SUPPLY DIFFUSER SCHEDULE

(A/100) DESIGNATES LABEL FOR DIFFUSER TYPE
DESIGNATES CFM QUANTITY FOR DIFFUSER

ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWSE SPECIFIED ON PLANS.

LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
A	TITUS TDC–AA	6"ø	0 – 125	12X12 LOUVERED FACE
B	TITUS TDC–AA	8"ø	130 – 200	24X24 LOUVERED FACE
C	TITUS TDC–AA	10"ø	205 – 325	24X24 LOUVERED FACE
D	TITUS PCS–AA	10"ø	205 – 325	PERFORATED FACE
E	TITUS S300FS	18X6	255 – 400	DIRECT SPIRAL MOUNTED REGISTER

RETURN GRILLE SCHEDULE

(1/100) DESIGNATES LABEL FOR GRILLE TYPE
DESIGNATES CFM QUANTITY FOR GRILLE

FILTER SHALL BE PROVIDED AT UNIT.

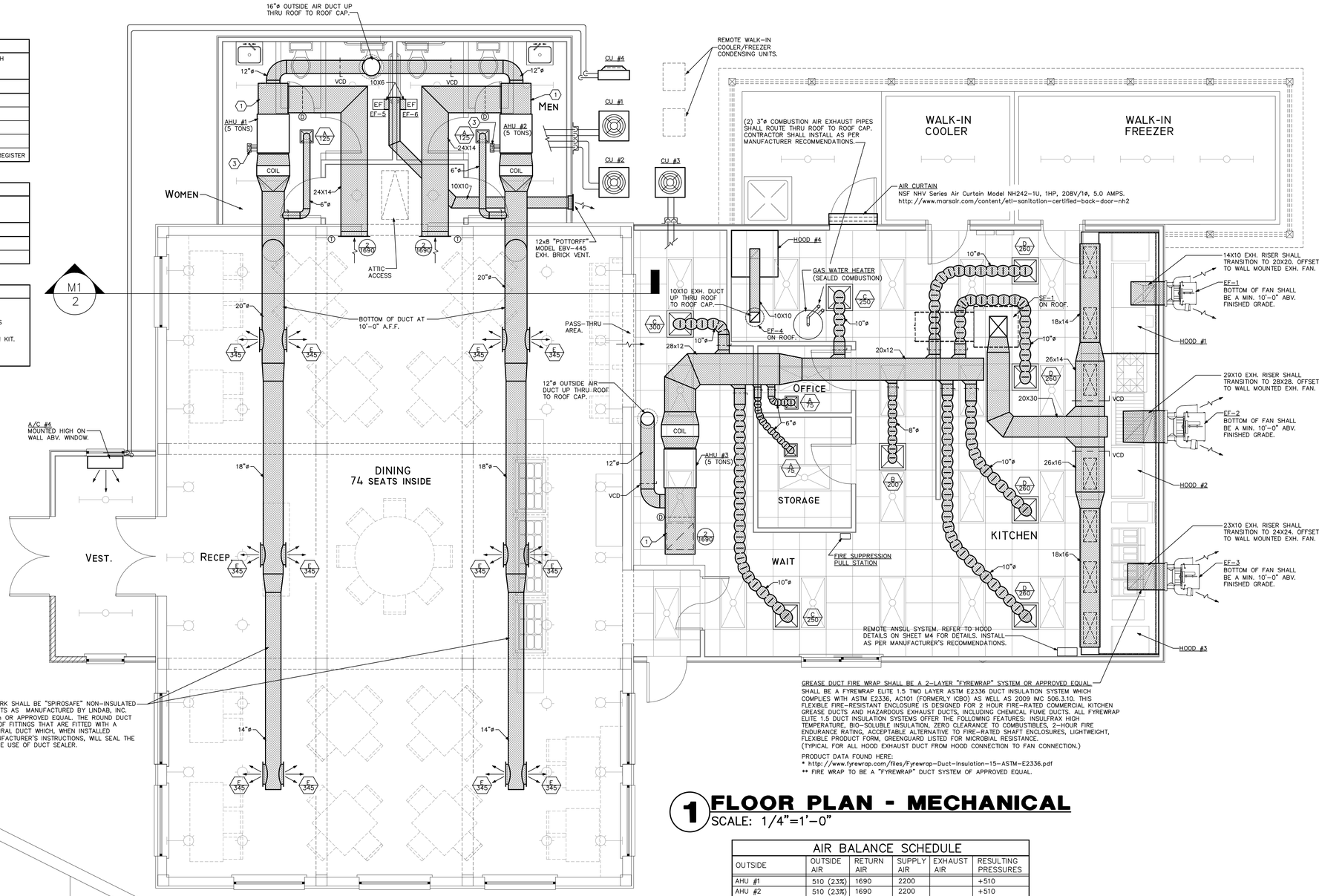
LABEL	MANUFACTURER & MODEL NO.	NECK SIZE	CFM RANGE	REMARKS
1	TITUS 355FL	10X10	0 – 400	LOUVER FACE
2	TITUS 50F	24X24	0 – 3000	EGGCRATE FACE

SPECIFIC MECHANICAL NOTES

1. RETURN AIR DUCT PLENUM SHALL BE FULL SIZE OF AHU RETURN AIR OPENING.
2. EXPOSED SPIRAL DUCT SHALL TURN UP AND OFFSET ABOVE BEAM. SEE SECTION ON THIS SHEET FOR DETAILS.
3. (2) 3"ø COMBUSTION AIR PIPES UP TO CONCENTRIC VENT/INTAKE AIR ROOF TERMINATION KIT.

HVAC SYMBOLS LEGEND

- T — THERMOSTAT, MTD +47" AFF
- EF — EXHAUST FAN
- SECTION "A"–"A"
- B — REMOTE BULB SENSOR
- D — DUCT SMOKE DETECTOR
- TRANSITION
- TURNING VANE
- 45° BRANCH DUCT TAKE–OFF
- FIRE DAMPER
- VOLUME CONTROL DAMPER
- RETURN REGISTER
- SUPPLY DIFFUSER
- RETURN AIR GRILLE
- SUPPLY REGISTER
- DUCTWORK TRANSITION
- ROOF MTD. EXH. FAN
- DUCT TURN DOWN
- DUCT TURN UP
- FLEXIBLE DUCT

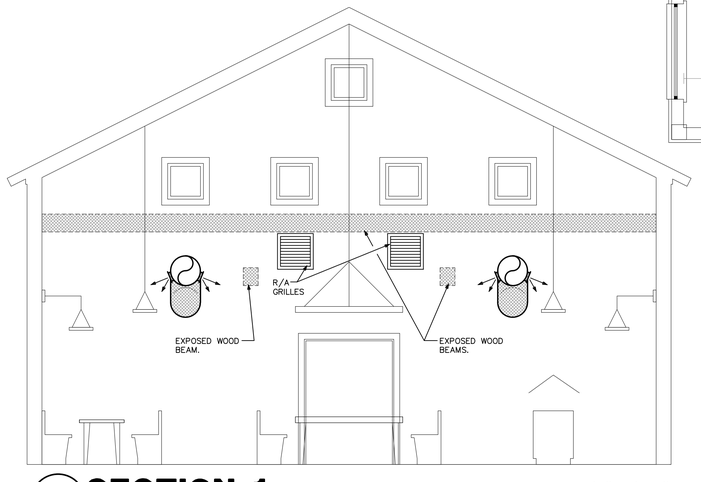


NOTE:
EXPOSED ROUND DUCTWORK SHALL BE "SPIROSAFE" NON–INSULATED SINGLE WALL SPIRAL DUCTS AS MANUFACTURED BY LINDAB, INC. http: //www.lindabusa.com OR APPROVED EQUAL. THE ROUND DUCT SYSTEM SHALL CONSIST OF FITTINGS THAT ARE FITTED WITH A SEALING GASKET AND SPIRAL DUCT WHICH, WHEN INSTALLED ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS, WILL SEAL THE DUCT JOINTS WITHOUT THE USE OF DUCT SEALER.

1 FLOOR PLAN - MECHANICAL
SCALE: 1/4"=1'–0"

AIR BALANCE SCHEDULE

OUTSIDE	OUTSIDE AIR	RETURN AIR	SUPPLY AIR	EXHAUST AIR	RESULTING PRESSURES
AHU #1	510 (23%)	1690	2200		+510
AHU #2	510 (23%)	1690	2200		+510
AHU #3	510 (23%)	1690	2200		+510
EF–1 (HOOD 1)				1544	–1544
EF–2 (HOOD 2)				3035	–3035
EF–3 (HOOD 3)				2490	–2490
EF–4 (HOOD 4)				525	–525
EF–5 (TLT. RM.)				190	–190
EF–6 (TLT. RM.)				190	–190
SF–1 (HOOD 1,2,3)	5647				+5647
TOTAL	7177	5070	6600	7974	–797



2 SECTION 1
SCALE: 1/4"=1'–0"

H.V.A.C. ABBREVIATION LEGEND

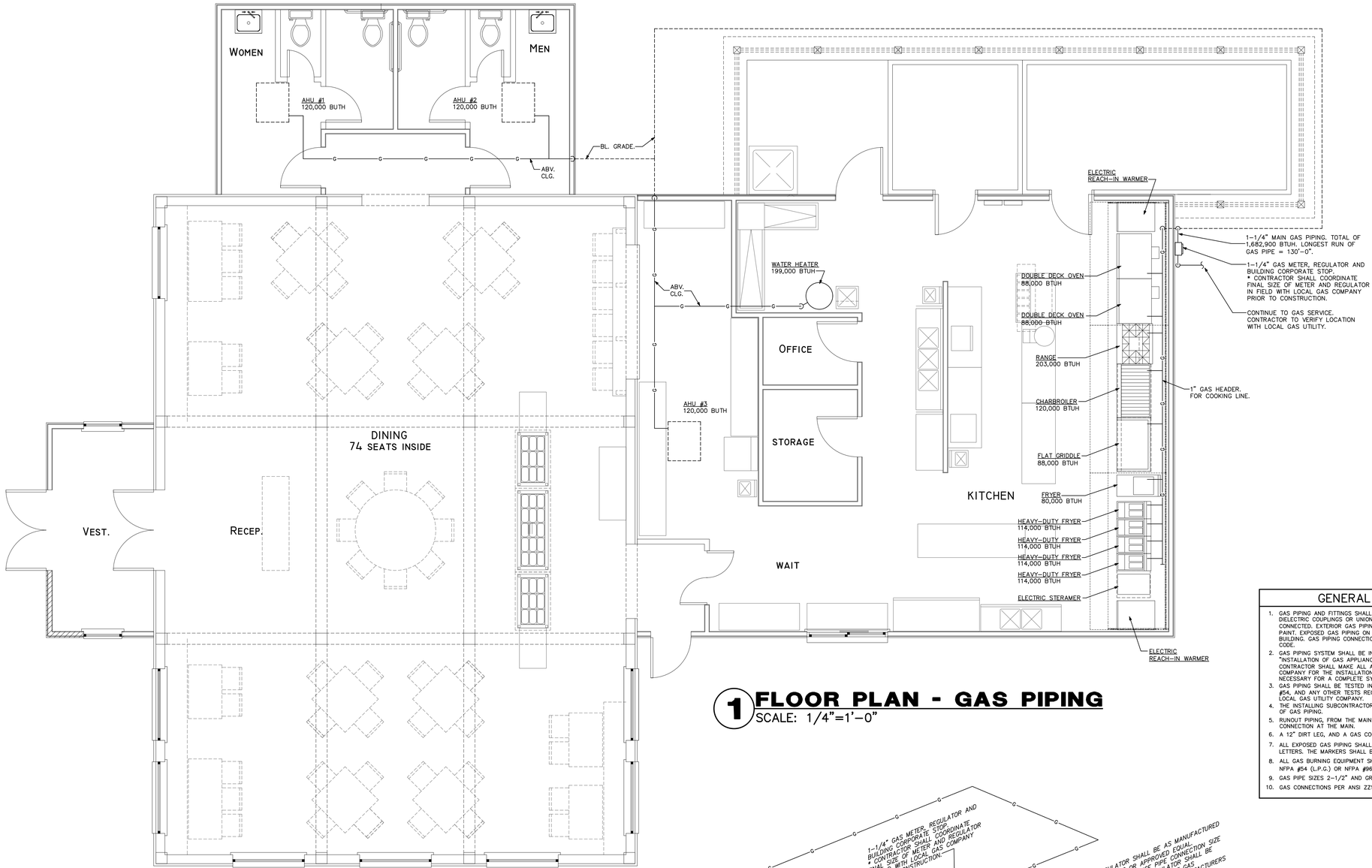
A/C AIR CONDITIONER	REV. REVISION	A.H.U. AIR HANDLING UNIT
DN. DOWN	N.T.S. NOT TO SCALE	D.G. DOOR GRILLE
EXH. EXHAUST	MFGR. MANUFACTURER	F.I.D. FIRE DAMPER
EXT. EXTERIOR	R/A RETURN AIR	DISP. DISPOSABLE
E.F. EXHAUST FAN	GR. GRILLE	V.C.D. VOLUME CONTROL DAMPER
A.F.F. ABOVE FINISH FLOOR	C.D. CEILING DIFFUSER	F/A FRESH AIR
F.F. FINISH FLOOR	REG. REGISTER	S.P. SAFE PAN
TYP. TYPICAL	C.U. CONDENSING UNIT	CD. CONDENSATE DRAIN

AIR COOLED AIR CONDITIONING UNIT SCHEDULE

CONDENSING UNIT									INDOOR UNIT							
CU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CAPACITY COOLING	TOTAL CAPACITY HEATING	COMP. RLA	VOLTAGE	MOCP	EER/SEER	WEIGHT	AHU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CFM	FAN FLA	BLOWER SPEED	VOLTAGE	WEIGHT	NOTES
CU #4	(1) MITSUBISHI MUZ–GE09NA	9,000	10,900	6.6	208V/1ø	15A	EER 13.6	66 lbs.	A/C #4	(1) MITSUBISHI MSZ–GE09NA	230	0.76	MED.	208V/1ø	22 lbs.	1,2,3

SPECIFIC NOTES:
1) SIZE AND RUN REFRIGERANT PIPING AS PER MANUFACTURERS PUBLISHED RECOMMENDATIONS.
2) INSULATE REFRIGERANT SUCTION LINE WITH 3/4" ARMAFLEX OR APPROVED EQUAL.
3) POWER SUPPLY IS TO OOUTDOOR UNIT, INTERCONNECTING WIRING FROM OUTDOOR UNIT TO INDOOR UNIT. REFER TO ELECTRICAL PLANS FOR CONTROL.

NOTE:
REFER TO SHEET M–3 FOR OTHER MECHANICAL EQUIPMENT SCHEDULES.



