

**Report By:**

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**Report: TAB REPORT**  
**Function: Test, Adjust, & Balance**  
**Date: 09/11/2025**  
**Completed By: National TAB**

**PROJECT**  
**Liberty Collective (Liberty Twp, OH)**

Lakota Lane

Liberty Twp, OH 45011

**Client**

BACHMAN'S HVAC SOLUTIONS  
4058 CLOUGH WOODS DR.

BATAVIA, OH

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

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# CERTIFICATION



**PROJECT:** Liberty Collective (Liberty Twp, OH)

The data presented in this report is a record of system measurements and final adjustments that have been obtained in accordance with the current edition of the NEBB *Procedural Standards for Testing, Adjusting, and Balancing of Environmental Systems*. Any variances from design quantities, which exceed NEBB tolerances, are noted in the Test-Adjust-Balance Report Project Summary.

The air distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

**NEBB TAB FIRM:** National TAB

**REGISTRATION NO:** 3629

**CERTIFIED BY:** Joe Hertenstein

**DATE:** 9/11/2025

The hydronic distribution system has been tested and balanced and final adjustments have been made in accordance with NEBB standards and the project specifications.

**NEBB TAB FIRM:** National TAB

**REGISTRATION NO:** 3629


**CERTIFIED BY:** Joe Hertenstein

**DATE:** \_\_\_\_\_

## Submitted and Certified by:

**NEBB TAB FIRM:** National TAB

**TAB PROFESSIONAL:** Joe Hertenstein

**SIGNATURE:** 

**REGISTRATION NO:** 3629

**CERTIFICATION EXP:** 12/31/2025





# National TAB

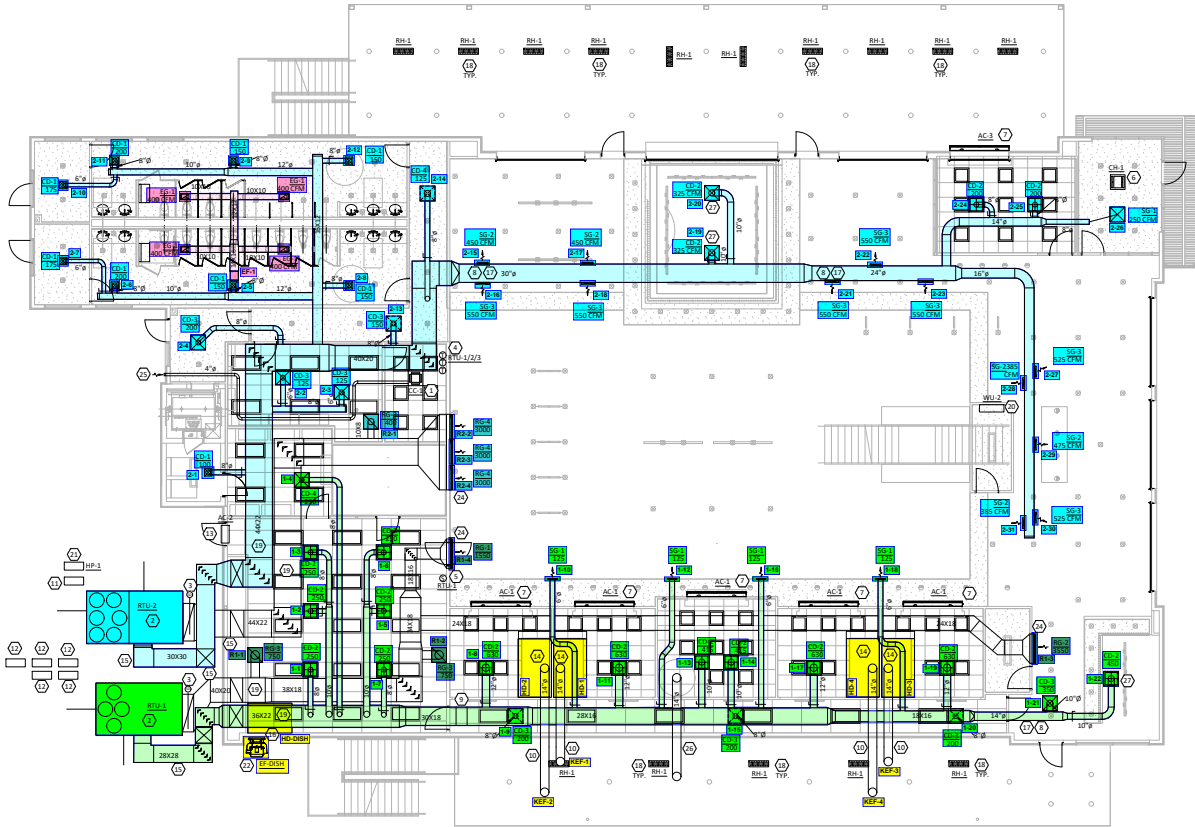
## Testing, Adjusting, and Balancing Equipment



