

Report By:

National TAB
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SUITE 4210
CINCINNATI, OH 45246



Report: TAB Report
Function: Test, Adjust, & Balance
Date: 09/16/2025
Completed By: National TAB

PROJECT

Journey Baptist Church (St Joseph, MO)

5995 State Route A

St Joseph, MO 64503

Client

HK Quality

1105 North 3rd St.

St. Joseph, MO 64501

National TAB

Project: Journey Baptist Church (St Joseph, MO)

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Project: Journey Baptist Church (St Joseph, MO)

System/Unit: AHU/RTU



Asset: GMU-1

AREA: WORSHIP CENTER

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Serial Num	-	0825U45185
Model Num	NA	48K5CM26-0-5A4B9C0
Configuration	GROUND MOUNTED	HORIZONTAL
Num OA Filters 1	-	4
OA Filter Size 1	-	14X23"
Num OA Filters 2	-	2
OA Filter Size 2	-	14.25X23.125"
Num Final Filter 1	-	10
Final Filter Size 1	-	20X24X2"

Motor Data		
	Design	Actual
Motor MFG	-	MARATHON
Frame	-	184T
Horsepower	5.0	5.0
Motor Rpm	-	1765
Phase	-	3
Rated Voltage	-	190/380
Rated Amperage	-	14-13.2/6.6
Service Factor	-	1.15

Drive Data	
	Actual
Motor Sheave Size	5.25"
Motor Bore Size	1.25"
Motor Sheave SetPt	N/A
Fan Sheave Size	12.75"
Fan Sheave Bore	2"
Belt CL Distance	14.75"
Num of Belts	1
Belt Size	BX56

Test Data		
	Design	Actual
SF CFM	8750	8905
SF RPM	-	710
RA CFM	-	6729
OA CFM	-	2176
RL Voltage	208	NA
RL Amperage	-	14.08
VFD Max SetPt	-	100% (60Hz)
VFD Min SetPt	-	45% (27 Hz)
SF Motor Freq(HZ)	-	60 Hz
SF System SetPt	-	N/A
Min OA Damper Position	-	N/A (0.625" OPEN)
Brake Horse Power	-	

Performance Data		
	Design	Actual
MA Plenum SP	-	-0.44"
Fan Suction SP	-	-0.73"
Fan Discharge SP	-	0.20"
Total ESP	1.00	0.64"
Fan Total SP	-	0.93"
Pre-Filter P.D.	-	0.60"
Cooling Coil P.D.	-	*COMBINED

Notes:

-MOTOR HAS FAN SHEAVE FOR PULLEY. NOT ADJUSTABLE

Written By: Kalen Kemp on 09/18/2025

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Project: Journey Baptist Church (St Joseph, MO)

AHU/RTU



Diffuser Supply (GRD)

GMU-1/WORSHIP CENTER

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
G1-1	111	C	12X8	210	319	210	100.0
G1-2	111	C	12X8	210	277	221	105.2
G1-3	111	C	12X8	210	360	214	101.9
G1-4	111	C	12X8	210	309	221	105.2
G1-5	111	C	12X8	210	309	222	105.7
G1-6	111	C	12X8	260	183	251	96.5
G1-7	111	C	12X8	260	204	260	100.0
G1-8	111	C	12X8	260	205	259	99.6
G1-9	111	C	12X8	260	205	268	103.1
G1-10	111	C	12X8	260	226	238	91.5
G1-11	111	C	12X8	260	238	255	98.1
G1-12	111	C	12X8	260	234	264	101.5
G1-13	111	C	12X8	260	228	274	105.4
G1-14	111	C	12X8	260	227	253	97.3
G1-15	111	C	12X8	260	231	260	100.0
G1-16	111	C	10X6	185	169	192	103.8
G1-17	111	C	10X6	185	139	176	95.1
G1-18	111	C	10X6	185	167	192	103.8
G1-19	111	C	10X6	185	175	188	101.6
G1-20	111	C	10X6	185	168	192	103.8
G1-21	111	C	12X8	260	192	279	107.3
G1-22	111	C	12X8	260	231	254	97.7
G1-23	111	C	12X8	260	232	278	106.9
G1-24	111	C	12X8	260	249	278	106.9
G1-25	111	C	12X8	260	268	271	104.2
G1-26	111	C	12X8	260	261	282	108.5
G1-27	111	C	12X8	260	292	272	104.6
G1-28	111	C	12X8	260	276	270	103.8
G1-29	111	C	12X8	260	278	266	102.3
G1-30	111	C	12X8	260	284	255	98.1
G1-31	111	C	12X10	315	295	330	104.8
G1-32	111	C	12X10	315	288	322	102.2
G1-33	111	C	12X10	315	294	310	98.4
G1-34	111	C	12X10	315	390	312	99.0
G1-35	111	C	12X10	315	386	316	100.3
Total				8750	8789	8905	101.77%



