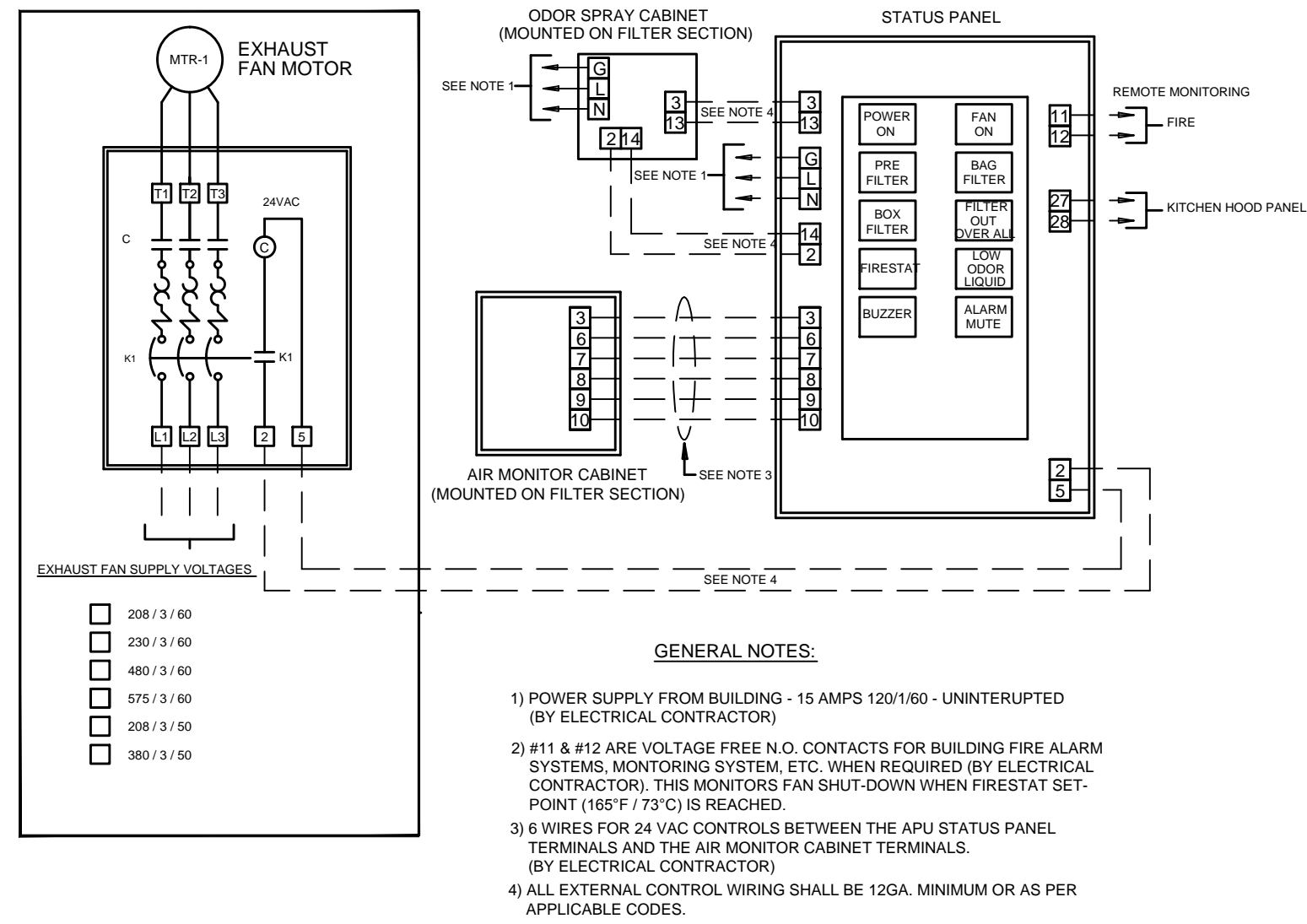
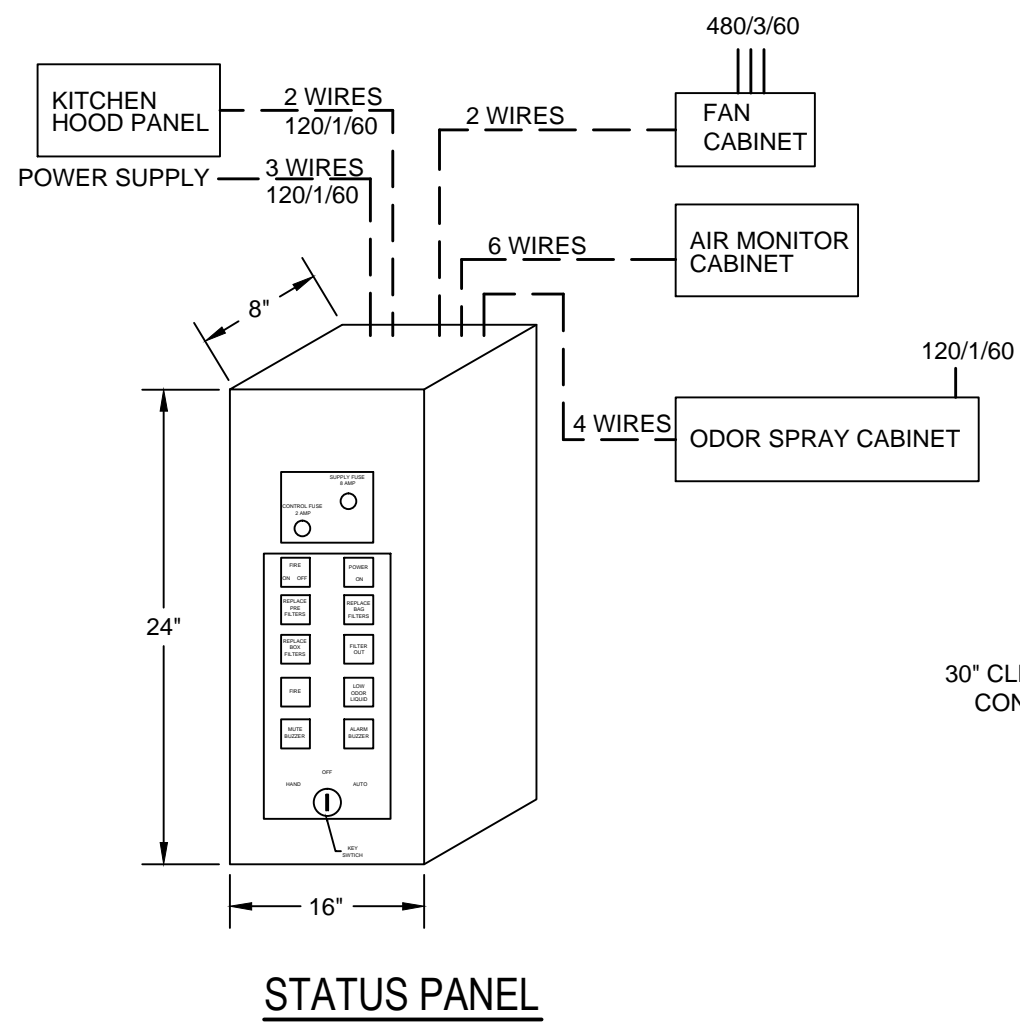


