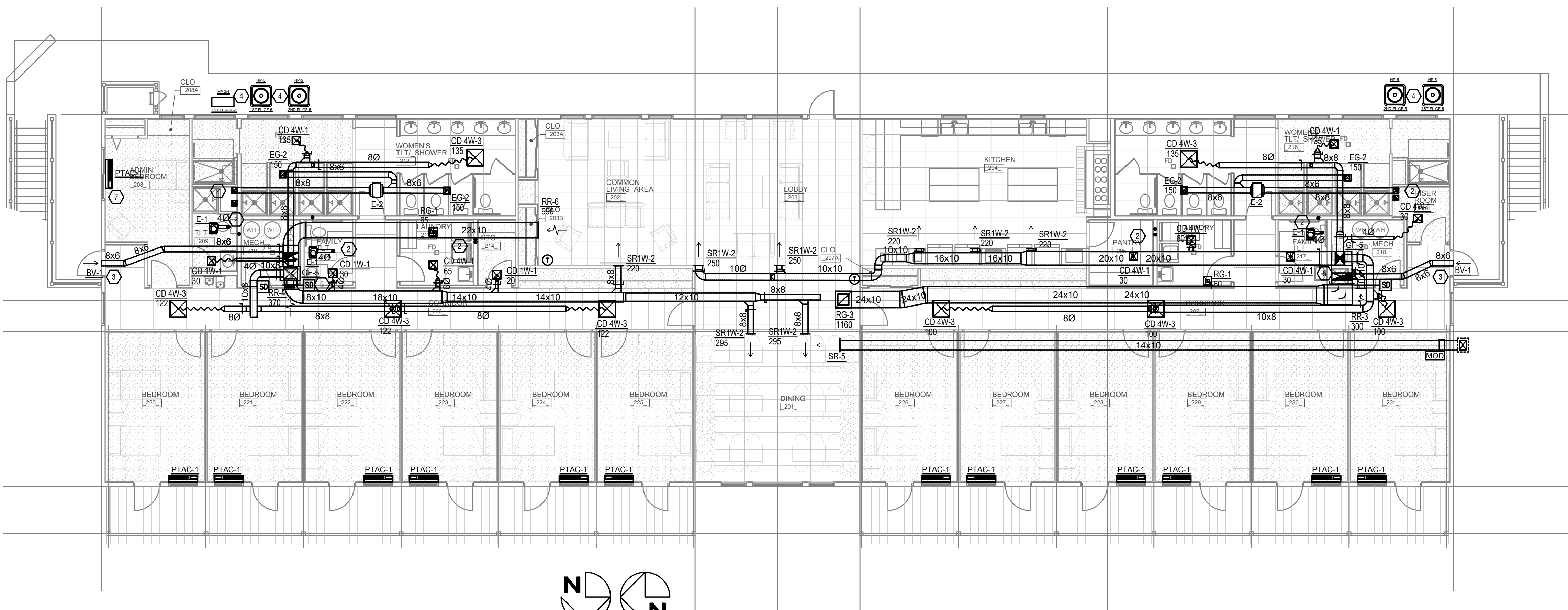
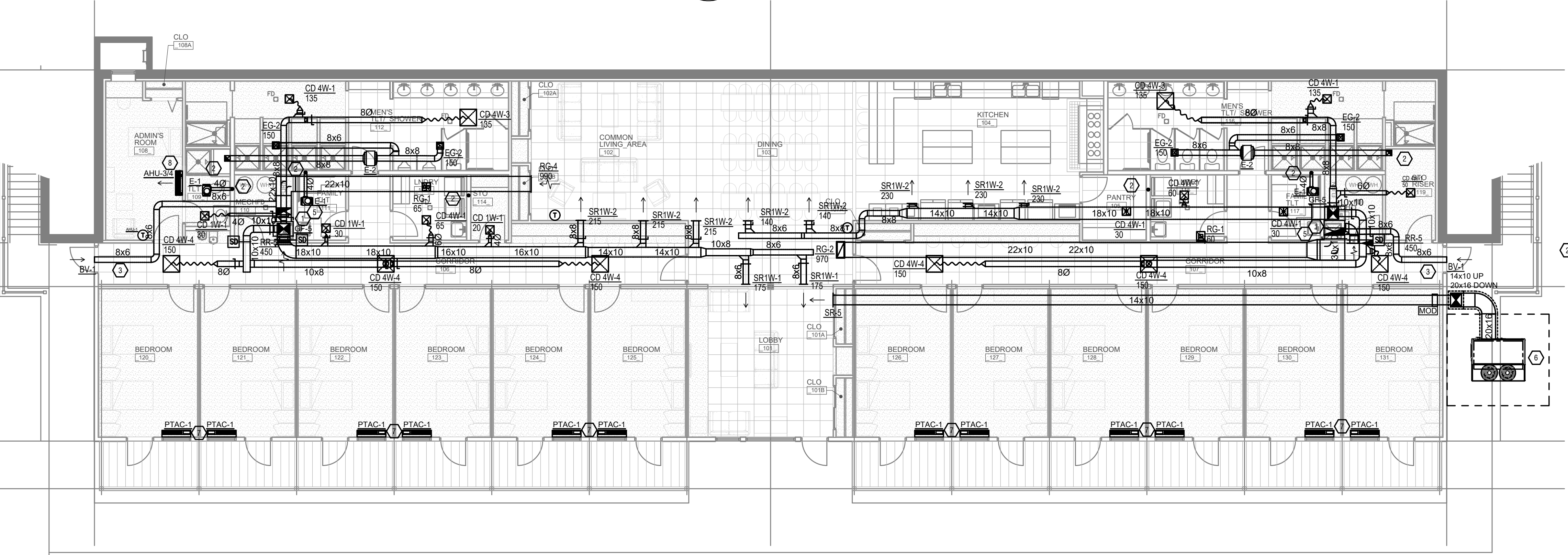


21-Project: Director's 9200-9299 9296 - ARK Form Student Housing - Construction documents 9296-M100-MECHANICAL-FIRST-FLOOR-PLAN-ENG-ESS. Plot Date/Time: Dec 03, 2021-10:07am - By: r.vehues
 THESE DRAWINGS AND SPECIFICATIONS ARE NOT AUTHORIZED TO BE USED AS CONTRACT DOCUMENTS. THESE DRAWINGS HAVE BEEN PREPARED TO DEMONSTRATE COMPLIANCE WITH APPLICABLE CODES, AND ARE INTENDED TO PROVIDE THE AUTHORITIES HAVING JURISDICTION WITH INFORMATION TO DETERMINE CODE COMPLIANCE. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR THE COMPLIANCE OF MEANS, METHODS, AND MATERIALS USED IN CONSTRUCTION ARE INSTALLED IN ACCORDANCE WITH ANY CONTRACTUAL AGREEMENT THAT MAY EXIST WITH AN OWNER, CONSTRUCTION MANAGER, GENERAL CONTRACTOR, ETC. ESS ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR THE COMPLIANCE OF EXISTING EQUIPMENT AND WIRING.



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



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

MECHANICAL SCOPE OF WORK	
PROVIDE NEW HVAC EQUIPMENT AND MAKEUP AIR FOR NEW BUILDING.	
