

Report By:

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Report: Rusty Keg Evaluation Rpt

Function: Test, Adjust, & Balance

Date: 04/16/2024

PROJECT

04-15-24 Rusty Keg Evaluation

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Chicago, IL 60611

Client

ENERGILITY

4400 N. High St

STE 300

Columbus, OH 43214

National TAB

Project: 04-15-24 Rusty Keg Evaluation

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SUMMARY (Rusty Keg Evaluation April 2024)

The objective for the evaluation was assist in finding solutions for known issues and also to evaluate the HVAC systems for overall assessment of the systems. Below is the list of items that were known or uncovered during the evaluation. Enclosed are sketches, pictures, and testing data to assist in next steps to improve comfort and performance of the HVAC & Hood systems.

Items to address

1. Hood performance, specifically the fryer/griddle hood
2. Building pressurization
3. Kitchen HVAC performance
4. Dining RTU duct tie into the kitchen system not ideal.
5. Overall ductwork distribution for HVAC systems is inadequate.
6. Owner concern about energy cost currently

Discussion of each item

1. The main issue with hood performance for the fryer/griddle hood is the type of hood. It is currently a short cycle hood that introduces non-tempered air into the hood affecting hood performance with 50% capture rate. By turning off the make up air, the hood performance increases up to at least 85% capture rate. By doing this it in essence turned the hood into an exhaust only system. We then installed an end panel (mocked up) on the left end of hood & it improved capture to 95%. The only impedance is the utensil bin above the warmer to the left of the fryer. Smoke (affluent) gets caught below the area & then since its partially outside of the hood, it allows smoke to roll out from under the equipment & then into the kitchen. IF this bin can be removed & a panel size of 40" (top) x 22" (bottom) x 30" H (verify height once cut & what can be done without impeding operations), would allow for 100% capture as long as no forced drafts (fans to keep cool) are directed at the hood system. The other (2) hoods are end to end and do not have any hood performance issues. This is because the make up air filters on the roof are so clogged with debris/dirt that both fans are barely bringing in any outside air. In essence, the (2) hoods are acting basically like exhaust only hood systems. Cleaning supply fan filters is a good maintenance procedure, but it will impact hood performance.
2. Hood performance was improved by basically making all the hoods exhaust only systems. The issue is that does create even more of a negative pressure to the space.
 - Initial Building pressure with SF3 (fry/grill hood) ON was -0.035" front & -0.055" back door.
 - Building pressure with SF3 OFF is -0.058" front & -0.067" back door.

The space is more negative than measured. Recently the facility installed a couple of eggcrate(s) in front of the fryer/griddle hood which is exposed above the drop ceiling (no duct connected) & the roof deck. The facility has multiple vents that allow outside air to be pulled in directly from the roof deck & then through the ceiling via eggcrate into the kitchen area. While this helps with alleviating some pressure issues it causes uncontrolled hot/humid or cold air to be introduced into the space. Below are the current conditions of the facility.

(*) Estimated filter was clogged.

(**) first # is with SF3 on & second # is with SF3 off. With SF3 on, hood performance deteriorated dramatically.

CURRENT CONDITIONS		
SYSTEM (ASSET)	EXHAUST CFM	SUPPLY/OUTSIDE AIR
EF1 (HD1-LEFT)	2499	
EF2 (HD2-RIGHT)	2556	
EF3 (HD3-FRYER)	3484	
EF4 (DISH)	400 (*)	
SF1 (HD1)		260
SF2 (HD2)		482
SF3(HD3)		2043 / 0 (**)
RTU1 (KITCHEN)		0
RTU2 (DINING)		0
RTU3(BANQUET)		0
RTU4(PARTIAL BANQUET)		0
NET PRESSURE	- 6,154 CFM / - 8197 CFM **	

To assist in building pressure without degrading the performance of the hood system, a dedicated make up air system that introduces outside air when the hood systems are on in a controlled methodology and to reduce the load to the space as much as possible. Below is a recommended new air balance schedule with introducing a new heated make up air system. The owner would be required to also purchase and install front stainless steel perforated supply plenums in front of all (3) hoods to distribute the make up air. With the end panel(s) on, doors closed to the banquet area the exhaust level can be reduced some on all three hoods. SF3 would be replaced with the heated system & SF1 & SF2 would be eliminated to help with reduction in energy consumption. A heated system must be provided at minimum when air is introduced outside of the hood. It is recommended that it is cooled also to help with better comfort in the summertime, but this is a decision the owner should make based upon initial cost vs the desire to keep employees more comfortable. By cooling the make up air down would most likely keep the employees from turning the banquet RTU unit down to 68 degrees and opening double doors to stay cool. The banquet room is only utilized at most 24 hours a week. So, the run time is probably 5 times longer when it starts getting warmer (70 degrees or above outside) than it should be.

DEDICATED MAKE UP AIR SYSTEM CONDITIONS		
SYSTEM (ASSET)	EXHAUST CFM	SUPPLY/OUTSIDE AIR
EF1 (HD1-LEFT)	2000	
EF2 (HD2-RIGHT)	2000	
EF3 (HD3-FRYER)	3200 (*)	
EF4 (DISH)	400	
SF1 (HEATED & COOLED IF DESIRED)		6000
RTU1 (KITCHEN)		600
RTU2 (DINING)		600
RTU3(BANQUET)		400
RTU4(PARTIAL BANQUET)		400
NET PRESSURE	0 CFM / + 800 CFM **	

- There is a large support beam near the current SF3 that can help support the heavier unit.