Function		Range	Minimum Accuracy	Instrument Information	Calibration Date	Date Due
AIR	AIR PRESSURE	0 in wg to 10 in wg	2% +/- 0.001 in wg	Evergreen S-PVF-1 24D-00281	3/14/2025	3/14/2026
	AIR VELOCITY INSTRUMENT	50 fpm to 3900 fpm	+/- 5 % +/- 7 fpm	Evergreen S-PVF-1 24D-00281	3/14/2025	3/14/2026
	DIRECT HOOD READING	100 cfm to 2000 cfm	+/- 5 % +/- 7 cfm	Evergreen S-PVF-1 24D-00281	3/14/2025	3/14/2026
TEMPERATURE	AIR METER	-20 F to 240 F	+/- .5 % 2 F	Cooper SRH77A S/N 100516003	9/18/2024	9/18/2025
	AIR PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper SRH77A S/N 100516003	9/18/2024	9/18/2025
	IMMERSION METER	-20 F to 240 F	+/- .5 % 2 F	Cooper SRH77A S/N 100516003	9/18/2024	9/18/2025
	IMMERSION PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper SRH77A S/N 100516003	9/18/2024	9/18/2025
	CONTACT METER	-20 F to 240 F	+/- .5 % 2 F	Cooper SRH77A S/N 100516003	9/18/2024	9/18/2025
	CONTACT PROBE	-20 F to 240 F	+/- .5 % 2 F	Cooper SRH77A S/N 100516003	9/18/2024	9/18/2025
HUMIDITY	HUMIDITY PROBE	10 % RH to 90 % RH	3% of reading	Cooper SRH77A S/N 100516003	9/18/2024	9/18/2025
ELECTRICAL	VOLTAGE MEASUREMENT	0 VAC to 600 VAC	2 % reading +/- 5 digits	Klein Tools CL800 S/N 1220C-C1	9/18/2024	9/18/2025
	AMPERAGE MEASUREMENT	0 Amperes to 100 Amperes	2 % reading +/- 5 digits	Klein Tools CL800 S/N 1220C-C1	9/18/2024	9/18/2025
ROTATION	ROTATION MEASUREMENT	60 rpm to 5000 rpm	2 % reading 2 rpm	Shimpo DT 207Lp S/N D1690029R	9/18/2024	9/18/2025
HYDRONIC	PRESSURE MEASUREMENT	-30 in Hg to 200 psi	±2% of reading +/- 1 psi	Hydronic Manometer - Dwyer 490W-6-HKIT S/N: 359515093207912	10/17/2024	10/17/2025
	DIFFERENTIAL PRESSURE MEASUREMENT	0 psi - 80 psi	±2% of reading +/- 1 psi	Hydronic Manometer - Dwyer 490W-6-HKIT S/N: 359515093207912	10/17/2024	10/17/2025

## Abbreviation List

A = Area (ft <sup>2</sup> )	S.F. = Service Factor
AHU = Air Handling Unit	SF = Supply Fan
A <sub>k</sub> = Effective Area	SP = Static Pressure
BHP = Brake Horsepower (IP) HP	SR = Supply Register
Btu = British Thermal Unit	T = Temperature
Btu/h = Btuh = BTUH = BTU/Hour	T <sub>ma</sub> = Mixed Air Temperature
CL = Center Distance (used in belt formula)	T <sub>oa</sub> = Outside Air Temperature
CD = Ceiling Diffuser	T <sub>ra</sub> = Return Air Temperature
CF = Correction Factor	H = Head (in wc, ft wc, psi)
CFM = Volumetric Flow: Cubic Feet Per Minute	h = Enthalpy
CO <sub>2</sub> = Carbon Dioxide	HP = Horsepower
CO = Carbon Monoxide	hr = Hour
C <sub>v</sub> = Flow Constant	K <sub>v</sub> = Flow constant (SI)
d = Diameter (in.) IP	kW = Kilowatt = 1000 Watts
Δ = Difference or Change (Final - Initial)	LAT = Leaving Air Temperature
DB = Dry Bulb	lb = Pounds
EA = Exhaust Air	LWT = Leaving Water Temperature
EAT = Entering Air Temperature	ma = Mixed Air
EF = Exhaust Fan	MIN = Minimum
Eff = Efficiency	MAX = Maximum
EG = Exhaust Grille	N/A = Not Applicable
ESP = External Static Pressure	NA = No Access
EWT = Entering Water Temperature	NL = Not Listed
°F = Degrees Fahrenheit, °F	NPSHA = Net Positive Suction Head Available
FPB = Fan Powered Box	NS = Not Specified
FLA = Full Load Amps	OA = Outside Air
fpm = Feet per Minute (fpm)	OAT = Outside Air Temperature
ft = Foot	PD = Sheave Pitch Diameter
gal = Gallons	P.D. = Pressure Drop
GPM = Gallons Per Minute (GPM)	PF = Power Factor
h = Enthalpy (BTU/lb dry air)	SG = Supply Grille
P = Pressure	SR = Supply Register
ppm = parts per million	TP = Total Pressure
psi = Pounds Per Square Inch	T <sub>ra</sub> = Return Air Temperature
psid = PSI Differential	TS = Tip Speed (fpm) IP, (m/s) SI
r = Radius (in)	TSP = Total Static Pressure
% <sub>ra</sub> = % of Return Air	V = Velocity
RA = Return Air	VAV = Variable Air Volume
RAT = Return Air Temperature	VD = Volume Damper
RF = Return Fan	VFD = Variable Frequency Drive
RG = Return Grille	W = Watt
RH = Relative Humidity	WB = Wet Bulb
RPM = Revolutions Per Minute	wg = wc = water gauge = water column
RTU = Roof Top Unit	WHP = Water Horsepower (IP)
SA = Supply Air	ω = Humidity Ratio



MECHANICAL - FIRST FLOOR PLAN  
1/8" = 1'-0"

HVAC LEGEND	
	DRAWING NOTE SYMBOL
	NEW RECTANGULAR DUCTWORK AND SIZE
	NEW ROUND DUCTWORK AND SIZE
	BALANCING/VOLUME DAMPER
	THERMOSTAT
	REMOTE SENSOR
	NEW SUPPLY AIR DIFFUSER AND CFM
	NEW RETURN GRILLE
	NEW EXHAUST GRILLE AND CFM
	NEW EXHAUST FAN
	AIR FLOW DIRECTION
	SMOKE DETECTOR
HVAC DESIGN CONDITIONS	
COOLING: OUTDOOR = 92°DB/74°FWB INDOOR = 72°FDB/50°FH	HEATING: OUTDOOR = 17°DB INDOOR = 70°FDB

