

- ② EXHAUST HOOD LIGHTS SUPPLIED WITH HOOD AND MTD IN PRE-WIRED J-BOX. COMPLETE CIRCUITING PER DETAIL 4/E-400.00.
- 3 J-BOX FOR ILLUMINATED SIGN. VERIFY ELECTRICAL REQUIREMENTS AND EXACT LOCATIONS FOR J-BOX WITH ARCHITECTURAL ELEVATIONS AND SIGN VENDOR.
- 4 CONTROLLED BY EXTERIOR SIGNAGE CONTACTOR. REFER TO EXTERIOR SIGNAGE CONTROL DIAGRAM ON SHEET E-400.00
- 5 LIGHTING FIXTURES & SWITCHES FOR COOLER/FREEZER ARE PROVIDED WITH COOLER/FREEZER. FIXTURES & SWITCHES ARE TO BE INSTALLED BY ELECTRICAL CONTRACTOR PER MANUFACTURES REQUIREMENTS AND N.E.C. ARTICLE 300-7. CONTRACTOR TO PROVIDE 100W A19 LAMPS FOR COOLER AND FREEZER FIXTURES.
- 6 ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL WIRING INSIDE COOLER/FREEZER PER MANUFACTURERS REQUIREMENTS AND N.E.C. ARTICLE 300-7 (1999). ALL CONDUITS ENTERING OR LEAVING COOLER/FREEZER SHALL BE PROVIDED WITH SEAL-OFF FITTINGS WITH COMPOUND PER N.E.C. 300-(7A)(1999).
- ALL EXTERIOR LIGHTING SHALL BE CIRCUITED THROUGH EXTERIOR LIGHTING CONTACTOR/PHOTOCELL CONTROL PANEL.
- 8 ROUTE CIRCUIT THROUGH LIGHT SWITCH. SEE DRAWING SHEET E-400.00 FOR CONTROLS.
- 9 PROVIDE 120V ,1P/20 AMP WALL SWITCH AT 48" AFF FOR FRONT OF HOUSE LIGHTING AND EXTERIOR SIGNAGE LIGHTING. SEE DRAWING SHEET E1.0 FOR CONTROLS. LABEL SWITCHES.



ТҮРЕ	QTY	LOCATION	MANUFACTURE / ITEM NUMBER	FIXTURE DESCRIPTION		LAMPS	MOUNTING	VOLTAGE	WATTAGE	REMARKS
ITPE	QH	LOCATION	MANOFACTORE / TIEN NOWBER	FIXTURE DESCRIPTION	#	TYPE	MOUNTING	VOLIAGE	WATTAGE	REIVIARRS
Α	9	KITCHEN	CREE: C-TR-C-FP24-50L-35K-WH	2X4 FLAT PANEL	1	INTERGRAL LED	LAY-IN GRID	120	41	
С	6	ENTRY	TCP: LED 14D R5630K B95 / ELITE: B 6IC-AT-W	6" DOWN LIGHT	1	INTERGRAL LED	RECESSED	120	14	BLACK FINISH
D	2	ENTRY	ACCUSERVE / A31001A	TIFFANY PEDANT	1	LED A 19 E26 BASE	TRACK	120	8	REQUIRE EXTRA STRUCTURE ABOVE CEILING
J	2	ENTRY	LF ILLUMINATION: TXA 01-A-J-06C-92-30-M-D1-1-BB	INTERGRAL LED TRACK HEAD	1	INTERGRAL LED	TRACK	120	6	BLACK FINISH
JB	1	ENTRY	CONTECH: LT4B, LA108	4' TRACK	-	N/A	CEILING	120	N/A	BLACK FINISH
K	6	KITCHEN/ENTRY	BEST LIGHTING: CLPU-1-R-W-RC	EXIT/EMERGENCY COMBO	2	INTERGRAL LED	WALL	120	3	WHITE FINISH
W	1	ENTRY	BEST LIGHTING: CLPU-1-R-W-RC	EXIT/EMERGENCY COMBO	2	INTERGRAL LED	WALL	120	3	WHITE FINISH
W1	1	EXTERIOR	BEST LIGHTING: RHLED2-WP-CLPCXTE	EXTERIOR EMERGENCY HEADS	2	INTERGRAL LED	WALL	9.6	4	REMOTE POWERED BY TYPE W

(ALL FIXTURES AND LAMPS SUPPLIED BY OWNER) (ALL FIXTURES INSTALLED BY CONTRACTOR)

KEY NOTES 6 LIGHTING PLAN 1/4"=1'-0" 1

LIGHTING NATIONAL ACCOUNT:

CAPITOL LIGHT

PRIMARY CONTACT: KEVIN POLLEY PHONE: (860) 670-4595

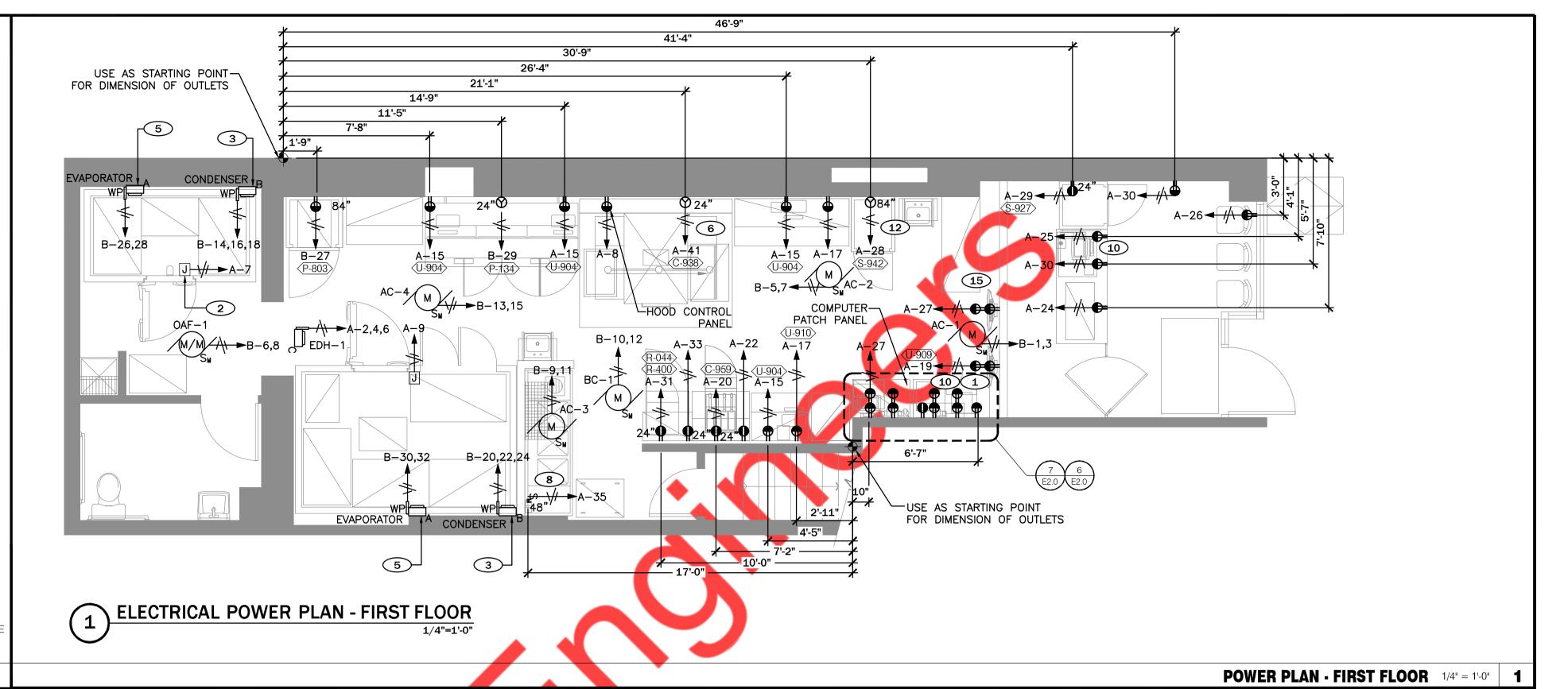
EMAIL: kevin.polley@capitollight.com

CAPITOL LIGHT HAS AGREED TO PROVIDE A PHOTOMETRICS STUDIES FOR ALL DELCOS. ONCE AN EQUIPMENT PLAN IS COMPLETE, EMAIL THE AS-BUILT AND BASE PLANS TO ACCUSERV FOR PHOTOMETRIC. EACH SPACE WILL BE DESIGNED FOR A MIN. OF 50 FOOT CANDLES THROUGH OUT THE SPACE. CAPITOL LIGHT HAS AGREED TO RETURN THE PHOTO METRIC WITH LIGHTING LAYOUT WITHIN 48 HOURS.

	RICAL EQUIPMENT SCHE						1
ITEM	DESCRIPTION	VOLTAGE/PHASE	AMPS	WATTAGE	PLUG	A.F.F.	CIRCUIT :
C-959	GAS OPEN FRYER	120V/1PH	6.1	700	5-15P	24"	A-20
C-959	GAS OPEN FRYER FILTER	120V/1PH	0.7	80	5-15P	24"	A-22
S-927	BEVERAGE COOLER	120V/1PH	17.39	2000	5-15P	24"	A-29
R-044	UNDERCOUNTER FREEZER	120V/1PH	6.43	740	5-15P	24"	A-1
C-938	OVEN	120V/1PH	8.70	1000	5-15P	-	A-41
P-803	1-COMP PROOFER	115V/1PH	15.6	1780	5-20P	84"	A-37
P-134	MAKE TABLE	120V/1PH	17.8	2050	5-15P	-	A-39
R-400	WINGSTREET REFRIGERATOR	120V/1PH	5.82	670	5-15P	-	A-33
N-XX2	DISHWASHER	120V/1PH	12.0	1380	DIRECT	48"	A-35
S-942	HOT HOLD	120V/1PH	22.2	2550	L5-30P	84"	A-28
U-904	MONITOR	120V/1PH	2.1	250	5-15P	PER PLAN	A-51