It would also require installing outside air (simple manual intakes) into each of the RTU units to allow for a minimum amount of outside air into the unit to help with overall pressure to the space. It would not impact the unit, provides better IAQ to entire space and can be done economically.

Another option is to remove the all (3) untempered supply fan & replace the Kitchen RTU unit with a new larger RTU-DOAS unit that would condition the entire kitchen area, also aid in conditioning some of the dining area. It would allow for independent operation of the hood systems. The unit would condition the space and as each hood turns on & off the outside air would open to provide a balanced system. Weight consideration & location on the roof would have to be looked at by the team. No supply plenums would need to be installed in front of the hood systems. However, some additional air devices would need to be ducted off the existing supply duct system. It would also allow for the hood exhaust to be lowered slightly more than the above option. Below is recommended air balance schedule.

RTU-DOAS SYSTEM REPLACE RTU UNIT		
SYSTEM (ASSET)	EXHAUST CFM	SUPPLY/OUTSIDE AIR
EF1 (HD1-LEFT)	1600	
EF2 (HD2-RIGHT)	1800	
EF3 (HD3-FRYER)	2800 (*)	
EF4 (DISH)	400	
RTU1-DOAS (KITCHEN)		6000
RTU2 (DINING)		600
RTU3(BANQUET)		400
RTU4(PARTIAL BANQUET)		400
NET PRESSURE	0 CFM / + 800 CFM **	

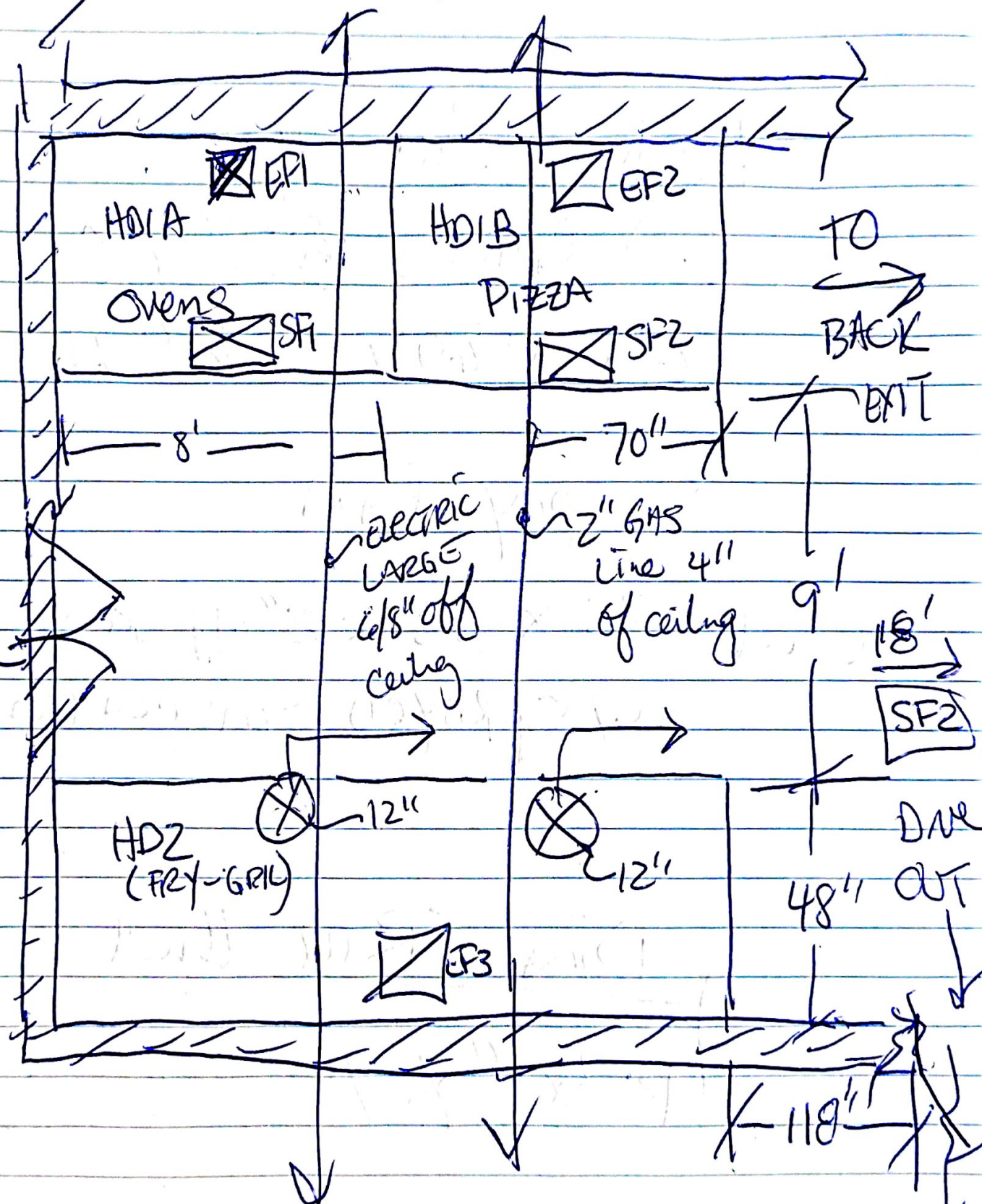
3/4/5. While performing the assessment of the HVAC systems for the facility it became evident that the duct distribution system is not optimal. See the enclosed sketches of the HVAC Duct systems. The Kitchen RTU unit has a main supply drop into the kitchen & then branches off in two directions. One heads towards the back of kitchen & the other one heads towards the front of kitchen & all the way into the bar & over dining area. The branch line (OD) going to dining area is 12 x 26. The Dining RTU unit does not have its own supply duct system. It is just ducted straight into the same 12 x 26 branchline that the kitchen unit serves. This is a big impact to each of the systems. The Kitchen unit is a 10-ton unit & the Dining additional unit is a 7.5 ton unit. The max airflow (IF aligned with 1" internal insulation) 2500 CFM. Both units are trying to distribute air to this branch line impeding performance of both units. Both systems should have there own dedicated supply trunklines and be zoned to operate and run only when needed (occupied).

