ADD#02

PANEL: B

LOCATION: HEATER ROOM B205
BUS RATING: 225.0 A
MAIN BREAKER: 225

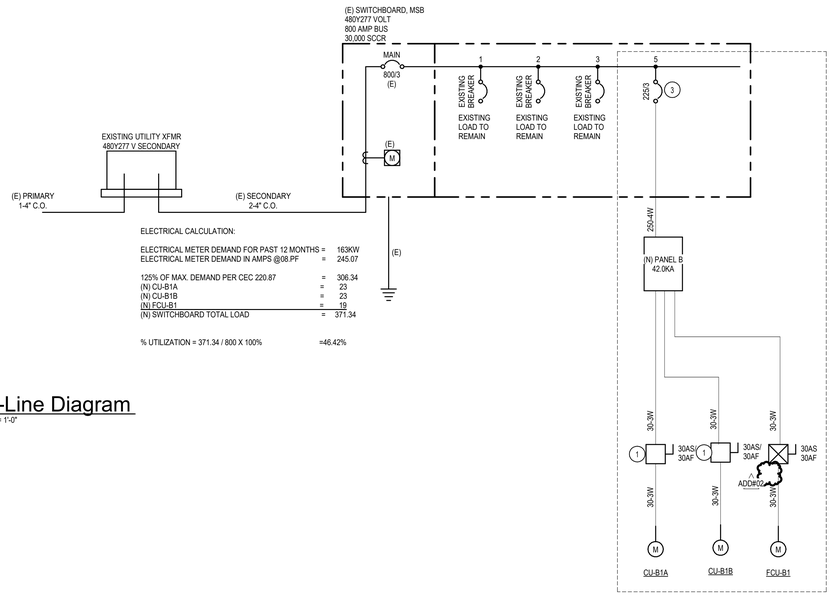
VOLTS: 480Y/277
PHASES: 3
WIRES: 4
SCCR: 42

MOUNTING: SURFACE
FED FROM:
INTEGRAL SPD: Type 1
LUG ACCESSORIES: SEE ONE-LINE

CKT	CIRCUIT DESCRIPTION	BKR TRIP	P	BKR TYPE	LOAD TYPE	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD TYPE	BKR TYPE	P	BKR TRIP	CIRCUIT DESCRIPTION	CKT
1						6,374								2
3	CU-B1B	30	3		M		6,374							4
5								6,374						6
7						6,374								8
9	CU-B1A	30	3		M		6,374							10
11								6,374						12
13						5,265								14
15	FCU-B1	30	3		M		5,265							16
17								5,265						18
19														20
21														22
23														24
25														26
27														28
29														30
					TOTAL LOAD:	18013 VA	18013 VA	18013 VA						
					TOTAL AMPS	65.0 A	65.0 A	65.0 A						

LOAD TYPE	LOAD DESCRIPTION	CONNECTED LOAD (VA)	DEMAND D...	ESTIMATED DEMAND (VA)	DEMAND FACTOR NOTES	BKR TYPE	PANEL TOTALS
L	LIGHTING	0 VA	0.00%	0 VA	CONTINUOUS LOAD @ 125%	G = GFCI (5mA)	
R	RECEPTACLES	0 VA	0.00%	0 VA	FIRST 10KVA @ 100%, REMAINDER @ 50%	GP = GFP (30mA)	**CONNECTED LOAD:** 54 kVA
K	KITCHEN	0 VA	0.00%	0 VA	NON-DWELLING KITCHEN LOADS, NEC ART. 220	ST = SHUNT TRIP	**ESTIMATED DEMAND:** 59 kVA
M	MOTOR	54038 VA	108.85%	58818 VA	LARGEST MOTOR, NEC ART. 430	LO = LOCK OUT	**CONNECTED CURRENT:** 65.0 A
C	COOLING	0 VA	0.00%	0 VA			**EMD CURRENT:** 70.7 A
H	HEATING	0 VA	0.00%	0 VA			
O	OTHER	0 VA	0.00%	0 VA			
Spare	SPARE	0 VA	0.00%	0 VA			

NOTES:



One-Line Diagram

SCALE: 12" = 1'-0"

