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PANEL LOCATION: ELE	ELECTRICAL		ROOM (B)	3						
DIRECTORY	CKT. NO.	BKR. AMPS	ĸW	4 -	■ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	■ 5	ΚW	BKR AMPS	CKT. NO.	DIRECTORY
LTG, STOCK/TOILETS/EF-I (LYLI)	_	20	2.53			1)	020	20	2	EXIT SIGNS
LTG, SALES AREA (LYL I)	w	20	છ		•	 	2.50	20	4	LTG, SALES AREA (LVL 2)
LTG, SALES AREA (LYL I)	u	20	2.30	')		 	2.75	20	o	LTG, SALES AREA (LYL 2)
SPARE	_	20	•	1)		 	3,58	20	Ø	LTG, SALES AREA (LVL 2)
SPARE	ں	20	1		+	<u> </u>)	•		$\vec{\varrho}$	SPACE
SPARE	=	20	•	1)		†)	ı		12	SPACE
SPARE	ធ	20	•]		 	•	ı	4	SPACE
BALER	ট	30	3,88	<u> </u>	•	 	Ø. <u>i</u> Ø	20	<u>&</u>	PHASE LOSS MONITOR (NOVAR)
	コ		3,88	 - 		 	Ø <u>Ø</u>		<u>@</u>	
	ତା		3,88			 	01.0		20	
					[a]					
MAIN BKR: MLO	Z A N	MAIN BUS:	: 100A	A					k ₩ 1	KW PHASE "A" 6.41
FRAME:	10V	<i>YO</i> LTAGE:		48ØY/2TTV					#W #	KW PHASE "B" 5.93
TRIP:	HOU	MOUNTING:		SURFACE	<u></u>	S: 22,000	3		¥ ₩ 1	KW PHASE "C" 5.15
REMARKS: EXISTING PANEL	BAEVKEVS EL		AS REQ	AH OTHER					\vec{Q}	TOTAL KW: 17.49
* PROVIDE CIRCUIT BREAKER WITH A MEANS FOR BEING LOCKED ON EACH ELECTRICAL PANEL, CIRCUITS DENOTED WITH "(LY	; C Z A	MEANS	FOR BE	THIA MEANS FOR BEING LOCKED. CIRCUITS DENOTED WITH "(LYL *)" ARE		1		7 7 7 7	i <u>C</u>	CONTROLLED VIA LIGHTING CONTROL PANEL LCP
CONTACTOR(S) THAT WILL SWITCH THE ASSOCIATED CIRCUITS (SNOVAR BUILDING MANAGMENT SYSTEM AND LCP):	1678 T	当点を	ACCIVE TAISOO	> ED CIRC	CIRCUITS (SEE	S HH HH	ROLS DR	AWING	, SHIII	FT F-5 FOR DETAILS ON THE
									•	