The branchlines going to each of the air devices are all flex duct. While this allows for easy installation, it does add resistance to the branchline and reduce airflow rates. Another recommendation is to at minimum is to reduce the flex for any runs that are more than 20 ft or have crimped duct in the flex. Typically, hard pipe is ducted to at least 10 ft from each air device and then flex is sometimes used to the air device. Most likely the office, main entry, and bathrooms get quite warm during the summer months. Very little airflow is distributed to these areas. There is a about a 50 ft flex duct that ducted off the same 12 x 26 branchline above the bar & routed to entry area where there is a sheetmetal box & 5 diffusers that are branched off the box. Very little airflow is introduced to each of the supply diffusers.

One final observation on the distribution system is that the RTU that serves the ALLSTATE space also serves several air devices in the storage & banquet areas.

6. There could be overall energy savings and definite facilities performance with modifications to the HVAC & Hood systems. As the team considers options for best ROI each step can have an impact on energy. Anytime you can reduce exhaust levels, eliminate motor run time, and eliminate the need to pull in undesirable untempered humid/hot or cold air into the space are direct impact on energy and comfort for employees and customers. Run time of HVAC systems can be impactful to energy cost. The owner should make effort to reduce or eliminate the need for employees to supplement the kitchen cooling by using the HVAC for the banquet areas when it is not occupied and adding additional fans & keeping the double doors open that impact hood performance. Ductwork for the dining & kitchen unit needs to be resolved to improve performance of both units and provide better comfort throughout the space.

