

GENERAL NOTES

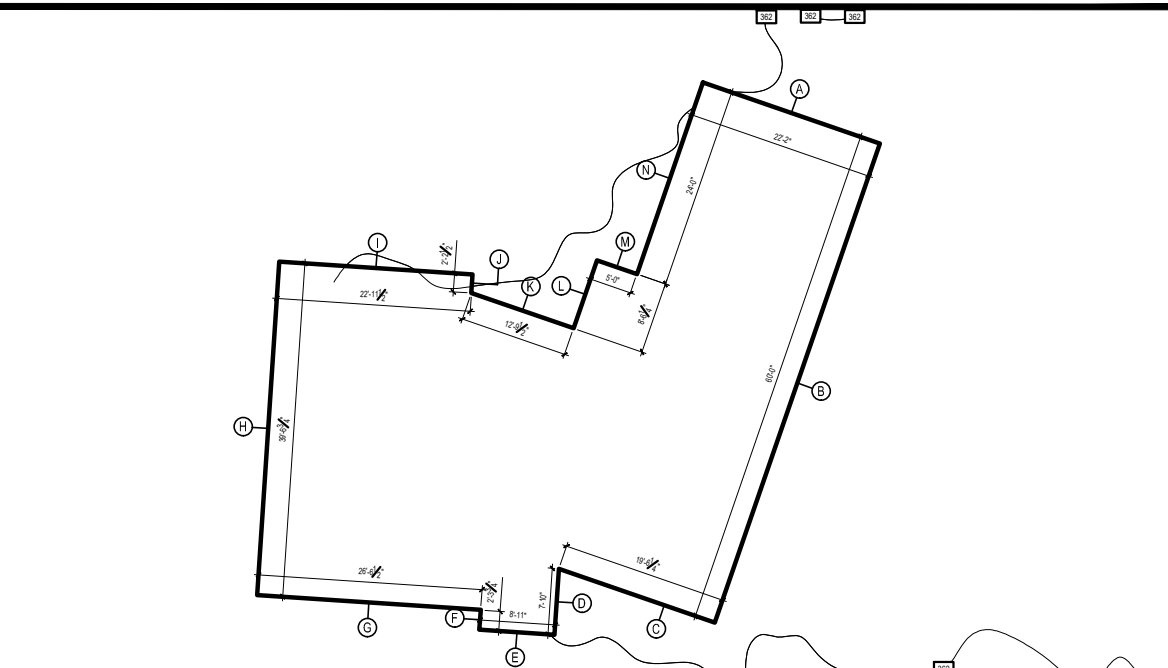
- CODE COMPLIANCE**
ALL WORK SHALL COMPLY WITH THE 2018 IRC, 2018 IMC, 2018 IFGC, 2018 UPC, 2018 IPCM, 2020 NEC, 2015 INTERNATIONAL ENERGY CONSERVATION CODE WITH WASHINGTON STATE AMENDMENTS, 2009 ICC A117.1, AND WITH ALL LOCAL CODES AND ORDINANCES.
- DIMENSIONS**
A. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY THE ARCHITECT OF DISCREPANCIES. IF WORK IS STARTED PRIOR TO NOTIFICATION, THE GENERAL AND SUBCONTRACTOR PROCEED AT THEIR OWN RISK.
B. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TO FACE OF STUDS OR FACE OF CONCRETE WALLS. FACE OF STONE VENEER LIES 6" +/- OUTSIDE THE FACE OF FRAMING. INTERIOR PLAN DIMENSIONS ARE TO FACE OF STUDS UNLESS OTHERWISE NOTED.
C. VERIFY ALL ROUGH-IN DIMENSIONS FOR WINDOWS, DOORS, PLUMBING, ELECTRICAL FIXTURES AND APPLIANCES PRIOR TO COMMITMENT OF WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES OF DIMENSIONAL TOLERANCES REQUIRED.
- DOCUMENT REVIEW/VERIFICATION**
CONSULT WITH ARCHITECT REGARDING ANY SUSPECTED ERRORS, OMISSIONS, OR CHANGES ON PLANS BEFORE PROCEEDING WITH THE WORK.
ROUGH OPENINGS/BACKING:
VERIFY SIZE AND LOCATION, AS WELL AS PROVIDE ALL OPENINGS THROUGH FLOORS AND WALLS, FURRING, CURBS, ANCHORS, INSERTS, EQUIPMENT BASES AND ROUGH BUCKS/BACKING FOR SURFACE-MOUNTED ITEMS.
- FURRING**
PROVIDE FURRING AS REQUIRED TO CONCEAL MECHANICAL AND/OR ELECTRICAL EQUIPMENT IN FINISHED AREAS. FURRING NOT SHOWN ON PLANS SHALL BE APPROVED BY ARCHITECT PRIOR TO CONSTRUCTION.
GRADES: VERIFY ALL GRADES AND THEIR RELATIONSHIP TO THE BUILDING(S).
- FLOOR LINES**: "FLOOR LINE" REFERS TO TOP OF CONCRETE SLAB OR TOP OF WOOD SUBFLOOR.
- DESCRIPTIVE FEATURES**: OFTEN DRAWN ONLY ONCE AND SHALL BE PROVIDED AS IF FULLY DRAWN.
- DOORS**: DOORS NOT DIMENSIONALLY LOCATED SHALL BE 6" FROM STUD FACE TO EDGE OF DOOR, ROUGH OPENING OR CENTERED BETWEEN WALLS AS SHOWN.
- WOOD MEMBERS IN CONTACT WITH CONCRETE**, AND/OR EXPOSED TO WEATHER: TO BE PRESSURE TREATED, TYPICAL. PROVIDE PRESSURE TREATED SILL PLATE IF FINISH GRADE IS WITHIN 6", TYPICAL.
- FRAMING**: ALL NEW INTERIOR FRAME PARTITIONS TO BE 2X4 @ 16" O.C. & ALL NEW EXTERIOR FRAME PARTITIONS TO BE 2X6 @ 16" O.C. UNLESS OTHERWISE NOTED. VERIFY W/ STRUCTURAL DRAWINGS.
- VENTILATION**: VENT ALL BATHROOM FANS, LAUNDRY FANS, RANGE HOODS AND DRYERS TO OUTSIDE ATMOSPHERE. BATHROOM/UTILITY ROOM FANS SHALL BE CAPABLE OF 5 AIR CHANGES PER HOUR AND SHALL BE VENTED DIRECTLY TO THE OUTSIDE THROUGH SMOOTH, RIGID, NON-CORROSIVE METAL, 24 GA. DUCTWORK. FLEX DUCTING IS NOT ALLOWED. ALL EXHAUST FANS/VENT HOODS OVER 400CFM SHALL HAVE A MAKE-UP AIR DEVICE W/ DAMPER STARTING AUTOMATICALLY AND RUNNING CONTINUOUSLY WITH THE FAN CAPABLE OF SUPPLYING AN EQUIVALENT AMOUNT OF AIR.
- FLUES**: FLUES TO BE LOCATED MINIMUM 2" FROM ALL COMBUSTIBLE MATERIALS.
- DOWNSPOUTS**: LOCATE NEW DOWNSPOUTS AS SHOWN ON ROOF PLAN, FLOOR PLANS & ELEVATIONS.
- OTHER DOCUMENTATION**: REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL, AND/OR LANDSCAPE DRAWINGS FOR ADDITIONAL DRAWINGS, NOTES, SCHEDULES, AND SYMBOLS.
- PROTECTION**: PROTECT ALL EXISTING FINISHES AND SURFACES. ANY DAMAGE WILL BE REPAIRED WITHOUT ADDITIONAL COST TO OWNER.
- PERMITS**: SEPARATE ELECTRICAL, MECHANICAL, AND PLUMBING PERMITS ARE REQUIRED IN ADDITION TO THE BASIC BUILDING PERMIT.
ROOFING: PROVIDE NEW ROOFING TO MATCH EXISTING.
EXHAUST DUCTS: PROVIDE BACKDRAFT DAMPERS AT ALL EXHAUST DUCTS.
PROVIDE COMBUSTION AIR OPENINGS INTO FURNACE ROOM PER UMC 703.
- APPLIANCES**: CLEARANCES OF UL LISTED APPLIANCES FROM COMBUSTIBLE MATERIALS SHALL BE AS SPECIFIED IN UL LISTING.
- WATER FLOW**: SHOWER SHALL BE EQUIPPED WITH FLOW CONTROL DEVICE TO LIMIT WATER FLOW TO 2.5 GALLONS PER MINUTE.
- SMOKE DETECTORS**: SMOKE & CARBON MONOXIDE THROUGHOUT NEW CONSTRUCTION. TO BE MONITORED PER FIRE DEPARTMENT REQUIREMENTS.
- FIRE BLOCKING**: FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS AND FORM A VERTICAL AND HORIZONTAL FIRE BARRIER BETWEEN STORIES AND THE TOP STORY TO ROOF SPACE PER IRC R302.11 AND R302.7

DUTY OF COOPERATION

RELEASE AND ACCEPTANCE OF THESE DOCUMENTS INDICATES COOPERATION AMONG THE OWNER, CONTRACTOR, AND STURMAN ARCHITECTS. ANY ERRORS, OMISSIONS, OR DISCREPANCIES DISCOVERED IN THE USE OF THESE DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO STURMAN ARCHITECTS. FAILURE TO DO SO SHALL RELIEVE STURMAN ARCHITECTS FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES.

ANY DEVIATIONS FROM THESE DOCUMENTS WITHOUT THE CONSENT OF STURMAN ARCHITECTS ARE UNAUTHORIZED. FAILURE TO OBSERVE THESE PROCEDURES SHALL RELIEVE STURMAN ARCHITECTS OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING FROM SUCH ACTIONS.

ABE CALCULATIONS NO SCALE



Wall Length	Elevation Pt.	Wall Length X Elev. Pt.	
A	22.20	362.10	8038.62
B	60.00	362.00	21720.00
C	19.50	362.10	7060.95
D	7.80	362.10	2824.38
E	8.90	361.90	3220.91
F	2.30	361.80	832.14
G	26.50	361.70	9585.05
H	39.60	361.80	14327.28
I	22.90	362.00	8289.80
J	2.20	361.90	796.18
K	12.80	362.10	4634.88
L	8.50	362.10	3077.85
M	5.00	362.10	1810.50
N	24.00	362.10	8690.40
262.20	5067.80	94908.94	
94908.94	361.97	Average Building Elevation	
262.20			

PROJECT DATA

PROJECT ADDRESS: 9001 SE 50TH ST
MERCER ISLAND, WA 98040

PROPERTY TAX ID NUMBER: 142500-080

SCOPE OF WORK: DEMO/REBUILD OF EXISTING GARAGE WITH A NEW 1085F EXPANSION OVER THE EXISTING DRIVEWAY. NEW 5075F ADDITION/REMODEL OF THE MAIN LEVEL WITH A NEW 928 SF ADDITION OVER THE NEWLY ADDED GARAGE/MAIN FLOOR.

ZONING: R-8.4

CONSTRUCTION TYPE: TYPE V B

SEISMIC ZONE: 3

NUMBER OF STORIES: 2 STORY

FIRE PROTECTION: -

BUILDING HEIGHT: 30 FT ABOVE AVERAGE BUILDING ELEVATION (FLAT ROOF)
35 FT ABOVE AVERAGE BUILDING ELEVATION (SLOPED ROOF)

LOT AREA: 12,800 SF

NET AREA: 12,000 SF - 1,273.3 ACCESS EASEMENT SF = **11,626.7 SF**

SETBACKS: FRONT LOT LINE = 20 FT
REAR LOT LINE = 25 FT
SIDE LOT LINES = 15 FT TOTAL (MINIMUM 5 FT)

LOT COVERAGE: 40% MAX

PROJECT TEAM

OWNER: LAWRENCE AND CATHERINE LITCHFIELD
9001 SE 50TH ST
MERCER ISLAND, WA 98040
PHONE: -

ARCHITECT: STURMAN ARCHITECTS, INC.
9 - 103RD AVE NE, SUITE 203
BELLEVUE, WA 98004
PHONE: 425.451.7003
CONTACT: BRAD STURMAN

L120 ENGINEERING & DESIGN
13150 91ST PL NE
KIRKLAND, WA 98034
PHONE: 425.636.3313
CONTACT: MANS THURF-JELL

LOT COVERAGE & HARDSCAPE

GROSS LOT AREA IS 12,800 SF
NET LOT AREA IS 11,626.7 SF

LOT COVERAGE	MAIN STRUCT. & ROOF S.F.	TOTAL LOT COVERAGE	% LOT COVERAGE	
EXISTING LOT COVERAGE	2,860.6 SF	1,502.8 SF	4,163.4 SF	36.1 %
PROPOSED LOT COVERAGE	3,210.3 SF	1,181.6 SF	4,391.9 SF	38.1 %
CHANGE	+549.7 SF	-321.2 SF	+228.5 SF	+2.0 %
% ALLOWED LOT COVERAGE			4,810.7 SF ALLOWABLE	40 %

HARDSCAPE	PATHWAY/PATIO	FIREPIT	HOT TUB PAD	WOOD DECK+PLANTER	TOTAL HARDSCAPE	% HARDSCAPE
EXISTING HARDSCAPE	274.6 SF	7.0 SF	53.7 SF	430.4 SF	765.7 SF	6.6 %
PROPOSED HARDSCAPE	274.6 SF	7.0 SF	0.0 SF	430.4 SF	712.0 SF	6.2 %
CHANGE	0 SF	0 SF	-53.7 SF	0 SF	0 SF	0.0 %
% ALLOWED HARDSCAPE					1,037.4 SF ALLOWABLE	9 %

HIGHEST EL: +382.3'
LOWEST EL: +361.0'
ELEVATION DIFFERENCE= 1.3'

1.3' DIVIDED BY 130.3' (HORIZ. DIST. BTWN. HIGHEST & LOWEST ELEV.) = .009

LOT SLOPE IS 0.9%, WHICH IS LESS THAN 15% THUS LOT COVERAGE ALLOWED IS 40%.

NOTE: CONTOURS TAKEN FROM MERCER ISLAND GIS

GROSS FLOOR AREA

LOT SIZE	= 12,800 SF
GFA THRESHOLD	= 5,000 SF OR 40% (5,120) OF THE LOT AREA, WHICHEVER IS LESS
EXISTING RESIDENCE GFA:	
MAIN FLOOR	= 1,483.7 SF
SECOND FLOOR	= 1,017.7 SF
ATTACHED GARAGE	= 583.7 SF
16' + CEILING HEIGHT	= 195.0 SF
TOTAL EXISTING:	= 3,280.1 SF
EXISTING GFA IS 3,280.1 SF OR 25.6%	
PROPOSED RESIDENCE GFA:	
MAIN FLOOR	= 1,991.4 SF
UPPER FLOOR	= 1,853.7 SF
ATTACHED GARAGE	= 691.8 SF
16' + CEILING HEIGHT	= 195 SF
TOTAL PROPOSED:	= 4,731.9 SF
PROPOSED GFA IS 4,731.9 SF OR 36.9%	

2018 WSEC CREDITS

ADDITIONS ARE MORE THAN 500SF OF HEATED SPACE BUT LESS THAN 1,500 SF. 3 CREDITS NEEDED.

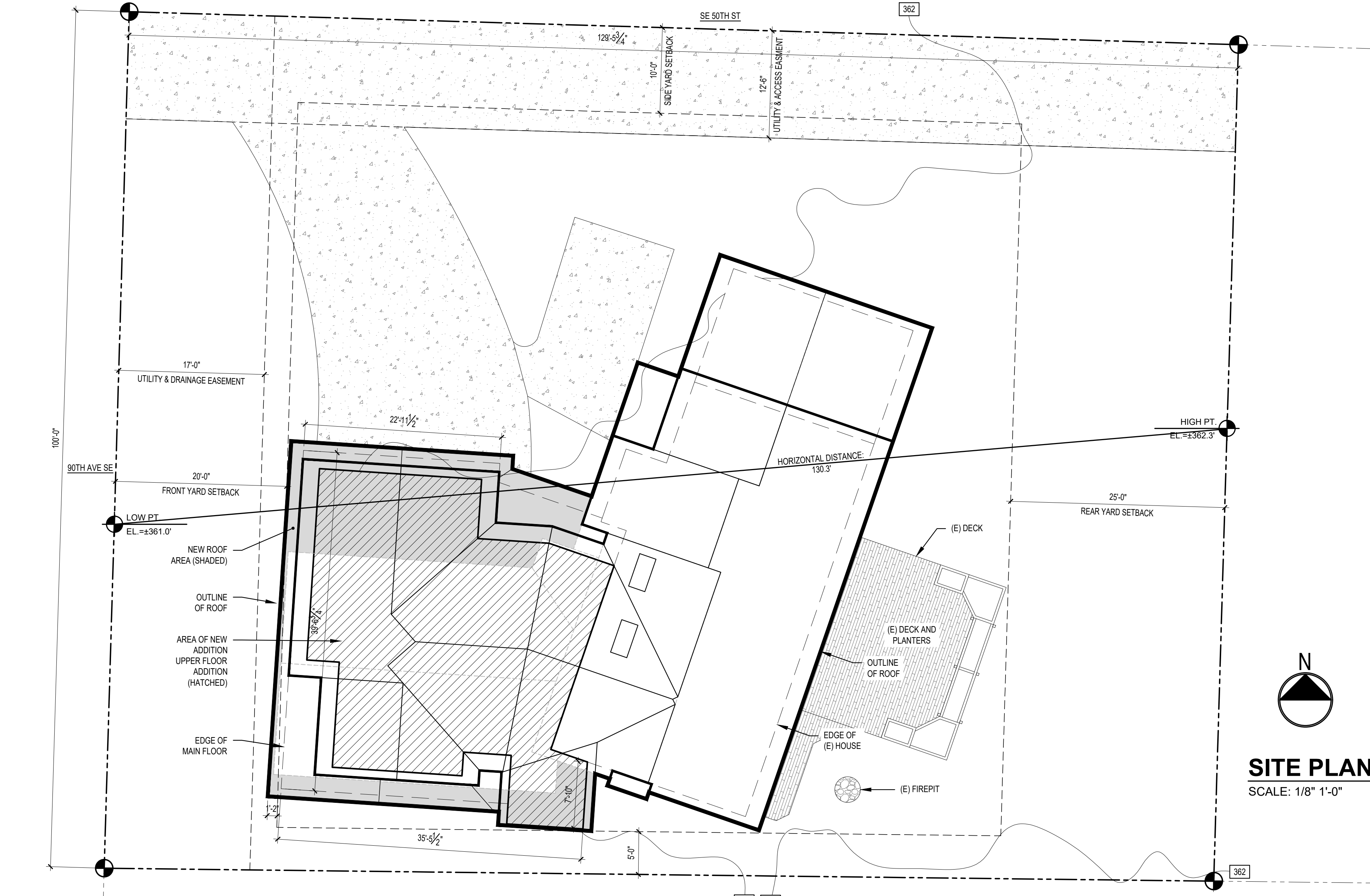
CREDITS	OPTION	DESCRIPTION
0.5	1.3	EFFICIENT BUILDING ENVELOPE
1.0	3.1	HIGH EFFICIENCY HVAC EQUIPMENT
0.5	4.1	HIGH EFFICIENCY HVAC EQUIPMENT
1.0	5.3	EFFICIENT WATER HEATING
TOTAL CREDITS		
3.0		

