Report By:

National TAB
1329 E. KEMPER ROAD
SUITE 4210
CINCINNATI, OH 45246

Report: TAB Report

Function: Test, Adjust, & Balance

Date: 03/18/2026

Completed By: National TAB

PROJECT

03-16-26 WHATABURGER #1499 CARROLLTON, GA

1119 S Park St.

Carrollton, GA

Client

Whataburger Restaurants

300 Concord Plaza Dr

San Antonio, TX 78216

National TAB

Project: 03-16-26 WHATABURGER #1499 CARROLLTON, GA

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Project Summary

Project Summary
The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report are further details about your building performance including recommendations, asset data, and pictures. Our focus is to work with the trades to remedy any issues or deficiencies during the actual field balancing and not after the balancing has occurred to achieve a positive environment and outcome. The level of success is determined by the availability of the trades, possible parts needed, or time constraints.

RTU's (Roof Top Units) w/ Diffusers
Each of the RTU's were measured at their terminal devices or via traverse to establish a total flow for that unit. Each RTU was adjusted to within tolerance of the engineer's design flow. Each outlet was then adjusted to within tolerance of the design flow. Outside air was measured by reading the intake air opening with a velocity grid and multiplying by the free area. The outside air damper was adjusted until the airflow was within the design requirements. Any equipment that fell outside of that tolerance is noted throughout the report.

Kitchen Exhaust Hood & Associated Fans
Each kitchen exhaust fan was measured at the hood filter bay utilizing a velocity matrix and a manufacturer's correction factor. Each filter velocity is multiplied by the manufacturer's corrected area. The sum of these readings equals the total flow of the exhaust fans. The total flow of the exhaust was then adjusted to within tolerance of the design flow. Any EF's that fell outside of this tolerance is noted throughout the report.

Exhaust Fans w/ Registers
The exhaust fan was measured at the grilles to measure the total flow. The fan was then adjusted to bring airflow within tolerance of the engineer's design flow. Each grille was then adjusted to within tolerance of design flow.

Final Building Tests
After completing the test and balance the final building pressure was measured. It was confirmed that the building pressure fell within acceptable tolerances and that the pressure measurement coincides with the actual and design net airflow. Any deviations from these standards are noted throughout the report. The hood capture was tested at the perimeter of the hood and the cook top level with the equipment heat on to ensure satisfactory hood capture and containment.

Issue List

- No Thermostats Installed

03-16-26 WHATABURGER #1499 CARROLLTON, GA

Project Issue Information

Issue Name : No Thermostats Installed

Description : There are no thermostats installed in the office. The mechanical contract said a third party installer would need to put them in.

Created By : National TAB

Assigned To : National TAB - Brianna Biggs

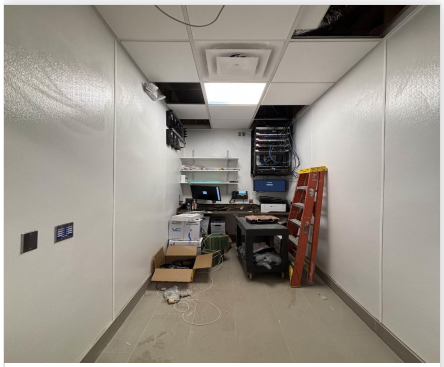
Status : Open

Priority : High

Asset Tag :

Originated Date : 03/18/2026 - Sagar Patel - National TAB

Project Issue File Details



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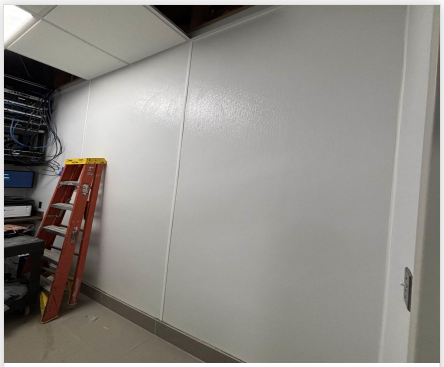

