

Panel Wiring Schedule (3-phase)											
Panelboard	"MDP"	Voltage	277/480	Phase	3	Wire	4				
Panel Type	WESCO	Mains	200A MCB	Mains Rating	400 A	AIC Rating	85,000				
NEMA Type Enclosure	1	Mounting	IFS	Options		Note					
Ckt. No.	Zone/Note	Load Description	Equip #	Brkr Opts	Brkr Size"	Actual KW	Phase	Actual KW	Brkr Size"	Brkr Opts	Equip #
1		AHU-1		H	350	8.540	A	0.000			
3		FPVAV-1		H	200	4.720	B	0.000			
5		SPACE				14.569	B	125/3			
6		XFMR				14.934	C				
Notes: * All circuit breakers to be 20-Amp, 1-Pole unless otherwise noted. Actual Load Totals: Ph. A 28.704 kw, Ph. B 27.820 kw, Ph. C 28.194 kw, Total 84.727 kw (All Phases to be balanced to within 7% using Actual Load Totals.)											
Breaker Options: L - Handle lock-on device H - Heating, A/C & Refrigeration G - Ground Fault Circuit Interrupter											
Zone/Note: Zone - Lighting Control Zones Notes - IG = Isolated Ground Circuit											

Panel Wiring Schedule (3-phase)											
Panelboard	"A"	Voltage	120/208	Phase	3	Wire	4				
Panel Type	WESCO	Mains	125A MCB	Mains Rating	225 A	AIC Rating	65,000				
NEMA Type Enclosure	1	Mounting	IFS	Options		Note					
Ckt. No.	Zone/Note	Load Description	Equip #	Brkr Opts	Brkr Size"	Actual KW	Phase	Actual KW	Brkr Size"	Brkr Opts	Equip #
1		STORE FRONT LIGHTS		L	200	0.893	A	1.181	20/1		
3		STORE FRONT LIGHTS		L	200	0.144	B	0.315	20/1		
5		SPARE				0.000	C	0.785	20/1		
7		STORE FRONT SIGN				1.200	A	0.252	20/1		
9		CABINET LIGHTS				0.650	B	0.540	20/1		
11		CABINET LIGHTS				0.600	C	0.630	20/1		
13		CABINET LIGHTS				0.600	A	0.000	20/1		
15		CABINET LIGHTS				0.650	B	0.810	20/1		
17		CABINET LIGHTS				0.750	C	0.504	20/1		
19		CABINET LIGHTS				1.610	A	0.504	20/1		
21		CABINET LIGHTS				1.050	B	0.260	20/1		
23		FLOORBOX				0.540	C	0.064	20/1		
25		FLOORBOX				0.540	A	0.288	20/1		
27		FLOORBOX				0.540	B	0.600	20/1		
29		TV BACKWRAP				0.600	C	0.216	20/1		
31		SPARE				0.000	A	0.000	20/1		
33		SPARE				0.000	B	0.000	20/1		
35		TV BACKWRAP				0.600	C	0.000	20/1		
37		SPARE				0.000	A	0.216	20/1		
39		STORE FRONT SIGN				1.200	B	0.000	20/1		
41		LED GINGHAM				0.400	C	0.505	20/1		
Notes: * All circuit breakers to be 20-Amp, 1-Pole unless otherwise noted. Actual Load Totals: Ph. A 7.054 kw, Ph. B 6.769 kw, Ph. C 6.174 kw, Total 20.037 kw (All Phases to be balanced to within 7% using Actual Load Totals.)											
Breaker Options: L - Handle lock-on device H - Heating, A/C & Refrigeration G - Ground Fault Circuit Interrupter											
Zone/Note: Zone - Lighting Control Zones Notes - IG = Isolated Ground Circuit											

