Report By:

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

Report: TAB REPORT

Function: Test, Adjust, & Balance

Date: 11/19/2024

Completed By: National TAB

PROJECT

Chick-Fil-A (Redding, CA)

NWC I-5 @ Bonnyview Rd

Redding, CA 96001

Client

B&M Builders, Inc.

11330 Sunrise Park Drive

Suite C

Rancho Cordova, CA 95742

National TAB

Project: Chick-Fil-A (Redding, CA)

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Project Summary

The summary below provides a quick understanding of our scope of work and general testing procedures. Enclosed in the report is further detail 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 (Halton)
Each kitchen exhaust fan was measured by taking static pressure at the exhaust plenum and comparing to OEM performance data. The total flow of the exhaust was then adjusted to tolerance of the engineer's design flow.

General Exhaust Fans w/ Grilles
The general exhaust fans were measured by reading each air device with a flow hood. The total airflow for each fan is equivalent to the sum of these readings. Fan speed was then adjusted so that the airflow was within tolerance of design. Each terminal device was balanced to within tolerance of the design volume using the installed volume dampers. Any equipment that fell outside of this tolerance is noted throughout the report.

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.

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Project: Chick-Fil-A (Redding, CA)

System/Unit: FAN - Exhaust

Asset: EF-1 AREA:HOOD 1 L, R

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	150CPS150CPSS
Serial Num	-	050SL23545
Type	UTILITY VENT	UTILITY

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	0.75	0.75
Motor Rpm	1331	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	10.0
Service Factor	-	1.25

Drive Data	
	Actual
Motor Sheave Size	4.25"
Motor Bore Size	5/8"
Motor Sheave SetPt	1 TURN OPEN
Fan Sheave Size	BK55
Fan Sheave Bore	1"
Belt CL Distance	11.5"
Num of Belts	1
Belt Size	A-36

Test Data		
	Design	**Actual**
CFM	1913	1751
Fan RPM	1331	1466
RL Voltage	-	115
RL Amperage	-	9.3
Suction ESP	-	-0.77"
Discharge ESP	-	ATM
Total ESP	0.75	0.77"
Brake Horse Power	-	0.69

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Project: Chick-Fil-A (Redding, CA)

System/Unit: FAN - Exhaust

Asset: EF-2 AREA:HOOD 2, HOOD 3

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	150CPS150CPSS
Serial Num	-	050SL23545
Type	UTILITY VENT	UTILITY

Motor Data		
	Design	**Actual**
Motor MFG	-	MARATHON
Frame	-	56
Horsepower	0.75	0.75
Motor Rpm	1199	1725
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	10
Service Factor	-	1.25

Drive Data	
	Actual
Motor Sheave Size	4.25"
Motor Bore Size	5/8"
Motor Sheave SetPt	1 TURN OPEN
Fan Sheave Size	BK57
Fan Sheave Bore	1
Belt CL Distance	11.5"
Num of Belts	1
Belt Size	A-36

Test Data		
	Design	**Actual**
CFM	1402	1405
Fan RPM	1199	1409
RL Voltage	-	115
RL Amperage	-	7.9
Suction ESP	-	-0.89"
Discharge ESP	-	ATM
Total ESP	0.95	0.89"
Brake Horse Power	-	0.59

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Project: Chick-Fil-A (Redding, CA)

System/Unit: FAN - Exhaust

Asset: EF-3 AREA:RESTROOMS

Unit Data		
	Design	**Actual**
MFG	NA	COOK
Model Num	NA	90C150DH90ACEH
Serial Num	-	050PK96091
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	**Actual**
CFM	300	305
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	0.375	0.34"

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	NL
Horsepower	0.125	0.125
Motor Rpm	1294	1600
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.7
Service Factor	-	NL

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Project:Chick-Fil-A (Redding, CA)

FAN - Exhaust

Diffuser Ret/Exh (GRD)

EF-3/RESTROOMS

Asset									
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**AK**	**CFM(1)**	**CFM(2)**	**FINAL CFM**	**% to design**
EGRD1	MEN	K	8	150	1	192	153	153	102.0
EGRD2	WOMEN	K	8	150	1	123	152	152	101.3
Total				300		315	305	305	101.67%

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Project: Chick-Fil-A (Redding, CA)

System/Unit: FAN - Exhaust

Asset: EF-4 AREA:TRASH ENCLOSURE

Unit Data		
	Design	**Actual**
MFG	NA	FANTECH
Model Num	NA	REC54
Serial Num	-	40229
Type	CRE DNBLAST	DOWNBLAST