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AIR BALANCE SCHEDULE

UNIT	AREA SERVED	HVAC SUPPLY		HVAC RETURN		HVAC OUTDOOR		OA %		HOOD MAKE-UP		HOOD EXHAUST		GENERAL EXH.	
		DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL	DESIGN	ACTUAL
RTU-1	KITCHEN	3850	3879	1390	1532	2460	2347	63.9%	60.5%						
RTU-2	DINING	2050	2122	500	468	1550	1654	75.6%	77.9%						
KEF-1	GRILL HOOD											1995	2076		
KEF-2	FRYER HOOD											1216	1313		
EF-1	RESTROOMS													300	326
TOTALS		5900	6001	1890	2000	4010	4001			0	0	3211	3389	300	326

NET BUILDING AIRFLOW CALCULATION

TOTALS	DESIGN	ACTUAL
TOTAL OA	4010	4001
TOTAL EXHAUST	3511	3715
NET AIRFLOW	499	286

DOOR TESTED	BUILDING PRESSURE MEASUREMENTS (IN. H20)
FRONT	0.0109
SIDE	0.0095
REAR	0.0084
AVERAGE	**0.0096**

FINAL CHECKS

ACTUAL NET AIRFLOW COINCIDES WITH DESIGN: ✓

MEASURED PRESSURES COINCIDES WITH ACTUAL NET AIRFLOW: ✓

NOTES:

CheckList List

- 01: RTU's
- 02: EF's
- 03: Hoods
- 04: Final Checks

03-16-26 WHATABURGER #1499 CARROLLTON, GA

CheckList Information

Name :	01: RTU's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/05/2026 - Trinity Dodds - National TAB		
Completed Date :	03/18/2026 - Sagar Patel - National TAB		

CheckList Item Details

RTU's/AHU's

Thermostats installed and have power?	Fail
Comment:	
All diffusers and grilles are installed and match design?	Pass
Comment:	
Motors are all operating below the FLA rating?	Pass
Comment:	
Is gas piping installed and valves turned on?	Pass
Comment:	
Unit free of noticeable noise and vibration	Pass
Comment:	
Final outside air damper position is set manually and marked with permanent marker?	Pass
Comment:	

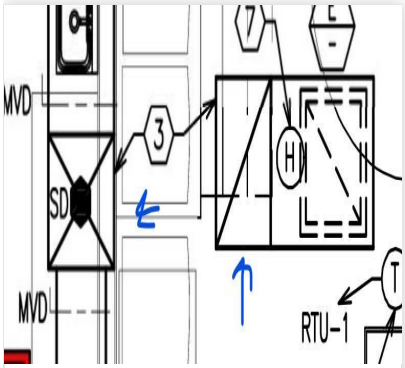
Outside Air damper can only be set through units HMI board. Economizer is marked.

Supply airflow is 0 to +10%?	Pass
Comment:	

Outside airflow is 0 to +10%?	Pass
Comment:	

Return balance dampers are confirmed to be 100% open (if installed)?	Pass
Comment:	

Screenshot of the GRD marked up with supply and return traverse locations for RTU-1 (Add picture here)	Pass
Comment:	



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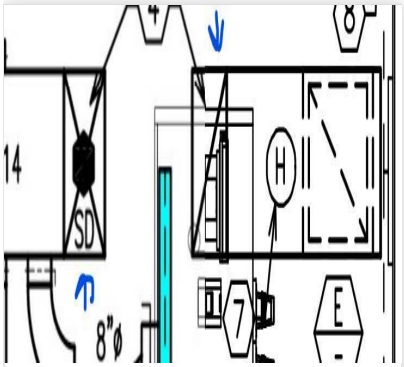
Screenshot of the GRD marked up with supply and return traverse locations for RTU-2 (Add picture here)	Pass
Comment:	



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For each unit supply, is the flow hood reading within 10% of the final traverse reading? If not do you feel any major points of leakage	Pass
Comment:	
For each unit return, is the flow hood reading within 10% of the final traverse reading? If not do you feel any major points of leakage	Pass
Comment:	

03-16-26 WHATABURGER #1499 CARROLLTON, GA

CheckList Information

Name :	02: EF's	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/05/2026 - Trinity Dodds - National TAB		
Completed Date :	03/17/2026 - Sagar Patel - National TAB		