Prep / COOKHOUSE



TO
BACK
EXIT

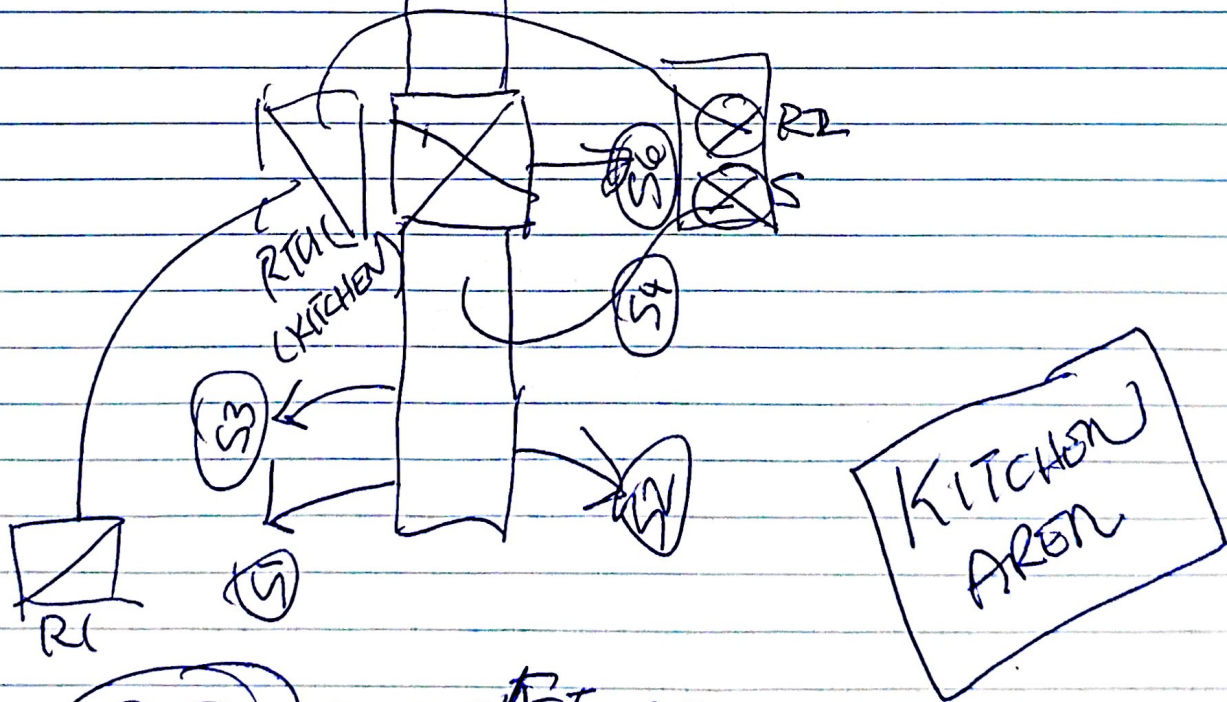
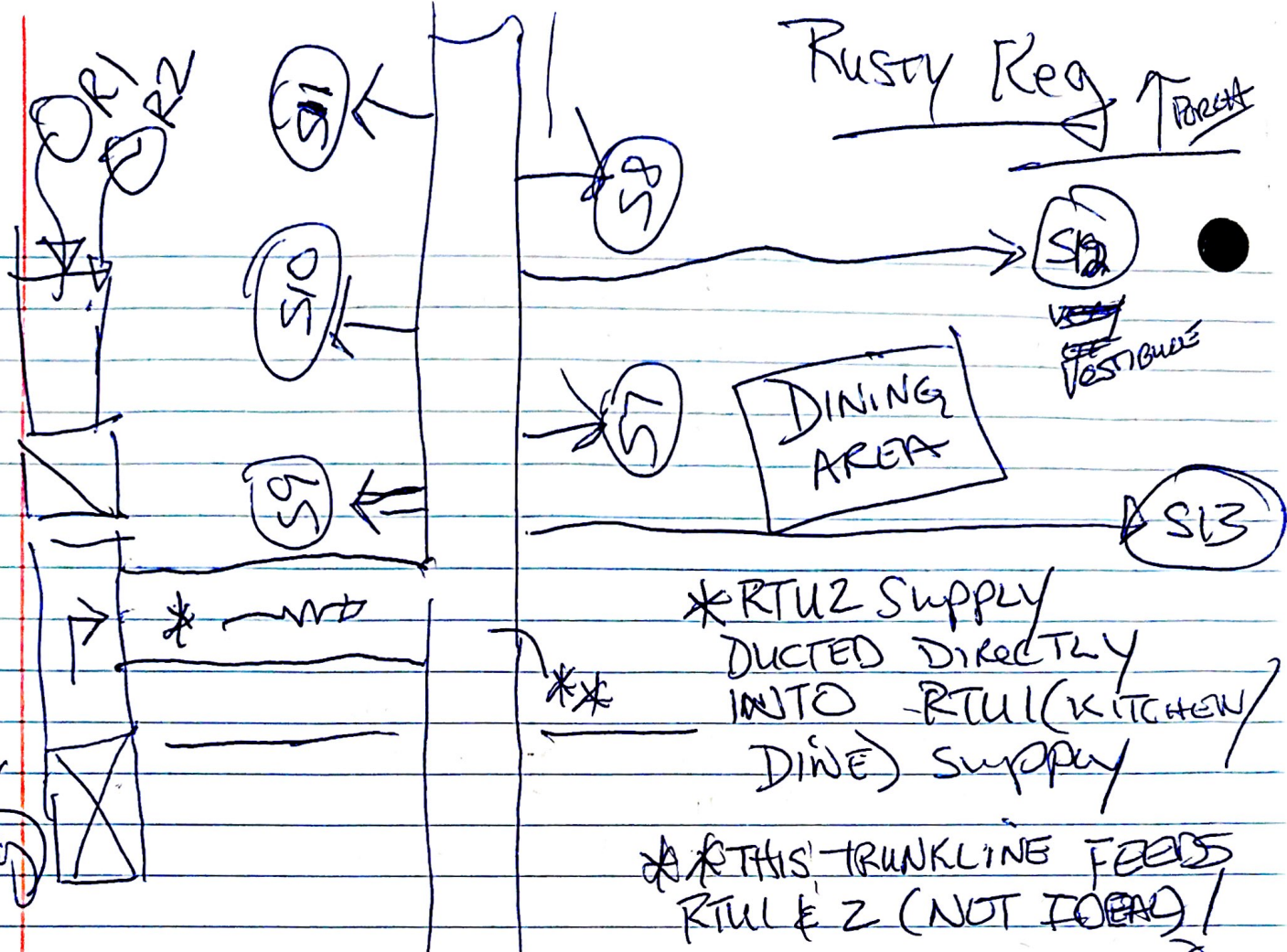
BANQUET

18'
SF2

HD2
(FRY-GRIL)

