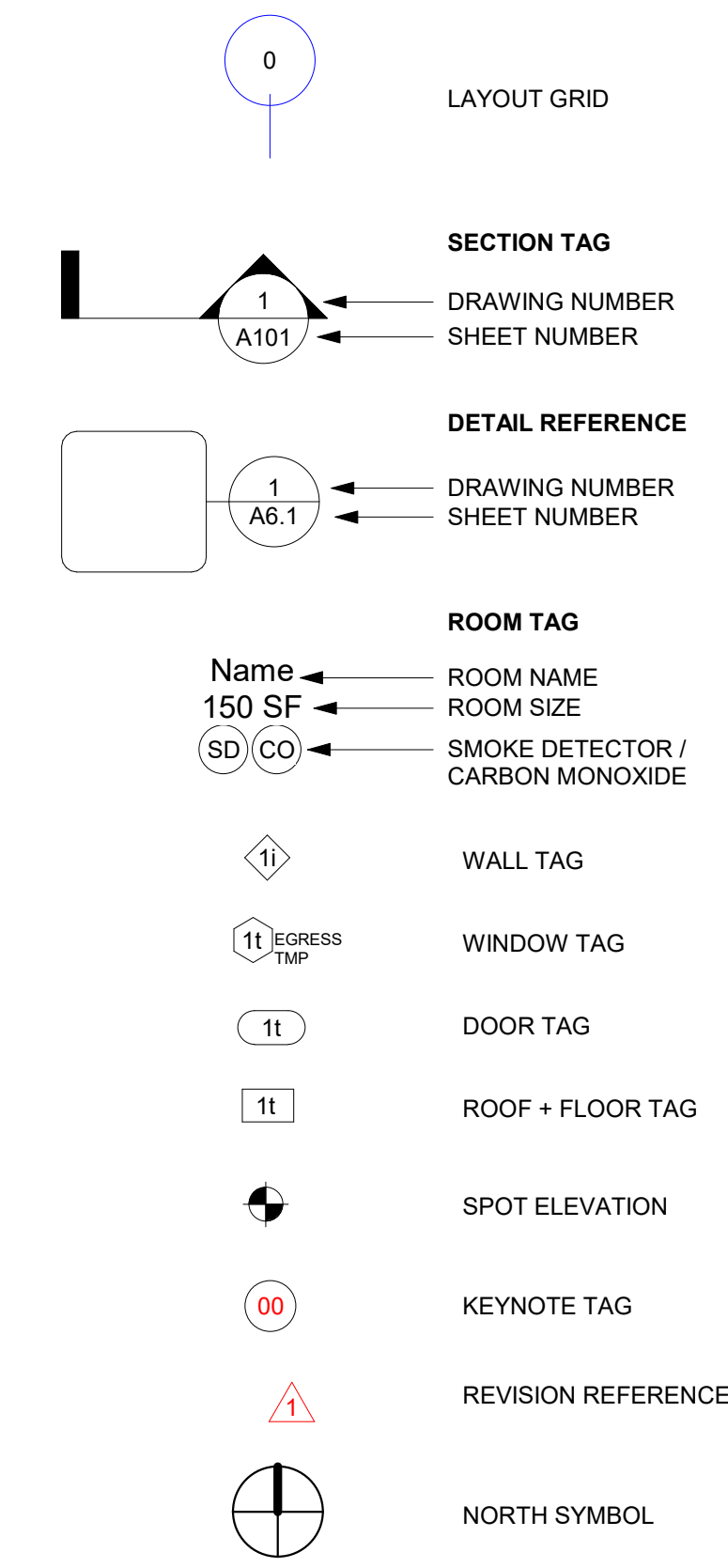


**KEY ABBREVIATIONS**

&	AND	MECH	MECHANICAL
(E)	EXISTING	MEMB	MEMBRANE
(N)	NEW	MEZZ	MEZZANINE
@	AT	MFR	MANUFACTURER
CL	CENTERLINE	MIN	MINIMUM
ACT	ACOUSTICAL CEILING TILE	MISC	MISCELLANEOUS
ADJ	ADJUSTABLE; ADJACENT	MO	MASONRY OPENING
AFF	ABOVE FINISH FLOOR	MTD	MOUNTED
ALT	ALTERNATE	MTL	METAL
ALUM	ALUMINUM	N	NORTH
APPROX	APPROXIMATE	N/A	NOT APPLICABLE
ARCH	ARCHITECT	NIC	NOT IN CONTACT
		NTS	NOT TO SCALE
BW	BETWEEN	OC	ON CENTER
BD	BOARD	OCC	OCCUPANCY
BIT	BITUMINOUS	OD	OUTSIDE DIAMETER
BLDG	BUILDING	OPNG	OPENING
BO	BOTTOM OF ...		
CAB	CABINET	PERF	PERFORATED
CALC'S	CALCULATIONS	PERP	PERPENDICULAR
CANT	CANTILEVER	PL	PROPERTY LINE
CB	CATCH BASIN	PLAM	PLASTIC LAMINATE
CIP	CAST-IN-PLACE	PLAS	PLASTER
CL	CLOSET	PLYWD	PLYWOOD
CLG	CEILING	PR	PAIR
CLKG	CAULKING	PRCST	PRECAST
CLR	CLEAR	PROP	PROPERTY
CM	CARBON MONOXIDE DETECTOR	PVC	POLYVINYL CHLORIDE
CMU	CONCRETE MASONRY UNIT	QTY	QUANTITY
COL	COLUMN		
CONC	CONCRETE	R	RISER
CONST	CONSTRUCTION	RAD	RADIUS
CONT	CONTINUOUS	REF	REFERENCE
CORR	CORRIDOR	REFR	REFRIDGERATOR
CPT	CARPET; CARPETED	REINF	REINFORCED; REINFORCING
CTR	CENTER	REQ	REQUIRED
CY	CUBIC YARD	RESIL	RESILIENT
		REV	REVISION; REVISED
DEMO	DEMOLITION	RH	ROWHOUSE
DIA	DIAMETER	RO	ROUGH OPENING
DIM	DIMENSION	ROW	RIGHT OF WAY
DR	DOOR		
DS	DOWNSPOUT	S	SOUTH
DTL	DETAIL	SD	SMOKE DETECTOR; STORM DRAIN
DW	DISHWASHER	SECT	SECTION
DWG	DRAWING	SF	SQUARE FOOT/FEET
		SFR	SINGLE FAMILY RESIDENCE
E	EAST	SH	SILL HEIGHT
EA	EACH	SHT	SHEET
EL	ELEVATION	SHT MTL	SHEET METAL
ELEC	ELECTRICAL	SHTG	SHEATHING
ELEV	ELEVATOR; ELEVATION	SI	SQUARE INCH; INCHES
ENCL	ENCLOSURE	SIM	SIMILAR
EQ	EQUAL	SOG	SLAB ON GRADE
EQUIP	EQUIPMENT	SPEC	SPECIFICATION
EXIST	EXISTING	SQ	SQUARE
EXP	EXPANDED; EXPANSION	SST	STAINLESS STEEL
EXT	EXTERIOR	STBK	SETBACK
		STOR	STORAGE
FDC	FIRE DEPARTMENT CONNECTION	STRUC	STRUCTURAL
FDN	FOUNDATION	SUSP	SUSPENDED
FE	FIRE EXTINGUISHER		
FEC	FIRE EXTINGUISHER CABINET	T	THREAD
FF	FINISHED FLOOR	T&G	TONGUE AND GROOVE
FH	FIRE HYDRANT, FULL HEIGHT	TG	TEMPERED GLASS
FIN	FINISH	TH	TOWNHOUSE
FLR	FLOOR	TO	TOP OF ...
FLUOR	FLUORESCENT	TO BM	TOP OF BEAM
FO	FACE OF ...	TOC	TOP OF CURB
FOB	FACE OF BEAM	TOW	TOP OF WALL
FOC	FACE OF CONCRETE	TRTD	TREATED
FOF	FACE OF FINISH FOUNDATION	TS	TUBE STEEL
FOIC	FINISHED BY OWNER - INSTALLED BY CONTRACTOR	TYP	TYPICAL
FOS	FACE OF STUDS	UNO	UNLESS NOTED OTHERWISE
FRMG	FRAMING		
FT	FOOT; FEET	VB	VINYL BASE
FTG	FOOTING	VCT	VINYL COMPOSITION TILE
FURR	FURRING	VEN	VENEER
FUT	FUTURE	VERT	VERTICAL
		VEST	VESTIBULE
		VFY	VERIFY
GA	GAUGE	W	WEST; WIDTH
GALV	GALVANIZED	W/	WITH
GC	GENERAL CONTRACTOR	W/O	WITHOUT
GL	GLASS	WD	WOOD
GLAM	GLUE-LAMINATED	WHF	WHOLE HOUSE FAN
GWB	GYPSSUM WALL BOARD	WIC	WALK IN CLOSET
		WRB	WEATHER RESISTIVE BARRIER
HC	HANDICAPPED	WT	WEIGHT
HDR	HEADER		
HDWD	HARDWOOD		
HH	HEAD HEIGHT		
HMI	HOLLOW METAL		
HORIZ	HORIZONTAL		
HR	HOUR		
HT	HEIGHT		
HVAC	HEATING/VENTILATING/AIR CONDITIONING		
HVL	HIGH VOLTAGE LINE		
HW	HOT WATER		
IN	INCH		
INSUL	INSULATION		
INT	INTERIOR		
INV	INVERT		
JST	JOIST		
LAM	LAMINATE; LAMINATED		
LAV	LAVATORY		
LF	LINEAR FOOT; FEET		
MAS	MASONRY		
MAX	MAXIMUM		

**GRAPHIC SYMBOLS**



**DRAWING INDEX**

SHEET NUMBER	SHEET NAME
1 - GENERAL	TITLE SHEET & PROJECT DATA
G0.00	GENERAL NOTES
G0.01	ZONING CODE ANALYSIS & DIAGRAMS
G0.02	
6 - ARCHITECTURAL	EXISTING FLOOR PLANS
A2.00	PROPOSED FLOOR PLANS
A2.11	BUILDING ELEVATIONS
A3.01	PROPOSED FLOOR PLANS
A2.10	PROPOSED FLOOR PLANS
A2.12	PROPOSED FLOOR PLANS
A3.00	BUILDING ELEVATIONS
A4.00	BUILDING SECTIONS
A8.00	BUILDING ASSEMBLIES
A9.00	SCHEDULE WINDOWS/DOORS
7 - STRUCTURAL	STRUCTURAL PLANS
SN1	STRUCTURAL PLANS
S1.0	STRUCTURAL PLANS
SD1	STRUCTURAL PLANS
SD2	STRUCTURAL PLANS

**PROJECT DATA**

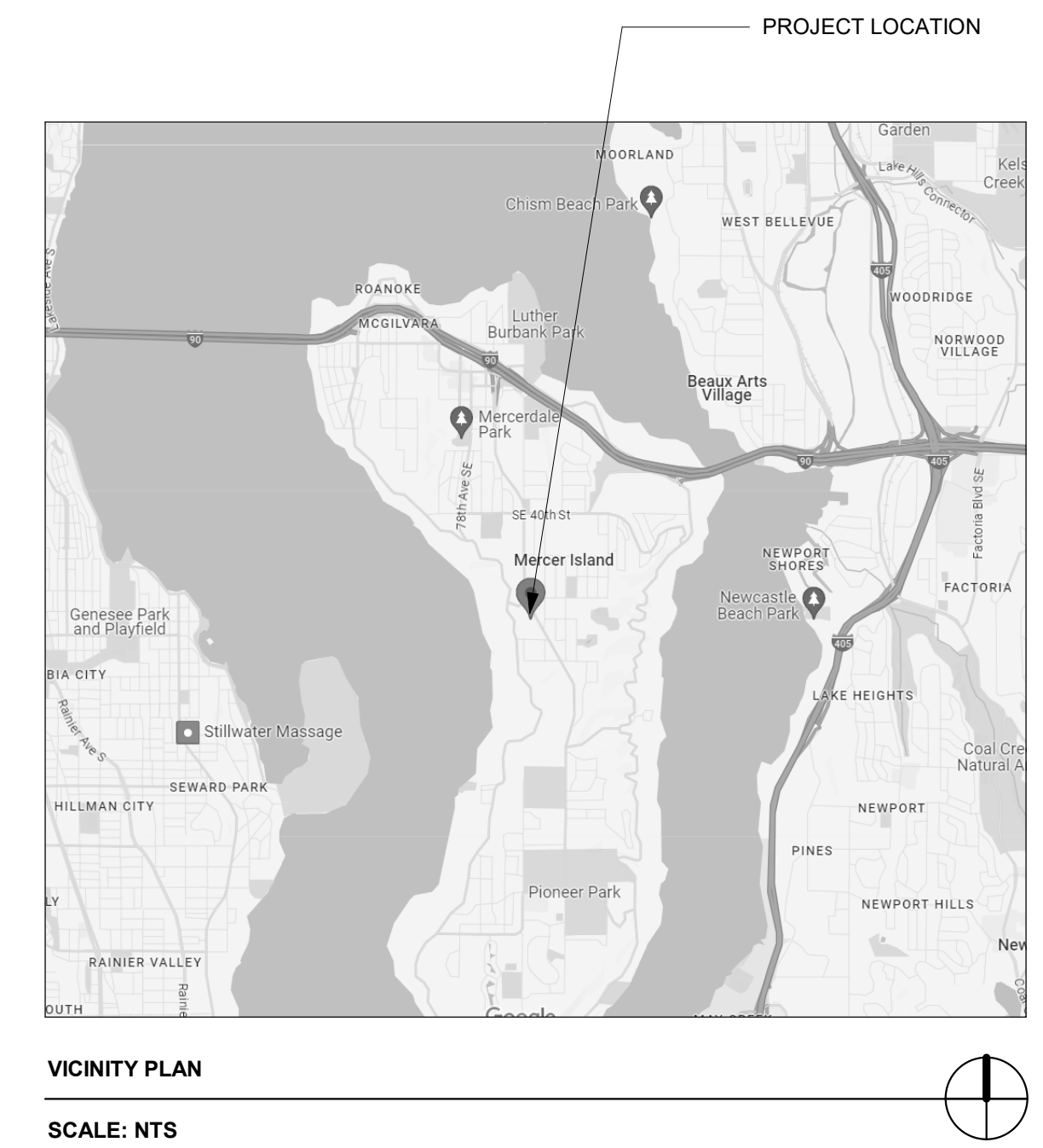
PROJECT ADDRESS:	8430 45TH ST SE
JURISDICTION:	CITY OF MERCER ISLAND
SDCI PROJECT NUMBER:	N/A
DESCRIPTION OF WORK:	EXPANDING BUILDING TOWARDS THE SOUTH, EXPANDING TWO BEDROOMS AND ADDING TWO BATHROOMS
PROPOSED USE:	SINGLE FAMILY RESIDENCE
PARCEL NUMBER:	759810-0761
LOT AREA (SF):	9,617 SF
ZONE:	R-9.6
ECA:	YES
CONSTRUCTION TYPE:	TYPE -VB
PER SMC TABLE 601 / SECTION 602	
LEGAL DESCRIPTION:	SCHMIDS VITUS E SEATTLE ACRE TRS POR ELY & SLY OF LN BEG 159.25 FT E OF SW COR TH N 14-26-40 W 58.03 FT TH N 30-10-56 E 21.89 FT TH S 88-24-15 E TO WLY MGN OF CO RD Plat Block: 16 Plat Lot: 6

**PROJECT TEAM**

<b>OWNER:</b> JZ FAMILY TRUST 4815 E MERCER WAY MERCER ISLAND, WA 98040 CONTACT: JERRY ZHANG EMAIL: JERRY@HOOYOU.COM	<b>APPLICANT / ARCHITECT:</b> WEICHENG LI 5324 12TH AVE S SEATTLE, WA 98108 PHONE: 217-417-0473 CONTACT: WEICHENG LI EMAIL: LEEWEICHENG@GMAIL.COM
<b>STRUCTURAL ENGINEER:</b> BOSCO CHENG 6541 163RD PL SE BELLEVUE, WA 98006 PHONE: (206) 679-4164 CONTACT: BOSCO CHENG EMAIL: HKBOSCO1@MSN.COM	

DCI Approval Stamp

MARK	DESCRIPTION	DATE
	BUILDING PERMIT INTAKE	08/26/2024



8430 45TH ST SE

TITLE SHEET & PROJECT DATA

DCI Project Numbers	-
Issue Date	06/09/2024
Drawn by	
Checked by	WJL

**GO.00**

## ENERGY CREDITS

3.4 – HIGH EFFICIENCY HVAC EQUIPMENT:  
Ductless Split System Heat Pumps, Zonal Control: In homes where the primary space heating system is zonal electric heating, a ductless heat pump system shall be installed and provide heating to the largest zone of the housing unit.  
To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the heating equipment type and the minimum equipment efficiency.  
1.5 CREDIT(S)

1.5 CREDIT(S) TOTAL

## MECHANICAL + ENERGY NOTES

- THE BUILDING MECHANICAL SYSTEM SHALL COMPLY WITH THE REQUIREMENTS OF THE 2021 IRC MECHANICAL PROVISIONS.
- VENTILATION OF ALL AREAS SHALL BE IN CONFORMANCE WITH WAC 51-11 AND WAC 51-13, 2021 IRC, CHAPTER 15, TABLES M1505.4.3(1) AND M1505.4.4.
- PROVIDE VENTING FOR ALL GAS HEATING APPLIANCES IN ACCORDANCE WITH THE HEATING APPLIANCE MANUFACTURER'S RECOMMENDATIONS, AND THE 2021 IRC.
- HEATING DESIGN TEMPERATURES: (PER 2021 WASHINGTON STATE ENERGY CODE) HEATING: 72 DEGREES INSIDE AND 24 DEGREES OUTSIDE.
- PROVIDE DUCT INSULATION AS REQUIRED BY 2021 WSEC R403.3.1.
- SOURCE SPECIFIC VENTILATION: VENTILATION (EXHAUST) SHALL BE PROVIDED IN BATHROOMS, KITCHENS, LAUNDRY ROOMS, SPA & POOL ROOMS AND OTHER ROOMS WHERE EXCESS WATER VAPOR OR COOKING ODOR ARE PRODUCED, AS REQUIRED BY THE 2021 IRC, CHAPTER 15 TABLE M1505.4.4; A WHOLE HOUSE VENTILATION SYSTEM SHALL BE INSTALLED; OF EITHER INTERMITTENT OR CONTINUOUS OPERATION, AS REQUIRED BY THE 2021 IRC, CHAPTER 15.
- DUCT LEAKAGE TEST RESULTS SHALL BE PROVIDED TO THE BUILDING INSPECTOR AND HOMEOWNER PRIOR TO AN APPROVED FINAL INSPECTION PER WSEC R403.3.3. A SIGNED AFFIDAVIT DOCUMENTING THE DUCT LEAKAGE TEST RESULTS SHALL BE PROVIDED TO THE BUILDING INSPECTOR PRIOR TO AN APPROVED FINAL INSPECTION.
- A RESIDENTIAL ENERGY COMPLIANCE CERTIFICATE COMPLYING WITH WSEC R401.3 IS REQUIRED TO BE COMPLETED BY THE DESIGN PROFESSIONAL OR BUILDER AND PERMANENTLY POSTED WITHIN 3' OF THE ELECTRICAL PANEL PRIOR TO FINAL INSPECTION.
- BUILDING AIR LEAKAGE TESTING, DEMONSTRATING THE AIR LEAKAGE RATE DOES NOT EXCEED 5 AIR CHANGES PER HOUR, IS REQUIRED PRIOR TO FINAL INSPECTION PER WSEC R402.4.1.2. TEST RESULTS SHALL BE POSTED ON THE RESIDENTIAL ENERGY COMPLIANCE CERTIFICATE PER WSEC R401.3.
- EACH DWELLING UNIT IS REQUIRED TO BE PROVIDED WITH AT LEAST ONE PROGRAMMABLE THERMOSTAT FOR THE REGULATION OF TEMPERATURE PER WSEC 405.1.
- A MINIMUM OF 90 PERCENT OF LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH EFFICACY LAMPS PER WSEC R404.1.
- VENTILATION (EXHAUST) TERMINATION SHOULD BE LOCATED NOT LESS THAN 36" FROM NEAREST BUILDING OPENING, AS REQUIRED BY 2021 IRC M1504.3.

## INSULATION NOTES

- INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT SHALL BE PROVIDED PER WSEC 2021 TABLE R402.1.1.

REQUIRED INSULATION VALUES: AS MODIFIED BY SELECTED WSEC TABLE R406.3 OPTION 1.3

FLOORS R-38  
CEILINGS (VAULTED) R-38  
CEILINGS R-49  
EXTERIOR WALLS R-21 INT  
BELOW GRADE WALL, INTERIOR INSULATION R-21+ THERMAL BREAK  
BELOW GRADE WALL, EXTERIOR INSULATION R-10  
SLAB ON GRADE R-10 UNDER ENTIRE SLAB  
GLAZING - VERTICAL DOUBLE - U = .28 MAX.  
GLAZING - OVERHEAD DOUBLE - U = .50 MAX.  
GLAZING AREA UNLIMITED

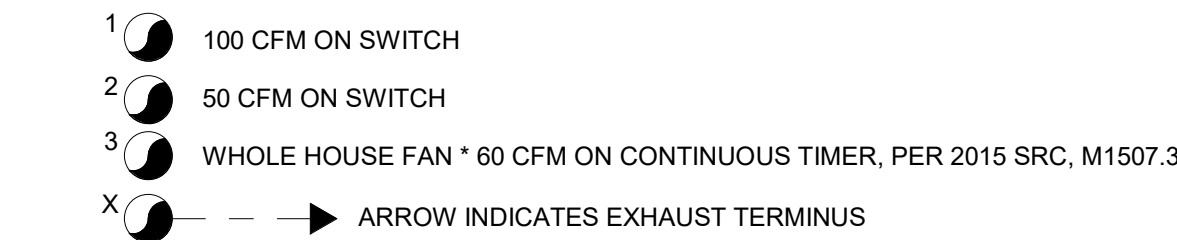
- ALL EXTERIOR JOINTS AROUND WINDOWS AND DOORS, OPENINGS BETWEEN WALLS AND ROOF OR FOUNDATIONS, OPENINGS AT PENETRATIONS, AND ALL OTHER SUCH OPENINGS SHALL BE SEALED, CAULKED, OR HAVE A GASKET OR WEATHER STRIPPING TO LIMIT AIR LEAKAGE PER THE 2021 WSEC
- EXTERIOR DOORS ARE TO BE 1-3/4 INCH SOLID CORE WITH FULL WEATHER STRIP AND THRESHOLD. ALL GLAZING IN EXTERIOR DOORS IS TO BE DOUBLE GLAZED WITH SAFETY GLASS.
- WINDOW AND DOOR HEADERS TO BE INSULATED WITH A MINIMUM OF R-10 INSULATION.

## PLUMBING NOTES

- ALL PLUMBING WORK IS TO BE BIDDER DESIGNED AND SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES. OBTAIN AND PAY FOR PERMITS.
- PROVIDE PRESSURE RELIEF VALVE FOR HOT WATER TANK. DRAIN TO THE OUTSIDE OF THE BUILDING WITH DRAIN END NOT MORE THAN TWO FEET NOR LESS THAN 6 INCHES ABOVE THE GROUND, POINTING DOWN.
- HOT WATER TANKS HAVING FLEXIBLE PIPE CONNECTIONS AND OVER FOUR FEET TALL SHALL BE STRAPPED DOWN TO PREVENT OVERTURN IN THE EVENT OF AN EARTHQUAKE.
- HOT WATER HEATERS LOCATED IN GARAGES SHALL BE ELEVATED PER 2021 UPC 507.13
- PROVIDE AN APPROVED BACK FLOW PREVENTION DEVICE AT ALL HOSE BIBS.
- CONTRACTOR SHALL PROVIDE A DWV AND WATER DISTRIBUTION RISER DIAGRAM FOR COUNTYV AND ARCHITECT REVIEW.
- EACH HORIZONTAL DRAINAGE PIPE SHALL BE PROVIDED WITH A CLEANOUT AT ITS UPPER TERMINAL.
- CONTRACTOR TO PROVIDE HORIZONTAL DRAINAGE PIPING THAT MEETS UPC FOR SLOPE REQUIREMENTS.

## VENTILATION NOTES

- ALL EXHAUST SYSTEMS MUST BE DESIGNED PER 2021 IRC, CHAPTER 15. MECHANICAL VENTILATING SYSTEMS IN BATHROOMS, LAUNDRY ROOMS AND SIMILAR ROOMS SHOULD EXHAUST DIRECTLY TO THE OUTSIDE. THE POINT OF DISCHARGE OF EXHAUST AIR SHALL BE AT LEAST THREE FEET FROM ANY OPENING INTO THE BUILDING.



## ELECTRICAL NOTES

- ALL ELECTRICAL WORK IS TO BE BIDDER DESIGNED AND SHALL COMPLY WITH ALL APPLICABLE CODES AND ORDINANCES.
- ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS RELATED TO THE PARTY'S SCOPE OF WORK.
- WIRING METHODS SHALL BE AS PERMITTED BY "CODE" AND INSTALLATION PER "NEC" STANDARDS.
- USE OF ALUMINUM WIRE IS LIMITED TO SIZE #4 AND LARGER.
- ALL DEVICES TO BE SPECIFICATION GRADE.
- ALL NEW ELECTRICAL PANELS OR LOAD CENTERS TO BE PROTECTED ON LINE SIDE BY CURRENT LIMITING DEVICES.
- LOCATE RECEPTACLES: ALL RECEPTACLES SHALL BE AT 15 INCHES FROM FINISHED FLOOR TO BOTTOM OF BOX UNLESS NOTED OTHERWISE.
- ALL SWITCHES SHALL BE 42 INCHES FROM FINISHED FLOOR TO BOTTOM OF BOX UNLESS NOTED OTHERWISE.
- VERIFY ALL RECEPTACLES, SWITCH, AND FIXTURE LOCATIONS WITH OWNER PRIOR TO INSTALLATION.
- ALL EXTERIOR LIGHTING TO BE SHIELDED AND DIRECTED AWAY FROM ADJACENT PROPERTIES.
- MINIMUM 90% OF ALL INTERIOR LUMINARIES SHALL BE HIGH EFFICACY LUMINARIES (PER WSEC 404.D) AND ALL EXTERIOR LIGHTING SHALL BE HIGH EFFICACY LUMINARIES.

## CARBON MONOXIDE ALARM

- A CARBON MONOXIDE ALARM SHALL BE INSTALLED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN IMMEDIATE VICINITY OF BEDROOMS AND ON EACH LEVEL AS PER IRC R315.