GENERAL SINGLE LINE NOTES

1. OVERCURRENT DEVICES OF ENTIRE DISTRIBUTION SYSTEM SHALL MEET STATED FAULT CURRENT VALUES WITH FULLY RATED EQUIPMENT.
2. CONDUCTOR LENGTHS INDICATED ON THE SINGLE LINE DIAGRAM ARE FOR FAULT CURRENT CALCULATIONS ONLY . ACTUAL LENGTH SHALL BE DETERMINED BY FIELD CONDITIONS AND ACTUAL ROUTES OF FEEDERS.
3. REFER TO SWITCHBOARD SCHEDULES AND DISTRIBUTION PANEL SCHEDULES FOR ADDITIONAL REQUIREMENTS. WHERE A DISCREPANCY EXISTS BETWEEN EQUIPMENT ON THE SINGLE LINE DIAGRAM AND THE DETAILED SCHEDULES, THE ITEM OR ARRANGEMENT WITH BETTER QUALITY, GREATER QUANTITY, OR HIGHER COST SHALL BE USED.
4. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
5. REFER TO THE MOTOR AND SPECIAL CONNECTION SCHEDULE FOR ALL FEEDERS DESIGNATED "EQ".
6. GROUNDING ELECTRODE CONDUCTORS SIZES ARE NOT INDICATED ON THE SINGLE LINE DIAGRAM ARE. REFER TO THE GROUNDING RISER DIAGRAM FOR CONNECTIONS AND CONDUCTOR SIZES.

KEYNOTES

No.	DESCRIPTION
1	FUSED DISCONNECT TO BE PROVIDED BY CONTRACTOR.
3	CONTRACTOR TO MATCH EXISTING BREAKER.

