# PLUMBING:

- 1. PLUMBING SHALL BE DONE IN ACCORDANCE WITH MUNICIPAL STANDARDS AND CODE BY LICENSED PLUMBERS. VERIFY MUNICIPAL REQUIREMENTS. PLUMBER SHALL COMPLETE HIS PART OF THE BUILDING PERMIT APPLICATION. IF MUNICIPAL REQUIRES PLUMBING RISER DIAGRAMS OR SCHEMATICS THEN PLUMBING CONTRACTOR SHALL PROVIDE.
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  2. CONNECT NEW PLUMBING WORK SANITARY TO EXISTING LATERAL. SEE FOUNDATION PLAN.

  3. USE "BALL VALVES" ONLY FOR ABSOLUTELY EVERYTHING, NO GATE TYPE VALVES. TAKE
- PRECAUTIONS NOT TO LIMIT PRESSURE TO REMOTE LOCATIONS.

  4. PROVIDE "SHOCK" RISERS AT ENDS OF MAINS. PROVIDE EXPANSION TANK ON HOT WATER
- 5. ALL WASTE PLUMBING IN AND BELOW THE SECOND FLOOR DECK AND BUILT INTO WALL

SEE SPECIFIC DETAILS PROVIDED IN THE ENGINEERED TIMBER CATALOG.

- CAVITIES SHALL BE COMPLETELY SURROUNDED WITH FIBERGLASS SOUND INSULATION.

  6. TAKE SPECIAL PRECAUTIONS WITH CUTTING AND PATCHING JOISTS. DO NOT NOTCH
  JOISTS, DRILL HOLES ONLY IN PROPER LOCATIONS AT CENTER OF JOISTS, SEE CODE AND
- 7. ALL PIPES LOCATED IN EXTERIOR WALLS SHALL BE INSULATED. BETTER, AVOID PIPES IN EXTERIOR WALLS. AFTER INSTALLATION, SEAL THE PASSAGE OF ALL PIPES THROUGH WALL PLATES (TOP AND BOTTOM, INTERIOR OR EXTERIOR WALLS) WITH EXPANDABLE URETHANE FOAM TO PREVENT VERTICAL PASSAGE OF AIR.

### HEATING / COOLING SYSTEM:

 HEATING: HOT WATER RADIANT SLAB. HOT WATER PROVIDED BY NEW INSTANT HOT WATER HEATER IN EXISTING BASEMENT. PROPANE FIRED, CLOSED COMBUSTION SYSTEM.

2. COOLING: WALL MOUNTED MINI-SPLIT SYSTEM. ENERGY STAR RATED.

- 3. GENERAL: HVAC CONTRACTOR SHALL COMPLETE HIS PART OF THE BUILDING PERMIT APPLICATION. IF MUNICIPALITY REQUIRES SCHEMATICS, CALCULATIONS, DIAGRAMS, OR CATALOG CUTS, THEN HVAC CONTRACTOR SHALL PROVIDE.
- 4. SUBMITTALS: CONTRACTOR WILL PROVIDE HEAT GAIN AND HEAT LOSS CALCULATIONS TO DETERMINE EQUIPMENT AND DUCT SYSTEM SIZING. NOTE "SPRAY FOAM INSULATION SYSTEMS" AND RADIANT BARRIERS. SPRAY FOAM SYSTEMS SIGNIFICANTLY REDUCE
- 9. THERMOSTATS: PROVIDE LUX MOD# PSPA711. THESE ARE DUAL SETBACK, 7-DAY PROGRAMMABLE, HEATING AND COOLING, WITH BATTERY BACKUP. MAKE SURE CONTROL WIRING FOR BOTH HEATING AND COOLING GETS TO STAT LOCATIONS.
- 10. EXHAUST FANS AND VENTS: ALL VENTS SHALL BE DIRECT TO THE EXTERIOR THROUGH WALL OR ROOF VENT CAPS PROVIDED WITH BACK DRAFT PREVENTION. ALL DUCTWORK SHALL BE METALLIC. NO VENTING INTO ATTICS OR SOFFITS ALLOWED.

