XIAO ZHOU HOUSE ADDITION

4433 86th Ave SE Mercer Island, WA 98040



BUILDING PERMIT SET

GENERAL NOTES

1. THESE GENERAL NOTES IN NO WAY RELIEVE THE GENERAL CONTRACTOR FROM THE RESPONSIBILITIES DOCUMENTED IN GENERAL CONDITIONS AND SUPPLEMENTAL GENERAL CONDITIONS OR INFORMATION CONTAINED WITHIN THE CONSTRUCTIONS DRAWINGS AND SPECIFICATIONS. 2. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK OF ALL TRADES TO ASSURE COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS.

CODES:

3. ALL WORK SHALL CONFORM TO APPLICABLE BUILDING CODES AND ORDINANCES. ANY CONFLICT WHERE THE METHODS OR STANDARDS OF INSTALLATION OF THE MATERIAL SPECIFIED DO NOT EQUAL OR EXCEED THE REQUIREMENTS OF THE CODE OR ORDINANCES, CODE OR ORDINANCES SHALL GOVERN. IF AND WHEN THIS OCCURS, NOTIFY THE ARCHITECT IMMEDIATELY. SUBSECTIONS OF THE CODE ARE LISTED HERE FOR GENERAL REFERENCE BUT IN NO WAY RELEASES THE GENERAL CONTRACTOR FROM CONFORMING TO ALL APPLICABLE CODES AND ORDINANCES.

APPLICABLE CODES:

2021 INTERNATIONAL RESIDENTIAL CODE AS AMENDED BY WASHINGTON STATE BUILDING CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 INTERNATIONAL ENERGY CODE: PRESCRIPTIVE COMPLIANCE, OPTION 3, CLIMATE ZONE 1
2021 WASHINGTON STATE VENTILATION AND INDOOR AIR QUALITY CODE
2021 INTERNATIONAL FIRE CODE
2021 UNIFORM PLUMBING CODE
CITY OF SHORELINE DEVELOPMENT CODE

CONSULTANT DRAWINGS:

4. CONSULTANTS' DRAWINGS, INCLUDING BUT NOT LIMITED TO STRUCTURAL, CIVIL, MECHANICAL, ELECTRICAL, AND INTERIOR DESIGN ARE SUPPLEMENTARY TO THESE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY AND ALL DISCREPANCIES IDENTIFIED BETWEEN THE CONSULTANTS' DRAWINGS WITH A WRITTEN REQUEST FOR CLARIFICATION. WORK INSTALLED IN CONFLICT WITH THESE DRAWINGS AND SPECIFICATIONS SHALL BE CORRECTED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

CONSTRUCTION:

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

6. ALL INFORMATION RELATED TO ANY EXISTING CONDITIONS IS REPRESENTED TO THE BEST KNOWLEDGE OF THE ARCHITECT. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES THAT WOULD AFFECT THE CONSTRUCTION OF THE PROJECT PRIOR TO THE START OF WORK.

7. THE GENERAL CONTRACTOR SHALL INVESTIGATE EXISTING CONDITIONS PRIOR TO BEGINNING WORK. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES W/ THE INFO SHOWING IN THE DRAWINGS OR CONDITIONS WHICH AFFECT EXECUTION OF WORK.

8. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT PROVIDED IN THE DRAWINGS AND SPECIFICATIONS, AND BY OTHERS,

9. CONTRACTOR SHALL PROVIDE ALL BLOCKING, BUCK-OUTS, BACKING AND JACKS AS REQUIRED.

10. SUBCONTRACTORS SHALL BE RESPONSIBLE FOR INSPECTING THE WORKMANSHIP OF SUBCONTRACTORS PRECEDING. DISCREPANCIES IN WORK SHALL BE REPORTED TO THE GENERAL CONTRACTOR IMMEDIATELY. FAILURE TO DO SO IN A TIMELY MANNER SHALL BE CONSTRUED AS ACCEPTANCE OF THAT PRECEDING WORK.

11. SUBCONTRACTORS SHALL BE RESPONSIBLE FOR DAMAGE TO ADJACENT WORK CAUSED BY THE SUBCONTRACTOR, HIS AGENTS, OR EMPLOYEES. SUBCONTRACTOR SHALL REPAIR SAID DAMAGE AT THE SUBCONTRACTOR'S OWN EXPENSE.

12. AUTOMATIC SPRINKLERS CONFORMING TO NFPA 13D ARE TO BE INSTALLED IN ALL DWELLING UNITS PURSUANT TO 2021 INTERNATIONAL RESIDENTIAL CODE SECTION R313.1.

DRAWING STANDARDS / DIMENSIONS:

13. DO NOT SCALE DRAWINGS, USE WRITTEN DIMENSIONS. WHERE DISCREPANCIES ARE FOUND CLARIFY IMMEDIATELY WITH ARCHITECT BEFORE PROCEEDING WITH WORK.

14. DIMENSIONS ARE TO THE FACE OF FRAMING, FACE OF CONCRETE, GRID LINES, OR CENTERLINE OF COLUMNS, DOORS AND WINDOWS UNLESS NOTED OTHERWISE.

