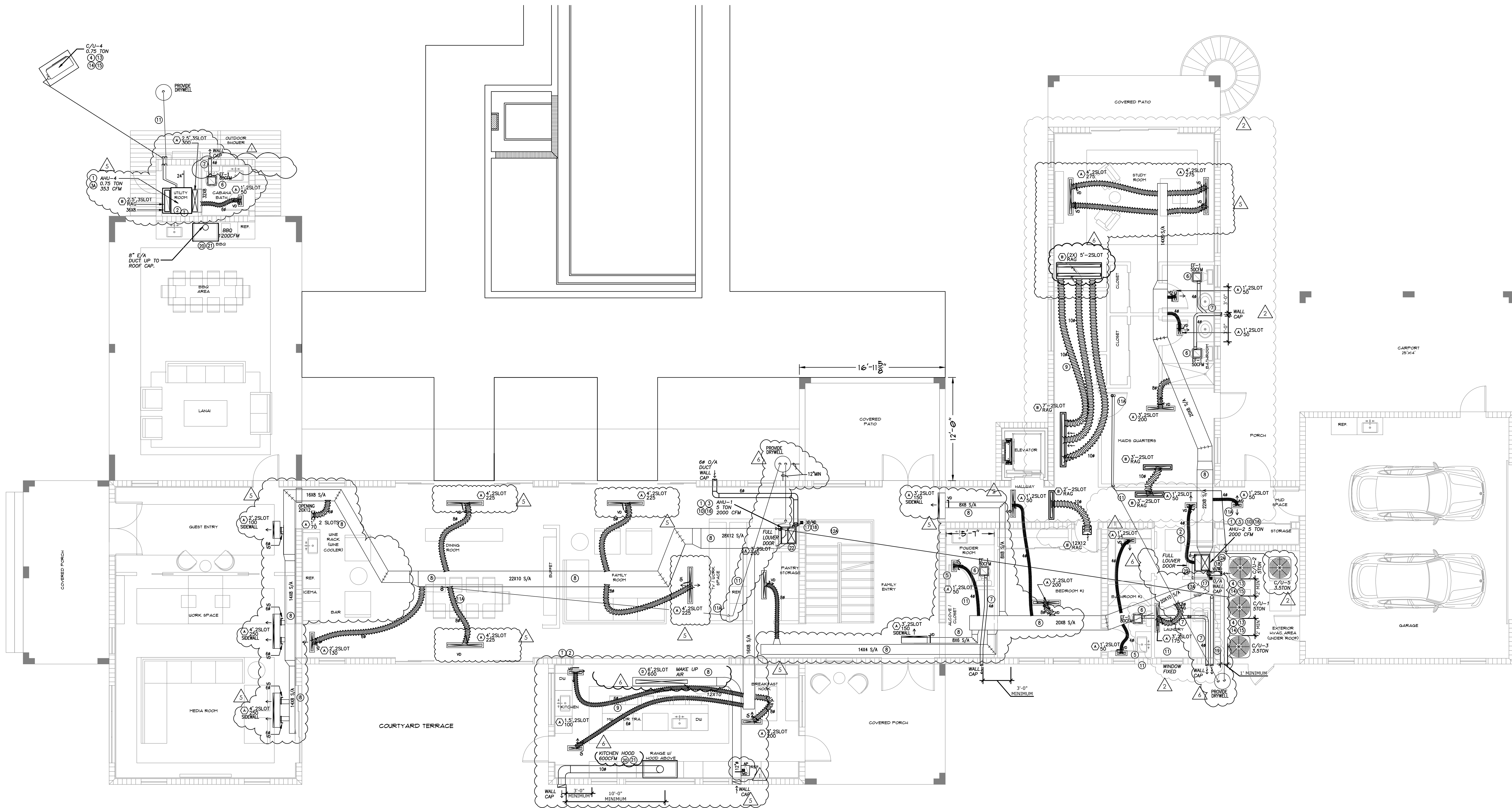


| REV | DATE    | DESCRIPTION                 |
|-----|---------|-----------------------------|
| 1   | 6/4/20  | ISSUED FOR ELSA CHIT REVIEW |
| 2   | 6/26/20 | CHIT COMMENTS               |
| 3   | 6/27/20 | OWNER COMMENTS              |
| 4   | 6/27/20 | COORDINATION                |
| 5   | 6/29/20 | AS-BUILT REV                |

