

- (4") Dia Duct
Refrigerator Pipe
(90 Degree) - Elbow
Fire Damper
Dryer Connection Boxes - Model: DB-425
DF1 - Dryer Booster Fans - Model: DBF110 - 120V / 1PH - 113 CFM
HP1 - Heat Pump Units - Model: GSZ14-018-1L - 208V / 1PH - 500 CFM
HP2 - Heat Pump Units - Model: GSZ14-018-1L - 208V / 1PH - 800 CFM
HP3 - Heat Pump Units - Model: GSZ14-024-1K - 208V / 1PH - 800 CFM
HP6 - Heat Pump Units - Model: GSZ14-024-1K - 208V / 1PH - 800 CFM
EF1 - Exhaust Fans - Model: ZB80 - 120V / 1PH - 80 CFM
BB2 - Branch Split Box Model: PAC-MKA52BC - 208V / 1PH
01 - Wall Mount Air Conditioner - Model: MUZ-FS12NA - 208V / 1PH
03 - Condensing Units - Model: MXZ-5M42NAMHZ-U1 - 208V / 1PH
04 - Condensing Units - Model: MXZ-5M36NAMHZ-U1 - 208V / 1PH
05 - Condensing Units - Model: MXZ-3C30NAMHZ-U1 - 208V / 1PH
12 - Mini Split Coils - Model: MSZ-FS06NA - 208V / 1PH - 325 CFM

1,295.0 FT
134.0 FT
58.0
20.0
20.0
7.0
39.0
4.0
5.0
1.0
20.0
1.0
1.0
1.0
1.0
3.0

APARTMENT PLAN SCHEDULE

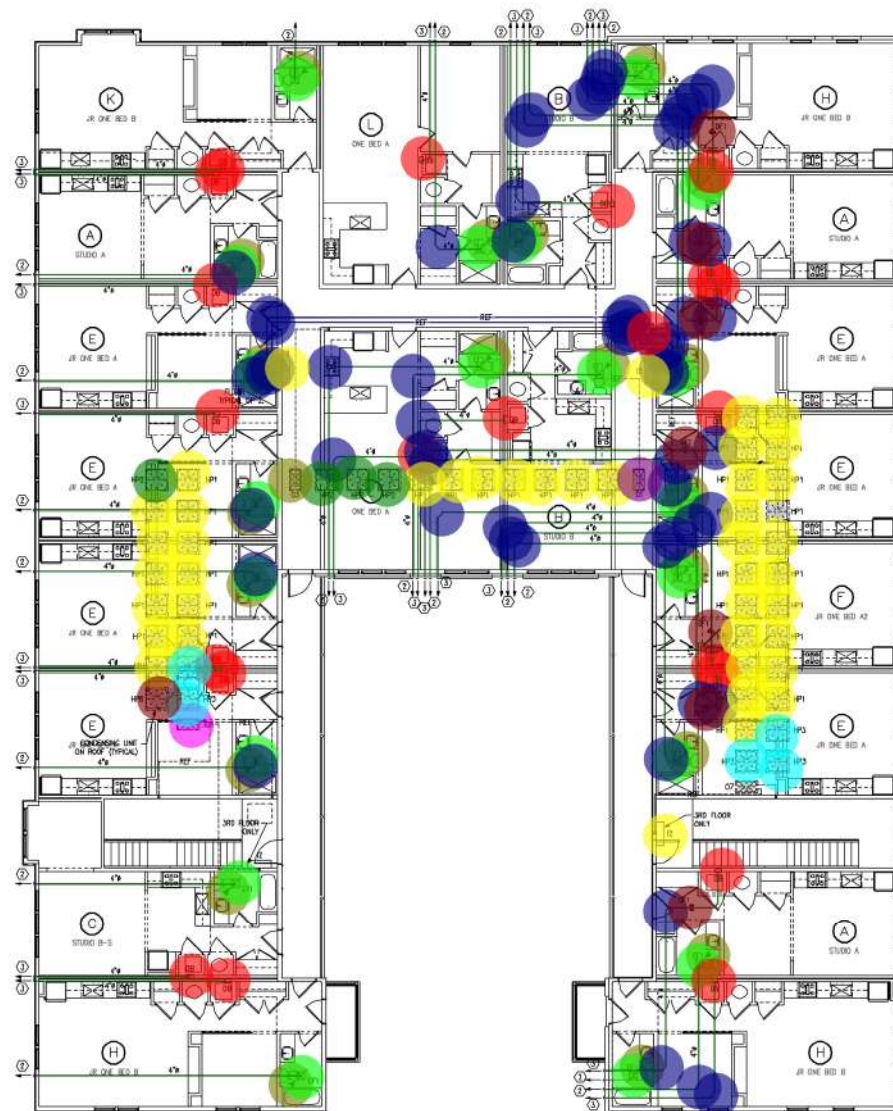
APARTMENT TYPE	PLUMBING	HVAC	POWER	LIGHTING	FIRE ALARM
A	2	2	2	2	2
B	2	2	2	2	2
C	2	2	2	2	2
E	2	2	2	2	2
F	2	2	2	2	2
G	2	2	2	2	2
H	2	2	2	2	2
J	2	2	2	2	2
K	2	2	2	2	2
L	2	2	2	2	2
M	2	2	2	2	2
N	2	2	2	2	2
P	2	2	2	2	2
Q	2	2	2	2	2
R	2	2	2	2	2
S	2	2	2	2	2
T	2	2	2	2	2
U	2	2	2	2	2
V	2	2	2	2	2
X	2	2	2	2	2
Y	2	2	2	2	2
Z	2	2	2	2	2

GENERAL NOTES:

- SEE SHEET M21 NOTES FOR ALL SYSTEMS.
- CONTRACTOR SHALL MAINTAIN FIRE RATING OF ANY PENETRATION AND SHALL SEAL ANY PENETRATION IN A FLOOR, CEILING OR EXTERIOR WALL.
- EXCEPT IN DRYER VENTS, INSTALL A FIRE DAMPER AT EVERY FIRE RATED ASSEMBLY PENETRATION TO MAINTAIN FIRE RATING OF ASSEMBLY.
- DRYER AND EXHAUST DUCTS SHALL BE METAL DUCT RUN IN FLOOR/CEILING ASSEMBLY WITH ANNUAL AREA FIRE CHARGES AT PENETRATIONS.
- DRYER EXHAUST DUCTS SHALL BE 4" RIGID METAL WITH EITHER (A) FROMASTER "STORMWATER" OR EQUAL, OR (B) SHALL BE GALVANIZED STEEL WITH A THICKNESS GREATER THAN 0.013". USE IN-G-GATE "DRYER-CL" OR EQUAL 10" RADUS SMOOTH WALL ELBOWS FOR ALL TURNS.
- TRUSS MANUFACTURER SHALL COORDINATE TRUSS DESIGN WITH MEP LAYOUT.
- OUTDOOR HEAT PUMPS INSTALLED ON EQUIPMENT STANDS ON ROOF. SECURE HEAT PUMPS AND STANDS TO ROOF.
- PIPE CONDENSATE TO NEAREST FLOOR DRAIN, WEF SINK, OR STAND PIPE. INDIVIDUAL CONDENSATE DRAIN SHALL BE 3/4" CROOKED DRAIN SHALL BE 1-1/4".

KEYED NOTES:

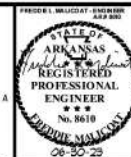
- SEE HVAC MOUNTING DETAIL (C)/M22.
- TO WALLTOP OR ROOF JACK WITH BIRDSCREEN (TYPICAL FOR EXHAUST FANS. SEE APARTMENT PLANS FOR EXACT LOCATION OF EXHAUST FAN).
- TO WALLTOP WITH BIRDSCREEN DAMPER (TYPICAL FOR DRYERS). INSTALL DRYER BOOSTER FAN AS SHOWN OR FOR EQUIVALENT DUCT LENGTHS GREATER THAN 35'. COORDINATE LOCATION OF BOOSTER FAN WITH MECHANIST, PROVIDE ACCESS PANEL.