1 FLOOR PLAN - GAS PIPING

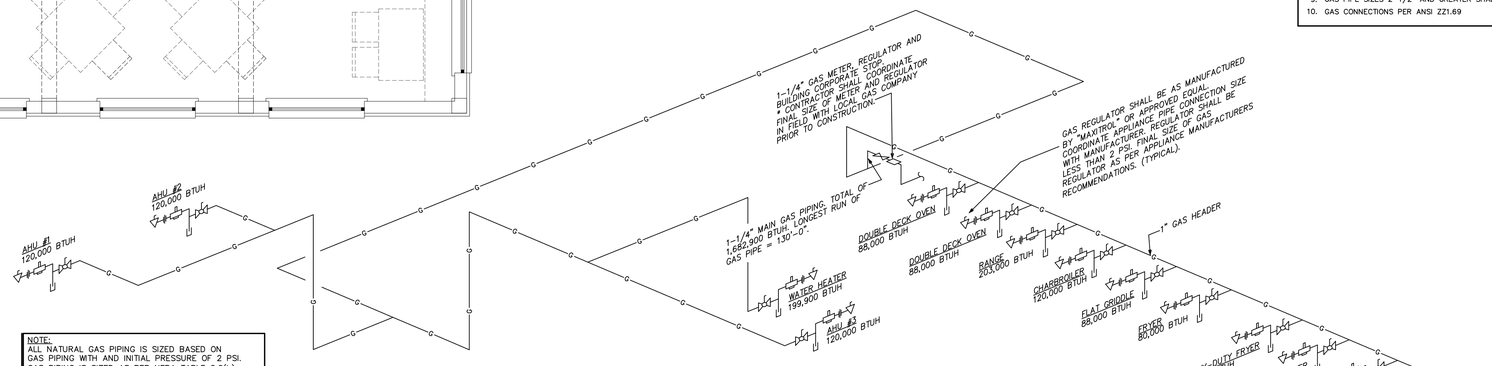
SCALE: 1/4"=1'-0"

GENERAL GAS PIPING NOTES

1. GAS PIPING AND FITTINGS SHALL BE SEAMLESS BLACK STEEL WITH MALLEABLE IRON FITTINGS. DIELECTRIC COUPLINGS OR UNIONS SHALL BE UTILIZED WHEN PIPING OF DISSIMILAR METAL IS CONNECTED. EXTERIOR GAS PIPING ON ROOF SHALL BE PAINTED WITH YELLOW "RUSTOLEUM" PAINT. EXPOSED GAS PIPING ON BACK WALL SHALL BE "RUSTOLEUM", PAINTED TO MATCH BUILDING. GAS PIPING CONNECTIONS SHALL BE THREADED UNLESS OTHERWISE REQUIRED BY CODE.
2. GAS PIPING SYSTEM SHALL BE INSTALLED TO THE REQUIREMENTS OF THE AGA PAMPHLET "INSTALLATION OF GAS APPLIANCES AND GAS PIPING" AND THE NFPA STANDARD #54. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND PAY ALL FEES WITH THE "LOCAL" GAS COMPANY FOR THE INSTALLATION OF THE GAS METER, GAS SERVICE, AND ITS ACCESSORIES NECESSARY FOR A COMPLETE SYSTEM.
3. GAS PIPING SHALL BE TESTED IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN NFPA #54, AND ANY OTHER TESTS REQUIRED BY THE LOCAL BUILDING DEPARTMENT AND/OR THE LOCAL GAS UTILITY COMPANY.
4. THE INSTALLING SUBCONTRACTOR SHALL BE LICENSED BY THE STATE FOR THE INSTALLATION OF GAS PIPING.
5. RUNOUT PIPING, FROM THE MAIN PIPING TO APPLIANCES, SHALL BE WITH AN INVERTED TRAP CONNECTION AT THE MAIN.
6. A 12" DIRT LEG, AND A GAS COCK, SHALL BE PROVIDED AT ALL GAS APPLIANCES.
7. ALL EXPOSED GAS PIPING SHALL BE IDENTIFIED BY A YELLOW LABEL MARKED "GAS" IN BLACK LETTERS. THE MARKERS SHALL BE AT INTERVALS NOT EXCEEDING 5'.
8. ALL GAS BURNING EQUIPMENT SHALL BE INSTALLED PER NFPA #58, NFPA #54 (L.P.G.) OR NFPA #96 (COMMERCIAL COOKING EQUIPMENT).
9. GAS PIPE SIZES 2-1/2" AND GREATER SHALL BE WELDED, IF REQUIRED BY CODE.
10. GAS CONNECTIONS PER ANSI Z21.69

GAS PIPE LEGEND

	BALL VALVE
	DRIP LEG
	REGULATOR/OPD AS REQUIRED
	UNION
	QUICK DISCONNECT



NOTE:
ALL NATURAL GAS PIPING IS SIZED BASED ON GAS PIPING WITH AND INITIAL PRESSURE OF 2 PSI. GAS PIPING IS SIZED AS PER NFPA TABLE 6.2(b).
* CONTRACTOR SHALL VERIFY FINAL GAS PRESSURES AND CONNECTIONS IN FIELD WITH LOCAL GAS COMPANY.

2 GAS PIPING ISOMETRIC

NO SCALE

EXHAUST FAN INFORMATION – Job#1985725

FAN UNIT NO.	TAG	FAN UNIT MODEL #	CFM	ESP.	RPM	H.P.	ø	VOLT	FLA	WEIGHT (LBS.)	SONES
EF-1		NCA10FA	1544	0.700	1291	0.500	3	208	1.8	114	13.8
EF-2		NCA16FA	3025	0.900	1049	1.500	3	208	4.7	167	12.6
EF-3		NCA14FA	2490	0.800	1280	1.000	3	208	3.3	141	17.1
EF-4		DU30HFA	525	0.700	1332	0.250	1	115	4.0	62	9.3

CURB ASSEMBLIES

NO.	ON FAN	WEIGHT	ITEM	SIZE
SF-1	SF-1	42 LBS	Curb	31.000"W x 31.000"L x 15.000"H 5.000:12.000 Pitch
EF-4	EF-4	18 LBS	Curb	19.500"W x 19.500"L x 14.000"H 5.000:12.000 Pitch

MUA FAN INFORMATION – Job#1985725

FAN UNIT NO.	TAG	FAN UNIT MODEL #	BLOWER	HOUSING	CFM	ESP.	RPM	H.P.	ø	VOLT	FLA	WEIGHT (LBS.)	SONES
SF-1		A2-G15	G15-PB	A2	5647	0.750	769	5.000	3	208	15.0	432	15.7

FAN OPTIONS

FAN UNIT NO.	TAG	OPTION (Qty. – Descr.)
EF-1		1 – Grease Box
		1 – Wallmount 20.5" sq. x 2"
EF-2		1 – Grease Box
		1 – Wallmount 27.5 sq. x 2"
EF-3		1 – Grease Box
		1 – Wallmount 24.25" sq. x 2"
EF-4		1 – Grease Box

FAN ACCESSORIES

FAN UNIT NO.	TAG	EXHAUST			SUPPLY			
		GREASE CUP	GRAVITY DAMPER	WALL MOUNT	SIDE DISCHARGE	GRAVITY DAMPER	MOTORIZED DAMPER	WALL MOUNT
EF-1				YES				
EF-2				YES				
EF-3				YES				

ELECTRICAL PACKAGES – Job#1985725

NO.	TAG	PACKAGE #	LOCATION	SWITCHES		OPTION	FANS CONTROLLED				
				LOCATION	QUANTITY		TYPE	ø	H.P.	VOLT	FLA
1		SC-331110FP	Wall Mount In SS Box	Face Mount Left Side Hood	1 Light	Smart Controls Thermostatic Control	Exhaust	3	0.500	208	1.8
							Exhaust	3	1.500	208	4.7
				Hood # 1	1 Fan		Exhaust	3	1.000	208	3.3
							Supply	3	5.000	208	15.0

HOOD PREWIRE PACKAGE WIRING INFORMATION

GENERAL MECHANICAL NOTES

1. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE SYSTEM IN ACCORDANCE WITH THESE DRAWINGS, THE APPLICABLE BUILDING CODE AND ALL OTHER APPLICABLE STATE, COUNTY AND LOCAL ORDINANCES AND THE LATEST ADDITION OF THE FOLLOWING PUBLICATIONS; SMACNA, ASHRAE, NFPA 90A, 90B, 91 & ANSI B-9.1 ALL DUCTWORK SHALL BE FABRICATED, INSTALLED AND SUPPORTED AS PER SMACNA STANDARDS.
2. THE CONTRACTOR SHALL PAY ALL COSTS OF PERMIT, INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.
3. THE CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WORK WITH OTHER TRADES. TO INSURE AN ORDERLY PROGRESS OF THIS WORK.
4. THE CONTRACTOR SHALL SUPPLY THE OWNER WITH ONE SET OF "AS-BUILT" DRAWINGS UPON COMPLETION OF THIS PROJECT. CONTRACTOR SHALL ALSO LEAVE FOR ONE AT LEAST ONE SET OF THE MANUFACTURER'S INSTALLATION AND OPERATIONS MANUALS FOR ALL EQUIPMENT PROVIDED ON THE PROJECT.
5. ALL PROVIDED MATERIALS SHALL BE NEW OF GOOD QUALITY. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY SKILLED WORKMAN.
6. CONTRACTOR SHALL SUBMIT, FOR APPROVAL FIVE [5] COPIES OF MANUFACTURER'S DRAWINGS FOR EACH PIECE OF EQUIPMENT AND CONTROLS INCLUDED IN CONTRACT. IT IS STRONGLY PREFERRED THAT THE SUBMITTALS BE MADE IN THE FORM OF AN ELECTRONIC SUBMITTAL IN A PDF TYPE FORMAT.
7. ALL SUPPLY AND RETURN AIR DUCTWORK SHALL BE GALVANIZED SHEET STEEL EXTERNALLY WRAPPED WITH WITH A MIN. OF R5 INSULATION OR R8 IF DUCTWORK IS LOCATED EXTERIOR TO BLDG INSULATION ENVELOPE. ALL FLEX DUCT SHALL BE "THERMOFLEX" OR APPROVED EQUAL AND SHALL HAVE EQUIVALENT INSULATION. * ALL EXPOSED DUCTWORK IN DINING AREA SHALL BE SINGLE WALL SPIRAL DUCT. REFER TO PLAN FOR SPECIFICATIONS.
8. ALL EXHAUST DUCTS AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL WITH SEALED SEAMS AND JOINTS.
9. DUCT SIZES SHOWN ARE INSIDE DIMENSIONS.
10. ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION WITH EXPOSED SURFACE OFF WHITE BAKED ENAMEL FINISH OR AS SPECIFIED BY ARCHITECT. DEVICES SHALL BE TITUS, METALAIRE, AIRGUIDE. PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS.
11. THERMOSTAT SHALL BE COMBINATION COOLING/HEATING, WITH SYSTEM "COOL-AUTO-HEAT-OFF" AND FAN "ON-AUTO" SELECTOR SWITCHES. PROVIDE PROGRAMMABLE TYPE THERMOSTAT. * CONTRACTOR SHALL FULLY INSTRUCT OWNER ON HOW TO PROPERLY PROGRAM INSTALLED THERMOSTATS. * PROGRAMMABLE THERMOSTAT SHALL BE BY MANUFACTURER OF INSTALLED AIR HANDLING UNIT. IT IS RECOMMENDED THAT DURING OCCUPIED HOURS, THE FANS BE SET TO "ON" IN LIEU OF "AUTO". * THERMOSTATS SHALL BE MOUNTED A MAX. OF 48" A.F.F.
12. REFRIGERANT LINES SHALL BE COPPER, TYPE "L" HARD DRAWN WITH WROUGHT COPPER SOLDER-JOINT TYPE FITTINGS, USE 95/5 SOLDER. REFRIGERANT LINES SHALL SIZED AS PER MANUFACTURER RECOMMENDATIONS.
13. SPLIT SYSTEMS (IF APPLICABLE) SHALL HAVE ARMAFLEX 3/4" INSULATION (OR APPROVED EQUAL) USED FOR SUCTION LINES. INSTALLATION SHALL BE AS PER MANUFACTURERS INSTRUCTIONS. PRE-INSULATED LINES SETS ARE ACCEPTABLE.
14. ALL BRANCH TAKE-OFFS TO BE PROVIDED W/MANUAL VOLUME DAMPERS AND TAPS AS PER PLANS REQUIREMENTS.
15. PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE STARTING THEM. REPLACE THEM PRIOR TO FINAL ACCEPTANCE BY OWNER.
16. PROVIDE SMOKE DETECTORS WITH ACCESS DOORS IN ALL SUPPLY AIR DUCTS FOR FANS AND AHU'S SERVING A COMMON DESIGN SUPPLY OR RETURN PLENUM OF ABOVE 2000 CFM. ALL SMOKE DETECTORS SHALL BE BY ONE MANUFACTURER, COORDINATE VOLTAGE ETC. WITH ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM BEFORE ORDERING. UPON DETECTION, SMOKE DETECTORS SHUT DOWN ASSOCIATED AIR MOVING EQUIPMENT AND ALL AIR MOVING EQUIPMENT SERVING THAT COMMON PLENUM.
17. HVAC CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT FOR ALL MECHANICAL EQUIPMENT, AIR DEVICES, DAMPERS, AHU'S AND FANS. THE T & B SHALL BE IN ACCORDANCE WITH THE AIR BALANCE COUNCIL STANDARDS, AND SHALL INCLUDE AIR QUANTITIES FOR ALL SUPPLY GRILLS, RETURN GRILLS, AND EXHAUST GRILLS, AND THE LEAVING AND ENTERING AIR TEMPERATURE (T) FROM SUPPLY GRILLS AND EVAPORATORS.
18. THERMOSTAT LOCATION SHALL BE APPROVED BY OWNER BEFORE INSTALLATION.
19. ALL INSULATION SHALL HAVE FIRE/SMOKE RATING LESS THAN 25/50.
20. MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCH. PLUMBING, ELECTRICAL AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, BENDS AND TRANSITIONS WILL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
21. CONTRACTOR SHALL INSTALL ALL OUTDOOR EQUIPMENT TO WITHSTAND WIND LOADING FORCES AS REQUIRED BY LOCAL CODES. REFER TO STRUCTURAL PLANS BY OTHERS FOR STRUCTURAL DETAILS.
22. PROVIDE ALL NECESSARY CONTACTORS, RELAYS, ETC., FOR A COMPLETE OPERATING SYSTEM.
23. THROUGHOUT THE COURSE OF THE WORK, MINOR CHANGES AND ADJUSTMENTS TO THE PLANS AND SPECIFICATIONS MAY BE REQUESTED BY THE TENANT. THE CONTRACTOR SHALL MAKE SUCH ADJUSTMENTS WITHOUT ADDITIONAL COST TO THE TENANT, WHERE SUCH ADJUSTMENTS ARE NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE SYSTEMS, AND WITHIN THE INTENT OF THE CONTRACT DOCUMENTS.
24. NOTWITHSTANDING ANY OTHER PROVISIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR BEARS ULTIMATE RESPONSIBILITY FOR COMPLIANCE OF THE INSTALLATION WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
25. IF ANY ERRORS, DISCREPANCIES OR OMISSIONS APPEAR IN THE DRAWINGS, SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH ERROR OR OMISSION. IN THE EVENT OF THE CONTRACTOR FAILING TO GIVE SUCH NOTICE BEFORE CONSTRUCTION AND/OR FABRICATION OF THE WORK, HE WILL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS, DISCREPANCIES OR OMISSIONS AND THE COST OF RECTIFYING SAME.

HOOD INFORMATION – Job#1985725

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	EXHAUST PLENUM RISER(S) TOTAL EXH. CFM	WIDTH	LENG.	DIA.	CFM	S.P.	TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG. END TO END	ROW
1	LEFT	5424 ND-2-PSP-F	9' 1.00"	450 Deg.	1544	10"	14"		1544	-0.274"	1390	430 SS Where Exposed	LEFT	ALONE
2	MIDDLE	5424 ND-2-PSP-F	11' 0.00"	600 Deg.	3025	10"	29"		3025	-0.449"	2265	430 SS Where Exposed	MIDDLE	ALONE
3	RIGHT	5424 ND-2-PSP-F	11' 7.00"	600 Deg.	2490	10"	23"		2490	-0.366"	1992	430 SS Where Exposed	RIGHT	ALONE
4	DISH	4224 VHB-G	3' 6.00"	700 Deg.	525	9"	9"		525	-0.068"	0	304 SS 100%	ALONE	ALONE

HOOD INFORMATION

HOOD NO.	TAG	FILTER(S) TYPE	QTY.	HEIGHT	LENGTH	LIGHT(S) QTY.	TYPE	WIRE GUARD	UTILITY CABINET(S) LOCATION	FIRE SYSTEM TYPE	FIRE SYSTEM SIZE	ELECTRICAL MODEL #	SWITCHES QUANTITY	FIRE SYSTEM PIPING	HOOD HANGING WGHT
1	LEFT	SS Baffle with Handles	3	20"	16"	4	L55 Series E26	NO						YES	579 LBS
			3	20"	20"										
2	MIDDLE	SS Baffle with Handles	5	20"	20"	5	L55 Series E26	NO						YES	668 LBS
			2	20"	16"										
3	RIGHT	SS Baffle with Handles	7	20"	20"	6	L55 Series E26	NO						YES	722 LBS
4	DISH					0								NO	346 LBS

HOOD OPTIONS

HOOD NO.	TAG	OPTION
1	LEFT	FIELD WRAPPER 20.00" High Front
		BACKSPLASH 122.00" High X 382.00" Long 430 SS
		LEFT END STANDOFF 1" Wide 54" Long Insulated
		INSULATION FOR TOP OF HOOD
		INSULATION FOR BACK OF HOOD
2	MIDDLE	FIELD WRAPPER 20.00" High Front
		INSULATION FOR TOP OF HOOD
		INSULATION FOR BACK OF HOOD
3	RIGHT	FIELD WRAPPER 20.00" High Front
		RIGHT END STANDOFF 1" Wide 54" Long Insulated
		INSULATION FOR TOP OF HOOD
		INSULATION FOR BACK OF HOOD

PERFORATED SUPPLY PLENUM(S)

HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	TYPE	RISER(S) WIDTH	LENG.	DIA.	CFM	S.P.
1	LEFT	Front	110"	16"	6"	MUA	12"	28"		695	0.157"
						MUA	12"	28"		695	0.157"
2	MIDDLE	Front	132"	16"	6"	MUA	12"	28"		1132	0.363"
						MUA	12"	28"		1132	0.363"
3	RIGHT	Front	140"	16"	6"	MUA	12"	28"		664	0.168"
						MUA	12"	28"		664	0.168"

OUTSIDE AIR CALCULATIONS

THE FOLLOWING IS BASED ON ASHRAE STANDARD 62.1–2010 FOR OUTSIDE AIR REQUIREMENTS

UNIT LABEL	OCCUPANCY CATAGORY	AREA	ESTIMATED MAX. OCCUPANCY	OUTSIDE AIR REQUIRED (CFM)	E_z	TOTAL
AHU #1&2	DINING	1,460	74 PEOPLE AS PER ARCH. PLANS/7.5 CFM PER PERSON	(74 X 7.5) + (1,460 X .18) = 817 PEOPLE AREA TOTAL	0.8	817/0.8 = 1,021
AHU #3	KITCHEN	1,000	20 PEOPLE PER 1,000 S.F./7.5 CFM PER PERSON	(20 X 7.5) + (1,000 X .12) = 270 PEOPLE AREA TOTAL		
AHU #3	OFFICE	35	5 PEOPLE PER 1,000 S.F./5 CFM PER PERSON	(1X5) + (35 X .06) = 7 PEOPLE AREA TOTAL		
AHU #3	STORAGE	60	0.12 CFM PER SQ. FT.	(N/A) + (60 X .12) = 7 PEOPLE AREA TOTAL		
				AHU #2 TOTAL = 284	0.8	284/0.8 = 355

AHU #1 = 510 CFM
AHU #2 = 510 CFM

FAN SCHEDULE

LABEL	TYPE OF UNIT – AREA SERVED	MANUFACTURER & MODEL NO.	CFM	SP	MOUNTING ARRANGEMENT	MOTOR H.P.	ENCLOSURE TYPE	RPM	VOLTAGE	NOTES
EF-1,2,3,4	REFER TO HOOD DETAILS AND SPECIFICATIONS ON THIS SHEET AND SHEET M-4, M-5		–	–	–	–	–	–	–	
EF-5,6	CABINET FAN – REFER TO PLANS	PENN ZEPHYR Z7	190	.125"	CEILING MOUNTED	68 WATTS	OPEN DRIP PROOF	1640	115V/1ø	1

NOTES: 1.) REFER TO ELECTRICAL PLANS FOR CONTROL.