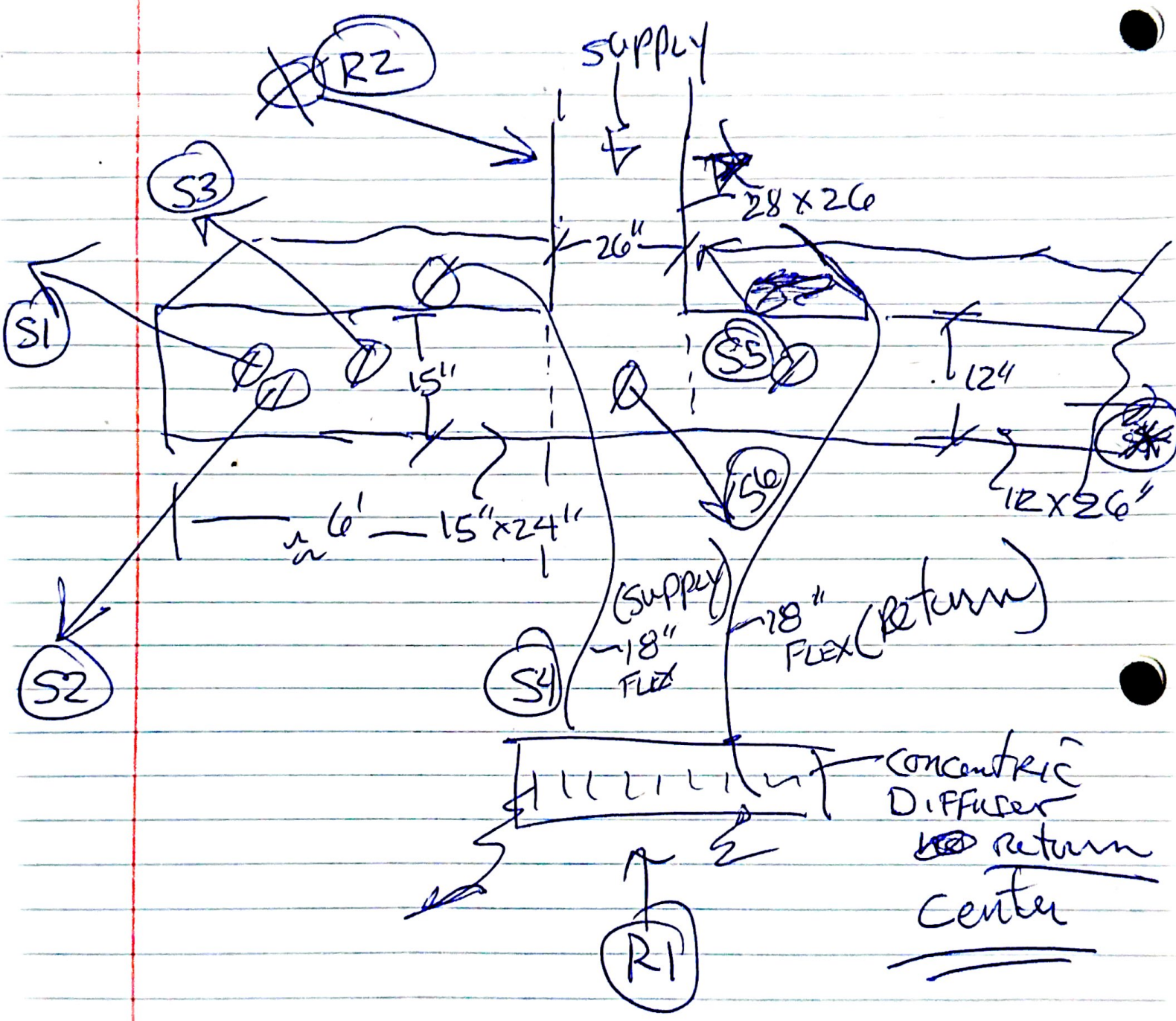
DINE
48" OUT

DINE



(S13) = 50 FT OF FLEX TO SQUARE SUPPLY DUCT THAT THEN FLEXES TO 4 DIFFUSERS THAT HAVE HARDLY ANY AIR.

RTU-1 (KITCHEN) SUPPLY DROP IN KITCHEN. IT ALSO FEEDS THE DINING AREA & () GRILLS.



R# = Returns

S# = supply

(*) = (5) Diffusers in Main Dining BAR SERVED BY RTU-1 & RTU-2 (DUCT)



OUTDOOR VIEW 1



OUTDOOR VIEW 2



Main dining entry



Banquet room



Office Area off Emtry



Main dining & bar



Enclosed patio - heated only-
can open to outside



Dish Area



Main Kitchen Area



Fryer/Griddle hood



Back prep & corridor



Fryer/grill looking in from banquet room - they keep doors open to stay cool



Oven/Pizza Hood



Storage for Banquet area



Storage shows how its common to allstate tenant next door



Oven pizza hood



Fry / grill hood



Typical thermostat/
programmable & also
monitors usage



Roof-dining rtu foremost



Ef1 & ef2 / sf1 & sf2 (two hoods end to end)



Hood 2 main grease fan



Sf3- Hd2/fryers supply fan & dining unit behind it



Main kitchen RTU left of supply fan



Another view of smaller fans



Supply fan SF3



Dining RTU & dish fan to left of unit



Sf2 supply fan



Dine curb 50" x 78" x 6"H



RTU Unit None of the RTU's have outside intake hoods-economizers



qty(4) above ceiling vents pull air in from outside & dumps mainly in eggcrates in front of hood



Filters on smaller mua units are dirty- allowing for better hood performance



RTU-Kitchen filters



Unit in background serves allstate & also some of banquet room



hood 2 - SF1 & curb 33 x 33
x 8" off ground



Rtu - Kitchen sits on rails
QTY(2) - 49" OC
6"w x 69"L x 6"H



End panel needed. If lower tray can be removed, panel can come down further 40" top x 24" bottom



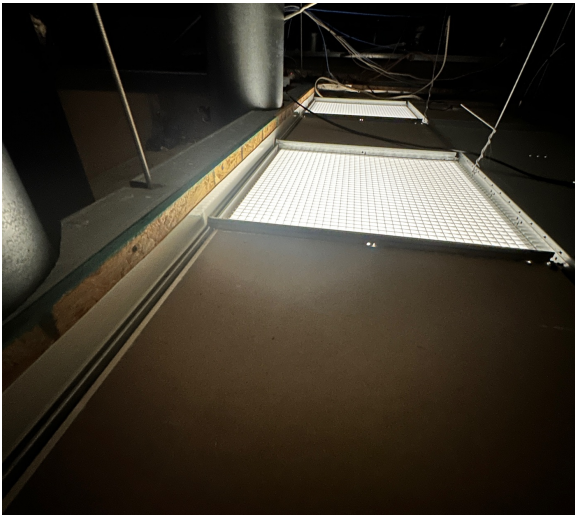
Smoke gets under tray & no matter what smoke will roll out with this tray here. Owner stated they can remove this & cut it down.