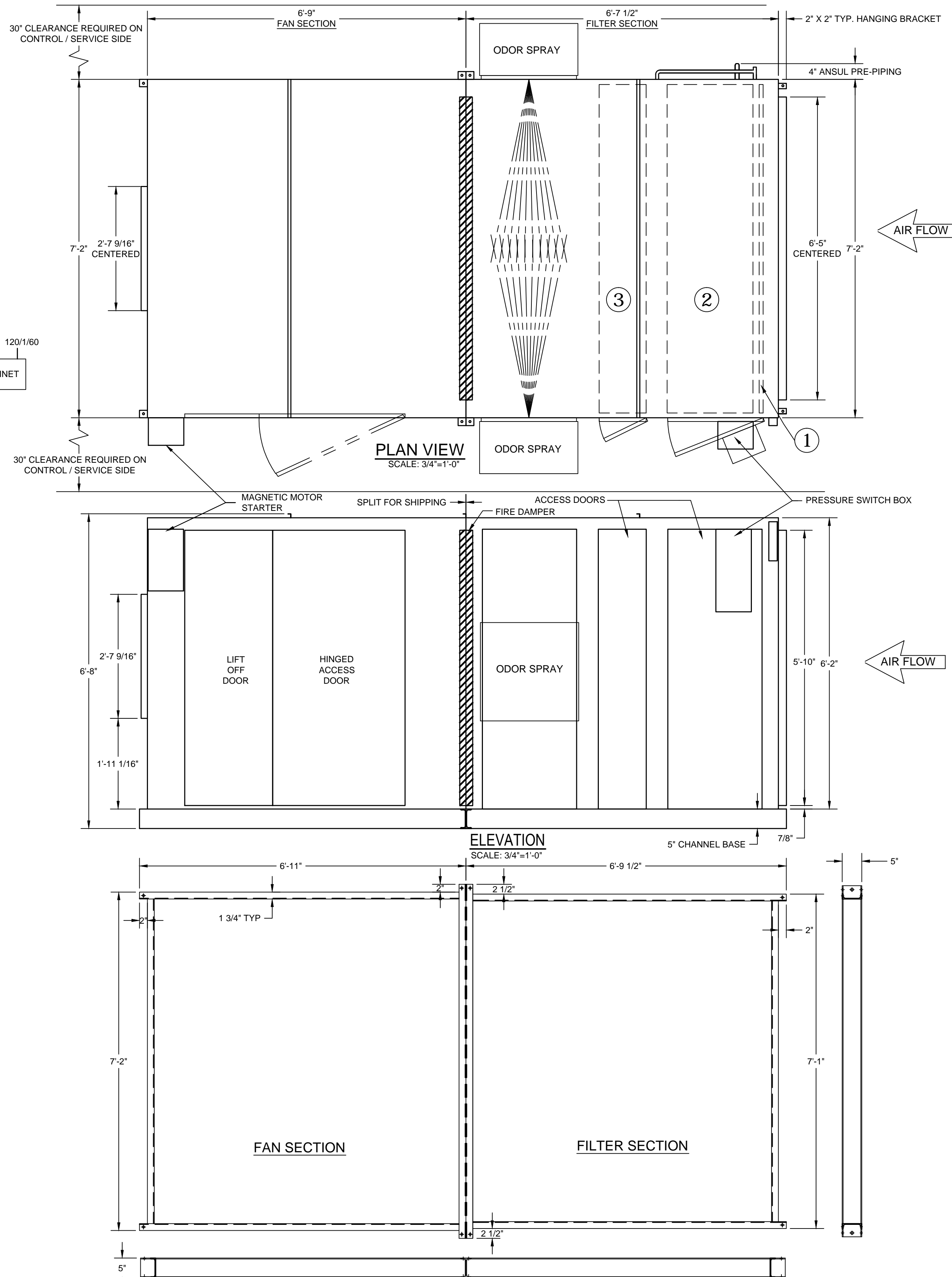
FILTER SECTION				
MAXIMUM AIR EXHAUST	20,000 C.F.M.			
DESIGN AIR EXHAUST	18,692 C.F.M.			
FILTER BOX STATIC	1.85" W.G.			
DIRTY FILTER FACTOR	0.50" W.G.			
TOTAL INTERNAL STATIC	2.35" W.G.			
LOCATION	INDOOR			
MOUNTING	FLOOR			
WEIGHT	1,787 LBS			
ECOLGY FILTER DATA (AT FULL LOAD CAPACITY)				
FLT. NO.	TYPE	SIZE	QTY.	S.P. (IN.W.G)
1	40%	24"X12"X4"	3	0.15"
		24"X24"X4"	9	CLEAN
2	95%	24"X12"X22"	3	0.70"
		24"X24"X22"	9	CLEAN
3	99%	24"X12"X12"	3	1.00"
		24"X24"X12"	9	CLEAN
FAN SECTION				
MAX. EXHAUST AIR	20,000 CFM			
TOTAL INTERNAL S.P.	2.35 W.G.			
HOOD STATIC	1.60" W.G.			
+ DUCT LOSS	2.20" W.G.			
= TOTAL EXTERNAL S.P.	3.80" W.G.			
TOTAL SYSTEM S.P.	6.15" W.G.			
MOTOR RPM	1,750 W.G.			
MOTOR	40 HP			
POWER	33.16 BHP			
FULL LOAD AMPS	52 AMPS			
VOLTAGE	480/3/60			
FAN RPM	2,023 RPM			
WEIGHT	2,460 LBS			