GAS FURNACE W/SPLIT SYSTEM AIR CONDITIONING SYSTEM SCHEDULE

CONDENSING UNIT

CU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CAPACITY	SENSIBLE CAPACITY	COMP. RLA	FAN FLA	VOLTAGE	MOCP	EER/SEER
CU #1	CARRIER 24ABB360A0050	59,270	43,360	16.0	1.4	208V/3ø	30A	13.0
CU #2	CARRIER 24ABB360A0050	59,270	43,360	16.0	1.4	208V/3ø	30A	13.0
CU #3	CARRIER 24ABB360A0050	59,270	43,360	16.0	1.4	208V/3ø	30A	13.0

EVAPORATOR COIL UNIT

MANUFACTURER & MODEL NO.
CARRIER CNPH 060
CARRIER CNPH 060
CARRIER CNPH 060

GAS FURNACE

AHU LABEL(S)	MANUFACTURER & MODEL NO.	TOTAL CFM	E.S.P.	BLOWER SPEED	FAN HP	VOLTAGE	INPUT BTUH	OUTPUT BTUH	FLUE SIZE	NOTES
AHU #3	CARRIER 59SC2B120S21131422	2,200	.30"	HIGH	1	120V/1ø	120,000	112,000	3"	1 THRU 4
AHU #3	CARRIER 59SC2B120S21131422	2,200	.30"	HIGH	1	120V/1ø	120,000	112,000	3"	1 THRU 4
AHU #3	CARRIER 59SC2B120S21131422	2,200	.30"	HIGH	1	120V/1ø	120,000	112,000	3"	1 THRU 4

GENERAL NOTES:

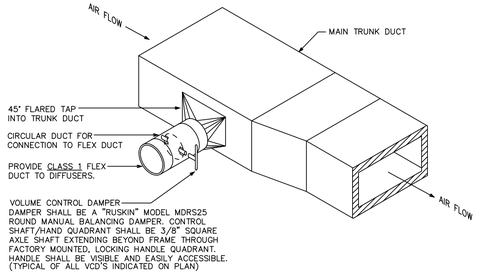
* ALL RATINGS ARE AT ARI ENTERING CONDITIONS UNLESS OTHERWISE NOTED.
* PROVIDE VIBRATION ISOLATION FOR UNITS.
* EXTERNAL STATIC PRESSURE DOES NOT INCLUDE COIL OR FILTER PRESSURE DROP.
* CONTRACTOR MAY SUBSTITUTE MANUFACTURER FOR APPROVED EQUAL. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT ANY CLEARANCE REQUIREMENTS ARE MET FOR ANY SUBSTITUTIONS.

ABBREVIATION LEGEND:

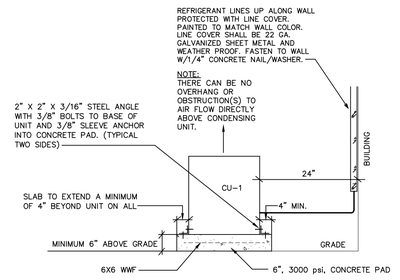
O/A – OUTSIDE AIR
HP – HORSE POWER
RLA – RUNNING LOAD AMPS
FLA – FULL LOAD AMPS
MOCP – MAX. OVERCURRENT PROTECTION (DUAL ELEMENT TYPE FUSE)
E.S.P. – EXTERNAL STATIC PRESSURE
EER – ENERGY EFFICIENCY RATIO
SEER – SEASONAL ENERGY EFF. RATIO

SPECIFIC NOTES:

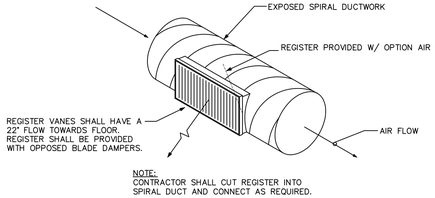
1) SIZE AND RUN REFRIGERANT PIPING AS PER MANUFACTURERS PUBLISHED RECOMMENDATIONS.
2) INSULATE REFRIGERANT SUCTION LINE WITH 2/4" ARMAFLEX OR APPROVED EQUAL.
3) PROVIDE 5 YEAR WARRANTY ON COMPRESSOR AND 1YEAR WARRANTY ON ALL PARTS AND LABOR.
4) FURNACE SHALL BE PROVIDED WITH CONCENTRIC VENT/INTAKE AIR ROOF TERMINATION KIT.



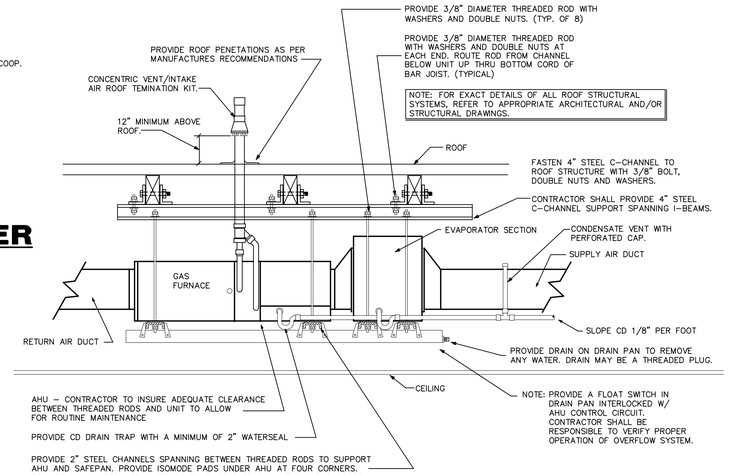
1 BRANCH DUCT DETAIL
NO SCALE



2 COND. UNIT MTG. DETAIL
NO SCALE



3 SPIRAL DUCT / REGISTER CONNECTION DETAIL
NO SCALE



4 AHU MOUNTING DETAIL
NO SCALE

MECHANICAL SYSTEMS, SERVICE SYSTEMS, AND EQUIPMENT METHOD OF COMPLIANCE:
Prescriptive [X] Performance [ ] Energy Cost Budget [ ]

Exterior Design Conditions
winter dry bulb 20° F
summer dry bulb 97° F

Interior Design Conditions
winter dry bulb 68° F
summer dry bulb 74° F
relative humidity 52.9%

Building Heating Load 336,000 BTU
Building Cooling Load 177,810 BTU

Mechanical Spacing Conditioning System
Unitary
Description of unit REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
heating efficiency REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
cooling efficiency REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
heat output of unit REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
cooling output of unit REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.

Boiler N/A
total boiler output. If oversized, state reason.

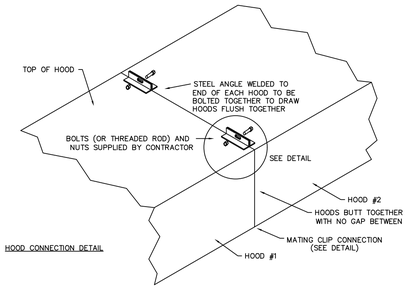
Chiller N/A
total chiller capacity. If oversized, state reason.

List equipment efficiencies

Equipment schedules with motors (mechanical systems) REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
motor horsepower REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
number of phases REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
minimum efficiency REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
motor type REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.
# of poles REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.

DESIGNER STATEMENT:[1]
To the best of my knowledge and belief, the design of this building complies with the mechanical systems, service systems and equipment requirements of IECC (International Energy Conservation Code) 2009 Edition W/2012 Amendments.

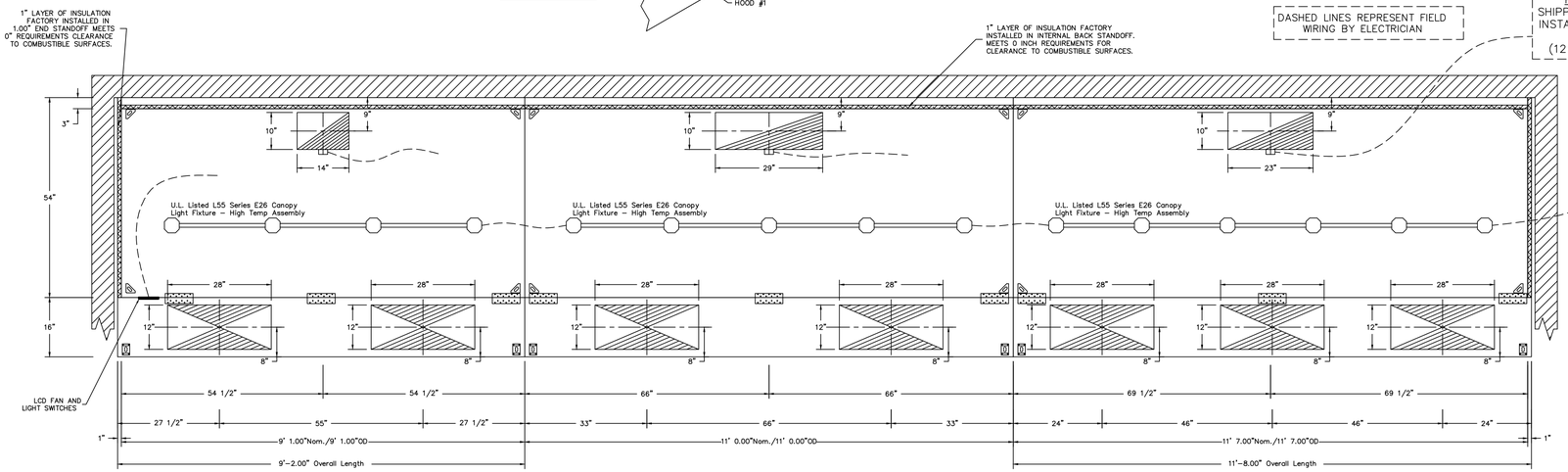
SIGNED:
NAME:
TITLE:



HOOD CONNECTION DETAIL

CAPTIVE–AIRE HOODS ARE BUILT IN COMPLIANCE WITH

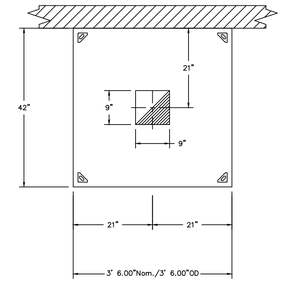
NFPA #96
NSF
UL 710 & ULC710 STANDARDS
E.T.L. LISTED 3054804–001



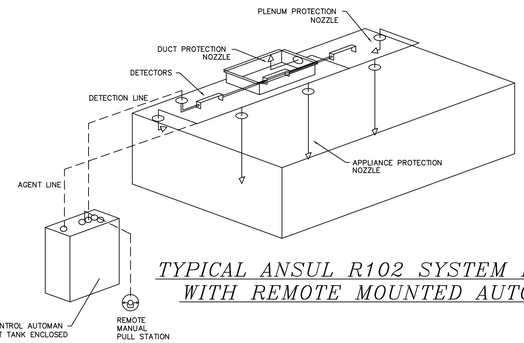
PLAN VIEW – Hood #1 (LEFT)
9' 1.00" LONG 5424ND–2–PSP–F

PLAN VIEW – Hood #2 (MIDDLE)
11' 0.00" LONG 5424ND–2–PSP–F

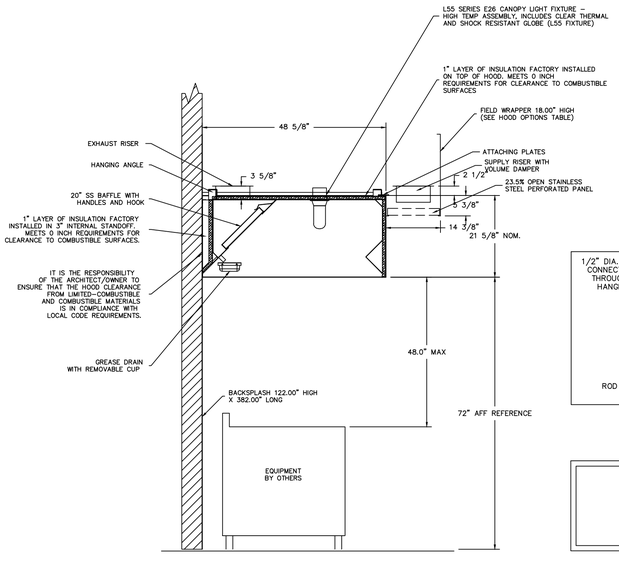
PLAN VIEW – Hood #3 (RIGHT)
11' 7.00" LONG 5424ND–2–PSP–F



PLAN VIEW – Hood #4 (DISH)
3' 6.00" LONG 4224VHB–G

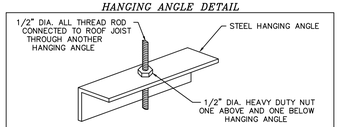


TYPICAL ANSUL R102 SYSTEM LAYOUT
WITH REMOTE MOUNTED AUTOMAN



CEILING HEIGHT
10'–2"

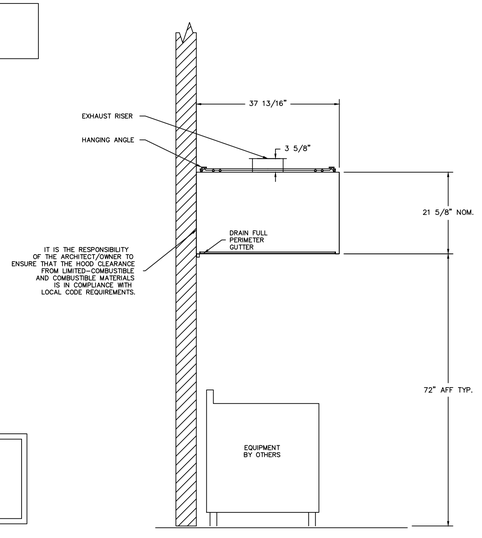
HANGING ANGLE DETAIL



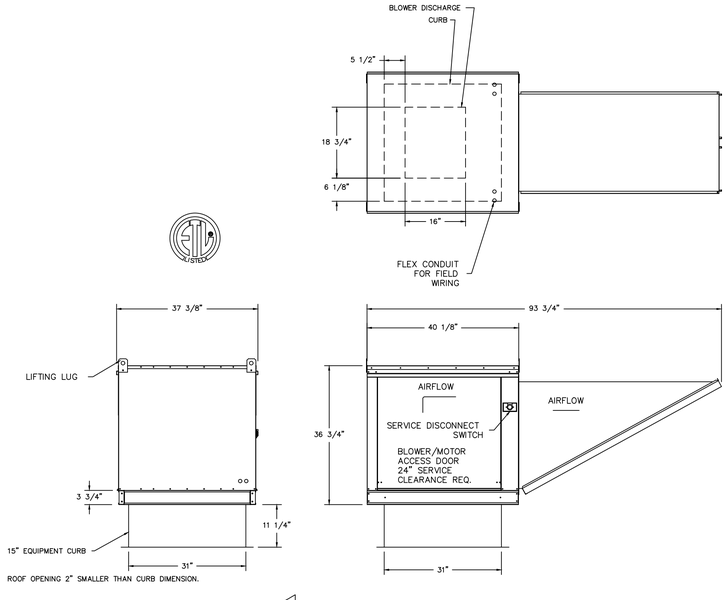
ROD AND NUTS TO BE SUPPLIED BY INSTALLING CONTRACTOR
HANGING ANGLE IS PRE–PUNCHED AT FACTORY

