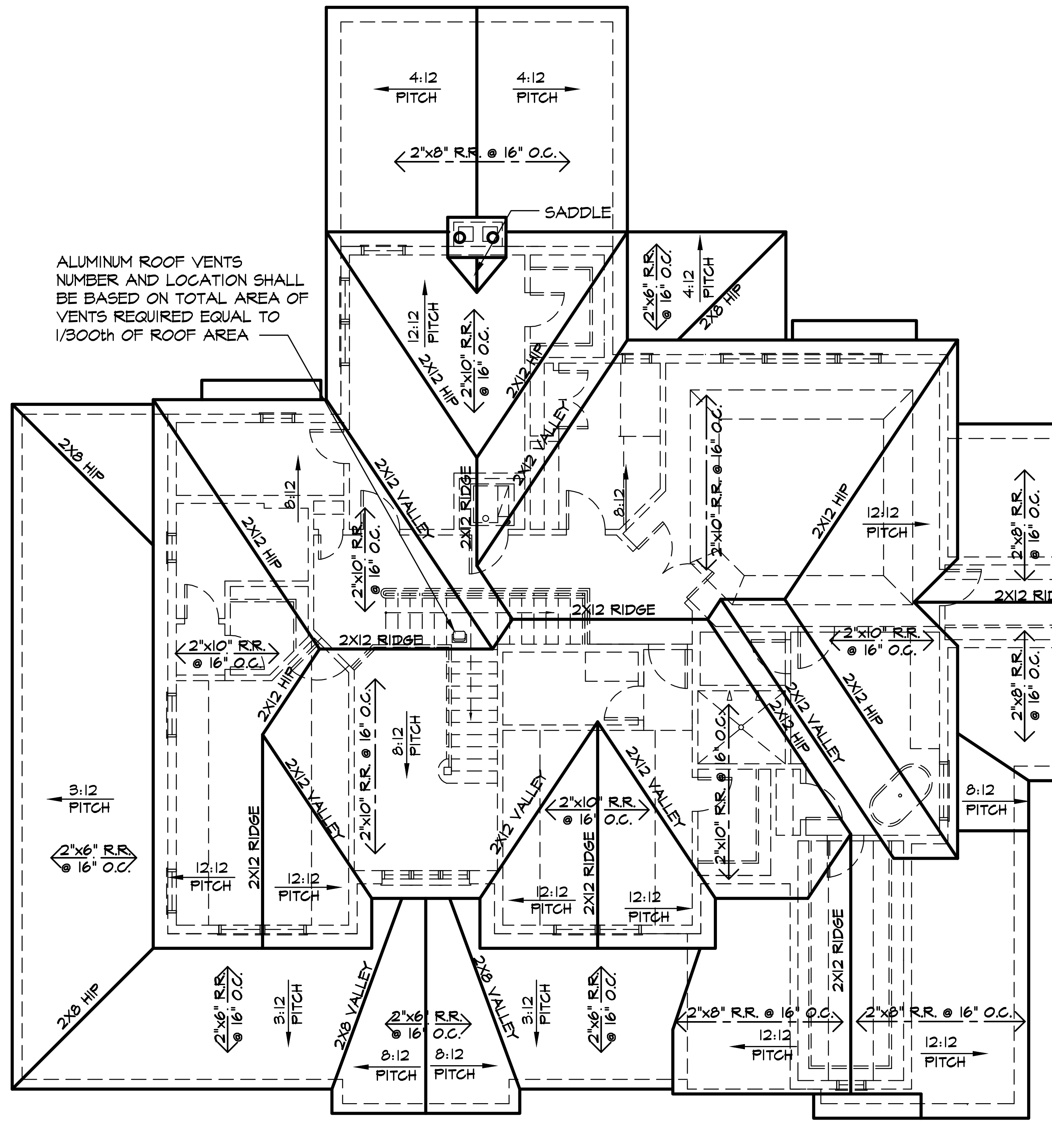
FRONT ELEVATION

SCALE:1/4" = 1'-0"



ALUMINUM ROOF VENTS NUMBER AND LOCATION SHALL BE BASED ON TOTAL AREA OF VENTS REQUIRED EQUAL TO 1/300th OF ROOF AREA

ROOF PLAN

SCALE:1/8" = 1'-0"

ROOF NOTES

USE CANADIAN SPRUCE-PINE-FIR NO. 2 FOR ROOF RAFTERS THRU 2"x10". 2"x12" ROOF RAFTERS SHALL BE CANADIAN HEM-FIR NO. 2 PER "U.S. SPAN BOOK FOR CANADIAN LUMBER" SPAN TABLES SPF FOR SOUTHERN LUMBER (NORTHERN LUMBER GREATER SPANS ARE ALLOWED)

2"x6" @ 12" O.C. = 13'-7"
2"x6" @ 16" O.C. = 11'-11"
2"x8" @ 12" O.C. = 17'-5"
2"x8" @ 16" O.C. = 15'-1"
2"x10" @ 12" O.C. = 21'-4"
2"x10" @ 16" O.C. = 18'-5"

HEM FIR
2"x12" @ 12" O.C. = 24'-4"
2"x12" @ 16" O.C. = 21'-1"

1. HIP OR VALLEY RAFTERS EXCEEDING 24'-0" IN LENGTH SHALL BE 1 3/4" WIDE GANG LAM MEMBERS x RAFTER DEPTH PLUS 2" DEEP.
2. ALL HIP VALLEY CRIPPLE JACKS SHALL BE INSTALLED AND SHALL BE EQUAL IN DEPTH AND SPACING TO MAIN RAFTER FRAMING INTO HIP OR VALLEY RAFTER.
3. PROVIDE ICE AND WATER SHIELD A MIN. OF 24" MEASURED HORIZONTALLY FROM INSIDE FACE OF EXTERIOR WALL
4. 2X6 COLLAR TIES SHALL BE INSTALLED FOR ROOF RAFTERS @48" O.C.
5. WHERE HIP RAFTERS FRAME PERPENDICULAR TO CEILING JOISTS PROVIDE SOLID BLOCKING AT 8'-0" O.C. BETWEEN JOISTS FOR A DISTANCE OF 10'-0" FROM EXTERIOR WALL.
6. PROVIDE FLASHING AT ALL WALL AND ROOF INTERSECTIONS WHEREVER THERE IS A CHANGE IN ROOF SLOPE OR DIRECTION AND AROUND ROOF OPENINGS.
7. RAFTERS SHALL BE FRAMED TO EACH OTHER WITH A GUSSET PLATE OR TO A MINIMUM 1-INCH NOMINAL THICKNESS RIDGE BOARD, NOT LESS IN DEPTH THAN THE CUT END OF THE RAFTER.
8. A MINIMUM 2-INCH NOMINAL THICKNESS VALLEY OR HIP RAFTER IS REQUIRED AT ALL VALLEYS AND HIPS, NOT LESS THAN THE DEPTH OF THE CUT END OF THE RAFTER, AND SUPPORTED AT THE RIDGE BY A BRACE TO A BEARING PARTITION.
9. THE ENDS OF EACH RAFTER AND CEILING JOIST SHALL HAVE NOT LESS THAN 1-1/2" OF BEARING ON WOOD OR METAL AND NOT LESS THAN 3" ON MASONRY OR CONCRETE. MAINTAIN 2" CLEARANCE TO COMBUSTIBLE FRAMING MEMBER AT MASONRY FIREPLACE.

GENERAL NOTES

- ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE, COUNTY, AND LOCAL BUILDING ORDINANCES.
- DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR DIMENSIONAL ACCURACY. ALL DIFFERENCES IN ANTICIPATED DIMENSIONS OR CONDITIONS SHALL BE IMMEDIATELY SUBMITTED IN WRITING TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OR CONTINUATION OF WORK OR THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAME. ANY DEVIATION FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE ARCHITECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WILL NULLIFY AND VOID ANY ARCHITECTURAL CERTIFICATION PERTAINING TO THIS PROJECT.
- THE ARCHITECT SHALL NOT HAVE CONTROL OVER OR CHARGE OF AND SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTIONS WITH THE WORK. THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR CONTRACTOR'S OR SUBCONTRACTOR'S SCHEDULES OR FOR FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS. THE ARCHITECT SHALL NOT HAVE CONTROL OVER OR CHARGE OF ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTOR, OR THEIR AGENTS OR EMPLOYEES, OR OF ANY OTHER PERSONS PERFORMING PORTIONS OF THE WORK.
- CONCRETE FOOTINGS SHALL BEAR ON UNDISTURBED SOIL WITH A MINIMUM BEARING CAPACITY OF 3000 PSF.
- CONCRETE SHALL ATTAIN A 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI.
- WOOD SILL PLATES BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED FOR ROT AND TERMITES.
- PROVIDE A CONTINUOUS 2X6 WOOD NAILER ON TOP OF ALL STEEL BEAMS EXCEPT THOSE USED FOR SUPPORTING MASONRY.
- PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS, OVERSIZED SUBS AND SOLID BLOCKING UNDER PERPENDICULAR PARTITIONS.
- BLOCK SOLID ALL POINTS LOADS DOWN TO STEEL BEAMS AND FOUNDATION WALLS.
- PROVIDE 3-2X4'S MIN. AT EACH END OF ALL WOOD BEAMS, HEADERS, AND GIRDER TRUSSES CONTINUOUS TO CONCRETE FOUNDATION OR STRUCTURAL STEEL UNLESS NOTED OTHERWISE.
- FIRESTOP ALL SOFFITS, PENETRATIONS BETWEEN STORIES, THE ROOF SPACES AND DROPPED CEILINGS WITH 5/8" DRYWALL OR 3/4" PLYWOOD.
- PLUMBING SUPPLY LINES SHALL BE COPPER TYPE L.
- ALL WINDOW DESIGNATIONS ARE "ANDERSEN"
- ALL EGRESS WINDOWS FROM SLEEPING ROOMS MUST HAVE A MIN. NET CLEAR OPENING OF 5.7 SQ. FT. THE MIN. NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24". THE MIN. NET CLEAR OPENING WIDTH DIMENSION SHALL BE 20". WHERE WINDOWS ARE PROVIDED AS A MEANS OF EGRESS THEY SHALL HAVE A SILL HEIGHT OF NOT MORE THAN 44" A.F.F.
- PROVIDE SAFETY GLAZING FOR WINDOWS LESS THAN 18" A.F.F. AND OVER ALL TUBS.
- FIREPLACE FLUES TO BE MIN. (2'-0") ABOVE ANY ROOF SURFACE WITHIN MIN. HORIZONTAL DISTANCE OF (10'-0").
- PROVIDE ICE AND WATER SHIELD AT ALL VALLEYS, SKYLIGHTS, SADDLES, ROOF/WALL INTERSECTIONS(3'-0" UP WALL) AND AT ALL GUTTER LOCATIONS(A MINIMUM OF 6'-0" UP FROM EDGE OF ROOF.)
- ENGINEERED LUMBER SHALL NOT BE CUT, DRILLED, OR NOTCHED UNLESS SPECIFICALLY INCLUDED IN THE DESIGN.
- ALL WINDOW WELLS TO HAVE COVERS OR GUARDS.
- WINDOW WELLS WITH VERTICAL DEPTH GREATER THAN 44" SHALL BE EQUIPPED WITH A PERMANENTLY AFFIXED LADDER OR STEPS USABLE WITH THE WINDOW IN THE FULLY OPEN POSITION. RUNGS AT LEAST 12" WIDE AT LEAST 3" FROM WALL, SPACED NO MORE THAN 18" O.C. VERTICALLY FOR FULL HEIGHT OF WINDOW WELL.
- PROVIDE 1X3 CROSS BRACING IN FLOORS WITH MAX. SPACING OF 8'-0" O.C. ONE ROW MINIMUM. PROVIDE SOLID BRIDGING IN THE CEILING JOISTS WITH MAX. SPACING OF 8'-0" O.C.- ONE ROW MIN.
- HOT AND COLD AIR RETURNS/SUPPLIES MUST BE IN SHEET METAL.
- FIREPLACE OPEING OF 6 S.F. OR LESS-HEARTH EXTENSION OF 8" ON EACH SIDE AND 16" IN FRONT OF FIREPLACE OPENING. FIREPLACE OPENING OF 6 S.F. OR GREAT-HEAR EXTENSION OF 12" ON EACH SIDE AND 20" IN FRONT OF FIREPLACE
- WHERE THE TOP OF THE SILL OF AN OPERABLE WINDOW OPENING IS LOCATED LESS THAN 24" ABOVE THE FINISHED FLOOR AND GREATER THAN 72" ABOVE THE FINISHED GRADE OR OTHER SURFACE BELOW ON THE EXTERIOR OF THE BUILDING, THE OPERABLE WINDOW SHALL COMPLY WITH ONE OF THE FOLLOWING:
  1. OPERABLE WINDOWS WITH OPENINGS THAT WILL NOT ALLOW A 4" DIAMETER SPHERE TO PASS THROUGH THE OPENING WHERE THE OPENING IS IN IT'S LARGEST OPENED POSITION.
  2. OPERABLE WINDOWS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2090
  3. OPERABLE WINDOWS THAT ARE PROVIDED WITH WINDOW OPENING CONTROL DEVICES THAT COMPLY WITH SECTION R312.2.2

