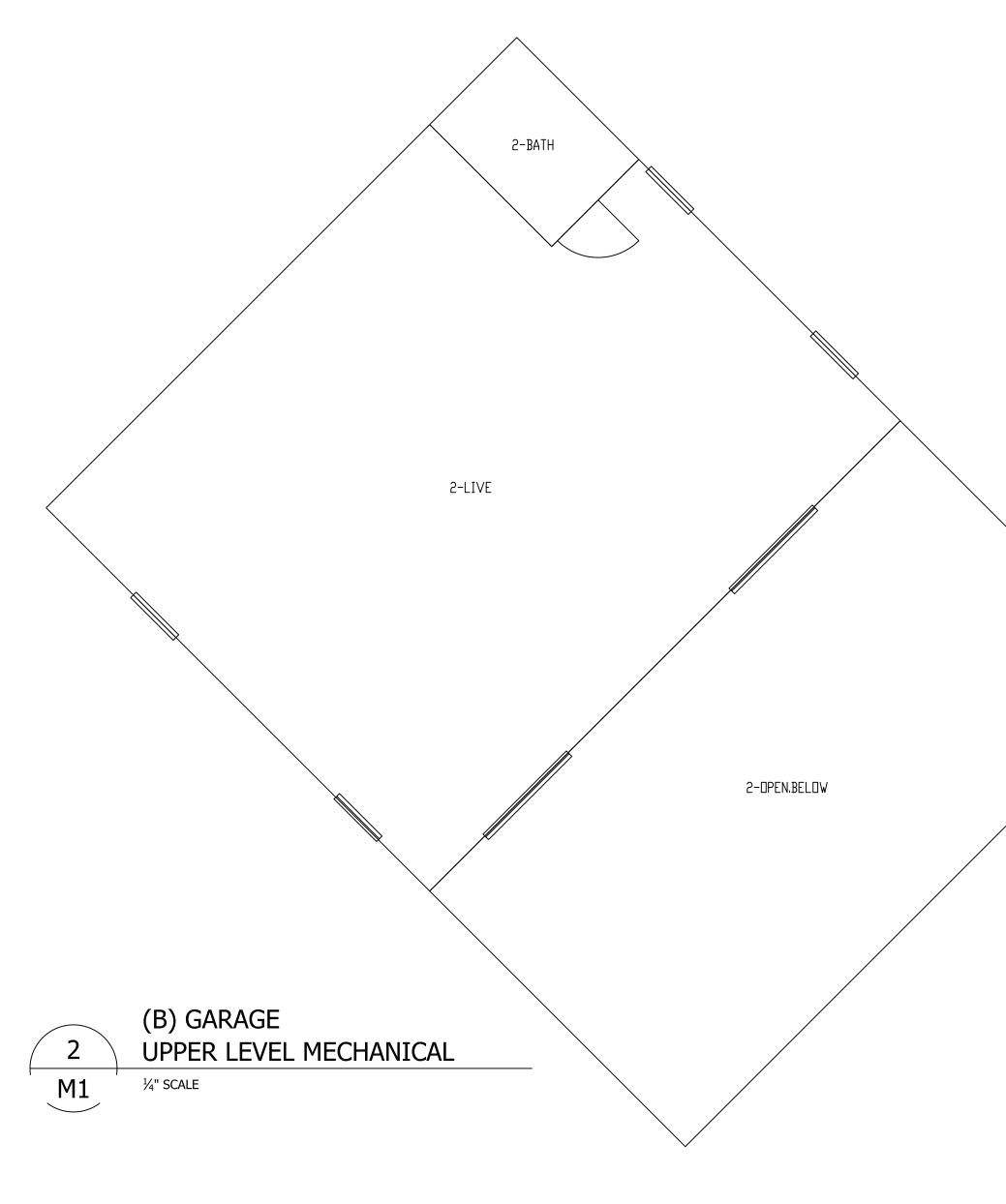




Released for Permit 06/04/2021 3:18:50 PM **Building Department** tcrippen **MECHANICAL**