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Project: Journey Baptist Church (St Joseph, MO)

System/Unit: Split Sys Furnace

Asset: AHU-1

AREA: MEETING/RESTROOMS

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Model Num	NA	59SC6A080M211120
Serial Num	-	4924A46946
Configuration	-	HORIZONTAL
Filter Size Size 1	-	20X25X1

Motor Data		
	Design	Actual
Motor MFG	-	BROAD-OCEAN
Frame	-	48
Horsepower	-	1.0
Motor Rpm	-	1050
Phase	1	1
Voltage	115	115-120
Amperage	-	11.5-11

Test Data		
	Design	Actual
SF CFM	1600	1465
Motor Speed SetPt	-	NA
RL Voltage	115	NA
RL Amperage	-	4.64
RA CFM	1280	1135
OA CFM	320	233

Performance Data		
	Design	Actual
Suction ESP	-	-0.08"
Discharge ESP	-	0.24"
Total ESP	0.50	0.32"

Notes:

-

Written By: Kalen Kemp on 09/11/2025



National TAB

Project: Journey Baptist Church (St Joseph, MO)

Diffuser Supply (GRD)

AHU-1/MEETING/RESTROOMS

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
1-1	101	A	8	180	0	0	0.0
1-2	102	A	8	180	183	185	102.8
1-3	114	C	6X6	80	105	83	103.8
1-4	116	A	8	105	140	108	102.9
1-5	116	A	8	105	140	105	100.0
1-6	116	A	8	105	157	104	99.0
1-7	116	A	8	105	168	102	97.1
1-8	117	A	8	185	149	194	104.9
1-9	117	A	8	185	196	194	104.9
1-10	117	A	8	185	173	190	102.7
1-11	117	A	8	185	193	200	108.1
Total				1600	1604	1465	91.56%



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Project: Journey Baptist Church (St Joseph, MO)

System/Unit: Split Sys Furnace

Asset: AHU-2

AREA: LOBBY

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Model Num	NA	59SC6A080M211120
Serial Num	-	4924A46931
Configuration	-	HORIZONTAL
Filter Size Size 1	-	20X25X1

Motor Data		
	Design	Actual
Motor MFG	-	BROAD-OCEAN
Frame	-	48
Horsepower	-	1.0
Motor Rpm	-	1050
Phase	1	1
Voltage	115	115
Amperage	-	11.5-11

Test Data		
	Design	Actual
SF CFM	1600	1642
Motor Speed SetPt	-	NA
RL Voltage	115	NA
RL Amperage	-	4.60
RA CFM	1375	1441
OA CFM	225	201

Performance Data		
	Design	Actual
Suction ESP	-	-0.09"
Discharge ESP	-	0.24"
Total ESP	0.50	0.33"



National TAB

Project: Journey Baptist Church (St Joseph, MO)

Diffuser Supply (GRD)

AHU-2/LOBBY

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
2-1	100	C	10X6	160	124	155	96.9
2-2	100	C	10X6	160	125	171	106.9
2-3	100	C	10X6	160	128	172	107.5
2-4	100	C	10X6	160		151	94.4
2-5	100	C	10X6	160	155	161	100.6
2-6	100	C	10X6	160	175	148	92.5
2-7	100	C	10X6	160	158	152	95.0
2-8	100	C	10X6	160	173	163	101.9
2-9	100	C	10X6	160	132	148	92.5
2-10	100	C	10X6	160	124	171	106.9
Total				1600	1294	1592	99.5%



