

## MECHANICAL NOTES

- MECHANICAL PLANS ARE DIAGRAMMATIC IN NATURE, INTENDED TO INDICATE DESIGN INTENT ONLY. THE MECHANICAL CONTRACTOR IS EXCLUSIVELY RESPONSIBLE TO COORDINATE SPECIFIC LOCATIONS OF ITEMS AND ADJUST AS REQUIRED TO ACCOMMODATE CODE REQUIREMENTS, EXISTING CONDITIONS (IF RENOVATION PROJECT), BUILDING STRUCTURE, SPRINKLER PIPING (IF ANY), LIGHTS, PLUMBING, ELECTRICAL WORK, AND THE WORK OF ALL OTHER TRADES. DIMENSIONS SHALL BE FIELD-VERIFIED AND COORDINATED PRIOR TO PROCUREMENT OR FABRICATION. FIELD MODIFICATIONS (SUCH AS OFFSETS IN PIPING OR DUCTWORK (INCLUDING DIVIDED DUCTWORK) NEEDED DUE TO OBSTRUCTIONS OR INTERFERENCES SHALL BE PROVIDED AT NO ADDITIONAL COST.
- ALL OF THE MECHANICAL INFORMATION IS PRESENTED ON AN X-REFERENCED BACKGROUND FLOOR PLAN. IN CASE OF CONFLICT BETWEEN BACKGROUND PLAN AND ARCHITECTURAL FLOOR PLAN, ARCHITECTURAL FLOOR PLAN SHALL GOVERN.
- THE HVAC CONTRACTOR SHALL PROVIDE ALL ITEMS, ARTICLES, MATERIALS, OPERATIONS OR METHODS MENTIONED, LISTED OR SCHEDULED ON THE DRAWINGS AND IN THESE SPECIFICATIONS, INCLUDING ALL LABOR, MATERIALS, EQUIPMENT AND ALL INCIDENTALS NECESSARY REQUIRED FOR THE COMPLETION AND OPERATION OF ALL SYSTEMS.
- THE ENGINEER WILL NOT HAVE CONTROL OR CHARGE OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES AND IS NOT RESPONSIBLE FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THOSE DOCUMENTS PREPARED BY THE ENGINEER.
- IF BIDDING CONTRACTOR WOULD LIKE TO SUBSTITUTE ANY SPECIFIED MECHANICAL DEVICES, HVAC EQUIPMENT, THERMOSTATS, COILS, FANS, INSULATION, HANGERS, PIPING, VFD'S, ETC., THEY MUST PROVIDE SUBMITTAL TYPE DRAWINGS TO THE ENGINEER A MINIMUM OF 7 DAYS PRIOR TO BIDDING THE PROJECT. IF THESE APPROVAL DRAWINGS ARE NOT SUBMITTED AND ACCEPTED, THE SPECIFIED EQUIPMENT MUST BE USED - NO EXCEPTIONS.
- THE HVAC CONTRACTOR SHALL MAINTAIN AND KEEP AN UP-TO-DATE SET OF DRAWINGS REFLECTING "AS-BUILT" CONDITIONS OF THEIR WORK. CONTRACTOR SHALL INDICATE EXACT DIMENSIONS AND ELEVATIONS FOR ALL UNDERGROUND AND/OR CONCEALED WORK. UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL DELIVER THE AS-BUILT DRAWINGS TO THE CM OR GC.
- THE INSTALLATION SHALL BE MADE SO THAT ALL COMPONENT PARTS FUNCTION TOGETHER AS A WORKABLE SYSTEM; IT SHALL BE COMPLETE WITH ALL ACCESSORIES NECESSARY FOR PROPER OPERATION. WHEN THE INSTALLATION IS COMPLETE, ALL EQUIPMENT SHALL BE EXECUTED IN CONFORMITY WITH THE BEST PRACTICE SO AS TO CONTRIBUTE TO EFFICIENCY OF OPERATION, MINIMUM MAINTENANCE, ACCESSIBILITY AND SIGHTLINESS.
- TO ACCOMPLISH THESE RESULTS, THE HVAC CONTRACTOR SHALL CONSULT THE ARCHITECT'S FIELD LAYOUTS OF THE CONTRACTORS FOR THESE TRADES AND THEIR SHOP DRAWINGS. HE/SHE SHALL COORDINATE THEIR WORK ACCORDINGLY.
- DRAWINGS ARE INTENDED TO SHOW THE GENERAL ARRANGEMENT, DESIGN AND EXTENT OF THE WORK AND ARE PARTLY DIAGRAMMATIC. THEY ARE NOT INTENDED TO BE SCALED FOR ROUGHING-IN MEASUREMENTS OR TO SERVE AS SHOP DRAWINGS. THE ARCHITECTURAL DRAWINGS AND DETAILS SHALL BE EXAMINED FOR EXACT LOCATION OF FIXTURES AND EQUIPMENT. WHERE THEY ARE NOT DEFINITELY LOCATED, THIS INFORMATION SHALL BE OBTAINED FROM THE ENGINEER.
- REFER TO THE ARCHITECTURAL PLANS FOR ALL BUILDING SECTIONS, INTERIOR, AND EXTERIOR ELEVATIONS. EQUIPMENT AND INSTALLATION METHODS SHOWN ON ARCHITECTURAL SECTIONS/DETAILS ARE CONSIDERED PART OF THE HVAC DOCUMENTS.
- MINOR ITEMS AND ACCESSORIES OR DEVICES REASONABLY INFERRABLE AS NECESSARY TO THE COMPLETE AND PROPER OPERATION OF ANY SYSTEM SHALL BE PROVIDED BY THE CONTRACTOR OR SUB-CONTRACTOR FOR SUCH SYSTEM WHETHER OR NOT THEY ARE SPECIFICALLY CALLED FOR BY THE SPECIFICATIONS OR DRAWINGS.
- WHERE WORK OF THE CONTRACTOR CONNECTS TO THAT OF ANOTHER TRADE, OR TO PIPING OR EQUIPMENT IN PLACE, THE CONTRACTOR SHALL TAKE SUCH MEASUREMENTS IN THE FIELD AS MAY BE NECESSARY TO MAKE HIS WORK COME TRUE OR LINE UP WITH THAT WORK.
- HVAC CONTRACTOR SHALL FURNISH TO THE ARCHITECTURAL TRADES CONTRACTOR INFORMATION SUCH AS SIZE AND LOCATION CONCERNING ALL FRAMED OPENINGS AND EQUIPMENT BASES REQUIRED.
- UNLESS OTHERWISE INDICATED, ALL MOTORS SHALL BE FURNISHED AND INSTALLED BY THE HVAC CONTRACTOR. UNLESS OTHERWISE INDICATED, THE ELECTRICAL CONTRACTOR SHALL FURNISH, INSTALL AND WIRE ALL STARTERS, SAFETY LINE SWITCHES AND CONTROLLERS.
- ALL CONSTRUCTION SHALL BE DONE IN COMPLIANCE WITH CURRENT CODES, INCLUDING BUT NOT LIMITED TO:
  - MICHIGAN BUILDING CODES
  - MICHIGAN PLUMBING CODE
  - MICHIGAN MECHANICAL & ENERGY CODES
  - NATIONAL ELEC. CODE
  - MICHIGAN REHABILITATION
  - MICHIGAN BARRIER FREE CODES
  - OSHA REQUIREMENTS

ALL CODES SHALL BE THE STATE OF MI LATEST ADOPTED EDITIONS AT THE TIME OF PLAN REVIEW.
- HVAC WORK SHALL BE DONE IN ACCORDANCE WITH THE MECHANICAL CODE AS LOCALLY ADOPTED, LOCAL REGULATIONS AND OTHER CODES OR REGULATIONS HAVING LEGAL JURISDICTION IN THE AREA. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND CERTIFICATES OF INSPECTIONS AS MAY BE REQUIRED. PROVIDE FINAL CERTIFICATES OF INSPECTION TO THE GC UPON COMPLETION.
- ANY CHANGES IN THE WORK TO SECURE CERTIFICATES SHALL BE MADE BY THIS CONTRACTOR AT HIS OWN EXPENSE. IN THE EVENT PLANS AND SPECIFICATIONS CONFLICT WITH ANY RULES, REGULATIONS OR CODES APPLYING, SAID RULES, REGULATIONS AND CODES SHALL GOVERN THE CONTRACTOR.
- ALL HEATING AND COOLING WORK SHALL BE DONE IN FULL ACCORD WITH ASME, SMACNA AND ALL STATE, FEDERAL AND LOCAL CODES OR ORDINANCES WHICH MAY APPLY IN THE AREA.
- IT IS THE INTENT OF THESE SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY. THE CONTRACTOR MUST SELECT ONE OF THE SPECIFIED MANUFACTURERS FOR EACH PIECE OF EQUIPMENT AND, WHERE ONLY ONE MANUFACTURER IS SPECIFIED, THAT MAKE MUST BE USED. THESE ITEMS MAY NOT BE CHANGED EXCEPT BY PERMISSION OF THE ENGINEER.
- CONTRACTOR SHALL FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACES IN WHICH WORK WILL BE INSTALLED. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, ENGINEER SHALL BE NOTIFIED BEFORE PROCEEDING WITH INSTALLATION. CONTRACTOR MAY CHANGE SHAPE OF DUCTS AS LONG AS THE FREE AREA NOTED ON PLANS IS MAINTAINED.
- IF DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES FOR PROPER EXECUTION OF THE WORK.
- FURNISH TO THE GC, FOR THE OWNER, TWO BOUND OPERATION MANUALS CONSISTING OF THE FOLLOWING:
  - ONE COPY OF SHOP DRAWINGS OF EACH PIECE OF EQUIPMENT.
  - INSTALLATION, OPERATING AND TROUBLESHOOTING MANUALS.
  - PARTS LIST.
  - THUMB DRIVE WITH ALL OF THE ABOVE IN PDF FORMAT.
- THE CONTRACTOR SHALL FURNISH A COMPETENT INSTRUCTOR TO ADVISE THE OWNER IN SERVICING, OPERATING, SEASONAL CHANGE OVER, TEMPERATURE CONTROLS, ETC., OF MAIN PIECES OF EQUIPMENT.
- CONTRACTOR SHALL GUARANTEE ALL WORK INSTALLED BY HIM OR SUB-CONTRACTORS TO BE FREE FROM DEFECT IN MATERIAL OR WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF THE WORK, AND HE SHALL REPAIR OR REPLACE AT NO ADDITIONAL COST TO THE OWNER ANY MATERIAL OR EQUIPMENT DEVELOPING DEFECTS AND SHALL ALSO MAKE GOOD ANY DAMAGE CAUSED BY SUCH DEFECTS OR THE CORRECTION OF DEFECTS. THIS REQUIREMENT SHALL BE BINDING EVEN THOUGH IT WILL EXCEED PRODUCTS GUARANTEES NORMALLY FURNISHED BY SOME MANUFACTURERS.
- CONTRACTOR SHALL SUBMIT HIS OWN AND EACH EQUIPMENT MANUFACTURER'S WRITTEN CERTIFICATES, WARRANTING THAT EACH ITEM OR EQUIPMENT FURNISHED COMPLIES WITH ALL REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. NOTE THAT GUARANTEE SHALL RUN FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK, NOT FROM THE DATE OF INSTALLATION OF A DEVICE OR PIECE OF EQUIPMENT.
- ALL WORK AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST STANDARDS PRESCRIBED BY LOCAL AND/OR STATE CODES AND/OR ORDINANCES INCLUDING THE LATEST RULES OF THE NFPA.
- ALL EQUIPMENT SHALL BE INSTALLED TO MANUFACTURER'S INSTALLATION INSTRUCTIONS. IN ALL CASES WHERE THE MANUFACTURER'S OF ARTICLES USED IN THIS CONTRACT FURNISH DIRECTIONS COVERING POINTS NOT SHOWN ON THE DRAWINGS OR HEREIN SPECIFIED, SUCH DIRECTIONS SHALL BE FOLLOWED. CONNECTION TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EXACT EQUIPMENT FURNISHED.
- UNTIL FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL PROTECT ALL MATERIALS.
- ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE EQUAL IN QUALITY AND CAPACITY TO THAT SPECIFIED AND HARMONIOUS IN DESIGN AS DETERMINED BY THE ENGINEER.
- HVAC WORK SHALL BE CAREFULLY EXECUTED BY SKILLED MECHANICS WELL Versed IN THEIR PARTICULAR TRADES. IT SHALL ALSO HAVE A CLEAN, NEAT, WELL ARRANGED AND FINISHED APPEARANCE TO THE COMPLETE SATISFACTION OF THE OWNER AND THE ARCHITECT/ENGINEER.
- THE CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE HIMSELF WITH THE CONDITIONS WHICH WILL AFFECT THE WORK HE IS TO PERFORM. THE SUBMISSION OF A PROPOSAL BY THIS CONTRACTOR SHALL BE CONCLUSIVE EVIDENCE THAT THIS CONTRACTOR HAS VISITED THE SITE AND HAS GIVEN PROPER CONSIDERATION AND EVALUATION OF THESE CONDITIONS IN THE PREPARATION OF HIS PROPOSAL. NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE IN HIS BEHALF FOR EXTRA EXPENSE INCURRED DUE TO FAILURE OF NEGLIGENCE ON HIS PART TO MAKE THIS VISIT AND EXAMINATION.
- PROVIDE SHOP DRAWINGS FOR APPROVAL FOR HVAC EQUIPMENT, DUCT INSULATION, DAMPERS, LOUVERS, GRILLES AND REGISTERS, TEMPERATURE CONTROL SYSTEMS, VALVES, ETC. SHOP DRAWINGS ARE THE BE THOROUGHLY CHECKED (AND NOTED SO ON FRONT COVERS) BY THE CONTRACTOR PRIOR TO SUBMITTING THEM TO THE ENGINEER. REVIEW BY THE ENGINEER SHALL NOT BE CONSTRUED AS A COMPLETE CHECK, BUT ONLY THAT THE GENERAL METHOD OF CONSTRUCTION AND DETAILING IS SATISFACTORY. REVIEW SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS WHICH MAY EXIST. IF THE CONTRACTOR IS APPROVED TO USE A MANUFACTURER OTHER THAN THE ONE SPECIFIED BY THE ENGINEER, IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE SUBSTITUTED EQUIPMENT WILL PHYSICALLY FIT IN THE SPACE PROVIDED FOR THE EQUIPMENT AND MAINTAIN THE SERVICE CLEARANCE REQUIREMENTS SET FORTH BY THE MANUFACTURER. SHOP DRAWING CHECKING BY THE ENGINEER IS A "COURTESY" CHECK ONLY. SHOP DRAWINGS ARE TO BE ELECTRONICALLY SUBMITTED IN PDF FORMAT ONLY.
- ALL CONDENSING GAS FIRED EQUIPMENT SHALL BE PROVIDED WITH CONDENSATE TRAPS AND NEUTRALIZATION KITS PER THE MICHIGAN PLUMBING CODE. PROVIDE SMALL CONDENSATE SUMP/PUMP SETS IF/AS REQUIRED AND DISCHARGE WITH 3" AIR GAP INTO NEARBY SERVICE SINK OR FLOOR DRAIN. ONLY PUMP CONDENSATE WHEN GRAVITY IS NOT POSSIBLE.
- LOCATE THERMOSTATS, TEMPERATURE SENSORS, HUMIDISTATS AND HUMIDITY SENSORS (IF ANY) AT HEIGHTS AS NOTED ON THE ARCHITECTURAL DRAWINGS. IF NOT NOTED ON THE ARCHITECTURAL DRAWINGS, THEY SHALL BE LOCATED AT A HEIGHT PER A.D.A. AND MICHIGAN BARRIER FREE CODES (UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS). COORDINATE LOCATIONS WITH OTHER EQUIPMENT, FURNITURE, AND DOOR SWINGS.
- ALL LOW VOLTAGE TEMPERATURE CONTROL WIRING SHALL BE PROVIDED BY THE HVAC CONTRACTOR UNLESS OTHERWISE NOTED. ELECTRICAL CONTRACTOR SHALL PROVIDE ANY 120/240/208/480 VOLT POWER WIRING FOR TEMPERATURE CONTROLS IF/AS REQUIRED - CONSULT W/ MC PRIOR TO BIDDING PROJECT.
- PROVIDE AND INSTALL TEMPERATURE CONTROLS AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.
- ALL OUTSIDE AIR INTAKES MUST BE INSTALLED A MINIMUM OF TEN FEET (10'-0") FROM ANY EXHAUST AIR DISCHARGE, GAS METER, OR PLUMBING VENT.
- ALL ROOFTOP MECHANICAL EQUIPMENT SHALL MAINTAIN A MINIMUM DISTANCE OF 10'-0" FROM ROOF EDGE.
- ADJUST ALL MOTORS AS REQUIRED TO PROVIDE THE MOST EFFICIENT OPERATION WHILE MEETING DESIGN REQUIREMENTS.
- ALL EQUIPMENT, DUCTWORK, ETC. SHALL BE SUPPORTED AS DETAILED AND/OR SPECIFIED. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED TO PROVIDE A VIBRATION-FREE, RIGID INSTALLATION.
- COORDINATE SIZE REQUIREMENTS OF ALL CONCRETE HOUSEKEEPING PADS UNDER ALL FLOOR/GROUND MOUNTED EQUIPMENT. REFER TO ARCHITECTURAL DETAILS AND SPECIFICATIONS FOR PAD REQUIREMENTS.

END OF MECHANICAL NOTES

## MECHANICAL SYMBOL SCHEDULE

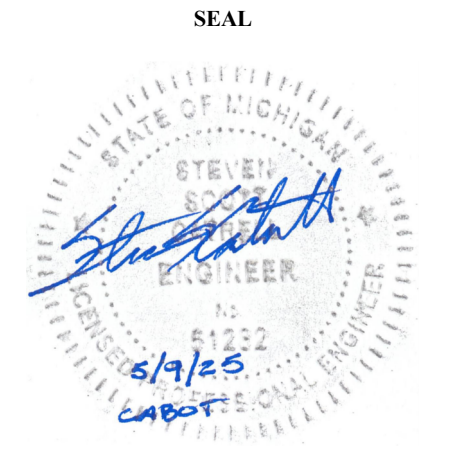
| SA                             | MARK                          |
|--------------------------------|-------------------------------|
| AFF ABOVE FINISHED FLOOR       | AIR FLOW                      |
| AFG ABOVE FINISHED GRADE       | 400 CFM                       |
| AIO ALL-IN-ONE                 | EQUIPMENT TAG                 |
| BC BALANCE COCK                | QU-1                          |
| BFC BELOW FINISHED FLOOR       |                               |
| BFG BELOW FINISHED GRADE       |                               |
| BTVA BUTTERFLY VALVE           | MANUAL BALANCING DAMPER       |
| BV BALL VALVE                  |                               |
| CHVA CHECK VALVE               |                               |
| CP CIRCULATING PUMP            | FIRE/SMOKE DAMPER (FSD)       |
| CU CONDENSING UNIT             |                               |
| CV CONTROL VALVE               |                               |
| DMPR DAMPER                    |                               |
| DWH DOMESTIC WATER HEATER      | T THERMOSTAT                  |
| EA EXHAUST AIR                 |                               |
| EF EXHAUST FAN                 | H HUMIDITY SENSOR             |
| EH ELECTRIC HEATER             |                               |
| ERV ENERGY RECOVERY VENTILATOR |                               |
| ERV FAN COIL UNIT              | NATURAL GAS PIPING (7-11" WC) |
| FD FLOOR DRAIN                 |                               |
| FLT FUTURE                     | ELBOW UP                      |
| GR GRADE                       |                               |
| IE INVERT ELEVATION            | ELBOW DOWN                    |
| IV INTAKE VENT                 |                               |
| MMC MICHIGAN MECHANICAL CODE   | CAP                           |
| OA OUTSIDE AIR                 |                               |
| OAI OUTSIDE AIR INTAKE         | TEE UP                        |
| RA RETURN AIR                  |                               |
| RF RELIEF FAN                  | TEE DOWN                      |
| RI ROUGH-IN                    |                               |
| RTU ROOFTOP UNIT               |                               |
| SA SUPPLY AIR                  |                               |
| TYP TYPICAL                    |                               |
| UNO UNLESS NOTED OTHERWISE     |                               |
| V VENT                         |                               |
| VIF VERIFY IN FIELD            |                               |

## LOUVER SPECIFICATIONS

- OUTSIDE AIR AND EXHAUST AIR LOUVERS SHALL BE PROVIDED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
- OUTSIDE AIR LOUVERS (FOR AIO UNITS) SHALL BE ONE OF THE FOLLOWING:
  - "THERMADUCT", MODEL RLA.
  - "SUNVENT", MODEL LLA.
- EXHAUST LOUVERS SHALL BE EQUAL TO "RUSKIN", DRAINABLE, 37° BLADE ANGLE, 3" BLADE CENTERS, 0.100" EXTRUDED ALUMINUM BLADES, 3/4" X 0.051" ALUMINUM ALLOY, 0.08" MAXIMUM PRESSURE DROP. FRAME SHALL CONTAIN INTEGRAL CAULKING SLOTS. FRAME DEPTH AS REQUIRED FOR WALL CONSTRUCTION. LOUVERS SHALL BE COLOR ANODIZED, COLOR PER ARCHITECT. FLANGED FRAME. "GREENHECK" SERIES ESD-435 IS AN ACCEPTABLE EQUAL.

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RENOVATION OF  
**CABOT APARTMENTS**  
13725 DEXTER AVENUE

DETROIT

|            |        |
|------------|--------|
| 06.24.2025 | BIDS   |
| 05.09.2025 | PERMIT |
| DATE       | ISSUE  |

KEY PLAN

FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

MECHANICAL LEGEND & NOTES

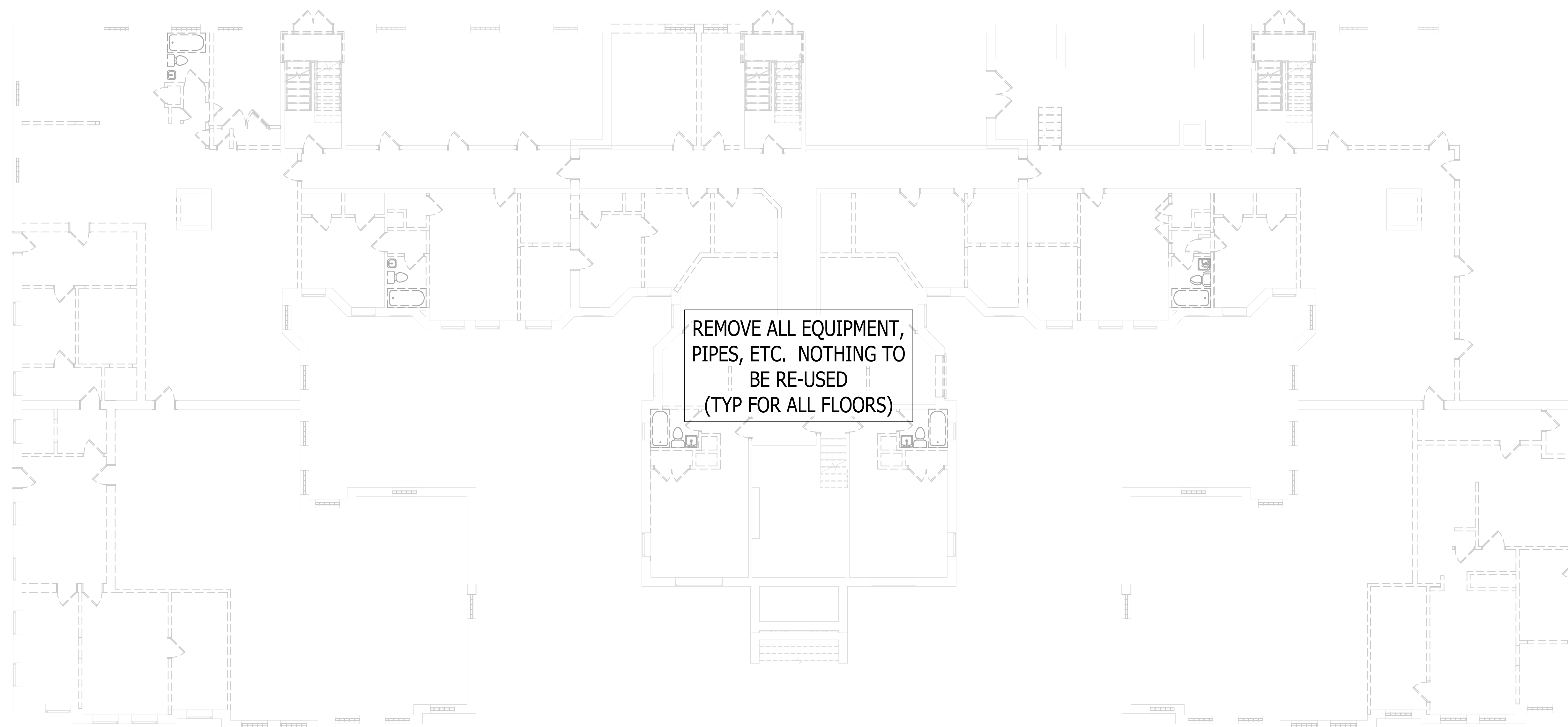
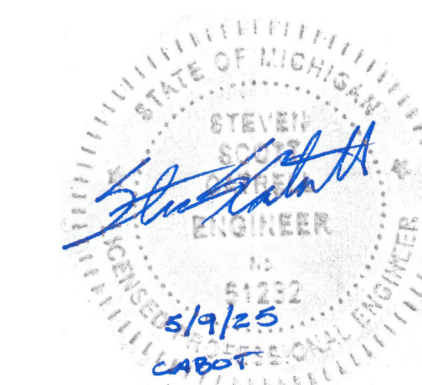
DRAWING NUMBER

M.001

NOTE: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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SEAL



**GENERAL HVAC DEMOLITION PLAN**  
1/8" = 1'-0"

RENOVATION OF  
**CABOT APARTMENTS**  
13725 DEXTER AVENUE

MICHIGAN

DETROIT

|            |        |
|------------|--------|
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KEY PLAN

FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

MECHANICAL DEMO PLAN

DRAWING NUMBER

**M.D.101**

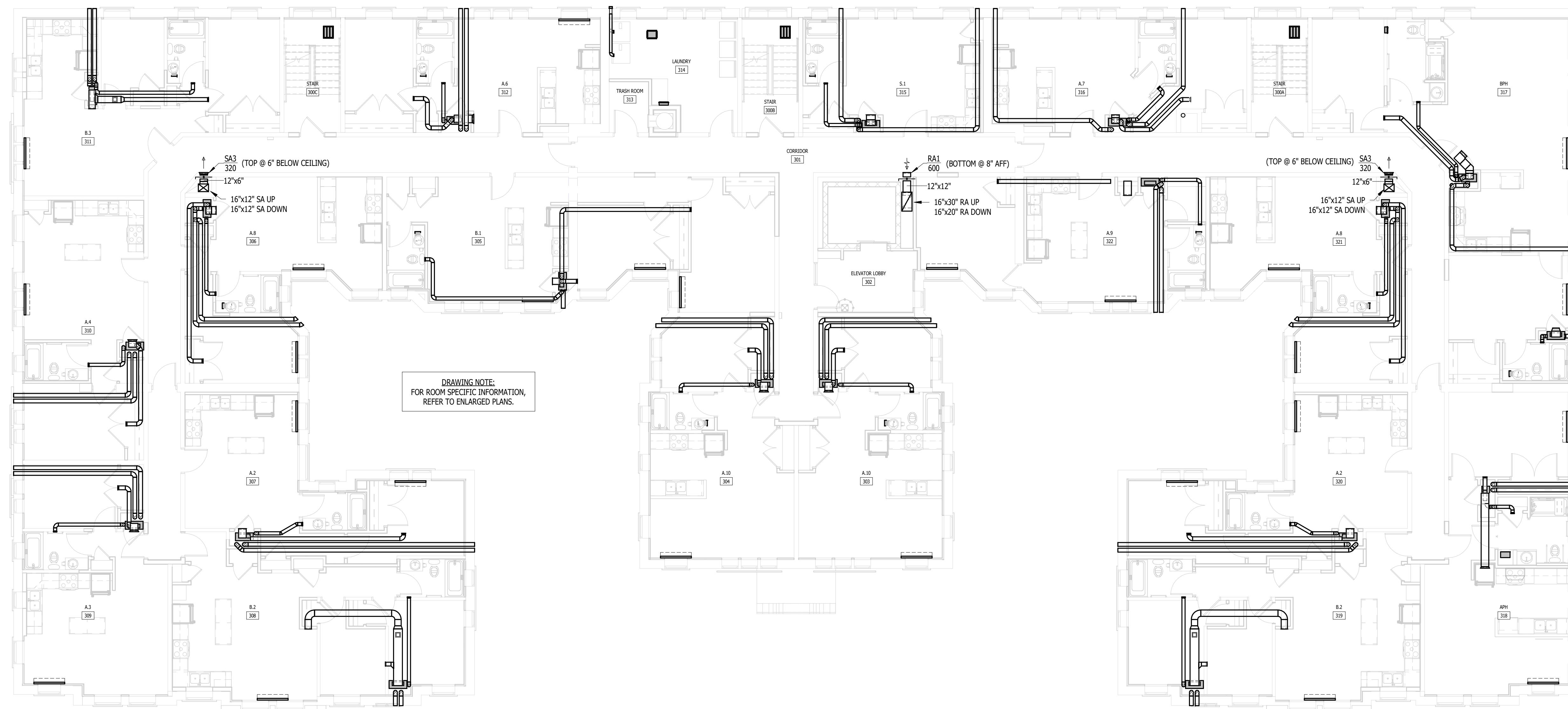




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SEAL



**THIRD FLOOR MECHANICAL PLAN**  
1/8" = 1'-0"

RENOVATION OF  
**CABOT APARTMENTS**  
13725 DEXTER AVENUE

MICHIGAN

DETROIT

|            |        |
|------------|--------|
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| DATE       | ISSUE  |

KEY PLAN

FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

THIRD FLOOR MECHANICAL PLAN

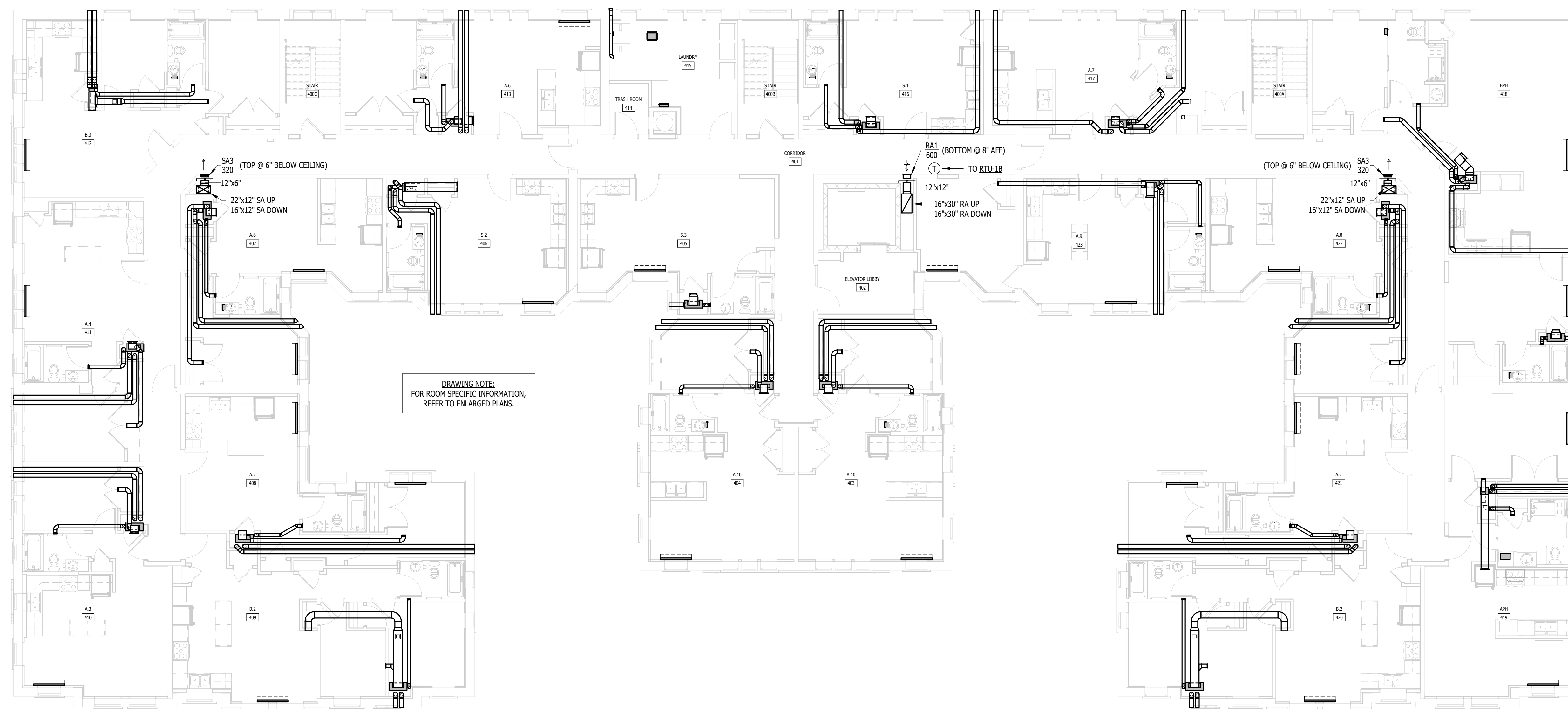
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**M.103**

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SEAL



**FOURTH FLOOR MECHANICAL PLAN**  
1/8" = 1'-0"

RENOVATION OF  
**CABOT APARTMENTS**  
13725 DEXTER AVENUE

MICHIGAN

DETROIT

|            |        |
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| 05.09.2025 | PERMIT |
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KEY PLAN

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DRAWING TITLE

FOURTH FLOOR MECHANICAL PLAN

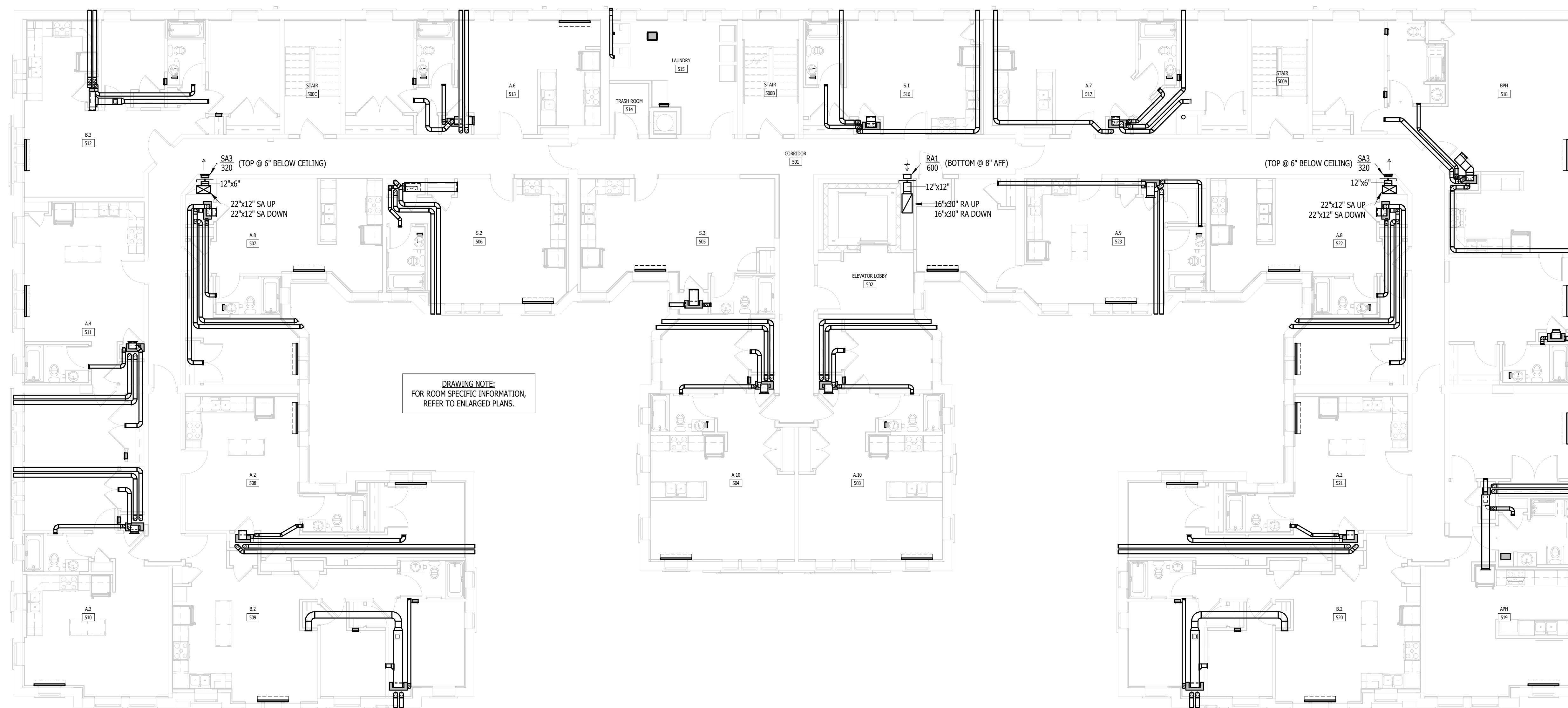
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**M.104**

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SEAL



DRAWING NOTE:  
FOR ROOM SPECIFIC INFORMATION,  
REFER TO ENLARGED PLANS.