PROJECT CODE CONFORMANCE

BUILDING CODE:	IRC
BUILDING DATA:	
CONSTRUCTION TYPE	TYPE V-B
LAND USE DATA:	
LOT AREA	11250 S.F.
ZONE	R-9.6
BUILDING HEIGHT:	
ALLOWED	30' ABOVE ABE
PROPOSED	COMPLIES
SETBACKS:	
FRONT YARD	20'-0" MIN
REAR YARD	25'-0" MIN
SIDE YARD	15'-0" MIN

FOR BUILDING CODE CONFORMANCE SEE SHEET G003

PROJECT AREA STATEMENT

PROPOSED BUILDING ADDITION:
NEW ADDITION IS ON EXISTING IMPERVIOUS DRIVEWAY

BASEMENT FLOOR	TOTAL: 770 SF
MAIN FLOOR	TOTAL: 770 SF
TOTAL CONDITIONED	**1540 SF**
PROPOSED ROOF DECK	**770 SF**

EXISTING BUILDING AREAS:

BASEMENT FLOOR	TOTAL: 900 SF
MAIN FLOOR	TOTAL: 1200 SF
TOTAL CONDITIONED	**2100 SF**
GARAGE	300 SF
TOTAL NON-CONDITIONED	**300 SF**
OUTDOOR DECK	TOTAL: 150 SF

IMPERVIOUS SURFACES:
NO CHANGE TO THE EXISTING

PROJECT DIRECTORY

XIAO ZHOU
4433 86TH AVE SE 98040 — CLIENT

DRIFT INTERIOR ARCHITECTURE
14526 107TH ST NE
LAKE STEVENS, WA
(E): JEN@DRIFT-IA.COM
(P): 425-478-0327
CONTACT: JEN TAMBLIN — ARCHITECT

BUILDER
BUILDER ADDRESS — BUILDER

HAREZLAK ENGINEERING
HAREZLAK ENGINEERING
COVINGTON, WA 98042
P: 3602240627
E: PHIL@HAREZLAKENGINEERING.COM — ENGINEER

MUD BAY GEOTECHNICAL SERVICES, LLC
1001 COOPER POINT ROAD SW, SUITE 140, PMB #108 | OLYMPIA, WA 98502 | 360.481.9784 |
CHEATHMAN@MUDBAYGEOTECH.COM — GEOTECHNICAL

PROPERTY DATA

ADDRESS:
4433 86TH AVE SE 98040

PARCEL NO:
759810-0733

JURISDICTION:
MERCER ISLAND

PROJECT SCOPE OF WORK

NEW ADDITION AND INTERIOR REMODEL OF MERCER ISLAND RESIDENCE. SEE STRUCTURAL MEMO AND NOTES FOR CONFIRMATION. EXTERIOR WINDOWS BEING ADDED, SEE STRUCTURAL NOTES.

PROJECT LEGAL DESCRIPTION

SCHMIDS VITUS E SEATTLE ACRE TRS E 150 FT OF S 60 FT OF 3 & E 150 FT OF N 15 FT OF 4
PLAT BLOCK: 16
PLAT LOT: 3-4

N

VICINITY PLAN



DRAWING INDEX

Sheet No.	Sheet Name	Revision Date
G001	COVER SHEET	•
G002	ABBREVIATIONS, SYMBOLS AND LEGENDS	•
G003	INTERNATIONAL RESIDENTIAL CODE	•
Z000	EXHIBIT MAP	
Z001	SITE PLAN & ZONING	
A000	EXISTING / DEMO PLAN	•
A001	EXISTING / DEMO PLAN	•
A002	EXISTING ROOF PLAN	•
A100	FLOOR PLAN	•
A101	FLOOR PLAN	•
A102	ROOF PLAN	•
A200	BUILDING ELEVATION	
A201	BUILDING ELEVATION	
A300	BUILDING SECTIONS	
A500	WALL,FLOOR,ROOF & FOUNDATION DETAILS	
A501	EXTERIOR ENVELOPE DETAILS	
A502	DETAILS	
A503	WINDOW & DOOR INST. DETAILS	
A600	DOOR TYPES & SCHEDULE	
A601	WINDOW TYPES & SCHEDULE	

STRUCTURAL DRAWING INDEX

Sheet No.	Sheet Name	Revision Date
S1.0	GENERAL STRUCTURAL NOTES/SHEET INDEX	
S1.1	GENERAL STRUCTURAL NOTES	
S2.0	FOUNDATION PLAN	
S2.1	SECOND FLOOR FRAMING PLAN	
S2.2	ROOF DECK FRAMING PLAN	
S3.0	FOUNDATION DETAILS	
S4.0	FRAMING SCHEDULES	
S4.1	FRAMING DETAILS	
S4.2	FLOOR FRAMING DETAILS	
S4.3	ROOF DECK FRAMING DETAILS	

FIRE SPRINKLER REQUIREMENT NOTE

FIRE SPRINKLER SYSTEM REQUIRED:
A NFPA 13D FIRE SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA 13D AND CITY OF MERCER ISLAND (COMI) STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED.

