

**MALICOAT - WINSLOW
ENGINEERS, INC.**
APPROXIS CERTIFICATE OF AUTHORIZATION 3403
14840 RANGELINE STREET, #101
COLUMBIA, MISSOURI 65202
TEL 573-875-1300
FAX 573-875-1355
FREDDIE MALICOAT, P.E.

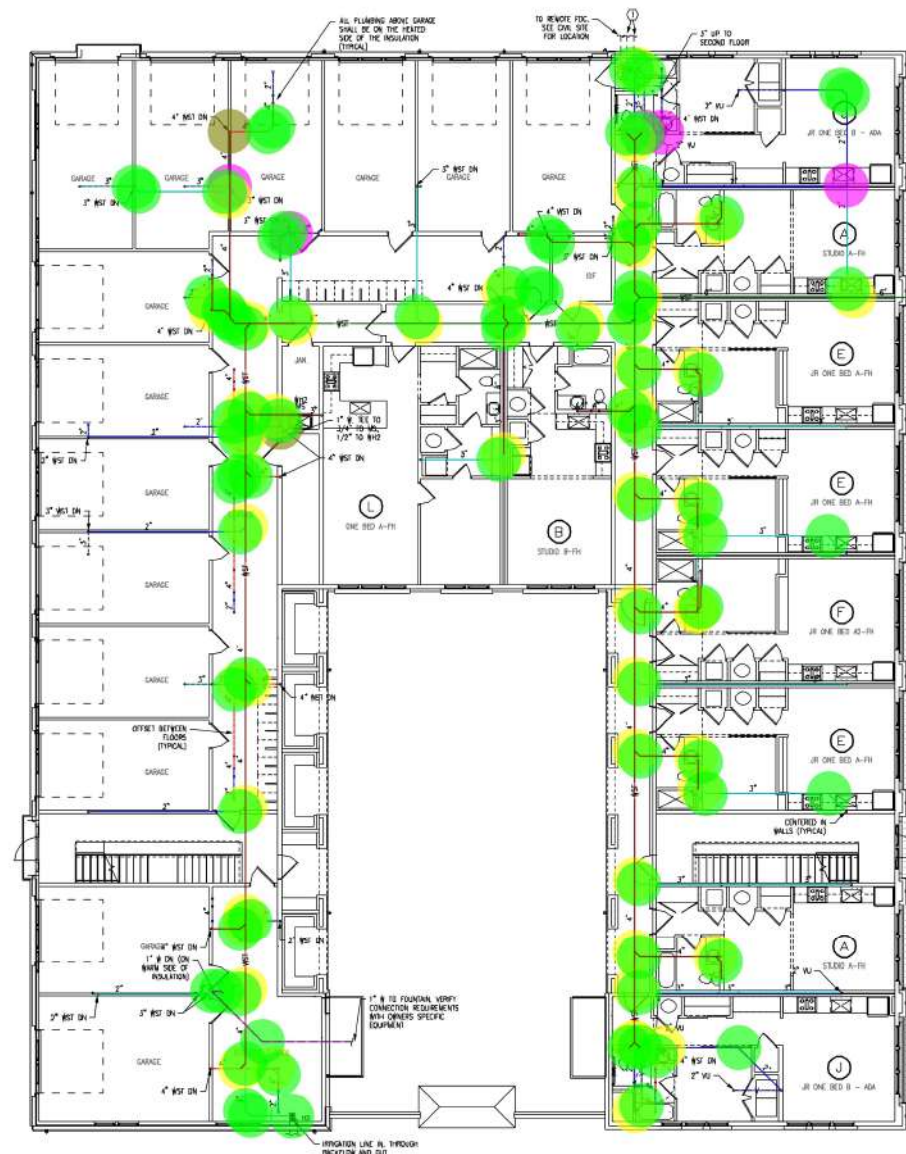
MAIN & A STREET APARTMENTS
MAIN STREET & NW A STREET
BENTONVILLE, BENTON COUNTY, AR, 72712

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

DATE : 06-30-23

REVISIONS :

TITLE :	BLDG A 1st FLR PLUMBING PLANS
SHEET :	P1 OF P14
PROJECT :	22260



  **BLDG A 1st FLR PLUMBING PLAN**
SCALE: 1/8" = 1'-0"

APARTMENT PLAN SCHEDULE					
APARTMENT TYPE	PLUMBING	PAINT	ROOFING	LIGHTING	FIRE ALARM
(A)	2 25	2 25	2 25	2 25	2 25
(B)	2 25	2 25	2 25	2 25	2 25
(C)	2 25	2 25	2 25	2 25	2 25
(E)	2 25	2 25	2 25	2 25	2 25
(F)	2 25	2 25	2 25	2 25	2 25
(G)	2 25	2 25	2 25	2 25	2 25
(H)	2 25	2 25	2 25	2 25	2 25
(J)	2 25	2 25	2 25	2 25	2 25
(K)	2 25	2 25	2 25	2 25	2 25
(L)	2 25	2 25	2 25	2 25	2 25
(M)	2 25	2 25	2 25	2 25	2 25
(N)	2 25	2 25	2 25	2 25	2 25
(P)	2 25	2 25	2 25	2 25	2 25
(Q)	2 25	2 25	2 25	2 25	2 25
(R)	2 25	2 25	2 25	2 25	2 25
(S)	2 25	2 25	2 25	2 25	2 25
(T)	2 25	2 25	2 25	2 25	2 25
(U)	2 25	2 25	2 25	2 25	2 25
(V)	2 25	2 25	2 25	2 25	2 25
(X)	2 25	2 25	2 25	2 25	2 25
(Y)	2 25	2 25	2 25	2 25	2 25
(Z)	2 25	2 25	2 25	2 25	2 25

GENERAL NOTES:

1. SEE SHEET ME1 NOTE FOR ALL SYSTEMS.
2. 201A APC SECTION 913 "WASTE STACK VENTS" USED FOR ALL NON-HWC SIZED PLUMBING FIXTURES. WATER CLOSETS TO BE PROVIDED WITH A DRY VETL
3. PROVIDE CLEANOUT AT BASE OF EACH STACK, AND MAXIMUM 50'-0" OF THROUGHOUT BUILDING. PROVIDE THEM IN COMMON AREAS INDEPENDENT OF PRIVATE APARTMENTS.
4. SEE PLUMBING RISES FOR STACK SIZES.
5. INSULATE HOT AND COLD WATER PIPING WITH 1/2" ARMAFLEX OR EQUAL (R=3).
6. THE PIPING SYSTEM WITHIN EACH BUILDING SHALL BE ROUTED ENTIRELY WITHIN THE CONDITIONED SPACES.