Panel Wiring Schedule (3-phase)											
Panelboard	"B"	Voltage	120/208	Phase	3	Wire	4				
Panel Type	WESCO	Mains	125A MCB	Mains Rating	225 A	AIC Rating	65,000				
NEMA Type Enclosure	1	Mounting	IFS	Options		Note					
Ckt. No.	Zone/Note	Load Description	Equip #	Brkr Opts	Brkr Size"	Actual KW	Phase	Actual KW	Brkr Size"	Brkr Opts	Equip #
1		SPARE				0.000	A	2.100	20/2		
3		MANAGER'S RECEPTACLE				0.360	B	2.100	20/2		
5		IG MANAGER'S IG RECEPTACLE				0.540	C	0.360	20/1		
7		BACKWRAP RECEPTACLE				1.080	A	0.000	20/1		
9		WALKIE TALKIE				0.360	B	1.080	20/1		
11		MUSIC/SOUND SYSTEM				0.600	C	0.500	20/1		
13		(WR) TEMP. CONTROLS				0.500	A	0.500	20/1		
15		CASHWRAP IG				0.900	B	0.500	20/1		
17		CASHWRAP RECEPTACLE				0.720	C	1.500	20/1		
19		NONSALES RECEPTACLE				1.080	A	1.500	20/2		
21		SPARE				0.000	B	0.600	20/1		
23		MICROWAVE				1.200	C	0.000	20/1		
25		CASHWRAP IG				0.900	A	0.360	20/1		
27		(WR) TELEPHONE BOARD				0.360	B	0.000	20/1		
29		A.L.L. SYSTEM				0.180	C	1.000	20/1		
31		SPARE				0.000	A	0.000	20/1		
33		REFRIGERATOR				1.000	B	0.000	20/1		
35		BACKWRAP RECEPTACLE				0.540	C	1.000	20/1		
37		BACKWRAP RECEPTACLE				0.360	A	0.000	20/1		
39		SPARE				0.540	B	0.000	20/1		
41		CASHWRAP RECEPTACLE				0.720	C	0.000	20/1		
Notes: * All circuit breakers to be 20-Amp, 1-Pole unless otherwise noted. Actual Load Totals: Ph. A 8.380 kw, Ph. B 7.800 kw, Ph. C 8.760 kw, Total 24.940 kw (All Phases to be balanced to within 7% using Actual Load Totals.)											
Breaker Options: L - Handle lock-on device H - Heating, A/C & Refrigeration G - Ground Fault Circuit Interrupter											
Zone/Note: Zone - Lighting Control Zones Notes - IG = Isolated Ground Circuit											