BLDG A 3rd FLR HVAC PLAN

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

2nd FLOOR SIMILAR



**MALICOAT - WINSLOW
ENGINEERS, INC.**

ARKANSAS CERTIFICATE OF AUTHORIZATION SAGS
REGISTERED PROFESSIONAL ENGINEER
No. 8610
4840 RANGELINE STREET, #101
COLUMBIA, MISSOURI 65202
TEL 573-875-1300
FAX 573-875-1305
FREDDIE MALICOAT, P.E.

MAIN & A STREET APARTMENTS

MAIN STREET & NW A STREET
BENTONVILLE, BENTON COUNTY, AR, 72712

CONTRACTOR SHALL CHECK
* VERIFY ALL DIMENSIONS
* CONDITIONS AT JOB SITE

DATE: 06-30-23

REVISIONS:

TITLE:
BLDG A 3rd FLR
HVAC
PLANS

SHEET
M2
M13

PROJECT: 22260

- Refrigerator Pipe
 (4") Dia Duct
 (6") Dia Duct
 (12") Flexible Duct
 (16x14-1/2) - Rectangular Duct
 (20x20-1/2) - Rectangular Duct
 (20x18-1/2) - Rectangular Duct
 (20x16-1/2) - Rectangular Duct
 (20x14-1/2) - Rectangular Duct
 (90 Degree) - Elbow
 Duct Transition
 Dryer Connection Boxes - Model: DB-425
 A Type - (6 x 4) Supply Register - Mfg: Price - Model: 620 DAL - 50 CFM
 A Type - (14 x 8) Supply Register - Mfg: Price - Model: 620 DAL - 465 CFM
 A Type - (14 x 8) Supply Register - Mfg: Price - Model: 620 DAL - 460 CFM
 A Type - (14 x 8) Supply Register - Mfg: Price - Model: 620 DAL - 480 CFM
 A Type - (14 x 10) Supply Register - Mfg: Price - Model: 620 DAL - 465 CFM
 A Type - (14 x 10) Supply Register - Mfg: Price - Model: 620 DAL - 460 CFM
 A Type - (14 x 10) Supply Register - Mfg: Price - Model: 620 DAL - 480 CFM
 A Type - (36 x 20) Supply Register - Mfg: Price - Model: 620 DAL - 2000 CFM
 Thermostat
 Fire Damper
 Turning Vanes
 EF1 - Exhaust Fans - Model: ZB80 - 120V / 1PH - 80 CFM
 BB2 - Branch Split Box Model: PAC-MKA52BC - 208V / 1PH
 F11 - Fan Coils Unit - Model: ARUF61D14-HKS20XCB - 208V / 1PH - 2000 CFM
 12 - Mini Split Coils - Model: MSZ-FS06NA - 208V / 1PH - 325 CFM
 13 - Mini Split Coils - Model: MSZ-FS09NA - 208V / 1PH - 325 CFM

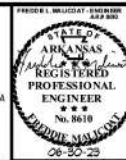
- 174.8 FT
 295.4 FT
 44.1 FT
 49.7 FT
 44.8 FT
 29.3 FT
 31.9 FT
 43.9 FT
 12.6 FT
 19.0
 9.0
 5.0
 3.0
 2.0
 1.0
 1.0
 1.0
 1.0
 2.0
 2.0
 2.0
 4.0
 9.0
 1.0
 2.0
 3.0
 3.0

GENERAL NOTES:

- SEE SHEET MET NOTES FOR ALL SYSTEMS.
- CONTRACTOR SHALL MAINTAIN FIRE RATING OF ANY PENETRATION AND SHALL SEAL ANY PENETRATION IN A FLOOR, CEILING, OR EXTERIOR WALL.
- EXCEPT IN OTHER NOTES, INSTALL A FIRE DAMPER AT EVERY FIRE RATED WEATHER PENETRATION TO MAINTAIN FIRE RATING OF ASSEMBLY.
- EXHAUST AND EXHAUST DUCTS SHALL BE METAL DUCT RUN IN FLOOR/CEILING ASSEMBLY WITH MINIMUM AREA FIRE CHOKED AT PENETRATIONS.
- EXHAUST DUCTS SHALL BE 4" ROD METAL WITH OTHER (4) PROMOTER "SPRING" OR EQUAL, OR (3) SHALL BE GALVANIZED STEEL WITH A THICKNESS GREATER THAN 0.013". USE IN-G-VAPE "BRIER-ELL" OR EQUAL, 10" RADIUS SMOOTH WALL ELBOWS FOR ALL TURNS.
- TRUSS MANUFACTURER SHALL COORDINATE TRUSS DESIGN WITH MEP LAYOUT.
- OUTDOOR HEAT PUMPS INSTALLED ON EQUIPMENT STANDS ON ROOF, SECURE HEAT PUMPS AND STANDS TO ROOF.
- PIPE CONDENSATE TO NEAREST FLOOR DRAIN, WAP SINK, OR STAND PIPE. MINIMUM CONDENSATE DRAIN SHALL BE 3/4" GROUPED DRAIN SHALL BE 1-1/4".

KEYED NOTES:

- SEE ME/RS MOUNTING DETAIL (2/MET).
- TO WALLCAP OR ROOF JACK WITH BRESSBOARD (TYPICAL FOR EXHAUST FANS, SEE APARTMENT PLANS FOR EXACT LOCATION OF EXHAUST FAN).
- TO WALLCAP WITH BACKSPLIT DAMPER (TYPICAL FOR EXHAUST), INSTALL EXHAUST BOOSTER FANS AS SHOWN ON FOR EQUIVALENT DUCT LENGTHS GREATER THAN 35'. COORDINATE LOCATION OF BOOSTER FANS WITH ARCHITECT, PROVIDE ACCESS PANEL.



MALICOAT - WINSLOW ENGINEERS, INC.
 ARKANSAS CERTIFICATE OF AUTHORIZATION SACS
 4840 RANGELINE STREET, #101 TEL: 573-875-1300
 COLUMBIA, MISSOURI 65202 FAX: 573-875-1303
 FREDDIE MALICOAT, P.E.

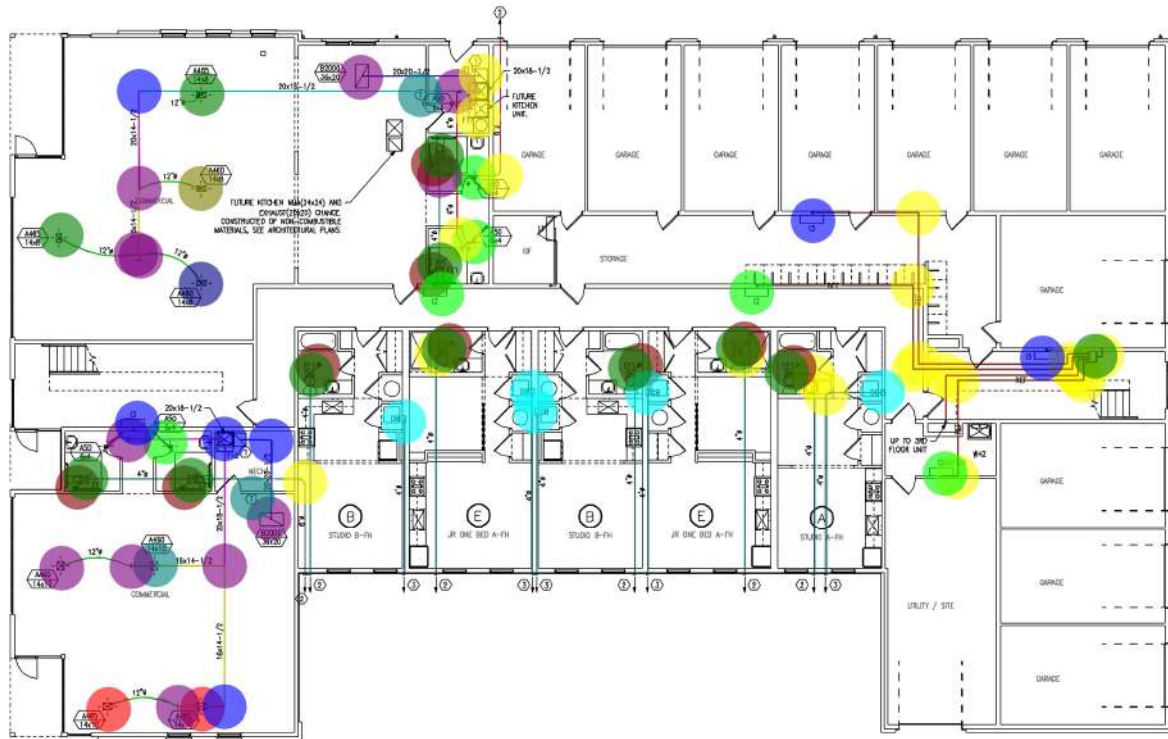
MAIN & A STREET APARTMENTS
 MAIN STREET & NW A STREET
 BENTONVILLE, BENTON COUNTY, AR, 72712