KEYED NOTES:

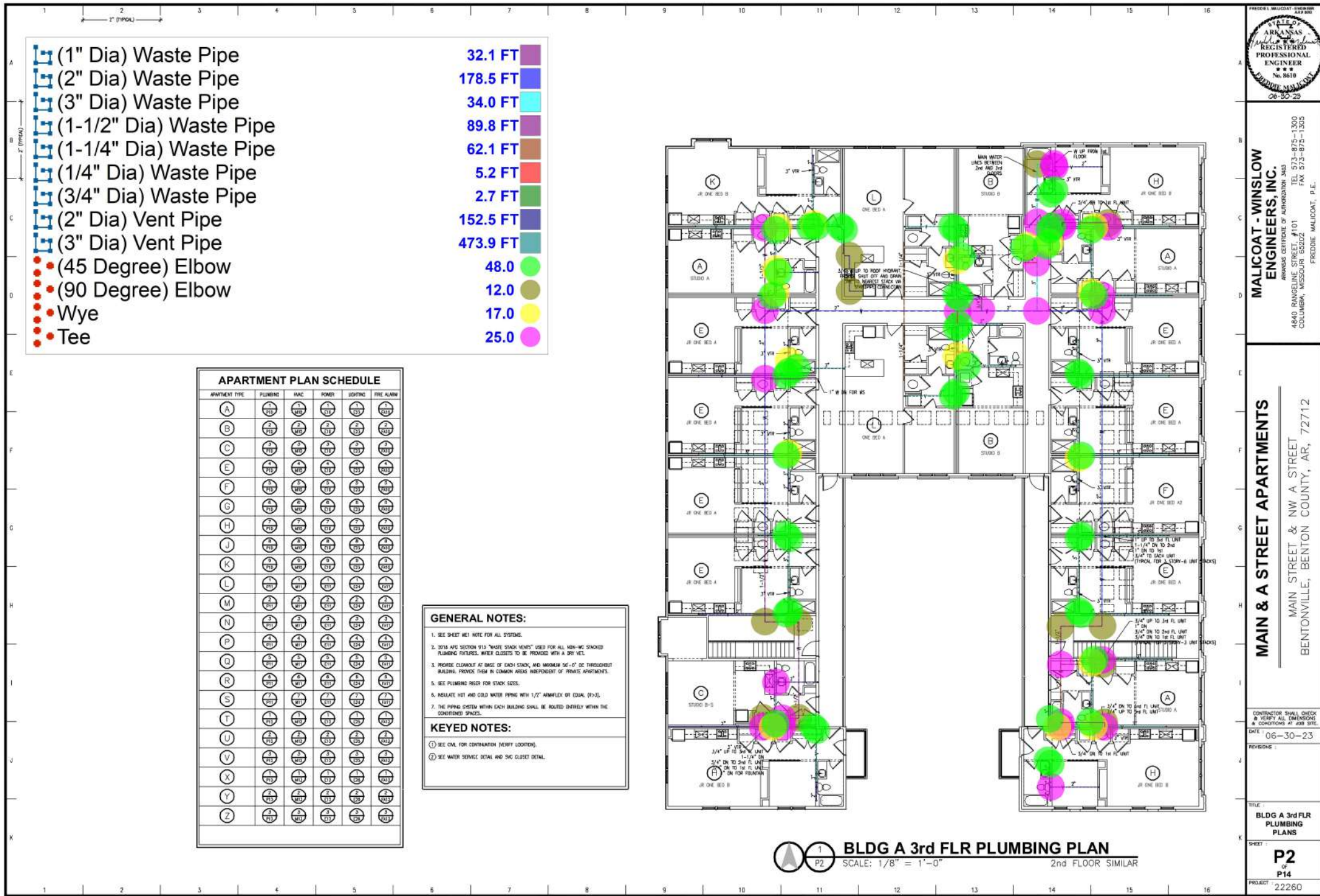
- ① SEE CML FOR CONTRADICTION (VERIFY LOCATION).
② SEE WATER SERVICE DETAIL AND SNG CLOSET DETAIL.

-  (1" Dia) Waste Pipe
-  (2" Dia) Waste Pipe
-  (3" Dia) Waste Pipe
-  (4" Dia) Waste Pipe
-  (6" Dia) Waste Pipe
-  (2" Dia) Vent Pipe
-  (3" Dia) Vent Pipe
-  (4" Dia) Vent Pipe
-  (45 Degree) Elbow
-  Wye
-  Tee
-  (90 Degree) Elbow
-  Floor Drain

22.4 FT	
165.4 FT	
262.1 FT	
379.9 FT	
96.9 FT	
124.0 FT	
34.0 FT	
93.1 FT	
81.0	
56.0	
5.0	
2.0	
2.0	

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**MALICOAT - WINSLOW
ENGINEERS, INC.**
ARKANSAS CERTIFICATE OF AUTHORIZATION NO. 8610
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
PLUMBING
PLANS**
SHEET:
**P3
OF
P14**
PROJECT:
22260

GENERAL NOTES:

- SEE SHEET MET NOTE FOR ALL SYSTEMS.
- 2018 APC SECTION 91.3 "WASTE STACK VENT" USED FOR ALL NON-NC STACKED PLUMBING FEATURES. WATER CLOSURES TO BE PROVIDED WITH A DRY VET.
- PROVIDE CLEAROUT AT BASE OF EACH STACK AND MAXIMUM 50'-0" THROUGHOUT BUILDING. PROVIDE THEM IN COMMON AREAS INDEPENDENT OF PRIVATE APARTMENTS.
- SEE PLUMBING INDEX FOR STACK SIZES.
- INSULATE HOT AND COLD WATER PIPING WITH 1/2" ANAFLUX OR EQUAL (R-8).
- THE PIPING SYSTEM WITHIN EACH BUILDING SHALL BE ROUTED ENTIRELY WITHIN THE CONDITIONED SPACES.