LEGAL DESCRIPTION

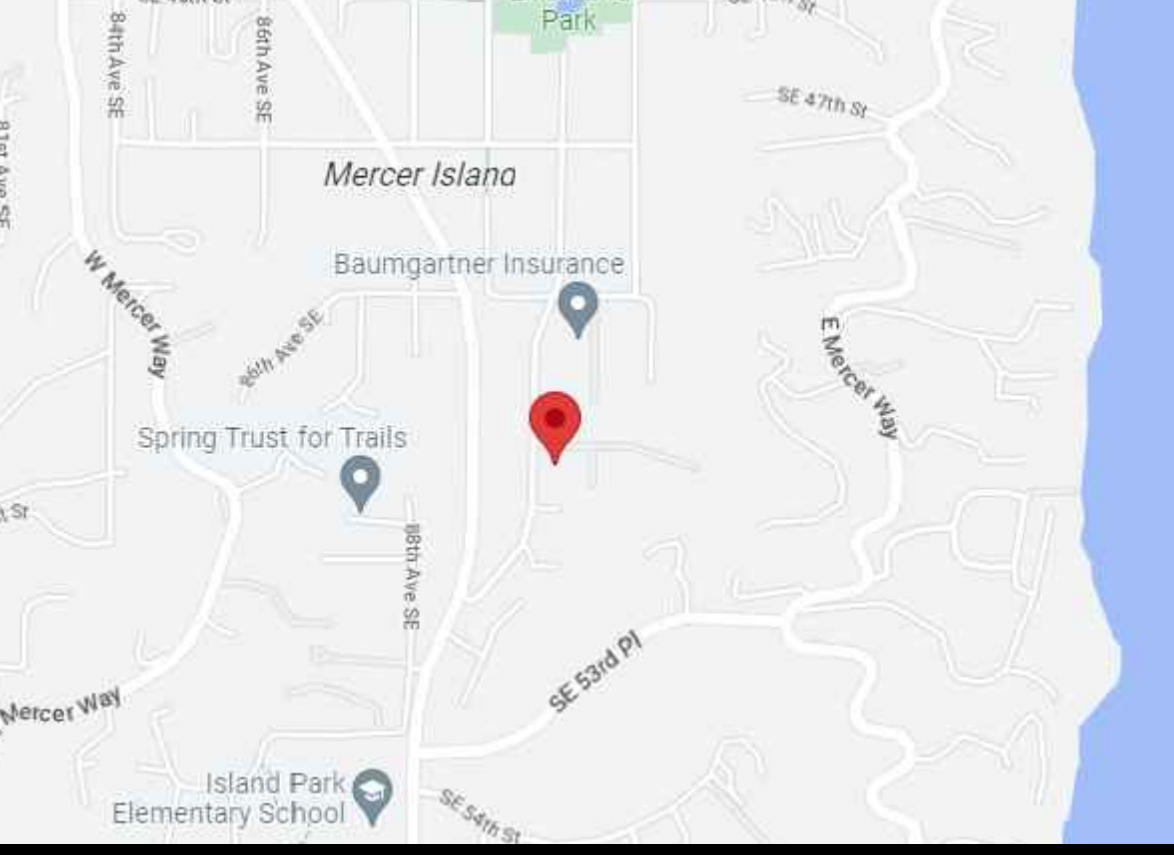
CASCADE RIDGE LESS THAT POR BEG AT SW COR OF SD LOT STH S 88-17-59 E 129.49 FT TH N 01-41-19 E 2.33 FT TH N 89-19-59- W 129.51 FT TPOB
Plat Block:
Plat Lot: 8

ENERGY NOTES

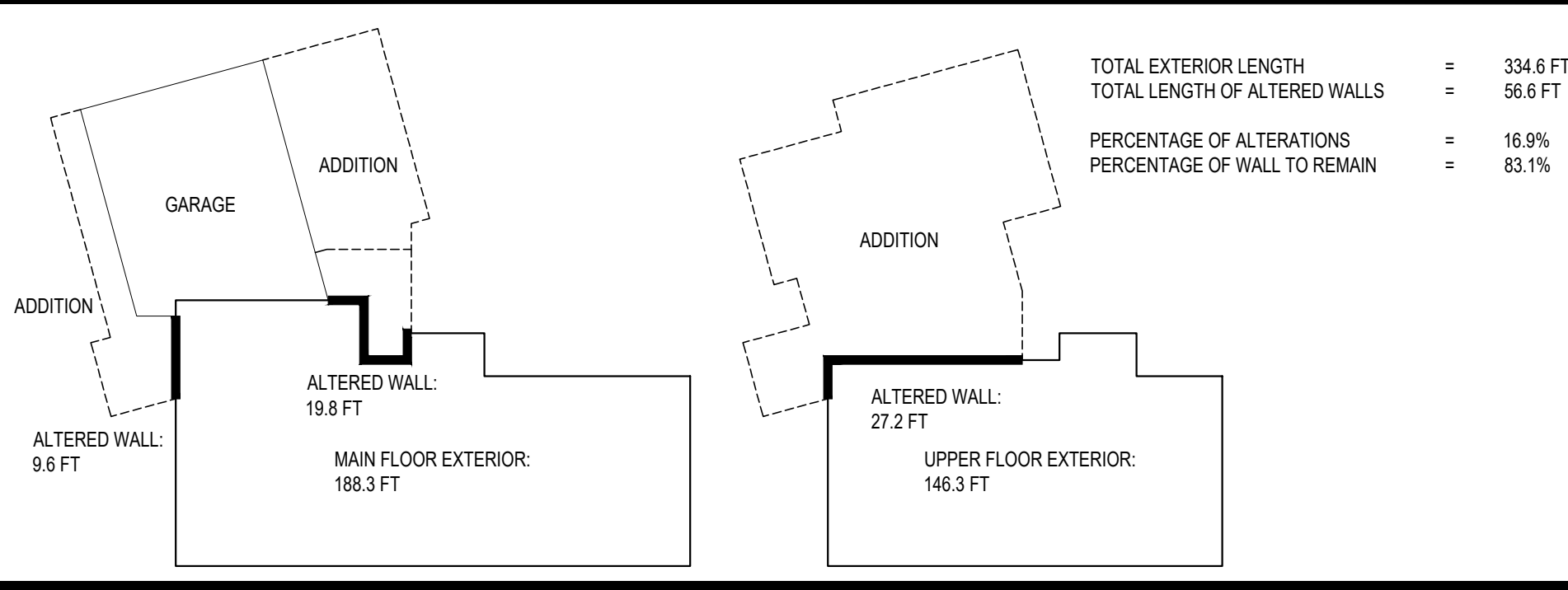
- CODE:** 2018 W.S.E.C. & 2018 IRC, WAC 51-11R
- CLIMATIC ZONE:** ZONE #4C
- SPACE HEAT TYPE:** NATURAL GAS
- INSULATION VALUES:** WALLS: R-21
FLAT ATTIC/CEILINGS: R-49
VAULTED CEILINGS: R-38
- PRESCRIPTIVE METHOD:** FLOORS (OVER UNHEATED SPACES): R-30
SLAB-ON-GRADE: R-10
- THERMAL STANDARDS FOR OPENINGS:** UNLIMITED OPTION
- AIR INFILTRATION:** MANUFACTURED DOORS/WINDOWS, CONFORM TO SECTION R402.4.3 OF THE WASHINGTON STATE ENERGY CODE
- MOISTURE CONTROL:** WALLS: VAPOR RETARDER BONDED TO BATT INSULATION; INSTALL WITH STAPLES NOT MORE THAN 8 INCHES ON CENTER AND WITH A GAP BETWEEN AND OVER FRAMING NOT GREATER THAN 1/16 OF AN INCH. OR, VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE)
ATTIC/CEILINGS: VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE); INSTALL CONTINUOUSLY
CRAWL SPACE: 6 MIL POLYETHYLENE
- VENTILATION:** ATTICS WITH LOOSE FILL: N.A. Baffle vent openings to deflect air above insulation surface
ENCLOSED JOIST OR RAFTER SPACES: PROVIDE MINIMUM OF ONE INCH CLEAR VENTED AIR SPACE ABOVE INSULATION, TAPER OR COMPRESS INSULATION AT PERIMETER TO INSURE PROPER VENTILATION
- HEATING & COOLING:** EXISTING NATURAL GAS FURNACE
- TEMP. CONTROL:** FOR HEATING AND COOLING, THERMOSTAT SHALL BE CAPABLE OF BEING SET FROM 55-85 DEGREES FAHRENHEIT AND OF OPERATING THE HEATING/COOLING SYSTEM IN SEQUENCE. THERMOSTAT TO BE AUTOMATIC DAY/NIGHT SETBACK TYPE.
- DUCT INSULATION:** THERMALLY INSULATE ALL PLENUMS, DUCTS AND ENCLOSURES IN ACCORDANCE WITH TABLE R403.3.1 OF THE WASHINGTON STATE ENERGY CODE
a. ALL HEATING DUCTS IN UNCONDITIONED SPACES SHALL BE INSULATED WITH A MIN. OF R-8. ALL SEAM JOINTS SHALL BE TAPED, SEALED AND FASTENED WITH THE MINIMUM OF FASTENERS PER WSEC.
b. DUCTS WITHIN A CONCRETE SLAB OR IN THE GROUND SHALL BE INSULATED TO R-10, WITH INSULATION DESIGNED TO BE USED BELOW GRADE.
- LIGHTING:** RECESSED LIGHTING FIXTURES INSTALLED IN BUILDING ENVELOPE SHALL COMPLY WITH WSEC PROVISIONS AND SHALL BE IC LISTED.
ALL ROOMS WITHOUT GLAZING SHALL HAVE ARTIFICIAL LIGHTING ACROSS THE AREA OF THE ROOM PRODUCING AN AVERAGE 6 FOOTCANDLES AT 30" ABOVE THE FLOOR
- PIPE INSULATION:** NON RECIRCULATING HOT AND COLD WATER PIPES LOCATED IN UNCONDITIONED SPACE SHALL BE INSULATED TO R-3 MIN. PLUMBING OR MECHANICAL CANNOT DISPLACE THE REQUIRED INSULATION.
- WHOLE HOUSE VENTILATION:** WHOLE HOUSE VENTILATION SYSTEM:
a. WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY EXHAUST FAN PROVIDING 78 CFM RUNNING CONTINUOUSLY PER 2018 IRC TABLE M1505.4.3 (182). FAN SHALL BE CONNECTED TO A 24 HOUR CLOCK TIMER AND HAVE A SONG RATING OF LESS THAN 1.0. VENTILATION SHALL BE ABLE TO OPERATE INDEPENDENTLY OF HEATING SYSTEM.
b. SYSTEM SHALL HAVE A 5'0" SMOOTH FRESH AIR DUCT W/ LOUVER & SCREEN CONNECTED TO THE RETURN AIR STREAM 4' UPSTREAM OF THE AIR HANDLER AND INSULATED W/ R-4 MIN IN HEATED AREAS. ALL SUPPLY DUCTS IN UNCONDITIONED SPACE SHALL BE INSULATED TO MIN. R-4 PER IRC M1507.6.2
c. SHALL HAVE A FILTER WITH A MERV OF AT LEAST 6 INSTALLED IN AN EASILY ACCESSIBLE LOCATION.
d. FRESH AIR VENT SHALL BE LOCATED AWAY FROM SOURCES OF ODORS OR FUMES, MIN 10' FROM PLUMBING OR APPLIANCE VENTS, AWAY FROM ROOMS W/ FUEL BURNING APPLIANCES, AND OUT OF ATTICS, CRAWL SPACES, AND GARAGES.



VICINITY MAP



40% RULE DIAGRAM (NO SCALE)



SHEET INDEX

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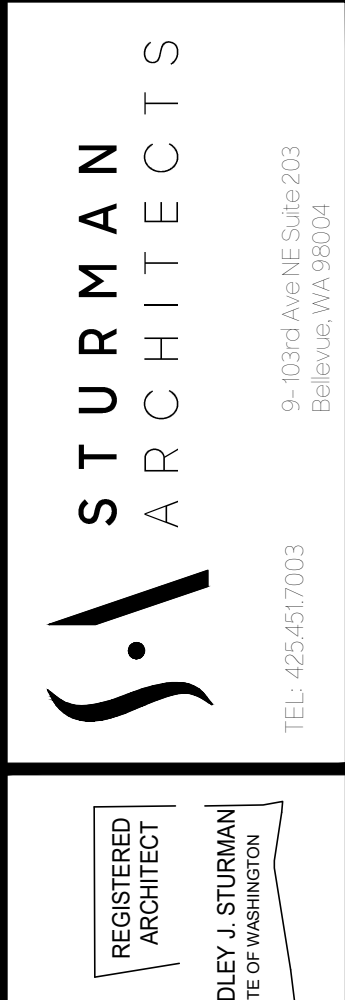
BUILDING AREA

	MAIN FLOOR	UPPER FLOOR	HEATED SUB-TOTAL
EXISTING SF:	1,578.4 SF	1,017.7 SF	2,596.1 SF
PROPOSED HOUSE SF:	2,086.1 SF	1,946.6 SF	4,032.7 SF
CHANGE IN SF:	+507.7 SF	+928.9 SF	+1,436.6 SF

	ATTACHED GARAGE	GRAND TOTAL
EXISTING SF:	583.7 SF	3,179.8 SF
PROPOSED HOUSE SF:	691.8 SF	4,723.8 SF
CHANGE IN SF:	+108.1 SF	+1,544.0 SF

SCALE: IF SHEET IS LESS THAN 24" X 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY

PERMIT SET 3/2/2023



LITCHFIELD RESIDENCE

9001 SE 50TH ST

MERCER ISLAND, WA 98040.

SITE PLAN

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

REVISIONS:

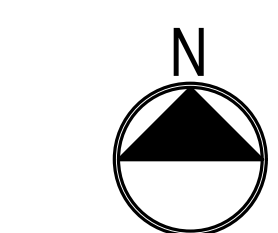
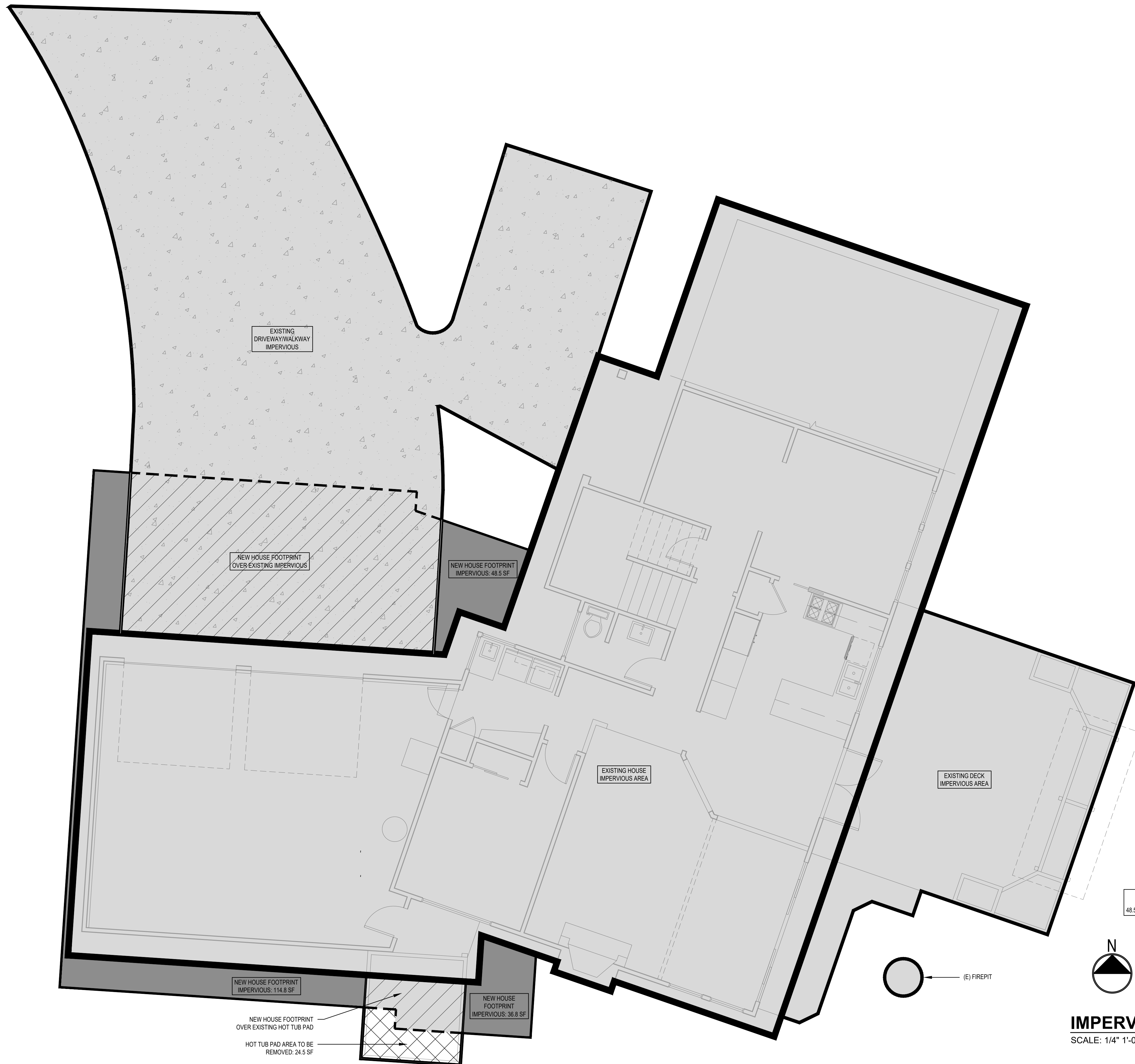
PLOT DATE: 4/7/2023

DRAWN BY: JM

CHECKED BY: BJS

SHEET

A1.0

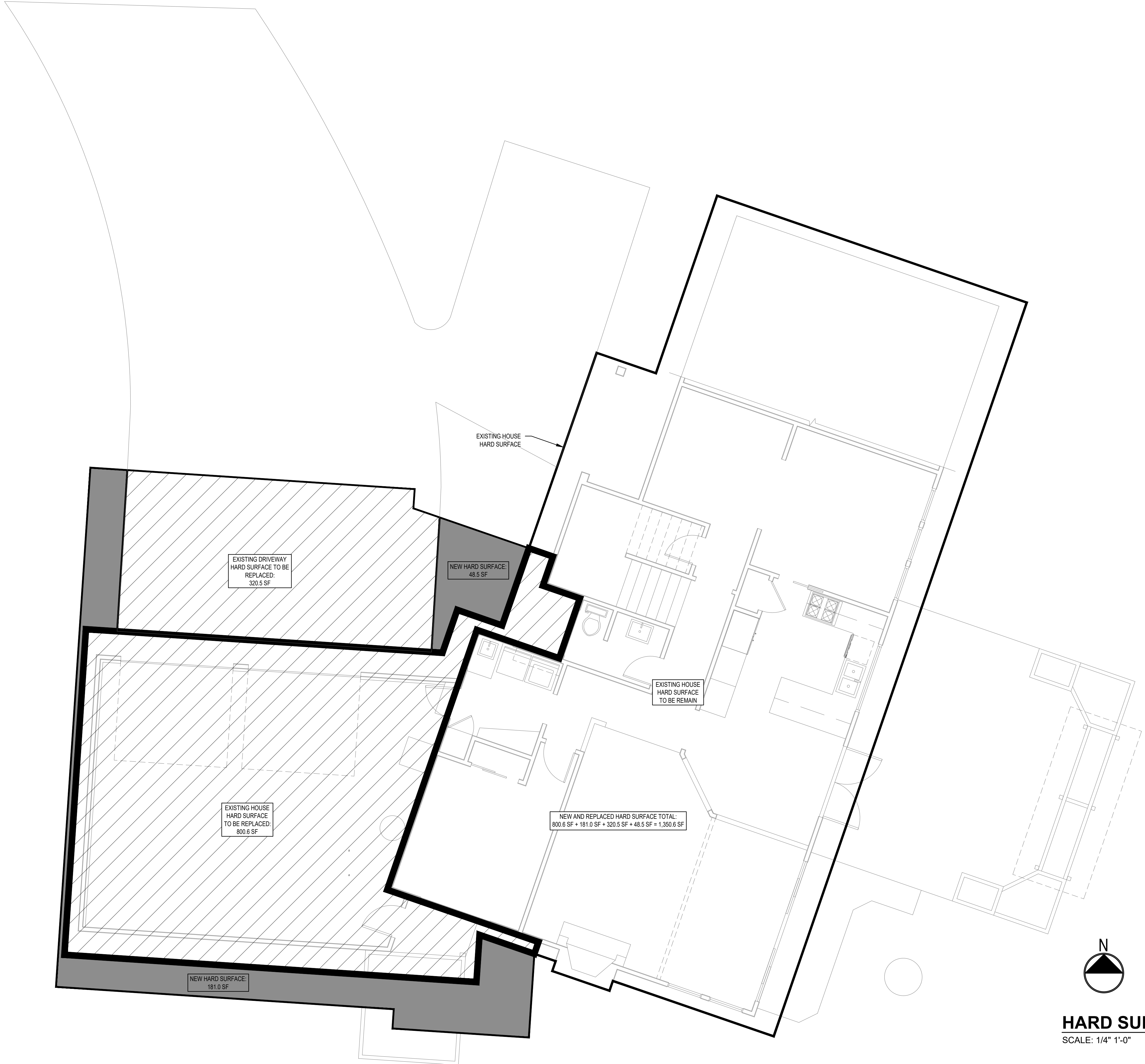


IMPERVIOUS PLAN
 SCALE: 1/4" 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36" IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
 PERMIT SET 3/2/2023

REVISIONS:

PLOT DATE: 4/7/2023
 DRAWN BY: JM
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EXISTING DRIVEWAY
HARD SURFACE TO BE
REPLACED:
320.5 SF

NEW HARD SURFACE:
48.5 SF

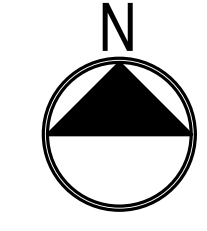
EXISTING HOUSE
HARD SURFACE
TO BE REPLACED:
800.6 SF

EXISTING HOUSE
HARD SURFACE
TO BE REMAIN

NEW AND REPLACED HARD SURFACE TOTAL:
800.6 SF + 181.0 SF + 320.5 SF + 48.5 SF = 1,350.6 SF

NEW HARD SURFACE:
181.0 SF

EXISTING HOUSE
HARD SURFACE



HARD SURFACE PLAN

SCALE: 1/4" 1'-0"