NOTES:
 --- FIELD WIRING (BY E.C.)
 --- FOR CONTROL CIRCUITS USE 24V,
 UNLESS OTHERWISE STATED



GENERAL CONTRACT CONDITIONS

ELECTRICAL WORK DONE BY CADDY CORPORATION IS EXECUTED IN COMPLIANCE WITH STANDARDS PUBLISHED BY THE UNDERWRITERS LABORATORIES, INC. INSOFAR AS APPLICABLE, AND THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC). CADDY CORPORATION DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE REQUIREMENTS OF ANY REGIONAL AND/OR LOCAL CODES THAT ADD OR DEVIATED FROM THE ACCEPTED STANDARDS OF THE ABOVE AGENCIES. ANY FIELD WORK RELATING TO THE MODIFICATION OF ELECTRIC OR PLUMBING SYSTEMS, TO MEET REGIONAL OR LOCAL CODE REQUIREMENTS IS TO BE DONE BY OTHERS AND WITHOUT BACK CHARGES TO CADDY CORPORATION, UNLESS THESE CONDITIONS WERE PREVIOUSLY BROUGHT TO OUR ATTENTION AND ARE EXPRESSLY INCLUDED IN OUR WRITTEN QUOTATION. ALL WIRING AND PLUMBING AT THE JOB SITE IS THE RESPONSIBILITY OF OTHERS. EQUIPMENT WILL BE CONSTRUCTED IN ACCORDANCE WITH OUR DRAWING(S) WHICH MUST BE APPROVED PRIOR TO FABRICATION. ANY SUBSEQUENT CHANGES REQUIRED MUST BE SUBMITTED TO US IN WRITING AND ACKNOWLEDGED ON OUR STANDARD FORM.