															*				*		×		*				
REMARKS: EXISTING PANEL -	TRIP:	FRAME:	MAIN BKR: 200A	FUTURE SIGNAGE (LYL 3)	FUTURE SIGNAGE (LYL 3)	FUTURE SIGNAGE (LYL 3)	BMS-2 (NOVAR)	BMS-1 (NOYAR)	SPARE	SPARE	SPARE	SPARE	R - EMPLOYEE BREAK	R - EMPLOYEE BREAK	R - REGISTER (ISOLATED)	R - REGISTER	PLUGMOLD IN OFFICE	PLUGMOLD IN OFFICE	R - REGISTER (ISOLATED)	R - REGISTER	R - REGISTER (ISOLATED)	R - REGISTER	R - REGISTER (ISOLATED)	R - REGISTER	DIRECTORY	PANEL LOCATION: STO	
ш ,				4	39	3	35	ယ္	<u>9</u>	29	27	25	23	2	छ	コ	ট	យ	=	9	_	ű	w	_	CKT. NO.	RP (EXISTING STOCKROOM	
A I I I I I I I				ğ	20	20	20	20	20	20	20	200	200	20	20	20	20	20	20	200	20	20	20	20	BKR. AMPS	• • •	
PROVIDE NEW CIRCUIT -OAD	MOUNTING:	YOLTAGE:	MAIN BUS:				Ø. <u> </u> Ø	<u>Ø</u>				•	150	0 2 .	0.36	0.36	Ø54	954	0.36	0.36	0.36	0.36	0.36	0.36	kW	PANEL 11')	_O
	TING:	 GE:	BUS:	[)								[)]							<u> </u>]]	[)				
BREAKERS	SURFACE	208Y/120V	225A		•	<u> </u>		•	<u> </u>		+	<u> </u>		+	+		+	<u> </u>		+	<u> </u>		+	<u> </u>	■ 5		
A S	CE AIC:	/12ØY)	 	1))))	 	1)))))	 	1)))	 	■ 🖫		国 エ の の エ に の の に る に る に る に に る に に る に る に に る に る に る に に る に る に る に る に に る に る に る に る に る に る に る に る に る に る に る に る に る に る に る に る に る に る に に に る に に に に に る に る に に に に に に に に に に に に に
REQUIRED	22,000			- - - - - - - - - - - - - - - - - - -	1,000	1.00	Ø.72	036	050	2.00	036	0.36	Ø.i8	Ø. <u>i</u> Ø	050	ı		ı	81.0	1	126	0.36	126	1,44	ĸW		Ë
				20	20	20	20	20	20	30	20	200	20	20	20	20	20	20	20	20	200	20	20	20	BKR. AMPS		ш
7101	KW P	E 3	E 3	24	4	30	36	ω 4	32	ω 0	28	26	24	22	20	<u>@</u>	<u>@</u>	4	12	Ø	00	0	4	2	CKT. NO.		
TOTAL kW:	PHASE "C":	KW PHASE "B":	KW 1744SE "A":	SIGNAGE (LVL 3)	SIGNAGE (LVL 3)	SIGNAGE (LVL 3)	70 - ON 7000F	QUAD & TELE, BA	R - VACUUM SYSTEM	WATER HEATER	R - SECURITY SY	R - OFFICE	R - OFFICE CCTY (ISOLATED)	CHIME TRANSFORMER	R - DRINKING FOUNTAIN	SPARE	SPARE	SPARE	R - OFFICE (ISOL	SPARE	R - STOCKROOM	R - OFFICE (ISOLATED)	R - SALES AREA	R - SALES AREA	DIRECTORY		
19,74	7.12	5.94	899					9 TELE. BACKBOARD	TEM		SYSTEM		(ISOLATED) ×	公開 刀	UNTAIN				(ISOLATED) *			ATED)	-		<u>څ</u>		

	TOTALS	WATER HEATER	RECEPTACLES	HYAC	LIGHTS		LOAD SI
	80.13	2.00	15.04	42.90	2Ø.19	CONNECTED KW	OAD SUMMARY
_		<i>@@</i> !	1 <i>.</i> 00	1 <i>.</i> 00	125	DEMAND FACTOR	
	85.18	2.00	15,04	42.90	25.24	DEMAND KW	

LYL | = EMPLOYEE LIGHTS (| CONTACTOR REQUIRED)
LYL 2 = CUSTOMER LIGHTS (| CONTACTOR REQUIRED)
LYL 3 = SIGNS / CANOPY LIGHTS (2 CONTACTORS REG
LYL 4 = EXTERIOR SECURITY LIGHTS
LYL 5 = PARKING LOT LIGHTS

CASH REGISTER I

GROUNDING

CASH REGISTER AND COMPUTER WIRING:

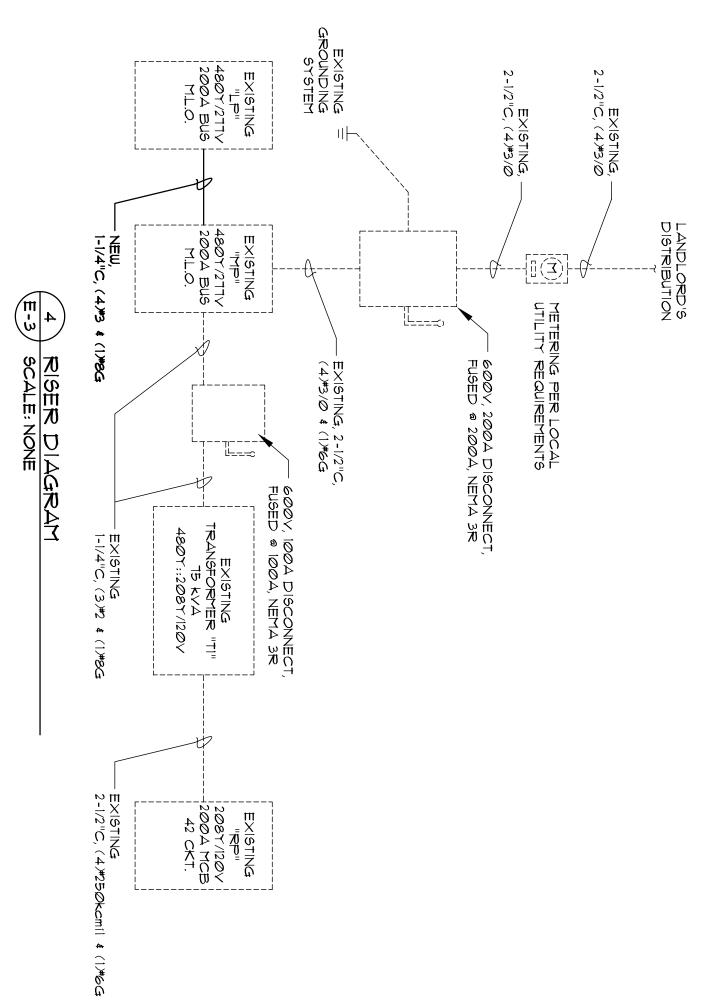
A. CASH REGISTER AND COMPUTER CIRCUITS SHALL BE CONNECTED
TO THE SAME PHASE (EVERY THIRD POSITION) IN THE PANELBOARD.
FOR EXAMPLE, ALL ON PHASE A, CIRCUIT NUMBERS I, 7, 13, OR 2, 8,
14, ETC.

