

# GENERAL NOTES

- A. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL GOVERNING BUILDING CODES AND REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK THAT HAS BEEN PERFORMED WHICH DOES NOT MEET THESE CODES AND REGULATIONS.
- B. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE TO THE DESIGNER'S CONSTRUCTION DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR REPORTING IMMEDIATELY TO THE ARCHITECT ANY DISCREPANCIES OR DETAILS WHICH DO NOT MEET BUILDING CODES AND CONSTRUCTION STANDARDS.
- C. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS ON SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IN THE EVENT OF CONFLICTS OR CHANGES BETWEEN DETAILS, OR BETWEEN THE PLANS AND SPECIFICATIONS, THE DESIGNER SHALL BE NOTIFIED IMMEDIATELY.
- D. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES AND PIPING BEFORE BEGINNING WORK.
- E. THE GC SHALL COORDINATE ALL OPERATIONS WITH THE OWNER, INCLUDING AREA FOR WORK, MATERIALS STORAGE, AND ACCESS TO AND FROM THE WORK, SPECIAL CONDITIONS OR NOISY WORK, TIMING OF WORK AND INTERRUPTION OF MECHANICAL AND ELECTRICAL SERVICES, NOISY OR DISRUPTIVE WORK SHALL BE SCHEDULED AT LEAST ONE (1) WEEK IN ADVANCE OF THE TIME WORK IS TO COMMENCE.
- F. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HIGHEST STANDARD OF WORKMANSHIP IN GENERAL AND WITH SUCH STANDARDS AS ARE SPECIFIED.
- G. GC SHALL SUBMIT SAMPLES OF ALL FINISHES OF SUCH SIZE AND NUMBER THAT THEY REPRESENT A REASONABLE DISTRIBUTION OF COLOR RANGES AND PATTERN PRIOR TO INSTALLATION FOR DESIGNER'S APPROVAL. GC SHALL PROVIDE SHOP DWGS AND PRODUCT DATA FOR DESIGNER'S APPROVAL ON ALL SPECIAL ITEMS REQUIRING CUSTOM FABRICATION (SHALL INCLUDE RATED FIRE DOORS AND HARDWARE).
- H. EXISTING WORK DAMAGED AS A RESULT OF WORK DONE UNDER THIS CONTRACT SHALL BE REPAIRED TO ORIGINAL CONDITION AND FINISHED TO MATCH ADJACENT FINISHES, SUBJECT TO DESIGNER'S APPROVAL, AND AT NO ADDITIONAL COST TO THE OWNER. ALL REPLACEMENT MATERIALS REQUIRED TO MATCH EXISTING MATERIALS SHALL DO SO WITH RESPECT TO TYPE, PATTERN, TEXTURE, SIZE, SHAPE, COLOR AND METHOD OF INSTALLATION INsofar AS PRACTICABLE, AND SHALL BE APPROVED BY THE DESIGNER AND OWNER PRIOR TO INSTALLATION.
- I. MATERIALS, ARTICLES, DEVICES AND PRODUCTS ARE SPECIFIED IN THE DOCUMENTS BY LISTING ACCEPTABLE MANUFACTURERS OR PRODUCTS, BY REQUIRING COMPLIANCE WITH REFERENCED STANDARDS, OR BY PERFORMANCE SPECIFICATIONS. FOR ITEMS SPECIFIED BY NAME, SELECT ANY PRODUCT NAMED, FOR THOSE SPECIFIED BY REFERENCE STANDARDS OR BY PERFORMANCE SPECIFICATIONS SELECT ANY PRODUCT MEETING OR EXCEEDING SPECIFIED CRITERIA. FOR APPROVAL OF AN ITEM NOT SPECIFIED, SUBMIT REQUIRED SUBMITTALS, PROVIDING COMPLETE BACK-UP INFORMATION FOR PURPOSES OF EVALUATION. WHERE BUILDING STANDARD ITEMS ARE CALLED FOR, NO SUBSTITUTE WILL BE ACCEPTED.

# VICINITY MAP



PROJECT LOCATION



# SINGLE FAMILY RESIDENCE ADDITION THE BARNETT RESIDENCE

7530 86TH AVE. SE  
MERCER ISLAND, WASHINGTON 98040

## PROJECT TEAM

**CLIENT:**  
ALEX & BARRETT BARNETT  
7530 86TH AVE SE  
MERCER ISLAND, WA 98040  
TEL.: (206) 890-6262  
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EMAIL: BARNETTAB@HOTMAIL.COM

**ARCHITECT:**  
ARISE DESIGN LAB  
10313 NE 125TH PL  
KIRKLAND, WA 98034  
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**STRUCTURAL:**  
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15306 61ST PLACE NE  
KENMORE, WA 98028  
(425) 318-0031  
PM CONTACT: BASRI BASRI  
EMAIL: BASRI@B2ENGINEERS.COM

## PROJECT DATA

**OWNERS:** ALEX AND BARRETT BARNETT  
**SITE ADDRESS:** 7530 86TH AVE SE  
MERCER ISLAND, WA 98040

**LEGAL DESCRIPTION:**  
MERCER ISLAND ESTATES #2 PLAT LOCK 20

**PARCEL NUMBER:** 545121-0200  
**JURISDICTION:** CITY OF MERCER ISLAND  
**WATER & SEWER DISTRICT:** CITY OF MERCER ISLAND  
**SECTION/TOWNSHIP/RANGE:** SW-30-24-05  
**PROPERTY ZONING:** R9.6  
**LOT SIZE:** 10,658 S.F.

BUILDING SETBACKS:	REQUIRED	PROPOSED
EAST - REAR:	25'-0"	27'-1" (PROPOSED)
WEST - FRONT (SE 86TH AVE SE)	20'-0"	32'-6" (EXISTING)
NORTH - SIDE*:	7'-6"	9'-8" (EXISTING)
	(2 STORY GABLE)	
SOUTH - SIDE*:	7'-6"	8'-8" (EXISTING)
	(2 STORY GABLE)	

\*SIDE = 17% OF LOT AREA: 18'-2" > 16'-2" @ AVERAGE LOT WIDTH (95x.17)

### BUILDING HEIGHT PER R9.6 ZONING:

1ST FINISH FLOOR:	356.375
A.B.E. (SEE CALCULATIONS BELOW)	355.20
EXISTING BUILDING HEIGHT:	377.08
PROPOSED ADDITION BUILDING HEIGHT:	367.75
MAXIMUM ALLOWABLE HEIGHT ABOVE A.B.E.:	386.875 (30'-0")

### BUILDING HEIGHT NOTES:

1. REFER TO PLAN FOR SPOT ELEVATIONS AND BENCHMARK ELEVATION (#).
2. REFER TO BUILDING ELEVATIONS FOR A.B.E. DATUM POINTS AND ROOF RIDGE ELEVATIONS

### BUILDING CONSTRUCTION DATA

OCCUPANCY TYPE: R-3 (SINGLE FAMILY RES.) BUILDING CONSTRUCTION  
TYPE: V-B

GARAGE (EXISTING):	680.00 S.F.
1ST FLOOR (EXISTING):	1,370.00 S.F.
2ND FLOOR (EXISTING):	1,560.00 S.F. (33.9%)
TOTAL FLOOR AREA:	3,610.00 S.F. (33.9%)
ALLOWABLE GROSS FLOOR AREA:	4,263.20 S.F. (40.0%)

### LOT COVERAGE CALCULATIONS (LOT SLOPE <15%):

MAIN STRUCTURE FLOOR AREA:	2435.00 S.F.
PROPOSED COVERED DECK:	406.00 S.F.
ACCESSORY SHED ROOF AREA:	32.40 S.F.
VEHICULAR USE:	1113.21 S.F.
TOTAL LOT COVERAGE:	3,986.61 S.F./37.41%
ALLOWABLE LOT COVERAGE:	4,263.20 S.F./40.0%

### HARDSCAPE CALCULATIONS:

NEW DECK (<30" ABOVE GRADE):	288.48 S.F.
TOTAL HARDSCAPE:	288.48 S.F./ 2.71%
ALLOWABLE HARDSCAPE:	998.22 S.F./ 9.00%

\*\*<500 S.F. OF NEW/REPLACED IMPERVIOUS SURFACE

### TREES:

NO SIGNIFICANT TREES SHALL BE REMOVE OR IMPACTED IN CONSTRUCTION WITH THE SCOPE OF WORK STATED IN THE BUILDING PERMIT.

### ENERGY CREDITS:

EFFICIENT FURNACE (3A):	1.0
TOTAL CREDITS:	1.0

## SHEET INDEX

ARCHITECTURAL:	
A0.1	COVER SHEET
A0.2	IRC GENERAL CODE NOTES
A1.1	SITE PLAN
A2.1D	DEMOLITION MAIN FLOOR PLAN
A2.1	MAIN FLOOR PLAN
A2.3	ROOF PLAN
A3.1	ELEVATIONS
A4.1	SECTIONS
A5.1	FRAMING DETAILS
A5.3	WATERPROOFING & AIR BARRIER NOTES & DETAILS
A6.1	WINDOW SCHEDULE
STRUCTURAL:	
S-0	GENERAL NOTES & SPECIFICATIONS
S-1	FRAMING PLANS
S-2	FRAMING PLANS
S-3	FRAMING DETAILS
S-4	FRAMING DETAILS

## DEFERRED SUBMITTALS

- MECHANICAL:**
1. THE MECHANICAL WORK FOR THE PROJECT SHALL BE PERFORMED AS DESIGN-BUILD. THE GENERAL CONTRACTOR SHALL SUBMIT WITH THE BID A PROPOSED HVAC AND PLUMBING DRAWING THAT COORDINATES WITH THE DESIGN DRAWINGS.
  2. THE GENERAL CONTRACTOR'S MECHANICAL SUBCONTRACTOR WILL BE RESPONSIBLE FOR APPLYING FOR AND SECURING ALL NECESSARY MECHANICAL PERMITS.
  3. THE GENERAL CONTRACTOR'S PLUMBING SUBCONTRACTOR WILL BE RESPONSIBLE FOR APPLYING FOR AND SECURING ALL NECESSARY PLUMBING PERMITS.
- ELECTRICAL:**
1. THE ELECTRICAL WORK FOR THE PROJECT SHALL BE PERFORMED AS DESIGN-BUILD. THE GENERAL CONTRACTOR SHALL SUBMIT WITH THE BID A PROPOSED ELECTRICAL DRAWING THAT COORDINATES WITH THE DESIGN DRAWINGS.
  2. THE GENERAL CONTRACTOR'S ELECTRICAL SUBCONTRACTOR WILL BE RESPONSIBLE FOR APPLYING FOR AND SECURING ALL NECESSARY ELECTRICAL PERMITS.
- DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE DESIGNER WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND BEEN FOUND TO BE IN GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

## ABBREVIATIONS

A.C.	AIR CONDITIONER	EXH.	EXHAUST	MTL.	METAL	REQ'D.	REQUIRED
ACOUS.	ACOUSTICAL	EXIST.	EXISTING	MFG.	MANUFACTURING	R.O.	ROUGH OPENING
ADJ.	ADJUSTABLE, ADJACENT	EXP.	EXPANSION	MFR.	MANUFACTURER	SCHED.	SCHEDULE
ALUM.	ALUMINUM	EXT.	EXTERIOR	M.H.	MANHOLE	S.C.	SOLID CORE
ANOD.	ANODIZED	F.D.	FLOOR DRAIN	MIN.	MINIMUM	SHT.	SHEET
APPROX.	APPROXIMATE	FDN.	FOUNDATION	MISC.	MISCELLANEOUS	SIM.	SIMILAR
ASR.	AUTOMATIC SPRINKLER RISER	FF.	FACTORY FINISH	M.O.	MASONRY OPENING	S.I.O.	SUPPLIED & INSTALLED BY OWNER
BD.	BOARD	FHS	FLAT HEAD SCREW	M.R.	MOISTURE RESISTANT	S.O.I.C.	SUPPLIED BY OWNER
BLDG.	BUILDING	F.L.	FLOOR	MULL.	MULLION	INST.	INSTALLED BY CONTRACTOR
BLK.	BLOCK	F.I.O.	FURNISHED & INSTALLED BY OWNER	MTD.	MOUNTED	SPEC'D.	SPECIFIED
BLK'G.	BLOCKING	F.R.P.P.	FIBER REINFORCED PLASTIC PANEL(S)	MTG.	MOUNTING	SQ.	SQUARE
BM.	BEAM	FTG.	FOOTING	N.I.C.	NOT IN CONTRACT	S.S.	SERVICE SINK, SANITARY SEWER
BOT.	BOTTOM	GA.	GAUGE	NOM.	NOMINAL	SST	STAINLESS STEEL
BTW.	BETWEEN	GALV.	GALVANIZED	N.T.S.	NOT TO SCALE	STD.	STANDARD
CB.	CATCH BASIN	G.I.	GALVANIZED IRON	O.A.	OVERALL	STRUC.T.	STRUCTURE, STRUCTURAL
C.I.	CAST IRON	GLP	GYPSPUM LATH & PLASTER	O.H.	OVERHEAD	SUSP.	SUSPENDED
C.I.P.	CAST IN PLACE	GWB	GYPSPUM WALLBOARD	OP'G.	OPENING	SYS.	SYSTEM
CL.	CENTER LINE	H.B.	HOSE BIBB	OPP.	OPPOSITE	T	TREAD, TOP
CLG.	CeILING	H.C.	HANDICAPPED	PTN.	PARTITION	T&B	TOP & BOTTOM
CMU	CONCRETE MASONRY UNIT	H.M.	HOLLOW METAL	PERP.	PERPENDICULAR	TEL.	TELEPHONE
COL.	COLUMN	HORIZ.	HORIZONTAL	PL.	PLATE, PROPERTY LINE	TEMP.	TEMPERED
CONC.	CONCRETE	HT.	HEIGHT	PLAS.LAM.	PLASTIC LAMINATE	T&G	TONGUE & GROOVE
CONT.	CONTINUOUS	HTR.	HEATER	PLYWD.	PLYWOOD	T.G.	TEMPERED GLASS
CONSTR.	CONSTRUCTION	INSUL.	INSULATION	PLBG.	PLUMBING	TYP.	TYPICAL
CONTR.	CONTRACTOR	JT./JTS.	JOINT, JOINTS	PNL.	PANEL, PANELING	UTIL.	UTILITY
C.T.	CERAMIC TILE	L.	LENGTH	PR.	PAIR	U.B.C.	UNIFORM BUILDING CODE
DBL.	DOUBLE	L.A.M.	LAMINATE, LAMINATED	PROJ.	PROJECT	U.O.N.	UNLESS OTHERWISE NOTED
DF.	DETAIL	L.F.	LINEAR FOOT, LINEAL FOOT	PRV	PRESSURE REDUCING	V.C.T.	VINYL COMPOSITION TILE
DRINKING FOUNTAIN		L.I.Q.	LIQUID	PT.	POINT	VERT.	VERTICAL
D.S.	DOWNSPOUT	LT.WT.	LIGHT WEIGHT	Q.T.	QUARRY TILE	W/.	WITH
DRWG.	DRAWING	LX.	MAXIMUM	QTR.	QUARTER	W/O	WITHOUT
EA.	EACH	LX.	MAXIMUM	R	RADIUS	WDW.	WINDOW
E.F.S.	EXTERIOR FINISH SYSTEM	M.A.S.	MASONRY	R.D.	ROOF DRAIN	W.P.R.	WATERPROOF
E.I.F.S.	EXTERIOR INSULATION & FINISH SYSTEM	M.B.S.	METAL BUILDING SUPPLIER	R.L.	RAIN LEADER	WT.	WEIGHT
ELEV.	ELEVATION, ELEVATOR	MECH.	MECHANICAL	REC'D.	RECEIVED	W.W.M	WELDED WIRE MESH
ELEC.	ELECTRICAL	MEZZ.	MEZZANINE	REF.	REFRIGERATOR	W.W.F.	WELDED WIRE FABRIC
ENCL.	ENCLOSURE	EQ.	EQUAL	REINF.	REINFORCING	Y.D.	YARD DRAIN

## LEGEND OF SYMBOLS

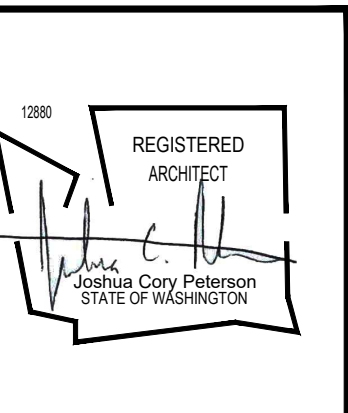
1	REVISION NO. (TITLE BLOCK SHOWS REV. DATE)	1	WINDOW SCHEDULE KEY
1	INDICATES REVISED AREA	ROOM NAME	ROOM NAME
1	DETAIL NO. DESIGNATION	XXX	ROOM NO.
1	SHEET THAT DETAIL IS SHOWN	XXX S.F.	ROOM AREA
1	BLDG. SECTION NO.	PL-1	FINISH SCHEDULE KEY
1	SHEET THAT SECTION IS SHOWN	01	EQUIP. SCHEDULE KEY
1	WALL SECTION NO.	X-2	CASEWORK DTL. NO.
1	SHEET THAT SECTION IS SHOWN	XXXX	SHEET NO.
1	INTERIOR ELEV. NO.	1-1	WALL TYPE NO.
1	WALL ORIENTATION	1-1	INSULATION KEY
1	SHEET THAT INTERIOR ELEV. IS SHOWN	1-1	WALL TYPE LETTER
1	TRUE NORTH	+	DATUM POINT
1	SHEET KEY NOTE	+8'-0" A.F.F.	CEILING HEIGHT
1	DOOR SCHEDULE KEY (CORRESP. TO ROOM NO. WHERE DOOR OCCURS)	ACT	FINISH CEILING TYPE
1	DOOR SUFFIX	9.5	GRID DESIGNATION
1		1/4-12	ROOF SLOPE AND DIRECTION KEY
1			BREAK LINE SYMBOL
1			MATCH LINE

## SCOPE OF WORK

INTERIOR REMODEL OF KITCHEN/DINING ROOM AND NEW 406 S.F. COVERED OUTDOOR AREA. REMOVAL OF EXISTING BAY WINDOW AND INTERIOR DEMOLITION OF EXISTING KITCHEN TO ENLARGE DINING ROOM/SEATING AREA. PROPOSED DECK IS <30" ABOVE GRADE, NO PERMIT REQUIRED, INCLUDED FOR LOT COVERAGE REQUIREMENTS ONLY.

## DESIGN CODES

2015	INTERNATIONAL RESIDENTIAL CODE WITH WASHINGTON STATE AND CITY OF MERCER ISLAND AMENDMENTS
2015	INTERNATIONAL FIRE CODE
2015	INTERNATIONAL MECHANICAL CODE
2015	INTERNATIONAL FUEL GAS CODE
2015	UNIFORM PLUMBING CODE
2017	NATIONAL ELECTRIC CODE
2015	WASHINGTON STATE ENERGY CODE
	MERCER ISLAND MUNICIPAL CODE



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BARNETT RESIDENCE  
ADDITION/REMODEL  
7530 86TH AVE S.E.  
MERCER ISLAND, WA 98040

REVISIONS		
NO.	DATE	BY
1	09/09/2021	CONST. REV
2		
3		
4		
5		
6		

ISSUE DATES

DESIGN APPROVAL:  
PERMIT SUBMITTAL: 12/09/2020  
PERMIT RECEIVED: 07/26/2021  
BID DOCS:  
CONSTR. DOCS:

24"x36" SCALE:	AS NOTED
PLOT DATE:	09/09/2021
CAD FILE:	A20-01 A0.1
JOB NUMBER:	A20-010
CHECKED:	JCP
DRAWN:	JCP
STATUS:	UNDER CONSTRUCTION

COVER SHEET AND VICINITY MAP  
**A0.1**

## BUILDING PLANNING (CHAP. 3)

**HABITABLE SPACE (SECTION R302.2):** A SPACE IN A BUILDING FOR LIVING, SLEEPING, EATING OR COOKING. BATHROOMS, TOILET ROOMS, CLOSETS, HALLS, STORAGE OR UTILITY SPACES AND SIMILAR AREAS ARE NOT CONSIDERED HABITABLE SPACES.

**LIGHT, VENTILATION AND HEATING IN HABITABLE ROOMS (SECTION R303.1):** ALL HABITABLE ROOMS SHALL HAVE AN AGGREGATE GLAZING AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF SUCH ROOMS. NATURAL VENTILATION SHALL BE THROUGH WINDOWS, DOORS, LOUVERS OR OTHER APPROVED OPENINGS TO THE OUTDOOR AIR. SUCH OPENINGS SHALL BE PROVIDED WITH READY ACCESS OR SHALL OTHERWISE BE READILY CONTROLLABLE BY THE BUILDING OCCUPANTS. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE 4 PERCENT OF THE FLOOR AREA BEING VENTILATED.

EXCEPTIONS:

1. THE GLAZED AREAS NEED NOT BE OPERABLE WHERE THE OPENING IS NOT REQUIRED BY SECTION R310 AND AN APPROVED MECHANICAL VENTILATION SYSTEM IS PROVIDED CAPABLE OF PRODUCING 0.35 AIR CHANGES PER HOUR OR THE ROOM OR A WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM IS INSTALLED CAPABLE OF SUPPLYING OUTDOOR VENTILATION AIR OF 15 CUBIC FEET PER MINUTE (CFM) PER OCCUPANT COMPUED ON THE BASIS OF TWO OCCUPANTS FOR THE FIRST BEDROOM AND ONE OCCUPANT FOR EACH ADDITIONAL BEDROOM.

2. THE GLAZED AREAS NEED NOT BE PROVIDED IN ROOMS WHERE EXCEPTION 1 ABOVE IS SATISFIED AND ARTIFICIAL LIGHT IS PROVIDED CAPABLE OF PRODUCING AN AVERAGE ILLUMINATION OF 1 FOOT-CANDELES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES ABOVE THE FLOOR LEVEL.

**LIGHT, VENTILATION AND HEATING IN ADDING ROOMS (SECTION R303.2):** FOR THE PURPOSE OF DETERMINING LIGHT AND VENTILATION REQUIREMENTS, ANY ROOM SHALL BE CONSIDERED AS A PORTION OF AN ADDING ROOM WHEN AT LEAST ONE-HALF OF THE AREA OF THE CEILING SHALL BE OPEN AND UNOBSTRUCTED AND PROVIDES AN OPENING OF NOT LESS THAN ONE-TENTH OF THE FLOOR AREA OF THE INTERIOR ROOM BUT NOT LESS THAN 25 SQUARE FEET.

EXCEPTION: OPENINGS REQUIRED FOR LIGHT AND/OR VENTILATION SHALL BE PERMITTED TO OPEN INTO A THERMALLY ISOLATED SUNROOM ADDITION OR PATIO COVER, PROVIDED THAT THERE IS AN OPENABLE AREA BETWEEN THE ADDING ROOM AND THE SUNROOM ADDITION OR PATIO COVER OF NOT LESS THAN ONE-TENTH OF THE FLOOR AREA OF THE INTERIOR ROOM BUT NOT LESS THAN 20 SQUARE FEET. THE MINIMUM OPENABLE AREA TO THE OUTDOORS SHALL BE BASED UPON THE TOTAL FLOOR AREA BEING VENTILATED.

**LIGHT, VENTILATION AND HEATING IN BATHROOMS (SECTION R303.3):** BATHROOMS, WATER CLOSET COMPARTMENTS AND OTHER SIMILAR ROOMS SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA IN WINDOWS OF NOT LESS THAN 3 SQUARE FEET, ONE-HALF OF WHICH MUST BE OPENABLE. EXCEPTION: THE GLAZED AREAS SHALL NOT BE REQUIRED WHERE ARTIFICIAL LIGHT AND A MECHANICAL VENTILATION SYSTEM ARE PROVIDED. THE MINIMUM VENTILATION RATES SHALL BE AS FOLLOWS: NATURAL VENTILATION OR 20 CFM FOR CONTINUOUS VENTILATION. VENTILATION AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTSIDE.

**CEILING HEIGHT (SECTION R303.5):** HABITABLE SPACE, HALLWAYS, CORRIDORS, BATHROOMS, TOILET ROOMS, LAUNDRY ROOMS AND BASEMENTS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7 FEET. THE REQUIRED HEIGHT SHALL BE MEASURED FROM THE FINISH FLOOR TO THE LOWEST PROJECTION FROM THE CEILING.

EXCEPTIONS:

1. FOR ROOMS WITH SLOPED CEILINGS, AT LEAST 50 PERCENT OF THE REQUIRED AREA OF A ROOM MUST HAVE A CEILING HEIGHT OF AT LEAST 7 FEET AND NO PORTION OF THE REQUIRED FLOOR AREA MAY HAVE A CEILING HEIGHT OF LESS THAN 5 FEET.

2. BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF 6 FEET 8 INCHES AT THE CENTER OF THE FRONT CLEARANCE AREA FOR FIXTURES AS SHOWN IN FIGURE R303.7.1. THE CEILING HEIGHT ABOVE FIXTURES SHALL BE SUCH THAT THE FIXTURE IS CAPABLE OF BEING USED FOR ITS INTENDED PURPOSE. A SHOWER OR TUB EQUIPPED WITH A SHOWERHEAD SHALL HAVE A MINIMUM CEILING HEIGHT OF 6 FEET 8 INCHES ABOVE A MINIMUM 30 INCHES BY 30 INCHES SHOWER.

**BASEMENTS:** PORTIONS OF BASEMENTS THAT DO NOT CONTAIN HABITABLE SPACE, HALLWAYS, BATHROOMS, TOILET ROOMS AND LAUNDRY ROOMS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 6 FEET 8 INCHES.

EXCEPTIONS:

1. BEAMS, GIRDERS, DUCTS, OR OTHER OBSTRUCTIONS MAY PROJECT TO WITHIN 6 FEET 4 INCHES OF THE FINISHED FLOOR.

**TOILET SPACES (SECTION R303.7):** WATER CLOSET COMPARTMENTS ARE TO BE A MINIMUM 30 INCHES WIDE WITH A MINIMUM OF 21 CLEAR SPACE IN FRONT OF THE FIXTURE.

**BATHUB AND SHOWER SPACES (SECTION R303.7):** BATHUB AND SHOWER FLOORS AND WALLS ABOVE BATHUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.

**CLOTHES DRYERS EXHAUST (SECTION M350.2):** DRYER EXHAUST SYSTEMS SHALL BE INDEPENDENT OF ALL OTHER SYSTEMS, SHALL CONVEY THE MOISTURE TO THE OUTDOORS AND SHALL TERMINATE ON THE OUTSIDE OF THE BUILDING. EXHAUST DUCT TERMINATIONS SHALL BE IN ACCORDANCE WITH THE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SCREENS SHALL NOT BE INSTALLED AT THE DUCT TERMINATION. EXHAUST DUCTS SHALL NOT BE JOINED WITH SCREENS OR FASTENERS THAT PROTRUDE INTO THE INSIDE OF THE DUCT.

**EXHAUST DUCTS SHALL BE EQUIPPED WITH A BACKDRIFT DAMPER. EXHAUST DUCTS SHALL BE CONSTRUCTED OF MINIMUM 4 INCHES NOMINAL DIAMETER AND 0.015-INCH-THICK RIGID METAL DUCTS, HAVING SMOOTH INTERIOR SURFACES WITH JOINTS RUNNING IN THE DIRECTION OF AIR FLOW. FLEXIBLE TRANSDUCTION DUCTS USED TO CONNECT THE DRYER TO THE EXHAUST DUCT SYSTEM SHALL BE LIMITED TO A SINGLE LENGTH THAT IS LISTED AND LABELED IN ACCORDANCE WITH UL 2158A. TRANSDUCTION DUCTS SHALL BE A MAXIMUM OF 8 FEET IN LENGTH. TRANSDUCTION DUCTS SHALL NOT BE CONCEALED WITHIN CONSTRUCTION.**

EXCEPTION: THIS SECTION SHALL NOT APPLY TO LISTED AND LABELED CONDENSING (DUCTLESS) CLOTHES DRYERS.

**CLOTHES DRYER LENGTH LIMITATION (SECTION M350.2):** THE MAXIMUM LENGTH OF A CLOTHES DRYER EXHAUST DUCT SHALL BE 35 FEET FROM THE DRYER CONNECTION TO THE OUTLET TERMINAL WHERE FITTINGS ARE USED. THE MAXIMUM LENGTH OF THE EXHAUST DUCT SHALL BE REDUCED IN ACCORDANCE WITH IBC TABLE M350.2.4.1.

ALTERNATELY, THE SIZE AND MAXIMUM LENGTH OF THE EXHAUST DUCT SHALL BE DETERMINED BY THE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS. THE CODE OFFICIAL SHALL BE PROVIDED WITH A COPY OF THE INSTALLATION INSTRUCTIONS FOR THE MAKE AND MODEL OF THE DRYER AND THE CONDENSATION INSPECTOR. **RANGE HOODS (SECTION M303.3):** RANGE HOODS SHALL DISCHARGE TO THE OUTDOORS THROUGH A SINGLE-WALL DUCT. THE DUCT SERVING THE HOOD SHALL HAVE A SMOOTH INTERIOR SURFACE, SHALL BE AIR-TIGHT, SHALL BE EQUIPPED WITH A BACKDRIFT DAMPER, AND SHALL BE INDEPENDENT OF ALL OTHER EXHAUST SYSTEMS. DUCTS SERVING RANGE HOODS SHALL NOT TERMINATE IN AN ATTIC OR CRAWL SPACE OR AREAS INSIDE THE BUILDING.

EXCEPTIONS: WHERE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND WHERE MECHANICAL OR NATURAL VENTILATION IS OTHERWISE PROVIDED, LISTED AND LABELED DUCTLESS RANGE HOODS SHALL NOT BE REQUIRED TO DISCHARGE TO THE OUTDOORS.

## STAIRWAYS (SECTION R311.7)

**UNDER STAIR PROTECTION (SECTION 302.7):** ENCLOSED ACCESSIBLE SPACE UNDER STAIRS SHALL HAVE WALLS, UNDER STAIR SURFACE AND ANY SOFFITS PROTECTED ON THE ENCLOSED SIDE WITH 1/2-INCH GYPSUM BOARD. **WIDTH (R311.7.1):** STAIRWAYS SHALL NOT BE LESS THAN 36 INCHES CLEAR WIDTH AT ALL POINTS ABOVE THE PERMITTED HANDRAIL HEIGHT AND BELOW THE REQUIRED HEADROOM HEIGHT. HANDRAILS SHALL NOT PROJECT MORE THAN 4.5 INCHES ON EITHER SIDE OF THE STAIRWAY AND THE MINIMUM CLEAR WIDTH OF THE STAIRWAY AT AND BELOW THE HANDRAIL HEIGHT, INCLUDING TREADS AND LANDINGS, SHALL NOT BE LESS THAN 31-1/2 INCHES WHERE A HANDRAIL IS INSTALLED ON ONE SIDE AND 27 INCHES WHERE HANDRAILS ARE PROVIDED ON BOTH SIDES.

EXCEPTION: THE WIDTH OF SPIRAL STAIRWAYS SHALL BE IN ACCORDANCE WITH SECTION R311.7.1.0.1.

**HEADROOM:** THE MINIMUM HEADROOM IN ALL PARTS OF THE STAIRWAY SHALL NOT BE LESS THAN 6 FEET 8 INCHES MEASURED VERTICALLY FROM THE SLOPED LINE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE OF THE LANDING OR PLATFORM ON THAT PORTION OF THE STAIRWAY.

