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	45.0	44.2	60	530	804
HP-2	AMERICAN STANDARD	WSC090E3	11.1	3690	0.8"	2	72.9	95.9	80	67	45.0	44.2	60	620	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.

OUTSIDE AIR CALCULATION

OUTSIDE AIR REQUIREMENTS PER TABLE 4-1, 2009 NEW MEXICO UMC.

HP-1

	AREA	MULTIPLIER	REQ'D. CFM
CASHIER'S AREA	406.3 SQ. FT.	X 0.12 CFM/SQ. FT. + (0.4063 X 15 PEOPLE X 7.5 CFM/PERSON)	94.5
OFFICE	45.2 SQ. FT.	X 0.06 CFM/SQ. FT. + (0.0452 X 5 PEOPLE X 5 CFM/PERSON)	3.8
STORAGE	503 SQ. FT.	X 0.12 CFM/SQ. FT.	60.4
SALES	702 SQ. FT.	X 0.12 CFM/SQ. FT. + (0.702 X 15 PEOPLE X 7.5 CFM/PERSON)	163.2
UTILITY ROOM	59 SQ. FT.	X 0.12 CFM/SQ. FT.	7.1
		TOTAL REQUIRED CFM	329

HP-2

	AREA	MULTIPLIER	REQ'D. CFM
SALES	1,202 SQ. FT.	X 0.12 CFM/SQ. FT. + (1.202 X 15 PEOPLE X 7.5 CFM/PERSON)	279.5
COOLER	823 SQ. FT.	NOT OCCUPIBLE	0
HALLWAY	50 SQ. FT.	X 0.12 CFM/SQ. FT.	6
MENS	1-W.C. 2-UR	70 CFM/WATER CLOSET OR URINAL	210*
WOMENS	2-W.C.	70 CFM/WATER CLOSET OR URINAL	140*
		TOTAL REQUIRED CFM	635.5

*SUPPLIED BY TRANSFER AIR WITH LOCAL MECHANICAL EXHAUST.

TOTAL CFM REQUIRED = 964.5
TOTAL CFM PROVIDED = 1,150

BALANCE OSA AS FOLLOWS:
HP-1 = 530
HP-2 = 620

2009 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 503.2.2 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		BAROMETRIC DAMPER	DRIVE
						HP	V/PH		
EF-1	MEN'S TOILET ROOM	GREENHECK	SP-B110	210	0.125"	FRAC.	120/1	YES	DIRECT
EF-2	WOMEN'S TOILET ROOM	GREENHECK	SP-B110	140	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	-	+530
HP-2	610	3090	3690	-	+620
EF-1		-	-	210	-210
EF-2		-	-	140	-140
EF-3		-	-	700	-700
TOTALS	1,150	6,255	7380	1050	100

FOR BID ONLY

GreenbergFarrow
1430 W. Peachtree St., Suite 200
Atlanta, GA 30309
t: 404 601 4000 f: 404 601 3980

COPYRIGHT NOTICE
This drawing is the property of the above referenced Professional and is not to be used for any purpose other than the specific project and site named herein, and cannot be reproduced in any manner without the express written permission from the Professional

ISSUE/REVISION RECORD

DATE	DESCRIPTION
02/13/15	PERMIT SET

PROFESSIONAL SEAL

ERIC MICHAEL WOLF NEW MEXICO 22263 REGISTERED PROFESSIONAL ENGINEER

signed 02/12/15

PROFESSIONAL IN CHARGE
ERIC WOLF
PROJECT MANAGER
ALEX ADAIR
QUALITY CONTROL
ERIC WOLF
DRAWN BY
ALEX ADAIR

PROJECT NAME
CIRCLE K STORES, INC.

ALBUQUERQUE
NEW MEXICO

4400 COORS BLVD. SW
ALBUQUERQUE, NM 87121

CIRCLE K STORES INC.

PROJECT NUMBER
20130791

SHEET TITLE
MECHANICAL SCHEDULES

SHEET NUMBER
M3.0-CS

CIRCLE & SQUIRREL PROTOTYPE 4489 - 09/13/2013
Drawing Name: \\fs-hw-v07\Projects\2013\20130791\04 Mechanical Construction Documents\# MEPCore & Alternative Core #'s\Product\20130791-ACA-C-Day Last Modified: Feb 13, 2015 - 1:48pm Plotted on: Feb 13, 2015 - 1:52pm by alador