CheckList Item Details

EF's

Rotation is correct?	Pass
Comment:	
Belts are tight?	N/A
Comment:	
Hinge kit installed installed on hood fan?	Pass
Comment:	
Lean fan back. Is grease duct installation adequate and is duct ran all the way to the base of the fan?	Pass
Comment:	
Flex conduit is long enough so that fan can be completely tilted back?	Pass
Comment:	
There is no major leakage around base of fan?	Pass
Comment:	

Is the motor operating below the motor FLA rating?	Pass
Comment:	
For restroom fan(s) is the back draft damper installed and can it fully open?	Pass
Comment:	
Unit free of noticeable noise and vibration?	Pass
Comment:	
Exhaust airflow is 0 to +10%?	Pass
Comment:	

03-16-26 WHATABURGER #1499 CARROLLTON, GA

CheckList Information

Name :	03: Hoods	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/05/2026 - Trinity Dodds - National TAB		
Completed Date :	03/17/2026 - Sagar Patel - National TAB		

CheckList Item Details

HOODS

All hood filters installed and accounted for?	Pass
Comment:	
Hoods are wired and have power?	Pass
Comment:	
Hood is free of alarms?	Pass
Comment:	
Hood is free of damage?	Pass
Comment:	
Quarter or full vertical end panels are installed if specified?	Pass
Comment:	

03-16-26 WHATABURGER #1499 CARROLLTON, GA

CheckList Information

Name :	04: Final Checks	**Status :**	Completed
Assigned Organization :	National TAB	**Asset :**	
Requesting Organization :	National TAB		
Created Date :	03/05/2026 - Trinity Dodds - National TAB		
Completed Date :	03/18/2026 - Sagar Patel - National TAB		

CheckList Item Details

FINAL CHECKS

Is space free of drafting?	Pass
Comment:	
Is space comfortable in all areas?	Pass
Comment:	
Is the space free of ventilation noise?	Pass
Comment:	

List kitchen equipment turned on for testing

Comment:

N/A

List smoke candle type used

Comment:

45 Second Smoke Emitter

HOOD CAPTURE TEST

Smoke test capture % - Perimeter of hood

Comment:

100%

Smoke test capture % - Top of cooking surface

Comment:

100%

WITNESS

Date test was completed	03/18/2026

Comment:

TAB tech name / Firm

Comment:

Sagar Patel / National TAB Intelligence

Site super name / Firm

Comment:

Chris Wood / WHBass

Owner representative name / Firm (if Applicable)

Comment:

N/A

BUILDING PRESSURE

Do actual net building airflow, design net building airflow, and pressure coincide? If not why? (All three should either be positive or negative)	Pass

Comment:

Is the building pressure at least +0.02"? If not, do you see any obvious areas of external building that aren't sealed?	Fail

Comment:

Building Pressure is +0.0096" and appears to be sealed.

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Project: 03-16-26 WHATABURGER #1499 CARROLLTON, GA

System/Unit: AHU/RTU

Asset: RTU-1 AREA:KITCHEN

Unit Data	
	Actual
MFG	CAPTIVEAIRE
Serial Num	8254876
Model Num	CAS-HAVAC3-I.300-20-20T
Num OA Filters 1	17
OA Filter Size 1	1.5X46
Num Final Filter 1	4
Final Filter Size 1	16X25X2
Num Final Filter 2	8
Final Filter Size 2	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	184T
Horsepower	3	5
Motor Rpm	-	1750
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	13.6

Test Data		
	Design	**Actual**
SF CFM (Traverse)	-	3911
SF CFM	3850	3879
SF RPM	-	1196
MOTOR RPM	-	1196
RA CFM (Traverse)	-	1596
RA CFM	1390	1532
OA CFM	2460	2347
RL Voltage	-	210 / 211 / 211
RL Amperage	-	9.7 / 10.1 / 10 .1
SF System SetPt	-	41 Hz
RA Damper Position	-	4.4 V
Min OA Damper Position	-	5.6 V
Min OA Damper Type	-	ECONOMIZER