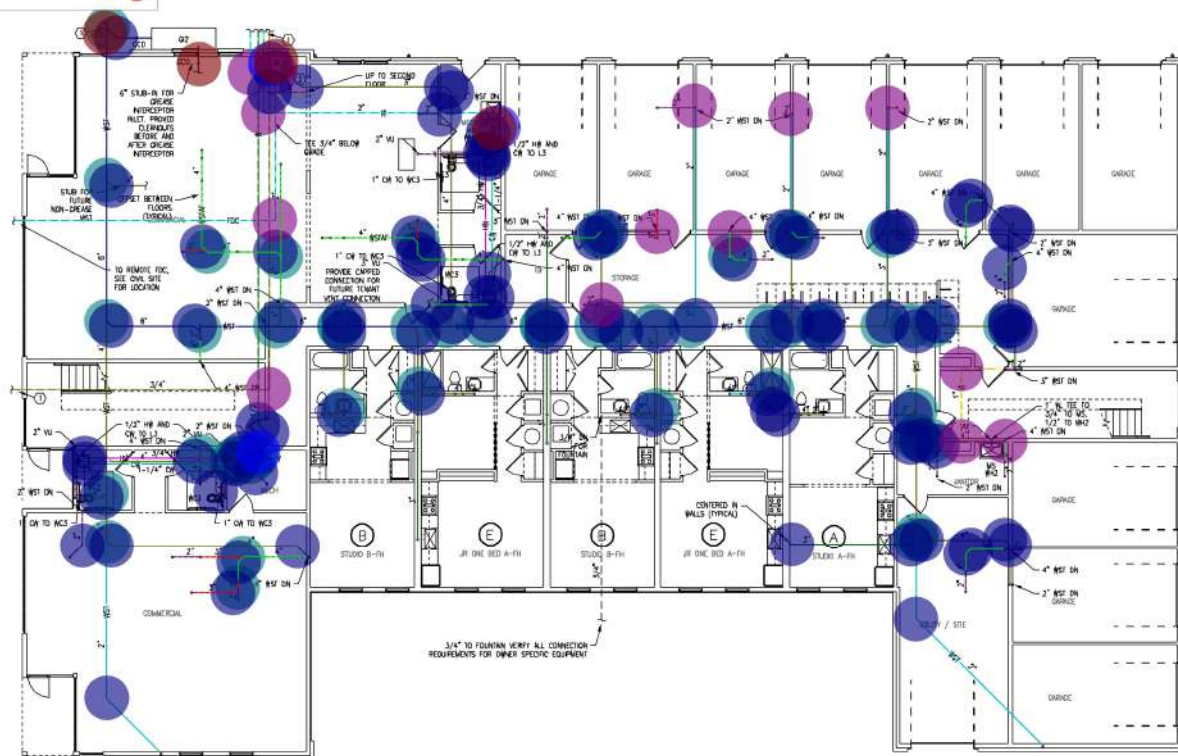
KEYED NOTES:

- SEE CHL FOR CONTINUATION (VERIFY LOCATION).
- SEE WATER SERVICE DETAIL AND SMC CLOSET DETAIL.

- (2" Dia) Waste Pipe 242.2 FT
- (3" Dia) Waste Pipe 94.9 FT
- (4" Dia) Waste Pipe 371.6 FT
- (6" Dia) Waste Pipe 132.6 FT
- (2" Dia) Vent Pipe 77.3 FT
- (3" Dia) Vent Pipe 26.4 FT
- (4" Dia) Vent Pipe 122.5 FT
- (1" Dia) Waste Pipe 18.4 FT
- Back Flow Preventer 3.0
- (3/4" Dia) Hot Water Pipe 43.0 FT
- (1-1/4" Dia) Cold Water Pipe 44.2 FT
- (1-1/2" Dia) Waste Pipe 54.5 FT
- (3/4" Dia) Waste Pipe 79.0 FT
- (45 Degree) Elbow 86.0
- (90 Degree) Elbow 14.0
- Wye 53.0
- Tee 4.0
- Ground Clean Out 2.0
- Floor Drain 2.0