TRANSFORMER SUMMARY					ELECTRICAL LOAD SUMMARY				
DESCRIPTION	ACTUAL CONNECTED KW/KVA	N.E.C. CONNECTED KW/KVA	N.E.C. DEMAND FACTOR	277/480V SYSTEM	DESCRIPTION	ACTUAL CONNECTED KW/KVA	N.E.C. CONNECTED KW/KVA	N.E.C. DEMAND FACTOR	277/480V SYSTEM
LIGHTING	17.187	17.187	1.25	21.484	LIGHTING	17.187	17.187	1.25	21.484
TRACK LIGHTING ***	0.000	0.000	0 Amps x 120V	0.000	TRACK LIGHTING ***	0.000	0.000	0 Amps x 120V	0.000
SHOW WINDOW LIGHTING **	0.000	0.000	0' x 200w / FT	0.000	SHOW WINDOW LIGHTING **	0.000	0.000	0' x 200w / FT	0.000
RECEPTACLES	11.520	11.520	1.0 x 10 KW + 0.5 REMAINING KW	10.760	RECEPTACLES	11.520	11.520	1.0 x 10 KW + 0.5 REMAINING KW	10.760
ELECTRIC WATER HEATER	7.200	7.200	1.0	7.200	ELECTRIC WATER HEATER	7.200	7.200	1.0	7.200
MISCELLANEOUS	9.040	9.040	1.0	9.040	MISCELLANEOUS	9.040	9.040	1.0	9.040
MOTORS	0.000	0.000	1.0	0.000	MOTORS	0.000	0.000	1.0	0.000
FIXED ELECTRIC HEATING	0.000	0.000	1.0	0.000	FIXED ELECTRIC HEATING	39.780	39.780	1.0	39.780
HVAC SYSTEM	0.000	0.000	125% OF LARGEST	0.000	HVAC SYSTEM	0.000	0.000	125% OF LARGEST	0.000
TOTAL	44.947	44.947	<b>CALCULATED PER 2011 NEC</b>	48.484	TOTAL	84.727	84.727	<b>CALCULATED PER 2011 NEC</b>	88.264
NOTES: * USE GREATER LOAD OF THE TWO CATEGORIES ** NEC ARTICLE 220-43 REQUIREMENT (200VA / FT OR ACTUAL CONNECTED) *** NEC ARTICLE 220-43(B) EXCEPTION-TOTAL OF ALL CURRENT LIMITING DEVICES **** 125% OF THE LARGEST MOTOR OR COMPRESSOR ALREADY INCLUDED IN ACTUAL & NEC CONNECTED KW/KVA TOTAL					NOTES: * USE GREATER LOAD OF THE TWO CATEGORIES ** NEC ARTICLE 220-43 REQUIREMENT (200VA / FT OR ACTUAL CONNECTED) *** NEC ARTICLE 220-43(B) EXCEPTION-TOTAL OF ALL CURRENT LIMITING DEVICES **** 125% OF THE LARGEST MOTOR OR COMPRESSOR ALREADY INCLUDED IN ACTUAL & NEC CONNECTED KW/KVA TOTAL				
N.E.C. DEMAND KVA x 1000 SYSTEM VOLTAGE x V <sup>3</sup> = MINIMUM FEEDER AMPERAGE $\frac{48.484 \times 1000}{208 \times 1.73} = 134.7 \text{ AMPS}$					N.E.C. DEMAND KVA x 1000 SYSTEM VOLTAGE x V <sup>3</sup> = MINIMUM FEEDER AMPERAGE $\frac{88.264 \times 1000}{480 \times 1.73} = 106.3 \text{ AMPS}$				

ELECTRICAL LANDLORD'S COMMENTS:  
PRIOR TO BID, TENANT IS REQUIRED TO VERIFY THAT THE LANDLORD'S EXISTING AVAILABLE ELECTRICAL SERVICE MEETS THE TENANT'S TOTAL CONNECTED LOAD.

COORDINATE ALL NEW ROUTING OF CONDUIT, FEEDER CABLES AND CONNECTIONS TO LANDLORD'S MAIN ELECTRICAL GEAR WITH MALL OPERATIONS.

TENANT'S GC TO SURVEY ALL EXISTING ELECTRICAL EQUIPMENT AND VERIFY ANY ADDITIONAL WORK TO BE COMPLETED.

ANY AND ALL UPGRADES TO EXISTING EQUIPMENT SHALL BE BY TENANT'S GC AT TENANT'S EXPENSE.

MOUNT ALL PANELS SURFACE MOUNTED ON PLYWOOD BACKERS. DO NOT MOUNT RECESSED WITHIN LANDLORD'S DEMISING WALL.

TENANT'S GC TO SURVEY ALL EXISTING ELECTRICAL EQUIPMENT AND VERIFY THAT THEY ARE IN GOOD WORKING CONDITION, MEETS ALL CODES AND MATCHED THE CAPACITIES AND CHARACTERISTICS OF THE EQUIPMENT INDICATED ON THESE DRAWINGS AND SPECIFICATIONS.

MAXIMUM SIZE OF TRANSFORMER SUSPENDED FORM STRUCTURE SHALL BE 30KVA.

TRANSFORMER TO BE:  
1. FLOOR SUPPORTED.  
2. BUILT UP ON A PLATFORM SUPPORTED BY TENANT INTERIOR WALLS, NOT ATTACHED TO THE LANDLORDS DEMISING WALL.  
3. PROVIDED STRUCTURAL DRAWINGS APPROVED BY A STRUCTURAL ENGINEER TO SUPPORT FROM CEILING.