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PERMIT SET 3/2/2023

HARD SURFACE PLAN

REVISIONS:

PLOT DATE: 4/7/2023
DRAWN BY: JM
CHECKED BY: BIS

SHEET
A1.2

WALL PARTITION TYPES:

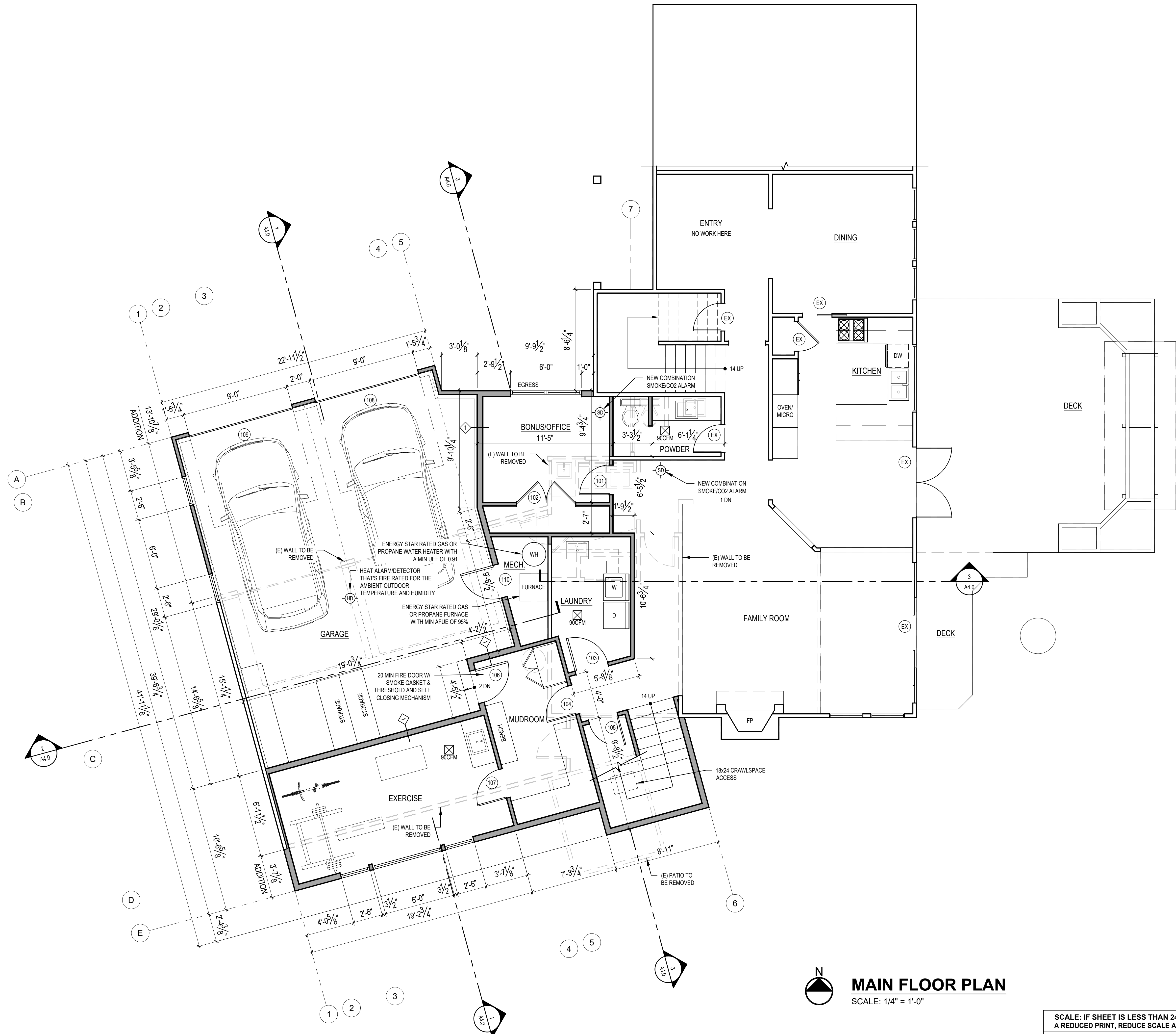
N.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.)

TYPICAL EXTERIOR WALL
 EXTERIOR WALL FINISH OF (2)
 LAYERS 5/8" BLDG. PAPER OF 1/2"
 CDX PLYWOOD OR 2x6 WOOD
 STUDS AT 16" O.C. w/ 1/2"
 GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT
 INSULATION EXCEPT AROUND GARAGE.

TYPICAL INTERIOR PARTITION
 U.N.O. ALL INTERIOR WALL SHALL BE 2x4 WOOD STUDS @
 16" O.C. w/ 1/2" GYPSUM WALLBOARD EACH SIDE.

TYPICAL FURRED WALL
 2" AIRSPACE. 2x4 P.T. WOOD STUDS @ 16" O.C. w/ 1/2"
 GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT
 INSULATION.

1HR. FIRE RATED WALL
 5/8" THK GWB, TYPE X OR 2x6 WD STUDS @ 16" O.C.
 PANELS NAILED 7" O.C. 1.78" CEM CTD NAILS. JOINTS EXP
 OR FIN - PERIM CAULKED-UL DES U305 & U314-JOINTS
 FIN



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

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS
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REVISIONS:	
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SHEET	

WALL PARTITION TYPES:

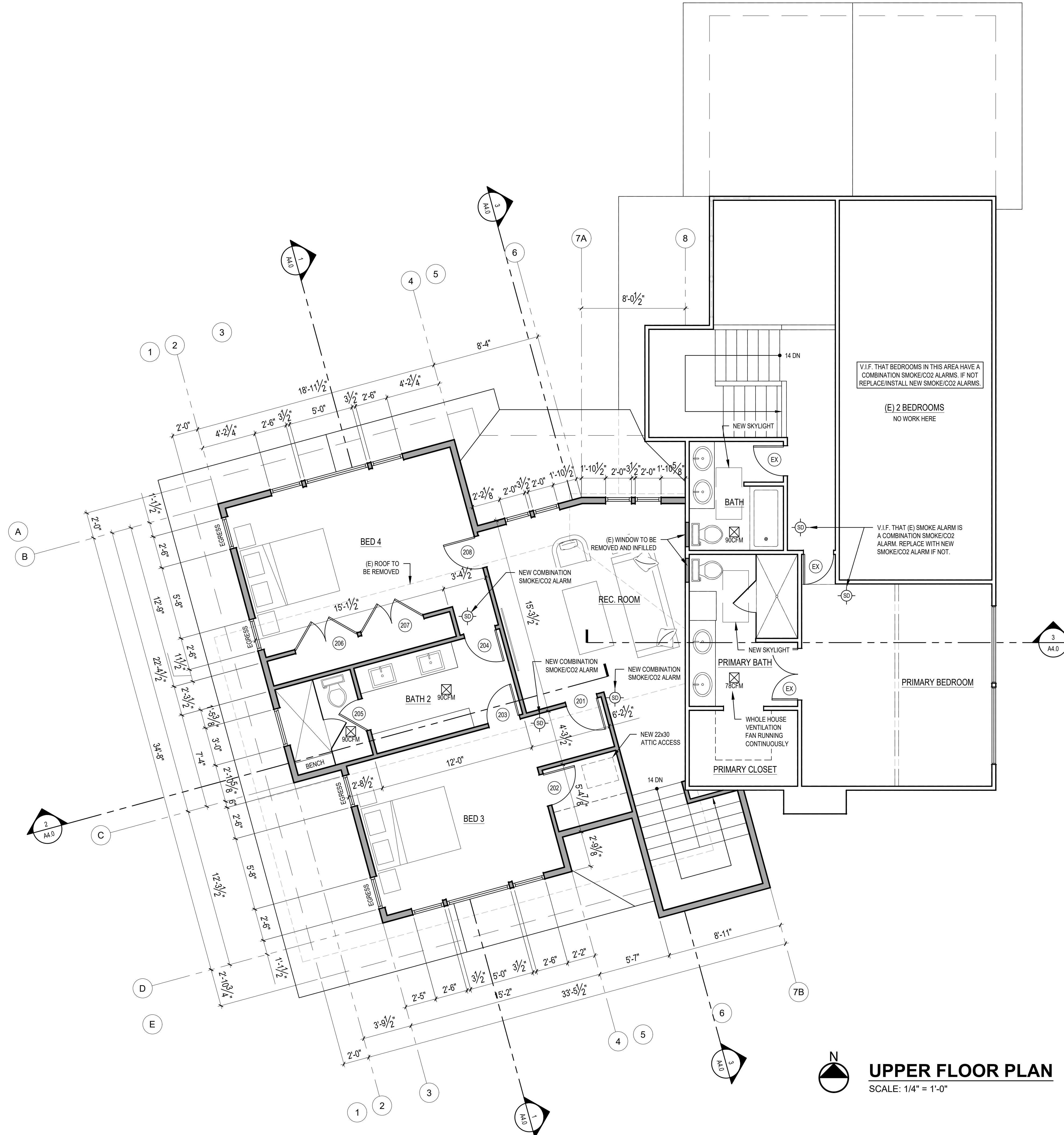
N.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.)

TYPICAL EXTERIOR WALL
 EXTERIOR WALL FINISH OF (2) LAYERS 5/8" BLDG. PAPER OF 1/2" CDX PLYWOOD OR 2x6 WOOD STUDS AT 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION EXCEPT AROUND GARAGE.

TYPICAL INTERIOR PARTITION
 U.N.O. ALL INTERIOR WALL SHALL BE 2x4 WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD EACH SIDE.

TYPICAL FURRED WALL
 2" AIRSPACE. 2x4 P.T. WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION.

1HR. FIRE RATED WALL
 5/8" THK GWB, TYPE X O/ 2x6 WD STUDS @ 16" O.C. PANELS NAILED 7" O.C. 1.78" CEM CTD NAILS. JOINTS EXP OR FIN - PERIM CAULKED-UL DES U305 & U314-JOINTS FIN



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

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
 PERMIT SET 3/2/2023

NO.	REVISIONS:
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PLOT DATE: 4/7/2023
 DRAWN BY: JM
 CHECKED BY: BJS



ROOF PLANS

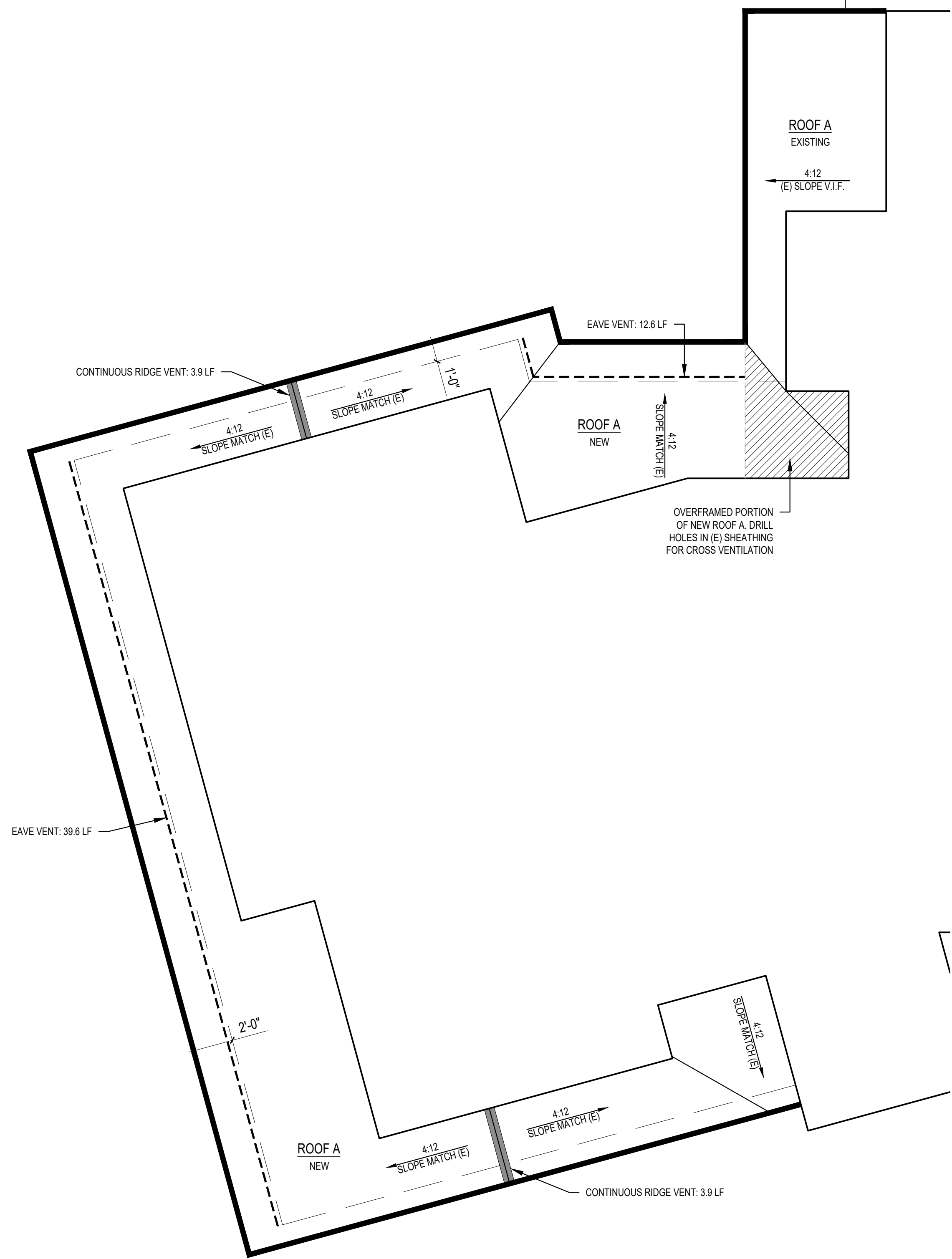
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PLOT DATE: 4/7/2023
DRAWN BY: JM
CHECKED BY: BJS

SHEET
A2.2

ROOF VENT CALCULATIONS											
CODE REQUIREMENT			CALCULATIONS				ACTUAL				
DESCRIPTION	SF AREA	REQ. VENTING		VENT TYPE		VENT L.F.	TOTAL VENT AREA SQ. IN.	SF CONVERT. 1/144	80% EFF		
		PER SF AREA	PER SF AREA	RIDGE	EAVE				FACTOR	TOTAL	
		150	300								
ROOF A	591	3.94		10 SQ. IN./FT.		52.2	939.6	6.53	5.22	5.74	
				1.5x1.0" VENT							
				12 SQ. IN/FT.		7.8	93.6	0.65	0.52		
ROOF B No Change in Existing				10 SQ. IN./FT.			0	0.00	0.00	0.00	
				1.5x1.0" VENT							
				12 SQ. IN/FT.			0	0.00	0.00		
ROOF C	2,497	16.65		10 SQ. IN./FT.		134.1	2413.8	16.76	13.41	20.46	
				1.5x1.0" VENT							
				12 SQ. IN/FT.		105.7	1268.4	8.81	7.05		
							0	0.00	0.00		

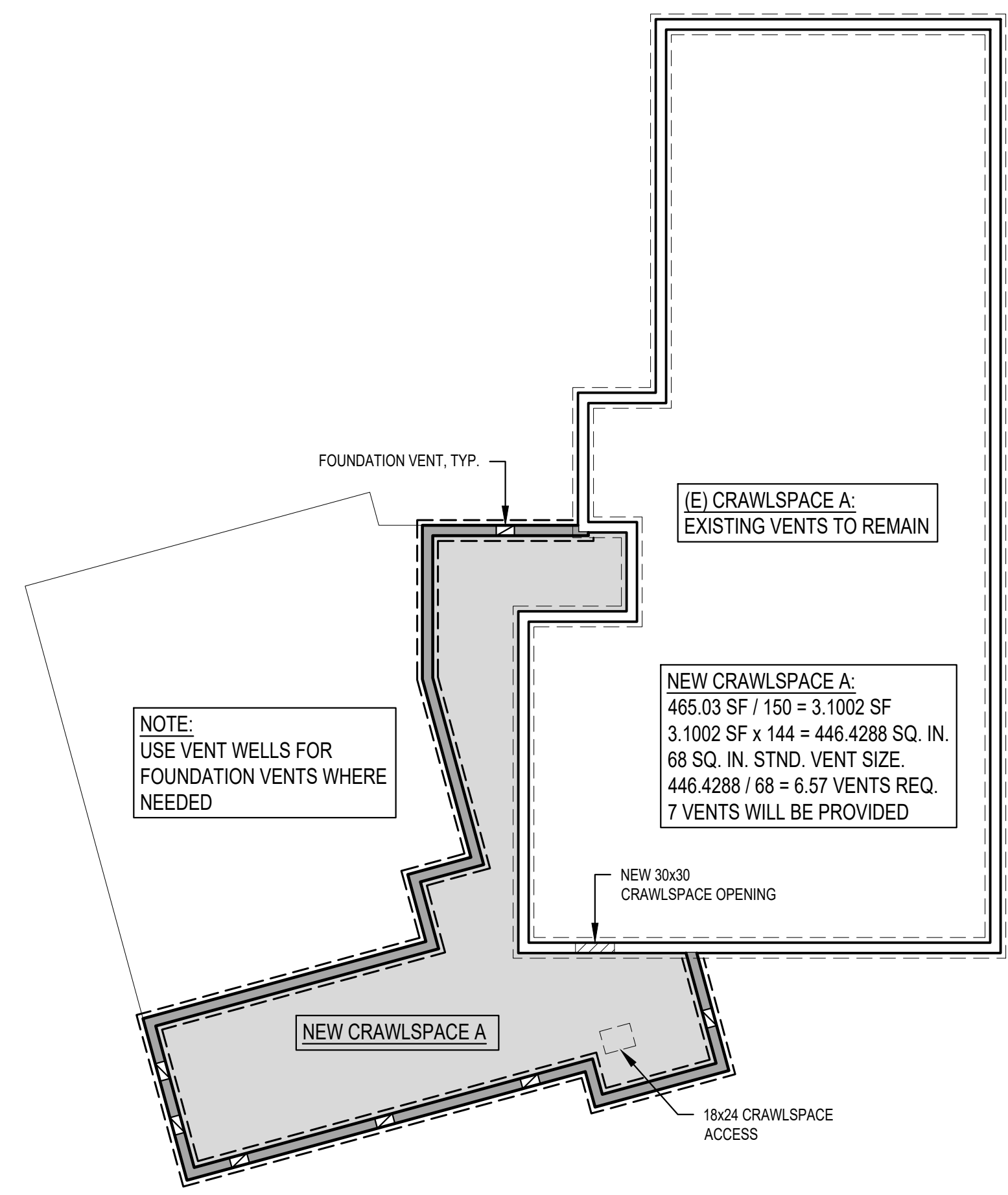


PARTIAL LOWER ROOF PLAN
SCALE: 1/4" = 1'-0"



MAIN ROOF PLAN
SCALE: 1/4" = 1'-0"

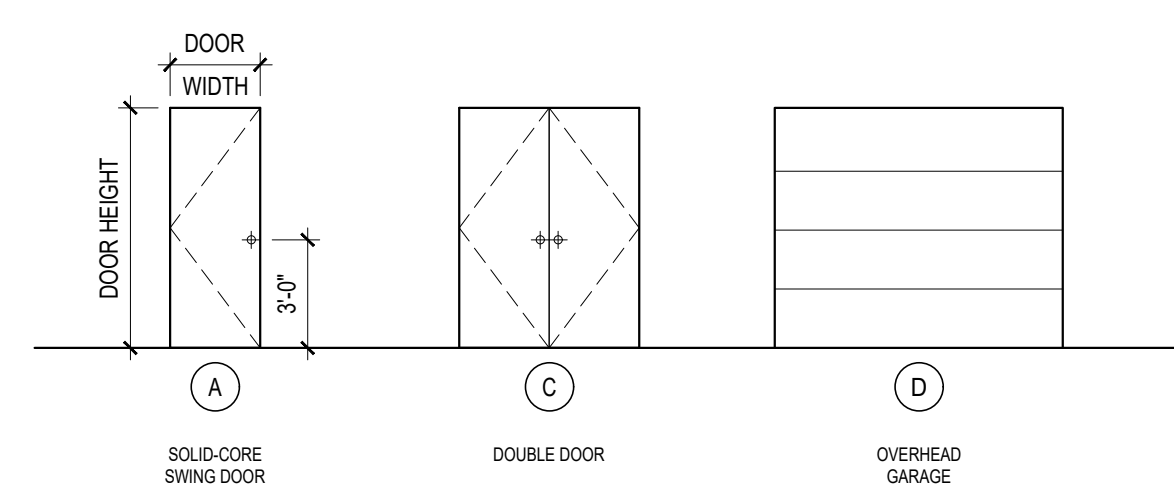
SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
PERMIT SET 3/2/2023



CRAWLSPACE DIAGRAM

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

DOOR TYPES:



DOOR NO.	LOCATION	SIZE WIDTH	SIZE HEIGHT	DOOR TYPE	TEMP. GLASS	DOOR THK.	U-VAL (MIN.)	REMARKS
MAIN FLOOR								
101	BONUS/OFFICE	2' - 6"	6' - 8"	A		1-3/4"		
102	BONUS/OFFICE CLOSET	5' - 0"	6' - 8"	B		1-3/4"		
103	LAUNDRY	2' - 10"	6' - 8"	A		1-3/4"		
104	MUDROOM	2' - 6"	6' - 8"	A		1-3/4"		
105	UNDER STAIR CLOSET	2' - 6"	6' - 8"	A		1-3/4"		
106	MUDROOM	2' - 10"	6' - 8"	A		1-3/4"		20 MIN FIRE RATED DOOR
107	EXERCISE	2' - 6"	6' - 8"	A		1-3/4"		
108	GARAGE	9' - 0"	8' - 0"	C		1-3/4"		
109	GARAGE	9' - 0"	8' - 0"	C		1-3/4"		
110	MECHANICAL	2' - 10"	6' - 8"	A		1-3/4"		
UPPER FLOOR								
201	BED 3	2' - 6"	7' - 0"	A		1-3/4"		
202	BED 3 CLOSET	4' - 0"	7' - 0"	A		1-3/4"		
203	BATH 2	2' - 6"	7' - 0"	A		1-3/4"		
204	BATH 2	2' - 6"	7' - 0"	A		1-3/4"		
205	BATH 2	2' - 6"	7' - 0"	A		1-3/4"		
206	BED 4 CLOSET	2' - 6"	7' - 0"	B		1-3/4"		
207	BED 4 CLOSET	2' - 6"	7' - 0"	B		1-3/4"		
208	BED 4	2' - 6"	7' - 0"	A		1-3/4"		



MAIN FLOOR

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

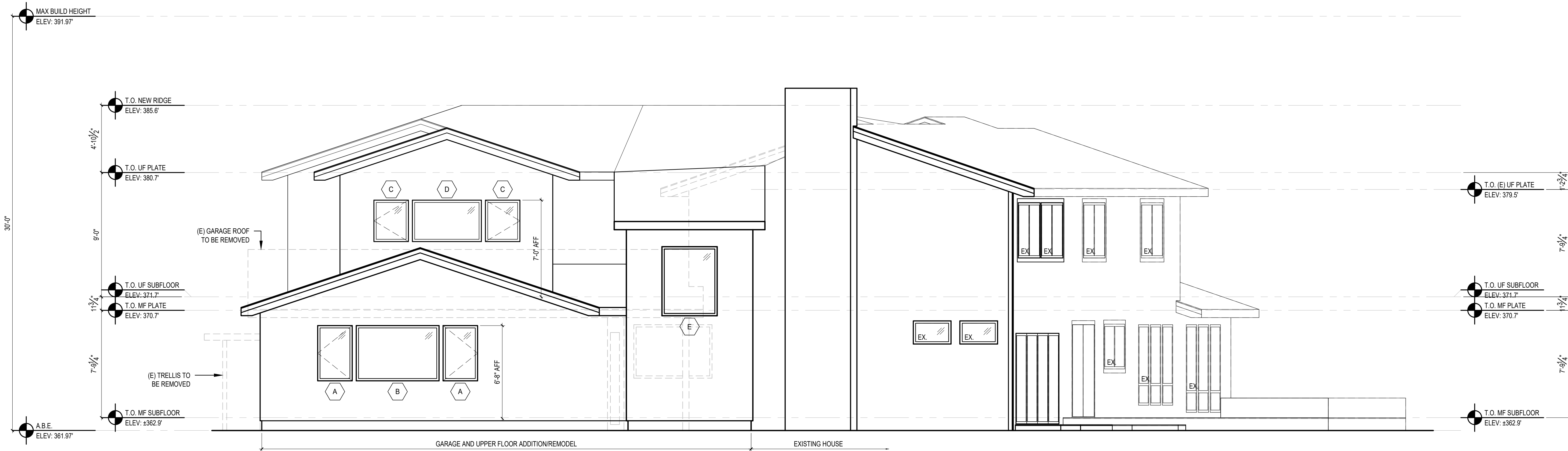
	PROPOSED FLOOR AREA		
MAIN FLOOR	2,011.5 SF	LOT SIZE	12,800 SF
UPPER FLOOR	1,852.2 SF	GFA THRESHOLD	5,000 SF
GARAGE	668.9 SF	PROPOSED GFA	5,080.4 SF
16'-0" + CEILING HEIGHT	195.0 SF	PROPOSED %GFA COVERAGE	30.8%
TOTAL	4,727.6 SF	PROPOSED GFA IS 5,080.4 SF OR 30.8%	

PROPOSED GROSS FLOOR AREA

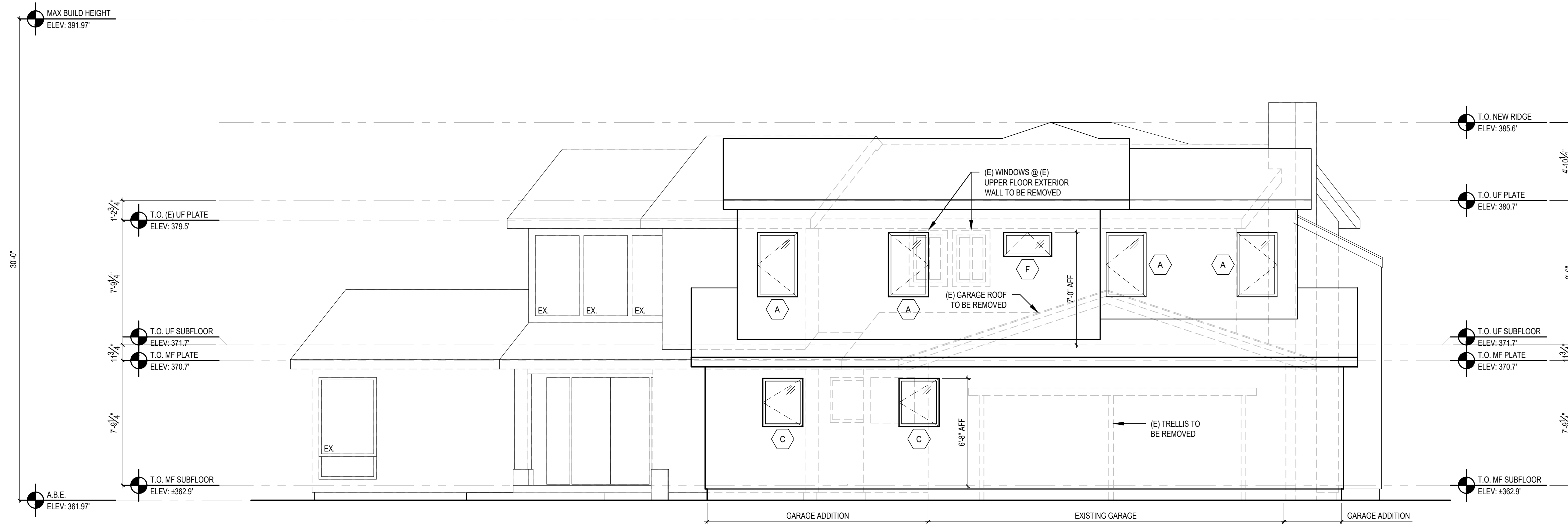
TAG.	DESCRIPTION	WINDOW SIZE		TEMP.	QTY.	AREA (SF)	U-VAL (MIN.)	GLAZING	REMARKS & NOTES
		WIDTH	HEIGHT						
A	CASEMENT	2' - 6"	4' - 0"		6	60	0.28	LOW E / CLEAR	EGRESS IN SOME LOCATIONS
B	FIXED	6' - 0"	4' - 0"		1	24	0.28	LOW E / CLEAR	
C	CASEMENT	2' - 6"	3' - 0"		4	30	0.28	LOW E / CLEAR	
D	FIXED	5' - 0"	3' - 0"		2	30	0.28	LOW E / CLEAR	
E	FIXED	4' - 0"	5' - 0"		1	20	0.28	LOW E / CLEAR	
F	AWNING	3' - 0"	1' - 6"	Y	1	4.5	0.28	LOW E / CLEAR	
G	CASEMENT	2' - 0"	4' - 0"		4	32	0.28	LOW E / CLEAR	
H1	FIXED	3' - 0"	4' - 0"		1	12	0.28	LOW E / CLEAR	
H1	CASEMENT	3' - 0"	4' - 0"		1	12	0.28	LOW E / CLEAR	EGRESS
I	SKYLIGHT	2' - 0"	4' - 0"		2	16	0.5	LOW E / CLEAR	

WINDOW SCHEDULE

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
 PERMIT SET 3/2/2023



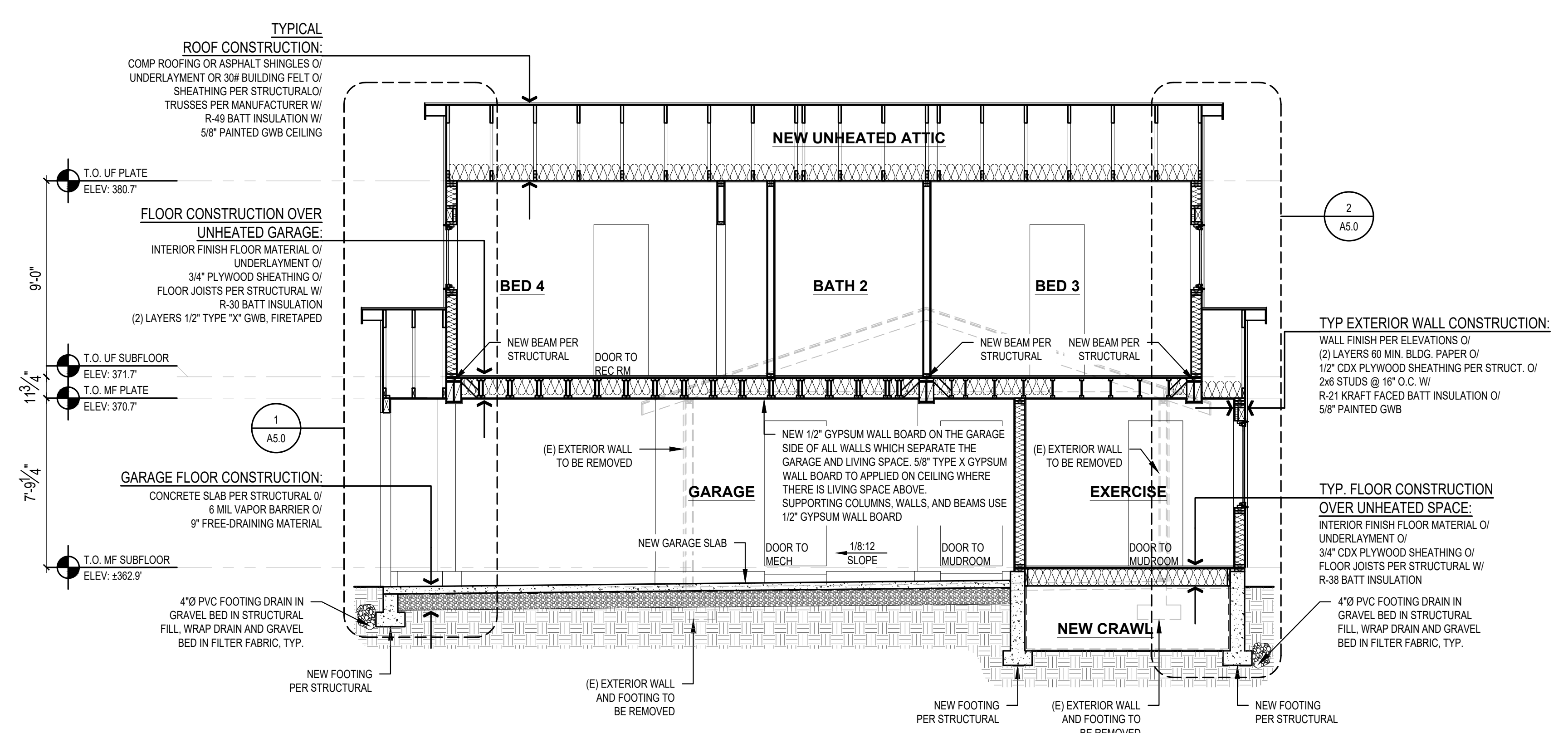
1 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



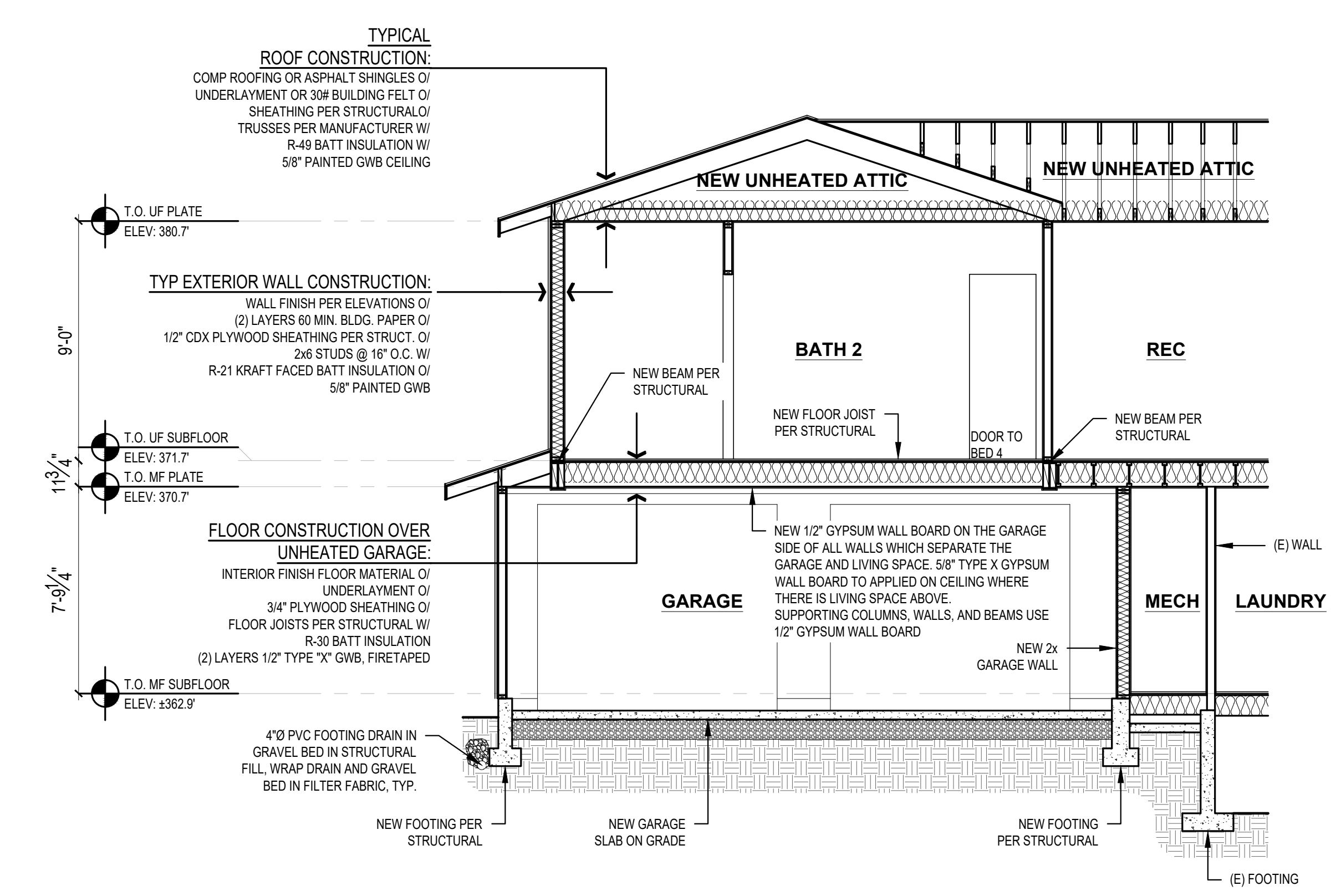
2 WEST ELEVATION
SCALE: 1/4" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36" IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
PERMIT SET 3/2/2023

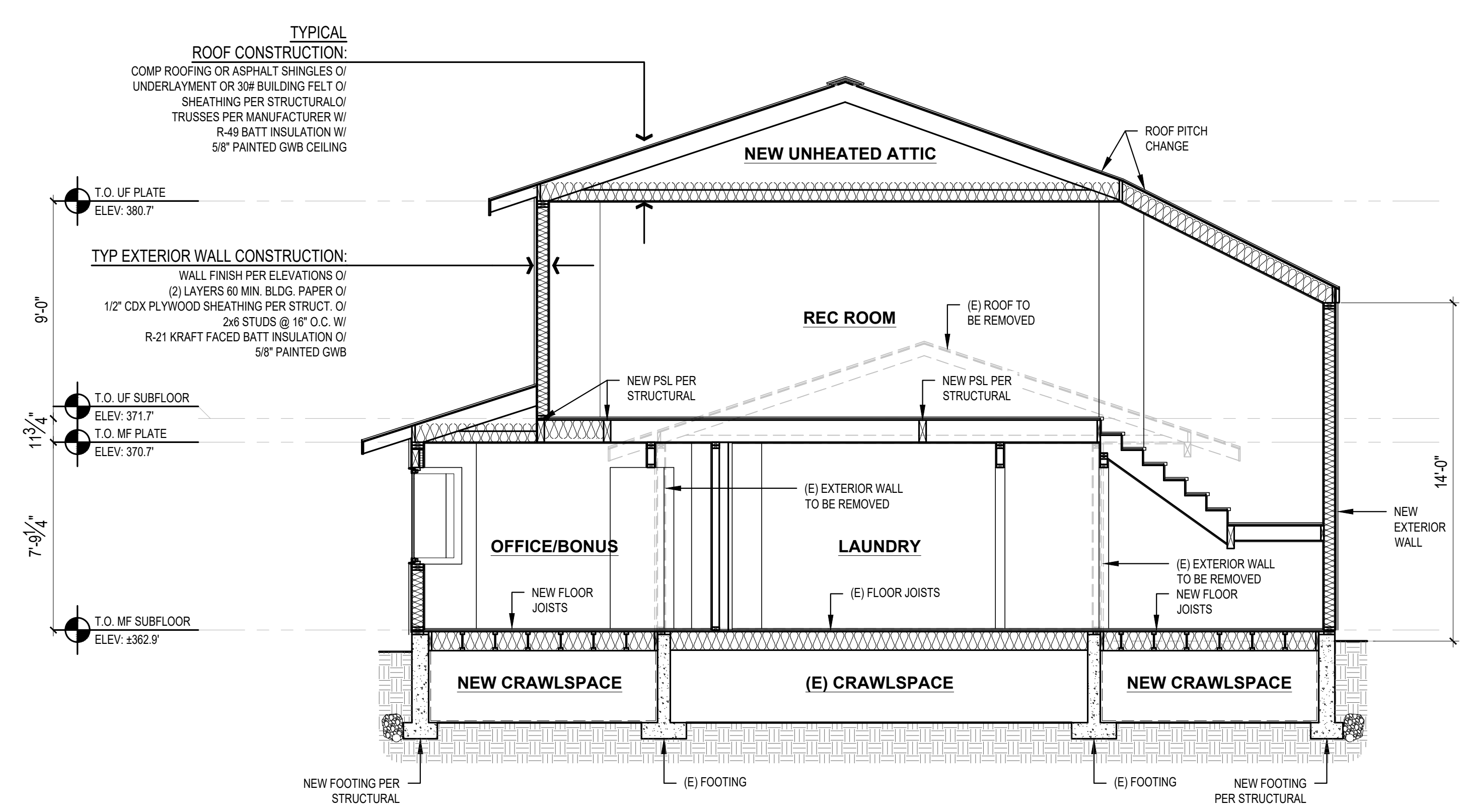
REVISIONS:	PLOT DATE:	DRAWN BY:	CHECKED BY:
1	4/17/2023	JM	BJS
2			
3			
4			
5			