THIS REQUIREMENT IS TRIGGERED PER AV107.2 AS THE CUMULATIVE CONSTRUCTION VALUE EXCEEDS 50% OF THE RESIDENCE VALUE WITHIN A SIXTY-MONTH PERIOD.

SYSTEM SHALL BE DESIGNED AND INSTALLED WITH A MINIMUM 1-INCH WATER METER AND 1-INCH DOMESTIC WATER SUPPLY LINE.

DRIFT
INTERIOR ARCHITECTURE
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13073 REGISTERED ARCHITECT JENNIFER TAMBLIN STATE OF WASHINGTON

Registered Architect in WA State

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XIAO ZHOU HOUSE ADDITION

BUILDER NAME
BUILDER CONTACT
BUILDER ADDRESS

CLIENT NAME: Xiao Zhou
PROJECT ADDRESS: 4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION
1	Date 1	Revision 1

STATUS: PERMIT
DPS PERMIT NUMBER:
BNA Project number: XXXXXX
DRAWN BY:
SHEET NAME: COVER SHEET
SHEET NO.: G001
Scale: 1/8" = 1'-0"

FILE PATH: Z:\Shared\RESIDENTIAL\Xiao Zhou\Xiao Zhou\03 Revit\01 Work\D-IA-Xiao Zhou-PD-R0-V25.rvt