- ### KEYED NOTES
- PROVIDE CEILING CASSETTE UNIT AND INSTALL IN CEILING LOCATION INDICATED. PROVIDE WIRED THERMOSTAT TO CONTROL MOUNT THERMOSTAT AT 4' AFF. ROUTE CONDENSATE TO NEAREST FLOOR DRAIN. PROVIDE CONDENSATE PUMP AS REQUIRED. TERMINATE WITH AIR GAP. REFER TO PLUMBING PLAN FOR LOCATION OF FLOOR DRAIN. SEE DETAIL 402.01.02.
  - PROVIDE NEW ROOFTOP UNIT AND CURS. ROUTE SUPPLY/RETURN DUCTS IN THROUGH EXTERIOR WALL. REFER TO WALK PLAN FOR CONTINUITY. COORDINATE ROOFTOP UNIT LOCATION WITH STRUCTURE BIDDING. PROVIDE NEW THERMOSTAT, CONTROL WIRING, AND STAND ALONE CONTROLS FOR RTU OPERATION. ROUTE CONDENSATE TO ROOF. BALANCE SUPPLY AND OUTSIDE AIRFLOW AS SCHEDULED. IC TO TURNISH DUCT MOUNTED SMOKE DETECTOR AND PROVIDE CONTRAIBLE DETECTOR ANNUNCIATOR/TEST SWITCH. IAC TO INSTALL SMOKE DETECTOR IN RETURN DUCT. PRIOR TO ANY OUTDOOR AIR CONNECTIONS. IAC TO PROVIDE INTERLOCK WIRING BETWEEN SMOKE DETECTOR AND UNIT TO SHUT DOWN UNIT UPON DETECTION OF SMOKE. IC SHALL PROVIDE WIRING FOR FINAL CONNECTION TO CENTRAL FIRE ALARM SYSTEM, IF APPLICABLE, AND WIRING TO REMOTE ANNUNCIATOR/TEST SWITCH.
  - PROVIDE THERMOSTAT TIED TO REMOTE SENSOR. MOUNT THERMOSTAT ON WALL 4 FEET A.F.F.
  - PROVIDE THERMOSTAT AND MOUNT ON WALL 5 FEET A.F.F.
  - PROVIDE ELECTRIC CEILING HEATER AND INSTALL IN CEILING.
  - PROVIDE AIR DOOR / AIR CURTAIN AND MOUNT IN SOFFIT. IAC TO WIRE LIMIT SWITCH TO AIR DOOR CONTROLS. AIR DOOR TO TURN ON WHEN DOOR IS OPEN AND LIMIT SWITCH IS ACTIVATED, AND REMAIN ON AFTER DOOR CLOSES UNTIL THE SET DELAY TIME EXPIRES (1 MINUTE, ADJUSTABLE).
  - RUN EXPOSED DUCTWORK TIGHT TO UNDERSIDE OF STRUCTURE.
  - ORDER BOTTOM OF SUPPLY DUCTWORK TO JUST ABOVE LIGHT FIXTURES IN CEILING GRID. LEAVE AS MUCH ROOM ABOVE THE SUPPLY DUCT AS POSSIBLE. COORDINATE WITH E.C. FOR LIGHT FIXTURE DEPTH.
  - PROVIDE GREASE DUCT EQUAL TO CAPTIVEARE SYSTEMS MODEL "DM" ROUND 30 GAUGE 430 STAINLESS STEEL DUCTWORK. PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 2' ON CENTER. RUN EXHAUST DUCTWORK INSIDE PATIO ROOF STRUCTURE. PROVIDE ACCESS PANELS AND CLEANOUTS AT ALL TURNS. SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
  - WALK IN COOLER OUTDOOR CONDENSING UNIT. UNIT PROVIDED BY WALK IN COOLER CONTRACTOR. COORDINATE FINAL LOCATION WITH OWNER. ENSURE UNIT IS INSIDE SCREENED IN FINISH.
  - ICE MACHINE CONDENSING UNIT. UNIT PROVIDED BY ICE MACHINE VENDOR. COORDINATE FINAL LOCATION WITH OWNER. ENSURE UNIT IS INSIDE SCREENED IN FINISH.
  - PROVIDE AIR CURTAIN AND MOUNT OVER COMMENSARY DOOR. IAC TO WIRE LIMIT SWITCH TO AIR CURTAIN CONTROLS. AIR CURTAIN TO TURN ON WHEN DOOR IS OPEN AND LIMIT SWITCH IS ACTIVATED, AND REMAIN ON AFTER DOOR CLOSES UNTIL THE SET DELAY TIME EXPIRES (1 MINUTE, ADJUSTABLE). HEAT TO BE ACTIVATED ON CALL FOR HEATING BY THE UNIT MOUNTED THERMOSTAT.
  - TYPE II HOOD** WITH ANSLA FIRE SUPPRESSION SYSTEM FURNISHED BY KITCHEN CONSULTANT AND NOTED BY MECHANICAL CONTRACTOR. MAKE ALL DUCT CONNECTIONS AS INDICATED AND INSTALL HOOD AT 80" A.F.F. REFER TO CAPTIVE ARE DRAWINGS FOR ADDITIONAL INFORMATION.
  - INSULATE ALL EXTERIOR DUCTWORK WITH RIGID FIBERGLASS BOARD INSULATION WITH OUTDOOR JACKET. INSULATION SHALL HAVE MINIMUM INSTALLED "R" VALUE OF 6.0. PROVIDE SELF-ADHESIVE OUTDOOR JACKET FOR ALL EXPOSED DUCTWORK. JACKET SHALL HAVE LAMINATED VARIOUS BARBER AND WATERPROOFING MEMBRANE CONSISTING OF A RUBBERIZED BITUMINOUS RESIN ON A CROSS LAMINATED POLYETHYLENE FILM COVERED WITH STUCCO EMBOSSED ALUMINUM-FOLI FINISH.
  - TYPE III HOOD** FURNISHED BY KITCHEN CONSULTANT AND INSTALLED BY MECHANICAL CONTRACTOR. MAKE ALL DUCT CONNECTIONS AS INDICATED AND INSTALL HOOD ABOVE EQUIPMENT IT SERVES AT A HEIGHT THAT DOES NOT INTERFERE WITH THE OPERATION OF THE EQUIPMENT. REFER TO CAPTIVE ARE DRAWINGS FOR ADDITIONAL INFORMATION.
  - ALL EXPOSED SPIRAL DUCTWORK TO BE PAINT GRIP GALVANIZED TO ALLOW FOR FIELD PAINTING. ALL EXPOSED SPIRAL DUCTWORK SHALL BE COLORED WALL AND INSULATED GALVANIZED RIGID TO PREVENT SWEATING.
  - PROVIDE ELECTRIC RADIANT HEATER, WITH UNIT MOUNTED THERMOSTAT. HEATER SHALL BE MOUNTED FROM UNDERSIDE OF STRUCTURE. SET THERMOSTAT TO 87° (ADJUSTABLE).
  - INTERNALLY LINE FIRST 10 FEET OF SUPPLY AND RETURN AIR DUCTWORK WITH JOHN'S MANVILLE OR EQUIVALENT, 1 INCH THICK SPRACACOUSTIC FIBERGLASS DUCT LINER. DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
  - PROVIDE WALL MOUNTED DUCTLESS SPLIT SYSTEM AND INSTALL IN LOCATION INDICATED. ROUTE CONDENSATE TO NEAREST APPROVED KEYPHACE. PROVIDE CONDENSATE PUMP AS REQUIRED. PROVIDE WIRED THERMOSTAT TO CONTROL DUCTLESS SPLIT SYSTEM. MOUNT THERMOSTAT AT 4' AFF.
  - PROVIDE HEAT PUMP AND LOCATE ON LEVEL OF EXIST CONCRETE PAD BY G.C. TOP OF THE UNIT SHALL BE LEVEL. MAINTAIN UNIT MINIMUM REQUIRED SERVICE AND AIRFLOW CLEARANCE. PROVIDE REFRIGERANT LIQUID AND SUCTION LINES BETWEEN HEAT PUMP AND DUCTLESS SPLIT SYSTEM AND SEAL WALL PENETRATIONS WEATHER TIGHT. ROUTE AND SIZE LINES AND ACCESSORIES PER MANUFACTURER'S GUIDELINES. PROVIDE A FULLY CHARGED SYSTEM AND INSULATE ALL REFRIGERANT PIPING WITH ARMAFLEX INSULATION.
  - PROVIDE EXHAUST FAN FOR TYPE II HOOD AND INSTALL ON WALL MOUNT BRACKET. DISCHARGE OPENING SHALL BE NOT LESS THAN 12" ABOVE GRADE. MAINTAIN MINIMUM CLEARANCE FROM ANY OUTDOOR AIR INTAKES. DUCT SERVING TYPE II HOOD SHALL BE MADE OF ALUMINUM. JOINTS, SEAMS, AND PENETRATIONS SHALL BE SEALED TO PREVENT AIR LEAKAGE. PROVIDE WEATHER TIGHT. HORIZONTAL DUCTWORK SERVING TYPE II HOOD SHALL BE SLOPED DOWN IN THE DIRECTION OF THE HOOD. SLOPE DUCT AT 1/8" / FT.
  - AS LOW AS POSSIBLE, TAKE SUPPLY AND RETURN DUCT IN THROUGH EXTERIOR WALL, INTO BUILT-OUT WALL, THEN TURN VERTICAL TO CEILING SPACE.
  - MOUNT RETURN GRILLE AS HIGH ON WALL AS POSSIBLE. PAINT GRILLE TO MATCH WALL COLOR.
  - PROVIDE IN TAKE HOOD WALL LOUVER, EQUIVALENT TO GREENHECK GRS-15 ROUND 24" 270K, AND MOUNT HIGH ON WALL 12" HIGH INSULATED ROOF CURB. COORDINATE WITH BROOKERS. PROVIDE DUCTWORK PLUMB BOY BEHIND LOUVER AND SEAL WATER TIGHT.
  - PROVIDE GREASE DUCT EQUAL TO CAPTIVEARE SYSTEMS MODEL "DM" ROUND 30 GAUGE 430 STAINLESS STEEL DUCTWORK. PROVIDE RATED ACCESS DOORS AT EVERY CHANGE IN DIRECTION AND EVERY 2' ON CENTER. RUN EXHAUST DUCTWORK INSIDE PATIO ROOF STRUCTURE. PROVIDE ACCESS PANELS AND CLEANOUTS AT ALL TURNS. CONNECTION TO PIZZA OVEN IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES. SEE ARCHITECTURAL DRAWINGS FOR DETAILS.
  - COORDINATE SUPPLY/DIFFUSER LOCATIONS IN BAR AREA WITH G.C. PRIOR TO INSTALLATION.