APARTMENT PLAN SCHEDULE

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

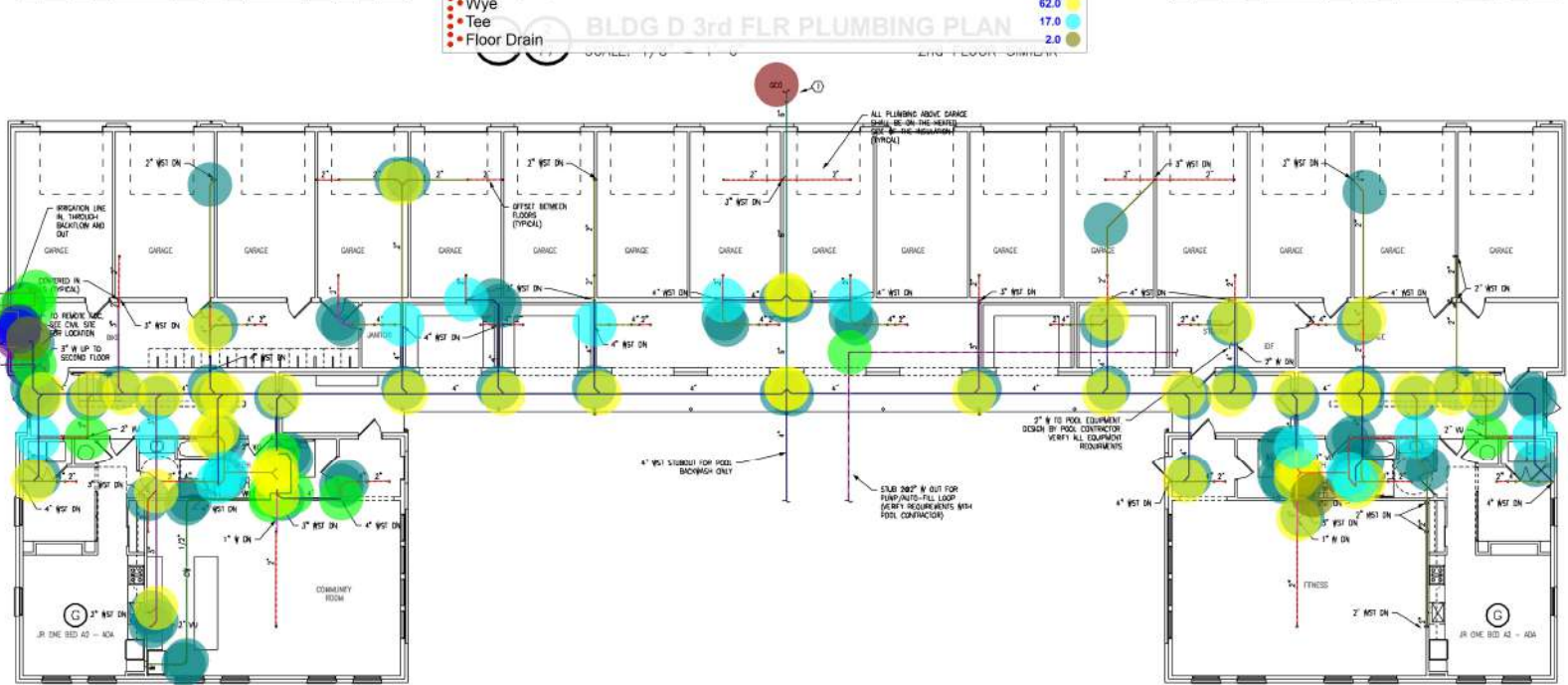
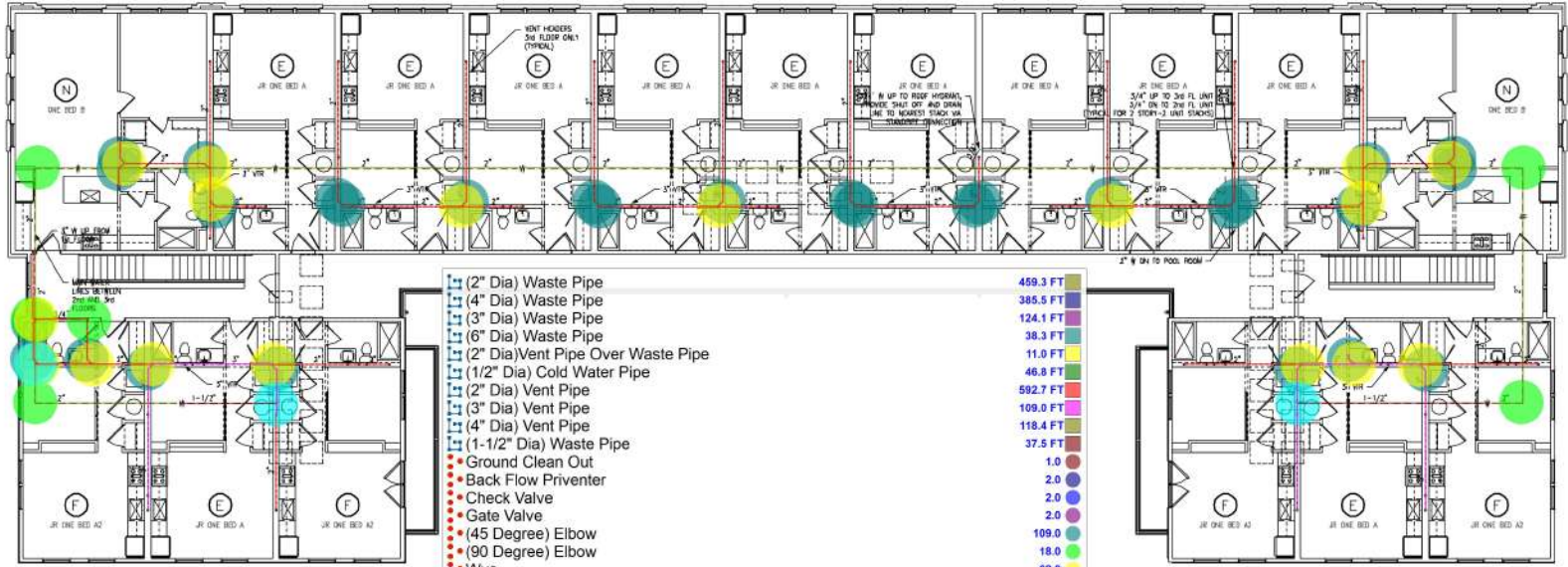


BLDG B 1st FLR PLUMBING PLAN

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

APARTMENT PLAN SCHEDULE

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



GENERAL NOTES:

- SEE SHEET M-1 FOR ALL SYSTEMS.
- 2018 APC SECTION 915 "WASTE STACK VENTS" USED FOR ALL NON-NC STACKED PLUMBING FEATURES. WATER CLOSURES TO BE PROVIDED WITH A DRY VET.
- PROVIDE CLEAROUT AT BASE OF EACH STACK AND MAXIMUM 30'-0" DC THROUGHOUT BUILDING. PROVIDE THEM IN COMMON AREAS INDEPENDENT OF PRIVATE APARTMENTS.
- SEE PLUMBING REEFER FOR STACK SIZES.
- ISOLATE HOT AND COLD WATER PIPING WITH 1/2" AIRMALEX OR EQUAL (P-35).
- THE PRIMP SYSTEM WITH EACH BUILDING SHALL BE ROUTED EXTERIALLY WITHIN THE CONDORDED SPACES.

KEYED NOTES:

- SEE C-1 FOR CONTINUATION (DEWY LOCATION).
- SEE WATER SERVICE DETAIL AND SINK CLOSURE DETAIL.