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.
 DATE: 06-30-23
 REVISIONS:

TITLE:
BLDG B 1st FLR HVAC PLANS

SHEET:
M3
 M13
 PROJECT: 22260

APARTMENT TYPE	CLIMBING	HWC	POWER	LIGHTING	FIRE ALARM
A	2	2	2	2	2
B	2	2	2	2	2
C	2	2	2	2	2
E	2	2	2	2	2
F	2	2	2	2	2
G	2	2	2	2	2
H	2	2	2	2	2
J	2	2	2	2	2
K	2	2	2	2	2
L	2	2	2	2	2
M	2	2	2	2	2
N	2	2	2	2	2
P	2	2	2	2	2
Q	2	2	2	2	2
R	2	2	2	2	2
S	2	2	2	2	2
T	2	2	2	2	2
U	2	2	2	2	2
V	2	2	2	2	2
X	2	2	2	2	2
Y	2	2	2	2	2
Z	2	2	2	2	2



BLDG B 1st FLR HVAC PLAN
 SCALE: 1/8" = 1'-0"

- (4") Dia Duct
- Refrigerator Pipe
- (90 Degree) - Elbow
- Fire Damper

- Dryer Connection Boxes - Model: DB-425
- EF1 - Exhaust Fans - Model: ZB80 - 120V / 1PH - 80 CFM
- BB1 - Branch Split Box Model: PAC-MKA32BC- 208V / 1PH
- 12 - Mini Split Coils - Model: MSZ-FS06NA - 208V / 1PH - 325 CFM
- HP1 - Heat Pump Units - Model: GSZ14-018-1L - 208V / 1PH - 500 CFM
- HP2 - Heat Pump Units - Model: GSZ14-018-1L - 208V / 1PH - 800 CFM
- HP3 - Heat Pump Units - Model: GSZ14-024-1K - 208V / 1PH - 800 CFM
- HP6 - Heat Pump Units - Model: GSZ14-024-1K - 208V / 1PH - 800 CFM
- HP4 - Heat Pump Units - Model: GSZ14-030-1K - 208V / 1PH - 1000 CFM
- HP7 - Heat Pump Units - Model: GSZ14-030-1K - 208V / 1PH - 1000 CFM
- 01 - Wall Mount Air Conditioner - Model: MUZ-FS12NA - 208V / 1PH
- 02 - Condensing Units - Model: MXZ-5M48NAMHZ-U1 - 208V / 1PH
- 03 - Condensing Units - Model: MXZ-5M42NAMHZ-U1 - 208V / 1PH
- 06 - Condensing Units - Model: MXZ-3C24NAHZ4-U1 - 208V / 1PH

- 1,001.4 FT
- 147.8 FT
- 23.0
- 18.0
- 18.0
- 18.0
- 1.0
- 3.0
- 38.0
- 1.0
- 1.0
- 2.0
- 2.0
- 2.0
- 1.0
- 1.0
- 1.0
- 1.0

GENERAL NOTES:

- SEE SHEET MET NOTES FOR ALL SYSTEMS.
- CONTRACTOR SHALL MAINTAIN FIRE RATING OF ANY PENETRATION AND SHALL SEAL ANY PENETRATION IN A FLOOR, CEILING, OR EXTERIOR WALL.
- EXCEPT IN OTHER NOTES, INSTALL A FIRE DAMPER AT EVERY FIRE RATED WEATHER PENETRATION TO MAINTAIN FIRE RATING OF ASSEMBLY.
- DRYER AND EXHAUST DUCTS SHALL BE METAL DUCT RUN IN FLOOR/CEILING ASSEMBLY WITH MINIMUM AREA FIVE CHAINED AT PENETRATIONS.
- DRYER EXHAUST DUCTS SHALL BE 4" RIGID METAL WITH OTHER GAS PROMPTER "SPRING" OR EQUAL, OR 3" SHALL BE GALVANIZED STEEL WITH A THICKNESS GREATER THAN 0.013". USE IN-G-VALE "DRYER-ELL" OR EQUAL, 10" INSIDE SMOOTH WALL, ELBOWS FOR ALL TURNS.
- TRUSS MANUFACTURER SHALL COORDINATE TRUSS DESIGN WITH MEP LAYOUT.
- OUTDOOR HEAT PUMPS INSTALLED ON EQUIPMENT STANDS ON ROOF, SECURE HEAT PUMPS AND STANDS TO ROOF.
- PIPE CONDENSATE TO NEAREST FLOOR DRAIN, WAP SINK, OR STAND PIPE. MINIMUM CONDENSATE DRAIN SHALL BE 3/4" GROUPED DRAIN SHALL BE 1-1/4".

KEYED NOTES:

- SEE M4/FS MOUNTING DETAIL (2/ME2).
- TO WALLCAP OR ROOF JACK WITH BRASS/STEEL (TYPICAL FOR EXHAUST FANS, SEE APARTMENT PLANS FOR EXACT LOCATION OF EXHAUST FAN).
- TO WALLCAP WITH BACKSPLIT DAMPER (TYPICAL FOR DRYERS). INSTALL DRYER BOOSTER FANS AS SHOWN ON FOR EQUIPMENT DUCT LENGTHS GREATER THAN 25'. COORDINATE LOCATION OF BOOSTER FANS WITH ARCHITECT, PROVIDE ACCESS PANEL.



**MALICOAT - WINSLOW
ENGINEERS, INC.**
ARKANSAS CERTIFICATE OF AUTHORIZATION S43
4840 RANGELINE STREET, #101 TEL: 573-875-1300
COLUMBIA, MISSOURI 65202 FAX: 573-875-1303
FREDDIE MALICOAT, P.E.

MAIN & A STREET APARTMENTS
MAIN STREET & NW A STREET
BENTONVILLE, BENTON COUNTY, AR, 72712

CONTRACTOR SHALL CHECK
* VERIFY ALL DIMENSIONS
* CONDITIONS AT JOB SITE
DATE: 06-30-23
REVISIONS:

TITLE:
BLDG B 3rd FLR
HVAC PLANS

SHEET:
M4
E29
PROJECT: 22260

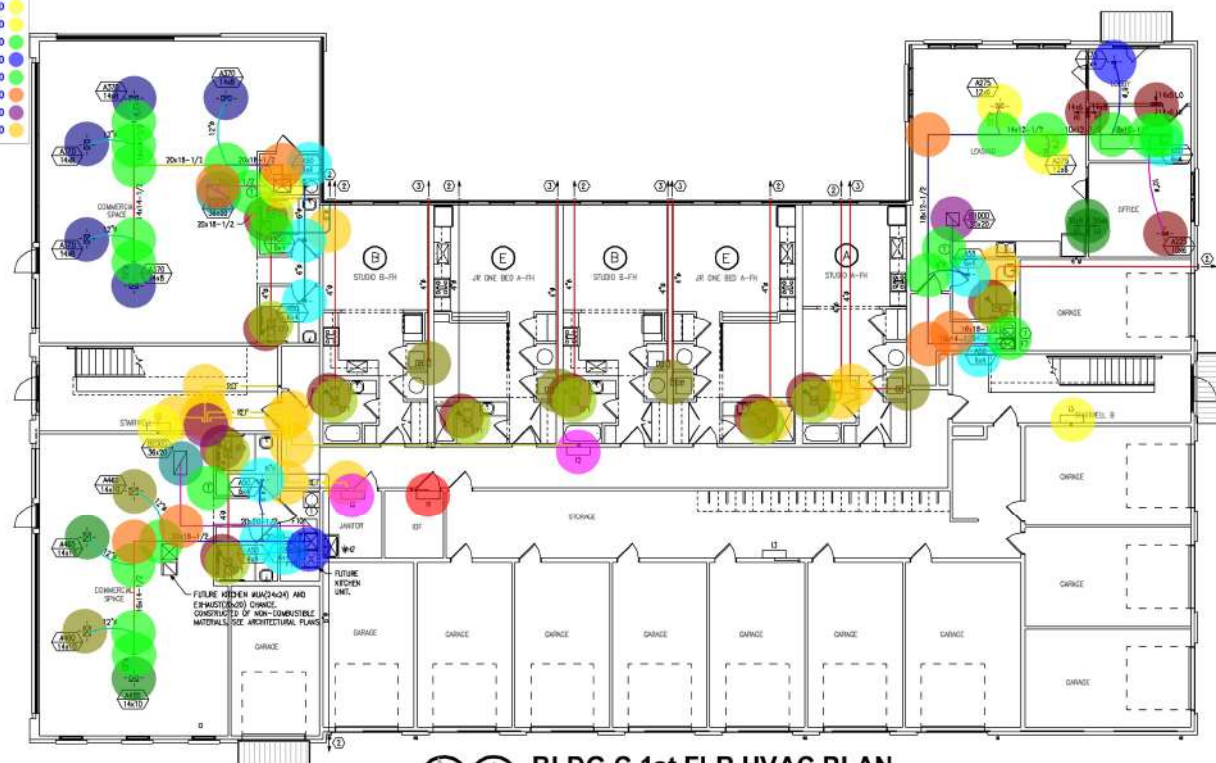
APARTMENT TYPE	PLUMBING	HVAC	POWER	LOADING	FIRE ALARM
A	2/21	2/21	2/21	2/21	2/21
B	2/21	2/21	2/21	2/21	2/21
C	2/21	2/21	2/21	2/21	2/21
E	2/21	2/21	2/21	2/21	2/21
F	2/21	2/21	2/21	2/21	2/21
G	2/21	2/21	2/21	2/21	2/21
H	2/21	2/21	2/21	2/21	2/21
J	2/21	2/21	2/21	2/21	2/21
K	2/21	2/21	2/21	2/21	2/21
L	2/21	2/21	2/21	2/21	2/21
M	2/21	2/21	2/21	2/21	2/21
N	2/21	2/21	2/21	2/21	2/21
P	2/21	2/21	2/21	2/21	2/21
Q	2/21	2/21	2/21	2/21	2/21
R	2/21	2/21	2/21	2/21	2/21
S	2/21	2/21	2/21	2/21	2/21
T	2/21	2/21	2/21	2/21	2/21
U	2/21	2/21	2/21	2/21	2/21
V	2/21	2/21	2/21	2/21	2/21
X	2/21	2/21	2/21	2/21	2/21
Y	2/21	2/21	2/21	2/21	2/21
Z	2/21	2/21	2/21	2/21	2/21



BLDG B 3rd FLR HVAC PLAN

SCALE: 1/8" = 1'-0" 2nd FLOOR SIMILAR

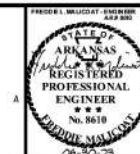
G	(E)	$\frac{1}{25}$	$\frac{1}{30}$	$\frac{1}{35}$	$\frac{1}{40}$	$\frac{1}{45}$
	(F)	$\frac{1}{20}$	$\frac{1}{24}$	$\frac{1}{28}$	$\frac{1}{32}$	$\frac{1}{36}$
	(G)	$\frac{1}{15}$	$\frac{1}{18}$	$\frac{1}{21}$	$\frac{1}{24}$	$\frac{1}{27}$
	(H)	$\frac{1}{10}$	$\frac{1}{12}$	$\frac{1}{14}$	$\frac{1}{16}$	$\frac{1}{18}$
	(J)	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{1}{12}$	$\frac{1}{14}$	$\frac{1}{16}$
H	(K)	$\frac{1}{6}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{1}{12}$	$\frac{1}{14}$
	(L)	$\frac{1}{5}$	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{9}$
	(M)	$\frac{2}{21}$	$\frac{2}{17}$	$\frac{2}{13}$	$\frac{2}{11}$	$\frac{2}{9}$
	(N)	$\frac{2}{14}$	$\frac{2}{11}$	$\frac{2}{9}$	$\frac{2}{7}$	$\frac{2}{5}$
	(P)	$\frac{1}{7}$	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{3}$
I	(Q)	$\frac{2}{21}$	$\frac{2}{17}$	$\frac{2}{13}$	$\frac{2}{11}$	$\frac{2}{9}$
	(R)	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{2}{5}$
	(S)	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{1}{1}$	$\frac{2}{3}$	$\frac{1}{2}$
	(T)	$\frac{1}{2}$	$\frac{1}{1}$	$\frac{1}{1}$	$\frac{1}{2}$	$\frac{1}{1}$
	(U)	$\frac{2}{23}$	$\frac{2}{19}$	$\frac{2}{15}$	$\frac{2}{11}$	$\frac{2}{7}$
J	(V)	$\frac{1}{2}$	$\frac{2}{9}$	$\frac{2}{7}$	$\frac{2}{5}$	$\frac{1}{1}$
	(X)	$\frac{1}{23}$	$\frac{1}{19}$	$\frac{1}{15}$	$\frac{1}{11}$	$\frac{1}{7}$
	(Y)	$\frac{2}{23}$	$\frac{2}{19}$	$\frac{2}{15}$	$\frac{2}{11}$	$\frac{2}{7}$
	(Z)	$\frac{2}{23}$	$\frac{2}{19}$	$\frac{2}{15}$	$\frac{2}{11}$	$\frac{2}{7}$
K						



 **1** **BLDG C 1st FLR HVAC PLAN**
M5 SCALE: 1/8" = 1'-0"

1. SEE SHEET ME-104 FOR ALL SYSTEMS.
2. CONNECTION SHALL NOTIFY FIRE RATING OF ANY PENETRATION AND SHALL SEAL IN PENETRATION IN A FLOOR, CEILING, OR EXTERIOR WALL.
3. EXCEPT IN OTHER DETAILS, INSTALL A FIRE DAMPER AT EVERY FIRE RATED ASSEMBLY PENETRATION TO MAINTAIN FIRE RATING OF ASSEMBLY.
4. OFFER AND OWEAVE DUCTS SHALL BE METAL DUCT RUN IN FLOOR/CEILING ASSEMBLY WITH ANGLE IRON FIRE CLASSED AT PENETRATION.
5. OFFER EXHAUST DUCT SHALL BE 4" X 6" METAL WITH EITHER AN FPM/STAINLESS STEEL LINER OR EQUAL. DUCT SHALL BE GALVANIZED STEEL WITH A THICKNESS GREATER THAN .017". USE 9-1/2" VENT "TYPE-11" OR EQUAL. 10" INCHES SHOWN MAY ELIMINATE FOR ALL TYPES.
6. TRACES MANUFACTURER SHALL COORDINATE TRUSS DESIGN WITH MEP LAYOUT.
7. OUTSIDE HEAT PUMPS INSTALLED ON EQUIPMENT STANDS ON ROOF. SECURE HEAT PUMPS AND STANDS TO ROOF.
8. PUMP CONNECTION TO NEAREST FLOOR DRAIN, WOP SHIP, OR STAND PIPE. NEAREST FLOOR DRAIN SHALL BE 1/2" O.D. EXCEPT DRAIN SHALL BE 1-1/2" O.D.