- PROVIDE 20A., 120V. A QUAD ISOLATED GROUND RECEPTACLE FOR DEMARK TELEPHONE TERMINAL BOARD AND TELEPHONE SYSTEM TERMINAL BOARD.
- 2 NOT USED.
- 3 CONDENSING UNITS TO COOLER/FREEZER MOUNTED ON FIELD FABRICATED PLATFORM ON THE CELLAR. E.C. TO FIELD VERIFY THE EXACT LOCATION IN CELLAR IN COORDINATION WITH ARCHITECT/OWNER.
- 4 NOT USED.
- 5 COOLER EVAPORATOR 20A., 1P., 120V., WEATHERPROOF MOTOR RATED SWITCH PROVIDE CONNECTIONS TO CONDENSER PER MANUFACTURERS REQUIREMENTS.
- 6 OVENS 20A., 1P., 120V., MANUAL MOTOR STARTING SWITCH WITHOUT OVERLOADS WITH STAINLESS STEEL LOCKOUT AND TAG OUT COVER PLATE. PROVIDE RECEPTACLES TO MATCH OVEN PLUG CONFIGURATION IF OVENS ARE PROVIDE WITH FACTORY INSTALLED CORD AND PLUG.
- SEE DRAWING SHT E1.0 FOR EXHAUST FAN INTERLOCK DETAILS.
- 8 DISHWASHER 20A., 1P., 120V., MANUAL MOTOR STARTING SWITCH WITHOUT OVERLOADS WITH STAINLESS STEEL LOCKOUT AND TAG OUT COVER PLATE.

- 9 NOT USED.
- (10) 20A, 115V, IP, 3 WIRE ISOLATED GROUND RECEPTACLE, NEMA 5-20P LOCATED WITHIN 11" OF CENTERLINE OF COUNTER.
- TWO CIRCUIT POWER POLE EQUAL TO HUBBELL HBLP SERIES WITH (2) 20 AMP RECEPTACLES.
- (12) 30A., 120V., 1P., 2 WIRE NEMA L5-30P RECEPTACLE.
- (13) PROVIDE CONNECTION FROM DUCT SMOKE ANNUNCIATORS TO DUCT SMOKE DETECTORS.
- 14) NOT USED.
- (15) RECEPTACLE TO BE PROVIDED ONLY WHEN CCTV EQUIPMENT IS REQUIRED. MOUNT RECEPTACLE AT 90".
- 16 SWITCH EXHAUST FAN WITH LIGHT IN RESTROOM.
- 17 ALL EXISTING ELECTRICAL CONNECTION SHALL REMAIN. E.C. TO COORDINAT WITH ARCHITECT FOR MORE DETAIL.