EXCEPTION: WHERE THE NOSINGS OF TREADS AT THE SIDE OF A FLIGHT EXTEND UNDER THE EDGE OF A FLOOR OPENING THROUGH WHICH THE STAIR PASSES, THE FLOOR OPENING SHALL BE ALLOWED TO PROJECT HORIZONTALLY INTO THE REQUIRED HEADROOM A MAXIMUM OF 4-3/4 INCHES.

**WALKLINE:** THE WALKLINE ACROSS WINDER TREADS SHALL BE CONCENTRIC TO THE CURVED DIRECTION OF TRAVEL THROUGH THE TURN AND LOCATED 12 INCHES FROM THE SIDE WHERE THE WINDERS ARE NARROWER. THE 12-INCH DIMENSION SHALL BE MEASURED FROM THE WIDEST POINT OF THE CLEAR STAIR WIDTH AT THE WALKING SURFACE OF THE WINDER. IF WINDERS ARE ADJACENT WITHIN THE FLIGHT, THE POINT OF THE WIDEST CLEAR STAIR WIDTH OF THE ADJACENT WINDERS SHALL BE USED.

**RISER HEIGHT:** THE MAXIMUM RISER HEIGHT SHALL BE 7-3/4 INCHES. THE RISER SHALL BE MEASURED VERTICALLY BETWEEN LEADING EDGES OF THE ADJACENT TREADS. THE GREATEST RISER HEIGHT WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8 INCH.

**TREAD DEPTH:** THE MINIMUM TREAD DEPTH SHALL BE 10 INCHES. THE TREAD DEPTH SHALL BE MEASURED HORIZONTALLY BETWEEN THE VERTICAL PLANES OF THE FOREMOST PROJECTION OF ADJACENT TREADS AND AT A RIGHT ANGLE TO THE TREAD'S LEADING EDGE. THE GREATEST TREAD DEPTH WITHIN ANY FLIGHT OF STAIRS SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8 INCH. CONSISTENTLY SHAPED TREADS AT THE WALKLINE SHALL BE ALLOWED WITHIN THE SAME FLIGHT OF STAIRS AS RECTANGULAR TREADS AND DO NOT HAVE TO BE WITHIN 3/8 INCH OF THE RECTANGULAR TREAD DEPTH.

**WINDER TREADS:** SHALL HAVE A MINIMUM TREAD DEPTH OF 10 INCHES MEASURED BETWEEN THE VERTICAL PLANES OF THE FOREMOST PROJECTION OF ADJACENT TREADS AT THE INTERSECTIONS WITH THE WALKLINE. WINDER TREADS SHALL HAVE A MINIMUM TREAD DEPTH OF 6 INCHES AT ANY POINT WITHIN THE CLEAR WIDTH OF THE STAIR. WITHIN ANY FLIGHT OF STAIRS, THE LARGEST WINDER TREAD DEPTH AT THE WALKLINE SHALL NOT EXCEED THE SMALLEST WINDER TREAD BY MORE THAN 3/8 INCH.

**NOSINGS:** THE RADIUS OF CURVATURE IN THE NOSING SHALL BE NO GREATER THAN 9/16 INCH. A NOSING NOT LESS THAN 3/4 INCH BUT NOT MORE THAN 1-1/4 INCHES SHALL BE PROVIDED ON STAIRWAYS WITH SOLID RISERS. THE GREATEST NOSING PROJECTION SHALL NOT EXCEED THE SMALLEST NOSING PROJECTION BY MORE THAN 3/8 INCH BETWEEN AND BETWEEN THE NOSINGS AT THE LEVEL OF FLOORS AND LANDINGS.

**BEVELING OF NOSINGS:** SHALL NOT EXCEED 1/2 INCH RISERS SHALL BE VERTICAL OR SLOPED UNDER THE TREAD ABOVE FROM THE UNDERSIDE OF THE NOSING ABOVE AT AN ANGLE NOT MORE THAN 30 DEGREES FROM THE VERTICAL. OPEN RISERS ARE PERMITTED, PROVIDED THAT THE OPENING BETWEEN TREADS DOES NOT PERMIT THE PASSAGE OF A 4-INCH DIAMETER SPHERE.

EXCEPTIONS: A NOSING IS NOT REQUIRED WHERE THE TREAD DEPTH IS A MINIMUM OF 11 INCHES.

## HANDRAILS:

HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH FOUR OR MORE RISERS.

**HEIGHT:** HANDRAIL HEIGHT, MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING OR FINISH SURFACE OF RAMP SLOPE, SHALL BE NOT LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES.

EXCEPTIONS:

1. THE USE OF A VOLUTE, TURNOUT OR STARTING CASING SHALL BE ALLOWED OVER THE LOWEST TREAD.

2. WHEN HANDRAIL FITTINGS OR BENDINGS ARE USED TO PROVIDE CONTINUOUS TRANSITION BETWEEN FLIGHTS, THE TRANSITION FROM HANDRAIL TO GUARDRAIL OR FROM GUARDRAIL TO HANDRAIL, THE HANDRAIL HEIGHT AT THE FITTINGS OR BENDINGS SHALL BE PERMITTED TO EXCEED THE MAXIMUM HEIGHT.

**CONTINUITY:** HANDRAILS FOR STAIRWAYS SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE FLIGHT, FROM A POINT DIRECTLY ABOVE THE TOP RISER OF THE FLIGHT TO A POINT DIRECTLY ABOVE THE LOWEST RISER OF THE FLIGHT. HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NIPEL POSTS OR SAFETY TERMINALS. HANDRAILS ADJACENT TO A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1-1/2 INCH BETWEEN THE WALL AND THE HANDRAILS.

EXCEPTIONS:

1. HANDRAILS SHALL BE PERMITTED TO BE INTERRUPTED BY A NIPEL POST AT THE TURN.

2. THE USE OF A VOLUTE, TURNOUT, TURNING CASING OR STARTING NIPEL SHALL BE ALLOWED OVER THE LOWEST TREAD.

**GRIP-SIZE:** ALL REQUIRED HANDRAILS SHALL BE OF ONE OF THE FOLLOWING TYPES OR PROVIDE EQUIVALENT GRASPABILITY.

TYPE I. HANDRAILS WITH A CIRCULAR CROSS SECTION SHALL HAVE AN OUTSIDE DIAMETER OF AT LEAST 1-1/2 INCHES AND NOT GREATER THAN 2 INCHES. IF THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER DIMENSION OF AT LEAST 4 INCHES AND NOT GREATER THAN 6-1/4 INCHES WITH A MAXIMUM CROSS SECTION OF DIMENSION OF 2-1/4 INCHES. EDGES SHALL HAVE A MINIMUM RADIUS OF 0.01 INCH.

TYPE II. HANDRAILS WITH A PERIMETER GREATER THAN 6-1/4 INCHES SHALL HAVE A GRASPABLE FINGER RECESS AREA ON BOTH SIDES OF THE PROFILE. THE FINGER RECESS SHALL BEGIN WITH AN DISTANCE OF 3/4 INCH MEASURED VERTICALLY FROM THE TALLEST PORTION OF THE PROFILE AND ACHIEVE A DEPTH OF AT LEAST 5/16 INCH WITHIN 7/8 INCH BELOW THE WIDEST PORTION OF THE PROFILE. THIS REQUIRED DEPTH SHALL CONTINUE FOR AT LEAST 3/8 INCH TO A LEVEL THAT IS NOT LESS THAN 1-3/4 INCHES BELOW THE TALLEST PORTION OF THE PROFILE. THE MINIMUM WIDTH

OF THE HANDRAIL ABOVE THE RECESS SHALL BE 1-1/4 INCHES TO A MAXIMUM OF 2-3/4 INCHES. EDGES SHALL HAVE A MINIMUM RADIUS OF 0.01 INCH.

## GUARDS (SECTION R312)

GUARDS SHALL BE LOCATED ALONG OPEN-SIDED WALKING SURFACES, INCLUDING STAIRS, RAMPS AND LANDINGS, THAT ARE LOCATED MORE THAN 30 INCHES MEASURED VERTICALLY TO THE FLOOR OR GRADE BELOW AT A POINT WITHIN 36 INCHES HORIZONTALLY TO THE EDGE OF THE OPEN SIDE. INSECT SCREENING SHALL NOT BE CONSIDERED AS A GUARD.

**HEIGHT:** REQUIRED GUARDS AT OPEN-SIDED WALKING SURFACES, INCLUDING STAIRS, PORCHES, BALCONIES OR LANDINGS, SHALL BE NOT LESS THAN 36 INCHES HIGH MEASURED VERTICALLY ABOVE THE ADJACENT WALKING SURFACE. ADJACENT FIXED SEATING OR THE LINE CONNECTING THE LEADING EDGES OF THE ADJACENT WALKING SURFACES SHALL NOT BE USED TO MEASURE THE HEIGHT OF THE GUARD.

EXCEPTIONS:

1. GUARDS ON THE OPEN SIDES OF STAIRS SHALL HAVE A HEIGHT NOT LESS THAN 34 INCHES MEASURED VERTICALLY FROM A LINE CONNECTING THE LEADING EDGES OF THE TREADS.

2. WHERE THE TOP OF THE GUARD DOES NOT EXCEED AS A HANDRAIL ON THE OPEN SIDES OF STAIRS, THE TOP OF THE GUARD SHALL NOT BE NOT LESS THAN 34 INCHES AND NOT MORE THAN 38 INCHES MEASURED VERTICALLY FROM A LINE CONNECTING THE LEADING EDGES OF THE TREADS.

**OPENING LIMITATIONS:** REQUIRED GUARDS SHALL NOT HAVE OPENINGS FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT WHICH ALLOW PASSAGE OF A SPHERE 4 INCHES IN DIAMETER.

EXCEPTIONS:

1. THE TRIANGULAR OPENINGS AT THE OPEN SIDE OF A STAIR, FORMED BY THE RISER, TREAD AND BOTTOM RAIL OF A GUARD, SHALL NOT ALLOW PASSAGE OF A SPHERE 6 INCHES IN DIAMETER.

2. GUARDS ON THE OPEN SIDES OF STAIRS SHALL NOT HAVE OPENINGS WHICH ALLOW PASSAGE OF A SPHERE 4-3/8 INCHES IN DIAMETER.

**WINDOW SILLS (SECTION R312.2):** IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72 INCHES ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM OF 24 INCHES ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4-INCH DIAMETER SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES OF THE FINISHED FLOOR.

EXCEPTIONS:

1. WINDOWS WHOSE OPENINGS WILL NOT ALLOW A 4-INCH DIAMETER SPHERE TO PASS THROUGH THE OPENING WHEN THE OPENING IS IN ITS LARGEST OPEN POSITION.

2. OPENINGS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2090.

3. WINDOWS THAT ARE PROVIDED WITH WINDOW SPRING CONTROL DEVICES THAT COMPLY WITH SECTION R312.2.2.

## SMOKE ALARMS (SECTION R314)

**SMOKE DETECTION AND NOTIFICATION:** ALL SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THIS CODE AND THE HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NFPA 72.

**SMOKE DETECTION SYSTEMS:** HOUSEHOLD FIRE ALARM SYSTEMS INSTALLED IN ACCORDANCE WITH NFPA 72 THAT INCLUDE SMOKE ALARMS, OR A COMBINATION OF SMOKE DETECTOR AND AUDIBLE NOTIFICATION DEVICE INSTALLED AS REQUIRED BY THIS SECTION FOR SMOKE ALARMS, SHALL BE PERMITTED. THE HOUSEHOLD FIRE ALARM SYSTEM SHALL PROVIDE THE SAME LEVEL OF SMOKE DETECTION AND ALARM AS REQUIRED BY THIS SECTION FOR SMOKE ALARMS, WHERE A HOUSEHOLD FIRE WARNING SYSTEM IS INSTALLED USING A COMBINATION OF SMOKE DETECTOR AND AUDIBLE NOTIFICATION DEVICE(S), IT SHALL BECOME A PERMANENT FEATURE OF THE OCCUPANCY AND OWNED BY THE HOMEOWNER. THE SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION AND BE MAINTAINED IN ACCORDANCE WITH NFPA72.

EXCEPTION: WHERE SMOKE ALARMS ARE PROVIDED MEETING THE REQUIREMENTS OF SECTION R314.4.

**LOCATION:** SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

1. IN EACH SLEEPING ROOM.

2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.

3. ON EACH ADJACENT STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENEING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL PROVIDE THE SAME LEVEL OF SMOKE DETECTION AND ALARM AS REQUIRED BY THIS SECTION FOR SMOKE ALARMS, WHERE A HOUSEHOLD FIRE WARNING SYSTEM IS INSTALLED USING A COMBINATION OF SMOKE DETECTOR AND AUDIBLE NOTIFICATION DEVICE(S), IT SHALL BECOME A PERMANENT FEATURE OF THE OCCUPANCY AND OWNED BY THE HOMEOWNER. THE SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION AND BE MAINTAINED IN ACCORDANCE WITH NFPA72.

EXCEPTION: WHERE SMOKE ALARMS ARE PROVIDED MEETING THE REQUIREMENTS OF SECTION R314.4.

**LOCATION:** SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

1. IN EACH SLEEPING ROOM.

2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.

3. ON EACH ADJACENT STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENEING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL PROVIDE THE SAME LEVEL OF SMOKE DETECTION AND ALARM AS REQUIRED BY THIS SECTION FOR SMOKE ALARMS, WHERE A HOUSEHOLD FIRE WARNING SYSTEM IS INSTALLED USING A COMBINATION OF SMOKE DETECTOR AND AUDIBLE NOTIFICATION DEVICE(S), IT SHALL BECOME A PERMANENT FEATURE OF THE OCCUPANCY AND OWNED BY THE HOMEOWNER. THE SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION AND BE MAINTAINED IN ACCORDANCE WITH NFPA72.

EXCEPTION: WHERE SMOKE ALARMS ARE PROVIDED MEETING THE REQUIREMENTS OF SECTION R314.4.

**LOCATION:** SMOKE ALARMS SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:

1. IN EACH SLEEPING ROOM.

2. OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS.

3. ON EACH ADJACENT STORY OF THE DWELLING, INCLUDING BASEMENTS AND HABITABLE ATTICS BUT NOT INCLUDING CRAWL SPACES AND UNINHABITABLE ATTICS. IN DWELLINGS OR DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENEING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL PROVIDE THE SAME LEVEL OF SMOKE DETECTION AND ALARM AS REQUIRED BY THIS SECTION FOR SMOKE ALARMS, WHERE A HOUSEHOLD FIRE WARNING SYSTEM IS INSTALLED USING A COMBINATION OF SMOKE DETECTOR AND AUDIBLE NOTIFICATION DEVICE(S), IT SHALL BECOME A PERMANENT FEATURE OF THE OCCUPANCY AND OWNED BY THE HOMEOWNER. THE SYSTEM SHALL BE MONITORED BY AN APPROVED SUPERVISING STATION AND BE MAINTAINED IN ACCORDANCE WITH NFPA72.

EXCEPTIONS:

1. WORK INVOLVING THE EXTERIOR SURFACES OF DWELLINGS, SUCH AS THE REPLACEMENT OF ROOFING OR SIDING, OR THE ADDITION OR REPLACEMENT OF WINDOWS OR DOORS, OR THE ADDITION OF A PORCH OR DECK, ARE EXEMPT FROM THE REQUIREMENTS OF THIS SECTION.

2. INSTALLATION, ALTERATION OR REPAIRS OF PLUMBING OR MECHANICAL SYSTEMS ARE EXEMPT FROM THE REQUIREMENTS OF THIS SECTION.

**POWER SOURCE:** SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WHEN SUCH WIRING IS DERIVED FROM A COMMERCIAL SOURCE, AND WHEN PRIMARY POWER IS INTERRUPTED, SHALL RECEIVE POWER FROM A BATTERY. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION. SMOKE ALARMS SHALL BE INTERCONNECTED.

EXCEPTIONS:

1. SMOKE ALARMS SHALL BE PERMITTED TO BE BATTERY OPERATED WHEN INSTALLED IN BUILDINGS WITHOUT COMMERCIAL POWER.

2. INTERCONNECTION AND HARD-WIRING OF SMOKE ALARMS IN EXISTING AREAS SHALL NOT BE REQUIRED WHERE THE ALTERATIONS OR REPAIRS DO NOT INVOLVE THE REMOVAL OF EXISTING CEILING TRUSSES EXPOSING THE STRUCTURE, UNLESS THERE IS AN ATTIC, CRAWL SPACE OR BASEMENT AVAILABLE WHICH COULD PROVIDE ACCESS FOR HARD WIRING AND INTERCONNECTION WITHOUT THE REMOVAL OF INTERIOR FINISHES.

## CARBON MONOXIDE ALARMS (SECTION R315)

FOR NEW CONSTRUCTION, AN APPROVED CARBON MONOXIDE ALARM SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS IN DWELLING UNITS WITHIN WHICH FUEL-FIRED APPLIANCES ARE INSTALLED AND IN DWELLING UNITS THAT HAVE ATTACHED GARAGES.

EXCEPTIONS:

1. SMOKE ALARMS SHALL BE PERMITTED TO BE BATTERY OPERATED WHEN INSTALLED IN BUILDINGS WITHOUT COMMERCIAL POWER.

2. INTERCONNECTION AND HARD-WIRING OF SMOKE ALARMS IN EXISTING AREAS SHALL NOT BE REQUIRED WHERE THE ALTERATIONS OR REPAIRS DO NOT INVOLVE THE REMOVAL OF EXISTING CEILING TRUSSES EXPOSING THE STRUCTURE, UNLESS THERE IS AN ATTIC, CRAWL SPACE OR BASEMENT AVAILABLE WHICH COULD PROVIDE ACCESS FOR HARD WIRING AND INTERCONNECTION WITHOUT THE REMOVAL OF INTERIOR FINISHES.

## INSULATION

BUILDINGS SHALL COMPLY WITH THE BUILDING THERMAL ENVELOPE INSULATION REQUIREMENTS SET FORTH IN IBC CHAPTER R102 OR PER THE REQUIREMENTS OF THE GOVERNING JURISDICTION, AS APPLICABLE.

**FLOOR REQUIREMENTS:** SINGLE-STATION CARBON MONOXIDE ALARMS SHALL BE LISTED AS COMPLYING WITH UL 2034 AND SHALL BE INSTALLED IN ACCORDANCE WITH THIS CODE AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

**FOAM PLASTIC INSULATION:** SHALL COMPLY WITH THE REQUIREMENTS IN IBC SECTION R316.

**INSULATION MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS AND VAPOR-PERMEABLE MEMBRANES INSTALLED WITH FLOOR-CEILING ASSEMBLIES, ROOF-CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES AND ATTICS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 WITH AN ACCOMPANYING SMOKE DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 84 OR UL 723.**

EXCEPTIONS:

1. WHEN SUCH MATERIALS ARE INSTALLED IN CONCEALED SPACES, THE FLAME SPREAD INDEX AND SMOKE-DEVELOPED INDEX LIMITATIONS DO NOT APPLY TO THE FACINGS, PROVIDED THAT THE FACING IS INSTALLED IN SUBSTANTIAL CONTACT WITH THE UNEXPOSED SURFACE OF THE CEILING, FLOOR OR WALL FINISH.

2. CELLULOSE LOOSE-FILL INSULATION, WHICH IS NOT SPRAY APPLIED, COMPLYING WITH THE REQUIREMENTS OF SECTION R302.10.3, SHALL ONLY BE REQUIRED TO MEET THE SMOKE-DEVELOPED INDEX OF NOT MORE THAN 450.

## CHIMNEYS AND FIREPLACES

ALL MASONRY AND FACTORY BUILT FIREPLACES, CHIMNEYS AND MASONRY HEATERS SHALL COMPLY WITH THE PROVISIONS OF IBC CHAPTERS 10, 18, AND 24.

## HEATING AND COOLING EQUIPMENT (CHAPTER 14)

REQUIRED HEATING (SECTION R303.9): WHEN THE WINTER DESIGN TEMPERATURE IN TABLE R303.2(1) IS BELOW 60 DEGREES F, EVERY DWELLING UNIT SHALL BE PROVIDED WITH HEATING FACILITIES CAPABLE OF MAINTAINING A MINIMUM ROOM TEMPERATURE OF 68 DEGREES F AT A POINT 3 FEET ABOVE THE FLOOR AND 2 FEET FROM THE HORIZONTAL SURFACE OF THE GUARDRAIL AT THE DESIGN WINTER. THE INSTALLATION OF ONE OR MORE PORTABLE SPACE HEATERS SHALL NOT BE USED TO ACHIEVE COMPLIANCE WITH THIS SECTION.

**DEFINITION:** THE BUILDING THERMAL ENVELOPE IS DEFINED AS: THE BASEMENT WALLS, EXTERIOR WALLS, FLOOR, ROOF AND ANY OTHER BUILDING ELEMENT THAT ENCLOSE CONDITIONED SPACES.

**AIR SUPPLY:** SOLID-FUEL-BURNING APPLIANCES SHALL BE PROVIDED WITH COMBUSTION AIR IN ACCORDANCE WITH THE APPLIANCE MANUFACTURER'S INSTALLATION INSTRUCTIONS. OIL-FIRED APPLIANCES SHALL BE PROVIDED WITH COMBUSTION AIR IN ACCORDANCE WITH NFPA 31. THE METHODS OF PROVIDING COMBUSTION AIR IN THIS CHAPTER TO APPLY TO FIREPLACES, FIREPLACE STOVES AND DIRECT-VENT APPLIANCES. THE REQUIREMENTS FOR COMBUSTION AND DILUTION AIR FOR GAS-FIRED APPLIANCES SHALL BE IN ACCORDANCE WITH IBC CHAPTER 24.

**DUCT WORK:** LOCATION OF APPLIANCES, SOURCE OF COMBUSTION AIR, ETC. SHALL COMPLY WITH IBC CHAPTERS 13, 14, 16, AND 17.

**LABEL INFORMATION:** A PERMANENT FACTORY-APPLIED NAMEPLATE(S) SHALL BE AFFIXED TO APPLIANCES ON WHICH SHALL APPEAR, IN LARGE LETTERS, THE MANUFACTURER'S NAME OR TRADEMARK, THE MODEL NUMBER, SERIAL NUMBER, AND THE SEAL OR MARK OF THE TESTING AGENCY PER IBC SECTION M303.1.

**PROHIBITED SOURCES:** COMBUSTION AIR DUCTS AND OPENINGS SHALL NOT CONNECT APPLIANCE ENCLOSURES WITH SPACE IN WHICH THE OPERATION OF A FAN MAY ADVERSELY AFFECT THE FLOW OF COMBUSTION AIR. COMBUSTION AIR SHALL NOT BE OBTAINED FROM AN AREA IN WHICH FLAMMABLE VAPORS PRESENT A HAZARD. APPLIANCES SHALL NOT BE LOCATED IN SLEEPING ROOMS, BATHROOMS, TOILET ROOMS, STORAGE CLOSETS OR SHELVED ROOMS, OR IN A SPACE THAT OPENS ONLY INTO SUCH ROOMS OR SPACES, EXCEPT WHERE THE INSTALLATION COMPLIES WITH ONE OF THE EXCEPTIONS LISTED IN IBC SECTION G240.2.

**APPLIANCE ACCESS FOR INSPECTION SERVICE, REPAIR AND REPLACEMENT WITHOUT REMOVING PERMANENT CONSTRUCTION, OTHER APPLIANCES, OR ANY OTHER PIPING OR DUCTS NOT CONNECTED TO THE APPLIANCE BEING INSPECTED, SERVICED, REPAIRED OR REPLACED:** A LEVEL WORKING SPACE AT LEAST 30 INCHES DEEP AND 30 INCHES WIDE SHALL BE PROVIDED IN FRONT OF THE CONTROL, SOLE TO SERVICE AN APPLIANCE. INSTALLATION OF THE APPLIANCE SHALL BE PERMITTED WITH AT LEAST AN 18 INCH WORKING SPACE. A PLATFORM SHALL NOT BE REQUIRED FOR ROOF HEATERS.

**APPLIANCES IN ROOMS:** APPLIANCES INSTALLED IN A COMPARTMENT, ABOVE, BASEMENT OR SIMILAR SPACE SHALL BE ACCESSIBLE BY AN OPENING OR DOOR AND AN UNOBSTRUCTED PASSAGWAY MEASURING NOT LESS THAN 24 INCHES WIDE AND LARGE ENOUGH TO ALLOW REMOVAL OF THE LARGEST APPLIANCE IN THE SPACE, PROVIDED THAT A LEVEL SERVICE SPACE OF NOT LESS THAN 30 INCHES DEEP AND THE HEIGHT OF THE APPLIANCE, BUT NOT LESS THAN 30 INCHES, IS PRESENT AT THE FRONT OR SERVICE SIDE OF THE APPLIANCE WITH THE DOOR OPEN.

**ACCESS (SECTION M401.2):** HEATING AND COOLING EQUIPMENT AND APPLIANCES SHALL BE LOCATED WITH RESPECT TO BUILDING CONSTRUCTION AND OTHER EQUIPMENT TO PERMIT MAINTENANCE, SERVICING AND REPLACEMENT. CLEARANCES SHALL BE MAINTAINED TO PERMIT CLEANING OF HEATING AND COOLING SURFACES; REPLACEMENT OF FILTERS, LAMINAR, MOTORS, AND VENT CONNECTIONS; LUBRICATION OF MOVING PARTS; AND ADJUSTMENTS.

**EXTERIOR INSTALLATION (SECTION M401.4):** EQUIPMENT INSTALLED OUTDOORS SHALL BE LISTED AND LABELED FOR OUTDOOR INSTALLATION. SUPPORTS AND FOUNDATIONS SHALL PREVENT EXCESSIVE VIBRATION, SETTLEMENT OR MOVEMENT OF THE EQUIPMENT. SUPPLIES AND FOUNDATIONS SHALL BE LEVEL AND CONFORM TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

**ANCHORAGE OF APPLIANCES (SECTION M307.2):** APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE FASTENED OR ANCHORED IN AN APPROVED MANNER. IN SEISMIC DESIGN CATEGORIES D1 AND D2, WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER ONE-THIRD AND LOWER ONE-THIRD OF THE WATER HEATER'S TOTAL DIMENSIONS. AT THE LOWER POINT, THE STRAPPING SHALL MAINTAIN A MINIMUM DISTANCE OF 1/4 INCH ABOVE THE CONTROLS.

**ELEVATION OF IGNITION SOURCE (SECTION M307.3):** APPLIANCES HAVING AN IGNITION SOURCE SHALL BE ELEVATED SUCH THAT THE SOURCE OF IGNITION IS NOT LESS THAN 18 INCHES ABOVE THE FLOOR IN GARAGES. FOR THE PURPOSE OF THIS SECTION, ROOMS OR SPACES THAT ARE NOT PART OF THE LIVING SPACE OF A DWELLING UNIT AND THAT COMMUNICATE WITH A PRIVATE GARAGE THROUGH OPENINGS SHALL BE CONSIDERED TO BE PART OF THE GARAGE.

**PROTECTION FROM IMPACT:** APPLIANCES SHALL NOT BE INSTALLED IN A LOCATION SUBJECT TO VEHICLE DAMAGE EXCEPT WHERE PROTECTED BY APPROVED BARRIERS.

**APPLIANCES INSTALLED IN ATTIC SPACES SHALL CONFORM TO IBC SECTION M305.1.**

**DUCT PROTECTION (SECTION R302.5.2):** DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILINGS SEPARATING THE DWELLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAUGE SHEET STEEL, OR OTHER APPROVED MATERIAL, AND SHALL HAVE NO OPENINGS TO THE GARAGE.

**VENTING REQUIREMENTS (SECTION M101.1):** FUEL-BURNING APPLIANCES SHALL BE VENTED TO THE OUTSIDE IN ACCORDANCE WITH THEIR LISTING AND LABEL AND MANUFACTURER'S INSTALLATION INSTRUCTIONS EXCEPT APPLIANCES LISTED AND LABELED FOR UNVENTED USE. VENTING SYSTEMS SHALL CONSIST OF APPROVED CHIMNEYS OR DUCTS, OR VENTING ASSEMBLIES THAT ARE INTERIOR PARTS OF LABELED APPLIANCES. GAS-FIRED APPLIANCES SHALL BE VENTED IN ACCORDANCE WITH CHAPTER 24.

# PROJECT & SITE DATA

OWNERS: ALEX AND BARRETT BARNETT  
 SITE ADDRESS: 7530 86TH AVE SE  
 MERCER ISLAND, WA 98040

LEGAL DESCRIPTION:  
 MERCER ISLAND ESTATES #2 PLAT LOCK 20

PARCEL NUMBER: 545121-0200  
 JURISDICTION: CITY OF MERCER ISLAND  
 WATER & SEWER DISTRICT: CITY OF MERCER ISLAND  
 SECTION/TOWNSHIP/RANGE: SW-30-24-05  
 PROPERTY ZONING: R9.6  
 LOT SIZE: 10,658 S.F.

BUILDING SETBACKS:	REQUIRED	PROPOSED
EAST - REAR:	25'-0"	27'-1" (PROPOSED)
WEST - FRONT (SE 86TH AVE SE)	20'-0"	32'-6" (EXISTING)
NORTH - SIDE*:	7'-6"	9'-8" (EXISTING)
	(2 STORY GABLE)	
SOUTH - SIDE*:	7'-6"	8'-8" (EXISTING)
	(2 STORY GABLE)	

\*SIDE = 17% OF LOT AREA: 18'-2" > 16'-2" @ AVERAGE LOT WIDTH (95x.17)

**BUILDING HEIGHT PER R9.6 ZONING:**

1ST FINISH FLOOR:	356.375
A.B.E. (SEE CALCULATIONS BELOW)	355.20
EXISTING BUILDING HEIGHT:	377.08
PROPOSED ADDITION BUILDING HEIGHT:	367.75
MAXIMUM ALLOWABLE HEIGHT ABOVE A.B.E.:	386.875 (30'-0")

- BUILDING HEIGHT NOTES:**
- REFER TO PLAN FOR SPOT ELEVATIONS AND BENCHMARK ELEVATION (#).
  - REFER TO BUILDING ELEVATIONS FOR A.B.E. DATUM POINTS AND ROOF RIDGE ELEVATIONS

**BUILDING CONSTRUCTION DATA**

OCCUPANCY TYPE: R-3 (SINGLE FAMILY RES.) BUILDING CONSTRUCTION  
 TYPE: V-B

GARAGE (EXISTING):	680.00 S.F.
1ST FLOOR (EXISTING):	1,370.00 S.F.
2ND FLOOR (EXISTING):	1,560.00 S.F.
TOTAL FLOOR AREA:	3,610.00 S.F. (33.9%)
ALLOWABLE GROSS FLOOR AREA:	4,263.20 S.F. (40.0%)

**LOT COVERAGE CALCULATIONS (LOT SLOPE <15%):**

MAIN STRUCTURE ROOF AREA:	2435.00 S.F.
PROPOSED COVERED DECK:	406.00 S.F.
ACCESSORY SHED ROOF AREA:	32.40 S.F.
VEHICULAR USE:	1113.21 S.F.
TOTAL LOT COVERAGE:	3,986.61 S.F./37.41%
ALLOWABLE LOT COVERAGE:	4,263.20 S.F./40.0%

**HARDSCAPE CALCULATIONS:**

NEW DECK (<30" ABOVE GRADE):	288.48 S.F.
TOTAL HARDSCAPE:	288.48 S.F./ 2.71%
ALLOWABLE HARDSCAPE:	950.22 S.F./ 9.00%

\*\*<500 S.F. OF NEW/REPLACED IMPERVIOUS SURFACE

**TREES:**  
 NO SIGNIFICANT TREES SHALL BE REMOVE OR IMPACTED IN CONSTRUCTION WITH THE SCOPE OF WORK STATED IN THE BUILDING PERMIT.