MECHANICAL FIRST FLOOR PLAN  
SCALE: 3/16" = 1'-0"



KEY NOTES HVAC

- FULL SIZE SUPPLY / RETURN AIR PLENUM.
- PROGRAMMABLE THERMOSTAT WITH BUILT-IN HUMIDISTAT MOUNT 48" A.F.F. PROVIDE TEMPERATURE SENSORS AS PER PLANS TO OPERATE ON AIRSIDE TEMPERATURE. TEMPERATURE SENSOR AT RETURN DUCT OR INSIDE OF A/C COILSET.
- (VERTICAL) UPFLOW AIR HANDLER UNIT (AHU) AS SIZED ON PLAN. PROVIDE MINIMUM 8" SERVICE / MAINTENANCE AREA AROUND AIR HANDLING UNIT.
- CEILING CASSETTE COOLING UNIT AS SIZED ON PLAN. PROVIDE MINIMUM SERVICE / MAINTENANCE AREA AROUND AIR HANDLING UNIT BY MANUFACTURER.
- CONCRETE PAD MOUNT CONDENSER UNIT ABOVE FLOOD LEVEL. BE DOWN AS PER MAN-MADE APPROVED METHOD. CONDENSER SHALL BE INSTALLED ABOVE FLOOD LEVEL.
- 1" DOOR UNDERCUT. TYPICAL.
- CEILING EXHAUST FAN & GRILLE, AS SIZED ON PLAN W/BACKDRAFT DAMPER.
- EXHAUST DUCT, AS SIZED ON PLAN GOING UP TO ROOF CAP. ROOF CAP WITH CORROSION RESISTANT SCREEN AND MUST BE MINIMUM 10FT. FROM ANY O/A INTAKE.
- HVAC DUCTWORK TO BE FIBER GLASS, INSTALLED AS PER SMACNA STANDARDS WITH 1.5" THICK (R-8) INSULATION FIRST FLOOR CEILING SPACE. 1.5" THICK (R-8) INSULATION WHEN RUNNING IN ATTIC SPACE, UNLESS NOTED OTHERWISE.
- FLEXIBLE INSULATED DUCTWORK WITH 1.5" FIBERGLASS INSULATION WITH FRK VAPOR BARRIER, CLASS I AIR DUCT, U.L., R-8.0 INSULATION, TYPICAL, FIRST FLOOR CEILING.
- PROVIDE FLEXIBLE DUCT CONNECTION WITH AHU.
- CONDENSATE DRAIN LINE TO DRYWELL CONNECTION. 2" WHEN RUNNING UNDERGROUND.
- REFRIGERANT LINES & CONDENSATE DRAIN RUNNING AT CEILING SPACE.
- REFRIGERANT PIPES RUNNING FOR CEILING SPACE. IN 4" PVC SLEEVE TO CONDENSER.
- REFRIGERANT RUNNING UNDERGROUND INSIDE OF THE 4" SCHEDULE 40 CPVC PIPE.
- REFRIGERANT SUCTION LINE TO BE INSULATED WITH INSULATION HAVING A THERMAL RESISTIVITY OF AT LEAST R-4 AND HAVING AN EXTERNAL PERMEANCE NOT EXCEEDING 0.05 PERM WHEN TESTED IN ACCORDANCE WITH ASTM E96. PROVIDE UV COAT PROTECTION.
- REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING-TYPE TAMPER-RESISTANT CAPS OR SHALL BE OTHERWISE SECURED TO PREVENT UNAUTHORIZED ACCESS UNLESS THE PORTS ARE LOCATED INSIDE THE CONDENSING UNIT CABINET (FBCR-M1411.8).
- CONTRACTOR MUST VERIFY TOTAL REFRIGERANT PIPING LENGTH AND PIPING LIFT THAT IS NOT GREATER THAN THOSE VALUES RECOMMENDED BY MANUFACTURER. NOTIFY THE ENGINEER'S OFFICE WITH THIS SITUATION AND TO FIND THE BEST SOLUTION.
- PROVIDE AUXILIARY CONDENSATE DRAIN/PAN SYSTEM TO AHU, SEE DETAIL.
- 6" 9" DOUBLE WALL INSULATED R-8 SHEET METAL 22 GA. OUTSIDE AIR (O/A) DUCT, AS SIZED ON PLAN, O/A SHALL BE MINIMUM 10' AWAY FROM ANY EXHAUST OR VENT.
- PROVIDE MOTORIZED DAMPER MD TO O/A DUCTWORKS. THE MOTORIZED DAMPER OPEN WHILE THE A/C UNIT IS WORKING, AND RETURNING TO CLOSE POSITION WHEN CU IS OFF.
- DRYER EXHAUST (26 GAUGE MIN), WITHIN RECESSED DRYER VENT BOX, TERMINATING WITH ROOF CAP OR WALL CAP, NO SCREEN.
- RANGE EXHAUST DUCT GALVANIZED SHEET METAL 26GA. AS SIZED ON PLAN TERMINATING WITH ROOF OR WALL CAP WITH BACK DRAFT DAMPER. PROVIDE CORROSION RESISTANT SCREEN.
- MOTORIZED DAMPER INTERLOCK WITH HOOD OPERATION. W/ ACCESS PANEL. CONTRACTOR MUST PROVIDE HOOD WITH CONTROL FOR M/A AND M/DAMPER.
- AC CLOSET AS A RETURN AIR PLENUM. NO COMBUSTIBLE MATERIAL INSIDE OF CLOSET.