## SMOKE DETECTOR

- A SMOKE DETECTOR SHALL BE INSTALLED IN EACH HABITABLE ROOM.
- A SMOKE DETECTOR SHALL BE CENTRALLY LOCATED ON EACH FLOOR.
- AN ADDITIONAL SMOKE DETECTOR SHALL BE INSTALLED IN EACH LOCATION WHERE THERE IS A CEILING HEIGHT CHANGE GREATER THAN 24".
- SMOKE DETECTORS TO BE 110v HARDWIRED, INTERCONNECTED, WITH BATTERY BACKUP PER IRC R314
- SMOKE ALARM LOCATION TO BE AT LEAST 3 FEET HORIZONTALLY FROM BATHROOM DOORS TO BATHROOMS WITH TUBS OR SHOWERS

NFPA 72 (CHAPTER 29) - MONITORED HOUSEHOLD FIRE ALARM FIRE ALARM SYSTEM IN COMPLIANCE WITH NFPA 72 AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED

## STAIR NOTES

- STAIRS TO MEET ALL BUILDING CODE REQUIREMENTS FOR MEANS OF EGRESS OF INDIVIDUAL DWELLING UNITS PROVIDING EXIT ACCESS STAIRWAYS PER 2021 IRC.
- EGRESS STAIRS SHALL BE 36" MIN. CLEAR IN WIDTH PER IRC.
- STAIRWAYS SHALL HAVE A MINIMUM HEADROOM CLEARANCE OF 80 INCHES MEASURED VERTICALLY FROM A LINE CONNECTING THE EDGE OF THE NOSINGS PER 2021 IRC.
- STAIR TREADS SHALL BE 10" MIN. IN DEPTH PER 2021 IRC.
- STAIR RISERS SHALL BE 7-3/4" MAX. IN HEIGHT PER 2021 IRC.
- BEVELING OF NOSING SHALL NOT EXCEED 9/16" AND NOT ANGLE MORE THAN 30" FROM VERTICAL. NOSING SHALL BE UNIFORM THROUGHOUT ANY FLIGHT OF STAIRS, INCLUDING THE LEADING EDGE AT THE TOP OF A FLIGHT PER 2018 IRC.
- HANDRAILS ARE TO BE GRASPABLE, WITH A DIAMETER BETWEEN 1 1/4 INCHES AND 2 INCHES OR SHALL PROVIDE EQUIVALENT GRASPABILITY. IF THE HANDRAIL IS NOT CIRCULAR, IT SHALL HAVE A PERIMETER DIMENSION BETWEEN 4 INCHES AND 6 1/4 INCHES WITH A MAX. CROSS-SECTION DIMENSION OF 2 1/4 INCHES AND A MIN. EDGE RADIUS OF 0.01 INCH PER 2021 IRC
- HANDRAILS SHALL BE CONTINUOUS BETWEEN FLIGHTS, OR THEY SHALL RETURN TO A WALL OR THE WALKING SURFACE. AT THE TOP OF A STAIRWAY, HANDRAILS MUST EXTEND HORIZONTALLY 12 INCHES BEYOND THE TOP RISER. AT THE BOTTOM OF THE STAIRWAY, HANDRAILS MUST CONTINUE TO SLOPE FOR THE DEPTH OF ONE TREAD BEYOND THE BOTTOM RISER. EXTENSIONS NOT REQUIRED ON STAIRWAYS THAT ARE NOT PART OF A REQUIRED MEANS OF EGRESS PER 2021 R3117.8.4 IN THE IRC REGULATING DETACHED ONE AND TWO FAMILY DWELLINGS.
- HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED AND CONSTRUCTED TO THE STRUCTURAL LOADING CONDITIONS SET FORTH PER 2021 IRC
- GUARDS SHALL BE LOCATED ALONG OPEN-SIDED WALKING SURFACES THAT ARE MORE THAN 30" ABOVE THE FLOOR OR GRADE BELOW AND AS SHOWN IN THE DRAWINGS PER 2021 IRC
- GUARDS SHALL FORM A PROTECTIVE BARRIER NO LESS THAN 36" HIGH PER 2021 IRC
- PROVIDE 1 1/2" DIAMETER WD HANDRAIL @ 36" ABOVE FLOOR TREAD, TYP.
- MIN 36 INCH HIGH RAILINGS W/ MEMBERS SPACED SUCH THAT A 4" DIAMETER SPHERE CANNOT PASS THROUGH IRC COMPLIANT.
- PROVIDE 1/2 INCH GYPSUM BOARD AT UNDER-STAIR SOFFIT AND WALLS OF ACCESSIBLE SPACES UNDER STAIR
- PROVIDE HORIZONTAL FIRE BLOCKING BETWEEN STORIES FOR ALL EXTERIOR SIDING SYSTEMS THAT ARE FURRED BEYOND THE EXTERIOR SHEATHING

## ARCHITECTURAL GENERAL NOTES

- ALL CONSTRUCTION SHALL COMPLY WITH: THE 2021 INTERNATIONAL BUILDING CODE (IBC), THE 2021 INTERNATIONAL RESIDENTIAL CODE (IRC), THE 2021 WASHINGTON STATE ENERGY CODE (WSEC).
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE INCLUDING SOIL CONDITIONS AND CONDITIONS RELATED TO THE EXISTING UTILITIES AND RESPONSIBLE FOR SAME. ALL DISCREPANCIES SHALL BE REPORTED TO THE OWNER IMMEDIATELY.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FULLY AWARE OF ANY AND ALL CONDITIONS RELATED TO THE SITE AND EXISTING CONDITIONS THAT MAY AFFECT THE COST OF SCHEDULING CONSTRUCTION ACTIVITIES, PRIOR TO SUBMITTING BID.
- DO NOT SCALE DRAWINGS OR DETAILS. USE GIVEN DIMENSIONS. CHECK DETAILS FOR LOCATION OF ALL ITEMS NOT DIMENSIONED ON PLANS. DOOR AND CASED OPENINGS WITHOUT DIMENSIONS ARE TO BE SIX (6) INCHES FROM FACE OF ADJACENT WALL OR CENTERED BETWEEN WALLS.
- THE DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER. SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.
- BUILDING SYSTEMS AND COMPONENTS NOT SPECIFICALLY DETAILED SHALL BE INSTALLED, PER MINIMUM MANUFACTURERS' RECOMMENDATIONS. NOTIFY THE ARCHITECT OF ANY CONFLICTS.
- INSTALL DUST BARRIERS AND OTHER PROTECTION AS REQUIRED TO PROTECT INSTALLED FINISHES AND FACILITIES.
- PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO CHECK WITH THE ARCHITECTURAL DRAWINGS BEFORE INSTALLATION OF THEIR WORK. ANY DISCREPANCY BETWEEN THE ARCHITECTURAL DRAWINGS AND THE CONSULTING ENGINEER(S) OR OTHER SUPPLEMENTARY DRAWINGS SHALL BE BROUGHT TO THE OWNERS ATTENTION IN WRITING.
- THERE SHALL BE NO EXPOSED PIPE, CONDUITS, DUCTS, VENTS, ETC. ALL SUCH LINES SHALL BE CONCEALED OR FURRED AND FINISHED, UNLESS NOTED AS EXPOSED CONSTRUCTION ON THE DRAWINGS. OFFSET STUDS WHERE REQUIRED, SO THAT FINISHED WALL SURFACE WILL BE FLUSH.
- CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CARRY ALL FOOTINGS TO SOLID, UNDISTURBED ORIGINAL EARTH. REMOVE ALL UNSUITABLE MATERIAL UNDER FOOTINGS AND SLAB AND REPLACE WITH CONCRETE OR WITH COMPACTED FILL AS DIRECTED BY A GEO-TECHNICAL ENGINEER.
- ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE 2021 IRC. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR EXPOSED WEATHER SHALL BE PRESSURE TREATED WITH AN APPROVED PRESERVATIVE UNLESS DECAY RESISTANT HEARTWOOD OF CEDAR OR REDWOOD IS USED.
- FASTENERS FOR TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED STEEL (Z-MAX OR EQ.), STAINLESS STEEL, SILICON BRONZE, OR COPPER.
- ALL WOOD LESS THAN 6 INCHES FROM THE GROUND OR 2 INCHES MEASURED VERTICALLY FROM EXTERIOR CONCRETE STEPS, PORCH SLABS, PATIO SLABS, AND SIMILAR HORIZONTAL SURFACES EXPOSED TO WEATHER SHALL BE A NATURALLY DURABLE WOOD OR PRESSURE TREATED WITH AN APPROVED PRESERVATIVE PER 2021 IRC R317.
- PROVIDE FIRE-BLOCKING VERTICALLY AT CEILING AND FLOOR LEVELS AND HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET AND AS REQUIRED FOR CONCEALED SPACES UNDER 2021 IRC R302.11
- NAIL GYPSUM WALLBOARD TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH COOLER NAILS @ 7 INCHES O.C. MAXIMUM SPACING UNLESS SHOWN OTHERWISE. USE 5d FOR 1/2 INCH WALLBOARD, 6d FOR 5/8 INCH WALLBOARD.
- PROVIDE GALVANIC INSULATION BETWEEN DISSIMILAR METALS.
- ALL PRIVATE GARAGES AND DWELLINGS SHALL BE SEPARATED BY 1-3/8" SOLID-CORE WOOD, 1-3/8" SOLID OR HONEYCOMB STEEL, OR 20 MIN. RATED GARAGE/DWELLING DOOR EQUIPPED WITH A SELF-CLOSING DEVICE; MIN. 1/2" GYPSUM WALLBOARD AT GARAGE WALLS AND 5/8" TYPE X GYPSUM BOARD CEILING SEPARATING THE GARAGE FROM THE DWELLING; MIN. 1/2" GYPSUM WALLBOARD WRAPPING POSTS, BEAMS AND WALLS SUPPORTING THE DWELLING ABOVE THE GARAGE PER IRC R302.6
- THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL UTILITIES AND SERVICES TO THE SITE PRIOR TO BEGINNING ANY SITE IMPROVEMENTS.
- NO MATERIALS FROM THE WORK ARE TO BE STOCK PILED ON THE PUBLIC RIGHT-OF-WAYS. ALL RUBBISH AND DEBRIS IS TO BE REMOVED FROM THE SITE.
- ADJACENT PROPERTIES, STREETS AND WALKS ARE TO BE PROJECTED FROM DAMAGE AT ALL TIMES.
- ALL DOWNSPOUTS AND ROOF DRAINS TO BE CONNECTED TO STORM SEWER BY TIGHTLINE UNLESS SITE CONDITIONS ALLOW FOR DRYWELLS OR SURFACE DRAINAGE AND UNLESS NOTED OTHERWISE IN CONSTRUCTION DOCUMENTS.
- ALL DIMENSIONS ARE FACE OF FRAMING, CENTER LINE OF COLUMN, OR FACE OF CONCRETE UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL SECURE PERMITS REQUIRED BY THE FIRE DEPARTMENT PRIOR TO BUILDING OCCUPATION.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF THE OCCUPANTS AND WORKERS AT ALL TIMES DURING THE COURSE OF THE PROJECT.
- APPROVED PLANS SHALL BE KEPT IN A PLAN BOX AND SHALL NOT BE USED BY ANY WORKPERSONS. ALL CONSTRUCTION SETS SHALL REFLECT THE SAME INFORMATION. THE CONTRACTOR SHALL ALSO MAINTAIN IN GOOD CONDITION, ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES. SAID PLANS ARE TO BE UNDER THE CARE OF THE JOB SUPERINTENDENT.
- THE CONTRACTOR AND/OR THE SUB-CONTRACTORS SHALL APPLY FOR, OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES EXCEPT FOR THE BUILDING PERMIT.
- ALL STAIRWAYS MUST MEET THE REQUIREMENTS OF 2018 IRC R311.7.
- ALL EMERGENCY ESCAPES AND RESCUE OPENINGS FOR BEDROOMS AND BASEMENTS MUST MEET THE REQUIREMENTS OF 2018 IRC R310.
- ROOF VENTILATION MUST MEET THE REQUIREMENTS OF 2018 IRC R806.
- ALL SIDING METHODS MUST HAVE A WEATHER RESISTIVE BARRIER THAT MEETS THE REQUIREMENTS OF 2021 IRC R703.2. GENERAL WEATHER PROTECTION FOR THE ENTIRE PROJECT MUST MEET THE REQUIREMENTS OF IRC 2021 R903.
- ALL GUARDRAILS FOR DECKS, BALCONIES, AND OPEN RAILINGS MUST MEET THE REQUIREMENTS OF 2021 IRC R312.
- ALL SKYLIGHTS AND SLOPED GLAZING MUST MEET THE REQUIREMENTS OF 2021 IRC R308.6.
- ALL CEILING HEIGHTS MUST MEET THE REQUIREMENTS OF 2021 IRC R305.
- ALL UNDER FLOOR AND CRAWL SPACE MUST BE ACCESSIBLE PER 2021 IRC R408.4.
- ATTIC ACCESS MUST BE SIZED AND LOCATED ACCESSIBLY PER 2021 IRC R807.1.

DCI Approval Stamp

MARK	DESCRIPTION	DATE
1	BUILDING PERMIT CY1	07/26/2025

8430 45TH ST SE

GENERAL NOTES

DCI Project Numbers	-
Issue Date	06/09/2024
Drawn by	
Checked by	WL

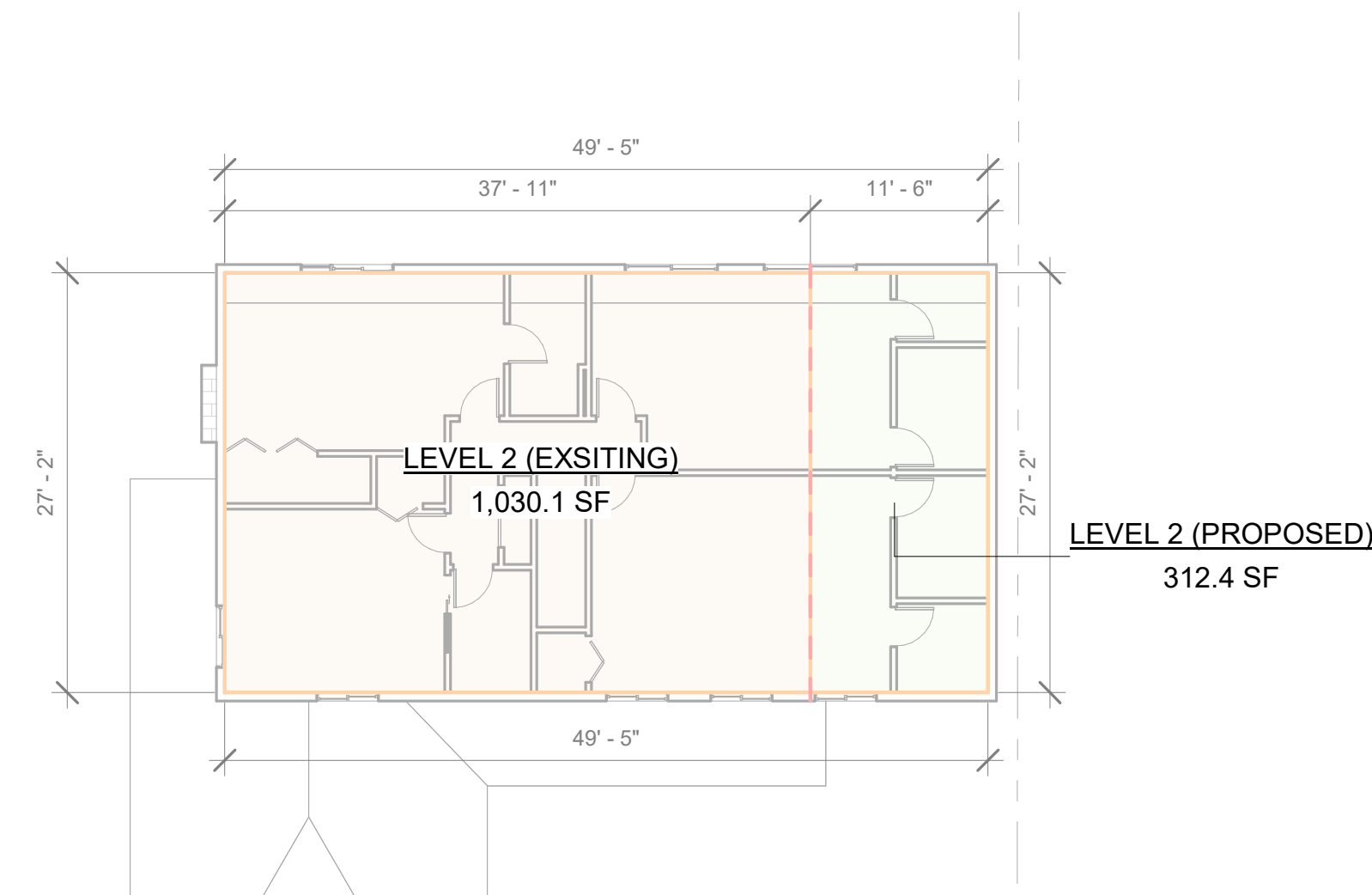
GO.01

**FAR CALCULATIONS**

<b>EXISTING</b>	
FIRST FLOOR	1420.50 SF
SECOND FLOOR	1030.07 SF
	2450.57 SF
<b>PROPOSED</b>	
FIRST FLOOR	88.08 SF
SECOND FLOOR	312.42 SF
	400.50 SF
(3,846.80 SF ALLOWABLE)	2851.07 SF
FAR LIMIT: 40% X 9617 =	3846.80 SF

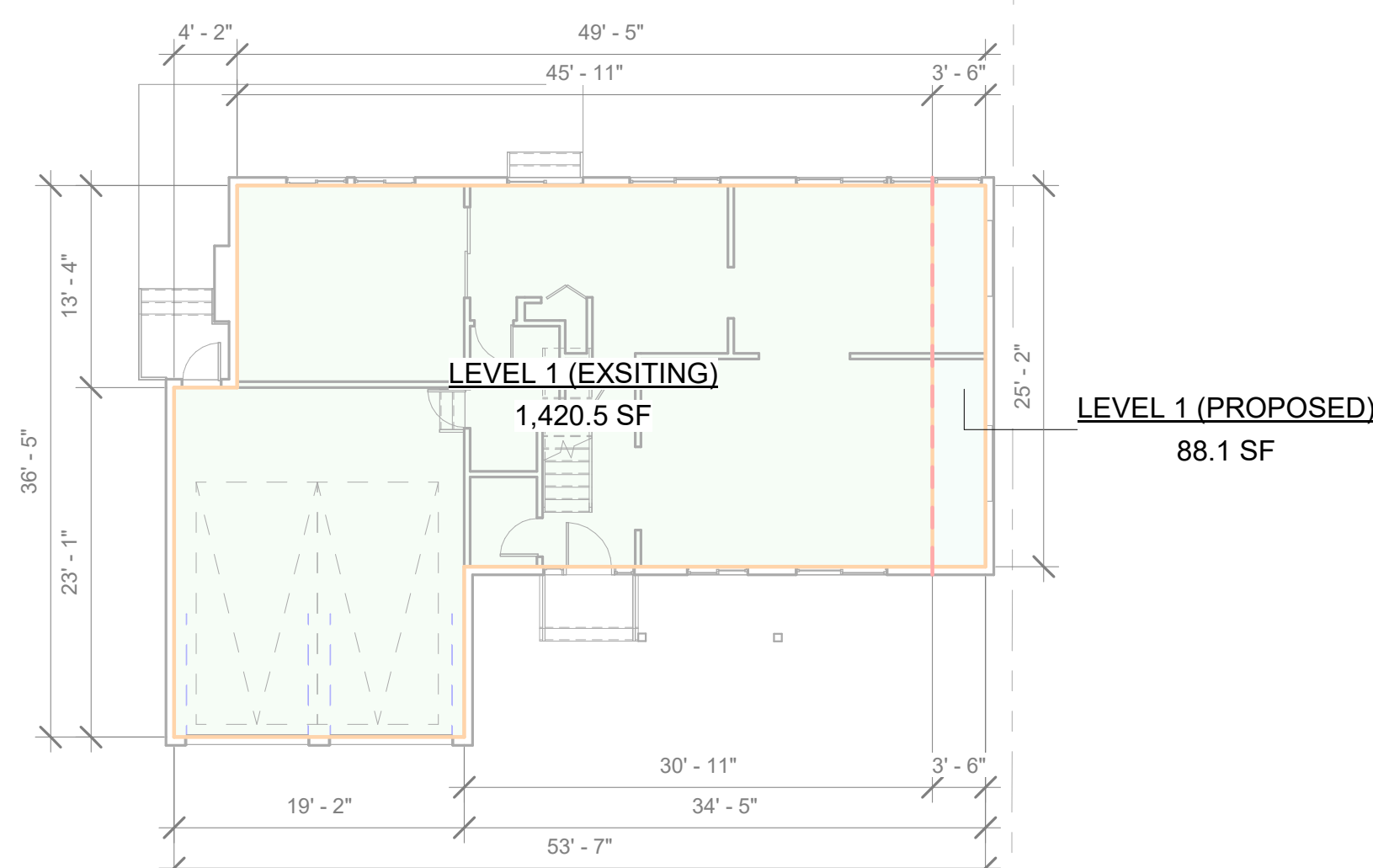
**LOT COVERAGE CALCULATIONS**

EXISTING LOT COVERAGE:	1,592.46 SF
PROPOSED LOT COVERAGE:	112.67 SF
TOTAL ALLOWED:	1,705.13 SF
	3,846.80 SF (40% OF LOT AREA)



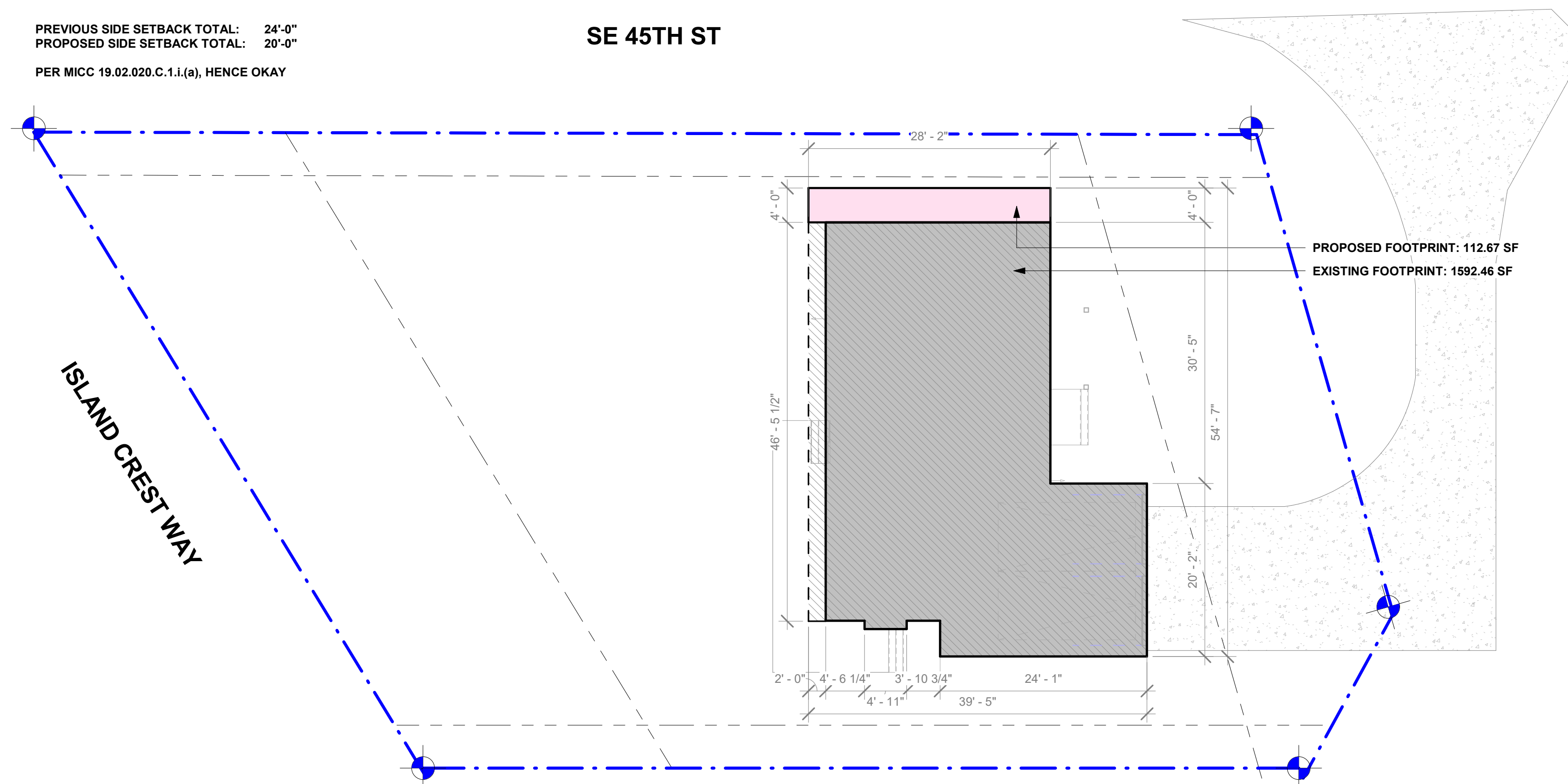
**1 FAR DIAGRAM - SECOND FLOOR**

SCALE: 3/32" = 1'-0"



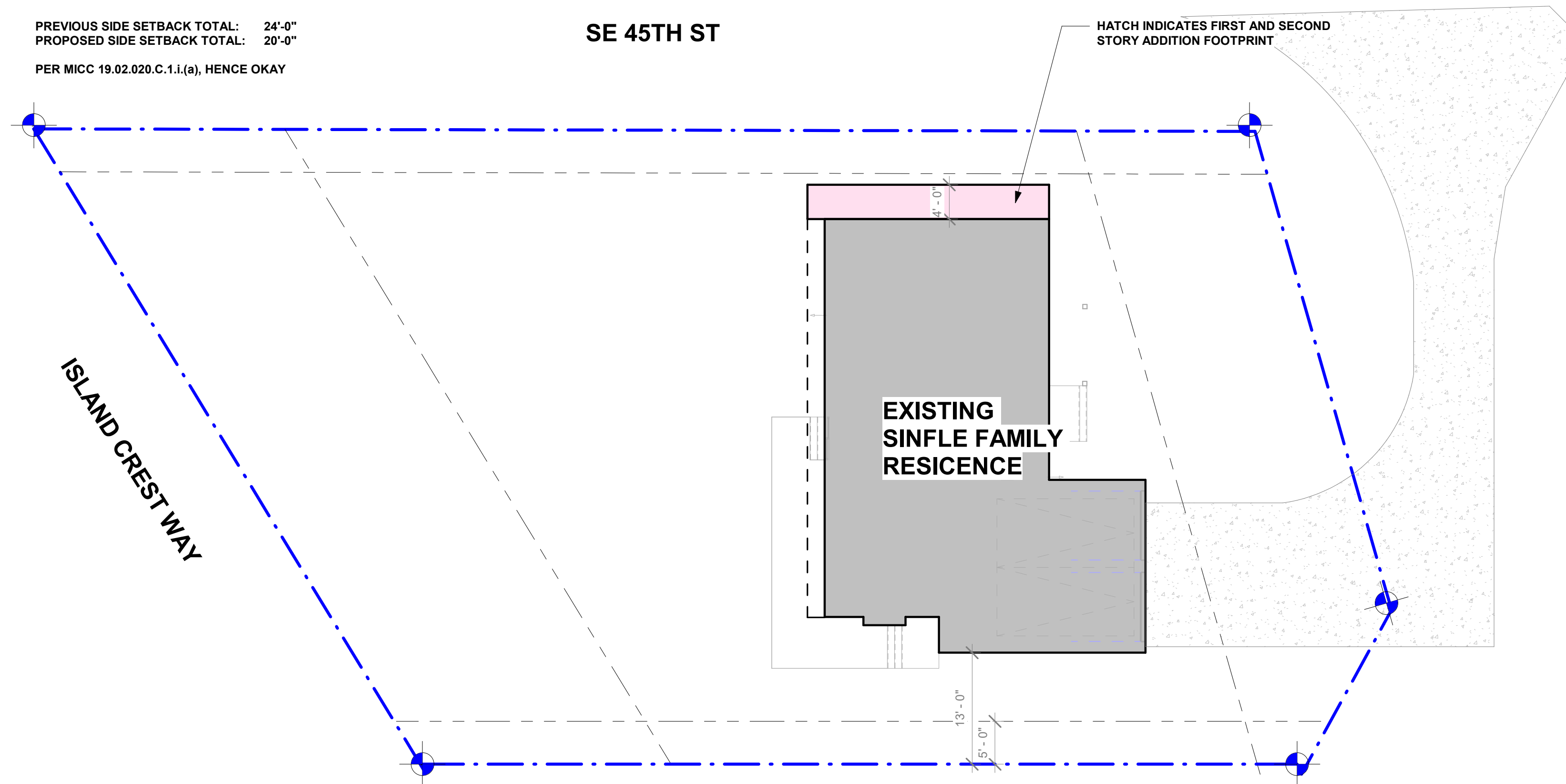
**2 FAR DIAGRAM - FIRST FLOOR**

SCALE: 3/32" = 1'-0"



**4 SETBACK DIAGRAM Copy 1**

SCALE: 3/32" = 1'-0"



**3 SETBACK DIAGRAM**

SCALE: 3/32" = 1'-0"

DCI Approval Stamp

MARK	DESCRIPTION	DATE
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8430 45TH ST SE

ZONING CODE ANALYSIS & DIAGRAMS

DCI Project Numbers	-
Issue Date	06/09/2024
Drawn by	
Checked by	WL

**GO.02**

MI 1008  
FOUND BRASS NAIL W/PUNCH IN  
4" X 4" CONCRETE POST IN  
MONUMENT CASE DOWN -1.6'  
ELEV=287.83'

**SE 45TH ST**  
BASIS OF BEARINGS PER R1  
S 88°24'15" E 660.00'

**SITE ADDRESS:**  
8430 SE 45TH ST  
MERCER ISLAND, WA 98040

**TAX PARCEL NUMBER:**  
7598100761

**AREA:**  
TOTAL SITE AREA IS 9,617± SQUARE FEET OR 0.22± ACRES.

**LEGAL DESCRIPTION:**  
PER KING COUNTY REC. NO. 20181207000463:  
THAT PORTION OF LOT 6, BLOCK 16, VITUS SCHMID'S EAST SEATTLE TRACTS, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 7 OF PLATS, PAGE 76, IN KING COUNTY, WASHINGTON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SOUTH LINE OF SAID LOT 6, WHICH IS 88°24'15" EAST 159.25 FEET FROM THE SOUTHWEST CORNER THEREOF;  
THENCE NORTH 14°26'40" WEST 58.03 FEET;  
THENCE NORTH 30°10'56" EAST 21.89 FEET;  
THENCE SOUTH 88°24'15" EAST PARALLEL TO SAID SOUTH LINE FOR A DISTANCE OF 102.16 FEET TO THE WESTERLY MARGIN OF ISLAND CREST WAY;  
THENCE SOUTH 29°49'30" EAST ALONG SAID WESTERLY MARGIN FOR A DISTANCE OF 87.88 FEET TO SAID SOUTH LINE OF LOT 6;  
THENCE NORTH 88°24'15" WEST ALONG SAID SOUTH LINE FOR A DISTANCE OF 142.41 FEET TO THE TRUE POINT OF BEGINNING.