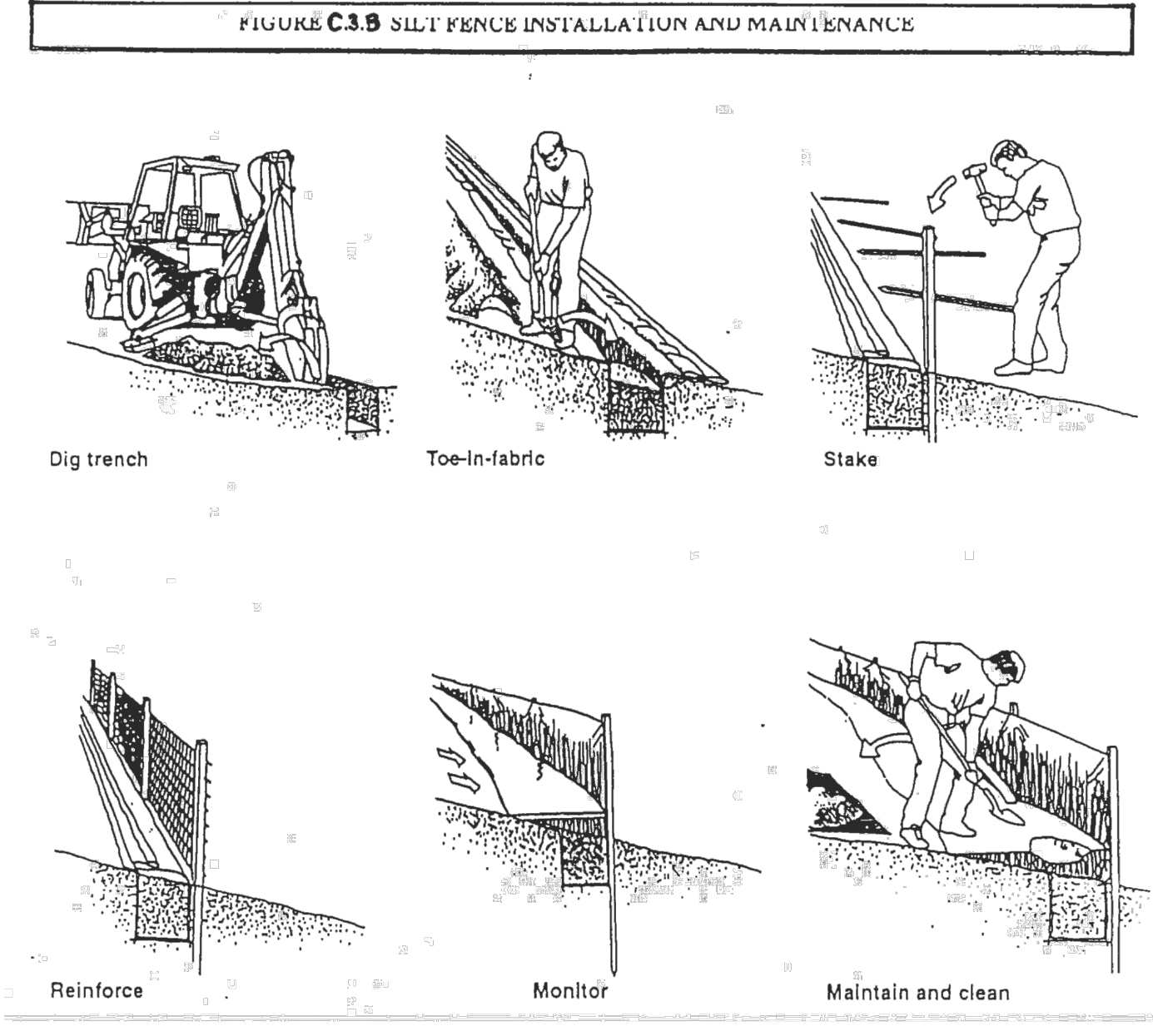
**ENERGY CREDITS:**

EFFICIENT FURNACE (3A):	1.0
TOTAL CREDITS:	1.0

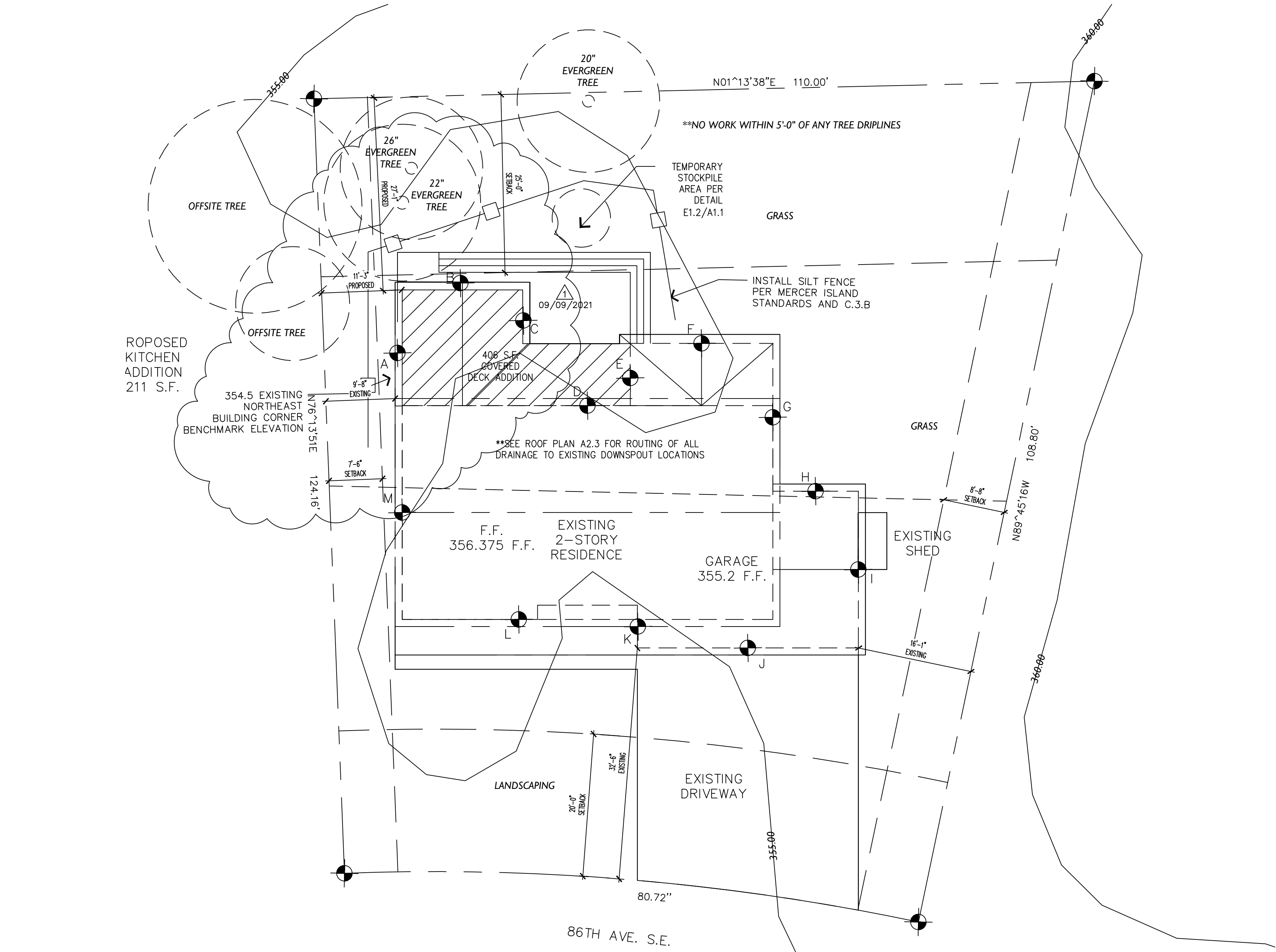
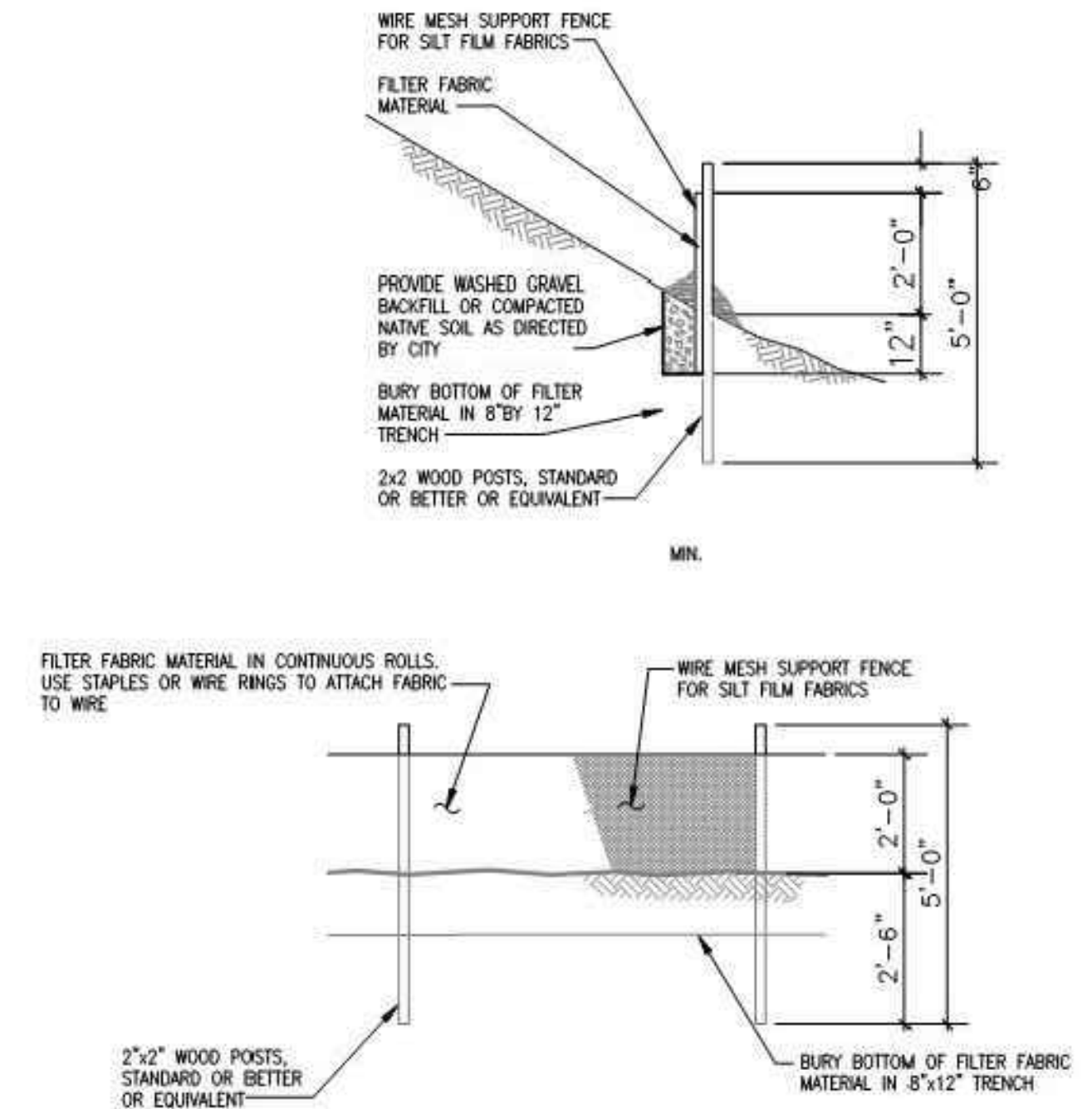
## A.B.E. CALCULATION

WALL SEGMENT	SEGMENT LENGTH	VIDPOINT ELEVATION	TOTAL
A	15.75	354.5	5583.375
B	17.67	354.5	6264.015
C	11.75	355.2	4173.6
D	15	355.2	5328
E	8.75	355.2	3108
F	20	355.7	7114
G	20.67	354.8	7333.716
H	12	355.7	4268.4
I	22	355.9	7829.8
J	31	355.2	11011.2
K	4	354.8	1419.2
L	33	355.4	11728.2
M	26	355	9230
TOTALS	237.59	4617.1	84391.51

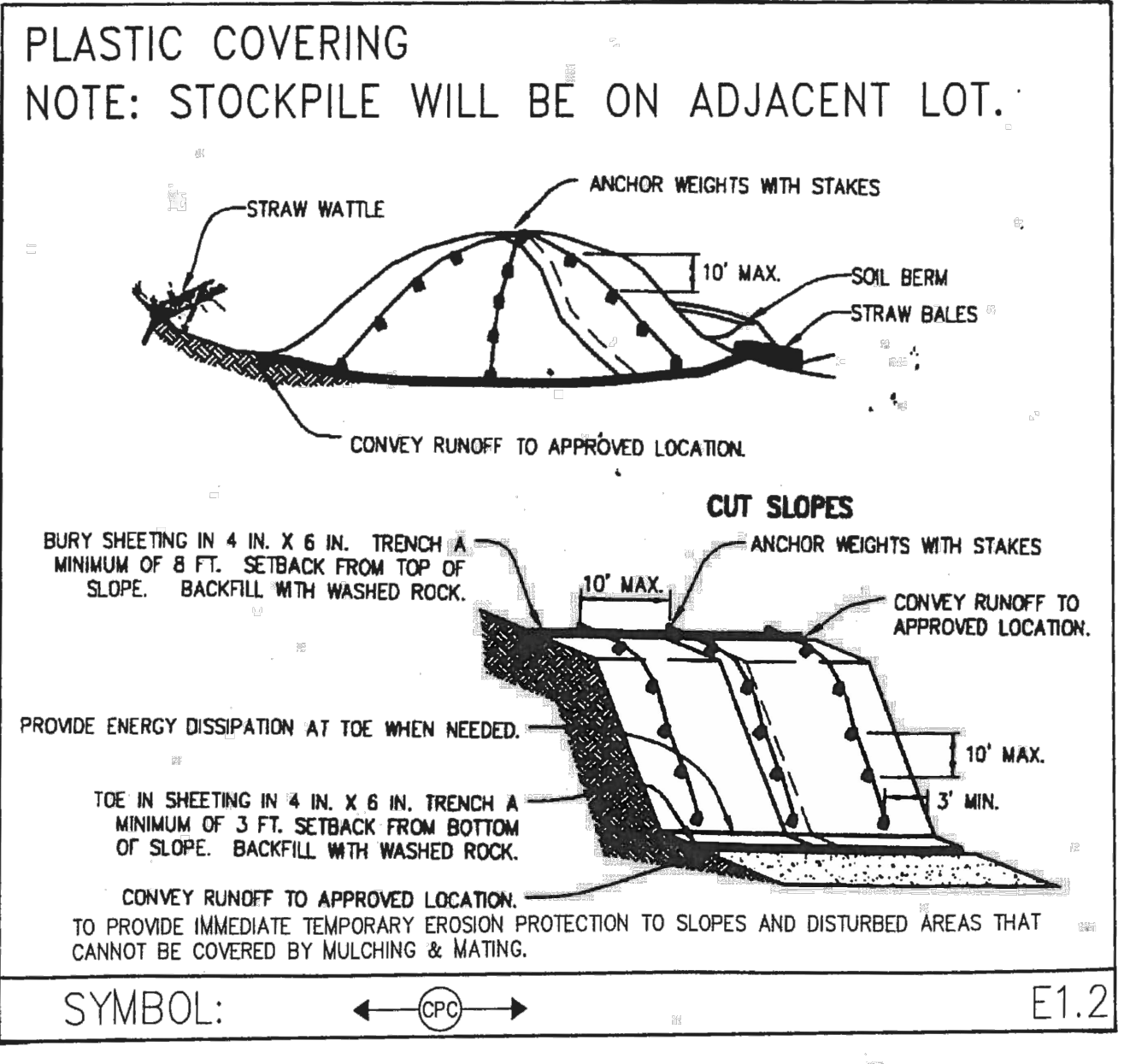
AVERAGE BASE ELEVATION: 355.1981



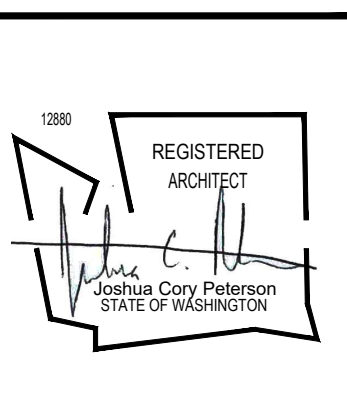
**C.3.B SILT FENCE INSTALLATION FIGURE**  
 SCALE: N.T.S.



**SITE PLAN**  
 1" = 10'



**E1.2 STOCKPILE DETAIL**  
 SCALE: N.T.S.



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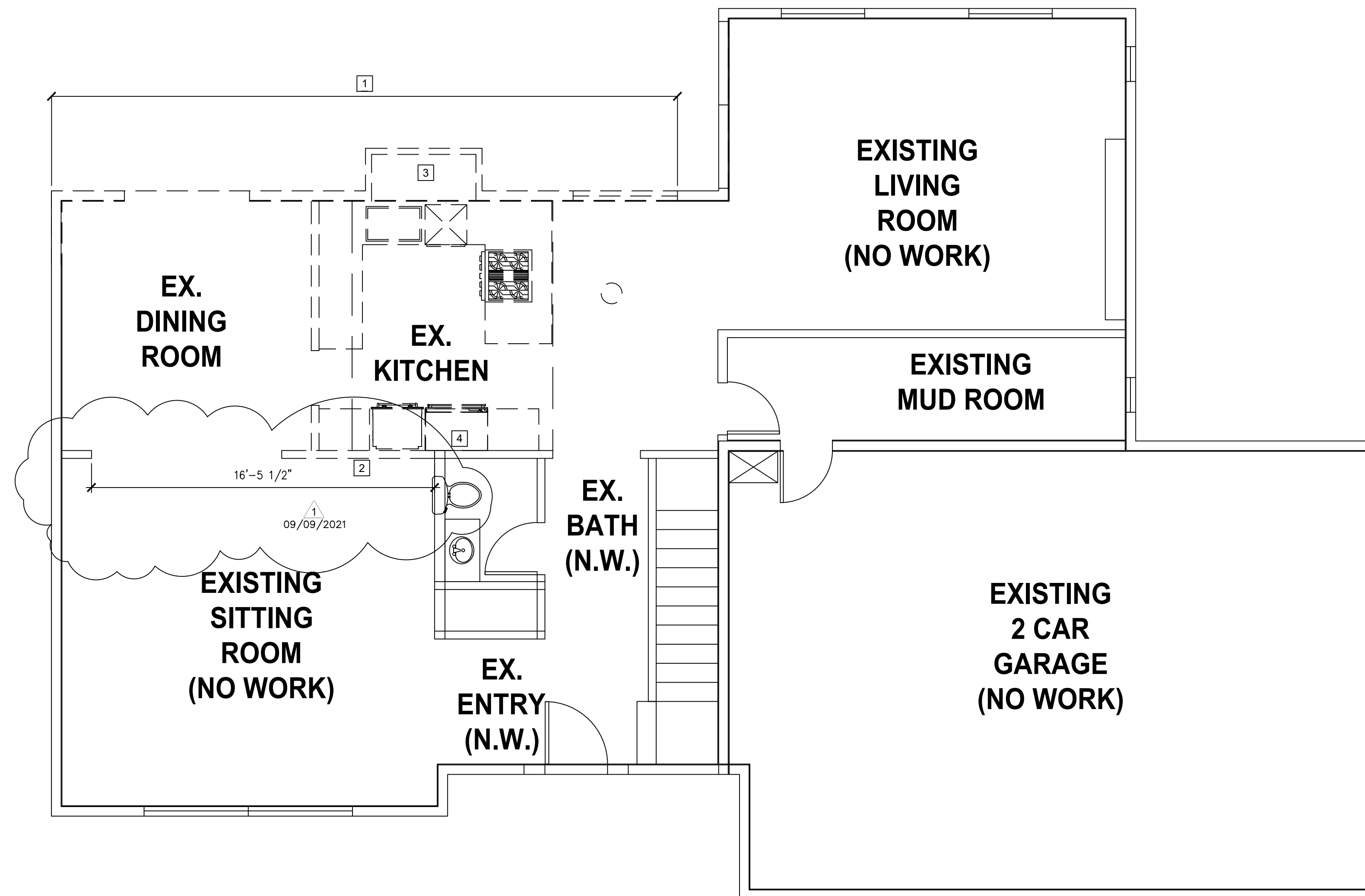
**ISSUE DATES**

DESIGN APPROVAL:  
 PERMIT SUBMITTAL: 12/09/2020  
 PERMIT RECEIVED: 07/26/2021  
 BID DOCS:  
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**24"x36" SCALE: AS NOTED**

PLOT DATE:	09/09/2021
CAD FILE:	A20-010 A1.1
JOB NUMBER:	A20-010
CHECKED:	JCP
DRAWN:	JCP
STATUS:	UNDER CONSTRUCTION

**SITE PLAN**  
**A1.1**



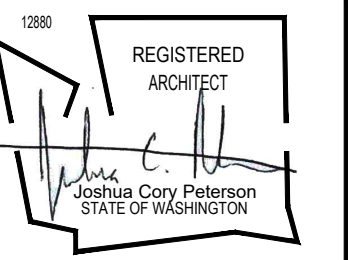
**DEMOLITION MAIN FLOOR PLAN**

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

A20-010 A2.1 D.dwg

**KEY NOTES**

- 1 DEMO WALL AS REQUIRED FOR NEW OPENINGS PER PLAN. REFER TO STRUCTURAL DRAWINGS FOR BEAM SIZES AND EXISTING FLOOR JOIST SHORING/MODIFICATIONS.
- 2 DEMO BACK FOR NEW STRUCTURAL POST AND OPENING PER PLAN
- 3 EXISTING BAY WINDOW TO BE REMOVED
- 4 RE-ROUTE SEWER LINES UNDER BATHROOM AS REQUIRED FOR NEW FOOTING PER STRUCTURAL.



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**DEMOLITION NOTES**

- A. OBTAIN DEMOLITION PERMITS AND INCLUDE ALL COSTS OF SAME IN CONTRACT PRICE.
- B. FURNISH ALL LABOR AND MATERIALS/EQUIPMENT TO COMPLETE DEMOLITION AND REMOVAL OF ALL ITEMS AS INDICATED.
- C. GC SHALL KEEP CONSTRUCTION AREA FREE OF DUST AND DEBRIS FOR THE DURATION OF CONSTRUCTION.
- D. IF ANY QUESTIONS ARISE AS TO THE REMOVAL OF ANY MATERIAL, CLARIFY THE POINT IN QUESTION WITH THE ARCHITECT BEFORE PROCEEDING.
- E. AT COMPLETION OF DEMOLITION WORK, THE CONSTRUCTION AREAS SHALL BE LEFT IN "BROOM CLEAN" CONDITION. ALL DEBRIS AND MISCELLANEOUS MATERIAL SHALL BE REMOVED.
- F. ALL DEBRIS REMOVAL SHALL BE PERFORMED IN ACCORDANCE WITH BUILDING MANAGEMENT REQUIREMENTS AND PROCEDURES.
- G. AS DIRECTED BY BUILDING MANAGEMENT, ALL DOORS, FRAMES, HARDWARE, MECHANICAL ITEMS, PLUMBING FIXTURES, LIGHT FIXTURES (INCLUDING DOWNSPOUTS AND FLUORESCENTS), AND SPECIAL EQUIPMENT SHOWN TO BE REMOVED, SHALL BE CLEAN AND FREE OF DEFECTS, PROTECTED, SAVED AND REUSED AS DIRECTED HEREIN, OR RETURNED TO BUILDING STOCK.
- H. IN PARTITIONS TO BE REMOVED, REMOVE AND CAP ALL OUTLETS, SWITCHES, WIRES, THERMOSTATS, ETC., TO THEIR SOURCE.
- I. GC SHALL BE RESPONSIBLE FOR PATCHING AND/OR REPAIRING ANY DAMAGE CAUSED BY HIM OR HIS SUBJECTS TO EXISTING CONSTRUCTION PUBLIC CORRIDORS, RESTROOMS OR TENANT SPACES. REFINISH TO MATCH EXISTING ADJACENT FINISH, OR AS NOTED HEREIN.
- J. NO EXISTING SMOKE DETECTOR, PUBLIC ADDRESS SPEAKER, FIRE ALARM BOX OR SIMILAR DEVICE, INCLUDING THE ASSOCIATED WIRING SHALL BE DAMAGED DURING DEMOLITION AND SUBSEQUENT CONSTRUCTION. RELOCATION OF SMOKE DETECTORS, PUBLIC ADDRESS SPEAKERS AND FIRE ALARM EQUIPMENT, NECESSITATED BY NEW CONSTRUCTION, SHALL BE ACCOMPLISHED AS A FIRST PRIORITY, AND PER THE PLANS, NO ACTIVE SMOKE DETECTOR SHALL BE COVERED OR OTHERWISE REMOVED OR USED FOR OTHER THAN ITS INTENDED PURPOSE.
- K. REMOVAL OF ANY EQUIPMENT, CABLING SWITCHES, AND CONDUIT PERTAINING TO DATA/COMMUNICATIONS AND TELEPHONE SHALL BE VERIFIED WITH TELEPHONE COMPANIES AND TENANT.
- L. REMOVE ALL EXISTING MATERIALS, WHICH WOULD CAUSE RISES OR DEPRESSIONS IN NEW FLOORING SURFACE, SUCH AS FASTENERS, OUTLET CORES, COVER PLATES, RESILIENT FLOOR COVERINGS, CARPET, CARPET PAD, FLASH PATCH, CONCRETE FILL, PLYWOOD, ETC.
- M. DEMOLITION IS NOT NECESSARILY LIMITED TO WHAT IS SHOWN ON DWGS. THE INTENT IS TO INDICATE THE GENERAL SCOPE OF DEMOLITION REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE CONTRACT DWGS.
- N. RATED WALLS SHALL NOT BE PENETRATED UNLESS THE RATING IS MAINTAINED.
- O. ALL FLOORS SHOULD BE LEVEL AND NOT VARY MORE THAN 1/4" IN 10'-0". THE GC SHALL NOTIFY ARCHITECT OF ANY CONDITIONS THAT DO NOT MEET THIS STANDARD.

**DEMO LEGEND**

- EXISTING INTERIOR WALLS, DOORS, RELITES, CABINETS AND SHELVING TO BE REMOVED (SHOWN DASHED), INCLUDING ELECTRICAL ITEMS ATTACHED TO WALLS. REFER TO FLOOR PLAN FOR EXTENT AND DIMENSIONS. RE-USE ITEMS IN EXCELLENT CONDITION, OR RETURN TO OWNER FOR STORAGE.
- EXISTING CONSTRUCTION TO REMAIN.

**BARNETT RESIDENCE  
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DEMOLITION  
 FLOOR PLAN  
**A2.1D**

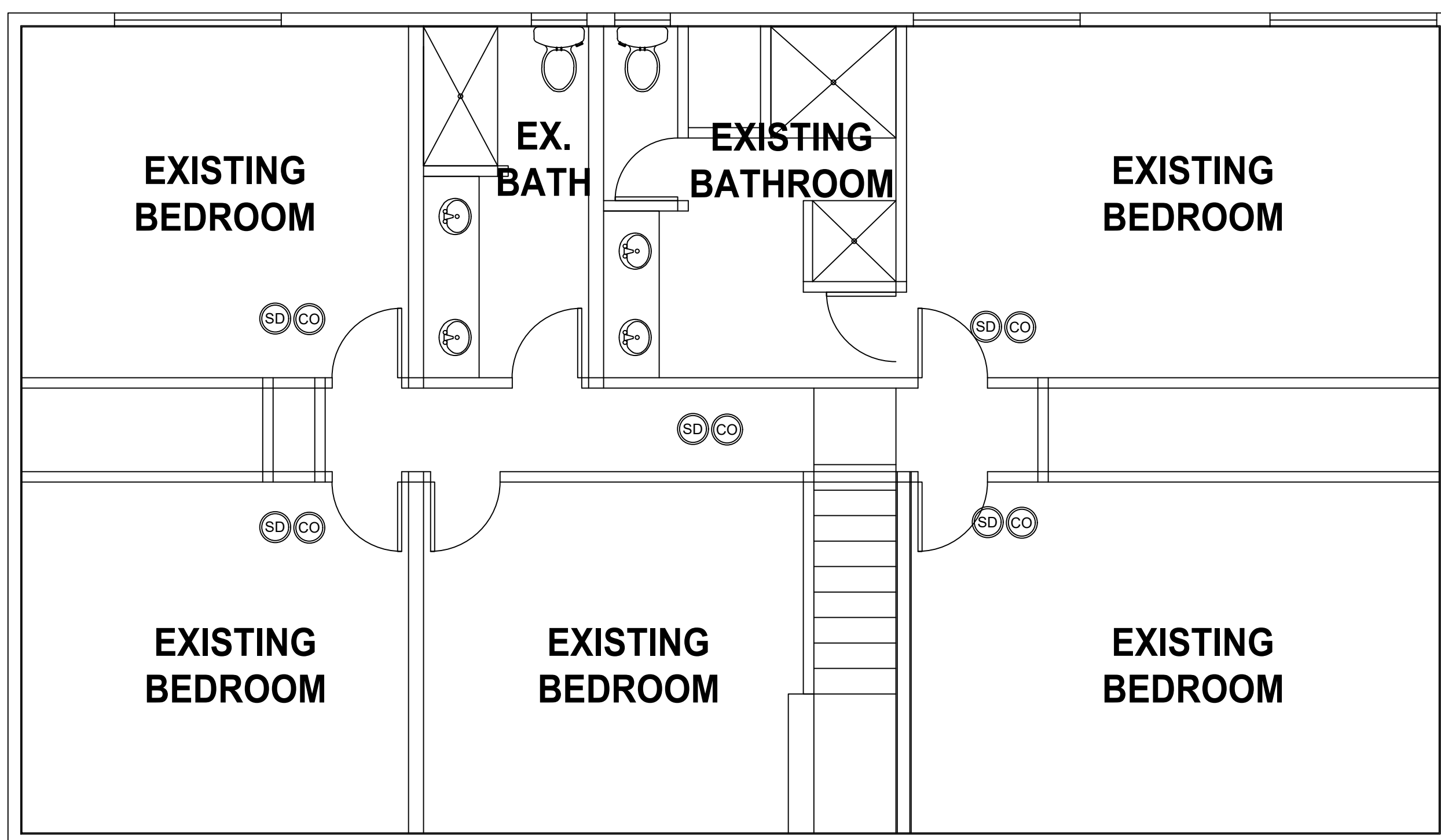
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JOB NUMBER: A20-010  
CHECKED: JCP  
DRAWN: JCP  
STATUS: UNDER CONSTRUCTION