Above ceiling looking towards the two end to end hoods.



The (2) 12" DIA Supply duct from SF3 to Hd3 (main hood)



Eggcrate grills installed in front of hood 3 to allow air to be pulled in from roof vents into above ceiling & then down to hood



All the hvac has alot of flex duct. All branchline are flex & range from 10 to 30+ feet long



RTU-Kitchen supply drop.
Branches 2 directions (see pdf) also serves 1 concentric diffuser in kitchen



Concentric difusser



The Kitchen RTU has a # of
branchlines capped off to
feed more air into dining



SEE PDF- DINING UNIT
ACTUALLY JUST DUCTS
INTO A BRANCLINE OF
KITCHEN RTU. Not ideal
for optimum performance.



SF3 main hood drop.



Sf3 - has a large support
Beam right next to it, if
desired to set larger
conditioned MUA on roof



Front office & entry served by box in ceiling with 50 ft flex ran to common teunkline in other side of dining. Not much airflow being transferred

National TAB

Project: 04-15-24 Rusty Keg Evaluation

System/Unit: FAN - Exhaust



Asset: EF1

AREA:HD1 (OVEN-LEFT)

Unit Data		
	Design	Actual
MFG	NA	NAKS
Model Num	NA	28B3
Serial Num	-	20180307
Type	-	UPBLAST

Test Data		
	Design	Actual
CFM	-	2499
Fan Rotation	-	CORRECT

Motor Data		
	Design	Actual
Motor MFG	-	CENTURY
Frame	-	56
Horsepower	-	0.75
Motor Rpm	-	1735
Phase	-	3
Voltage (rated)	-	230/460
Amperage (rated)	-	2.5/1.25

Drive Data		
	Design	Actual
Motor Sheave Size	-	3.25" OD
Motor Bore Size	-	5/8
Motor Sheave SetPt	-	3 TURNS CLOSED
Fan Sheave Size	-	2.5"
Fan Sheave Bore	-	5/8"
Belt CL Distance	-	6-3/8"
Num of Belts	-	1
Belt Size	-	AX19

Completed By: Joe Hertenstein on 04/25/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation

System/Unit: FAN - Exhaust



Asset: EF2

AREA:HD2 (PIZZA-RIGHT)

Unit Data		
	Design	Actual
MFG	NA	NAKS
Model Num	NA	28B3
Serial Num	-	20180410
Type	-	UPBLAST

Test Data		
	Design	Actual
CFM	-	2556
Fan Rotation	-	CORRECT

Motor Data		
	Design	Actual
Motor MFG	-	CENTURY
Frame	-	56
Horsepower	-	.75
Motor Rpm	-	1725
Phase	-	3
Voltage (rated)	-	230/460
Amperage (rated)	-	2.5/1.25

Drive Data		
	Design	Actual
Motor Sheave Size	-	3.25" OD
Motor Bore Size	-	5/8
Motor Sheave SetPt	-	3.5 CLOSED
Fan Sheave Size	-	2.5"
Fan Sheave Bore	-	5/8"
Belt CL Distance	-	6-3/8"
Num of Belts	-	1
Belt Size	-	AX19

Completed By: Joe Hertenstein on 04/25/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation

System/Unit: FAN - Exhaust



Asset: EF3

AREA:HD3 (FRYER/GRILL)

Unit Data		
	Design	Actual
MFG	FLOW-AIRE	FLOW-AIRE
Model Num	UPBLAST	BDU18
Serial Num	-	4215120
Type	-	UPBLAST
Configuration	-	VERTICAL

Test Data		
	Design	Actual
CFM	-	3484
Fan Rotation	-	CORRECT

Motor Data		
	Design	Actual
Motor MFG	-	WEG
Frame	-	56HZ
Horsepower	-	2.0
Motor Rpm	-	1740
Phase	-	3
Voltage (rated)	-	230/460
Amperage (rated)	-	5.38/2.69

Drive Data		
	Design	Actual
Motor Sheave Size	-	2VP-42
Motor Bore Size	-	7/8"
Motor Sheave SetPt	-	3.5 TURNS OPEN
Fan Sheave Size	-	8.75"
Fan Sheave Bore	-	1"
Belt CL Distance	-	-
Num of Belts	-	2
Belt Size	-	BX-25

Completed By: Joe Hertenstein on 04/25/2024

Notes:
FAN MANUFACTURED - 02/24/20

Written By: Joe Hertenstein on 04/17/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation

System/Unit: FAN - Exhaust



Asset: EF4

AREA:DISH HD4

Unit Data		
	Design	Actual
MFG	NA	NAKS
Model Num	NA	10D
Serial Num	-	20180425
Configuration	-	UPBLAST

Test Data		
	Design	Actual
CFM	-	400
Fan RPM	DD	DD
Fan Rotation	-	CORRECT

Motor Data		
	Design	Actual
Motor MFG	-	US MOTORS
Frame	-	42Y
Horsepower	-	1/10
Motor Rpm	-	1550
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	1.7

Completed By: Joe Hertenstein on 04/28/2024

Notes:
Estimated exhaust, mesh filter at hood extremely clogged.