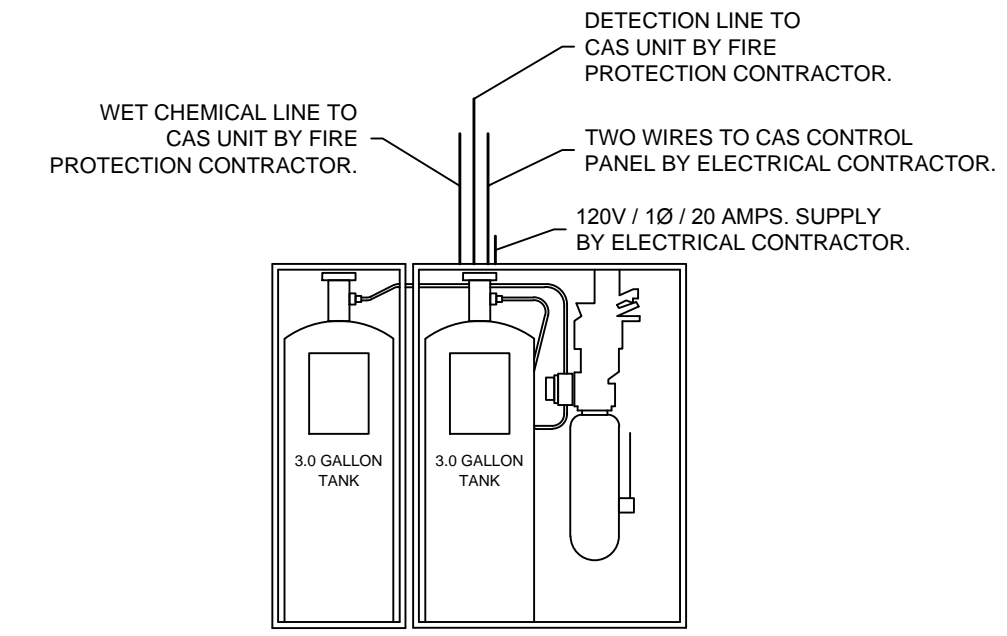


CONFIRM SEQUENCE OF OPERATION

- SYSTEM ON MODE:
 - SELECTOR SWITCH IN "ON" POSITION
 - EXHAUST FAN ON
 - MAKE-UP AIR FAN ON (OPTIONAL)
- SYSTEM OFF MODE:
 - SELECTOR SWITCH IN "OFF" POSITION
 - EXHAUST FAN OFF
 - MAKE-UP AIR FAN OFF (OPTIONAL)
- FIRE MODE AT HOOD FIRE SYSTEM:
 - EXHAUST FAN TURNS ON
 - MAKE-UP AIR FAN TURNS OFF (OPTIONAL)
- FIRE MODE AT CAS UNIT:
 - EXHAUST FAN TURNS OFF
 - MAKE-UP AIR FAN TURNS OFF (OPTIONAL)

GENERAL NOTES

- GENERAL:
 - CABINETS ARE OF WELDED STEEL CONSTRUCTION, PRIMED AND PAINTED.
 - ECOLOGY UNIT IS U.L. & U.L.C. LISTED.
- INSTALLATION:
 - THE EXHAUST DUCT CONNECTION AT THE ENTRANCE TO THE FILTER SECTION MUST BE CONTINUOUSLY WELDED.
 - ALLOW MINIMUM OF 30" CLEARANCE ON ACCESS SIDE FOR FILTER REMOVAL AND FIELD SERVICING.
 - EXHAUST DUCT WORK INSTALLED BETWEEN EXHAUST VENTILATOR AND ECOLOGY FILTER SECTION MUST CONFORM TO N.F.P.A. 98
 - ALL DUCT WORK BETWEEN EXHAUST VENTILATOR(S), ECOLOGY UNIT AND DOWNSTREAM FROM ECOLOGY UNIT SHALL BE SUPPLIED AND INSTALLED BY OTHERS.
 - ALL DUCT CONNECTIONS TO THE UNITS MUST BE TRANSITIONED TO THE FULL OPENING AT THE UNIT INLET AND OUTLET.
 - FILTERS MUST BE INSTALLED IN THE PROPER SEQUENCE AND PROPERLY SEATED AGAINST THE FILTER SUPPORT FRAME.
 - A STRUCTURAL ENGINEER SHALL VERIFY THAT THE STRUCTURE WILL SUPPORT THE ADDITIONAL LOAD.
 - ALL UNITS SHOULD BE PLUMB AND LEVEL.
 - THE CONTROL PANEL IS WALL MOUNTED AT THE LOCATION SPECIFIED BY THE MECH. CONSULTANT.
- ELECTRICAL:
 - WIRE SIZES TO BE DETERMINED BY THE ELECTRICAL RATINGS ON THE UNIT RATING PLATE AND CONFORM TO ELECTRICAL STANDARDS.
- INTERIOR SUSPENDED UNITS:
 - SUSPENDED UNITS TO BE MOUNTED ON PLATFORMS OR SUSPENDED BY HANGING RODS FROM SUPPORT ANGLES WELDED TO THE ECOLOGY UNIT STRUCTURAL FRAME. PLATFORM AND HANGING RODS SUPPLIED AND INSTALLED BY OTHERS.
 - SUSPENDED UNITS MUST BE PROVIDED WITH A SERVICE PLATFORM ALONG ENTIRE LENGTH OF UNIT BY OTHERS. THE PLATFORM SHOULD BE 30" WIDE TO ENSURE PROPER ACCESS TO ECOLOGY SYSTEM.
 - SUSPENSION RODS MUST BE INSTALLED IN SUCH A WAY THAT THE ACCESS DOORS ARE NOT OBSTRUCTED AT ALL TIMES.
 - ALLOW 6" CLEARANCE ABOVE FILTER SECTION FOR ACCESS TO PRESSURE SWITCH PORTS.



ANSUL NOTES

DIMENSIONS : 26" L x 7 1/2" W x 23 1/2" H
 MOUNTING WEIGHT : 100 LBS.

NOTE:
 UNIT TO SERVICE HOODS #179A/B, 362A/B, AND 411 IN MAIN KITCHEN AREA

NOTE:
 FAN C/W ACOUSTIC INSULATION PACKAGE TO REDUCE SOUND

CAS UNIT WILL AUTOMATICALLY TURN ON WHEN ANSUL IS IN FIRE MODE

NOTE:
 CONFIRM RIGHT HAND ACCESS []
 CONFIRM DATA CHART []

SHOP NOTE:
 BUILD PER U.L. CONSTRUCTION METHODS

REVISIONS			
REV	DATE	BY	REMARKS
A	3-25-13	DRA	UPDATED PER CONVERSATION WITH ED CRYLEN
B	4-4-13	ECC	MODIFIED SIZE OF STATUS PANEL
C	6-10-13	ECC	REMOVED ITEM 10 & ADJUSTED DESIGN AIR EXHAUST FOR ITEMS 232 & 528

CADDY AirSystems
 509 SHARPTOWN ROAD
 P.O. BOX 345 BRIDGEPORT NJ 08014
 Tel:(856) 467-4222 Fax:(856) 467-5511