CODES REFERENCED	
<ul style="list-style-type: none"> - 2015 IMC - 2018 KBC (2015 IBC) - 2012 IECC 	
HVAC DESIGN CONDITIONS	
COOLING OUTDOOR: 83 DB / 75 WB INDOOR: 72	HEATING OUTDOOR: 0 DB INDOOR: 72
GENERAL NOTES	
A. FOR FULL SCHEDULES, SPECIFICATIONS, AND COMPLETE LISTING SEE DETAIL SHEETS. B. COORDINATE ROUTING OF ALL WORK WITH OTHER TRADES. C. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER CONNECTIONS TO ALL MECHANICAL EQUIPMENT. D. INSTALL ALL EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. MAINTAIN ALL CODE RECOMMENDED CLEARANCES FOR ACCESS AND MAINTENANCE. E. REFER TO ARCHITECTURAL PLANS FOR DIMENSIONS, AND FINAL CEILING DIFFUSER LOCATIONS. F. MAINTAIN ALL CODE REQUIRED SERVICE CLEARANCES. FOLLOW CLEARANCE TO COMBUSTIBLE DISTANCE PER MANUFACTURER'S INSTRUCTIONS. G. PROVIDE BACKDRAFT DAMPERS FOR ALL EXHAUST SYSTEMS AND EITHER LOUVER, BRICK VENT, OR CAPS AT ALL EXTERIOR BUILDING PENETRATIONS. H. PROVIDE AN AUXILIARY DRAIN PAN WITH OVERFLOW SWITCH UNDERNEATH HORIZONTAL UNITS, WHICH WILL SHUTOFF THE UNIT ON HIGH WATER LEVEL. I. IN DWELLING UNITS, ROUTE ALL SUPPLY, RETURN, AND EXHAUST DUCTWORK ABOVE DROP CEILING OR IN BULKHEADS. COORDINATE ROUTING WITH ARCHITECTURAL DRAWINGS. DUCTS SHALL BE RUN BELOW THE RATED FLOOR/CEILING. J. ROUTE ALL AIR CONDITIONER CONDENSATE TO NEARBY FLOOR DRAIN. PROVIDE MINIMUM SLOPE OF 1/8" PER FOOT. SIZE CONDENSATE PER SECTION 307.2.2 OF THE INTERNATIONAL MECHANICAL CODE. H. PROVIDE AN APPROVED THROUGH PENETRATION FIRESTOP FOR ALL PIPING INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E814 OR UL 1479. FIRESTOP SHALL HAVE A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCHES OF WATER AND SHALL HAVE AN F RATING OF NOT LESS THAN THE REQUIRED FIRE-RESISTANCE RATING OF THE WALL OR FLOOR PENETRATED. I. ANY EQUIPMENT THAT IS SUBSTITUTED SHALL FIT IN THE SPACE PROVIDED WITH ADEQUATE ROOM FOR SERVICING, INCLUDING SUBSTITUTE EQUIPMENT NAMED IN THE SPECIFICATIONS. SUBMIT A 1/4" SCALE DRAWINGS OF ALL EQUIPMENT SUBSTITUTED FOR APPROVAL PRIOR TO INSTALLATION, INCLUDING, BUT NOT LIMITED TO, STRUCTURAL AND ARCHITECTURAL IMPACT, CLEARANCE REQUIREMENTS AND UTILITY REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE ALL NEW ELECTRICAL AND PLUMBING REQUIREMENTS WITH THE ELECTRICAL AND PLUMBING CONTRACTORS. J. THE FOLLOWING GUIDELINES MUST BE FOLLOWED FOR THE DOMESTIC DRYER EXHAUST SYSTEMS. J.A. EXHAUST DUCTS SHALL HAVE A SMOOTH INTERIOR FINISH AND BE CONSTRUCTED OF METAL A MINIMUM OF 28 GAUGE. J.B. DUCT SIZE SHALL BE 4 INCHES NOMINAL DIAMETER. J.C. DUCTS SHALL BE SUPPORTED AT 4-FOOT INTERVALS AND SECURED IN PLACE. THE INSERT END OF THE DUCT SHALL EXTEND INTO THE ADJOINING DUCT OR FITTING IN THE DIRECTION OF AIRFLOW. J.D. DUCTS SHALL NOT BE JOINED WITH SCREWS OF SIMILAR FASTENERS THAT PROTRUDE MORE THAN 1/4 