Test Data		
	Design	**Actual**
CFM	117	107
RL Voltage	-	NA
RL Amperage	-	NA
Total ESP	0	0

Motor Data		
	Design	**Actual**
Motor MFG	-	NL
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	NL
Phase	1	1
Voltage (rated)	115	120
Amperage (rated)	-	0.18
Service Factor	-	NL

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Project: Chick-Fil-A (Redding, CA)

System/Unit: Kitchen Hood Type II

Asset: HOOD 1 AREA:

Unit Data		
	Design	**Actual**
MFG	NA	HALTON
Model Num	NA	KVL-2 IC
Serial Num	-	123234-411
Type	BACKSHELF	BACKSHELF
Hood length	107	107"
Hood Width	37	37"

Test Data		
	Design	**Actual**
Exhaust CFM	1204	1109

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Notes:
DESIGN 0.13" EX 0.30"SUP
ACTUAL 0.1192" EX 0.3030"SUP

Written By: Zack Eismin on 11/19/2024

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Project: Chick-Fil-A (Redding, CA)

System/Unit: Kitchen Hood Type II

Asset: HOOD 2 AREA:

Unit Data		
	Design	**Actual**
MFG	NA	HALTON
Model Num	NA	KVL-2 IC
Serial Num	-	123234-448
Type	BACKSHELF	BACKSHELF
Hood length	63	63"
Hood Width	37	37"

Test Data		
	Design	**Actual**
Exhaust CFM	709	642

Completed By: Zack Eismin on 11/19/2024

Notes:
DESIGN 0.13" EX 0.30"SUP
ACTUAL 0.1178"EX 0.3049"SUP

Written By: Zack Eismin on 11/19/2024

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Project: Chick-Fil-A (Redding, CA)

System/Unit: Kitchen Hood Type II

Asset: HOOD 3 AREA:

Unit Data		
	Design	**Actual**
MFG	NA	HALTON
Model Num	NA	KVL-C-IC
Serial Num	-	123234-489
Type	BACKSHELF	BACKSHELF
Hood length	42	42"
Hood Width	34	34"

Test Data		
	Design	**Actual**
Exhaust CFM	701	725

Completed By: Zack Eismin on 11/19/2024

Notes:
DESIGN 0.30" EX 0.29" SUP
ACTUAL 0.3106"EX 0.2716" SUP

Written By: Zack Eismin on 11/19/2024

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Project: Chick-Fil-A (Redding, CA)

System/Unit: Kitchen Hood Type II

Asset: HOOD 4 AREA:

Unit Data		
	Design	**Actual**
MFG	NA	HALTON
Model Num	NA	KVL-C-IC
Serial Num	-	123234-540
Type	BACKSHELF	BACKSHELF
Hood length	42	42"
Hood Width	34	34"

Test Data		
	Design	**Actual**
Exhaust CFM	701	680

Completed By: Zack Eismin on 11/19/2024

Notes:
DESIGN 0.30" EX 0.29" SUP
ACTUAL 0.2912"EX 0.211"SUP

Written By: Zack Eismin on 11/19/2024

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Project: Chick-Fil-A (Redding, CA)

System/Unit: AHU/RTU

Asset: AC-1 AREA:KITCHEN

Unit Data		
	Design	**Actual**
MFG	NA	LENNOX
Serial Num	-	5623K04316
Model Num	NA	LGT300S4MH1Y
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	23X13.5
Num PreFilter 1	-	6
PreFilter Size 1	-	24X24X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTOR
Frame	-	215TZ
Horsepower	10.0	10
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208	208/230
Rated Amperage	-	26.3
Service Factor	-	1.15

Test Data		
	Design	**Actual**
SF CFM	8500	8764
RA CFM	7300	7579
OA CFM	1200	1185
RL Voltage	-	209/209/210
RL Amperage	-	20.2/20.19/20.2
OA Damper Position	-	23%
Brake Horse Power	-	7.68

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.74
Fan Suction SP	-	-1.24"
Fan Discharge SP	-	0.64"
Total ESP	0.80	1.38"
Fan Total SP	-	1.88"

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Project:Chick-Fil-A (Redding, CA)

AHU/RTU

Diffuser Supply (GRD)

AC-1/KITCHEN

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SGRD1	KITCHEN	A	14	500	598	500	100.0
SGRD2	KITCHEN	A	14	475	516	517	108.8
SGRD3	KITCHEN	A	14	825	795	779	94.4
SGRD4	KITCHEN	A	14	825	1112	831	100.7
SGRD5	KITCHEN	A	14	550	577	536	97.5
SGRD6	KITCHEN	A	14	825	1025	849	102.9
SGRD7	KITCHEN	A	14	600	251	593	98.8
SGRD8	KITCHEN	A	14	825	948	886	107.4
SGRD9	KITCHEN	A	14	825	946	907	109.9
SGRD10	KITCHEN	A	14	600	701	649	108.2
SGRD11	KITCHEN	A	14	825	893	891	108.0
SGRD12	KITCHEN	A	14	825	560	826	100.1
Total				8500	8922	8764	103.11%