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EXPIRES:11/30/2022

REVISIONS:

TITLE:
ELEVATION/
ROOF PLAN

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JK	JK

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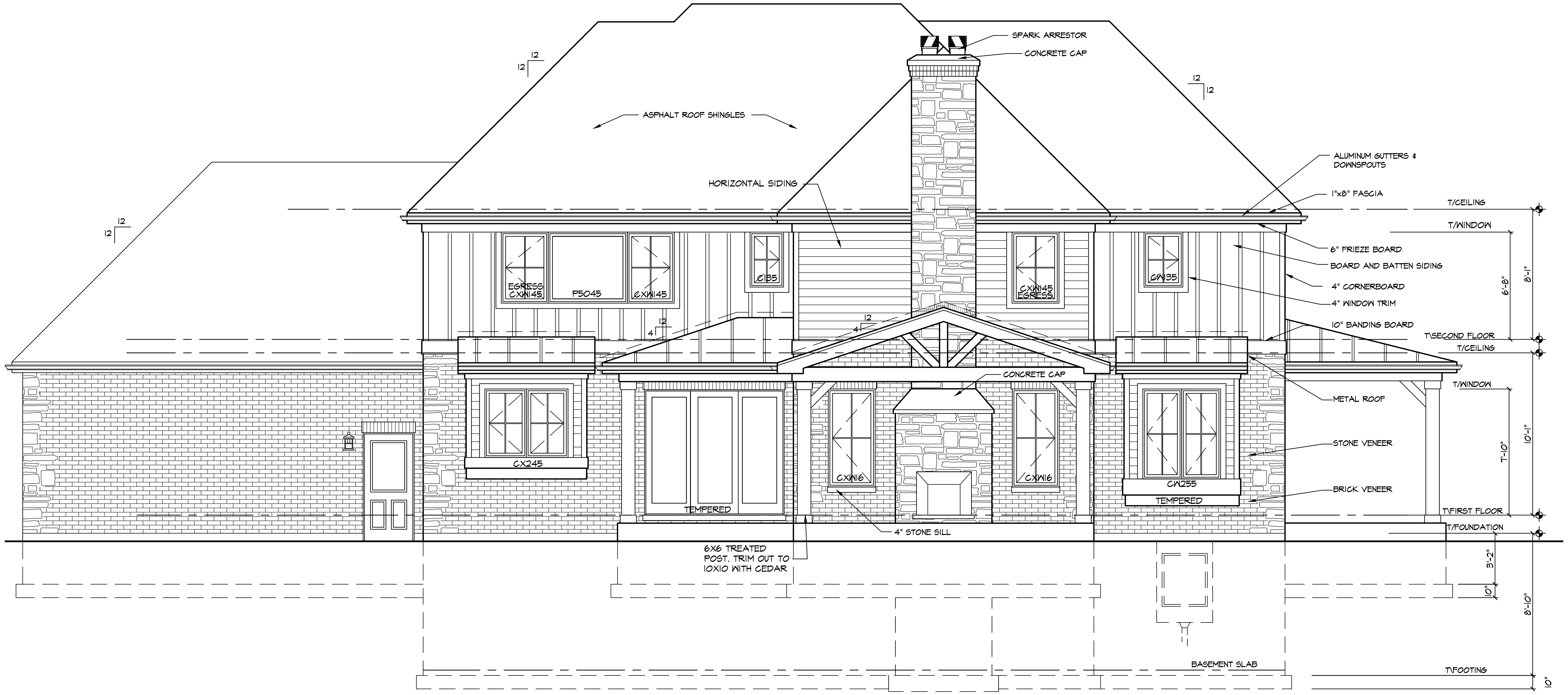


REAR ELEVATION

SCALE:1/4" = 1'-0"

2018 IECC COMPLIANCE REQUIREMENTS

1. A PERMANENT CERTIFICATE SHALL BE COMPLETED AND POSTED ON THE ELECTRICAL DISTRIBUTION PANEL BY THE BUILDER OR ARCHITECT. THE CERTIFICATE SHALL LIST THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN THE CEILING/ROOF, WALLS, FOUNDATION(SLAB, BASEMENT WALL, CRAWL SPACE WALL AND/OR FLOOR) AND DUCTS OUTSIDE CONDITIONED SPACES;U-FACTORS FOR FENESTRATION AND THE SHGC OF FENESTRATION,AND THE RESULTS FROM ANY REQUIRED DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING DONE ON THE BUILDING. WHERE THERE IS MORE THAN ONE VALUE FOR EACH COMPONENT, THE CERTIFICATE SHALL LIST THE VALUE COVEREING THE LARGEST AREA.
THE CERTIFICATE SHALL LIST THE TYPES AND EFFICIENCIES OF HEATING, COOLING AND SERVICE WATER HEATING EQUIPMENT. WHERE A GAS FIRED UNVENTED ROOM HEATER, ELECTRIC FURNACE OR BASEBOARD ELECTRIC HEATER IS INSTALLED, THE CERTIFICATE SHALL LIST IT "AS APPROPRIATE". AN EFFICIENTCY SHALL NOT BE LISTED FOR GAS-FIRED UNVENTED ROOM HEATERS, ELECTRIC FURNACES OR ELECTRIC BASEBOARD HEATERS.

2. THE BUILDING THERMAL ENVELOPE SHALL BE DURABLY SEALED TO CREATE AN AIR BARRIER TO LIMIT AIR INFILTRATION. THE BUILDING MUST BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE OF NOT EXCEEDING 4 AIR CHANGES PER HOUR. TESTING SHALL BE CONDUCTED WITH A BLOWER DOOR AT A PRESSURE OF .2 INCHES(50 PASCALS) AND DONE BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE CODE OFFICIAL.(IF USING A BUILDING WRAP THAT CAN QUALIFY AS AN AIR BARRIER TAPE ALL SEAMS)

3. NEW WOOD BURNING FIREPLACES SHALL HAVE TIGHT FITTING FLUE DAMPERS OR DOORS AND AND OUTDOOR COMBUSTION AIR. WHEN USING TIGHT-FITTING DOORS ON FACTORY BUILT FIREPLACES LISTED AND LABELED IN ACCORDANCE WITH UL 127, THE DOORS SHALL BE TESTED AND LISTED FOR THE FIREPLACE. WHERE USING TIGHT-FITTING DOORS ON MASONRY FIREPLACES, THE DOORS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 907

4. RECESSED LUMINAIRES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES. ALL RECESSED LUMINAIRES SHALL BE IC-RATED AND LABELED AS HAVING AN AIR LEAKAGE RATE NOT MORE THAN 2 CFM. ALL RECESSED LUMINAIRES SHALL BE SEALED WITH A GASKET OR CAULK BETWEEN THE HOUSING AND THE INTERIOR WALL OR CEILING COVERING.

5. A MINIMUM OF 90 PERCENT OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS EXCEPT LOW VOLTAGE LIGHTING.

6. BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR PLENUMS.

7. AT LEAST ONE THERMOSTAT SHALL BE PROVIDED FOR EACH SEPARATE HEATING AND COOLING SYSTEM.

8. ATTIC ACCESS PANELS MUST BE INSULATED EQUIVALENT TO THE SURROUNDING SURFACE AND WEATHER STRIPPED. MUST HAVE DRYWALL ON THE UNDERSIDE.

9. MECHANICAL SYSTEM PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105 DEGREES F OR BELOW 55 DEGREES F SHALL BE INSULATED TO A MINIMUM R-3.

10. ALL CIRCULATING SERVICE HOT WATER PIPING SHALL BE INSULATED TO A MIN. OF R-2 WITH A READILY ACCESSIBLE MANUAL SWITCH THAT CAN TURN OFF THE HOT WATER CIRCULATING PUMP WHEN THE SYSTEM IS NOT IN USE.

11. INSULATE THE FOLLOWING PIPES WITH R-3 INSULATION.
    A)PIPING 3/4" AND LARGER IN NOMINAL DIAMETER
    B)PIPNG SERVING MORE THAN ONE DWELLING UNIT
    D)PIPING LOCATED OUTSIDE THE CONDITIONED SPACE
    E)PIPING FROM THE WATER HEATER TO A DISTRIBUTION MANIFOLD
    F)PIPING LOCATED UNDER A FLOOR SLAB
    G)BURIED PIPING
    H)SUPLY AND RETURN PIPING IN RECIRCULATION SYSTEMS OTHER THAN DEMAND RECIRCULATION SYSTEMS

12. OUTDOOR AIR INTAKES AND EXHAUSTS SHALL HAVE AUTOMATIC OR GRAVITY DAMPERS THAT CLOSE WHEN THE VENTILATION SYSTEM IS NOT IN USE.

13. SUPPLY AND RETURN DUCTS IN ATTICS SHALL BE INSULATED TO A MINIMUM OF R-8 WHERE 3 INCHES IN DIAMETER AND GREATER AND R-6 WHERE LESS THAN 3" IN DIAMETER. SUPPLY AND RETURN DUCTS IN OTHER PORTIONS OF THE BUILDING SHALL BE INSULATED TO A MIN. OF R-6 WHERE 3" IN DIAMETER OR GREATER AND R-4.2 WHERE LESS THAN 3" IN DIAMETER. EXCEPTION:DUCTS OR PORTIONS THEREOF LOCATED COMPLETELY INSIDE THE BUILDING THERMAL ENVELOPE

14. HEATING AND COOLING EQUIPMENT MUST BE SIZED PER ACCA MANUAL S BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE WITH MANUAL J JOR OTHER APPROVED HEATING AND COOLING CALCULATION METHODS(SUBMIT CALCS)

15. THE TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CUBIC FEET PER MINUTE PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHERE THE AIR HANDLER IS INSTALLED AT THE TIME OF THE TEST. WHERE THE AIR HANDLER IS NOT INSTALLED AT THE TIME OF THE TEST, THE TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CUBIC FEET PER MINUTE PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA.

16. MAINTENANCE INSTRUCTIONS SHALL BE FURNISHED FOR EQUIPMENT AND SYSTEMS THAT REQUIRE PREVENTATIVE MAINTENANCE.

17. BUILDINGS OF UNUSUALLY TIGHT CONSTRUCTION SHALL HAVE ALL COMBUSTION AIR TAKEN FROM THE OUTSIDE.

18. ALL DOORS AND WINDOWS WIL HAVE A U-VALUE OF .30 OR LESS AND A SKYLIGHT U-VALUE OF .55 OR LESS(LEAVE STICKERS ON WINDOWS UNTIL AFTER INSULATION INSPECTION)

19. INSULATION SHALL NOT BLOCK THE FREE FLOW OF AIR FROM THE EAVE INTO THE ATTIC. FOR AIR IMPERMEABLE INSULATIONS IN VENTED ATTICS A BAFFLE MUST BE INSTALLED BETWEEN EACH RAFTER ALONG THE SIDE AND OVER THE INSULATION(ANY SOLID MATERIAL IS ACCEPTABLE)

20. THE THICKNESS OF BLOWN-IN OR SPRAYED ROOF-CEILING INSULATION(FIBERGLASS OR CELLULOSE)SHALL BE WRITTEN IN INCHES ON MARKERS THAT ARE INSTALLED AT LEAST ONE FOR EVERY 300 S.F. THROUGHOUT THE ATTIC SPACE.