Performance Data	
	Actual
Fan Discharge SP	0.39”

General	
	Actual
Unit free of Damage	YES
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Sagar Patel on 03/18/2026

Unit Data - PHOTO LOG

03/17/2026

National TAB

Project:03-16-26 WHATABURGER #1499 CARROLLTON, GA

AHU/RTU

Diffuser Supply (GRD)

RTU-1/KITCHEN

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	BACK ENTRANCE	D	8"	200	0.31	179	208	203	101.5
SGRD2	DRY STORAGE	A	6"	100	1	97	103	101	101.0
SGRD3	DRY STORAGE	A	10"	300	1	333	297	289	96.3
SGRD4	OFFICE	A	6"	100	1	86	104	102	102.0
SGRD5	WASHROOM	A	10"	300	1	277	303	296	98.7
SGRD6	KITCHEN	A	12"	400	1	451	433	423	105.8
SGRD7	KITCHEN	A	12"	400	1	471	428	417	104.3
SGRD8	KITCHEN	B	12"	450	1	387	448	437	97.1
SGRD9	KITCHEN	B	12"	450	1	330	452	441	98.0
SGRD10	KITCHEN	D	8"	200	0.58	206	219	213	106.5
SGRD11	DRIVE-THRU AREA	A	10"	350	1	372	379	370	105.7
SGRD12	KITCHEN	A	12"	400	1	361	388	378	94.5
SGRD13	WOMEN'S RR	C	6"	100	1	167	109	106	106.0
SGRD14	MEN'S RR	C	6"	100	1	300	106	103	103.0
Total				3850		4017	3977	3879	100.75%

Completed By: Sagar Patel on 03/17/2026

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Project: 03-16-26 WHATABURGER #1499 CARROLLTON, GA

System/Unit: AHU/RTU

Asset: RTU-2 AREA:DINING

Unit Data	
	Actual
MFG	CAPTIVEAIRE
Serial Num	8254876
Model Num	CAS-HVAC3-I.200-15-15T
Num OA Filters 1	17
OA Filter Size 1	1.5X46
Num Final Filter 1	4
Final Filter Size 1	16X25X2
Num Final Filter 2	8
Final Filter Size 2	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	TECO WESTINGHOUSE
Frame	-	145T
Horsepower	2	1.5
Motor Rpm	-	1740
Phase	3	3
Rated Voltage	208	230
Rated Amperage	-	4.02

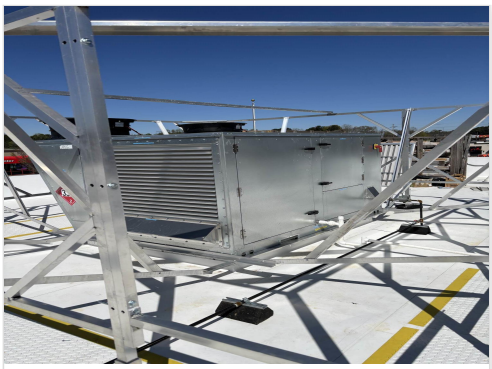
Test Data		
	Design	**Actual**
SF CFM (Traverse)	-	2338
SF CFM	2050	2122
SF RPM	-	1218
MOTOR RPM	-	1218
RA CFM (Traverse)	-	495
RA CFM	500	468
OA CFM	1550	1654
RL Voltage	-	128 VFD
RL Amperage	-	2.8 VFD
SF System SetPt	-	42 Hz
RA Damper Position	-	2.9 V
Min OA Damper Position	-	7.1 V
Min OA Damper Type	-	ECONOMIZER

Performance Data	
	Actual
Fan Discharge SP	0.23”

General	
	Actual
Unit free of Damage	YES
Fan Rotation Correct	YES
Unit Filters Clean	YES
Condensate Drain Installed	YES

Completed By: Sagar Patel on 03/18/2026

Unit Data - PHOTO LOG



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Project:03-16-26 WHATABURGER #1499 CARROLLTON, GA

AHU/RTU

Diffuser Supply (GRD)