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Project: Journey Baptist Church (St Joseph, MO)

System/Unit: Split Sys Furnace

Asset: AHU-3

AREA:

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Model Num	NA	59SC6A080M211120
Serial Num	-	NL
Configuration	-	HORIZONTAL
Filter Size Size 1	-	20X25X1

Motor Data		
	Design	Actual
Motor MFG	-	BROAD-OCEAN
Frame	-	48
Horsepower	-	1.0
Motor Rpm	-	1050
Phase	1	1
Voltage	115	115
Amperage	-	11.5

Test Data		
	Design	Actual
SF CFM	1600	1605
Motor Speed SetPt	-	10 FAN/13 COOL
RL Voltage	115	NA
RL Amperage	-	5.98
RA CFM	1310	1475
OA CFM	290	130

Performance Data		
	Design	Actual
Suction ESP	-	-0.08
Discharge ESP	-	0.12"
Total ESP	0.50	



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Project: Journey Baptist Church (St Joseph, MO)

Diffuser Supply (GRD)

AHU-3/

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
3-1	109	B	16	380	324	414	108.9
3-2	109	B	16	380	305	371	97.6
3-3	108	C	6X6	80	267	74	92.5
3-4	109	B	16	380	355	365	96.1
3-5	109	B	16	380	311	381	100.3
Total				1600	1562	1605	100.31%



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Project: Journey Baptist Church (St Joseph, MO)

System/Unit: Split Sys Furnace

Asset: AHU-4

AREA: NURSERY/PRESCHOOL

Unit Data		
	Design	Actual
MFG	NA	CARRIER
Model Num	NA	59SC6A080M211120
Serial Num	-	4924A46934
Configuration	-	HORIZONTAL
Filter Size Size 1	-	20X25X1

Motor Data		
	Design	Actual
Motor MFG	-	BROAD-OCEAN
Frame	-	48
Horsepower	-	1.0
Motor Rpm	-	1050
Phase	1	1
Voltage	115	115
Amperage	-	11.5

Test Data		
	Design	Actual
SF CFM	1600	1638
Motor Speed SetPt	-	10 FAN/17 COOL
RL Voltage	115	NA
RL Amperage	-	6.90
RA CFM	1210	1525
OA CFM	390	113

Performance Data		
	Design	Actual
Suction ESP	-	-0.09
Discharge ESP	-	0.09
Total ESP	0.50	0.18

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Notes:
-NO OA DAMPER.

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Project: Journey Baptist Church (St Joseph, MO)

Diffuser Supply (GRD)

AHU-4/NURSERY/PRESCHOOL

Asset							
Asset Name	Location	Type	Size	DESIGN CFM	CFM(1)	FINAL CFM	% to design
4-1	100	A	8	110	58	107	97.3
4-2	107	A	10	360	339	383	106.4
4-3	107	A	10	360	405	351	97.5
4-4	107	A	10	360	325	356	98.9
4-5	107	A	10	360	243	392	108.9
4-6	106	A	6	50	80	49	98.0
Total				1600	1450	1638	102.38%

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Project: Journey Baptist Church (St Joseph, MO)

System/Unit: FAN - Exhaust



Asset: EF-1

AREA:MENS RR 102

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	NA
Serial Num	-	NA
Type	CEILING	CEILING

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	-	0.025
Motor Rpm	1000	900
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.46
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	225	50
Motor Frequency	-	NA
System SetPt	-	NA
RL Voltage	115	
RL Amperage	0.56	0.34
Suction ESP	-	NA
Discharge ESP	-	NA
Total ESP	0.30	NA
Brake Horse Power	-	

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Project: Journey Baptist Church (St Joseph, MO)

System/Unit: FAN - Exhaust



Asset: EF-2

AREA:WOMEN RR 101

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	NA
Serial Num	-	NA
Type	CEILING	CEILING