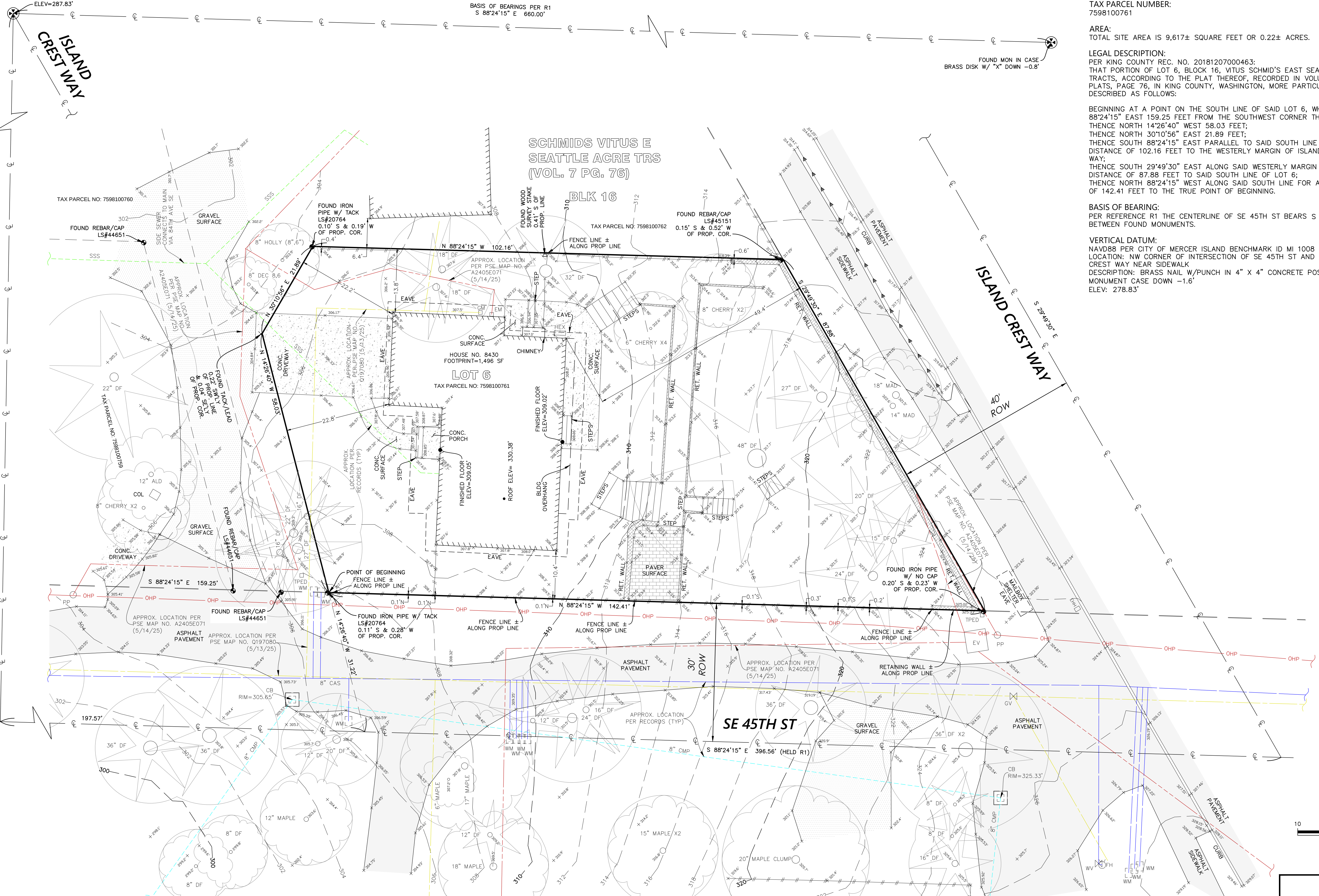
**BASIS OF BEARING:**  
PER REFERENCE R1 THE CENTERLINE OF SE 45TH ST BEARS S 88°24'15" E BETWEEN FOUND MONUMENTS.

**VERTICAL DATUM:**  
NAVD88 PER CITY OF MERCER ISLAND BENCHMARK ID MI 1008  
LOCATION: NW CORNER OF INTERSECTION OF SE 45TH ST AND ISLAND CREST WAY NEAR SIDEWALK  
DESCRIPTION: BRASS NAIL W/PUNCH IN 4" X 4" CONCRETE POST IN MONUMENT CASE DOWN -1.6'  
ELEV: 278.83'

**SURVEY NOTES:**

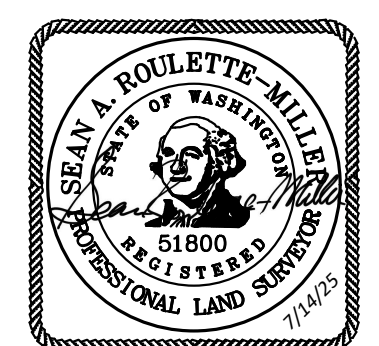
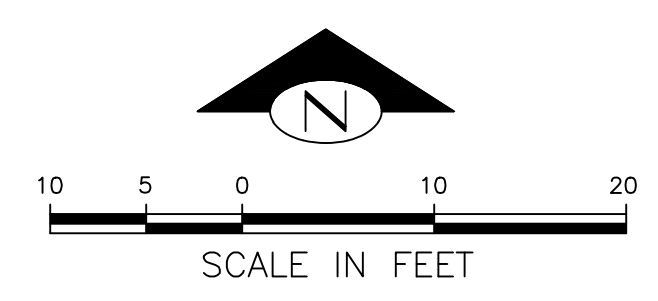
1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN JULY OF 2025. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED TO US, BY OTHERS OR GENERAL INFORMATION READILY AVAILABLE IN THE PUBLIC DOMAIN INCLUDING, AS APPLICABLE, IDENTIFYING MARKINGS PLACED BY UTILITY LOCATE SERVICES AND OBSERVED BY GROUNDMARK LAND SURVEYING IN THE FIELD. AS SUCH, THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE RELIED ON FOR DESIGN OR CONSTRUCTION PURPOSES; GROUNDMARK LAND SURVEYING IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES NECESSARY FOR DESIGN AND CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
4. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
5. EXISTING STRUCTURE(S) LOCATION AND DIMENSIONS ARE MEASURED FROM THE FACE OF THE SIDING UNLESS OTHERWISE NOTED.
6. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 3-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

**84TH AVE SE**  
N 01°01'17" E 660.00' (HELD R1)



**LEGEND:**

- ASPHALT SURFACE
- BUILDING LINE
- CATCH BASIN
- CENTERLINE
- CONCRETE SURFACE
- CONIFER TREE
- DECIDUOUS TREE
- DITCH (CENTER OF)
- EAVE LINE
- ELECTRIC HANDHOLE
- ELECTRIC LINE (OVERHEAD)
- ELECTRIC LINE UNDERGROUND (RECORD)
- ELECTRIC METER
- ELECTRIC VAULT
- FENCE LINE (WOOD)
- FIRE HYDRANT
- GAS LINE (RECORD)
- GAS METER
- GAS VALVE
- GRAVEL SURFACE
- HEAT EXCHANGE
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE
- MONUMENT IN CASE
- NAIL (AS NOTED)
- OVERHEAD BUILDING LINE
- PAVER SURFACE
- POWER POLE
- REBAR (AS NOTED)
- SIDE SEWER LINE
- STORM DRAIN LINE
- SUBJECT PARCEL PROPERTY LINE
- TELEPHONE PEDESTAL
- WALL (AS NOTED)
- WATER LINE (RECORD)
- WATER METER
- WATER VALVE
- WOOD SURVEY STAKE



**JERRY ZHANG & JIE JI**  
TAX PARCEL NO: 7598100761  
8430 SE 45TH ST, MERCER ISLAND, WA 98040

**TOPOGRAPHIC & BOUNDARY SURVEY**  
NW 1/4 SW 1/4 SEC. 18, TWP. 24N, RGE. 5E, W.M.

**GROUNDMARK LAND SURVEYING, PLLC**

PH: (206) 580-3801 2712 E FIR ST  
SEAN@GROUNDMARKLS.NET SEATTLE, WA 98122

SCALE: 1" = 10' DATE: 6/4/25 JOB NO: 25157 SHEET 1 OF 1

DATE	REVISION HISTORY

**REFERENCES:**  
R1: RECORD OF SURVEY VOL. 431, PAGE 266, RECORDS OF KING COUNTY, WASHINGTON

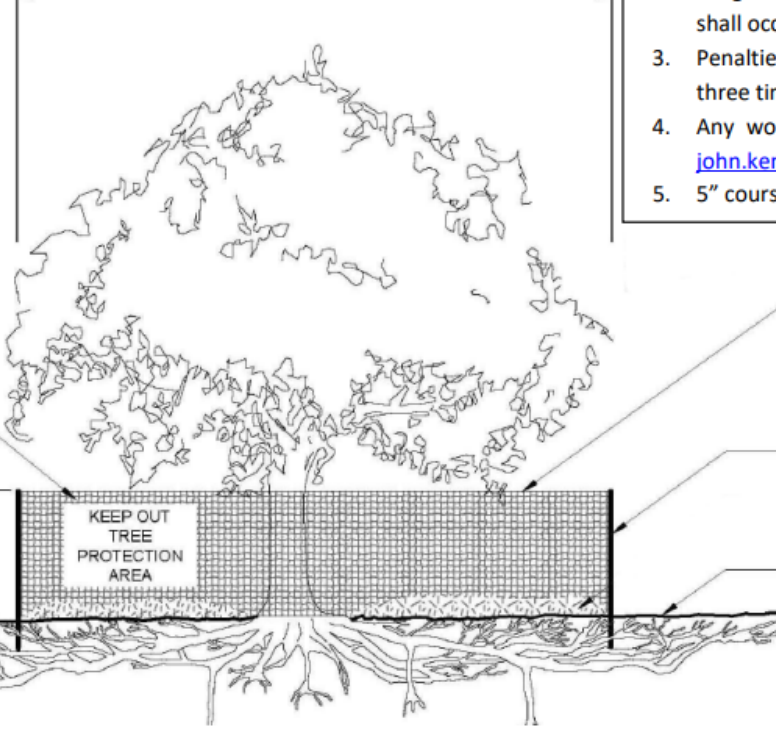
Trees enclosed by this fence are protected and are subject to the conditions of the tree permit. Violation of tree conditions may lead to:

1. Correction Notices or Stop Work Orders until compliance is achieved
2. RE Inspection Fees/financial penalties
3. Arborist reports recommending mitigation

**Notes**

1. No pruning shall be performed unless under the direction of the Project Arborist. Including limbing trees up.
2. No grading, excavation, storage (materials, equipment, vehicles, etc.), or other unpermitted activity shall occur inside the protective fencing.
3. Penalties for damaging by root damage/compaction or removing a saved tree may be a fine up to three times the value of the tree plus restoration (MICC 19.10.160).
4. Any work in approved TPZ must be with the permission of the City Arborist (206) 275-7713, [john.kenney@mercergov.org](mailto:john.kenney@mercergov.org).
5. 5' course woodchips within the tree protection zone, but not against the tree trunk.

Crown drip line or other limit of Tree Protection area. See Site/Utility Plan for fence alignment.



Tree protection fence: 6' chain link fence, solidly anchored into the ground, or if authorized High-density polyethylene fencing with 3.5" x 1.5" openings; color orange. Steel posts installed at 8' o.c.

2" x 6" steel posts or approved equal

Maintain existing grade with the tree protection fence unless otherwise indication on the plans

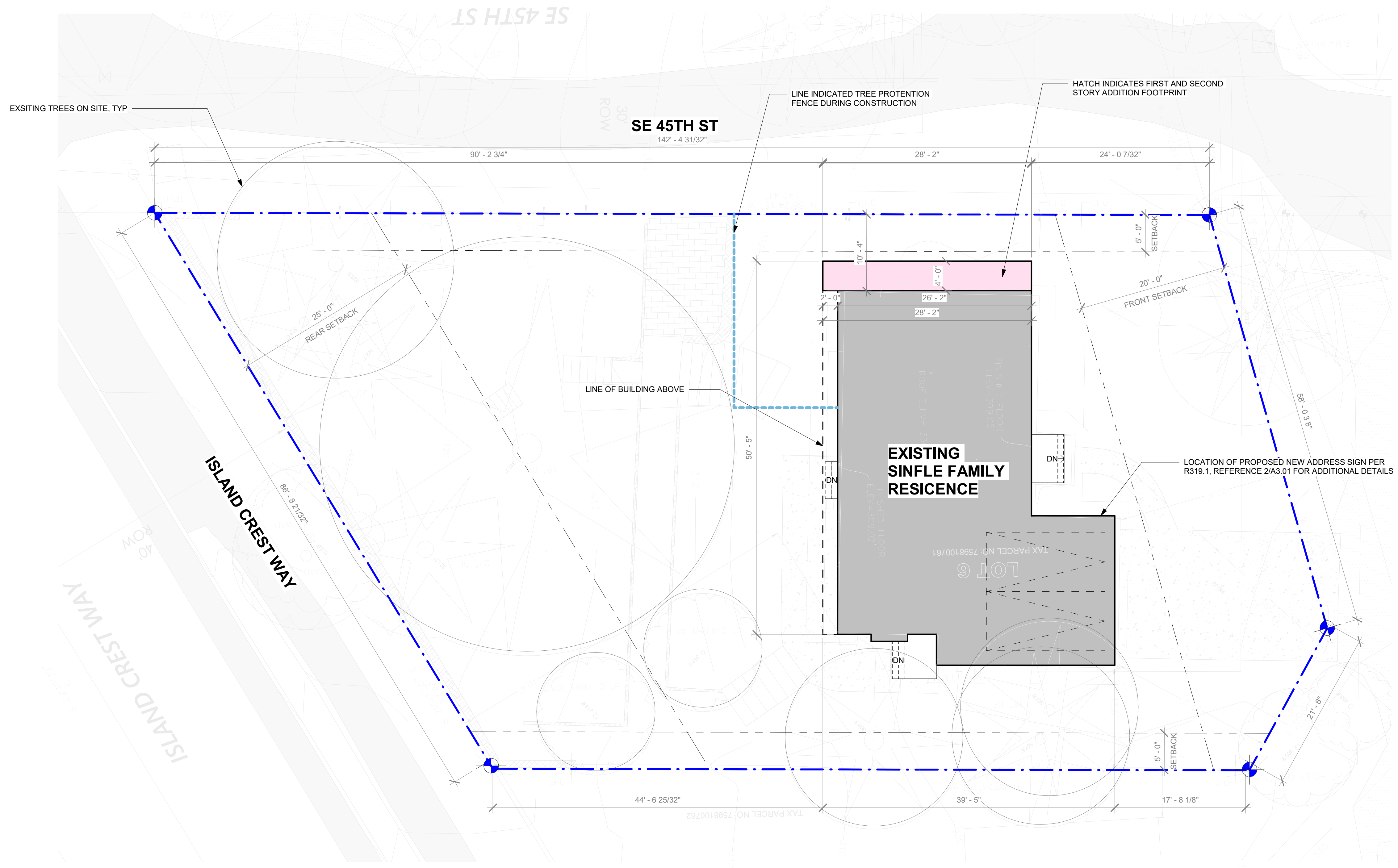
Any Work in the protected area must be with the permission of the City Arborist [john.kenney@mercergov.org](mailto:john.kenney@mercergov.org)

**PROJECT DATA**

PROJECT ADDRESS: 8430 45TH ST SE  
 JURISDICTION: CITY OF MERCER ISLAND  
 SDCI PROJECT NUMBER: N/A  
 DESCRIPTION OF WORK: EXPANDING BUILDING TOWARDS THE SOUTH, EXPANDING TWO BEDROOMS AND ADDING TWO BATHROOMS  
 PROPOSED USE: SINGLE FAMILY RESIDENCE  
 PARCEL NUMBER: 759810-0761  
 LOT AREA (SF): 9,617 SF  
 ZONE: R-9.6  
 ECA: YES  
 CONSTRUCTION TYPE: TYPE -VB  
 PER SMC TABLE 601 / SECTION 602  
 LEGAL DESCRIPTION: SCHMIDS VITUS E SEATTLE ACRE TRS POR ELY & SLY OF LN BEG 159.25 FT E OF SW COR TH N 14-26-40 W 58.03 FT TH N 30-10-56 E 21.89 FT TH S 88-24-15 E TO WLY MGN OF CO RD Plat Block: 16 Plat Lot: 6  
 SPRINKLER: A NFPA 72- CHAPTER 29 MONITORED FIRE ALARM SYSTEM IN COMPLIANCE WITH NFPA 72 AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED.

DCI Approval Stamp

MARK	DESCRIPTION	DATE
1	BUILDING PERMIT INTAKE BUILDING PERMIT CY1	08/26/2024 07/26/2025



**1 SITE PLAN**  
SCALE: 1/8" = 1'-0"

8430 45TH ST SE

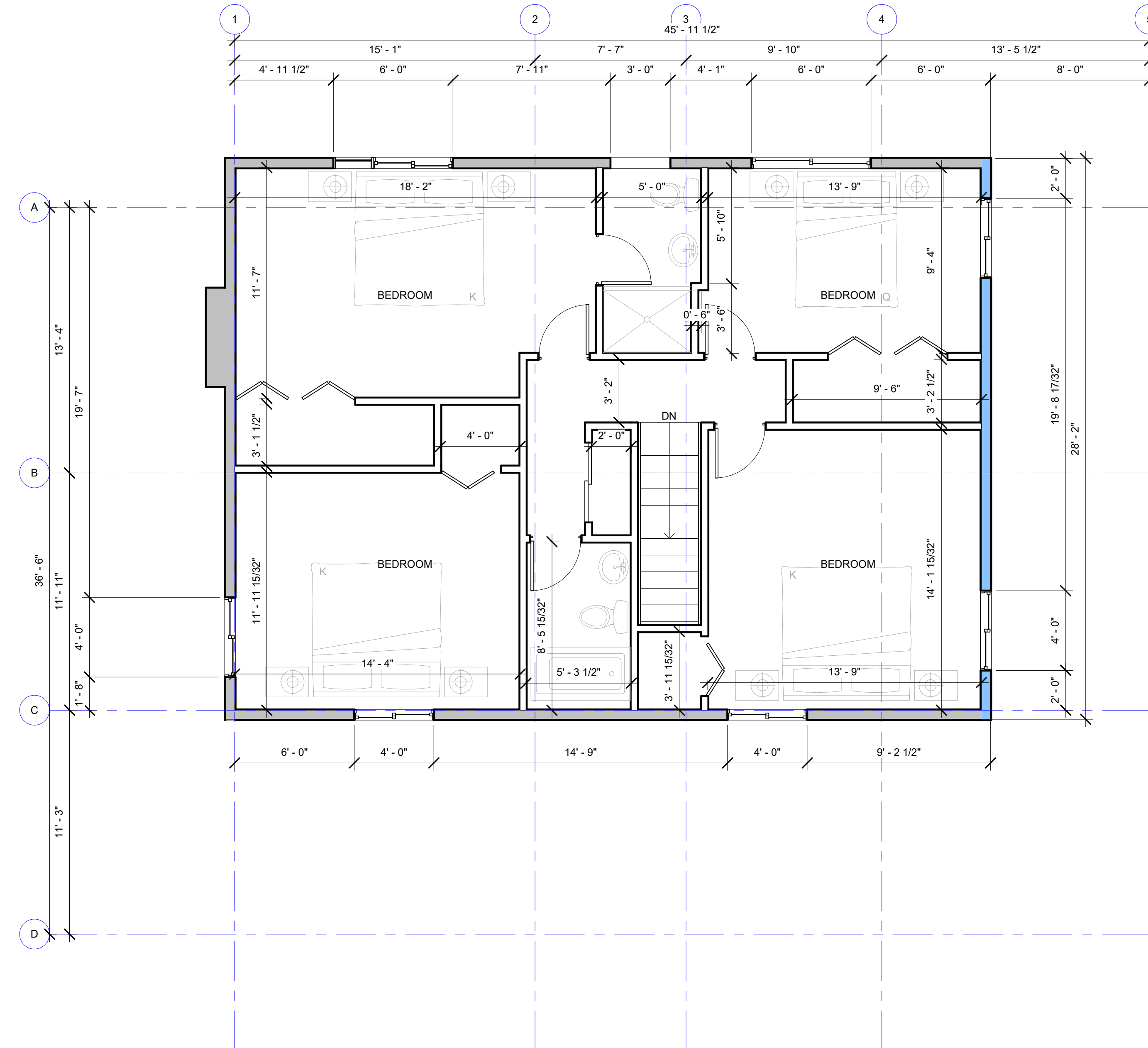
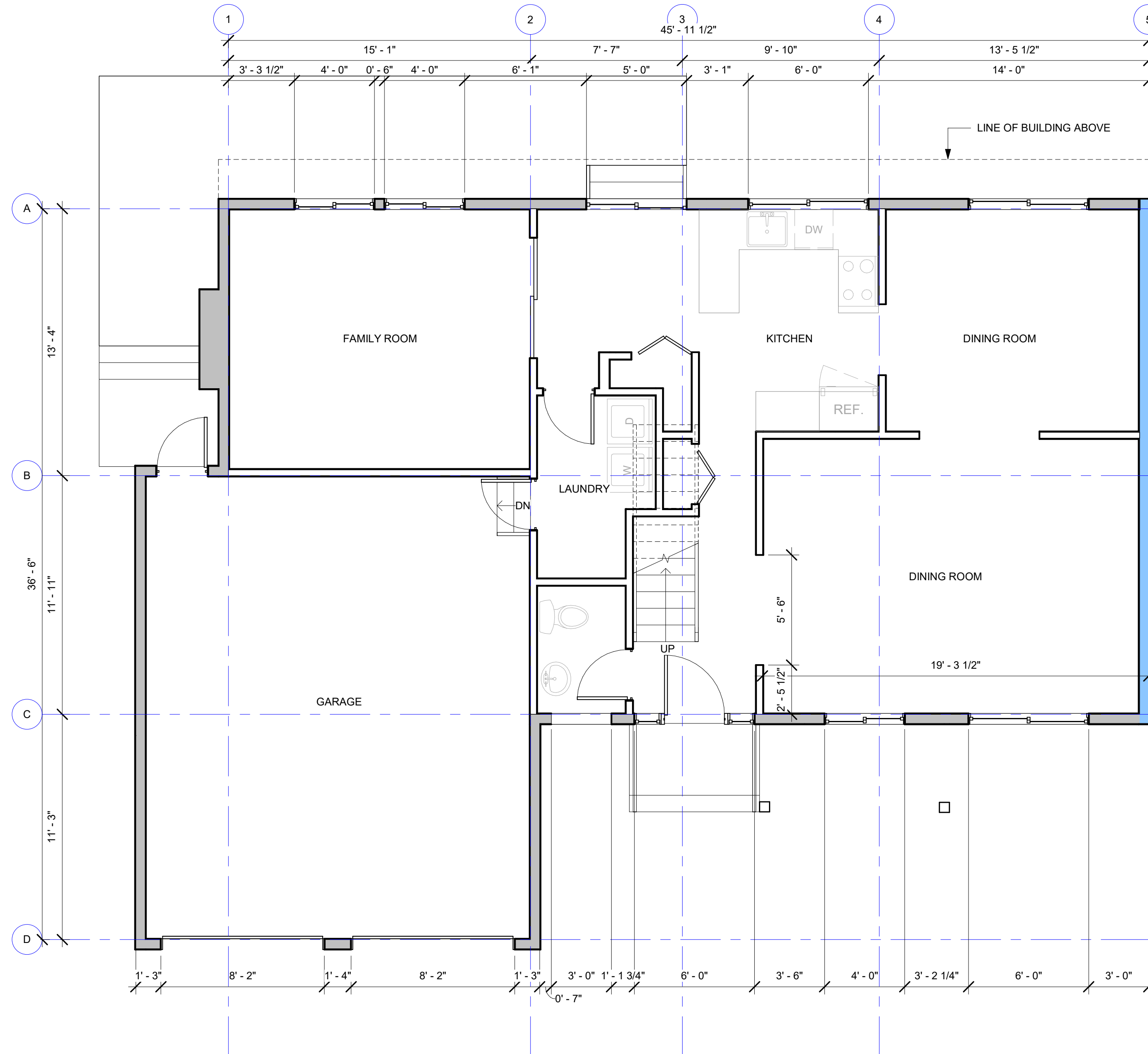
SITE PLAN

DCI Project Numbers	-
Issue Date	06/09/2024
Drawn by	
Checked by	WL

**A1.00**

**LEGEND**

- NEW PROPOSED BUILDING AREA
- WALL TO REMOVE



**1 LEVEL 1 PLAN**  
SCALE: 1/4" = 1'-0"

**3 LEVEL 2 PLAN**  
SCALE: 1/4" = 1'-0"

DCI Approval Stamp

MARK	DESCRIPTION	DATE
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8430 45TH ST SE