BUILDING DEPARTMENT APPROVED MECHANICAL PLAN MUST BE ON JOB SITE DURING ALL INSPECTIONS

MECHANICAL LEGEND

RA VENTING \bowtie REGISTER PIPE TO REG SUPPLY ────⊗ RETURN — —⊘ | <u>TRANSFER</u> C---- NWOD\9U R8 FLEX
DUCT SUPPLY RETURNS

SYM VENT

B SIDE VENT (CONCENTRIC)

EQUIPMENT SCHEDULE

BTUH AFUE **FURNACE** BRAND ZONE A 80K 912SB48080S17 92.1% BRYANT CNPV*3017 13 EXTERNAL STATIC PRESSURE 0.80 PRESSURE LOSSES HEAT EXCHANGER 0.05 0.03 SUPPLY DIFFUSER

AVAILABLE STATIC PRESSURE TOTAL EFFECTIVE LENGTH

RETURN GRILLE

FILTER

GENERAL NOTES ──► χ BY ZONE

MECHANICAL SPECIFICATIONS

14x10 HIGH / LOW TRANSFER (R/A) 4 UNDERCUT DOOR

0.03

0.05

0.45 521

5 LOUVER DOOR 6"∅ OA INTAKE TO RA 36" CLEAR OF ANY EXHAUST

6 12"ø SUPPLY/RA

2 14x10 TRANSFER GRILLE (M/U AIR) MAY BE INCREASED NOT DECREASED SQ"

■ ROOM BY ROOM HEAT LOSS/GAIN WORKSHEETS COMPLETED WITH RIGHT-SUITE RESIDENTIAL 8.0. IN

ACCORD WITH 2015 IECC. - THE MOST DEMANDING LOAD ORIENTATION IS USED PER MASTER PLAN. ■ ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH 2015 IECC AND IMC REGULATIONS.

•ALL WORK SHALL BE PERFORMED BY PROPERLY LICENSED MECHANICS OR UNDER THEIR DIRECT SUPERVISION. ■ MAINTAIN MINIMUM 30" CLEARANCE IN FRONT OF FURNACE & WATER HEATER. DUCTWORK IN

UNCONDITIONED SPACE MAY NOT INTERFERE WITH R-VALUES IN BAYS. ■ AIR INTAKE MUST BE A MINIMUM OF 10' FROM OR 3' BELOW ALL EXHAUST OPENINGS, UNLESS OTHERWISE SPECIFIED BY EQUIPMENT MANUFACTURER. ■ INSTALL ALL EQUIPMENT PER MANUFACTURERS

RECOMMENDATIONS AND DETAILS UNLESS OTHERWISE NOTED IN THESE PLANS. ALL MATERIALS AND EQUIPMENT SHALL MEET THE REQUIREMENTS OF THE APPLICABLE STANDARDS OF UL AND SHALL BEAR THE UL LABEL AS EVIDENCE THAT THE MATERIAL AND/OR EQUIPMENT MEETS THIS REQUIREMENT.

SUPPLY AIR AND RETURN AIR DUCTS SHALL BE CONSTRUCTED OF GALVANIZED METAL AS SET FORTH IN IMC 2015 AND SMACNA STANDARDS. •ALL JOINTS ON DUCTWORK SHALL BE MASTIC SEALED.

DUCT TAPE IS NOT ACCEPTABLE. ■ DUCTWORK IN UNCONDITIONED AREAS TO BE R8 INSULATED TO COMPLY WITH 2015 IECC (AS AMENDED). ■ LOCATE ALL DUCTWORK ROUTED IN GARAGE CEILING

ABOVE CEILING INSULATION. ■ CONDENSER LOCATION SHALL BE AT THE DISCRETION OF THE CONTRACTOR/HOMEOWNER.

■ RETURN AIR RUNS MAY BE LISTED AS ROUND SHEET METAL, HOWEVER EQUIVALENT OR GREATER SO" DUCT IS ALSO ACCEPTABLE. 16"OC WALL CAVITY SIZE FOR RETURN AIR IS 14x3.25 / GRILL SIZE: 14x6 (SINGLE BAY), 30x6 (DUAL BAY) UNLESS OTHERWISE NOTED.