INCH INTO THE INSIDE OF THE DUCT. J.E. PROTECTIVE SHIELD PLATES SHALL BE PLACED WHERE NAILS OR SCREWS FROM FINISH OR OTHER WORK ARE LIKELY TO PENETRATE THE CLOTHES DRYER EXHAUST DUCT. SHIELD PLATES SHALL BE PLACED ON THE FINISHED FACE OF ALL FRAMING MEMBERS WHERE THERE IS LESS THAN 1-1/4 INCHES BETWEEN THE DUCT AND THE FINISHED FACE OF THE FRAMING MEMBER. SHIELD PLATES SHALL BE CONSTRUCTED OF STEEL, HAVE A THICKNESS OF 0.062 INCHES, AND EXTEND NOT LESS THAN 2 INCHES ABOVE SOLE PLATES AND BELOW TOP PLATES. J.F. TRANSITION DUCTS USED TO CONNECT THE DRYER TO THE EXHAUST DUCT SYSTEM SHALL BE A SINGLE LENGTH THAT IS LISTED AND LABELED IN ACCORDANCE WITH UL 218A. TRANSITION DUCTS SHALL BE NOT GREATER THAN 8 FEET IN LENGTH AND SHALL NOT BE CONCEALED WITHIN CONSTRUCTION. J.G. PROVIDE DRYER WALL BOX EQUAL TO DUNDAS JAFINE MODEL DRB4XZW NEAR DRYER. J.H. PROVIDE A PERMANENT LABEL OR TAG (EQUAL TO DRYERPLACARD) INDICATING ACTUAL EQUIVALENT LENGTH OF EXHAUST DUCT. LENGTH SHALL INCLUDE 5' FOR 90°. LABEL/TAG MUST BE WITHIN 6" OF DRYER EXHAUST CONNECTION. DRYER EXHAUST DUCT FITTING EQUIVALENT LENGTH SHALL BE 2'-6" FOR A RADIUS MITERED 45-DEGREE ELBOW AND 5 FEET FOR A RADIUS MITERED 90-DEGREE ELBOW. K. HOOD AND FANS ARE SUPPLIED AND INSTALLED BY FOOD SERVICE CONTRACTOR. ALL HOOD AND HOOD MAKE UP AIR DRAWINGS ARE FOR REFERENCE AND REQUIREMENTS FOR OTHER TRADES. L. REFER TO FOOD SERVICE DRAWINGS FOR KITCHEN EQUIPMENT SCHEDULES AND DETAILS. M. MAINTAIN CODE REQUIRED CLEARANCE TO COMBUSTIBLES FOR ALL GAS-FIRED EQUIPMENT.	
KEYED SHEET NOTES	
1. ROUTE 3/4" CONDENSATE DRAIN LINE TO MECHANICAL ROOM SINK. SLOPE PIPE A MINIMUM OF 1/8" PER FOOT AWAY FROM UNIT. 2. DUCT EXHAUST UP THROUGH ROOF WITH RAIN-PROOF CAP. 3. ROUTE OUTDOOR AIR TO EXTERIOR WALL. INSTALL A LOUVERED VENT. SEE ARCHITECT BEFORE PENETRATION FOR EXACT LOCATION AND COLOR COORDINATION. PENETRATION MUST BE AT LEAST 10' FROM EXHAUST OPENING. 4. ROUTE LINE SET FROM OUTDOOR UNIT TO INDOOR AIR HANDLER. ALL PIPING SHALL BE CONCEALED IN FINISHED AREA. SIZE PER MANUFACTURER'S RECOMMENDATIONS. 5. PROVIDE AND INSTALL NEW GAS FURNACE/CONDENSING UNIT SPLIT SYSTEM, PROGRAMMABLE THERMOSTAT AND ALL REQUIRED ACCESSORIES PER MANUFACTURER REQUIREMENTS/RECOMMENDATIONS. 6. PROVIDE AND INSTALL DOAS UNIT AND ALL REQUIRED ACCESSORIES PER MANUFACTURER REQUIREMENTS/RECOMMENDATIONS. 7. PROVIDE AND INSTALL PTAC UNIT AND ALL REQUIRED ACCESSORIES PER MANUFACTURER REQUIREMENTS/RECOMMENDATIONS. 8. PROVIDE AND INSTALL WALL HUNG MINI SPLIT UNIT AND ALL REQUIRED ACCESSORIES PER MANUFACTURER REQUIREMENTS/RECOMMENDATIONS	

ISSUANCES	DATE	DESCRIPTION

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DRAWN BY SSS	CHECKED BY SSS
PROJECT NO.: 9296	
SCALE: AS NOTED	
DATE: ##-##-####	
DRAWING TITLE MECHANICAL FIRST/SECOND FLOOR PLAN	
SHEET NO. M100	