- ### GENERAL NOTES
- THE DRAWINGS ARE DIAGRAMMATIC IN NATURE. EXACT LOCATIONS OF DEVICES AND ROUTING OF DUCTWORK SHALL BE DETERMINED BY CONTRACTOR AFTER COORDINATION WITH ALL OTHER TRADES AND FIELD DETERMINATION OF FINAL CONSTRUCTION DETAILS. MINOR ADJUSTMENTS TO DUCT ROUTING AND CONFIGURATION TO AVOID CONTACT WITH BUILDING STRUCTURE OR OTHER TRADES ARE INCLUDED IN CONTRACTOR'S PRICE. CONTRACTOR SHALL OBTAIN ENGINEERS APPROVAL IN WRITING FOR ANY MODIFICATIONS TO SYSTEM DESIGN PRIOR TO INSTALLATION.
  - ALL EXPOSED MATERIALS AND EQUIPMENT SHALL BE INSTALLED AND SUPPORTED IN A FIRST CLASS AND WORKMANLIKE FASHION. DUCTWORK SHALL BE RUN PARALLEL AND/OR PERPENDICULAR TO MAIN BUILDING STRUCTURE. ANY WORK THAT IS NOT DONE IN A FIRST CLASS OR WORKMANLIKE FASHION, IN THE ARCHITECT'S OPINION, SHALL BE REDONE AT THE CONTRACTOR'S EXPENSE.
  - ALL DUCT JOINTS, SEAMS AND CONNECTIONS SHALL BE SECURELY FASTENED AND SEALED. DUCTS SHALL BE SUPPORTED WITH APPROVED HANGERS AT INTERVALS NOT EXCEEDING TEN FEET. DUCT COVERINGS AND LININGS SHALL HAVE A FLAME-SPREAD INDEX NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX NOT MORE THAN 50.
  - PROVIDE VOLUME DAMPERS AT ALL ROUND BRANCH DUCT TAKE-OFFS THAT ARE ACCESSIBLE. PROVIDE TURNING VANES AT ALL 90 DEGREE SQUARE ELBOWS IN SUPPLY AIR DUCTS. PROVIDE 45 DEGREE VEE'S AT ALL RECTANGULAR SUPPLY AND RETURN BRANCH DUCT TAKE-OFFS.
  - OUTDOOR AIR INTAKES SHALL BE 10' 0" MINIMUM AWAY FROM ANY EXHAUST AND PLUMBING VENT OUTLET.
  - WIRE UP ALL LOW VOLTAGE (24V) THERMOSTATS.
  - CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL PIPES, DUCTWORK, UNITS, ETC. WITH ALL OTHER TRADES AND SHIFT LOCATION ON GYFT WHERE NECESSARY. PROVIDE TRANSITIONS IN DUCTWORK TO AVOID CONTACT WITH EXISTING DUCTWORK AND OTHER STRUCTURES.
  - CONTRACTOR SHALL COORDINATE ALL AIR DEVICES WITH ELECTRICAL AND ARCHITECTURAL REFLECTED CEILING PLANS.
  - COORDINATE LOCATION OF ALL EXTERIOR LOUVER OR OUTLET WITH ARCHITECTURAL ELEVATION PLAN.
  - COORDINATE ROOF WORK WITH BUILDING OWNER'S ROOFING CONTRACTOR TO ASSURE THAT THE ROOF WARRANTY IS NOT VOIDED.
  - EXHAUST AIR DUCTS SHALL BE EQUIPPED WITH BACKDRIFT DAMPERS.
  - ALL DUCT OPENINGS AND OTHER AIR DISTRIBUTION OPENINGS SHALL BE COVERED DURING CONSTRUCTION EXCEPT FOR TESTING AND INSPECTION.
  - PROVIDE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND WARRANTIES / WRITTEN GUARANTEE FOR EACH SYSTEM. O&M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CCR TITLE 8, SECTION 5342 AND OTHER RELATED REGULATIONS.
  - ALL DUCT ELBOWS SHALL BE LONG RADIUS OR MITERED.