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Project: Chick-Fil-A (Redding, CA)

System/Unit: AHU/RTU

Asset: AC-2 AREA:SERVNG

Unit Data		
	Design	**Actual**
MFG	NA	LENNOX
Serial Num	-	5623M05420
Model Num	NA	LGT240H4MM1Y
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	3
OA Filter Size 1	-	23X13.5
Num PreFilter 1	-	6
PreFilter Size 1	-	24X24X2

Motor Data		
	Design	**Actual**
Motor MFG	-	US MOTORS
Frame	-	184TZ
Horsepower	5.0	5
Motor Rpm	-	1765
Phase	3	3
Rated Voltage	208	208/230
Rated Amperage	-	13.8/13.0
Service Factor	-	1.15

Test Data		
	Design	**Actual**
SF CFM	5600	4941
RA CFM	3900	3292
OA CFM	1700	1649
RL Voltage	-	209/209/210
RL Amperage	-	8.2/8.3/8.4
OA Damper Position	-	30%
Brake Horse Power	-	2.97

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.39
Fan Suction SP	-	-0.57
Fan Discharge SP	-	0.49"
Total ESP	0.65	0.88"
Fan Total SP	-	1.06

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AHU/RTU

Diffuser Supply (GRD)

AC-2/SERVNG

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SGRD1	SERVING	A	14	700	699	584	83.4
SGRD2	SERVING	A	14	700	537	610	87.1
SGRD3	SERVING	A	14	700	560	646	92.3
SGRD4	DRIVE-THRU	A	16	875	656	748	85.5
SGRD5	DRIVE-THRU	A	16	875	884	794	90.7
SGRD6	DRIVE-THRU	A	16	875	702	748	85.5
SGRD7	DRIVE-THRU	A	16	875	929	811	92.7
Total				5600	4967	4941	88.23%

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Project: Chick-Fil-A (Redding, CA)

System/Unit: AHU/RTU

Asset: AC-3 AREA:SERVICE

Unit Data		
	Design	**Actual**
MFG	NA	LENNOX
Serial Num	-	5623M06210
Model Num	NA	LGT120H4EM1Y
Configuration	VERTICAL	VERTICAL
Num OA Filters 1	-	2
OA Filter Size 1	-	14.25X22.5
Num PreFilter 1	-	4
PreFilter Size 1	-	20X25X2

Motor Data		
	Design	**Actual**
Motor MFG	-	EBMPAPST
Frame	-	NL
Horsepower	3.0	3.8
Motor Rpm	-	NL
Phase	3	3
Rated Voltage	208	208
Rated Amperage	-	8.7
Service Factor	-	NL

Test Data		
	Design	**Actual**
SF CFM	3750	3876
RA CFM	2300	3876
OA CFM	1450	0
RL Voltage	-	208/209/209
RL Amperage	-	4.68/4.7/4.67
OA Damper Position	-	0%
Brake Horse Power	-	2.04

Performance Data		
	Design	**Actual**
MA Plenum SP	-	-0.55"
Fan Suction SP	-	-0.79"
Fan Discharge SP	-	0.63"
Total ESP	0.65	1.18"
Fan Total SP	-	1.42"

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Project:Chick-Fil-A (Redding, CA)

AHU/RTU

Diffuser Supply (GRD)

AC-3/SERVICE

Asset							
Asset Name	**Location**	**Type**	**Size**	**DESIGN CFM**	**CFM(1)**	**FINAL CFM**	**% to design**
SGRD1	SERVICE	A	14	700	694	706	100.9
SGRD2	SERVICE	A	14	700	868	729	104.1
SGRD3	SERVICE	A	12	400	484	419	104.8
SGRD4	SERVICE	A	14	700	505	693	99.0
SGRD5	OFFICE	A	12	400	429	434	108.5
SGRD6	MULTIPURPOSE	A	12	400	456	439	109.8
SGRD7	WOMEN	J	8	125	141	137	109.6
SGRD8	HALL	J	8	200	185	196	98.0
SGRD9	MEN	J	8	125	154	123	98.4
Total				3750	3916	3876	103.36%