③ TO WALLPAP OR ROOF JACK WITH BRASSSCREEN (TYPICAL FOR EXHAUST FANS, SEE APARTMENT PLANS FOR EXACT LOCATION OF EXHAUST FAN).



**MALICOAT - WINSLOW
ENGINEERS, INC.**

ARKANSAS CERTIFICATE OF AUTHORIZATION 3403
TEL 573-875-1300
FAX 573-875-1305
8840 RANGELINE STREET, #101
COLUMBIA, MISSOURI 65202
FREDDIE MALICOAT, P.E.

	H	C	F
MAIN & A STREET APARTMENTS			

MAIN STREET & NW A STREET
BENTONVILLE, BENTON COUNTY, AR 72712

CONTRACTOR SHALL CHECK
& VERIFY ALL DIMENSIONS
& CONDITIONS AT JOB SITE
DATE : 06-30-23

K	TITLE :	BLDG C 1st FLR HVAC PLANS
	SHEET :-	M5 OF M13
	PROJECT :	2226C

- Refrigerator Pipe
(4") Dia Duct
Fire Damper
(90 Degree) - Elbow
- DF1 - Dryer Booster Fans - Model: DBF110 - 120V / 1PH - 113 CFM
EF1 - Exhaust Fans - Model: ZB80 - 120V / 1PH - 80 CFM
DF1 - Dryer Booster Fans - Model: DBF110 - 120V / 1PH - 113 CFM
BB1 - Branch Split Box - Model: PAC-MKA32BC - 208 V / 1PH
12 - Mini Split Coils - Model: MSZ-FS06NA - 208V / 1PH - 325 CFM
HP1 - Heat Pump Units - Model: GSZ14-018-1L - 208V / 1PH - 500 CFM
HP2 - Heat Pump Units - Model: GSZ14-018-1L - 208V / 1PH - 800 CFM
HP3 - Heat Pump Units - Model: GSZ14-024-1K - 208V / 1PH - 800 CFM
HP4 - Heat Pump Units - Model: GSZ14-030-1K - 208V / 1PH - 1000 CFM
HP6 - Heat Pump Units - Model: GSZ14-024-1K - 208V / 1PH - 800 CFM
HP7 - Heat Pump Units - Model: GSZ14-030-1K - 208V / 1PH - 1000 CFM
HP8 - Heat Pump Units - Model: GSZ14-036-1K - 208V / 1PH - 1200 CFM
HP10 - Heat Pump Units - Model: GSZ14-060-1K - 208V / 1PH - 2000 CFM
01 - Wall Mount Air Conditioner - Model: MUZ-FS12NA - 208V / 1PH
02 - Condensing Units - Model: MXZ-5M48NAMHZ-U1 - 208V / 1PH
04 - Condensing Units - Model: MXZ-5M36NAMHZ-U1 - 208V / 1PH
06 - Condensing Units - Model: MXZ-3C24NAHZ4-U1 - 208V / 1PH

107.8 FT
1,038.5 FT
18.0
25.0
18.0
18.0
1.0
1.0
5.0
33.0
1.0
2.0
2.0
1.0
1.0
3.0
1.0
1.0
1.0
1.0

GENERAL NOTES:

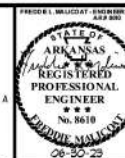
- SEE SHEET MET NOTES FOR ALL SYSTEMS.
- CONTRACTOR SHALL MAINTAIN FIRE RATING OF ANY PENETRATION AND SHALL SEAL ANY PENETRATION IN A FLOOR, CEILING, OR EXTERIOR WALL.
- EXCEPT IN DRYER VENTS, INSTALL A FIRE DAMPER AT EVERY FIRE RATED WEATHER PENETRATION TO MAINTAIN FIRE RATING OF ASSEMBLY.
- DRYER AND EXHAUST DUCTS SHALL BE METAL DUCT RUN IN FLOOR/CEILING ASSEMBLY WITH MINIMUM AREA FIVE CHUCKS AT PENETRATIONS.
- DRYER EXHAUST DUCTS SHALL BE 4" RIGID METAL WITH OTHER GAS FROM STOVE/BOILER OR EQUAL, OR 10" SHALL BE GALVANIZED STEEL WITH A THICKNESS GREATER THAN 0.018". USE IN-G-VALE "DRYER-ELL" OR EQUAL 10" RADIUS SMOOTH WALL ELBOWS FOR ALL TURNS.
- TRUSS MANUFACTURER SHALL COORDINATE TRUSS DESIGN WITH MEP LAYOUT.
- OUTDOOR HEAT PUMPS INSTALLED ON EQUIPMENT STANDS ON ROOF, SECURE HEAT PUMPS AND STANDS TO ROOF.
- PIPE CONDENSATE TO NEAREST FLOOR DRAIN, WAP SINK, OR STAND PIPE. INDIVIDUAL CONDENSATE DRAINS SHALL BE 3/4" GRADE DRAINS SHALL BE 1-1/4".

KEYED NOTES:

- SEE ME/RS MOUNTING DETAIL (2/ME1).
- TO WALLCAP OR ROOF JACK WITH BRESSEPREN (TYPICAL FOR EXHAUST FANS, SEE APARTMENT PLANS FOR EXACT LOCATION OF EXHAUST FAN).
- TO WALLCAP WITH BACKDRAFT DAMPER (TYPICAL FOR DRYERS). INSTALL DRYER BOOSTER FANS AS SHOWN ON FOR COORDINATE DUCT LENGTHS GROSSER THAN 30'. COORDINATE LOCATION OF BOOSTER FANS WITH ARCHITECT, PROVIDE ACCESS PANEL.

APARTMENT PLAN SCHEDULE

APARTMENT TYPE	PLUMBING	HVAC	POWER	LIGHTING	FIRE ALARM
A	75	75	75	75	75
B	75	75	75	75	75
C	75	75	75	75	75
E	75	75	75	75	75
F	75	75	75	75	75
G	75	75	75	75	75
H	75	75	75	75	75
J	75	75	75	75	75
K	75	75	75	75	75
L	75	75	75	75	75
M	75	75	75	75	75
N	75	75	75	75	75
P	75	75	75	75	75
Q	75	75	75	75	75
R	75	75	75	75	75
S	75	75	75	75	75
T	75	75	75	75	75
U	75	75	75	75	75
V	75	75	75	75	75
X	75	75	75	75	75
Y	75	75	75	75	75
Z	75	75	75	75	75



**MALICOAT - WINSLOW
ENGINEERS, INC.**
REGISTERED PROFESSIONAL
ENGINEER
No. 8610
06-30-23
4840 RANGELINE STREET, #101
COLUMBIA, MISSOURI 65202
TEL 573-875-1300
FAX 573-875-1303
FREDDIE MALICOAT, P.E.