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	-	0.025
Motor Rpm	1000	900
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	0.46
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	225	50
Motor Frequency	-	NA
System SetPt	-	NA
RL Voltage	115	124
RL Amperage	0.56	0.36
Suction ESP	-	NA
Discharge ESP	-	NA
Total ESP	0.30	NA
Brake Horse Power	-	

National TAB

Project: Journey Baptist Church (St Joseph, MO)

System/Unit: FAN - Exhaust



Asset: EF-3

AREA: JANITOR 103

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B110-QD
Serial Num	-	174572494-0004
Type	CEILING	CEILING

Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	950
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.15
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	75	N/A
Motor Frequency	-	N/A
System SetPt	-	N/A
RL Voltage	115	N/A
RL Amperage	-	N/A
Suction ESP	-	N/A
Discharge ESP	-	N/A
Total ESP	0.30	N/A
Brake Horse Power	-	N/A

Notes:
-NO POWER FAN NOT WIRED/RUNNING

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Project: Journey Baptist Church (St Joseph, MO)

System/Unit: FAN - Exhaust



Asset: EF-4

AREA:

Unit Data		
	Design	Actual
MFG	NA	GREENHECK
Model Num	NA	SP-B110-QD
Serial Num	-	174572494-0007
Type	CEILING	CEILING

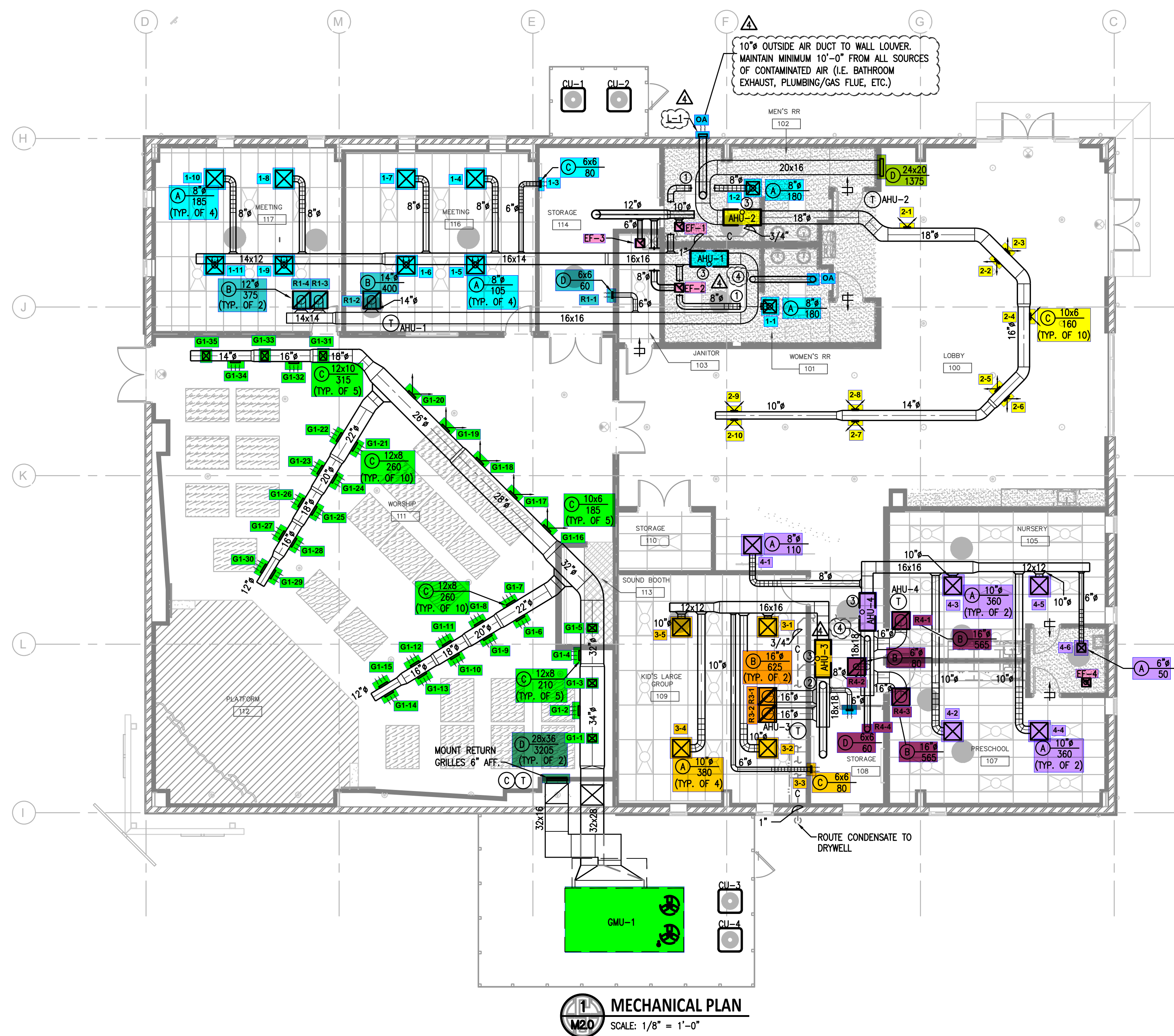
Motor Data		
	Design	Actual
Motor MFG	-	GREENHECK
Frame	-	NL
Horsepower	-	NL
Motor Rpm	-	950
Phase	1	1
Voltage (rated)	115	115
Amperage (rated)	-	1.15
Service Factor	-	NL