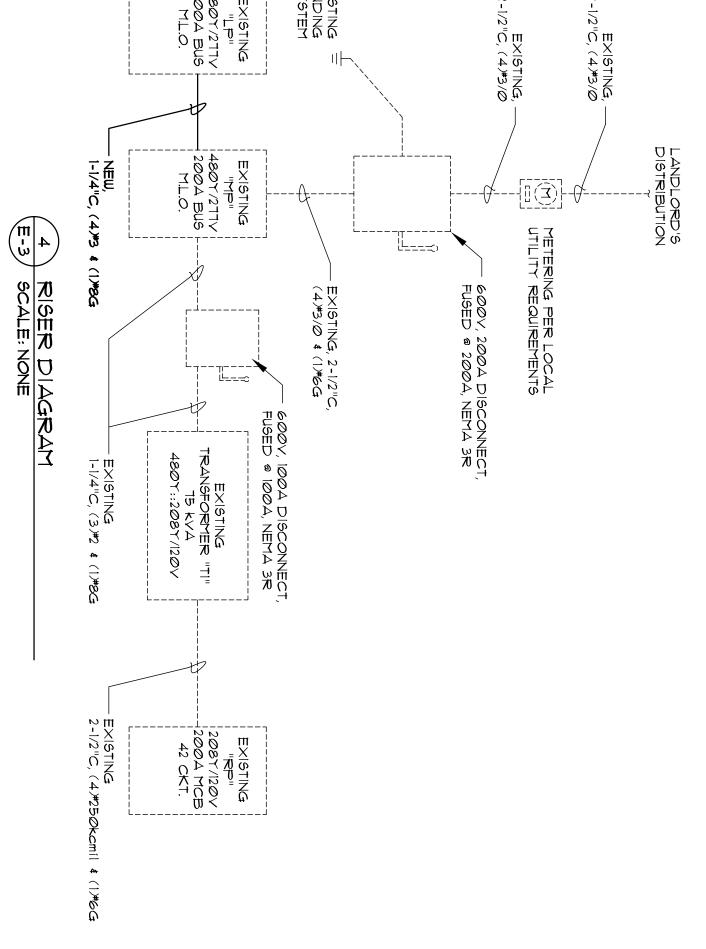
FURNISH AND INSTALL AN INSULATED, ISOLATED GROUND BAR IN PANEL (A). INSTALL AN INSULATED "ISOLATED" GROUND WIRE IN EACH BRANCH CIRCUIT "HOMERUN" TO PANELBOARD. CONNECT GROUND WIRE FOR CASH REGISTER AND COMPUTER CIRCUITS TO ISOLATED GROUND BAR IN PANELBOARD AND DIRECTLY TO ISOLATED GROUND LUG/SCREW ON ISOLATED GROUND RECEPTACLES.

DO NOT CONNECT "ISOLATED" GROUND WIRE TO RACEWAY OR BOX. CONDUIT AND BOX SHALL BE METAL AND METAL-TO-METAL CONNECTORS SHALL BE USED (NO FLEX CONDUIT) TO ESTABLISH GROUND PATH FOR BOX AND RACEWAY. DO NOT RUN ANY CIRCUITS WITH CASH REGISTER OR COMPUTER (IG) CIRCUITS.