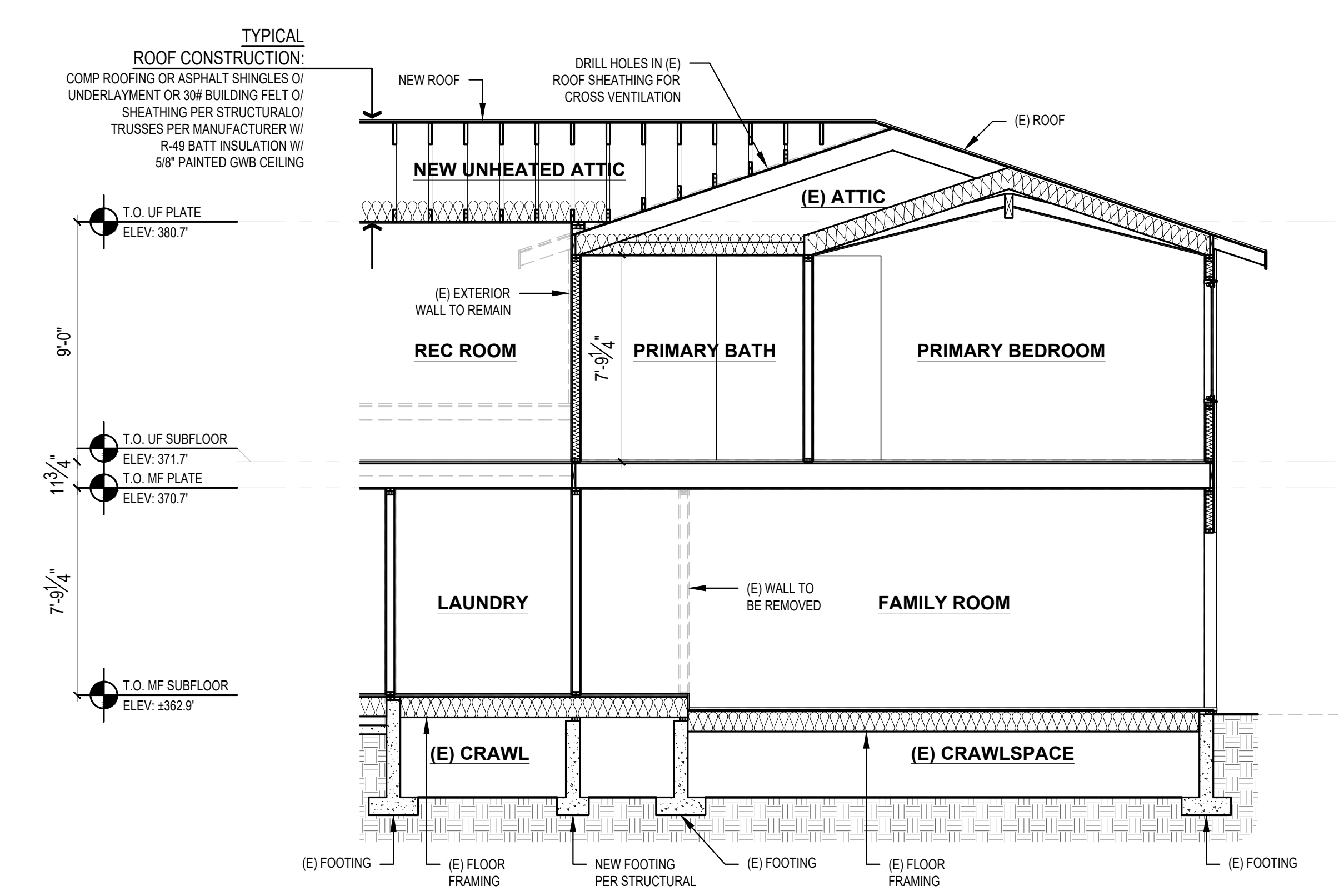
1 BUILDING SECTION
 SCALE: 1/4" = 1'-0"



2 BUILDING SECTION
 SCALE: 1/4" = 1'-0"

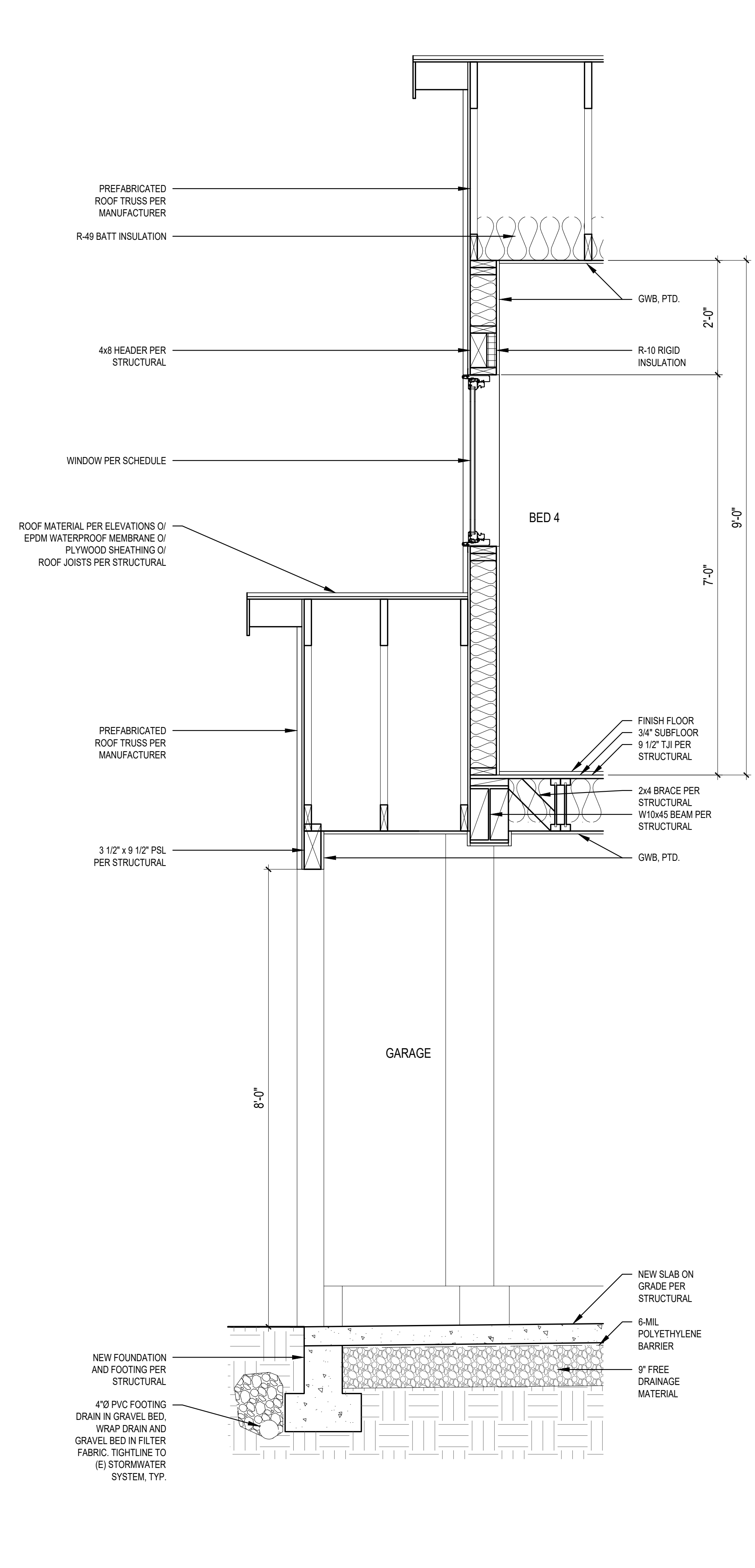


3 BUILDING SECTION
 SCALE: 1/4" = 1'-0"

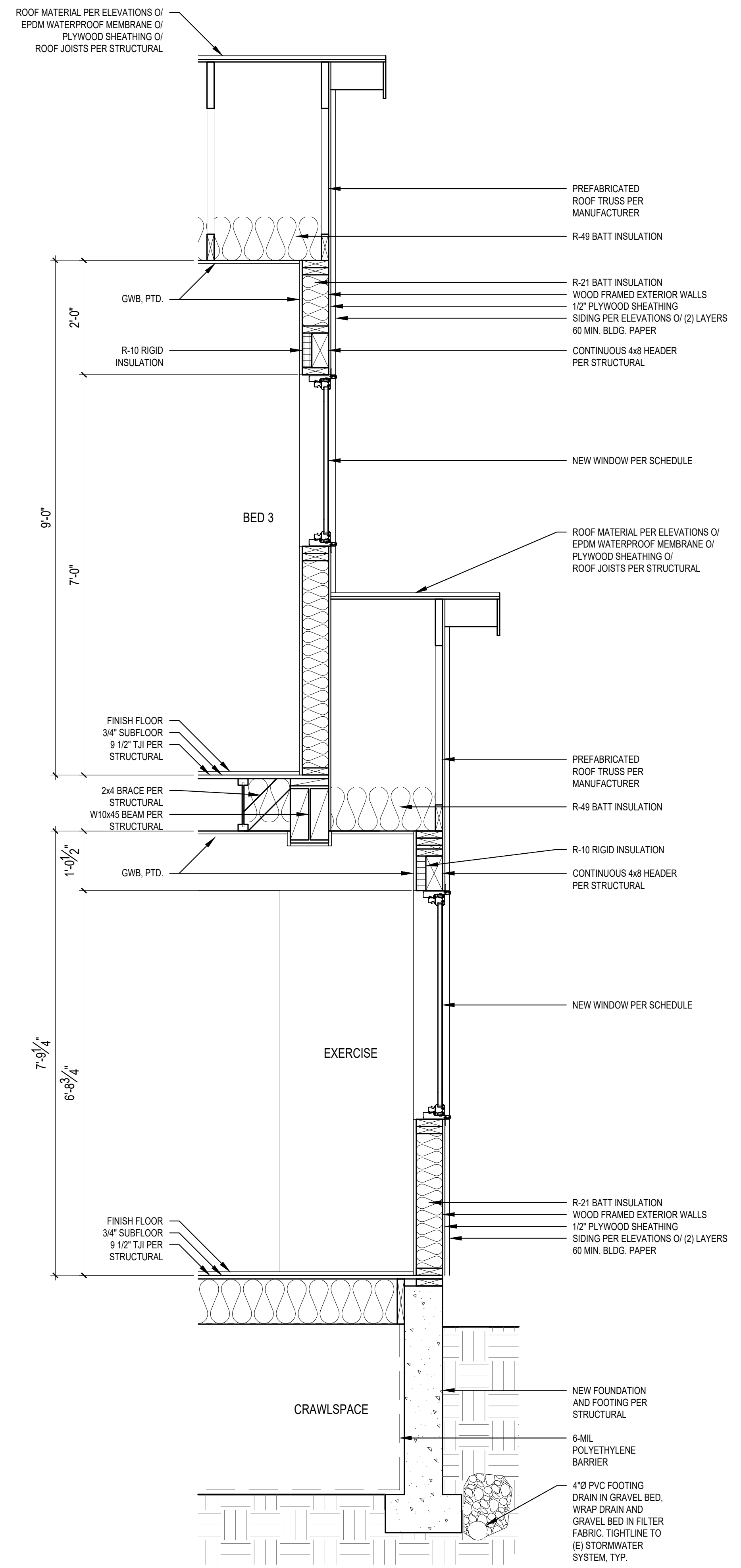


4 BUILDING SECTION
 SCALE: 1/4" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
 PERMIT SET 3/2/2023



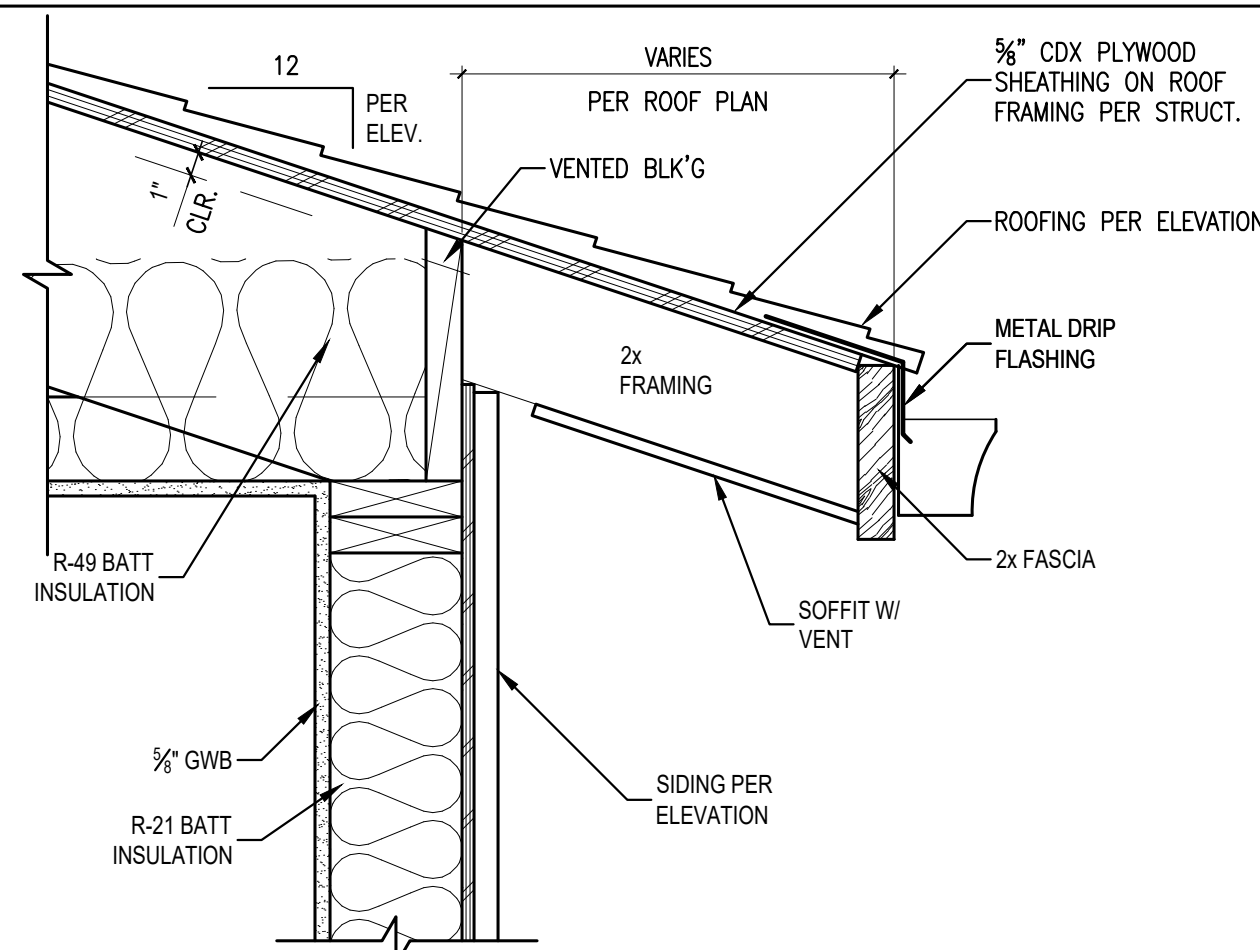
1 WALL SECTION
SCALE: 3/4" = 1'-0"



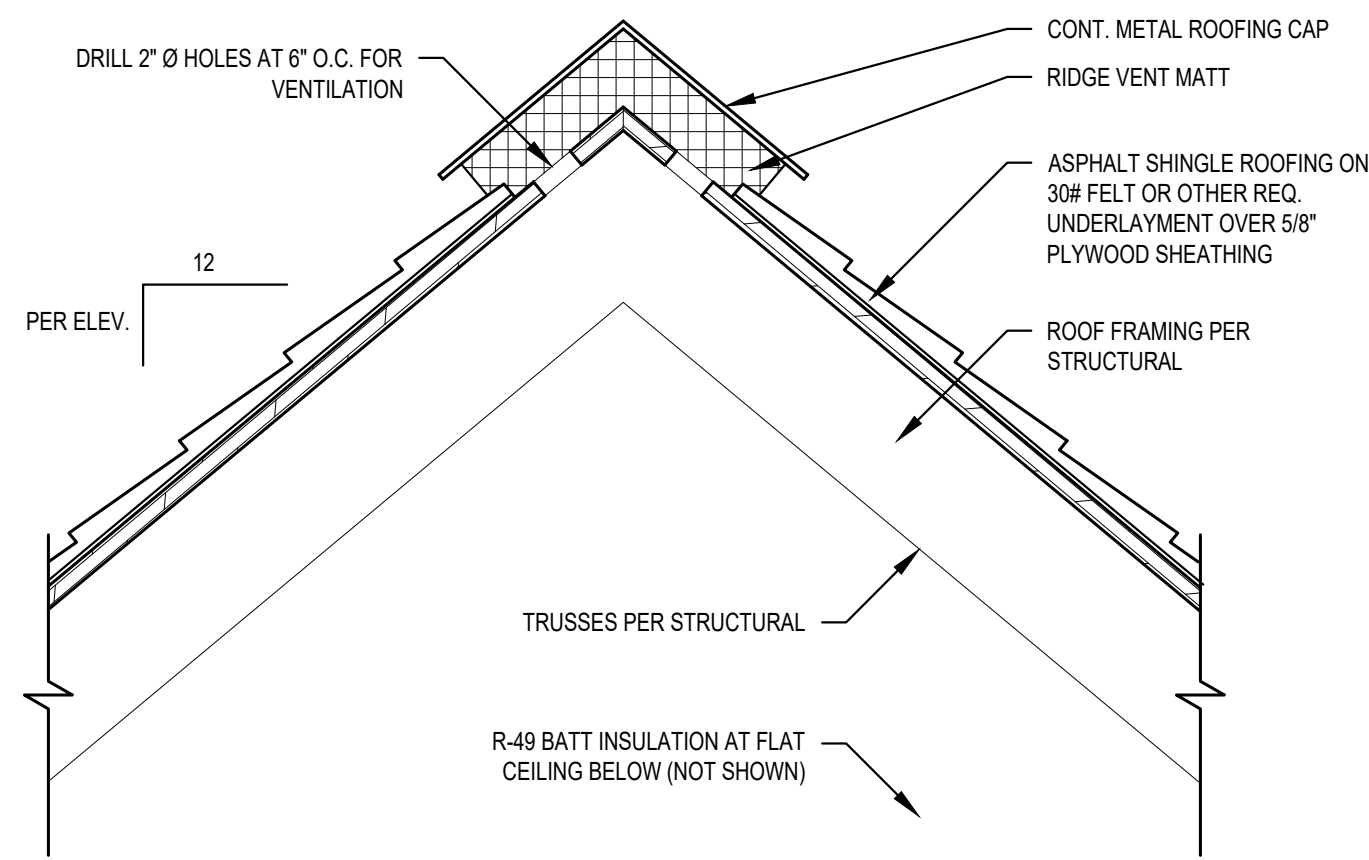
2 WALL SECTION
SCALE: 3/4" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
PERMIT SET 3/2/2023

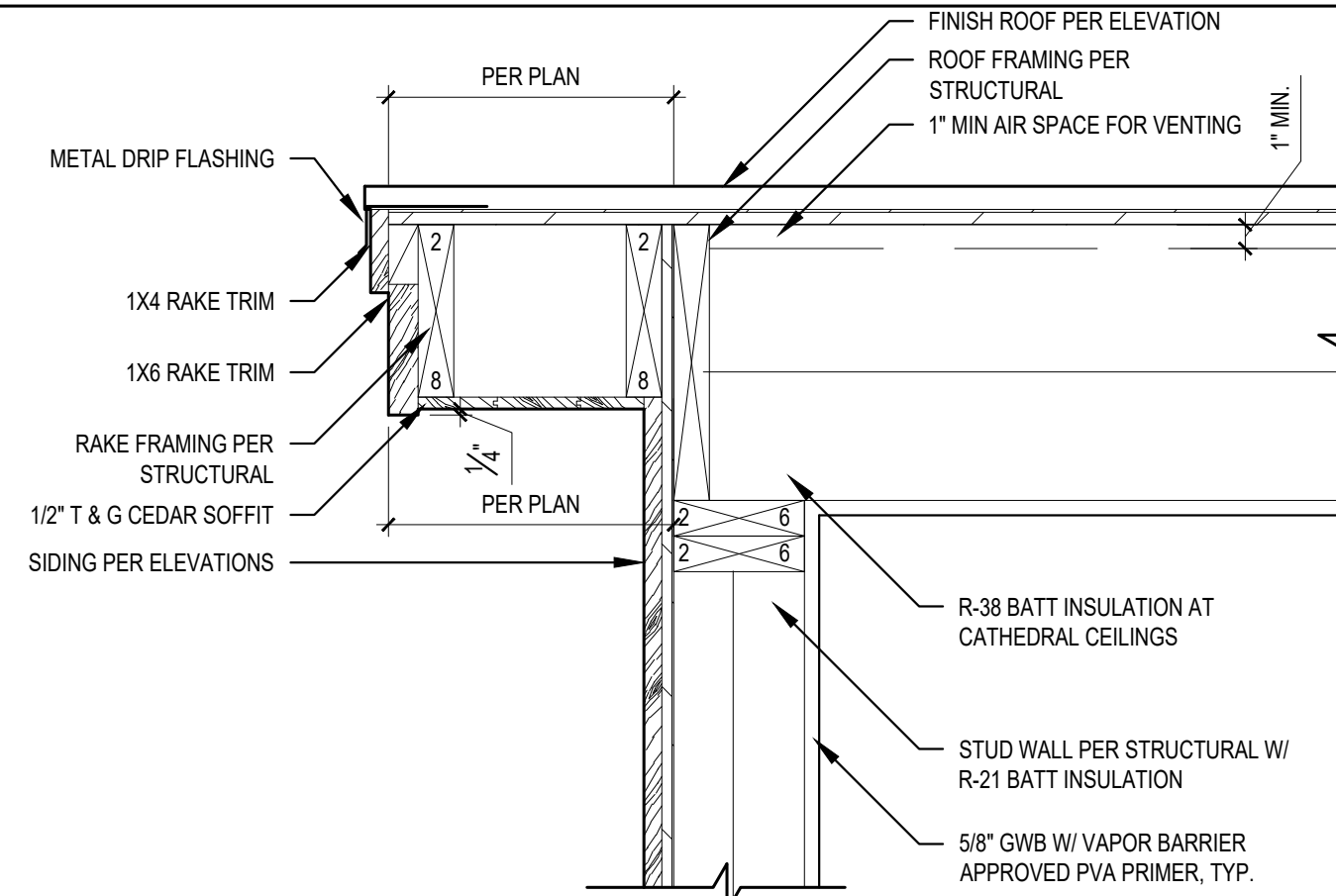
REVISIONS:	
PLOT DATE:	4/7/2023
DRAWN BY:	JM
CHECKED BY:	BJS