PRELIMINARY  
NOT FOR  
CONSTRUCTION

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**LIBERTY COLLECTIVE**  
COLUMBIANA, OHIO  
LIBERTY COLLEGE  
OHIO  
45011

ISSUE DATE	02/20/2025
ISSUATE	02/20/2025
PRELIMINARY ENGINEERING REVIEW	
PRELIMINARY PRESENTATION REVIEW	

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PROJ. MANAGER: JLR  
JOB NO. MRQ J12439

MECHANICAL - 1ST  
LEVEL FLR PLAN  
**M1.01**



# National TAB

Project: Liberty Collective (Liberty Twp, OH)  
System/Unit: AHU/RTU



Asset: RTU-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	1624P22603
Model Num	NA	48LCE020A7M5A0N1C0
Configuration	HORIZONTAL	HORIZONTAL
Num OA Filters 1	-	4
OA Filter Size 1	-	16"x25"
Num PreFilter 1	-	9
PreFilter Size 1	-	16"x25"x2"

Test Data		
	Design	Actual
SF CFM	7000	7221
SF RPM	1012	953
RA CFM	5375	5553
OA CFM	1625	1668
RL Voltage	208	214/214/214
RL Amperage	28	13.6/13.3/13.2
OA Damper Position	-	5.5DCV
Brake Horse Power	8.64	

Motor Data		
	Design	Actual
Motor MFG	-	BROAD OCEAN
Horsepower	-	7.5
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	22.3
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.45"
Fan Suction SP	-	-0.84"
Fan Discharge SP	-	0.37"
Total ESP	-	0.82"
Fan Total SP	-	1.21"
Cooling Coil P.D.	-	0.39"*

Drive Data	
	Actual
Motor Sheave Size	VP71
Motor Bore Size	1-3/8"
Motor Sheave SetPt	N/a
Fan Sheave Size	BK120
Fan Sheave Bore	1-3/16"
Belt CL Distance	12"
Num of Belts	1
Belt Size	BX49

Completed By: Gabe Merk on 09/09/2025

Notes:  
DIFFUSERS 9, 15, AND 20 HAVE NO DAMPERS. CURRENTLY NO SPACE FOR AN INLINE DAMPER DUE TO HOW CLOSE DIFFUSER IS TO BOTTOM OF DUCT.

Written By: Gabe Merk on 09/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

## AHU/RTU



### Diffuser Supply (GRD)

#### RTU-1/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1		CD-2	8	250	173	272	108.8
SGRD2		CD-2	8	250	110	238	95.2
SGRD3		CD-2	8	250	149	254	101.6
SGRD4		CD-4	8	250	41	232	92.8
SGRD5		CD-2	8	250	177	272	108.8
SGRD6		CD-2	8	250	139	261	104.4
SGRD7		CD-2	8	250	108	238	95.2
SGRD8		CD-2	12	630	271	527	83.7
SGRD9		CD-3	8	200	211	356	178.0
SGRD10		SG-1	6	125	109	121	96.8
SGRD11		CD-2	12	630	174	542	86.0
SGRD12		SG-1	6	125	101	132	105.6
SGRD13		CD-2	10	415	273	335	80.7
SGRD14		CD-2	10	415	211	422	101.7
SGRD15		CD-3	8	200	180	362	181.0
SGRD16		SG-1	6	125	94	131	104.8
SGRD17		CD-2	12	630	187	575	91.3
SGRD18		SG-1	6	125	55	113	90.4
SGRD19		CD-2	12	630	308	693	110.0
SGRD20		CD-3	8	200	341	282	141.0
SGRD21		CD-3	10	350	275	373	106.6
SGRD22		CD-2	10	450	246	490	108.9
Total				7000	3933	7221	103.16%