FOR QUESTIONS, CALL THE
CHARLOTTE, NORTH CAROLINA OFFICE
EVAN ZIPPERER
PHONE: 919–719–7636
EMAIL: reg30@captiveaire.com

SECTION VIEW – MODEL 5424ND–2–PSP–F
HOOD – #1, #2, #3

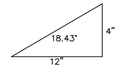


SECTION VIEW – MODEL 4224VHB–G
HOOD – #4 (DISH)



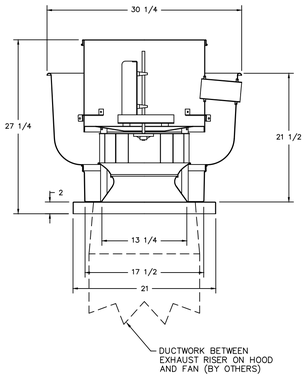
PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

EXAMPLE: 4/12 PITCH = 18.43° SLOPE



SF–1 A2–G15 – SUPPLY FAN

1. UNTEMPERED SUPPLY UNIT WITH 15" BLOWER IN SIZE #2 HOUSING
2. INTAKE HOOD WITH EZ FILTERS
3. DOWN DISCHARGE – AIR FLOW RIGHT –> LEFT



FEATURES:

- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762
- AMCA SOUND AND AIR CERTIFIED
- WIRING FROM MOTOR TO DISCONNECT SWITCH
- WEATHERPROOF DISCONNECT
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

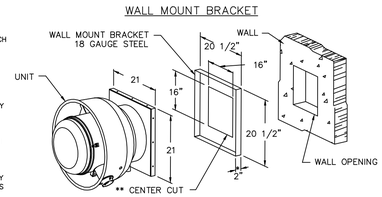
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

GREASE BOX
WALLMOUNT 20.5" SQ. X 2"

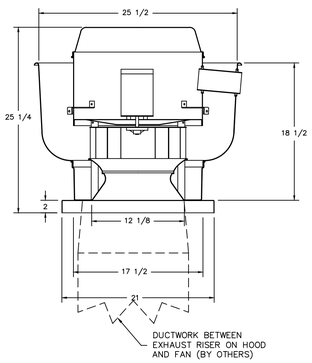
WALL MOUNT BRACKET



- WALL BRACKET FITS INTO BASE OF FAN
- SELF DRILLING SCREWS SHOULD BE USED FOR UNIT ATTACHMENT TO WALL MOUNT BRACKET

* DIMENSION = 5" WHEN USED WITH DAMPER
** CENTERED IN WALL MOUNT

EF-1 NCA10FA - EXHAUST FAN



FEATURES:

- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762
- VARIABLE SPEED CONTROL
- INTERNAL WIRING
- WEATHERPROOF DISCONNECT
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE)
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

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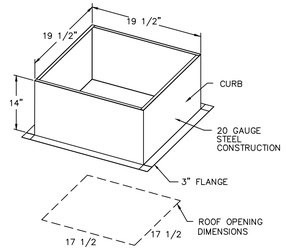
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

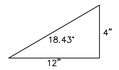
OPTIONS

GREASE BOX



PITCHED CURBS ARE AVAILABLE FOR PITCHED ROOFS.

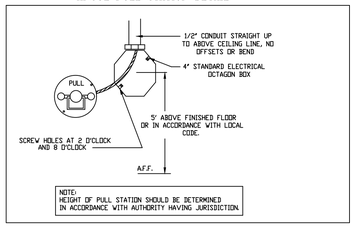
EXAMPLE: 4/12 PITCH = 18.43° SLOPE



EF-4 DU30HFA - EXHAUST FAN

NOTE:
AS PER NFPA 17A, PULL STATION SHALL BE NO LESS THAN 10' FROM HOOD AND NOT FARTHER THAN 20' FROM HOOD AND MUST BE LOCATED IN PATH OF EGRESS.

ANSUL PULL STATION DETAIL



EXPOSED REMOTE FIRE PROTECTION PULL STATION DETAIL

FEATURES:

- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762
- AMCA SOUND AND AIR CERTIFIED
- WIRING FROM MOTOR TO DISCONNECT SWITCH
- WEATHERPROOF DISCONNECT
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

GREASE BOX
WALLMOUNT 27.5 SQ. X 2"

WALL MOUNT BRACKET

- WALL BRACKET FITS INTO BASE OF FAN
- SELF DRILLING SCREWS SHOULD BE USED FOR UNIT ATTACHMENT TO WALL MOUNT BRACKET

* DIMENSION = 5" WHEN USED WITH DAMPER
** CENTERED IN WALL MOUNT

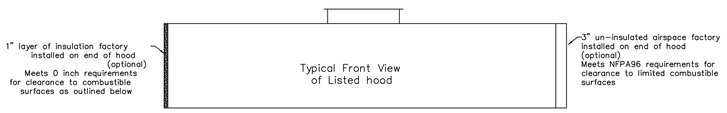
EF-2 NCA16FA - EXHAUST FAN

TOP CLEARANCE REDUCTION OPTIONS

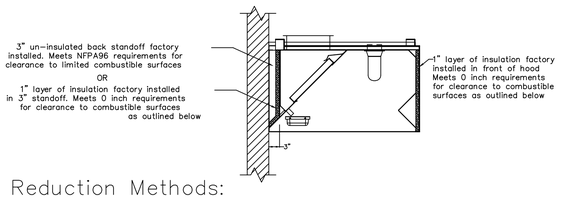
1" layer of insulation factory installed on top of hood (optional)
Meets 0 inch requirements for clearance to combustible surfaces as outlined below

3" un-insulated airspace factory installed on top of hood (optional)
Meets NFPA96 requirements for clearance to limited combustible surfaces

END CLEARANCE REDUCTION OPTIONS

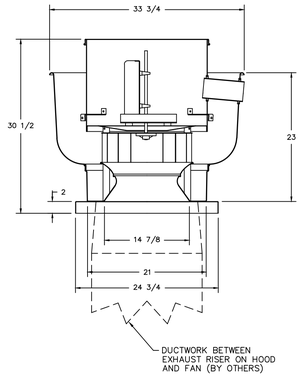


BACK & FRONT CLEARANCE REDUCTION OPTIONS



EXHAUST HOOD NOTES

1. EXHAUST HOODS SHALL BE CONSTRUCTED OF 18 GAUGE 430 STAINLESS STEEL FOR ALL SURFACES EXPOSED TO THE AIRSTREAM AND 18 GAUGE GALVANIZED STEEL FOR OTHER SURFACES. ALL SEAMS AND JOINTS SHALL HAVE A LIQUID TIGHT U.L. APPROVED CONTINUOUS EXTERNAL WELD.
2. ENTIRE SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH NATIONAL SANITATION FOUNDATION STANDARDS, NFPA-96, NFPA-17-A, AND ALL GOVERNING CODES.
3. EXHAUST HOODS SHALL BE PROVIDED WITH A ANSUL R-102 AUTOMATIC FIRE EXTINGUISHING SYSTEM FOR PROTECTION OF THE EXHAUST HOOD, PLENUM, GREASE FILTERS, EXHAUST DUCT AND COOKING EQUIPMENT. THE SYSTEM SHALL EMPLOY A LIQUID CHEMICAL EXTINGUISHMENT. THE SYSTEM SHALL BE ARRANGED TO SHUT OFF THE SOURCE OF COOKING HEAT AUTOMATICALLY UPON SYSTEMS OPERATION. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH NFPA-96, NFPA-17-A AND ACCORDING TO MANUFACTURERS PRINTED INSTALLATION PROCEDURES. EACH HOOD SHALL HAVE A SEPARATE FIRE EXTINGUISHING SYSTEM WHICH WILL OPERATE EFFECTIVELY WITH OR WITHOUT FANS OPERATING.
4. THE INSTALLER OF THE EXHAUST HOOD AUTOMATIC FIRE EXTINGUISHING SYSTEM SHALL BRIEF OWNER IN ITS OPERATION.
5. EXHAUST AND SUPPLY FANS OF EACH HOOD SHALL BE INTERLOCKED. PROVIDE ONE LIGHT SWITCH AND ONE FAN SWITCH ON THE FACE OF EACH GREASE HOOD.
6. GREASE FILTERS TO BE THE GREASE ELIMINATOR SELF BALANCING TYPE U.L. APPROVED.
7. EXHAUST HOOD DUCTWORK OFFSETS TO GREASE EXHAUST FANS FROM HOOD LOCATION SHALL BE MADE WITH (2) - 45° ELBOWS. TRANSITION TO FULL SIZE OF FAN CONNECTION AT CURB.
8. U.L. RANGE HOOD: MATERIAL: 18 GAUGE STAINLESS STEEL CONSTRUCTION ON EXPOSED SURFACES 18 GA. GALV. ON EXH. PLENUM ALL CONTINUOUS EXTERNAL LIQUID TIGHT WELDS, POLISHED. FILTERS UL CLASSIFIED BAFFLE TYPE. SET IN HOOD @ 45 DEGREE ANGLE, INCANDESCENT LIGHT FIXTURES UL LISTED FOR USE IN COMMERCIAL COOKING HOODS. GREASE TRAY BELOW FILTERS WITH REMOVE- ABLE GREASE CONTAINER, LIQUID VOLUME LESS THAN 1 QUART. ALL IN COMPLIANCE WITH NFPA #96 AND LOCAL BUILDING CODES.
9. RANGE HOOD EXHAUST DUCTS MATERIAL: 16 GAUGE GALVANIZED STEEL. CONSTRUCTION, ALL CONTINUOUS LIQUID TIGHT EXTERNAL WELDS. DUCTS TO SLOPE TOWARD HOOD. CLEANING ACCESS AT CHANGE IN DIRECTION OF DUCT RUN EXCEPT AT HOOD COLLAR.
10. RANGE HOOD SUPPLY DUCTS MATERIAL: 22 GALVANIZED SHEET METAL. GAUGES, HANGING AND REINFORCING PER SMACNA STANDARDS.



FEATURES:

- ROOF MOUNTED FANS
- RESTAURANT MODEL
- UL705 AND UL762
- AMCA SOUND AND AIR CERTIFIED
- WIRING FROM MOTOR TO DISCONNECT SWITCH
- WEATHERPROOF DISCONNECT
- HIGH HEAT OPERATION 300°F (149°C)
- GREASE CLASSIFICATION TESTING

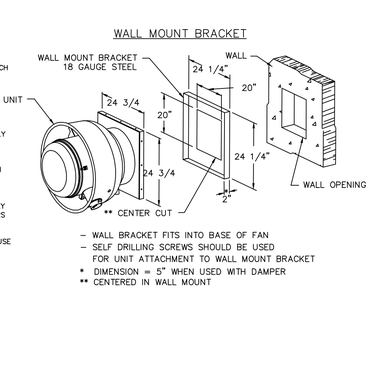
NORMAL TEMPERATURE TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING AIR AT 300°F (149°C) UNTIL ALL FAN PARTS HAVE REACHED THERMAL EQUILIBRIUM, AND WITHOUT ANY DETERIORATING EFFECTS TO THE FAN WHICH WOULD CAUSE UNSAFE OPERATION.

ABNORMAL FLARE-UP TEST
EXHAUST FAN MUST OPERATE CONTINUOUSLY WHILE EXHAUSTING BURNING GREASE VAPORS AT 600°F (316°C) FOR A PERIOD OF 15 MINUTES WITHOUT THE FAN BECOMING DAMAGED TO ANY EXTENT THAT COULD CAUSE AN UNSAFE CONDITION.

OPTIONS

GREASE BOX
WALLMOUNT 24.25" SQ. X 2"

WALL MOUNT BRACKET



- WALL BRACKET FITS INTO BASE OF FAN
- SELF DRILLING SCREWS SHOULD BE USED FOR UNIT ATTACHMENT TO WALL MOUNT BRACKET

* DIMENSION = 5" WHEN USED WITH DAMPER
** CENTERED IN WALL MOUNT

EF-3 NCA14FA - EXHAUST FAN

Clearance Reduction Methods:

Clearance reduction methods have been evaluated and tested and are certified by ETL. The method of test was derived from UL 710 with temperature criteria taken from appropriate standards.

The hood may be installed with a 0 inch clearance to combustible materials per ETL if constructed in one of the following methods:
1 inch thick min. layer of insulation of type Owens Corning Type 475 or Johns Manville Type 475 or listed kitchen exhaust duct insulation.
1 inch thick min. insulated backsplash. Insulation of type listed above.
Back Return (BR) supply plenum with 1 inch thick min. insulation of type listed above.

To comply with the ETL certification, the cooking appliance must be located:
At least 6 inches from the rear wall.
At least 24 inches below the bottom edge of the hood.
Cooking surface must not exceed temperatures above 700°F.

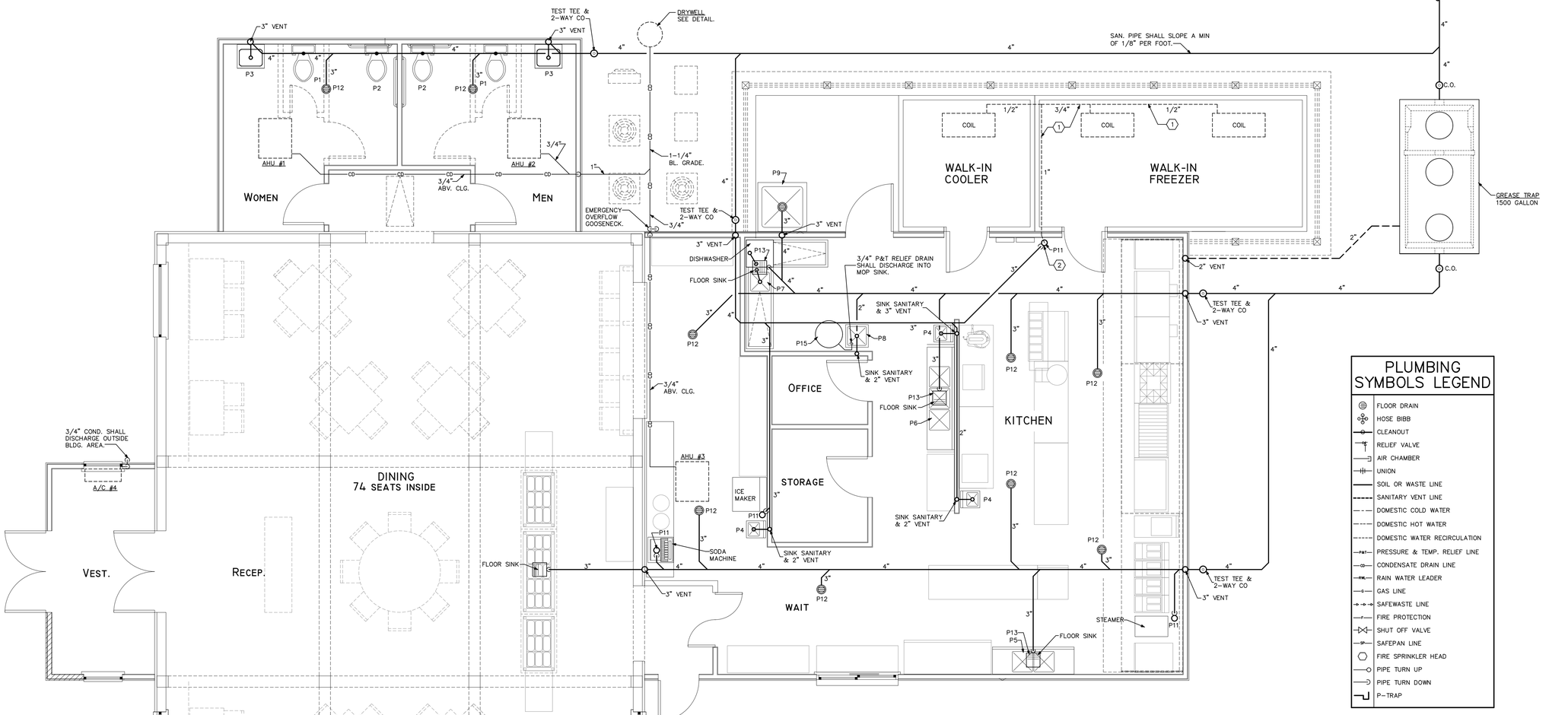
The hood may be installed with a 3 inch clearance to limited combustible materials per NFPA96 if constructed in one of the following methods:
3 inch factory installed rear un-insulated standoff.
3 inch factory installed top wrapper or enclosure panel system.
3 inch factory installed end standoff

PLUMBING ABBREVIATION LEGEND

DN.	DOWN	C.C.	CENTER TO CENTER	F.U.	FIXTURE UNITS
EXT.	EXTERIOR	N.T.S.	NOT TO SCALE	H.B.	HOSE BIBBS
F.D.	FLOOR DRAIN	MFGR.	MANUFACTURER	C.O.	CLEANOUT
F.F.	FINISH FLOOR	S.O.V.	SHUT OFF VALVE	E.W.H.	ELECTRIC WATER HEATER
A.F.F.	ABOVE FINISH FLOOR	W.C.	WATER CLOSET	JAN.SK.	JANITOR SINK
V.T.R.	VENT THRU ROOF	LAV.	LAVORATORY	P & T	PRESSURE & TEMPERATURE
TYP.	TYPICAL	SK.	SINK	RWL.	RAIN WATER LEADER
R.D.	ROOF DRAIN	D.W.	DISH WASHER		
REV.	REVISION	E.D.F.	ELECTRIC DRINKING FOUNTAIN		
O.C.	ON CENTER	UR.	URINAL		

SPECIFIC PLUMBING NOTES

1. COPPER CONDENSATE LINE (WRAP W/ HEAT TAPE & INSULATION) TO FLOOR DRAIN. CONNECT TO FLOOR DRAIN VIA A MIN. 2" AIR GAP CONNECTION.
2. 1" COPPER CONDENSATE LINE TO FLOOR DRAIN. CONNECT TO FLOOR DRAIN VIA A MIN. 2" AIR GAP CONNECTION.