**FIFTH FLOOR MECHANICAL PLAN**  
1/8" = 1'-0"

RENOVATION OF  
**CABOT APARTMENTS**  
13725 DEXTER AVENUE

MICHIGAN

DETROIT

|            |        |
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FIFTH FLOOR MECHANICAL PLAN

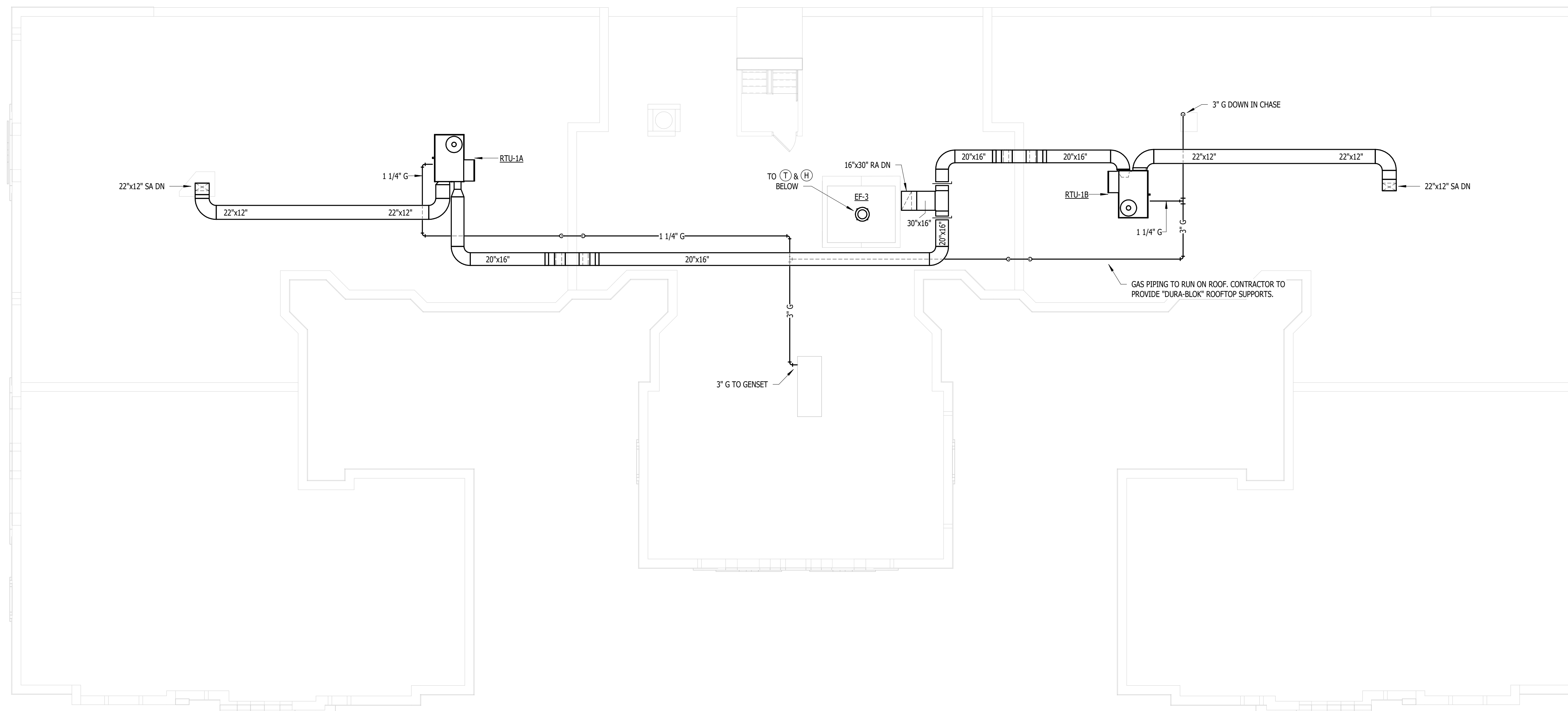
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**M.105**

NOTE | IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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SEAL



**ROOF MECHANICAL PLAN**  
1/8" = 1'-0"

RENOVATION OF  
**CABOT APARTMENTS**  
13725 DEXTER AVENUE

MICHIGAN

DETROIT

|            |        |
|------------|--------|
| 06.24.2025 | BIDS   |
| 05.09.2025 | PERMIT |
| DATE       | ISSUE  |

KEY PLAN

FSP PROJECT NO.  
TRC22.064

DRAWING TITLE  
ROOF MECHANICAL PLAN

DRAWING NUMBER

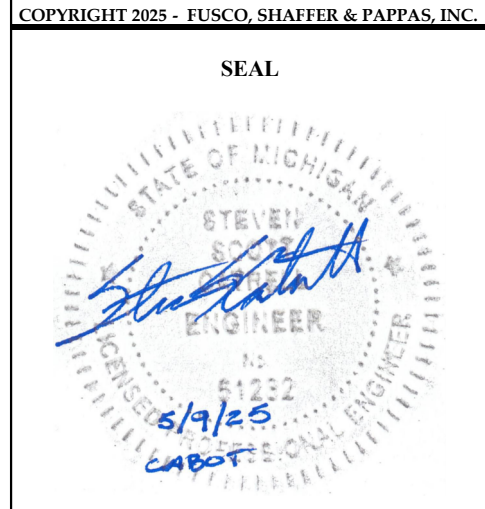
**M.106**



**KTS ENGINEERING GROUP**  
 MEP CONSULTING ENGINEER  
 491 E. WRIGHT AVE.  
 SHEPHERD MI, 48883  
 989-567-1100  
 KTSENGINEERINGGROUP.COM  
 KTS PROJECT NO. 25-0251

**FUSCO, SHAFFER & PAPPAS, INC.**  
 ARCHITECTS AND PLANNERS  
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 FERNDALE, MICHIGAN, 48220  
 PHONE 248-543-4100 FAX 248-543-4141

**NOTE | IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.**



**Zone Sizing Summary for Unit Type B.1**  
 (In Alternative: Cabot Apartments)  
 Project: Cabot  
 Prepared by: KTS Engineering Group  
**Air System Information**  
 Air System Name: Unit Type B.1  
 Equipment Class: TERM  
 Air System Type: PKG-FC  
 Number of zones: 1  
 Floor Area: 862.3 sqft  
 Location: Detroit Coleman Young Intl, MI, USA  
**Sizing Calculation Information**  
 Calculation Months: Jan to Dec  
 Sizing Data: User-Modified  
 Zone CFM Sizing: Sum of space airflow rates  
 Space CFM Sizing: Individual peak space loads

**Terminal Unit Sizing Data - Cooling**

| Zone Name        | Total Coil Load (MBH) | Sens Coil Load (MBH) | Coil Entering DB / WB (F) | Coil Leaving DB / WB (F) | Water Flow @ 10.0 F (gpm) | Time of Peak Coil Load | Zone CFM/sqft |
|------------------|-----------------------|----------------------|---------------------------|--------------------------|---------------------------|------------------------|---------------|
| Unit B.1 - 2 bed | 11.8                  | 9.0                  | 74.2 / 62.7               | 53.2 / 52.4              | -                         | May 17:00              | 0.46          |

**Terminal Unit Sizing Data - Heating, Fan, Ventilation**

| Zone Name        | Heating Coil Load (MBH) | Heating Coil Ent/Lvg DB (F) | Htg Coil Water Flow @20.0 F (gpm) | Fan Design Airflow (CFM) | Fan Motor (BHP) | Fan Motor (kW) | OA Vent Design Airflow (CFM) |
|------------------|-------------------------|-----------------------------|-----------------------------------|--------------------------|-----------------|----------------|------------------------------|
| Unit B.1 - 2 bed | 11.4                    | 62.1 / 89.0                 | -                                 | 400                      | 0.059           | 0.047          | 50                           |

**Zone Sizing Summary for Unit Type B.2**  
 (In Alternative: Cabot Apartments)  
 Project: Cabot  
 Prepared by: KTS Engineering Group  
**Air System Information**  
 Air System Name: Unit Type B.2  
 Equipment Class: TERM  
 Air System Type: PKG-FC  
 Number of zones: 1  
 Floor Area: 744.4 sqft  
 Location: Detroit Coleman Young Intl, MI, USA  
**Sizing Calculation Information**  
 Calculation Months: Jan to Dec  
 Sizing Data: User-Modified  
 Zone CFM Sizing: Sum of space airflow rates  
 Space CFM Sizing: Individual peak space loads

**Terminal Unit Sizing Data - Cooling**

| Zone Name        | Total Coil Load (MBH) | Sens Coil Load (MBH) | Coil Entering DB / WB (F) | Coil Leaving DB / WB (F) | Water Flow @ 10.0 F (gpm) | Time of Peak Coil Load | Zone CFM/sqft |
|------------------|-----------------------|----------------------|---------------------------|--------------------------|---------------------------|------------------------|---------------|
| Unit B.2 - 2 bed | 11.6                  | 8.7                  | 76.0 / 64.7               | 55.9 / 55.0              | -                         | August 17:00           | 0.54          |

**Terminal Unit Sizing Data - Heating, Fan, Ventilation**

| Zone Name        | Heating Coil Load (MBH) | Heating Coil Ent/Lvg DB (F) | Htg Coil Water Flow @20.0 F (gpm) | Fan Design Airflow (CFM) | Fan Motor (BHP) | Fan Motor (kW) | OA Vent Design Airflow (CFM) |
|------------------|-------------------------|-----------------------------|-----------------------------------|--------------------------|-----------------|----------------|------------------------------|
| Unit B.2 - 2 bed | 14.2                    | 62.0 / 95.6                 | -                                 | 400                      | 0.059           | 0.047          | 50                           |

**Zone Sizing Summary for Unit Type B.3**  
 (In Alternative: Cabot Apartments)  
 Project: Cabot  
 Prepared by: KTS Engineering Group  
**Air System Information**  
 Air System Name: Unit Type B.3  
 Equipment Class: TERM  
 Air System Type: PKG-FC  
 Number of zones: 1  
 Floor Area: 694.2 sqft  
 Location: Detroit Coleman Young Intl, MI, USA  
**Sizing Calculation Information**  
 Calculation Months: Jan to Dec  
 Sizing Data: User-Modified  
 Zone CFM Sizing: Sum of space airflow rates  
 Space CFM Sizing: Individual peak space loads

**Terminal Unit Sizing Data - Cooling**

| Zone Name        | Total Coil Load (MBH) | Sens Coil Load (MBH) | Coil Entering DB / WB (F) | Coil Leaving DB / WB (F) | Water Flow @ 10.0 F (gpm) | Time of Peak Coil Load | Zone CFM/sqft |
|------------------|-----------------------|----------------------|---------------------------|--------------------------|---------------------------|------------------------|---------------|
| Unit B.2 - 2 bed | 11.8                  | 8.9                  | 74.1 / 62.7               | 53.3 / 52.4              | -                         | May 17:00              | 0.58          |

**Terminal Unit Sizing Data - Heating, Fan, Ventilation**

| Zone Name        | Heating Coil Load (MBH) | Heating Coil Ent/Lvg DB (F) | Htg Coil Water Flow @20.0 F (gpm) | Fan Design Airflow (CFM) | Fan Motor (BHP) | Fan Motor (kW) | OA Vent Design Airflow (CFM) |
|------------------|-------------------------|-----------------------------|-----------------------------------|--------------------------|-----------------|----------------|------------------------------|
| Unit B.2 - 2 bed | 13.9                    | 62.0 / 94.8                 | -                                 | 400                      | 0.059           | 0.047          | 50                           |

**Zone Sizing Summary for Unit Type BPH**  
 (In Alternative: Cabot Apartments)  
 Project: Cabot  
 Prepared by: KTS Engineering Group  
**Air System Information**  
 Air System Name: Unit Type BPH  
 Equipment Class: TERM  
 Air System Type: PKG-FC  
 Number of zones: 1  
 Floor Area: 1187.7 sqft  
 Location: Detroit Coleman Young Intl, MI, USA  
**Sizing Calculation Information**  
 Calculation Months: Jan to Dec  
 Sizing Data: User-Modified  
 Zone CFM Sizing: Sum of space airflow rates  
 Space CFM Sizing: Individual peak space loads

**Terminal Unit Sizing Data - Cooling**

| Zone Name        | Total Coil Load (MBH) | Sens Coil Load (MBH) | Coil Entering DB / WB (F) | Coil Leaving DB / WB (F) | Water Flow @ 10.0 F (gpm) | Time of Peak Coil Load | Zone CFM/sqft |
|------------------|-----------------------|----------------------|---------------------------|--------------------------|---------------------------|------------------------|---------------|
| Unit BPH - 2 bed | 22.8                  | 18.2                 | 74.9 / 62.8               | 53.8 / 52.9              | -                         | June 17:00             | 0.71          |

**Terminal Unit Sizing Data - Heating, Fan, Ventilation**

| Zone Name        | Heating Coil Load (MBH) | Heating Coil Ent/Lvg DB (F) | Htg Coil Water Flow @20.0 F (gpm) | Fan Design Airflow (CFM) | Fan Motor (BHP) | Fan Motor (kW) | OA Vent Design Airflow (CFM) |
|------------------|-------------------------|-----------------------------|-----------------------------------|--------------------------|-----------------|----------------|------------------------------|
| Unit BPH - 2 bed | 18.1                    | 62.3 / 83.6                 | -                                 | 800                      | 0.118           | 0.094          | 100                          |

**Zone Sizing Summary for Unit Type S.1**  
 (In Alternative: Cabot Apartments)  
 Project: Cabot  
 Prepared by: KTS Engineering Group  
**Air System Information**  
 Air System Name: Unit Type S.1  
 Equipment Class: TERM  
 Air System Type: PKG-FC  
 Number of zones: 1  
 Floor Area: 388.9 sqft  
 Location: Detroit Coleman Young Intl, MI, USA  
**Sizing Calculation Information**  
 Calculation Months: Jan to Dec  
 Sizing Data: User-Modified  
 Zone CFM Sizing: Sum of space airflow rates  
 Space CFM Sizing: Individual peak space loads

**Terminal Unit Sizing Data - Cooling**

| Zone Name        | Total Coil Load (MBH) | Sens Coil Load (MBH) | Coil Entering DB / WB (F) | Coil Leaving DB / WB (F) | Water Flow @ 10.0 F (gpm) | Time of Peak Coil Load | Zone CFM/sqft |
|------------------|-----------------------|----------------------|---------------------------|--------------------------|---------------------------|------------------------|---------------|
| Unit S.1 - 1 bed | 11.6                  | 9.4                  | 74.0 / 61.5               | 52.1 / 51.2              | -                         | May 17:00              | 1.03          |

**Terminal Unit Sizing Data - Heating, Fan, Ventilation**

| Zone Name        | Heating Coil Load (MBH) | Heating Coil Ent/Lvg DB (F) | Htg Coil Water Flow @20.0 F (gpm) | Fan Design Airflow (CFM) | Fan Motor (BHP) | Fan Motor (kW) | OA Vent Design Airflow (CFM) |
|------------------|-------------------------|-----------------------------|-----------------------------------|--------------------------|-----------------|----------------|------------------------------|
| Unit S.1 - 1 bed | 9.2                     | 61.5 / 83.2                 | -                                 | 400                      | 0.059           | 0.047          | 50                           |

**Zone Sizing Summary for Unit Type S.2**  
 (In Alternative: Cabot Apartments)  
 Project: Cabot  
 Prepared by: KTS Engineering Group  
**Air System Information**  
 Air System Name: Unit Type S.2  
 Equipment Class: TERM  
 Air System Type: PKG-FC  
 Number of zones: 1  
 Floor Area: 420.7 sqft  
 Location: Detroit Coleman Young Intl, MI, USA  
**Sizing Calculation Information**  
 Calculation Months: Jan to Dec  
 Sizing Data: User-Modified  
 Zone CFM Sizing: Sum of space airflow rates  
 Space CFM Sizing: Individual peak space loads

**Terminal Unit Sizing Data - Cooling**

| Zone Name        | Total Coil Load (MBH) | Sens Coil Load (MBH) | Coil Entering DB / WB (F) | Coil Leaving DB / WB (F) | Water Flow @ 10.0 F (gpm) | Time of Peak Coil Load | Zone CFM/sqft |
|------------------|-----------------------|----------------------|---------------------------|--------------------------|---------------------------|------------------------|---------------|
| Unit S.2 - 1 bed | 11.2                  | 8.5                  | 74.9 / 63.6               | 55.0 / 54.0              | -                         | July 17:00             | 0.95          |

**Terminal Unit Sizing Data - Heating, Fan, Ventilation**

| Zone Name        | Heating Coil Load (MBH) | Heating Coil Ent/Lvg DB (F) | Htg Coil Water Flow @20.0 F (gpm) | Fan Design Airflow (CFM) | Fan Motor (BHP) | Fan Motor (kW) | OA Vent Design Airflow (CFM) |
|------------------|-------------------------|-----------------------------|-----------------------------------|--------------------------|-----------------|----------------|------------------------------|
| Unit S.2 - 1 bed | 8.8                     | 61.6 / 82.4                 | -                                 | 400                      | 0.059           | 0.047          | 50                           |

**Zone Sizing Summary for Unit Type S.3**  
 (In Alternative: Cabot Apartments)  
 Project: Cabot  
 Prepared by: KTS Engineering Group  
**Air System Information**  
 Air System Name: Unit Type S.3  
 Equipment Class: TERM  
 Air System Type: PKG-FC  
 Number of zones: 1  
 Floor Area: 441.6 sqft  
 Location: Detroit Coleman Young Intl, MI, USA  
**Sizing Calculation Information**  
 Calculation Months: Jan to Dec  
 Sizing Data: User-Modified  
 Zone CFM Sizing: Sum of space airflow rates  
 Space CFM Sizing: Individual peak space loads

**Terminal Unit Sizing Data - Cooling**

| Zone Name        | Total Coil Load (MBH) | Sens Coil Load (MBH) | Coil Entering DB / WB (F) | Coil Leaving DB / WB (F) | Water Flow @ 10.0 F (gpm) | Time of Peak Coil Load | Zone CFM/sqft |
|------------------|-----------------------|----------------------|---------------------------|--------------------------|---------------------------|------------------------|---------------|
| Unit S.3 - 1 bed | 11.4                  | 8.6                  | 74.9 / 63.7               | 55.0 / 54.1              | -                         | July 17:00             | 0.91          |

**Terminal Unit Sizing Data - Heating, Fan, Ventilation**

| Zone Name        | Heating Coil Load (MBH) | Heating Coil Ent/Lvg DB (F) | Htg Coil Water Flow @20.0 F (gpm) | Fan Design Airflow (CFM) | Fan Motor (BHP) | Fan Motor (kW) | OA Vent Design Airflow (CFM) |
|------------------|-------------------------|-----------------------------|-----------------------------------|--------------------------|-----------------|----------------|------------------------------|
| Unit S.3 - 1 bed | 8.4                     | 61.6 / 81.3                 | -                                 | 400                      | 0.059           | 0.047          | 50                           |

**Zone Sizing Summary for Unit Type SPH.1**  
 (In Alternative: Cabot Apartments)  
 Project: Cabot  
 Prepared by: KTS Engineering Group  
**Air System Information**  
 Air System Name: Unit Type SPH.1  
 Equipment Class: TERM  
 Air System Type: PKG-FC  
 Number of zones: 1  
 Floor Area: 467.0 sqft  
 Location: Detroit Coleman Young Intl, MI, USA  
**Sizing Calculation Information**  
 Calculation Months: Jan to Dec  
 Sizing Data: User-Modified  
 Zone CFM Sizing: Sum of space airflow rates  
 Space CFM Sizing: Individual peak space loads

**Terminal Unit Sizing Data - Cooling**

| Zone Name          | Total Coil Load (MBH) | Sens Coil Load (MBH) | Coil Entering DB / WB (F) | Coil Leaving DB / WB (F) | Water Flow @ 10.0 F (gpm) | Time of Peak Coil Load | Zone CFM/sqft |
|--------------------|-----------------------|----------------------|---------------------------|--------------------------|---------------------------|------------------------|---------------|
| Unit SPH.1 - 1 bed | 11.5                  | 8.6                  | 75.0 / 63.9               | 55.0 / 54.2              | -                         | July 17:00             | 0.86          |

**Terminal Unit Sizing Data - Heating, Fan, Ventilation**

| Zone Name          | Heating Coil Load (MBH) | Heating Coil Ent/Lvg DB (F) | Htg Coil Water Flow @20.0 F (gpm) | Fan Design Airflow (CFM) | Fan Motor (BHP) | Fan Motor (kW) | OA Vent Design Airflow (CFM) |
|--------------------|-------------------------|-----------------------------|-----------------------------------|--------------------------|-----------------|----------------|------------------------------|
| Unit SPH.1 - 1 bed | 12.3                    | 61.7 / 90.7                 | -                                 | 400                      | 0.059           | 0.047          | 50                           |

**Zone Sizing Summary for Community Room**  
 (In Alternative: Cabot Apartments)  
 Project: Cabot  
 Prepared by: KTS Engineering Group  
**Air System Information**  
 Air System Name: Community Room  
 Equipment Class: TERM  
 Air System Type: PKG-FC  
 Number of zones: 1  
 Floor Area: 1114.3 sqft  
 Location: Detroit Coleman Young Intl, MI, USA  
**Sizing Calculation Information**  
 Calculation Months: Jan to Dec  
 Sizing Data: User-Modified  
 Zone CFM Sizing: Sum of space airflow rates  
 Space CFM Sizing: Individual peak space loads

**Terminal Unit Sizing Data - Cooling**

| Zone Name      | Total Coil Load (MBH) | Sens Coil Load (MBH) | Coil Entering DB / WB (F) | Coil Leaving DB / WB (F) | Water Flow @ 10.0 F (gpm) | Time of Peak Coil Load | Zone CFM/sqft |
|----------------|-----------------------|----------------------|---------------------------|--------------------------|---------------------------|------------------------|---------------|
| Community Room | 27.3                  | 20.3                 | 75.3 / 64.2               | 59.6 / 56.7              | -                         | July 17:00             | 1.08          |

**Terminal Unit Sizing Data - Heating, Fan, Ventilation**

| Zone Name      | Heating Coil Load (MBH) | Heating Coil Ent/Lvg DB (F) | Htg Coil Water Flow @20.0 F (gpm) | Fan Design Airflow (CFM) | Fan Motor (BHP) | Fan Motor (kW) | OA Vent Design Airflow (CFM) |
|----------------|-------------------------|-----------------------------|-----------------------------------|--------------------------|-----------------|----------------|------------------------------|
| Community Room | 26.8                    | 57.4 / 78.5                 | -                                 | 1200                     | 0.177           | 0.141          | 240                          |

MICHIGAN

RENOVATION OF  
**CABOT APARTMENTS**  
 1375 DEXTER AVENUE

DETROIT

06.24.2025 BIDS  
 05.09.2025 PERMIT  
 DATE ISSUE

KEY PLAN

FSP PROJECT NO.  
 TRC22.064

DRAWING TITLE  
 HVAC LOAD CALC REPORTS

DRAWING NUMBER

**M.202**



NOTE: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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 SEAL



## SEQUENCE OF OPERATION

**RTU - 1(A/B):**

- OWNER SHALL PROGRAM A SCHEDULE VIA THERMOSTAT. THERMOSTAT SHALL BE EQUAL TO "WHITE ROGERS" 1F85U-42PR, WIFI, PROGRAMMABLE.
- PROVIDE CLEAR PLASTIC THERMOSTAT LOCKBOX COVER.

**HEATING:** RTU FAN RUNS CONTINUOUSLY AND BURNERS SHALL CYCLE/STAGE TO MAINTAIN THERMOSTAT SETPOINT. OUTSIDE AIR DAMPER SHALL OPEN TO ALLOW 14% OUTSIDE AIR INTO THE SYSTEM.

**COOLING:** RTU FAN SHALL RUN CONTINUOUSLY AND OUTSIDE AIR DAMPER SHALL OPEN TO ALLOW 14% OUTSIDE AIR INTO THE SYSTEM. COMPRESSOR SHALL CYCLE/STAGE AS REQUIRED TO MAINTAIN THERMOSTAT SETPOINT. ECONOMIZER WITH ENTHALPY CONTROLLER SHALL BE ENABLED AND UTILIZED WHEN AMBIENT AIR CONDITIONS WARRANT. BAROMETRIC RELIEF ON RTU WILL OPERATE TO REDUCE BUILDING PRESSURE.

**AIO - 1:**

- TENANTS SHALL PROGRAM AN OCCUPIED/UNOCCUPIED SCHEDULE VIA THERMOSTAT. THERMOSTATS EQUAL TO "HONEYWELL" TH4210.
- OA SHALL BE SET FOR 50 CFM

**AIO - 2:**

- TENANTS SHALL PROGRAM AN OCCUPIED/UNOCCUPIED SCHEDULE VIA THERMOSTAT. THERMOSTATS EQUAL TO "HONEYWELL" TH4210.
- OA SHALL BE SET FOR 80 CFM

**EXHAUST FAN OPERATION:**

- EF-1 SHALL BE INTERLOCKED WITH RESPECTIVE ROOM LIGHTS.
- EF-2 SHALL RUN CONTINUOUSLY - 24/7
- EF-3 SHALL BE INTERLOCKED WITH TEMPERATURE & HUMIDITY SENSORS IN ELEVATOR SHAFT. FAN SHALL BE ENERGIZED WHEN TEMPERATURE EXCEEDS 75°F OR HUMIDITY EXCEEDS 60%.

## GAS LINE SIZING

LONGEST RUN FROM METER: 300'-0"

| EQUIPMENT             | LOAD (MBH) | BRANCH SIZE |
|-----------------------|------------|-------------|
| WATER HEATER - DWH-1A | 201        | 1 1/4"      |
| WATER HEATER - DWH-1B | 201        | 1 1/4"      |
| RTU - RTU-1A          | 150        | 1 1/4"      |
| RTU - RTU-1B          | 150        | 1 1/4"      |
| GENSET                | 752        | 2 1/2"      |

1,454 MBH = 3" GAS LINE

UTILIZED TABLE 402.4 FROM THE 2018 INTERNATIONAL FUEL GAS CODE FOR NATURAL GAS WITH AN INLET PRESSURE OF LESS THAN 2 PSI & A PRESSURE DROP OF 0.5" W.C., USING SCH. 40 BLACK STEEL PIPING.

## ELECTRIC HEATER SCHEDULE

COMMENTS:  
 1. UNIT SHALL BE FAN FORCED  
 2. UNIT SHALL HAVE THERMAL CUTOUT  
 3. UNIT SHALL BE RECESSED

4. UNIT SHALL BE SURFACE MOUNTED  
 5. UNIT SHALL HAVE BUILT IN THERMOSTAT  
 6. PROVIDE WALL MOUNTED THERMOSTAT

7. PROVIDE TAMPER-RESISTANT WALL MOUNTED THERMOSTAT  
 8. PROVIDE B10 WALL MOUNT BRACKET

| TAG        | MANUFACTURER | MODEL/SERIES | TYPE          | VOLT/Ø | KW    | AMPS     | BTUH          | COMMENTS   |
|------------|--------------|--------------|---------------|--------|-------|----------|---------------|------------|
| EH-1       | BERKO        | CZ1548T      | WALL MOUNT    | 208/1  | 1.125 | 5.4      | 3840.0 Btu/h  | 1 - 3, 5   |
| EH-2       | BERKO        | BKOC2504W    | BASEBOARD     | 208/1  | 1.0   | 4.8      | 3412.0 Btu/h  | 2, 4, 5    |
| EH-3       | BERKO        | HUHA320      | UNIT HEATER   | 208/1  | 3.0   | 14.5     | 10240.0 Btu/h | 1, 2, 7, 8 |
| EH-4       | BERKO        | QFF400H      | CEILING MOUNT | 208/1  | 3.0   | 16.7     | 10240.0 Btu/h | 1 - 3, 7   |
| EH-5 (A-C) | BERKO        | VFK204F      | WALL MOUNT    | 208/1  | 1.5   | 7.2      | 5118.0 Btu/h  | 1, 2, 4, 7 |
| EH-6       | BERKO        | QTS1504T     | TOE KICK      | 208/1  | 0.563 | <varies> | 1920.0 Btu/h  | 1 - 3, 5   |

## DIFFUSERS, REGISTERS AND GRILLES SCHEDULE

GENERAL SCHEDULE NOTES:  
 A. ACCEPTABLE MANUFACTURERS WITH DIMENSIONS AND PERFORMANCE EQUAL TO SCHEDULED ITEM: PRICE, CARNES OR T & B.