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

System/Unit: AHU/RTU



Asset: RTU-2

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	1724P2286
Model Num	NA	48LCE026A7M5-AN1C0
Configuration	HORIZONTAL	HORIZONTAL
Num OA Filters 1	-	4
OA Filter Size 1	-	16"X25"
Num PreFilter 1	-	9
PreFilter Size 1	-	16"X25"X2"

Test Data		
	Design	Actual
SF CFM	9420	9122
SF RPM	1155	1052
RA CFM	6535	6298
OA CFM	2885	2824
RL Voltage	208	214/214/214
RL Amperage	37.3	17.5/18.0/18.7
OA Damper Position	-	6.0 DCV
Brake Horse Power	13.57	6.95

Motor Data		
	Design	Actual
Motor MFG	-	BROAD OCEAN
Horsepower	-	10
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	26
Service Factor	-	1.15

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.61"
Fan Suction SP	-	-1.06"
Fan Discharge SP	-	0.37"
Total ESP	-	0.98"
Fan Total SP	-	1.43"
Cooling Coil P.D.	-	0.45" COMBINED

Drive Data	
	Actual
Motor Sheave Size	6"
Motor Bore Size	1-1/8"
Motor Sheave SetPt	N/a
Fan Sheave Size	2BK90
Fan Sheave Bore	1-7/16"
Belt CL Distance	13"
Num of Belts	2
Belt Size	BX44

Completed By: Gabe Merk on 09/09/2025

Notes:  
DIFFUSER 3 NOT INSTALLED. REMOVED FROM PLANS.

Written By: Gabe Merk on 09/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

## AHU/RTU



### Diffuser Supply (GRD)

#### RTU-2/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1		CD-1	8	100	174	107	107.0
SGRD2		CD-3	6	125	152	132	105.6
SGRD3		CD-3	6	125	0	0	0.0
SGRD4		CD-3	8	200	233	216	108.0
SGRD5	RR	CD-1	8	150	372	164	109.3
SGRD6	RR	CD-1	8	200	442	189	94.5
SGRD7	SHWR	CD-1	6	175	162	187	106.9
SGRD8	RR	CD-1	8	150	495	149	99.3
SGRD9	RR	CD-1	8	150	258	155	103.3
SGRD10	SHWR	CD-1	6	175	158	179	102.3
SGRD11	RR	CD-1	8	200	145	210	105.0
SGRD12	RR	CD-1	8	150	281	158	105.3
SGRD13	HALL	CD-3	8	150	177	141	94.0
SGRD14	HALL	CD-4	8	125	328	132	105.6
SGRD15		SG-2	18X8	450	453	463	102.9
SGRD16		SG-3	22X8	550	364	521	94.7
SGRD17		SG-2	18X8	450	354	419	93.1
SGRD18		SG-3	22X8	550	446	523	95.1
SGRD19		CD-2	10	325	540	335	103.1
SGRD20		CD-2	10	325	442	328	100.9
SGRD21		SG-3	22X8	550	367	532	96.7
SGRD22		SG-3	22X8	550	495	536	97.5
SGRD23		SG-3	22X8	550	562	573	104.2
SGRD24		CD-2	8	200	158	193	96.5
SGRD25		CD-2	8	200	183	210	105.0
SGRD26		SG-1	16X6	250	154	247	98.8
SGRD27		SG-2	18X8	525	132	482	91.8
SGRD28		SG-3	22X8	385	193	363	94.3
SGRD29		SG-2	18X8	475	266	437	92.0
SGRD30		SG-3	22X8	525	438	479	91.2
SGRD31		SG-2	18X8	385	400	362	94.0
Total				9420	9324	9122	96.84%

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

System/Unit: AHU/RTU



Asset: RTU-3

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	3024U4794
Model Num	NA	48A8T030ANM551FB
Configuration	-	HORIZONTAL
Num OA Filters 1	-	8
OA Filter Size 1	-	24"X20"
Num PreFilter 1	-	4
PreFilter Size 1	-	20"X20"X4"
Num PreFilter 2	-	4
PreFilter Size 2	-	20"X24"X4"

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	215T
Horsepower	-	7-1/2
Motor Rpm	-	1768
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	27.8
Service Factor	-	1.15

Test Data		
	Design	Actual
SF CFM	12150	8693
SF RPM	1043	NOT ACCESSIBLE
RA CFM	8550	4928
OA CFM	3600	3765
RL Voltage	208	203 VFD
RL Amperage	-	19.0 VFD
VFD Max SetPt	-	59.9 HZ
VFD Min SetPt	-	59.9 HZ
SF Motor Freq(HZ)	-	59.9 HZ
SF System SetPt	-	100%
OA Damper Position	-	50%
Brake Horse Power	10.73	5.13

Performance Data		
	Design	Actual
Fan Suction SP	-	-0.98"
Fan Discharge SP	-	0.44"
Total ESP	2.05	0.92"
Fan Total SP	-	1.42"
Pre-Filter P.D.	-	0.50"* COMBINED
Cooling Coil P.D.	-	0.50"* COMBINED

Completed By: Gabe Merk on 09/09/2025

**Notes:**

Unit total airflow low at 60 Hz. Carrier Tech Support said max allowable frequency setpoint is 62 Hz. More investigation needed to get to design flow.