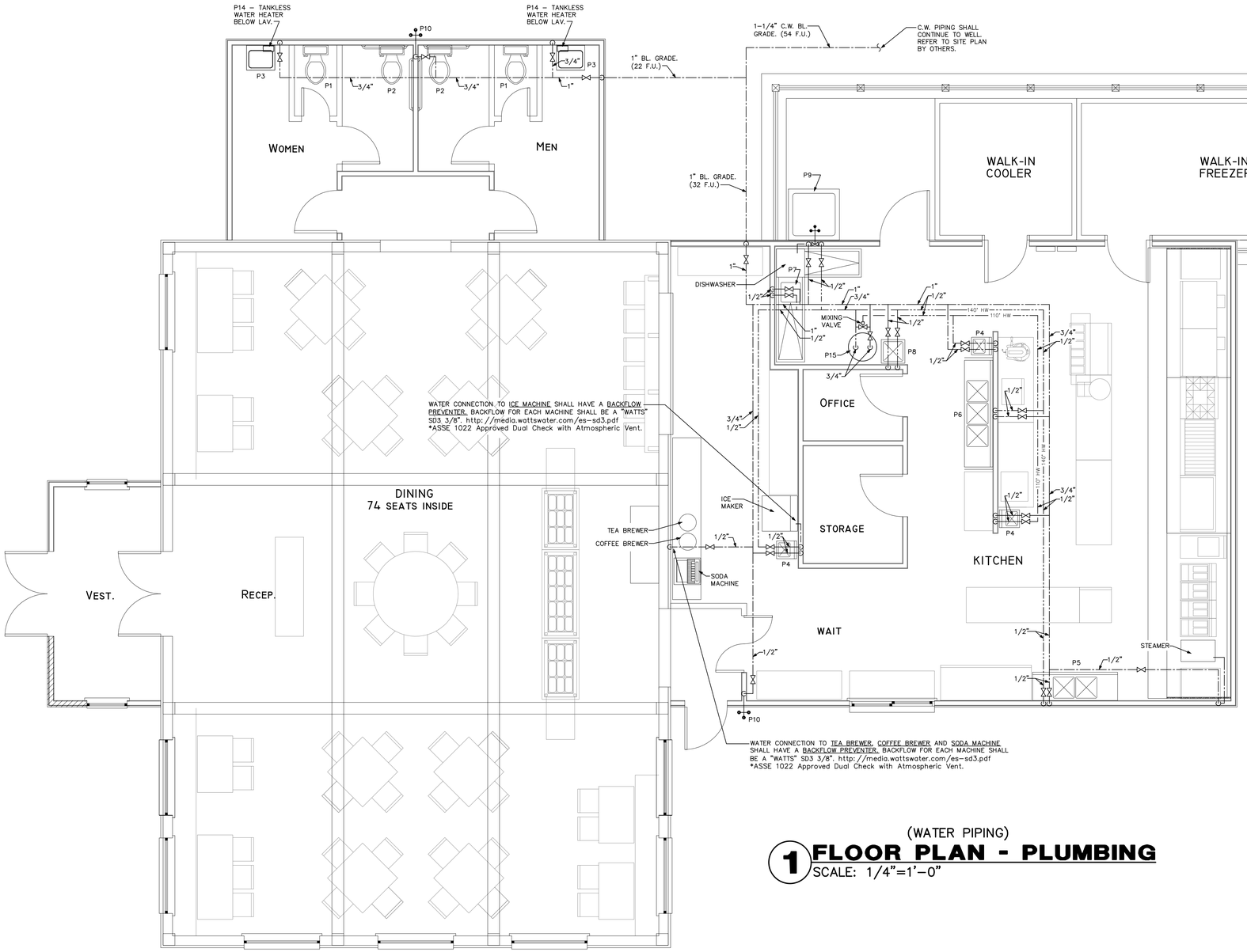
(SANITARY AND GREASE WASTE PIPING)

1 FLOOR PLAN - PLUMBING

SCALE: 1/4"=1'-0"

PLUMBING SYMBOLS LEGEND

- FLOOR DRAIN
- HOSE BIBB
- CLEANOUT
- RELIEF VALVE
- AIR CHAMBER
- UNION
- SOIL OR WASTE LINE
- SANITARY VENT LINE
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- DOMESTIC WATER RECIRCULATION
- PRESSURE & TEMP. RELIEF LINE
- CONDENSATE DRAIN LINE
- RAIN WATER LEADER
- GAS LINE
- SAFEWASTE LINE
- FIRE PROTECTION
- SHUT OFF VALVE
- SAFEPAN LINE
- FIRE SPRINKLER HEAD
- PIPE TURN UP
- PIPE TURN DOWN
- P-TRAP



(WATER PIPING)

1 FLOOR PLAN - PLUMBING

SCALE: 1/4"=1'-0"

GENERAL PLUMBING NOTES

1.) DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL PLUMBING FIXTURES, EQUIPMENT, ETC.. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED FOR A COMPLETE AND ACCEPTABLE WORKING INSTALLATION. CONTRACTOR IS RESPONSIBLE TO INSTALL ALL FIXTURES AND EQUIPMENT IN STRICT COMPLIANCE WITH THE MANUFACTURES INSTALLATION INSTRUCTIONS. THIS REQUIREMENT IS TO SUPERSEDE ANY DETAILS OR INFORMATION CONTAINED ON THESE DRAWINGS.

2.) ALL WORK AND MATERIALS SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL, STATE, AND ALL LOCAL CODES AND ORDINANCES HAVING JURISDICTION.

3.) THE PLUMBING CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS. ALL EXECUTION AND BACKFILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.

4.) ALL MATERIAL SHALL BE NEW.

5.) ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/ARCHITECT.

6.) ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OR PROPERTY DAMAGE FOR THE DURATION OF THE WORK.

7.) THE PLUMBING CONTRACTOR SHALL SECURE AND PAY ALL PERMIT FEES, INSPECTIONS, AND TESTS.

8.) ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.

9.) THE PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN (1) ONE YEAR FROM DATE OF ACCEPTANCE. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.

10.) VERIFY LOCATION, SIZE AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. ADVISE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.

11.) ALL FIXTURES SHALL BE PROVIDED WITH READILY ACCESSIBLE STOPS.

12.) ALL BELOW FLOOR SLAB WATER PIPING SHALL BE FLEXIBLE "TEMPRITE PEX (CROSS-LINKED POLYETHYLENE)" INTALLED AS PER MANUFACTURERS RECOMMENDATIONS FOUND HERE: WWW.LUBRIZOL.COM. ALL ABOVE SLAB WATER PIPING SHALL BE "FLOWGUARD GOLD CPVC" INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS FOUND HERE: WWW.FLOWGUARDGOLD.COM. ALL WATER PIPING AS SPECIFIED OR APPROVED EQUAL. ALL WATER PIPING LARGER THAN 2" SHALL BE TYPE "L" COPPER AND TYPE "K" COPPER FOR 2 1/2" AND LARGER.

13.) SOIL, WASTES AND VENT PIPING SHALL BE PVC #40 DMV. WASTE AND VENT PIPING ABOVE SLAB SHALL BE PVC, IF APPROVED BY LOCAL AUTHORITIES HAVING JURISDICTION, OTHERWISE CAST IRON. PVC SHALL NOT BE INSTALLED IN A/C RETURN AIR PLENUM OR PENETRATE FIRE RATED WALLS OR FLOORS.

14.) AIR CONDITIONING CONDENSATE DRAIN PIPING SHALL BE PVC #40 OR COPPER DRAIN WASTE AND BENT PIPE AND FITTINGS. INSULATE ALL CONDENSATE PIPING EXCEPT EXTERIOR PIPING. INSTALL ALL CONDENSATE PIPING FOR AIR CONDITIONING UNITS AS REQUIRED PER LOCAL CODES.

15.) FURNISH AND INSTALL APPROVED WATER HAMMER ARRESTORS AT EACH GROUP OF FIXTURES. INSTALLATION OF WATER HAMMER ARRESTORS SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS. PROVIDE AND INSTALL AN APPROVED WATER HAMMER ARRESTOR AT EACH FIXTURE OR DEVICE THAT HAS A SOLENOID WATER CONTROL VALVE.

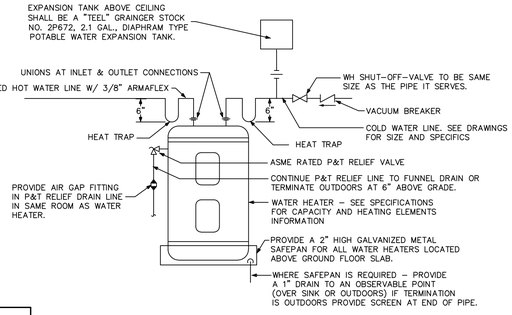
16.) PROVIDE CHROME PLATED COMBINATION COVERED PLATE AND CLEANOUT PLUG FOR ALL WALL CLEANOUTS, JOSAM 58890.

17.) INSULATE LINES AS FOLLOWS:

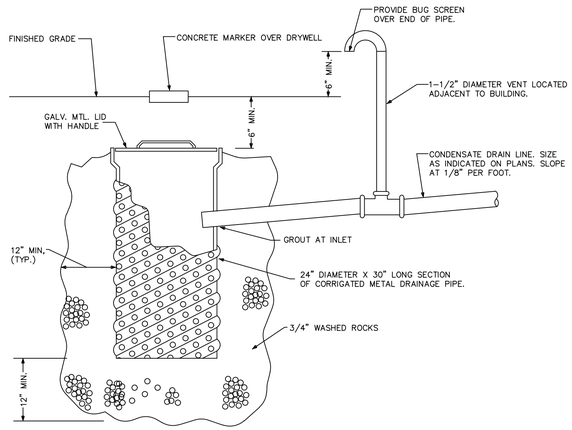
A.) 1" THICK ARMAFLEX PREFORMED INSULATION SHALL BE PROVIDED ON BOTH C.W. & H.W. WHEN PIPING IS LOCATED OUTSIDE OF THE INSULATED BUILDING ENVELOPE.

B.) 1/2" THICK ARMAFLEX PREFORMED INSULATION SHALL BE PROVIDED ON HW PIPING & H.W. RECIRC. PIPING, ONLY WHEN THERE IS A H.W. RECIRCULATING PIPING SYSTEM.

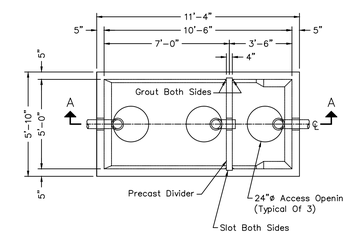
C.) CONDENSATE PIPING: 1/2" THICK ARMAFLEX PREFORMED OR APPROVED EQUAL.



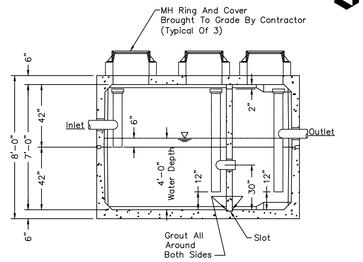
2 WATER HEATER DETAIL
NO SCALE



3 DRYWELL DETAIL
NO SCALE



PLAN VIEW



SECTION A-A

(1,500 GALLON)

4 GREASE TRAP DETAIL
NO SCALE

GENERAL NOTES:

1. Concrete: 28 Day Compressive Strength f'c = 4,500 psi
2. Reinforcement: ASTM A-615, Grade 60
3. Loads: H-20 Truck Wheel With 30% Impact Per AASHTO
4. Butyl Rubber Joint Sealant SS-S-00210
5. GRAY WATER ONLY Black Water Shall Be Carried By Separate Side Sewer.
6. Contractor To:
   - Supply and Install All Piping and Sampling Tees
   - Grout In All Pipes and Weirs
   - Fill w/ Clean Water Prior to "Start-Up" Of System
   - Verify Size and Location Of All Openings

Oldcastle® Precast, Inc.
www.oldcastle-precast.com

5105-1500-GA
GREASE INTERCEPTER
1,500 GALLON CAPACITY

PLUMBING FIXTURE SCHEDULE

P-1 (FLOOR MOUNTED FLUSH TANK WATER CLOSET)
SHALL BE AN AMERICAN STANDARD MODEL CADET MODEL 2333.100 ELONGATED 1.6 GPF, VITREOUS CHINA, PRESSURE-ASSISTED SIPHON ACTION BOWL, CLOSE-COUPLED TANK, FLOOR MOUNTED, FLOOR OUTLET, SPEED CONNECT TANK/BOWL COUPLING SYSTEM, WITH AMERICAN STANDARD OPEN FRONT SEAT WITH COVER MODEL 5325.024.
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_722.pdf

P-2 (HANDICAPPED FLOOR MOUNTED FLUSH TANK WATER CLOSET)
SHALL BE AN AMERICAN STANDARD MODEL CADET RIGHT HEIGHT 16-1/2" 2377.100 ELONGATED 1.6 GPF, VITREOUS CHINA, PRESSURE-ASSISTED SIPHON ACTION BOWL, CLOSE-COUPLED TANK, FLOOR MOUNTED, FLOOR OUTLET, SPEED CONNECT TANK/BOWL COUPLING SYSTEM, WITH AMERICAN STANDARD OPEN FRONT SEAT WITH COVER MODEL 5325.024.
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_1006.pdf

P-3 (HANDICAPPED WALL HUNG LAVATORY W/METERING FAUCET)
SHALL BE AN AMERICAN STANDARD REGALYN LAVATORY MODEL 4869.001 (CENTER HOLE ONLY), VITREOUS CHINA, WALL MOUNT WITH CONCEALED ARMS SUPPORT. FAUCET SHALL BE A "CHICAGO" MODEL 3300-ABCP METERING FAUCET WITH 4" CENTERS AND BUILT-IN THERMOSTATIC MIXING VALVE TO DELIVER TEMPERED WATER AT A TEMPERATURE NOT TO EXCEED 105 DEGREES. UNIT IS ADA COMPLIANT, 0.5 GPM WITH AN ADJUSTABLE 2-15 SECOND OPERATING CYCLE PRODUCING UNDER .25 GALLONS PER CYCLE. WATER PIPING AND P-TRAP SHALL BE COVERED WITH AN UNDER-SINK PROTECTIVE PIPE COVER KIT BY TRUEBRO (HTTP://WWW.TRUEBRO.COM) OR APPROVED EQUAL.
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_1476.pdf
* http://www.chicagofaucets.com/catalog/catalog.php?part_number=3300-ABCP

P-4 (STAINLESS STEEL HAND SINK)
COORDINATE FINAL SPECIFICATIONS WITH OWNER/ARCHITECT PRIOR TO CONSTRUCTION.

P-5 (STAINLESS STEEL 2 COMPARTMENT PREP SINK W.FAUCET)
COORDINATE FINAL SPECIFICATIONS WITH OWNER/ARCHITECT PRIOR TO CONSTRUCTION.

P-6 (STAINLESS STEEL 3 COMPARTMENT SINK W/FAUCET)
COORDINATE FINAL SPECIFICATIONS WITH OWNER/ARCHITECT PRIOR TO CONSTRUCTION.

P-7 (STAINLESS STEEL PRE-RINSE SINK W/SPRAY FAUCE)
COORDINATE FINAL SPECIFICATIONS WITH OWNER/ARCHITECT PRIOR TO CONSTRUCTION.