PLOT DATE: 25-02-2026 01:17:40

ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS

ABBREVIATIONS

AB	- ANCHOR BOLT
AC	- AIR CONDITIONING
ACC	- ACCESSIBLE
ACOUS	- ACOUSTICAL
AD	- AREA DRAIN
ADJ	- ADJUSTABLE
AFF	- ABOVE FINISH FLOOR
ALT	- ALTERNATE
ALUM	- ALUMINUM
ANCH	- ANCHOR
ANOD	- ANODIZED
ACP	- ACOUSTICAL CEILING PANEL
APPD	- APPROVED
APPROX	- APPROXIMATE
ARCH	- ARCHITECTURAL
AUTO	- AUTOMATIC
AV	- AUDIO VISUAL
AVB	- AIR VAPOR BARRIER
BD	- BOARD
BLDG	- BUILDING
BM	- BEAM
BOT	- BOTTOM
BSMT	-BASEMENT
BT	- BOLT
CAB	- CABINET
CAT	- CATEGORY
CB	- CATCH BASIN
CBU	- CEMENTITIOUS BACKER UNIT
CER	- CERAMIC
CG	- CORNER GUARD
CH	- CHILLER
CHAN	- CHANNEL
CI	- CAST IRON
CIP	- CAST-IN-PLACE
CJ	- CONTROL JOINT / CONSTRUCTION JOINT
CL	- CENTER LINE
CLG	- CEILING
CLR	- CLEAR
CNTR	- COUNTER
CO	- CLEANOUT
COL	- COLUMN
CONC	- CONCRETE
COND	- CONDITION
CONN	- CONNECTION
CONT	- CONTINUOUS
CONTR	- CONTRACTOR
COORD	- COORDINATE
CORR	- CORRIDOR
CT	- CERAMIC TILE
CTR	- CENTER
CTSK	- COUNTER SUNK
CW	- COLD WATER (PIPING)
D	- DEEP, DEPTH
DBL	- DOUBLE
DEG	- DEGREE
DEMO	- DEMOLITION
DEPT	- DEPARTMENT
DET	- DETAIL
DF	- DRINKING FOUNTAIN
DIA	- DIAMETER
DIFF	- DIFFUSER
DIM	- DIMENSION
DISP	- DISPENSER
DMPF	- DAMPPROOFING
DN	- DOWN
DO	- DOOR OPENING
DR	- DOOR
DRN	- DRAIN
DW	- DISHWASHER
DWG	- DRAWING
DWR	- DRAWER
(E)	- EXISTING
E	- EAST
EA	- EACH
EJ	- EXPANSION JOINT
EL	- ELEVATION
ELEC	- ELECTRICAL
ELEV	- ELEVATOR
EMERG	- EMERGENCY
EP	- ELECTRICAL PANELBOARD
EQ	- EQUAL
EQUIP	- EQUIPMENT
EXH	- EXHAUST
EXP	- EXPANSION
EXIST	- EXISTING
EXT	- EXTERIOR
FA	- FIRE ALARM
FD	- FLOOR DRAIN
FDC	- FIRE DEPARTMENT CONNECTION
FND	- FOUNDATION
FE	- FIRE EXTINGUISHER
FEC	- FIRE EXTINGUISHER CABINET
FF&E	- FURNITURE, FINISHES & EQUIPMENT
FFEL	- FINISH FLOOR ELEVATION
FIN	- FINISH
FIXT	- FIXTURE
FL	- FLOOR
FLASH	- FLASHING
FO	- FACE OF
FP	- FIRE PROTECTION
FPG	- FIREPROOFING
FR	- FRAME
FT	- FEET
FRT	- FIRE RETARDANT TREATED
FTG	- FOOTING
FURN	- FURNITURE
GA	- GAUGE / GAGE
GALV	- GALVANIZED
GB	- GRAB BAR
GC	- GENERAL CONTRACT(OR)
GFRC	- GLASS FIBER REINFORCED CONCRETE
GL	- GLASS
GR	- GRADE
GRD	- GROUND
GWB	- GYPSUM WALLBOARD
H	- HIGH / HEIGHT
HB	- HOSE BIB
HC	- HOLLOW CORE
HCP	- HANDICAPPED
HDW	- HARDWARE
HS	- HEAT STRENGTHEND (GLASS)
HM	- HOLLOW METAL (STEEL FRAME)
HNDRL	- HANDRAIL
HO	- HOLD-OPEN
HORIZ	- HORIZONTAL
HT	- HEIGHT
HVAC	- HEATING, VENTILATION, AIR CONDITIONING
HW	- HOT WATER
HYDR	- HYDRAULIC
ID	- INSIDE DIAMETER
IN	- INCH
INCL	- INCLUDED / INCLUDING
INFO	- INFORMATION
INSUL	- INSULATION
INT	- INTERIOR
INV	- INVERT
IPS	- INTERNATIONAL PIPE STANDARD
JAN	- JANITOR
JC	- JANITOR'S CLOSET
JST	- JOIST
JT	- JOINT
KIT	- KITCHEN
KO	- KNOCKOUT
LDG	- LANDING
LAM	- LAMINATE / LAMINATION
LAV	- LAVATORY
LB	- POUND
LF	- LINEAR FOOT
LKR	- LOCKER
LN	- LINE
LT	- LIGHT
MACH	- MACHINE
MAINT	- MAINTENANCE
MATL	- MATERIAL
MAX	- MAXIMUM
MB	- MACHINE BOLT
MDF	- MEDIUM DENSITY FIBERBOARD
MEP	- MECHANICAL, ELECTRICAL, PLUMBING
MDO	- MEDIUM DENSITY OVERLAY PLYWOOD
MECH	- MECHANICAL
MEMB	- MEMBRANE
MET	- METAL
MEZZ	- MEZZANINE
MFR	- MANUFACTURER
MH	- MANHOLE
MIN	- MINIMUM
MISC	- MISCELLANEOUS
MS	- MACHINE SCREW
MTD	- MOUNTED
MTG	- MOUNTING
MTL	- METAL
MULL	- MULLION
N	- NORTH
NA	- NOT APPLICABLE
NC	- NOISE CRITERIA
NIC	- NOT IN CONTRACT
NO	- NUMBER
NOM	- NOMINAL
NTS	- NOT TO SCALE
OA	- OUTSIDE AIR
OC	- ON CENTER
OFCI	- OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	- OWNER FURNISHED, OWNER INSTALLED
OFF	- OFFICE
OH	- OVER HEAD
OPH	- OPPOSITE HAND
OPNG	- OPENING
OPP	- OPPOSITE
OPPHD	- OPPOSITE HAND
ORD	- OVERFLOW ROOF DRAIN
OUTS	- OUTSIDE
OVHD	- OVERHEAD
P	- PAINT
PAV	- PAVING
PARTN	- PARTITION
PBD	- PARTICLEBOARD
PDF	- POWER DRIVEN FASTENER
PERF	- PERFORATED
PERIM	- PERIMETER
PERP	- PERPENDICULAR
PL	- PLATE
PLAM	- PLASTIC LAMINATE
PLBG	- PLUMBING
PLYWD	- PLYWOOD
PNL	- PANEL
POL	- POLISHED
PR	- PAIR
PREFAB	- PREFABRICATED
PROJ	- PROJECT
PSF	- POUNDS PER SQUARE FOOT
PT	- POINT / PRESSURE-TREATED
PTD	- PAPER TOWEL DISPENSER / PAINTED
PTN	- PARTITION
PTR	- PAPER TOWEL RECEPTACLE
Q	- QUARRY TILE
QTY	- QUANTITY
(R)	- RELOCATED
R	- RADIUS OR RISER (PIPING)
RA	- RETURN AIR
RAD	- RADIUS
RB	- RESILIENT BASE
RCP	- REFLECTED CEILING PLAN
RD	- ROOF DRAIN
RECOM	- RECOMMENDED
RECPT	- RECEPTACLE
REC	- RECESSED
REF	- REFERENCE
REFL	- REFLECTED / REFLECTIVE / REFLECT
REFR	- REFRIGERATOR
REG	- REGISTER
REINF	- REINFORCED / REINFORCING
REL	- RELOCATE
REM	- REMOVABLE
REQ	- REQUIRE / REQUIRED
RESIL	- RESILIENT
REV	- REVISION / REVISED
RM	- ROOM
RO	- ROUGH OPENING
RTD	- RATED
RTG	- RATING
RWL	- RAIN WATER LEADER
S	- SOUTH
SA	- SUPPLY AIR
SAF	- SELF-ADHERED FLASHING
SAM	- SELF-ADHERED MEMBRANE
SAN	- SANITARY AIR
SC	- SOLID CORE
SCHED	- SCHEDULE
SD	- STORM DRAIN / SOAP DISPENSER
SECT	- SECTION
STS	- SELF TAP METAL SCREW
SF	- SQUARE FEET/FOOT
SH	- SPRINKLER HEAD
SHT	- SHEET
SHR	- SHOWER
SIM	- SIMILAR
SM	- SHEET METAL OR SQUARE METER (METRIC DOCS)
SND	- SANITARY NAPKIN DISPENSER
SP	- STANDPIPE
SPEC	- SPECIFICATION
SPR	- SPRINKLER
SPKR	- SPEAKER
SQ	- SQUARE
SSE	- STRUCTURE SLAB ELEVATION
SST	- STAINLESS STEEL
SSK	- SERVICE SINK
STA	- STATION
STD	- STANDARD
STL	- STEEL
STLJST	- STEEL JOIST
STOR	- STORAGE
STRG	- STRINGER
STRL	- STRUCTURAL
STRUCT	- STRUCTURAL
SUBCAT	- SUBCATEGORY
SUSP	- SUSPENDED
SYMM	- SYMMETRICAL
SYS	- SYSTEM
T&G	- TONGUE AND GROOVE
T	- TREAD / THERMOSTAT
TB	- TOWEL BAR
TC	- TOP OF CURB
TCONC	- TOP OF CONCRETE
TEL	- TELEPHONE OR TELECOM
TEMP	- TEMPERATURE
TER	- TERRAZZO
TGB	- TOGGLE BOLT
THK	- THICKNESS
THRES	- THRESHOLD
THRU	- THROUGH
TKBD	- TACKBOARD
TMPD	- TEMPERED
TO	- TOP OF (SEE OTHER WORD)
TOS	- TOP OF SLAB, TOP OF STRUCT
TOSTL	- TOP OF STEEL
TP	- TOP OF PAVEMENT
TPD	- TOILET PAPER DISPENSER
TRACT	- TRACTION
TV	- TELEVISION
TW	- TOP OF WALL
TYP	- TYPICAL
UNFIN	- UNFINISHED
UON	- UNLESS OTHERWISE NOTED
UR	- URINAL
VAC	- VENTILATION AND AIR CONDITIONING
VCT	- VINYL COMPOSITION TILE
VERT	- VERTICAL
VEST	- VESTIBULE
VIF	- VERIFY IN FIELD
VR	- VAPOR RETARDER
VT	- VINYL TILE
VWC	- VINYL WALL COVERING
W/	- WITH
W	- WIDE, WIDTH/WEST
WC	- WATER CLOSET
WD	- WOOD
WDS	- WOOD SCREW
WDW	- WINDOW
W/O	- WITHOUT
WP	- WATERPROOFING
WPM	- WATERPROOF MEMBRANE
WPT	- WORK POINT
WR	- WATER RESISTANT/REPELLANT
WRB	- WEATHER RESISTANT BARRIER
WS	- WEATHERSTRIPPING
WSCT	- WAINSCOT
WT	- WEIGHT
WW	- WALL TO WALL