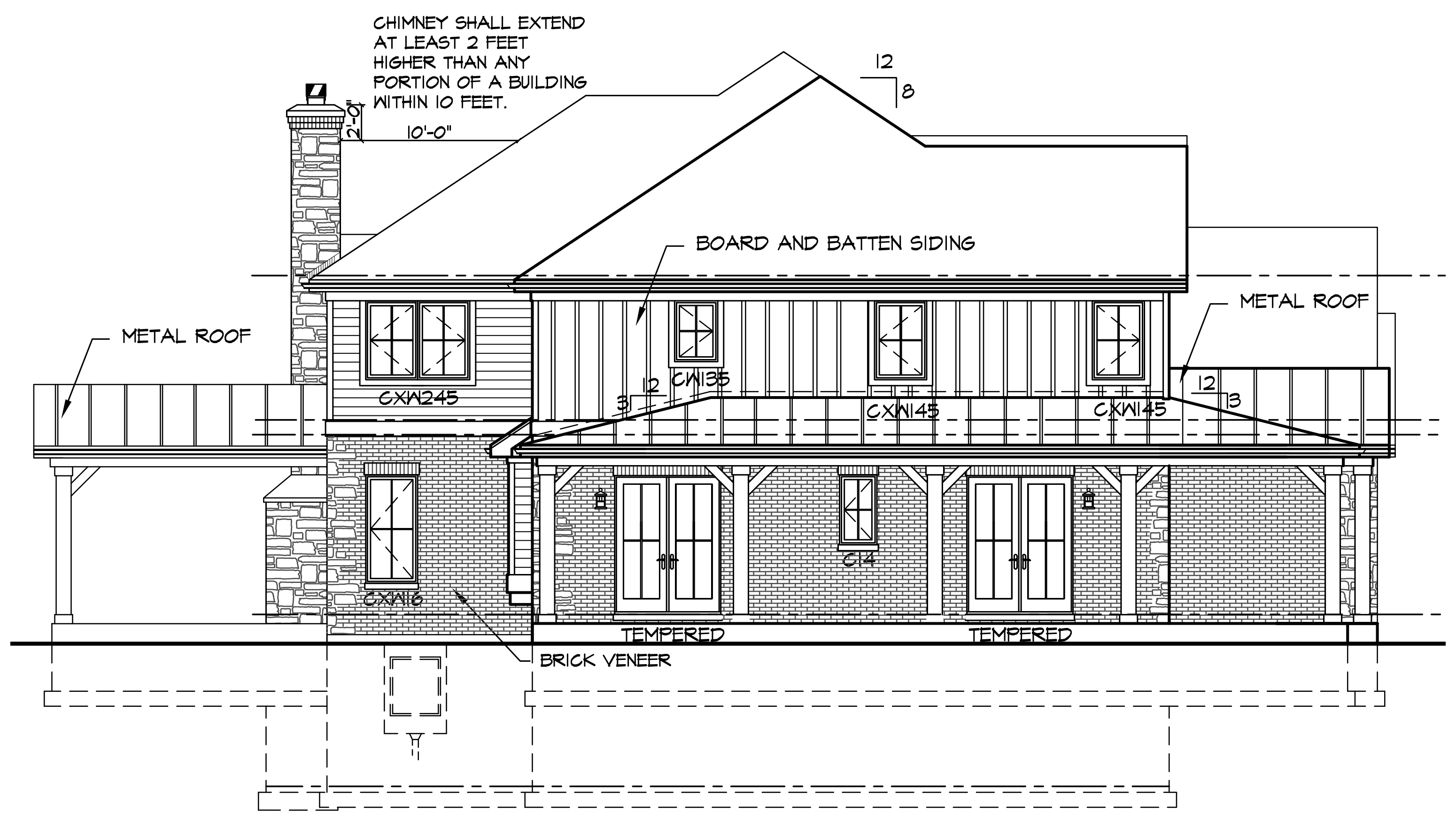
21. NEW WOOD BURNING FIREPLACES SHALL HAVE TIGHT FITTING FLUE DAMPERS AND OUTDOOR COMBUSTION AIR.

22. THE BUILDING SHALL BE PROVIDED WITH VENTILATION THAT MEETS THE REQUIREMENTS OF THE IRC SECTION R303.4 AND DESIGNED TO M1507.3 OR INTERNATIONAL MECHANICAL CODE, AS APPLICABLE, OR WITH OTHER APPROVED MEANS OF VENTILATION(HVAC CONTRACTOR TO SUBMIT METHOD OF COMPLIANCE)

23. CONTRACTOR TO PROVIDE REQUIRED BLOWER DOOR TEST, MAXIMUM 5ACH ALLOWABLE

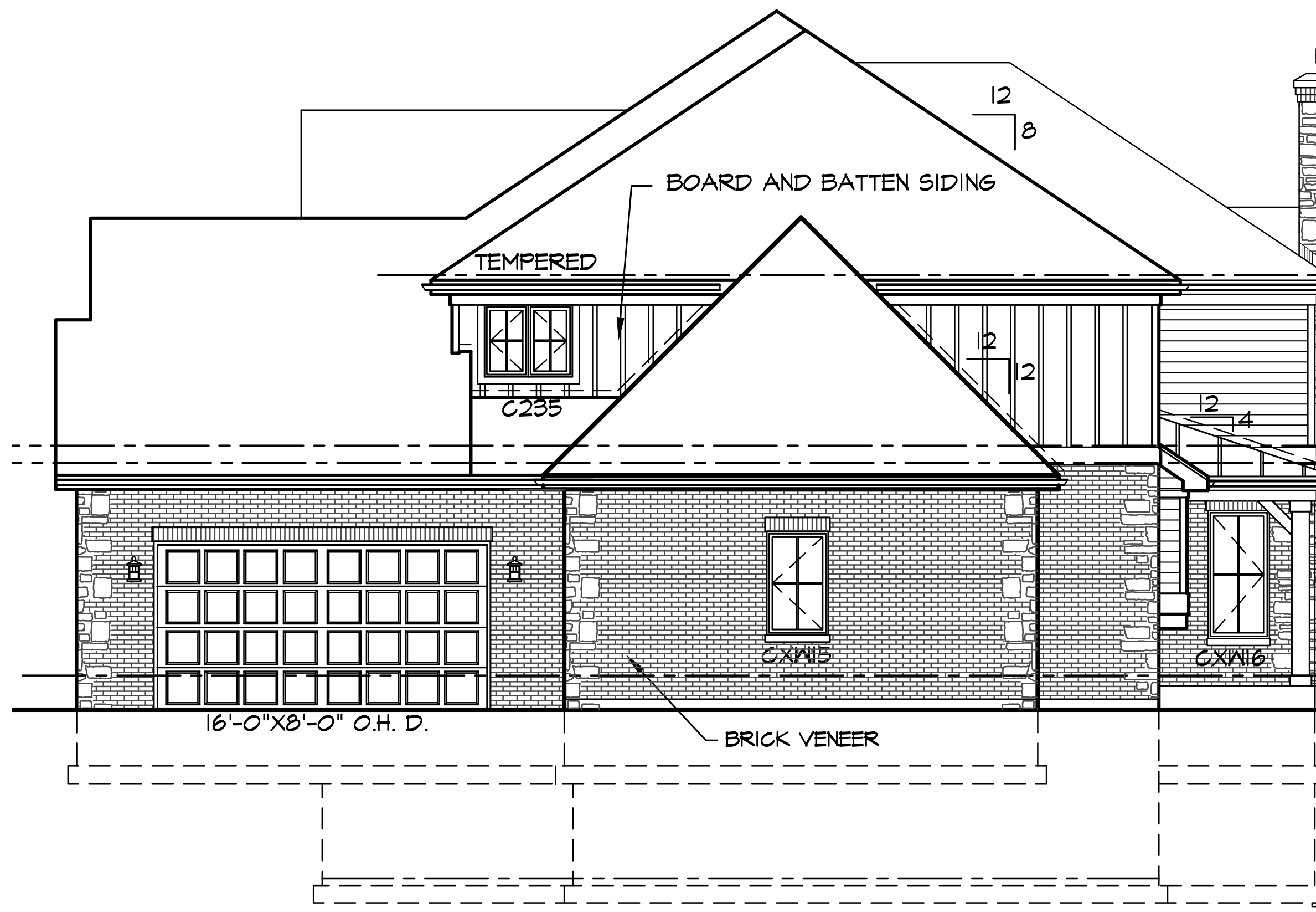
24. EXTERIOR WALLS, INCLUDING BEHIND BATH TUBS, SHALL HAVE CONTINUOUS AIR BARRIER.

25. WHEN A PORTION OF THE HVAC SYSTEM IS LOCATED OUTSIDE THE BUILDING THERMAL ENVELOPE, DUCT TIGHTNESS SHALL BE VERIFIED BY A THIRD PARTY IN ACCORDANCE WITH SECTION R403.3.



LEFT ELEVATION

SCALE:1/8" = 1'-0"



RIGHT ELEVATION

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TITLE:
ELEVATIONS

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JK	JK

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2021-075

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A-2

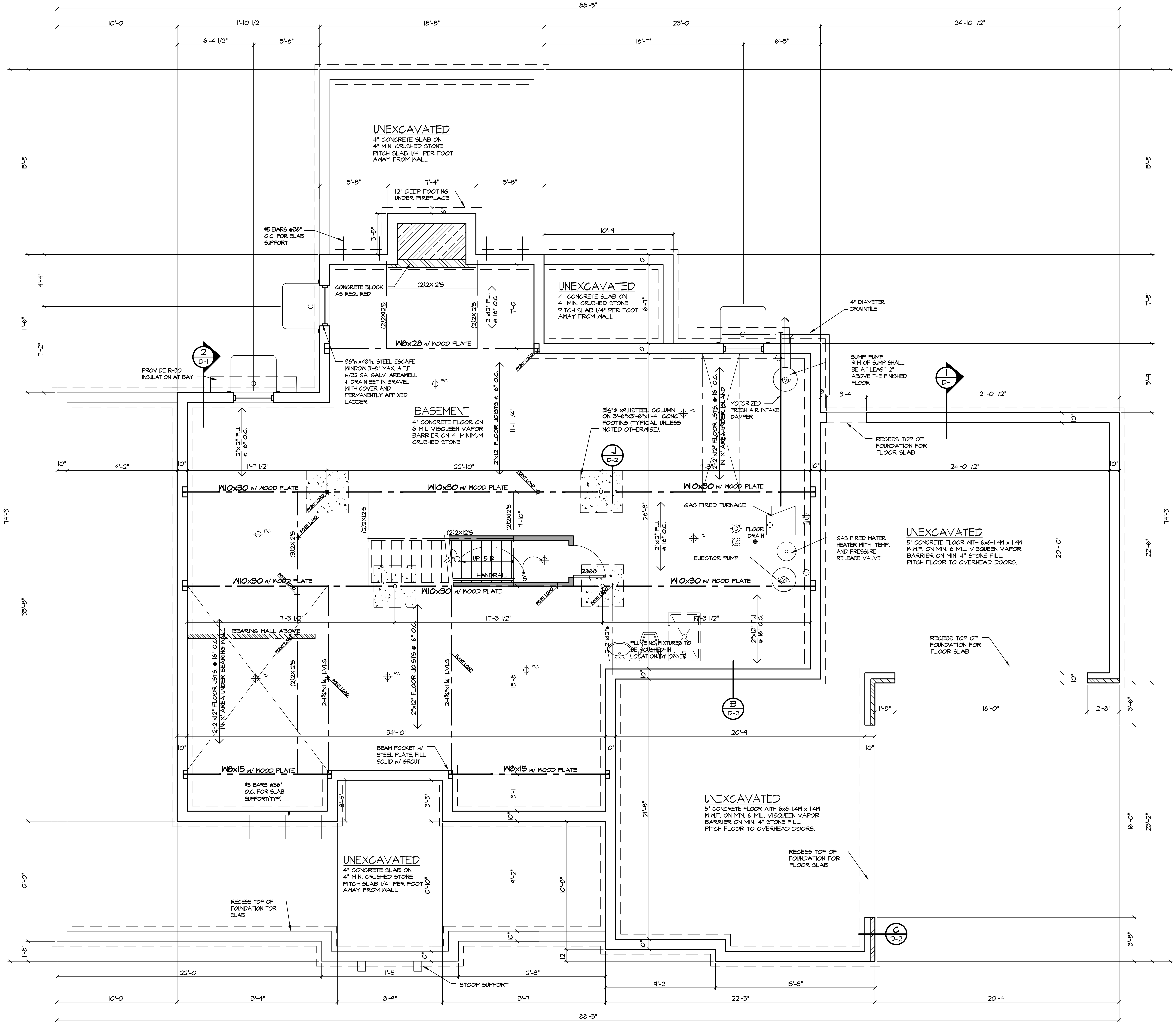
FRAMING NOTES:DEAD LOAD 10#/S.F.