HVAC NOTES

- MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR DUCT LOCATION TO AVOID CONFLICTS WITH LIGHT FIXTURES. MINIMUM CLEAR CEILING SPACE TO RUN AC & LIGHTING SYSTEM SHALL BE PROVIDED DEPENDING ON THE LIGHT FIXTURE HOUSING.
- LOCATION OF ALL SUPPLY AIR AND RETURN AIR CEILING DEVICES SHALL BE COORDINATED WITH TRUSSES LOCATION TO AVOID CONFLICTS.
- MECHANICAL CONTRACTOR SHALL COORDINATE WITH GC CEILING PRIOR TO DUCTWORK ORDERING AND INSTALLATION.
- FINAL RUN OF CONDENSATE PIPES & TERMINATION SHALL BE COORDINATED WITH ARCHITECT.
- FINAL RUN OF REFRIGERANT LINES & FINAL LOCATION OF CONDENSER UNIT SHALL BE COORDINATED WITH ARCHITECT.
- CONDENSER UNIT SHOULD BE INSTALLED OBSERVING MANUFACTURER SERVICE CLEARANCES.
- CONDENSER UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POOR DIRECTLY ON UNIT.
- MECHANICAL CONTRACTOR SHALL COORDINATE NEW WALL CAP AND LOWER LOCATION TO AVOID CONFLICTS WITH ELECTRICAL DEVICES AT EXTERIOR WALL. OBSERVING MINIMUM CLEARANCE REQUIRED BY ELECTRICAL CODE.
- CU MUST BE INSTALLED AT THE PFE OF THE HOUSE. ALL EQUIPMENT TO BE INSTALLED ABOVE FLOOD LEVEL.
- THE AC SYSTEM MUST BE TESTING AND BALANCE BY CERTIFY THIRD PARTY.

SCOPE OF WORK:

NEW AC SYSTEMS IN NEW HOUSE.  
NEW AIR DISTRIBUTION, NEW EXHAUST FAN  
AND DUCTWORK EXHAUST.

ENERGY CONSERVATION NOTES:

ALL HVAC EQUIPMENT SHALL BE EQUIPPED WITH PROGRAMMABLE THERMOSTAT TO ALLOW SYSTEM SHUT DOWN AFTER HOURS OF OPERATION. ALL LIGHTING HAS AFTER HOURS SHUT DOWN. ALL AC EQUIPMENT PROVIDED WITH OUTSIDE AIR MOTORIZED DAMPERS TO SHUT DOWN WHEN SPACE IS NOT USED.