EXISTING FLOOR PLANS



DCI Project Numbers	-
Issue Date	08/01/2022
Drawn by	
Checked by	WL

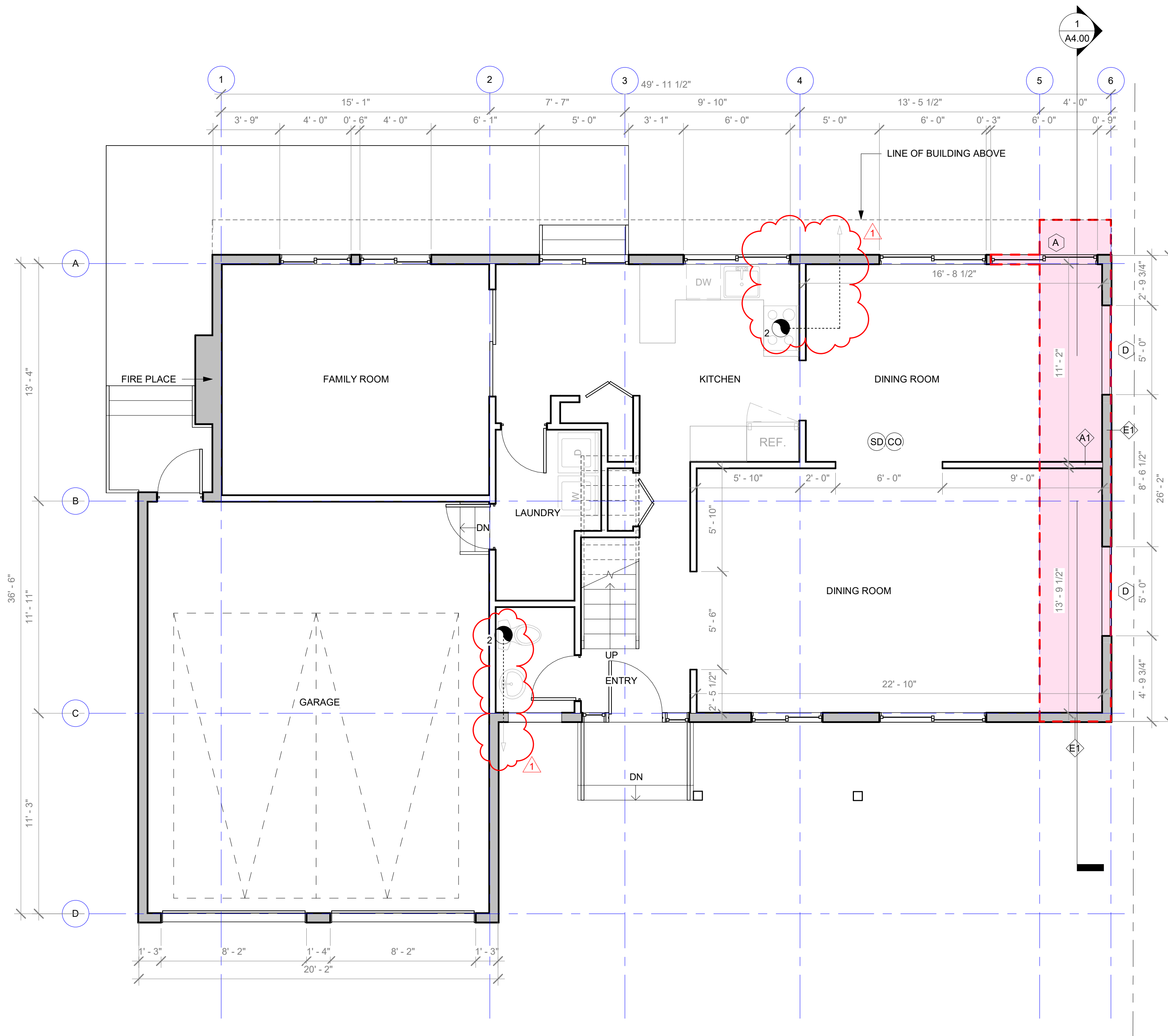
**A2.00**

**TYPICAL FLOOR PLAN NOTES**

**LEGEND**

- REFER TO SHEET A8.00 FOR ALL WALL AND FLOOR ASSEMBLIES.
- REFER TO STRUCTURAL SHEETS FOR ALL COLUMN, BEAM, JOIST SCHEDULES.
- ALL INTERIOR WALLS TO BE 2x4 @ 16" OC (UNO).
- ALL EXTERIOR WALLS TO BE 2x6 @ 16" OC (UNO).
- INSULATED EXTERIOR WALLS TO BE MIN R-21.
- HEADERS MIN R-10 PER SEC 6-1, FOOTNOTE 7.
- PROVIDE BACKING IN ALL WALLS AS REQUIRED FOR REQUIRED GRAB BARS, HANDRAILS, SHELVES, CABINETS, BRACKETS, ETC.
- PROVIDE FIREBLOCKING OVER SUPPORTS.
- PROVIDE SOLID BLOCKING OVER SUPPORTS.
- ALL WINDOWS TO BE FLUSH HEADERS UNO.
- WINDOW SIZES ARE NOMINAL ROUGH OPENING, WIDTH AND HEIGHT.
- DOOR SIZES NOTED ARE SLABS NOT ROUGH OPENINGS.
- PROVIDE TEMPERED SAFETY GLAZING PER IRC R308 IN ALL DOORS, TYP.

-  NEW PROPOSED BUILDING AREA
-  WALL TO REMOVE



**1 LEVEL 1 PLAN**  
SCALE: 1/4" = 1'-0"

DCI Approval Stamp

MARK	DESCRIPTION	DATE
1	BUILDING PERMIT INTAKE BUILDING PERMIT CY1	08/26/2024 07/26/2025

8430 45TH ST SE

PROPOSED FLOOR PLANS



DCI Project Numbers	-
Issue Date	06/09/2024
Drawn by	
Checked by	WL

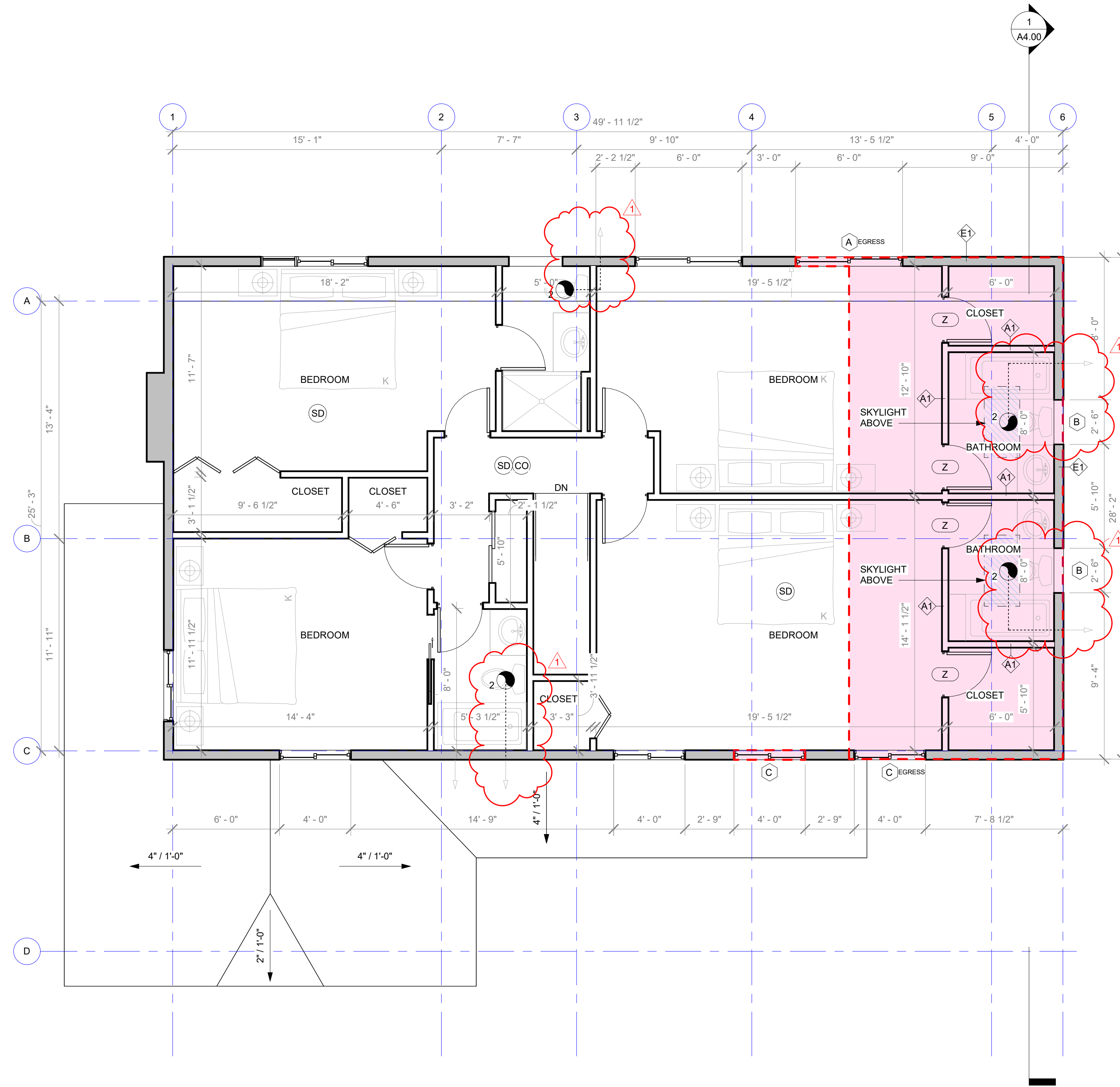
**A2.10**

**TYPICAL FLOOR PLAN NOTES**

**LEGEND**

- REFER TO SHEET A8.00 FOR ALL WALL AND FLOOR ASSEMBLIES.
- REFER TO STRUCTURAL SHEETS FOR ALL COLUMN, BEAM, JOIST SCHEDULES.
- ALL INTERIOR WALLS TO BE 2x4 @ 16" OC (UNO).
- ALL EXTERIOR WALLS TO BE 2x6 @ 16" OC (UNO).
- INSULATED EXTERIOR WALLS TO BE MIN R-21.
- HEADERS MIN R-10 PER SEC 6-1, FOOTNOTE 7.
- PROVIDE BACKING IN ALL WALLS AS REQUIRED FOR REQUIRED GRAB BARS, HANDRAILS, SHELVES, CABINETS, BRACKETS, ETC.
- PROVIDE FIREBLOCKING OVER SUPPORTS.
- PROVIDE SOLID BLOCKING OVER SUPPORTS.
- ALL WINDOWS TO BE FLUSH HEADERS UNO.
- WINDOW SIZES ARE NOMINAL ROUGH OPENING, WIDTH AND HEIGHT.
- DOOR SIZES NOTED ARE SLABS NOT ROUGH OPENINGS.
- PROVIDE TEMPERED SAFETY GLAZING PER IRC R308 IN ALL DOORS, TYP.

-  NEW PROPOSED BUILDING AREA
-  WALL TO REMOVE



**1 LEVEL 2 PLAN**  
SCALE: 1/4" = 1'-0"

DCI Approval Stamp

MARK	DESCRIPTION	DATE
1	BUILDING PERMIT CY1	07/26/2025

8430 45TH ST SE

PROPOSED FLOOR PLANS

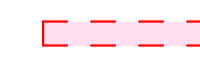

DCI Project Numbers	-
Issue Date	06/09/2024
Drawn by	
Checked by	WL

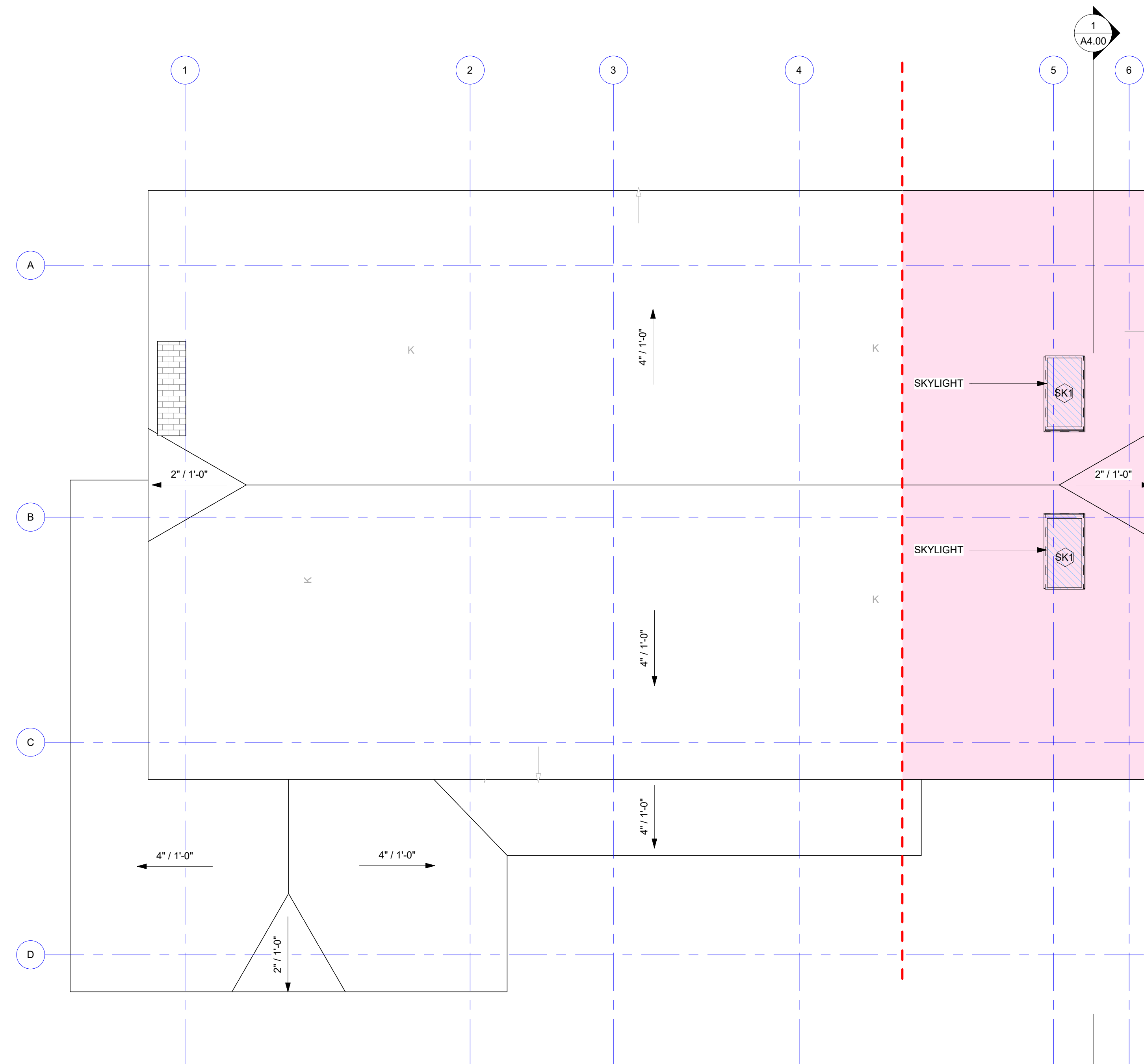
**A2.11**

**TYPICAL FLOOR PLAN NOTES**

- REFER TO SHEET A8.00 FOR ALL WALL AND FLOOR ASSEMBLIES.
- REFER TO STRUCTURAL SHEETS FOR ALL COLUMN, BEAM, JOIST SCHEDULES.
- ALL INTERIOR WALLS TO BE 2x4 @ 16" OC (UNO).
- ALL EXTERIOR WALLS TO BE 2x6 @ 16" OC (UNO).
- INSULATED EXTERIOR WALLS TO BE MIN R-21, HEADERS MIN R-10 PER SEC 6-1, FOOTNOTE 7.
- PROVIDE BACKING IN ALL WALLS AS REQUIRED FOR REQUIRED GRAB BARS, HANDRAILS, SHELVES, CABINETS, BRACKETS, ETC.
- PROVIDE FIREBLOCKING OVER SUPPORTS.
- PROVIDE SOLID BLOCKING OVER SUPPORTS.
- ALL WINDOWS TO BE FLUSH HEADERS UNO.
- WINDOW SIZES ARE NOMINAL ROUGH OPENING, WIDTH AND HEIGHT.
- DOOR SIZES NOTED ARE SLABS NOT ROUGH OPENINGS.
- PROVIDE TEMPERED SAFETY GLAZING PER IRC R308 IN ALL DOORS, TYP.

**LEGEND**

-  NEW PROPOSED BUILDING AREA
-  WALL TO REMOVE



**1 LEVEL 3 PLAN**  
SCALE: 1/4" = 1'-0"

DCI Approval Stamp

MARK	DESCRIPTION	DATE
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8430 45TH ST SE

PROPOSED FLOOR PLANS

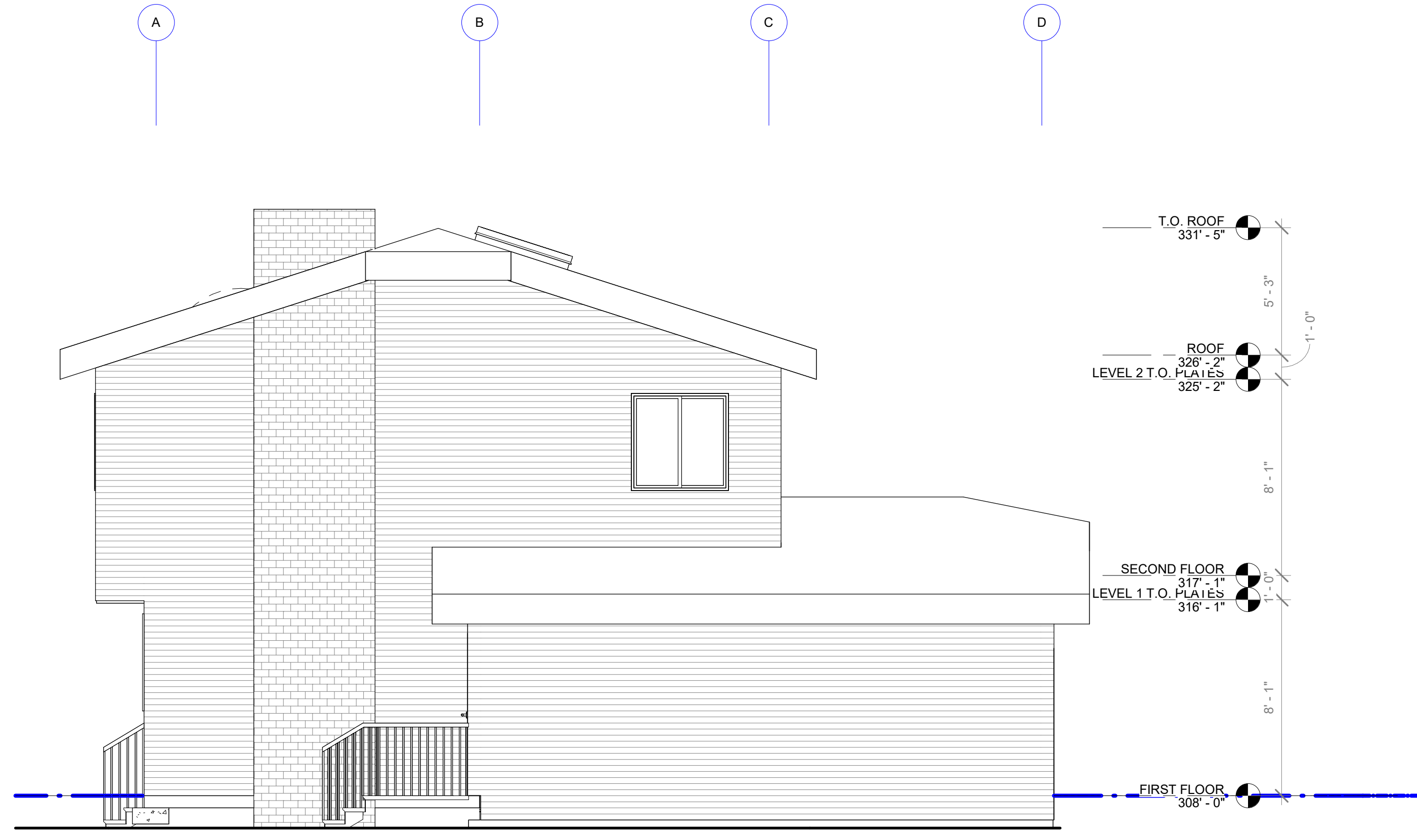
DCI Project Numbers	-
Issue Date	06/09/2024
Drawn by	
Checked by	WL

**A2.12**

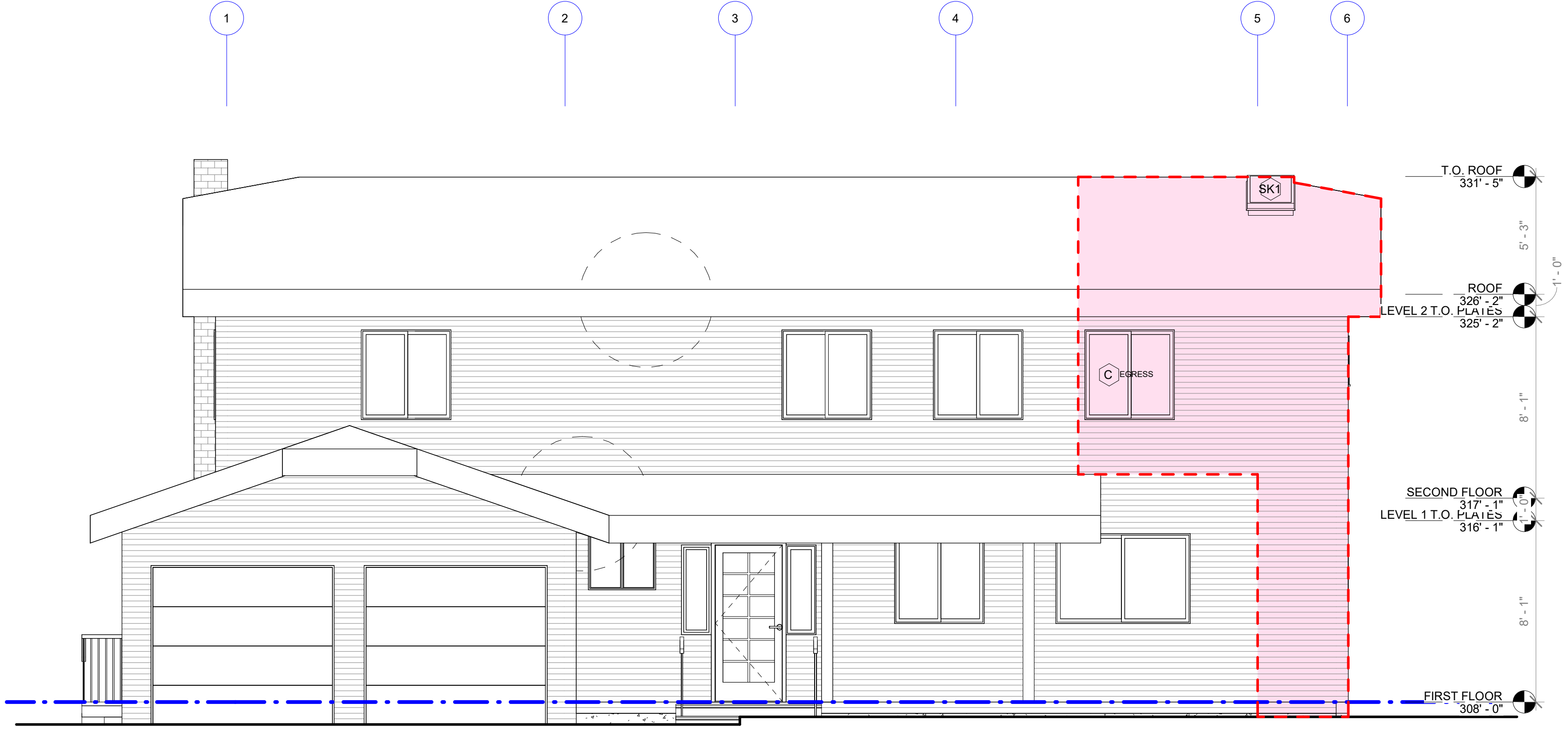
**LEGEND**

- NEW PROPOSED BUILDING AREA
- WALL TO REMOVE

**KEYNOTE LEGEND**



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



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

DCI Approval Stamp

MARK	DESCRIPTION	DATE
	BUILDING PERMIT INTAKE	08/26/2024

8430 45TH ST SE

BUILDING ELEVATIONS

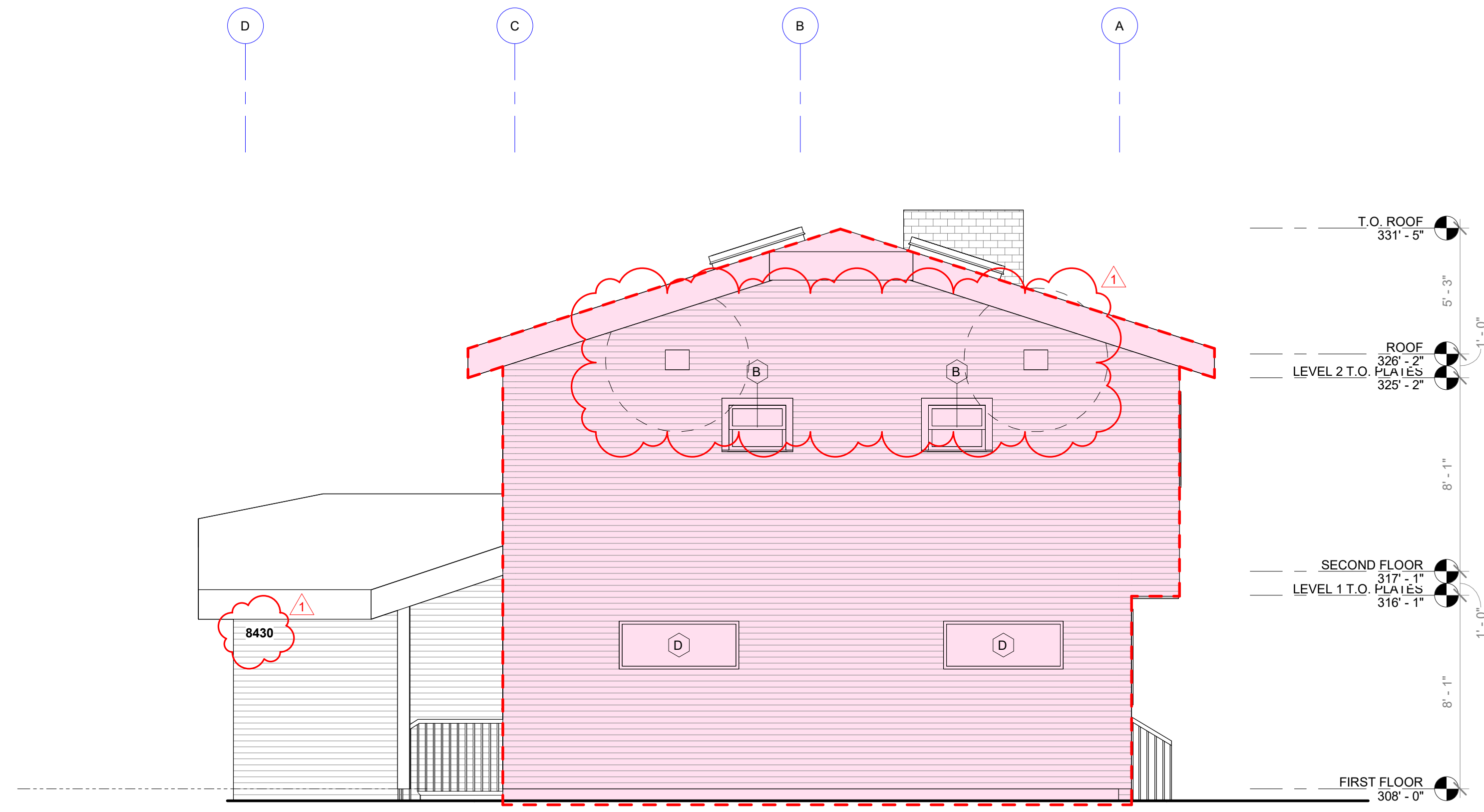
DCI Project Numbers	-
Issue Date	06/09/2024
Drawn by	
Checked by	WL