CONDUIT AND BOX MUST BE METAL TO PREQUIPMENT GROUND PATH FOR BOX

TYPICAL WIRING FOR EACH
ISOLATED GROUND RECEPTACLE
ON A CASH REGISTER CIRCUIT





Cederquist Rodriģuez Ripley PC 129 W Virginia Beach Blvd. Norfolk, VA 23510 PH (757) 622-2828 FAX (757) 622-6883

ELECTRICAL CONTRACTOR M

CONDUIT FOR TELEPHONE OUTLETS TO BE 3/4" EMT. PROVIDE PULL STRING TO TELEPHONE BACKBOARD VIA CONDUITS AND CABLE TRAY WHERE FEASIBLE.

ALL BREAKERS SHOWN IN THE PANELBOARD SCHEDULE SHALL BE RATED AS BOTH CIRCUIT CAPACITY AND FAULT CURRENT INTERRUPTING CAPACITY.

ALL FIXTURES, DEVICES, CONDUIT, AND EQUIPMENT SHALL BE SECURED WITH APPHANGERS AND ANCHORS AND IN ACCORDANCE WITH APPROVED STANDARDS OF INSTALLATION.

PANELBOARDS SHALL CONTAIN A TYPEWRITTEN DIRI

ONDUCTORS ARE AUG*12 COPPER UNLESS OTHERWISE SHOWN. ALL CONDUCTORS ARGER THAN *10 SHALL BE STRANDED. RUNS IN EXCESS OF 90'-0" (ONE WAY) HALL BE SIZED PER THE NATIONAL ELECTRICAL CODE MAXIMUM 2% VOLTAGE DRO

ONTRACTOR SHALL CUT AS REQUIRED TO INSTALL ELECTRICAL EQUIPMENT, REPAIR OF OOR OR WALLS SHALL BE COORDINATED WITH GENERAL CONTRACTOR, CONTRACTOR HALL ALSO REPAIR ALL OPENINGS LEFT DUE TO EQUIPMENT REMOVAL.

ERIFY ALL DOOR SWINGS WITH ARCHITECTURAL BEFORE ROUGHING IN LIGHT SWITC RADE NAMES ARE GIVEN TO CLARIFY TYPE OF PRODUCT AND QUALITY DESIRED.

9/23/04 609804 project designed DWB drawn DWB checked ADG

description by mark| date revisions

CIRCUIT BREAKERS FOR HYAC EQUIPMENT SHALL BE HACK MINIMUM HORIZONTAL SEPARATION BETWEEN BOXES ON OF WALL SHALL BE 24 INCHES.

7M 311800

ALLS OF FIRE RATED

ROVIDE A LAMICOID NAMERLATE (WHITE LETTERS ON BLACK BACKGROUND) ON EACH ANELBOARD, MOTOR STARTER, CONTRACTOR, TRANSFORMER, ETC. LETTERS SHALL BE 15 INCH MINIMUM.

ACK TO BACK MOUNTING OF RECEPTACLES IS NOT PERMITTED.

ADDITION TO THE NEC REQUIREMENTS FOR GFC! RATED RECEPTACLES, THE FOLLOWING ECEPTACLES SHALL ALSO BE GFC! RATED: (1)-ALL RECEPTACLES LOCATED WITHIN 6 ERVICING HVAC EQUIPMENT REGARDLESS OF LOCATION. EITHER INDIVIDUAL GFC! DEVICES AFC! CIRCUIT BREAKERS ARE ACCEPTABLE BUT RECEPTACLES PROVIDED BY CIRCUIT REGARDLESS OF LOCATION. EITHER INDIVIDUAL GFC! DEVICES REAKERS OR OTHER GFC! DEVICES SHALL BE CLEARLY MARKED AS GFC! AND THE REAKERS OF PROTECTION SHOWN.

ORA Consulting Engineers Oliver-Rhoads & Associates, Inc. 225 Research Park Drive, Tullahoma TN 37388 Office: 931.454.9940 ~ Fax: 931.454.2338 eMail: design@oliver-rhoads.com

ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70, NATIONAL ELECTRICAL CODE. ALL ITEMS ARE ON AN OR EQUAI BASIS.

NAL CONNECTIONS TO ALL AIR-HANDLERS, CONDENSING UNITS, EXHAUST FANS, AND THER EQUIPMENT DEVICES WHICH VIBRATE, SHALL BE MADE WITH FLEXIBLE SEALTITE IND APPROPRIATE WIRING.

ECTRICAL DRINKING FOUNTAIN RECEPTACLES SHALL BE LOCATED AS REQU ONCEAL RECEPTACLE BEHIND THE WATER COOLER ASSEMBLY. ACK TO BACK MOUNTING OF RECEPTACLES IS NOT PERMITTED.

IRCUIT BREAKER FOR WATER HEATERS TO BE PROCKED IN THE OPEN POSITION.

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