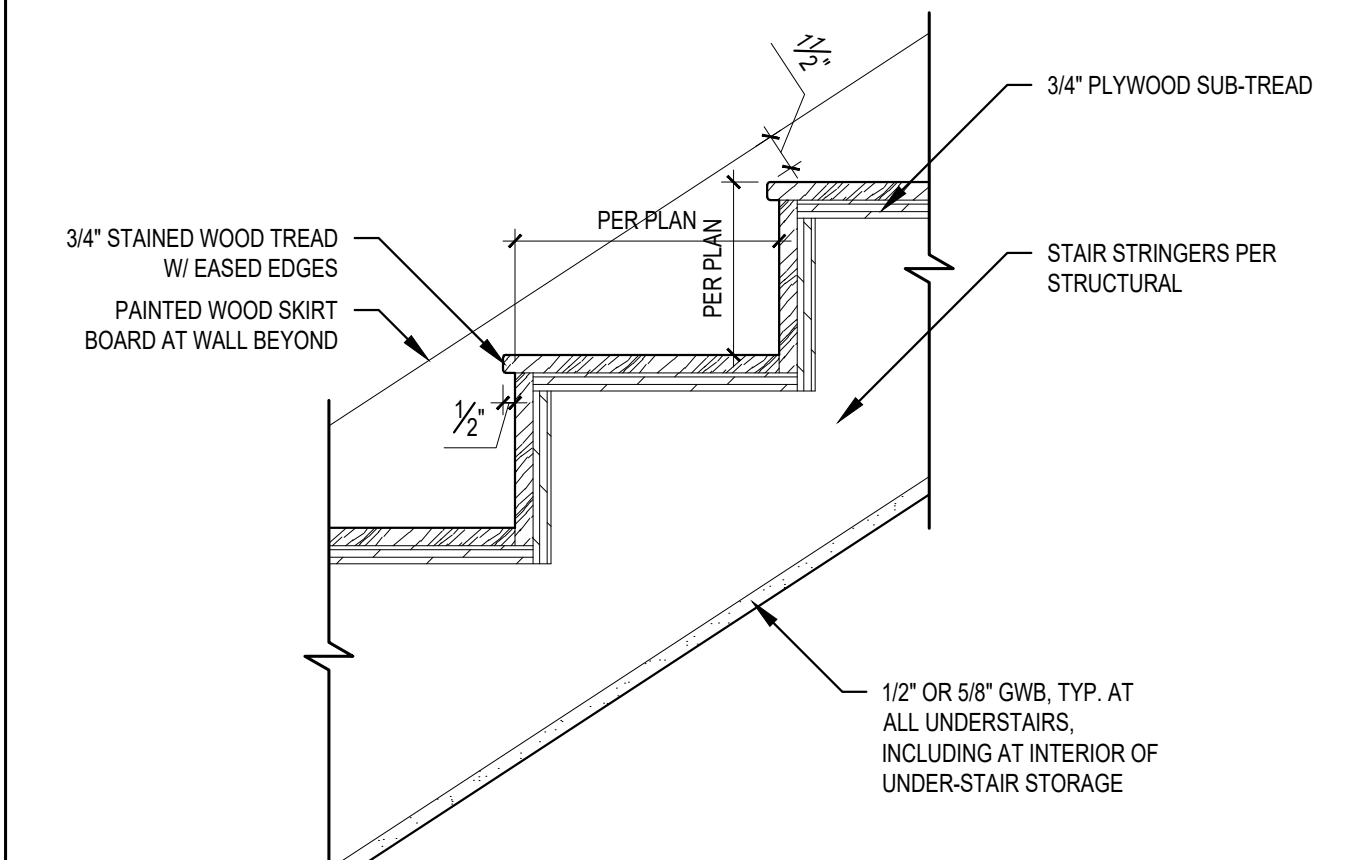
1 TYPICAL ROOF EAVE DETAIL
SCALE: 1 1/2" = 1'-0"



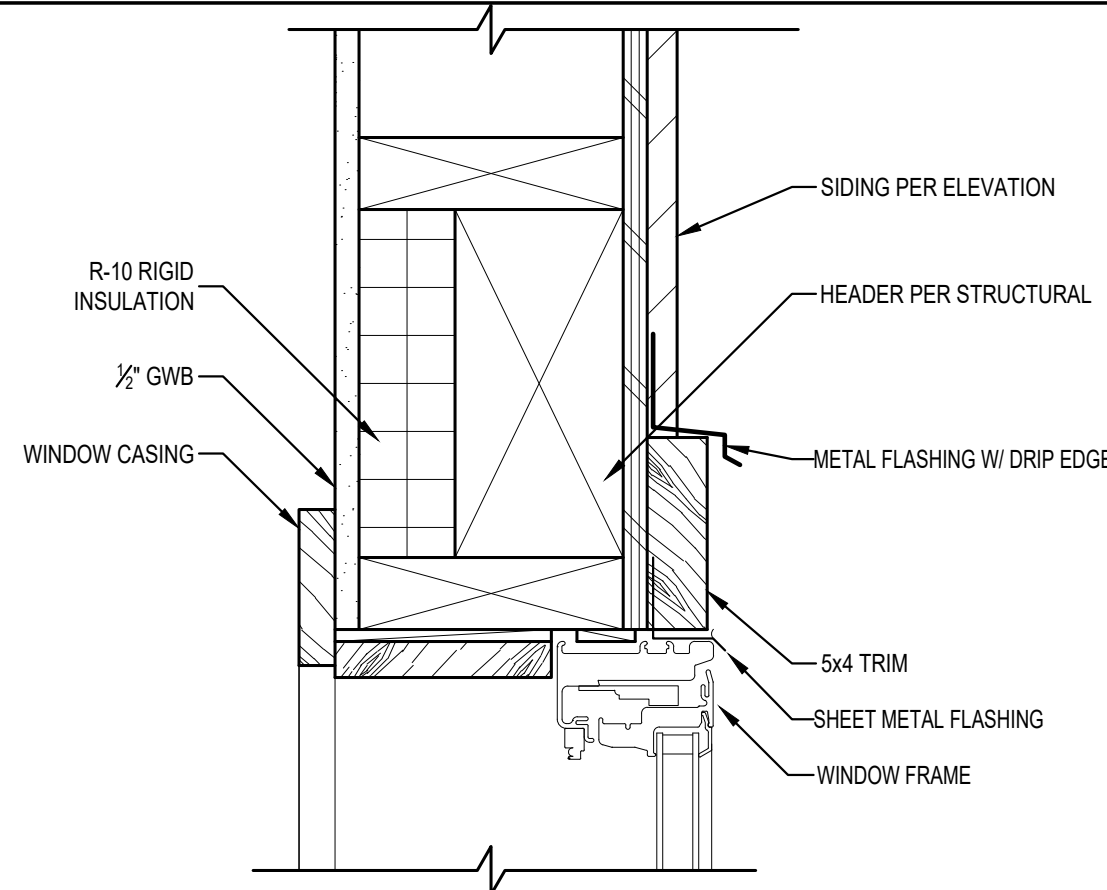
2 TYPICAL ROOF RIDGE VENT DETAIL
SCALE: 1 1/2" = 1'-0"



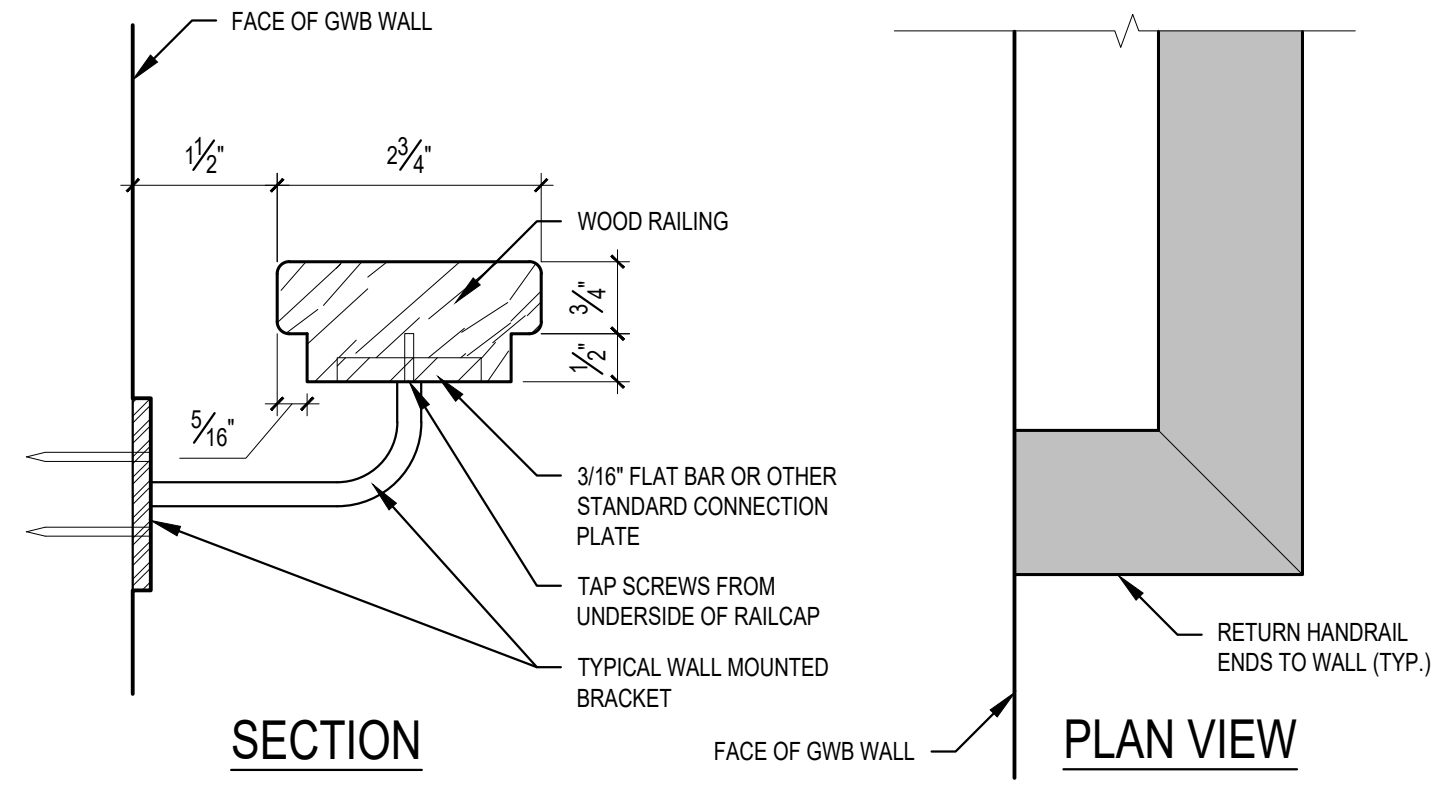
3 TYPICAL ROOF EAVE RAKE DETAIL
SCALE: 1 1/2" = 1'-0"



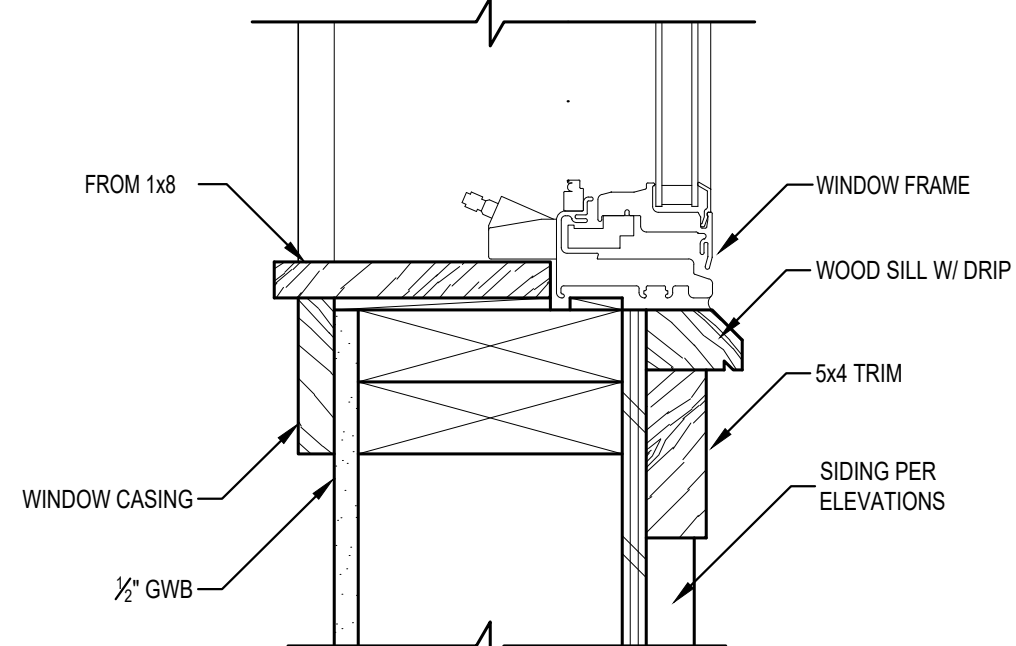
4 CLOSED RISER DETAIL (TYP.)
SCALE: 1 1/2" = 1'-0"



5 TYPICAL WINDOW HEAD DETAIL
SCALE: 3" = 1'-0"



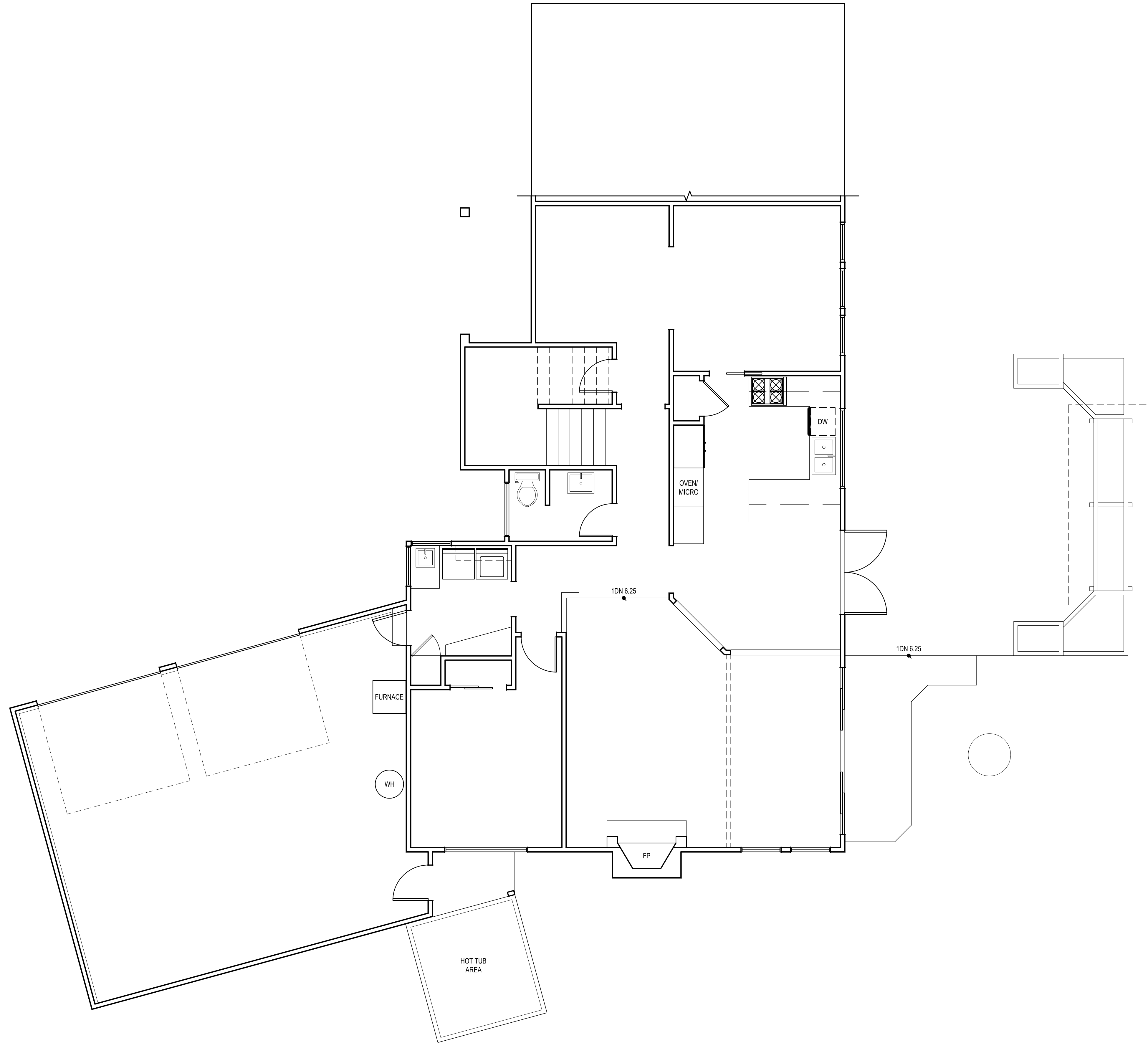
4 HANDRAIL DETAIL
SCALE: 6" = 1'-0"



9 TYPICAL WINDOW SILL DETAIL
SCALE: 3" = 1'-0"

REVISIONS:

PLOT DATE: 4/7/2023
DRAWN BY: JM
CHECKED BY: BJS

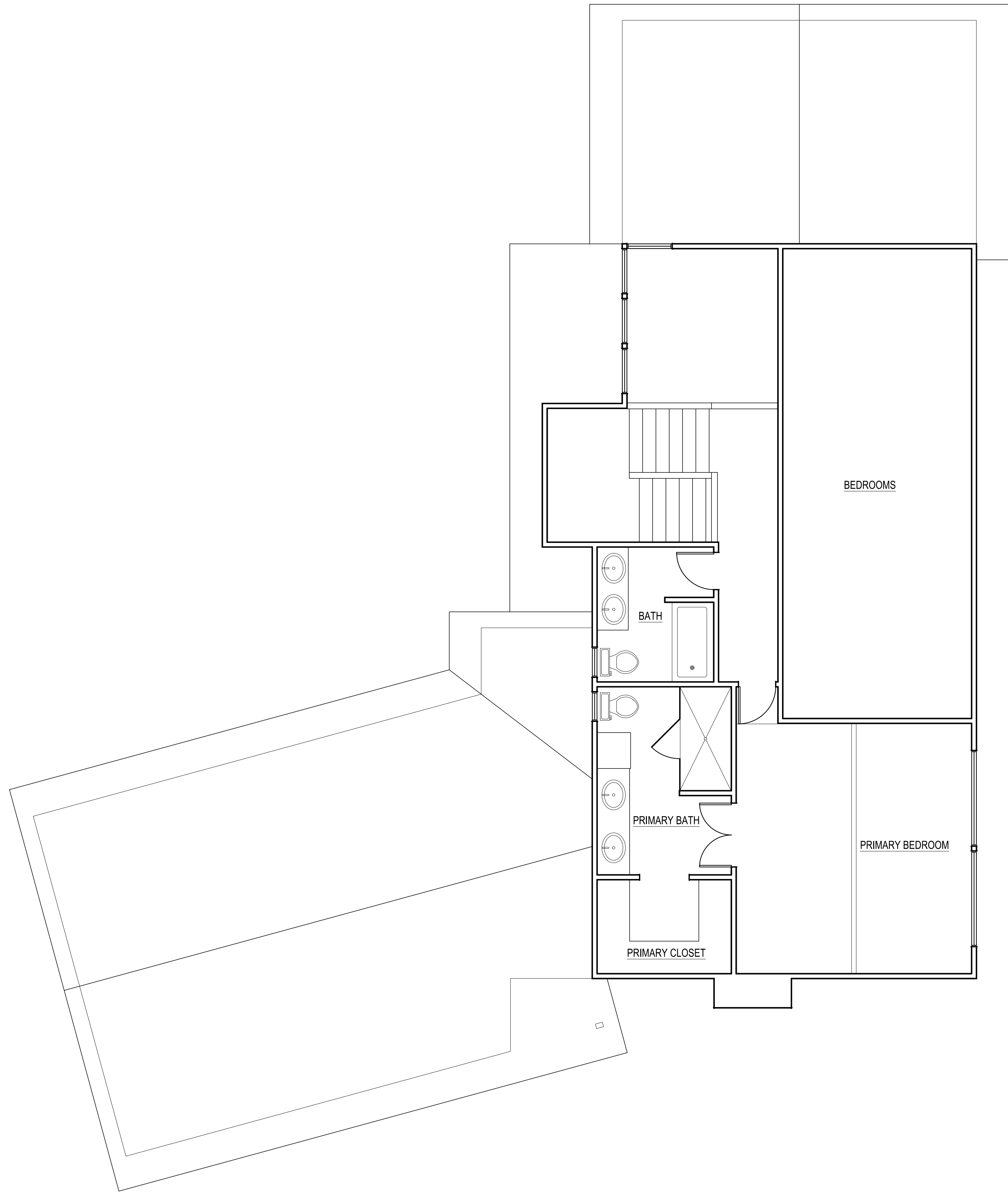


**AS-BUILT
MAIN FLOOR PLAN**
SCALE: 1/4" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS
A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
PERMIT SET 3/2/2023