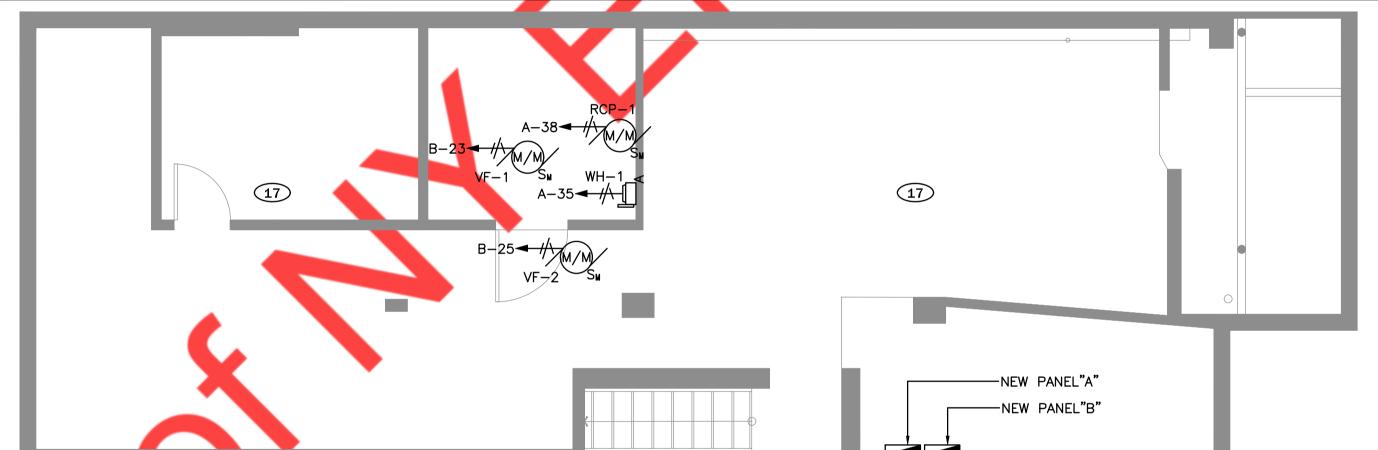


KEYED NOTES 6

- ALL CONNECTIONS AND ELECTRICAL EQUIPMENT LISTED IN SCHEDULE SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. FIELD VERIFY CONNECTION REQUIREMENTS AND EQUIPMENT PROVIDED BY OTHERS PRIOR TO ROUGH-IN.
- REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR THE REQUIREMENTS ASSOCIATED WITH WIRING AND CONNECTIONS OF INTERLOCKING, THERMOSTAT LOCATIONS, EXHAUST FAN CONTROL SWITCHES, AND OTHER CONTROLS OF MECHANICAL EQUIPMENT.
- PROVIDE DUCT MOUNTED SMOKE DETECTORS IN THE RETURN DUCT. VERIFY THE REQUIRED QUANTITY OF DUCT SMOKE DETECTORS FOR EACH UNIT WITH DUCTWORK LAYOUT TO MEET NFPA REQUIREMENTS. REFER TO SMOKE MONITORING SYSTEM NOTES ON SHEET E1.0.

MECHANICAL EQUIPMENT CONNECTION SCHEDULE NOTES 7

- A. HORIZONTAL DIMENSIONS TO J-BOXES ARE FROM FACE OF STUD CENTER OF BOX, U.O.N. VERTICAL DIMENSION OF 24" IS FROM FINISH FLOOR TO CENTER OF J-BOX, U.O.N.
- B. PROVIDE STAINLESS STEEL OUTLETS, SWITCHES AND COVER PLATES IN B.O.H.PROVIDE BLACK OUTLETS, SWITCHES AND COVER PLATES IN F.O.H.
- C. ALL OUTLETS AND J-BOXES BEHIND SIGNAGE SHALL BE RECESSED OR FLUSH WITH ADJACENT BUILDING SURFACES.
- D. E.C. SHALL COORDINATE FINAL LOCATION OF MECHANICAL EQUIPMENTS WITH RESPECTIVE CONTRACTORS IN THE FIELD.