CEILING JOISTS, FLOOR JOISTS AND HEADERS SHALL BE CANADIAN LUMBER BASED UPON U.S. SPAN BOOKS. FOR CANADIAN LUMBER USE SPRUCE-PINE-FIR #2 FOR MEMBERS UP TO 12". FOR MEMBERS 12" AND ABOVE USE HEM-FIR.

ALLOWABLE SPANS ARE AS FOLLOWS:

		SPRUCE-PINE-FIR #2			HEM-FIR #2
CEILING JOISTS - 20lbs LIVE LOAD		2"x6"	2"x8"	2"x10"	2"x12"
	12" O.C.	14'-9"	18'-9"	22'-11"	23'-6"
	16"O.C.	12'-10"	16'-3"	19'-10"	21'-0"
2nd FLOOR, FLOOR JOISTS - 30lbs LIVE LOAD					
	12" O.C.			19'-0"	22'-6"
	16" O.C.			17'-2"	19'-8"
1st FLOOR, FLOOR JOISTS - 40lbs LIVE LOAD					
	12" O.C.			17'-3"	20'-4"
	16" O.C.			15'-5"	17'-7"

MICROLAM LVL AND PARALLAM PSL HEADERS AND BEAMS ARE MANUFACTURED BY "TRUS JOIST MAC MILLAN" OR APPROVED EQUAL.
ENGINEERED LUMBER SHALL NOT BE CUT, DRILLED, NOTCHED UNLESS SPECIFICALLY INCLUDED IN THE DESIGN



FOUNDATION PLAN

SCALE:1/4" = 1'-0"

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FRAMING NOTES:DEAD LOAD 10#/S.F.

CEILING JOISTS, FLOOR JOISTS AND HEADERS SHALL BE CANADIAN LUMBER BASED UPON U.S. SPAN BOOKS. FOR CANADIAN LUMBER USE SPRUCE-PINE-FIR #2 FOR MEMBERS UP TO 12". FOR MEMBERS 12" AND ABOVE USE HEM-FIR.

ALLOWABLE SPANS ARE AS FOLLOWS:

	SPRUCE-PINE-FIR #2			HEM-FIR #2
	2"x6"	2"x8"	2"x10"	2"x12"
CEILING JOISTS - 20lbs LIVE LOAD				
12" O.C.	14'-9"	18'-9"	22'-11"	23'-6"
16"O.C.	12'-10"	16'-3"	19'-10"	21'-0"
2nd FLOOR, FLOOR JOISTS - 30lbs LIVE LOAD				
12" O.C.			19'-0"	22'-6"
16" O.C.			17'-2"	19'-8"
1st FLOOR, FLOOR JOISTS - 40lbs LIVE LOAD				
12" O.C.			17'-3"	20'-4"
16" O.C.			15'-5"	17'-7"

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ENGINEERED LUMBER SHALL NOT BE CUT, DRILLED, NOTCHED UNLESS SPECIFICALLY INCLUDED IN THE DESIGN

LIGHT AND VENT SCHEDULE

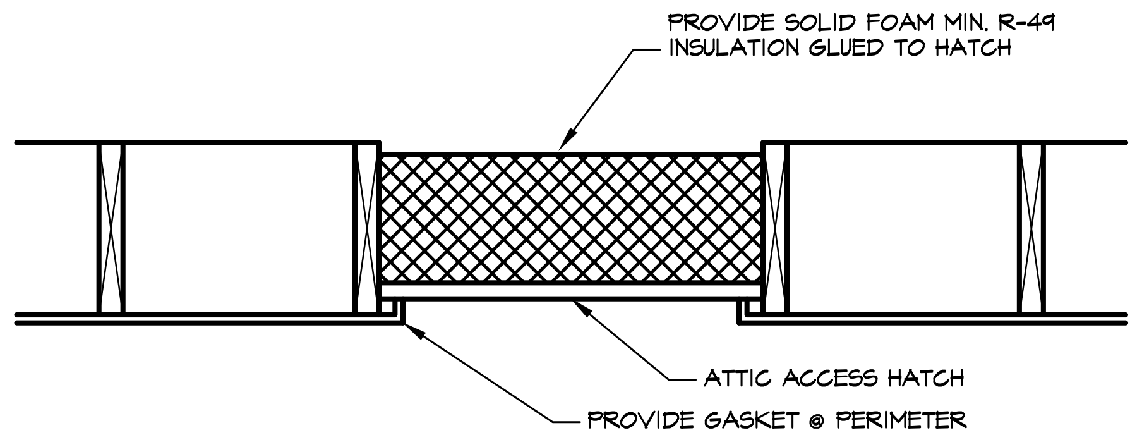
ROOM	AREA	REQ. LIGHT 8%	ACTUAL LIGHT	REQ. VENT 4%	ACTUAL VENT	
KITCHEN/DINETTE	445	35.6	46.5	17.8	26.4	
GREAT ROOM	312	25	58.8	12.5	56	
PLAYROOM	141	11	43	5.5	54.2	
STUDY	169	13.5	56	6.8	50.8	
DINING ROOM	241	19	33	9.6	16.8	
PWD.	28	-	-	42	-	50 CFM EXH. FAN
MASTER BEDROOM	339	27	39.4	13.5	18.8	
BEDROOM #2	216	17	42	8.6	37.6	
BEDROOM #3	204	16	31.5	8	28.2	
BEDROOM #4	173	13.8	21	6.9	18.8	
MASTER BATH	169	-	-	253	-	275 CFM EXH. FAN
MASTER TOILET	21	-	-	31	-	50 CFM EXH. FAN
BATH #2	59	-	-	88	-	100 CFM EXH. FAN
BATH #3	59	-	-	88	-	100 CFM EXH. FAN
BATH #4	46	-	-	69	-	75 CFM EXH. FAN
BASEMENT(1%)	1814	36	36	36	36	

NOTE:
ALL WINDOW SIZES SHOWN ARE DESIGNATED AS "ANDERSEN" MANUFACTURED WINDOWS. IF A DIFFERENT MANUFACTURER IS TO BE USED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT ALL WINDOWS MEET NECESSARY LIGHT, VENT, SAFETY GLAZING, AND EGRESS REQUIREMENTS.

LINTEL SCHEDULE

4'-0" OR LESS	∠- 3 1/2"X3 1/2"X5/16"
5'-0"	∠- 3 1/2"X3 1/2"X5/16"
6'-0"	∠- 4"X3 1/2"X5/16"
7'-0"	∠- 4"X3 1/2"X5/16"
8'-0"	∠- 5"X3 1/2"X5/16"
9'-0"	∠- 5"X3 1/2"X3/8"
10'-0"	∠- 6"X3 1/2"X3/8"
16'-0"	∠- 6"X4"X3/8"

LONG LEG OF THE ANGLE SHALL BE PLACED IN A VERTICAL POSITION.



A / A-4 **ATTIC ACCESS INSUL. DETAIL**

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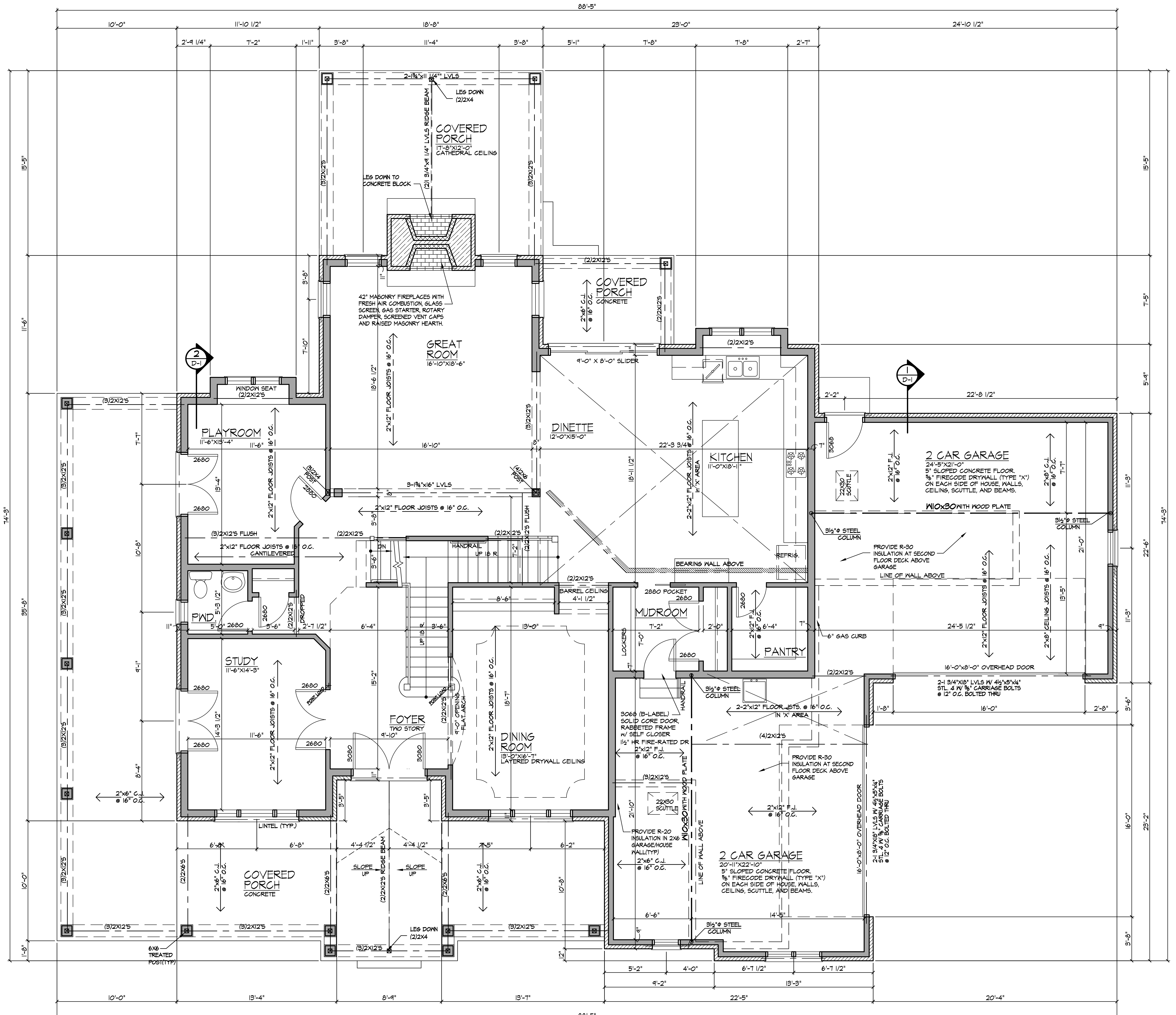

FIRST FLOOR PLAN

SCALE:1/4" = 1'-0"