SPECIFIC TAG NOTES:  
 1. BLADES PARALLEL TO SHORT DIMENSION. OPPOSED BLADE STEEL VOLUME DAMPER.  
 2. BLADES PARALLEL TO LONG DIMENSION. OPPOSED BLADE STEEL VOLUME DAMPER.

| TAG | MANUFACTURER | MODEL/SERIES | FACE SIZE | DESCRIPTION                                       | BORDER TYPE | MATERIAL | COLOR | NOTES |
|-----|--------------|--------------|-----------|---|-------------|----------|-------|-------|
| SA1 | TITUS        | 300RS        | 6"x6"     | DOUBLE DEFLECTION, INDIVIDUALLY ADJUSTABLE BLADES | SURFACE     | STEEL    | WHITE | 1     |
| SA2 | TITUS        | 300RS        | 10"x6"    | DOUBLE DEFLECTION, INDIVIDUALLY ADJUSTABLE BLADES | SURFACE     | STEEL    | WHITE | 1     |
| SA3 | TITUS        | 300RS        | 12"x6"    | DOUBLE DEFLECTION, INDIVIDUALLY ADJUSTABLE BLADES | SURFACE     | STEEL    | WHITE | 1     |
| SA4 | TITUS        | 300RS        | 14"x6"    | DOUBLE DEFLECTION, INDIVIDUALLY ADJUSTABLE BLADES | SURFACE     | STEEL    | WHITE | 1     |
| EA1 | TITUS        | 350RL        | 6"x6"     | 3/4" BLADE SPACING, 35° FIXED DEFLECTION          | SURFACE     | STEEL    | WHITE | 2     |
| RA1 | TITUS        | 350RL        | 12"x12"   | 3/4" BLADE SPACING, 35° FIXED DEFLECTION          | SURFACE     | STEEL    | WHITE | 2     |

## EXHAUST FAN SCHEDULE

COMMENTS:  
 1. PROVIDE WITH FACTORY MOUNTED DISCONNECT  
 2. PROVIDE WITH ELECTRONICALLY COMMUTATED MOTOR WITH FACTORY CONTROLS  
 3. CONTINUOUS OPERATION RATED & THERMALLY PROTECTED MOTOR

4. VIBRATION ISOLATION  
 5. ALUMINUM HOUSING  
 6. GALVANIZED BIRDSCREEN

7. BACKDRAFT DAMPER  
 8. STANDARD CURB CAP FOR FLAT ROOF  
 9. DECORATIVE GRILLE

| TAG  | MANUFACTURER | MODEL       | CFM | E.S.P. (in-wg) | RPM  | DRIVE TYPE | SONES | VOLTAGE | DISCONNECT BY M.T.C. E.T.C. | CONTROL                   | COMMENTS    |
|------|--------------|-------------|-----|----------------|------|------------|-------|---------|-----------------------------|---------------------------|-------------|
| EF-1 | GREENHECK    | SP-A125     | 100 | 0.25           | 1100 | DIRECT     | 0.7   | 120     | X                           | SEE SEQUENCE OF OPERATION | 1 - 4, 7, 9 |
| EF-2 | GREENHECK    | CSP-A390-VG | 225 | 0.25           | 999  | DIRECT     | 1.3   | 120     | X                           | SEE SEQUENCE OF OPERATION | 1 - 4, 7    |
| EF-3 | GREENHECK    | G-095-VG    | 350 | 0.25           | 1028 | DIRECT     | 4.2   | 120     | X                           | SEE SEQUENCE OF OPERATION | 1 - 8       |

## MINI-SPLIT DUCTLESS FCU SCHEDULE

COMMENTS:  
 1. INDOOR UNIT IS ELECTRICAL POWERED FROM OUTDOOR UNIT  
 2. OUTDOOR UNIT SHALL BE HYPER HEAT  
 3. PROVIDE DISCONNECT SWITCH

4. PROVIDE BRANCH BOX  
 5. PROVIDE FACTORY LINESET  
 6. PROVIDE HAIL GUARD

7. PROVIDE WALL MOUNTED WIRED REMOTE CONTROLLER FOR EACH INDOOR UNIT  
 8. PROVIDE SINGLE POINT ELECTRICAL CONNECTION  
 9. PROVIDE CONDENSER WALL BRACKET - STAINLESS STEEL FINISH

| INDOOR UNIT(S) |              |            |            |                                |                         | OUTDOOR UNIT           |      |              |                |       |      |              |         |      |      |          |
|----------------|--------------|------------|------------|--------------------------------|-------------------------|------------------------|------|--------------|----------------|-------|------|--------------|---------|------|------|----------|
| TAG            | MANUFACTURER | MODEL      | TYPE       | TOTAL COOLING CAP. 95°DB/75°WB | TOTAL HEATING CAP. 47°F | TOTAL HEATING CAP. 5°F | TAG  | MANUFACTURER | MODEL          | SEER2 | EER2 | NOMINAL TONS | FAN FLA | MCA  | MOCF | V/Ø/HZ   |
| FCU-1A         | MITSUBISHI   | MS2-GL12NA | WALL MOUNT | 12000.0 Btu/h                  | 14400.0 Btu/h           | 13200.0 Btu/h          | CU-1 | MITSUBISHI   | MX2-SM36NAMHZ2 | 23.0  | 15.0 | 3.0          | 0.6+0.6 | 51.0 | 51.0 | 208/1/60 |
| FCU-1B         | MITSUBISHI   | MS2-GL24NA | WALL MOUNT | 22500.0 Btu/h                  | 27600.0 Btu/h           | 25300.0 Btu/h          |      |              |                |       |      |              |         |      |      |          |

## VENTILATION SCHEDULE - COMMON AREAS

COMMENTS:  
 1. SPACES WITH EXHAUST ONLY REQUIREMENTS ARE NOT LISTED IN THIS SCHEDULE.  
 2. NATURAL VENTILATION  
 2A. OFFICE 202 - 4.2 FT² OPERABLE AREA REQUIRED - 16 FT² PROVIDED  
 2B. OFFICE 203 - 4.2 FT² OPERABLE AREA REQUIRED - 8 FT² PROVIDED  
 2C. OFFICE 204 - 5.4 FT² OPERABLE AREA REQUIRED - 10 FT² PROVIDED

| NO. | NAME             | SPACE TYPE                      | AREA    | OCCUPANT DENSITY #/1000 SF | AIR PER PERSON | OUTDOOR AIR PER AREA | NUMBER OF PEOPLE | OUTDOOR AIRFLOW | EZ (COOL) | EZ (HEAT) | EZ (WORST CASE) | VOZ (COOL) | VOZ (HEAT) | VOZ (WORST CASE) |
|-----|------------------|---------------------------------|---------|----------------------------|----------------|----------------------|------------------|-----------------|-----------|-----------|-----------------|------------|------------|------------------|
| 101 | CORRIDOR         | Corridor/Transition             | 1430 SF |                            | 0 CFM          | 0.06 CFM/SF          | 0.0              | 86 CFM          | 1.0       | 1.0       | 1               | 86 CFM     | 86 CFM     | 86 CFM           |
| 117 | COMMUNITY ROOM   | Conference Meeting/Multipurpose | 832 SF  | 46                         | 5 CFM          | 0.06 CFM/SF          | 38.7             | 243 CFM         | 1.0       | 1.0       | 1               | 243 CFM    | 243 CFM    | 243 CFM          |
| 201 | CORRIDOR         | Corridor/Transition             | 1250 SF |                            | 0 CFM          | 0.06 CFM/SF          | 0.0              | 75 CFM          | 1.0       | 1.0       | 1               | 75 CFM     | 75 CFM     | 75 CFM           |
| 202 | OFFICE           | Office - Office spaces          | 104 SF  | 5                          | 5 CFM          | 0.06 CFM/SF          | 0.5              | 9 CFM           | 1.0       | 1.0       | 1               | 9 CFM      | 9 CFM      | 9 CFM            |
| 203 | OFFICE           | Office - Office spaces          | 104 SF  | 5                          | 5 CFM          | 0.06 CFM/SF          | 0.5              | 9 CFM           | 1.0       | 1.0       | 1               | 9 CFM      | 9 CFM      | 9 CFM            |
| 204 | PROPERTY MANAGER | Office - Office spaces          | 135 SF  | 5                          | 5 CFM          | 0.06 CFM/SF          | 0.7              | 11 CFM          | 1.0       | 1.0       | 1               | 11 CFM     | 11 CFM     | 11 CFM           |
| 301 | CORRIDOR         | Corridor/Transition             | 1357 SF |                            | 0 CFM          | 0.06 CFM/SF          | 0.0              | 81 CFM          | 1.0       | 1.0       | 1               | 81 CFM     | 81 CFM     | 81 CFM           |
| 401 | CORRIDOR         | Corridor/Transition             | 1357 SF |                            | 0 CFM          | 0.06 CFM/SF          | 0.0              | 81 CFM          | 1.0       | 1.0       | 1               | 81 CFM     | 81 CFM     | 81 CFM           |
| 501 | CORRIDOR         | Corridor/Transition             | 1357 SF |                            | 0 CFM          | 0.06 CFM/SF          | 0.0              | 81 CFM          | 1.0       | 1.0       | 1               | 81 CFM     | 81 CFM     | 81 CFM           |

## VENTILATION SCHEDULE - APARTMENTS

| UNIT TYPE | VENTILATION BASED ON NUMBER OF OCCUPANTS |           |           |             | VENTILATION BASED ON MINIMUM ACH |      |             |         | MINIMUM VENTILATION REQUIRED |
|-----------|--|-----------|-----------|-------------|----------------------------------|------|-------------|---------|------------------------------|
|           | # BEDROOMS                               | BATHROOMS | OCCUPANTS | VENTILATION | VOLUME                           | ACH  | VENTILATION | MINIMUM |                              |
| A.1       | 1  | 1         | 2         | 30 CFM      | 4,312 ft³                        | 0.35 | 25 CFM      | 30 CFM  | 30 CFM                       |
| A.2       | 1  | 1         | 2         | 30 CFM      | 4,262 ft³                        | 0.35 | 25 CFM      | 30 CFM  | 30 CFM                       |
| A.3       | 1  | 1         | 2         | 30 CFM      | 4,288 ft³                        | 0.35 | 25 CFM      | 30 CFM  | 30 CFM                       |
| A.4       | 1  | 1         | 2         | 30 CFM      | 4,463 ft³                        | 0.35 | 26 CFM      | 30 CFM  | 30 CFM                       |
| A.5       | 1  | 1         | 2         | 30 CFM      | 5,547 ft³                        | 0.35 | 32 CFM      | 32 CFM  | 32 CFM                       |
| A.6       | 1  | 1         | 2         | 30 CFM      | 4,122 ft³                        | 0.35 | 24 CFM      | 30 CFM  | 30 CFM                       |
| A.7       | 1  | 1         | 2         | 30 CFM      | 4,148 ft³                        | 0.35 | 24 CFM      | 30 CFM  | 30 CFM                       |
| A.8       | 1  | 1         | 2         | 30 CFM      | 4,411 ft³                        | 0.35 | 26 CFM      | 30 CFM  | 30 CFM                       |
| A.9       | 1  | 1         | 2         | 30 CFM      | 4,712 ft³                        | 0.35 | 27 CFM      | 30 CFM  | 30 CFM                       |
| A.10      | 1  | 1         | 2         | 30 CFM      | 4,526 ft³                        | 0.35 | 26 CFM      | 30 CFM  | 30 CFM                       |
| APH       | 1  | 1         | 2         | 30 CFM      | 5,548 ft³                        | 0.35 | 32 CFM      | 32 CFM  | 32 CFM                       |
| B.1       | 2  | 1         | 3         | 45 CFM      | 6,597 ft³                        | 0.35 | 38 CFM      | 45 CFM  | 45 CFM                       |
| B.2       | 2  | 1         | 3         | 45 CFM      | 5,643 ft³                        | 0.35 | 33 CFM      | 45 CFM  | 45 CFM                       |
| B.3       | 2  | 1         | 3         | 45 CFM      | 5,321 ft³                        | 0.35 | 31 CFM      | 45 CFM  | 45 CFM                       |
| B.4       | 2  | 1         | 3         | 45 CFM      | 6,613 ft³                        | 0.35 | 39 CFM      | 45 CFM  | 45 CFM                       |
| BPH       | 2  | 2         | 3         | 45 CFM      | 8,569 ft³                        | 0.35 | 50 CFM      | 50 CFM  | 50 CFM                       |
| S.1       | 1  | 1         | 2         | 30 CFM      | 2,938 ft³                        | 0.35 | 17 CFM      | 30 CFM  | 30 CFM                       |
| S.2       | 1  | 1         | 2         | 30 CFM      | 3,124 ft³                        | 0.35 | 18 CFM      | 30 CFM  | 30 CFM                       |
| S.3       | 1  | 1         | 2         | 30 CFM      | 3,268 ft³                        | 0.35 | 19 CFM      | 30 CFM  | 30 CFM                       |
| SPH.1     | 1  | 1         | 2         | 30 CFM      | 3,437 ft³                        | 0.35 | 20 CFM      | 30 CFM  | 30 CFM                       |

## AIO HVAC UNIT SCHEDULE

COMMENTS:  
 1. PROVIDE INTEGRATED ERV OPTION  
 2. PROVIDE 1,800 WATT ELECTRIC HEAT OPTION  
 3. PROVIDE OPTIONAL KIT FOR WALL MOUNTED THERMOSTAT

| TAG   | BASIS OF DESIGN |                | CFM SUPPLY | E.S.P.     | CFM OA (MINIMUM) | COOLING DATA |           |           | TOTAL BTUH   | TOTAL HEATING BTUH | ELECTRICAL DATA |     |      | DISCONNECT BY M.T.C. E.T.C. | UNIT WEIGHT | COMMENTS |
|-------|-----------------|----------------|------------|------------|------------------|--------------|-----------|-----------|--------------|--------------------|-----------------|-----|------|-----------------------------|-------------|----------|
|       | MANUFACTURER    | MODEL          |            |            |                  | E.A.T. DB    | E.A.T. WB | L.A.T. DB |              |                    | VOLTAGE         | MCA | MOCF |                             |             |          |
| AIO-1 | EPHOCA          | VERTICAL STACK | 400 CFM    | 0.50 in-wg | 50 CFM           | 80.0 °F      | 67.0 °F   | 95.0 °F   | 15,000 Btu/h | 20100 Btu/h        | 208             | 20  | 30   | X                           | 170 lb      | 1 - 3    |
| AIO-2 | EPHOCA          | WALL MOUNT PRO | 400 CFM    | 0.50 in-wg | 80 CFM           | 80.0 °F      | 67.0 °F   | 95.0 °F   | 15,000 Btu/h | 20600 Btu/h        | 208             | 20  | 30   | X                           | 100 lb      | 1 - 3    |

## ROOF TOP UNIT SCHEDULE

COMMENTS:  
 1. PROVIDE FIELD INSTALLED 24" ROOF CURB FOR FLAT ROOF.  
 2. PROVIDE FACTORY INSTALLED UNPOWERED CONVENIENCE OUTLET.  
 3. PROVIDE FACTORY INSTALLED DIGITAL CONTROLS.

4. PROVIDE FACTORY INSTALLED HINGED ACCESS PANELS.  
 5. PROVIDE FACTORY INSTALLED LOW-LEAK ECONOMIZER W/ DIFFERENTIAL ENTHALPY SENSOR.  
 6. PROVIDE FACTORY INSTALLED NON FUSED DISCONNECT SWITCH.

7. PROVIDE FACTORY INSTALLED STANDARD ALUMINIZED EXCHANGER.  
 8. PROVIDE FIELD INSTALLED STANDARD FILTRATION - MERV13.

| TAG    | BASIS OF DESIGN |           | CFM SUPPLY | E.S.P.     | CFM OA (MINIMUM) | COOLING DATA |           |           | HEATING DATA |              | ELECTRICAL DATA |               |                | DISCONNECT BY M.T.C. E.T.C. | UNIT WEIGHT | COMMENTS |         |        |       |
|--------|-----------------|-----------|------------|------------|------------------|--------------|-----------|-----------|--------------|--------------|-----------------|---------------|----------------|-----------------------------|-------------|----------|---------|--------|-------|
|        | MANUFACTURER    | MODEL     |            |            |                  | NOMINAL TONS | E.A.T. DB | E.A.T. WB | L.A.T. DB    | SENS. BTUH   | TOTAL BTUH      | INPUT MAX MBH | OUTPUT MAX MBH |                             |             |          | VOLTAGE | MCA    | MOCF  |
| RTU-1A | Carrier         | 486CFJ05J | 1600 CFM   | 1.00 in-wg | 225 CFM          | 4            | 80.0 °F   | 67.0 °F   | 95.0 °F      | 37,800 Btu/h | 49,900 Btu/h    | 150           | 120            | 24                          | 30          | 208/3    | X       | 675 lb | 1 - 8 |
| RTU-1B | Carrier         | 486CFJ05J | 1600 CFM   | 1.00 in-wg | 225 CFM          | 4            | 80.0 °F   | 67.0 °F   | 95.0 °F      | 37,800 Btu/h | 49,900 Btu/h    | 150           | 120            | 24                          | 30          | 208/3    | X       | 675 lb | 1 - 8 |

MICHIGAN

RENOVATION OF  
**CABOT APARTMENTS**  
 13725 DEXTER AVENUE

DETROIT

06.24.2025 BIDS  
 05.09.2025 PERMIT  
 DATE ISSUE

KEY PLAN

FSP PROJECT NO.  
 TRC22.064

DRAWING TITLE

MECHANICAL SCHEDULES

DRAWING NUMBER

M.401

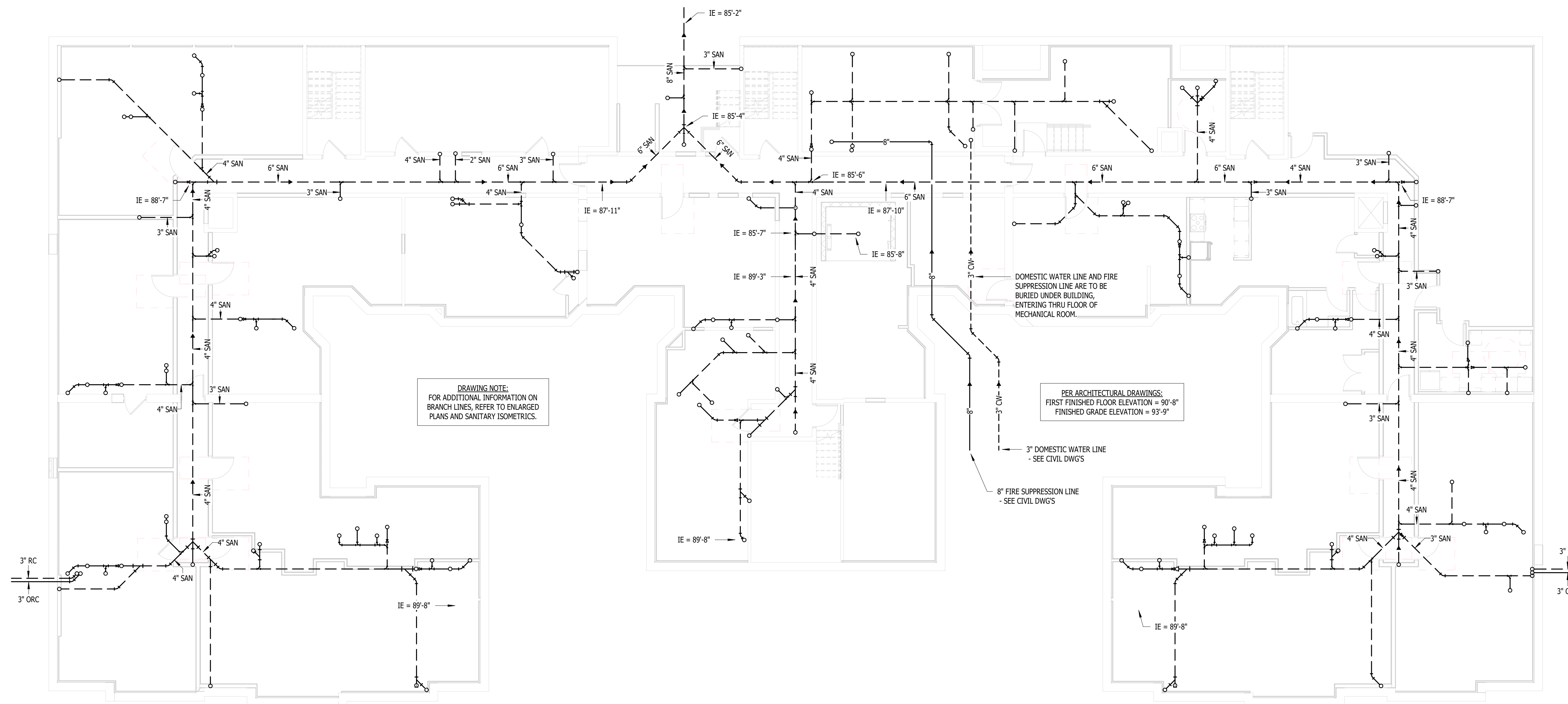




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**UNDERGROUND PLUMBING PLAN**  
1/8" = 1'-0"

RENOVATION OF  
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13725 DEXTER AVENUE

MICHIGAN

DETROIT

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| DATE       | ISSUE  |

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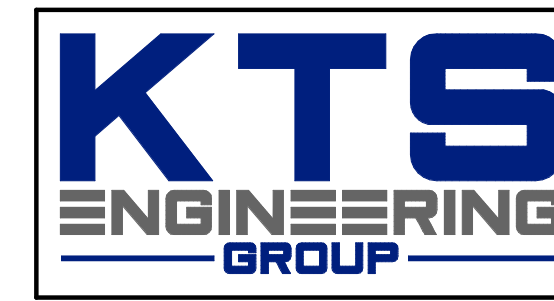
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UNDERGROUND PLUMBING PLAN

DRAWING NUMBER

**P.100**





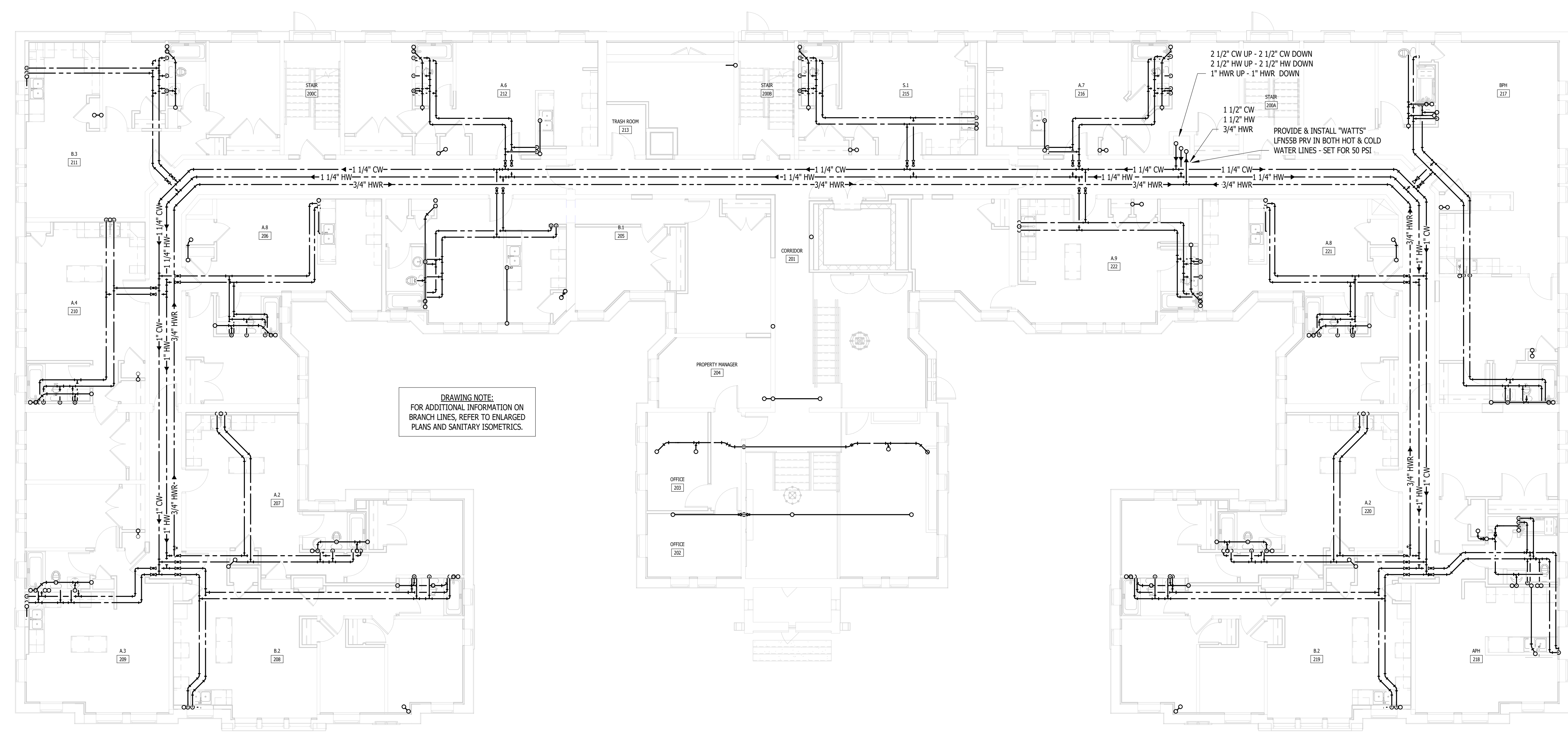
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 989-567-1100  
 KTSENGINEERINGGROUP.COM  
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DRAWING NOTE:  
 FOR ADDITIONAL INFORMATION ON  
 BRANCH LINES, REFER TO ENLARGED  
 PLANS AND SANITARY ISOMETRICS.

2 1/2" CW UP - 2 1/2" CW DOWN  
 2 1/2" HW UP - 2 1/2" HW DOWN  
 1" HWR UP - 1" HWR DOWN  
 1 1/2" CW  
 1 1/2" HW  
 3/4" HWR  
 PROVIDE & INSTALL "WATTS"  
 LFNSB PRV IN BOTH HOT & COLD  
 WATER LINES - SET FOR 50 PSI

SECOND FLOOR PLUMBING PLAN  
 1/8" = 1'-0"

RENOVATION OF  
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SECOND FLOOR PLUMBING PLAN

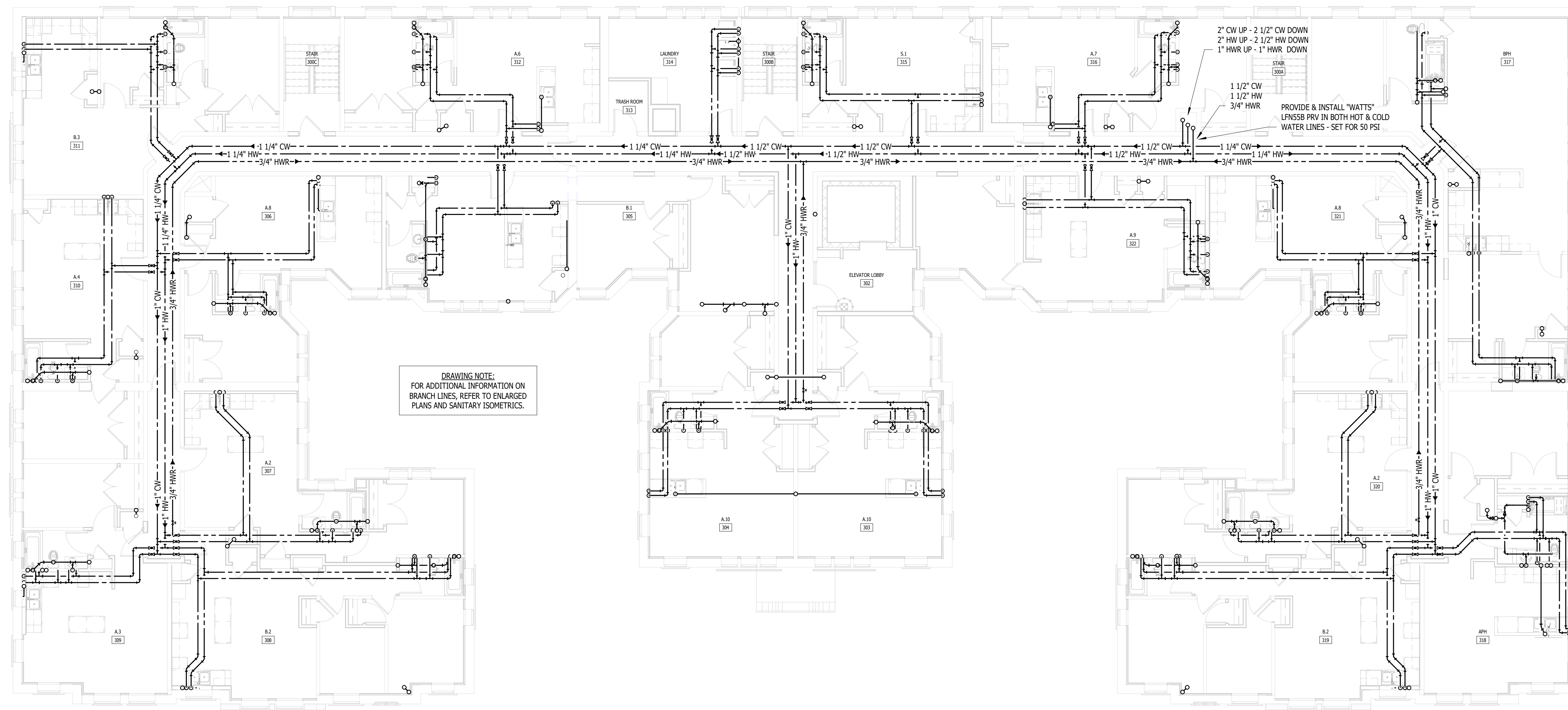
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P.102

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2" CW UP - 2 1/2" CW DOWN  
2" HW UP - 2 1/2" HW DOWN  
1" HWR UP - 1" HWR DOWN

1 1/2" CW  
1 1/2" HW  
3/4" HWR

PROVIDE & INSTALL "WATS"  
LFNS5B PRV IN BOTH HOT & COLD  
WATER LINES - SET FOR 50 PSI

RENOVATION OF  
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**THIRD FLOOR PLUMBING PLAN**  
1/8" = 1'-0"

FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

THIRD FLOOR PLUMBING PLAN

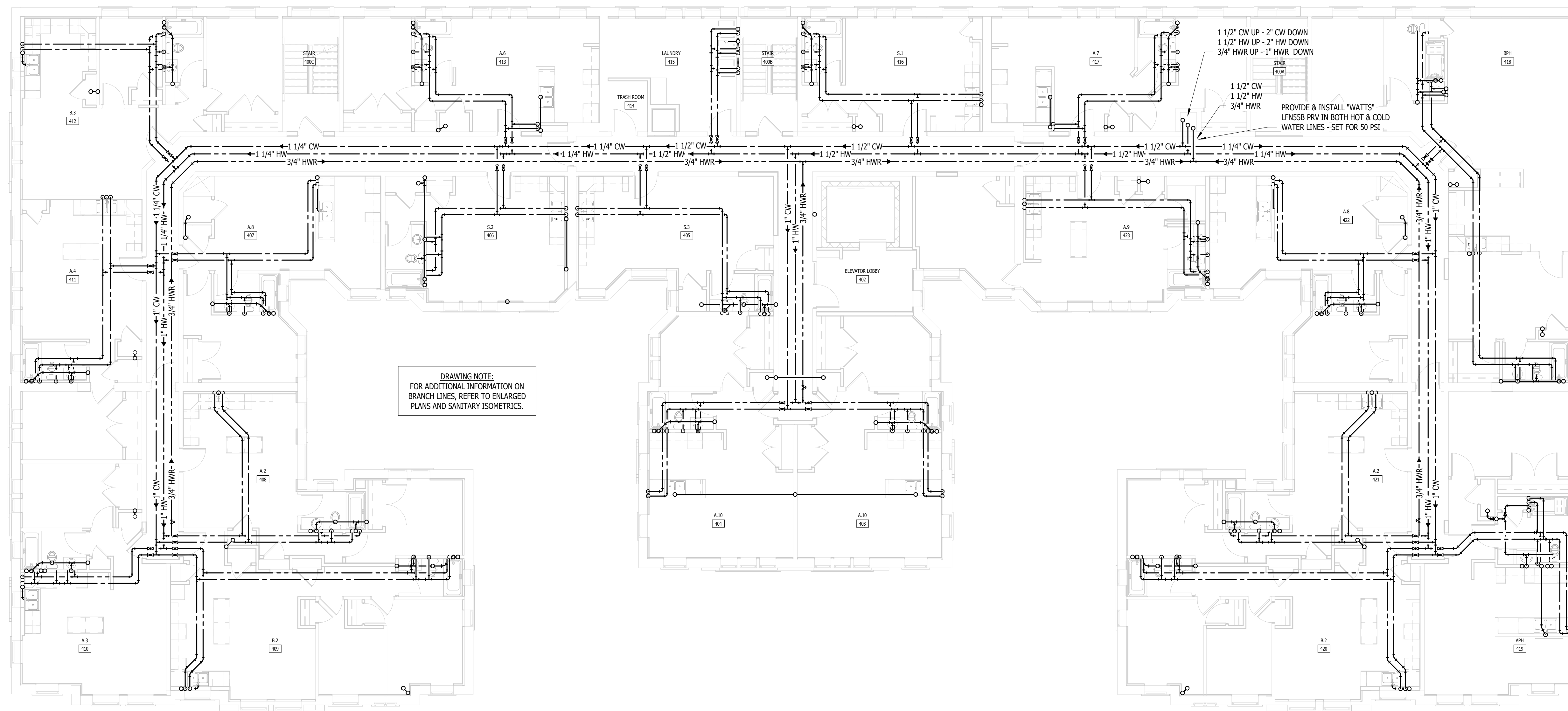
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**FOURTH FLOOR PLUMBING PLAN**  
1/8" = 1'-0"