BLDG D 1st FLR PLUMBING PLAN

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



MALICOAT - WINSLOW ENGINEERS, INC.
REGISTERED PROFESSIONAL ENGINEER
No. 8610
06-30-23

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

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

TITLE: BLDG D PLUMBING PLANS
SHEET: P7 OF P14
PROJECT: 22260

- (2" Dia) Waste Pipe 251.9 FT
 (3" Dia) Waste Pipe 131.6 FT
 (4" Dia) Waste Pipe 203.8 FT
 (1-1/2" Dia) Waste Pipe 20.7 FT
 (1-1/4" Dia) Waste Pipe 120.0 FT
 (3/4" Dia) Waste Pipe 49.0 FT
 (1" Dia) Waste Pipe 47.1 FT
 (6" Dia) Waste Pipe 37.9 FT
 (2" Dia) Vent Pipe 406.4 FT
 (3" Dia) Vent Pipe 212.0 FT
 (4" Dia) Vent Pipe 71.4 FT
 • Ground Clean Out 1.0
 • Back Flow Preventer 1.0
 • Gate Valve 2.0
 • (45 Degree) Elbow 116.0
 • (90 Degree) Elbow 21.0
 • Wye 88.0
 • Tee 18.0
 • Floor Drain 1.0
 • Check Valve 2.0

APARTMENT PLAN SCHEDULE

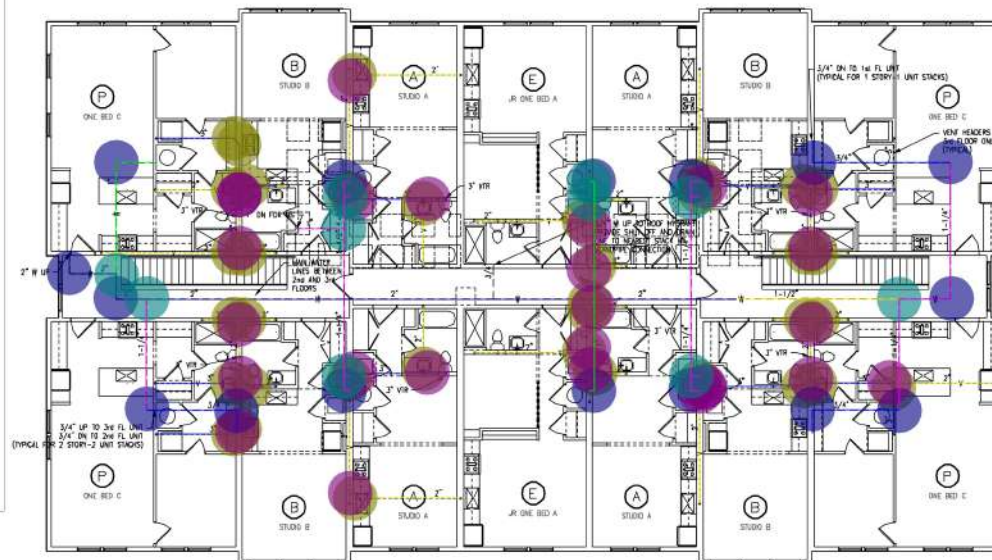
APARTMENT TYPE	PLUMBING	HVAC	POWER	LIGHTING	FIRE ALARM
A	1/2"	1/2"	1/2"	1/2"	1/2"
B	1/2"	1/2"	1/2"	1/2"	1/2"
C	1/2"	1/2"	1/2"	1/2"	1/2"
E	1/2"	1/2"	1/2"	1/2"	1/2"
F	1/2"	1/2"	1/2"	1/2"	1/2"
G	1/2"	1/2"	1/2"	1/2"	1/2"
H	1/2"	1/2"	1/2"	1/2"	1/2"
J	1/2"	1/2"	1/2"	1/2"	1/2"
K	1/2"	1/2"	1/2"	1/2"	1/2"
L	1/2"	1/2"	1/2"	1/2"	1/2"
M	1/2"	1/2"	1/2"	1/2"	1/2"
N	1/2"	1/2"	1/2"	1/2"	1/2"
P	1/2"	1/2"	1/2"	1/2"	1/2"
Q	1/2"	1/2"	1/2"	1/2"	1/2"
R	1/2"	1/2"	1/2"	1/2"	1/2"
S	1/2"	1/2"	1/2"	1/2"	1/2"
T	1/2"	1/2"	1/2"	1/2"	1/2"
U	1/2"	1/2"	1/2"	1/2"	1/2"
V	1/2"	1/2"	1/2"	1/2"	1/2"
X	1/2"	1/2"	1/2"	1/2"	1/2"
Y	1/2"	1/2"	1/2"	1/2"	1/2"
Z	1/2"	1/2"	1/2"	1/2"	1/2"

GENERAL NOTES:

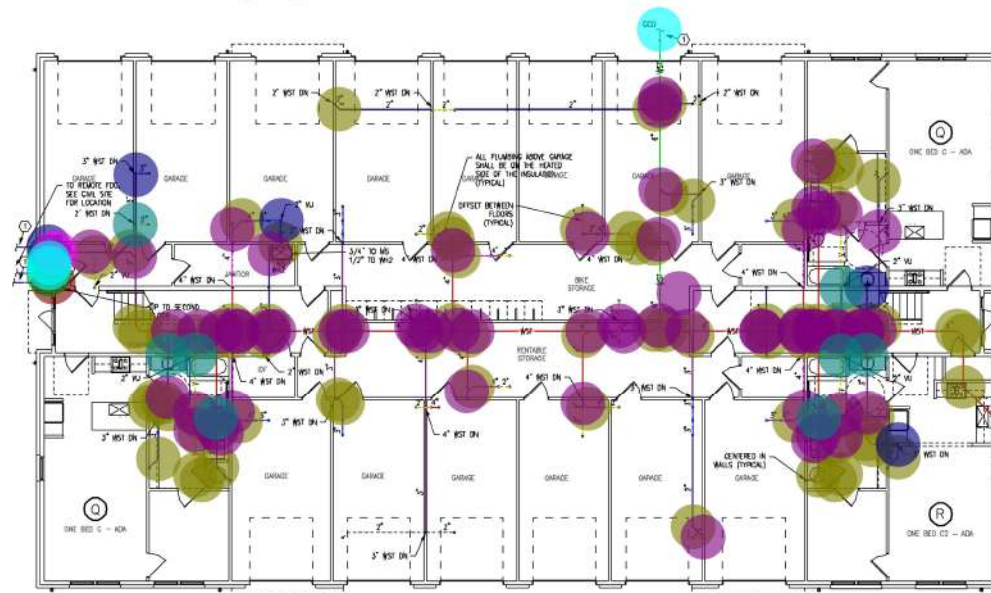
- SEE SHEET M-1 FOR ALL SYSTEMS.
- 2018 APC SECTION 915 "WASTE STACK VENTS" USED FOR ALL NON-IPC STOKED PLUMBING FEATURES. WATER CLOSETS TO BE PROVIDED WITH A DRY ICE.
- PROVIDE CLEARCUT AT BASE OF EACH STACK, AND MAXIMUM 50'-0" DC THROUGHOUT BUILDING. PROVIDE THEM IN COMMON AREAS INDEPENDENT OF PRIVATE APARTMENTS.
- SEE PLUMBING RISER FOR STACK SIZES.
- INSULATE HOT AND COLD WATER PIPING WITH 1/2" MINIFLEX OR EQUAL (91-3).
- THE PIPING SYSTEM WITHIN EACH BUILDING SHALL BE ROUTED ENTIRELY WITHIN THE CONDITIONED SPACES.