1,977 SQUARE FEET

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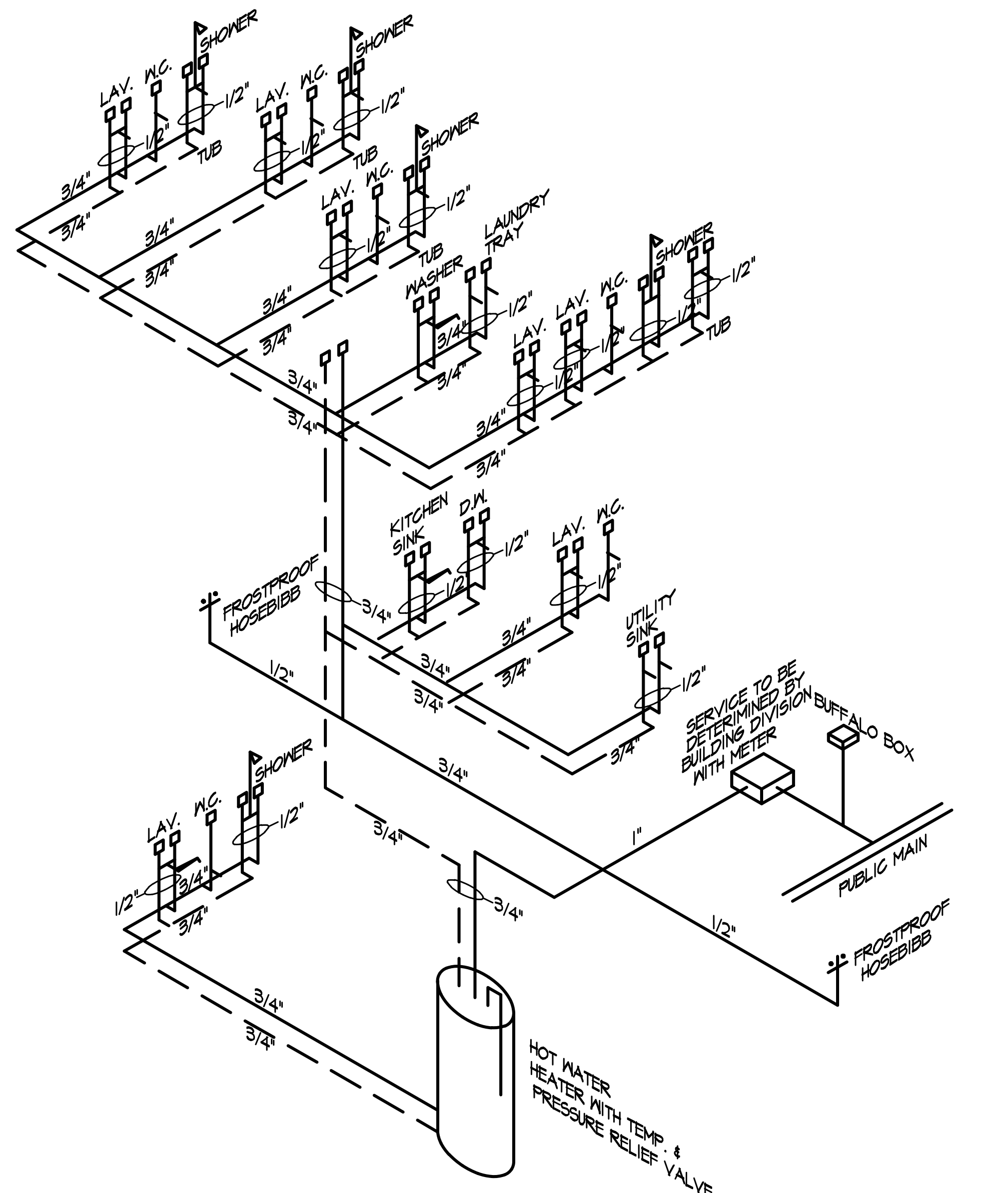
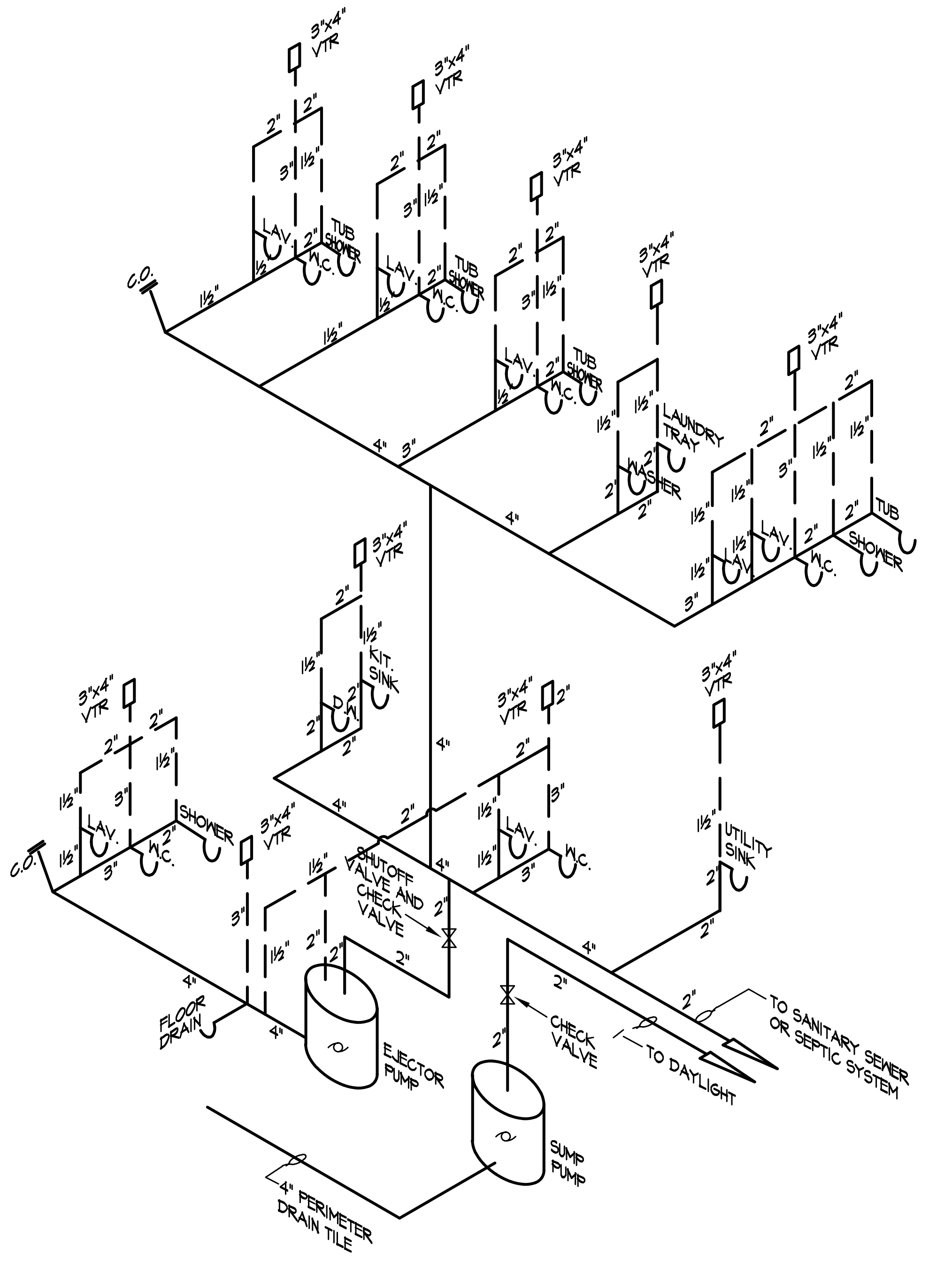


GENERAL WATER RISER DIAGRAM

SUPPLY PIPES= COPPER
TYPE K WATER PIPE BELOW GRADE, TYPE L COPPER ABOVE GRADE.
12" AIR CHAMBER AT EACH FIXTURE
24" AIR CHAMBER AT EACH RISER
SHUT OFF VALVE AT EACH FIXTURE

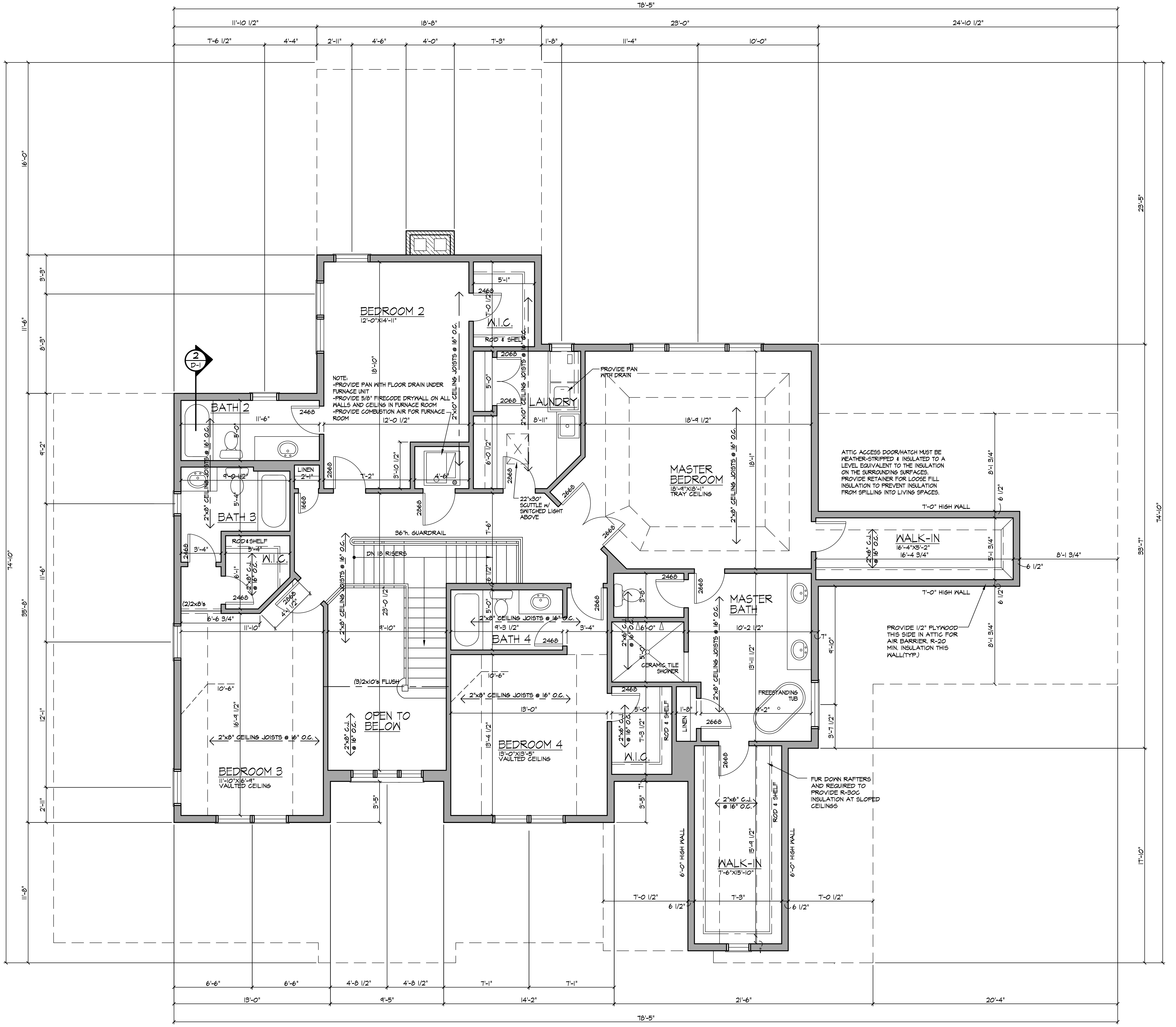
1. AIR CHAMBERS FOR FIXTURES SHALL BE A MINIMUM OF 12" LONG AND AT LEAST SAME SIZE AS FIXTURE SUPPLY PIPE, OR AN AIR CHAMBER OF EQUIVALENT VOLUME MAY BE USED.
2. STACK TEST IS REQUIRED FOR ALL DRAIN, WASTE, AND VENT PIPING.
3. WATERPIPING SHALL BE AIR TESTED TO 100 PSI.



GENERAL SOIL WASTE AND VENT DIAGRAM

RETURN PIPES= PVC

1. PROVIDE A SHUTOFF VALVE AND CHECK VALVE ON THE 2" EJECTOR DISCHARGE PIPE.
2. PROVIDE ONE MAIN VENT STACK NO SMALLER THAN 3" INSTALLED ON THE BUILDING DRAIN.


NOTE:
-PROVIDE PAN WITH FLOOR DRAIN UNDER FURNACE UNIT
-PROVIDE 5/8" FIRECODE DRYWALL ON ALL WALLS AND CEILING IN FURNACE ROOM
-PROVIDE COMBUSTION AIR FOR FURNACE ROOM

ATTIC ACCESS DOOR/HATCH MUST BE WEATHER-STRIPPED & INSULATED TO A LEVEL EQUIVALENT TO THE INSULATION ON THE SURROUNDING SURFACES. PROVIDE RETAINER FOR LOOSE FILL INSULATION TO PREVENT INSULATION FROM SPILLING INTO LIVING SPACES.

PROVIDE 1/2" PLYWOOD THIS SIDE IN ATTIC FOR AIR BARRIER. R-20 MIN. INSULATION THIS WALL(TYP.)