**A3.00**

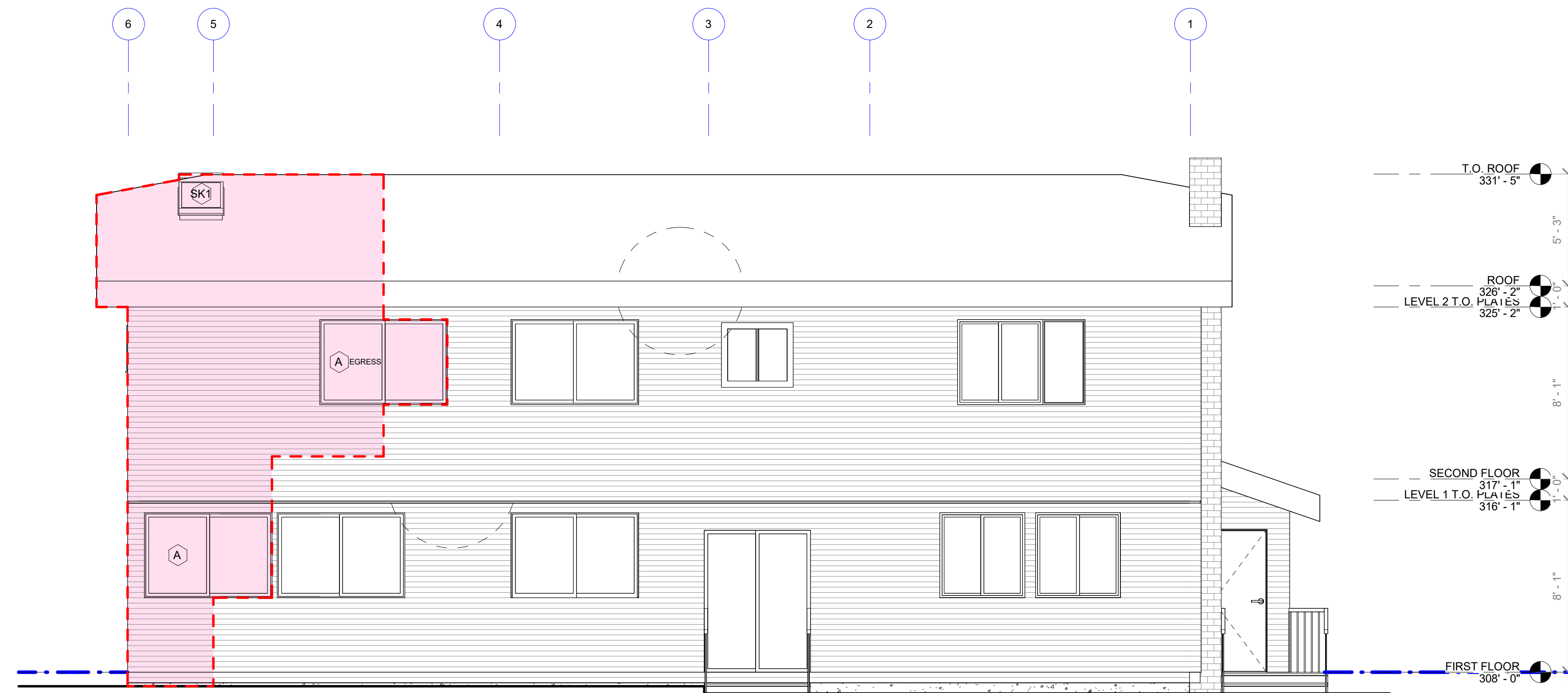
**LEGEND**

- NEW PROPOSED BUILDING AREA
- WALL TO REMOVE

**KEYNOTE LEGEND**



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



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

DCI Approval Stamp

MARK	DESCRIPTION	DATE
1	BUILDING PERMIT CY1	07/26/2025

8430 45TH ST SE

BUILDING ELEVATIONS

DCI Project Numbers	-
Issue Date	06/09/2024
Drawn by	
Checked by	WL

**A3.01**

**LEGEND**

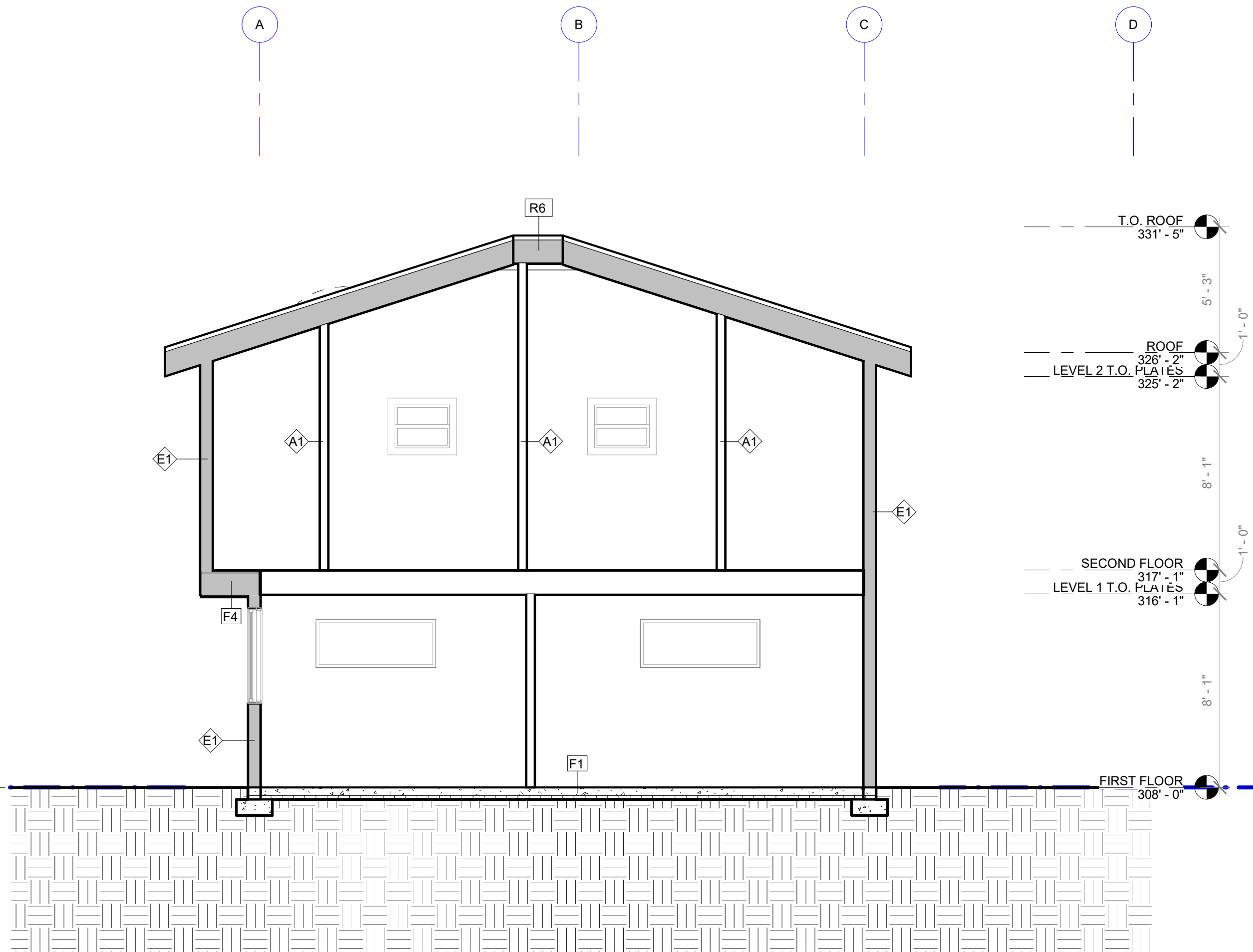
- NEW PROPOSED BUILDING AREA
- WALL TO REMOVE

**SECTION GENERAL NOTES**

- SEE ASSEMBLIES DETAIL ON SHEET A8.00
- ALL PARTY WALL FIRE RATINGS MUST BE CONTINUOUS FROM FOUNDATION TO ROOF SHEATHING

DCI Approval Stamp

MARK	DESCRIPTION	DATE
	BUILDING PERMIT INTAKE	08/26/2024



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

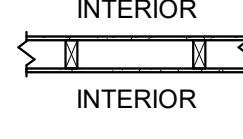
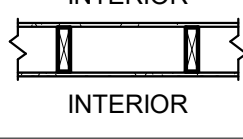
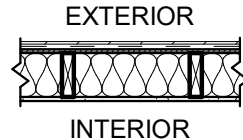
8430 45TH ST SE

**BUILDING SECTIONS**

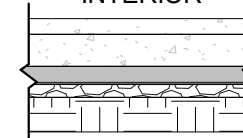
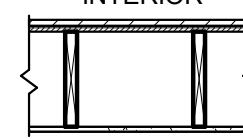
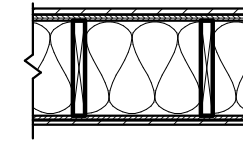
DCI Project Numbers	-
Issue Date	06/09/2024
Drawn by	
Checked by	WL

**A4.00**

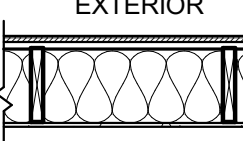
### WALL ASSEMBLIES

TYPE	DETAIL	DESCRIPTION	FIRE RATING	THERMAL	STC RATING
A1		TYPICAL INTERIOR 2X4 WALL - PVA PRIMER AND PAINT - 1/2" GWB - 2X4 @ 16" O.C. - 1/2" GWB - PVA PRIMER AND PAINT			
A2		TYPICAL INTERIOR 2X6 WALL - PVA PRIMER AND PAINT - 1/2" GWB - 2X6 @ 16" O.C. - 1/2" GWB - PVA PRIMER AND PAINT			
E1		TYPICAL EXTERIOR 2X6 WALL - SIDING PER ELEVATION - WEATHER RESISTANT BARRIER - SHEATHING AND NAILING PER STRUCTURAL - 2X6 @ 16" O.C. - R-21 BATT INSULATION - 1/2" GWB - PVA PRIMER AND PAINT		R-21	

### FLOOR ASSEMBLIES

TYPE	DETAIL	DESCRIPTION	FIRE RATING	THERMAL	STC RATING
F1		TYPICAL SLAB ON GRADE - 1 1/2" SELF - LEVELING CONCRETE SALB (DECK MUD MAY BE USED IN LIEU OF SELF LEVELING CONCRETE) - VAPOR BARRIER - EXISTING CONCRETE SLAB ON GRADE - 2" RIGID INSULATION, UNDER ENTIRE SLAB (R-10 MIN) - FREE DRAINING FILL - COMPACTED NATIVE BEARING SOIL		R-10	
F3		TYPICAL UPPER FLOOR FRAMING - FINISH FLOOR PER PLANS - SHEATHING AND NAILING PER STRUCT - FLOOR JOISTS PER STRUCT - 1/2" GWB - PVA PRIMER AND PAINT			
F4		TYPICAL CANTILEVERED FLOOR FRAMING - FINISH FLOOR PER PLANS - SHEATHING AND NAILING PER STRUCT - FLOOR JOISTS PER STRUCT - FULL DEPTH BATT INSULATION (R-38 MIN) - FILL TOTAL CAVITY - NO VOIDS - SHEATHING AND NAILING PER STRUCT - WEATHER RESISTANT BARRIER - SOFFIT PER ELEVATION		R-38	

### ROOF ASSEMBLIES

TYPE	DETAIL	DESCRIPTION	THERMAL	STC RATING
R6		TYPICAL PITCHED ROOF (VENTED) - COMPOSITE ROOF SHINGLES (PER MFR) - ICE AND WATER SHIELD (IF PITCH LESS THAN 3.5:12) - ROOF UNDERLAYMENT (PER MFR) - SHEATHING AND NAILING PER STRUCT - ROOF TRUSSES PER STRUCT - VENTING PER PLANS - BATT INSULATION (R-29 MIN) - MIN 2" AIR GAP - 1/2" GWB - PRIMER AS CLASS III VAPOR BARRIER AND PAINT	R-38	

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MARK	DESCRIPTION	DATE
	BUILDING PERMIT INTAKE	08/26/2024

8430 45TH ST SE

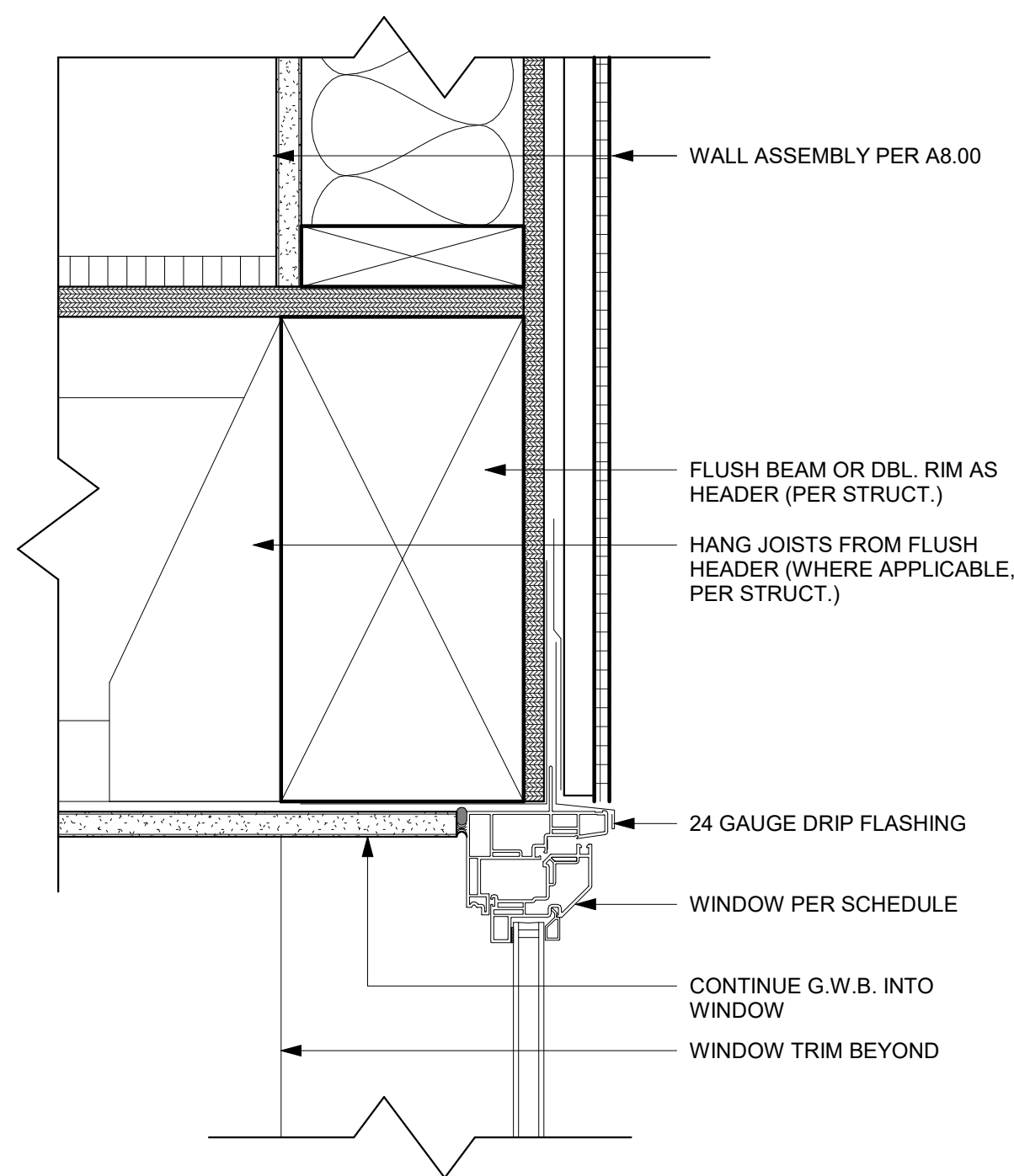
BUILDING ASSEMBLIES

DCI Project Numbers	-
Issue Date	06/09/2024
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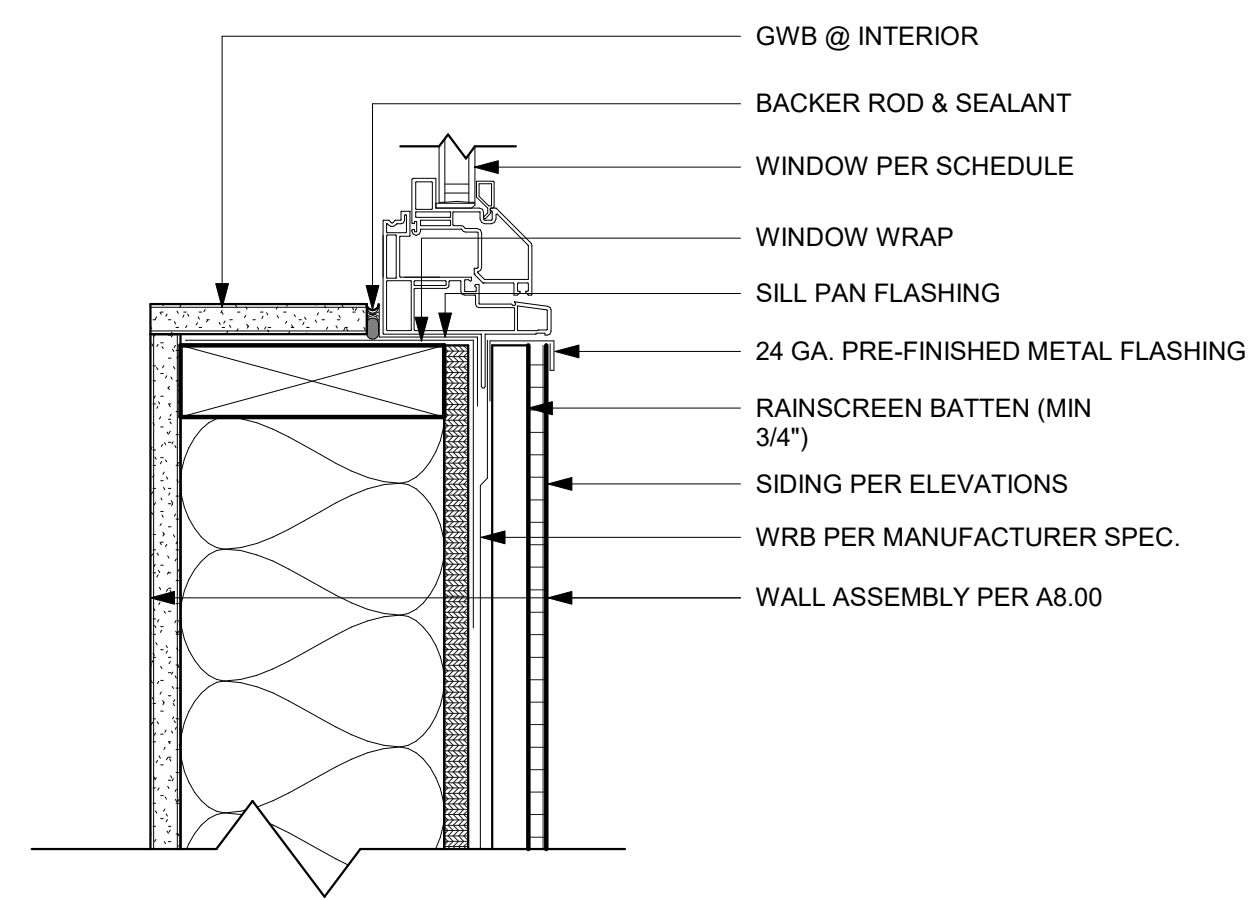
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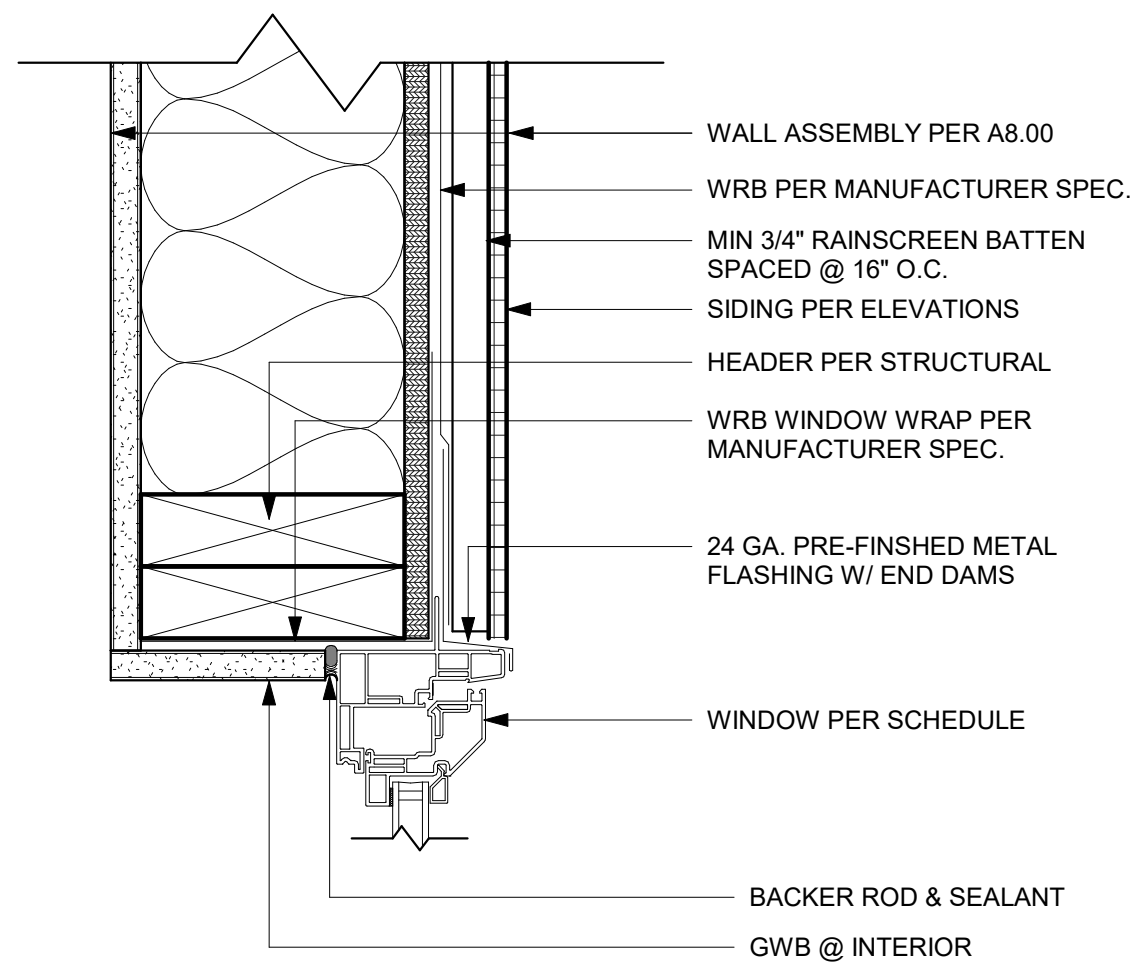
**3 WINDOW HEAD - FLUSH CONDITION**  
SCALE: 3" = 1'-0"



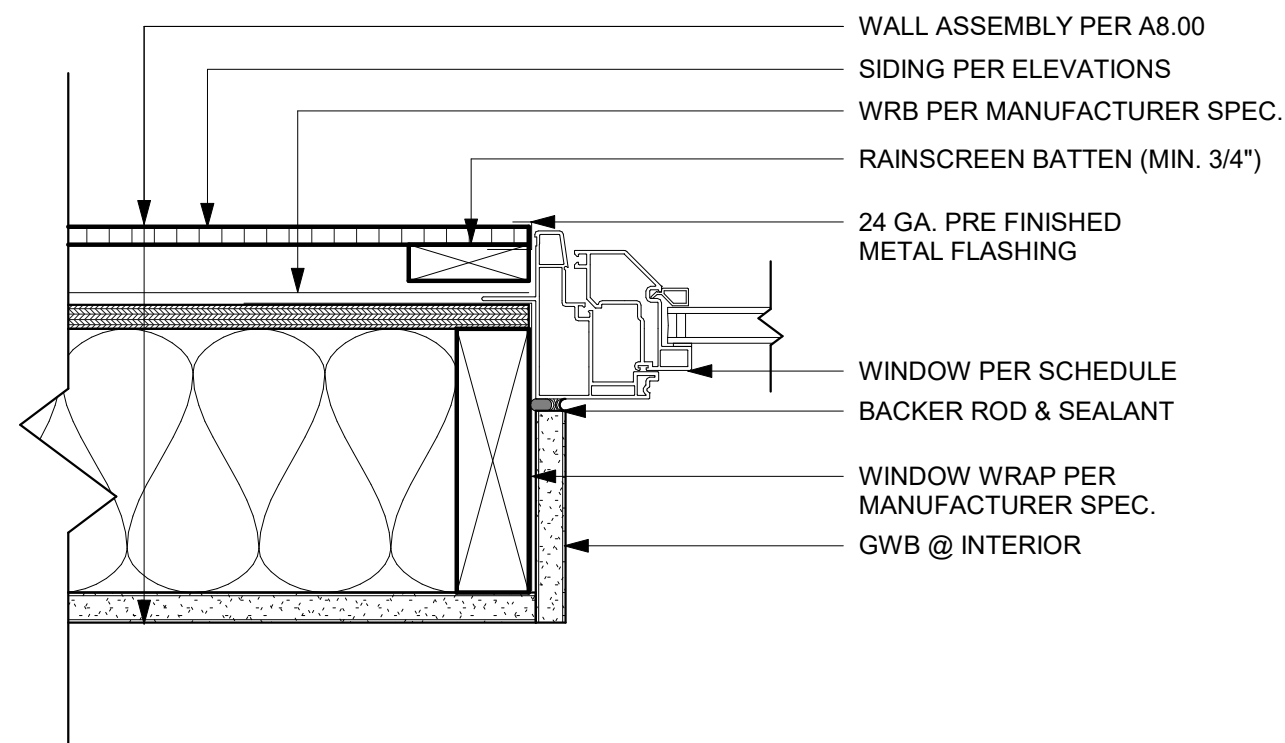
**2 TYPICAL WINDOW SILL**  
SCALE: 3" = 1'-0"



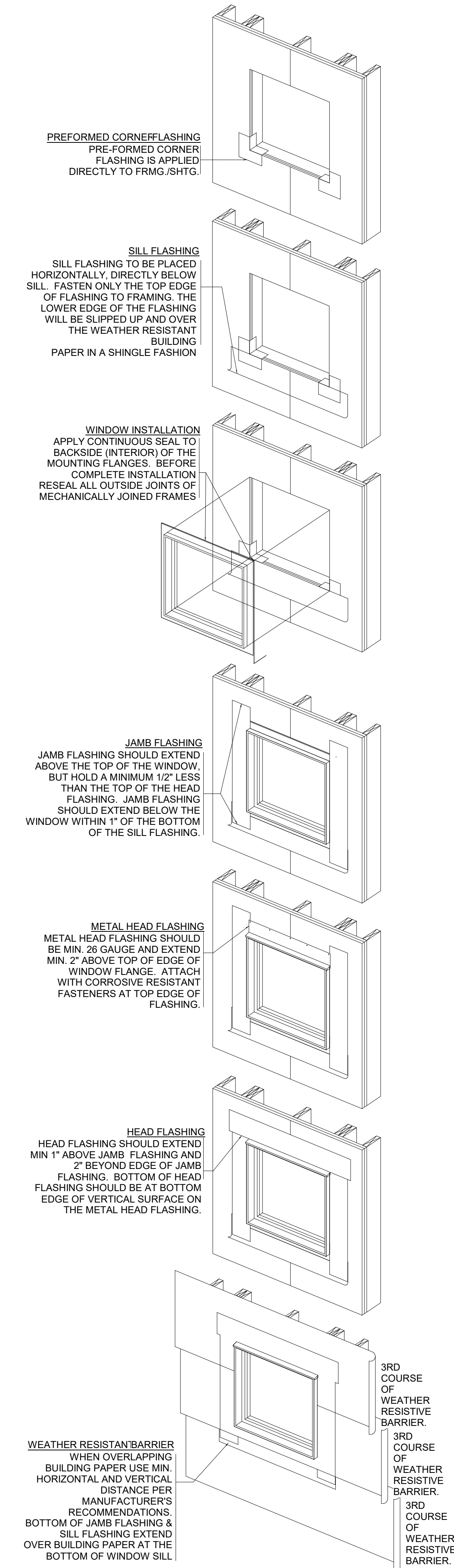
**4 TYPICAL WINDOW HEAD**  
SCALE: 3" = 1'-0"



**5 TYPICAL WINDOW JAMB**  
SCALE: 3" = 1'-0"



**1 TYPICAL WINDOW INSTALLATION**  
SCALE: 1/2" = 1'-0"



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DETAILS - WINDOWS

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**A8.30**

These drawings are not intended for use on any other project.