SUPPLY DUCT SIZE MAY CHANGE TO FIT PHYSICAL SPACE SO LONG AS EQUIVALENT OR GREATER SQUARE INCH IS MAINTAINED. 8" SUPPLY RUNS = 6x12 REG., 7" & SMALLER = 4X10. PER PERFORMANCE DATA REQUISITE, **DUCT SIZING MAY BE INCREASED NOT DECREASED.** CONDITIONED ROOMS WITH NON-DEDICATED RETURN AIR MUST HAVE DOORS UNDER CUT 1" OR 14x6

TRANSFER GRILLS ON WALL. BATHROOMS MUST ONLY HAVE DOORS UNDERCUT FOR MAKE UP AIR. ■FURNISH AND INSTALL CENTRIFUGAL EXHAUST FANS AS SCHEDULED ON THE PLANS.

■ FURNISH AND INSTALL EXHAUST UNITS COMPLETE WITH ALL OPERATIONAL AND SAFETY CONTROL NECESSARY FOR PROPER OPERATION. ■TERMINATE ALL ROOF PENETRATIONS (TOILET AND

DRYER EXHAUST DUCTS, FLUES), BACK OF PEAK - OFF STREET (TYP).

■ EXHAUST FANS TO HAVE BACK DRAFT DAMPERS, EXCEPT FANS SERVING (TYPE 1) HOODS. ■ CONTROL WIRING BY MECHANICAL CONTRACTOR (LOW

CONTRACTOR. •GAS PIPING BY OTHERS, SEE OTHER DRAWING SHEETS. UNLESS OTHERWISE SPECIFIED ALL GAS PIPING TO BE

VOLTAGE ONLY). POWER WIRING BY ELECTRICAL

SCHEDULE 40 BLACK IRON. ■ CONTRACTOR MAY LOCATE MECHANICAL EQUIPMENT IN AN ALTERNATIVE CONFIGURATION THAN SHOWN ON THE DRAWINGS DUE TO CONFLICTS, AS LONG AS THE

INTENDED SYSTEM FUNCTION IS NOT AFFECTED. A COMPLETE AND OPERATING HVAC SYSTEM IS INTENDED FOR THIS PROJECT. ANY DISCREPANCIES, OMISSIONS, OR PROBLEMS ARE TO BE NOTED AND BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER DURING THE BIDDING PROCESS FOR CLARIFICATION.

■THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL TRANSITIONS, OFFSET, ETC. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE ALL NECESSARY FITTINGS TO COMPLETE THE INTENT OF THE DRAWINGS.



Gerard Cox - 719.966.7722 ACCA / IECC MECH-DESIGN Colorado Springs / Denver h2air.inbox@gmail.com

RESIDENCE

SHEET SCHEDULE

M1. Uppr Level Mechanical M2. Main Level Mechanical

a. Manual-J

Building Analysis c. Component Detail d. Project Summary e. AED Assessment f. Duct Summary