REVISIONS:

PLOT DATE: 3/2/2023
DRAWN BY: JM
CHECKED BY: BJS



**AS-BUILT
UPPER FLOOR PLAN**
SCALE: 1/4" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" x 36", IT IS
A REDUCED PRINT, REDUCE SCALE ACCORDINGLY
PERMIT SET 3/2/2023

REVISIONS:

PLOT DATE: 3/2/2023

DRAWN BY: JM

CHECKED BY: BJS

LITCHFIELD RESIDENCE

S221118-2

PROJECT INFORMATION

CLIENT
LAWRENCE AND CATHERINE LITCHFIELD

PROJECT ADDRESS
9001 SE 50TH ST
MERCER ISLAND, WA 98040

ARCHITECT
STURMAN ARCHITECTS, INC
9-103RD AVE NE, SUITE 203
BELLEVUE, WA 98004
PHONE: (425)-451-7003
CONTACT: BRAD STURMAN

STRUCTURAL ENGINEER
L120 ENGINEERING & DESIGN
13150 91ST PL NE
KIRKLAND, WA 98034
PHONE: (425) 636-3313
EMAIL: MTHURFJELL@L120ENGINEERING.COM
CONTACT: MANS THURFJELL, PE

CODES

ENGINEERED PER:
2018 (IRC) INTERNATIONAL RESIDENTIAL CODE
2018 (IBC) INTERNATIONAL BUILDING CODE

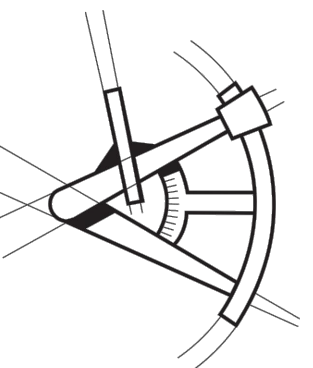
SHEET INDEX

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FOUNDATION PLAN...S-2
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FIRST FLOOR WALL FRAMING AND SHEAR WALL PLAN...S-4
SECOND FLOOR FRAMING PLAN...S-5
SECOND FLOOR WALL FRAMING AND SHEAR WALL PLAN...S-6
ROOF FRAMING PLAN...S-7

STRUCTURAL DETAILS...SD-1
STRUCTURAL DETAILS...SD-2



LONGITUDE
ONE TWENTY[®]
ENGINEERING & DESIGN



REVISIONS

△	DESCRIPTION	DATE	BY
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PROJECT NAME

LITCHFIELD RESIDENCE

9001 SE 50TH ST
MERCER ISLAND, WA 98040

PROJECT NUMBER

S221118-2

DRAWN BY - BS

CHECKED BY - MRT

SHEET DATE - 02/17/2023

SCALE

24X36 SHEET:1/4"=1'-0"

DESCRIPTION

COVER SHEET

S-0

SHEET

GENERAL STRUCTURAL NOTES

DESIGN CRITERIA

CODE: 2018 IBC/IRC & AMENDMENTS AS ADOPTED BY THE REVIEWING AGENCY/COUNTY.

ROOF25 PSF SNOW (GROUND)

FLOORS

RESIDENTIAL.....40 PSF
BALCONY/DECK.....60 PSF

BASIC WIND SPEED100 MPH, EXPOSURE B, KZT = 1.6

SEISMIC

MAPPED SPECTRAL ACCELERATION, Ss..... 1.6
MAPPED SPECTRAL ACCELERATION, S1..... 0.63
SOIL SITE CLASS.....D

GENERAL CONDITIONS

- THE CONTRACTOR SHALL EXAMINE THE STRUCTURAL DRAWINGS AND SHALL NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES HE MAY FIND BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ARCHITECT/ENGINEER SHALL IMMEDIATELY BE NOTIFIED IN WRITING OF ANY DISCREPANCIES.
- ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- IN CASE OF CONFLICT, NOTES AND DETAILS OF THESE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE "GENERAL NOTES" AND/OR "STANDARD DETAILS".
- IF A SPECIFIC DETAIL IS NOT SHOWN FOR ANY PART OF THE WORK, THE CONSTRUCTION SHALL BE THE SAME AS FOR SIMILAR WORK.
- WORKING DIMENSIONS SHALL NOT BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THESE DRAWINGS.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND THE STRUCTURAL ENGINEER OF ANY CONDITION WHICH IN HIS OPINION MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS TO THE STRUCTURE.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT HIS WORK AND HE SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION.
- ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE, AND ALL OTHER REGULATING AGENCIES EXERCISING AUTHORITY OVER ANY PORTION OF THE WORK.
- SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE THE NOTES, DRAWINGS, AND/OR SPECIFICATIONS DIFFER, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION NOT COVERED BY THESE GENERAL NOTES OR THE STRUCTURAL DRAWINGS.
- NOTIFY ENGINEER OF ALL FIELD CHANGES PRIOR TO INSTALLATION.
- DISCREPANCIES FOUND BETWEEN STRUCTURAL DRAWINGS AND OTHER DOCUMENTS ARE TO BE NOTED IN WRITING TO THE ENGINEER PRIOR TO CONSTRUCTION.
- ALL CONSTRUCTION SHALL BE DONE WITH MATERIALS, METHODS, AND WORKMANSHIP ACCEPTED AS GOOD PRACTICE BY THE CONSTRUCTION INDUSTRY IN CONFORMANCE TO THE PROVISIONS OF THE "INTERNATIONAL BUILDING CODE" (IBC), AND STANDARDS REFERENCED THEREIN.

FOUNDATION

- FOUNDATION DESIGN PARAMETERS ASSUMED PER IRC/IBC VALUES:
FOOTING BEARING PRESSURE: 1500 PSF
LATERAL EARTH PRESSURE:
ACTIVE: 35 PCF (FREE) 50 PCF (RESTRAINED)
PASSIVE: 250 PCF
COEFFICIENT OF BASE FRICTION: 0.35
- SUBGRADE PREPARATION, DRAINAGE PROVISIONS, AND OTHER RELEVANT SOIL CONSIDERATIONS ARE TO BE IN ACCORDANCE WITH THE JURISDICTIONAL REQUIREMENTS.
- ALL FOUNDATIONS ARE TO BEAR ON COMPETENT NATIVE SOILS OR STRUCTURAL FILL. STRUCTURAL FILL IS TO BE COMPACTED TO 95% DENSITY PER ASTM D-1557.

CONCRETE

- REFERENCE STANDARDS: ACI-301, ACI-318, IBC.
MINIMUM CONCRETE STRENGTH (28 DAYS):
FOOTINGS AND STEM WALLS.....2,500 PSI - 5 SACK MIX
BASEMENT FOUNDATION RETAINING WALLS.....2,500 PSI - 5.5 SACK MIX
SLAB-ON-GRADE.....2,500 PSI - 5 SACK MIX
SLAB-ON-GRADE.....EXPOSED WEATHERING SURFACES.....3,000 PSI - 5.5 SACK MIX
AIR-ENTRAINMENT 2.5% TO 5.5% FOR EXPOSED CONCRETE.
- MIXING: COMPLY WITH ACI-301. DO NOT EXCEED THE AMOUNT OF WATER SPECIFIED IN THE APPROVED MIX. PROPORTIONS OF AGGREGATE TO CEMENT SHALL BE SUCH AS TO PRODUCE A DENSE WORKABLE MIX WHICH CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER
- PLACING: COMPLY WITH ACI-301. PROVIDE A 3/4 INCH CHAMFER ALL EXPOSED CONCRETE EDGES, UNLESS INDICATED OTHERWISE ON ARCHITECTURAL DRAWINGS.
- SLUMP: 4" PLUS OR MINUS ONE INCH. DO NOT ADD WATER TO MIX TO INCREASE SLUMP. GREATER SLUMP, ACCELERATED SET, OR HIGH EARLY STRENGTH MAY BE ACHIEVED BY USING APPROVED ADMIXTURES.
- CURING: COMPLY WITH ACI-301. KEEP CONCRETE MOIST FOR SEVEN DAYS MINIMUM.
- JOINTING: PROVIDE ADEQUATE JOINTING TO MINIMIZE EFFECTS OF VOLUME CHANGE. JOINTS SHOWN MAY BE ADJUSTED AT CONTRACTOR'S OPTION, WITH PRIOR APPROVAL FROM ENGINEER.
- WEATHER EXTREMES: COMPLY WITH ACI 305R FOR HOT WEATHER. COMPLY WITH ACI 306R FOR COLD WEATHER.
- WATER/CEMENT RATIO SHALL NOT EXCEED 0.50 (BY WEIGHT), TYPICAL.

REINFORCING STEEL

- REFERENCE STANDARDS: ACI "DETAILING MANUAL" (SP-66); CRSI MANUAL OF STANDARD PRACTICE (MSP-1)
- MATERIALS:
REINFORCING STEEL: ASTM A615, GRADE 60
- SPLICES:
LAP CONTINUOUS REINFORCING BARS 48 BAR DIAMETERS, UNLESS OTHERWISE NOTED. PROVIDE CORNER BARS FOR ALL HORIZONTAL REINFORCEMENT.
- COVER:
FOOTINGS3 INCHES
SLABS.....2 INCHES
- FORMED SURFACES:
WEATHER FACE ...1-1/2 INCHES, #5 BARS AND SMALLER 2 INCHES, # 6 BARS AND LARGER
INTERIOR FACE ...3/4 INCH FOR SLABS AND WALLS 1-1/2 INCHES FOR BEAMS AND COLUMNS

STRUCTURAL AND MISC. STEEL

- REFERENCE STANDARDS: DESIGN, FABRICATION AND ERECTION ARE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- MATERIALS:
BOLTS - ASTM A307, UNLESS OTHERWISE NOTED
WF BEAMS - ASTM A572-50 (Fy = 50,000 PSI)
HSS ROUND COLUMNS - ASTM A500 Gr. B (Fy = 42,000 PSI)
HSS RECTANGULAR COLUMNS - ASTM A500 Gr. B (Fy = 46,000 PSI)
ALL OTHER STEEL - ASTM A36 (Fy = 36,000 PSI)

STRUCTURAL STEEL WELDING

- CONFORM TO THE AWS CODES D1.1 AND D1.3. ALL WELDING TO BE DONE ONLY BY WABO CERTIFIED WELDERS AND HAVE SPECIAL INSPECTION BY WABO CERTIFIED INSPECTION AGENCY OR BE DONE BY WABO CERTIFIED FABRICATION SHOP. EITHER SPECIAL INSPECTION REPORT OR WABO FABRICATION SHOP CERTIFICATION SHOULD BE AVAILABLE ON SITE FOR THE BUILDING INSPECTOR. WELDS NOT SPECIFIED ARE TO BE 1/4" CONTINUOUS FILLET MINIMUM. USE DRY E70 ELECTRODES.

DIMENSIONAL LUMBER

- MEET REQUIREMENTS OF PS 20-70 AND NATIONAL GRADING RULES FOR SOFTWOOD DIMENSIONAL LUMBER. BEAR STAMP OF WWPA.
- MINIMUM DIMENSIONAL LUMBER GRADES TO BE:
WALL STUDS: 2x, HF STUD GRADE, 3x HF #2
WALL PLATES: 2x HF STANDARD GRADE
2x, 3x PRESSURE TREATED HF STANDARD GRADE AT FOUNDATION
JOISTS: 2x6 HF STUD GRADE
2x8 AND UP HF #2
BEAMS, HEADERS: 6x DF#2; 4x DF#2, WWPA GRADING.
POSTS: 4x, 6x, DF #2
LUMBER NOT NOTED TO BE HF #2.
- PROVIDE STANDARD CUT WASHERS FOR NUTS BEARING AGAINST WOOD, AND 1/4"x3" HOT-DIPPED GALVANIZED SQUARE PLATE WASHERS FOR ALL ANCHOR BOLTS.
- ALL SILLS OR PLATES RESTING ON CONCRETE OR MASONRY, WHICH IS IN CONTACT WITH OR RESTING ON FOUNDATIONS, SHALL BE PRESSURE TREATED HEM FIR OR BETTER. ALL BEARING WALL PLATES SHALL HAVE 5/8"Ø ANCHOR BOLTS PLACED A MAXIMUM 9" FROM THE END OF A PLATE AND SPACED AT INTERVALS SHOWN ON THE SHEARWALL SCHEDULE (MAXIMUM 4'-0" O.C. SPACING). ALL TREATED PRESSURE TREATED WOOD MEMBERS SHALL COMPLY WITH AWP4 U1 AND AWP4 M4 STANDARDS.
- CAST-IN-PLACE ANCHOR BOLTS SHALL HAVE A MINIMUM 7" EMBEDMENT. ALTERNATE 5/8"Ø EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT II ANCHORS EMBED 7", OR APPROVED ALTERNATE.
- BOLTS IN WOOD BEAMS SHALL NOT BE LESS THAN 7 DIAMETERS FROM THE END AND 4 DIAMETERS FROM THE EDGE OF THE MEMBER.
- NAILS: NAILING IN ACCORDANCE WITH IBC TABLE 2304.10.1. 16D NAILS MAY BE 16D SINKERS (0.148 x 3-1/4") UNLESS NOTED OTHERWISE.
- PRESURE TREATED WOOD: ALL NAILS INTO PT WOOD SHALL BE HOT DIPPED GALVANIZED PER ASTM A153 OR STAINLESS STEEL. ALL METAL CONNECTORS IN CONTACT WITH PT WOOD SHALL BE HOT DIPPED GALVANIZED AND MEET ASTM A653 CLASS G185 (1.85 oz OF ZINC PER SQ FT MINIMUM) OR TYPE 304 / 316 STAINLESS STEEL. SIMPSON Z-MAX CONNECTORS MEET THIS REQUIREMENT. FASTENERS AND CONNECTORS USED TOGETHER SHALL BE OF THE SAME TYPE (E.G. HOT DIPPED NAILS WITH HOT DIPPED HANGERS)

MANUFACTURED TIMBER

PRODUCT	APPLICATION	WIDTHS
LSL RIMBOARD (1.3E)	RIMBOARD OR STAIR STRINGER	1 ¼"
TIMBERSTRAND LSL (1.3E)	HEADER, BEAM, OR COLUMN < 9" DEPTH	3 ½"
TIMBERSTRAND LSL (1.55E)	RIMBOARD, HEADER, OR < 9" DEPTH BEAM	1 ¾", 3 ½"
TIMBERSTRAND LSL (1.3E)	WALL STUD 2X4 & 2X61	½"
(1.5E)	WALL STUD > 2X6	1 ½"
MICROLLAM LVL (1.9E)	HEADER, BEAM	1 ¾"
PARALLAM PSL (2.2E)	HEADER, BEAM	3 ½", 5 ¼", 7"
PARALLAM PSL (1.8E)	COLUMN	3 ½", 5 ¼", 7"

WOOD STRUCTURAL CONNECTIONS

- ALL FRAMING ANCHORS, POST CAPS, BASES, HANGERS, STRAPS, ETC., SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY OR ENGINEER APPROVED EQUAL.

BRICK VENEER ANCHORAGE

- D/A 2135 SEISMIC VENEER ANCHORS BY DUR-O-WAL OR APPROVED EQUAL AT WOOD STUD WALL.
- D/A 5213 SEISMIC VENEER ANCHORS BY DUR-O-WAL OR APPROVED EQUAL AT CONCRETE WALL.
- PLACE ANCHORS AT 16" O.C. VERTICAL AND 16" HORIZONTAL. PROVIDE #9 GA HORIZONTAL JOINT REINFORCING WIRE . ATTACH TO WOOD STUDS WITH #8 CORROSION RESISTANT SCREWS AND TO CONCRETE WITH 1/4"Ø EXPANSION ANCHORS.
- AT ALL OPENINGS LARGER THAN 16" IN EITHER DIRECTION, ANCHORS TO BE SPACED WITHIN 12" OF THE OPENING AT ALL SIDES.
- USE TYPE N MORTAR COMPLYING WITH ASTM C270

GLU-LAMINATED TIMBER

- GLU-LAMINATED WOOD BEAMS, DOUGLAS FIR COAST REGION, KILN DRIED, AITC SPECIFICATION 24F-V4 FOR SIMPLE SPANS (TYPICAL), AND 24F-V8 FOR CANTILEVER-SPANS (WHERE SPECIFIED). PROVIDE AITC STAMP ON TIMBER AND SUBMIT CERTIFICATE TO ARCHITECT AND ENGINEER. MATERIALS MUST BE OBTAINED FROM AN AITC APPROVED FABRICATOR. ALL GLU-LAM BEAMS SHALL FIT SNUG AND TIGHT IN THEIR CONNECTIONS AND DEVELOP FULL BEARING AS INDICATED. NO SUBSTITUTION OF OTHER SPECIES. GLU-LAM ADHESIVE TO BE "WET- USE" TYPE. PROVIDE 2000 FT RADIUS CAMBER, U.N.O.
- MANUFACTURER'S CERTIFICATE SHALL BE PRESENTED TO THE BUILDING INSPECTOR PRIOR TO INSTALLATION.

WOOD SHEATHING

- ROOF SHEATHING: 7/16" MINIMUM THICKNESS APA RATED PRP-108 PERFORMANCE STANDARD, EDGE SEALED PANELS DESIGNED TO SPAN 24 INCHES EITHER PARALLEL OR PERPENDICULAR TO LONG AXIS OF PANEL WITH 35 PSF LIVE LOAD. LAY UP WITH MINIMUM 1/8" CLEAR BETWEEN PANELS TO ALLOW FOR EXPANSION. NAIL 6 INCHES ON CENTER ALONG EDGES, AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS. USE 10D COMMON NAILS, U.N.O. PROVIDE EXP-1 RATING.
- FLOOR SHEATHING: 3/4" NOMINAL APA RATED PANELS, PRP-108 PERFORMANCE STANDARD, NAILED AND GLUED. CONFORM TO IBC IDENTIFICATION INDEX 40/20 FOR SUPPORTS TO 20 INCHES ON CENTER. ADHESIVES ARE TO CONFORM TO APA SPECIFICATION AFG-01. PROVIDE T&G EDGES AT LONG PANEL EDGES. LAY UP WITH MINIMUM 1/8" CLEAR BETWEEN PANELS TO ALLOW FOR EXPANSION. NAIL 6 INCHES ON CENTER AT END SUPPORTS AND 10 INCHES ON CENTER AT INTERMEDIATE SUPPORTS. USE 10D COMMON NAILS. PROVIDE EXP-1 RATING.
- WOOD SHEARWALL SHEATHING: PLYWOOD OR OSB APA RATED PRP-108 PERFORMANCE STANDARD PER IBC STD 23-2 OR 23-3 TYPE C-C OR C-D. USE EXTERIOR ADHESIVES. USE 8d COMMON NAILS. PROVIDE EXP-1 RATING. ALL VERTICAL JOINTS OF PANEL SHEATHING SHALL OCCUR OVER STUDS. HORIZONTAL JOINTS SHALL OCCUR OVER BLOCKING EQUAL IN SIZE TO THE STUDDING. REFER TO SHEAR WALL SCHEDULE FOR PANEL THICKNESS.
- NAILING SPECIFICATIONS: CONFORM TO IBC SECTION 2304.10 "CONNECTIONS AND FASTENERS." UNO ON PLANS, NAILING PER TABLE 2304.10.1, AND FOR ROOF/FLOOR DIAPHRAGMS AND SHEARWALLS SHALL BE PER DRAWINGS. NAILS SHALL BE DRIVEN FLUSH AND SHALL NOT FRACTURE THE SURFACE OF SHEATHING. ALTERNATE NAILS MAY BE USED BUT ARE SUBJECT TO REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER. SUBSTITUTION OF STAPLES FOR THE NAILING OF RATED SHEATHING IS SUBJECT TO REVIEW BY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

SHOP DRAWINGS AND SUBMITTALS

- SUBMIT 2 SETS OF PRINTS AND 1 SET OF REPRODUCIBLES FOR REVIEW FOR:
A) REINFORCING STEEL C) GLU-LAMINATED BEAMS
B) MISCELLANEOUS STEEL D) PRE-MANUFACTURED WOOD TRUSSES
- SUBMIT 3 COPIES FOR REVIEW PRIOR TO FABRICATION FOR:
A) CONCRETE DESIGN MIX
B) CONCRETE INSERTS
C) EPOXY ADHESIVES

INSPECTIONS

- REFERENCE STANDARDS: IBC 110.
INSPECTIONS ARE TO BE PERFORMED BY THE BUILDING OFFICIAL. INSPECTIONS REQUIRED ARE AS FOLLOWS:
- SOIL: VERIFY SUBGRADE IS DRY DENSE AND DOES NOT HAVE STANDING WATER PRIOR TO POURING FOOTINGS.
- CONCRETE: INSPECTIONS REQUIRED ONLY FOR DESIGN MIXES SPECIFIED GREATER THAN 2500 PSI.
TAKE CONCRETE CYLINDERS AS REQUIRED. VERIFY SLUMP AND STRENGTH.
- REINFORCING: VERIFY ALL REINFORCING IS PLACED IN ACCORDANCE WITH APPROVED PLANS. CHECK FOR REQUIRED COVER, SIZE AND GRADE.
- WOOD: DIAPHRAGM NAILING, BLOCKING AND HOLD-DOWN CONNECTIONS.