DRAWING SYMBOLS LEGEND

1 VIEW NAME
1/8" = 1'-0"
DRAWING NAME AND DESCRIPTION

10.8 / 10.8
GRID LINE AND BUBBLE

1 / A3.01
BUILDING ELEVATION

1 / A6.02 — 1 / 4 A6.01 2 / 3
INTERIOR ELEVATION

BUILDING SECTION

WALL SECTION

1 / A10.01
DETAIL

1 / A10.01
ENLARGED PLAN AND DETAIL CALLOUT

PROJECT NORTH ARROWS

TRUE NORTH ARROWS

0' 10' 20' 30' 10' 20' 40' 40'
SCALE BAR

AREA NAME
150 SF
AREA NAME & SIZE

ROOM NAME
100
150 SF
ROOM NAME & NUMBER WITH ROOM SIZE

CEILING HEIGHT / DESCRIPTION
CEILING HEIGHT AND MATERIAL DESCRIPTION

101B
DOOR NUMBER

FCP-1
MATERIAL TYPE MARK

F / 1t
W/P / 1i
BUILDING ASSEMBLIES AND PARTITION TYPE MARK

059 / 9
SHEET DRAWING KEYNOTES MARK

S1
CURTAINWALL, STOREFRONT AND WINDOW TYPE MARK

AA
RELITE TYPE MARK

F 1t
FURNITURE TYPE MARK

1t
LIGHT FIXTURE TYPE MARK

EL.208'-0"
SPOT ELEVATION POINT

DIM PT
DIMENSION OR WORK POINT

1
REVISION CLOUDS AND DELTA

FINISH / GRADE / SLAB HEIGHT CHANGE

LOT LINE

SETBACK LINE

LIMIT OF WORK LINE

1 / A101
MATCHLINE WITH DRAWING / SHEET REFERENCE

FD FD
FLOOR DRAIN

DS
DOWNSPOUT

PLUMBING FIXTURES

URINAL

FLOOR MOUNTED TOILET

BATH TUB

LAVATORY SINK

MOP FLOOR SINK

DRINKING FOUNTAIN

KITCHEN SINK - DOUBLE & SINGLE

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13073 REGISTERED ARCHITECT JENNIFER TAMBLIN STATE OF WASHINGTON
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XIAO ZHOU HOUSE ADDITION