RTU-2/DINING

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
SGRD1	ENTRANCE	D	8"	100	0.42	133	116	103	103.0
SGRD2	DINING	D	8"	100	0.42	87	132	101	101.0
SGRD3	DINING	D	8"	100	0.42	184	98	103	103.0
SGRD4	DINING	D	8"	100	0.42	124	154	108	108.0
SGRD5	DINING	D	8"	100	0.42	86	97	103	103.0
SGRD6	DINING	D	8"	100	0.42	128	117	106	106.0
SGRD7	DINING	D	8"	100	0.42	186	158	109	109.0
SGRD8	DINING	D	8"	100	0.42	202	156	108	108.0
SGRD9	DINING	D	8"	100	0.42	147	148	106	106.0
SGRD10	DINING	D	8"	100	0.42	230	211	104	104.0
SGRD11	DINING	D	8"	100	0.42	185	126	102	102.0
SGRD12	DINING	D	8"	100	0.42	122	91	106	106.0
SGRD13	DINING	A	8"	170	1	173	150	174	102.4
SGRD14	DINING	A	8"	170	1	141	128	171	100.6
SGRD15	SERVING AREA	A	8"	170	1	144	134	173	101.8
SGRD16	SERVING AREA	A	8"	170	1	124	109	169	99.4
SGRD17	SERVING AREA	D	8"	170	0.42	119	126	176	103.5
Total				2050		2515	2251	2122	103.51%

Completed By: Sagar Patel on 03/18/2026

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Project:03-16-26 WHATABURGER #1499 CARROLLTON, GA

Diffuser Supply (GRD)

TRAVERSES/

Asset											
Asset Name	**Size**	**DESIGN CFM**	**VEL(1)**	**Location**	**Type**	**AK**	**CFM(1)**	**CFM(2)**	**FINALCFM**	**% to design**
RETURN TRAVERSE - RTU1	10X18	1390	1277	-	-	-	-	-	1596	114.8
RETURN TRAVERSE - RTU2	10X22	500	324	-	-	-	-	-	495	99.0
SUPPLY TRAVERSE - RTU1	10X22	3850	-	SUPPLY DROP	DUCT	1.53	3911	3911	3911	101.6
SUPPLY TRAVERSE - RTU2	13X8	2050	-	SUPPLY DROP	DUCT	0.72	2338	2338	2338	114.0
Total		7790					6249	6249	8340	107.06%

Completed By: Sagar Patel on 03/18/2026

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Project: 03-16-26 WHATABURGER #1499 CARROLLTON, GA

System/Unit: FAN - Exhaust

Asset: EF-1 AREA:RESTROOM

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	G-095-D	G-095-D
Serial Num	-	27749284
Type	DOWNBLAST	DOWNBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	MCMILLIAN ELECTRIC COMPANY
Frame	-	N/L
Horsepower	1/8	0.125
Motor Rpm	-	1550
Phase	-	1
Voltage (rated)	-	115
Amperage (rated)	-	2.6
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	300	326
Fan Rotation	-	CCW
System SetPt	-	LOW
RL Voltage	-	[1]
RL Amperage	-	[1]
Total ESP	0.50"	0.38”
Fan Inlet SP	-	-0.38”
Fan Discharge SP	-	ATM

Completed By: Sagar Patel on 03/17/2026

Notes:
[1] UNABLE TO READ VOLTS AND AMPS SAFELY

Written By: Sagar Patel on 03/17/2026

Unit Data - PHOTO LOG

03/17/2026

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Project:03-16-26 WHATABURGER #1499 CARROLLTON, GA

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF-1/RESTROOM

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	WOMEN'S RR	F	6X6	150	1	195	162	162	108.0
EGRD2	MEN'S RR	F	6X6	150	1	243	164	164	109.3
Total				300		438	326	326	108.67%

Completed By: Sagar Patel on 03/17/2026

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Project: 03-16-26 WHATABURGER #1499 CARROLLTON, GA