ALTERNATES:

- ALTERNATE ASSEMBLIES AND MATERIALS WILL BE CONSIDERED FOR REVIEW. ENGINEER MAY REQUEST PAYMENT FOR REVIEW; CONTRACTOR WILL BEAR BURDEN FOR ADDITIONAL PAYMENT AT NO ADDITIONAL COST TO OWNER.

SETTLEMENT SHRINKAGE:

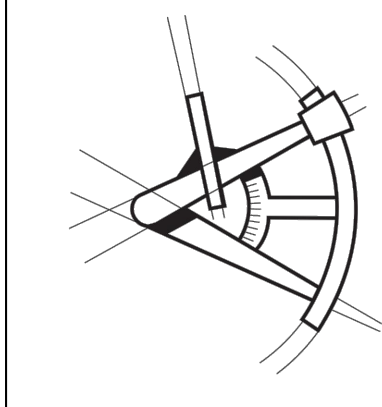
- DUE TO CROSS GRAIN WOOD SHRINKAGE, THIS BUILDING IS EXPECTED TO SETTLE APPROXIMATELY 3/8 INCH PER STORY. ALL PLUMBING AND MECHANICAL DUCTS SHALL BE DESIGNED WITH FLEXIBLE JOINTS OR OTHERS MEANS TO APPROPRIATELY ACCOMMODATE THIS NORMAL SETTLEMENT. ALL INTERIOR AND EXTERIOR SHEATHING AND FINISHES SHALL BE INSTALLED SUCH THAT NO DAMAGE WILL OCCUR. SHRINKAGE IS EXPECTED IN THE DEPTH OF THE FLOOR PLATES AND NOT IN THE LENGTH OF THE WALL STUDS.

JOBSITE SAFETY:

- THE ENGINEER AND/OR ARCHITECT HAVE NOT BEEN RETAINED OR COMPENSATED TO PROVIDE DESIGN AND/OR CONSTRUCTION REVIEW SERVICES RELATED TO THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR THE CONTRACTOR TO PERFORM HIS WORK. THE UNDERTAKING OF PERIODIC SITE VISITS BY THE ENGINEER AND/OR ARCHITECT SHALL NOT BE CONSTRUED AS SUPERVISION OF ACTUAL CONSTRUCTION NOR MAKE HIM RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF WORK BY THE CONTRACTOR, SUBCONTRACTORS, SUPPLIERS OR THEIR EMPLOYEES, OR FOR ACCESS, VISITS, USE, WORK, TRAVEL, OR OCCUPANCY BY ANY PERSON.

ABBREVIATIONS

AB	ANCHOR BOLT	GLB	GLULAM BEAM
ABV	ABOVE	GR	GRADE
AFF	ABOVE FINISH FLOOR	GYP	GYPSUM WALL BOARD
ALT	ALTERNATE	HDG	HOT-DIPPED GALVANIZED
ALUM	ALUMINUM	HDR	HEADER
APPROX	APPROXIMATE	HF	HEM FIR
AYC	ALASKAN YELLOW CEDAR	HGT	HEIGHT
BB	BOX BEAM	HT	HEIGHT
BF	BOTTOM FLUSH	IN	INCH
BLDG	BUILDING	JT	JOINT
BLKG	BLOCKING	MAX	MAXIMUM
BM	BEAM	MIN	MINIMUM
BOT	BOTTOM	MISC	MISCELLANEOUS
BP	BOTTOM PLATE	NB	NON-BEARING
BRG	BEARING	NO	NUMBER
BTWN	BETWEEN	OC	ON CENTER
BSMT	BASEMENT	PL	PLATE
B/W	BOTTOM OF WALL	PSF	POUNDS PER SQUARE FOOT
CANT	CANTILEVER	PSI	POUNDS PER SQUARE INCH
CJ	CONTROL JOINT	PT	PRESSURE TREATED
CLG.	CEILING	RAF	RAFTER
CLJ	CEILING JOIST	REF	REFERENCE
CLR	CLEAR	REINF	REINFORCEMENT
CMU	CONCRETE MASONRY UNIT	REQD	REQUIRED
COL	COLUMN	REQS	REQUIREMENTS
CONC	CONCRETE	SF	SQUARE FOOT
CONN	CONNECTION	SHTG	SHEATHING
CONST	CONSTRUCTION	SIM	SIMILAR
CONT	CONTINUOUS	SPF	SPRUCE PINE FIR
CTR	CENTER	STD	STANDARD
DET	DETAIL	SYP	SOUTHERN YELLOW PINE
DF	DOUGLAS FIR (SOUTH)	T/	TOP OF
DFL	DOUGLAS FIR LARCH	T/BM	TOP OF BEAM
DIM	DIMENSION	T/CONC	TOP OF CONCRETE
DJ	DOUBLE JOIST	T/PL	TOP OF PLATE
DIA	DIAMETER	T/SLAB	TOP OF SLAB
DN	DOWN	T/ST	TOP OF STEEL
DS	DOWN SPOUT	T/W	TOP OF WALL
EA	EACH	TF	TOP FLUSH
EF	EACH FACE	TJ	TRIPLE JOIST
EJ	EXPANSION JOINT	TP	TOP PLATE
ELEV	ELEVATION	TR	THREADED ROD
EN	EDGE NAILING (PANEL)	TYP	TYPICAL
EOR	ENGINEER OF RECORD	UNO	UNLESS NOTED OTHERWISE
EQ	EQUAL	UPA	UNDER POST ABOVE
ES	EACH SIDE	UWA	UNDER WALL ABOVE
EW	EACH WAY	VCB (V.C.B.)	VERTICAL CRUSH BLOCKING
FB	FLUSH BEAM	VERT	VERTICAL
FIN	FINISH	VIF	VERIFY IN FIELD
FL	FLOOR	W/	WITH
FLSHG	FLASHING	WC	WESTERN CEDAR
FND	FOUNDATION	WP	WATERPROOF
FP	FIREPLACE	WWF	WELDED WIRE FABRIC
FT	FOOT		
FTG	FOOTING		
GA	GAUGE		
GALV	GALVANIZED		



REVISIONS	
Δ	DESCRIPTION DATE BY
-	

PROJECT NAME
LITCHFIELD RESIDENCE

9001 SE 50TH ST
MERCER ISLAND, WA 98040

PROJECT NUMBER
S221118-2

DRAWN BY - **BS**

CHECKED BY - **MRT**

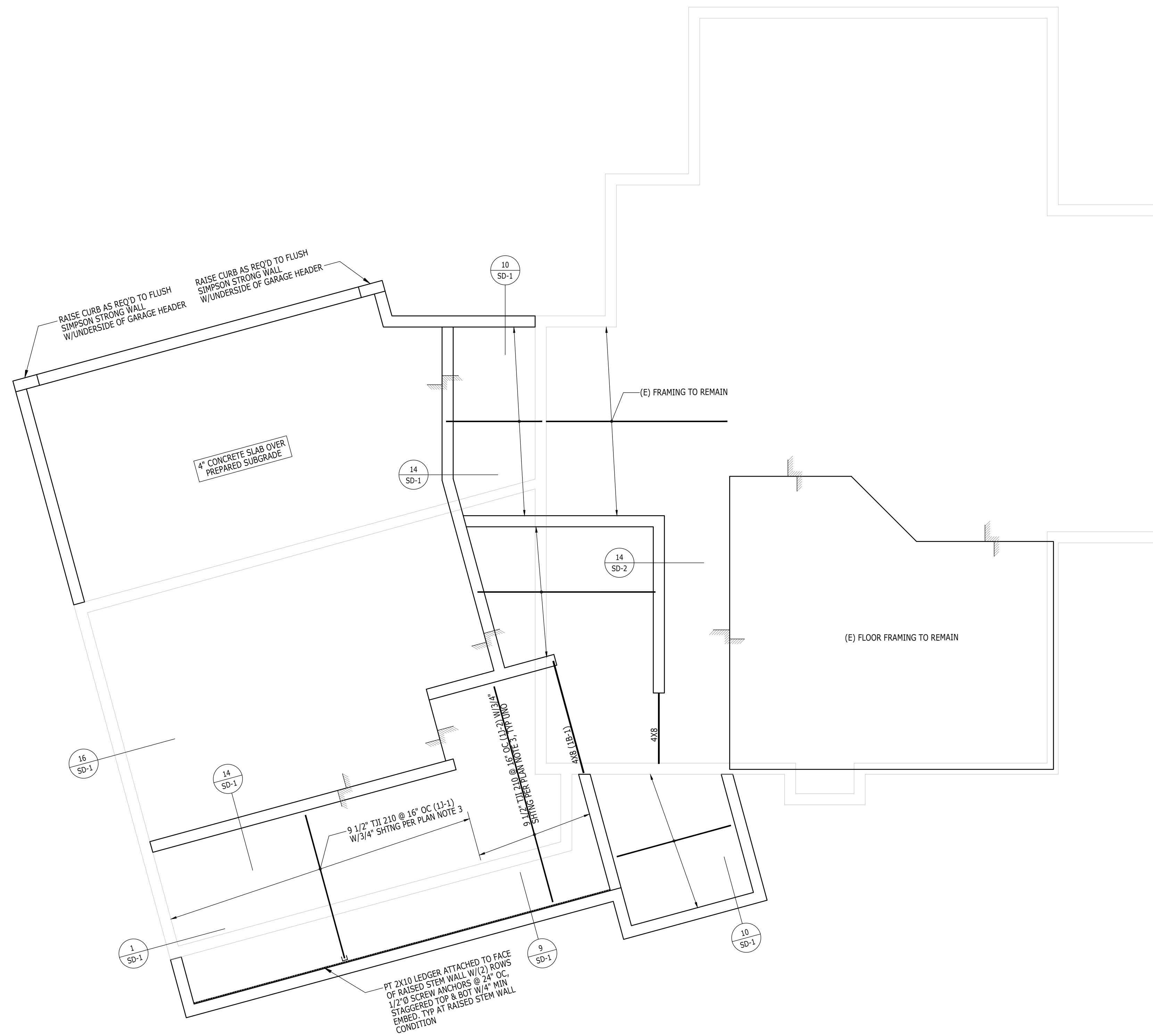
SHEET DATE - **02/17/2023**

SCALE
24X36 SHEET:1/4"=1'-0"

DESCRIPTION	STRUCTURAL GENERAL NOTES	SHEET
		S-1

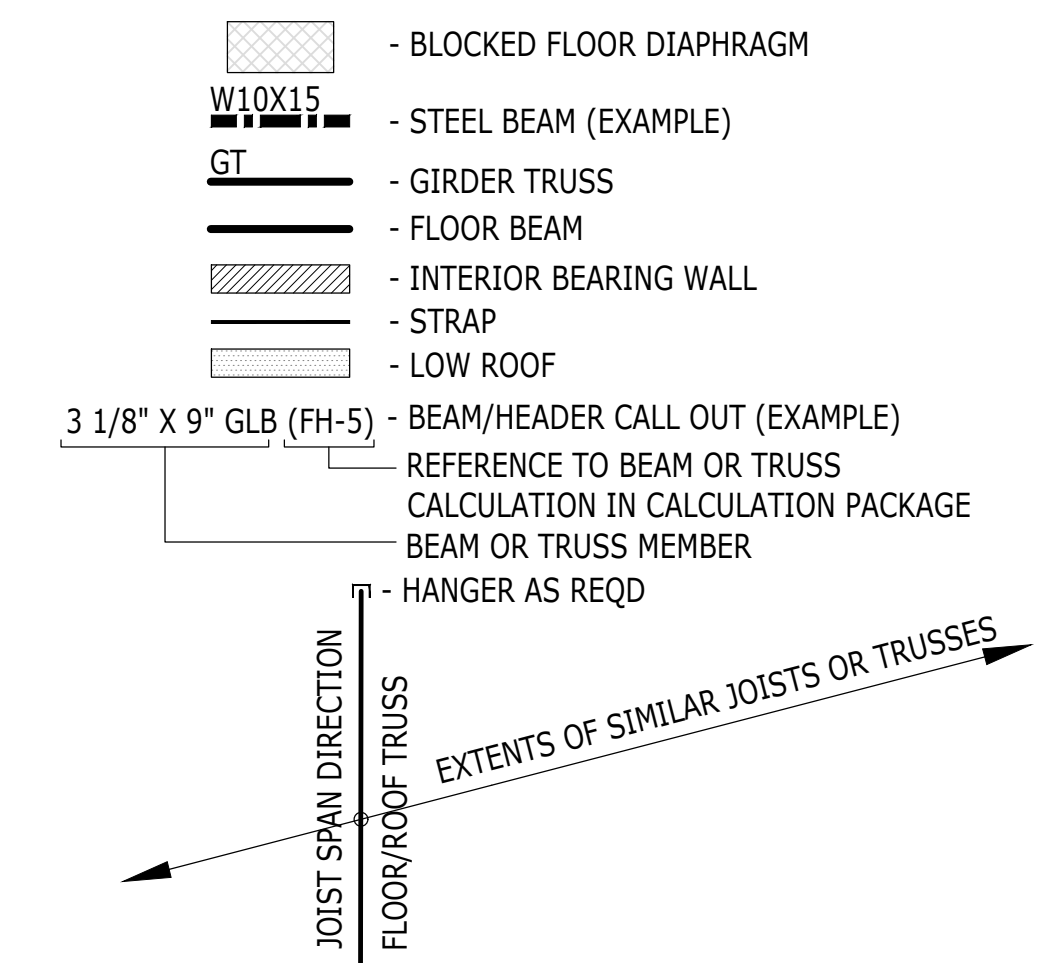
FLOOR FRAMING NOTES

- GENERAL STRUCTURAL NOTES AND ABBREVIATIONS PER SHEET S-1.
- VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCH.
- FLOOR SHEATHING PER GENERAL NOTES. ALL SHEATHING TO BE GLUED AND NAILED TO FRAMING PER MANUFACTURER RECOMMENDATIONS. USE 8d COMMON NAILS (0.131" X 2 1/2") @ 6" O.C. AT PANEL EDGES AND AT ALL FRAMING DESIGNATED "WITH EDGE NAILING" OR "W/EN", AND 12" O.C. IN THE FIELD. UNO. PANEL EDGE JOINTS TO BE STAGGERED BETWEEN ADJACENT PANELS OF SHEATHING. PROVIDE GAP BETWEEN PANELS TO ALLOW FOR NATURAL EXPANSION/CONTRACTION (1/8" GAP TYP).
- LOCATE ALL OPENINGS AND PENETRATIONS AND VERIFY NO CONFLICT WITH FLOOR FRAMING. MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS BY OTHERS.
- ALL WOOD LOCATED WITHIN 8" OF FINISHED GRADE, EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED. ALL FASTENERS IN CONTACT WITH FIRE-RETARDANT OR PRESSURE-TREATED WOOD SHALL BE COVERED IN PROTECTIVE COATING (I.E. HDG OR SIM).
- ALL BEAMS SHALL BE SUPPORTED BY MIN TWO STUDS BELOW EACH END, UNLESS NOTED OTHERWISE ON PLAN. ALL BEAMS SHALL BE FRAMED FLUSH WITH JOISTS UNO. "DROPPED BEAM" OR "DB" INDICATES T/BREAM EQUAL B/JOISTS. "TOP FLUSH" OR "TF" INDICATES T/BREAM EQUAL T/JOISTS AND B/BREAM EXTENDING BELOW B/JOISTS. "BOTTOM FLUSH" OR "BF" INDICATES B/BREAM EQUAL B/JOISTS AND T/BREAM EXTENDING ABOVE T/JOISTS.
- ALL NON-BEARING WALLS TO BE FRAMED MIN 0.25" UNDER FLOOR SYSTEM.
- STUD QUANTITIES, POST SIZE, HOLDOWN, AND SHEARWALL REQUIREMENTS PER WALL FRAMING AND SHEARWALL PLAN BELOW.
- ALL POSTS ABOVE THE FLOOR FRAMING SHALL BE BLOCKED WITHIN THE FLOOR DEPTH ("VERTICAL GRAIN BLKG", "VERTICAL CRUSH BLKG", OR "VCB"). BLOCKING WIDTH SHALL MATCH WIDTH OF POST OR BUNDLED STUDS ABOVE AND EXTEND FULL FLOOR DEPTH.
- HORIZONTAL STRAPS INDICATED ON FRAMING PLANS SHALL BE CENTERED OVER THE TOP PLATE, BEAM, OR BLOCKING. STRAP LENGTH PER PLAN.
- ALL TIES AND HANGERS TO BE MANUFACTURED BY SIMPSON STRONG-TIE. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS. ALTERNATIVE SOLUTIONS SHALL BE SUBMITTED TO EOR FOR APPROVAL PRIOR TO INSTALLATION. REFER TO TYPICAL HANGER SCHEDULE FOR HANGER SIZE UNO ON PLAN OR DETAILS.
- ENGINEERED FLOOR JOISTS AND FLOOR TRUSSES TO BE DESIGNED BY OTHERS. REFER TO STRUCTURAL GENERAL NOTES FOR SUBMITTAL INFORMATION, AND DESIGN CRITERIA.
- FIRE-PROOFING AND MOISTURE-PROOFING REQUIREMENTS BY OTHERS.
- TYPICAL DETAILS:
 - 13/SD-1 TYP DROPPED BEAM AT CUT PLATES
 - 14/SD-1 TYP BEAM-TO-BEAM AND BEAM-TO-BLKG DRAG CONNECTION
 - 15/SD-1 TYP BEAM-TO-T/PL DRAG CONNECTION
 - 16/SD-1 TYP BEAM-TO-BLKG-TO-T/PL CONNECTION
 - 17/SD-1 TYP NON-LOAD BEARING WALL FRAMING
 - 18/SD-1 TYP FRAMING AT INTERIOR BEARING WALL
 - 19/SD-1 TYP FRAMING AT INTERIOR FLUSH BEAM



FIRST FLOOR FRAMING PLAN

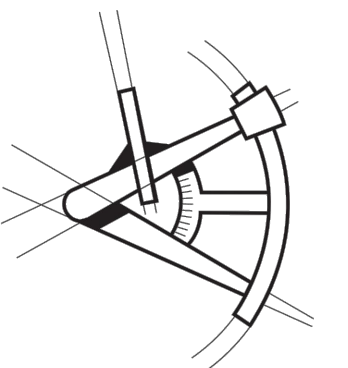
FRAMING LEGEND



TYPICAL JOIST HANGER SCHEDULE			
TJI210			
11 7/8"	2-PLY 11 7/8"	14"	2-PLY 14"
IUS2.06/11.88	MIU4.28/11	IUS2.06/14	MIU4.28/14
2X10			
1-PLY		2-PLY	
LUS210		LUS210-2	
TYPICAL BEAM HANGER SCHEDULE			
LVL / LSL / PSL			
	1 3/4"	3 1/2"	5 1/4"
11 7/8"	HUS1.81/10	HHUS410	HGUS5.50/12
14"	HUS1.81/10	HHUS410	HGUS5.50/14



LONGITUDE
ONE TWENTY[®]
ENGINEERING & DESIGN



REVISIONS

DESCRIPTION	DATE	BY

PROJECT NAME

LITCHFIELD RESIDENCE

9001 SE 50TH ST
MERCER ISLAND, WA 98040

PROJECT NUMBER

S221118-2

DRAWN BY - BS

CHECKED BY - MRT

SHEET DATE - 02/17/2023

SCALE

24X36 SHEET: 1/4" = 1'-0"

FIRST FLOOR FRAMING PLAN

DESCRIPTION

S-3

SHEET