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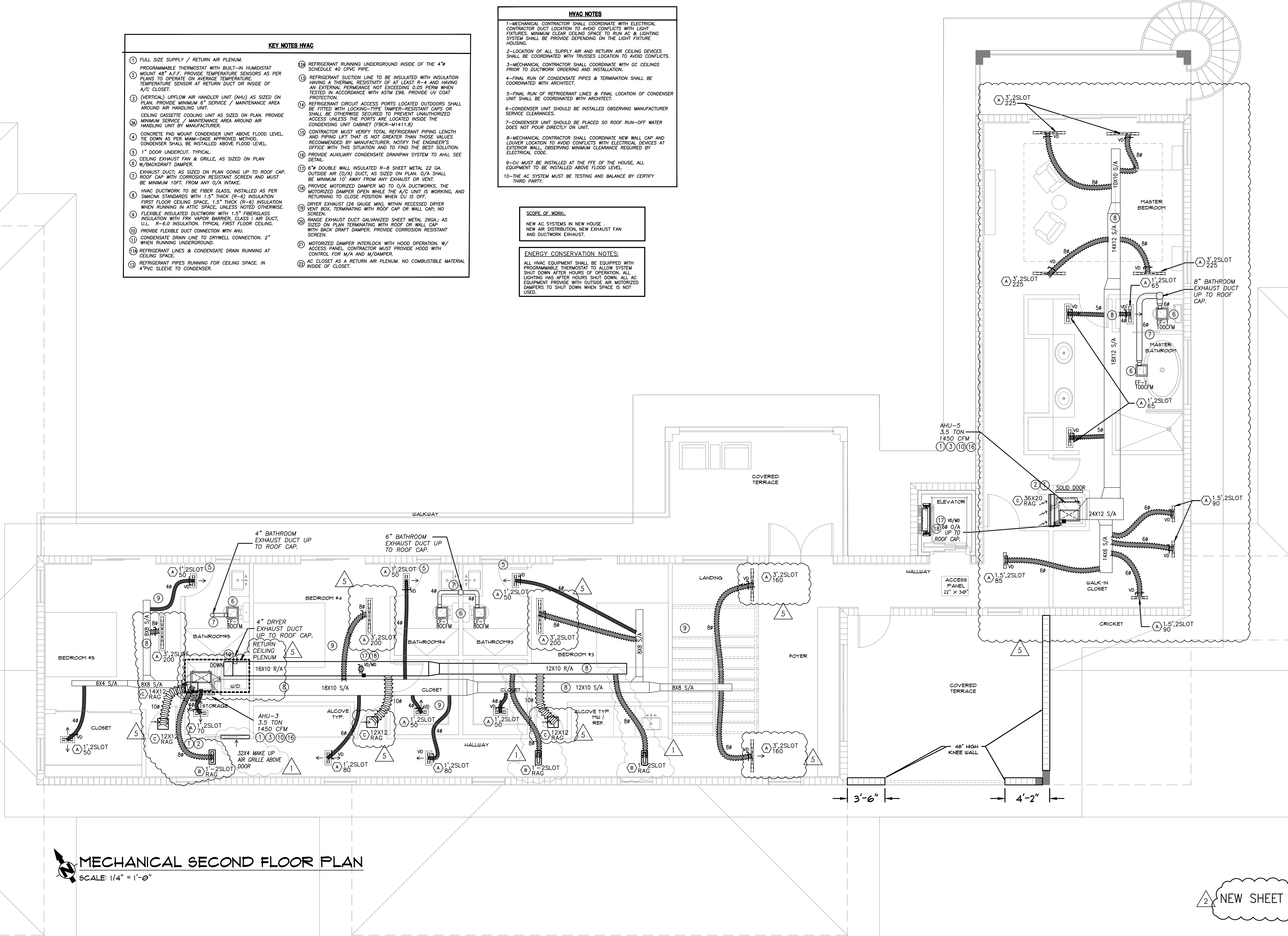
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Date \_\_\_\_\_



| REV | DATE     | DESCRIPTION   | DESIGNED FOR        |
|-----|----------|---------------|---------------------|
| 0   | 5/18/20  |               | ELIGIO SERRA REVIEW |
| 1   | 06/26/20 | CHG COMMENTS  |                     |
| 2   | 06/27/20 | OWNER CHANGES |                     |
| 3   | 07/07/20 | COORDINATION  |                     |