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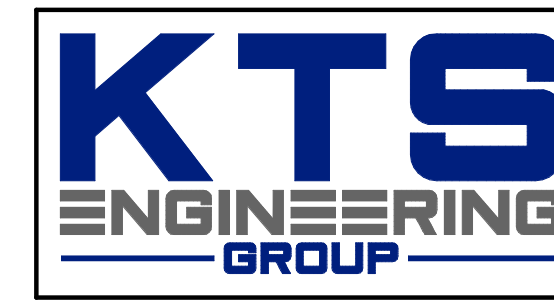
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FOURTH FLOOR PLUMBING PLAN

DRAWING NUMBER

**P.104**

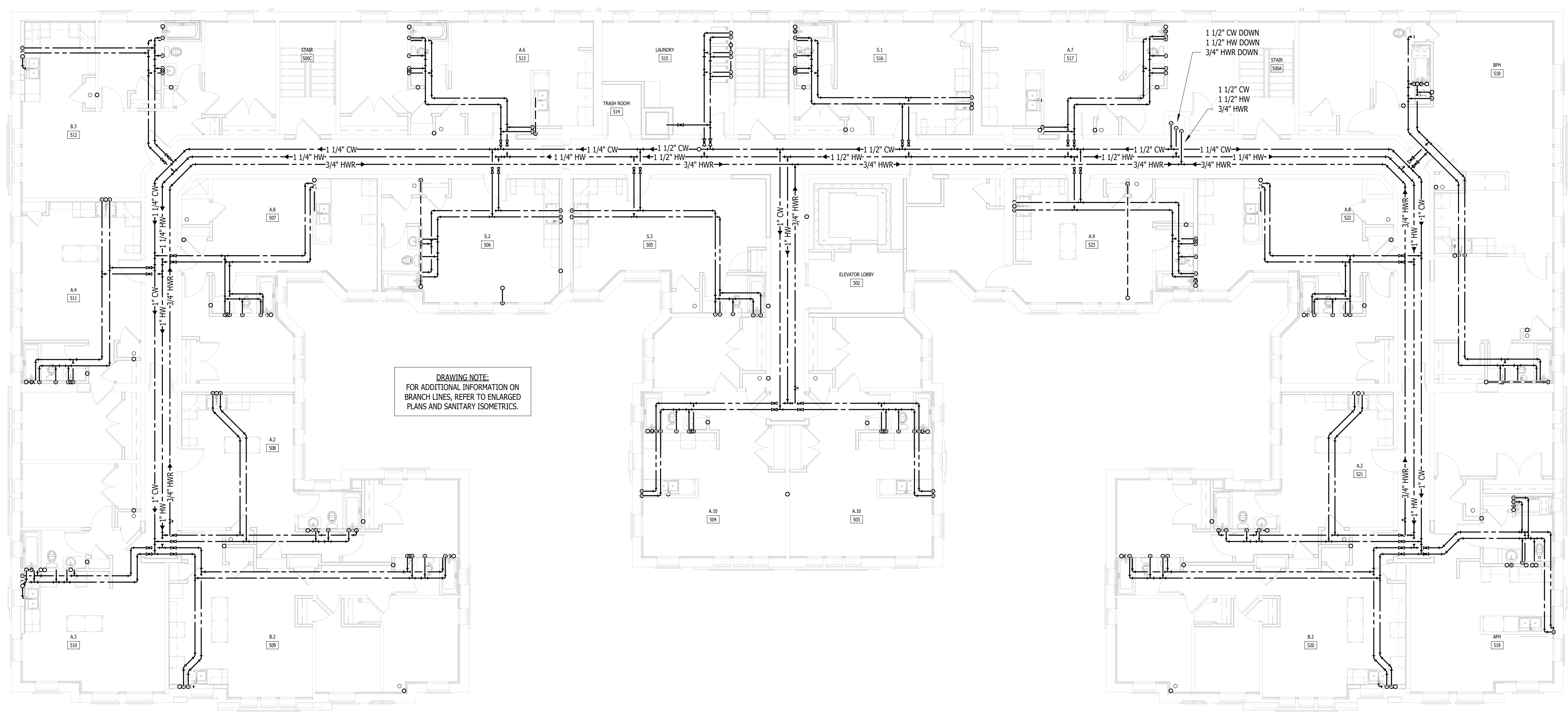
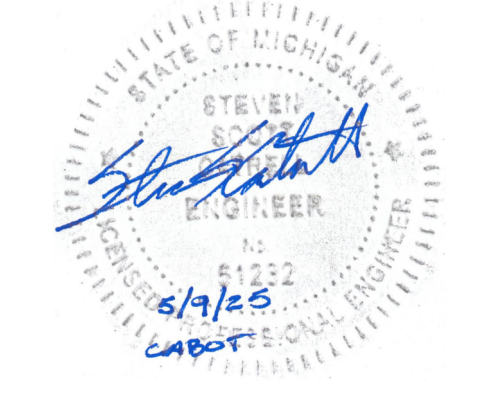


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**FSP** FUSCO,  
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 PAPPAS, INC.  
 ARCHITECTS AND PLANNERS  
 550 E. NINE MILE ROAD  
 FERNDALE, MICHIGAN, 48220  
 PHONE 248.543.4100 FAX 248.543.4141

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**FIFTH FLOOR PLUMBING PLAN**  
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FIFTH FLOOR PLUMBING PLAN

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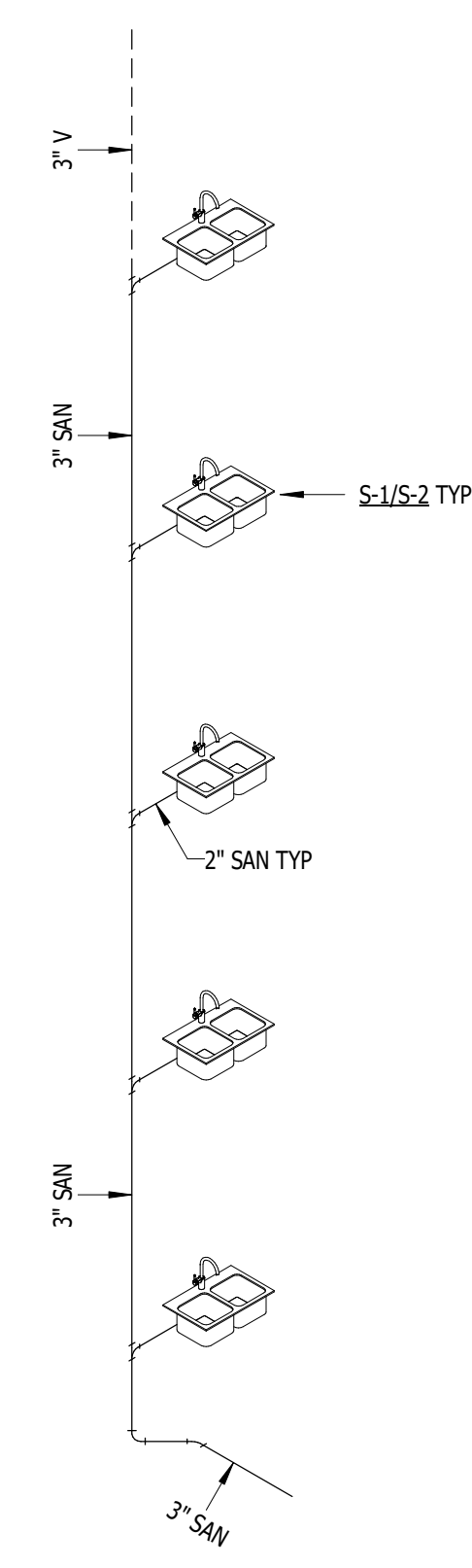
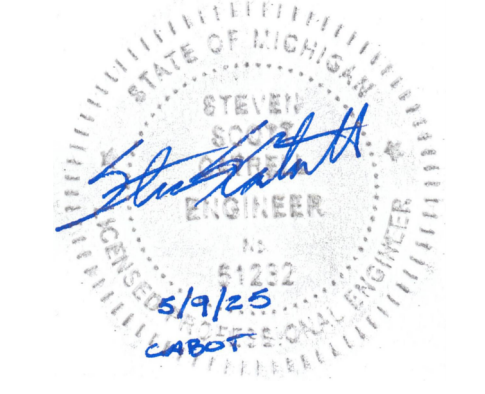
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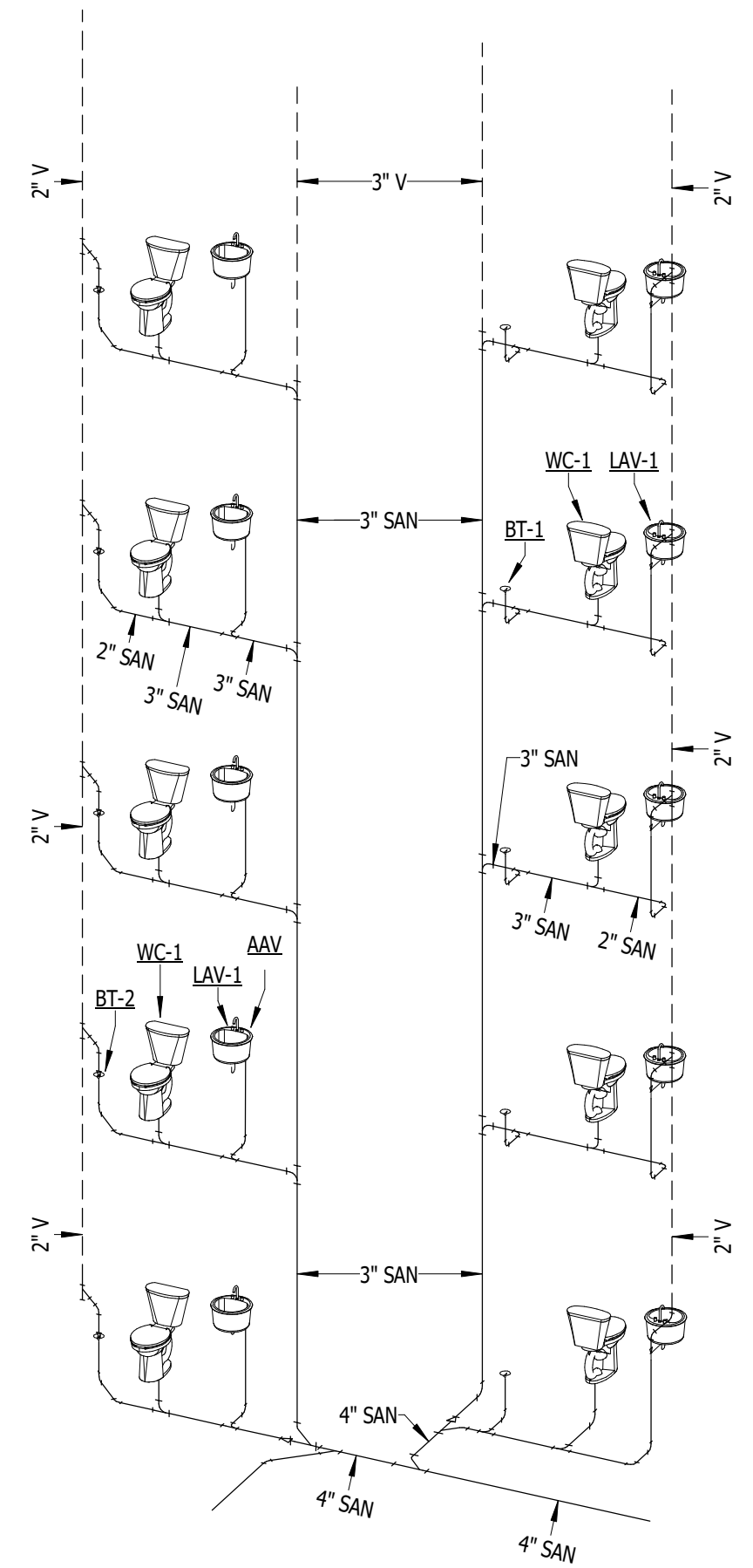


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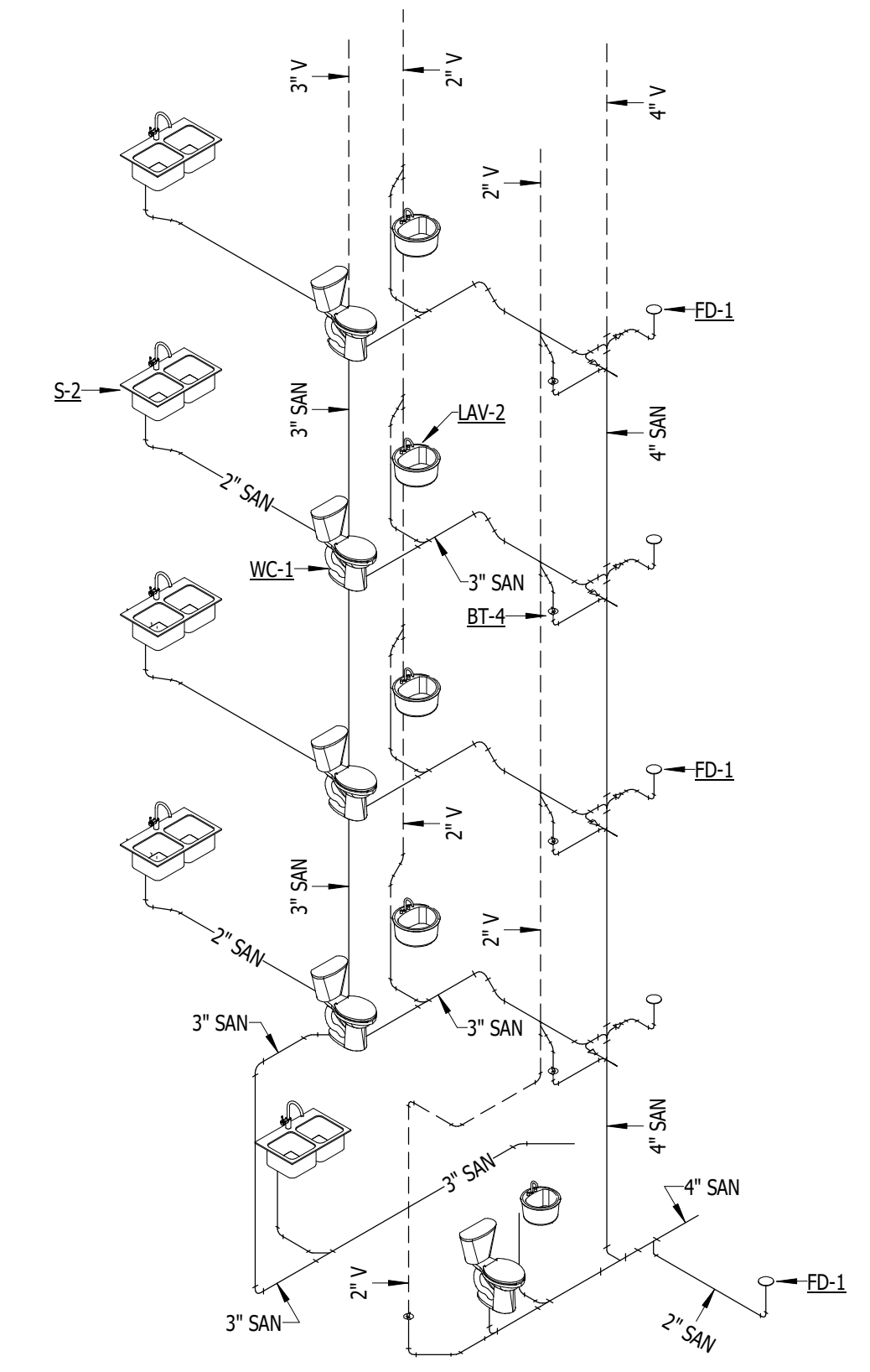
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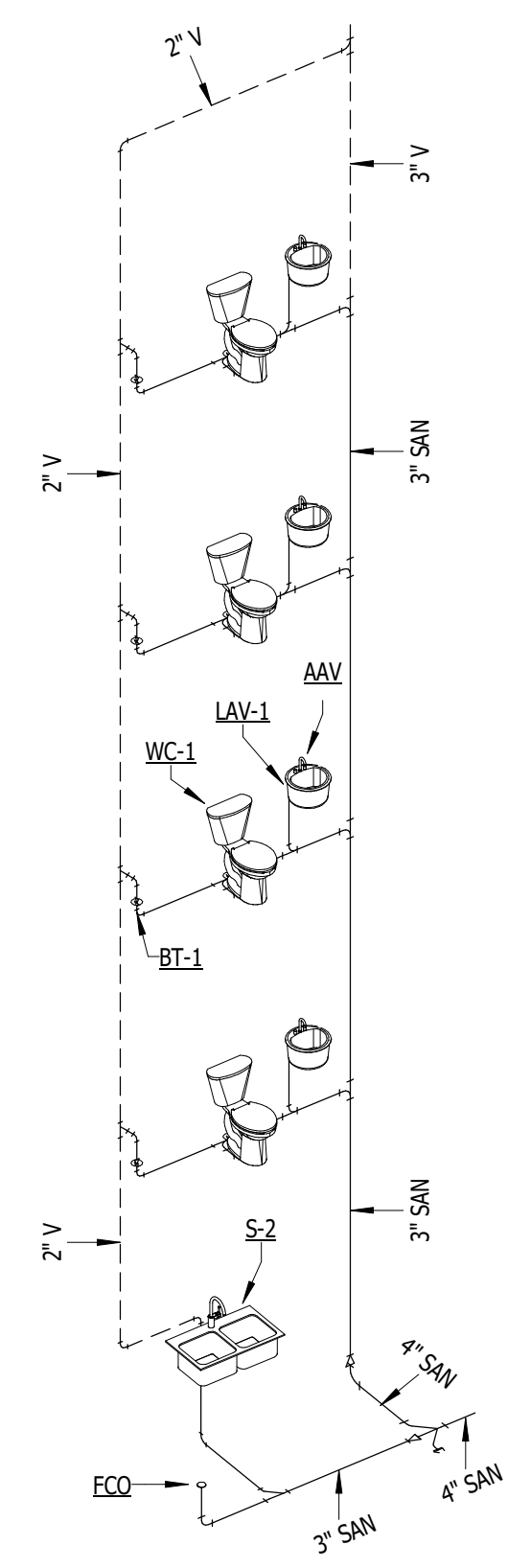
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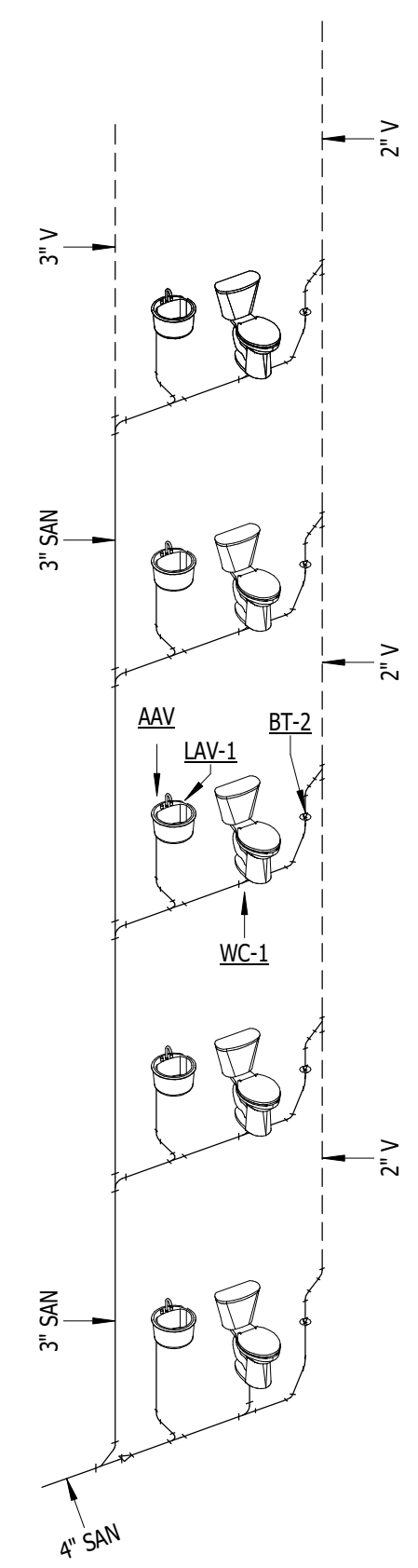
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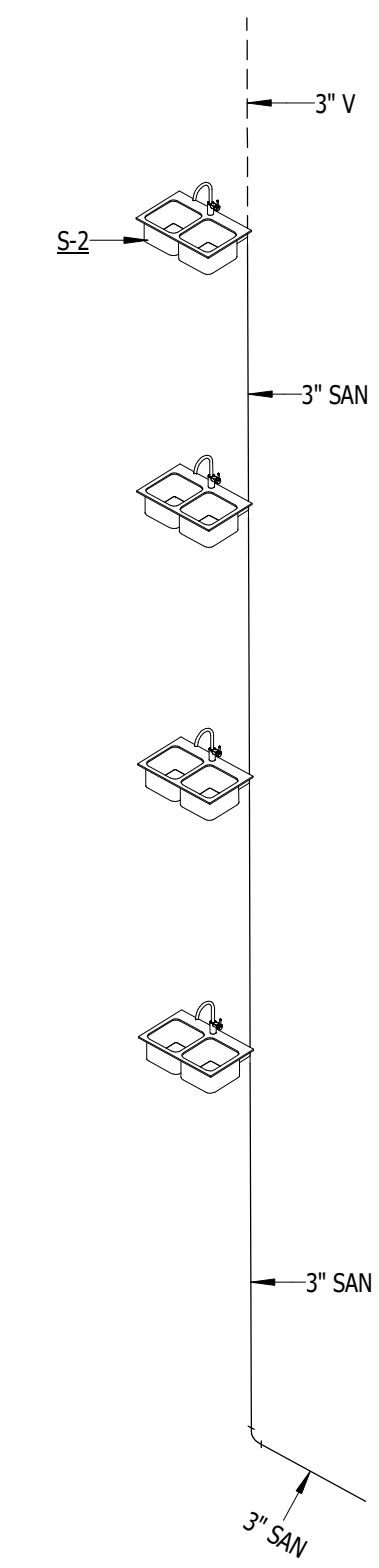
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 P.202 NOT TO SCALE



4 TYPE D  
 P.202 NOT TO SCALE



5 TYPE E  
 P.202 NOT TO SCALE



6 TYPE F  
 P.202 NOT TO SCALE

RENOVATION OF  
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KEY PLAN

FSP PROJECT NO.  
 TRC22.064

DRAWING TITLE

PLUMBING ISOMETRICS

DRAWING NUMBER

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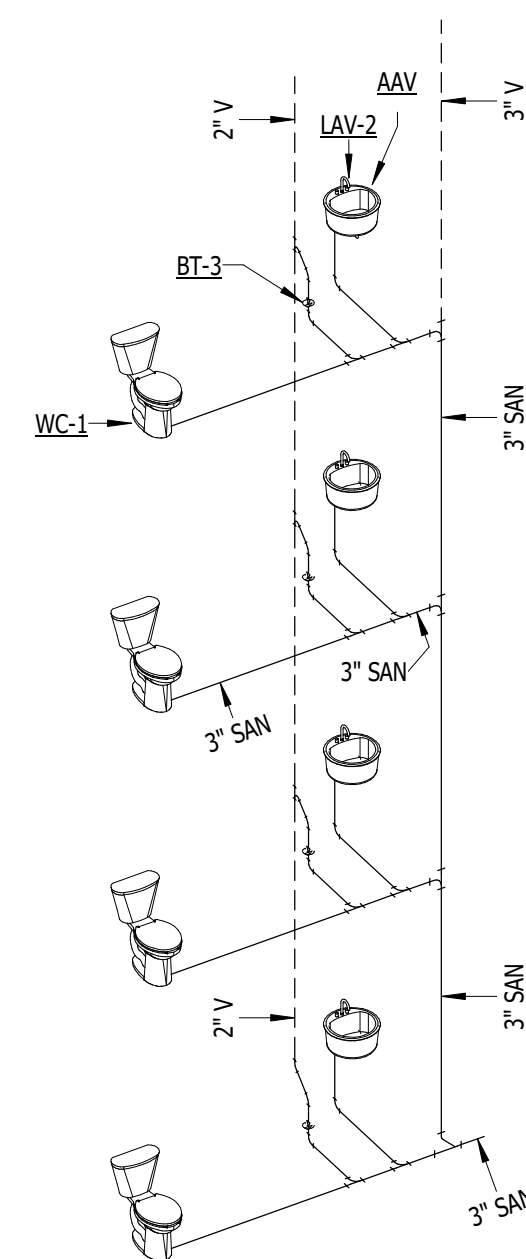
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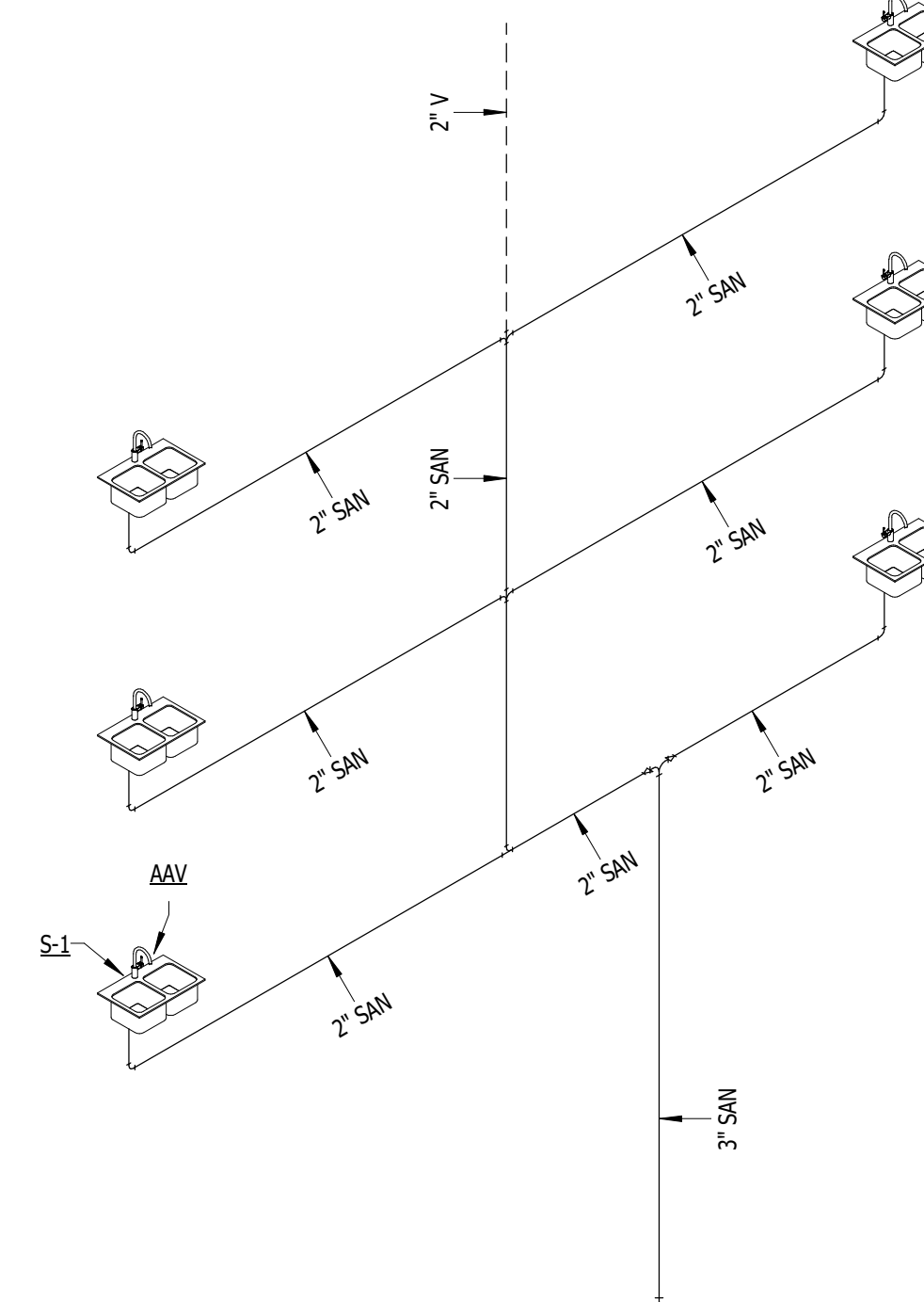
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**CABOT APARTMENTS**  
13725 DEXTER AVENUE

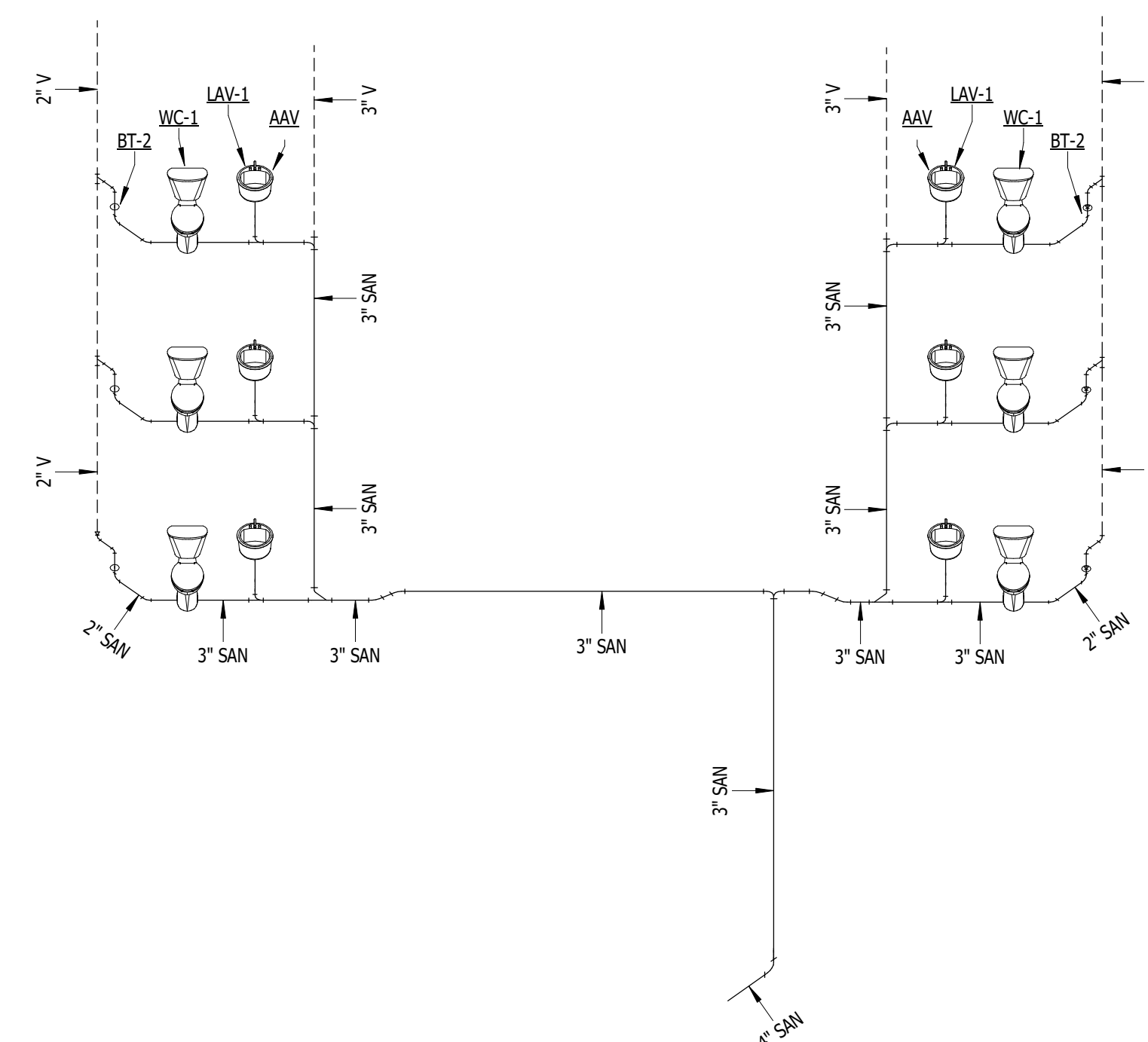
DETROIT



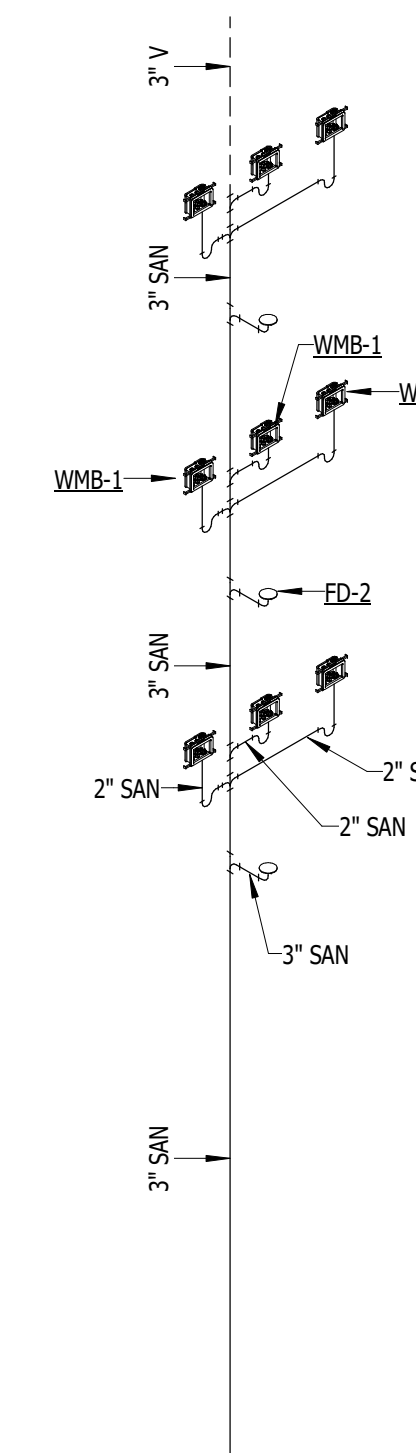
1  
P.203  
**TYPE G**  
NOT TO SCALE



2  
P.203  
**TYPE H**  
NOT TO SCALE



3  
P.203  
**TYPE I**  
NOT TO SCALE



4  
P.203  
**TYPE J**  
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| 06.24.2025 | BIDS   |
| 05.09.2025 | PERMIT |
| DATE       | ISSUE  |