WINDOW SCHEDULE								
WINDOW	COUNT	WIDTH	HEIGHT	AREA	EGRESS	MATERIAL	TEMPERED	OPERATION
A	2	6'-0"	4'-0"	48 SF				
B	2	2'-6"	2'-0"	10 SF				
C	2	4'-0"	4'-0"	32 SF				
D	2	5'-0"	2'-0"	20 SF				
				110 SF				
SK1	2	2'-0"	4'-0"	16 SF	NO	VINYL	YES	SKYLIGHT/FIXED
				16 SF				
Grand total: 10				126 SF				

DOOR SCHEDULE					
DOOR	COUNT	WIDTH	HEIGHT	AREA	U-VALUE
Z	14	2'-6"	6'-8"	233 SF	
				233 SF	
				233 SF	

### WINDOW NOTES

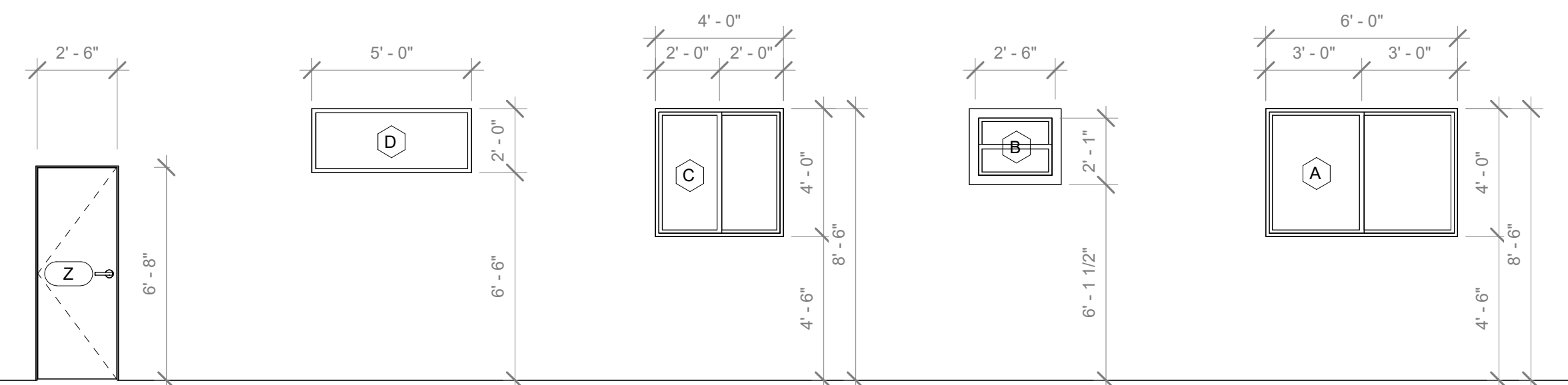
- ALL WINDOW ELEVATIONS DRAWN IN THESE SCHEDULES ARE VIEWED FROM THE EXTERIOR.
- WINDOWS ARE SHOWN WITH ROUGH OPENING DIMENSIONS. CONTRACTOR MUST VERIFY ACTUAL DIMENSIONS ACCORDINGLY.
- BASEMENTS, HABITABLE ATTICS AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE EMERGENCY ESCAPE AND RESCUE OPENING PER SRC R301.1
- OPERABLE WINDOWS SHALL HAVE OPERABLE INSIDE LATCHING DEVICES PER SBC 419.5.1.8 WHERE OPERABLE WINDOWS ARE PROVIDED IN TYPE -A UNITS, AT LEAST ONE WINDOW IN EACH SLEEPING OR LIVING SPACE SHALL MEET OPERATION REQUIREMENTS PER ANSI 117.1-2009 1003.1.3
- SAFETY GLAZING (S.G.) SHALL BE PROVIDED IN HAZARDOUS LOCATIONS, INCLUDING THE FOLLOWING LOCATIONS AS SPECIFIED IN SBC 2406.3 EACH PANE OF SAFETY GLASS SHALL BE IDENTIFIED WITH A PERMANENT LABEL.
  - GLAZING IN ALL DOORS, AND WITHIN 24" OF EITHER VERTICAL EDGE OF A DOOR.
  - GLAZING PANELS LARGER THAN 9 SF WITH SILLS LESS THAN 18" ABOVE THE FINISHED FLOOR AND A TOP EDGE GREATER THAN 36" ABOVE THE FINISHED FLOOR.
  - GLAZING PANELS WITH SILL LESS THAN 60" ABOVE THE STANDING SURFACE A BATH TUB OR SHOWER.
  - GLAZING IN ALL BATH AND SHOWER DOORS AND ENCLOSURES.
  - GLAZING IN ALL GUARDS AND RAILINGS.
  - GLAZING ADJACENT TO STAIRWAYS, LANDINGS, AND RAMPS WITHIN 36" HORIZONTALLY OF A WALKING SURFACE.
  - GLAZING WITHIN 60" HORIZONTALLY OF THE BOTTOM THREAD OF A STAIRWAY IN ANY DIRECTION.
- WINDOWS SHALL BE DESIGNED, MANUFACTURED, AND INSTALLED TO WITHSTAND WIND EFFECTS AS DESCRIBED IN SBC 1609.
- ALL RESIDENTIAL VINYL WINDOWS SHALL BE INSTALLED WITH A FLEXIBLE MEMBRANE FLASHING. SEE DETAILS FOR TYPICAL HEAD, SILL AND JAMB INSTALLATIONS
- ALL WINDOWS AND GLAZED DOORS SHALL BE NFRC CERTIFIED AND LABELED.
- ALL WINDOWS ARE FIXED PANE OR HAVE CASEMENT OR AWNING HARDWARE PER SCHEDULE. HARDWARE SHALL MEET THE REQUIREMENTS OF ICC/ANSI A117.1 SECTION 309.4 AND SHALL BE LOCATED IN THE REACH RANGES DESCRIBED IN ICC/ANSI A117.1 SECTION 308
- NATURAL VENTILATION SHALL BE PROVIDED THROUGH WINDOWS, DOORS, LOUVERS OR OTHER OPENINGS TO THE OUTDOORS. THE OPENING MECHANISM SHALL BE PROVIDED WITH READY ACCESS SO THAT THE OPENINGS ARE READILY CONTROLLABLE BY THE BUILDING OCCUPANTS. THE MINIMAL OPENING AREA TO THE OUTDOORS SHALL BE 4% OF THE FLOOR AREA BEING VENTILATED
- OUTDOOR AIR/MAKE-UP AIR FOR THE WHOLE HOUSE VENTILATION SHALL BE PROVIDED THROUGH OPERABLE TRICKLE VENTS BUILT-IN THE WINDOW ASSEMBLY. MIN 4 SQ. INCHES OF NET FREE AREA IN EACH OCCUPIABLE SPACE.

### GRILLS, SCREENS & LOUVERS NOTES

- LOUVER & SCREEN DIMENSIONS ARE FREE FOR ROUGH OPENINGS. CONTRACTOR TO FIELD VERIFY DIMENSION PRIOR TO MANUFACTURING.
- CONTRACTOR TO VERIFY LOUVER & SCREEN DIMENSIONS WITH MECHANICAL SUBCONTRACTOR PRIOR TO CONSTRUCTION. IF DIMENSIONAL REQUIREMENTS VARY, CONTRACTOR SHALL NOTIFY ARCHITECT PRIOR TO PROCEEDING.

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8430 45TH ST SE

SCHEDULE  
WINDOWS/DOORS

DCI Project Numbers	-
Issue Date	06/09/2024
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**A9.00**

1 WINDOW/DOOR DIAGRAMS  
SCALE: 1/4" = 1'-0"

## GENERAL STRUCTURAL NOTES

(THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE PLANS.)

### A. GENERAL

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC), 2021 EDITION, AS AMENDED BY LOCAL JURISDICTION.

2. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM HIS WORK. STRUCTURAL DESIGN OF THE BUILDING IS BASED ON RESISTANCE TO DEAD LOADS, CODE SPECIFIED LATERAL LOADS, AND MAXIMUM EXPECTED SERVICE LOADS. NO CONSIDERATION HAS BEEN GIVEN TO LOADS WHICH WILL BE INDUCED BY ERECTION PROCEDURES. THE CONTRACTOR SHALL VERIFY, TO THE SATISFACTION OF HIMSELF AND THE OWNER, THE ABILITY OF THE STRUCTURE TO RESIST ALL ERECTION LOADS WITHOUT EXCEEDING THE ALLOWABLE STRESSES OF THE MATERIALS USED. WHERE ERECTION LOADS WOULD OVERSTRESS THE STRUCTURE, THE CONTRACTOR SHALL SUBMIT DESIGN DOCUMENTS FOR TEMPORARY BRACING AND STRENGTHENING, INCLUDING FABRICATION AND ERECTION DRAWINGS, TO THE ARCHITECT FOR REVIEW. THESE DOCUMENTS SHALL BEAR THE SEAL AND SIGNATURE OF A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF WASHINGTON. THE CONTRACTOR SHALL PROVIDE, INSTALL AND IF NECESSARY, REMOVE SUCH TEMPORARY WORK AS REQUIRED.

4. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

5. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED, BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

6. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERRECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

7. INSPECTIONS: INSPECTIONS OF THE WOOD FRAMING, THE STEEL REBAR AND WOOD FORMS FOR CONCRETE FOOTINGS & FOUNDATIONS, AND CONCRETE SLABS ARE REQUIRED PER IBC SECTION 109.3.

8. PRE-MANUFACTURED, PRE-ENGINEERED STRUCTURAL COMPONENTS SHALL BE DESIGNED BASED ON THE CRITERIA PRESENTED IN THE CONTRACT DOCUMENTS. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE, TEMPORARY AND PERMANENT BRACING AND ALL NECESSARY CONNECTIONS, INCLUDING CONNECTIONS TO THE PRIMARY STRUCTURE, NOT SPECIFICALLY CALLED OUT ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE THE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE PRIMARY STRUCTURE. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED AS NOTED PREVIOUSLY.

### B. DESIGN CRITERIA

1. DESIGN LOADS  
 - ROOF SNOW LOAD 25 PSF  
 - RESIDENTIAL FLOOR LIVE LOAD 40 PSF  
 - BEDROOM FLOOR LIVE LOAD 30 PSF  
 - EXTERIOR BALCONY & DECK LIVE LOAD 60 PSF

- WIND (IBC) 110 MPH (LRFD)  
 EXPOSURE B, Kzt = 1.6  
 - EARTHQUAKE (ASCE7) SITE CLASS D  
 SEISMIC USE GROUP 1 (Ie = 1.0)  
 SEISMIC DESIGN CATEGORY D  
 Ss = 1.430 g, S1 = 0.497 g  
 Sds = 1.144 g  
 EQUIVALENT LATERAL FORCE PROCEDURE

- ALLOWABLE SOIL PRESSURE 1500 PSF AT 1'-6" DEPTH  
 - ALLOWABLE LATERAL PRESSURE 50 PCF / 35 PCF (RESTRAINED / UNRESTRAINED)  
 - ALLOWABLE PASSIVE PRESSURE 300 PCF (F.S. OF 1.5 INCLUDED)  
 - COEFFICIENT OF FRICTION 0.4 (F.S. OF 1.5 INCLUDED)  
 - TRAFFIC SURCHARGE PRESSURE 70 PSF (AS APPLICABLE)  
 - SEISMIC SURCHARGE PRESSURE 7H PSF (AS APPLICABLE)

FOUNDATION NOTES: ALLOWABLE SOIL PRESSURE AND LATERAL EARTH PRESSURE ARE ASSUMED AND THEREFORE MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER OR APPROVED BY THE BUILDING OFFICIAL. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE E.O.R. FOR POSSIBLE FOUNDATION REDESIGN.

2. LATERAL FORCE RESISTANCE SYSTEM  
 LIGHT-FRAMED WOOD WALLS SHEATHED WITH WOOD STRUCTURAL PANELS, R = 6.5

### C. FOUNDATION

1. FOUNDATION EXCAVATION, BACKFILL AND COMPACTION SHALL CONFORM TO SPECIFICATION REQUIREMENTS. THIS CONSTRUCTION WORK, INCLUDING DRAINAGE, SHORING AND SUCH OTHER RELATED WORK AS REQUIRED, SHALL BE CONDUCTED BY THE CONTRACTOR UNDER THE OBSERVATION AND DIRECTION OF THE GEOTECHNICAL ENGINEER.

2. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. MATERIAL TO BE COMPACTED TO 95% MINIMUM OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.

3. FOOTINGS MAY BE POURED IN NEAT EXCAVATIONS PROVIDED SIZE IS INCREASED 3" AT EACH INTERFACE WITH SOIL.

4. ALL FOOTING EXCAVATIONS SHALL BE HAND CLEANED PRIOR TO PLACING CONCRETE.

5. ALL ABANDONED FOOTINGS, UTILITIES, ETC. THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.

6. CONTRACTOR SHALL PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING, AND SHORING REQUIRED TO SAFELY RETAIN EXCAVATIONS.

7. BACKFILL BEHIND ALL WALLS WITH WELL DRAINING, GRANULAR FILL MATERIAL, AND PROVIDE PERFORATED PIPE DRAINS AS DESCRIBED IN THE SOILS REPORT. BACKFILL BEHIND WALLS SHALL NOT BE PLACED BEFORE THE WALL IS PROPERLY SUPPORTED BY THE FLOOR SLAB, OR TEMPORARY BRACING. ALL FOOTINGS SHALL BE CENTERED BELOW CENTERLINE OF COLUMNS OR WALLS ABOVE, UNLESS NOTED OTHERWISE.

### D. CONCRETE

1. ULTIMATE STRENGTH DESIGN PER INTERNATIONAL BUILDING CODE AND ACI 318-14

2. CONCRETE FOR FOOTINGS AND SLABS-ON-GRADE SHALL CONFORM TO A 28-DAY STRENGTH OF  $f_c = 2500$  PSI, SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD, AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. CONCRETE EXPOSED TO EARTH OR WEATHER SHALL HAVE A 28-DAY STRENGTH OF  $f_c = 3000$  psi. THE MINIMUM AMOUNTS OF CEMENT AND MAXIMUM AMOUNTS OF WATER MAY BE CHANGED IF A CONCRETE DESIGN MIX IS SUBMITTED TO THE ENGINEER AND THE BUILDING OFFICIAL FOR APPROVAL TWO WEEKS PRIOR TO PLACEMENT OF CONCRETE. THE CONCRETE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATES, WATER AND ADMIXTURES AS WELL AS THE WATER-CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 318, SECTION 5.3. CONTRACTOR MAINTAINS RESPONSIBILITY FOR SPECIFIED PERFORMANCE OF CONCRETE PRODUCTS. ALL CONCRETE EXPOSED TO FREEZING TEMPERATURES WHILE CURING AND ALL CONCRETE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO IBC SECTION 1904.2. TOTAL AIR CONTENT SHALL BE IN ACCORDANCE WITH TABLE 1904.2.1 OF THE INTERNATIONAL BUILDING CODE. NO ADMIXTURES, OTHER THAN FOR AIR-ENTRAINMENT AS NOTED ABOVE, SHALL BE USED WITHOUT PRIOR REVIEW BY THE STRUCTURAL ENGINEER. ALL CONCRETE IN ELEVATED STRUCTURAL SLABS AND BEAMS SHALL BE POURED MONOLITHICALLY UNLESS SHOWN OTHERWISE OR APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

3. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60,  $f_y = 60,000$  PSI. EXCEPTIONS: ANY BARS SPECIFICALLY NOTED ON THE DRAWINGS AS GRADE 40,  $f_y = 40,000$  PSI. WELDED WIRE FABRIC: ASTM A82 AND ASTM A185, SPLICE WITH AT LEAST ONE FULL MESH. PLACE AT MID-DEPTH, OR SLIGHTLY ABOVE, OF SLAB. MATERIAL TO BE SUPPLIED IN FLAT SHEETS.

4. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 318-14. LAP ALL CONTINUOUS REINFORCEMENT PER NOTE D.5. PROVIDE CORNER BARS AT ALL WALL INTERSECTIONS. LAP CORNER BARS PER NOTE D.5. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

5. REINFORCING STEEL LAPS AND EMBEDMENT SHALL BE AS NOTED BELOW, UNLESS NOTED OTHERWISE, ALL HOOKS SHALL BE "STANDARD" IN ACCORDANCE WITH ACI 318. REINFORCING SHALL NOT BE TACK WELDED:

- DEVELOPMENT LENGTH 48 BAR DIAM.  
 - DEVELOPMENT LENGTH, top bar\* 64 BAR DIAM.  
 - LAP SPLICE LENGTH 64 BAR DIAM.  
 - LAP SPLICE LENGTH, top bar\* 80 BAR DIAM.

\*TOP BARS ARE HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

6. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

- FOOTING AND OTHER UNFORMED SURFACE, EARTH FACE 3"  
 - FORMED SURFACE EXPOSED TO EARTH (I.E. WALL BELOW GROUND) OR WEATHER 2"  
 - SLAB AND WALL (INTERIOR FACE) 1-1/2"  
 - CONCRETE NOT EXPOSED TO WEATHER OR EARTH 3/4"  
 - PRIMARY REINFORCEMENT, TIES, STIRRUP, SPIRALS 1-1/2"

7. CONCRETE WALL REINFORCING - PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

- 6" WALLS #4 @ 16" HORIZ. #4 @ 18" VERTICAL 1 CURTAIN @ CENTER  
 - 8" WALLS #5 @ 18" HORIZ. #5 @ 18" VERTICAL 1 CURTAIN @ CENTER

8. EPOXY GROUTED ITEMS SPECIFIED ON THE DRAWINGS SHALL BE GROUTED WITH SIMPSON SET-XP ADHESIVE BY SIMPSON STRONG TIE, PER ESR-2508, FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.

### E. CARPENTRY

1. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ANSI STANDARD A190.1. EACH MEMBER SHALL BEAR AN AITC OR APA EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA EWS CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4,  $F_b = 2,400$  PSI,  $F_v = 240$  PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8,  $F_b = 2,400$  PSI,  $F_v = 265$  PSI. CAMBER ALL GLULAM BEAMS TO 2,000' RADIUS, UNLESS SHOWN OTHERWISE ON THE PLANS.

2. FRAMING LUMBER SHALL BE GRADED AND MARKED IN CONFORMANCE WITH WCLB STANDARD GRADING RULES FOR WEST COAST LUMBER, LATEST EDITION. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

MEMBER	SIZE	SPECIES GRADE	MIN. BASIC DESIGN STRESS
- JOISTS AND RAFTERS	2x, 3x	DF#2	$F_b = 875$ PSI
- BEAMS AND STRINGERS	4x	DF#1	$F_b = 1000$ PSI
	6x/LARGER	DF#1	$F_b = 1350$ PSI
- POSTS AND TIMBERS	4x	DF#2	$F_c = 1350$ PSI
	6x/LARGER	DF#1	$F_c = 1000$ PSI
- TOP AND BOTTOM PLATE @ SHEAR AND BEARING WALLS	2x, 3x	DF#1	$F_b = 1000$ PSI
- STUDS, PLATES & MISC. LIGHT FRAMING	ALL SIZES	DF#2	$F_b = 875$ PSI

ALL LUMBER WITH A LEAST DIMENSION OF 2" (NOMINAL) SHALL BE STAMPED SURFACE-DRY AND SHALL HAVE A MOISTURE CONTENT WHEN SURFACED AND WHEN INSTALLED OF NOT MORE THAN 19 PERCENT. LUMBER WITH A LEAST DIMENSION OF 4" (NOMINAL) OR GREATER SHALL BE STAMPED SURFACE-GREEN AND AIR-DRYED TO A MOISTURE CONTENT OF NOT MORE THAN 19 PERCENT PRIOR TO ITS USE IN FRAMING THE STRUCTURE.

3. MANUFACTURED LUMBER SHALL BE AS MANUFACTURED BY TRUS JOIST MacMILLAN OR APPROVED EQUAL. REQUESTS FOR APPROVAL AS EQUAL WILL REQUIRE SUBMITTAL OF ICC-ES EVALUATION REPORT EQUIVALENT TO ESR-1387 FOR PARALLEL STRAND LUMBER (PSL). LAMINATED STRAND LUMBER (LSL), AND LAMINATED VENEER LUMBER (LVL). THE MINIMUM ALLOWABLE DESIGN VALUES ARE AS FOLLOWS:

- PSL BEAM (2.0E)  $F_b = 2,900$  PSI;  $F_v = 290$  PSI;  $E = 2,000,000$  PSI  
 - LVL BEAM (2.0E)  $F_b = 2,600$  PSI;  $F_v = 285$  PSI;  $E = 2,000,000$  PSI  
 - LSL BEAM (1.55E)  $F_b = 2,325$  PSI;  $F_v = 310$  PSI;  $E = 1,550,000$  PSI  
 - PSL COLUMN (1.8E)  $F_c, \text{para} = 545$  PSI;  $F_c, \text{para} = 2,500$  PSI;  $E = 1,800,000$  PSI  
 - LSL COLUMN (1.3E)  $F_c, \text{para} = 710$  PSI;  $F_c, \text{para} = 1,835$  PSI;  $E = 1,300,000$  PSI

4. SHEATHING SHALL BE APA PERFORMANCE RATED PANELS PER APA "PLYWOOD DESIGN SPECIFICATION", INCLUDING APPLICABLE SUPPLEMENTS, UNLESS NOTED OTHERWISE. PLYWOOD PANELS SHALL BE GRADE C-D AND ALSO CONFORM TO DOC PS-1 OR PS-2. ALL PANELS SHALL BE IDENTIFIED AS EXPOSURE 1 UNLESS NOTED OTHERWISE. PANEL RATING TO BE AS FOLLOWS UNLESS NOTED OTHERWISE:

- ROOF 19/32" THICK, 32/16, (OR 5/8" THICK), 32/16  
 - WALLS 15/32" THICK, 32/16, (OR 1/2" THICK), 24/0  
 - FLOORS 23/32" (OR 3/4") THICK, TONGUE & GROOVE, 48/24

UNLESS NOTED OTHERWISE ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED WITH 10d NAILS @ 6"oc TO FRAMED PANEL EDGES AND OVER STUD WALLS SHOWN ON PLANS AND @ 12"oc (10"oc AT FLOORS) TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED SHEATHING EDGE CLIPS @ 16"oc UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. TOENAIL BLOCKING TO SUPPORTS WITH 16d NAILS, UNLESS NOTED OTHERWISE.

UNLESS NOTED OTHERWISE ON THE PLANS, WALL SHEATHING MAY BE LAID UP HORIZONTALLY OR VERTICALLY. UNSUPPORTED EDGES SHALL BE BLOCKED AND ALL EDGES SHALL BE NAILED WITH 8d @ 6"oc. NAIL WITH 8d @ 12"oc AT INTERMEDIATE SUPPORTS. NAIL SHEAR WALL SHEATHING TO ALL HOLD-DOWN STUDS USING EDGE NAIL SPACING WHEN HOLD-DOWN STUD DOES NOT OCCUR AT PANEL EDGES.

SHEATHING NAILS SHALL BE DRIVEN FLUSH BUT SHALL NOT FRACTURE THE SURFACE OF THE SHEATHING.

5. ALL WOOD PLATES IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESERVATIVE-TREATED WITH AN APPROVED PRESERVATIVE. PROVIDE TWO LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER BETWEEN UNTREATED LEDGERS, BLOCKING, ETC., AND CONCRETE OR MASONRY. ALL METAL CONNECTORS TO PRESURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED, INCLUDING WASHERS, NAILS, SCREWS, AND SIMPSON STRONG-TIE HANGERS, STRAPS, AND PLATES, AND BOLTS LESS THAN 1/2" DIAMETER. FIELD-CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESERVATIVE-TREATED WOOD SHALL BE TREATED IN THE FIELD IN ACCORDANCE WITH AWWA M4.

6. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWWA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. WOOD FOR ABOVE GROUND USE EXPOSED TO ALL WEATHER CYCLES SHALL BE TREATED TO AWWA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWWA UC4A. WOOD EMBEDDED IN PERMANENT CONCRETE FOUNDATION SHALL BE TREATED TO AWWA UC4B.

7. NOTATIONS ON DRAWINGS RELATING TO FRAMING CLIPS, JOIST HANGERS AND OTHER CONNECTING DEVICES REFER TO CATALOG NUMBERS OF CONNECTORS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, SAN LEANDRO, CALIFORNIA. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. SUBMIT MANUFACTURER'S CATALOG AND ICC REPORTS TO ARCHITECT AND ENGINEER FOR REVIEW WHEN REQUESTING SUBSTITUTIONS. ALL SPECIFIED FASTENERS MUST BE USED AND PROPER INSTALLATION PROCEDURES MUST BE OBSERVED IN ORDER TO OBTAIN ICC APPROVED LOAD CAPACITIES. VERIFY THAT THE DIMENSIONS OF THE SUPPORTING MEMBER ARE SUFFICIENT TO RECEIVE THE SPECIFIED FASTENERS.

### 8. STRUCTURAL CONNECTORS

ALL STRUCTURAL CONNECTORS TO BE BY SIMPSON STRONG TIE OR EQUAL. USE ZMAX/HDG HOT DIPPED GALVANIZED OR STAINLESS-STEEL CONNECTORS AS A MINIMUM. USE FASTENERS GALVANIZED PER ASTM A153. ALL PRESSURE TREATED LUMBER USED SHALL BE COMPATIBLE WITH ZMAX GALV. CONNECTORS, RE: SIMPSON STRONG-TIE CORROSION INFORMATION.

### 9. WOOD TRUSSES

TRUSSES ARE TO BE METAL PLATED CONNECTED WOOD TRUSSES FABRICATED IN ACCORDANCE WITH THE IBC. TRUSS FABRICATOR TO PROVIDE ALL REQUIRED BRIDGING AND BLOCKING, BOTH FOR ERECTION AND PERMANENT LOADING. SHOP DRAWINGS STAMPED BY A WASHINGTON STATE LICENSED PROFESSIONAL ENGINEER SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. DESIGN CRITERIA SHALL MEET TO EXCEED THE FOLLOWING:

- ROOF TRUSSES TOP CHORD = 25 PSF LIVE LOAD, 10 PSF DEAD LOAD, 5 PSF WIND UPLIFT  
 BOTTOM CHORD = 10 PSF LIVE LOAD, 5 PSF DEAD LOAD (BOTTOM CHORD LIVE LOAD DOES NOT ACT CONCURRENTLY WITH THE ROOF LIVE LOAD)  
 TOTAL LOAD = 40 PSF  
 TOTAL LOAD L/240, LIVE LOAD L/360  
 - DEFLECTION LIMIT  
 - OTHER LOADS SPECIFIED ON DRAWINGS

TRUSS SUPPLIERS NOTE: THE TRUSS CONFIGURATIONS, INCLUDING DEPTHS AND MEMBER SIZES, SHOWN ON THE DRAWINGS INDICATE THE DESIRED TRUSS CONFIGURATIONS AND ARE TO BE COMPLIED WITH WHERE POSSIBLE. IF A TRUSS MANUFACTURER IS UNABLE TO MEET THE LOAD REQUIREMENTS SPECIFIED WITH THE TRUSS CONFIGURATION INDICATED, HE IS TO SUBMIT WRITTEN NOTICE TO THAT EFFECT TO THE ARCHITECT. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND TRUSS MANUFACTURER TO VERIFY THE WEIGHT AND LOCATIONS OF ALL MECHANICAL EQUIPMENT PRIOR TO SUBMITTING SHOP DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD FOR REVIEW. THE DESIGN LOADS LISTED ABOVE SHALL BE APPLIED SIMULTANEOUSLY.