BUILDER NAME
BUILDER CONTACT
BUILDER ADDRESS

CLIENT NAME
Xiao Zhou

PROJECT ADDRESS
4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY:

SHEET NAME
ABBREVIATIONS, SYMBOLS AND LEGENDS

SHEET NO.
G002

Scale: As indicated

FILE PATH: Z:\Shared\RESIDENTIAL\Xiao Zhou\Xiao Zhou\03 Revit\01 Work\D-JA-Xiao Zhou-PD-R0-V25.rvt

PLOT DATE: 25-02-2026 01:17:42

ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS

PROJECT GENERAL AND CODE NOTES

GENERAL:

ALL CONSTRUCTION SHALL CONFORM TO THE 2021 INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED BY THE STATE OF WASHINGTON AND BE IN ACCORDANCE WITH ALL WASHINGTON STATE LAWS, REGULATIONS AND VARIOUS CODES IMPOSED BY LOCAL AUTHORITIES.

DO NOT SCALE DRAWINGS OR DETAILS - USE DIMENSIONS SHOWN.
- DIMENSIONS SHOWN ON THE PLANS ARE TO FACE OF FRAMING OR CONCRETE, OR TO THE CENTERLINE OF COLUMNS UNLESS NOTED OTHERWISE.
- CHECK DETAILS FOR LOCATION OF ALL ITEMS NOT DIMENSIONED ON THE PLANS.
- DOORS AND CASED OPENINGS WITHOUT DIMENSIONS ARE TO BE 4½" FROM FACE OF ADJACENT WALL OR CENTERED BETWEEN WALLS, UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE PROCEEDING WITH THE WORK. ANY CONFLICTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT. VERIFY FIELD CONDITIONS PRIOR TO COMMENCEMENT OF EACH PORTION OF THE WORK.

THE CONTRACTOR SHALL COORDINATE THE LOCATION OF MECHANICAL WORK, ELECTRICAL WORK, AND OTHER SUBCONTRACTOR WORK TO INSURE COMPLIANCE WITH THE DRAWINGS, SPECIFICATIONS, AND ALL CODES. CONTACT THE ARCHITECT FOR RESOLUTION OF ALL DISCREPANCIES PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL COORDINATE FRAMING LAYOUT WITH MECHANICAL, PLUMBING AND ELECTRICAL SUBCONTRACTORS.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND STRUCTURAL MEMBER SIZES PRIOR TO CONSTRUCTION. INFORM THE ARCHITECT OF ANY DISCREPANCIES IN THE DRAWINGS OR INCONSISTENCIES WITH THE CODES PRIOR TO CONSTRUCTION.

CONTRACTOR SHALL COORDINATE ALL CHANGES WITH THE ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO FABRICATION OR CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK.

ALL STRUCTURAL SYSTEM SUCH AS WOOD TRUSSES WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

SOILS:

SEE THE SOILS REPORT PROVIDED BY THE GEOTECHNICAL CONSULTANT FOR ALL SOILS RELATED STRUCTURAL CRITERIA PERTAINING TO FOUNDATION DESIGN. FOOTING EXCAVATION SHALL BE FREE OF LOOSE SOILS, DEBRIS, AND FREE WATER AT ALL TIMES. THIS OFFICE TAKES NO RESPONSIBILITY IN VERIFYING THE ACCURACY OF ENGINEERING DATA SUPPLIED BY OTHERS.

CLEARING & GRADING (T.E.S.C.MEASURES):

ALL CLEARING AND GRADING MUST BE IN ACCORDANCE WITH LOCAL JURISDICTION CLEARING AND GRADING EROSION CONTROL STANDARDS, DEVELOPMENT STANDARDS, LAND USE CODE, UNIFORM BUILDING CODE, PERMIT CONDITIONS, AND ALL OTHER APPLICABLE CODES, ORDINANCES AND STANDARDS. THE DESIGN ELEMENTS WITH THESE PLANS HAVE BEEN REVIEWED TO THESE REQUIREMENTS. ANY VARIANCE FROM THE ADOPTED
EROSION CONTROL STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE LOCAL JURISDICTION PRIOR TO CONSTRUCTION.

A COPY OF THE APPROVED PLANS MUST BE ON-SITE WHENEVER CONSTRUCTION IS IN PROGRESS. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER REQUIRED OR RELATED PERMITS PRIOR TO BEGINNING CONSTRUCTION.

ALL LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD. THEREFORE, BE CONSIDERED ONLY APPROXIMATE AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS AND TO DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN WHICH MAY BE AFFECTED BY THE WORK.