KEY PLAN

FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

PLUMBING ISOMETRICS

DRAWING NUMBER

**P.203**



**NOTE | IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.**

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 SEAL



### DOMESTIC WATER BOOSTER PUMP SCHEDULE

COMMENTS:  
 1. OPTIONAL EQUIPMENT TO INCLUDE GENERAL ALARM CONTACT RELAY, MONITORS, SENSOR FAIL, LOW SUCTION/LEVEL & HIGH SYSTEM AND VFD FAULTS.

| TAG  | MANUFACTURER | MODEL          | TYPE            | FLOW RATE (EACH PUMP) | BOOST PRESSURE (FT) | BOOST PRESSURE (PSI) | PUMP MODEL     | PUMP TYPE   | VOLTS/Ø | MAIN DISCONNECT | VFD MODEL |
|------|--------------|----------------|-----------------|-----------------------|---------------------|----------------------|----------------|-------------|---------|-----------------|-----------|
| BP-1 | QUANTUMFLO   | PRODIGY-DUPLEX | PACKAGED SYSTEM | 72 GPM                | 120.33              | 52.09 psi            | QES_321-5-6.54 | END SUCTION | 280/3   | 60 A            | F.C. 5 HP |

### DOMESTIC WATER HEATER SCHEDULE

COMMENTS:  
 1. MODULATING BURNER - 5:1 TURNDOWN  
 2. SEALED COMBUSTION  
 3. PROVIDE WITH TEMPERATURE & PRESSURE RELIEF VALVE.  
 4. PROVIDE AUDIBLE ALARM  
 5. PROVIDE CONCENTRIC VENT KIT  
 6. PROVIDE CONDENSATE NEUTRALIZATION KIT

| TAG         | MANUFACTURER | MODEL    | DESCRIPTION                   | RECOVERY GPH | RISE OF RECOVERY | EWT   | LWT    | INPUT RATE (BTUH) | FUEL TYPE   |
|-------------|--------------|----------|-------------------------------|--------------|------------------|-------|--------|-------------------|-------------|
| DWH-1(A, B) | LOCHINVAR    | AWN201PM | ARMOR CONDENSING WATER HEATER | 234          | 100 °F           | 40 °F | 140 °F | 201,000           | NATURAL GAS |

### HOT WATER CIRCULATION PUMP SCHEDULE

COMMENTS:  
 1. PUMP SHALL OPERATE ON SETPOINT TEMPERATURE CONTROL MODE TO MAINTAIN A CONSTANT TEMPERATURE IN THE SYSTEM WHEN ENABLED. PROVIDE WITH EXTERNAL SENSOR FOR OPERATION.

| TAG  | MANUFACTURER   | MODEL            | PUMP TYPE            | HEAD (FEET) | DESIGN FLOW RATE | MAX FLOW RATE | MOTOR TYPE | RATED SPEED (RPM) | MOTOR POWER |
|------|----------------|------------------|----------------------|-------------|------------------|---------------|------------|-------------------|-------------|
| CP-1 | BELL & GOSSETT | ECOCIRC XL 20-35 | WET ROTOR CIRCULATOR | 15          | 12.0 GPM         | 35.0 GPM      | ECM        | 3800              | 62 W        |

### HOT WATER HEATER STORAGE TANK SCHEDULE

COMMENTS:  
 1. LOCK-TEMP BAFFLE  
 2. MAGNESIUM ANODE  
 3. 160 PSI WORKING PRESSURE  
 4. PROVIDE TEMPERATURE & PRESSURE GAUGE  
 5. PROVIDE LIFTING LUGS  
 6. PROVIDE T&P RELIEF VALVE

| TAG  | MANUFACTURER | MODEL   | DESCRIPTION                                    | GALLON CAP. | DIMENSIONS                  |
|------|--------------|---------|--|-------------|-----------------------------|
| ST-1 | LOCHINVAR    | RJ5120M | Commercial Jacketed and Insulated Storage Tank | 119         | 62" H x 29 1/2" Ø - 350 LBS |

### DIGITAL MIXING VALVE SCHEDULE

COMMENTS:  
 1. PROVIDE STANDARD 1.0 CONTROLLER

| TAG   | MANUFACTURER  | MODEL      | INLET / OUTLET SIZE | MIN FLOW RATE | CERTIFICATIONS     |
|-------|---------------|------------|---------------------|---------------|--------------------|
| DMV-1 | LEONARD VALVE | PMV-150-LF | 1 1/4" / 1 1/2"     | 0.25 GPM      | ASSE 1017, CSA, UL |

### BUILDING WSFU CALCULATIONS

| FLOOR LEVEL         | FIXTURE TYPE             | QUANTITY       | LOAD VALUES (WSFU) |      |       | TOTAL WSFU |
|---------------------|--------------------------|----------------|--------------------|------|-------|------------|
|                     |                          |                | COLD               | HOT  | TOTAL |            |
| 1                   | BATHROOM GROUP - PRIVATE | 13             | 2.7                | 1.5  | 3.6   | 46.8       |
|                     | BATHROOM GROUP - PUBLIC  | 1              | 6                  | 3    | 8     | 8          |
|                     | DISHWASHING MACHINE      | 14             | 0                  | 1.4  | 1.4   | 19.6       |
|                     | KITCHEN SINK             | 14             | 1                  | 1    | 1.4   | 19.6       |
| 2                   | BATHROOM GROUP           | 17             | 2.7                | 1.5  | 3.6   | 61.2       |
|                     | DISHWASHING MACHINE      | 16             | 0                  | 1.4  | 1.4   | 22.4       |
|                     | KITCHEN SINK             | 16             | 1                  | 1    | 1.4   | 22.4       |
|                     | 3                        | BATHROOM GROUP | 19                 | 2.7  | 1.5   | 3.6        |
| DISHWASHING MACHINE |                          | 18             | 0                  | 1.4  | 1.4   | 25.2       |
| KITCHEN SINK        |                          | 18             | 1                  | 1    | 1.4   | 25.2       |
| WASHING MACHINE     |                          | 3              | 2.25               | 2.25 | 3     | 9          |
| 4                   | BATHROOM GROUP           | 20             | 2.7                | 1.5  | 3.6   | 72         |
|                     | DISHWASHING MACHINE      | 19             | 0                  | 1.4  | 1.4   | 26.6       |
|                     | KITCHEN SINK             | 19             | 1                  | 1    | 1.4   | 26.6       |
|                     | WASHING MACHINE          | 3              | 2.25               | 2.25 | 3     | 9          |
| 5                   | BATHROOM GROUP           | 20             | 2.7                | 1.5  | 3.6   | 72         |
|                     | DISHWASHING MACHINE      | 19             | 0                  | 1.4  | 1.4   | 26.6       |
|                     | KITCHEN SINK             | 19             | 1                  | 1    | 1.4   | 26.6       |
|                     | WASHING MACHINE          | 3              | 2.25               | 2.25 | 3     | 9          |

596.2

### PLUMBING FIXTURE SPECIFICATIONS

FOR ALL SINKS, LAVATORIES, FAUCETS, VALVES, ETC. THAT COULD POSSIBLY SCALD EMPLOYEES, CUSTOMERS, OR VISITORS, PROVIDE AND INSTALL A THERMOSTATIC MIXING VALVE EQUAL TO "WATTS", MODEL LFUSG-B-M2, MOUNT UNDER SINK OR LAVATORY SHROUD. SET MIXED WATER TEMPERATURE AT 110° F. MAXIMUM PER MICHIGAN PLUMBING CODE AND ADA CODES. 0.5 GPM MINIMUM FLOW RATE, 3.1 GPM MAXIMUM FLOW RATE, 45 PSI PRESSURE LOSS. LAVATORY SHROUD SHALL NOT BE CALKED TO WALL SO VALVES/TRAP CAN BE ACCESSED.

| TAG   | FIXTURE TYPE         | BASIS OF DESIGN            | DESCRIPTION   | BASIS OF DESIGN            | DESCRIPTION   |
|-------|----------------------|----------------------------|---|----------------------------|---|
| BT-1  | BATHTUB/SHOWER COMBO | BESTBATH 4ETSF6030A165     | TUB-SHOWER COMBO, RIGHT HAND DRAIN PLACEMENT, MULTI-PIECE MODULE, GELCOAT/FIBERGLASS CONSTRUCTION WITH FULL INTEGRAL PLYWOOD BACKING IN THE WALLS, EIGHT INCH TILE WALL FINISH, WHITE FINISH. PROVIDE OPTIONAL ACCESSORIES: SOAP DISH   | MOEN 8389EP15              | SINGLE HANDLE PRESSURE BALANCING TUB/SHOWER SYSTEM. CHROME PLATED METAL CONSTRUCTION, PRESSURE BALANCING CYCLE VALVE WITH 1/4 TURN STOPS, 1/2" CC CONNECTIONS, VANDAL RESISTANT SCREWS AND SHOWER HEAD. ADJUSTABLE TEMPERATURE LIMIT STOP & PRESSURE BALANCING MECHANISM. 1.5 GPM. ASME A112.18.1/CSA B125.1 CERTIFIED. PROVIDE DRAIN & OVERFLOW, POLISHED CHROME FINISH.   |
| BT-2  | BATHTUB/SHOWER COMBO | BESTBATH 4ETSF6030A165     | SAME AS BT-1, EXCEPT LEFT HAND DRAIN PLACEMENT  | MOEN 8389EP15              | SAME AS BT-1  |
| BT-3  | BATHTUB/SHOWER COMBO | BESTBATH 4ETSF6030A165     | ADA TUB-SHOWER COMBO, RIGHT HAND DRAIN PLACEMENT, MULTI-PIECE MODULE, GELCOAT/FIBERGLASS CONSTRUCTION WITH FULL INTEGRAL PLYWOOD BACKING IN THE WALLS, EIGHT INCH TILE WALL FINISH, WHITE FINISH. PROVIDE OPTIONAL ACCESSORIES FOR ADA COMPLIANCE: GRAB BAR, FOLDING SEAT, SOAP DISH.   | MOEN 8343                  | THREE-FUNCTION ADA TUB/SHOWER SYSTEM. STATIONARY SHOWERHEAD, HAND-HELD SHOWER WITH NON-POSITIVE PAUSE, 69" METAL HOSE, 30" SLIDE BAR, DROP ELL, AND TUB FILLER. CHROME PLATED METAL CONSTRUCTION, PRESSURE BALANCING CYCLE VALVE WITH 1/4 TURN STOPS, 3 FUNCTION TRANSFER VALVE, 1/2" CC CONNECTIONS. ADJUSTABLE TEMPERATURE LIMIT STOP & PRESSURE BALANCING MECHANISM. 2.5 GPM. ASME A112.18.1/CSA B125.1 CERTIFIED. PROVIDE DRAIN & OVERFLOW, POLISHED CHROME FINISH. |
| BT-4  | BATHTUB/SHOWER COMBO | BESTBATH 4ETSF6030A165     | SAME AS BT-3, EXCEPT LEFT HAND DRAIN PLACEMENT  | MOEN 8343                  | SAME AS BT-3  |
| FD-1  | FLOOR DRAIN          | ZURN EZ1-PV2-ST            | PVC BODY, ADJUSTABLE WITH EZ1 TECHNOLOGY, 2" PIPE SIZE WITH TRAP, BOTTOM OUTLET. NICKEL BRONZE 5" x 5" SQUARE STRAINER.   | ZURN Z1072-2               | BARRIER TRAP SEAL FOR 2" PIPE SIZE.   |
| FD-2  | FLOOR DRAIN          | ZURN EZ1-PV3-ST            | SAME AS FD-1, EXCEPT 3" PIPE SIZE.  | ZURN Z1072-3               | BARRIER TRAP SEAL FOR 3" PIPE SIZE.   |
| LAV-1 | LAVATORY             | N/A                        | CULTURED MARBLE TOP & LAVATORY.   | AMERICAN STANDARD 7075.000 | COLONY PRO SINGLE CONTROL, METAL LEVER HANDLE, METAL POP-UP DRAIN, METAL BODY WITH METAL LEVER HANDLE, WASHERLESS 35 MM CERAMIC DISC VALVE CARTRIDGE WITH INTEGRAL HOT LIMIT SAFETY STOP, 24" COLOR-CODED BRAIDED FLEXIBLE SUPPLY HOSES WITH 3/8" COMPRESSION CONNECTIONS. 1.2 GPM MAX FLOW RATE. POLISHED CHROME FINISH, ADA APPROVED.   |
| LAV-2 | LAVATORY, ADA        | N/A                        | ADA COMPLIANT CULTURED MARBLE TOP & LAVATORY. 6" MAX DEPTH.   | AMERICAN STANDARD 7075.000 | COLONY PRO SINGLE CONTROL, METAL LEVER HANDLE, METAL POP-UP DRAIN, METAL BODY WITH METAL LEVER HANDLE, WASHERLESS 35 MM CERAMIC DISC VALVE CARTRIDGE WITH INTEGRAL HOT LIMIT SAFETY STOP, 24" COLOR-CODED BRAIDED FLEXIBLE SUPPLY HOSES WITH 3/8" COMPRESSION CONNECTIONS. 1.2 GPM MAX FLOW RATE. POLISHED CHROME FINISH, ADA APPROVED.   |
| RH-1  | ROOF SUMP            | ZURN Z1388XL               | EXPOSED, LEAD FREE, NON-FREEZE ROOF HYDRANT. DURA-COATED CAST IRON HEAD AND LIFT HANDLE WITH LOCK OPTION, GALVANIZED STEEL CASING, BRONZE & STAINLESS STEEL COMPONENTS. 3/4" INLET CONNECTION, 3/4" MALE HOSE THREAD OUTLET CONNECTION.   | N/A                        | N/A   |
| RS-1  | ROOF SUMP            | ZURN Z100C                 | FROET BI-FUNCTIONAL ROOF DRAIN WITH 45° PRIMARY OUTLET CONNECTION. POWDER COATED CAST IRON DEEP SUMP BODY WITH COMBINATION MEMBRANE FLASHING CLAMP GUARD, CAST IRON DOME. 3" PIPE SIZE.   | N/A                        | N/A   |
| S-1   | SINK                 | ELKAY ECTSRS3229TBG        | ELKAY CROSSTOWN 18 GAUGE STAINLESS STEEL 33" x 22" x 9" EQUAL DOUBLE BOWL MOUNT SINK KIT. SINK IS HANDMADE/FABRICATED FROM 18 GAUGE 304 STAINLESS STEEL WITH A POLISHED SATIN FINISH, REAR CENTER DRAIN PLACEMENT, AND FULL SPRAY SIDES AND BOTTOM WITH SIDES AND BOTTOM PADS. ORDER WITH LK35 STRAINER BASKET & TAILPIECE.   | MOEN 7402SRS               | HIGH ARC SPOUT, LEVER STYLE HANDLE, PULL DOWN SPOUT, STREAM OR SPRAY MODES, STAINLESS FINISH, ADA APPROVED. PROVIDE & INSTALL DISPOSAL EQUAL TO "ISE" BADGER 5, CONTINUOUS FEED, 1/2 HP, 120V, 6.3 AMPS, WITH DISHWASHER DRAIN CONNECTION, WITH FACTORY POWER CORD INSTALLED.   |
| S-2   | SINK, ADA            | ELKAY ECTSRAD3228TBG       | ELKAY CROSSTOWN 18 GAUGE STAINLESS STEEL 33" x 22" x 6" EQUAL DOUBLE BOWL MOUNT ADA SINK KIT. SINK IS HANDMADE/FABRICATED FROM 18 GAUGE 304 STAINLESS STEEL WITH A POLISHED SATIN FINISH, REAR CENTER DRAIN PLACEMENT, AND FULL SPRAY SIDES AND BOTTOM WITH SIDES AND BOTTOM PADS. ORDER WITH LK35 STRAINER BASKET & TAILPIECE.   | MOEN 7402SRS               | HIGH ARC SPOUT, LEVER STYLE HANDLE, PULL DOWN SPOUT, STREAM OR SPRAY MODES, STAINLESS FINISH, ADA APPROVED. PROVIDE & INSTALL DISPOSAL EQUAL TO "ISE" BADGER 5, CONTINUOUS FEED, 1/2 HP, 120V, 6.3 AMPS, WITH DISHWASHER DRAIN CONNECTION, WITH FACTORY POWER CORD INSTALLED.   |
| WC-1  | WATER CLOSET, FT     | AMERICAN STANDARD 788AA104 | CADET CHAIR HEIGHT, ELONGATED, TANK TYPE. VITREOUS CHINA, 1.28 GPF, 16 1/2" RIM HEIGHT, FULLY GLAZED 2 1/8" TRAPWAY WITH 3" FLAPPER FLUSH VALVE. WHITE FINISH, CHROME FINISH TRIP LEVER. INCLUDES SLOW-CLOSE SEAT, FLOOR BOLTS, WAX RING GASKET WITH CLOSET BOLTS, AND COLOR MATCH BOWL CAPS KIT. ADA APPROVED. PLUMBER RESPONSIBLE FOR ORDERING UNIT WITH TRIP LEVER ON THE OPEN SIDE OF THE TOILET. | N/A                        | N/A   |
| WC-2  | WATER CLOSET, FV     | AMERICAN STANDARD 3043.001 | MADERA FLOWWISE ELONGATED, FLOOR MOUNT FLUSH VALVE. VITREOUS CHINA, 16 1/2" RIM HEIGHT, FULLY GLAZED 2 1/8" TRAPWAY, DIRECT-FED SIPHON JET, 1 1/2" INLET SPOUT, 2 BOLT CAPS INCLUDED. WHITE FINISH, ADA APPROVED. HINGES AND STAINLESS STEEL HARDWARE.  | SLOAN REGAL 111-1.6        | 1.6 GPF, XL SWEAT SOLDER ADAPTER KIT, POLISHED CHROME FINISH, FIXTURE CONNECTION TOP SPOUT, SINGLE FLUSH. ADA APPROVED.   |
| WH-1  | WALL HYDRANT         | ZURN Z1321XL               | EXPOSED ANTI-SIPHON, AUTOMATIC DRAINING, INTEGRAL BACKFLOW PREVENTER, COPPER CASING, 1/2 TURN CERAMIC DISC CARTRIDGE. STAINLESS STEEL FACE WITH OPERATING KEY LOCK. ORDER ACCORDINGLY FOR WALL THICKNESS.   | N/A                        | N/A   |
| WMB-1 | WASHING MACHINE BOX  | OATEY 38470                | 2-HOUR RATED WASHING MACHINE OUTLET BOX. TOP OR BOTTOM MOUNTED SUPPLY LINES. 1/4 TURN BRASS BALL VALVES. ADJUSTABLE METAL SUPPORT BRACKET SHALL BE INSTALLED ON TOP OR BOTTOM OF UNIT FOR SUPPORT IN STUD WALL. 2" DRAIN WITH 1/4 TURN TEST CAP.  | N/A                        | N/A   |

MICHIGAN  
 RENOVATION OF  
**CABOT APARTMENTS**  
 13725 DEXTER AVENUE  
 DETROIT

06.24.2025 BIDS  
 05.09.2025 PERMIT  
 DATE ISSUE

KEY PLAN

NOTE: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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13725 DEXTER AVENUE

DETROIT

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05.09.2025 PERMIT  
DATE ISSUE

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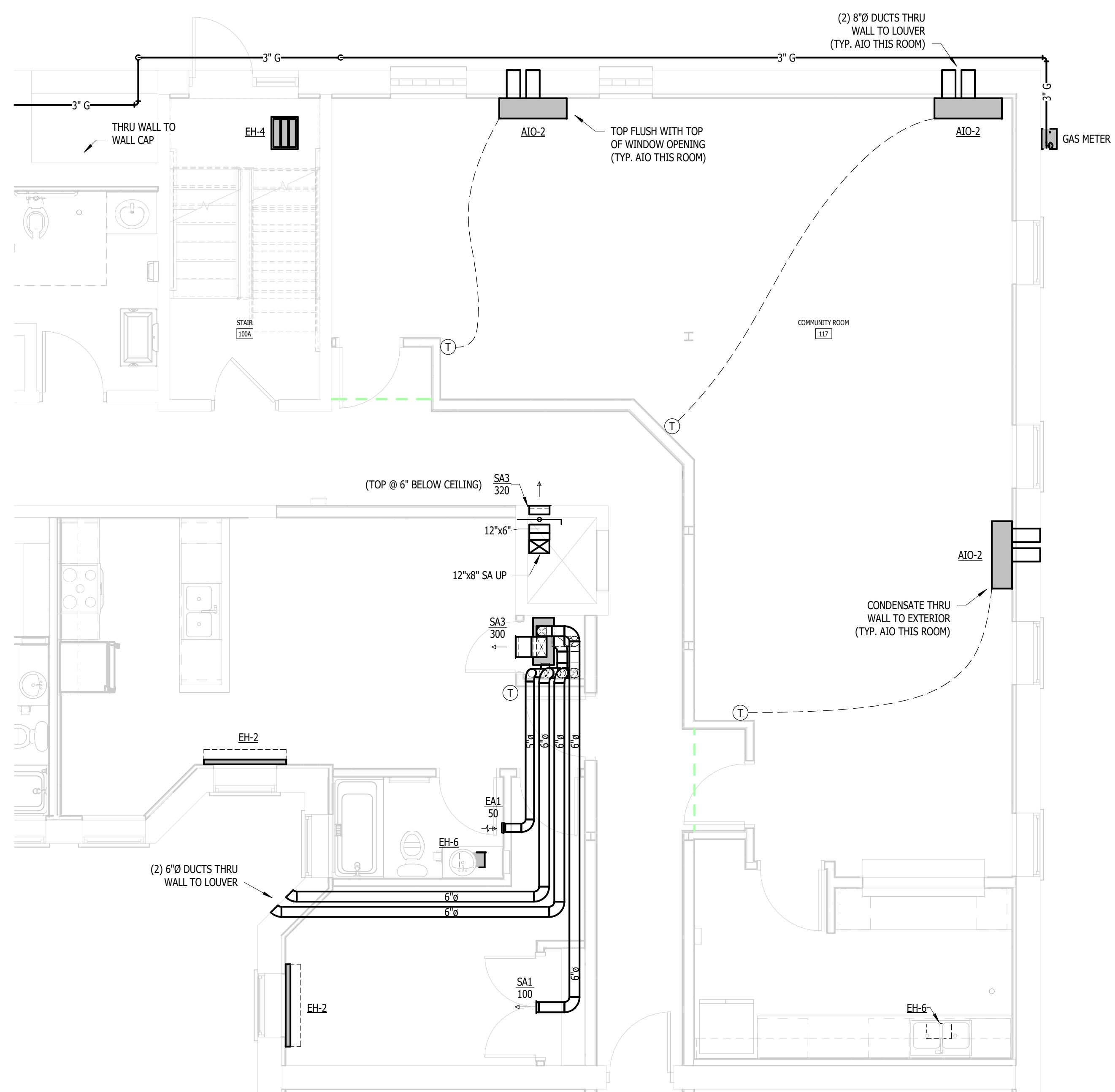
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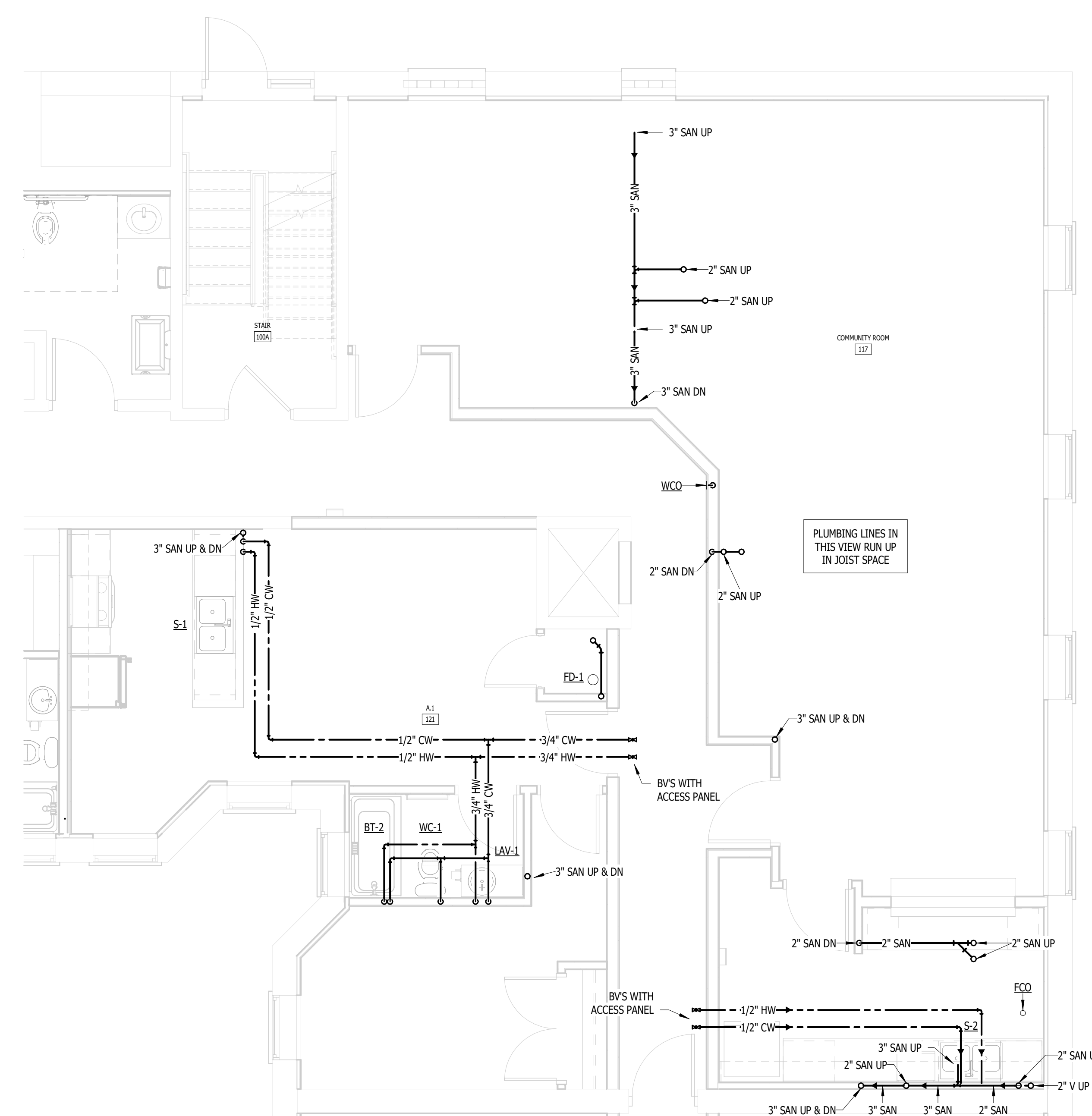
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DRAWING NUMBER