10. WOOD FRAMING NOTES - THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:

ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO TABLE 2304.10.1 OF THE INTERNATIONAL BUILDING CODE. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

WALL FRAMING: ALL STUD WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2x4 STUDS @ 16"oc AT INTERIOR WALLS AND 2x6 STUDS @ 16"oc AT EXTERIOR WALLS. 2x6 STUDS @ 12"oc AT EXTERIOR BALLOON FRAMED WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS AND UNDER THE ENDS OF ALL BEAMS. UNLESS NOTED OTHERWISE A (2) 2x8 HEADER SHALL BE PROVIDED OVER ALL OPENINGS IN 2x4 STUD WALLS AND A (2) 2x10 HEADER OVER ALL OPENINGS IN 2x6 WALLS. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORT BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 8' IN HEIGHT. ALL STUD WALLS SHOWN ON STRUCTURAL DRAWINGS SHALL HAVE THEIR LOWER PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d Nails AT 12"oc STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS AT 4'-0"oc, EMBEDDED 7" UNO REFER TO THE STRUCTURAL PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING.

FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE BRIDGING @ 8'-0"oc AND SOLID BLOCKING AT ALL BEARING POINTS. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. TOENAIL JOISTS TO BEARING SUPPORTS WITH 16d NAILS. UNLESS NOTED OTHERWISE.

JOIST, BEAM AND HEADER SHALL BE CONNECTED TO FLUSH MEMBER WITH THE FOLLOWING SIMPSON SERIES HANGER, U.N.O. ON PLAN, SKEW AND SLOPE ALL CONNECTORS AS REQUIRED:

- 2x JOIST, "LUS" SERIES; DOUBLE 2x JOIST/HEADER, "HU"/"HUS" SERIES  
 - TJI JOIST, "ITS" SERIES; DOUBLE TJI JOIST, "MIT" SERIES  
 - 4x MEMBER, "HU" SERIES; 6x MEMBER, "HWP"/"HWP" SERIES  
 - 3-1/2"GLB, "HB" SERIES; 5-1/2"GLB, "HWP" SERIES, 6-3/4"GLB, "HGLT" SERIES  
 - 1-3/4"SCL, "IUS" SERIES; 3-1/2"SCL, "HB" SERIES, 5-1/4"SCL, "HWP" SERIES, "7SCL, "HGLTV" SERIES

\*NOTIFY STRUCTURAL ENGINEER IMMEDIATELY SHOULD ANY BEAM, JOIST OR HEADER HANGER IS MISSING IN PLAN DRAWING AND REQUIRED FOR INSTALLATION.

FACE-NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 16d SPIKES @ 24"oc STAGGERED.

NAILS SHALL BE MANUFACTURED IN CANADA OR THE UNITED STATES IN SIZES AND TYPES AS FOLLOWS, UNLESS NOTED OTHERWISE:

PNEUMATIC NAILING - PLAIN SHANK, COATED OR GALVANIZED  
 - 8d 0.131" DIAMETER x 2-1/2" MINIMUM LENGTH  
 - 10d 0.148" DIAMETER x 3" MINIMUM LENGTH  
 - 12d 0.148" DIAMETER x 3-1/4" MINIMUM LENGTH  
 - 16d 0.135" DIAMETER x 3-1/2" MINIMUM LENGTH

### F. SPECIAL CONDITIONS

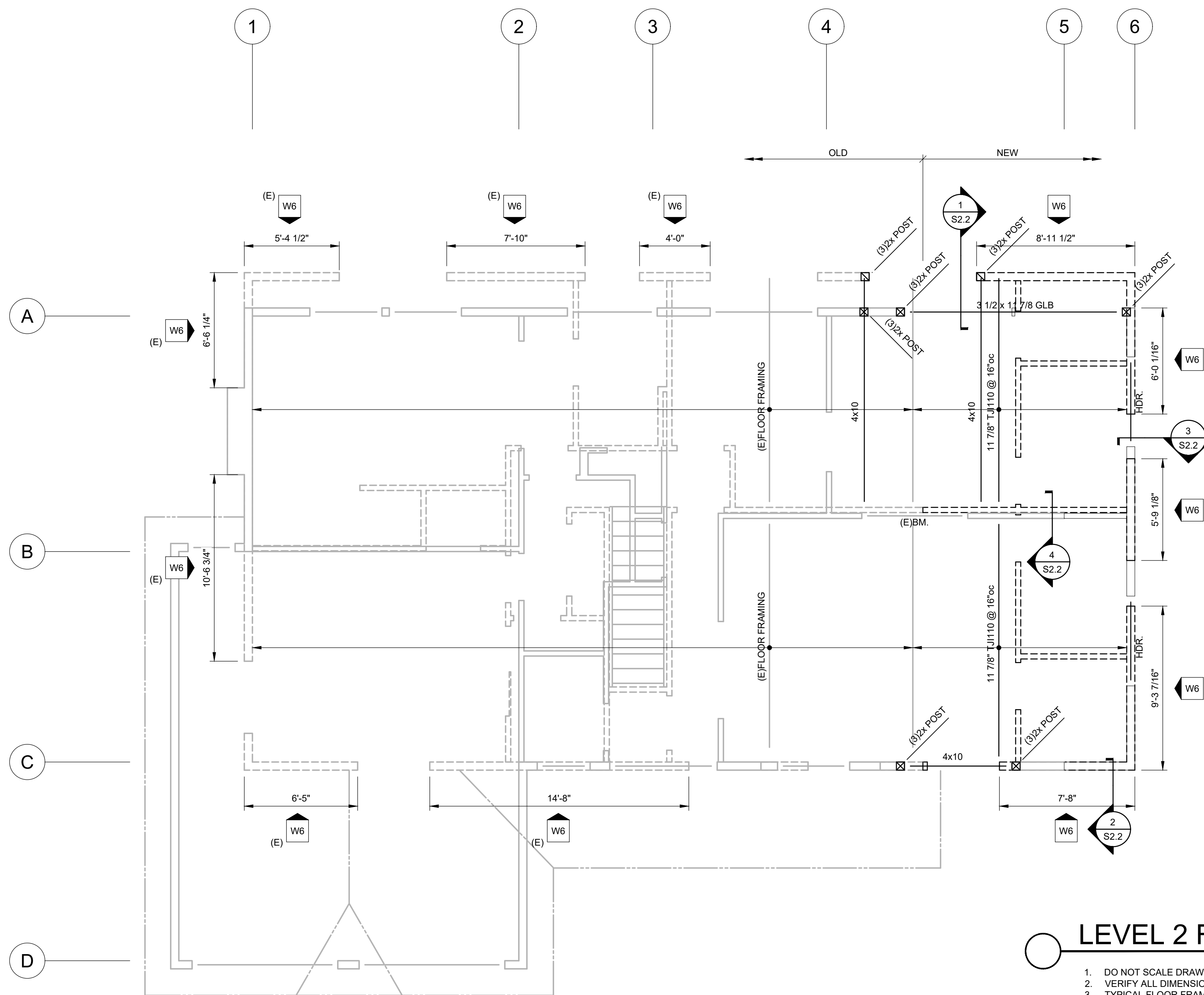
CONTRACTOR TO COORDINATE ALL TRADES AND VERIFY DIMENSIONS IN THE FIELD. OBTAIN OWNERS APPROVAL PRIOR TO ALL FIELD CHANGES. SEE ARCHITECTURAL DRAWINGS FOR ALL FLOOR AND WALL OPENING DIMENSIONS AND LOCATIONS, FLOOR AND WALL FINISHES, ETC.

\*DEFLECTION OF CANTILEVERS SHALL BE CLOSELY MONITORED BY THE CONTRACTOR DURING CONSTRUCTION. CONTRACTOR TO VERIFY AND CONFIRM ALL POST CAPS AND POST BEARING CONNECTIONS ARE INSTALLED IN STRICT CONFORMANCE TO THE STRUCTURAL DRAWING. CANTILEVERS IN WOOD FRAMING CAN DEFLECT UP TO 1/8" PER FOOT (I.E. 6" CANTILEVER MAY DEFLECT 3/4"). IF DEFLECTION EXCEEDS 1/8" PER FOOT NOTIFY STRUCTURAL ENGINEER IMMEDIATELY. BEFORE FINISHES ARE INSTALLED, FLOORS AT OR ABOVE CANTILEVERS MAY REQUIRE LEVELING COMPOUND AND SOFFITS FURRED TO MAKE THEM LEVEL.

(THIS IS A COMPREHENSIVE LIST OF ABBREVIATIONS, SOME OF WHICH MAY NOT APPEAR ON THESE DRAWINGS.)

AB	ANCHOR BOLT	CL	CENTERLINE	(E)	EXISTING	GL	GLUE-LAMINATED	LOC	LOCATION
ACI	AMERICAN CONCRETE INSTITUTE	CLR	CLEAR	EA	EACH	GW	GYP	LONGIT	LONGITUDINAL
ADDL	ADDITIONAL	CMU	CONCRETE MASONRY UNIT	EF	EACH FACE ELEVATION	GY	GYP	L	LONG SLOTTED HOLE
ADJ	ADJACENT	COL	COLUMN	EL	ELECTRICAL	LVL	LAMINATED VENEER LUMBER	LWC	LIGHT WEIGHT CONCRETE
AFF	ABOVE FINISHED FLOOR	CNC	CONCRETE	ELEC	ELEVATOR	HDR	HEADER	M	MISC SHAPE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	CONN	CONNECTION, CONNECT	ELEV	EMBED, EMBEDDED, EMBEDMENT	HNG	HANGER	MAS	MASONRY
ALT	ALTERNATE	CONSTR	CONSTRUCTION	ENGR	ENGINEER	HORIZ	HORIZONTAL	MATL	MATERIAL
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	CONT	CONTINUOUS	EQ	EQUAL	HP	HP SHAPE	MAX	MAXIMUM
APA	AMERICAN PLYWOOD ASSOCIATION	CONTR	CONTRACTOR	EQUIP	EQUIPMENT	HS	HIGH STRENGTH	MECH	MECHANICAL
APPROX	APPROXIMATE; APPROXIMATELY	COORD	COORDINATE	ES	EACH SIDE	HT	HEIGHT	MFR	MANUFACTURER
ARCH	ARCHITECT; ARCHITECTURAL	CP	COMPLETE PENETRATION	EW	EACH WAY	ID	INSIDE DIAMETER	MIN	MINIMUM; MINUTE
ASSY	ASSY	CSK	COUNTERSINK; COUNTERSUNK	EXP	EXPANSION; EXPOSED	IF	INSIDE FACE	MISC	MISCELLANEOUS
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	CTR	CENTER	EXP JT	EXPANSION JOINT	IN	INCH	NO	NEW
AW	AMERICAN WELDING SOCIETY	CU FT	CUBIC FOOT	EXT	EXTERIOR	INCL	INCLUDE; INCLUDING; INCLUSIVE	(N)	NORTH
		CU IN	CUBIC INCH			INT	INTERIOR	NF	NEAR FACE
		CY	CUBIC YARD			INT	INTERIOR	N	NORTH
						INT	INTERIOR	NF	NEAR FACE
						INT	INTERIOR	N	NORTH
						INT	INTERIOR	NF	NEAR FACE
						INT	INTERIOR	N	NORTH
						INT	INTERIOR	NF	NEAR FACE
						INT	INTERIOR	N	NORTH
						INT	INTERIOR	NF	NEAR FACE
						INT	INTERIOR	N	NORTH
						INT	INTERIOR	NF	NEAR FACE
						INT	INTERIOR	N	NORTH
						INT	INTERIOR	NF	NEAR FACE
						INT	INTERIOR	N	NORTH
						INT	INTERIOR	NF	NEAR FACE
						INT	INTERIOR	N	NORTH
						INT	INTERIOR	NF	NEAR FACE
						INT	INTERIOR	N	NORTH
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						INT	INTERIOR	N	NORTH
						INT	INTERIOR	NF	NEAR FACE
						INT	INTERIOR	N	NORTH



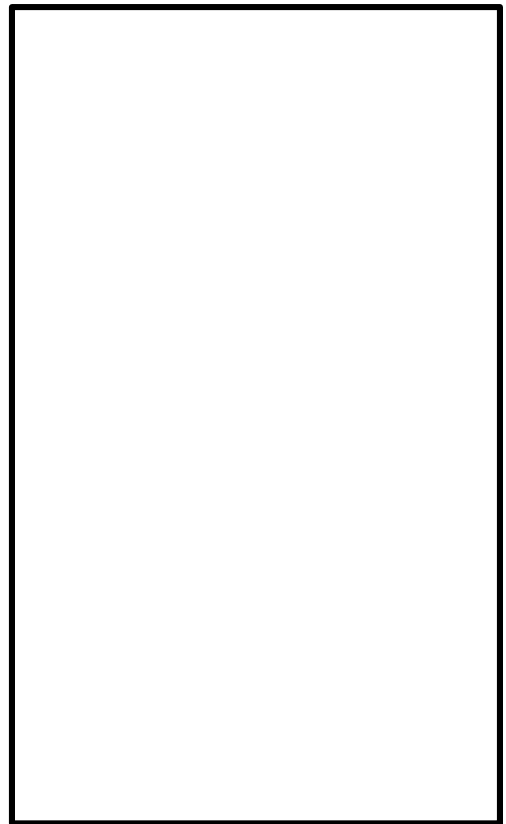
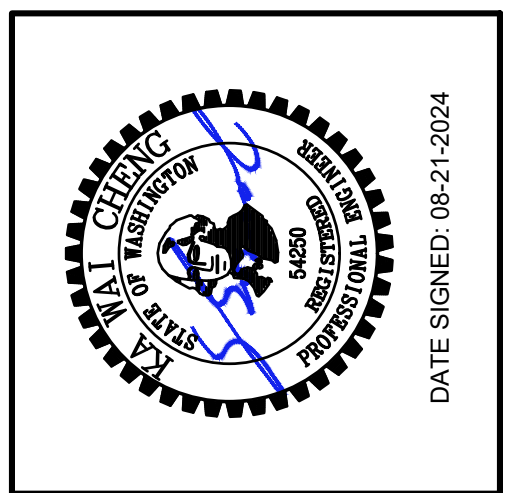


CONTRACTOR TO FIELD VERIFY ALL EXISTING FRAMING SHOWN ON THIS PLAN DRAWING. INCLUDING INFORMATION FOR ALL FRAMING MEMBER SIZE, SPAN LENGTH, SPAN ORIENTATION AND ON-CENTER SPACING. NOTIFY E.O.R. IMMEDIATELY FOR ANY DISCREPANCY.

**LEVEL 2 FLOOR FRAMING PLAN** 1/4" = 1'-0"

1. DO NOT SCALE DRAWINGS
2. VERIFY ALL DIMENSIONS IN FIELD. REFER TO ARCHITECTURAL PLAN FOR WALL LAYOUT.
3. TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G PLYWOOD SHEATHING ON FLOOR JOISTS. NAIL ALL SUPPORTED PANEL EDGES WITH 10d NAILS @ 6" oc & ALL INTERMEDIATE SUPPORTS WITH 10d NAILS @ 12" oc. PROVIDE BLOCKING FOR ALL EDGES.
4. TYPICAL FLOOR JOISTS SHALL BE 11 7/8" TJI 110 OR BETTER UNLESS OTHERWISE NOTED. REFER TO PLAN FOR JOIST SPACING (16" oc IF NOT NOTED). PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
5. TYPICAL EXTERIOR WALL SHALL BE FRAMED WITH 2x6 DF STUDS @ 16" oc. U.N.O. TYPICAL INTERIOR WALL SHALL BE FRAMED WITH 2x4 DF STUDS @ 16" oc U.N.O. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION PERTAINING TO WALL THICKNESS.
6. TYPICAL EXTERIOR WALL HEADERS SHALL BE FRAMED WITH (2) PILES OF 2x10 DF#2. TYPICAL INTERIOR WALL HEADERS SHALL BE FRAMED WITH (2) PILES OF 2x8 DF#2, U.N.O.
7. ALL EXTERIOR WALL TO BE DETAILED AS SHEAR WALL TYPE W6 PER SHEAR WALL SCHEDULE, U.N.O.

NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	08-21-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	