Test Data		
	Design	Actual
CFM	75	N/A
Motor Frequency	-	N/A
System SetPt	-	N/A
RL Voltage	115	N/A
RL Amperage	-	N/A
Suction ESP	-	N/A
Discharge ESP	-	N/A
Total ESP	0.30	N/A
Brake Horse Power	-	N/A

Notes:

-NO POWER. FAN NOT RUNNING.

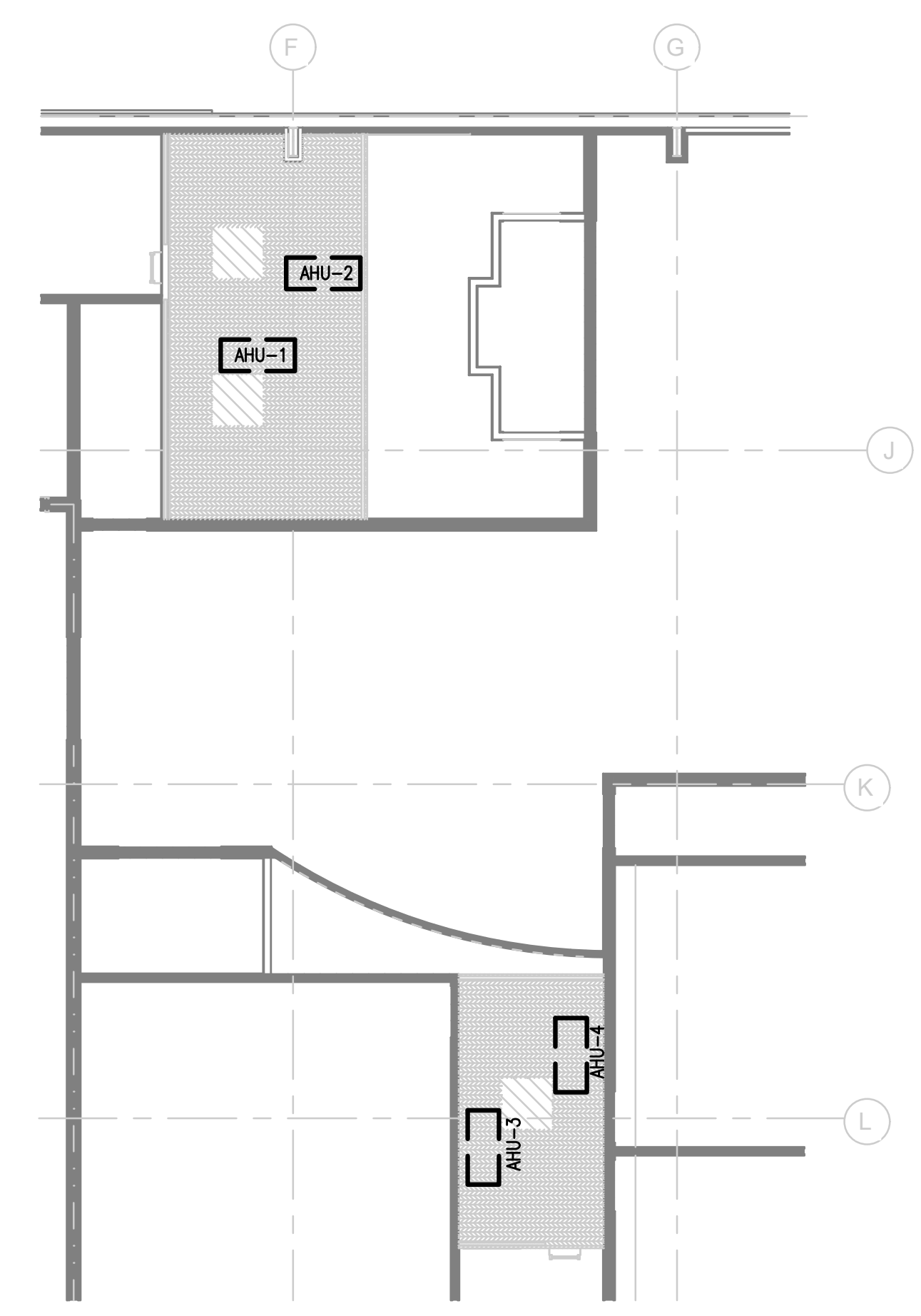
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MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