MAIN & A STREET APARTMENTS
MAIN STREET & NW A STREET
BENTONVILLE, BENTON COUNTY, AR, 72712

CONTRACTOR SHALL CHECK
* VERIFY ALL DIMENSIONS
* CONDITIONS AT JOB SITE
DATE: 06-30-23
REVISIONS:

TITLE: BLDG C
3rd FLR
HVAC
PLANS
SHEET: M6
M13
PROJECT: 22260

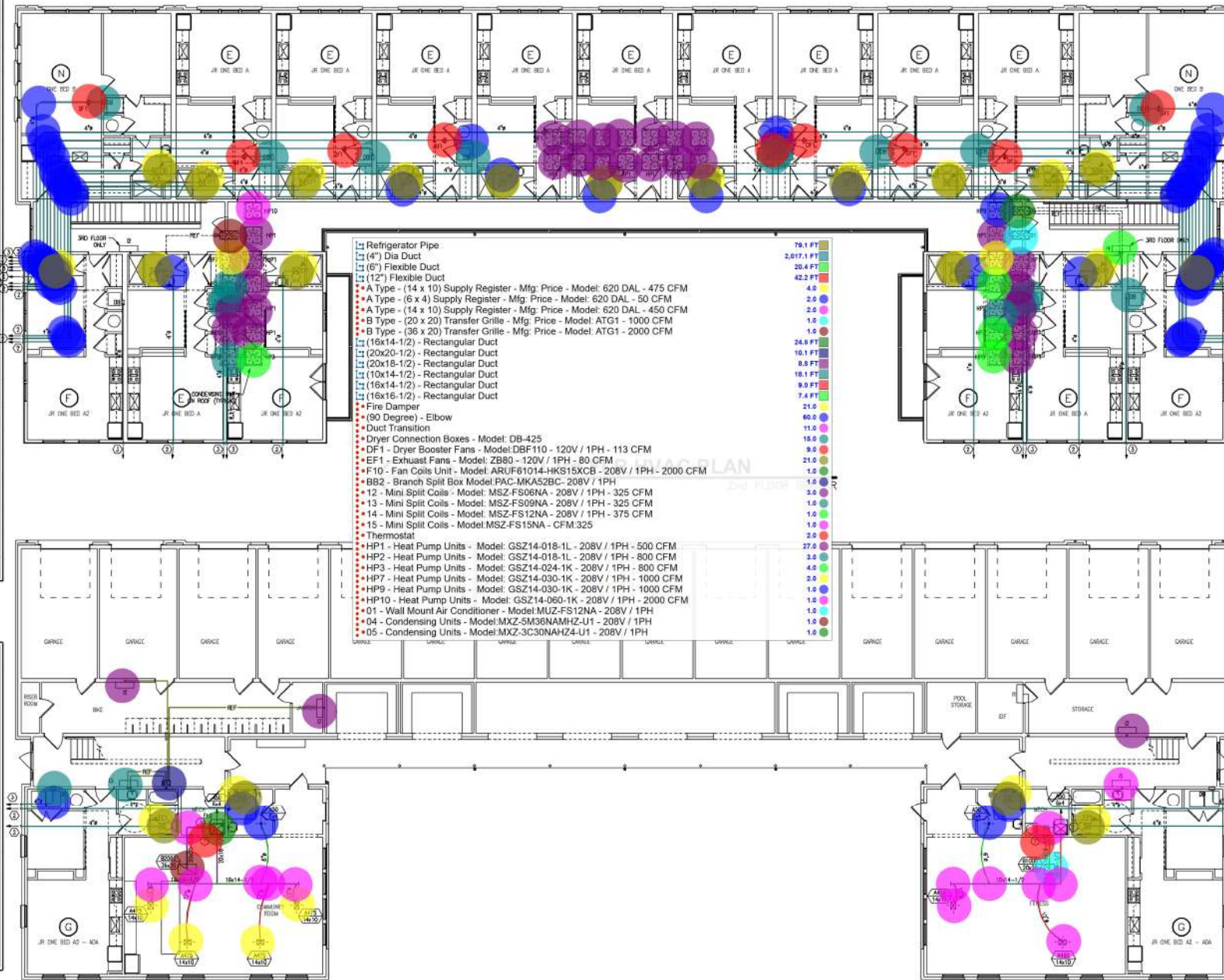
APARTMENT PLAN SCHEDULE					
APARTMENT TYPE	PLUMBING	HVAC	POWER	LIGHTING	FIRE ALARM
A	2	2	2	2	2
B	2	2	2	2	2
C	2	2	2	2	2
E	2	2	2	2	2
F	2	2	2	2	2
G	2	2	2	2	2
H	2	2	2	2	2
J	2	2	2	2	2
K	2	2	2	2	2
L	2	2	2	2	2
M	2	2	2	2	2
N	2	2	2	2	2
P	2	2	2	2	2
Q	2	2	2	2	2
R	2	2	2	2	2
S	2	2	2	2	2
T	2	2	2	2	2
U	2	2	2	2	2
V	2	2	2	2	2
X	2	2	2	2	2
Y	2	2	2	2	2
Z	2	2	2	2	2

GENERAL NOTES:

- SEE SHEET M11 NOTES FOR ALL SYSTEMS.
- CONTRACTOR SHALL MAINTAIN FIRE RATING OF ANY PENETRATION AND SHALL SEAL ANY PENETRATION IN A FLOOR, CEILING, OR EXTERIOR WALL.
- EXCEPT IN DRYER VENTS, INSTALL A FIRE DAMPER AT EVERY FIRE RATED ASSEMBLY PENETRATION TO MAINTAIN FIRE RATING OF ASSEMBLY.
- DRYER AND EXHAUST DUCTS SHALL BE METAL DUCT RUN IN FLOOR/CEILING ASSEMBLY WITH ANNUAL AREA FIRE CALCULATED AT PENETRATION.
- DRYER EXHAUST DUCTS SHALL BE 4" RIGID METAL WITH EITHER (A) FRAMING "TAPERWALL" OR EQUAL, OR (B) SHALL BE GALVANIZED STEEL WITH A THICKNESS GREATER THAN 0.0217" USE IN-0-S-LATE "DRYER-BELL" OR EQUAL 1/2" RADIUS SMOOTH WALL LACING FOR ALL TURNING.
- TRUSS MANUFACTURER SHALL COORDINATE TRUSS DESIGN WITH MEP LAYOUT.
- OUTDOOR HEAT PUMPS INSTALLED ON EQUIPMENT STANDS ON ROOF, SECURE HEAT PUMPS AND STANDS TO ROOF.
- PIPE CONDENSATE TO NEAREST FLOOR DRAIN, W/EP SHN, OR STAINL PIPE. MINIMUM CONDENSATE DRAINS SHALL BE 3/4" GROUPED DRAINS SHALL BE 1-1/4".

KEYED NOTES:

- SEE MECH. MOUNTING DETAIL (L/M102).
- TO BALLOON OR ROOF JACK WITH BRASS/RED (TYPICAL FOR EXHAUST FANS, SEE APARTMENT PLANS FOR EXACT LOCATION OF EXHAUST FANS).
- TO BALLOON WITH BRASS/RED (TYPICAL FOR DRYERS, METAL DRYER BOOSTER FANS AS SHOWN OR FOR EQUIVALENT DUCT LENGTHS GREATER THAN 35'. COORDINATE LOCATION OF BOOSTER FANS WITH ARCHITECT, PROVIDE ACCESS PANEL.



BLDG D 1st FLR HVAC PLAN
SCALE: 1/8" = 1'-0"

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 8610
FREDDIE MALICOAT
06-30-23

MALICOAT - WINSLOW ENGINEERS, INC.
ARKANSAS CERTIFICATE OF AUTHORIZATION 5403
4840 RANGELINE STREET, #101
COLUMBIA, MISSOURI 65202
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FAX 573-875-1305
FREDDIE MALICOAT, P.E.