LEVEL 2 FLOOR FRAMING PLAN

**EXISTING RESIDENCE ADDITION**  
8430 SE 45TH STREET,  
MERCER ISLAND, WA 98040

CHECKED: KWC
DATE: 08-16-2024
SHEET NO: <b>S1.2</b>

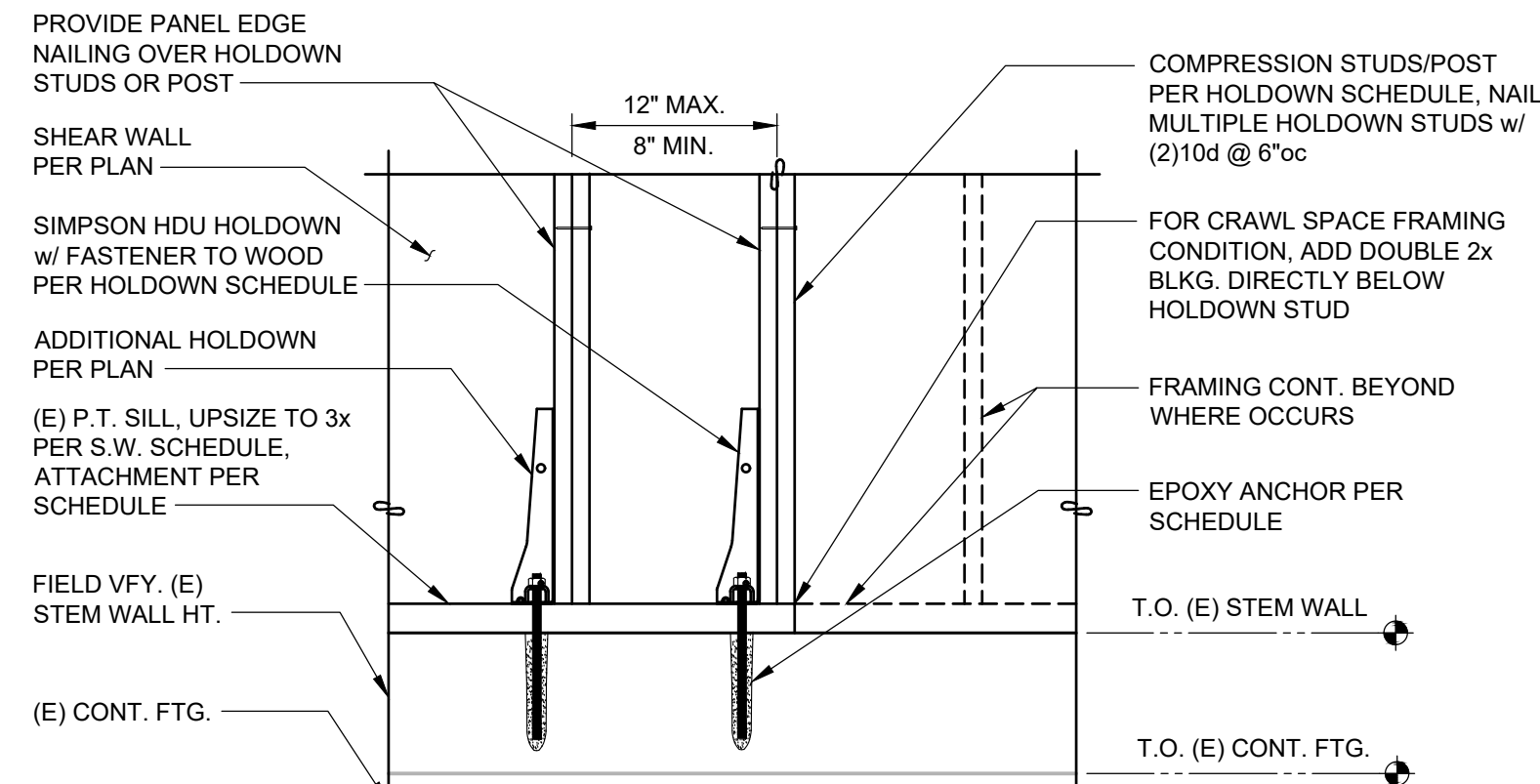




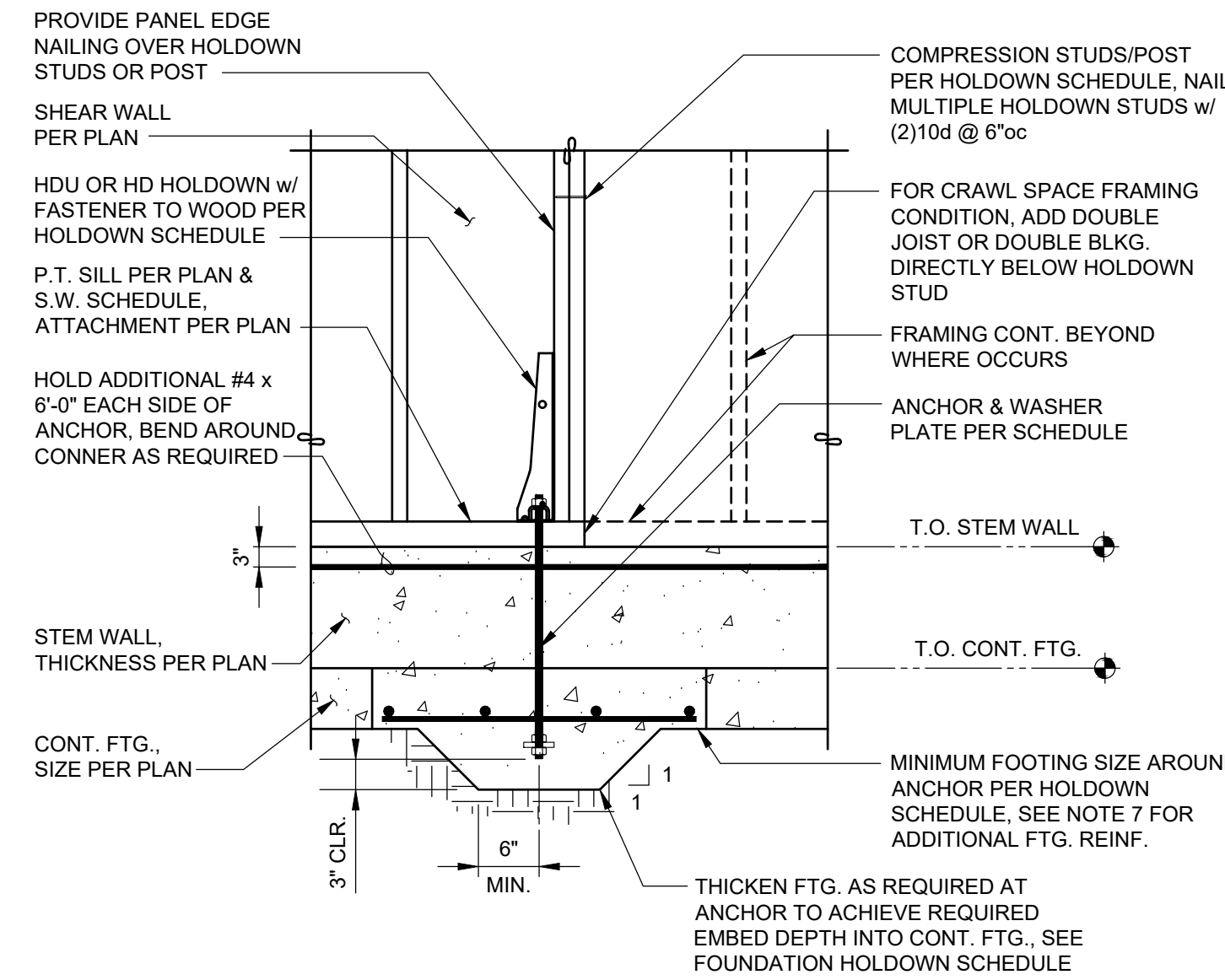




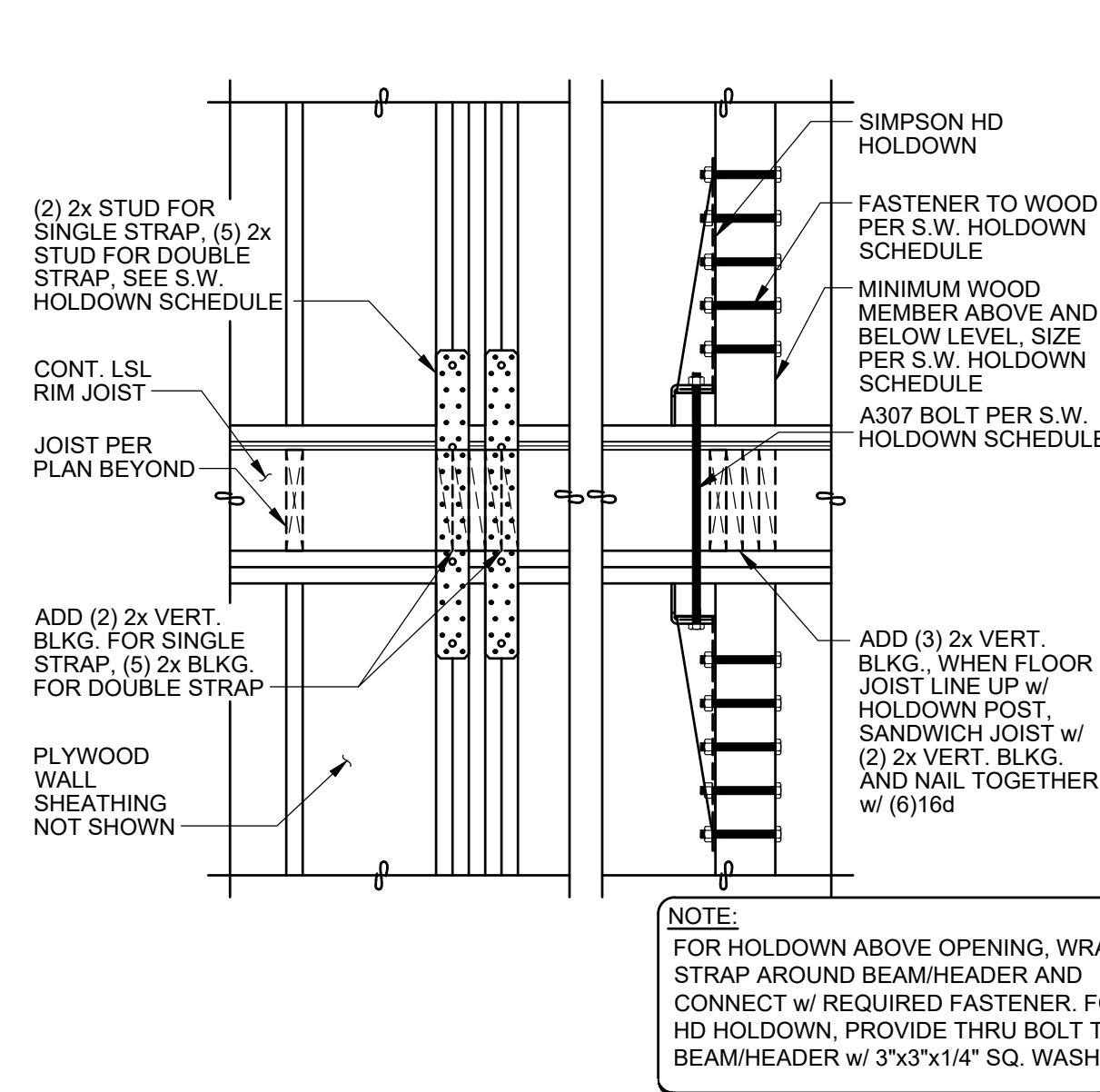




**SHEAR WALL HOLDOWN AT (E) FOUNDATION**



**SHEAR WALL HOLDOWN AT (N) FOUNDATION**



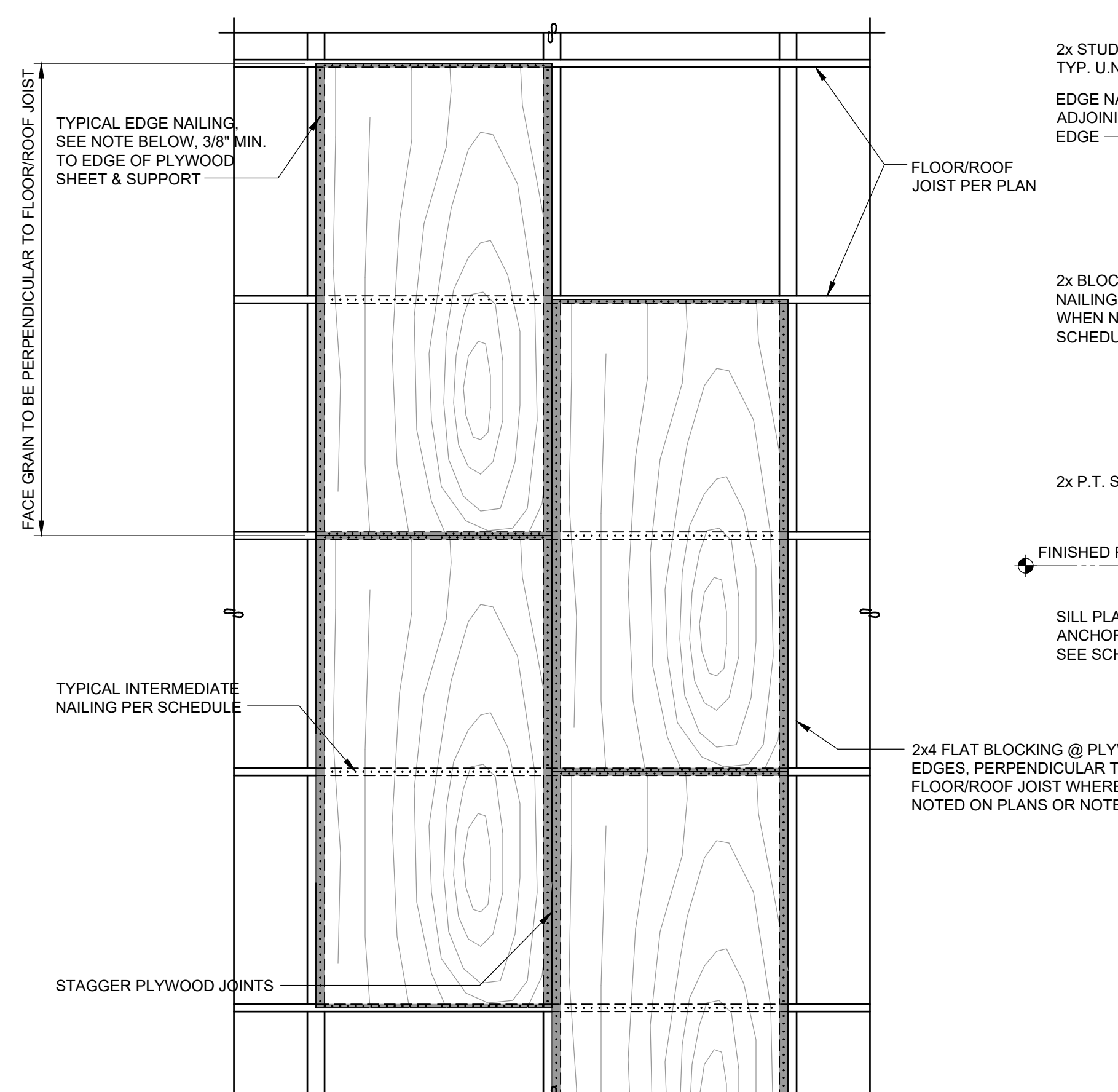
**SHEAR WALL FRAMING HOLDOWN**

### SHEAR WALL FRAMING HOLDOWN SCHEDULE

MARK (NOTE 4)	FASTENERS TO WOOD (NOTE 1,3,5)		ANCHOR
	REQUIRED FASTENER TO WOOD	MINIMUM WOOD MEMBER SIZE	
MSTC28	(16) 16d SINKERS	(2)2x STUDS	-
MSTC40	(32) 16d SINKERS	(2)2x STUDS	-
MSTC52	(48) 16d SINKERS	(2)2x STUDS	-
MSTC66	(68) 16d SINKERS	(2)2x STUDS	-
MST72	(62) 16d	(2)2x STUDS	-
CMST12 x 84"	(74) 16d	(2)2x STUDS	-
HD12	(4) 1" DIA. A307 BOLTS	(3) 2x STUDS	1"Ø A307 BOLT
HD12 (SPECL.)	(4) 1" DIA. A307 BOLTS	4x6 POST @ 2x4 WALL 6x6 POST @ 2x6 WALL	1"Ø A307 BOLT
HD19	(5) 1" DIA. A307 BOLTS	4x8 POST @ 2x4 WALL 6x6 POST @ 2x6 WALL	1-1/8"Ø A307 BOLT
HD19 (SPECL.)	(5) 1" DIA. A307 BOLTS	4x8 POST @ 2x4 WALL 6x6 POST @ 2x6 WALL	1-1/4"Ø A307 BOLT

**SHEAR WALL FRAMING HOLDOWN NOTE:**

- MINIMUM WOOD MEMBER SIZE ABOVE AND BELOW WHERE OCCURS AT FLOOR LEVEL. DO NOT USE LAG BOLTS TO FASTEN HOLDOWNS TO WOOD MEMBERS.
- HOLDOWN SCHEDULE IS PROVIDED FOR GENERAL INSTALLATION INFORMATION. NOT ALL OF HARDWARE SCHEDULED IS REQUIRED. SEE PLANS FOR HOLDOWN CALL-OUTS AND LOCATIONS. CONSULT MANUFACTURER FOR ADDITIONAL INFORMATION.
- QUANTITY OF NAILS FOR STRAPS ARE EVENLY DIVIDED BETWEEN ENDS OF STRAPS ABOVE AND BELOW THE DEPTH OF THE FLOOR SYSTEM. USE 16d COMMON NAILS, U.N.O.
- FOR 2X STRAP CALL-OUT ON PLAN, USE DOUBLE STRAP TIES AND PROVIDE (5) 2x STUDS
- IF SHEAR WALL REQUIRES 3x STUDS PER SHEAR WALL SCHEDULE, USE 3x INSTEAD OF 2x NOTED ON HOLDOWN SCHEDULE.



**TYPICAL FLOOR/ROOF SHEATHING**

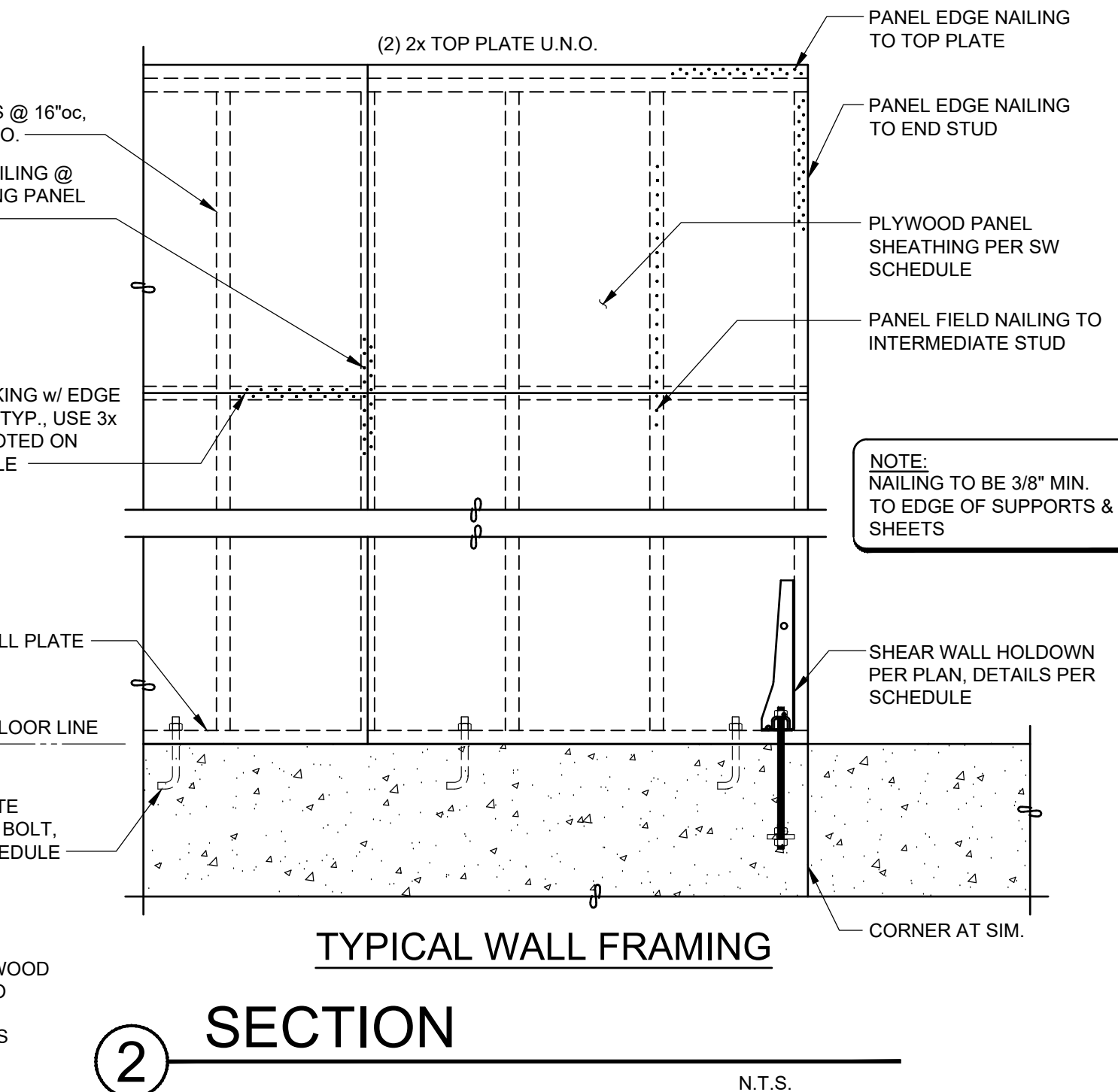
**1 PLAN VIEW**

### DIAPHRAGM NAILING SCHEDULE

ZONE	NAIL SPACING @ CONTINUOUS EDGES	NAIL SPACING @ INTERMEDIATE SUPPORT	STIFFENERS
1	0.148"Ø @ 6"oc AT SUPPORTED EDGES	0.131"Ø @ 12"oc	SEE GENERAL NOTES
2	0.148"Ø @ 4"oc AT SUPPORTED EDGES	0.131"Ø @ 12"oc	BLOCKED, w/ 2x FLAT BLOCKS AT UNSUPPORTED PANEL EDGES
3	0.148"Ø @ 2"oc AT SUPPORTED EDGES	0.131"Ø @ 12"oc	BLOCKED, w/ 2x FLAT BLOCKS AT UNSUPPORTED PANEL EDGES

**ROOF AND FLOOR DIAPHRAGM NAILING NOTE:**

- ALL NAILS SHALL BE 10d COMMON (0.148"Ø) w/ 1-1/2" MIN. PENETRATION INTO FRAMING.
- ALL NAILS TO BE FLUSH DRIVEN & SHALL NOT FRACTURE PLYWOOD SURFACE.
- PROVIDE 3/8" MIN. CLEARANCE BETWEEN NAIL CENTERLINE AND PANEL EDGE.
- PROVIDE 2 ROWS 10d @ 4"oc EA. ROW AT EXTERIOR DIAPHRAGM BOUNDARIES, (BLDG. PERIMETER) TYP. (U.N.O.)
- AT STEEL STRAP TIE LOCATIONS, NAIL ALL HOLES w/ 1-1/2" MIN. PENETRATION INTO SAWN LUMBER FRAMING. DO NOT USE 10d x 1-1/2" NAILS AS SPECIFIED IN SUPPLIER LITERATURE.
- ZONE 1 APPLIES TO ALL ROOF AND FLOOR NAILING, U.N.O. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING.



**2 SECTION**

### SHEAR WALL (NEW/EXIST.) FOUNDATION HOLDOWN SCHEDULE

MARK REQUIRED HD.	ANCHOR TO CONCRETE			HOLDOWN TO WOOD POST (NOTE 2,4)			
	REQUIRED ANCHOR (NOTE 1)	A307 BOTTOM DBL. NUT PLATE WASHER	MINIMUM EMBEDMENT DEPTH (NOTE 5)	MINIMUM (N) FOOTING SIZE AROUND ANCHOR (NOTE 6,7)	FASTENER TO POST	POST (2x4 WALL)	POST (2x6 WALL)
STHD10	-	-	10" FROM T.O. STEM WALL	-	(18)16d	(2)2x4 STUDS	(2)2x6 STUDS
STHD14	-	-	14" FROM T.O. STEM WALL	-	(22)16d	(2)2x4 STUDS	(2)2x6 STUDS
HDU4	SB 5/8x24 OR 5/8"Ø A307	1-3/4" SQ. x 1/2"	18" FROM T.O. STEM WALL / 9" FROM T.O. (E) STEM WALL*	-	(10)1/4"x2-1/2" SDS	(2)2x4 STUDS	(2)2x6 STUDS
HDU5	SB 5/8x24 OR 5/8"Ø A307	1-3/4" SQ. x 1/2"	18" FROM T.O. STEM WALL / 10" FROM T.O. (E) STEM WALL*	-	(14)1/4"x2-1/2" SDS	(2)2x4 STUDS	(2)2x6 STUDS
HDU8	SB 7/8x24 OR 7/8"Ø A307	1-3/4" SQ. x 1/2"	18" FROM T.O. STEM WALL / 12" FROM T.O. (E) STEM WALL*	-	(20)1/4"x2-1/2" SDS	4x4 POST	(3) 2x6 STUDS
HDU11	PAB8 OR 1"Ø A307	2-3/4" SQ. x 5/8"	11" FROM T.O. CONT. FTG.	33" x 33"	(30)1/4"x2-1/2" SDS	4x6 POST	6x6 POST
HDU14	PAB8 OR 1"Ø A307	2-3/4" SQ. x 5/8"	11" FROM T.O. CONT. FTG.	33" x 33"	(36)1/4"x2-1/2" SDS	4x6 POST	4x6 POST
HD12	PAB8 OR 1"Ø A307	2-3/4" SQ. x 5/8"	11" FROM T.O. CONT. FTG.	33" x 33"	(4) 1"DIA. A307 BOLTS	(3)2x4 STUDS	(3)2x6 STUDS
HDU14 (SPECL.)	PAB8 OR 1"Ø A307	2-3/4" SQ. x 5/8"	11" FROM T.O. CONT. FTG.	33" x 33"	(36)1/4"x2-1/2" SDS	4x8 POST	6x6 POST
HD12 (SPECL.)	PAB9 OR 1-1/8"Ø A307	3-1/4" SQ. x 5/8"	13" FROM T.O. CONT. FTG.	38" x 38"	(4) 1"DIA. A307 BOLTS	4x8 POST	6x6 POST
HD19	PAB9 OR 1-1/8"Ø A307	3-1/4" SQ. x 5/8"	13" FROM T.O. CONT. FTG.	38" x 38"	(5) 1" DIA. A307 BOLTS	4x8 POST	6x6 POST
HD19 (SPECL.)	PAB9 OR 1-1/8"Ø A307	3-1/4" SQ. x 5/8"	13" FROM T.O. CONT. FTG.	38" x 38"	(5) 1" DIA. A307 BOLTS	4x8 POST	6x6 POST

**SHEAR WALL FOUNDATION HOLDOWN NOTE:**

- SIMPSON SB AND PAB CAN BE SUBSTITUTED WITH ASTM A307 HEADED ANCHOR BOLT w/ BOTTOM DOUBLE NUT AND PLATE WASHER PER SCHEDULE
- MINIMUM WOOD MEMBER SIZE ABOVE AND BELOW WHERE OCCURS AT FLOOR LEVEL. ACCEPTABLE TO SUBSTITUTE 2x BUILT-UP POST THAT MATCHES REQUIRED POST DEPTH. DO NOT USE LAG BOLTS TO FASTEN HOLDOWNS TO WOOD MEMBERS.
- HOLDOWN SCHEDULE IS PROVIDED FOR GENERAL INSTALLATION INFORMATION. NOT ALL OF HARDWARE SCHEDULED IS REQUIRED. SEE PLANS FOR HOLDOWN CALL-OUTS AND LOCATIONS. CONSULT MANUFACTURER FOR ADDITIONAL INFORMATION.
- FOR SHEAR WALL REQUIRES 3x STUDS PER SHEAR WALL SCHEDULE. USE 3x INSTEAD OF 2x NOTED ON HOLDOWN SCHEDULE.
- FOR ANCHORS CONNECTING TO EXISTING CONCRETE, DENOTED WITH MINIMUM EMBED DEPTH (\*), (x") IN PLAN DRAWING, PROVIDE SIMPSON SET-XP EPOXY. EMBED DEPTH AND NUMBER OF REQUIRED HOLDOWN PER PLAN.
- CAST ENLARGED FOOTING AROUND ANCHOR MONOLITHICALLY WITH CONT. FOOTING. MINIMUM FOOTING SIZE AROUND ANCHOR PER SCHEDULE. THICKEN FOOTING DEPTH TO ACHIEVE MINIMUM EMBEDMENT DEPTH PER SCHEDULE, SEE DETAIL ON THIS SHEET.
- PROVIDE #4 @ 6"oc EA. WAY BOTTOM FOR FOOTING AROUND HOLDOWN ANCHOR.

### SHEAR WALL SCHEDULE (DOUG FIR OR HEM FIR LUMBER PER GENERAL NOTES)

MARK	APA RATED SHEATHING (NOTE 1,2,4,12,13)		WALL STUD AND EDGE BLKG. (NOTE 3,6,14)	RIM JOIST OR BOARD CONNECTION TO WALL TOP PL OR SILL PL (NOTE 7,8)	WALL BOTTOM PLATE CONNECTION TO RIM BOARD, FLOOR BLKG. OR INTERIOR TRANSFER BEAM (NOTE 8,9)	SILL PLATE ATTACHMENT TO CONCRETE (PRESSURE-TREATED)		DOUG-FIR SHEAR CAPACITY (PLF)	HEM-FIR SHEAR CAPACITY (PLF)
	APPLICATION	PANEL EDGE 8d NAIL SPACING (NOTE 4,5)				5/8"Ø x 7" ANCHOR BOLT SPACING (NOTE 10,15)	SILL PLATE SIZE (NOTE 11)		
W3	ONE SIDE	0.131" x 2 1/2" @ 3"oc	2x	CLIP @ 11"oc	0.148"x3 1/4" @ 3"oc	21"oc	2x	490	455
W4	ONE SIDE	0.131" x 2 1/2" @ 4"oc	2x	CLIP @ 14"oc	0.148"x3 1/4" @ 4"oc	28"oc	2x	380	353
W6	ONE SIDE	0.131" x 2 1/2" @ 6"oc	2x	CLIP @ 20"oc	0.148"x3 1/4" @ 6"oc	40"oc	2x	260	242
2W2	BOTH SIDE	0.131" x 2 1/2" @ 2"oc STAGGERED	3x	3-CLIPS @ 12"oc	3-CLIPS @ 12"oc	10"oc	3x	1280	1190
2W3	BOTH SIDE	0.131" x 2 1/2" @ 3"oc STAGGERED	3x	2-CLIPS @ 11"oc	2-CLIPS @ 11"oc	12"oc	3x	980	912
2W4	BOTH SIDE	0.131" x 2 1/2" @ 4"oc	3x	2-CLIPS @ 14"oc	2-CLIPS @ 14"oc	18"oc	3x	760	706
2W6	BOTH SIDE	0.131" x 2 1/2" @ 6"oc	3x	2-CLIPS @ 20"oc	2-CLIPS @ 20"oc	21"oc	3x	520	484

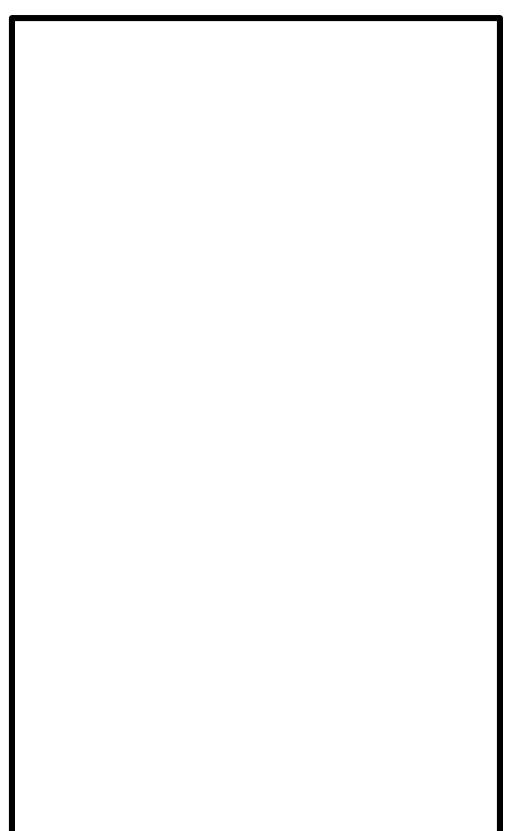
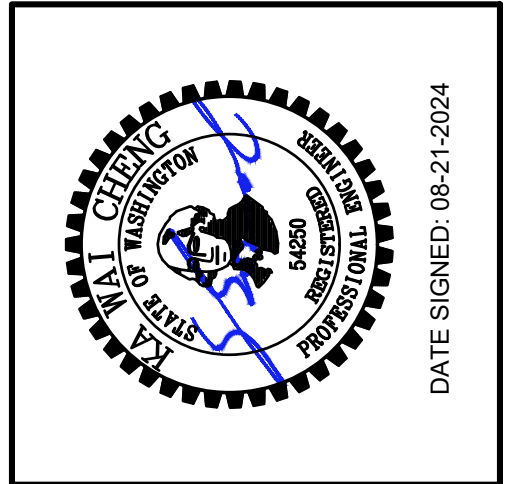
**SHEAR WALL NOTES:**

- INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY FOR ENTIRE LENGTH SHOWN ON PLANS.
- WHERE SHEATHING IS APPLIED ON BOTH SIDES OF WALL, PANEL EDGE JOINTS ON 2X FRAMING SHALL BE STAGGERED SO THAT JOINTS ON OPPOSITE SIDES ARE NOT LOCATED ON THE SAME STUDS.
- BLOCKING IS REQUIRED AT ALL PANEL EDGES.
- PROVIDE SHEAR WALL SHEATHING AND NAILING FOR THE ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT WALLS ARE DESIGNATED BY EXTERIOR OF THE BUILDING, CORRIDORS, WINDOWS, OR DOORWAYS OR AS DESIGNATED ON THE PLANS. SEE PLANS FOR HOLDOWN REQUIREMENTS. ALTERNATE WALLS DESIGNATED AS PERFORATED SHEAR WALLS REQUIRE SHEATHING ABOVE AND BELOW ALL OPENINGS.
- SHEATHING EDGE NAILING IS REQUIRED AT ALL HOLDOWN POSTS. EDGE NAILING MAY ALSO BE REQUIRED TO EACH STUD USED IN BUILT-UP HOLDOWN POSTS. REFER TO THE HOLDOWN DETAILS FOR ADDITIONAL INFORMATION.
- INTERMEDIATE FRAMING TO BE WITH 2x MINIMUM MEMBERS. FIELD NAILING SHALL BE AT 12"oc MAX.
- USE 0.131x1-1/2" LONG NAILS TO ATTACH FRAMING CLIPS DIRECTLY TO FRAMING. USE 0.131x2-1/2" NAILS WHEN CLIPS ARE INSTALLED OVER SHEATHING.
- FRAMING CLIPS ARE EITHER A35 ANGLE OR LTP4 (AT EXTERIOR FACE OF WALL SHEATHING), OR APPROVED EQUIVALENT.
- WHERE PLATE ATTACHMENT SPECIFIES 2- ROWS OF NAILS, PROVIDE DOUBLE JOIST, RIM, BLKG. OR EQUAL. ATTACH PER DETAILS.
- ANCHOR BOLTS SHALL BE PROVIDED WITH 3"x3"x1/4" PLATE WASHERS. FOR ANCHOR IN EXISTING FOUNDATION, EMBED ANCHOR BOLT 7" INTO CONCRETE WITH SIMPSON SET-XP EPOXY; EMBED ANCHOR BOLT 7" INTO CMU WITH SIMPSON SET EPOXY. FIELD VERIFY CMU CELLS ARE SOLID GROUTED.
- PRESSURE PRESERVATIVE TREATED WOOD CAN CAUSE EXCESSIVE CORROSION AND DEGRADATION OF FASTENERS. PROVIDE HOT DIPPED GALVANIZED NAILS AND CONNECTOR PLATES FOR ALL CONNECTORS IN CONTACT WITH PRESERVATIVE TREATED FRAMING MEMBERS.
- DETAIL ALL EXTERIOR WALL TO BE W6 PER SCHEDULE, U.N.O. ON PLAN.

**ALTERNATE NOTES:**

- 7/16" APA RATED SHEATHING (OSB) MAY BE USED IN LIEU OF 15/32" SHEATHING PROVIDED THAT ALL STUDS ARE SPACED 16"oc AND ENGINEER OF RECORD HAS BEEN NOTIFIED IN WRITING AND APPROVES.
- WHERE WOOD SHEATHING IS APPLIED OVER GYPSUM WALL BOARD SHEATHING (GWB), CONTACT ENGINEER OF RECORD FOR APPROVAL AND ALTERNATE FASTENING REQUIREMENTS.
- AT ADJOINING PANEL EDGES, (2) 2x STUDS NAILED TOGETHER MAY BE USED IN LIEU OF A SINGLE 3x STUD. DOUBLE 2x STUDS MAY BE CONNECTED TOGETHER WITH 3" NAILS OF THE SAME SPACING AND DIAMETER AS THE PLATE NAILING.
- CONTACT ENGINEER OF RECORD FOR ADHESIVE OR EXPANSION BOLT ALTERNATIVES TO CAST-IN-PLACE ANCHOR BOLTS. TYPICALLY SET ADHESIVE WILL BE ALLOWED AS AN ALTERNATE.
- ALL ANCHOR BOLTS SHALL HAVE PLATE WASHER 3"x3"x1/4". PLATE WASHERS TO BE SLOTTED SO WASHERS IS WITHIN 1/2" OF FACE OF SHEATHING.

NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	08-21-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	



**EXISTING RESIDENCE ADDITION**  
 8430 SE 45TH STREET,  
 MERCER ISLAND, WA 98040

CHECKED: KWC
DATE: 08-16-2024
SHEET NO: <b>S2.5</b>