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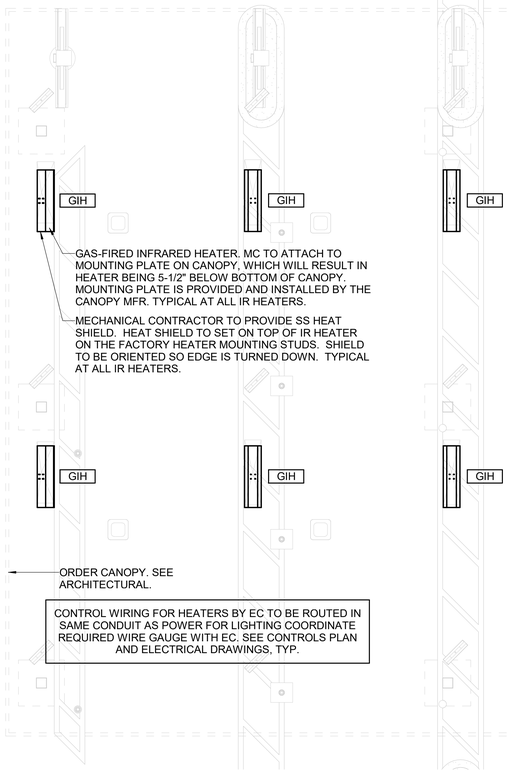
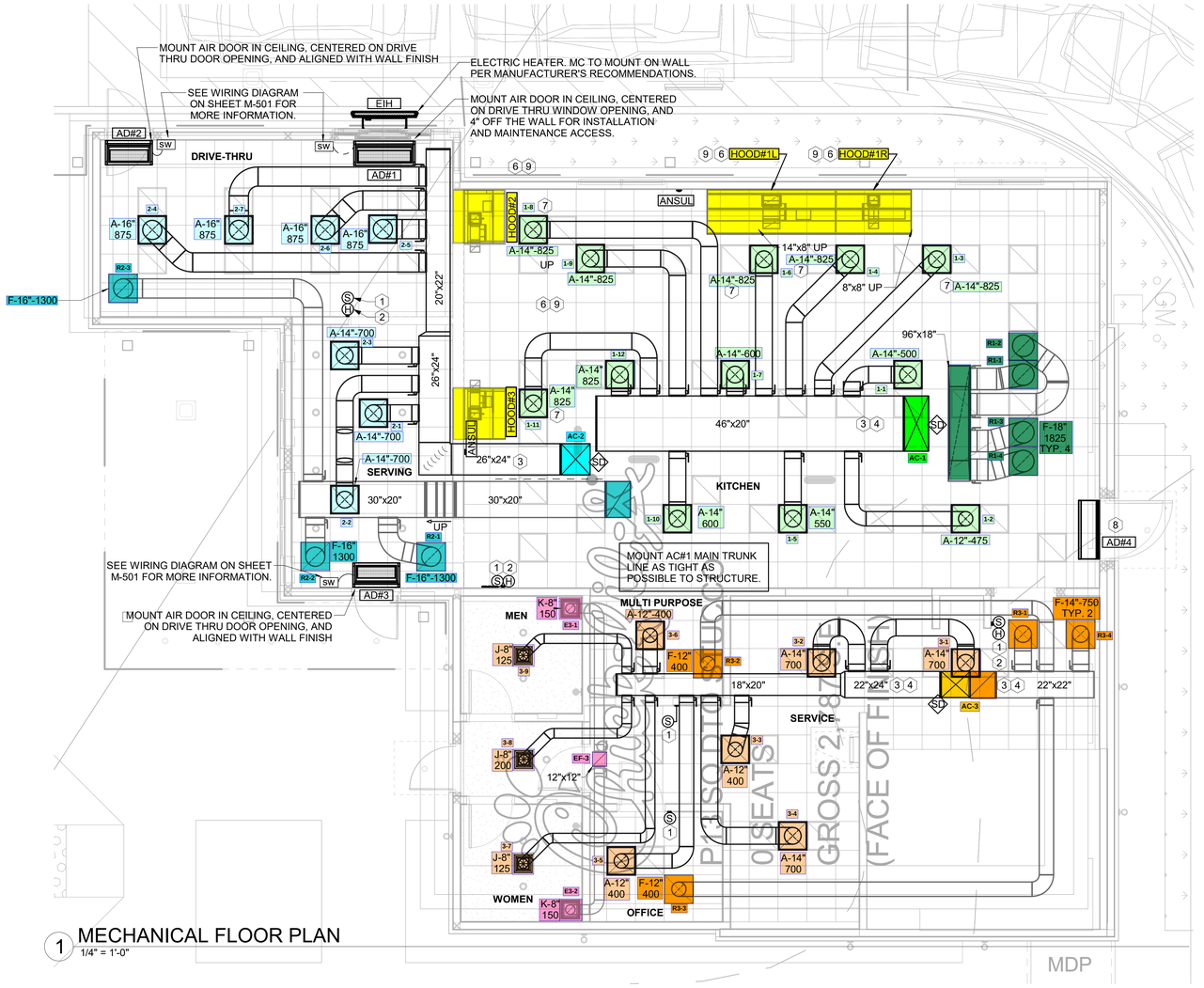