EQUIPMENT SCHEDULE

KEF-B1.2
 20000 CASKEF

CADDY NO. 11383B ITEM NO. 232

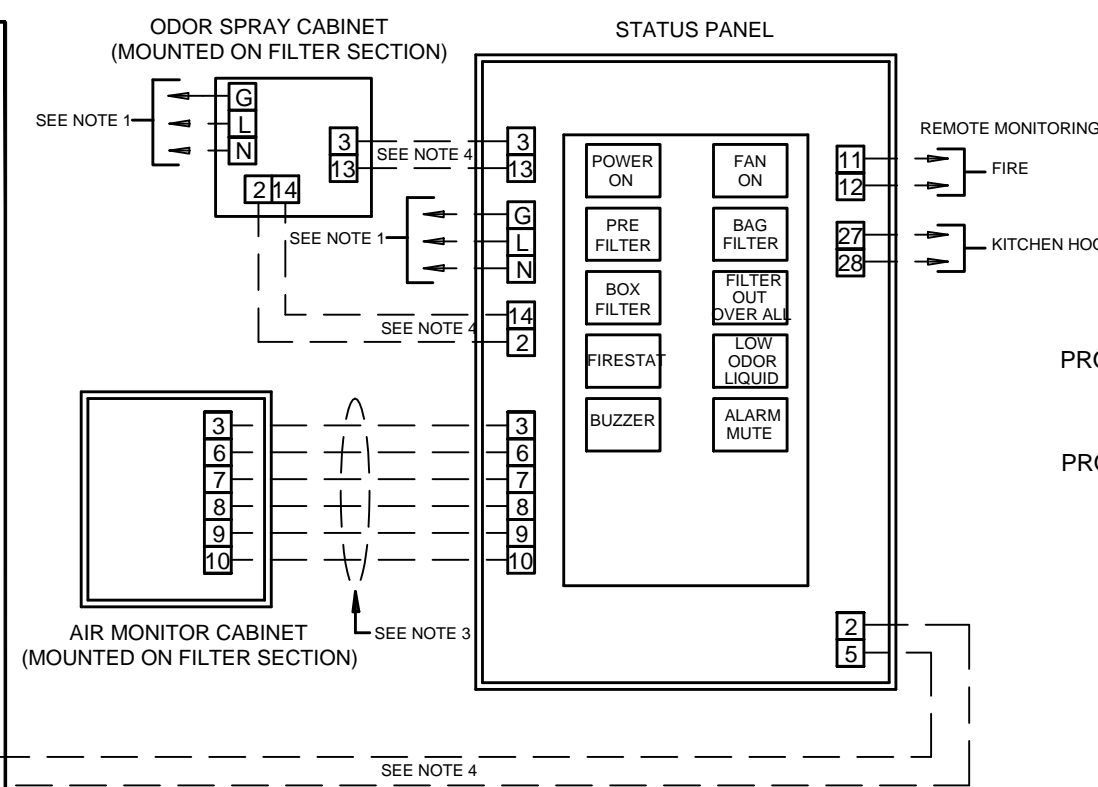
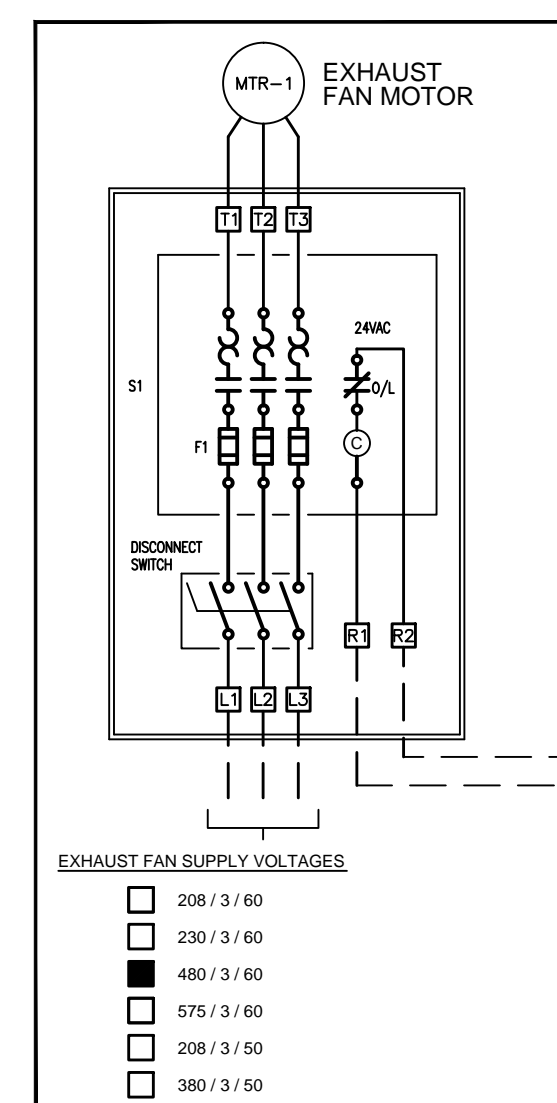
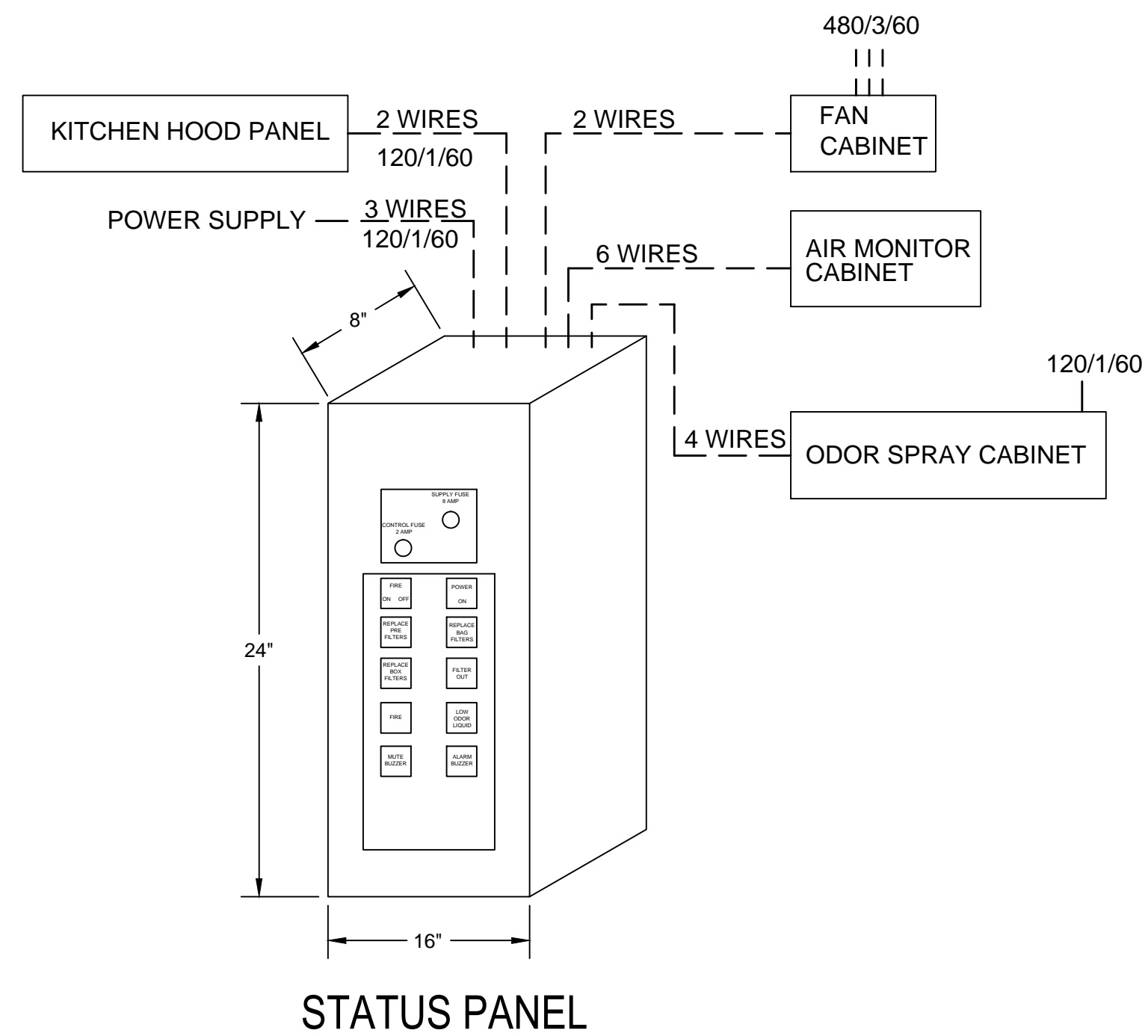
JOB: LOEWS HOTEL
 LOC: CHICAGO, IL
 CUST: MIDWESCO MECHANICAL & ENERGY
 CUST#: 13-1250-003