ADD#02

WORKMAN AVE. AC UNIT REPLACEMENT

TAGS	EXISTING UNIT ELECTRICAL V/PH	MCA	FLA	PANEL/ CKT#	FEEDER SIZE	DISCONNECT	TAGS	DIRECT REPLACEMENT? Y/N	CFM	NEW UNIT ELECTRICAL V/PH	MCA	MOCP	PANEL/ CKT#	FEEDER SIZE	DISCONNECT	POWER EXHAUST REQUIRED?	Model#	MCA	MOCP	FEEDER SIZE	DISCONNECT	NOTES
NA	NA	NA	NA	NA	NA	NA	CU-B1A (BLDG. B)	N		460/3	23	30	B-1,3,5	NA	30A (30A FUSE)	NO	**NA**	**NA**	**NA**	NA	**NA**	
NA	NA	NA	NA	NA	NA	NA	CU-B1B (BLDG. B)	N		460/3	23	30	B-7,9,11	NA	30A (30A FUSE)	NO	**NA**	**NA**	**NA**	NA	**NA**	
NA	NA	NA	NA	NA	NA	NA	FCU-B1 (BLDG. B)	N	8000	460/3	19	30	B-13,15,17	NA	30A (30A FUSE)	NO	**NA**	**NA**	**NA**	NA	**NA**	
CU/FCU-C1 (BLDG C)	240/1	30	18.3	D-1,3	2#10, 1#10GND-0.75°C	30	RTU-C1 (BLDG C)	Y	1,200	240/1	26	30	D-1,3	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-C2 (BLDG C)	240/1	30	18.3	D-5,7	2#10, 1#10GND-0.75°C	30	RTU-C2 (BLDG C)	Y	1,200	240/1	26	30	D-5,7	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-D1 (BLDG D)	240/1	30	18.3	M-13,15	2#10, 1#10GND-0.75°C	30	RTU-D1 (BLDG D)	Y	1,200	240/1	26	30	M-13,15	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-E1 (BLDG E)	240/1	30	18.3	M-1,3	2#10, 1#10GND-0.75°C	30	RTU-E1 (BLDG E)	Y	1,200	240/1	26	30	M-1,3	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-E2 (BLDG E)	240/1	30	18.3	M-5,7	2#10, 1#10GND-0.75°C	30	RTU-E2 (BLDG E)	Y	1,200	240/1	26	30	M-5,7	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-E3 (BLDG E)	240/1	30	18.3	M-9,11	2#10, 1#10GND-0.75°C	30	RTU-E3 (BLDG E)	Y	1,200	240/1	26	30	M-9,11	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-G1 (BLDG G)	240/1	30	18.3	M-2,4	2#10, 1#10GND-0.75°C	30	RTU-G1 (BLDG G)	Y	1,200	240/1	26	30	M-2,4	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-G2 (BLDG G)	240/1	30	18.3	M-6,8	2#10, 1#10GND-0.75°C	30	RTU-G2 (BLDG G)	Y	1,200	240/1	26	30	M-6,8	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-G3 (BLDG G)	240/1	30	18.3	M-10,12	2#10, 1#10GND-0.75°C	30	RTU-G3 (BLDG G)	Y	1,200	240/1	26	30	M-10,12	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-H1 (BLDG H)	240/1	30	18.3	GH-1,3	2#10, 1#10GND-0.75°C	30	RTU-H1 (BLDG H)	Y	1,200	240/1	26	30	GH-1,3	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-H2 (BLDG H)	240/1	30	18.3	GH-5,7	2#10, 1#10GND-0.75°C	30	RTU-H2 (BLDG H)	Y	1,200	240/1	26	30	GH-5,7	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-H3 (BLDG H)	240/1	30	18.3	GH-9,11	2#10, 1#10GND-0.75°C	30	RTU-H3 (BLDG H)	Y	1,200	240/1	26	30	GH-9,11	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-I1 (BLDG I)	240/1	30	18.3	GH-2,4	2#10, 1#10GND-0.75°C	30	RTU-I1 (BLDG I)	Y	1,200	240/1	26	30	GH-2,4	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-I2 (BLDG I)	240/1	30	18.3	GH-6,8	2#10, 1#10GND-0.75°C	30	RTU-I2 (BLDG I)	Y	1,200	240/1	26	30	GH-6,8	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-I3 (BLDG I)	240/1	30	18.3	GH-10,12	2#10, 1#10GND-0.75°C	30	RTU-I3 (BLDG I)	Y	1,200	240/1	26	30	GH-10,12	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-J1 (BLDG J)	240/1	30	18.3	LK-2,4	2#10, 1#10GND-0.75°C	30	RTU-J1 (BLDG J)	Y	1,200	240/1	26	30	LK-2,4	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-J2 (BLDG J)	240/1	30	18.3	LK-6,8	2#10, 1#10GND-0.75°C	30	RTU-J2 (BLDG J)	Y	1,200	240/1	26	30	LK-6,8	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-J3 (BLDG J)	240/1	30	18.3	LK-10,12	2#10, 1#10GND-0.75°C	30	RTU-J3 (BLDG J)	Y	1,200	240/1	26	30	LK-10,12	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-K1 (BLDG K)	240/1	30	18.3	LK-1,3	2#10, 1#10GND-0.75°C	30	RTU-K1 (BLDG K)	Y	1,200	240/1	26	30	LK-1,3	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-K2 (BLDG K)	240/1	30	18.3	LK-5,7	2#10, 1#10GND-0.75°C	30	RTU-K2 (BLDG K)	Y	1,200	240/1	26	30	LK-5,7	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
CU/FCU-K3 (BLDG K)	240/1	30	18.3	LK-9,11	2#10, 1#10GND-0.75°C	30	RTU-K3 (BLDG K)	Y	1,200	240/1	26	30	LK-9,11	2#10, 1#10GND-0.75°C	30A (30A FUSE)	YES	PCD-SRT12CA	7.1	12.8	2#10, 1#10GND-0.75°C	30A (20A FUSE)	
							EF-B1	N	-	120	12.25	30	BI-13	2#10, 1#10GND-0.75°C	30A (15A FUSE)	-	-	-	-	-	-	

GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY CIRCUITING AND FEEDER INFORMATION PRIOR TO EQUIPMENT REMOVAL. CONTRACTOR TO PROVIDE REQUIRED ADJUSTMENTS AS NEEDED.
2. PROVIDE MECHANICAL UNIT WITH INTEGRAL CONVENIENCE RECEPTACLE. FEED FROM SPARE 20A/1P BREAKER IN NEAREST PANEL. ROUTE 2#12+1#12GND IN 1/2" EMT CONDUIT FROM PANEL TO RECEPTACLE.