P-8 (WALL MOUNT JANITORS SINK)
SHALL BE AN "AMERICAN STANDARD" LAKEWELL SERVICE SINK MODEL 7692.008, ENAMELED CAST IRON WITH DRILLED BACK 2 HOLES ON 8" CENTERS AND RIM GUARD. FAUCET SHALL BE AN "AMERICAN STANDARD" MODEL 8351.076 EXPOSED YOKE WALL-MOUNT UTILITY FAUCET 3" CAST BRASS SPOUT WITH VACUUM BREAKER. INTEGRAL SUPPLY STOPS. OFFSET SHANKS WITH INTEGRAL CHECK VALVES. VANDAL-RESISTANT METAL LEVER HANDLES. BUCKET HOOK. 3/4" THREADED HOSE END. 1/2" NPT FEMALE INLETS.
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_1475.pdf
* http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4430.pdf

P-9 (FLOOR MOUNTED EXTERIOR CANWASH/MOP RECEPTOR W/TRAP SEAL)
SHALL BE A FLORESTONE #70 36X36X6" MOLDED MOP BASIN WITH 3" OUTLET. "WOODFORD" MODEL 22 EXPOSED NON-FREEZE ANTI-SIPHON DUAL HOT/COLD WALL FAUCET COMPLETE WITH AUTOMATIC DRAINING HOSE CONNECTION BACKFLOW PREVENTER, AND 3/4 MALE HOSE CONNECTION.
* http://www.florestone.com/mop_sinks/model_50-70.html
* http://www.woodfordmfg.com/woodford/Wall_Faucet_Pages/Model-22.html
CAN WASH TRAP SEAL
SHALL BE A "SURE SEAL" MODEL SS3000 PREASSEMBLED INLINE FLOOR DRAIN TRAP SEALER. 5 PIECES: COMMERCIAL GRADE ABS PLASTIC HOUSING AND KEEPER PIN, PROPRIETARY NEOPRENE RUBBER DIAPHRAGM, WITH 2 SOFT RUBBER SEALING GASKETS. FLOOR RATING ASSE-1072 AF-GW.
* http://www.thesureseal.com/Portals/49321/docs/pitch_sheet_ss3000.pdf

P-10 (HOSE BIBB - NON-FREEZE HYDRANT WITH LOCK COVER)
SHALL BE A "ZURN" Z1300 ENCASED ECOLOTROL, ANTI-SIPHON, AUTOMATIC DRAINING, NON-FREEZE WALL HYDRANT COMPLETE WITH INTEGRAL BACKFLOW PREVENTOR, COPPER CASING, ALL BRONZE INTERIOR PARTS, NON-COMBINATION 3/4 MALE PIPE THREAD INLET CONNECTION STANDARD, REGULARLY FURNISHED WITH 3/4 HOSE CONNECTION. CHROME-PLATED ROUGH CAST BRONZE BOX AND HINGED COVER. INCLUDES OPERATING KEY.
* http://content.zurn.com/web_documents/pdfs/specsheets/58867.pdf

P-11 (3" HUB DRAIN - INDIRECT WASTE FUNNEL)
SHALL BE A "ZURN" Z326, 3" PIPE CONNECTION, DURA-COATED CAST IRON BODY AND BOTTOM OUTLET. CONTRACTOR SHALL VERIFY FINAL HEIGHT OF FUNNEL WITH EQUIPMENT THAT IS UTILIZING FUNNEL DRAIN AND VERIFY PROPER CLEARANCE PRIOR TO CONSTRUCTION. COORDINATE WITH EQUIPMENT MANUFACTURER.
* http://content.zurn.com/web_documents/pdfs/specsheets/z326.pdf

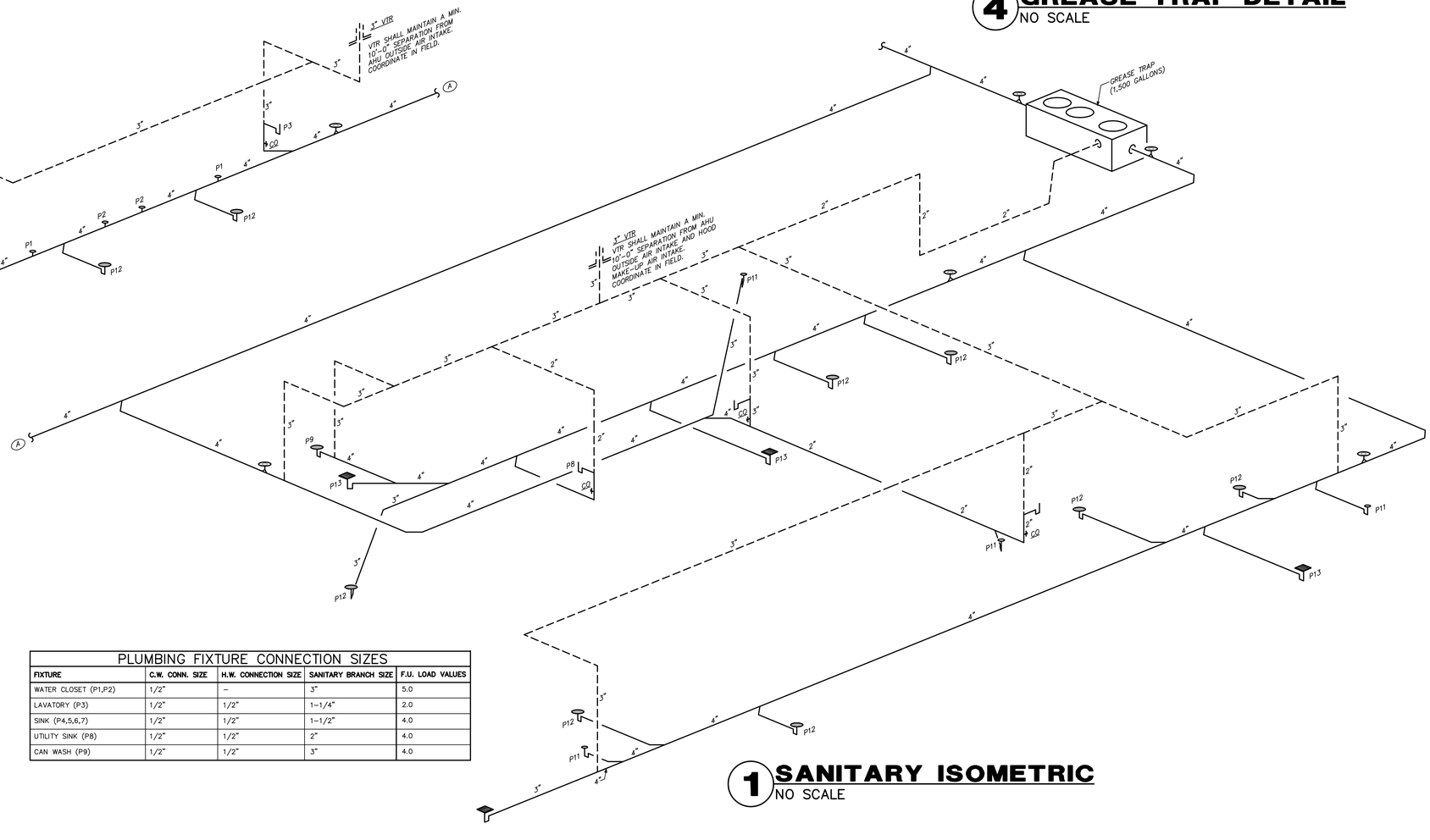
P-12 (FLOOR DRAIN WITH TRAP SEAL)
SHALL BE A JOSAM 30000-WT-A-49 SERIES COATED CAST IRON FLOOR DRAIN. TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WEJLOC INVERTIBLE NON- PUNCTURING FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET, INSIDE CAULK CONNECTION AND ADJUSTABLE SATIN NIKALOY ROUND SUPER-FLO STRAINER.
* http://www.josam.com/images/josammkt/sbmtl/s06_30000-WT-A.pdf
FLOOR DRAIN TRAP SEAL
SHALL BE A "SURE SEAL" MODEL SS3000 PREASSEMBLED INLINE FLOOR DRAIN TRAP SEALER. 5 PIECES: COMMERCIAL GRADE ABS PLASTIC HOUSING AND KEEPER PIN, PROPRIETARY NEOPRENE RUBBER DIAPHRAGM, WITH 2 SOFT RUBBER SEALING GASKETS. FLOOR RATING ASSE-1072 AF-GW.
* http://www.thesureseal.com/Portals/49321/docs/pitch_sheet_ss3000.pdf

P-13 (FLOOR SINK W/SEDIMENT BUCKET)
SHALL BE A JOSAM 49340A-3-31 SERIES SQUARE CAST IRON 8" DEEP SUPER-FLO-SEPTOR FLOOR SINK WITH PORC-COATED INTERIOR, DOUBLE DRAINAGE FLANGE WITH WEEPHOLES, BOTTOM OUTLET, ALUMINUM INTERNAL DOME STRAINER, AND CAST IRON, NON-TRAFFIC, PORC-COATED, ANTI-TILTING GRATE, WITH HALF GRATE AND ALUMINUM SEDIMENT BUCKET.
* http://www.josam.com/catalog/JOS/pl=FS/49340A

P-14 (INSTA-HOT WATER HEATER BELOW LAVATORY)
WATER HEATER SHALL BE A "EEMAX" MODEL EX-35, 2.6 KW TANKLESS WATER HEATER @ 208V/1ø, 13 AMPS.
* http://www.eemaxinc.com/assets/files/flaco.pdf

P-15 (GAS WATER HEATER - DIRECT VENT - SEALED COMBUSTION)
SHALL BE A STATE "ULTRA FORCE" MODEL SUF-100-199-NEA GAS FIRED COMMERCIAL WATER HEATER. 199,900 BTU INPUT TO PRODUCE 288 GALLONS PER HOUR OF HOT WATER AT 80 DEGREE RISE. INSULATED GLASSLINED 100 GALLON STORAGE TANK. WATER HEATER SHALL MEET OR EXCEED ALL APPLICABLE SECTIONS OF ASHRAE SECTIONS 90-80A AND NAECA REQUIREMENTS FOR ENERGY CONSERVATION.
* http://www.statewaterheaters.com/lit/spec/comm-gas/SCGSS00207.pdf

NOTES:
1.) ALL PLUMBING FIXTURES SHALL BE AS SPECIFIED OR APPROVED EQUAL.
2.) PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.



1 SANITARY ISOMETRIC
NO SCALE

PLUMBING FIXTURE CONNECTION SIZES

FIXTURE	C.W. CONN. SIZE	H.W. CONNECTION SIZE	SANITARY BRANCH SIZE	F.U. LOAD VALUES
WATER CLOSET (P1,P2)	1/2"	-	3"	5.0
LAVATORY (P3)	1/2"	1/2"	1-1/4"	2.0
SINK (P4,5,6,7)	1/2"	1/2"	1-1/2"	4.0
UTILITY SINK (P8)	1/2"	1/2"	2"	4.0
CAN WASH (P9)	1/2"	1/2"	3"	4.0

ELECTRICAL SYMBOLS LEGEND

NOTE – NOT ALL SYMBOLS MAY BE USED ON PROJECT

SYMBOLS	DESCRIPTION	SYMBOLS	DESCRIPTION
	DUPLEX RECEPTACLE, MTD. +18" AFF	T	TRANSFORMER – SIZE AS NOTED
	240 VOLT RECEPTACLE (HT. AS REQ.)		PANEL – SIZE AS NOTED
	QUADRUPLEX RECEPTACLE, MTD. +18"		MOMENTARY CONTACT PUSH BUTTON
	COUNTERTOP HT. RECEPTACLE +42"	F	F–FAN; M–MOTOR; P–PUMP
$	SINGLE POLE SWITCH, MTD +47"		SPECIAL OUTLET – AS REQUIRED
$3	THREE–WAY SWITCH, MTD +47"	B–2	CKT. HOMERUN (B INDICATES PANEL) "2" DESIGNATES CIRCUIT NUMBER
$M	MANUAL STARTER SWITCH		EXIT SIGN; ONE SIDED, OR TWO SIDED
$D	DIMMER SWITCH, MTD +47"		EMERGENCY LIGHTING
$L	SWITCH W/ ILLUM WHEN ON MTD +47"	B	RECESSED MOUNTED LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
$O3	THREE–WAY SWITCH W/ OCCU SENSOR MTD. +47"	M	OVERHEAD OCCUPANCY SENSOR
$O	SWITCH W/ OCCU SENSOR. MTD. +47"	B	HIGHBAY HID LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
J	JUNCTION BOX, FLUSH IF POSSIBLE	B	FLUORESCENT LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
	TELEPHONE / DATA OUTLET +18"	B NL	FLUORESCENT LIGHTING NIGHT LIGHT B DESIGNATES FIXTURE TYPE
	DED. COMPUTER TERM. OUTLET +18"	B	FLUORESCENT STRIP LIGHTING FIXTURE B DESIGNATES FIXTURE TYPE
	DISCONNECT SWITCH W/ STARTER	IG	ISOLATED GROUND
	DISCONNECT SWITCH	WP	WEATHER–PROOF
	FLR. MTD. FLUSH DUPLEX RECEPTACLE	BC	BELOW COUNTER
	FLR. MTD. FLUSH QUAD. RECEPTACLE	TC	TIME CLOCK – 24 HOUR
	FLR. MTD. FLUSH PHONE/DATA OUTLET	GFI	GROUND FAULT INTERRUPTER
	FLR. MTD. FLUSH COMPUTER OUTLET	AFF	ABOVE FINISHED FLOOR
SD	AREA SMOKE DETECTOR	EWC	ELECTRIC WATER COOLER
H	HEAT DETECTOR	ASW	ABOVE SHOW WINDOW
D	DUCT SMOKE DETECTOR	BSW	BELOW SHOW WINDOW
F	FIRE ALARM MAN. PULL STATION +47"	FACP	FIRE ALARM CONTROL PANEL
30	HORN WITH STROBE LIGHT, MTD. +80" # BESIDE DEVICE IS CANDELLA RATING	FAAP	FIRE ALARM ANNUNCIATOR PANEL
L30	STROBE LIGHT ONLY, MTD. +80" # BESIDE DEVICE IS CANDELLA RATING		

ELECTRICAL SYSTEM AND EQUIPMENT

METHOD OF COMPLIANCE

PRESCRIPTIVE [X] PERFORMANCE [ ] ENERGY COST BUDGET [ ]

PROVIDE A STANDARD RISER DIAGRAM WHICH INDICATES DESIGNATED POINTS FOR CHECK METERING. PROVIDE A STANDARD PANEL SCHEDULE DESCRIPTION WHICH IDENTIFIES DIFFERENT ENDUSE LOADS.

LIGHTING SCHEDULE

LAMP TYPE REQUIRED IN FIXTURE ____ SEE SCHEDULE ON DRAWINGS
NUMBER OF LAMPS IN FIXTURE ____ SEE SCHEDULE ON DRAWINGS
BALLAST TYPE USED IN FIXTURE ____ SEE SCHEDULE ON DRAWINGS
NUMBER OF BALLASTS IN FIXTURE ____ SEE SCHEDULE ON DRAWINGS
TOTAL WATTAGE PER FIXTURE ____ SEE SCHEDULE ON DRAWINGS
TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED ____ 3620 VS 5320
TOTAL EXTERIOR WATTAGE SPECIFIED VS ALLOWED ____ N/A

EQUIPMENT SCHEDULES WITH MOTORS (NOT USED FOR MECHANICAL SYSTEMS)

MOTOR HORSEPOWER ____ N/A
NUMBER OF PHASES ____ N/A
MINIMUM EFFICIENCY ____ N/A
MOTOR TYPE ____ N/A
NUMBER OF POLES ____ N/A

DESIGNER STATEMENT:

TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NATIONAL ENERGY CODE.