KEYED NOTES:

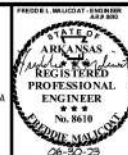
- SEE CHL FOR CONTINUATION (VERIFY LOCATION).
- SEE WATER SERVICE DETAIL AND SMC CLOSET DETAIL.



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



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

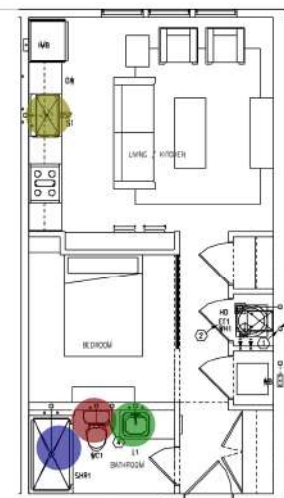
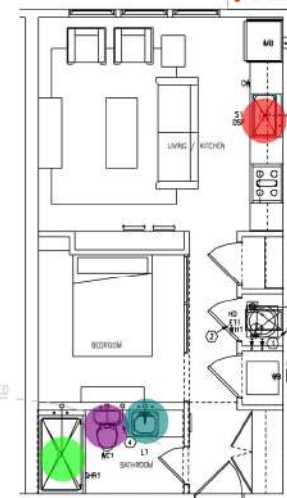
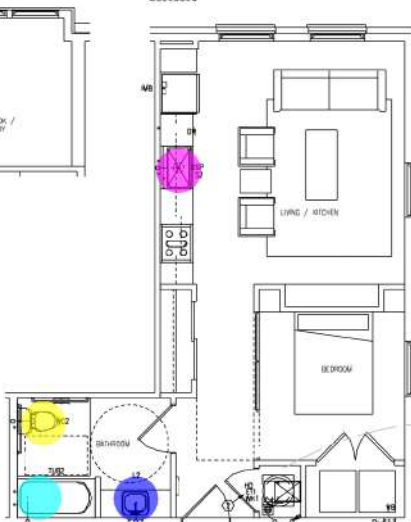
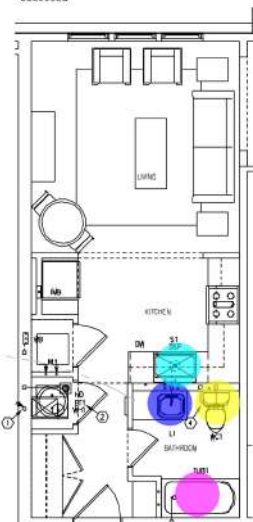
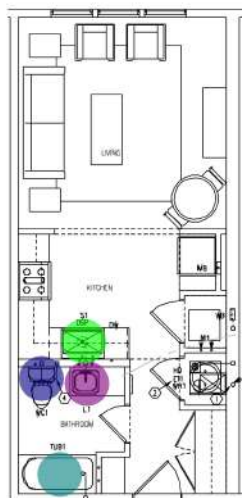
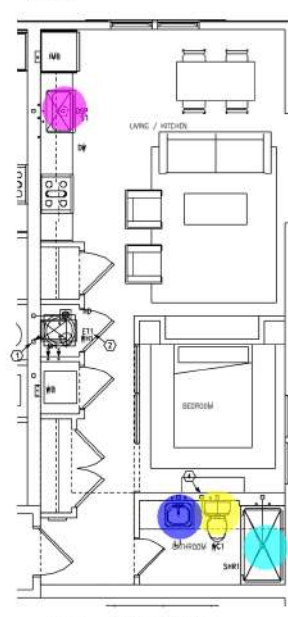
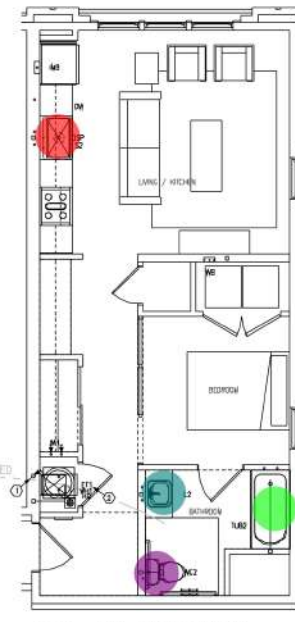
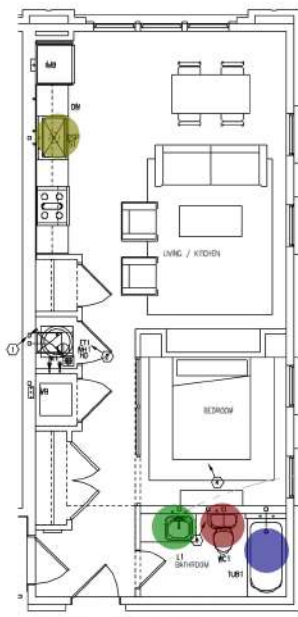
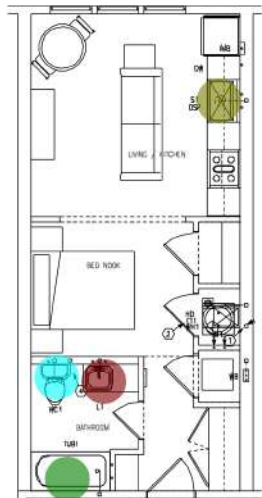


**MALICOAT - WINSLOW
 ENGINEERS, INC.**
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 PROFESSIONAL
 ENGINEER
 No. 8610
 4840 RANGELINE STREET, #101
 COLUMBIA, MISSOURI 65202
 TEL 573-875-1300
 FAX 573-875-1305
 FREDDIE MALICOAT, P.E.