2 MECHANICAL FLOOR PLAN
1/4" = 1'-0"



1 MECHANICAL FLOOR PLAN
1/4" = 1'-0"

CANOPY GENERAL NOTES

1. COORDINATE NEW WORK WITH EXISTING CONDUIT, STRUCTURE, AND PIPING. FIELD VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK.
2. COORDINATE LOCATION AND RESPONSIBILITIES FOR UNDERGROUND PIPING AND ASSOCIATED TRENCHING WITH GENERAL CONTRACTOR PRIOR TO START OF WORK.
3. EXPOSED GAS PIPING SHALL BE PAINTED BY GENERAL CONTRACTOR.
4. ACTUAL NUMBER OF GAS INFRARED HEATERS WILL BE DETERMINED BY SITE-SPECIFIC CANOPY LAYOUT AND EQUIPMENT LOCATIONS, AS INDICATED ON ARCHITECTURAL PLANS.
5. CONTROL WIRING FOR HEATERS BY EC. COORDINATE REQUIRED WIRE GAUGE WITH EC. SEE CONTROLS PLAN AND ELECTRICAL DRAWINGS, TYP.

SHEET NOTES

1. DUCT SIZES SERVING DIFFUSERS AND GRILLES ARE SAME SIZE AS DIFFUSER OR GRILLE NECK UNLESS NOTED OTHERWISE.
2. FLEXIBLE DUCT NOT SHOWN FOR CLARITY. ALL TAKE-OFFS SHALL INCLUDE FLEXIBLE DUCT. SEE DETAIL 1/M-401 FOR FLEXIBLE DUCT INSTALLATION REQUIREMENTS.
3. FOR SUPPLY AND RETURN OPENINGS, CUT OPENING AROUND DUCT DROPS 4" TO 8" MINIMUM (EXCEPT WHERE STRUCTURE PREVENTS THIS). SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
4. AT EACH PIECE OF ROOF EQUIPMENT, PROVIDE A PLASTIC ENGRAVED LABEL WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. THE LABEL IS TO HAVE A SELF ADHESIVE BACKING.
5. UNLESS NOTED OTHERWISE, MC TO ADJUST ALL DIFFUSER AIR PATTERN DEFLECTORS TO THROW HORIZONTALLY ALONG THE CEILING.
6. SUPPORT ALL DUCT DROPS AT BASE OF DROP FROM STRUCTURE.

GC SCHEDULE INSPECTIONS WITH CFA HVAC INSPECTION CO.FOR PRE-GRID & TAB.

LEGEND

A-12-400	TYPE - NECK SIZE - CFM	EF#1	EXHAUST FAN #1 (TYP.)
	SPIN-IN FITTING WITH MANUAL BALANCING DAMPER, WITHOUT SCOOP	AC#1	AIR CONDITIONING UNIT #1 (TYP.)
	SPIN-IN HARD∅ FLEXIBLE∅ DIFFUSER		RETURN/EXHAUST (TYP.)
S	REMOTE TEMPERATURE SENSOR		SUPPLY DIFFUSER, SQ FACE (TYP.)
H	HUMIDITY SENSOR	1	PLAN NOTE REFERENCE
SD	SMOKE DETECTOR		MANUAL VOLUME DAMPER
12x18	DUCT SIZE (reverse for elevation views) 1ST NUMBER - HORIZONTAL DIMENSION 2ND NUMBER - VERTICAL DIMENSION		DIRECTION OF THROW ON DIFFUSER
			CLOSED AIR PATTERN DEFLECTOR
SW	AIR DOOR SWITCH	GIH	GAS INFRARED HEATER (TYP.)
EC	ELECTRICAL CONTRACTOR	B/G	BELOW GRADE
MC	MECHANICAL CONTRACTOR	T	THERMOSTAT
EIH	ELECTRIC INFRARED HEATER		