System/Unit: FAN - Exhaust

Asset: KEF-1 AREA:GRILL HOOD

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	CUE-140-VG	CUE-140-VG
Serial Num	-	27723347
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	N/L
Horsepower	1/3	1.0
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	208
Amperage (rated)	-	7.0
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	1994	2076
Fan Rotation	-	CCW
System SetPt	-	6.5
RL Voltage	-	213
RL Amperage	-	1.3
Total ESP	1.00"	0.37”
Fan Inlet SP	-	-0.37”
Fan Discharge SP	-	ATM

Completed By: Sagar Patel on 03/17/2026

Unit Data - PHOTO LOG

03/17/2026

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Project: 03-16-26 WHATABURGER #1499 CARROLLTON, GA

System/Unit: FAN - Exhaust

Asset: KEF-2 AREA:FRYER HOOD

Unit Data		
	Design	**Actual**
MFG	GREENHECK	GREENHECK
Model Num	CUE-120-VG	CUE-120-VG
Serial Num	-	27723373
Type	UPBLAST	UPBLAST
Configuration	VERTICAL	VERTICAL

Motor Data		
	Design	**Actual**
Motor MFG	-	VARI-GREEN
Frame	-	N/L
Horsepower	0.50	0.5
Motor Rpm	-	1750
Phase	-	1
Voltage (rated)	-	208
Amperage (rated)	-	3.8
Service Factor	-	N/L

Test Data		
	Design	**Actual**
CFM	1216	169
Fan Rotation	-	CCW
System SetPt	-	6.25
RL Voltage	-	213
RL Amperage	-	1.2
Total ESP	0.75"	0.43”
Fan Inlet SP	-	-0.43”
Fan Discharge SP	-	ATM

Completed By: Sagar Patel on 03/17/2026

Unit Data - PHOTO LOG

03/17/2026

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Project: 03-16-26 WHATABURGER #1499 CARROLLTON, GA

System/Unit: Kitchen Hood Type I

Asset: HD-1 AREA:GRIDDLE HOOD

Unit Data		
	Design	**Actual**
MFG	H&K	H&K
Model Num	MH16346	HKD027
Job / Serial Num	-	8192630-001
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	87"	85"
Hood Width	55"	56"

Test Data Exhaust		
	Design	**Actual**
Filter Type	FLAMGAURD	FLAMGAURD
Filter Size 1	12X20	12X20
Filter Qty 1	8	8
Filter AK factor size 1	1.5	1.50
Filter Total AK Area	12	12
Filter1 FPM	-	165
Filter2 FPM	-	198
Filter3 FPM	-	180
Filter4 FPM	-	134
Filter5 FPM	-	159
Filter6 FPM	-	193
Filter7 FPM	-	195
Filter8 FPM	-	166
Filter Ave FPM(corr)	-	173
CFM	1994	2076

Cooking Equipment	
	Actual
Item 1	GRIDDLE

Completed By: Sagar Patel on 03/17/2026

Unit Data - PHOTO LOG

03/17/2026

National TAB

Project: 03-16-26 WHATABURGER #1499 CARROLLTON, GA

System/Unit: Kitchen Hood Type I

Asset: HD-2 AREA:FRY HOOD

Unit Data		
	Design	**Actual**
MFG	H&K	H&K
Model Num	HKD023	HKD023
Job / Serial Num	-	8194636-001
Type	TYPE I CANOPY	TYPE I CANOPY
Hood length	72"	66"
Hood Width	32"	38"

Test Data Exhaust		
	Design	**Actual**
Filter Type	FLAMGAURD	FLAMGAURD
Filter Size 1	12X20	N/A
Filter Size 2	12X16	12X16
Filter Qty 1	2	N/A
Filter Qty 2	2	4
Filter AK factor size 1	1.5	N/A
Filters AK factor size 2	1.16	1.16
Filter Total AK Area	5.32	4.64
Filter1 FPM	-	261
Filter2 FPM	-	293
Filter3 FPM	-	304
Filter4 FPM	-	274
Filter Ave FPM(corr)	-	283
CFM	1216	1313

Cooking Equipment	
	Actual
Item 1	FRYER

Completed By: Sagar Patel on 03/17/2026

Unit Data - PHOTO LOG

03/17/2026