FILTER SECTION	
MAXIMUM AIR EXHAUST	4,000 C.F.M.
DESIGN AIR EXHAUST	3,763 C.F.M.
FILTER BOX STATIC	1.85" W.G.
DIRTY FILTER FACTOR	0.50" W.G.
TOTAL INTERNAL STATIC	2.35" W.G.
LOCATION	INDOOR
MOUNTING	CEILING HUNG
WEIGHT	505 LBS

ECOLOGY FILTER DATA (AT FULL LOAD CAPACITY)				
FLT. NO.	TYPE	SIZE	QTY.	S.P. (IN.W.G)
1	40%	24"X12"X4"	0	0.15"
		24"X24"X4"	2	CLEAN
2	95%	24"X12"X22"	0	0.70"
		24"X24"X22"	2	CLEAN
3	99%	24"X12"X12"	0	1.00"
		24"X24"X12"	2	CLEAN

FAN SECTION	
MAX. EXHAUST AIR	4,000 CFM
TOTAL INTERNAL S.P.	2.35" W.G.
HOOD STATIC	1.60" W.G.
+ DUCT LOSS	1.20" W.G.
= TOTAL EXTERNAL S.P.	2.80" W.G.
TOTAL SYSTEM S.P.	5.15" W.G.
MOTOR RPM	1,750 RPM
MOTOR	7.5 HP
POWER	4.48 BHP
FULL LOAD AMPS	11.0 AMPS
VOLTAGE	480/3/60
FAN RPM	2,178
WEIGHT	935 LBS

NOTES:
 --- FIELD WIRING (BY E.C.)
 FOR CONTROL CIRCUITS USE 24V,
 UNLESS OTHERWISE STATED



GENERAL NOTES:

- POWER SUPPLY FROM BUILDING - 15 AMPS 120/1/60 - UNINTERRUPTED (BY ELECTRICAL CONTRACTOR)
- #11 & #12 ARE VOLTAGE FREE N.O. CONTACTS FOR BUILDING FIRE ALARM SYSTEMS, MONITORING SYSTEM, ETC. WHEN REQUIRED BY ELECTRICAL CONTRACTOR. THIS MONITORS FAN SHUT-DOWN WHEN FIRESTAT SET-POINT (165°F / 73°C) IS REACHED.
- 6 WIRES FOR 24 VAC CONTROLS BETWEEN THE APU STATUS PANEL TERMINALS AND THE AIR MONITOR CABINET TERMINALS. (BY ELECTRICAL CONTRACTOR)
- ALL EXTERNAL CONTROL WIRING SHALL BE 12GA. MINIMUM OR AS PER APPLICABLE CODES.