MECHANICAL SECOND FLOOR PLAN  
SCALE: 1/4" = 1'-0"

NEW SHEET

HVAC NOTES

- 1-MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR DUCT LOCATION TO AVOID CONFLICTS WITH LIGHT FIXTURES. MINIMUM CLEAR CEILING SPACE TO RUN AC & LIGHTING SYSTEM SHALL BE PROVIDED DEPENDING ON THE LIGHT FIXTURE HOUSING.
- 2-LOCATION OF ALL SUPPLY AIR AND RETURN AIR CEILING DEVICES SHALL BE COORDINATED WITH TRUSSES LOCATION TO AVOID CONFLICTS.
- 3-MECHANICAL CONTRACTOR SHALL COORDINATE WITH GC CEILINGS PRIOR TO DUCTWORK ORDERING AND INSTALLATION.
- 4-FINAL RUN OF CONDENSATE PIPES & TERMINATION SHALL BE COORDINATED WITH ARCHITECT.
- 5-FINAL RUN OF REFRIGERANT LINES & FINAL LOCATION OF CONDENSER UNIT SHALL BE COORDINATED WITH ARCHITECT.
- 6-CONDENSER UNIT SHOULD BE INSTALLED OBSERVING MANUFACTURER SERVICE CLEARANCES.
- 7-CONDENSER UNIT SHOULD BE PLACED SO ROOF RUN-OFF WATER DOES NOT POUR DIRECTLY ON UNIT.
- 8-MECHANICAL CONTRACTOR SHALL COORDINATE NEW WALL CAP AND LOWER LOCATION TO AVOID CONFLICTS WITH ELECTRICAL DEVICES AT EXTERIOR WALL, OBSERVING MINIMUM CLEARANCE REQUIRED BY ELECTRICAL CODE.
- 9-CU MUST BE INSTALLED AT THE FTE OF THE HOUSE, ALL EQUIPMENT TO BE INSTALLED ABOVE FLOOD LEVEL.
- 10-THE AC SYSTEM MUST BE TESTING AND BALANCE BY CERTIFY THIRD PARTY.

SCOPE OF WORK:

- NEW AC SYSTEMS IN NEW HOUSE
- NEW AIR DISTRIBUTION, NEW EXHAUST FAN AND DUCTWORK EXHAUST

ENERGY CONSERVATION NOTES:

- ALL HVAC EQUIPMENT SHALL BE EQUIPPED WITH PROGRAMMABLE THERMOSTAT TO ALLOW SYSTEM SHUT DOWN AFTER HOURS OF OPERATION. ALL LIGHTING HAS AFTER HOURS SHUT DOWN. ALL AC EQUIPMENT PROVIDED WITH OUTSIDE AIR MOTORIZED DAMPERS TO SHUT DOWN WHEN SPACE IS NOT USED.