10" OUTSIDE AIR DUCT TO WALL LOUVER. MAINTAIN MINIMUM 10'-0" FROM ALL SOURCES OF CONTAMINATED AIR (I.E. BATHROOM EXHAUST, PLUMBING/GAS FLUE, ETC.)

NOTE:
IN ALL OPEN CEILING AREAS DUCT SHALL BE INTERNALLY LINED, FINISHABLE, SPIRAL DUCT, AND BE HUNG TIGHT TO STRUCTURE.



MECHANICAL PLAN - EQUIPMENT PLATFORM
SCALE: 1/8" = 1'-0"

- KEYED NOTES**
- ① ROUTE FLEX DUCT UP AND OVER RIGID RETURN DUCT TO CONNECT TO BATHROOM SUPPLY DIFFUSER
 - ② 10" OUTSIDE AIR DUCT SLOPED UP AND OVER TO ROOF CAP. ROOF CAP TO MAINTAIN MINIMUM 10'-0" FROM ALL SOURCES OF CONTAMINATED AIR (I.E. BATHROOM EXHAUST, PLUMBING/GAS FLUE, ETC.)
 - ③ ROUTE INTAKE AND COMBUSTION FLUE PIPES TO MANUFACTURER'S CONCENTRIC PIPE PENETRATION KIT AT TERMINATION POINT. MAINTAIN 10'-0" FROM ALL OUTSIDE AIR INTAKES.
 - ④ 8" OUTSIDE AIR DUCT SLOPED UP AND OVER TO ROOF CAP. ROOF CAP TO MAINTAIN MINIMUM 10'-0" FROM ALL SOURCES OF CONTAMINATED AIR (I.E. BATHROOM EXHAUST, PLUMBING/GAS FLUE, ETC.)



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**JOURNEY BAPTIST CHURCH
NEW WORSHIP FACILITY**
5995 STATE ROUTE A | SAINT JOSEPH, MO 64503

SHEET ISSUE & REVISION

#	DATE	DESCRIPTION
2	8/22/24	REVISION 2
4	5/6/25	REVISION 4

DESIGN TEAM

Designed By	CDC
Drawn By	CDC
Checked By	CDC
Approved By	CDC

Project No. 23657
Date 05/01/24

Project Status
PERMIT SET FOR CONSTRUCTION

Sheet Name
MECHANICAL PLAN AND NOTES

Sheet No.
M2.0

MECHANICAL PLAN