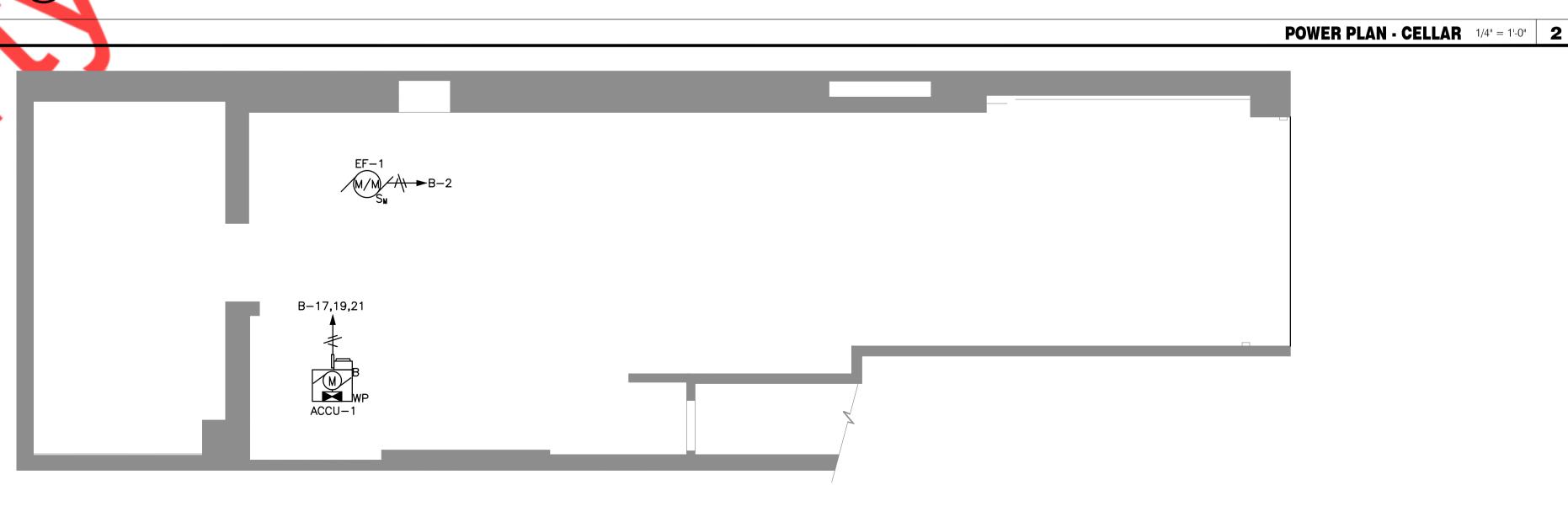


ELECTRICAL POWER PLAN - CELLAR

1/4"=

MECHANICAL EQUIPMENT CONNECTION SCHEDULE NOTES 8

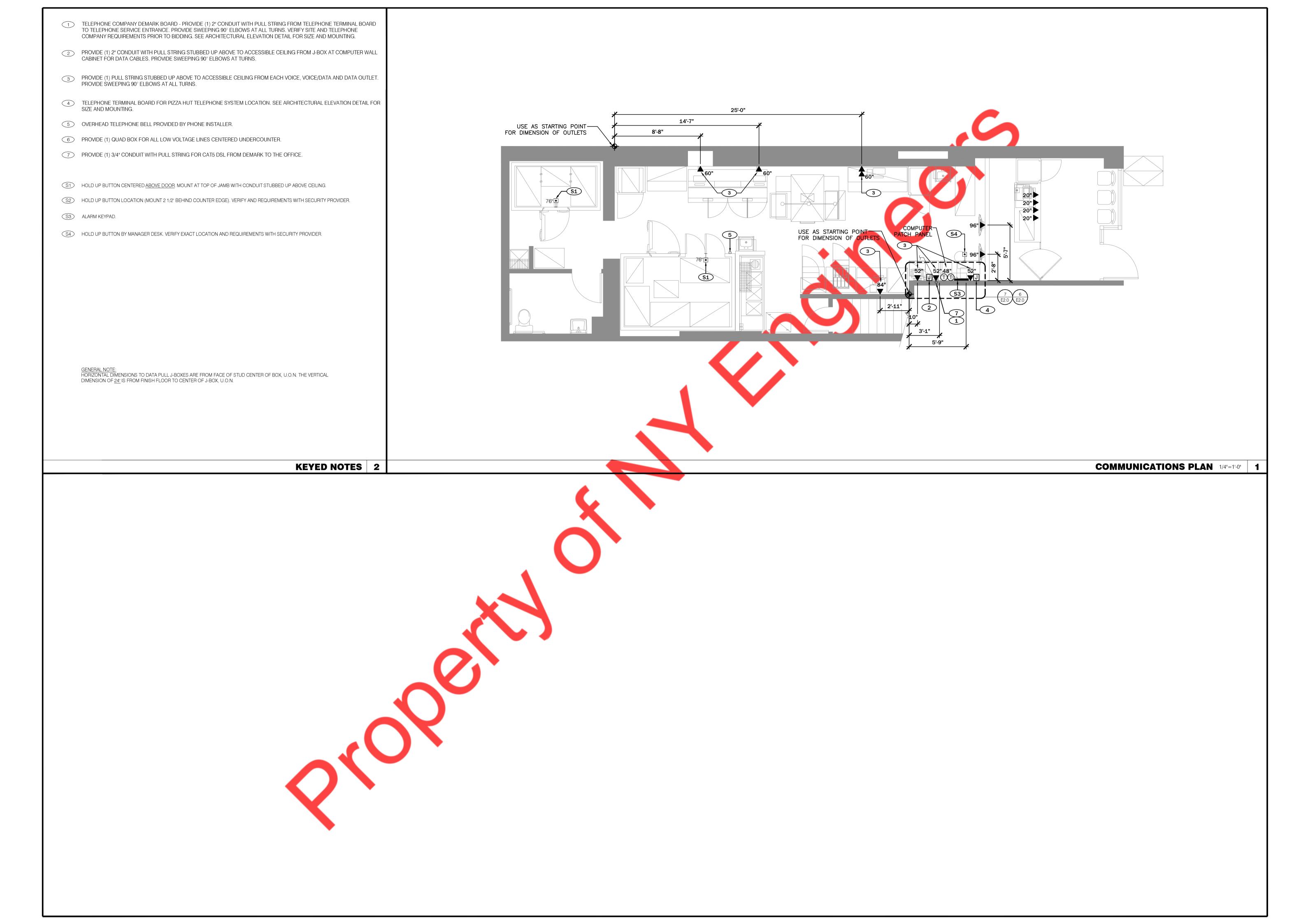
												_		
			LOAD				EVICE			DEVICE A	T UNIT	S E		REMARKS
UNIT DESIG.	UNIT VOLTAGE	H.P.	FLA	KVA	CIRCUIT NUMBER	BKR. AMPS,	SW. FUSE ONEMA START. AMPS AMPS E SIZE	BKR. SV AMPS AM	R. SW. F PS AMPS A	EUSE D NEMA START. MMPS E SIZE	OTHER	T S	OB SEE THE FEEDER SCHEDULE	OR SEE THE INDICATED NOTES BELOW
AIR CON	NDITIONER C	UTDO	OR UN	IIT (HE	AT RECOVER	RY)								
ACCU-1	208/3	ı	-	19.29	SEE PLANS	40	3	4	0	40 3	NEMA 3R	1	REFER TO PANEL SCHEDULE	SEE NOTE #D
EXHAUS	STFANS													
EF-1	115/1	1/3	-		SEE PLANS		1			1	NEMA 3R SWITCH	1	REFER TO PANEL SCHEDULE	
EF-1	115/1	1/20	-		SEE PLANS		1			1	NEMA 3R SWITCH	1	REFER TO PANEL SCHEDULE	
OAF-1	208/1	1/3	3.2	0.83	SEE PLANS	20	2			2	NEMA 3R SWITCH	1	REFER TO PANEL SCHEDULE	
VF-1	115/1	ı	1	0.10	SEE PLANS	20	1			1	NEMA 3R SWITCH	1	REFER TO PANEL SCHEDULE	
VF-2	115/1	ı	-	0.10	SEE PLANS	20	1			1	NEMA 3R SWITCH	1	REFER TO PANEL SCHEDULE	
ELECTR	IC DUCT HEA	TER												