> Equipment Certificate j. IECC Certificate

g. Furnace Blower Chart

h. Coil Static Drop Chart

GENERAL CONDITIONS & LIMITED LIABILITY System design based on performance

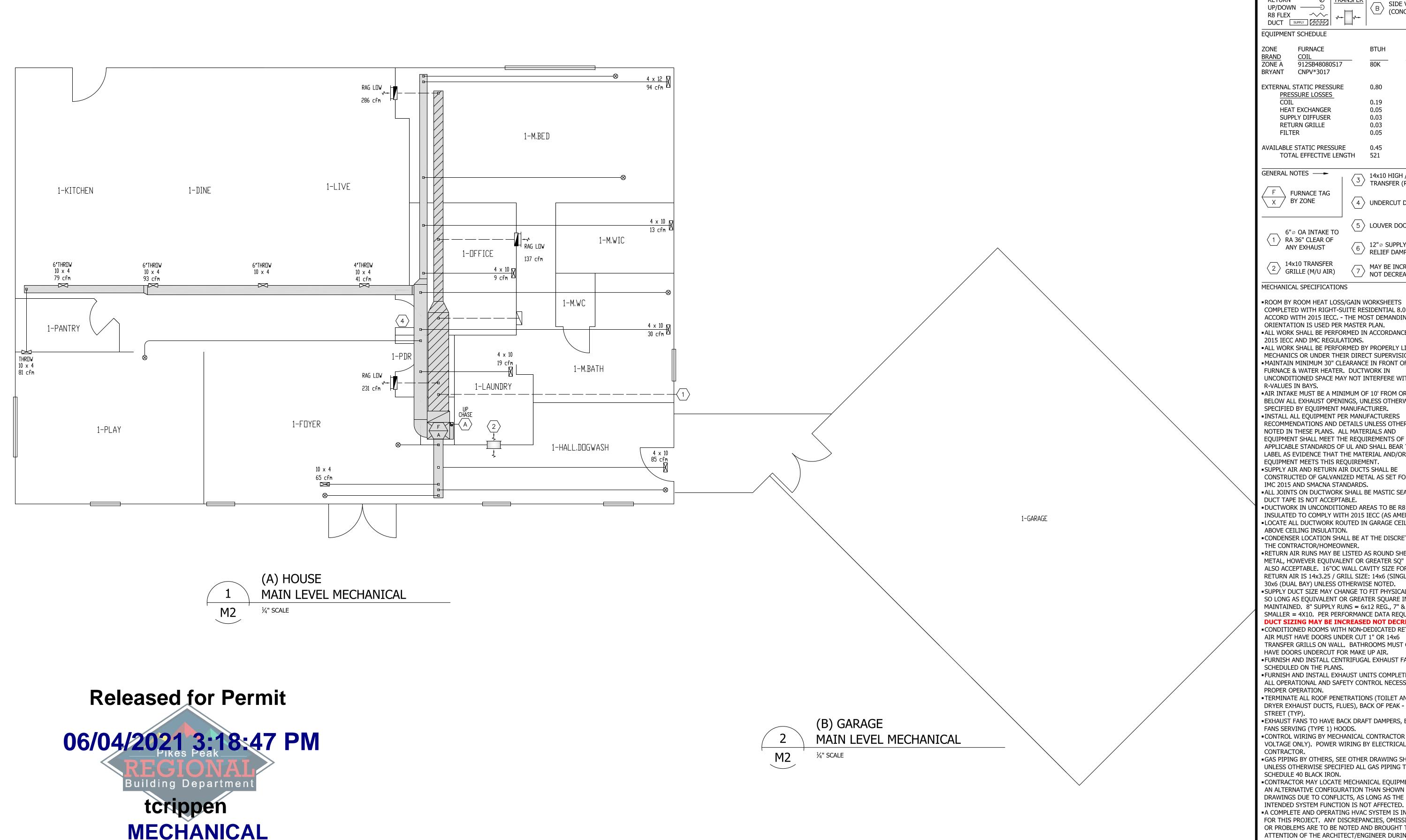
data provided by others and assumed to be correct. The owner and general contractor are responsible for verifying that all construction data and design factors are correct to the respective structure being built. By purchasing thi mechanical design it is agreed that the project has been accepted and therefore of the original drawings and support dat only. In the event that mechanical design errors cause construction

problems during any phase of the building process, H2Air of Colorado, Ir must be notified immediately to take ppropriate action. No liability assume for deviation from print including but not limited to: equipment brand, btu, cfm, rated static pressure, duct size, length, TEL and material.

DESIGN DATE: 1.25.21

REVISION:

UPPER LEVEL MECHANICAL



BUILDING DEPARTMENT APPROVED MECHANICAL PLAN MUST BE ON JOB SITE DURING ALL INSPECTIONS

MECHANICAL LEGEND

RA VENTING \bowtie REGISTER PIPE TO REG SUPPLY ────⊗ RETURN — —⊘ | <u>TRANSFER</u> UP/DOWN ——— R8 FLEX
DUCT SUPPLY FETURIAL

SYM VENT

B SIDE VENT (CONCENTRIC)

EQUIPMENT SCHEDULE

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GENERAL NOTES ──►

14x10 HIGH / LOW TRANSFER (R/A) 4 UNDERCUT DOOR

0.45

521

5 LOUVER DOOR 6"∅ oa intake to √ 12"ø SUPPLY/RA

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DESIGN DATE: 1.25.21

REVISION:

MAIN LEVEL **MECHANICAL**