   POWER NO MORE THAN 10 RECEPTACLES ON ONE CIRCUIT. FIELD VERIFY EXACT LOCATION OF NEAREST PANEL AND ROUTE OF NEW CIRCUIT FROM PANEL TO UNIT RECEPTACLE.
3. CONTRACTOR TO DEMOLISH POWER CONNECTION FROM CONDENSING UNITS, FAN COIL UNITS AND CONDENSATE PUMPS. DEMOLITION TO CONSIST OF REMOVAL OF POWER CONNECTION, CABLING, AND CONDUIT BACK TO SOURCE UNLESS NOTED OTHERWISE.
4. FIELD COORDINATE EQUIPMENT MANUFACTURER FOR FAULT CURRENT LIMITING FUSE TYPES

FEEDER SCHEDULE - COPPER

MARK (AMPS)	# SETS	Ø & N	GND	CONDUIT SIZE MARK SUFFIX -4W	-3W	-2W
15	1	12	12	3/4"	3/4"	3/4"
20	1	12	12	3/4"	3/4"	3/4"
25	1	10	10	3/4"	3/4"	3/4"
30	1	10	10	3/4"	3/4"	3/4"
35	1	8	10	3/4"	3/4"	3/4"
40	1	8	10	3/4"	3/4"	3/4"
45	1	6	10	1"	3/4"	3/4"
50	1	6	10	1"	3/4"	3/4"
60	1	4	10	1-1/4"	1"	3/4"
70	1	4	8	1-1/4"	1"	3/4"
80	1	3	8	1-1/4"	1-1/4"	1"
90	1	2	8	1-1/4"	1-1/4"	1"
100	1	1	8	1-1/2"	1-1/2"	1-1/4"
110	1	1	6	1-1/2"	1-1/2"	1-1/4"
125	1	1	6	1-1/2"	1-1/2"	1-1/4"
150	1	1/0	6	2"	1-1/2"	1-1/4"
175	1	2/0	6	2"	1-1/2"	1-1/4"
200	1	3/0	6	2"	2"	1-1/2"
225	1	4/0	4	2-1/2"	2"	1-1/2"
250	1	250	4	2-1/2"	2"	1-1/2"
300	1	350	4	3"	2-1/2"	2"
350	1	500	3	3-1/2"	3"	2-1/2"
400	1	600	3	3-1/2"	3"	2-1/2"
400	2	3/0	3	2"	2"	1-1/2"
450	2	4/0	2	2-1/2"	2"	1-1/2"
500	2	250	2	2-1/2"	2-1/2"	2"
600	2	350	1	3"	2-1/2"	2"
700	2	500	1/0	3-1/2"	3"	2-1/2"
800	2	600	1/0	3-1/2"	3"	2-1/2"
1000	3	400	2/0	3"	3"	2-1/2"
1200	3	600	3/0	3-1/2"	3-1/2"	3"
1600	4	600	4/0	3-1/2"	3-1/2"	3"
2000	5	600	250	4"	3-1/2"	3"
2500	6	600	350	4"	3-1/2"	3"
3000	8	500	400	3-1/2"	3"	2-1/2"
4000	10	600	500	4"	3-1/2"	3"

ABBREVIATIONS:

Ø	PHASE
N	NEUTRAL
GND	EQUIPMENT GROUNDING CONDUCTOR
-4W	FOUR WIRE + GROUND (3Ø,N,GND)
-3W	THREE WIRE + GROUND (3Ø,GND or 2Ø,N,GND)
-2W	TWO WIRE + GROUND

NOTES:

1. CONDUCTOR AMPACITIES ARE BASED ON NEC TABLE 310.15(B)(16).
2. CONDUIT SIZES ARE BASED ON A MAXIMUM FILL RATIO OF 40%.
3. SCHEDULE SHALL BE USED FOR FEEDERS AND BRANCH CIRCUITS WHERE APPLICABLE.
4. ALL FEEDERS AND BRANCH CIRCUITS SHALL INCLUDE AN EQUIPMENT GROUNDING CONDUCTOR.
5. SCHEDULE IS VALID FOR TYPE THHN, THWN-2, AND XHHW-2 CONDUCTORS. SEE SPECIFICATIONS FOR CONDUCTOR TYPES REQUIRED.
6. SCHEDULE IS VALID FOR TYPE EMT, IMC, FMC, LFMC, HDPE, AND RNC-40 RACEWAYS. SEE SPECIFICATIONS FOR RACEWAY APPLICATIONS.
7. OPTIONAL CONFIGURATIONS (1 OR 2 SETS) ARE GIVEN FOR SOME SIZES.
8. NOT ALL SIZES USED.

DLR Group
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COVINA VALLEY USD
1941 E WORKMAN AVE, WEST COVINA, CA 91791

DSA Submitted Set
1/13/2023
REVISIONS
5 01/13/2023
ADD#02 8/2/2023

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ELECTRICAL DIAGRAMS AND SCHEDULES

E5.1