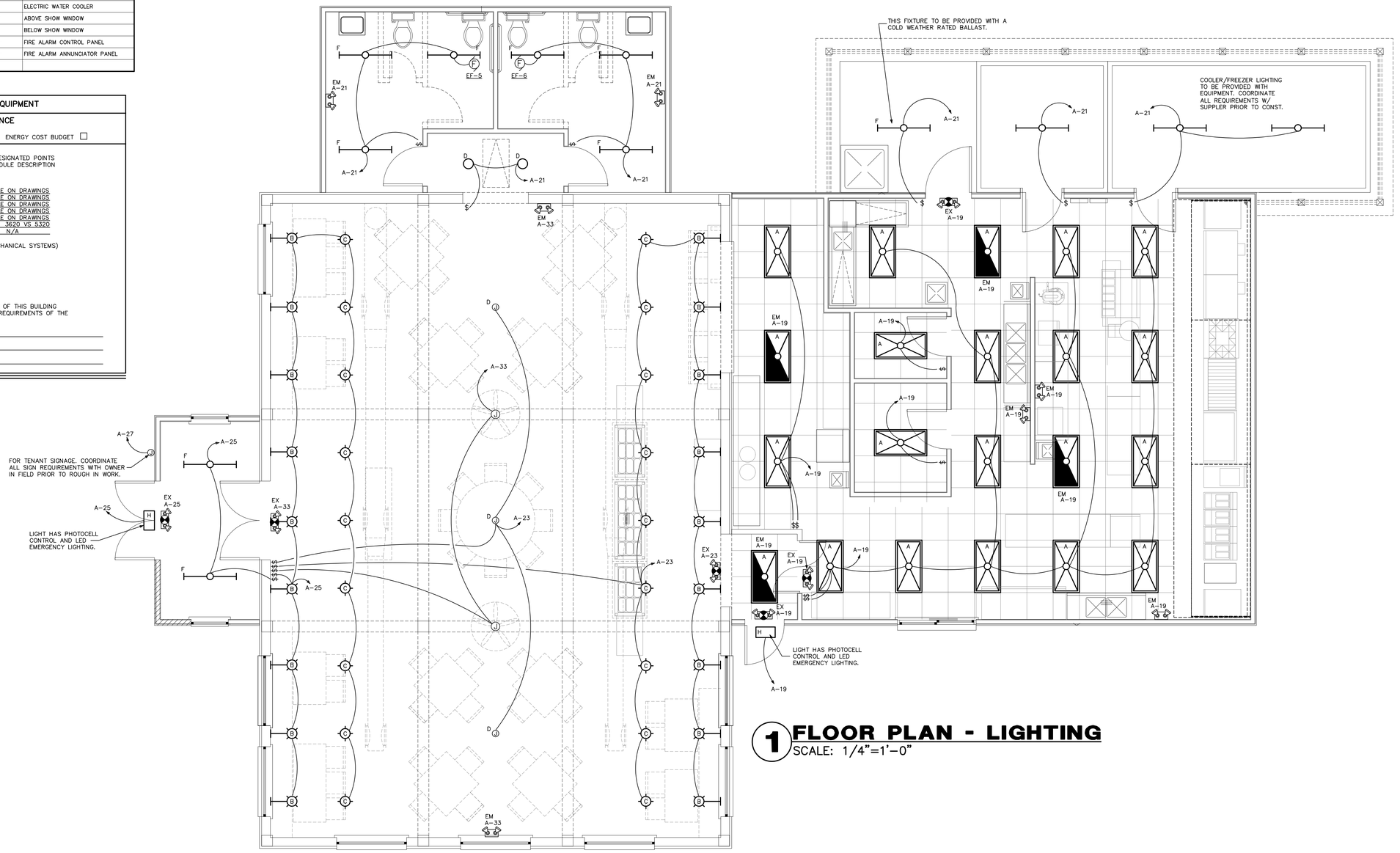
SIGNED: _____

NAME: _____

TITLE: _____

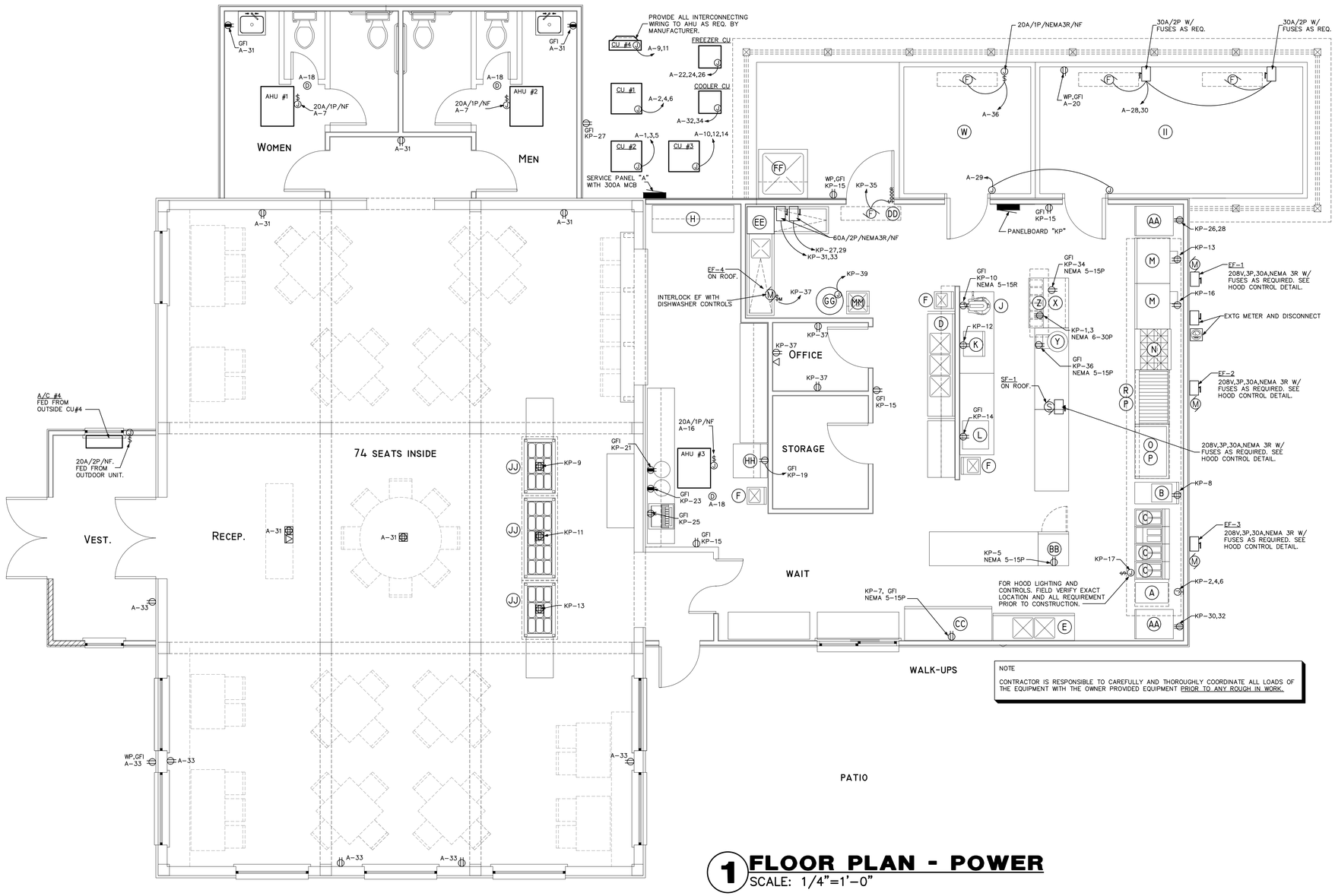
LIGHTING FIXTURE SCHEDULE

LABEL	TYPE OF FIXTURE	FINISH	LENS TYPE	VOLTAGE	LAMP	MANUFACTURER & MODEL NO.	REMARKS
A	RECESSED MTD 2X4 FLUORES.		PRISMATIC	120	(2) 32W T8	OWNER SELECT	PROVIDE CLEAR LEXAN LAMP SHIELDS ON ALL BULBS (FOOD SERVICE)
B	WALL MTD SHADE			120	42W MH	OWNER SELECT	
C	PENDANT SHADE			120	42W MH	OWNER SELECT	
D	CHANDELIER			120	75W	OWNER SELECT	
EM	EMERGENCY EGRESS	WHITE		120	INCLUDED	LITHONIA ELM2	W/ BATTERY BACKUP
EX	EXIT SIGN	WHITE	RED	120	INCLUDED	LITHONIA LE–SW2R–120/277–ELN	W/ BATTERY BACKUP
F	7"x4' SURFACE WRAP			120	32WT8	OWNER SELECT	
G	6" CFL			120	(2) 26W DTT	OWNER SELECT	
H	EXTERIOR WALL LIGHT	BRONZE	PRISMATIC	120	(2) 26W DTT	LITHONIA WST–2/26DTT–FT–120–PE–2ELED	W/ PHOTOCELL CONTROL & LED EM LTG, BATTERY BACKUP



1 FLOOR PLAN - LIGHTING

SCALE: 1/4"=1'–0"



NOTE

CONTRACTOR IS RESPONSIBLE TO CAREFULLY AND THOROUGHLY COORDINATE ALL LOADS OF THE EQUIPMENT WITH THE OWNER PROVIDED EQUIPMENT PRIOR TO ANY ROUGH IN WORK.

Equipment Legend

Mk	Description
A	SouthBend Counter Convection Steamer R18A-4
B	Henny Penny PFG600.0 Pressure Fryer Gas
C	Deep Fryers BPE-4050
D	3 Compartment Sink Turbo Air TSS-3-D1
E	2 Compartment Sink Turbo Air Tss-2-d1
F	Hand Sink Tubo Air TSS-1-h
G	SS Work Table 30 x 96 (with shelf where indicated)
H	SS Work Table 24 X 72 (with shelf where indicated)
I	SS Work Table 24 x 24
J	Mixer Vollrath 40757
K	Microwave (Counter-top) Radiance TMW-1100E
L	Slicer (Counter-top) German Knife GS-12A
M	Vulcan Double Stack Convection Ovens VC44GD
N	Vulcan 36" Gas Range V36-1
O	Flat top TAMG 48
P	SS Work Table 30 x 42 (under flat-top and charbroiler)
Q	SS Work Table 24 x 28 (under mixer)
R	Radiance Counter-top Charbroiler TARKP-48
S	Pizza Box TPR-445D
T	Pizza Press DM-18
U	Pizza Oven JPO-14
V	DL1W-SS-PT
W	Walk-in cooler (10x20)
X	Pizza Box Turbo Air TPR-44SD
Y	Pizza Press HIX Corporation DM-18
Z	Pizza Oven Belleco JPO-14
AA	Continental Reach-in Warmer DL1W-SS-PT
BB	Single-Door Reach-in Freezer Turbo Air TSF-23SD
CC	Triple Door Reach-in Refrigeratotr Turbo Air PRO-77R
DD	Air Curtain
EE	Dishwashing line
FF	Can Wash
GG	Hot Water Heater
HH	Ice Maker
II	Walk-in Freezer (10x10)
JJ	Buffet Line
KK	Bag n' Box/Drink Dispenser
LL	Tea Dispenser
MM	Service Sink

1 FLOOR PLAN - POWER

SCALE: 1/4"=1'-0"

ELECTRICAL NOTES:

1. GENERAL: ALL WORK SHALL CONFORM TO THE 2008 APPROVED EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) AND ALL LOCAL JURISDICTIONAL CODES.

   THE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND ANY APPLICABLE SPECIFICATIONS. IF A PROBLEM IS ENCOUNTERED IN COMPLYING WITH THIS REQUIREMENT, THE CONTRACTOR SHALL NOTIFY THE OWNER OR HIS REPRESENTATIVE AS SOON AS POSSIBLE AFTER DISCOVERY OF THE PROBLEM, AND SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL THE OWNER HAS DIRECTED THE CORRECTIVE ACTION TO BE TAKEN.

   THE CONTRACTOR SHALL COORDINATE THE PROPOSED LOCATIONS OF ALL ELECTRICAL MATERIALS AND EQUIPMENT WITH THE REPRESENTATIVES OF THE OTHER TRADES INVOLVED BEFORE STARTING INSTALLATION OF THOSE ITEMS.

   COORDINATE THE INSTALLATION OF REQUIRED SUPPORTING DEVICES, CONDUIT, AND SLEEVES TO BE SET IN CAST-IN-PLACE CONCRETE AND OTHER STRUCTURAL COMPONENTS, AS THEY ARE CONSTRUCTED.

   UNLESS OTHERWISE SPECIFIED ON THE PLANS, ALL SPECS ARE NOT INTENDED TO BE PROPRIETARY, SUBSTITUTIONS WILL BE ACCEPTABLE FOR EQUAL RATED AND LISTED UNITS.

2. SCOPE: EXCEPT WHERE OTHERWISE SPECIFICALLY INDICATED ON THE DRAWINGS BY "FUTURE", "BY OTHERS", OR BY A SIMILAR NOTATION, IT IS THE INTENT THAT THE CONTRACTOR FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND TOOLS NECESSARY TO PROVIDE ALL SYSTEMS IN COMPLETE AND OPERATING CONDITION.

3. EXCAVATE AS NECESSARY FOR THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT. VERIFY THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES OR STRUCTURES BEFORE EXCAVATING AND EXERCISE CARE TO AVOID DAMAGE TO SUCH ITEMS DURING EXCAVATION. BACKFILL WITH EARTH FREE OF LARGE CLODS, LARGE STONES AND FOREIGN DEBRIS, DEPOSITED IN 6" LAYERS AND COMPACTED TO A DENSITY OF NOT LESS THAN THAT OF THE SURROUNDING UNDISTURBED MATERIAL.

4. MATERIALS: THE MATERIALS AND EQUIPMENT FURNISHED SHALL BE AS INDICATED ON THE DRAWINGS; SUBSTITUTIONS SHALL NOT BE MADE EXCEPT WHERE EXPRESSLY APPROVED BY THE OWNER OR HIS REPRESENTATIVE PRIOR TO STARTING INSTALLATION OF THE ITEMS. THE ELECTRICAL MATERIALS AND EQUIPMENT FURNISHED SHALL BE LISTED OR LABELED BY UNDERWRITERS LABORATORIES OR OTHER RECOGNIZED TESTING ORGANIZATION, AND SHALL BE ACCEPTABLE TO THE LOCAL BUILDING AUTHORITY.

5. GROUNDING: GROUNDING SHALL BE IN ACCORDANCE WITH ARTICLE 250, NEC.

6. SHARED NEUTRAL CONDUCTORS SHALL NOT BE ALLOWED UNLESS INSTALLED IN ACCORDANCE WITH NEC-210.4

7. CONDUITS: PROVIDE CONDUITS WHERE CALLED FOR ON PANEL SCHEDULES: ELECTRICAL METALLIC TUBING (EMT) SHALL BE INSTALLED ONLY IN DRY LOCATIONS, IN CONCRETE ABOVE GRADE, AND WHERE NOT SUBJECT TO PHYSICAL DAMAGE.

   CONDUITS INSTALLED UNDERGROUND SHALL BE POLYVINYLCHLORIDE (PVC) AND SHALL NOT BE SMALLER THAN 3/4" TRADE SIZE. WHERE PVC CONDUIT IS INSTALLED UNDERGROUND, ELBOWS TURNING UP AND CONDUIT EMERGING ABOVE GRADE SHALL BE RSC. THE TOPS OF CONDUITS SHALL NOT BE LESS THAN 24" BELOW FINISHED GRADE. PVC CONDUIT INSTALLED ABOVE GRADE OR DIRECT-BURIED IN EARTH SHALL BE NEMA TC2 TYPE EPC-40-PVC (SCHEDULE 40) EXCEPT THAT WHERE UNDER AREAS SUBJECT TO HEAVY VEHICULAR TRAFFIC, IT SHALL BE NEMA TC2 TYPE EPC-80-PVC (SCHEDULE 80).

   ALL ARMOR CLAD CABLE (AC CABLE) WIRING SHALL MEET OR EXCEED ALL NEC, OSHA AND HUD STANDARDS.

8. CONDUCTORS: CONDUCTORS SHALL BE AS SCHEDULED ON PANEL SCHEDULES. ALL POWER CONDUCTORS SHALL NOT BE SMALLER THAN #14 AWG (CU), OR #12 AWG (AL), CONTROL CIRCUIT CONDUCTORS SHALL NOT BE SMALLER THAN #18 AWG CU. CONDUCTORS SHALL BE CONTINUOUS FROM OUTLET TO OUTLET WITHOUT SPLICES EXCEPT WITHIN WIREWAY OR JUNCTION BOXES. MARK CONDUCTORS IN PANELS, PULL BOXES OR WIREWAYS AND TERMINAL STRIP TERMINALS FOR IDENTIFICATION OF CIRCUITS.

   CONDUCTORS SHALL BE JOINED USING COMPRESSION SPLICES, EXCEPT THAT CONDUCTORS #10 AND SMALLER MAY BE JOINED USING WIRE NUT TYPE CONNECTORS. CONDUCTORS SHALL BE TERMINATED USING COMPRESSION OR PRESSURE TYPE TERMINAL LUGS, OR IN PRESSURE TERMINALS. COMPRESSION SPLICES USED ON CONDUCTORS #10 AWG. AND SMALLER, SHALL BE THE SELF-INSULATED TYPE; OTHER SPLICES SHALL BE INSULATED USING 3M #33+ OR #88 PLASTIC TAPE. SPLICES IN WET LOCATIONS SHALL BE INSULATED WITH ELECTRICAL TAPE AND ENCAPSULATED WITH SCOTCHCAST OR EQUAL POTTING COMPOUND.

9. PROVIDE AND INSTALL JUNCTION AND PULL BOXES WHERE INDICATED AND WHERE NECESSARY TO TERMINATE, TAP OFF, OR REDIRECT MULTIPLE CONDUIT RUNS, OF SIZE INDICATED OR AS REQUIRED BY NEC. WHERE FEEDER SPLICES ARE TO BE MADE, INSTALL BOXES LARGE ENOUGH TO PROVIDE AMPLE WORK SPACE.