GENERAL CONTRACT CONDITIONS

ELECTRICAL WORK DONE BY CADDY CORPORATION IS EXECUTED IN COMPLIANCE WITH STANDARDS PUBLISHED BY THE UNDERWRITERS LABORATORIES, INC. INSOFAR AS APPLICABLE, AND THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC). CADDY CORPORATION DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE REQUIREMENTS OF ANY REGIONAL AND/OR LOCAL CODES THAT ADD OR DEVIATED FROM THE ACCEPTED STANDARDS OF THE ABOVE AGENCIES. ANY FIELD WORK RELATING TO THE MODIFICATION OF ELECTRIC OR PLUMBING SYSTEMS, TO MEET REGIONAL OR LOCAL CODE REQUIREMENTS IS TO BE DONE BY OTHERS AND WITHOUT BACK CHARGES TO CADDY CORPORATION, UNLESS THESE CONDITIONS WERE PREVIOUSLY BROUGHT TO OUR ATTENTION AND ARE EXPRESSLY INCLUDED IN OUR WRITTEN QUOTATION. ALL WIRING AND PLUMBING AT THE JOB SITE IS THE RESPONSIBILITY OF OTHERS. EQUIPMENT WILL BE CONSTRUCTED IN ACCORDANCE WITH OUR DRAWING(S) WHICH MUST BE APPROVED PRIOR TO FABRICATION. ANY SUBSEQUENT CHANGES REQUIRED MUST BE SUBMITTED TO US IN WRITING AND ACKNOWLEDGED ON OUR STANDARD FORM.

ANSUL NOTES

DIMENSIONS : 16" L x 7 1/2" W x 23 1/2" H
 MOUNTING WEIGHT : 54 LBS.