Written By: Joe Hertenstein on 04/28/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation
System/Unit: FAN - Supply



Asset: SF1

AREA:HD1 LEFT

Unit Data		
	Design	Actual
MFG	NA	NA
Model Num	NA	NA
Serial Num	-	
Type	NON-TEMPERED SUPPLY	NON-TEMPERED SUPPLY
Configuration	-	DOWN

Test Data		
	Design	Actual
CFM	-	260

General		
	Design	Actual
Fan Rotation Correct	-	CORRECT

Motor Data		
	Design	Actual
Motor MFG	-	-
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	5.11

Drive Data		
	Design	Actual
Motor Sheave Size	-	3.25"
Motor Bore Size	-	1/2"
Fan Sheave Size	-	8.75
Fan Sheave Bore	-	3/4"Approx
Belt CL Distance	-	13.5"
Num of Belts	-	1
Belt Size	-	4LK420
Belt Alignment Verified	-	GOOD

Completed By: Joe Hertenstein on 04/28/2024

Notes:
 INTAKE FILTER 24"X20" NOMINAL (18.5"x22" ACT)-MESH.
 AVE FPM = 92
 FILTER IS LOADED CAUSING REDUCE FLOW, BUT HELPS HOOD PERFORMANCE

Written By: Joe Hertenstein on 04/25/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation
System/Unit: FAN - Supply



Asset: SF2

AREA:HD2-RIGHT

Unit Data		
	Design	Actual
MFG	NA	NA
Model Num	NA	NA
Serial Num	-	
Type	-	UNTEMPERED
Configuration	-	DOWN

Test Data		
	Design	Actual
CFM	-	482

General		
	Design	Actual
Fan Rotation Correct	-	CORRECT

Motor Data		
	Design	Actual
Motor MFG	-	-
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	5.11

Drive Data		
	Design	Actual
Motor Sheave Size	-	3.25"
Motor Bore Size	-	1/2"
Fan Sheave Size	-	8.75"
Fan Sheave Bore	-	3/4" Approx
Belt CL Distance	-	13.5"
Num of Belts	-	1
Belt Size	-	4LK420
Belt Alignment Verified	-	YES

Completed By: Joe Hertenstein on 04/28/2024

Notes:
 INTAKE FILTER 24"X20" NOMINAL (18.5"x22" ACT)-MESH.
 AVE FPM = 170
 FILTER IS LOADED CAUSING REDUCE FLOW, BUT HELPS HOOD PERFORMANCE

Written By: Joe Hertenstein on 04/25/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation
System/Unit: FAN - Supply



Asset: SF3

AREA:HD3-FRYERS

Unit Data		
	Design	Actual
MFG	NA	FLOWAIRE
Model Num	NA	NSA12
Serial Num	-	1169953
Type	-	UNTEMPERED
Configuration	-	DOWN

Test Data		
	Design	Actual
CFM	-	2043

General		
	Design	Actual
Fan Rotation Correct	-	CORRECT

Motor Data		
	Design	Actual
Motor MFG	-	DAYTON
Frame	-	F56C
Horsepower	-	.75
Motor Rpm	-	1725
Phase	-	3
Voltage (rated)	-	230/460
Amperage (rated)	-	2.6/1.3

Drive Data		
	Design	Actual
Motor Sheave Size	-	1VL40
Motor Bore Size	-	5/8
Fan Sheave Size	-	7 3/4
Fan Sheave Bore	-	1 1/8 est
Belt CL Distance	-	15.5"
Num of Belts	-	1
Belt Size	-	11A1220
Belt Alignment Verified	-	GOOD

Completed By: Joe Hertenstein on 04/25/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation

System/Unit: Kitchen Hood Type I



Asset: HD1

AREA:OVENS-LEFT

Unit Data		
	Design	Actual
MFG	NA	HOODMART
Model Num	NA	HM-H-BMUA
Job / Serial Num	-	25340
Type	-	INTERNAL COMPENSATING
Hood length	-	108"
Hood Width	-	48"
Supply Plenum Type	-	SHORT CIRCUIT

Test Data Exhaust		
	Design	Actual
Filter Type	-	BAFFLE
Filter Size 1	-	20x16"
Filter Size 2	-	20x20"
Filter Qty 1	-	3
Filter Qty 2	-	3
Filter AK factor size 1	-	2.08
Filters AK factor size 2	-	2.68
Filter Total AK Area	-	14.28
Filter1 FPM	-	186
Filter2 FPM	-	154
Filter3 FPM	-	191
Filter4 FPM	-	191
Filter5 FPM	-	168
Filter6 FPM	-	160
Filter Ave FPM(corr)	-	175
CFM	-	2499

Cooking Equipment		
	Design	Actual
Item 1	-	CONV OVEN
Item 2	-	CONV OVEN
Item 3	-	RANGE

Completed By: Joe Hertenstein on 04/25/2024

Notes:

Supply airflow measured at intake filter on supply fan on roof.