10. LIGHTING FIXTURES: LIGHTING FIXTURES SHALL BE AS INDICATED ON THE DRAWINGS, AND SHALL BE INSTALLED COMPLETE WITH LAMPS.

    FIXTURES WITH ADJUSTMENTS AFFECTING LIGHT DISTRIBUTION SHALL BE SET TO PROVIDE THE REQUIRED LIGHT PATTERNS PRIOR TO THE FINAL DEMONSTRATION TEST.

11. TESTS: AFTER EACH SYSTEM HAS BEEN COMPLETED, A FUNCTIONAL TEST SHALL BE PERFORMED TO DEMONSTRATE THAT THE SYSTEM OPERATES IN ACCORDANCE WITH THE REQUIREMENTS OF THE DRAWINGS. THE TEST SHALL BE PERFORMED BY THE CONTRACTOR IN THE PRESENCE OF THE OWNER OR HIS REPRESENTATIVE.

12. TERMINALS: ALL ELECTRICAL EQUIPMENT FURNISHED ON THIS PROJECT IS TO HAVE TERMINALS RATED FOR 75° C. OPERATION.

SERVICE

PANEL SCHEDULE KP

200 AMP, 120/208 VOLT, THREE PHASE, FOUR WIRE, M.L.O., 22000 AMPS MINIMUM A.I.C. BRACING, FLUSH MOUNTED, TYPE NEMA 1 ENCLOSURE

##	BKR.	WIRE AND CONDUIT COND.	NEUTRAL	GND	C.	KEYS	LOAD DESCRIPTION	NEUT.	LINE A	LINE B	LINE C	LOAD DESCRIPTION	KEYS	WIRE AND CONDUIT C.	GND	NEUTRAL	COND.	BKR.	##
1								0	2700	------	------								2
3	30/2	#10	#10	#10	1/2	CHAL	PIZZA OVEN	0	3340	------	------								
								0	------	2700	------								4
5	20/1	#12	#12	#12	1/2	CHAL	FREEZER	0	------	3340	------	CONVECTION STEAMER	CHAL	1/2	#10	#10	#10	30/3	
								1127	------	------	1127								6
7	20/1	#12	#12	#12	1/2	CHAL	REFFIGERATOR	1840	1840	------	3340								
9	20/1	#12	#12	#12	1/2	CHAL	BUFFET	1500	1500	------	------	PRESSURE FRYER	CHAL	1/2	#12	#12	#12	20/1	8
								1140	------	1140	------								
11	20/1	#12	#12	#12	1/2	CHAL	BUFFET	880	------	880	------	MIXER	CHAL	1/2	#12	#12	#12	20/1	10
								1500	------	------	1500								
13	20/1	#12	#12	#12	1/2	CHAL	BUFFET	1000	------	------	1000	MICROWAVE	CHAL	1/2	#12	#12	#12	20/1	12
								1500	1500	------	------								
15	20/1	#12	#12	#12	1/2	CHAL	RECEPTACLES	1500	1500	------	------	SLICER	CHAL	1/2	#12	#12	#12	20/1	14
								900	------	900	------								
17	20/1	#12	#12	#12	1/2	CHAL	HOODS LIGHTING / CONTROLS	1920	------	1920	------	CONVECTION OVEN	CHAL	1/2	#12	#12	#12	20/1	16
								500	------	------	500								
19	20/1	#12	#12	#12	1/2	CHAL	ICE MAKER	725	------	------	725	PIZZA BOX	CHAL	1/2	#12	#12	#12	20/1	18
								1600	1600	------	------								
21	20/1	#12	#12	#12	1/2	CHAL	TEA MACHINE	1180	1180	------	------	PIZZA PRESS	CHAL	1/2	#12	#12	#12	20/1	20
								1500	------	1500	------								
23	20/1	#12	#12	#12	1/2	CHAL	COFFEE MACHINE	0	------	2700	------								22
								1500	------	------	1500	PIZZA OVEN	CHAL	1/2	#10	#10	#10	30/2	
25	20/1	#12	#12	#12	1/2	CHAL	SODA DISPENSER	0	------	------	2700								24
								600	600	------	------								26
27	50/2	#8	---	#10	1/2	CHAL	DISHWASHER W/ ELECTRIC HT	0	811	------	------								
								0	------	4472	------	WARMER	CHAL	1/2	#12	#12	#12	20/2	28
29								0	------	811	------								
								0	------	------	4472								30
31	50/2	#8	---	#10	1/2	CHAL	DISHWASHER BOOSTER HTR	0	3682	------	------	WARMER	CHAL	1/2	#12	#12	#12	20/2	
33								0	811	------	------								32
								0	------	3682	------								
35	20/1	#12	#12	#12	1/2	CHAL	FLY FAN	725	------	725	------	PIZZA BOX	CHAL	1/2	#12	#12	#12	20/1	34
								1581	------	------	1581								
37	20/1	#12	#12	#12	1/2	CHAL	OFFICE RECEPTACLES	1180	------	------	1180	PIZZA PRESS	CHAL	1/2	#12	#12	#12	20/1	36
								540	------	------	------								
39	20/1	#12	#12	#12	1/2	CHAL	GAS WATER HEATER FAN	0	3636	------	------								38
								666	------	666	------								
41							SPACE	0	------	3636	------	KITCHEN FANS	CHAL	3/4	#10	---	#8	50/3	40
								0	------	------	0								
43							SPACE	0	------	------	3636								42
								0	0	------	------								
45							SPACE	0	------	0	------	SPACE							44
								0	0	------	------								
47							SPACE	0	------	0	------	SPACE							46
								0	0	------	------								
49							SPACE	0	------	------	0	SPACE							48
								0	0	------	------								
51							SPACE	0	------	0	------	SPACE							50
								0	0	------	------								
53							SPACE	0	------	------	0	SPACE							52
								0	------	0	------								
								0	------	------	0	SPACE							54

WIRE/CONDUIT KEY	WIRING TYPE	INSULATION	CONDUIT TYPE	TEMP RATING	25240	29072	24072
1234 — TEMP RATING, CONDUIT TYPE, INSULATION, WIRING TYPE	C-CU WIRE	H-THWN	A-EMT	L-78-86 Deg. F.	78,384		

PEAK PHASE (A) UNBALANCED NEUTRAL LOAD AMPS = 85.5 AMPS
NON DIVERSIFIED LOAD AT 208 VOLT, THREE PHASE = 217.7 AMPS

PRINTED ON PANELS PROGRAM SERIAL NUMBER 2001.4001
REGISTERED TO - TODD W. CAREY AND ASSOCIATES OF THE CARDINAS

PANEL SCHEDULE A

400 AMP, 120/208 VOLT, THREE PHASE, FOUR WIRE, 400A. M.C.B., 22000 AMPS MINIMUM A.I.C. BRACING, SURFACE MOUNTED, TYPE NEMA 3R ENCLOSURE

##	BKR.	WIRE AND CONDUIT COND.	NEUTRAL	GND	C.	KEYS	LOAD DESCRIPTION	NEUT.	LINE A	LINE B	LINE C	LOAD DESCRIPTION	WIRE AND CONDUIT KEYS	C.	GND	NEUTRAL	COND.	BKR.	##
1								0	2088	------	------								
3	30/3	#10	---	#10	1/2	CHAL	CONDENSING UNIT-2	0	------	2088	------								2
								0	------	------	2088								
5								0	------	2088	------	CONDENSING UNIT-1	CHAL	1/2	#10	---	#10	30/3	4
								0	------	------	2088								
7	20/1	#12	#12	#12	1/2	CHAL	AIR HANDLER-2	1920	1920	------	------								6
9	20/2	#12	---	#12	1/2	CHAL	CONDENSING UNIT-4	1920	1920	------	------	AIR HANDLER-1	CHAL	1/2	#12	#12	#12	20/1	8
								0	------	766	------								
11								0	------	2088	------								10
								0	------	------	766								
13								0	------	------	2088	CONDENSING UNIT-3	CHAL	1/2	#10	---	#10	30/3	12
								0	2016	------	------								
15	20/3	#12	---	#12	1/2	CHAL	SF-1	0	2088	------	------								14
								0	------	2016	------								
17								1920	------	1920	------	AIR HANDLER-3	CHAL	1/2	#12	#12	#12	20/1	16
								0	------	------	2016								
19	20/1	#12	#12	#12	1/2	CHAL	KITCHEN LIGHTING	100	------	------	100	DUCT SMOKE DETECTORS	CHAL	1/2	#12	#12	#12	20/1	18
								1400	1400	------	------								
21	20/1	#12	#12	#12	1/2	CHAL	COOLER/FREZZER/BATH LTG	1500	1500	------	------	FREEZER DRAIN LINE HTRS	CHAL	1/2	#12	#12	#12	20/1	20
								500	------	500	------								
23	20/1	#12	#12	#12	1/2	CHAL	DINING AREA LIGHTS	0	------	900	------								22
								800	------	------	800								
25	20/1	#12	#12	#12	1/2	CHAL	DINING AREA LIGHTS	920	920	------	------	FREEZER COMPRESSOR	CHAL	1/2	#12	---	#12	20/3	24
								0	900	------	------								
27	20/1	#12	#12	#12	1/2	CHAL	TENANT SIGNAGE *	1500	------	1500	------								26
								0	------	750	------								
29	20/1	#12	#12	#12	1/2	CHAL	COOLER/FREEZER DOOR HTRS	1800	------	------	1800	FREEZER EVAPORATOR FANS	CHAL	1/2	#12	---	#12	20/2	28
								0	------	------	750								
31	20/1	#12	#12	#12	1/2	CHAL	RECEPTACLES	720	720	------	------								30
								0	1144	------	------								32
33	20/1	#12	#12	#12	1/2	CHAL	RECEPTACLES	720	------	720	------	COOLER COMPRESSOR	CHAL	1/2	#12	---	#12	20/2	
								0	------	1144	------								34
35	20/2	#12	---	#12	1/2	CHAL	INSTA-HOT WATER HEATER	900	------	------	900	COOLER EVAPORATOR	CHAL	1/2	#12	#12	#12	20/1	36
37								0	1313	------	------								
39	20/2	#12	---	#12	1/2	CHAL	INSTA-HOT WATER HEATER	10260	25240	------	------								38
								0	------	1313	------								
41								7731	------	29072	------	PANELBOARD "KP"	CHAL	2	#6	#3/0	#3/0	200/3	40
								0	------	------	1313								
43								9113	------	------	24072								42
							SPACE	0	------	------	0	SPACE							44
45							SPACE	0	0	------	------								
47							SPACE	0	------	0	------	SPACE							46
								0	0	------	------								
49							SPACE	0	------	------	0	SPACE							48
								0	0	------	------								
51							SPACE	0	------	0	------	SPACE							50
								0	0	------	------								
53							SPACE	0	------	------	0	SPACE							52
								0	------	0	------								
								0	------	------	0	SPACE							54

WIRE/CONDUIT KEY	WIRING TYPE	INSULATION	CONDUIT TYPE	TEMP RATING	45257	46865	40994
1234 — TEMP RATING, CONDUIT TYPE, INSULATION, WIRING TYPE	C-CU WIRE	H-THWN	A-EMT	L-78-86 Deg. F.	133,116		

PEAK PHASE (A) UNBALANCED NEUTRAL LOAD AMPS = 155.3 AMPS
NON DIVERSIFIED LOAD AT 208 VOLT, THREE PHASE = 369.8 AMPS

PRINTED ON PANELS PROGRAM SERIAL NUMBER 2001.4001
REGISTERED TO - TODD W. CAREY AND ASSOCIATES OF THE CARDINAS

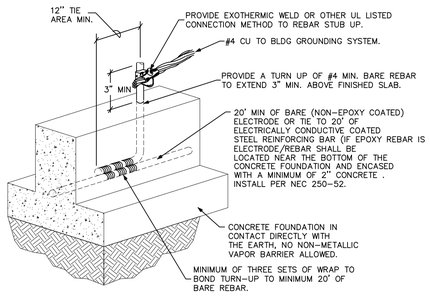
PANEL NOTES:
* - PROVIDE TIMECLOCK CONTROL FOR THIS CIRCUIT

PANEL A DIVERSIFICATION CALCULATIONS

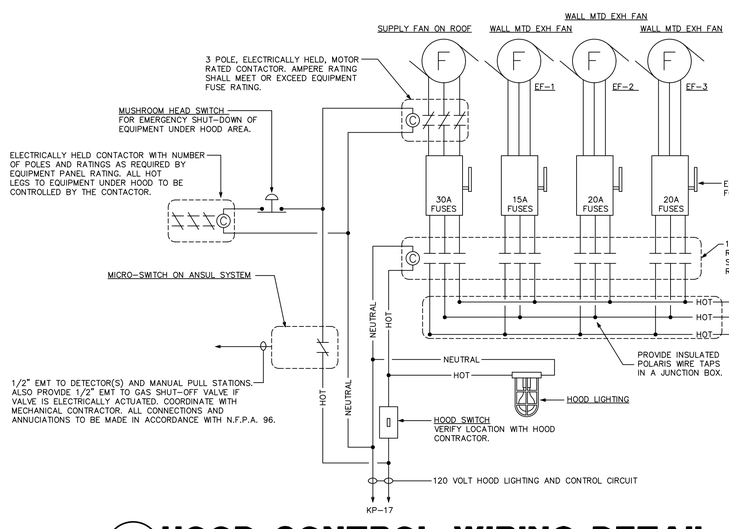
RECEPTACLES (16) - 2880 VA TOTAL		
FIRST 10 KVA AT 100%	-	2880
LIGHTING - 4020 X 125%	-	5025
HVAC LOAD AT 100%	-	26083
MOTOR LOADS AT 100%	-	11574
PLUS 25% OF THE LARGEST MOTOR	-	1440
MISC NON-CONTINUOUS LOADS AT 100%	-	11498
MISC CONTINUOUS LOADS AT 125%		
1500 X 1.25	-	1875
KITCHEN EQUIPMENT (32)		
75557 X 0.65	-	49112
TOTAL DIVERSIFIED PANEL LOAD	-	109487
LOAD AT 120/208V/3-PHASE/4-WIRE	-	304.1A

PANEL KP DIVERSIFICATION CALCULATIONS

RECEPTACLES (8) - 1440 VA TOTAL		
FIRST 10 KVA AT 100%	-	1440
LIGHTING - 400 X 125%	-	500
MOTOR LOADS AT 100%	-	11574
PLUS 25% OF THE LARGEST MOTOR	-	1503
MISC NON-CONTINUOUS LOADS AT 100%	-	100
KITCHEN EQUIPMENT (26)		
64869 X 0.65	-	42165
TOTAL DIVERSIFIED PANEL LOAD	-	57282
LOAD AT 120/208V/3-PHASE/4-WIRE	-	159.1A



4 GROUNDING DETAIL
NO SCALE



2 HOOD CONTROL WIRING DETAIL
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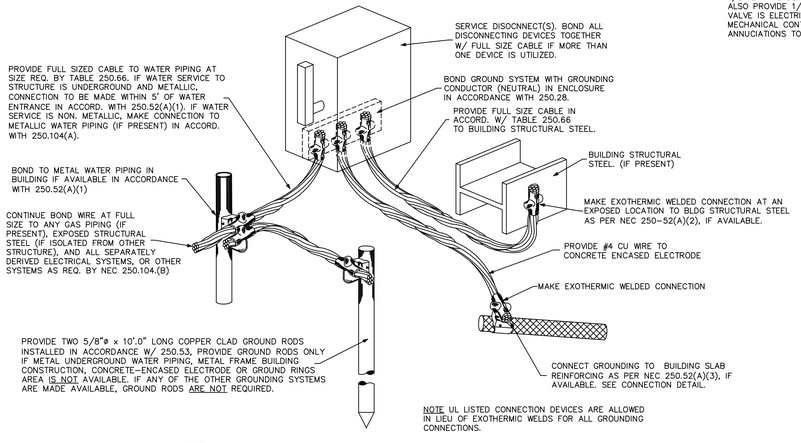
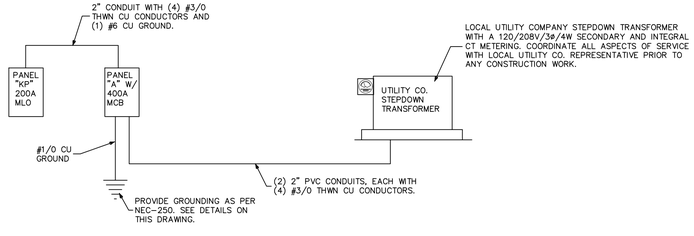


3 GROUNDING DETAIL
NO SCALE



1 ELECTRICAL RISER DIAGRAM
NO SCALE