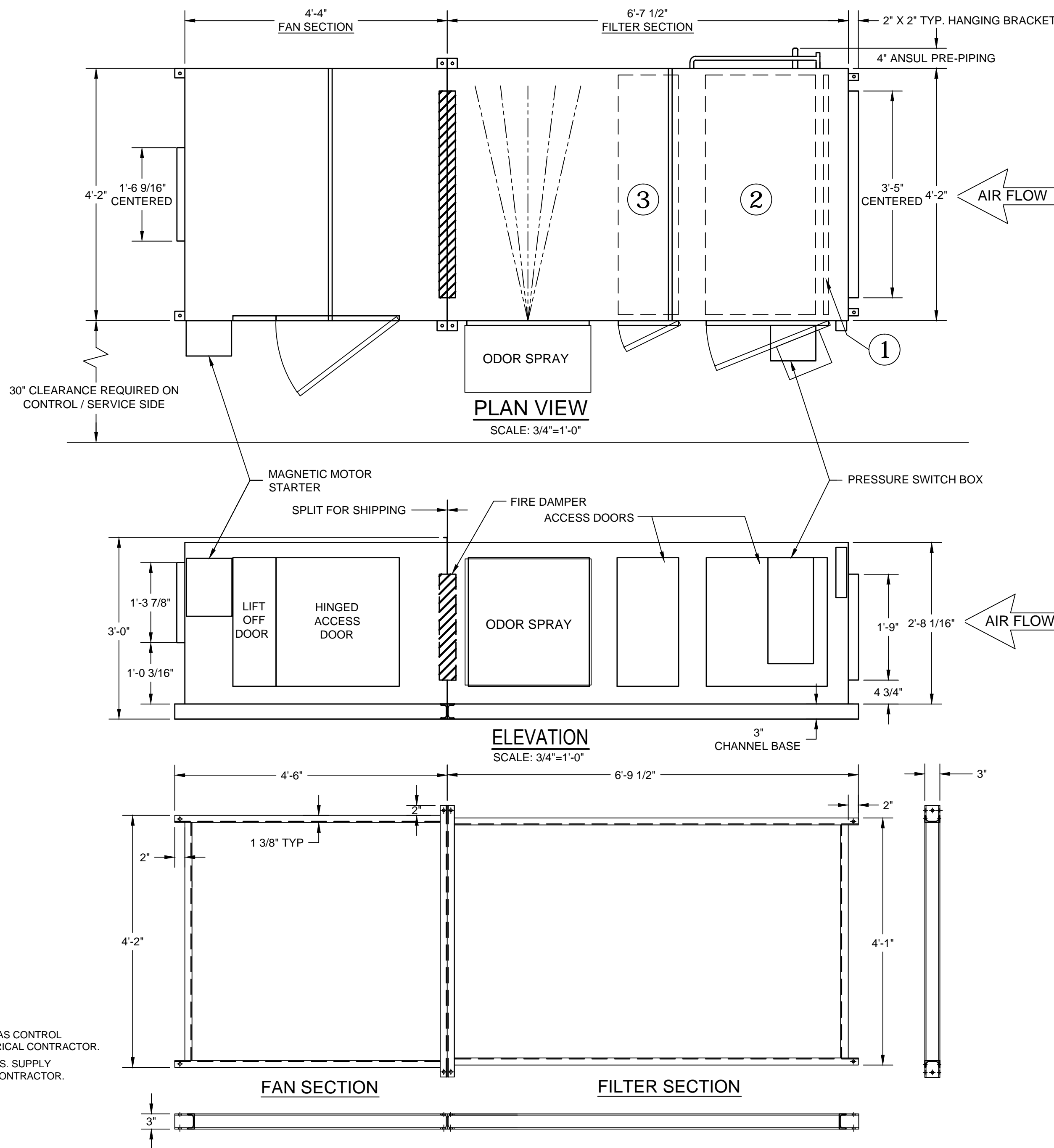
CAS UNIT WILL AUTOMATICALLY TURN ON WHEN ANSUL IS IN FIRE MODE

NOTE:
 FAN C/W ACOUSTIC INSULATION PACKAGE TO REDUCE SOUND

NOTE:
 UNIT TO SERVICE HOOD IN ROOF TOP LOUNGE KITCHEN

SHOP NOTE:
 BUILD PER U.L. CONSTRUCTION METHODS

NOTE:
 CONFIRM RIGHT HAND ACCESS []
 CONFIRM DATA CHART []



GENERAL NOTES

- GENERAL :**
 -CABINETS ARE OF WELDED STEEL CONSTRUCTION, PRIMED AND PAINTED.
 -ECOLOGY UNIT IS U.L. & U.L.C. LISTED.
- INSTALLATION :**
 -THE EXHAUST DUCT CONNECTION AT THE ENTRANCE TO THE FILTER SECTION MUST BE CONTINUOUSLY WELDED.
 -ALLOW MINIMUM OF 30" CLEARANCE ON ACCESS SIDE FOR FILTER REMOVAL AND FIELD SERVICING.
 -EXHAUST DUCT WORK INSTALLED BETWEEN EXHAUST VENTILATOR AND ECOLOGY FILTER SECTION MUST CONFORM TO N.F.P.A. 96
 -ALL DUCT WORK BETWEEN EXHAUST VENTILATOR(S), ECOLOGY UNIT AND DOWNSTREAM FROM ECOLOGY UNIT SHALL BE SUPPLIED AND INSTALLED BY OTHERS.
 -ALL DUCT CONNECTIONS TO THE UNITS MUST BE TRANSITIONED TO THE FULL OPENING AT THE UNIT INLET AND OUTLET.
 -FILTERS MUST BE INSTALLED IN THE PROPER SEQUENCE AND PROPERLY SEATED AGAINST THE FILTER SUPPORT FRAME.
 -A STRUCTURAL ENGINEER SHALL VERIFY THAT THE STRUCTURE WILL SUPPORT THE ADDITIONAL LOAD.
 -ALL UNITS SHOULD BE PLUMB AND LEVEL.
 -THE CONTROL PANEL IS WALL MOUNTED AT THE LOCATION SPECIFIED BY THE MECH. CONSULTANT.
- ELECTRICAL :**
 -WIRE SIZES TO BE DETERMINED BY THE ELECTRICAL RATINGS ON THE UNIT RATING PLATE AND CONFORM TO ELECTRICAL STANDARDS.
- INTERIOR SUSPENDED UNITS :**
 -SUSPENDED UNITS TO BE MOUNTED ON PLATFORMS OR SUSPENDED BY HANGING RODS FROM SUPPORT ANGLES WELDED TO THE ECOLOGY UNIT STRUCTURAL FRAME. PLATFORM AND HANGING RODS SUPPLIED AND INSTALLED BY OTHERS.
 -SUSPENDED UNITS MUST BE PROVIDED WITH A SERVICE PLATFORM ALONG ENTIRE LENGTH OF UNIT BY OTHERS. THE PLATFORM SHOULD BE 30" WIDE TO ENSURE PROPER ACCESS TO ECOLOGY SYSTEM.
 -SUSPENSION RODS MUST BE INSTALLED IN SUCH A WAY THAT THE ACCESS DOORS ARE NOT OBSTRUCTED AT ALL TIMES.
 -ALLOW 6" CLEARANCE ABOVE FILTER SECTION FOR ACCESS TO PRESSURE SWITCH PORTS.

CONFIRM SEQUENCE OF OPERATION

- SYSTEM ON MODE:
 -SELECTOR SWITCH IN "ON" POSITION
 -EXHAUST FAN ON
 -MAKE-UP AIR FAN ON (OPTIONAL)
- SYSTEM OFF MODE:
 -SELECTOR SWITCH IN "OFF" POSITION
 -EXHAUST FAN OFF
 -MAKE-UP AIR FAN OFF (OPTIONAL)
- FIRE MODE AT HOOD FIRE SYSTEM:
 -EXHAUST FAN TURNS ON
 -MAKE-UP AIR FAN TURNS OFF (OPTIONAL)
- FIRE MODE AT CAS UNIT:
 -EXHAUST FAN TURNS OFF
 -MAKE-UP AIR FAN TURNS OFF (OPTIONAL)

REVISIONS			
REV	DATE	BY	REMARKS
A	3-25-13	DRA	UPDATED PER CONVERSATION WITH ED CRYLEN
B	4-4-13	ECC	NO CHANGES
C	6-10-13	ECC	REMOVED ITEM 10 & ADJUSTED DESIGN AIR EXHAUST FOR ITEMS 232 & 528

CADDY AirSystems
 509 SHARPTOWN ROAD
 P.O. BOX 345 BRIDGEPORT NJ 08014
 Tel:(856) 467-4222 Fax:(856) 467-5511

EQUIPMENT SCHEDULE

KEF-3.1
 4000 CASKEF

CADDY NO. 11383B ITEM NO. 528

JOB: LOEWS HOTEL
 LOC: CHICAGO, IL
 CUST: MIDWESCO MECHANICAL & ENERGY
 CUST#: 13-1250-003