**KEY NOTES**

- VENTILATION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH WAC, SECTIONS M1507.1 - M1507.3, INTERMITTENT WHOLE HOUSE VENTILATION PER IRC M1507.3.5 @ RATE OF 100 CFM REQUIRED. (KEYNOTE NOT SHOWN ON PLAN)
- EXISTING FURNACE & WATER HEATER IN GARAGE. EXTEND DUCTWORK/WATER/SEWER LINES INTO NEW CRAWLSPACE FROM NORTHEAST CORNER OF BASEMENT. PROVIDE 25% FREE NET OPEN AREA BETWEEN EXISTING AND NEW CRAWLSPACE.
- NEW SLIDING GLASS DOOR. PELLA (OR EQUAL) COORDINATE SPEC WITH OWNER/ARCHITECT
- NEW BI-FOLD COUNTER HEIGHT WINDOW.
- OUTDOOR BBQ AND COUNTERTOP/CABINETS (G.C. TO COORDINATE SCOPE WITH OWNER.)
- COORDINATE NEW SHELVING & COUNTER WITH OWNER
- 24" D. BASE CABINETS w/ COUNTER. COORDINATE WITH OWNER.
- 12" D. UPPER CABINETS. COORDINATE WITH OWNER
- INFRA-RED INFRARED HEATERS IN CEILING (PROVIDE AUTO-MATIC SHUT-OFF CONTROLS)
- REFRIGERATOR w/WATER CONNECTION
- DUAL FUEL RANGE BY OWNER. (HOOD 100 CFM MIN. /400 CFM MAX.) SKYLIGHTS ABOVE
- DISHWASHER BY OWNER
- KITCHEN SINK w/GARBAGE DISPOSAL. FURNISH BY OWNER/INSTALL BY CONTR.
- COORDINATE ELECTRICAL OUTLET LOCATIONS ABOVE ALL COUNTERS WITH OWNER PRIOR TO ROUGH-IN. (KEYNOTE NOT SHOWN ON PLAN)
- NOT USED
- COORDINATE LIGHTING FOR KITCHEN AND EXISTING DINING ROOM w/ OWNER/ARCHITECT PRIOR TO ROUGH-IN (KEYNOTE NOT SHOWN ON PLANS)
- COORDINATE CEILING HEIGHT AND FURRING DETAILS WITH OWNER/ARCHITECT. (REVIEW PLUMBING DRAINS FROM BATHROOM ABOVE)



REFERENCE SECOND FLOOR PLAN (NO WORK)  
SCALE: 1/4"=1'-0"  
A20-010 A2.1.dwg

**SMOKE & CO DETECTOR NOTES:**

- SD m DETECTOR/ALARM: 110V w/ BATTERY BACK-UP AS INDICATED ON PLANS - INTERCONNECTED SYSTEM. REFER TO SHEET A0.2 FOR ADDITIONAL SMOKE ALARM LOCATION REQUIREMENTS.
- CO CARBON MONOXIDE ALARM - INSTALL PER MFR'S REQUIREMENTS AND REQUIREMENTS OF UL 2034

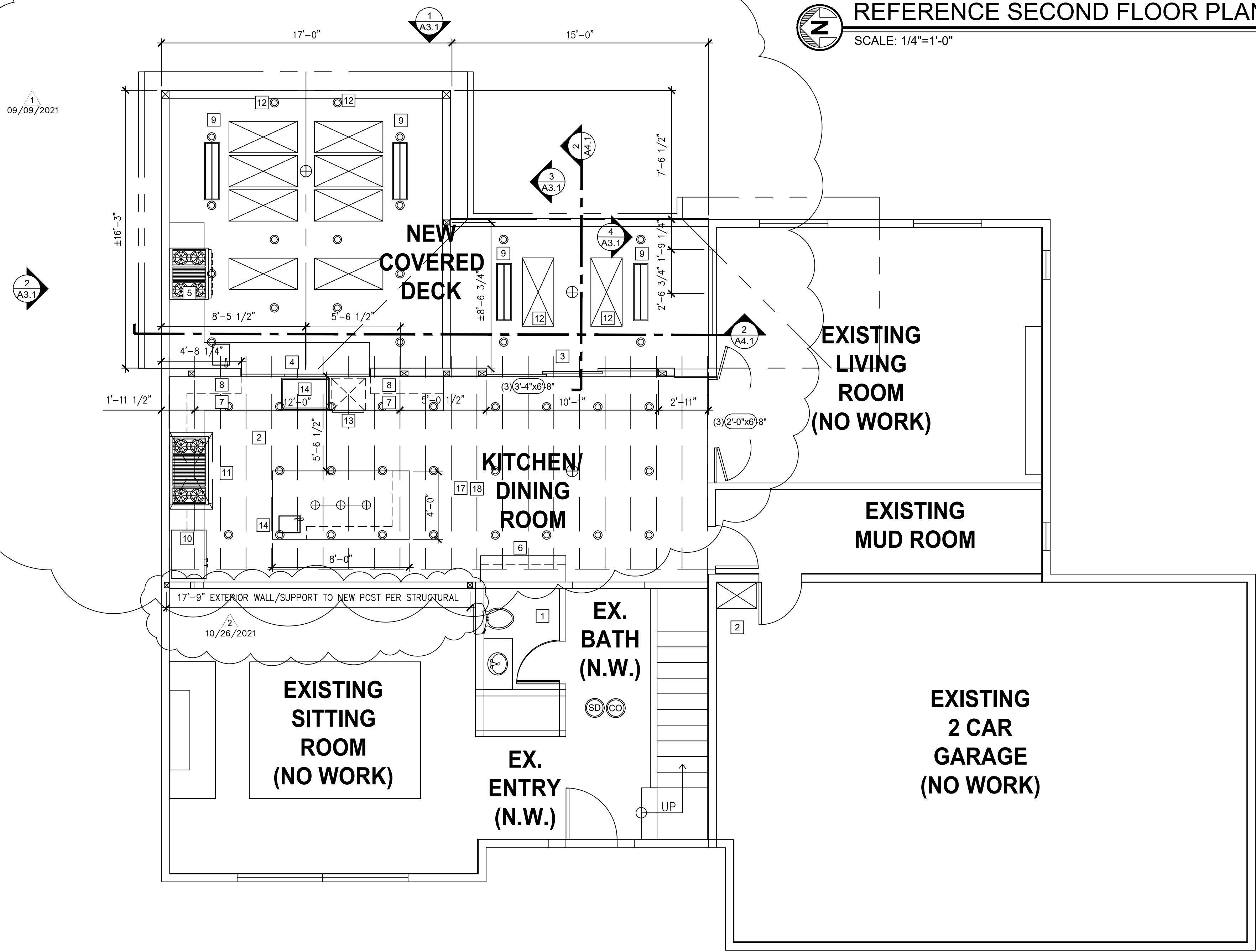
**PLAN NOTES**

- ALL DIMENSIONS ARE TO FACE OF STUD, U.O.N.
- ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED WOOD OF ANY SPECIES OR FOUNDATION GRADE CEDAR OR REDWOOD. ALL MARKED BY AN APPROVED TESTING AGENCY.
- PROVIDE HORIZONTAL FIREBLOCKING IN ALL FRAME WALLS (VERTICALLY AND HORIZONTALLY) AT MAX. 10'-0" ON CENTER AND WHERE FRAME WALLS PENETRATE CEILINGS. FIREBLOCK IN ACCORDANCE WITH IRC SECTION R602.8.
- EXPOSED INSULATION MATERIALS INCLUDING FACINGS AND VAPOR BARRIERS, SHALL HAVE A FLAME SPREAD RATING NOT TO EXCEED 25, AND A SMOKE DENSITY NOT TO EXCEED 450, OR SHALL BE IN SUBSTANTIAL CONTACT WITH THE WALL OR CEILING SURFACE FINISH PER IRC SECTION R316.1
- BATHROOM NOTES: PROVIDE FIREBLOCKING BETWEEN STUDS AT TUB/SHOWER ENCLOSURE(S). LIMIT SHOWER FLOW TO 2.5 G.P.M. WALLS SHALL BE WATERPROOF TO A MINIMUM OF 72" ABOVE DRAIN INLET. ALL GLAZING, INCLUDING WINDOWS, WITH 70" OF DRAIN INLET, SHALL BE SAFETY GLASS.
- ALL WOOD SUBJECT TO WEATHER EXPOSURE SHALL BE PRESSURE TREATED WOOD OF ANY SPECIES (REFER TO STRUCTURAL PLANS FOR STRUCTURAL REQUIREMENTS) MARKED BY AN APPROVED TESTING AGENCY OR CEDAR OR REDWOOD.

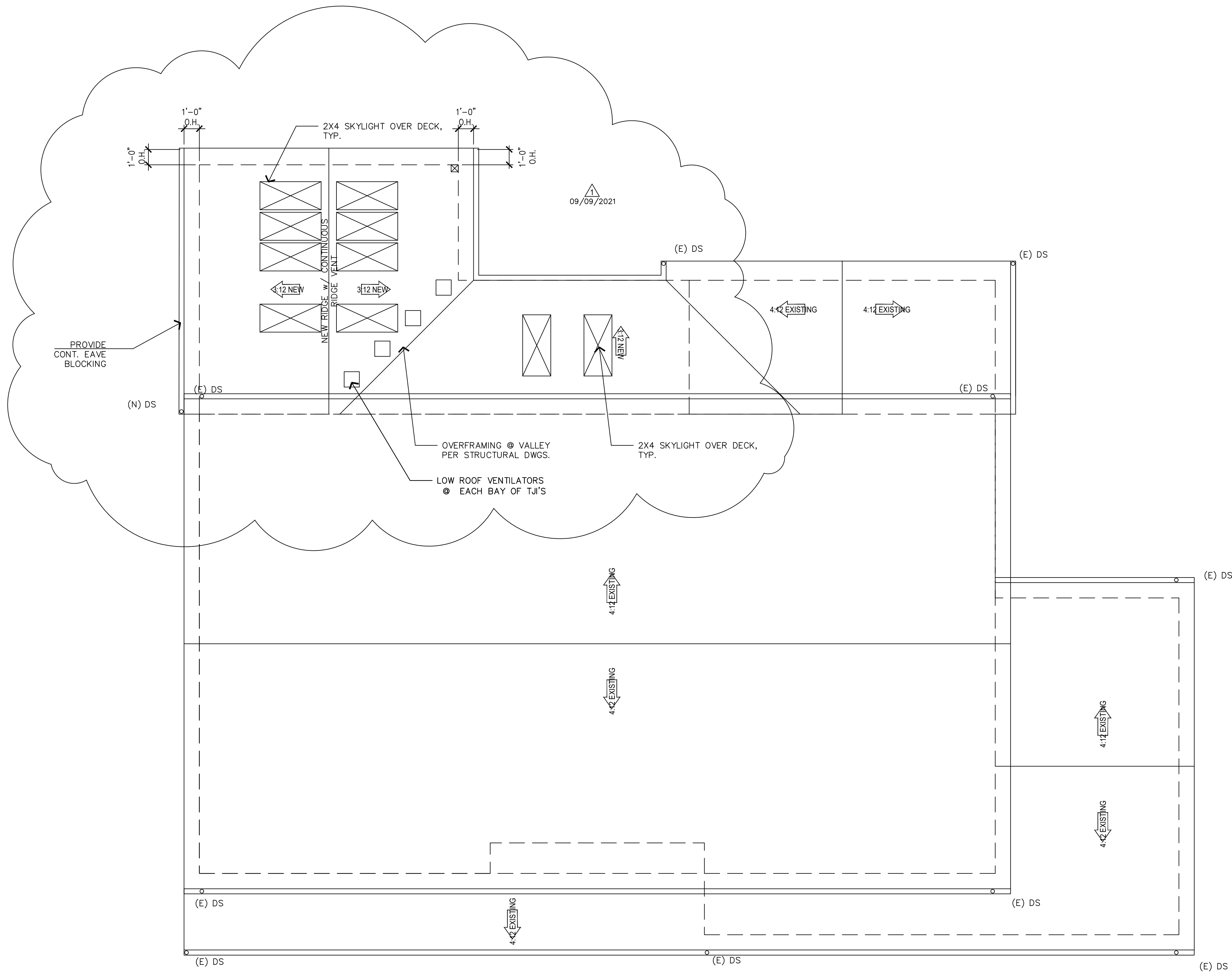
**WALL LEGEND**

- DOOR. REFER TO KEYS ON PLAN AND SEE DOOR SCHEDULE, SHEET A6.1. DOORS THAT ARE NOT DIMENSIONED ARE TO BE LOCATED A MIN. 4" FROM ADJACENT PERPENDICULAR WALL FINISH OR CENTERED IN HALLWAY.
- EXTERIOR WINDOW - REFER TO EXTERIOR ELEVATIONS AND WINDOW SCHEDULE SHEET A6.1
- NOTES :  
1. PROVIDE WATER & MILDEW/MOLD RESISTANT NON-PAPER FACED G.W.B. AT ALL DAMP OR MOISTURE EXPOSED LOCATIONS
- TYPICAL EXTERIOR WALL: 2x 6 (U.O.N.) w/ PLYWD SHEATHING PER STRUCTURAL ENGINEER w/ MIN. R-21 INSULATION, 4 MIL VAPOR BARRIER (AT WARM SIDE) AND 1/2" INTERIOR G.W.B.
- TYPICAL INTERIOR/EXISTING INFILL WALL: 2x 4 (U.O.N.) WOOD STUDS @ 16"O.C. w/ 1/2" G.W.B. EACH SIDE OR AS REQ'D PER STRUCTURAL AND SHEAR WALL SCHEDULE; FINISH PER OWNER SPECS.
- \*\*SEE TYPICAL FRAMING DETAILS 1-8/A5.1

- GENERAL CORRECTION NOTES:  
10/26/2021
- Existing ceiling, wall or floor cavities exposed during construction. Provide these cavities with insulation of full cavity. 2x4 framed walls shall be insulated to a minimum of R-15 and 2x6 walls shall be insulated to a minimum of R-21.
  - All beams exposed to weather shall be naturally decay resistant or preservative treated.



MAIN FLOOR PLAN  
SCALE: 1/4"=1'-0"  
A20-010 A2.1.dwg



### ROOF PLAN NOTES

- ALL DIMENSIONS ARE TO FACE OF STUD, U.O.N.
- ALL WOOD IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED WOOD OF ANY SPECIES OR FOUNDATION GRADE CEDAR OR REDWOOD. ALL MARKED BY AN APPROVED TESTING AGENCY.
- PROVIDE HORIZONTAL FIREBLOCKING IN ALL FRAME WALLS (VERTICALLY AND HORIZONTALLY) AT MAX. 10'-0" ON CENTER AND WHERE FRAME WALLS PENETRATE CEILINGS. FIREBLOCK IN ACCORDANCE WITH IRC SECTION R602.8.
- EXPOSED INSULATION MATERIALS INCLUDING FACINGS AND VAPOR BARRIERS, SHALL HAVE A FLAME SPREAD RATING NOT TO EXCEED 25, AND A SMOKE DENSITY NOT TO EXCEED 450, OR SHALL BE IN SUBSTANTIAL CONTACT WITH THE WALL OR CEILING SURFACE FINISH PER IRC SECTION R316.1
- ALL TRUSSES SHALL CARRY MANUFACTURER'S STAMP AND SHALL BE INSTALLED AND BRACED TO MFR'S SPECIFICATIONS. ALL TRUSSES WILL NOT BE FIELD ALTERED WITHOUT PRIOR BUILDING DEPARTMENT APPROVAL OF ENGINEERING CALCS. ALL TRUSSES SHALL HAVE DESIGN DETAILS AND DRAWINGS ON SITE FOR FRAMING INSPECTION.
- G.C. TO FIELD VERIFY ALL EXISTING ROOF SLOPES AND CONDITIONS PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS OR TRUSSES.
- ALL NEW EXTERIOR HEADERS ARE REQUIRED TO BE INSULATED WITH A MINIMUM R-10 INSULATION. REFER TO TYPICAL EXTERIOR HEADER DETAIL 8 A5.1

### DRAINAGE GENERAL NOTES:

- DOWNSPOUTS SHALL BE TIED INTO A NON-PERFORATED, RIGID, SMOOTH-BORE PIPE WHICH DRAINS TO AN APPROVED STORM SYSTEM
- PROVIDE CLEANOUTS AT THE UPPER END OF THE SYSTEM AND AT EACH CUMULATIVE CHANGE OF DIRECTION IN EXCESS OF 135 DEGREES.
- ALL PIPE FITTINGS SHALL BE MADE OF THE SAME MATERIAL AS THE STRAIGHT PIPE. GLUED JOINTS SHALL USE A BONDING AGENT RECOMMENDED BY THE PIPE MANUFACTURER.
- FOOTING DRAINS SHALL BE INSTALLED AROUND ALL NEW FOUNDATIONS AND SHALL BE TIED TO THE STORM DRAINAGE SYSTEM. FOOTING DRAINS SHALL BE CONSTRUCTED OF PERFORATED PIPE AT THE BASE OF THE FOOTING, AND SHALL MEET MATERIAL STANDARDS OF D2729 FOR PVC PIPE, WITH THE PERFORATIONS DIRECTED DOWNWARD. PLACE GRANULAR BACKFILL AROUND AND ABOVE THE FOOTING DRAIN TO A DEPTH OF 2/3 OF THE WALL HEIGHT. PROVIDE FILTER FABRIC WRAP AROUND BETWEEN THE GRANULAR BACKFILL AND THE NATIVE SOIL. REFER TO GEOTECHNICAL ENGINEERING INVESTIGATION PREPARED BY LIU & ASSOCIATES, INC. DATED 3-5-2018 FOR FOUNDATION DRAINAGE REQUIREMENTS AND RECOMMENDATIONS.

### ROOF VENTILATION CALCS

**ADDITION LOW ROOF AREA:**  
 208 SQ. FT./300 = 0.694 SQ. FT. x .50 = 0.347 SQ. FT. OF REQUIRED ROOF VENTILATION x 144 = 49.2 SQ. IN. MINIMUM OF ATTIC CROSS VENTILATION AREA REQUIRED AT ADDITION LOW ROOF

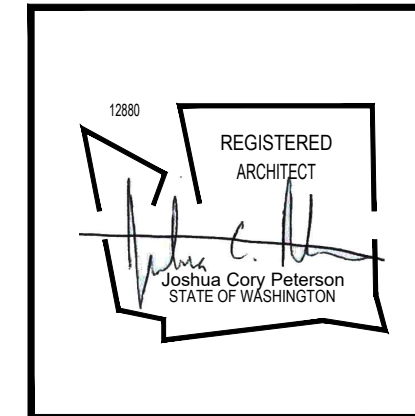
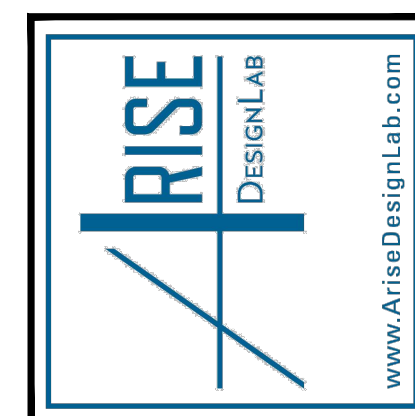
LOW ROOF EAVE BLOCKING = 13.25 LF LOW  
 (3) 2" HOLES / 22" BLOCK =  
 2" HOLE = 4 SQ. IN.  
 1.5 HOLES / LF = 1.5 (4 SQ. IN.) = 6 SQ. IN. / LF  
 13.25 LF X 6 SQ. IN. = 79.5 SQ. IN.  
 TOTAL 79.5 > 49.2 REQ.D = OK\*

\*PROVIDE 12X12 ROOF VENTILATORS @ EACH JOIST BAY WHERE EAVE BLOCKING IS NOT PROVIDED

☐☐☐ (3) - 2" HOLES PER BLOCK  
 BLOCKING TO MATCH JOIST HEIGHT  
 (CONTINUOUS 2" SOFFIT VENT (BLACK)  
 @ ENCLOSED SOFFITS)

### ROOF PLAN LEGEND

- WALL BELOW PER PLANS W/ HEADER OR BEAM PER STRUCTURAL
- ROOF PITCH INDICATOR. G.C. TO FIELD VERIFY ALL EXISTING ROOF SLOPES AND CONDITIONS PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS OR TRUSSES



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 DRAWN: JCP  
 STATUS: UNDER CONSTRUCTION

## 1 ROOF PLAN

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

## ENERGY CODE NOTES

THESE DESIGNS ARE IN ACCORDANCE WITH THE 2015 WASHINGTON STATE ENERGY CODE (WSEC) REQUIREMENTS FOR TABLE 402.1.1 - PRESCRIPTIVE COMPONENT REQUIREMENTS FOR CLIMATE ZONE 4-MARINE.  
SECTION R406 CATEGORY: ADDITIONS <500 S.F.: 0.5 POINTS REQ'D

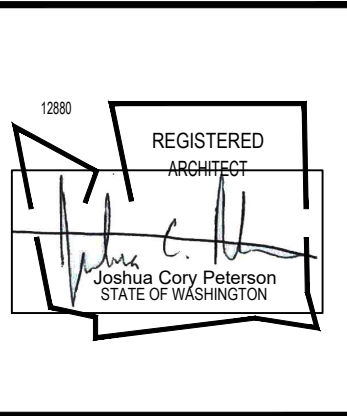
**PLUMBING FIXTURE EFFICIENCY:**  
TANK TYPE TOILETS 1.6 GPF MAXIMUM  
LAVATORY FAUCETS 2.5 GPM MAXIMUM  
KITCHEN FAUCETS 2.5 GPM MAXIMUM  
SHOWER HEADS 2.5 GPM MAXIMUM

FUEL TYPE: NATURAL GAS  
MINIMUM EFFICIENCY OF FURNACE: PRIMARY RESIDENCE 94% AFUE 3A (1.0 PTS)  
MAXIMUM GLAZING FACTORS (NEW WINDOWS):  
VERTICAL GLAZING: U = 0.30  
VERTICAL GLAZING SHGC: NO REQUIREMENT  
OVERHEAD GLAZING: U = 0.50  
MAXIMUM DOOR FACTORS:  
WOOD DOOR IN WOOD FRAME: U = 0.46  
R402.3.4 EXEMPT OPAQUE DOOR

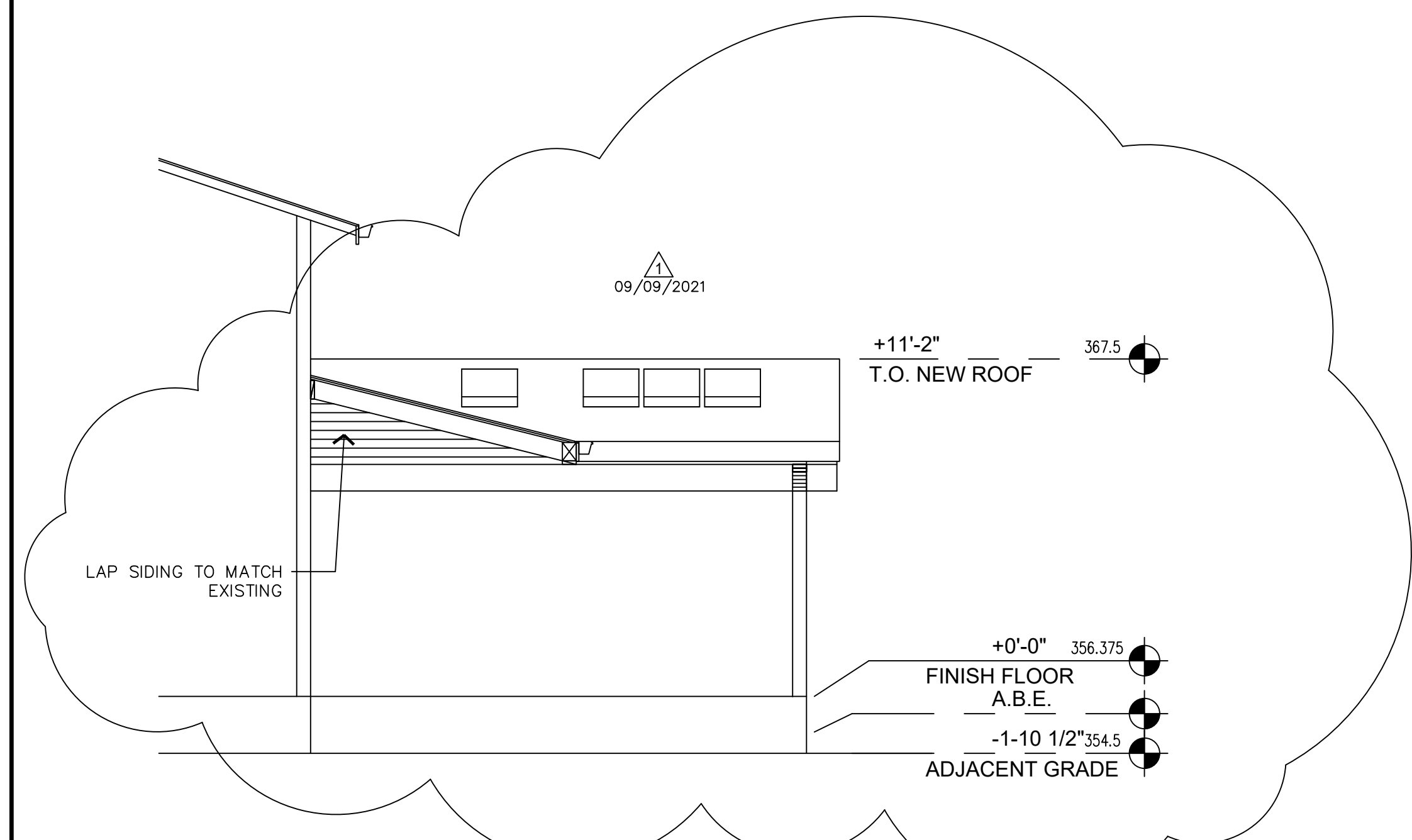
PROVIDE 4 MIL POLY VAPOR BARRIER ON WARM SIDE OF WALLS  
PROVIDE 6 MIL POLY VAPOR BARRIER AT WARM SIDE OF CEILING  
**R402.4 AIR LEAKAGE AND TESTING (MANDATORY)**  
THE BUILDING ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTIONS R402.4.1 THROUGH R402.4.4  
THE DWELLING UNIT SHALL BE TESTED AND VERIFIED AS HAVING AN AIR CHANGE LEAKAGE RATE OF NOT EXCEEDING 5 AIR CHANGES PER HOUR. TESTING SHALL BE CONDUCTED WITH A BLOWER DOOR AT A PRESSURE OF 0.2 INCHES W.G. (50 PASCALS), WHERE REQUIRED BY THE CODE OFFICIAL TESTING SHALL BE CONDUCTED 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. TESTING SHALL BE PERFORMED AT ANY TIME AFTER CREATION OF ALL PENETRATIONS OF THE BUILDING ENVELOPE.

INSULATION LEVELS PROVIDED:  
ATTIC SPACES R-49  
UNVENTED JOISTS SPACES R-38 (R-15 SPRAY/R-23 ROXUL)  
VAULTED CEILING R-38  
ABOVE GRADE WALLS R-21  
BELOW GRADE WALLS N/A  
FLOORS OVER UNCOND. SPACE R-38 BATT INSULATION  
SLAB ON GRADE FLOORS R-10 CONTINUOUS XPS INSULATION FOR 12"

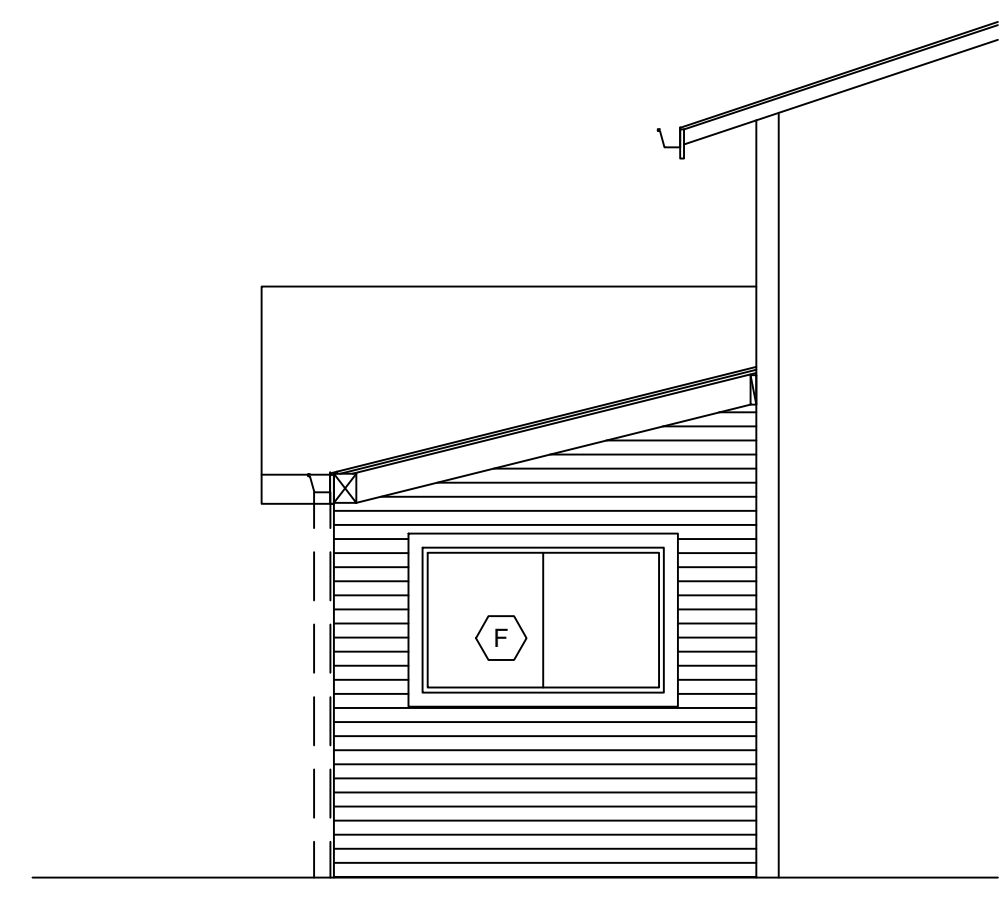
WHOLE HOUSE FAN SHALL BE INTEGRATED WITH AUTOMATIC FRESH AIR DAMPER ON FORCED AIR UNIT.  
ALL HEATING DUCTS LOCATED IN UNHEATED AREAS ARE TO BE INSULATED TO MINIMUM R-8. DUCT SEAMS ARE TO BE SEALED AND FASTENED WITH A MINIMUM OF FASTENERS.  
NON-RECIRCULATING HOT & COLD WATER PIPES >1" NOMINAL PIPE SIZE LOCATED IN UNCONDITIONED AREAS SHALL BE INSULATED TO MINIMUM R-3.  
A MINIMUM OF 75% OF PERMANENTLY INSTALLED LAMPS IN LIGHTING FIXTURES SHALL BE HIGH EFFICACY LAMPS (WSEC R404.1)  
FUEL GAS LIGHTING SYSTEMS SHALL NOT HAVE CONTINUOUSLY BURNING PILOT LIGHTS (WSEC R404.1.1)