KEY NOTES

1. MOUNT REMOTE SENSOR ON WALL AT 5-0" AFF U.N.O. AND ROUTE WIRING BACK TO SUNCOAST TEMP CONTROL PANEL. FOR SENSOR SERVING AC#1, COORDINATE EXACT LOCATION WITH KITCHEN EQUIPMENT.
2. MOUNT LENNOX HUMIDITY SENSOR ON WALL ABOVE SPACE TEMP SENSOR AND ROUTE WIRING TO UNIT ON ROOF.
3. BRANCH TAKE-OFFS ARE NOT TO BE LOCATED CLOSER THAN 3'-0" FROM ANY OFFSET OR ELBOW INCLUDING THE SUPPLY AIR DROP FROM CURB.
4. TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. WHERE THE DUCT IS SHOWN OFFSET HORIZONTALLY, PROVIDE ELBOW WITH TURNING VANES. FOR DROPS WITH NO HORIZONTAL OFFSET, EXTEND DROP BELOW STRUCTURE TO ACCOMMODATE START COLLARS. TERMINATE DROP A MINIMUM 0'-10" ABOVE CEILING (0'-4" ABOVE CEILING IF REQUIRED TO ACCOMMODATE TAKE-OFF AND DROP IS NOT LOCATED DIRECTLY ABOVE A LIGHT).
5. TRANSITION IN VERTICAL DROP FROM FULL SIZE OF CURB OPENING TO SIZE SHOWN. SEE DETAIL 6/M-401 FOR REQUIRED TRANSITION GEOMETRY. TRANSITION WITHIN CURB WHERE REQUIRED TO AVOID STRUCTURE. WHERE THE DUCT IS SHOWN OFFSET HORIZONTALLY, PROVIDE ELBOW WITHOUT TURNING VANES. FOR DROPS WITH NO HORIZONTAL OFFSET, EXTEND DROP BELOW STRUCTURE TO ACCOMMODATE START COLLARS. TERMINATE DROP A MINIMUM 0'-10" ABOVE CEILING (0'-4" ABOVE CEILING IF REQUIRED TO ACCOMMODATE TAKE-OFF AND DROP IS NOT LOCATED DIRECTLY ABOVE A LIGHT).
6. SEE ELEVATIONS ON M-301 FOR CJ FAN DUCTING REQUIREMENTS.
7. MECHANICAL CONTRACTOR TO ADJUST PATTERN DEFLECTORS TO THROW STRAIGHT DOWN.
8. AIR CURTAIN MOUNTED OVER DOOR HEADER AT 7'-2" AFF TO BOTTOM OF UNIT. PROVIDE BLOCKING IN WALL BEHIND AIR CURTAIN. USE FACTORY PRE-PUNCHED MOUNTING HOLES ON BACK SIDE OF AIR CURTAIN ONLY. ATTACH AIR CURTAIN TO WALL USING 3/8" LAG BOLTS, LENGTH AS REQUIRED TO FULLY PENETRATE BLOCKING. LOCATE MAGNETIC CONTACT TYPE MICROSWITCH IN DOOR FRAME ON STRIKE SIDE.
9. HALTON KBD DAMPER AT HOOD COLLAR BY MECHANICAL CONTRACTOR. SEE HOOD ELEVATIONS ON M-301 FOR LOCATION.

AIR BALANCE SCHEDULE

Mark	SUPPLY AIR	RETURN AIR	OUTSIDE AIR	EXHAUST AIR	BUILDING POSITIVE PRESSURE
AC#1	8500	7300	1200		
AC#2	5600	3900	1700		
AC#3	3750	2325	1425		
EF#1				1913	
EF#2				1402	
EF#3				300	
EF#4				117	
EF#5				117	
	17850	13525	4325	3849	476

Chick-fil-A
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Atlanta, Georgia
30349-2998

KUSHNER-VARKER ASSOCIATES INC.
MECHANICAL ENGINEERS
33760 WILLOW HAVEN LANE UNIT#105
MURRIETA, CA 92563
OFFICE PHONE:(951)-226-0140