EDH-1	208/3	-	-	40	SEE PLANS	100	3			3	NEMA 3R	1	REFER TO PANEL SCHEDULE	
VRF HEA	AT RECOVER	Y BRAI	VCH C	ONTRO	OLLER SCHE	DULE				<u> </u>				
BC-1	208/3	-	-	0.4	SEE PLANS	20	1			1	NEMA 3R	1	REFER TO PANEL SCHEDULE	
INDOOF	UNIT							'			_			•
AC-1	208/1	1	-	1.08		20	1			1	NEMA 3R	1	REFER TO PANEL SCHEDULE	
AC-2	208/1	-	-	1.08		20	1			1	NEMA 3R	1	REFER TO PANEL SCHEDULE	
AC-3	208/1	1	1	0.48		20	1			1	NEMA 3R	1	REFER TO PANEL SCHEDULE	
AC-4	208/1	ı	1	1.08		20	1			1	NEMA 3R	1	REFER TO PANEL SCHEDULE	
COOLEF	R CONDENSE	R										$\overline{}$		
CC-1	208/3	-	9.0	3.2	SEE PLANS	30	3	3	30	15 3	NEMA 3R	1	REFER TO PANEL SCHEDULE	AR-FUSE AS REQUIRED
		-												
COOLER	R EVAPORATO	OR			•		, , ,			' '		•		•
CE-1	208/1	-	-	0.4	SEE PLANS	30	2		-	- 2 MMS	SEE KEY NOTE #5	1	REFER TO PANEL SCHEDULE	FED FROM CONDENSER
		-							\top					
COOLEF	R CONDENSE	R												•
CC-2	208/3	-	9.0	3.2	SEE PLANS	30	3	3	30	15 3	NEMA 3R	1	REFER TO PANEL SCHEDULE	AR-FUSE AS REQUIRED
COOLER	R EVAPORATO	OR			1			'						1
CE-2	1208/1	-	-	0.4	SEE PLANS	30	2		-	- 2 MMS	SEE KEY NOTE #5	1	REFER TO PANEL SCHEDULE	FED FROM CONDENSER
													+	