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 PLUMBING PLANS**
 SHEET: **P8**
 PROJECT: 22260



- Water Closet
- Lavatory
- Bath Tub
- Kitchen Sink
- Water Closet
- Lavatory
- Bath Tub
- Kitchen Sink
- Water Closet
- Lavatory
- Bath Tub
- Kitchen Sink
- Water Closet
- Lavatory
- Kitchen Sink
- Shower
- Water Closet
- Lavatory
- Kitchen Sink
- Shower
- Water Closet
- Lavatory
- Kitchen Sink
- Bath Tub
- Water Closet
- Lavatory
- Kitchen Sink
- Bath Tub
- Water Closet
- Lavatory
- Kitchen Sink
- Bath Tub
- Water Closet
- Lavatory
- Kitchen Sink
- Shower

et GENERAL NOTES:

PEX MANIFOLDS M

FREDDIE L. MALICOT AT - 06/30/23
 AUG 2020
 STATE OF
 ARKANSAS
 REGISTERED
 PROFESSIONAL
 ENGINEER
 No. 8610
 FREDDIE MALICOT
 06-30-23

**MALICOAT - WINSLOW
ENGINEERS, INC.**
ARKANSAS CERTIFICATE OF AUTHORIZATION 3403

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 :

**STUDIO/JR APT
PLUMBING
PLANS**

SHEET :
P10
OF
P14
PROJECT : 22260



MALICOAT - WINSLOW ENGINEERS, INC.
REGISTERED PROFESSIONAL ENGINEER
AR 06-30-23

MALICOAT - WINSLOW ENGINEERS, INC.
REGISTERED PROFESSIONAL ENGINEER
AR 06-30-23

MALICOAT - WINSLOW ENGINEERS, INC.
REGISTERED PROFESSIONAL ENGINEER
AR 06-30-23

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 :	
2BR APT PLUMBING PLANS	
SHEET :	
P12 OF P14	
PROJECT :	22260

1. SEE SHEET ME-102 NOTES FOR ALL SYSTEMS.
2. 2018 ASHRAE SECTION 9.13 "WASTE CLOSURE VENTS" USED FOR ALL NON-NC SPACKED PLUMBING FEATURES. WASTE CLOSURE SHALL BE PROVIDED WITH A DRY VENT.
3. PROVIDE CLEANOUT AT BASE OF EACH WASTE STACK AND MAX. 50' OC (TYPICAL).
4. INSULATE HOT AND COLD WATER WITH 1/2" ARMAFLEX AND ENCASE PIPES IN EXTERIOR WALLS ARE WITHIN THE THERMAL ENVELOPE OF THE UNIT.
5. MAINTAIN SERVICE ACCESS FOR ALL FEATURES.
6. INSULATE ALL HOT AND COLD WATER PIPING WITH 1/2" THICK ARMAFLEX.
7. THE PIPING SYSTEM WITHIN EACH UNIT SHALL BE INSULATED ENTIRELY WITHIN THE CONDITIONED SPACES.

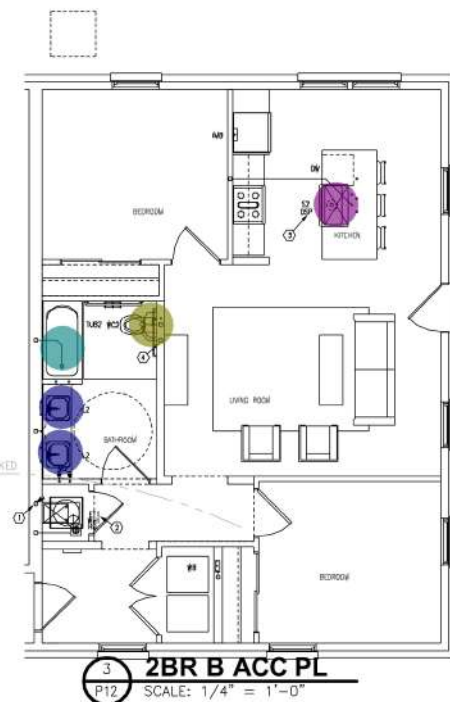
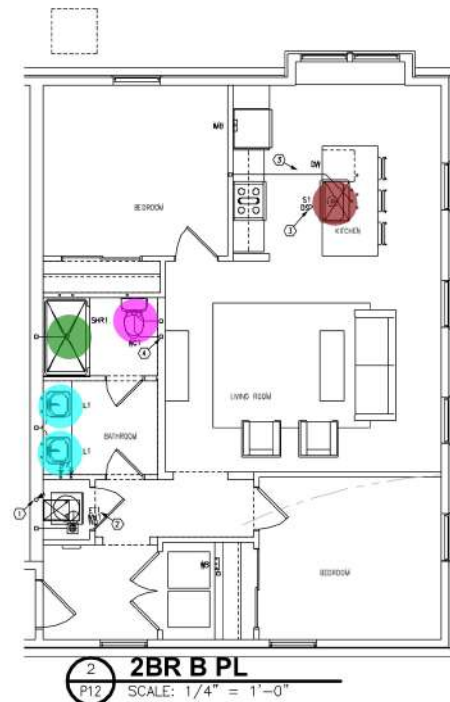
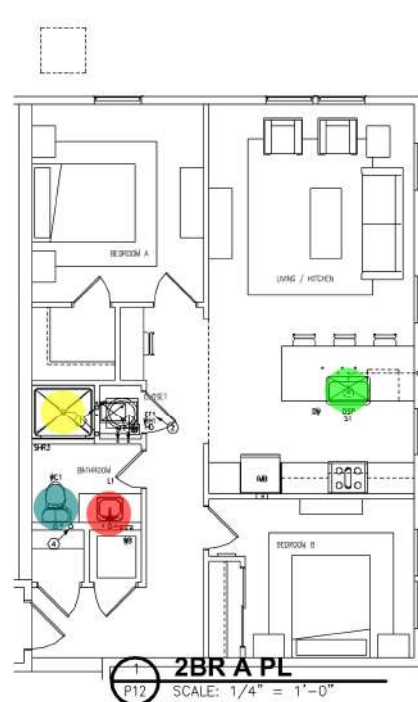
- ① SEE WATER SERVICE DETAIL (1/ME2).
- ② SEE WATER HEATER / FURNACE MOUNTING DETAIL (3/ME2).
- ③ ISLAND HEATING PER APC 918 OR AIR ADMITTANCE VALVE IF APPROVED BY JURISDICTION.
- ④ PROVIDE DRY HEAT FOR ALL WC ON STACK. SEE RISER DIAGRAM.

