ROOFTOP PACKAGED HEAT PUMP UNIT

MARK	MANUFACTURER	MODEL	EER	INDOOR BLOWER			GROSS COOLING CAP				HEAT (MBH)	ELECTRICAL 208/3/60		O.S.A CFM	WEIGHT (LB)
				CFM	'ESP	HP	SEN MBH	TOT MBH	ENT. AIR DBF	ENT. AIR WBF		MCA	MOCP		
HP-1	AMERICAN STANDARD	WSC090E3	11.1	3690	0.8"	2	72.9	95.9	80	67	91.1	85.2	100	490	804
HP-2	AMERICAN STANDARD	WSC090E3	11.1	3690	0.8"	2	72.9	95.9	80	67	91.1	85.2	100	660	804

NOTES:

1. SIZE ALL UNITS ON SUMMER AMBIENT TEMPERATURE: 96 'F.
2. VERIFY VOLTAGE/ PHASE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
3. COOLING CAPACITY, MINIMUM HEAT CAPACITY AND CFM ARE MINIMUM OUTPUT REQUIRED. ALL UNITS SHALL HAVE NO LESS THAN 98% OF THESE CAPACITIES. COOLING CAPACITY IS GROSS COIL CAPACITY REQUIRED (FAN HEAT NOT DEDUCTED).
4. PROVIDE ROOF TAPERED MOUNTING CURB, FILTERS AND FILTER RACK SIZED AT 500 FPM VELOCITY. 5. PROVIDE WITH PROGRAMMABLE THERMOSTAT AMERICAN STANDARD #ACONT800A511AA WITH REMOTE SENSOR #C7189U1005 FOR HP-2 AND HP-1.
5. PROVIDE 18 KW MODEL NUMBER BAYHTRU318A ELECTRICAL HEATER. (-G)

OUTSIDE AIR CALCULATION

OUTSIDE AIR REQUIREMENTS PER TABLE 403.3, 2012 UMC.

HP-1

	AREA	MULTIPLIER	REQ'D. CFM
CASHIER'S AREA	406.3 SQ. FT.	X 0.12 CFM/SQ. FT. X 0.015 PERSON/SQ. FT. X 7.5 CFM/PERSON	94
OFFICE	45.2 SQ. FT.	X 0.007 PERSON/SQ. FT. X 20 CFM/PERSON	20
STORAGE	503 SQ. FT.	X 0.06 CFM/SQ. FT.	30.18
SALES	702 SQ. FT.	X 0.12 CFM/SQ. FT. X 0.015 PERSON/SQ. FT. X 7.5 CFM/PERSON	163.2
UTILITY ROOM	59 SQ. FT.	X 0.06 CFM/SQ. FT.	3.54
		TOTAL REQUIRED CFM	310.9

HP-2

	AREA	MULTIPLIER	REQ'D. CFM
SALES	1,202 SQ. FT.	X 0.12 CFM/SQ. FT. X 0.015 PERSON/SQ. FT. X 7.5 CFM/PERSON	279.5
COOLER	823 SQ. FT.	NOT OCCUPIBLE	0
HALLWAY	50 SQ. FT.	X 0.06 CFM/SQ. FT.	3
MENS	1-W.C. 2-UR	75 CFM/WATER CLOSET OR URINAL	225*
WOMENS	2-W.C.	75 CFM/WATER CLOSET OR URINAL	150*
		TOTAL REQUIRED CFM	657.5

*SUPPLIED BY TRANSFER AIR WITH LOCAL MECHANICAL EXHAUST.

TOTAL CFM REQUIRED = 968.4
TOTAL CFM PROVIDED = 1,150

BALANCE OSA AS FOLLOWS:
HP-1 = 490
HP-2 = 660

2012 IECC LOAD SUMMARY

AREA DESCRIPTION	COOLING LOAD CALCULATION [MBH]		PROVIDED EQUIPMENT COOLING CAPACITY [MBH]	
	SENSIBLE	TOTAL	SENSIBLE	TOTAL
HP-1,2	132.8	174.9	145.8	191.8

1. CALCULATIONS WERE PERFORMED BY THE CARRIER HAP SOFTWARE PROGRAM IN COMPLIANCE WITH ASHRAE FUNDAMENTALS.
2. EQUIPMENT SIZING MEETS THE IECC 403.2.2 REQUIREMENTS.