KEY NOTES HVAC

1. FULL SIZE SUPPLY / RETURN AIR FLENUM.
2. PROGRAMMABLE THERMOSTAT WITH BUILT-IN HUMIDISTAT MOUNT 48" A.F.F. PROVIDE TEMPERATURE SENSORS AS PER PLANS TO OPERATE ON AVERAGE TEMPERATURE. TEMPERATURE SENSOR AT RETURN DUCT OR INSIDE OF A/C CLOSET.
3. (VERTICAL) UPFLOW AIR HANDLER UNIT (AHU) AS SIZED ON PLAN. PROVIDE MINIMUM 6" SERVICE / MAINTENANCE AREA AROUND AIR HANDLING UNIT.
4. CEILING CASSETTE COOLING UNIT AS SIZED ON PLAN. PROVIDE MINIMUM SERVICE / MAINTENANCE AREA AROUND AIR HANDLING UNIT BY MANUFACTURER.
5. CONCRETE PAD MOUNT CONDENSER UNIT ABOVE FLOOD LEVEL. TIE DOWN AS PER MAN-DATE APPROVED METHOD. CONDENSER SHALL BE INSTALLED ABOVE FLOOD LEVEL.
6. 1" DOOR UNDERCUT, TYPICAL.
7. CEILING EXHAUST FAN & GRILLE, AS SIZED ON PLAN.
8. W/BACKDRAFT DAMPER.
9. EXHAUST DUCT, AS SIZED ON PLAN GOING UP TO ROOF CAP. ROOF CAP WITH CORROSION RESISTANT SCREEN AND MUST BE MINIMUM 10FT. FROM ANY O/A INTAKE.
10. HVAC DUCTWORK TO BE FIBER GLASS, INSTALLED AS PER SMACNA STANDARDS WITH 1.5" THICK (R-6) INSULATION FIRST FLOOR CEILING SPACE, 1.5" THICK (R-6) INSULATION WHEN RUNNING IN ATTIC SPACE, UNLESS NOTED OTHERWISE.
11. FLEXIBLE INSULATED DUCTWORK WITH 1.5" FIBERGLASS INSULATION WITH FPK MAPIC BARRIER, GLASS F AIR DUCT, ULL, R-6.0 INSULATION, TYPICAL FIRST FLOOR CEILING.
12. PROVIDE FLEXIBLE DUCT CONNECTION WITH AHU.
13. CONDENSATE DRAIN LINE TO DRYWELL CONNECTION, 2" WHEN RUNNING UNDERGROUND.
14. REFRIGERANT LINES & CONDENSATE DRAIN RUNNING AT CEILING SPACE.
15. REFRIGERANT PIPES RUNNING FOR CEILING SPACE, IN 4" PVC SLEEVE TO CONDENSER.
16. REFRIGERANT RUNNING UNDERGROUND INSIDE OF THE 4" SCHEDULE 40 CPVC PIPE.
17. REFRIGERANT SUCTION LINE TO BE INSULATED WITH INSULATION HAVING A THERMAL RESISTIVITY OF AT LEAST R-4 AND HAVING AN EXTERNAL PERMEANCE NOT EXCEEDING 0.05 PERM WHEN TESTED IN ACCORDANCE WITH ASTM D56. PROVIDE UV COAT PROTECTION.
18. REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING-TYPE TAMPER-RESISTANT CAPS OR SHALL BE OTHERWISE SEALED TO PREVENT UNAUTHORIZED ACCESS UNLESS THE PORTS ARE LOCATED INSIDE THE CONDENSING UNIT CABINET (FBCR-M1411.6).
19. CONTRACTOR MUST VERIFY TOTAL REFRIGERANT PIPING LENGTH AND PIPING LIFT THAT IS NOT GREATER THAN THOSE VALUES RECOMMENDED BY MANUFACTURER. NOTIFY THE ENGINEER'S OFFICE WITH THIS SITUATION AND TO FIND THE BEST SOLUTION.
20. PROVIDE AUXILIARY CONDENSATE DRAIN SYSTEM TO AHU, SEE DETAIL.
21. 6" DOUBLE WALL INSULATED R-8 SHEET METAL 22 GA. OUTSIDE AIR (O/A) DUCT, AS SIZED ON PLAN. O/A SHALL BE MINIMUM 10' AWAY FROM ANY EXHAUST OR VENT.
22. PROVIDE MOTORIZED DAMPER MD TO O/A DUCTWORKS. THE MOTORIZED DAMPER OPEN WHILE THE A/C UNIT IS WORKING, AND RETURNING TO CLOSE POSITION WHEN CU IS OFF.
23. DRYER EXHAUST (26 GAUGE MIN), WITH RECESSED DRYER VENT BOX, TERMINATING WITH ROOF CAP OR WALL CAP, NO SCREEN.
24. RANGE EXHAUST DUCT GALVANIZED SHEET METAL 26GA, AS SIZED ON PLAN TERMINATING WITH ROOF OR WALL CAP WITH BACK DRAFT DAMPER. PROVIDE CORROSION RESISTANT SCREEN.
25. MOTORIZED DAMPER INTERLOCK WITH HOOD OPERATION, W/ ACCESS PANEL. CONTRACTOR MUST PROVIDE HOOD WITH CONTROL FOR M/A AND M/DAMPER.
26. AC CLOSET AS A RETURN AIR FLENUM. NO COMBUSTIBLE MATERIAL INSIDE OF CLOSET.