**Drive data**

- Fan sheave: 2B5V94
- Fan hub: B 1-15/16
- Fan bore: 1-15/16"
- Motor sheave: 5"
- Motor bore: 1-3/8"
- Cl: 15-1/2"
- Belts: 2-BX50

Written By: Gabe Merk on 09/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

## AHU/RTU



### Diffuser Supply (GRD)

#### RTU-3/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
SGRD1	RR	CD-1	8	175	147	139	79.4
SGRD2	RR	CD-1	8	175	224	163	93.1
SGRD3	HALL	CD-1	8	100	110	93	93.0
SGRD4	HALL	CD-1	8	150	167	38	25.3
SGRD5		CD-1	6	75	71	105	140.0
SGRD6		CD-1	6	75	66	89	118.7
SGRD7		SG-1	16X6	200	83	24	12.0
SGRD8		SG-1	16X6	200	74	108	54.0
SGRD9		SG-1	16X6	175	96	70	40.0
SGRD10		SG-1	16X6	200	95	60	30.0
SGRD11		SG-1	16X6	240	123	135	56.3
SGRD12		SG-1	16X6	235	98	184	78.3
SGRD13		SG-1	16X6	235	125	183	77.9
SGRD14		SG-1	16X6	240	119	177	73.8
SGRD15		SG-3	22X8	550	1985	337	61.3
SGRD16		SG-3	22X8	550		337	61.3
SGRD17		SG-3	22X8	550		337	61.3
SGRD18		SG-3	22X8	550		337	61.3
SGRD19		SG-3	22X8	550		337	61.3
SGRD20		SG-2	18X8	415		337	81.2
SGRD21		SG-2	18X8	400		337	84.3
SGRD22		SG-3	22X8	500		337	67.4
SGRD23		SG-3	22X8	600		337	56.2
SGRD24		SG-2	18X8	400	3331	372	93.0
SGRD25		SG-3	22X8	550		372	67.6
SGRD26		SG-2	18X8	410		372	90.7
SGRD27		SG-2	18X8	350		372	106.3
SGRD28		SG-3	22X8	550		372	67.6
SGRD29		SG-2	18X8	350		372	106.3
SGRD30		SG-2	18X8	450		372	82.7
SGRD31		SG-2	18X8	450		372	82.7
SGRD32		SG-2	18X8	450		372	82.7
SGRD33		SG-2	18X8	450		372	82.7
SGRD34		SG-3	22X8	600		372	62.0
<b>Total</b>				<b>12150</b>	<b>6914</b>	<b>8693</b>	<b>71.55%</b>

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

System/Unit: FAN - Exhaust



Asset: EF-1

AREA:FLR 1 RESTROOMS

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	165RH16DEC
Serial Num	-	INACCESSIBLE
Type	CRE UPBLAST	INACCESSIBLE

Test Data		
	Design	Actual
CFM	1600	2308
System SetPt	-	INACCESSIBLE
RL Voltage	115	INACCESSIBLE
RL Amperage	-	INACCESSIBLE
Suction ESP	-	INACCESSIBLE
Total ESP	1.40	INACCESSIBLE
Brake Horse Power	-	INACCESSIBLE

Motor Data		
	Design	Actual
Motor MFG	-	INACCESSIBLE
Frame	-	INACCESSIBLE
Horsepower	-	INACCESSIBLE
Motor Rpm	1493	INACCESSIBLE
Phase	1	INACCESSIBLE
Voltage (rated)	115	INACCESSIBLE
Amperage (rated)	-	INACCESSIBLE
Service Factor	-	INACCESSIBLE

Completed By: Gabe Merk on 09/09/2025

Notes:

UNIT INACCESSIBLE. UNABLE TO GAIN ACCESS TO UNIT VIA LADDER ON ROOF. A SNORKLE LIFT MAY BE NECESSARY TO ACCESS FAN SAFELY IN PITCHED ROOF. UNABLE TO REDUCE AIRFLOW TO DESIGN.

Written By: Gabe Merk on 09/10/2025

**National TAB**  
 Project: Liberty Collective (Liberty Twp, OH)  
**FAN - Exhaust**



Diffuser Ret/Exh (GRD)

**EF-1/FLR 1 RESTROOMS**

Asset								
Asset Name	Location	Type	Size	DESIGN CFM	AK	CFM(1)	FINAL CFM	% to design
EGRD1	RR	EG-1	10X10	400	1	574	574	143.5
EGRD2	RR	EG-1	10X10	400	1	659	659	164.8
EGRD3	RR	EG-1	10X10	400	1	532	532	133.0
EGRD4	RR	EG-1	10X10	400	1	543	543	135.8
Total				1600		2308	2308	144.25%

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

System/Unit: FAN - Exhaust



Asset: EF-2

AREA:FLR 2 RR

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	GCVF-180
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	100	249

Motor Data		
	Design	Actual
Motor MFG	-	JAKEL
Motor Rpm	1082	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.2

Completed By: Gabe Merk on 07/09/2025

Notes:  
SINGLE SPEED EF WIRED IN HIGH. NO LOW SPEED WIRE.

Written By: Gabe Merk on 07/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

System/Unit: FAN - Exhaust



Asset: EF-3

AREA:FLR 2 RR

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	GCVF-180
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	100	243

Motor Data		
	Design	Actual
Motor MFG	-	JAKEL
Motor Rpm	1082	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.2

Completed By: Gabe Merk on 07/09/2025

Notes:  
SINGLE SPEED EF WIRED IN HIGH. NO LOW SPEED WIRE.

Written By: Gabe Merk on 07/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

System/Unit: FAN - Exhaust



Asset: EF-4

AREA:

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	GC-188
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	200	190

Motor Data		
	Design	Actual
Motor MFG	-	QUEACE
Motor Rpm	1650	1350
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.0

Completed By: Gabe Merk on 07/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

System/Unit: FAN - Exhaust



Asset: EF-5

AREA:

Unit Data		
	Design	Actual
MFG	NA	COOK
Model Num	NA	GC-188
Type	CEILING	CEILING

Test Data		
	Design	Actual
CFM	200	199

Motor Data		
	Design	Actual
Motor MFG	-	QUEACE
Motor Rpm	1650	1350
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.0

Completed By: Gabe Merk on 09/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

System/Unit: FAN - Exhaust



Asset: KEF-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU85HFA
Serial Num	-	6294612
Type	CRE UPBLAST	CRE UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Horsepower	0.75	3/4
Motor Rpm	1482	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	8.9

Test Data		
	Design	Actual
CFM	1350	1373
System SetPt	-	64%
RL Voltage	115	118
RL Amperage	8.9	3.6
Suction ESP	-	-1.10"
Discharge ESP	-	ATM
Total ESP	1.750	1.10"
Brake Horse Power	-	0.30