Written By: Joe Hertenstein on 04/25/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation

System/Unit: Kitchen Hood Type I



Asset: HD2

AREA:PIZZA

Unit Data		
	Design	Actual
MFG	HOODMART	HOODMART
Model Num	HM-H-BMUA	HM-H-BMUA
Job / Serial Num	-	25340
Type	-	INTERNAL COMPENSATE
Hood length	-	108"
Hood Width	-	48"

Test Data Exhaust		
	Design	Actual
Filter Type	-	BAFFLE
Filter Size 1	-	20x16"
Filter Size 2	-	20x20"
Filter Qty 1	-	3
Filter Qty 2	-	3
Filter AK factor size 1	-	2.08
Filters AK factor size 2	-	2.68
Filter Total AK Area	-	14.28
Filter1 FPM	-	148
Filter2 FPM	-	175
Filter3 FPM	-	211
Filter4 FPM	-	209
Filter5 FPM	-	176
Filter6 FPM	-	157
Filter Ave FPM(corr)	-	179
CFM	-	2556

Cooking Equipment		
	Design	Actual
Item 1	-	COMBI- STEAMER
Item 2	-	CONV PIZZA

Completed By: Joe Hertenstein on 04/25/2024

Notes:

Supply airflow measured at intake filter on supply fan on roof.

Written By: Joe Hertenstein on 04/25/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation

System/Unit: Kitchen Hood Type I



Asset: HD3

AREA:FRYER/GRILLS

Unit Data		
	Design	Actual
MFG	NA	LARKIN
Model Num	NA	FO 096048
Job / Serial Num	-	NL
Type	-	INTERNAL COMPENSATE
Hood length	-	144"
Hood Width	-	51"
Supply Plenum Type	-	SHORT CIRCUIT

Test Data Exhaust		
	Design	Actual
Filter Type	-	BAFFLE
Filter Size 1	-	20x2"
Filter Size 2	-	20x16"
Filter Qty 1	-	4
Filter Qty 2	-	4
Filter AK factor size 1	-	2.68
Filters AK factor size 2	-	2.08
Filter Total AK Area	-	19.04
Filter1 FPM	-	111
Filter2 FPM	-	164
Filter3 FPM	-	221
Filter4 FPM	-	279
Filter5 FPM	-	282
Filter6 FPM	-	181
Filter7 FPM	-	109
Filter8 FPM	-	114
Filter Ave FPM(corr)	-	183
CFM	-	3484

Cooking Equipment		
	Design	Actual
Item 1	-	FRYER
Item 2	-	FRYER
Item 3	-	FRYER
Item 4	-	GRIDDLE
Item 5	-	OVEN

Completed By: Joe Hertenstein on 04/25/2024

Notes:
Supply airflow measured via duct traverse above hood.

Written By: Joe Hertenstein on 04/25/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation

System/Unit: AHU/RTU



Asset: RTU1

AREA:KITCHEN

Unit Data		
	Design	Actual
MFG	NA	BRYANT
Serial Num	-	[1]
Model Num	NA	530JP12D22[1]
Type	-	DX-GAS HEAT
Configuration	-	DOWN

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	56HZ
Horsepower	-	-
Motor Rpm	-	1450
Phase	-	3
Rated Voltage	-	208-230/460
Rated Amperage	-	10.2/4.8

Test Data		
	Design	Actual
OA CFM	-	0
Min OA Damper Position	-	NONE
Min OA Damper Type	-	NONE

General		
	Design	Actual
Fan Rotation Correct	-	CORRECT
Unit Filters Clean	-	40% LOADED
Condensate Drain Installed	-	CORRECT

Completed By: Joe Hertenstein on 04/25/2024

Notes:

[1] EXISTING HARD TO READ, MAY NOT BE EXACT

Written By: Joe Hertenstein on 04/17/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation

System/Unit: AHU/RTU



Asset: RTU2

AREA: DINING

Unit Data		
	Design	Actual
MFG	ICP	ICP
Serial Num	-	P182540080
Model Num	RGS	RGS090HECAYAA
Configuration	-	DOWN

Motor Data		
	Design	Actual
Horsepower	-	-
Phase	-	3
Rated Voltage	-	208/230
Rated Amperage	-	8.6/7.8

Test Data		
	Design	Actual
OA Damper Position	-	NONE
OA Damper Type	-	NONE

General		
	Design	Actual
Unit free of Damage	-	YES
Curb & Unit Installed Air Tight	-	YES
Condensor Coil Clean	-	YES
Condensor Fins Straight	-	YES
Condensate Drain Installed	-	YES

Completed By: Joe Hertenstein on 04/25/2024

Notes:
MOTOR DATA FROM UNIT TAG

Written By: Joe Hertenstein on 04/17/2024

National TAB

Project: 04-15-24 Rusty Keg Evaluation

System/Unit: AHU/RTU



Asset: RTU3

AREA: BANQUET RM

Unit Data		
	Design	Actual
MFG	ICP	ICP
Serial Num	-	580JP12D224G2A
Model Num	RGS	***P12D2246.. [1]
Configuration	-	DOWN

Motor Data		
	Design	Actual
Horsepower	-	
Phase	-	
Rated Voltage	-	
Rated Amperage	-	

Test Data		
	Design	Actual
OA Damper Position	-	NONE
OA Damper Type	-	NONE

General		
	Design	Actual
Unit free of Damage	-	YES
Curb & Unit Installed Air Tight	-	YES
Evap Coil Clean	-	YES
Condensor Coil Clean	-	YES
Condensor Fins Straight	-	YES
Condensate Drain Installed	-	YES

Notes:

[1] UNIT LABEL HARD TO READ. MAY NOT BE EXACTLY ACCURATED

Written By: Joe Hertenstein on 04/17/2024