**M.P.501**



2  
M.P.501  
ENLARGED FIRST FLOOR PLAN - MECHANICAL  
NOT TO SCALE



1  
M.P.501  
ENLARGED FIRST FLOOR PLAN - PLUMBING  
NOT TO SCALE



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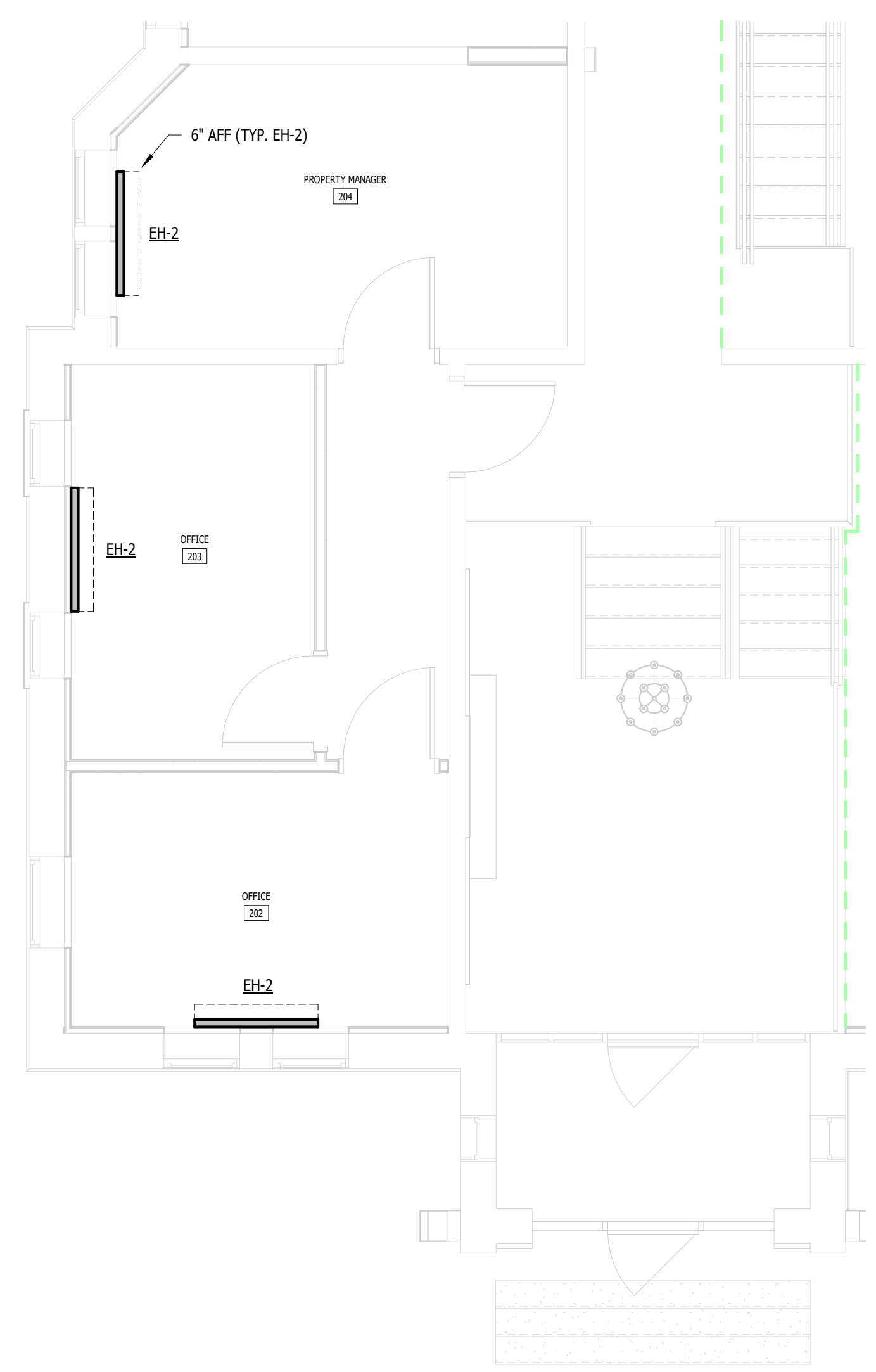
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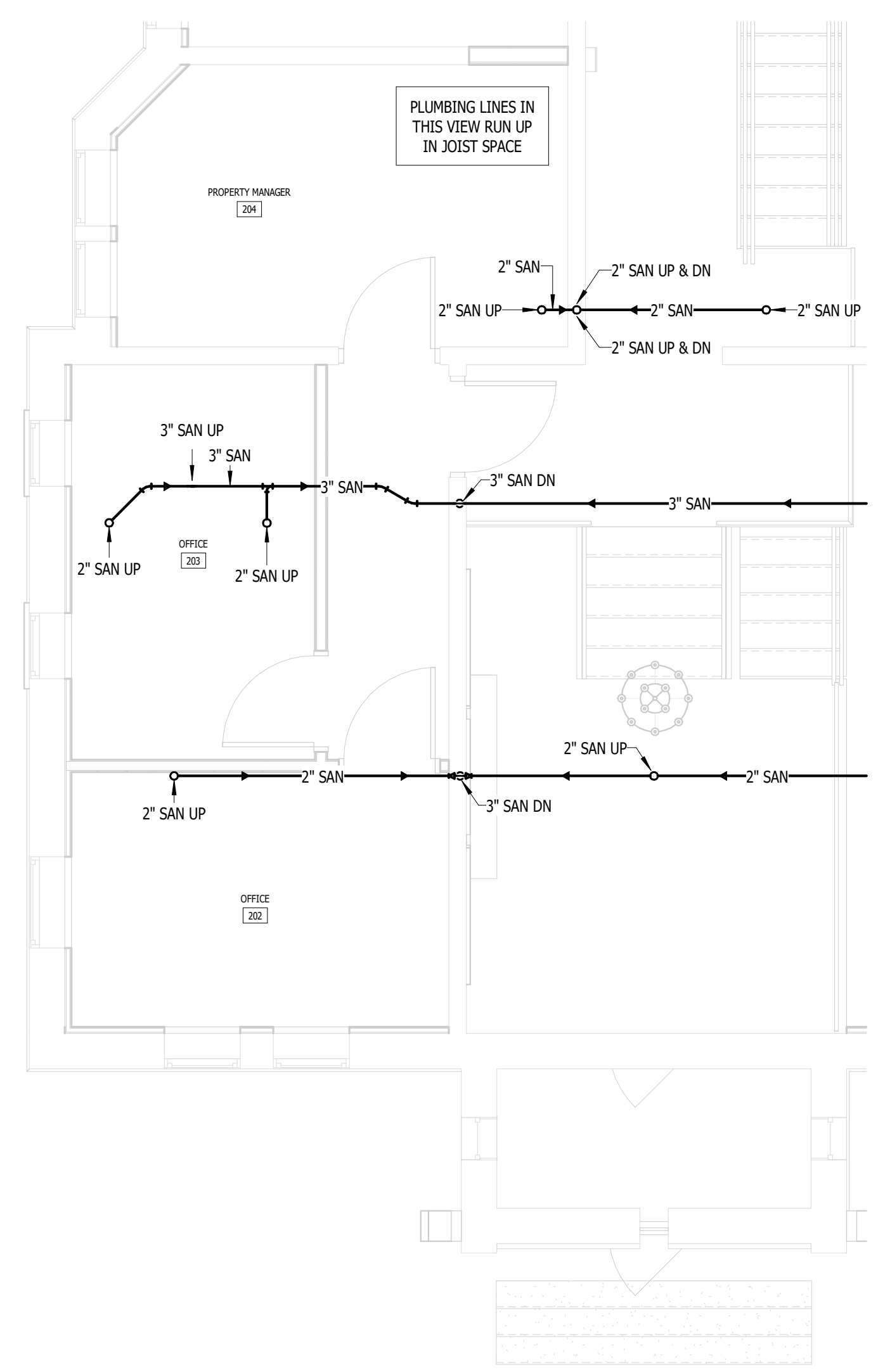
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RENOVATION OF  
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13725 DEXTER AVENUE

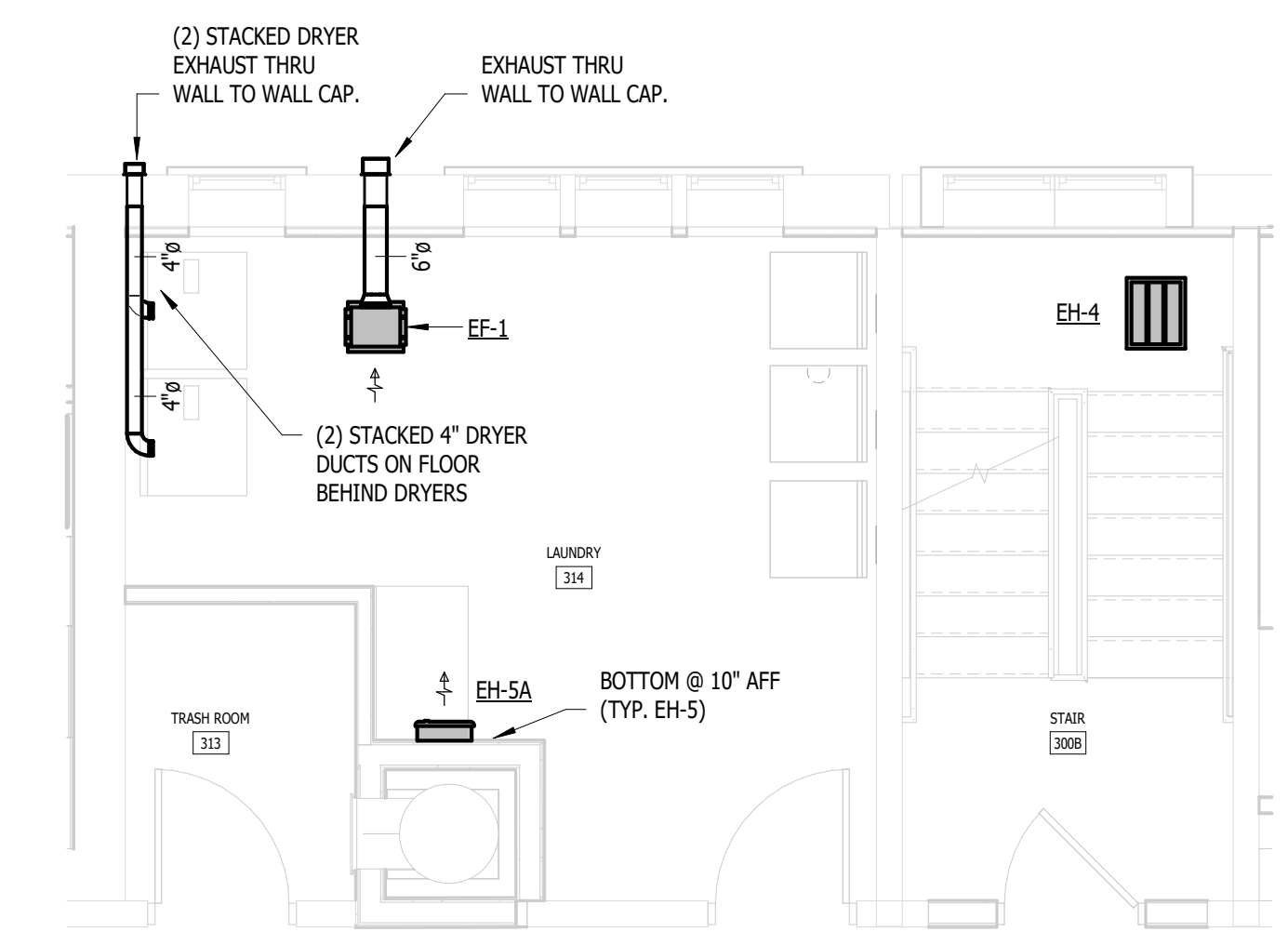
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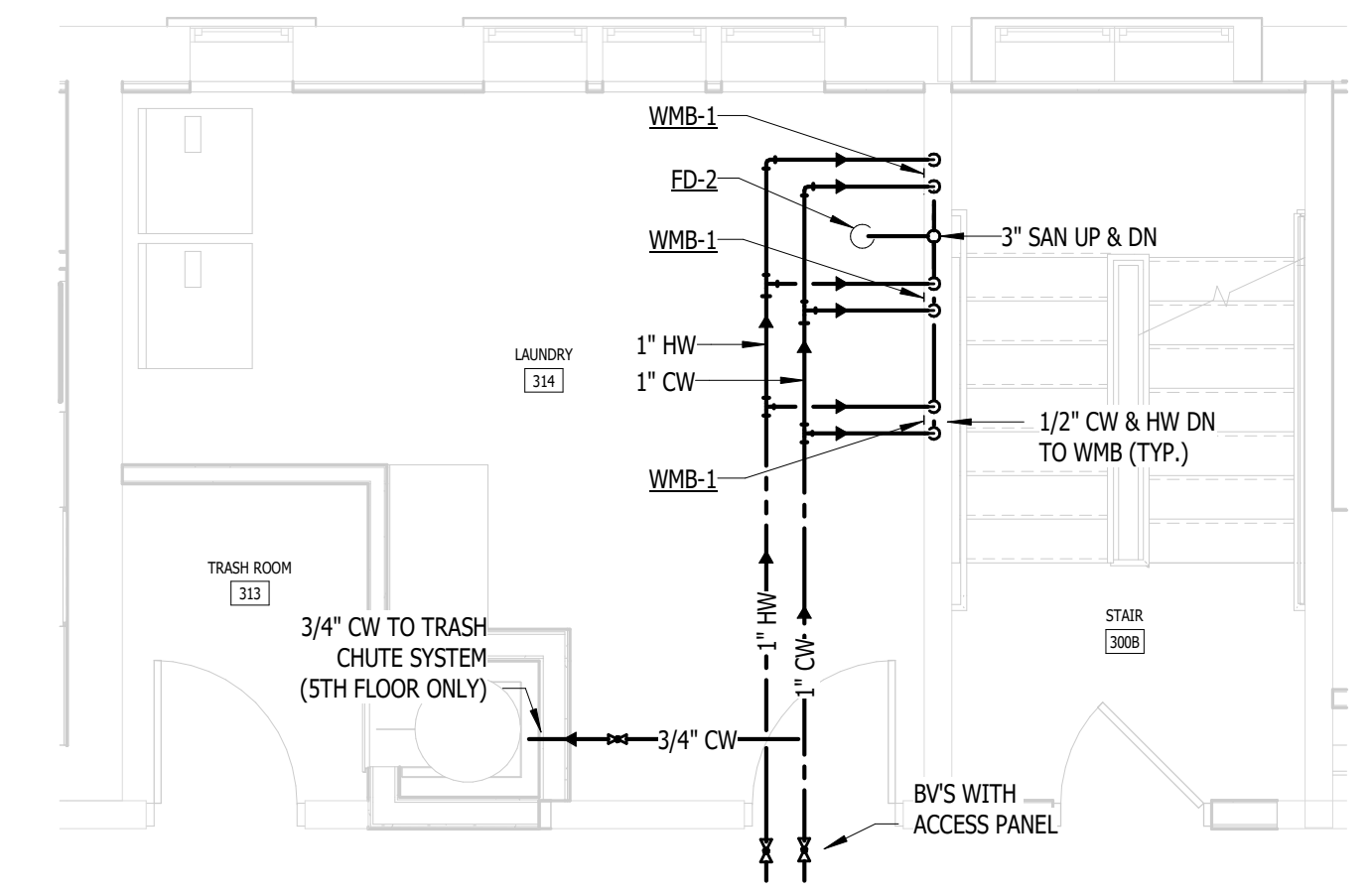
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OFFICE ENLARGED PLAN - MECHANICAL  
NOT TO SCALE



3  
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OFFICE ENLARGED PLAN - PLUMBING  
NOT TO SCALE



2  
M.P.503  
ENLARGED PLAN - LAUNDRY (3RD-5TH FLOOR) - MECHANICAL  
NOT TO SCALE



1  
M.P.503  
ENLARGED PLAN - LAUNDRY (3RD-5TH FLOOR) - PLUMBING  
NOT TO SCALE

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| 05.09.2025 | PERMIT |
| DATE       | ISSUE  |

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FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

ENLARGED M & P - OFFICES + LAUNDRY

DRAWING NUMBER

M.P.503



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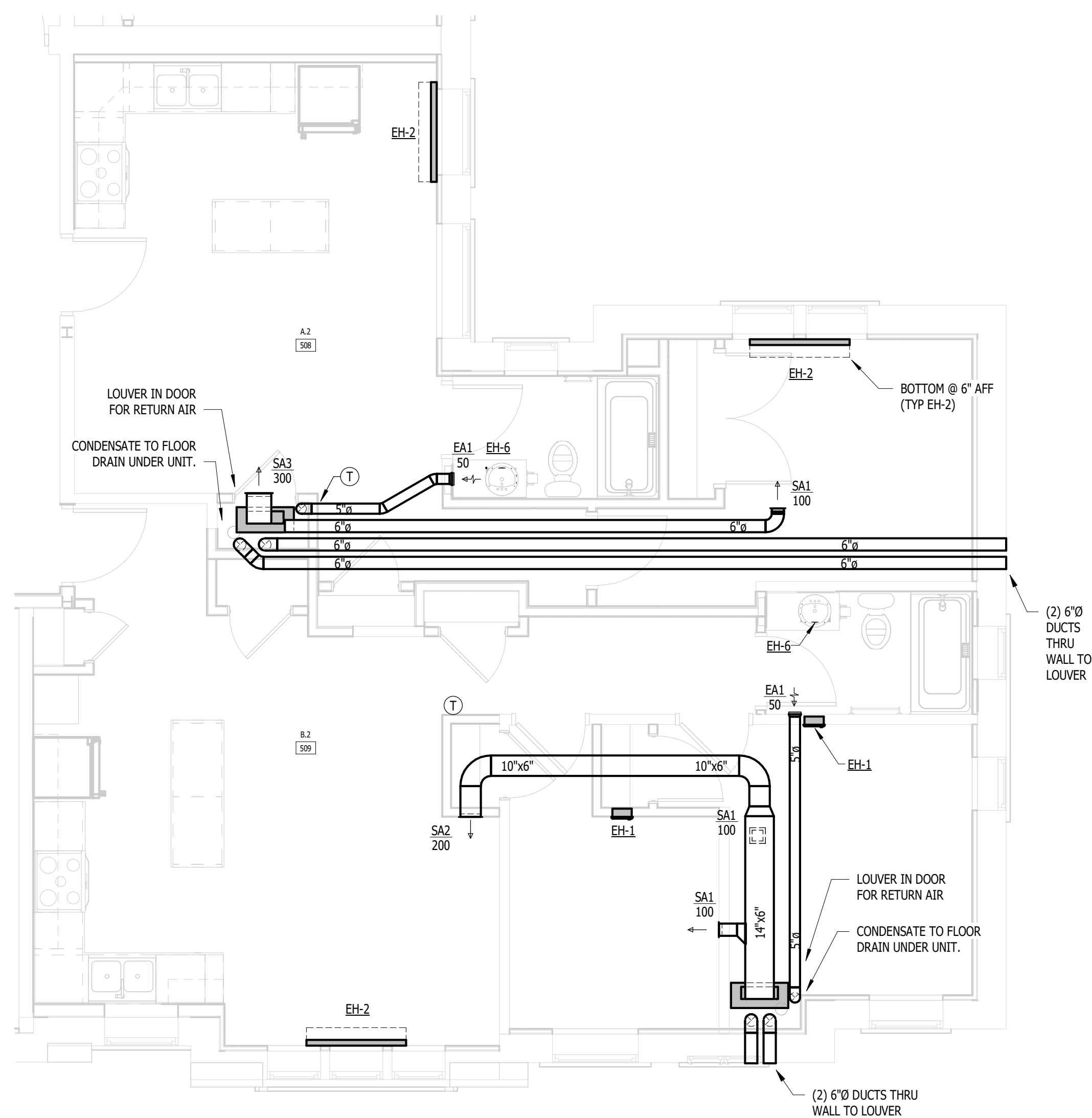
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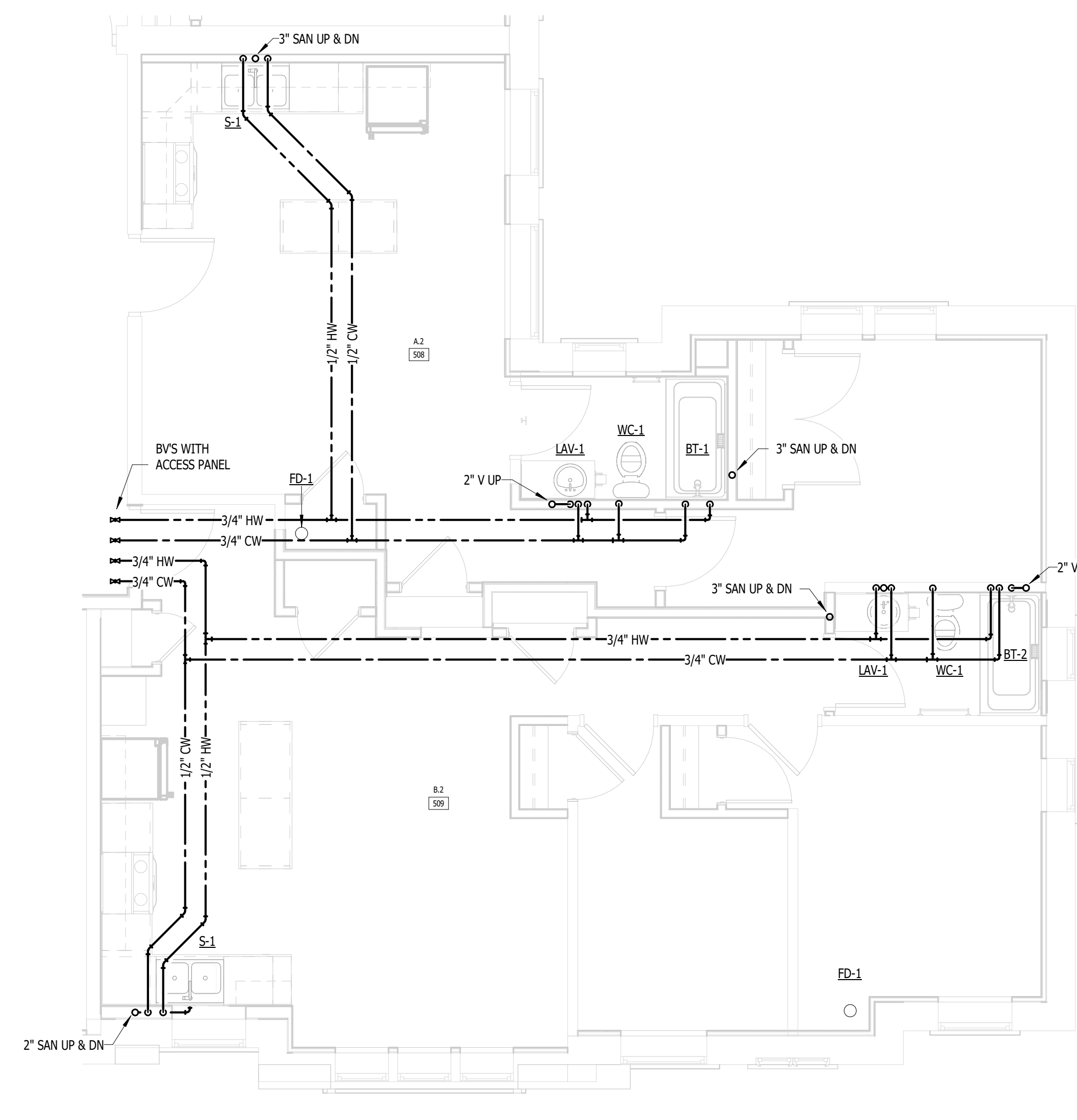
ENLARGED M & P - A-2, B.2

DRAWING NUMBER

**M.P.511**



**UNIT A.2, B.2 (1ST-5TH FLOOR) - MECHANICAL**  
M.P.511 NOT TO SCALE



**UNIT A.2, B.2 (1ST-5TH FLOOR) - PLUMBING**  
M.P.511 NOT TO SCALE

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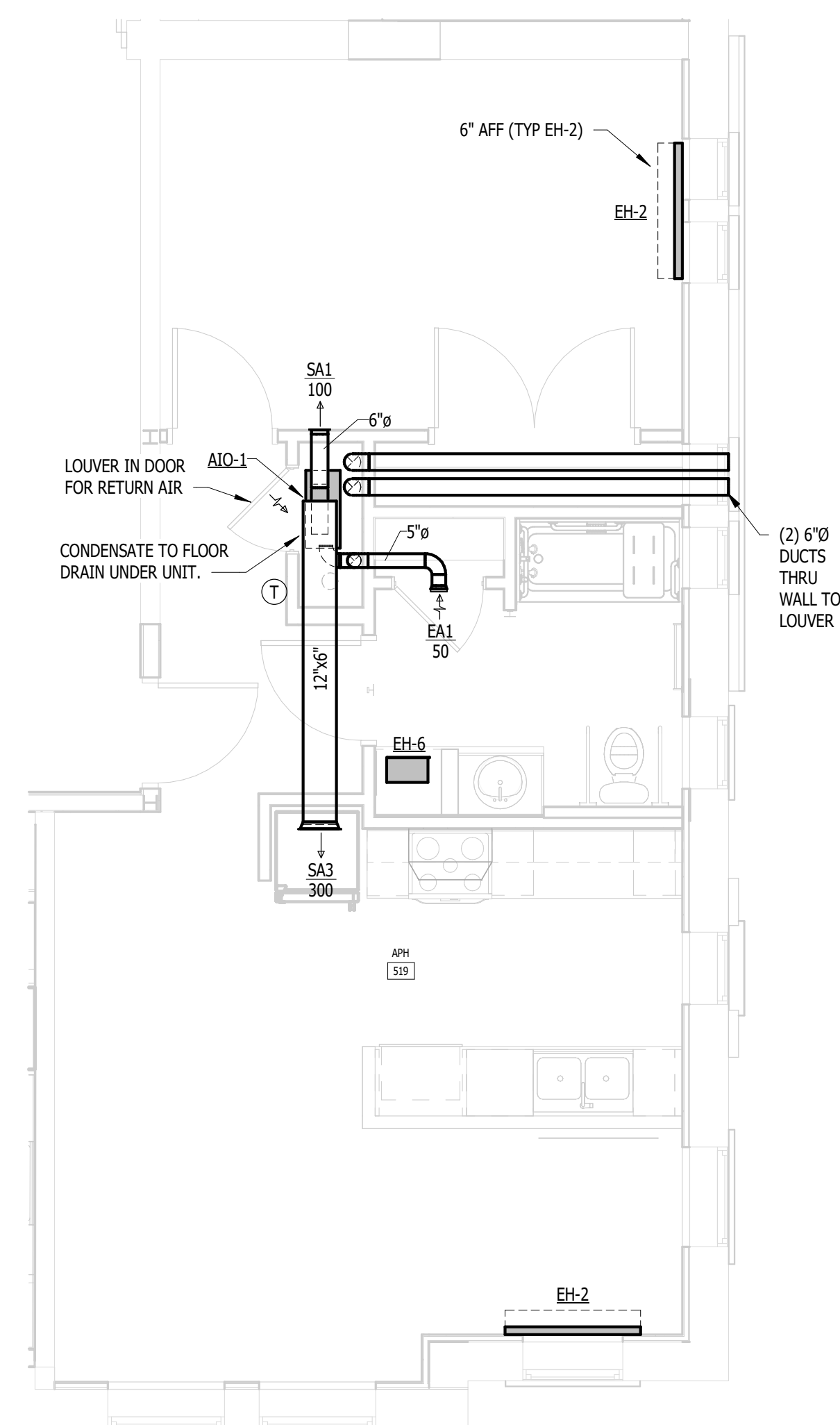
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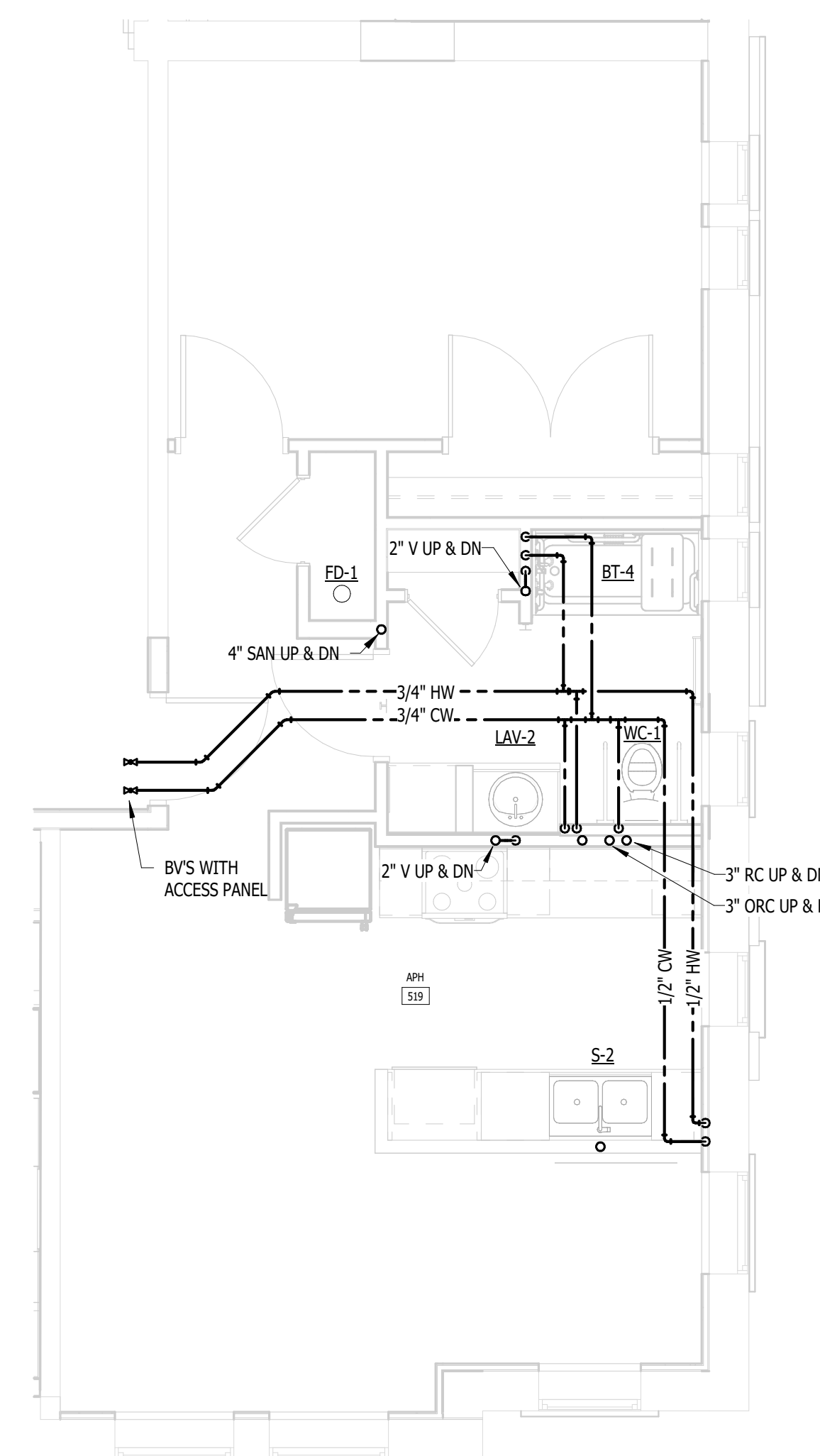
ENLARGED M & P - APH

DRAWING NUMBER

**M.P.512**



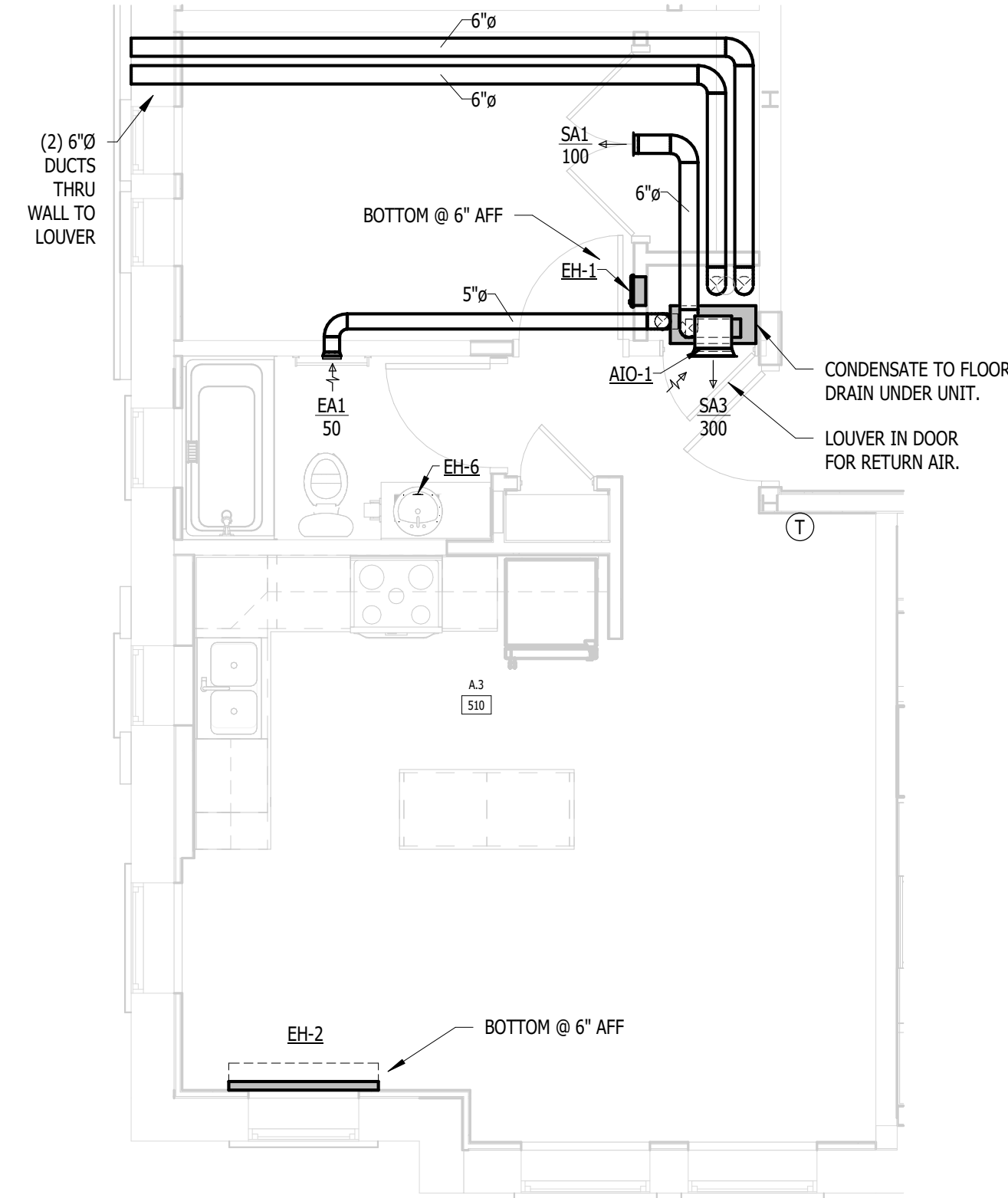
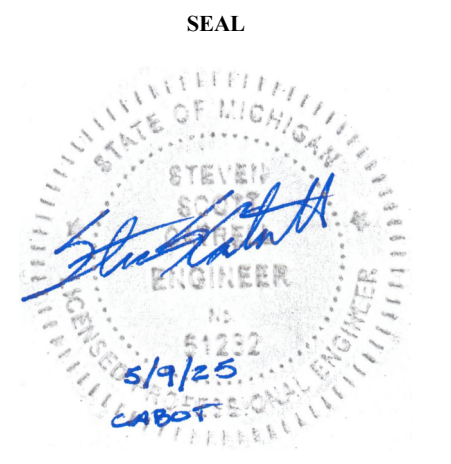
**UNIT APH (2ND-5TH FLOOR) - MECHANICAL**  
NOT TO SCALE