#### LIGHTING TIME CONTROL LEGEND:

A1 - EXTERIOR SIGNAGE BLADE SIGN INTERNALLY ILLUMINATED TRANSOMS STOREFRONT DOWNLIGHTING

A - MARKETING LEVEL LIGHTING SHOW WINDOW LIGHTS SHOW WINDOW RECEPTACLES

B - STOCKING STOCKROOM (NON-SALES) LIGHTING

C - TASK LEVEL 1/2 SALES FLOOR LIGHTING EVENLY DISTRIBUTED (BBW, PINK & BEN) - INCLUDING CABINET LIGHTING GENERAL SALES FLOOR RECEPTACLES DISPLAY CABINET LIGHTING RECEPTACLES

D - SALES LEVEL LIGHTING BALANCE OF SALES FLOOR LIGHTING INTERIOR DISPLAY LIGHTING (CHANDELIERS, NEON, ETC)

NOTE:  
ALL LIGHTING CIRCUITS CONNECTED TO LIGHTING ZONES ARE CONNECTED AND CONTROLLED AUTOMATICALLY THROUGH THE H.V.A.C BUILDING CONTROL TIME CLOCK. REFER TO ELECTRICAL POWER GENERAL NOTE #13 ON THIS SHEET.

ELECTRICAL EQUIPMENT DATA											
SYM.	ITEM	VOLTAGE	HP.	KW.	M.C.A.	FEEDERS	WIRE	COND.	TYPE OF CONN.	BRANCH BREAKER	DISC. SW.
①	WATER HEATER WH-1	208V, 1#	--	4.2	--	2#12 THHN 1#12 G	1/2"		'AC' TOGGLE SWITCH	20A-2P	---
②	FPVAV-1 (WITH HEATING)	277/480V, 3# 4W	10.0 ELEC. HEAT	17.54		4#12 THHN 1#12 G	3/4"		THRU UNIT DISC. SW.	20A-3P	---
③	AHU-1	480V, 3#	5	32.33		3#8 THHN 1#10 G	3/4"		THRU UNIT DISC. SW.	35A-3P	---
④	WATER HEATER WH-2	208V, 1#	--	3.0	--	2#12 THHN 1#12 G	1/2"		'AC' TOGGLE SWITCH	20A-2P	---
NOTE: 1. 'AC' TOGGLE SWITCH TO BE FURNISHED BY LSC&C AND INSTALLED BY ELECTRICAL CONTRACTOR. 2. DISCONNECT SWITCH TO BE FURNISHED AND INSTALLED BY MECHANICAL SUPPLIER.											

#### ELECTRICAL POWER GENERAL NOTES

- HVAC CIRCUIT BREAKERS SHALL BE "HACR" TYPE WHEN REQUIRED BY EQUIPMENT NAMEPLATE PER N.E.C.
- ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT K.A.I.C. RATING (BUILDING SERVICE AVAILABLE FAULT CURRENT) OF LANDLORDS DISTRIBUTION EQUIPMENT PRIOR TO BID AND WORK COMMENCEMENT. IF FOUND TO BE HIGHER THAN PANEL RATINGS, NOTIFY YOUR LSC&C PROJECT MANAGER IMMEDIATELY.
- ELECTRICAL CONTRACTOR SHALL BALANCE ALL PANELS AND ELECTRICAL EQUIPMENT TO 7% (+/-) BETWEEN PHASES: A/B, B/C, A/C, REGARDLESS OF CIRCUITING INDICATED.
- PROPER CLEARANCE MUST BE MAINTAINED ABOUT ELECTRICAL EQUIPMENT PER N.E.C. FIELD VERIFY EXACT MOUNTING SPACE AVAILABLE IN ELECTRICAL ROOM/AREA PRIOR TO INSTALLATION OF ELECTRICAL EQUIPMENT.
- ALL PANEL BRANCH CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE.
- ALL PANEL BUS BARS SHALL BE COPPER.
- MOUNT A TYPEWRITTEN DIRECTORY BEHIND GLASS OR PLASTIC ON THE INSIDE OF EACH PANEL DOOR AND, ON THE DIRECTORY, SHOW THE CIRCUIT NUMBER AND COMPLETE DESCRIPTION OF ALL OUTLETS ON EACH CIRCUIT.
- ELECTRICAL CONTRACTOR SHALL MAKE ALL FINAL ELECTRICAL CONNECTIONS FOR A COMPLETE AND OPERABLE ELECTRICAL DISTRIBUTION SYSTEM.
- ALL PANELBOARDS, SWITCHBOARDS AND LINE VOLTAGE CONTROL EQUIPMENT SHALL BE FACTORY MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTING, SERVICING OR MAINTENANCE OF EQUIPMENT.
- ELECTRICAL CONTRACTOR SHALL MAKE SURE ENTIRE INSTALLATION CONFORMS TO N.E.C. 110.3 - EXAMINATION, IDENTIFICATION, INSTALLATION, AND USE OF EQUIPMENT.

- SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, AND CONTACTORS ARE TO BE "LISTED" AND "IDENTIFIED" AS RATED FOR A MINIMUM OF 75°C CONDUCTOR TERMINATION.

- IF ENCLOSURE LIGHTING CONTROLS: SOLENOID OPERATED BABR BREAKERS ARE PROVIDED WITH IFS PANELS FOR STORE LIGHTING CONTROLS AND STOREFRONT SIGNS. SEE PANEL SCHEDULES FOR LIGHTING ZONE DESIGNATIONS (ie: ZONE A, B, C, D)

- IFS ENCLOSURE FURNISHED BY OWNER AND INSTALLED BY ELECTRICAL CONTRACTOR IS HEREIN DESCRIBED:

- UNIT WILL BE SHIPPED TO PROJECT IN MULTIPLE SECTIONS AND THE ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR OFF-LOADING OF EQUIPMENT, INSPECTION OF EQUIPMENT FOR DAMAGE, VERIFICATION OF EQUIPMENT RECEIVED FOR PROPER STORAGE, SETTING AND MOVING OF EQUIPMENT INTO SPACE AS WELL AS REASSEMBLING OF SECTIONS INTO ONE COMPLETE UNIT PER MANUFACTURER'S DOCUMENTATION.

- ELECTRICAL CONTRACTOR SHALL CONNECT ALL PROVIDED INTERCONNECTING CABLES BETWEEN SECTIONS AND TORQUE CONNECTIONS PER MANUFACTURER'S REQUIREMENTS.

- ALL CONNECTIONS WITHIN THE TELEPHONE/DATA SECTION AND HVAC CONTROL SECTION OF THE IFS ENCLOSURE WILL BE DONE BY OTHERS. ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLATION OF LOW VOLTAGE CONDUIT SYSTEM (IF REQUIRED BY CODE OR LANDLORD) INTO THESE SECTIONS ONLY.

- SWITCHBOARD WILL BE SHIPPED ON AN ENCLOSED SEMI-TRAILER. ELECTRICAL CONTRACTOR MUST ARRANGE FOR A FORKLIFT TO OFF-LOAD AT JOB SITE. ELECTRICAL CONTRACTOR WILL RECEIVE 24 NOTICE PRIOR TO DELIVERY.

- ELECTRICAL CONTRACTOR SHALL INCLUDE ALL COSTS TO FURNISH AND INSTALL ALL LOW VOLTAGE WIRING IN CONDUIT, AS PART OF BASE BID.

#### DEMARC DEMOLITION NOTES

- THE GC SHALL NOT CUT THE MAIN TELEPHONE WIRES LEADING TO THE TERMINATION STRIP (DEMARC BLOCK) OR PHONE SYSTEM.
- IF THE DEMARC IS TO BE RELOCATED, IT SHALL BE COORDINATED WITH LIMITED TECHNICAL SERVICES (LTS). FOR BBW CALL 1-877-415-7911 AND SELECT OPTION 2. FOR BBW CANADIAN STORE CALL LASENZA 1-877-211-5151 THEN 877#3. FOR VS CALL 1-614-415-1011.

- THE GC SHALL ALLOW ADEQUATE TIME FOR RELOCATION IN THE CONSTRUCTION SCHEDULE.