FUR DOWN RAFTERS AND REQUIRED TO PROVIDE R-30C INSULATION AT SLOPED CEILINGS

PROVIDE PAN WITH DRAIN

SECOND FLOOR PLAN

SCALE:1/4" = 1'-0"

2,134 SQUARE FEET

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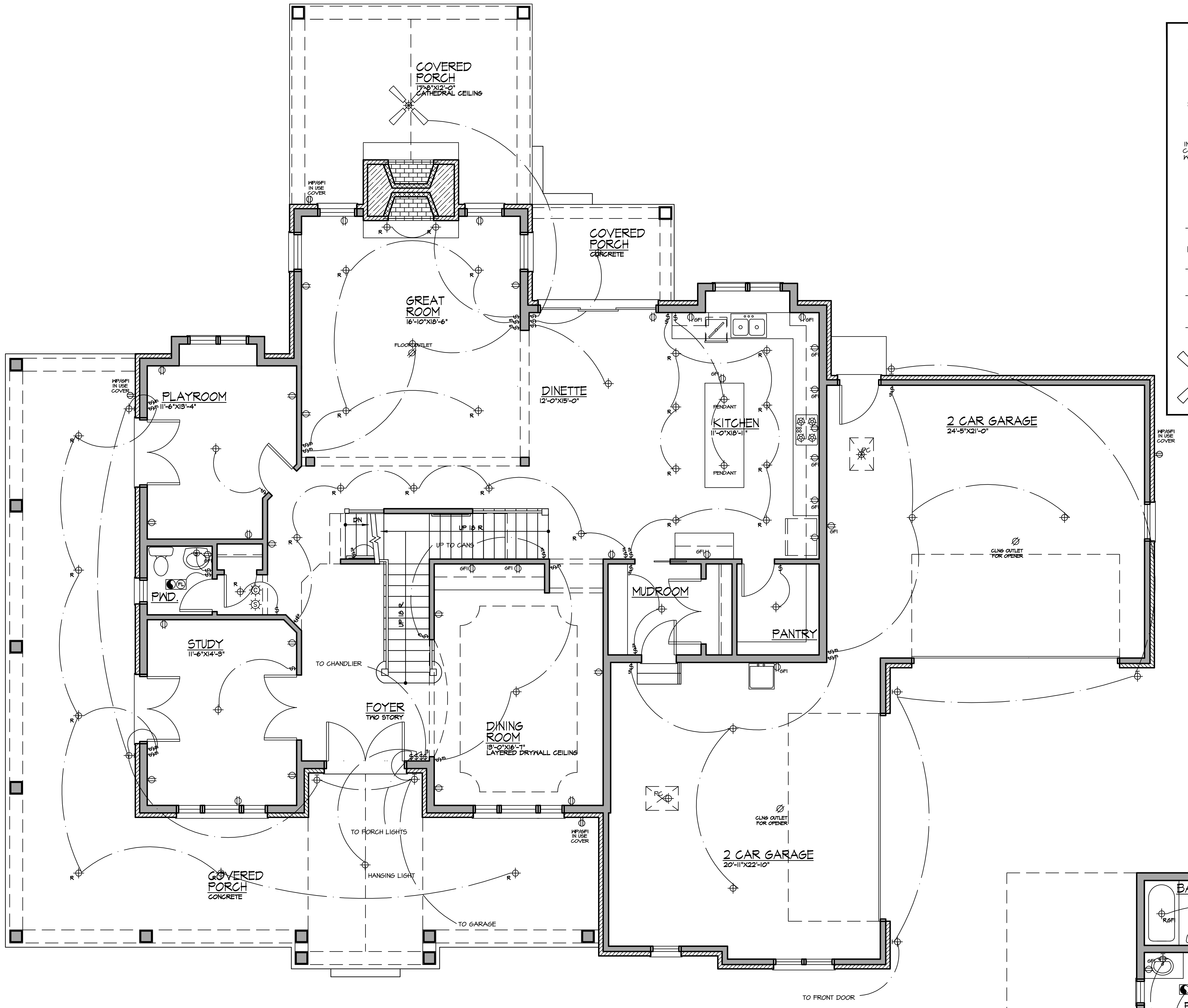
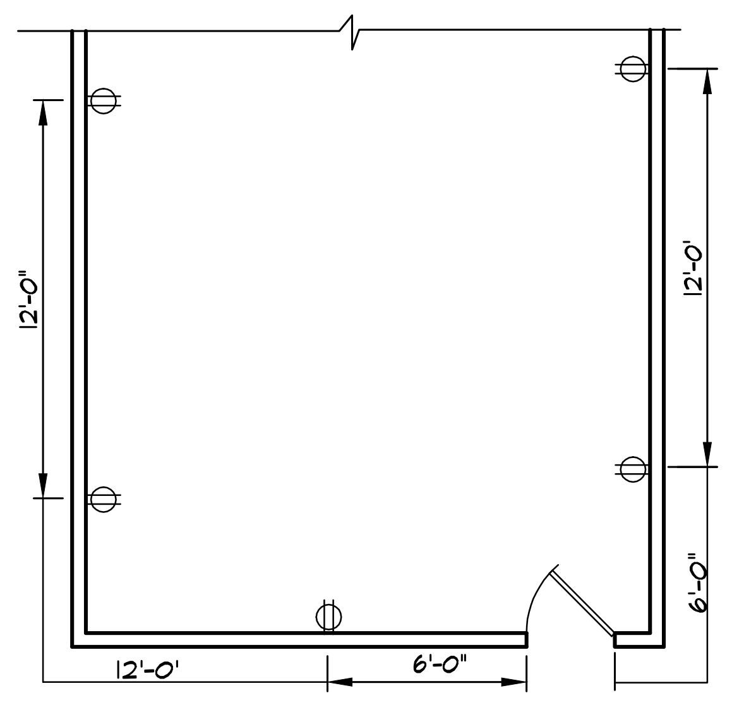


FIRST FLOOR ELECTRICAL PLAN

SCALE:3/16" = 1'-0"

LEGEND

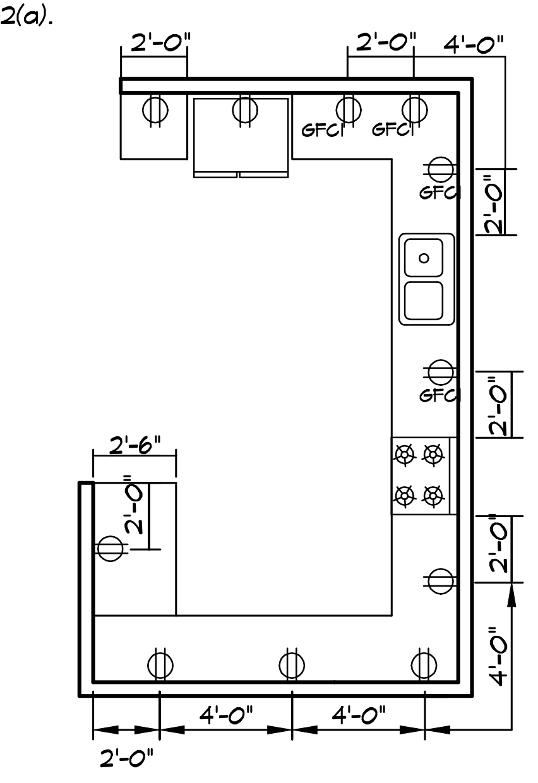
- DUPLEX OUTLET
- HALF SWITCHED DUPLEX OUTLET
- QUADRAPLEX OUTLET
- GFI GROUNDFAULT DUPLEX OUTLET
- IN USE COVER WP/GFI WATERPROOF GOUNDFAULT DUPLEX OUTLET
- SINGLE OUTLET (DEDICATED CIRCUIT)
- FLOOR OUTLET
- CEILING MOUNT LIGHT FIXTURE
- WALL MOUNT LIGHT FIXTURE
- PC PULL CHAIN CEILING MOUNT LIGHT FIXTURE
- R RECESSED CAN LIGHT FIXTURE
- R, GFI RECESSED/WATERPROOF FIXTURE
- CEILING PADDLE FAN (OPTIONAL LIGHT KIT)
- WALL SCONCE
- EXHAUST FAN (SEE VENT SCHEDULE FOR C.F.M.)
- FL EXHAUST FAN/LIGHT COMBO (SEE VENT SCHEDULE FOR C.F.M.)
- M MOTOR
- $ SINGLE POLE SWITCH
- $3 THREE POLE SWITCH
- $4 FOUR POLE SWITCH
- S 110 V SMOKE DETECTOR WIRED IN SERIES WITH BATTERY BACKUP
- C 100 V C.O. DETECTOR WIRED IN SERIES WITH BATTERY BACKUP
- ELECTRIC PANEL
- CONDUIT AND WIRE
- UNDER/ABOVE CABINET STRIP LIGHTING
- CABLE TELEVISION CONNECTION
- ▼ TELEPHONE JACK



GENERAL ROOM RECEPTACLE LAYOUT

NTS

SPACING OF ELECTRICAL OUTLETS:
A. GENERAL: OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET FROM AN OUTLETIN THAT SPACE, INCLUDING ANY WALL SPACE 2 FEET OR MOREIN WIDTH AND THE WALL SPACE OCCUPIED BY FIXED PANELS IN EXTERIOR WALLS, BUT EXCLUDING SLIDING PANELS IN EXTERIOR WALLS. N.E.C. 210-52(a).



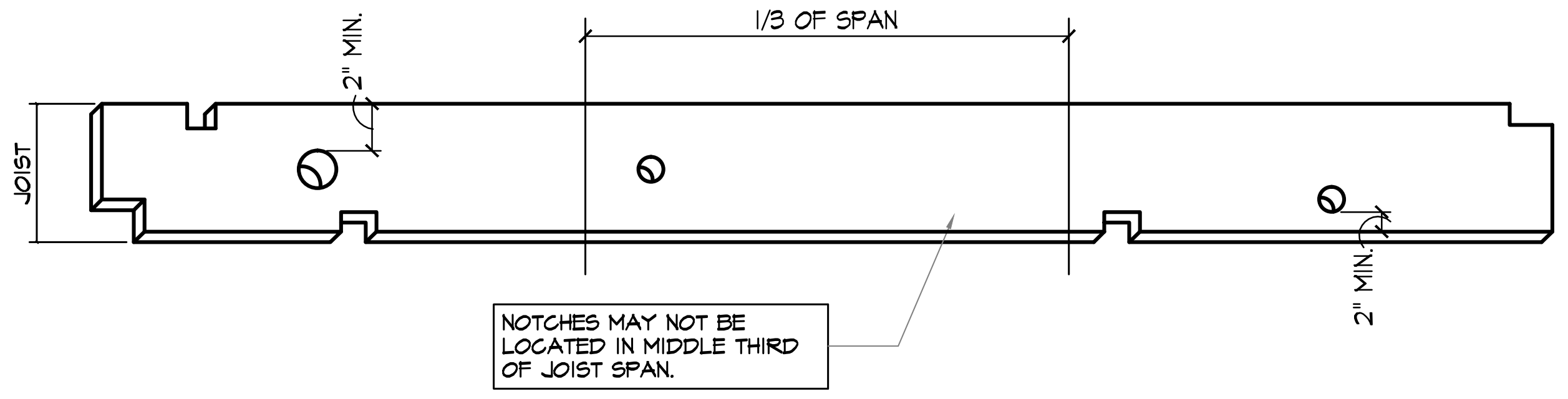
COUNTERTOP RECEPTACLE LAYOUT

NTS

KITCHEN COUNTER TOPS: RECEPTACLE OUTLETS SHALL BE INSTALLED AT EACH COUNTER SPACE 12" OR WIDER. RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT ALONG THE WALL LINE IS MORE THAN 24" FROM A RECEPTACLE OUTLET IN THAT SPACE. ISLAND AND PENINSULAR COUNTER TOPS 12" OR WIDER SHALL HAVE AT LEAST ONE RECEPTACLE FOR EACH FOUR FEET OF COUNTER TOP. COUNTERTOP SPACES SEPARATED BY RANGE TOPS, REFRIGERATORS, OR SINKS SHALL BE CONSIDERED AS SEPARATE COUNTERTOP SPACES. N.E.C. 210-52(c).