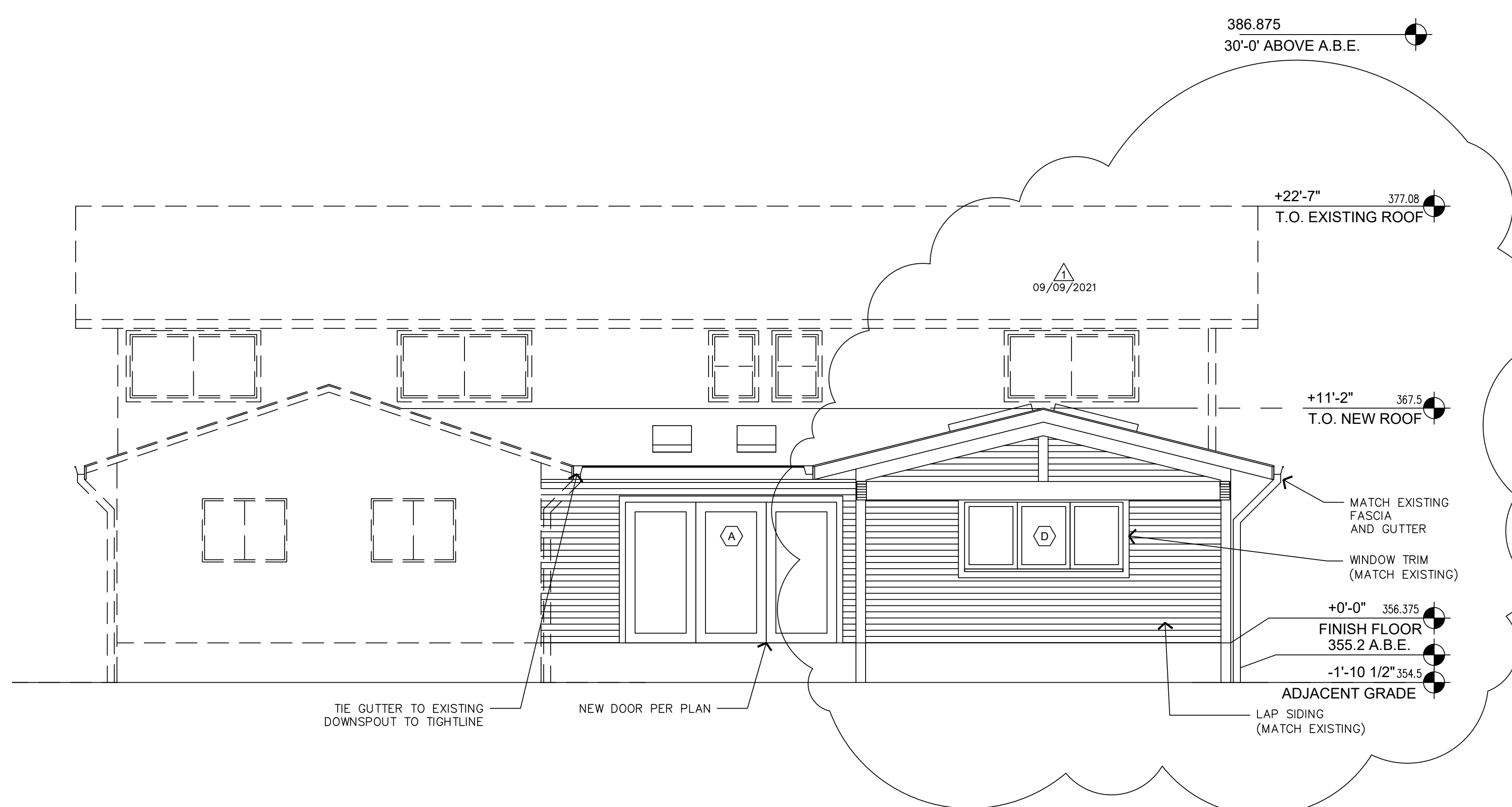
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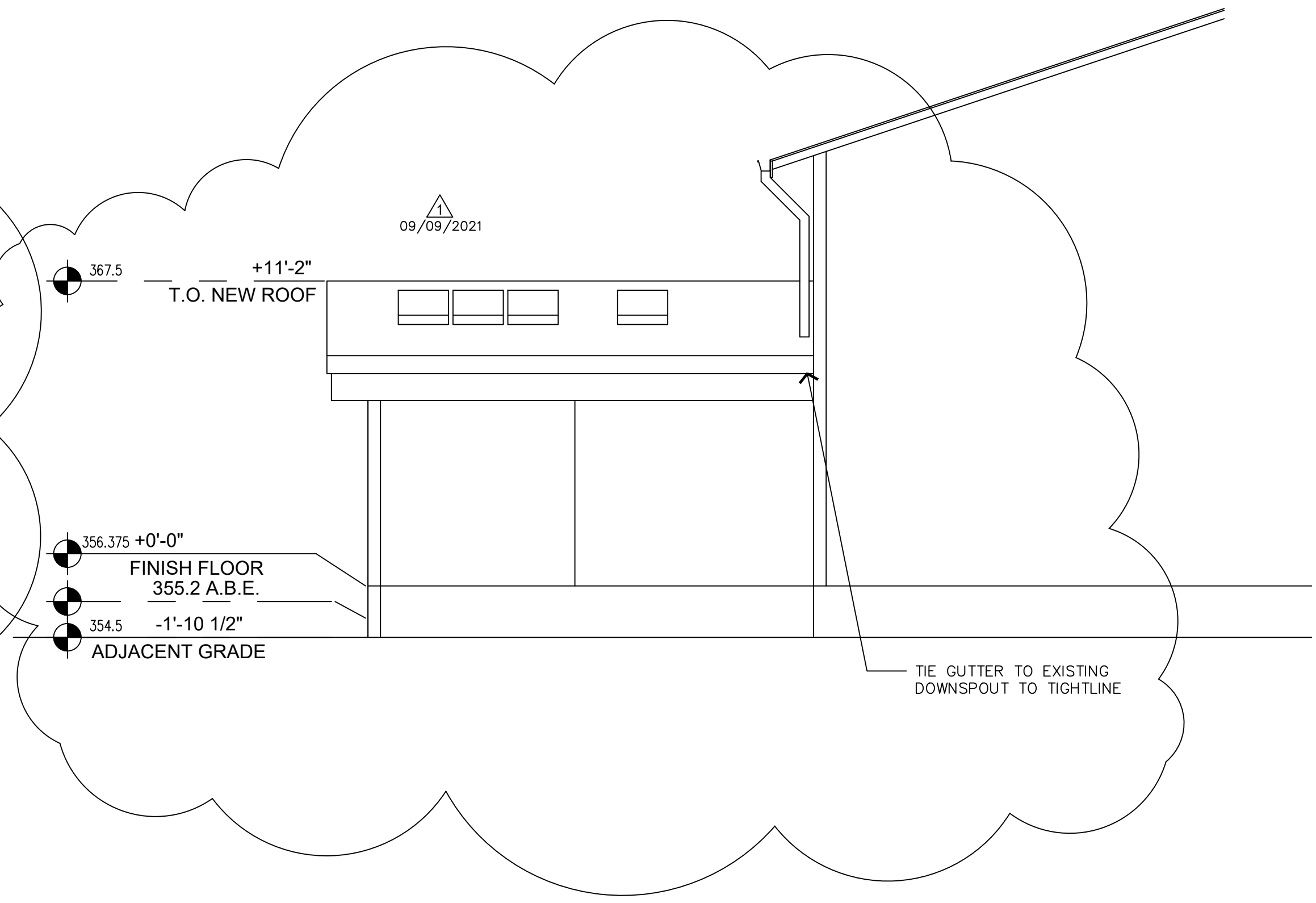
**3 PARTIAL NORTH ELEVATION**  
SCALE: 1/4" = 1'-0"



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



**1 EAST ELEVATION**  
SCALE: 1/4" = 1'-0"



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

**BARNETT RESIDENCE  
ADDITION/REMODEL**

7530 86TH AVE S.E.  
MERCER ISLAND, WA 98040

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PERMIT SUBMITTAL: 12/09/2020

PERMIT RECEIVED: 07/26/2021

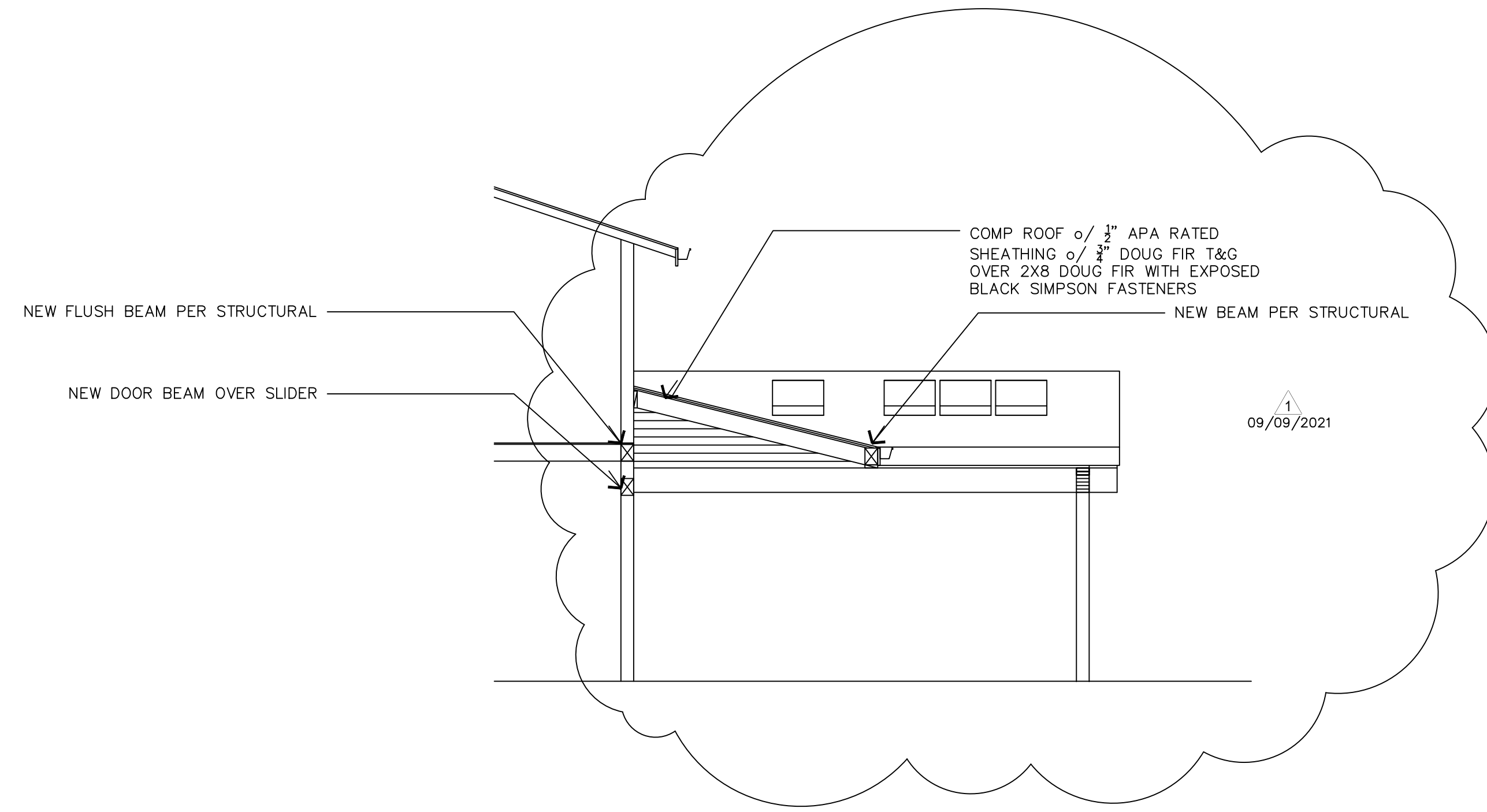
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CONSTR. DOCS:

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PLOT DATE:	09/09/2021
CAD FILE:	A20-010 A3.1
JOB NUMBER:	A20-010
CHECKED:	JCP
DRAWN:	
STATUS:	UNDER CONSTRUCTION

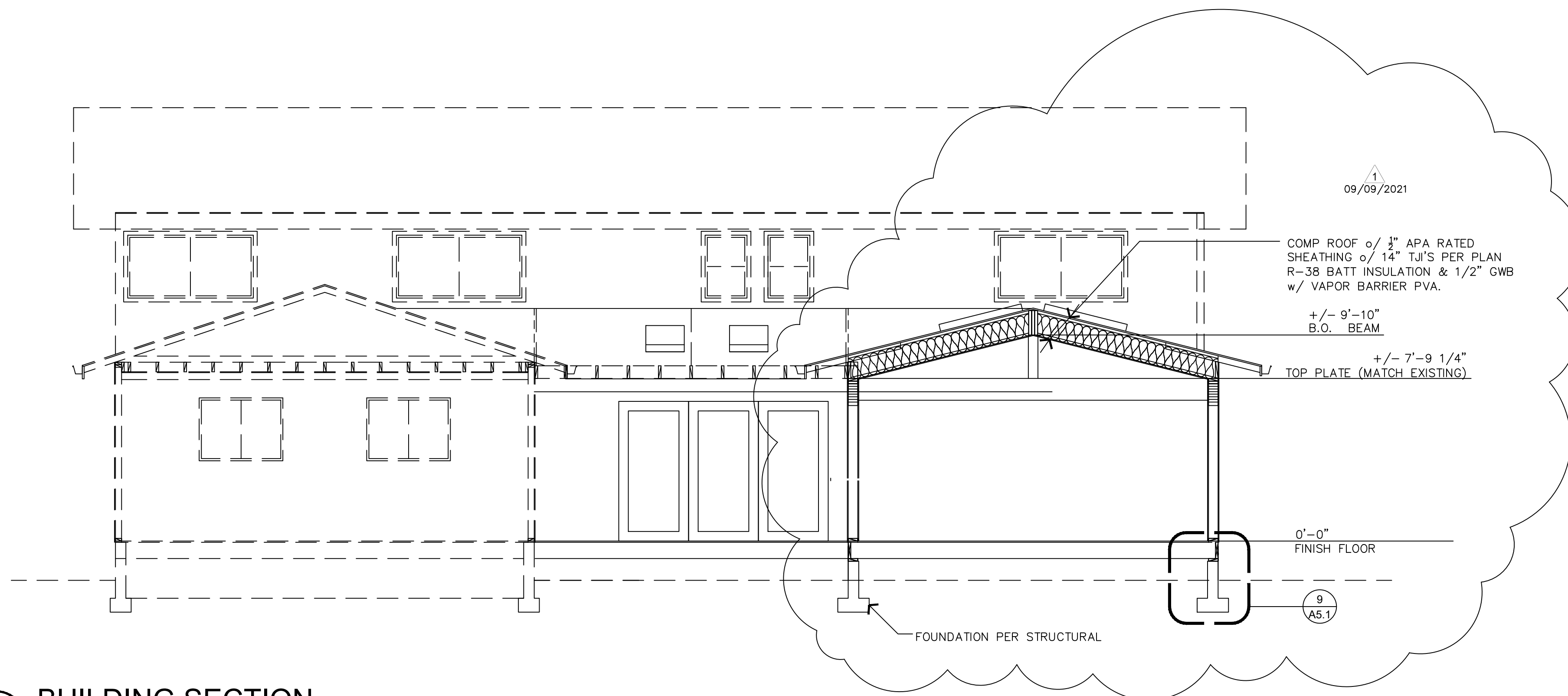
EXTERIOR ELEVATIONS/  
ENERGY CODE NOTES

# A3.1



1 BUILDING SECTION (SEE 2/A4.1 FOR TYP. NOTES)

SCALE: 1/2" = 1'-0"



2 BUILDING SECTION

SCALE: 1/2" = 1'-0"

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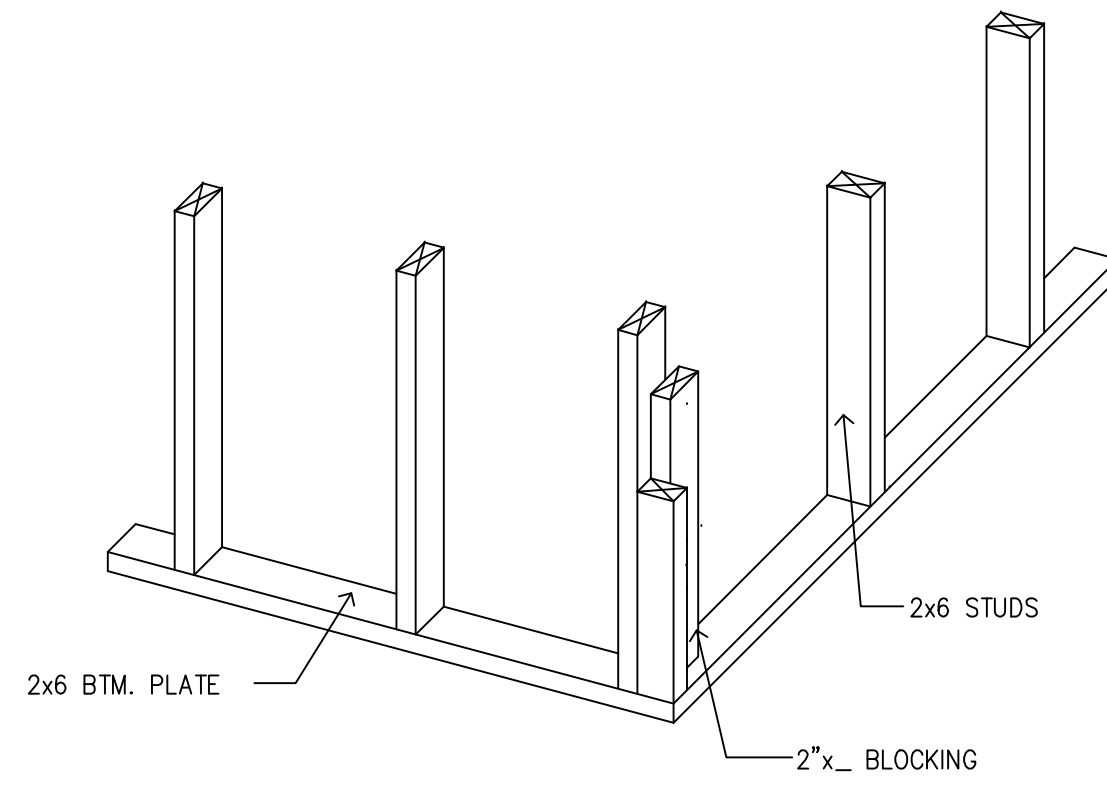
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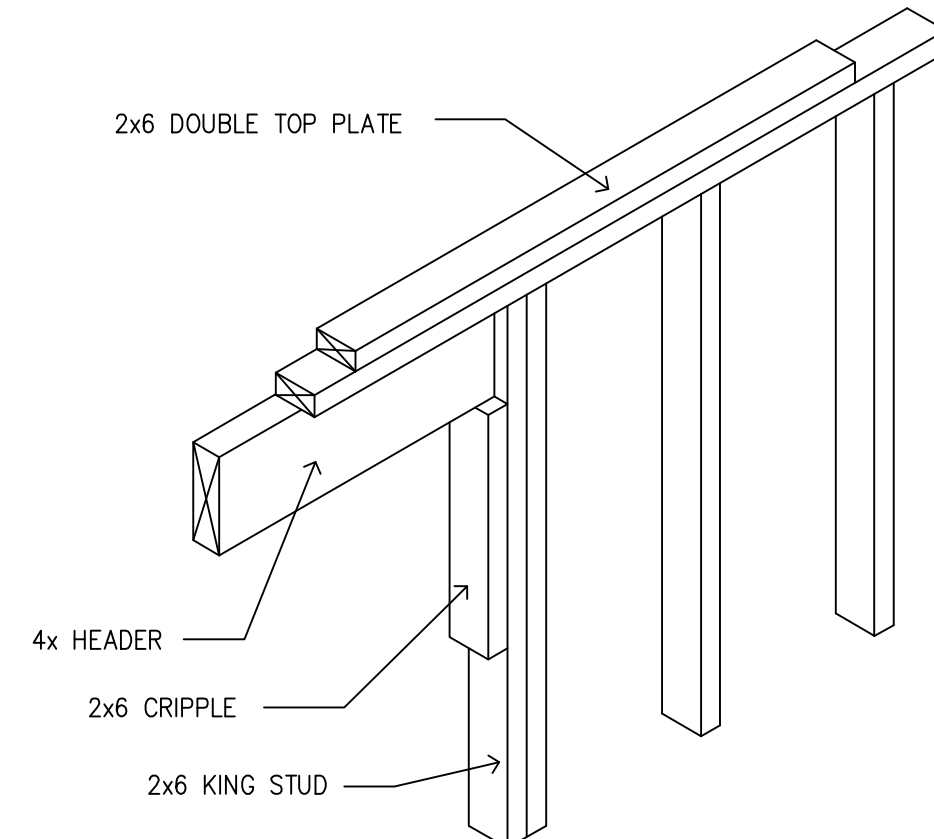
BUILDING SECTIONS

A4.1

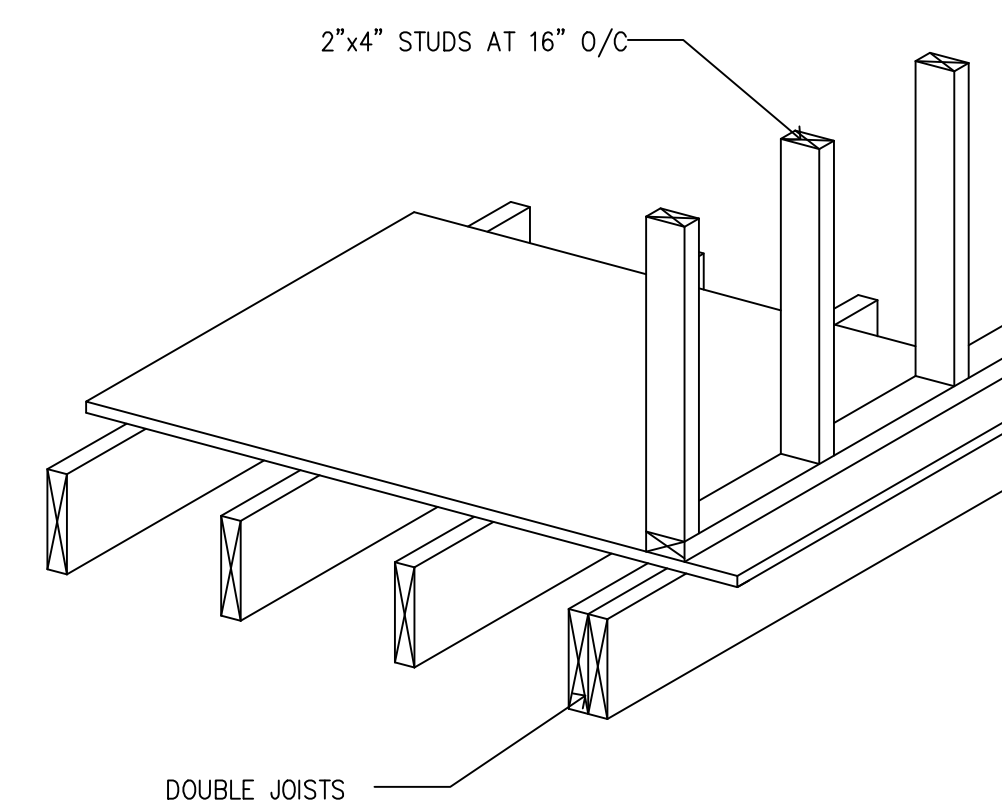




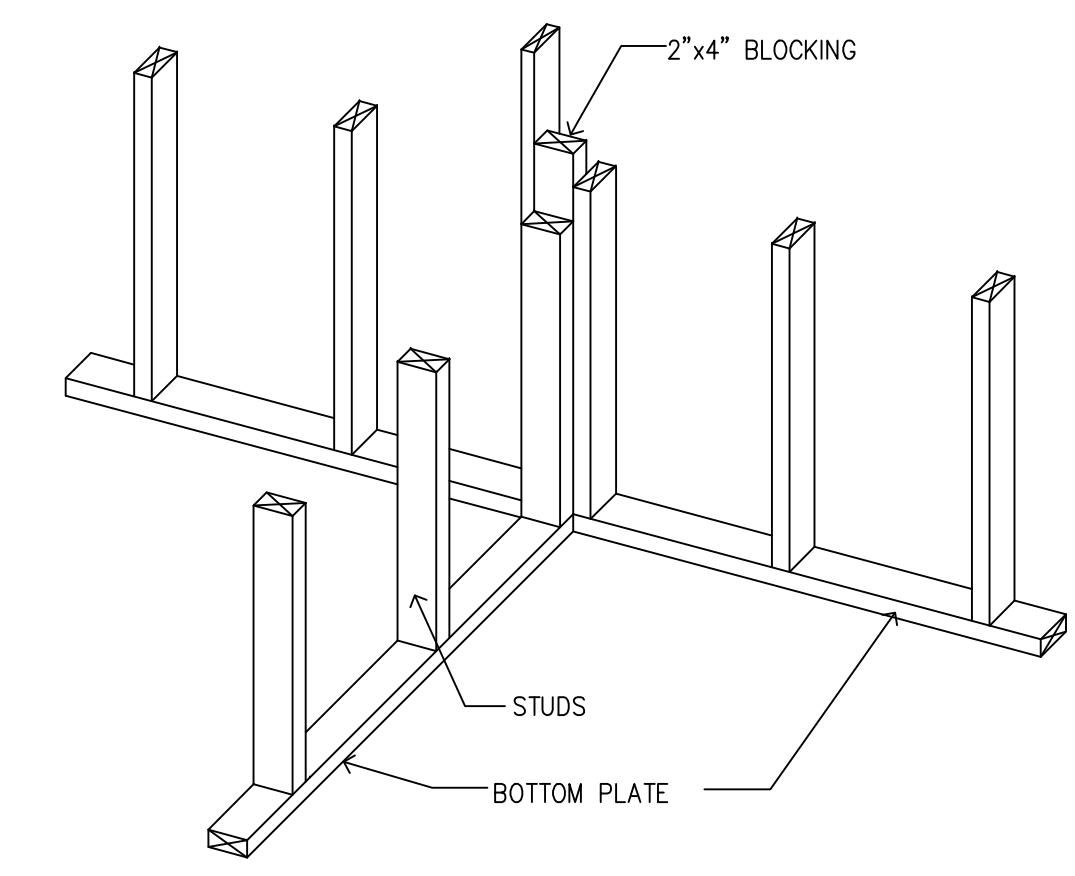
1 TYPICAL CORNER FRAMING  
N.T.S.



2 TYPICAL HEADER DETAIL  
N.T.S.



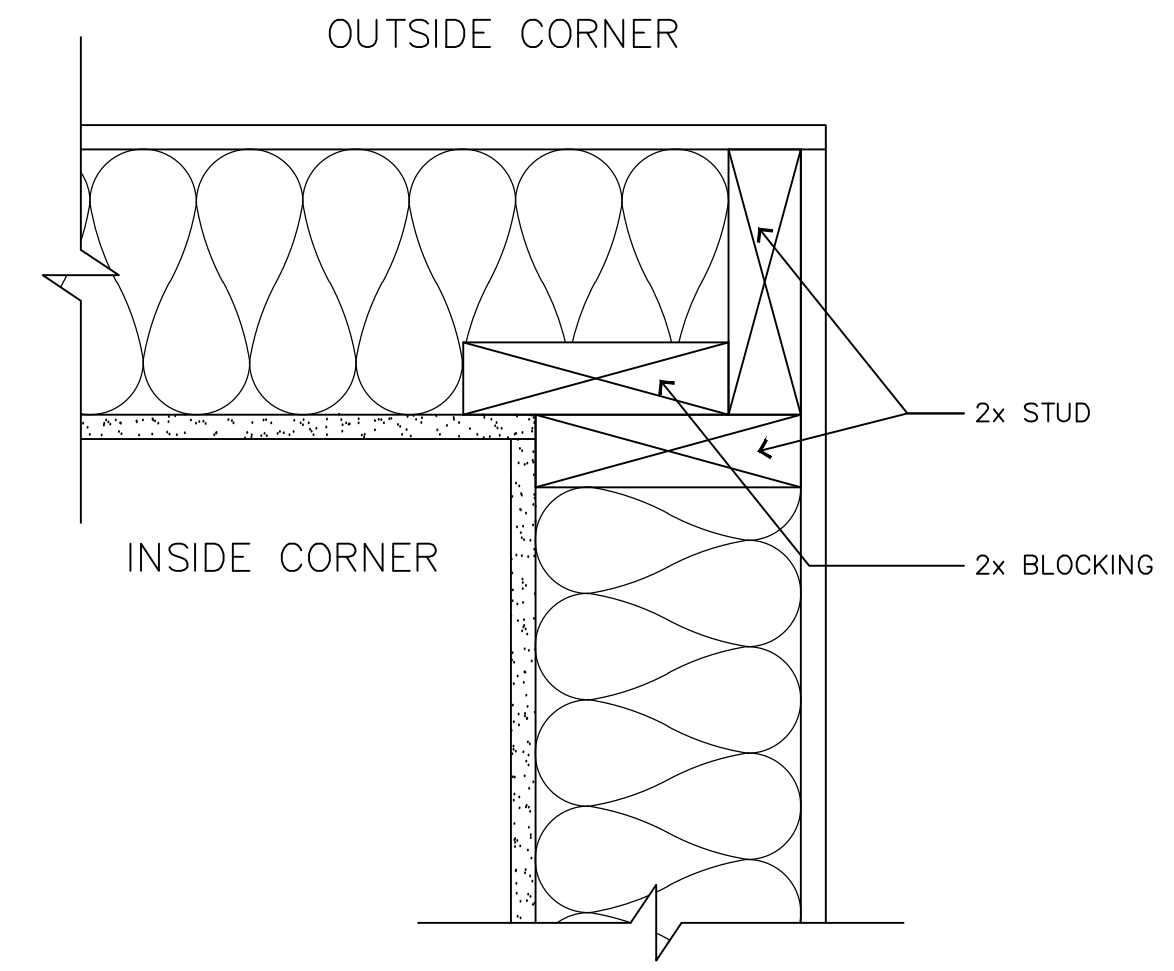
3 DOUBLE JOISTS UNDER PARTITION  
N.T.S.



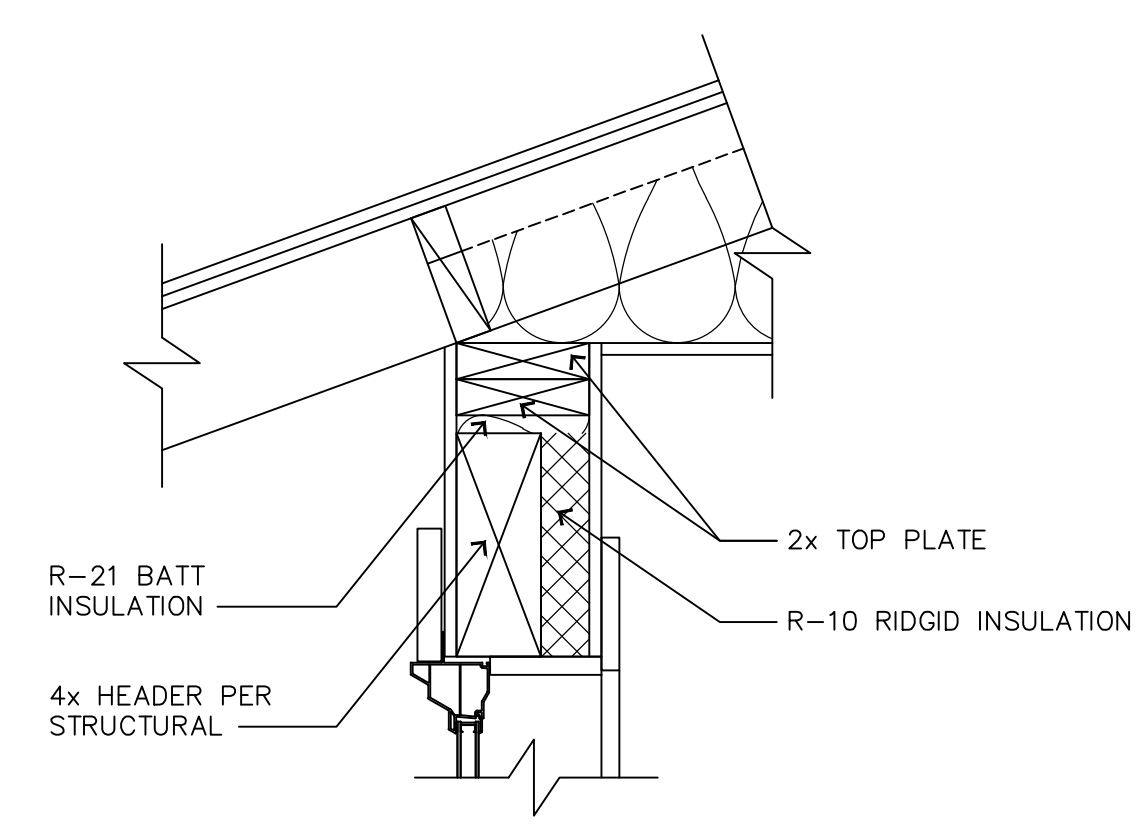
4 INTERMEDIATE CORNER JOINT  
N.T.S.