3 ELECTRICAL POWER PLAN - ROOF
1/4"=1"-

MECHANICAL EQUIPMENT CONNECTION SCHEDULE NOTES 5

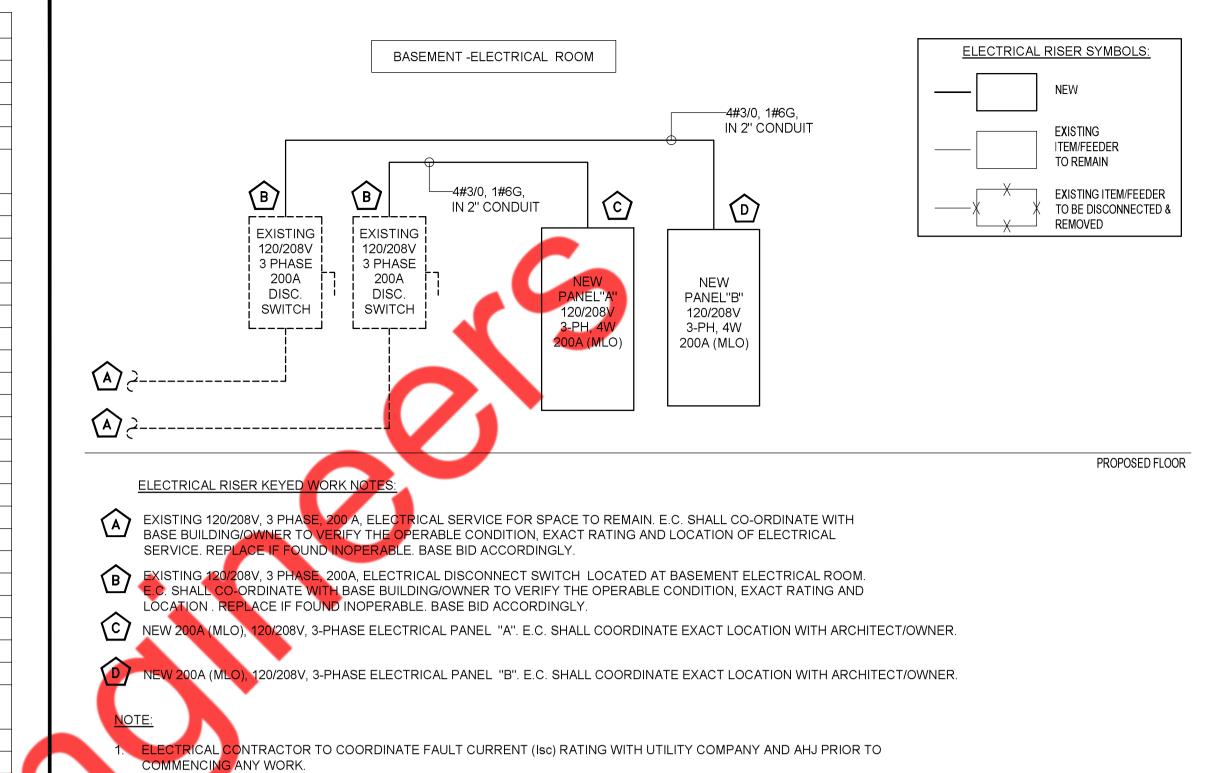
POWER PLAN - ROOF 1/4" = 1'-0" **3**



PANEL:	A(NEW)													MOUNTING:	SURFACE	
208Y/120	VOLTS,	3		PHASE,			4	WIRE						LOCATION: ELECTRI	CAL ROOM (BA	SEMENT)
MAIN CB	NA	MLC	O:	200A		BUS:	225A	MIN,						A.I.C RATING: 22 kA		
		I				1					I			1		
CKT NO.	TRIP AMPS	DESCRIPTION	DESCRIPTION OF LOAD		LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (K\		VA) C	MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO
1	20	LIGHTING-ENTRY			L	0.12	2#10, #10G, 3/4"C	9.45				9.33	Н			2
3	20	LIGHTING-KITCHEN & BOH			L	0.26	2#10, #10G, 3/4"C		9.59		3#4, #8G, 1"C			EDH-1	38.200	4
5	20	LIGHTING-KITCHEN			L	0.13	2#10, #10G, 3/4"C			9.46		9.33	Н		3 ^x	6
7	20	LIGHTING, HEATER -WALK IN	N COOLE	R-1	L	1.00	2#12, #12G, 3/4"C	1.18			2#12, #12G, 3/4"C	0.18	R	HOOD CONTROL PANEL	20	8
9	20	LIGHTING, HEATER -WALK IN	N COOLE	R-2	L	1.00	2#12, #12G, 3/4"C		1.00					SPARE		10
11	20	SPARE				1.20	2#12, #12G, 3/4"C			1.20				SPARE		12
13	20	BUILDING SIGNAGE			L	1.50	2#12, #12G, 3/4"C	1.50						SPARE		14
15	20	KITCHEN MONITOR #U904			R	1.20	2#12, #12G, 3/4"C		1.20					SPARE		16
17	20	SUS TICKET PRINTER #U-910)		R	0.72	2#12, #12G, 3/4"C			0.72				SPARE		18
19	20	ALARM SYSTEM PANEL #U-909			R	0.25	2#12, #12G, 3/4"C	0.95			2#12, #12G, 3/4"C	0.70	Е	GAS OPEN FRYER #C-959	20	20
21	20	MANAGERS DESK TERMINALS			R	1.20	2#12, #12G, 3/4"C		1.28		2#12, #12G, 3/4"C	0.08	Е	GAS OPEN FRYER FILTER #C-959	20	22
23	20	TELEPHONE BOARD/DASH BOARD			R	1.20	2#12, #12G, 3/4"C			1.50	2#12, #12G, 3/4"C	0.30	R	SAFE #F-178	20	24
25	20	PRINTER #U-901			R	0.80	2#12, #12G, 3/4"C	2.20			2#12, #12G, 3/4"C	1.40	R	SHOW WINDOW	20	26
27	20	WCO MONITORS			R	0.66	2#12, #12G, 3/4"C		3.21		2#10, #10G, 3/4"C	2.55	Е	HOT HOLD #S-942	30	28
29	30	BEVERAGE COOLER #S-927			Е	2.00	2#10, #10G, 3/4"C			2.36	2#12, #12G, 3/4"C	0.36	R	RECEPTACLE	20	30
31	20	1-DOOR U.C. FREEZER #R-0	044		Е	0.74	2#12, #12G, 3/4"C	0.92			2#12, #12G, 3/4"C	0.18	0	WH-1	20	32
33	20	1-DOOR WINGSTREET REFRI	IGERATO	DR#R-400	E	0.67	2#12, #12G, 3/4"C		0.67					SPARE		34
35	20	DISH WASHER # NXX2			E	1.38	2#12, #12G, 3/4"C			1.38				SPARE		36
37		SPARE						0.90			2#12, #12G, 3/4"C	0.90	0	RCP-1	20	38
39		SPARE							0.00					SPARE	20	40
41	20	OVEN #C-938			E	1.00	2#12, #12G, 3/4"C			1.00				SPARE	20	42
		ТОТА	AL CON	NECTED LOAD (KVA	\)			17.10	16.95	17.62						
		LOAD CLASSIFICATION				CONNECT	ED LOAD (KVA)		O FACTOR	DE	MAND LOAD (KVA)			PANEL TOTAL LOAD		
		TLA LIGHTING		L			4.01		.5%		5.01					
		AL RECEPTACLE		R			8.27		00%		8.27			TOTAL CONNECTED LOAD	50.48	KVA
		OTAL HVAC		H			28.00		0%		28.00			TOTAL DEMAND LOAD	48.28	KVA
		OTAL MOTOR		M	+		0.00		10%		0.00			OTAL CONNECTED CURRENT	140.27	AMF
		CHEN/EQUIPMENTS HER/MISCILLANEOUS		Е О			9.12 1.08	10	65% 5.93 100% 1.08			TOTAL DEMAND CURRENT SYSTEM VOLTAGE			134.18	AMF 208 Wye