## FRESH AIR EXCHANGE SYSTEM: ADD OPTION

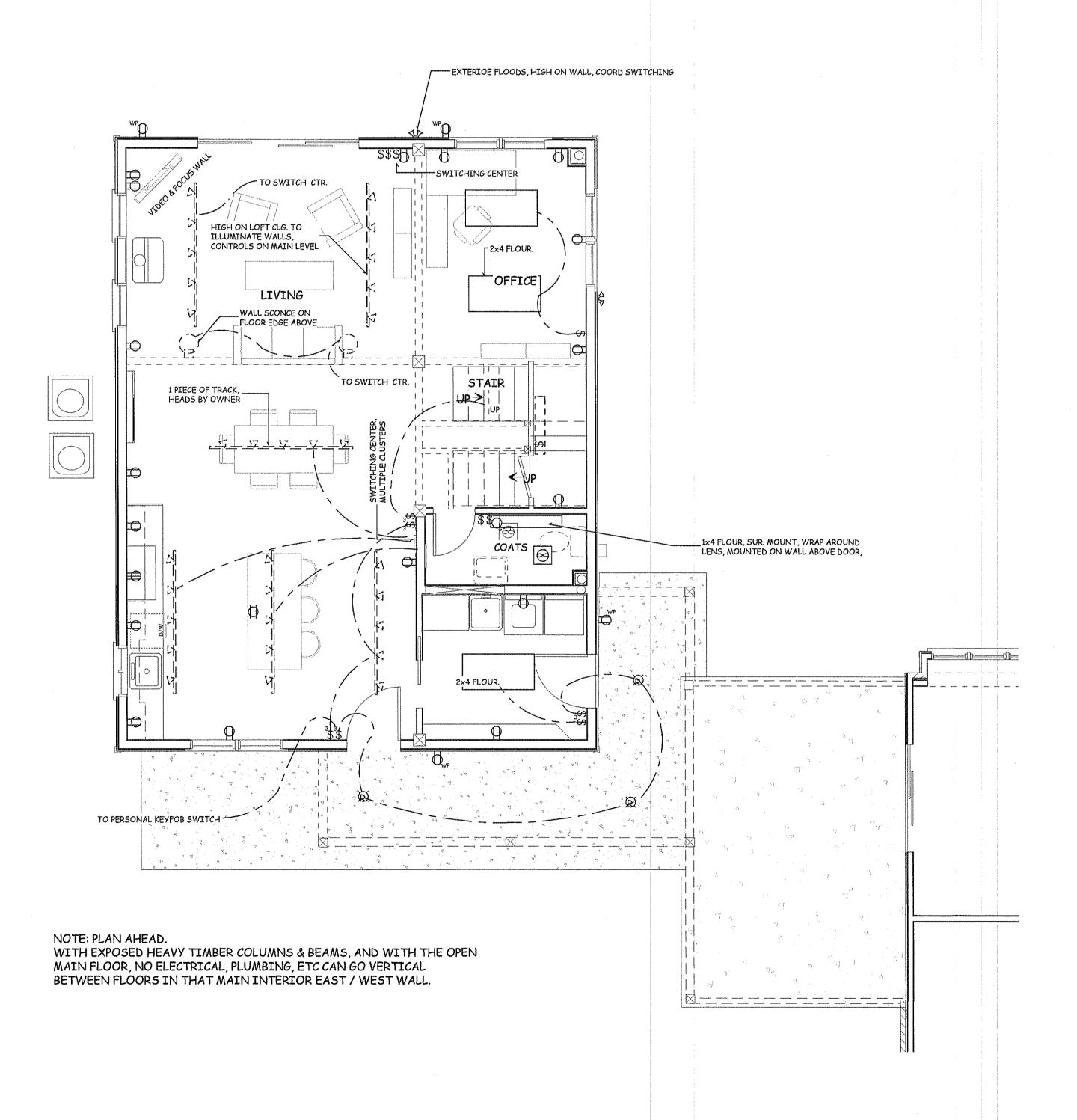
- 1. AS BUILDINGS ARE MADE TIGHTER AND MORE ENERGY EFFICIENT, MECHANICAL CODES ARE SUGGESTING THE INTRODUCTION OF EXTERIOR FRESH AIR TO PREVENT "SICK BUILDING SYNDROME"
- 2. ADD OPTION PROPOSAL: INSTALL ENERGY RECOVERING FRESH AIR EXCHANGER. THIS UNIT TO BE A STAND ALONE PACKAGE. SYSTEM SHOULD BE ABLE TO OPERATE WITH OR INDEPENDENT OF EITHER THE HEATING OR COOLING SYSTEMS.
- 3. PRODUCT: PERFECTAIRE, MODEL 8100 FRESH AIR EXCHANGER, OR APPROVED EQUAL.