NOT USED

NOT USED



7 INSULATED THREE-STUD CORNER  
3" = 1'-0"

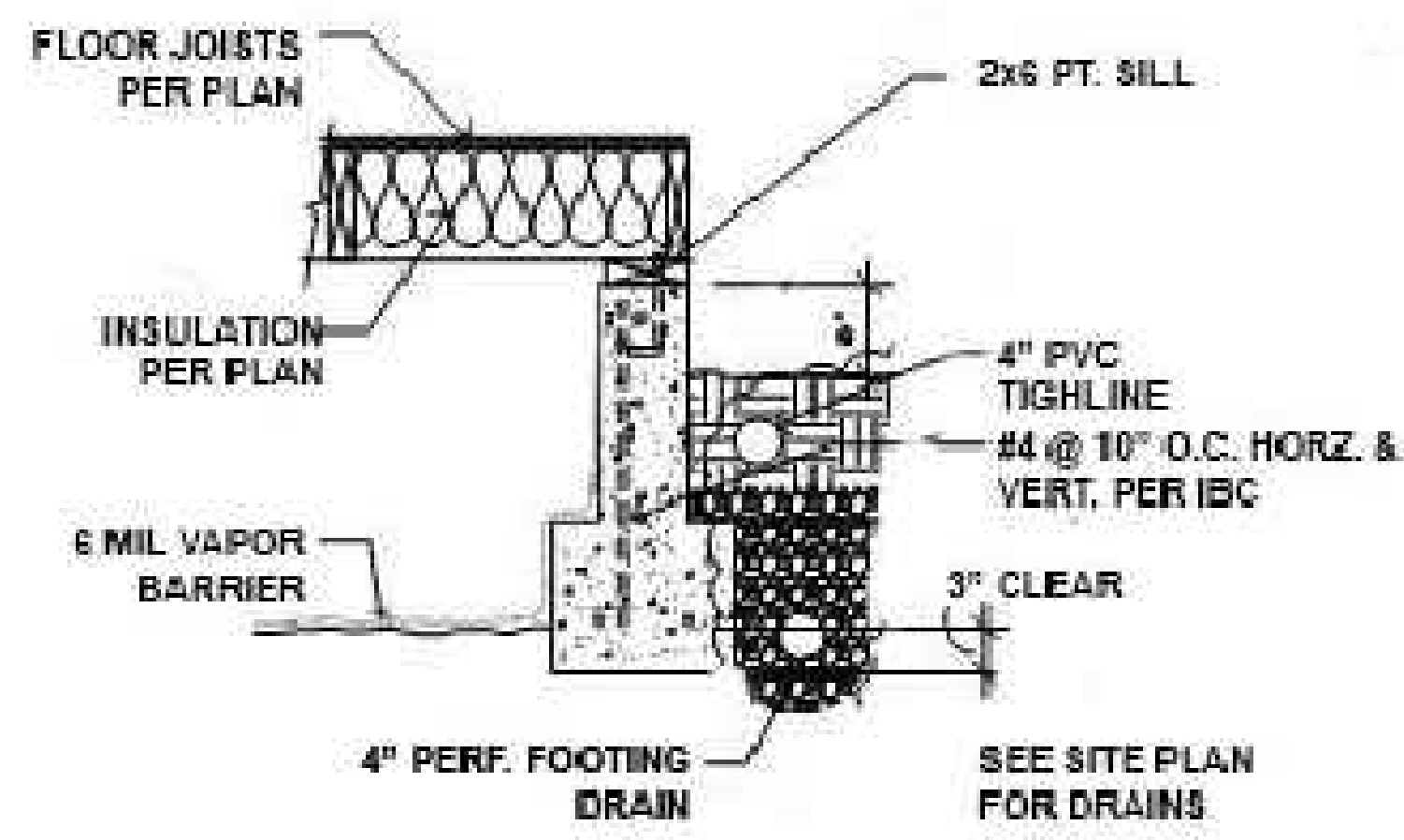


8 INSULATED HEADER CONDITION  
1 1/2" = 1'-0"

NOT USED

NOT USED

NOT USED



9 TYPICAL FOUNDATION DETAIL  
1" = 1'-0"

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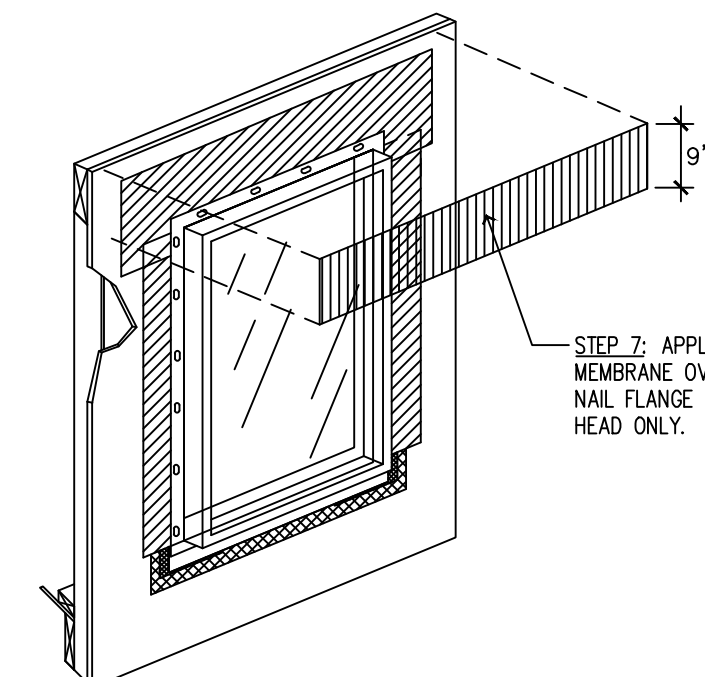
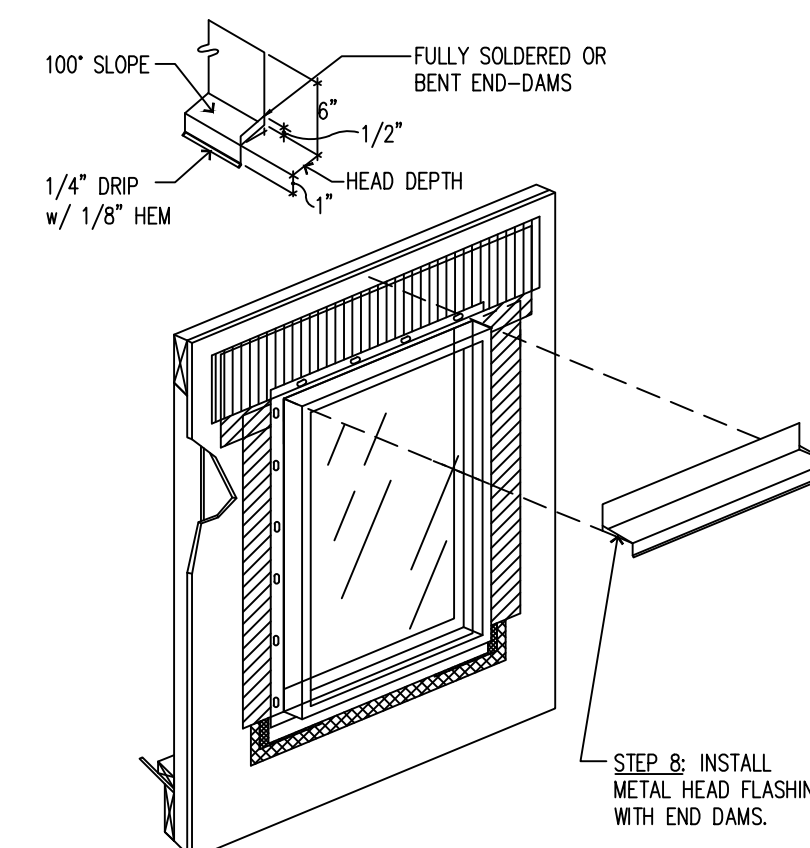
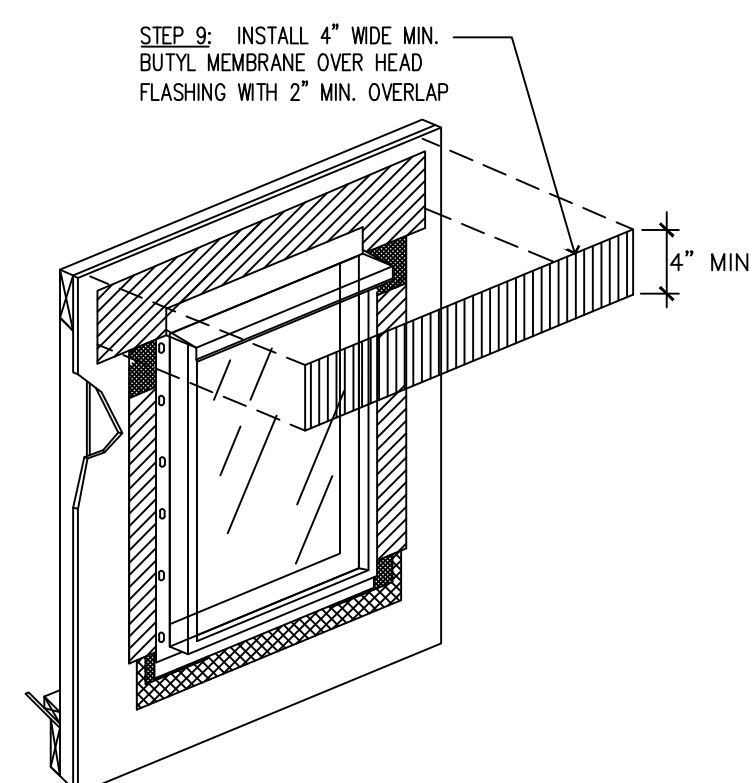
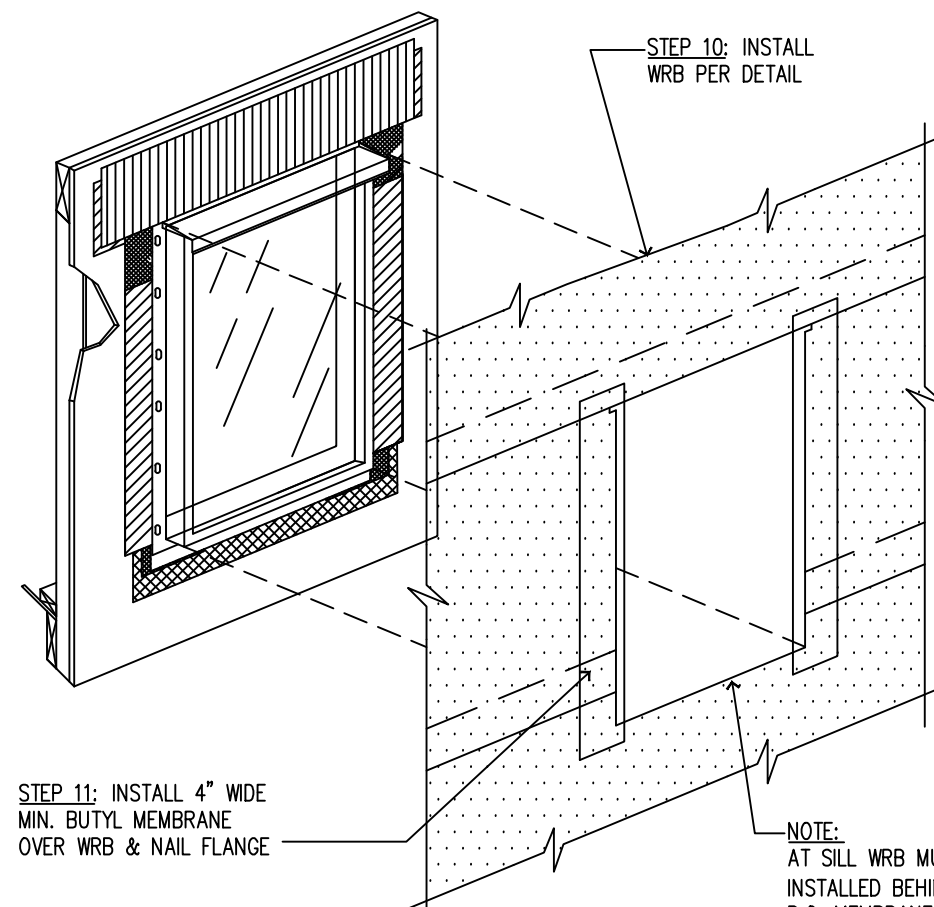
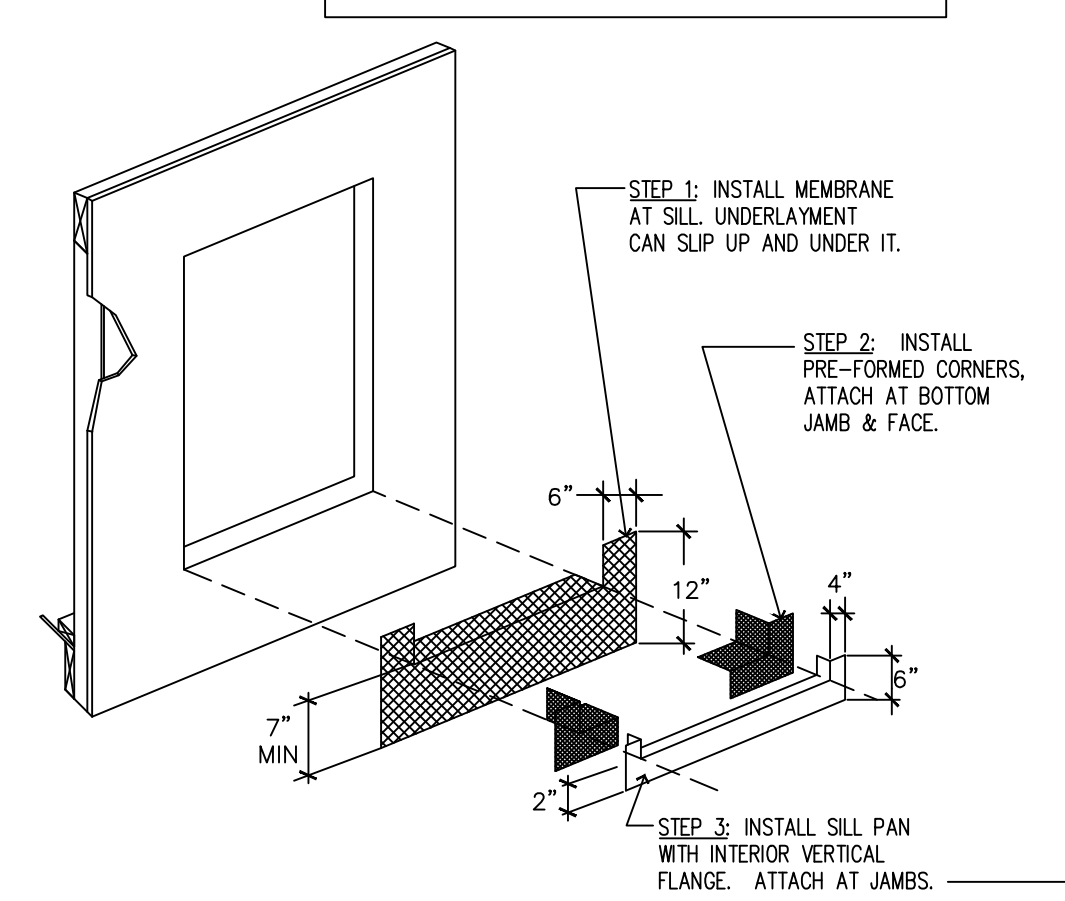
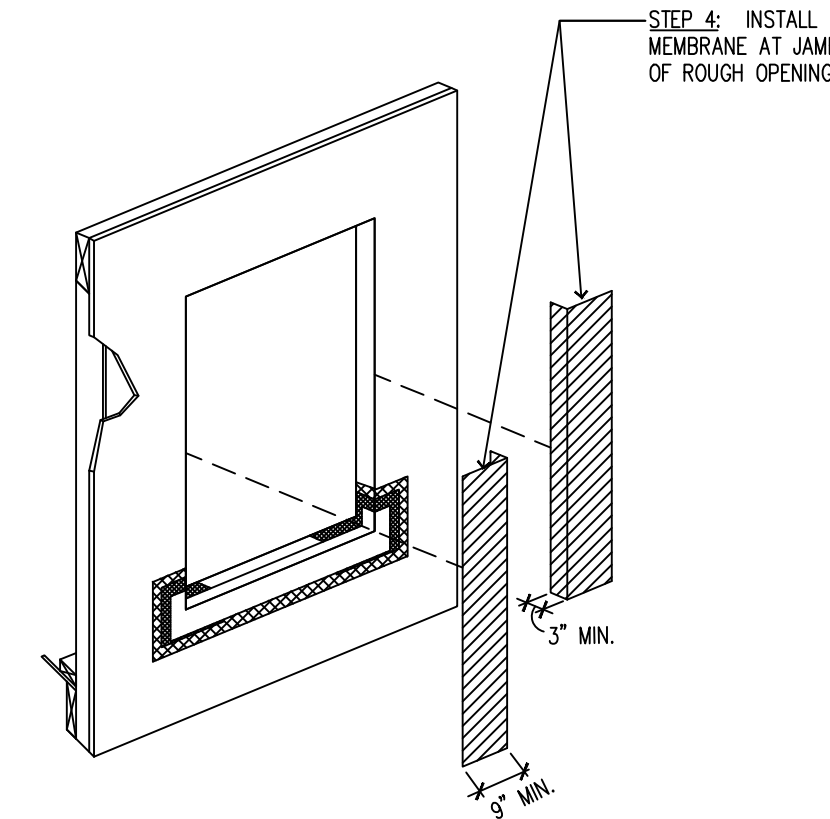
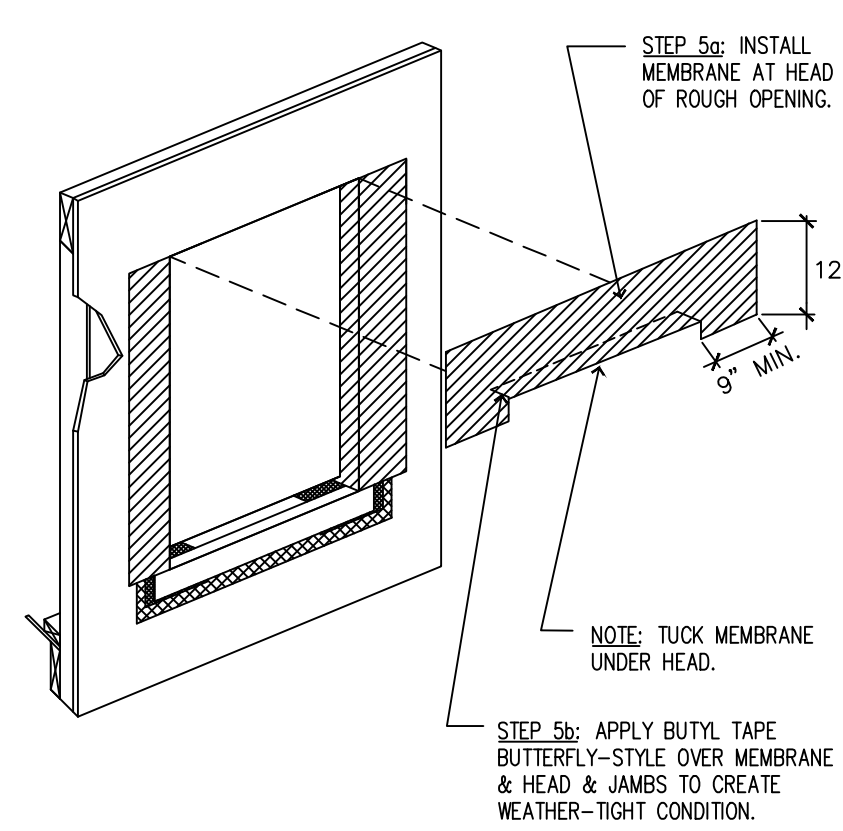
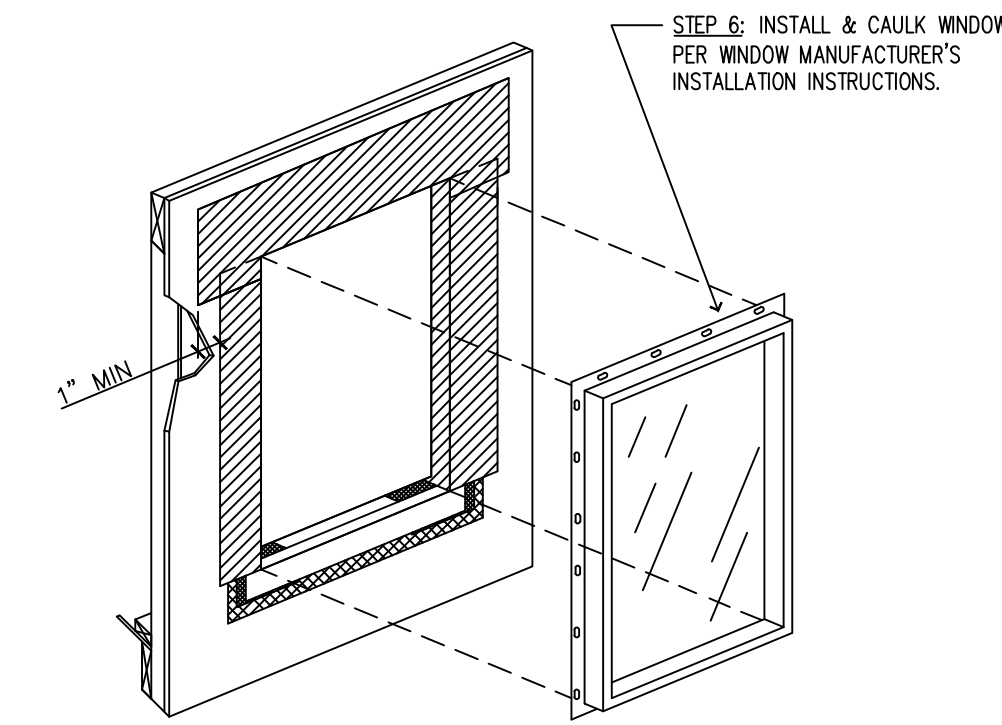
DRAWN: JCP

STATUS: UNDER CONSTRUCTION

- CONTRACTOR SHALL PERFORM ALL WORK WITHIN THIS SCOPE IN ACCORDANCE AND COMPLIANCE WITH ALL RELEVANT CITY, COUNTY, STATE AND/OR FEDERAL ORDINANCES, LAWS, REGULATIONS AND CODES. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS ESTABLISHED BY THE 2012 INTERNATIONAL RESIDENTIAL CODE (IRC) WITH APPROPRIATE STATE AND LOCAL JURISDICTION AMENDMENTS.
- CONTRACTOR SHALL MAINTAIN THE JOBSITE IN A CLEAN AND WORKMANLIKE CONDITION. ANY DEBRIS GENERATED DURING CONSTRUCTION SHALL BE REMOVED FROM THE JOBSITE CONTINUALLY. THE JOBSITE SHALL BE LEFT IN A CLEAN AND NEAT CONDITION AT THE END OF EACH WORKDAY. DEBRIS REMOVAL FROM THE JOBSITE SHALL BE ONGOING. CONTRACTOR SHALL DISPOSE ALL MATERIALS AND DEBRIS IN A LEGAL MANNER. ALL PEDESTRIAN AND VEHICULAR ACCESS-WAYS SHALL BE MAINTAINED IN A CLEAN CONDITION THROUGHOUT THE PROJECT.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL FOLLOW SPECIFIED WATERPROOFING SYSTEMS AND INCORPORATION THEREOF. CONTRACTOR SHALL VERIFY THE MATERIAL COMPATIBILITY OF ALL WATERPROOFING COMPONENTS, SUCH AS SEALANTS, CLOSED-CELL BACKER ROD, SELF-ADHERING MEMBRANE, ETC., UTILIZED IN CONJUNCTION WITH OTHER WATERPROOFING OR BUILDING SYSTEM COMPONENTS, SHOULD THE CONTRACTOR DECIDE TO REQUEST MATERIAL SUBSTITUTION FROM THOSE SPECIFIED BY THE ARCHITECT.
- PRIOR TO PURCHASING AND INSTALLATION, THE CONTRACTOR SHALL PROVIDE THE ARCHITECT FOR THEIR APPROVAL, SHOP DRAWINGS AND SPECS FOR ALL METAL FLASHING AND COUNTER-FLASHINGS IN ORDER TO DEMONSTRATE THEIR UNDERSTANDING OF THE DETAILS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR QUALITY CONTROL AND ASSURANCE OF THE WORK PERFORMED BY THE CONTRACTOR, ITS AGENTS, EMPLOYEES OR ANY SUBCONTRACTOR EMPLOYED OR OTHERWISE RETAINED BY THE CONTRACTOR. CONTRACTOR IS FURTHER RESPONSIBLE FOR PROPER INTEGRATION OF BUILDING COMPONENTS TO PROVIDE A WEATHER-RESISTIVE BUILDING SYSTEM AS INTENDED BY THE DETAILS PROVIDED BY ARCHITECT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE MEANS AND METHODS OF WORK AND SHALL CARRY OUT ALL WORK IN COMPLIANCE WITH THE BEST INDUSTRY STANDARDS AND IN COMPLIANCE WITH PUBLISHED MANUFACTURER'S INSTALLATION INSTRUCTIONS AND STANDARDS REFERENCED IN THE SPECIFICATIONS.
- MOCKUP(S) OF ALL BUILDING ENVELOPE COMPONENTS SUCH AS WINDOWS, DOORS, WRB, CLADDING AND PENETRATION INSTALLATION MUST BE CARRIED OUT PRIOR TO COMMENCEMENT OF EXTERIOR ENVELOPE WORK.
- DETAILS MAY NOT BE MODIFIED, REVISED OR ELIMINATED BY THE CONTRACTOR WITHOUT PRIOR WRITTEN CONSENT
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY AND SCHEDULE FOR INSPECTION AND APPROVAL OF THE WORK PERFORMED WITH RESPECT TO EACH OF THE WATERPROOFING COMPONENTS.
- UNLESS OTHERWISE NOTED, ALL EXPOSED METAL FLASHINGS AND COUNTER-FLASHINGS SHALL BE MADE OF MINIMUM 24 GA PRE-FINISH SHEET METAL. METAL FLASHING SHALL CONFORM TO SMACNA, NRCA, BUILDING CODE AND OTHER RELEVANT CODES AND INDUSTRY STANDARDS. THE VERTICAL LEGS OF SAID FLASHINGS SHALL BE MINIMUM 6 INCHES LONG. THE JOINTS OF PRE-FINISH METAL FLASHING AND COUNTER-FLASHING PIECES SHALL BE 24 GA G-90 GALVANIZED SHEET METAL OR SCHEDULE 307 STAINLESS STEEL. JOINTS OF ALL FLASHING PIECES OTHER THAN PRE-FINISH METAL MUST BE WELDED OR SOLDERED. ALL METAL FLASHING SYSTEMS SHALL BE MANUFACTURED & INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL SHEET METAL MANUAL PUBLISHED BY SMACNA. UNLESS OTHERWISE NOTED, ALL METAL HEAD FLASHINGS SHALL HAVE A MINIMUM 1/2"-TALL END-DAMS. UNLESS OTHERWISE NOTED, ALL SILL PAN FLASHINGS SHALL HAVE END- AND BACK-DAMS, UNLESS OTHERWISE NOTED ALL FLASHINGS AND COUNTER FLASHINGS (METAL AND OTHERWISE) SHALL BE SET IN A CONTINUOUS BEAD OF NON SKINNING BUTYL SEALANT OR APPROVED EQUAL.
- UNLESS OTHERWISE NOTED, ENGINEERED SEALANT JOINTS SHALL BE 1/2"-INCH MINIMUM WIDE BY 1/4"-INCH MINIMUM DEEP IN AN ATTEMPT TO MAINTAIN A 2:1 RATIO. SEALANTS SHALL BE ONE-PART SILICONE SEALANT & SINGLE-PART POLYURETHANE FOR SURFACE APPLICATION AND NON-SKINNING BUTYL FOR INSTALLATION BETWEEN CONCEALED MATERIAL INTERFACES. ACCEPTABLE SEALANTS INCLUDE BUT ARE NOT LIMITED TO DOW CORNING 790 AND 795 SILICONE BUILDING SEALANT, SIKAFLEX 15 LM, AND SONOLASTIC 150 VLM.
- WEATHER-RESISTIVE BARRIER (WRB) SHALL BE COMPRISED OF (1) LAYER OF HIGH-PERFORMANCE VAPROSHIELD-WRAPSHIELD BREATHABLE UNDERLAYMENT MANUFACTURED BY VAPROSHIELD, LLC. NO SUBSTITUTION IS ALLOWED WITHOUT PRIOR APPROVAL. REFER TO DETAILS 6, 10 & 12 ON THIS SHEET FOR ADDITIONAL INFORMATION AND OVERLAP REQUIREMENTS.
- WINDOW AND DOOR UNITS INSTALLED WITHIN THE EXTERIOR WALL SYSTEM MAY NEED TO BE FURRED OUT TO ALLOW FOR PROPER DRAINAGE. IF THIS IS THE CASE, THE FURRING MATERIAL SHALL BE PVC BATTENS OR PRESSURE-TREATED SOLID BLOCKING.
- THE ROUGH OPENING FOR WINDOWS MUST BE 1/2" WIDER AND 1/2" TALLER THAN THE WIDTH & HEIGHT OF THE WINDOW UNIT AS THE SILL PAN WILL LIFT THE WINDOW UNITS BY APPROXIMATELY 1/8"-1/4" OFF THE SILL. REFER TO WINDOW MFR'S INSTALLATION MANUAL FOR ADDITIONAL ROUGH OPENING REQUIREMENTS.
- UNLESS OTHERWISE NOTED ON THE PLANS, ALL WOOD BLOCKING SHALL BE PRESSURE-TREATED LUMBER. IF SUCH MATERIAL IS CUT ONSITE, CUT ENDS MUST BE TREATED WITH STANDARD WOOD PRIMERS IMMEDIATELY.
- FURRING BATTENS SHALL BE EITHER 1X4 BORATE-TREATED LUMBER OR 3/4" BY 1-7/8" PVC VAPROBATTEN MANUFACTURED BY VAPROSHIELD LLC. FURRING BATTENS SHALL ONLY BE INSTALLED VERTICALLY. FURRING BATTENS MUST BE INSTALLED DIRECTLY OVER STUDS SPACED NO MORE THAN 16". FURRING BATTENS MUST BE SECURELY ATTACHED TO THE STUDS USING APPROVED FASTENERS. ENSURE THAT THE FASTENERS FOR SIDING INSTALLATION ARE LONG ENOUGH TO PENETRATE THROUGH THE FURRING BATTENS, SHEATHING(S) AND INTO STUDS A MINIMUM OF 1/2". WHERE DISSIMILAR MATERIALS ABUT, INSTALL FURRING BATTENS DIRECTLY BEHIND MATERIAL TRANSITIONS.
- AT RAINSCREEN SYSTEMS INSECT SCREENS SHALL BE PROVIDED AT TOP & BOTTOM OF THE WALLS AS WELL AS TOP & BOTTOM ANY AND ALL WALL PENETRATIONS. IT SHALL BE EITHER 3/4" MIN VAPROVENT STRIP / VAPROVENT HOOK STRIP OR METAL BUG SCREEN. THE SCREEN / STRIP MUST BE INSTALLED CONTINUOUSLY.
- WINDOW AND DOOR PENETRATION WRAPS SHALL CONSIST OF VAPROSHIELD-WRAPSHIELD MANUFACTURED BY VAPROSHIELD LLC. INSTALL PENETRATION WRAPS PER MANUFACTURER'S RECOMMENDATIONS AS WELL AS THE WATERPROOFING DETAILS. USE FACTORY PRE-FORMED CORNERS. USE APPROPRIATE PRIMER FOR APPLICATIONS AT EXTERIOR SHEATHING OR WHERE THE SURFACE TEMPERATURE IS BELOW 40-DEGREE FAHRENHEIT PURSUANT TO THE MANUFACTURER'S INSTRUCTIONS.
- UNLESS OTHERWISE NOTED, SELF-ADHERING MEMBRANE (S.A.M.) SHALL BE MINIMUM OF 9" WIDE VAPROSHIELD S.A.M. MANUFACTURED BY VAPROSHIELD LLC, OR THERMFLASH. USE APPROPRIATE PRIMER FOR APPLICATIONS AT EXTERIOR SHEATHING OR WHERE THE SURFACE TEMPERATURE IS BELOW 40-DEGREE FAHRENHEIT PER MANUFACTURER'S RECOMMENDATIONS.
- WHERE THROUGH WALL PENETRATIONS OCCUR (e.g., HOSE BIBS, PIPES, ELECTRICAL BOXES, LIGHT FIXTURES, ETC.) INSTALL 24 MIL THERM FLASH PENETRATION WRAP & BUTYL TAPE AS WELL AS WRB APRONS PER WATERPROOFING DETAILS.
- THE BUILDING ENVELOPE SYSTEM SHALL BE A CONTINUOUS AIR-BARRIER SYSTEM IN ACCORDANCE WITH 2012 WASHINGTON ENERGY CODE PROVISIONS.
- AT CONCRETE CONSTRUCTION & COLD-JOINTS APPLY APPROVED DOUBLE LOCKING HYDROPHOBIC WATERSTOP CAPABLE OF 2-TIMES EXPANSION BY VOLUME. BASIS OF DESIGN IS ULTRASEAL P-201 BY ADEKA. CONCRETE SHALL BE CLEANED, TOOLED AND PRIMED BEFORE INSTALLING WATERSTOP MEDIUM.
- ALL FASTENERS SHALL BE EITHER STAINLESS STEEL; OR DOUBLE-DIPPED, HOT-DIPPED OR HEAVY-DIPPED GALVANIZED CONFORMING TO ASTM A153. ELECTRO-GALVANIZED FASTENERS MUST NOT BE USED UNDER ANY CIRCUMSTANCES.
- UNDER SLAB VAPOR BARRIER AT NEW SLAB ON GRADE AREAS SHALL BE CLASS B, 15mil GEOMEMBRANE CONFORMING TO ASTM E-1745. BASIS OF DESIGN IS STEGO WRAP 15mil WITH STEGO TAPE, MANUFACTURED BY STEGO INDUSTRIES.
- MAINTAIN A MINIMUM OF 6" SEPARATION BETWEEN FINISH GRADE AND FRAMING AND SIDING MATERIALS.
- SLOPE ALL WEATHER-DECKS, WALKS AND PATIOS AWAY FROM THE BUILDING WITH A MINIMUM SLOPE OF 1/4" PER FOOT. INSTALL CROCKETS ON WEATHER-DECK SURFACES, WHERE NEEDED, TO ALLOW FOR PROPER SLOPE AND DRAINAGE. AT A MINIMUM 1/4" PER 1" SLOPE (U.O.N.) MUST BE PROVIDED TOWARD ROOF DRAINS & SCUPPERS.
- WHOLE BUILDING AIR-LEAKAGE TESTING VIA BLOWER DOOR TEST SHALL BE PERFORMED IN ACCORDANCE WITH THE 2015 WSEC. REFER TO "AIR BARRIER GENERAL NOTES" AND "ENERGY CODE NOTES" FOR ADDITIONAL INFORMATION AND REQUIREMENTS. THE OWNER SHALL ENGAGE A TESTING AGENCY TO PERFORM THE REQUIRED TESTING IN ACCORDANCE WITH 2015 WSEC. TESTING SHALL BE IN COMPLIANCE WITH ASTM E-779 OR SIMILAR APPROVED TEST METHOD.
- ANY DISCREPANCY NOTED BY THE CONTRACTOR MUST BE BROUGHT TO THE ARCHITECT'S ATTENTION IMMEDIATELY. WHERE DISCREPANCY OCCURS BETWEEN VARIOUS CONTRACT DOCUMENTS, CONTRACTOR SHALL FOLLOW THE MOST STRINGENT REQUIREMENT FOR EACH CATEGORY.
- CONTRACTOR SHALL SUPPLY AND INSTALL FLASHINGS AND COUNTER-FLASHINGS AT ALL TRANSITIONS AND JUNCTIONS PURSUANT TO THE REQUIREMENTS OF THE BUILDING CODE, INDUSTRY STANDARDS INCLUDING SMACNA, EVEN IF SUCH FLASHING IS NOT SPECIFICALLY CALLED OUT FOR IN A DETAIL PROVIDED FOR HEREIN.