PANEL:	B(NEW)													MOUNTING:	SURFACE	V	
208Y/120	VOLTS,	;	3	PHASE,			4	WIRE						LOCATION: ELE	CTRICAL ROOM (BAS	SEMENT)	
MAIN CB	NA	M	LO:	200A		BUS:	225A	MIN,						A.I.C RATING: 22 kA			
CKT NO.	TRIP AMPS	DESCRIPTION	ON OF L	.OAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PE	R PHASE (K)	/A)	MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO	
1	20				Н	0.54	2442 4422 2/482	1.37			2#12, #12G, 3/4"C	0.83	M EF	-1	20	2	
3	28.20	AC-1			Н	0.54	2#12, #12G, 3/4"C		0.64		2#12, #12G, 3/4"C	0.10	M EF	-2	20	4	
5	28.20	AC-2			Н	0.54	2#12, #12G, 3/4"C	0.05		0.96	2#12, #12G, 3/4"C	0.42	MOA	AF-1	28,20	6	
7					H	0.54		0.96	0.26			0.42	N N			8 10	
9 11	28.20	AC-3			H	0.24	2#12, #12G, 3/4"C		0.26	0.26	2#12, #12G, 3/4"C	0.02	H BC	-1	28.70	12	
13 15	28.20	AC-4			H	0.54 0.54	2#12, #12G, 3/4"C	1.61	1.61		3#10, #10G, 3/4"C	1.07 1.07	H H W	ALK IN COOLER CONDENSER-1	38.30	14 16	
17 19	3P.AO	ACCU-1			H	6.43 6.43	2#8, #10G, 3/4"C	7.50		7.50		1.07 1.07	H H	Ť		18 20	
21		NE 4			H	6.43	2#12 #126 2/4"6		7.50	1 17	3#10, #10G, 3/4"C	1.07	H W	ALK IN COOLER CONDENSER-2	38.30	22	
23 25	20	VF-1 VF-2			M	0.10	2#12, #12G, 3/4"C 2#12, #12G, 3/4"C	0.50		1.17		1.07 0.40	Н			24 26	
27	30	1-COMP PROOFER#P-803			E	1.78	2#10, #10G, 3/4"C	0.30	2.18		2#10, #10G, 3/4"C	0.40	H W.	ALK IN COOLER EVAPORATOR-1	230	28	
29	30	MAKE TABLE #P-134			E	2.05	2#10, #10G, 3/4"C	0.40		2.45	2#10, #10G, 3/4"C	0.40	H W	ALK IN COOLER EVAPORATOR-2	28.30	30	
31		SPARE						0.40	0.00			0.40	Н	ARE		32	
33 35		SPARE SPARE							0.00	0.00				ARE		34 36	
37		SPARE						0.00		0.00				ARE		38	
39		SPARE						0.00	0.00					ARE		40	
41		SPARE							0.00	0.00				ARE		42	
		TO	TAL CON	NNECTED LOAD (KV	'A)			12.33	12.18	12.32							
		LOAD CLASSIFICATION				CONNECTE	ED LOAD (KVA)	DEMANI	FACTOR	DE	MAND LOAD (KVA)			PANEL TOTAL LOAD			
		TLA LIGHTING		L			0.00	_	5%		0.00						
		AL RECEPTACLE		R			0.00		0%		0.00			AL CONNECTED LOAD	36.84	KVA	
		OTAL HVAC		Н			31.05	10	0%		31.05			TAL DEMAND LOAD	35.50	KVA	
		OTAL MOTOR		M			1.96	10	0%		1.96			CONNECTED CURRENT	102.38	AMP	
		CHEN/EQUIPMENTS		E			3.83	6	5%		2.49			AL DEMAND CURRENT	98.66	AMP	
	TOTAL OTI	HER/MISCILLANEOUS		0		ı	0.00	10	0%		0.00			SYSTEM VOLTAGE	120/2	120/208 Wye	

E.C TO FIELD VERIFY THE EXACT A.I.C RATING AS PER AVAILABLE FAULT LEVEL IN COORDINATION WITH UTILITY COMPANY / EXISTING DISTRIBUTION. BASE BID ACCORDINGLY. INFORM ENGINEER FOR ANY DISCREPANCY PRIOR COMMENCING ANY WORK.



ELECTRICAL RISER DIAGRAM 1



SHALL VERIFY INCOMING SERVICE AMPERAGE, WIRE SIZING AND DISTRIBUTION.