Completed By: Gabe Merk on 07/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

System/Unit: FAN - Exhaust



Asset: KEF-2

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU85HFA
Serial Num	-	6294612
Type	CRE UPBLAST	CRE UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Horsepower	0.75	3/4
Motor Rpm	1482	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	8.9

Test Data		
	Design	Actual
CFM	1350	1362
System SetPt	-	78%
RL Voltage	115	120
RL Amperage	8.9	5.4
Suction ESP	-	-1.07"
Discharge ESP	-	ATM
Total ESP	1.750	1.07"
Brake Horse Power	-	0.46

Completed By: Gabe Merk on 09/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

System/Unit: FAN - Exhaust



Asset: KEF-3

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU85HFA
Serial Num	-	6294612
Type	CRE UPBLAST	CRE UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Horsepower	0.75	3/4
Motor Rpm	1482	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	8.9

Test Data		
	Design	Actual
CFM	1350	1342
System SetPt	-	64%
RL Voltage	115	120
RL Amperage	8.9	3.4
Suction ESP	-	-1.20"
Discharge ESP	-	ATM
Total ESP	1.750	1.20"
Brake Horse Power	-	0.29

Completed By: Gabe Merk on 07/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

System/Unit: FAN - Exhaust



Asset: KEF-4

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DU85HFA
Serial Num	-	6294612
Type	CRE UPBLAST	CRE UPBLAST

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Horsepower	0.75	3/4
Motor Rpm	1482	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	8.9

Test Data		
	Design	Actual
CFM	1350	1372
System SetPt	-	67%
RL Voltage	115	120
RL Amperage	8.9	3.9
Suction ESP	-	-1.32"
Discharge ESP	-	ATM
Total ESP	1.750	1.32"
Brake Horse Power	-	0.33

Completed By: Gabe Merk on 07/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)  
System/Unit: FAN - Exhaust



Asset: KEF-DISH 1

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	DR33HFA
Serial Num	-	6294612
Type	CRE DNBLAST	CRE DOWNBLAST

Test Data		
	Design	Actual
CFM	525	531
System SetPt	-	41%
RL Voltage	115	118
RL Amperage	4.3	0.31
Suction ESP	-	-1.07"
Total ESP	1.000	1.07"

Motor Data		
	Design	Actual
Motor MFG	-	TELCO GREEN
Horsepower	0.33	1/3
Motor Rpm	1567	1800
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	4.3

Completed By: Gabe Merk on 09/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)  
System/Unit: Kitchen Hood Type I



Asset: HD-1

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	5424 ND-2
Job / Serial Num	-	6294612
Type	TYPE I CANOPY	TYPE 1 CANOPY
Hood length	83	83"
Hood Width	51	54"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	20X16	20"x16"
Filter Qty 1	5	5
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	10.40	10.40
Filter1 FPM	-	126
Filter2 FPM	-	139
Filter3 FPM	-	146
Filter4 FPM	-	136
Filter5 FPM	-	116
Filter Ave FPM(corr)	-	274.6
CFM	1350	1373

Cooking Equipment	
	Actual
Item 1	GRIDDLE
Item 2	FRYER

Completed By: Gabe Merk on 07/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

## System/Unit: Kitchen Hood Type I



Asset: HD-2

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	5424 ND-2
Job / Serial Num	-	6294612
Type	TYPE I CANOPY	TYPE 1 CANOPY
Hood length	83	83"
Hood Width	51	54"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	20X16	20"x16"
Filter Qty 1	5	5
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	10.40	10.40
Filter1 FPM	-	121
Filter2 FPM	-	144
Filter3 FPM	-	151
Filter4 FPM	-	139
Filter5 FPM	-	104
Filter Ave FPM(corr)	-	272.5
CFM	1350	1362

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	GAS-STOVE/GRIDDLE

Completed By: Gabe Merk on 07/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

## System/Unit: Kitchen Hood Type I



Asset: HD-3

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	5424 ND-2
Job / Serial Num	-	6294612
Type	TYPE I CANOPY	TYPE 1 CANOPY
Hood length	83	83"
Hood Width	51	54"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	20X16	20"x16"
Filter Qty 1	5	5
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	10.40	10.40
Filter1 FPM	-	128
Filter2 FPM	-	141
Filter3 FPM	-	138
Filter4 FPM	-	130
Filter5 FPM	-	112
Filter Ave FPM(corr)	-	268.3
CFM	1350	1342

Cooking Equipment	
	Actual
Item 1	FRYER
Item 2	GRIDDLE

Completed By: Gabe Merk on 07/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

## System/Unit: Kitchen Hood Type I



Asset: HD-4

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	5424 ND-2
Job / Serial Num	-	6294612
Type	TYPE I CANOPY	TYPE 1 CANOPY
Hood length	83	83"
Hood Width	51	54"

Test Data Exhaust		
	Design	Actual
Filter Type	CAPTRATE SOLO	CAPTRATE SOLO
Filter Size 1	20X16	20"x16"
Filter Qty 1	5	5
Filter AK factor size 1	2.08	2.08
Filter Total AK Area	10.40	10.40
Filter1 FPM	-	137
Filter2 FPM	-	140
Filter3 FPM	-	143
Filter4 FPM	-	132
Filter5 FPM	-	111
Filter Ave FPM(corr)	-	274.6
CFM	1350	1372

Cooking Equipment	
	Actual
Item 1	GAS-STOVE/GRIDDLE
Item 2	FRYER

Completed By: Gabe Merk on 07/09/2025

# National TAB

Project: Liberty Collective (Liberty Twp, OH)

## System/Unit: Kitchen Hood Type II



Asset: HD-DISH 1

AREA:

Unit Data		
	Design	Actual
MFG	NA	CAPTIVEAIRE
Model Num	NA	4224 VHB
Serial Num	-	6294612
Type	TYPE II CANOPY	TYPE 2 CANOPY
Hood length	42	42"
Hood Width	42	42"

Test Data		
	Design	Actual
Exhaust CFM	525	531

Completed By: Gabe Merk on 09/09/2025