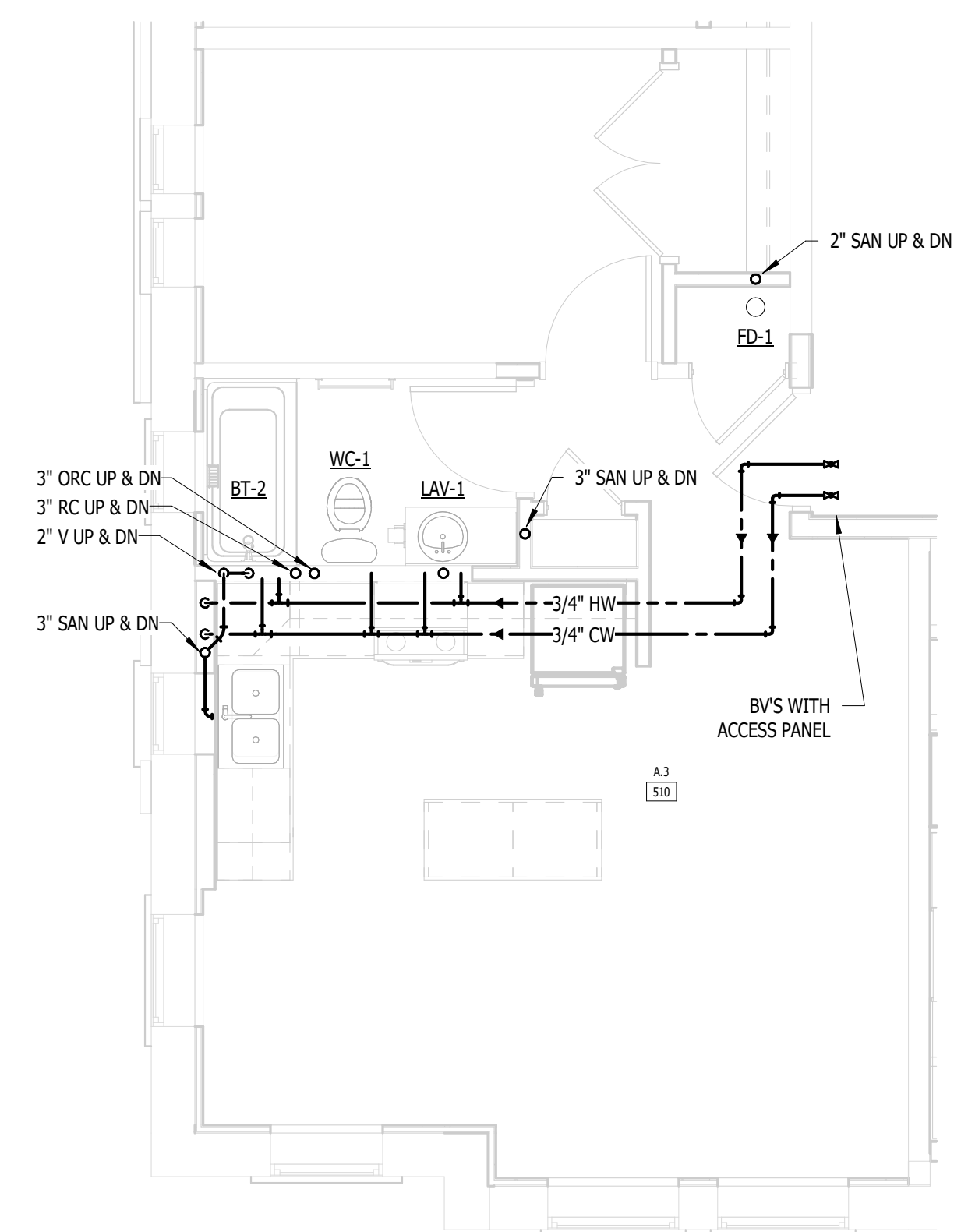
**UNIT APH (2ND-5TH FLOOR) - PLUMBING**  
NOT TO SCALE

NOTE: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

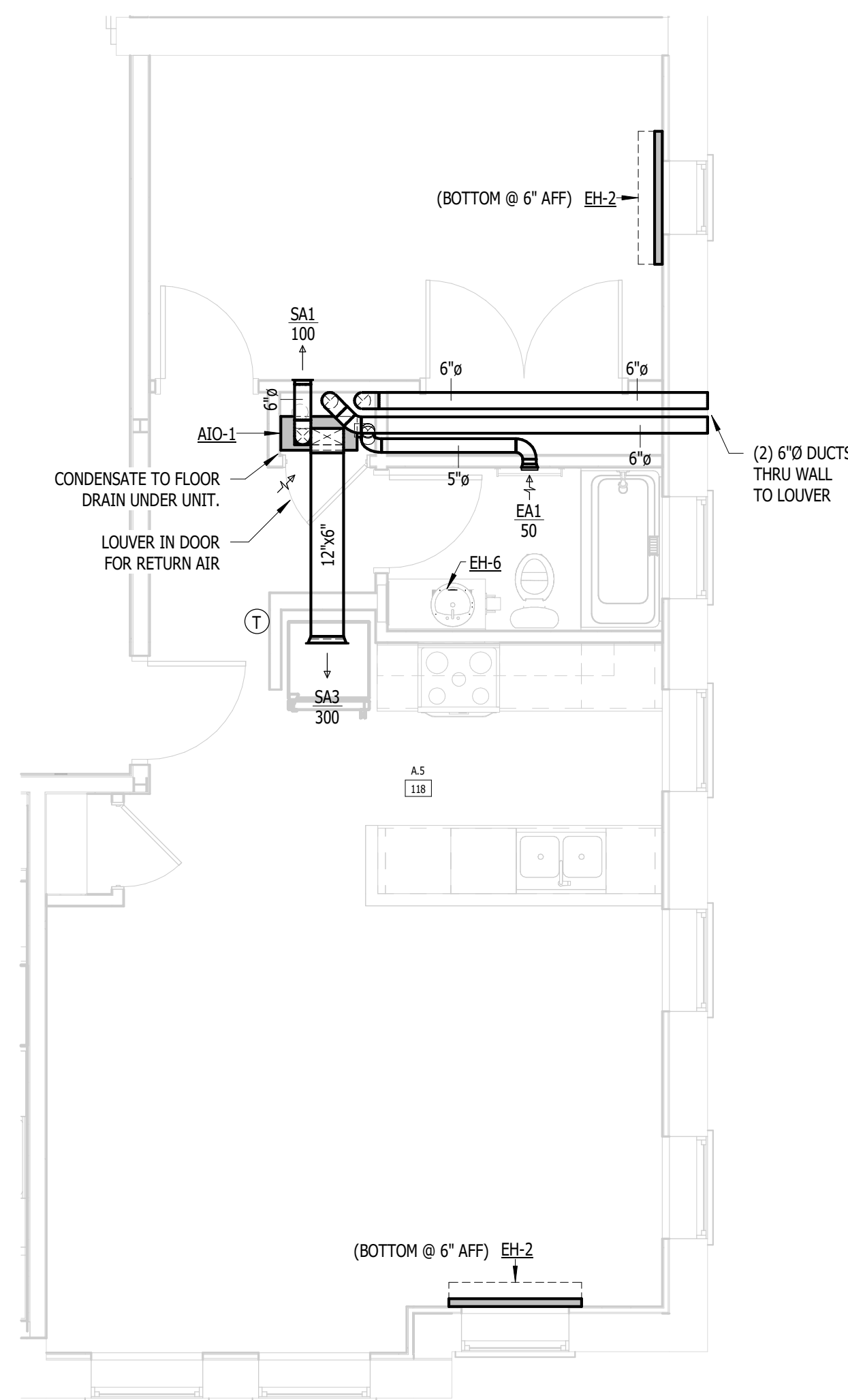
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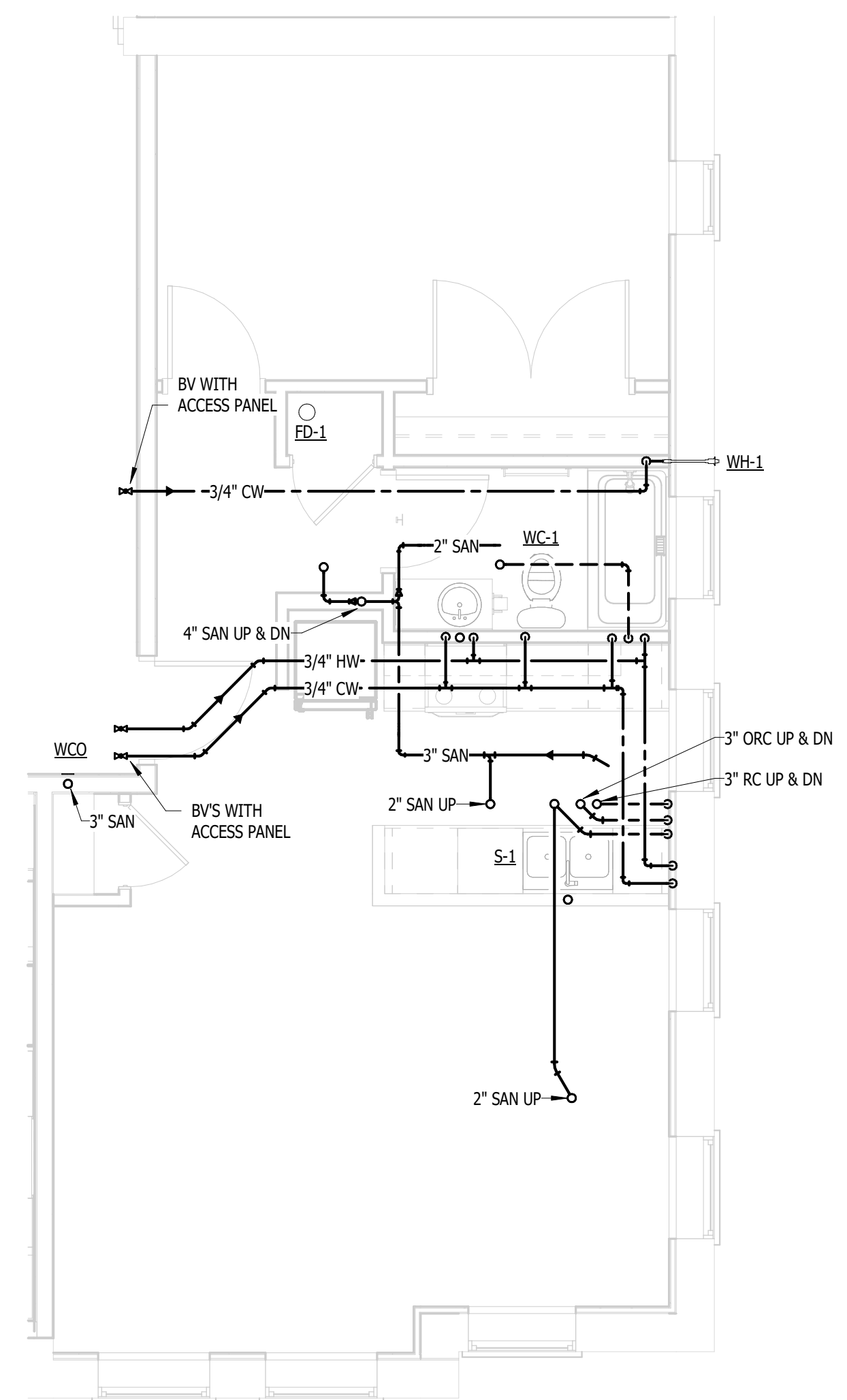
4  
M.P.513  
UNIT A.3 (1ST-5TH FLOOR) - MECHANICAL  
NOT TO SCALE



3  
M.P.513  
UNIT A.3 (1ST-5TH FLOOR) - PLUMBING  
NOT TO SCALE



2  
M.P.513  
UNIT A.5 (1ST FLOOR) - MECHANICAL  
NOT TO SCALE



1  
M.P.513  
UNIT A.5 (1ST FLOOR) - PLUMBING  
NOT TO SCALE

RENOVATION OF  
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13725 DEXTER AVENUE

MICHIGAN

DETROIT

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KEY PLAN

FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

ENLARGED M & P - A.3, A.5

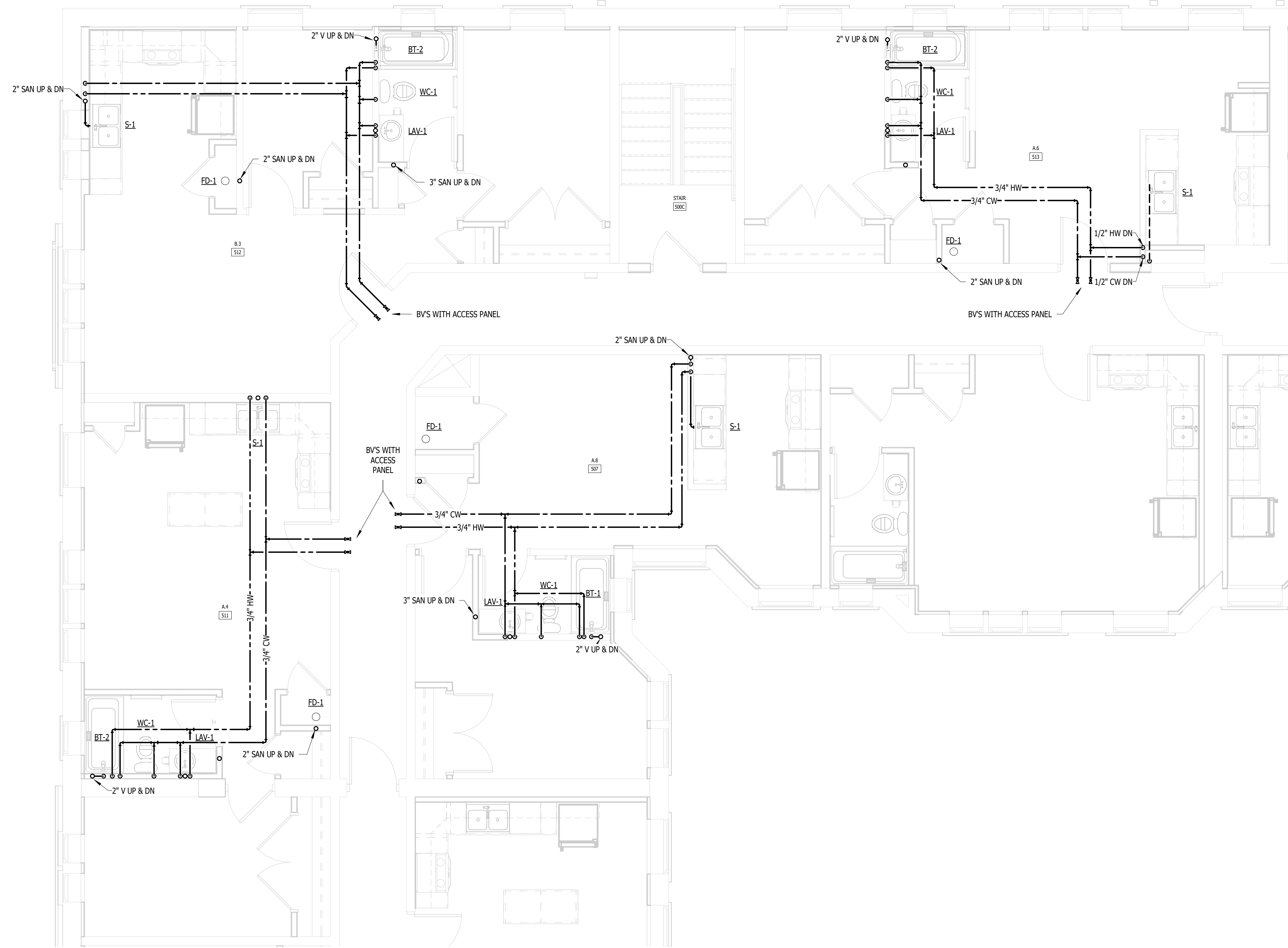
DRAWING NUMBER

M.P.513

NOTE | IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

ENLARGED M & P - A.4, A.6, A.8, B.3

DRAWING NUMBER

**M.P.514**

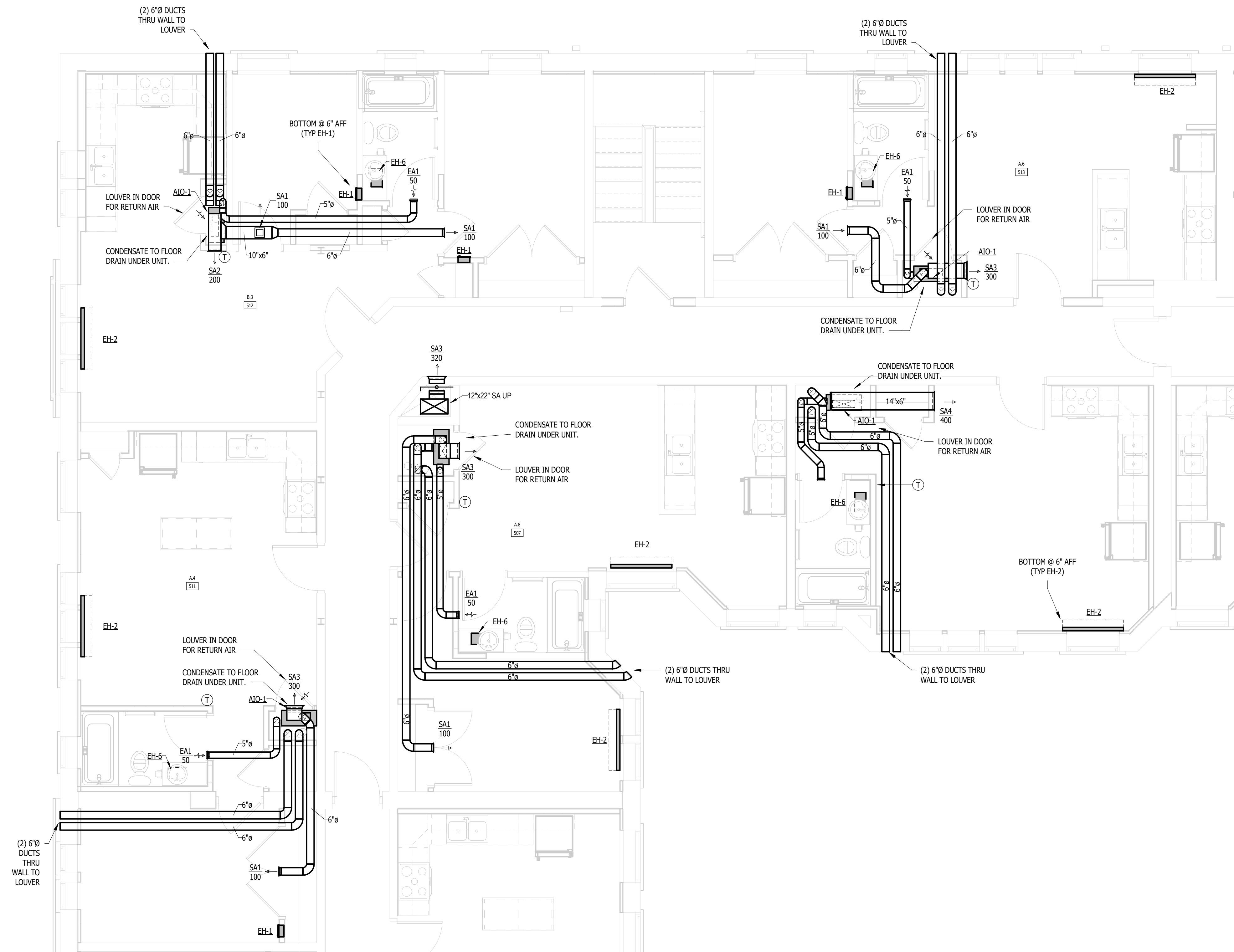
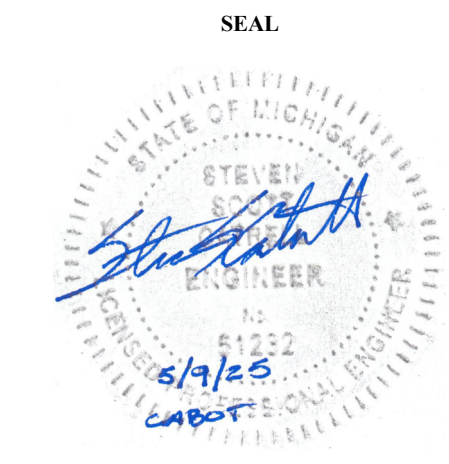
**UNITS A.4, A.6, A.8, B.3 (1ST-5TH FLOOR) - PLUMBING**

1  
M.P.514

NOT TO SCALE

NOTE: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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1 M.P.515 UNITS A.4, A.6, A.8, B.3 (1ST-5TH FLOOR) - MECHANICAL  
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FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

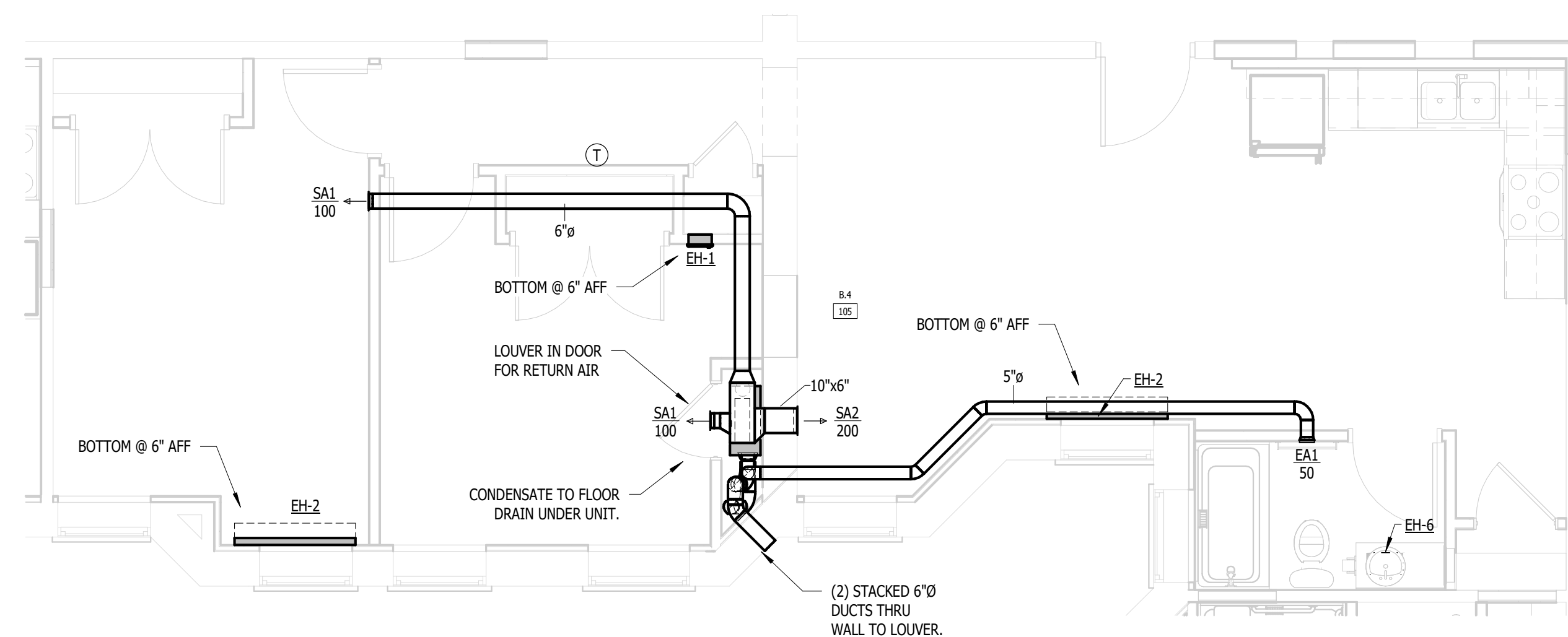
ENLARGED M & P - A.4, A.6, A.8, B.3

DRAWING NUMBER

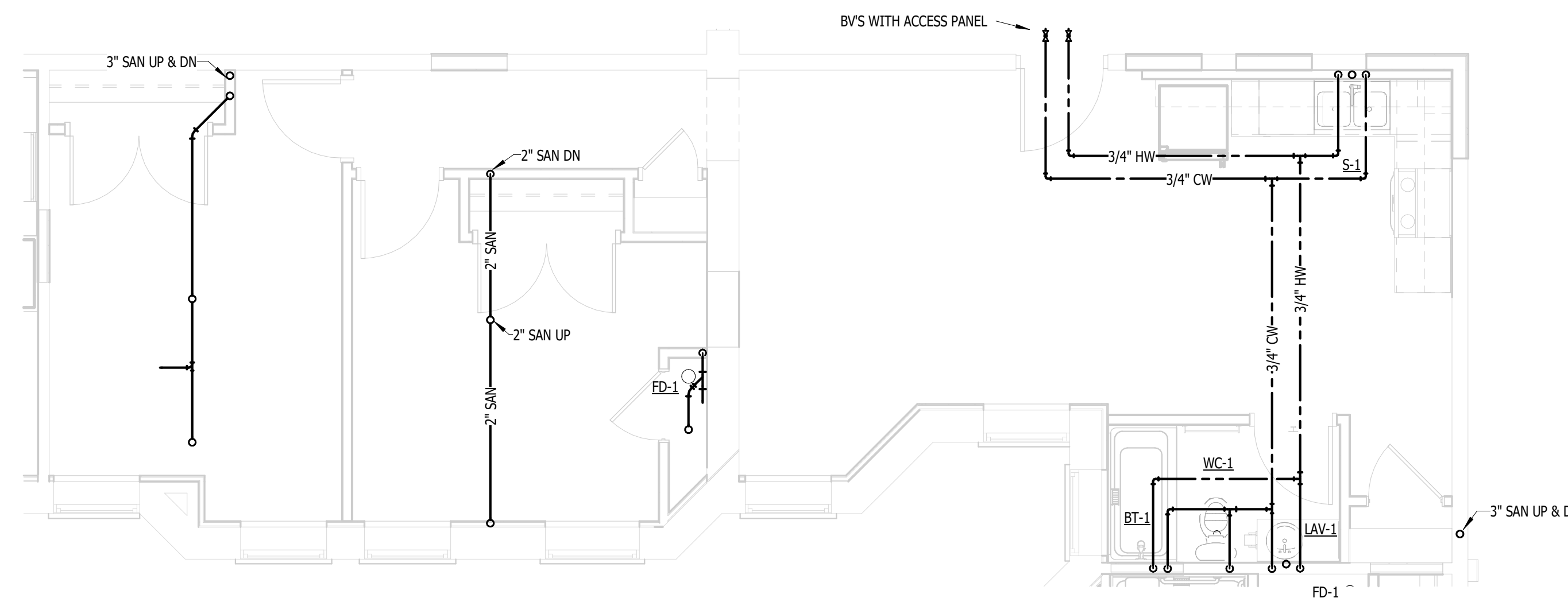
**M.P.515**

NOTE | IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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2 UNIT B.4 (1ST FLOOR) - MECHANICAL  
M.P.516 NOT TO SCALE



1 UNIT B.4 (1ST FLOOR) - PLUMBING  
M.P.516 NOT TO SCALE

MICHIGAN

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FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

ENLARGED M & P - B.4

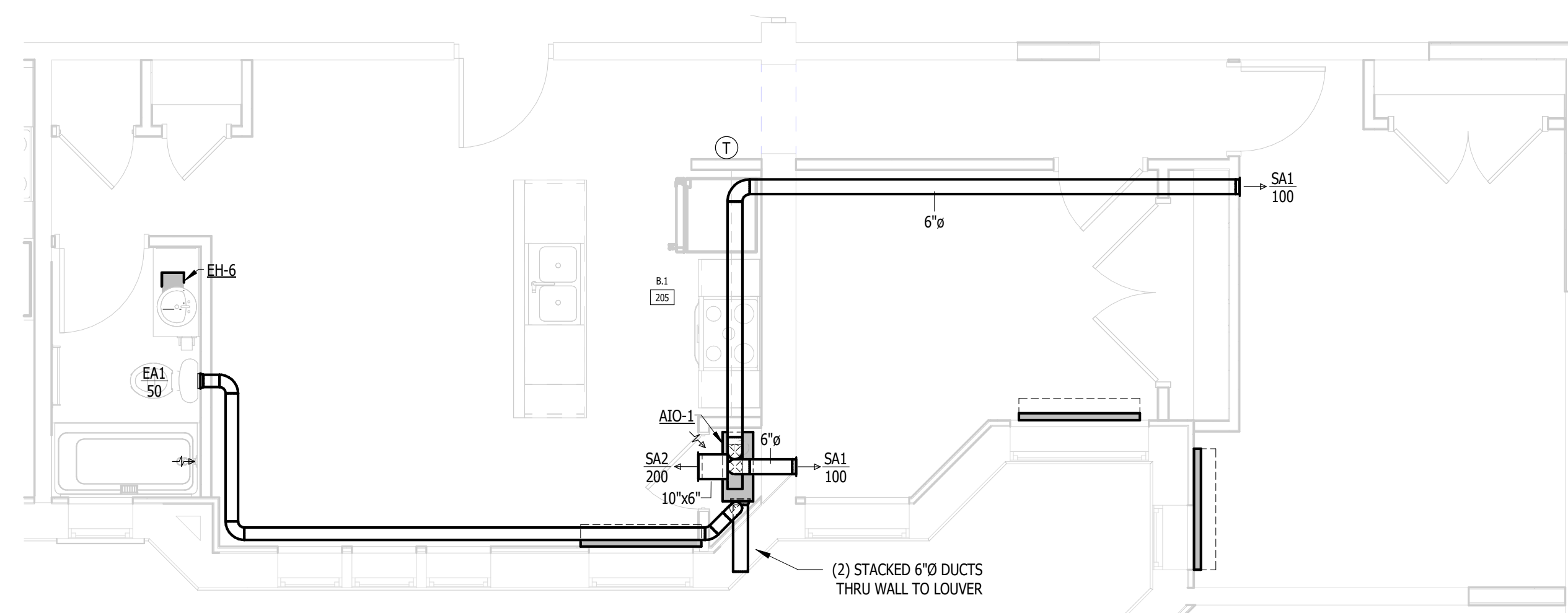
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M.P.516

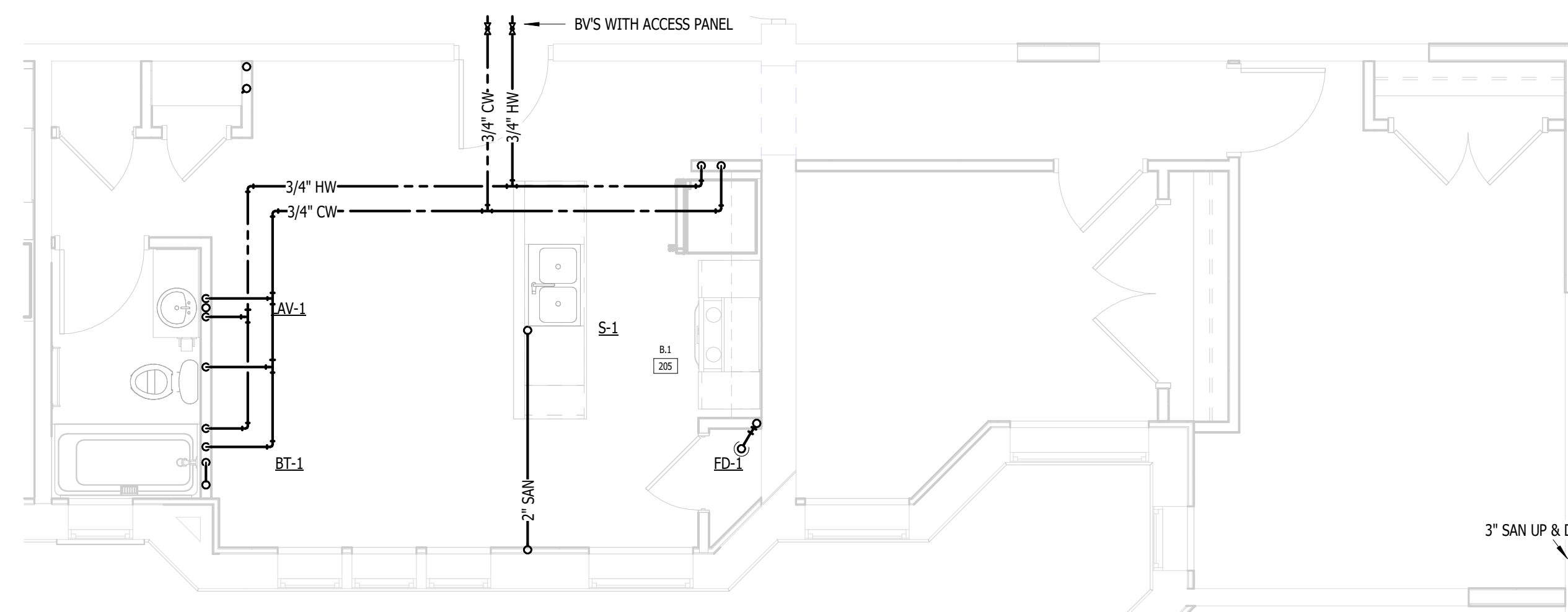
NOTE | IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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2 UNIT B.1 (2ND-3RD FLOOR) - MECHANICAL  
M.P.517 NOT TO SCALE



1 UNIT B.1 (2ND-3RD FLOOR) - PLUMBING  
M.P.517 NOT TO SCALE

RENOVATION OF  
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FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

ENLARGED M & P - B.1

DRAWING NUMBER

**M.P.517**



MEP CONSULTING ENGINEER  
 491 E. WRIGHT AVE.  
 SHEPHERD MI, 48883  
 989-567-1100  
 KTSENGINEERINGGROUP.COM  
 KTS PROJECT NO. 25-0251