**NOTES:**

- PLACE WINDOW ON 1/8" SHIMS TO PROVIDE DRAINAGE GAP BETWEEN WINDOW FRAME AND SILL PAN.
- ATTACH WINDOW PER MANUFACTURER'S RECOMMENDATIONS AT SILL AND JAMBS.
- APPLY APPROVED SEALANT BEHIND NAIL FLANGES AT HEAD AND JAMBS.

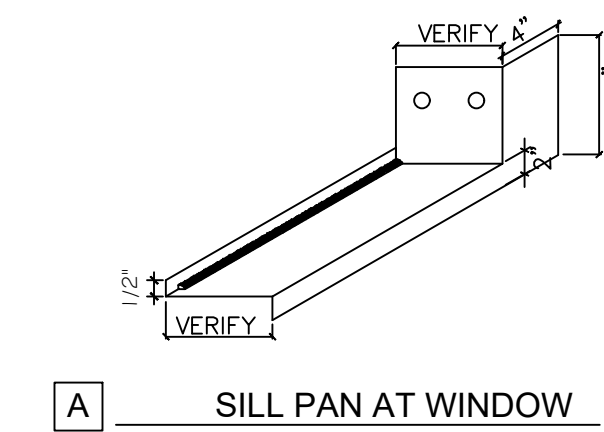
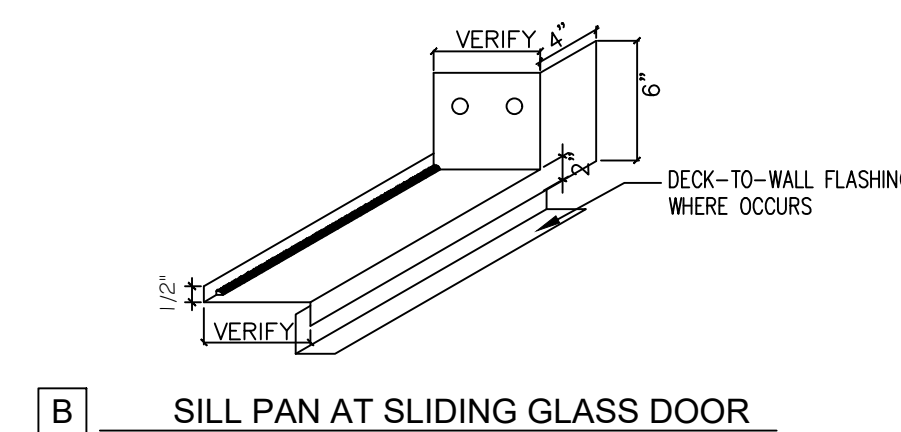


**SILL PAN NOTES:**

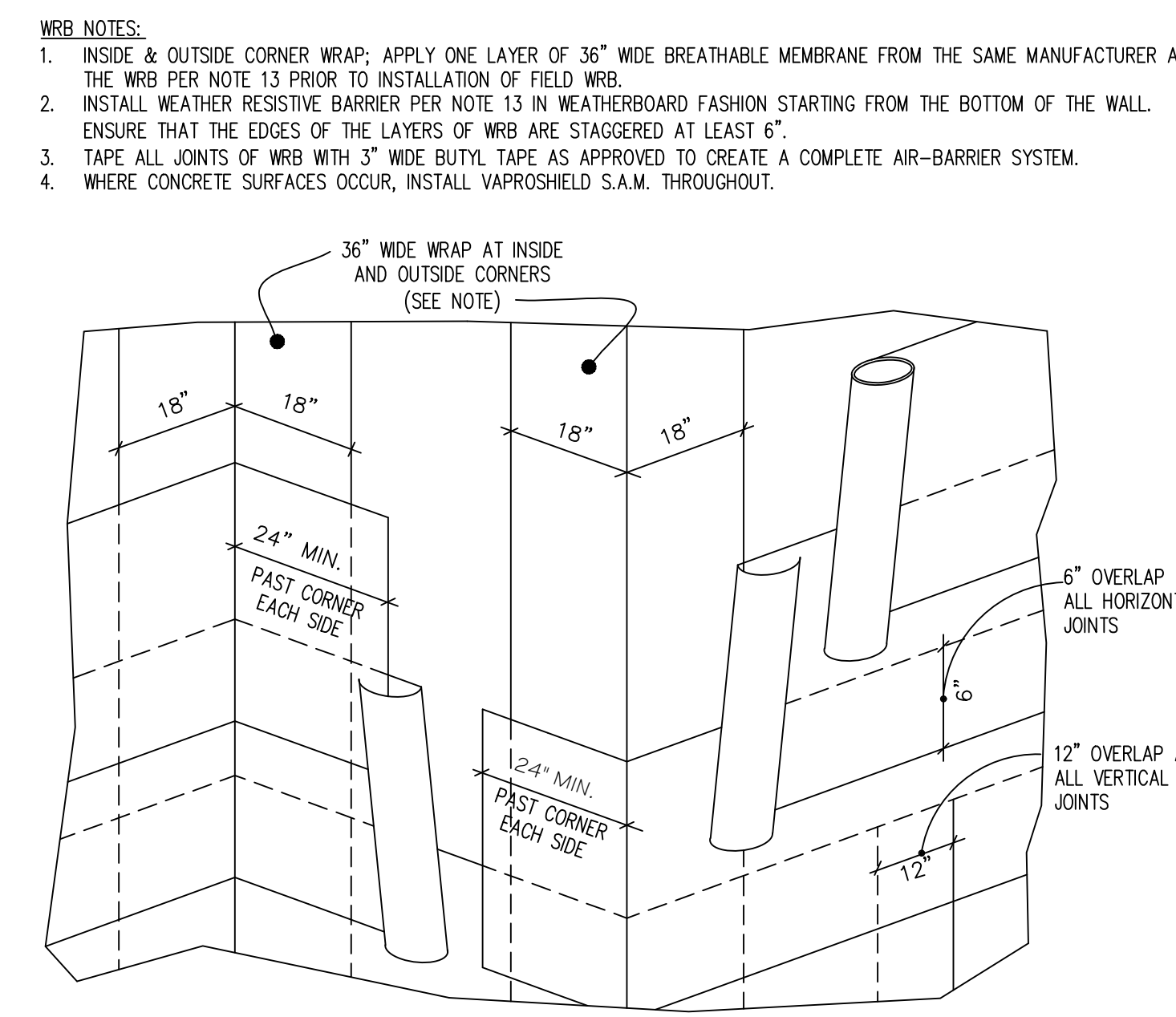
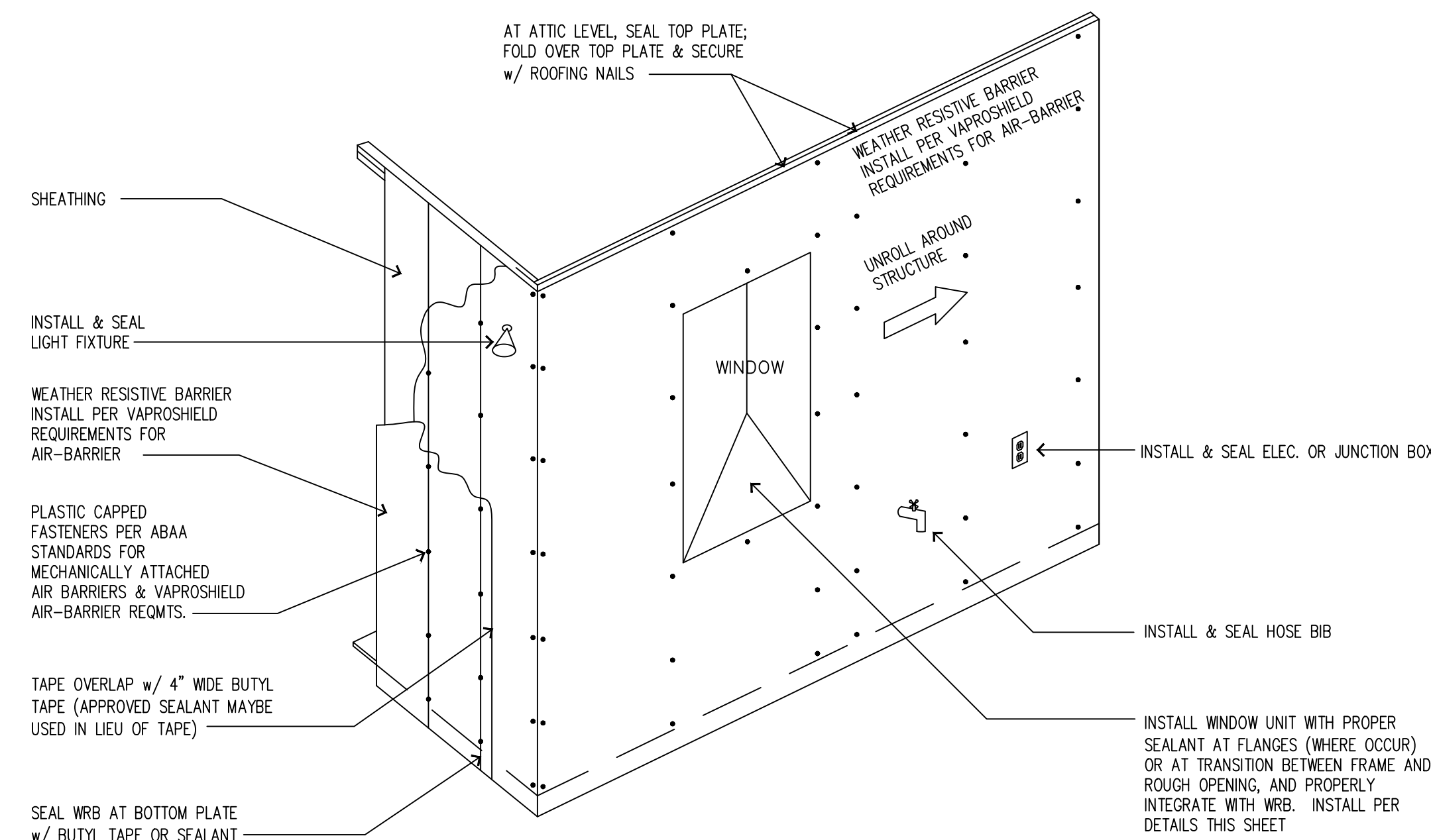
- ALL PANS AT MASONRY TO BE STAINLESS STEEL OR 24 GA GALV. PRE-FINISHED.
- RESIDENTIAL WINDOW WALL SYSTEMS TO HAVE ALUMINUM PANS & FLASHINGS PER DETAILS TO MATCH WINDOW FRAME COLORS.
- SEAL OR SOLDER JOINTS AT END- & BACK DAMS TO FORM A WATERTIGHT PAN ASSEMBLY. SEAL BACK TO END DAM TRANSITIONS.
- COORDINATE BACK DAM HEIGHT WITH THRESHOLD AND/OR INTERIOR FINISHES PER ARCH. PLANS.
- PROVIDE HEMMED EDGE AT ALL EXPOSED EDGES.

**WRAP & WRB NOTE:**

- FASTEN WINDOW/DOOR WRAP & WRB PER WP DETAILS PROVIDED HEREIN WITH STAINLESS STEEL STAPLES w/ 7/16" CROWNS.
- WHERE STEEL STUD FRAMING OCCURS, USE APPROVED ADHESIVE TO PROPERLY ATTACH WINDOW/DOOR WRAP THERETO.
- WHERE CONCRETE SURFACES OCCUR, USE VAPROSHIELD S.A.M. MEMBRANE FOR WINDOW/DOOR WRAPS AND WRB.
- WRAP PENETRATION WRAP INSIDE R.O. AND TAPE TO MAINTAIN AIR-BARRIER SYSTEM.



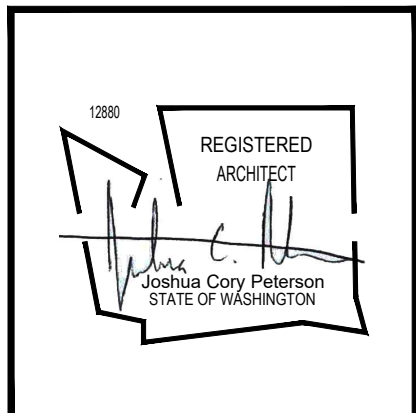
**6 TYPICAL WINDOW WRAP SEQUENCE**  
N.T.S.



**9 ENVELOPE WATERPROOFING NOTES**  
SCALE: NONE

**10 EXTERIOR AIR BARRIER SYSTEM**  
N.T.S.

**12 WEATHER RESISTANT BARRIER (WRB)**  
SCALE: NONE



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**BARNETT RESIDENCE ADDITION/REMODEL**  
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WATERPROOFING & AIR BARRIER NOTES & DETAILS  
**A5.3**

### HARDWARE SCHEDULE

GENERAL NOTES:  
 1. ALL HARDWARE FINISHES PER OWNER'S SPECS.  
 2. EXTERIOR WEATHER STRIPS TO BE SURFACE MOUNTED ON JAMB WITH SCREWS.  
 3. REFER TO FLOOR PLAN FOR RH OR LH SWING.

### GENERAL NOTES

PROVIDE SAFETY GLAZING PER IRC SECTION R308.4 AT HAZARDOUS LOCATIONS INCLUDING BUT NOT LIMITED TO:  
 A. WITH 24" OF A DOOR  
 B. WITHIN TUB AND SHOWER ENCLOSURES.  
 C. WITHIN A FLIGHT OF STAIRS.  
 D. WITHIN A LANDING (TOP OR BOTTOM) OF STAIRS.  
 REFER TO SHEET A0.2, GENERAL IRC CODE NOTES, FOR INFORMATION REGARDING DOORS (EMERGENCY ESCAPE AND RESCUE OPENINGS) AND ADDITIONAL HAZARDOUS GLAZING LOCATIONS.  
 EGRESS WINDOWS SHALL MEET REQUIREMENTS OF R310.2

### ENERGY CODE NOTES

CODE:  
 THIS ADDITION IS IN ACCORDANCE WITH THE 2015 WASHINGTON STATE ENERGY CODE (WSEC) REQUIREMENTS - PRESCRIPTIVE PATH REQUIREMENTS FOR CLIMATE ZONE 1 AND 2015 IRC VENTILATION CODE.  
 FUEL TYPE: NATURAL GAS  
 PROPOSED FENESTRATION AREA: 106.2/488.65 = 21.74%  
 MAX. GLAZING FACTORS:  
 VERTICAL GLAZING: U=0.30  
 OVERHEAD GLAZING: N/A  
 MIN. INSULATION LEVELS:  
 ATTICS: R-49  
 VAULTED CEILINGS: R-38  
 ABOVE GRADE WALLS: R-21  
 AT INTERIOR: R-21  
 AT EXTERIOR: R-21  
 FLOORS o/ UNHEATED SPACE: R-30  
 SLAB-ON-GRADE (HEATED) FLOORS: R-10  
 PROVIDE 4 MIL POLY VAPOR BARRIER ON WARM SIDE OF WALLS.  
 PROVIDE 6 MIL POLY VAPOR BARRIER AT WARM SIDE OF CEILINGS.  
 WHOLE HOUSE FAN SHALL BE INTEGRATED WITH AUTOMATIC FRESH AIR DAMPER ON FORCED AIR UNIT.  
 ALL HEATING DUCTS LOCATED IN UNHEATED AREAS ARE TO BE INSULATED TO MINIMUM R-8. DUCT SEAMS ARE TO BE SEALED AND FASTENED WITH A MINIMUM OF FASTENERS.  
 NON-RECIRCULATING HOT & COLD WATER PIPES LOCATED IN UNCONDITIONED AREAS SHALL BE INSULATED TO MINIMUM R-3.

### WINDOW SCHEDULE

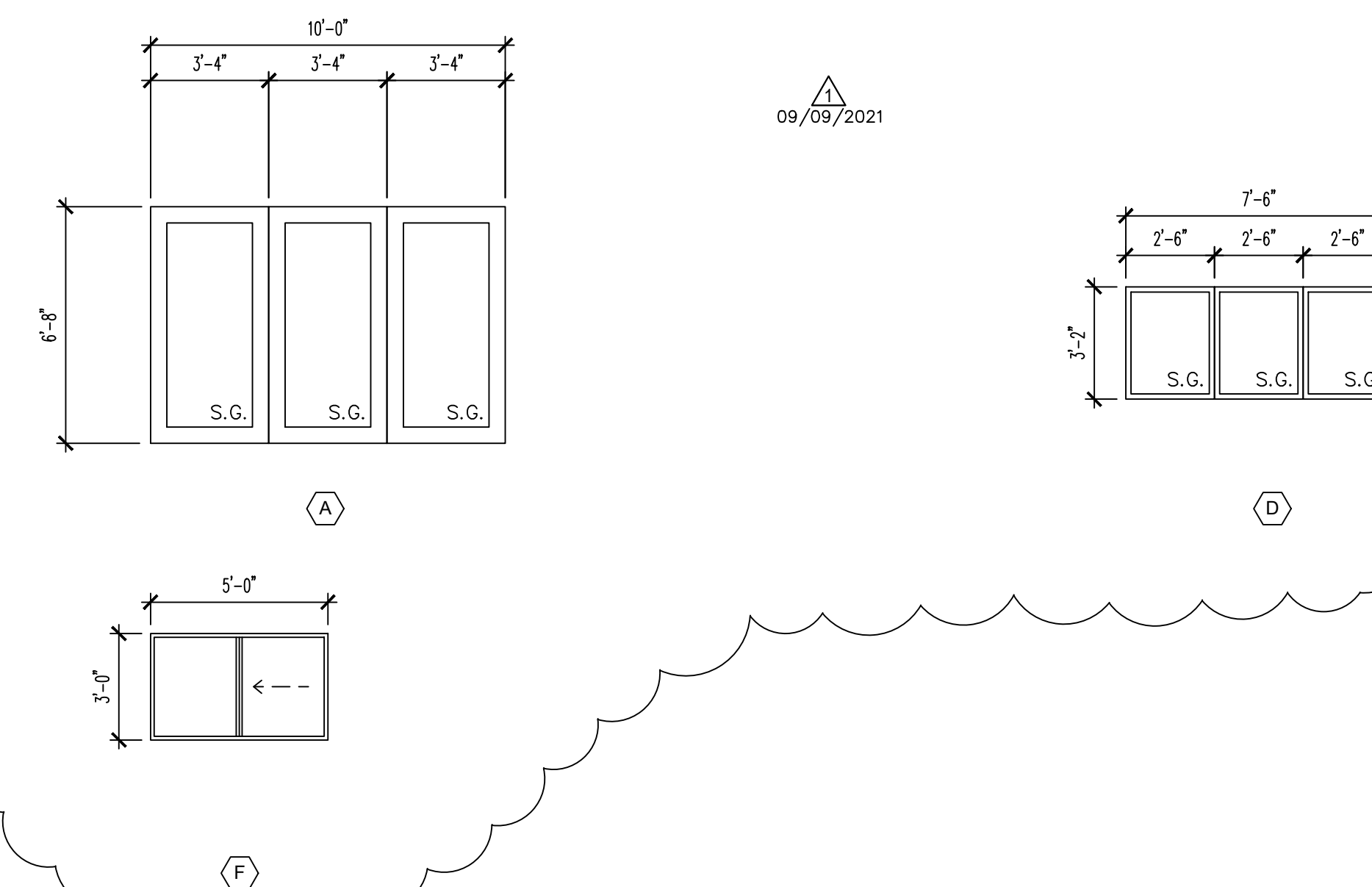
TYPE	WIDTH	HEIGHT	MATERIAL	COLOR	# WIN	TOTAL (TGA) (SF)	U VALUE (MAX.)	UA	SHGC (MAX.)	VT	REMARKS
D	7'-6"	3'-2"	FIBRGLAS	WHITE	1	23.8	0.24	5.7	N/A	-	SAFETY GLAZING. COORDINATE OPERABILITY w/ OWNER (BI-FOLD OR SLIDING WINDOW)
F	5'-0"	3'-0"	FIBRGLAS	WHITE	1	15.0	0.24	3.6	N/A	-	SAFETY GLAZING. COORDINATE OPERABILITY w/ OWNER
G	2'-0"	4'-0"	FIBRGLAS	WHITE	8	64.0	0.24	15.36	N/A	-	SKYLIGHT (INDOOR FOR ENERGY CODE)
H	2'-0"	4'-0"	FIBRGLAS	WHITE	2	16.0	0.24	3.84	N/A	-	SKYLIGHT (EXTERIOR)
						09/09/2021					

NOTES:  
 1. ALL GLAZING SHALL BE INSULATED TYPE. ALL FRAMES SHALL BE THERMALLY BROKEN  
 2. ALL GLAZING SHALL BE CLEAR GLASS.

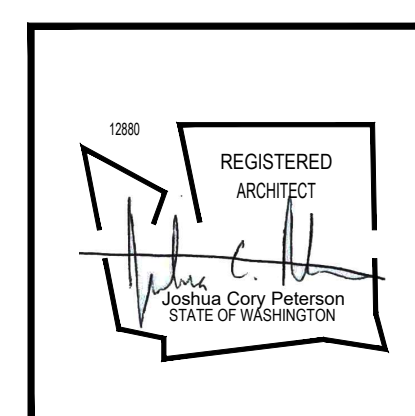
### DOOR SCHEDULE

A	10'-0"	6'-8"	WD	WHITE	1	66.7					

#### WINDOW TYPES:



NOTE:  
 REFER TO SHEET A5.3 FOR WINDOW INSTALLATION DETAILS, AIR BARRIER, AND BUILDING ENVELOPE REQUIREMENTS. SEE ENERGY CODE NOTES SHEET A3.1 FOR MORE INFORMATION.



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**BARNETT RESIDENCE  
 ADDITION/REMODEL**  
 7530 86TH AVE S.E.  
 MERCER ISLAND, WA 98040

REVISIONS		
NO.	DATE	BY
1	09/09/2021	CONST. REV
2		
3		
4		
5		
6		

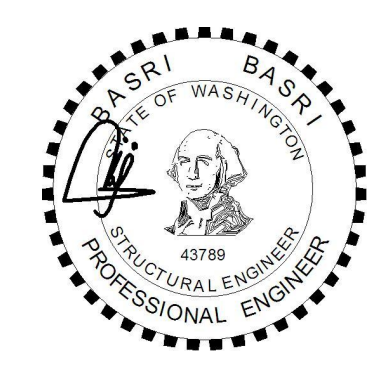
ISSUE DATES  
 DESIGN APPROVAL:  
 PERMIT SUBMITTAL: 12/09/2020  
 PERMIT RECEIVED: 07/26/2021  
 BID DOCS:  
 CONSTR. DOCS:

24"x36" SCALE: AS NOTED  
 PLOT DATE: 09/09/2021  
 CAD FILE: A20-010 A6.1  
 JOB NUMBER: A20-010  
 CHECKED: JCP  
 DRAWN: JCP  
 STATUS: UNDER CONSTRUCTION

WINDOW SCHEDULE  
 & ENERGY CODE NOTES  
**A6.1**







**BARNETT ADDITION**

7530 86TH AVE SE,  
MERCER ISLAND, WA  
98040

DRAWING INFO

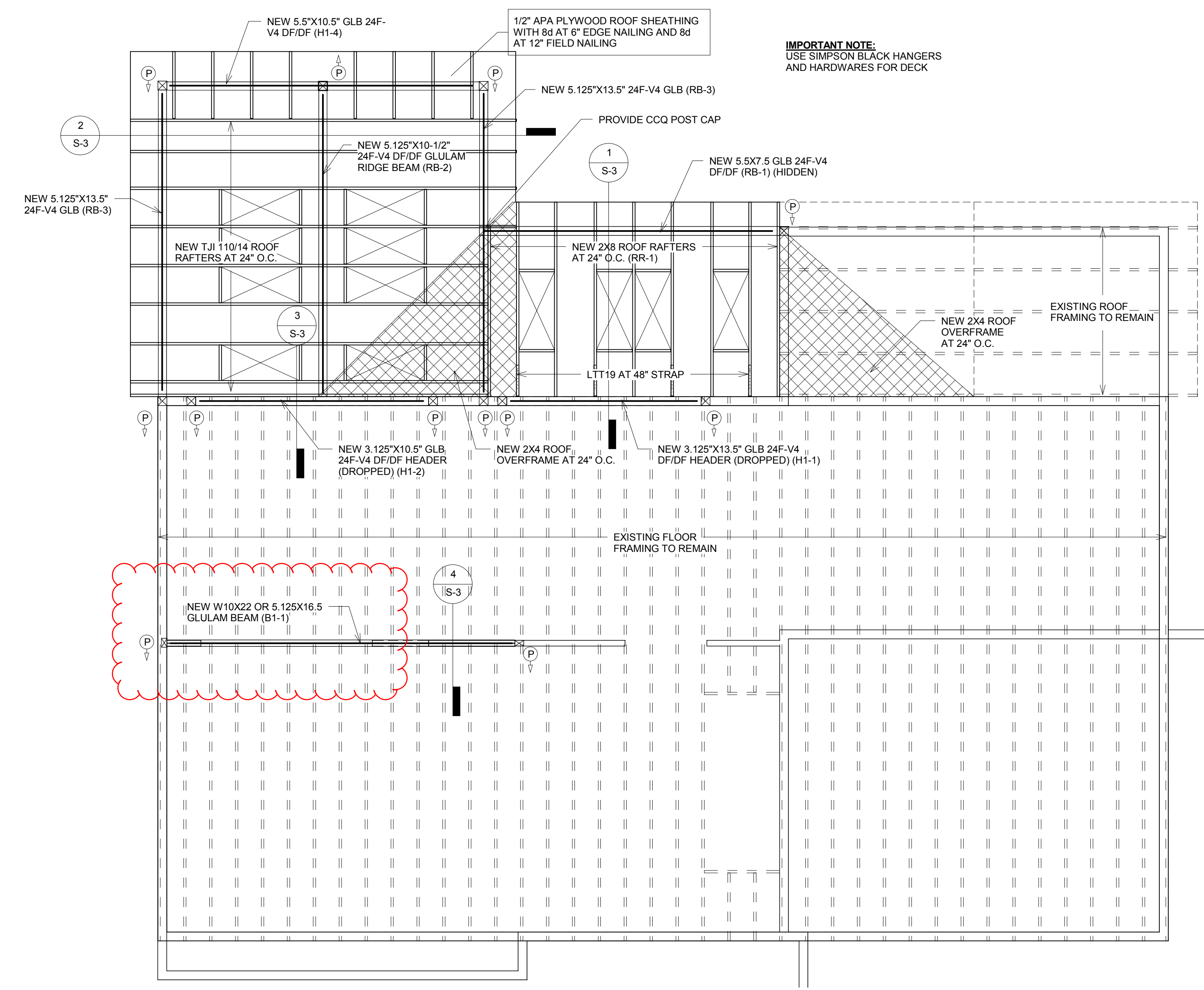
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ISSUED FOR PERMIT  
PROJECT NO. 20201  
ENGINEER BB