NOTES

1. ALL ELECTRICAL MUST BE IN CONDUIT.
2. ELECTRICAL OUTLETS IN BASEMENT TO BE "GFI" PROTECTED.
3. SMOKE DETECTORS SAHLL BE HARDWIRED AND INTERCONNECTED FOR SIMULTANEOUS ACTUATION. PROVIDE MIN. ONE DETECTOR PER FLOOR AND WITH A MINIMUM OF 15' FROM ANY BEDROOM. PROVIDE A SMOKE DETECTOR IN EACH SLEEPING ROOM.
4. INSTALL C.O. DETECTOR AS REQUIRED BY LOCAL CODES.
5. ALL RECEPTACLES INSTALLED IN SLEEPING ROOMS TO BE PROTECTED BY AN ARC FAULT INTERUPTER.
6. ELECTRICAL PANEL TO HAVE MINIMUM 4'-0" CLEARANCE IN FRONT AND 3'-0" CLEARANCE ON SIDES FROM ANY GROUNDED EQUIPMENT.
7. ALL EXHAUST FANS SHALL VENT DIRECTLY TO THE EXTERIOR.
8. ALL OUTLETS SERVING KITCHEN TO BE GFI PROTECTED..
9. PROVIDE LIGHT AT ALL ACCESS PANELS TO ATTIC SPACES.
10. MAINTAIN A MIN. 3" CLEARANCE FROM RECESSED LIGHT FROM COMBUSTIBLE INSULATION.
11. FLOOR RECEPTACLES MUST BE G.F.I.
12. PROVIDE A SINGLE RECEPTACLE FOR THE EJECTOR AND SUMP PUMPS.
13. ALL BATHROOM SWITCHES SHALL BE A MIN. 5' AWAY FROM ANY TUB OR SHOWER UNLESS LOCATED OUTSIDE OF THE ROOM.
14. INSTALL CONDUIT CHASE FOR INSTALLATION OF REMOTE READER FOR WATER SERVICE.
15. PROVIDE ELECTRICAL JUMPER CABLE AROUND WATER METER AND BETWEEN HOT AND COLD WATER PIPES SERVING WATER HEATER.
16. ALL CLOSET LIGHTS SHALL BE:
    A. RECESSED LIGHTS WITH 6" CLEARANCE BETWEEN FIXTURE AND NEAREST POINT OF STORAGE SPACE.
    B. FLUORESCENT LIGHTS WTIH 6" CLEARANCE BETWEEN FIXTURE AND NEAREST POINT OF STORAGE SPACE.
    C. INCANDESCENT LIGHTS WTIH 12" CLEARANCE BETWEEN FIXTURE AND NEAREST POINT OF STORAGE SPACE.
17. THE SERVICE DISCONNECTING MEANS SHALL BE INSTALLED AT A READILY ACCESSIBLE LOCATION IN THE BASEMENT OR FIRST FLOOR AREA OF THE BUILDING, WITHIN THE MAIN WALL, AT A POINT NOT EXCEEDING 5' FROM THE POINT OF ENTRY. WHEN THE DISTANCE OF THE SERVICE RACEWAY NEEDS TO EXCEED 5' FROM THE POINT OF ENTRY.
18. PROVIDE GFCI PROTECTION FOR RECEPTACLES INSTALLED IN CRAWL SPACES, OUTDOORS, IN UNFINISHED BASEMENTS, GARAGES, BATHROOMS, AND ALL COUNTER TOP RECEPTACLES.
19. GENERAL: OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET FROM AN OUTLETIN THAT SPACE, INCLUDING ANY WALL SPACE 2 FEET OR MOREIN WIDTH AND THE WALL SPACE OCCUPIED BY FIXED PANELS IN EXTERIOR WALLS, BUT EXCLUDING SLIDING PANELS IN EXTERIOR WALLS. N.E.C.
20. ALL RECEPTACLES SHALL BE TAMPER RESISTANT



JOIST DETAIL

NOT TO SCALE

SECTION 502.6

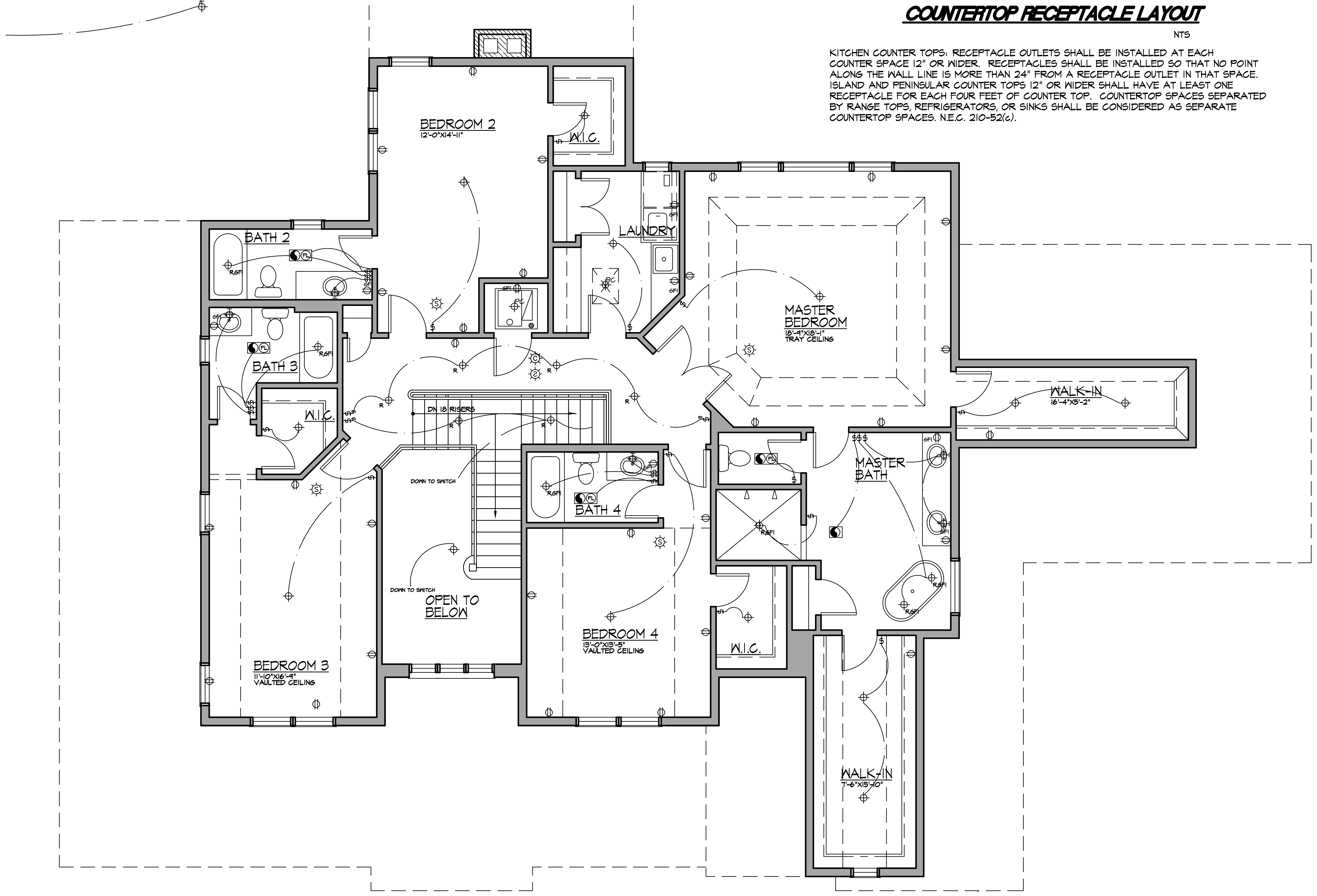
NOTCHES IN THE TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH OF THE JOIST AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. WHERE JOISTS ARE NOTCHED ON THE ENDS FOR A LEDGER, THE NOTCH SHALL NOT EXCEED ONE-FORTH THE JOISTS DEPTH. CANTILEVERED JOISTS SHALL NOT BE NOTCHED UNLESS THE REDUCED SECTION PROPERTIES AND LUMBER DEFECTS ARE CONSIDERED IN THE DESIGN.

SECTION 502.7

HOLES DRILLED OR BORED IN JOISTS SHALL NOT BE WITHIN 2 INCHES(51mm) OF THE TOP OR BOTTOM OF JOISTS, AND THEIR DIAMETER SHALL NOT EXCEED ONR-THIRD THE DEPTH OF THE JOIST.

SECTION 602.5

ANY STUD IN AN EXTERIOR WALL OR BEARING PARTITION MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25% OF IT'S WIDTH. STUDS IN NON-BEARING PARTITIONS MAY BE NOTCHED TO A DEPTH NOT TO EXCEED 40% OF A SINGLE STUD WIDTH. ANY STUD MAY BE BORED OR DRILLED, PROVIDED THAT THE DIAMETER OF THE RESULTING HOLE IS NO GREATER THAN 40% OF THE STUD WIDTH, THE EDGE OF THE HOLE IS NO CLOSER THAN 5/8 INCH (15.9mm) TO THE EDGE OF THE STUD, AND THE HOLE IS NOT LOCATED IN THE SAME SECTION AS A CUT OR A NOTCH.



SECOND FLOOR ELECTRICAL PLAN

SCALE:3/16" = 1'-0"

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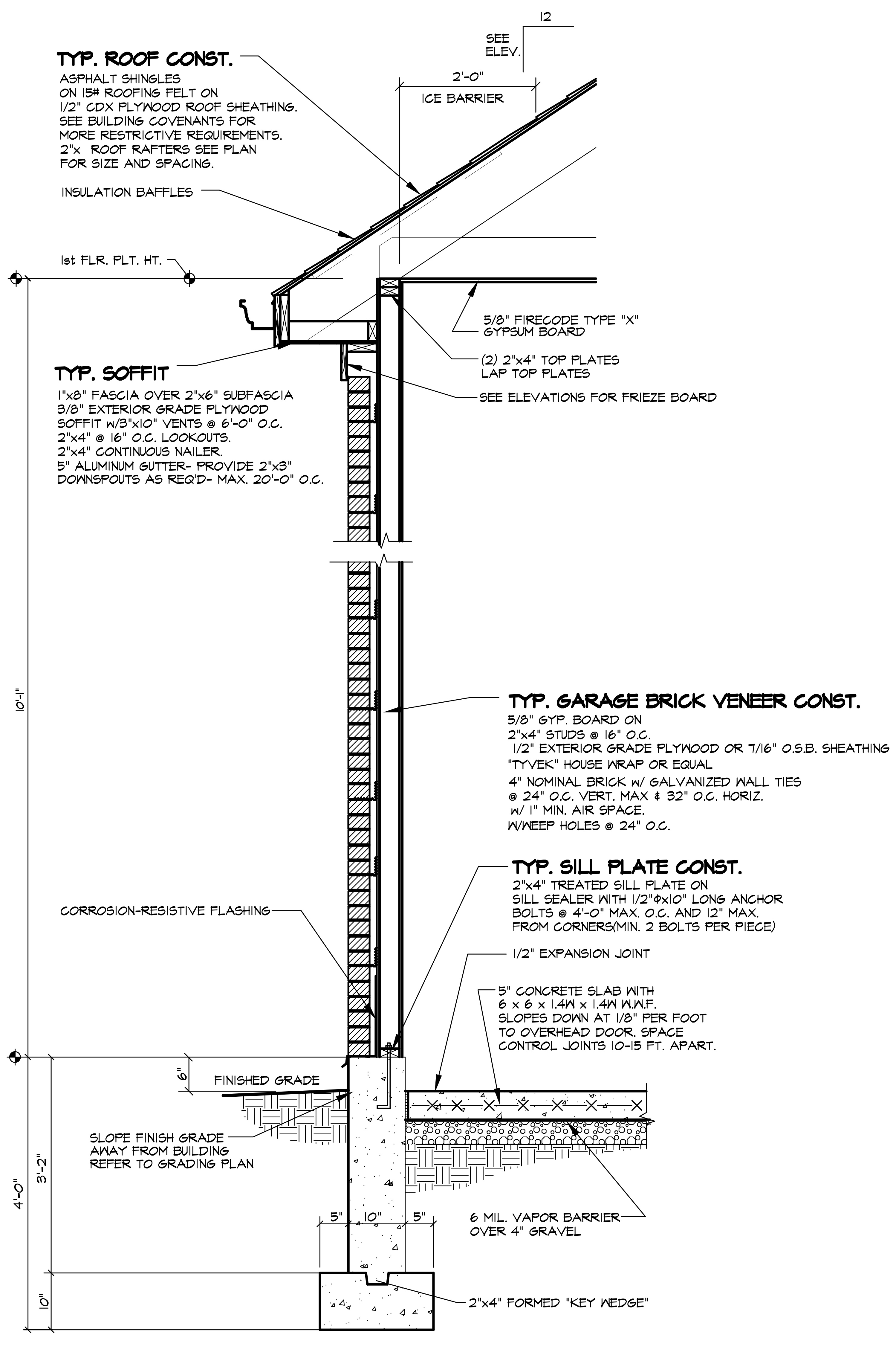
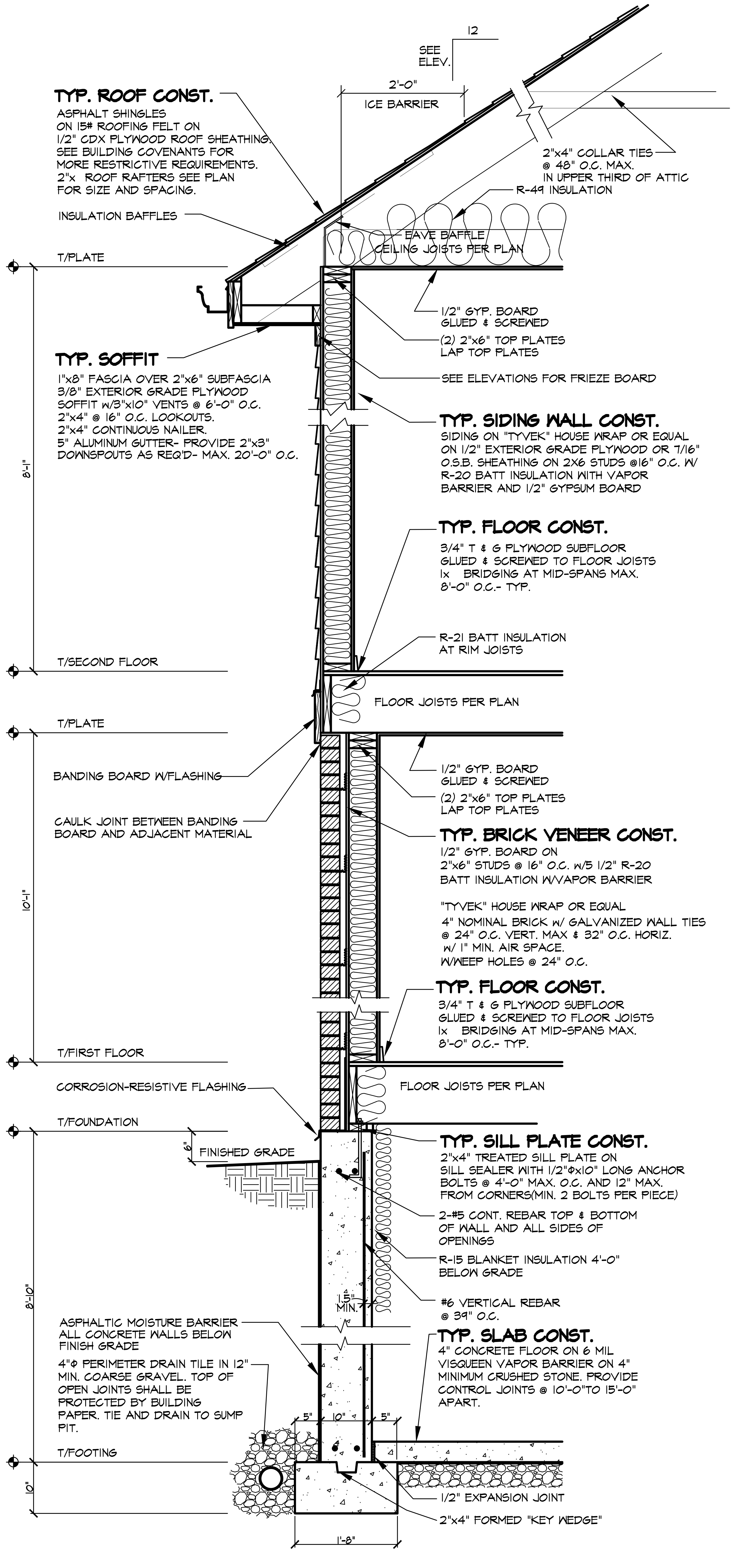