FINAL SITE DRAINAGE MUST DIRECT DRAINAGE AWAY FROM ALL BUILDING
STRUCTURES AT A MINIMUM SLOPE OF 6 INCHES WITHIN THE FIRST 10 FEET,

IRC R317.1.2. ALL WOOD IN CONTACT WITH CONCRETE, CMU OR WITHIN 8" OF SOILS
SHALL BE PRESSURE TREATED WOOD IN COMPLIANCE WITH IRC R317.

IRC R317.3. ALL METAL FRAMING CONNECTORS AND FASTENERS USED WITH PRESSURE TREATED LUMBER SHALL BE CERTIFIED FOR USE WITH THE TREATED MATERIAL.

FIREPLACES:

IRC CHAPTER 10. MASONRY FIREPLACES, BARBECUES, SMOKE CHAMBERS AND FIREPLACE CHIMNEYS SHALL BE CONSTRUCTED OF MASONRY OR REINFORCED CONCRETE IN ACCORDANCE WITH **IRC CHAPTER 10.**

UL 127. IRC R1004. FACTORY-BUILT FIREPLACES AND CHIMNEYS SHALL BE LISTED AND LABELED AND INSTALLED IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING, AND TESTED IN ACCORDANCE WITH **UL 127. IRC R1004.**

IRC G2425 thru G2430. FACTORY-BUILT FIREPLACES SHALL BE VENTED IN ACCORDANCE WITH **IRC G2425 thru G2430.**

FACTORY-BUILT FIREPLACES OR WOOD STOVES SHALL BEAR THE STAMP OF THE TESTING LAB AND BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. MANUFACTURER'S INSTRUCTIONS SHALL BE ON SITE AT TIME OF INSPECTION.

CEILING HEIGHTS:

IRC R305. HABITABLE SPACE SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-0". NOT MORE THAN 50% OF REQUIRED FLOOR AREA OF A SPACE IS PERMITTED TO HAVE A SLOPED CEILING LESS THAN 7'-0" IN HEIGHT WITH NO PORTION LOWER THAN 5'-0", BATHROOMS SHALL HAVE A MINIMUM CEILING HEIGHT OF 6'-8" OVER SHOWERHEAD AND A TUB OR SHOWER ENCLOUSER.

ROOFING:

IRC R905. APPLY ROOF COVERING IN ACCORDANCE WITH **IRC R905.**

BALCONIES, LANDINGS, EXTERIOR STAIRWAYS, OCCUPIED ROOFS AND SIMILAR SURFACES EXPOSED TO THE WEATHER AND SEALED UNDERNEATH SHALL BE WATERPROOFED AND SLOPED A MINIMUM OF ¼" PER 12" (2% SLOPE) FOR DRAINAGE.

ATTIC:

IRC R806. PROVIDE ATTIC VENTILATION USING CONTINUOUS RIDGE VENT AND VENTED BIRDBLOCKING. AT CLOSED SOFFITS PROVIDE CONTINUOUS 2¼" VENT SLOT. THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED, EXCEPT THAT THE AREA MAY BE 1/300, PROVIDED AT LEAST 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE EAVES OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVES OR CORNICE VENTS.

IRC R302.12. DRAFT STOPS, WHERE REQUIRED, SHALL BE INSTALLED PER **IRC R302.12.**

IRC R807.1.PROVIDE READILY ACCESSIBLE ATTIC ACCESS, MINIMUM 22" X 30" WITH MINIMUM 30" UNOBSTRUCTED HEADROOM IN ATTIC.
SEE INSULATION REQUIREMENTS FOR ROOFS AND CEILINGS IN THE **ENERGY** SECTION BELOW.

GLAZING:

IRC R308. ALL GLASS AND GLAZING IS TO BE IN COMPLIANCE WITH **IRC R308** AND THE WASHINGTON STATE SAFETY GLASS LAW.

IRC R308.4. GLAZING IN HAZARDOUS LOCATIONS SUCH AS GLASS ON DOORS, GLAZING WITHIN 24" ON EITHER SIDE OF A DOOR OPENING, OPENINGS WITHIN 60" VERTICAL AND 60" HORIZONTAL OF THE BOTTOM LANDING OF A STAIRWAY, STORM DOORS, RAILINGS, SHOWER DOORS, SLIDING GLASS DOORS AND TUB ENCLOSURES SHALL BE SAFETY GLAZING MATERIAL.

ALL EXTERIOR GLAZING SHALL COMPLY WITH THE LATEST EDITION OF THE WASHINGTON STATE ENERGY CODE.