REGISTERED PROFESSIONAL ENGINEER STEPHEN D. VARKER No. 14263 MECHANICAL STATE OF CALIFORNIA

CHICK-FIL-A
I-5 & BONNYVIEW RD
NWC I-5 @ BONNYVIEW RD
REDDING, CA 96001

FSR#05110

BUILDING TYPE / SIZE: P13 DTO ALL
RELEASE: 22.05

REVISION SCHEDULE

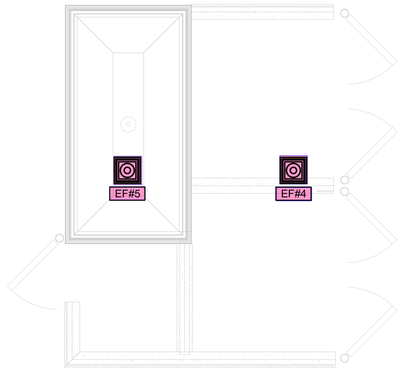
NO.	DATE	DESCRIPTION

PERMIT

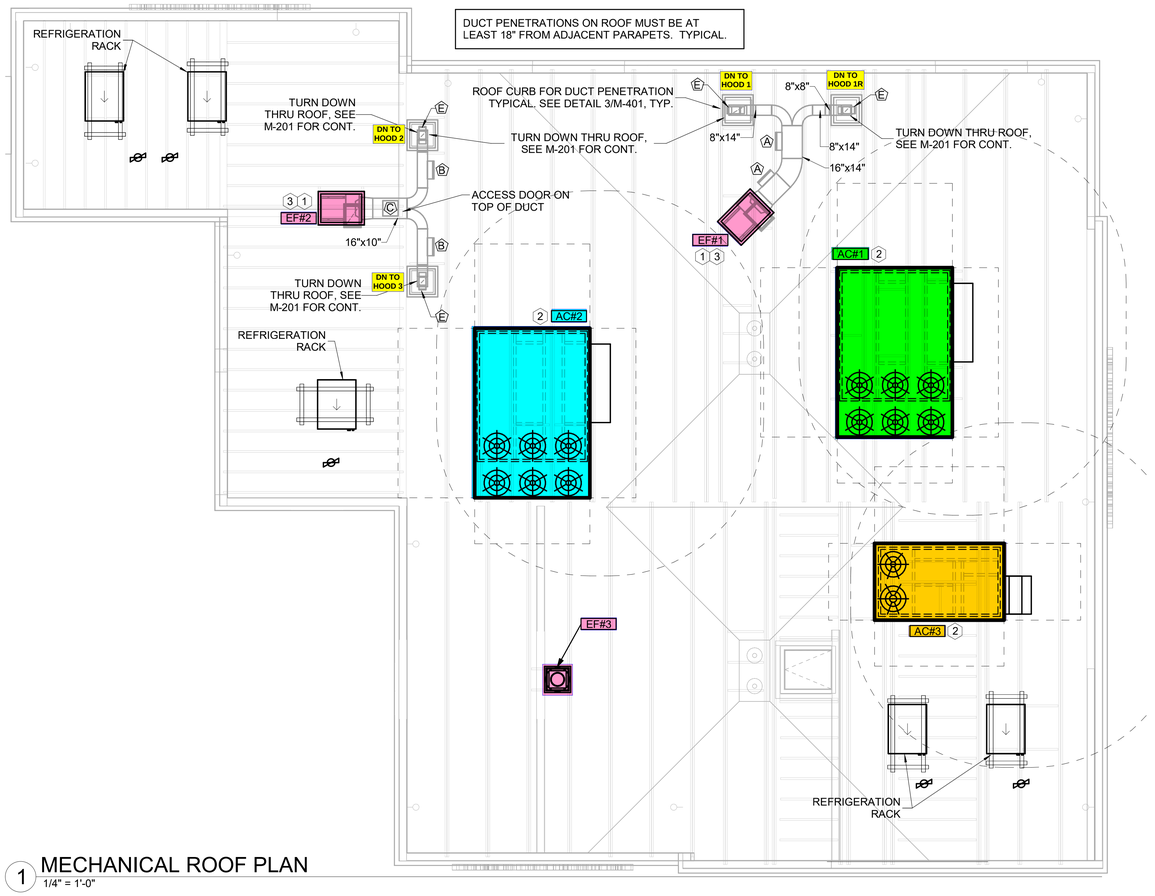
CONSULTANT PROJECT # 22-166
PRINTED FOR PERMIT
DATE 05/30/23
DRAWN BY MPP

SHEET
MECHANICAL FLOOR PLAN

SHEET NUMBER
M-201



2 TRASH ENCLOSURE ROOF PLAN
1/4" = 1'-0"

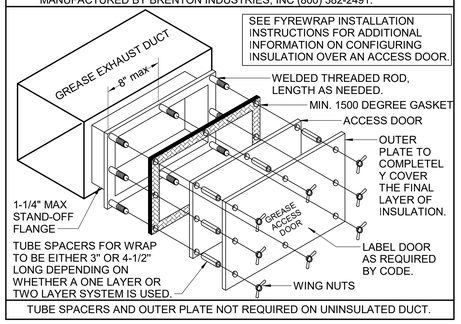


1 MECHANICAL ROOF PLAN
1/4" = 1'-0"

GREASE ACCESS DOOR SCHEDULE

MARK	OPENING SIZE	DOOR SIZE	REMARKS
A	9H X 14W	11H X 16W	1
B	5.5H X 14W	7.5H X 16W	1
C	12H X 12W	14H X 14W	1
D	10H X 14W	12H X 16W	1
E	6H X 14W	8H X 16W	1

