120V/1P	2#12 & 1#12 GRD	3/4"	HP-1		①②③T			1/30	10.5			
EPH-1	ELECTRIC PLENUM HEATER	208V/1P	2#12 & 1#12 GRD	3/4"	LP-1				3					SEE NOTE #4
UH-1	HOT WATER HEATER	120V/1P	2#12 & 1#12 GRD	1"	HP-1		①②③T		100W					
KH-1	KITCHEN EXHAUST HOOD	120V/1P	2#12 & 1#12 GRD	3/4"	HP-1		①②③T					2		

GENERAL NOTES:

- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL ELECTRICAL REQUIREMENTS, FINAL CONNECTIONS, LOCATIONS, ETC. WITH OTHER TRADES.
- ELECTRICAL CONTRACTOR TO PROVIDE KING KB SERIES CEILING MOUNTED UNIT HEATER, 208V, 3PHASE, 5KW WITH INTEGRAL THERMOSTAT AND DISCONNECT SWITCH. PROVIDE LOCAL USER DISCONNECT SWITCH PER CITY OF CHICAGO REQUIREMENTS.
- CONTRACTOR TO PROVIDE 24/1 PROGRAMMABLE TIMECLOCK FOR CONTROL OF EXHAUST FANS. COORDINATE WITH MECHANICAL CONTRACTOR.
- ELECTRICAL CONTRACTOR TO PROVIDE QMARK MODEL MSPH38124 PLENUM HEATERS, 208V, 1PHASE, 3KW WITH INTEGRAL DISCONNECT SWITCH AND 24V MODEL TH5220D1003 THERMOSTATS. PROVIDE LOCAL USER DISCONNECT SWITCH PER CITY OF CHICAGO REQUIREMENTS.
- PROVIDE HACR CIRCUIT BREAKERS FOR ALL AIR CONDITIONING EQUIPMENT, INCLUDING DRY COOLER AND HEAT PUMPS.
- CONTRACTOR TO CONNECT EXHAUST FAN TO OCCUPANCY SENSOR FOR CONTROL.
- ELECTRICAL CONTRACTOR TO INSTALL FAN SPEED CONTROLLER NEAR ROOM 118 DOUBLE DOORS AND PROVIDE CONNECTIONS TO CEILING FANS.
- ELECTRICAL CONTRACTOR TO PROVIDE BERKO SERIES FRC SURFACE MOUNTED ELECTRICAL WALL HEATER WITH INTEGRAL DISCONNECT AND THERMOSTAT. PROVIDE LOCAL USER DISCONNECT SWITCH PER CITY OF CHICAGO REQUIREMENTS.



FIRE ALARM NOTES:

- PROVIDE A NONCODED, MICROPROCESSOR BASED ADDRESSABLE SYSTEM WITH MANUAL AND AUTOMATIC ALARM INITIATION; AUTOMATIC SENSITIVITY CONTROL OF CERTAIN SMOKE DETECTORS; AND MULTIPLEXED SIGNAL TRANSMISSION DEDICATED TO FIRE ALARM SERVICE ONLY. SIMPLEX IS THE PREFERRED MANUFACTURER, NOTIFIER WILL BE CONSIDERED AS EQUAL SUBSTITUTION.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIAL, LABOR, EQUIPMENT, DEVICES, ETC. NECESSARY FOR A COMPLETE AND FULLY OPERATIONAL FIRE ALARM SYSTEM. ALL WORK SHALL COMPLY WITH ALL APPLICABLE LOCAL CODES, FEDERAL AND STATE REGULATIONS, NEC, NFPA STANDARDS AND ALL REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT ALL SHOP DRAWINGS AND PRELIMINARY DOCUMENTATION REQUIRED BY THE LOCAL AUTHORITY FOR FIRE ALARM SYSTEM PERMITS. THIS SHALL INCLUDE BUT IS NOT LIMITED TO ALL DRAWINGS, DIAGRAMS, ZONE SCHEDULES, RISER DIAGRAMS, EQUIPMENT CATALOG SHEETS, SYSTEM SPECIFICATIONS, POINT TO POINT FIRE ALARM DRAWINGS, CONDUIT SIZES AND WIRE COUNTS INCLUDING TYPE AND NUMBER. ALL INFORMATION SHALL COMPLY WITH THE SUBMITTAL REQUIREMENTS FOR THE LOCAL AUTHORITY.
- ALL FIRE ALARM SYSTEM WIRING SHALL BE ROUTED IN CONDUIT IN AREAS SUBJECT TO DAMAGE OR IN INACCESSIBLE WALL AND CEILING SPACES. WIRING SHALL BE CLEAR FROM SHORTS, OPENS AND GROUNDS. PROVIDE A SYSTEM GROUND FOR DEVICES AS REQUIRED PER NFPA. USE ONLY APPROVED CABLE WITHIN RACEWAY, PIPES OR CONDUITS. ALL SHIELDS MUST BE CONTINUOUS THROUGHOUT CIRCUIT, ISOLATED FROM GROUND AND TERMINATE IN THE FIRE ALARM CONTROL PANEL ONLY. THE CONTRACTOR SHALL PROVIDE #12 AWG FOR ALL STROBE CIRCUITS WITH A MAXIMUM OF 6 STROBES PER CIRCUIT. PROVIDE #14 TWISTED SHIELDED NON-POWER LIMITED WIRING FOR ALL AUDIBLE ALARM CIRCUITS.
- THE CONTRACTOR SHALL PROVIDE COMBINATION HORN/STROBE, HORN OR STROBE DEVICES THROUGHOUT THE BUILDING IN CONFORMANCE WITH NFPA REQUIREMENTS.
- THE CONTRACTOR SHALL PROVIDE MANUAL FULL STATIONS AT EACH EXTERIOR DOOR AND STAIRWELL DOOR.
- THE CONTRACTOR SHALL PROVIDE SMOKE DETECTORS ON BOTH SIDES OF FIRE SHUTTER, WHERE SHOWN ON PLAN, WHICH ARE HELD OPEN. ACTIVATION OF A FIRE ALARM DEVICE IN THE BUILDING OR ADJACENT AREA SHALL RELEASE SMOKE DOORS. PROVIDE INTERFACE OUTPUT(S) FROM THE FIRE ALARM SYSTEM FOR ALL SUCH FIRE SWITCHES.
- THE CONTRACTOR SHALL PROVIDE SMOKE DUCT DETECTORS AT THE SUPPLY SIDE DUCT OF ALL MAIN SUPPLY FANS. ANNUNCIATE EACH LOCATION SEPARATELY AT THE MAIN ANNUNCIATOR PANEL. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING QUANTITIES AND LOCATIONS OF ALL SMOKE DUCT DETECTION DEVICES. SMOKE DUCT DETECTORS AND ZONES SHALL BE FURNISHED AND WIRED UNDER THIS CONTRACT AND INSTALLED UNDER DIVISION 15 WORK.
- INDICATING APPLIANCE CIRCUITS SHALL BE ZONED AS FOLLOWS: A) ONE ZONE FOR EACH FLOOR (MINIMUM), B) SIX SPARE CIRCUITS TERMINATED FOR FUTURE USE. DISTRIBUTION OF CIRCUITS SHALL BE SUCH THAT FAILURE OF ANY CIRCUIT WILL NOT PROHIBIT OPERATION IN ADJACENT AREAS.
- THE CONTRACTOR SHALL PROVIDE CAPACITY IN FIRE ALARM CONTROL PANEL TO SERVE ALL DETECTION DEVICES. PLUS MINIMUM SPARE CAPACITY OF 30%. INDIVIDUAL DETECTION SIGNALING LINES SHALL PROVIDE A SPARE CAPACITY OF NO LESS THAN 30% PER LINE WHEN SYSTEM INSTALLATION IS COMPLETED. A MINIMUM OF ONE SPARE ANNUNCIATOR ZONE SHALL BE PROVIDED FOR EACH FLOOR AT MAIN FIRE ALARM ANNUNCIATOR PANEL. ANNUNCIATOR. DISTRIBUTION OF DETECTION SIGNALING LINE CIRCUITS SHALL BE SUCH THAT FAILURE OF ANY LINE WILL NOT PROHIBIT MONITORING AND ALARM REPORTING FROM ADJACENT AREAS.
- THE CONTRACTOR SHALL PROVIDE BATTERY BACK-UP EMERGENCY POWER SUPPLY TO FIRE ALARM CONTROL PANEL AND ALARM SYSTEM PER LOCAL REQUIREMENTS AND NFPA.
- SEE MECHANICAL DRAWINGS FOR EXACT LOCATIONS OF ALL SUCH EQUIPMENT. PROVIDE ALL POWER SOURCES, SWITCHES AND FINAL ELECTRICAL CONNECTIONS TO ALL SUCH EQUIPMENT. INCLUDING BUT NOT LIMITED TO: SWITCHES, DUCT DETECTORS STATUS DEVICES AND FIRE ALARM SIGNALS.



CHICAGO PARK DISTRICT
 541 NORTH FAIRBANKS
 Chicago, Illinois
 60611

BOOTH HANSEN

Architecture • Interiors • Planning
 333 South Des Plaines Street
 Chicago, Illinois 60607

Building Systems Engineering
 Division of Home Engineers Collaborative, LLC
 Chicago, Illinois
 400 West Jackson Boulevard, Suite 600
 Chicago, IL 60604
 Tel 312.542.7750 Fax 312.546.7753
 Mechanical • Electrical • Plumbing • Fire Protection • Consulting Engineers

ISSUED FOR ADDENDUM #1 08/27/09

ISSUED FOR BID 08/05/09
 ISSUED FOR CONST. DOCUMENTS 100% 07/22/09
 ISSUED FOR CONST. DOCS. 90% / PERMIT 06/26/09
 ISSUED FOR CONST. DOCUMENTS 60% 06/05/09
 ISSUED FOR DESIGN DEVELOPMENT 05/15/09
 ISSUED FOR SCHEMATIC DESIGN 03/13/09

REVISIONS DATE

PROJECT MANAGER
 PROJECT MANAGER
 DIRECTOR OF ENGINEERING

PROJ. MGR.: JK
 DESIGNER: JK/KK/NC
 DRAWN: JK/KK/NC
 CHECKED: EMB
 SCALE: AS NOTED
 DATE: AUGUST 2009
 SPEC. NO.: XXXX-XX
 JOB NO.: 0824.00

SHEET INFORMATION



VALLEY FORGE PARK
 7001 W. 59TH STREET
 CHICAGO, IL 60638
 PARK #371

PARK NO./PROJECT NO.
 0824.00

ELECTRICAL SCHEDULES

E004
 DRAWING NO.