1 / D-1 **STANDARD GARAGE SECTION**

3/4"=1'-0"



2 / D-1 **STANDARD WALL SECTION**

3/4"=1'-0"

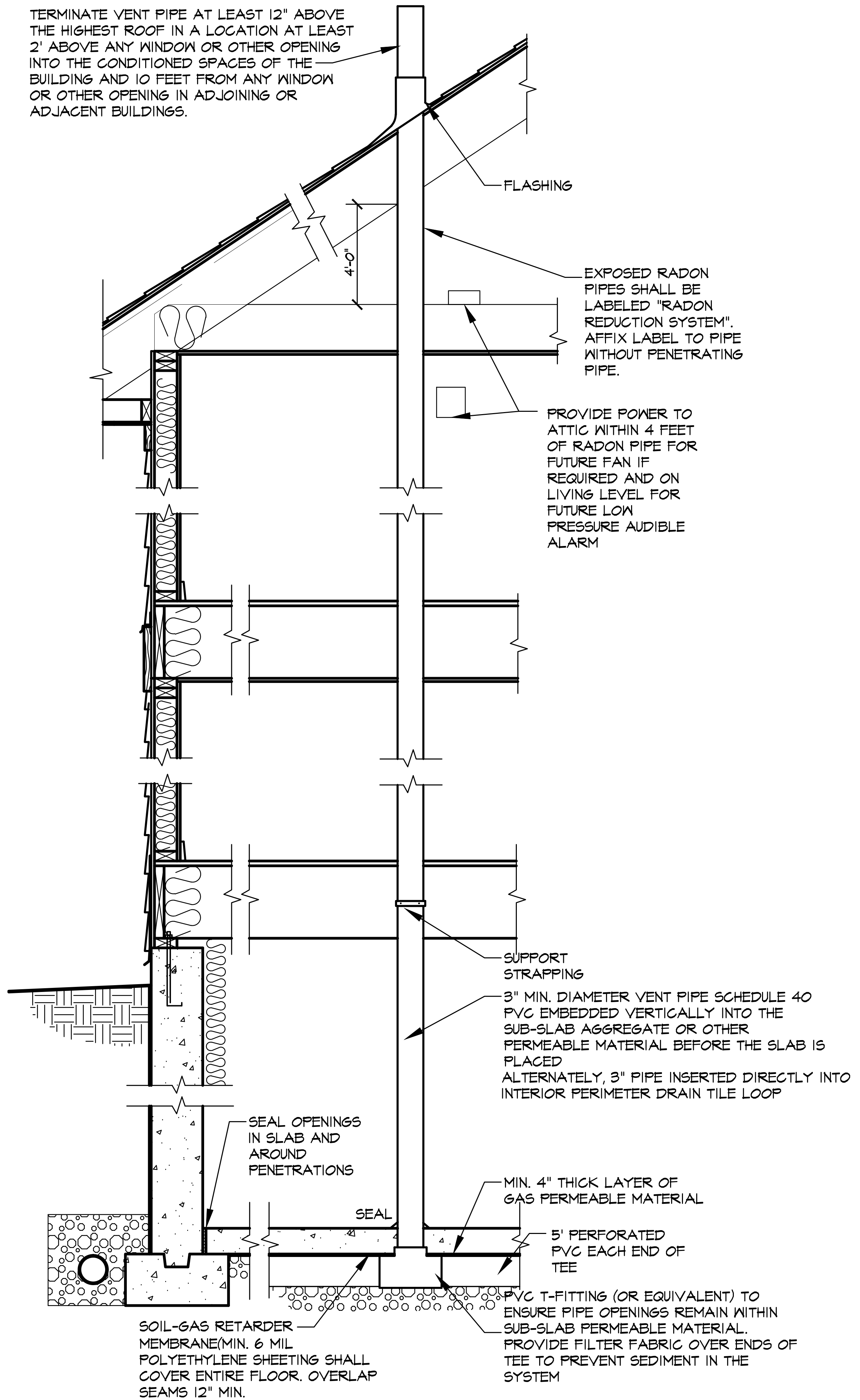
RADON REQUIREMENTS:

ENTRY ROUTES

1. FLOOR OPENINGS AROUND BATHTUBS, SHOWERS, WATER CLOSETS, PIPES, WIRES OR OTHER OBJECTS THAT PENETRATE CONCRETE SLABS OR OTHER FLOOR ASSEMBLIES SHALL BE FILLED WITH A POLYURETHANE CAULK OR EQUIVALENT SEALANT
2. ALL CONTROL JOINTS, ISOLATION JOINTS, CONSTRUCTION JOINTS OR ANY JOINTS IN CONCRETE SLAB OR BETWEEN THE SLAB AND FOUNDATION WALLS SHALL BE SEALED WITH POLYURETHANE CAULK OR OTHER ELASTOMERIC SEALANT.
3. CONDENSATE DRAINS SHALL BE TRAPPED OR ROUTED THROUGH NON-PERFORATED PIPE TO DAYLIGHT.
4. SUMP PITS OPEN TO SOIL OR SERVING AS TERMINATION POINT FOR SUB-SLAB OR EXTERIOR DRAIN TILE LOOPS SHALL BE COVERED WITH A GASKETED OR SEALED LID. SUMPS USED AS THE SUCTION POINT IN A SUB-SLAB DEPRESSURIZATION SYSTEM SHALL HAVE A LID DESIGNED TO ACCOMMODATE THE VENT PIPE. SUMPS USED AS A FLOOR DRAIN SHALL HAVE A LID EQUIPPED WITH A TRAPPED INLET.
5. WHERE A BRICK VENEER OR OTHER MASONRY LEDGE IS INSTALLED, THE COURSE IMMEDIATELY BELOW THAT LEDGE SHALL BE SEALED. PENETRATIONS OF CONCRETE WALLS SHALL BE FILLED.
6. DAMP-PROOF EXTERIOR SURFACES OF CONCRETE AND MASONRY BLOCK WALLS BELOW THE GROUND.
7. DUCTWORK PASSING THRU OR BENEATH A SLAB SHALL BE OF SEAMLESS MATERIAL UNLESS THE AIR HANDLING SYSTEM IS DESIGNED TO MAINTAIN CONTINUOUS POSITIVE PRESSURE WITHIN THE DUCTING.

PASSIVE SSD SYSTEM

1. SHEETING COVERS ENTIRE FLOOR AREA WITH SEPARATE SECTIONS OF SHEETING LAPPED AT LEAST 12". ALL PUNCTURES OR TEARS IN THE MATERIAL SHALL BE SEALED OR COVERED WITH ADDITIONAL SHEETING. OPENING AROUND TUBS, SHOWERS, WATER CLOSETS, PIPES, WIRES OR OTHER FLOOR ASSEMBLY SHALL BE FILLED WITH POLYURETHANE CAULK OR EQUIVALENT.
2. RADON VENT PIPES SHALL BE ACCESSIBLE FOR FUTURE FAN INSTALLATION THROUGH AN ATTIC OR OTHER AREA OUTSIDE THE HABITABLE SPACE. THE PIPE NEED NOT BE ACCESSIBLE IN AN ATTIC SPACE WHEN AN APPROVED ROOF-TOP ELECTRICAL SUPPLY IS PROVIDED FOR FUTURE USE.
3. ALL EXPOSED AND VISIBLE INTERIOR RADON VENT PIPES SHALL BE IDENTIFIED WITH AT LEAST ONE LABEL ON EACH FLOOR AND IN ACCESSIBLE ATTICS. LABEL READS:"RADON REDUCTION SYSTEM"
4. PROVIDE FOR FUTURE INSTALLATION OF AN ACTIVE SUB-MEMBRANE OR SUB-SLAB DEPRESSURIZATION SYSTEM, AN ELECTRICAL CIRCUIT TERMINATED TO A SINGLE OUTLET IN AN APPROVED BOX SHALL BE INSTALLED DURING CONSTRUCTION IN THE ATTIC IN THE ANTICIPATED LOCATION OF THE VENT PIPE.
5. INTERIOR FOOTINGS OR OTHER BARRIERS SEPARATE THE SUB-SLAB AGGREGATE OR OTHER GAS-PERMEABLE MATERIALS, EACH AREA SHALL BE FITTED WITH INDIVIDUAL GAS PIPE. VENT PIPES SHALL CONNECT TO A SINGLE VENT THAT TERMINATES ABOVE THE ROOF OR EACH INDIVIDUAL VENTN PIPE SHALL TERMINATE SEPARATELY ABOVE THEH ROOF.
6. ALL COMPONENTS OF THE RADON VENT PIPE SYSTEM SHALL BE INSTALLED TO PROVIDE POSITIVE DRAINAGE TO THE GROUND BENEATH THE SLAB OR SOIL GAS RETARDER
7. IN BUILDINGS WHERE INTERIOR FOOTINGS SEPARATE THE SUB SLAB AGGREGATE EACH AREA SHALL BE FITTED WITH AN INDIVIDUAL VENT PIPE.



3 / D-1 **RADON OUT DETAIL**

3/4"=1'-0"

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