GRILLE, REGISTER, AND DIFFUSER SCHEDULE

MARK	DESCRIPTION	MANUFACTURER	MODEL	MATERIAL	MODULE	FRAME	FRONT BLADES	DAMPER	FINISH
A	CEILING DIFFUSER	KRUEGER	1100	STEEL	24"x24"	LAY-IN	4-WAY	OPPOSED BLADE	*
B	CEILING DIFFUSER	KRUEGER	5180	STEEL	12"x12"	FLANGE	4-WAY	OPPOSED BLADE	*
C	RETURN REGISTER	KRUEGER	1190	STEEL	24"x24"	LAY-IN	-	NONE	*
D	RETURN REGISTER	KRUEGER	1190	STEEL	24"x12"	LAY-IN	-	NONE	*
E	EXHAUST GRILLE	KRUEGER	EGC-5	STEEL	18x18"	FLANGE	EGGCRATE	NONE	*

* NOTE:
ALL DIFFUSERS AND GRILLES SHALL BE FACTORY COLOR 44.

EXHAUST FAN SCHEDULE

MARK	AREA SERVED	MANUFACTURER	MODEL	CFM	E.S.P. ("W.C.)	MOTOR HP	MOTOR V/PH	BAROMETRIC DAMPER	DRIVE
EF-1	WOMENS TOILET ROOM	GREENHECK	SP-B110	100	0.125"	FRAC.	120/1	YES	DIRECT
EF-2	MENS TOILET ROOM	GREENHECK	SP-B110	150	0.125"	FRAC.	120/1	YES	DIRECT
EF-3	FROSTER COVE	GREENHECK	G-121	700	0.25"	1/8	120/1	YES	DIRECT

NOTES:

1. EF-1&2 SHALL BE PROVIDED WITH VIBRATION ISOLATORS, BACKDRAFT DAMPER, FACTORY ROOF CURB, AND FACTORY ROOF CAP.
2. EF-3 SHALL PROVIDED WITH BACKDRAFT DAMPER, FACTORY ROOF CURB, SPEED CONTROLLER. FAN SHALL BE UL LISTED. INSTALL FAN LEVEL. FAN CONTROLLED FROM LINE VOLTAGE THERMOSTAT PROVIDED BY ELECTRICAL. COORDIANTE TEMPERATURE SETTING WITH OWNERS REPRESENTATIVE

AIR BALANCE SCHEDULE

UNIT	O.A.	R.A.	S.A.	E.A.	PRESSURE
HP-1	530	3165	3690	-	+490
HP-2	610	3090	3690	-	+660
EF-1		-	-	100	-225
EF-2		-	-	150	-150
EF-3		-	-	700	-700
TOTALS	1,150	6,255	7380	1000	75

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ISSUE/REVISION RECORD

DATE	DESCRIPTION
02/28/2014	BID/PERMIT SET

PROFESSIONAL SEAL

FEB 28 2014
COA #-F-4380

PROFESSIONAL IN CHARGE
JAMES LEDYARD
PROJECT MANAGER
DARCY HASBERRY
QUALITY CONTROL
JAMES LEDYARD
DRAWN BY
DARCY HASBERRY

PROJECT NAME
CIRCLE K STORES, INC.

PFLUGERVILLE
TEXAS

SEC WEST PECAN ST. & SARAH'S CREEK DR.
PFLUGERVILLE, TX

CIRCLE K STORES INC.

PROJECT NUMBER
20140041.5

SHEET TITLE
MECHANICAL SCHEDULES

SHEET NUMBER
M3.0

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