REVISION SCHEDULE

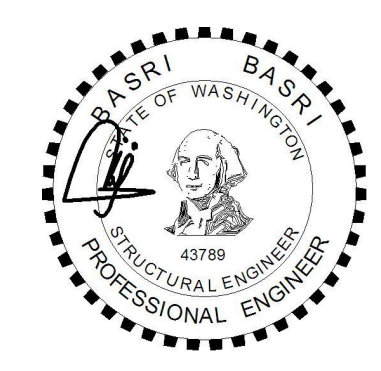
NO.	DATE	DESCRIPTION

FRAMING PLANS

**IMPORTANT NOTE:**  
USE SIMPSON BLACK HANGERS  
AND HARDWARES FOR DECK



1 UPPER FLOOR  
1/4" = 1'-0"



**BARNETT ADDITION**

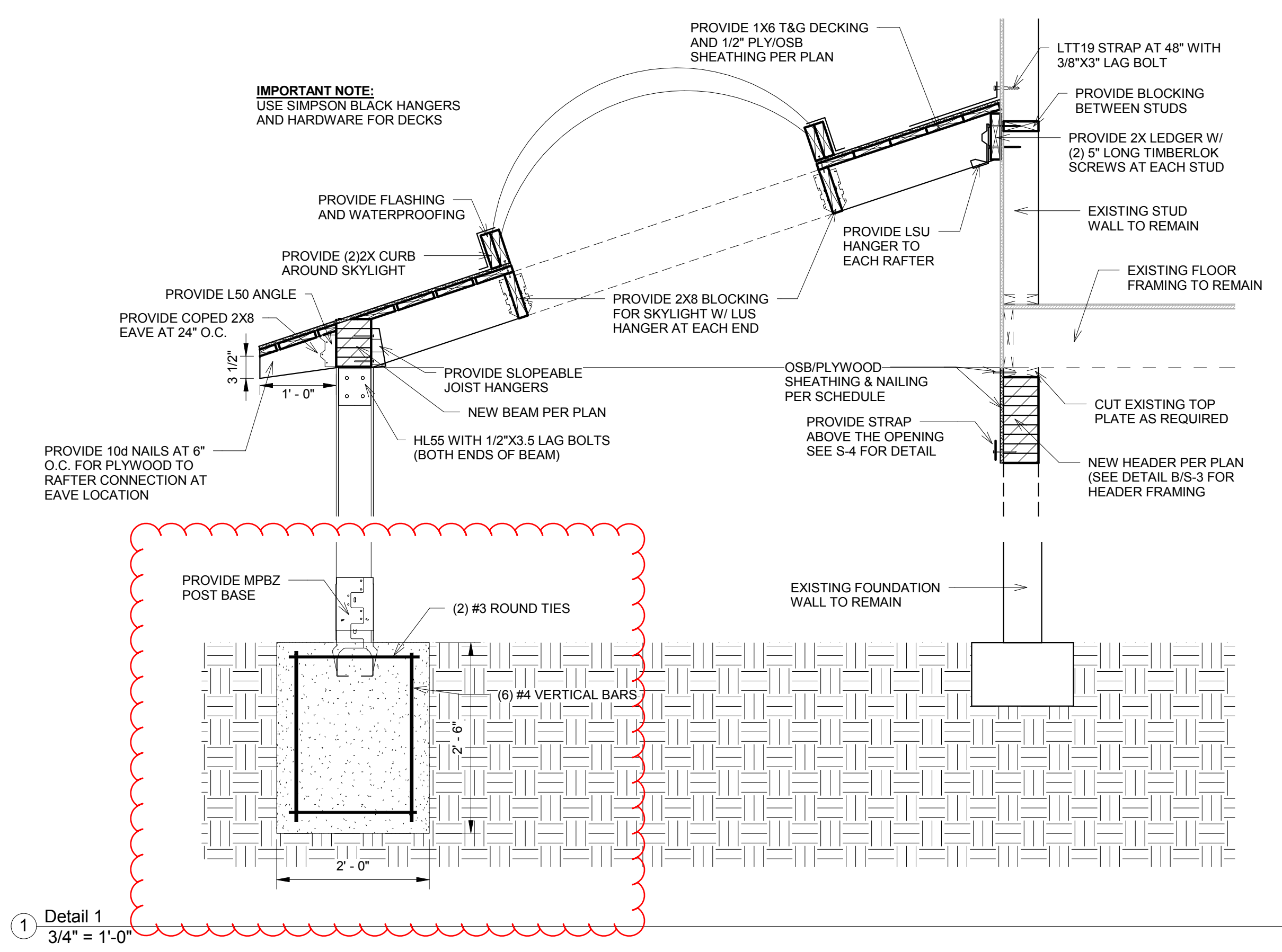
7530 86TH AVE SE,  
MERCER ISLAND, WA  
98040

**DRAWING INFO**

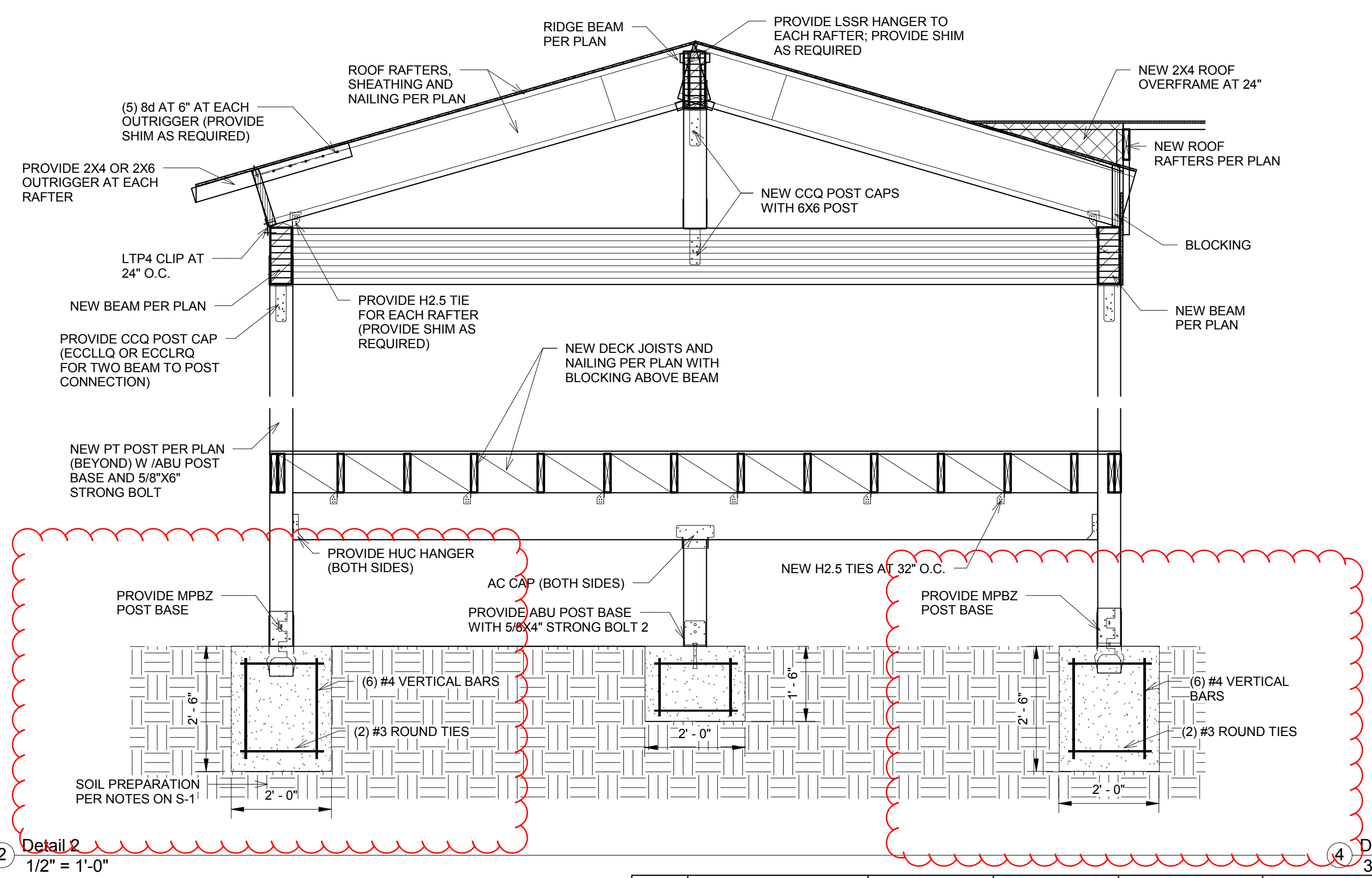
ISSUE DATE	10-26-21	
ISSUED FOR	PERMIT	
PROJECT NO.	20201	
ENGINEER	BB	
REVISION SCHEDULE		
NO.	DATE	DESCRIPTION

**FRAMING DETAILS**

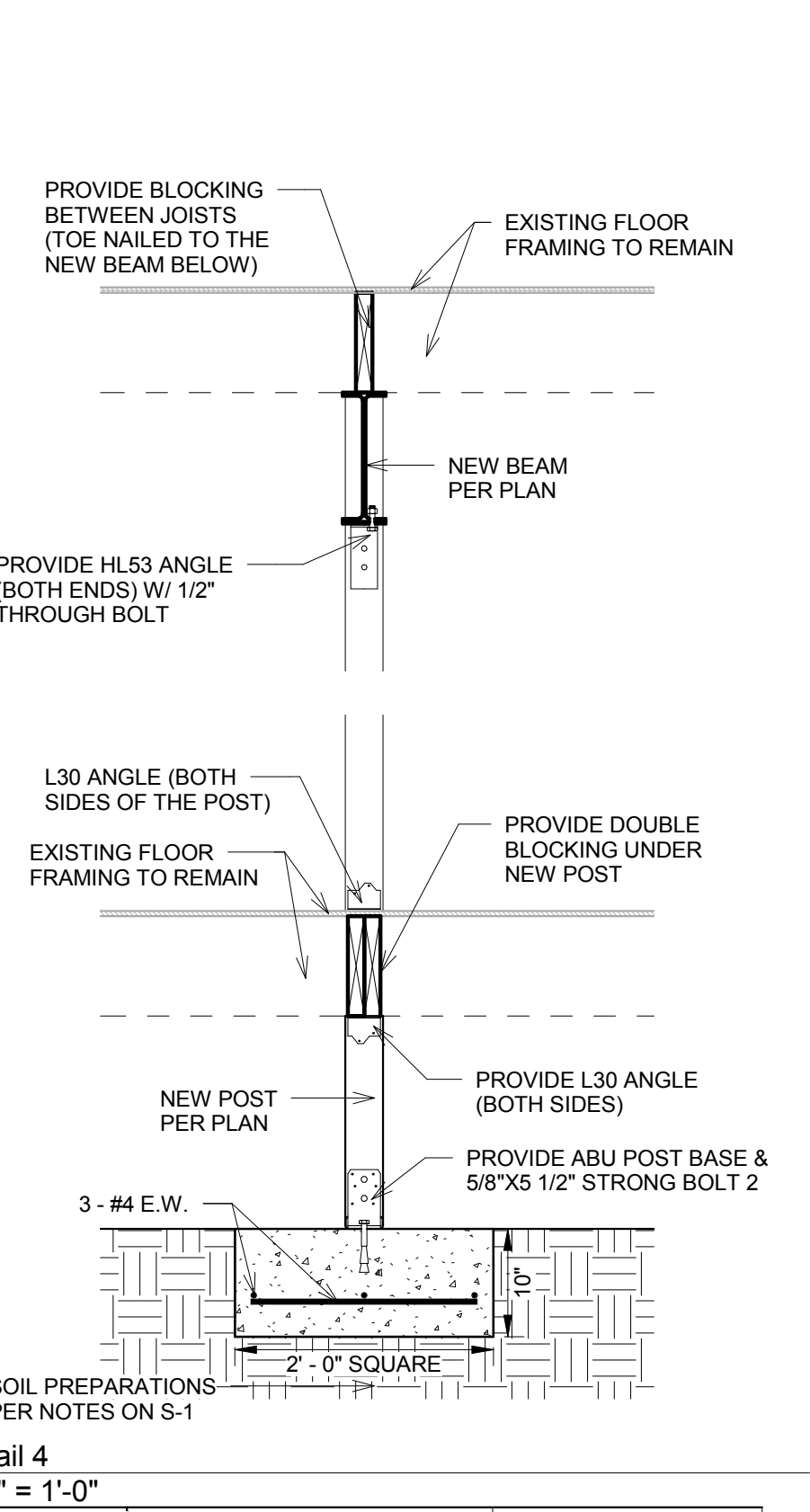
**S-3**



**Detail 1**  
3/4" = 1'-0"



**Detail 2**  
1/2" = 1'-0"

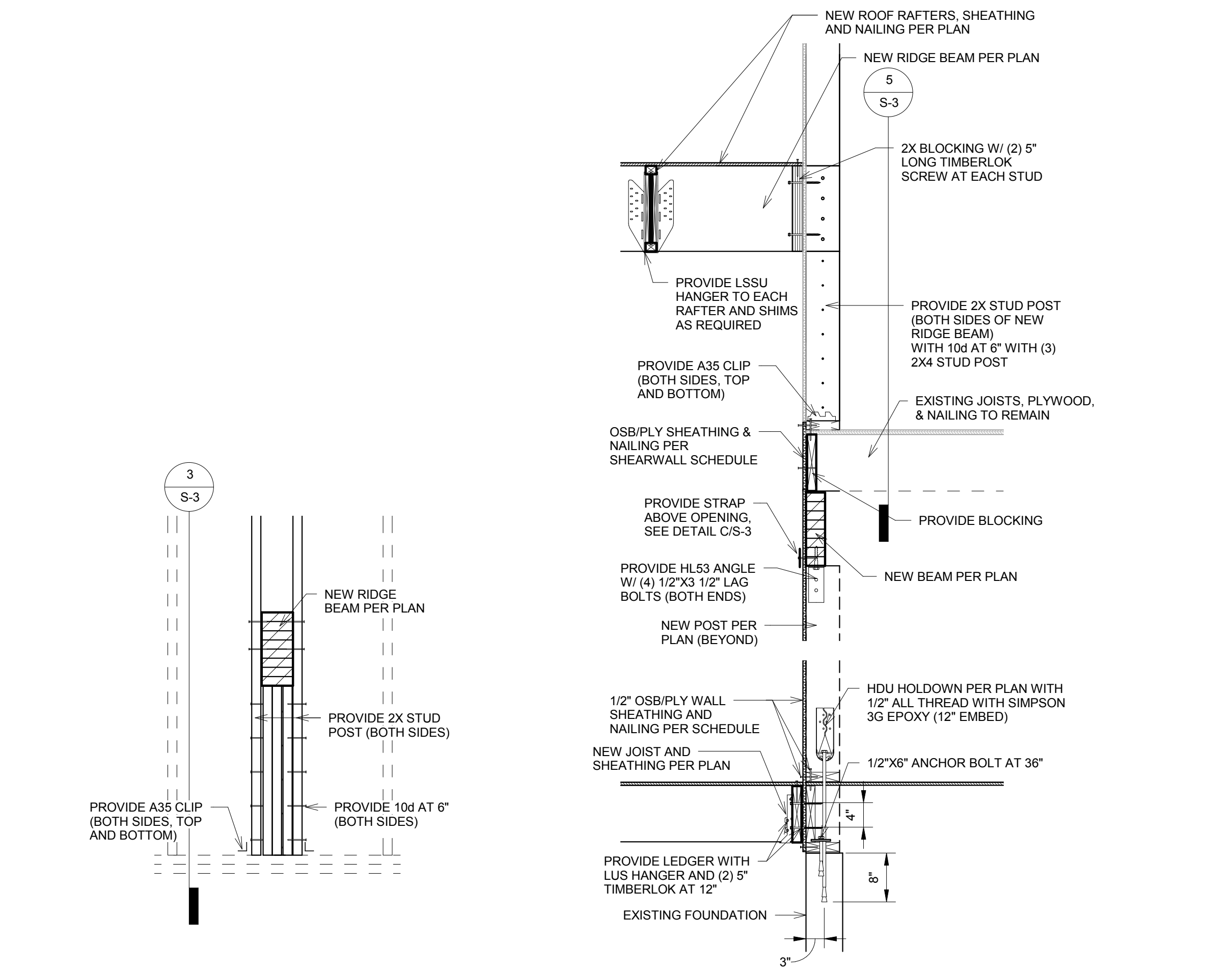
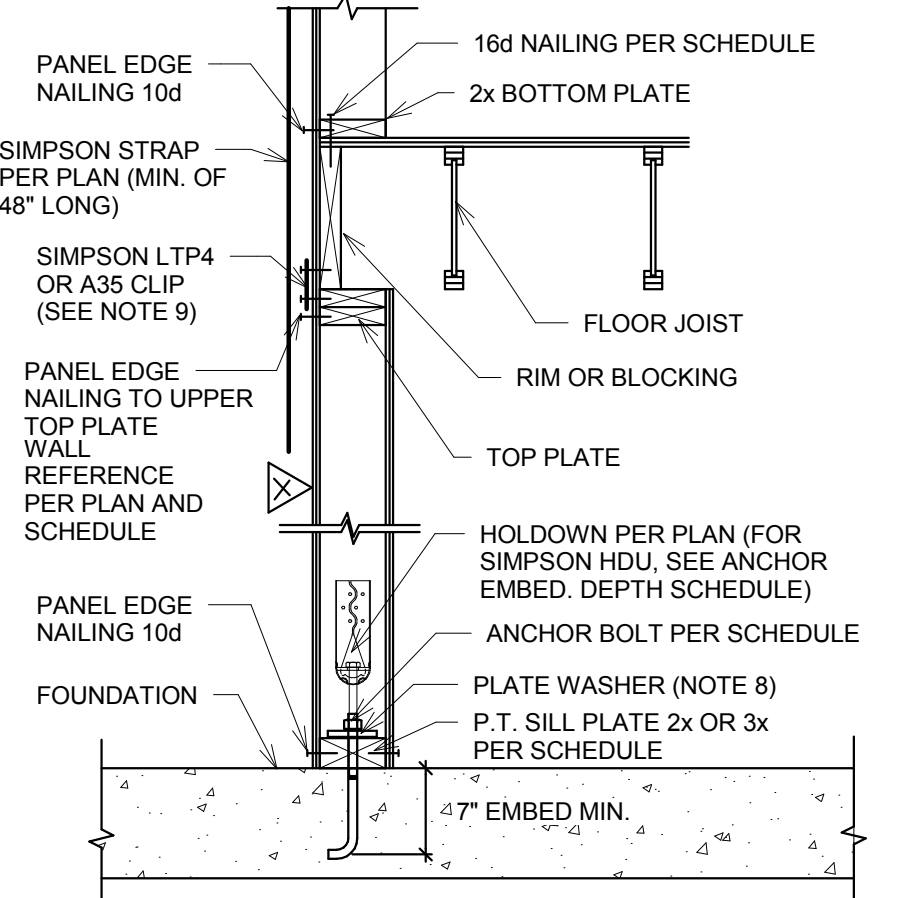


**Detail 4**  
3/4" = 1'-0"

TYPE	PLYWOOD OR OSB SHEATHING (NOTE 7)	PANEL EDGE NAILING (NOTE 4)	PANEL EDGE STUDS AND BLKG	ANCHOR BOLTS AT SILL PLATE (NOTE 8)	TOP/SILL PLATE TO BLOCKING/RIM (NOTE 9)	BOTTOM PLATE TO BLOCKING/RIM (NOTE 4)	CAPACITY (LRFD) (SEISMIC/WIND)
SW6	15/32" PLY/OSB ONE SIDE	10d COM AT 6"	2x	5/8" AT 36" O.C.-2x	SIMPSON LTP4 AT 24" O.C.	16d COM AT 6" O.C.-NARROW	496 PLF/ 696 PLF
SW4	15/32" PLY/OSB ONE SIDE	10d COM AT 4"	2x (SEE NOTE 5)	5/8" AT 24" O.C.-2x	SIMPSON LTP4 AT 16" O.C.	16d COM AT 4" O.C.-NARROW	736 PLF/ 1032 PLF
SW3	15/32" PLY/OSB ONE SIDE	10d COM AT 3"	3x	5/8" AT 18" O.C.-2x	SIMPSON LTP4 AT 12" O.C.	16d COM AT 3" O.C.-WIDE	960 PLF/ 1344 PLF
SW2	15/32" PLY/OSB ONE SIDE	10d COM AT 2"	3x	5/8" AT 12" O.C.-2x	SIMPSON LTP4 AT 8" O.C.	16d COM AT 2" O.C.-WIDE	1232 PLF/ 1724 PLF
SW44	15/32" PLY/OSB TWO SIDES	10d COM AT 4"	2x	5/8" AT 18" O.C.-3x	SIMPSON LTP4 AT 16" O.C. B.S.	(2) 16d COM AT 4" O.C.-WIDE	1472 PLF/ 2064 PLF
SW33	15/32" PLY/OSB TWO SIDES	10d COM AT 3"	3x	5/8" AT 16" O.C.-3x	SIMPSON LTP4 AT 12" O.C. B.S.	(2) 16d COM AT 3" O.C.-WIDE	1920 PLF/ 2688 PLF
SW22	15/32" PLY/OSB TWO SIDES	10d COM AT 2"	3x	5/8" AT 12" O.C.-3x	SIMPSON LTP4 AT 8" O.C. B.S.	(2) 16d COM AT 2" O.C.-WIDE	2464 PLF/ 3448 PLF

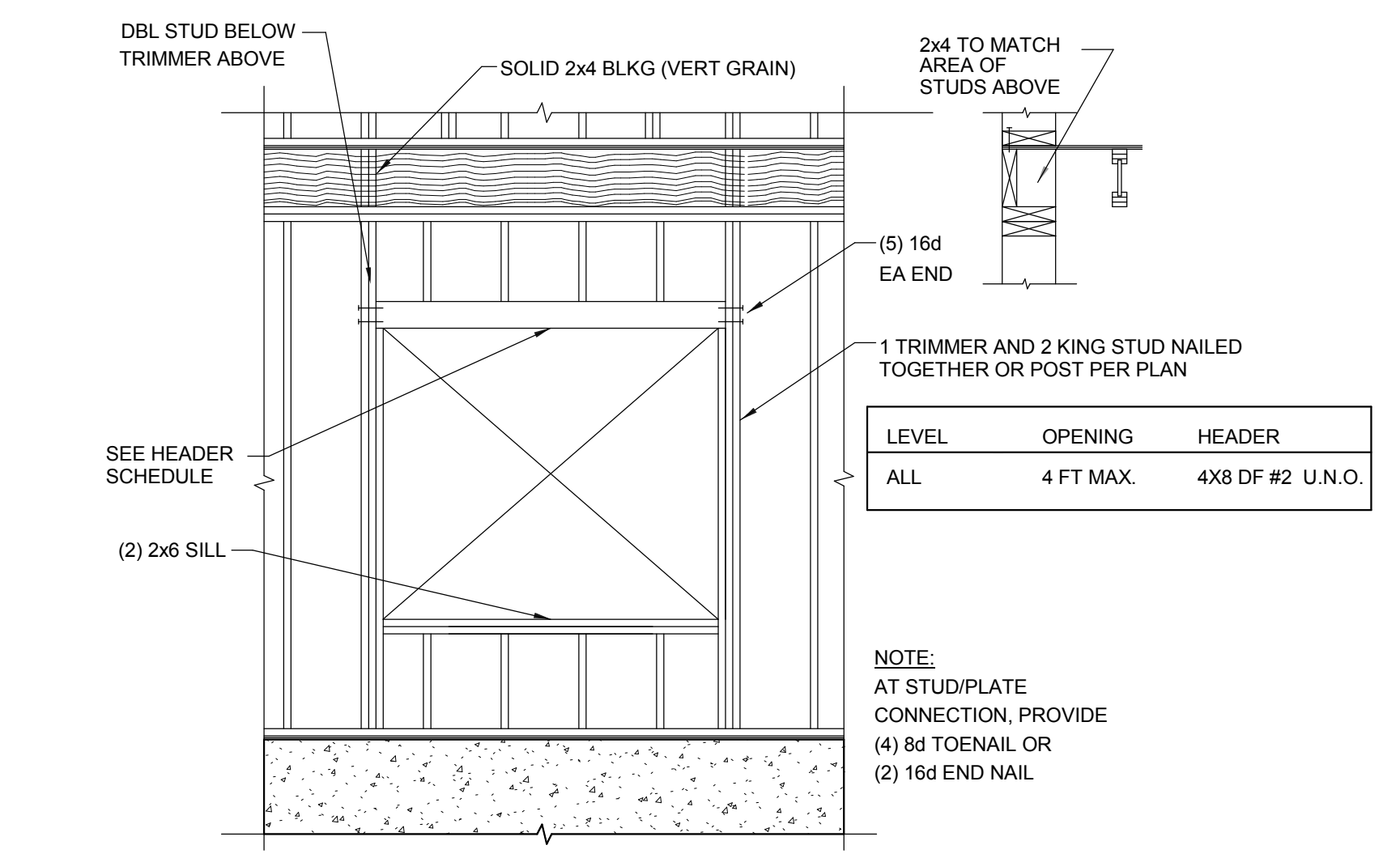
- SHEARWALL SCHEDULE NOTES:**
1. ALL PANEL EDGES TO OCCUR OVER STUDS, PLATES, RIMS OR HORIZONTAL BLOCKING AT WALLS
  2. NAIL SHEATHING TO INTERMEDIATE SUPPORTS/ FIELD NAILING 10d AT 12" O.C.
  3. ALL NAILS INTO 3x MEMBERS SHALL BE STAGGERED.  
(2)2x STUDS MAY BE USED IN LIEU OF 3x STUDS AT PANEL JOINTS.  
NAIL STUDS TOGETHER W/2 ROWS 16d COMMON AT 6" O.C. AT SINGLE SIDE SHEATHING AND NAIL WITH 2 ROWS OF 16d COMMON AT 3" O.C. AT DOUBLE SHEATHED WALLS.
  4. COM DENOTES COMMON NAILS. MIN. NAIL PENETRATION INTO PLATE, RIM OR BLOCKING SHALL BE 1 5/8". STAGGER BOTTOM PLATE NAILING
  5. FOR SHEARWALL SW4, ALL FRAMING MEMBERS RECEIVING EDGE NAILINGS FROM ABUTTING PANELS SHALL BE 3X OR (2) 2X NAILED TOGETHER WITH 16d AT 6"
  6. WHERE SHEATHING IS APPLIED TO BOTH SIDES OF WALL, OFFSET PANEL EDGES TO FALL ON DIFFERENT STUDS.
  7. PROVIDE SHEAR WALL SHEATHING AND NAILING FOR ENTIRE LENGTH OF WALLS NOTED ON PLAN. PROVIDE HOLD-DOWNS PER PLAN AT EACH END OF WALL, UNO.  
PROVIDE (2) 2x STUDS AT ENDS OF ALL SHEARWALL. FACE NAIL MULTIPLE STUDS WITH 16d AT 12" PROVIDE PANEL EDGE NAILING IN EACH HOLD-DOWN STUD AT END OF WALL.
  8. ALL FOUNDATION SILL PLATES SHALL BE PT MEMBERS AND THE ANCHOR BOLTS SHALL HAVE MIN. OF 7" EMBEDMENT WITH 1/4" x 3" x 3" PLATE WASHER OR SIMPSON'S BP/ BPS PLATE.  
END OF WALL ANCHOR BOLTS SHALL BE LOCATED MAX 12" AND MIN 5" FROM END OF THE PLATE.
  9. WHERE NOTED IN DETAILS, USE SIMPSON A35 IN LIEU OF LTP4 PLATES SPACE AT 2/3 OF LTP4 SPACING.

**SHEARWALL SCHEDULE**  
3/4" = 1'-0"

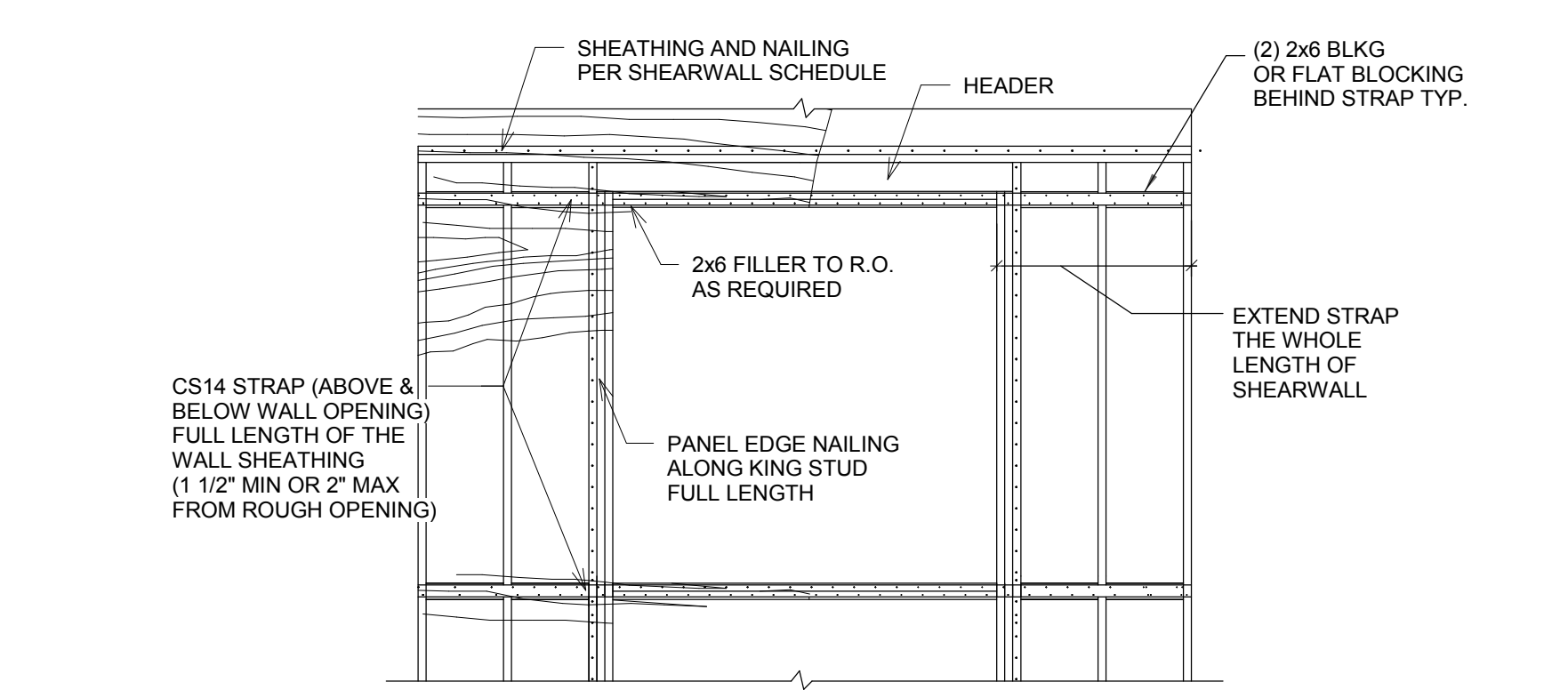


**Detail 5**  
3/4" = 1'-0"

**Detail 3**  
3/4" = 1'-0"



**TYP. WALL OPENING FRAMING**  
3/4" = 1'-0"



**SHEAR WALL OPENING STRAPPING**  
3/4" = 1'-0"