1. ACCESS DOORs SHALL BE U.L. 1978 LISTED OR FIELD FABRICATED, REQUIRE NO TOOLS FOR REMOVAL AND MEET THE REQUIREMENTS OF THE CURRENT EDITION OF THE IMC. ACCESS DOOR ASSEMBLY SHALL BE WELDED IN PLACE TO THE GREASE EXHAUST DUCT AND THE ACCESS DOOR SHALL BE SECURED WITH THUMB SCREWS. ACCESS DOORS SHALL BE SEALED WITH A MINIMUM 1500 DEGREE GASKET MATERIAL EQUIVALENT TO THAT MANUFACTURED BY BRENTON INDUSTRIES, INC (800) 382-2491.



TUBE SPACERS AND OUTER PLATE NOT REQUIRED ON UNINSULATED DUCT.

KEY NOTES

1. FABRICATE DISCHARGE AIR NOZZLE. VERIFY EXHAUST TERMINATION IS A MINIMUM 10'-0" FROM PARAPETS AND OUTSIDE AIR INTAKES. SEE DETAIL 3/M-401.
2. MECHANICAL CONTRACTOR TO SEE ARCHITECTURAL ROOF PLAN FOR NOTES REGARDING LEVELING FRAMES FOR RTUS. COORDINATE WITH GENERAL CONTRACTOR EXACT LOCATIONS AND SIZE NEEDED.
3. GREASE EXHAUST DUCT LOCATED ON ROOF SHALL SLOPE ¼"PER FOOT TOWARDS THE HOOD, THE FAN, OR A COMBINATION OF THE TWO SUCH THAT NO PORTION OF THE RADIUS ELBOW AT THE CURB IS BELOW THE CURB CAP AND SUCH THAT THE FAN BASE SETS DIRECTLY ON THE CURB RAILS. THE BOTTOM OF THE RADIUS ELBOW MAY BE EVEN OR FLUSH WITH THE CURB CAP, BUT NOT BELOW THE CAP. THE DUCT AT THE FAN MUST BE CENTERED ON THE FAN INLET. THE MC MAY ADD A VERTICAL RISER AT THE RADIUSED ELBOW LOCATED AT THE DUCT CURB AS NEEDED IN ORDER TO CENTER THE DUCT ON THE FAN INLET.

SHEET NOTES

1. ALL DUCTWORK AND UNFINISHED METAL ON ROOF EXCEPT STAINLESS SHALL BE PREPARED WITH TWO COATS OF SHERWIN WILLIAMS PRO INDUSTRIAL DTM ACRYLIC COATING, SEMI-GLOSS, WHITE. DEGREASE AND PRIME BARE METAL SURFACE WITH ONE COAT OF SHERWIN WILLIAMS PRO INDUSTRIAL PRO-CRYL ACRYLIC UNIVERSAL PRIMER, WHITE, PRIOR TO PAINTING.
2. AT EACH PIECE OF ROOF EQUIPMENT, PROVIDE A PLASTIC ENGRAVED LABEL WITH 1" HIGH WHITE LETTERS ON A BLACK BACKGROUND. THE LABEL IS TO HAVE A SELF ADHESIVE BACKING.
3. MAINTAIN 18" CLEARANCE FROM GREASE EXHAUST DUCTWORK ABOVE ROOF TO ANY COMBUSTIBLE CONSTRUCTION INCLUDING PARAPET WALLS.

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998

KUSHNER-VARKER ASSOCIATES INC.
MECHANICAL ENGINEERS
33760 WILLOW HAVEN LANE UNIT#105
MURRIETA, CA 92563
OFFICE PHONE:(951)-226-0140

REGISTERED PROFESSIONAL ENGINEER STEPHEN D. KUSHNER No. 14263 MECHANICAL STATE OF CALIFORNIA

CHICK-FIL-A
I-5 & BONNYVIEW RD
NWC I-5 @ BONNYVIEW RD
REDDING, CA 96001

FSR#05110

BUILDING TYPE / SIZE: P13 DTO ALL
RELEASE: 22.05

REVISION SCHEDULE

NO.	DATE	DESCRIPTION

PERMIT

CONSULTANT PROJECT #	22-166
PRINTED FOR	PERMIT
DATE	05/30/23
DRAWN BY	MPP

SHEET
MECHANICAL ROOF PLAN

SHEET NUMBER
M-250