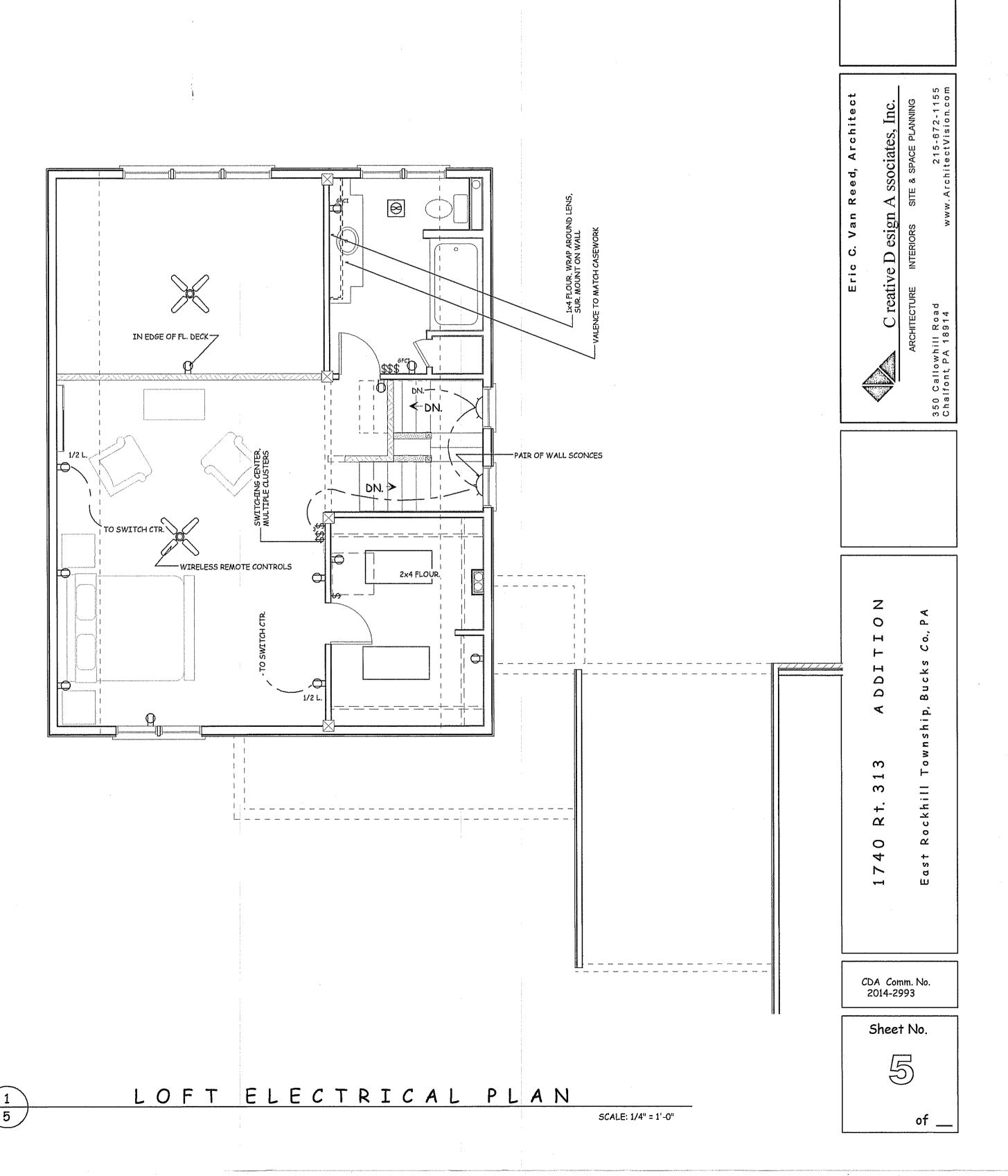
#### ELECTRICAL SYSTEM NOTES:

- 1. ELECTRICIAN SHALL PROVIDED AN UNDERWRITER'S CERTIFICATE AT THE CONCLUSION OF WORK.
- 2. ELECTRICIAN SHALL COMPLETE HIS PART OF THE BUILDING PERMIT APPLICATION. IF MUNICIPALITY REQUIRES LOAD CALCULATIONS OR DIAGRAMS, THEN ELECTRICAL CONTRACTOR SHALL PROVIDE.
- 3. LAMPING: ALL NEW FIXTURES SHALL HAVE THE APPROPRIATE LAMP INSTALLED.
- 4. THE ELECTRICIAN SHALL DO ALL CIRCUIT & LOAD DISTRIBUTION DESIGN. DISTRIBUTION PANEL SHALL BE CLEARLY LABELED. SEPARATE POWER CIRCUITS FROM LIGHTING CIRCUITS. DO NOT MAXIMIZE CIRCUIT CAPACITY, INSTEAD MAXIMIZE CLARITY OF ORGANIZATION FOR THE OWNER. DESIGN CIRCUITS SUCH THAT THERE IS 1 BREAKER PER ROOM FOR POWER, LIGHTING MAY BE MORE THAN A SINGLE ROOM, BUT SHALL BE INTELLIGENT ZONES. MAJOR EQUIPMENT, INCLUDING REFRIGERATORS, SHOULD HAVE DEDICATED CIRCUITS. PROVIDE PANEL LARGE ENOUGH FOR THE WORK SHOWN, AND PROVIDE MINIMUM 6 SPARE 20 AMP BREAKERS. ALL BREAKERS SHALL BE FULL SIZE, NOT HALF-SIZE.
- 5. FOR OWNER'S APPROVAL, BEFORE WORK BEGINS, SUBMIT CATALOG CUTS FOR ALL FIXTURES, APPLIANCES, DEVISES, SWITCHES, ETC.
- 6. COORDINATE WITH THE HVAC CONTRACTOR AND PLUMBING CONTRACTOR TO PROVIDE SERVICE TO ALL EQUIPMENT AS REQUIRED.
- 7. ALL HOLES DRILLED INTO TOP OR BOTTOM WALL PLATES, INTERIOR AND EXTERIOR, SHALL BE SEALED, USE EXPANDABLE FOAM TO PREVENT VERTICAL PASSAGE OF AIR.

### SMOKE DETECTOR SYSTEM:

- 1. LOCATIONS SHOWN ARE THE GENERALLY PERCEIVED MINIMUM TO SECURE A BUILDING PERMIT. MANY MUNICIPALITIES HAVE ADDED SPECIAL LOCAL AMENDMENTS NOT PUBLISHED IN THE NATIONAL CODES. THEREFORE, THE LOCAL PLAN REVIEWER MAY REQUIRE ADDITIONAL LOCATIONS AND REQUIREMENTS.
- 2. INTERNATIONAL RESIDENTIAL CODE SECTION R313 REQUIRED LOCATIONS: IN EACH SLEEPING ROOM AND OUTSIDE EACH SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS, PLUS ONE ON EACH ADDITIONAL STORY.
- 3. SYSTEM SPECIFICATIONS: DETECTORS MUST BE HARDWIRED TO A CONSTANT POWER SOURCE AND MUST BE ELECTRONICALLY INTERCONNECTED, SO THAT IF ANY DETECTOR SENDS AN ALARM SIGNAL, THEN ALL DETECTORS SOUND THE ALARM. DETECTORS SHALL HAVE AN EMERGENCY BACKUP POWER SOURCE, GENERALLY BATTERIES. SYSTEMS ARE AVAILABLE USING EITHER 100V DEDICATED LINE VOLTAGE CIRCUITS OR LOW VOLTAGE.





PLANS NOT VALID FOR

WITH "RED" INK & IMPRESSED w/ SEAL

PERMITS UNLESS SIGNED