MAIN & A STREET APARTMENTS
MAIN STREET & NW A STREET
BENTONVILLE, BENTON COUNTY, AR, 72712

CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS & CONDITIONS AT JOB SITE.
DATE: 06-30-23
REVISIONS:

TITLE: BLDG D HVAC PLANS
SHEET: M7
PROJECT: 22260

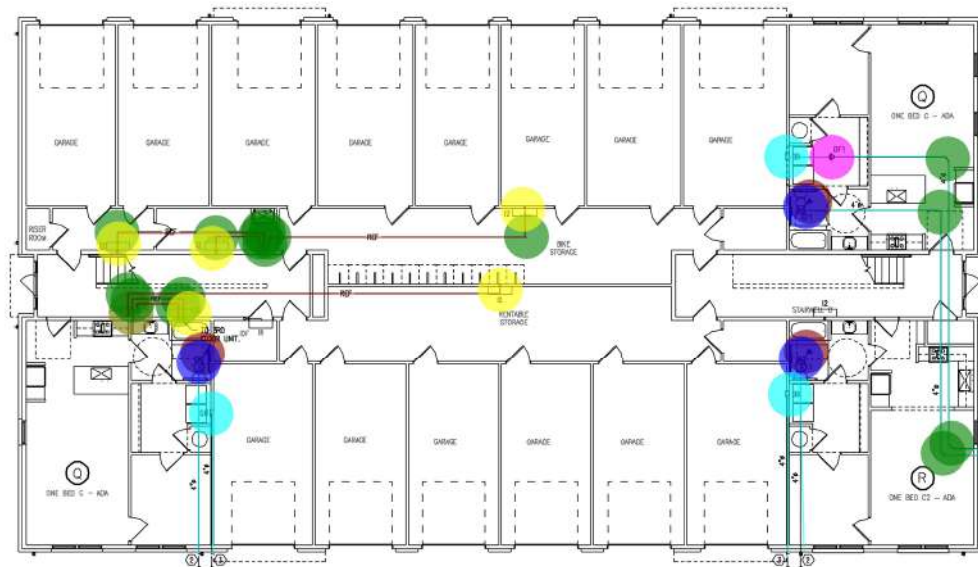
- Refrigerator Pipe
- 4" Dia Duct
- Fire Damper
- (90 Degree) - Elbow
- EF1 - Exhaust Fans - Model: ZB80 - 120V / 1PH - 80 CFM
- DF1 - Dryer Booster Fans - Model: DBF110 - 120V / 1PH - 113 CFM
- Dryer Connection Boxes - Model: DB-425
- BB1 - Branch Split Box Model: PAC-MKA32BC- 208V / 1PH
- BB2 - Branch Split Box Model: PAC-MKA52BC- 208V / 1PH
- 12 - Mini Split Coils - Model: MSZ-FS06NA - 208V / 1PH - 325 CFM
- HP1 - Heat Pump Units - Model: GSZ14-018-1L - 208V / 1PH - 500 CFM
- HP2 - Heat Pump Units - Model: GSZ14-018-1L - 208V / 1PH - 800 CFM
- HP3 - Heat Pump Units - Model: GSZ14-024-1K - 208V / 1PH - 800 CFM
- O1 - Wall Mount Air Conditioner - Model: MUZ-FS12NA - 208V / 1PH
- O2 - Condensing Units - Model: MXZ-5M48NAMHZ-U1 - 208V / 1PH
- O4 - Condensing Units - Model: MXZ-5M36NAMHZ-U1 - 208V / 1PH

238.5 FT
1,288.6 FT

17.0
45.0
17.0
8.0
15.0
1.0
2.0
8.0
21.0
5.0
4.0
1.0
1.0



BLDG E 3rd FLR HVAC PLAN
SCALE: 1/8" = 1'-0"
2nd FLOOR SIMILAR



BLDG E 1st FLR HVAC PLAN
SCALE: 1/8" = 1'-0"

APARTMENT PLAN SCHEDULE

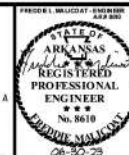
APARTMENT TYPE	PLUMBING	HVAC	POWER	LIGHTING	FIRE ALARM
A	2	2	2	2	2
B	2	2	2	2	2
C	2	2	2	2	2
E	2	2	2	2	2
F	2	2	2	2	2
G	2	2	2	2	2
H	2	2	2	2	2
J	2	2	2	2	2
K	2	2	2	2	2
L	2	2	2	2	2
M	2	2	2	2	2
N	2	2	2	2	2
P	2	2	2	2	2
Q	2	2	2	2	2
R	2	2	2	2	2
S	2	2	2	2	2
T	2	2	2	2	2
U	2	2	2	2	2
V	2	2	2	2	2
X	2	2	2	2	2
Y	2	2	2	2	2
Z	2	2	2	2	2

GENERAL NOTES:

- SEE SHEET M11 NOTES FOR ALL SYSTEMS.
- CONTRACTOR SHALL MAINTAIN FIRE RATING OF ANY PENETRATION AND SHALL SEAL ANY PENETRATION IN A FLOOR, CEILING, OR EXTERIOR WALL.
- EXCEPT IN DRYER VENTS, INSTALL A FIRE DAMPER AT EVERY FIRE RATED ASSEMBLY PENETRATION TO MAINTAIN FIRE RATING OF ASSEMBLY.
- DRYER AND EXHAUST DUCTS SHALL BE METAL DUCT RUN IN FLOOR/CEILING ASSEMBLY WITH ANNUAL AREA FIRE CALLED AT PENETRATIONS.
- DRYER EXHAUST DUCTS SHALL BE 4" RIGID METAL WITH EITHER (A) FIREMASTER "THERMOFORM" OR EQUAL, OR (B) SHALL BE GALVANIZED STEEL WITH A THICKNESS GREATER THAN 0.013". USE R-0-WATE "DRYER-ELI" OR EQUAL 10" RADIUS SMOOTH WALL ELBOWS FOR ALL TURNS.
- TRUSS MANUFACTURER SHALL COORDINATE TRUSS DESIGN WITH MEP LAYOUT.
- OUTDOOR HEAT PUMPS INSTALLED ON EQUIPMENT STANDS ON ROOF. SECURE HEAT PUMPS AND STANDS TO ROOF.
- PIPE CONDENSATE TO NEAREST FLOOR DRAIN, WSP SINK, OR STAND PIPE. INDIVIDUAL CONDENSATE DRAINS SHALL BE 3/4" GROUPED DRAINS SHALL BE 1-1/4".

KEYED NOTES:

- SEE WH/TC MOUNTING DETAIL (S/M12).
- TO WALLTOP OR ROOF JACK WITH BROSCREEN (TYPICAL FOR EXHAUST FANS, SEE APARTMENT PLANS FOR EXACT LOCATION OF EXHAUST FAN).
- TO WALLTOP WITH BROSCREEN DAMPER (TYPICAL FOR DRYERS); INSTALL DRYER BOOSTER FANS AS SHOWN OR FOR EQUIPMENT DUCT LENGTHS GREATER THAN 30'; COORDINATE LOCATION OF BOOSTER FANS WITH ARCHITECT, PROVIDE ACCESS PANEL.



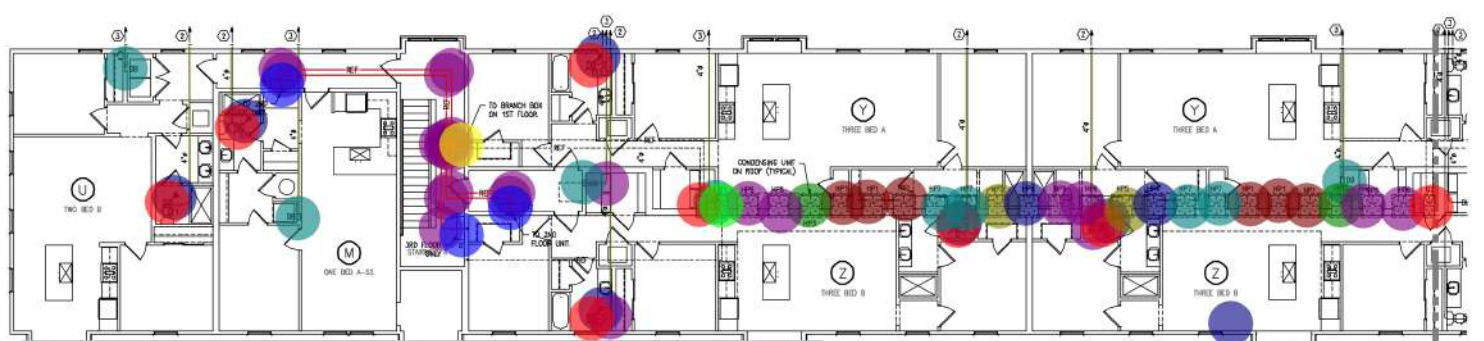
MALICOAT - WINSLOW ENGINEERS, INC.
REGISTERED PROFESSIONAL ENGINEER
No. 8610
06-30-23
4840 RANGELINE STREET, #101
COLUMBIA, MISSOURI 65202
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MAIN & A STREET APARTMENTS
MAIN STREET & NW A STREET
BENTONVILLE, BENTON COUNTY, AR, 72712