LOCATION / DESCRIPTION	ON	HW
KITCHEN / SINK	1	1
KITCHEN / DISHWASHER		1
KITCHEN / ICE MAKER	1	
LAUNDRY / WASHER	1	1
BATH / LAVATORY	1	1
BATH / WATER CLOSET	1	
BATH / TUB OR SHOWER	1	1
TOTAL PORTS	6	5

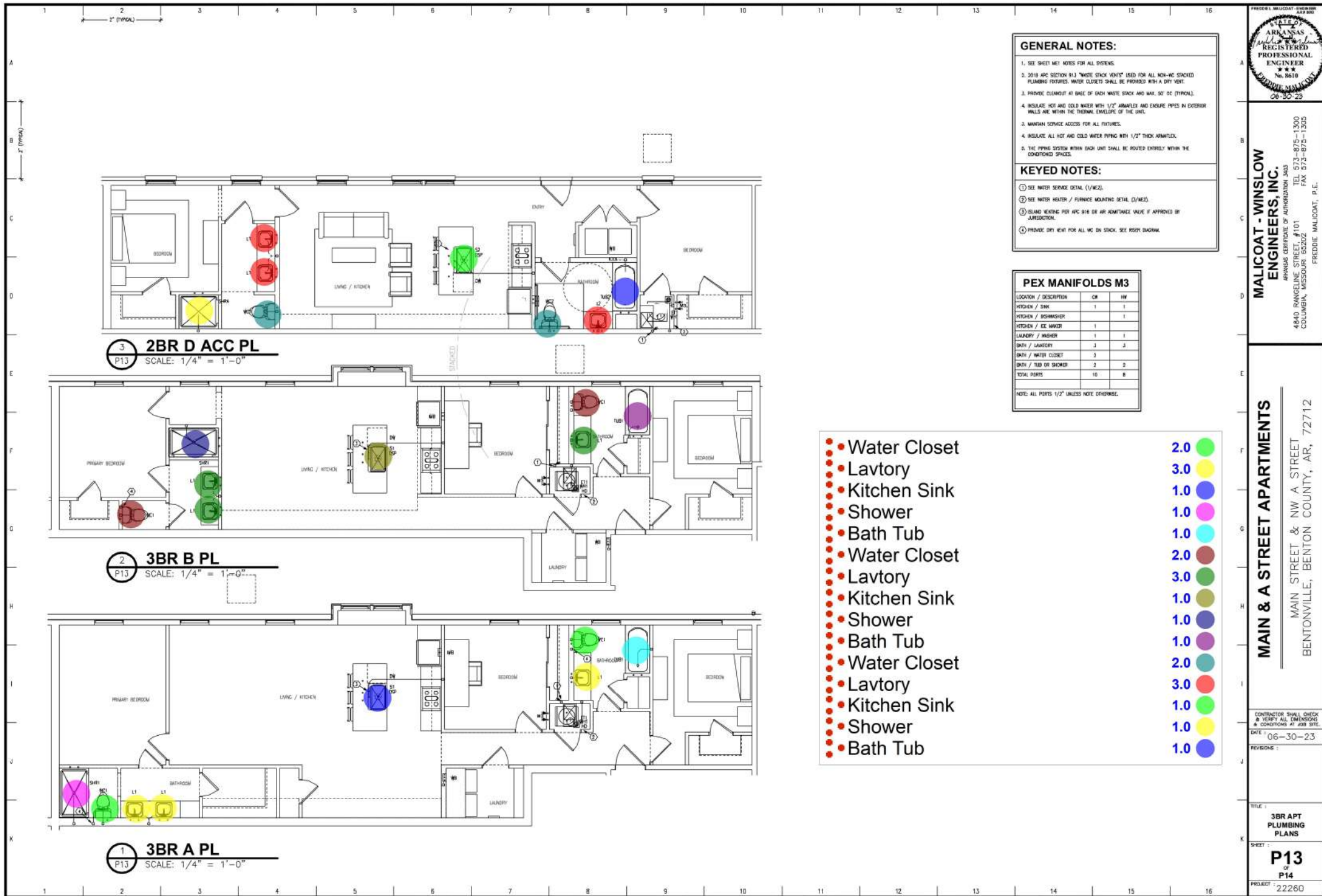
NOTE: ALL PORTS 1/2" UNLESS NOTE OTHERWISE.

LOCATION / DESCRIPTION	CV	IN
KITCHEN / SINK	1	1
KITCHEN / DISHWASHER	1	1
KITCHEN / ICE MAKER	1	
LAUNDRY / WASHER	1	1
BATH / LAVATORY	2	2
BATH / WINTER CLOSET	1	
BATH / TUB OR SHOWER	1	1
TOTAL PORTS	7	6

NOTE: ALL PORTS 1/2" UNLESS NOTE OTHERWISE.



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MALICOAT - WINSLOW ENGINEERS, INC.
REGISTERED PROFESSIONAL ENGINEER
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:
3BR APT PLUMBING PLANS

SHEET:
P13
OF
P14
PROJECT: 22260