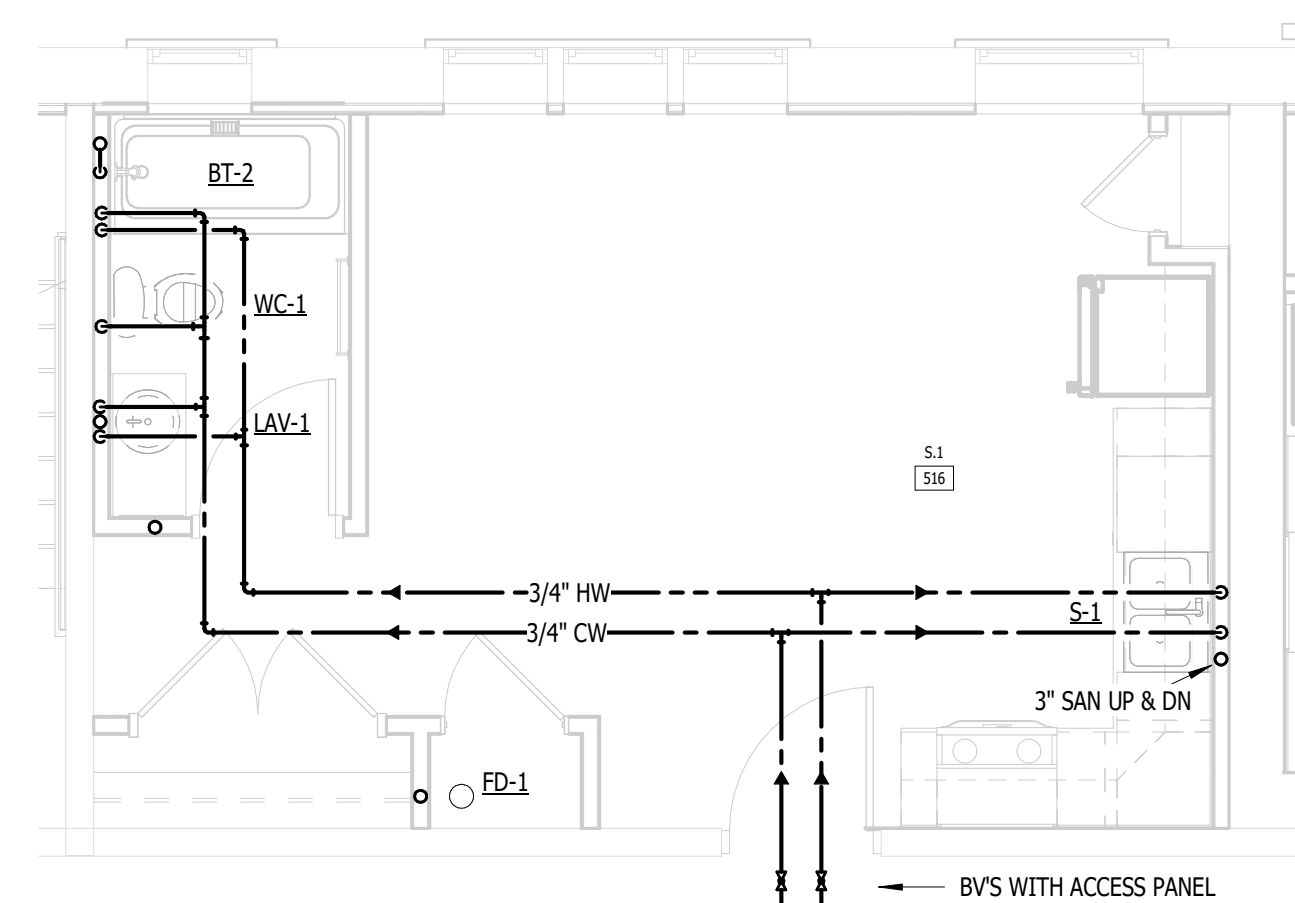


550 E. NINE MILE ROAD  
 FERNDALE, MICHIGAN, 48220  
 PHONE 248.543.4100 FAX 248.543.4141

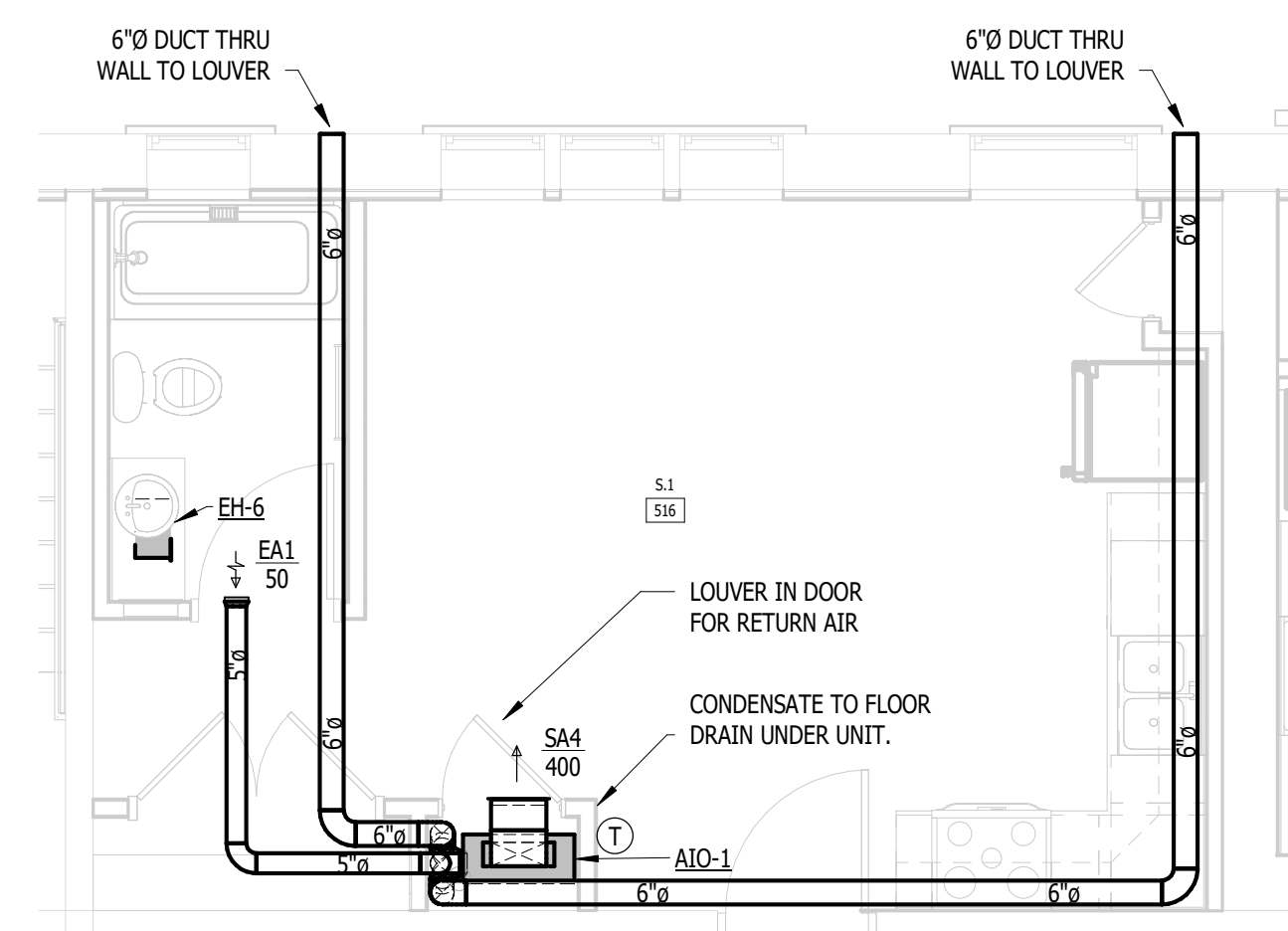
NOTE | IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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1 UNIT S.1 (2ND-5TH FLOOR) - PLUMBING  
 M.P.518/ NOT TO SCALE



2 UNIT S.1 (2ND-5TH FLOOR) - MECHANICAL  
 M.P.518/ NOT TO SCALE

MICHIGAN

RENOVATION OF  
**CABOT APARTMENTS**  
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FSP PROJECT NO.  
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DRAWING TITLE

ENLARGED M & P - S.1

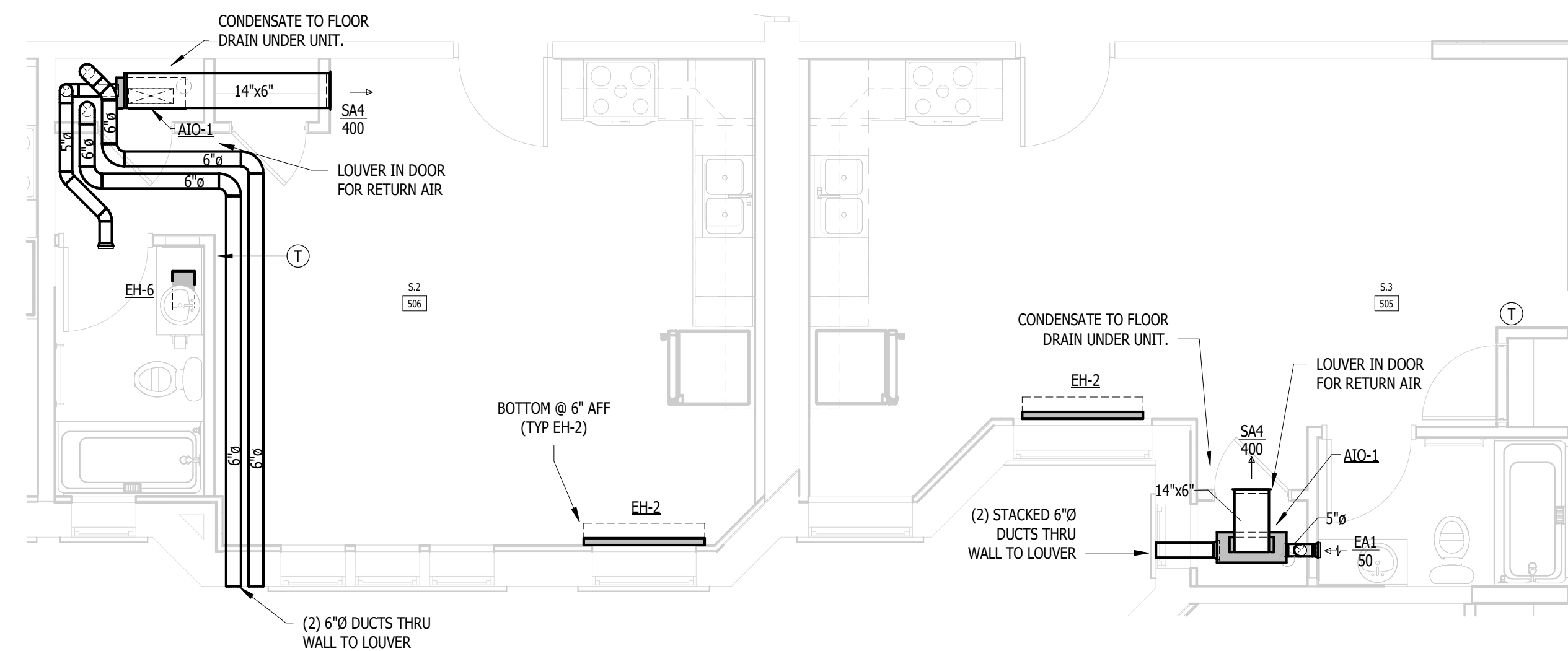
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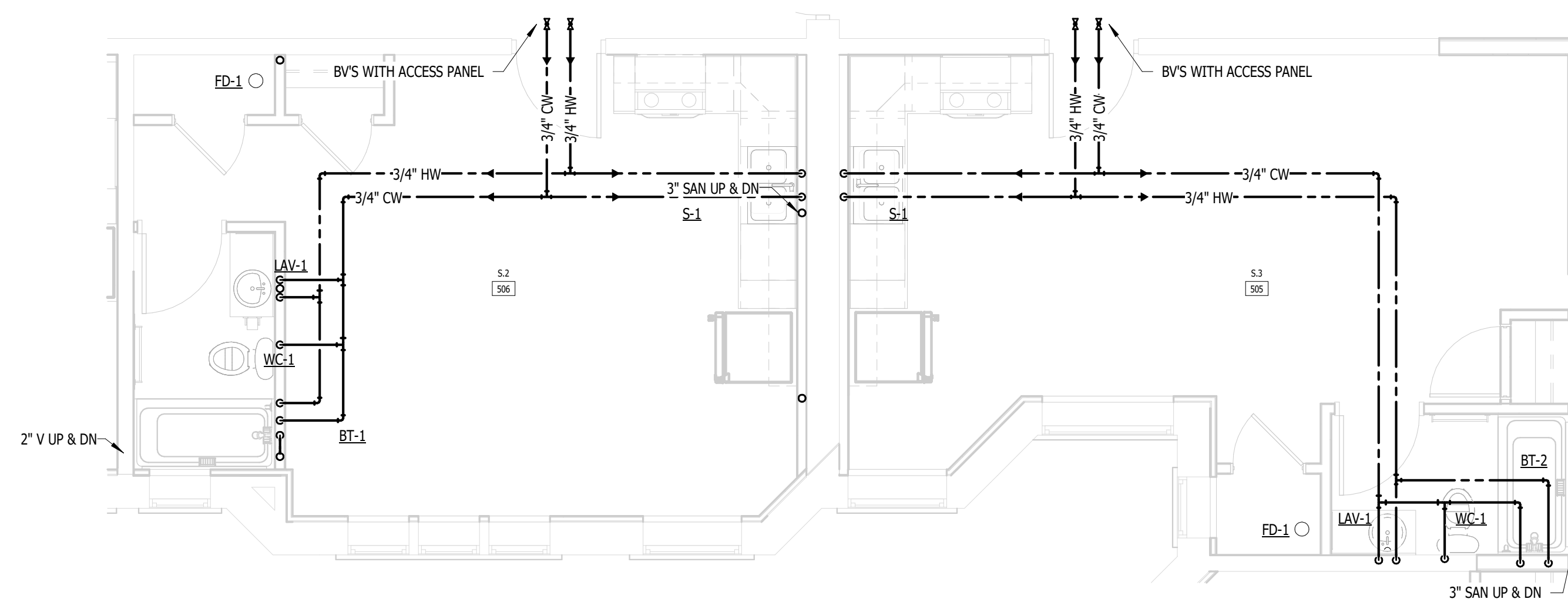
NOTE: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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2 UNIT S.2, S.3 (4TH-5TH FLOOR) - MECHANICAL  
M.P.519 NOT TO SCALE



1 UNIT S.2, S.3 (4TH-5TH FLOOR) - PLUMBING  
M.P.519 NOT TO SCALE

MICHIGAN

RENOVATION OF  
CABOT APARTMENTS  
1375 DEXTER AVENUE

DETROIT

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FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

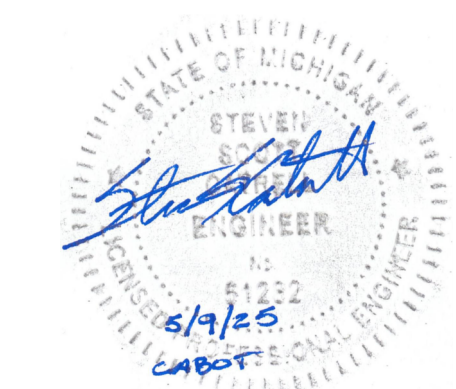
ENLARGED M & P - S.2, S.3

DRAWING NUMBER

M.P.519

NOTE | IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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KEY PLAN

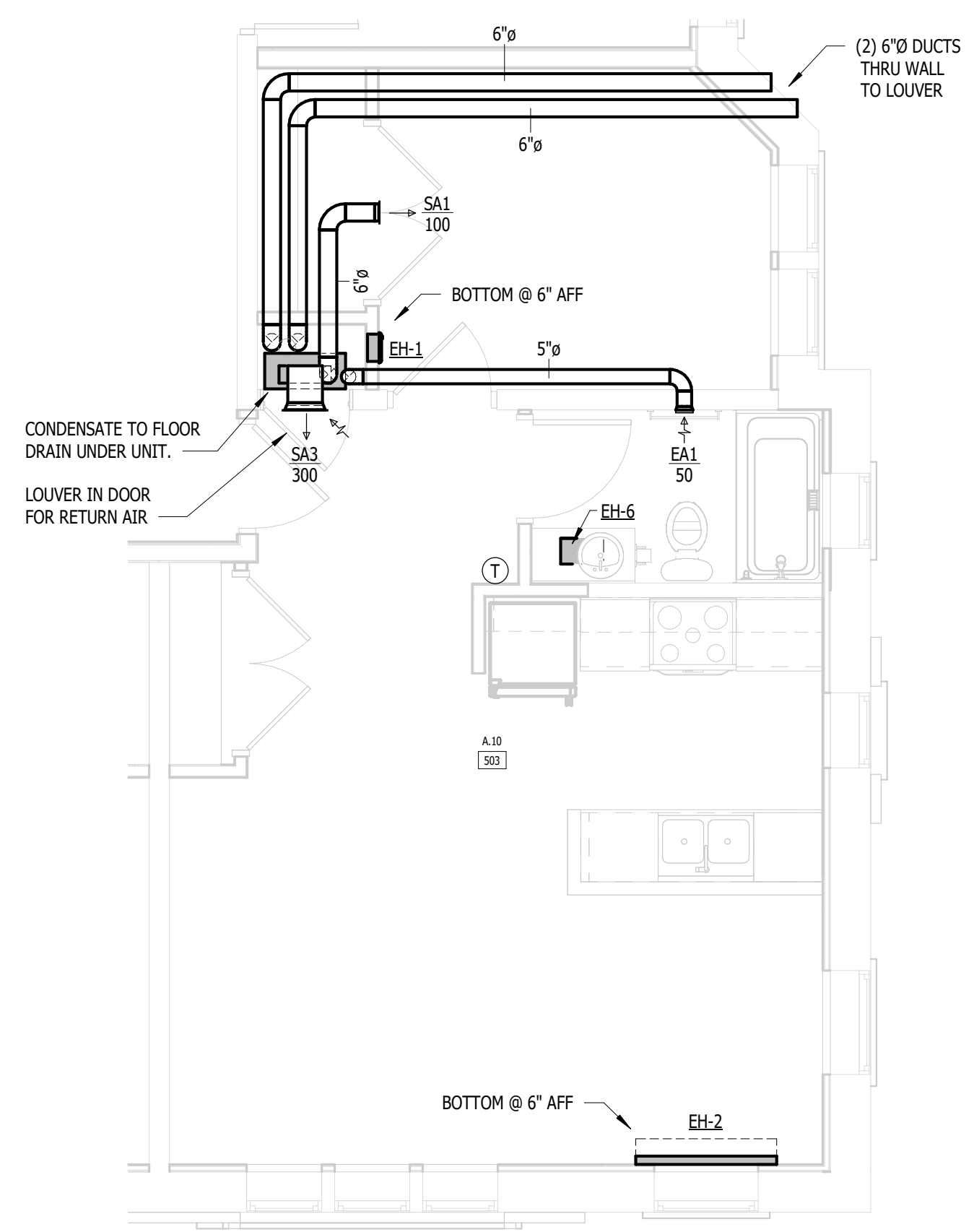
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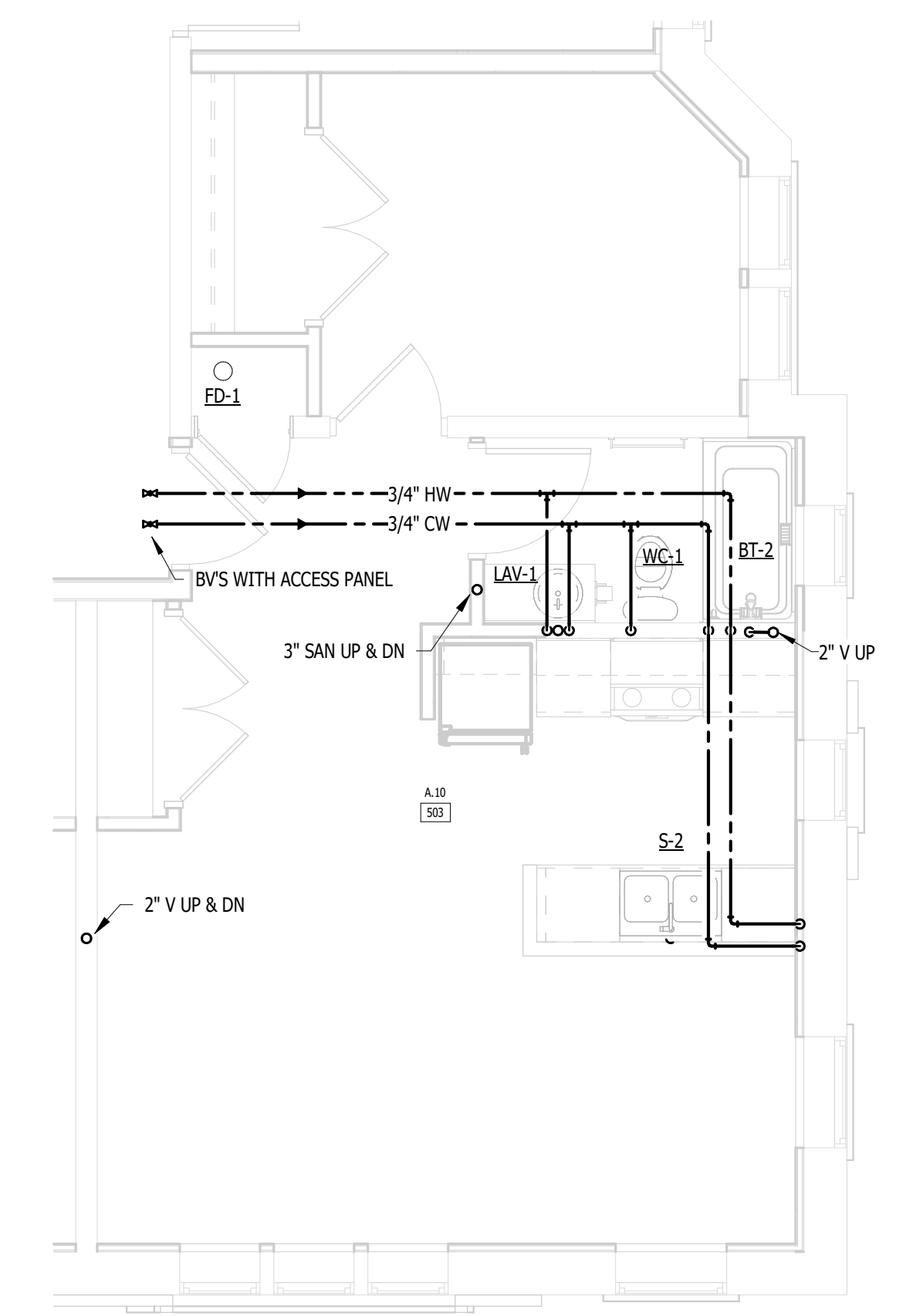
ENLARGED M & P - A.10

DRAWING NUMBER

**M.P.520**



2 UNIT A.10 (3RD-5TH FLOOR) - MECHANICAL  
M.P.520 NOT TO SCALE



1 UNIT A.10 (3RD-5TH FLOOR) - PLUMBING  
M.P.520 NOT TO SCALE



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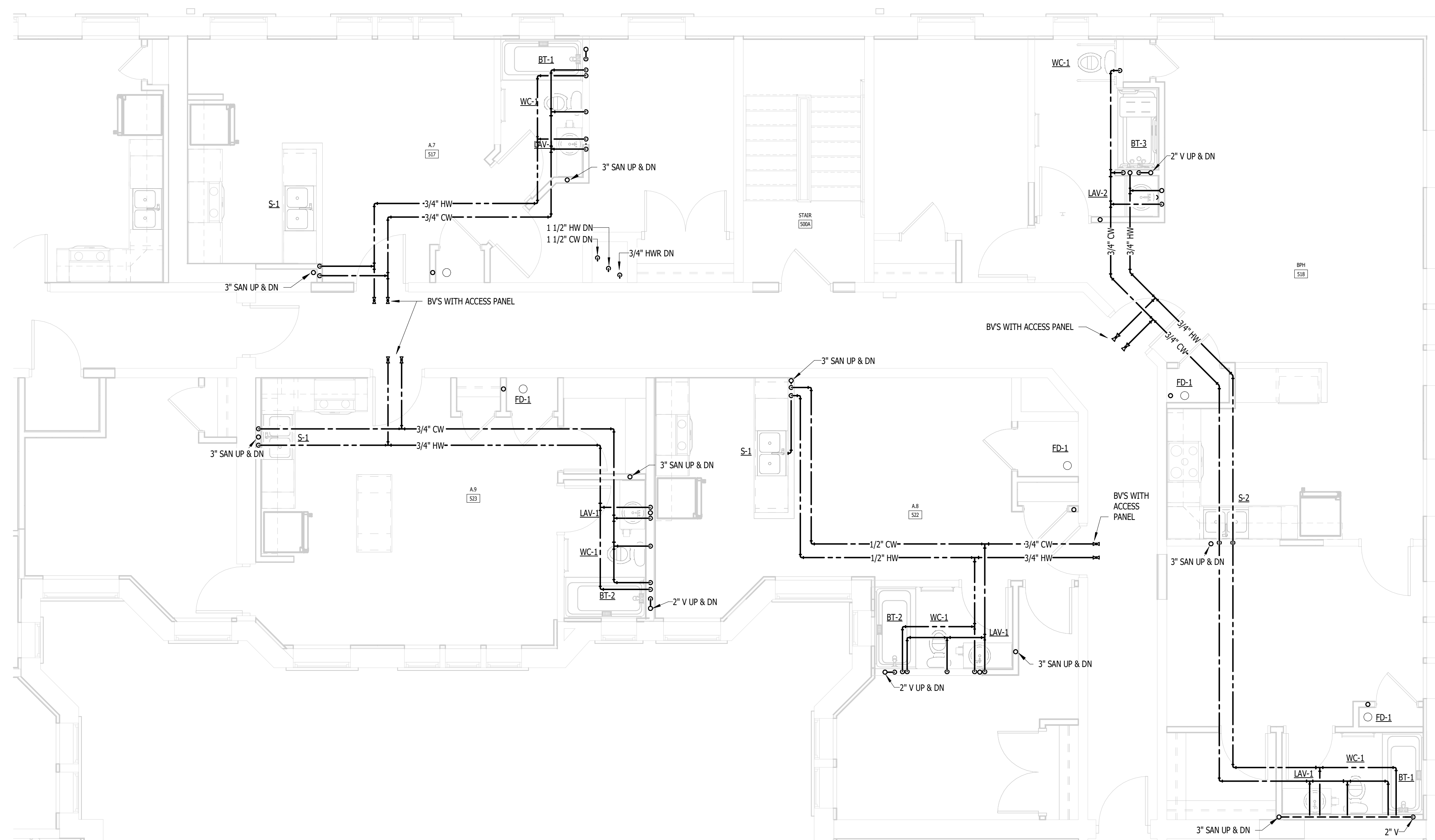
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1 M.P.522 UNITS A.7, A.8, A.9, BPH (2ND-5TH FLOOR) - PLUMBING  
NOT TO SCALE

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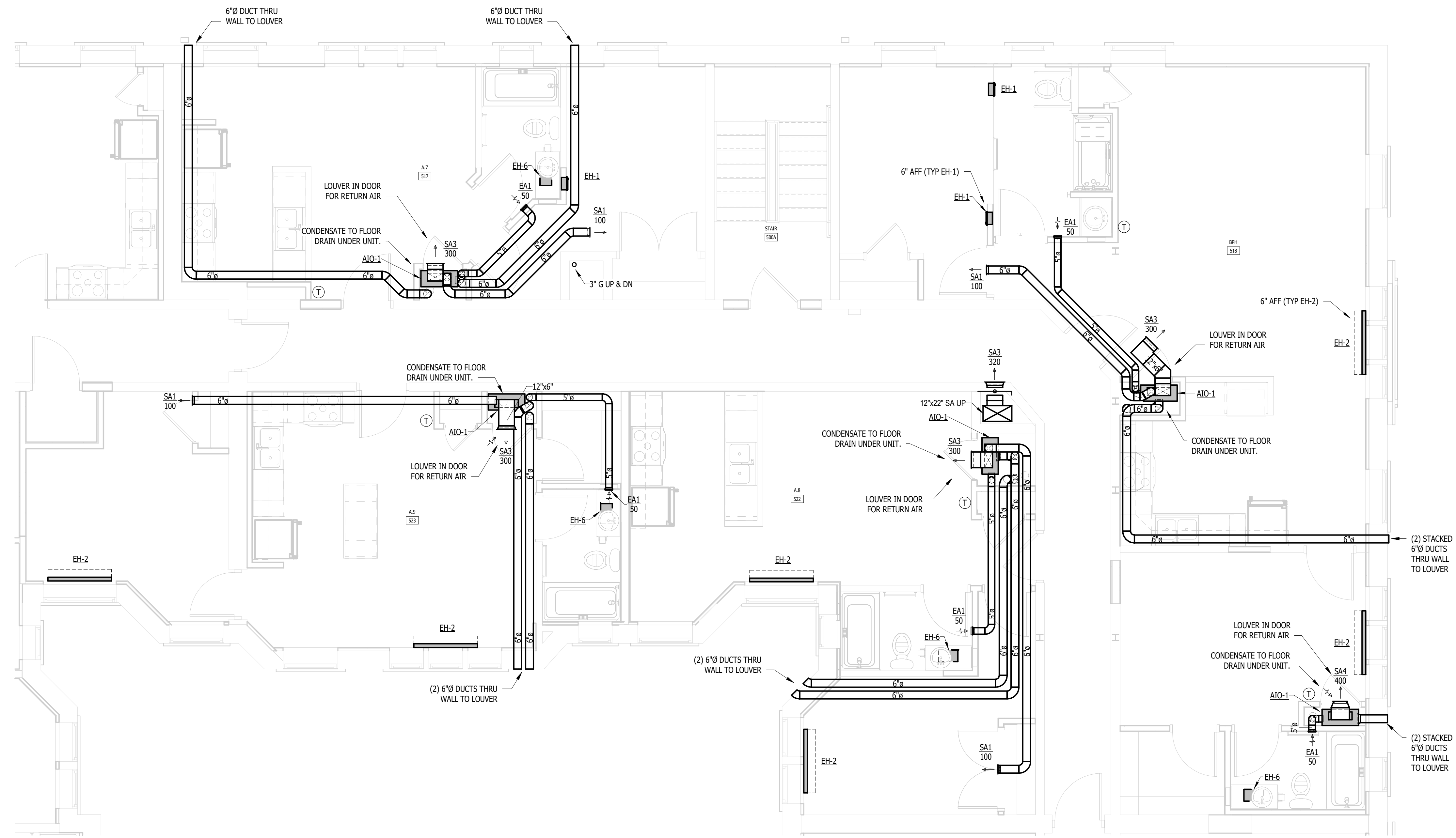
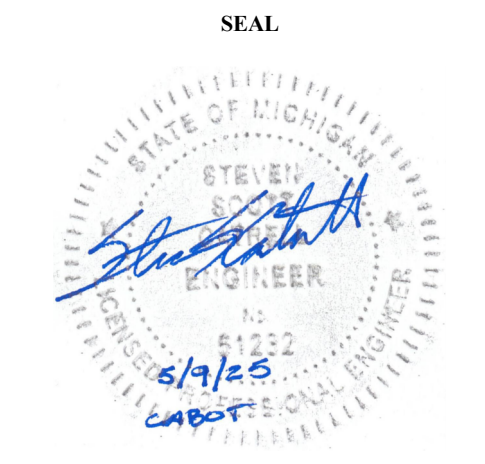
ENLARGED M & P - A.7, A.8, A.9, BPH

DRAWING NUMBER

**M.P.522**

NOTE: IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO EXAMINE THE COMPLETE SET OF DRAWINGS AND SPECIFICATIONS AND TO PROVIDE LABOR AND MATERIAL FOR THEIR RESPECTIVE AREA OF WORK FOR A COMPLETE AND FINISHED INSTALLATION IN COMPLIANCE WITH THE INTENT OF THE DRAWINGS AND THE SPECIFICATIONS. SUBMITTAL OF PROPOSAL IMPLIES THAT THE CONTRACTOR/SUBCONTRACTOR HAS REVIEWED ALL CONTRACT DOCUMENTS AND IS FULLY CONVERSANT WITH AND AWARE OF ALL REQUIREMENTS OF ALL DIVISIONS.

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1 M.P.523 UNITS A.7, A.8, A.9, BPH (2ND-5TH FLOOR) - MECHANICAL  
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KEY PLAN

FSP PROJECT NO.  
TRC22.064

DRAWING TITLE

ENLARGED M & P - A.7, A.8, A.9, BPH

DRAWING NUMBER

M.P.523