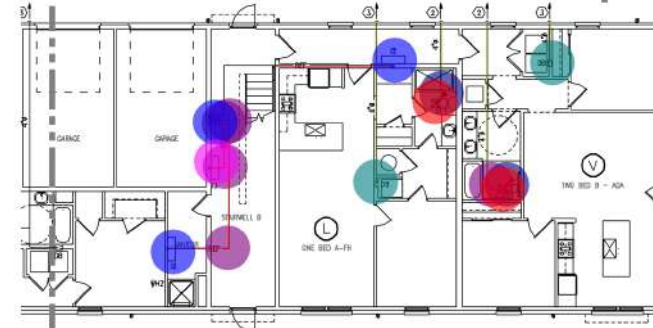
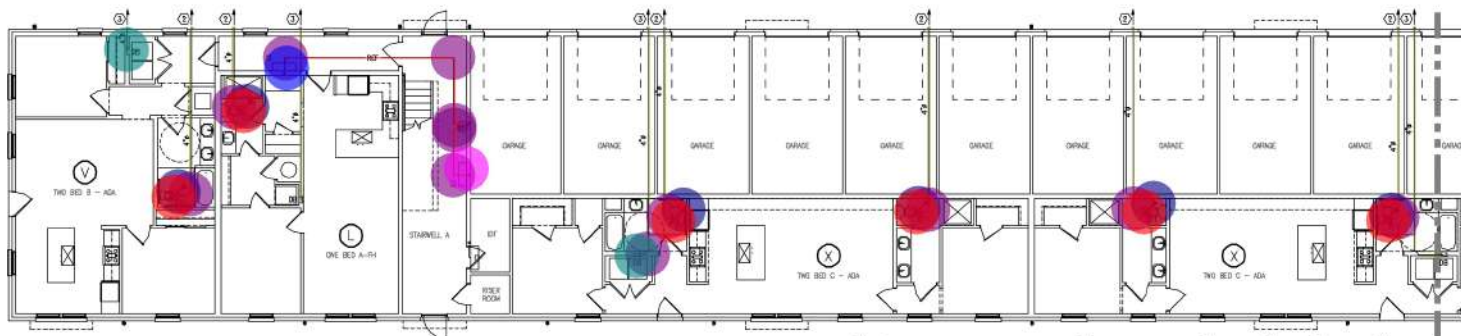
CONTRACTOR SHALL CHECK & VERIFY ALL CONDITIONS & CONDITIONS AT JOB SITE
DATE: 06-30-23
REVISIONS:

TITLE: **BLDG E HVAC PLANS**
SHEET: **M8**
PROJECT: **M13**
22260

APARTMENT PLAN SCHEDULE					
APARTMENT TYPE	PLUMBING	HVAC	POWER	LIGHTING	FIRE ALARM
A	2	2	2	2	2
B	2	2	2	2	2
C	2	2	2	2	2
E	2	2	2	2	2
F	2	2	2	2	2
G	2	2	2	2	2
H	2	2	2	2	2
J	2	2	2	2	2
K	2	2	2	2	2
L	2	2	2	2	2
M	2	2	2	2	2
N	2	2	2	2	2
P	2	2	2	2	2
Q	2	2	2	2	2
R	2	2	2	2	2
S	2	2	2	2	2
T	2	2	2	2	2
U	2	2	2	2	2
V	2	2	2	2	2
X	2	2	2	2	2
Y	2	2	2	2	2
Z	2	2	2	2	2



- Refrigerator Pipe
- (4") Dia Duct
- Fire Damper
- (90 Degree) - Elbow
- EF1 - Exhaust Fans - Model: ZB80 - 120V / 1PH - 80 CFM
- Dryer Connection Boxes - Model: DB-425
- BB1 - Branch Split Box Model: PAC-MKA32BC - 208V / 1PH
- BB2 - Branch Split Box Model: PAC-MKA52BC - 208V / 1PH
- 12 - Mini Split Coils - Model: MSZ-FS06NA - 208V / 1PH - 325 CFM
- 13 - Mini Split Coils - Model: MSZ-FS09NA - 208V / 1PH - 325 CFM
- HP1 - Heat Pump Units - Model: GSZ14-018-1L - 208V / 1PH - 500 CFM
- HP3 - Heat Pump Units - Model: GSZ14-024-1K - 208V / 1PH - 800 CFM
- HP4 - Heat Pump Units - Model: GSZ14-030-1K - 208V / 1PH - 1000 CFM
- HP5 - Heat Pump Units - Model: GSZ14-018-1L - 208V / 1PH - 800 CFM
- HP6 - Heat Pump Units - Model: GSZ14-024-1K - 208V / 1PH - 800 CFM
- HP7 - Heat Pump Units - Model: GSZ14-030-1K - 208V / 1PH - 1000 CFM
- 01 - Wall Mount Air Conditioner - Model: MUZ-FS12NA - 208V / 1PH
- 02 - Condensing Units - Model: MXZ-5M48NAMHZ-U1 - 208V / 1PH



GENERAL NOTES:

- SEE SHEET M10 NOTES FOR ALL SYSTEMS.
- CONTRACTOR SHALL MAINTAIN FIRE RATING OF ANY PENETRATION AND SHALL SEAL ANY PENETRATION IN A FLOOR, CEILING, OR EXTERIOR WALL.
- EXCEPT IN OTHER VENTS, INSTALL A FIRE DAMPER AT EVERY FIRE RATED ASSEMBLY PENETRATION TO MAINTAIN FIRE RATING OF ASSEMBLY.
- DRYER AND EXHAUST DUCTS SHALL BE METAL DUCT RUN IN FLOOR/CEILING ASSEMBLY WITH ANNUAL AND FIRE RATED AT PENETRATIONS.
- DRYER EXHAUST DUCTS SHALL BE 4" RIGID METAL WITH OTHER (A) PROMETER "TAPERED" OR EQUAL, OR (B) SHALL BE GALVANIZED STEEL WITH A THICKNESS GREATER THAN 0.0137, USE IN-G-GATE "DRYER-CELL" OR EQUAL 1" RADIUS SMOOTH WALL ELBOWS FOR ALL TURNS.
- TRUSS MANUFACTURER SHALL COORDINATE TRUSS DESIGN WITH MEID LAYOUT.
- OUTDOOR HEAT PUMPS INSTALLED ON EQUIPMENT STANDS ON ROOF. SECURE HEAT PUMPS AND STANDS TO ROOF.
- PIPE CONDENSATE TO NEAREST FLOOR DRAIN, W/IF DRAIN, OR STAND PIPING INDIVIDUAL CONDENSATE DRAINS SHALL BE 3/4" GROUPED DRAINS SHALL BE 1-1/4".

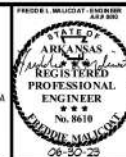
KEYED NOTES:

- SEE M10/C10 MOUNTING DETAIL (N/MC)
- TO WALLTOP OR ROOF JACK WITH BRASS/STEEL (TYPICAL FOR EXHAUST FANS, SEE APARTMENT PLANS FOR EXACT LOCATION OF EXHAUST FAN)
- TO WALLTOP WITH BRASS/STEEL DAMPER (TYPICAL FOR BRASS), INSTALL OTHER BOOSTER LOCATION OF BOOSTER FAN WITH APARTMENT, DAMPER APPROX. DAMP



BLDG F 1st FLR HVAC PLAN

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



**MALICOAT - WINSLOW
ENGINEERS, INC.**

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FREDDIE MALICOAT, P.E.

MAIN & A STREET APARTMENTS

MAIN STREET & NW A STREET
BENTONVILLE, BENTON COUNTY, AR, 72712

CONTRACTOR SHALL CHECK
* VERIFY ALL DIMENSIONS
* CONDITIONS AT JOB SITE
DATE: 06-30-23
REVISIONS:

TITLE:
**BLDG F
HVAC PLANS**

SHEET:
**M9
M13**

PROJECT:
22260