IRC R308.6. SKYLIGHT SHALL BE HERMETICALLY SEALED, INSULATED, HEAT STRENGTHENED, OR FULLY TEMPERED GLASS. SKYLIGHTS SHALL MEET THE REQUIREMENTS OF **IRC R308.6.**

GLASS BLOCK SHALL BE 3" MINIMUM. THE MORTARED SURFACES SHALL BE TREATED FOR MORTAR BONDING. **IRC R610.**

EGRESS:

IRC R310. EVERY SLEEPING ROOM SHALL HAVE AN EMERGENCY ESCAPE OPENING WITH A MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. THE MINIMUM NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24" MINIMUM NET CLEAR OPENING WIDTH DIMENSION OF 20" AND A CLEAR OPENING HEIGHT NOT MORE THAN 44" ABOVE THE FLOOR. ALL EMERGENCY ESCAPE OPENINGS SHALL FULLY COMPLY WITH **IRC R310.**

IRC R311. PROVIDE MEANS OF EGRESS IN ACCORDANCE WITH **IRC R311.**

IRC R311.3.1. EVERY EXTERIOR EXIT DOOR SHALL HAVE A LANDING ON EACH SIDE. MAXIMUM STEP AT THRESHOLD SHALL BE 1½".

FIRE PROTECTION:

IRC R314. PROVIDE SMOKE DETECTOR IN EACH SLEEPING ROOM AND AT A CENTRAL LOCATION IN CORRIDORS OR AREAS ACCESSING SLEEPING AREAS AS WELL AS ONE ON EACH STORY. SMOKE DETECTORS ARE TO RECEIVE PRIMARY POWER FROM BUILDING WIRING WITH A BATTERY BACKUP. SMOKE DETECTORS SHOULD SOUND AN ALARM AUDIBLE IN ALL SLEEPING ROOMS.

IRC R314. IRC R314.4. SMOKE DETECTOR POWER SOURCES TO BE INSTALLED IN ACCORDANCE WITH **IRC R314.** ALL ALARM DEVICES SHALL BE INTERCONNECTED PER **IRC R314.4.**

IRC R315. PROVIDE CARBON MONOXIDE DETECTOR OUTSIDE EACH SLEEPING ROOM IN THE IMMEDIATE VICINITY AND WHERE A FUEL-BURNING APPLIANCE IS LOCATED WITHIN A BEDROOM OR ITS ATTACHED BATHROOM. CARBON MONOXIDE DETECTORS ARE TO RECEIVE PRIMARY POWER FROM BUILDING WIRING WITH A COMMERCIAL SOURCE AND WITH A BATTERY BACKUP. BATTERY OPERATED DETECTORS ARE PERMITTED IF COMMERCIAL POWER IS NOT AVAILABLE. CARBON MONOXIDE DETECTORS SHOULD SOUND AN ALARM AUDIBLE IN ALL SLEEPING ROOMS.

IRC R315. IRC R315.5. CARBON MONOXIDE DETECTOR POWER SOURCES TO BE INSTALLED IN ACCORDANCE WITH **IRC R315.** ALL ALARM DEVICES SHALL BE INTERCONNECTED PER **IRC R315.5.**

IRC R302.11. INSTALL FIREBLOCKING PER **IRC R302.11**.

IRC R302.12. INSTALL DRAFTSTOPPING PER **IRC R302.12.**

BATHROOMS:

ALL TUB AND SHOWER STALLS SHALL HAVE FIREBLOCKING BETWEEN STUDS.

HINGED SHOWER DOORS SHALL OPEN OUTWARD.
IRC R308.4. ALL GLAZING USED FOR DOORS OR ENCLOSURES IN BATHROOMS SHALL BE SAFETY GLAZING. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING A SHOWER OR BATHTUB WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60 INCHES ABOVE THE STANDING SURFACE AND DRAIN INLET SHALL BE SAFETY GLAZING.

IRC R307.2. SHOWER STALL WAINSCOT SHALL BE A MINIMUM OF 72 INCHES ABOVE THE FLOOR. RUN CEMENT BACKER BOARD TO CEILING, TYPICAL.

IRC R307.1. WATERCLOSETS SHALL HAVE MIN. 30" CLEAR WIDTH AND MIN. 21" FRONT CLEARANCE.

GAS APPLIANCES:

HEATING SYSTEM SHALL BE CAPABLE OF MAINTAINING 70° FEET ABOVE FLOOR IN HABITABLE ROOMS WHEN OUTSIDE TEMP. IS AS SHOWN IN **SECTION 302 WSEC.**

IRC G2407.6. FUEL BURNING EQUIPMENT LOCATED WITHIN THE BUILDING ENVELOPE SHALL OBTAIN COMBUSTION AIR FROM OUTDOORS PER **IRC G2407.6.** *DO NOT USE CRAWL SPACE AIR!*

IRC G2407. EVERY APPLIANCE DESIGNED TO BE VENTED SHALL BE CONNECTED TO A VENTING SYSTEM PER **IRC G2407.**

PROVIDE READILY ACCESSIBLE AUTOMATIC OR MANUAL SHUT-OFF SWITCH THERMOSTAT. PROVIDE AT LEAST ONE THERMOSTAT FOR REGULATING SPACE TEMPERATURES FOR EACH HEATING/COOLING UNIT.

IRC G2404 & IRC M1307.2. GAS APPLIANCES SHALL BE INSTALLED AND SECURELY FASTENED IN PLACE IN ACCORDANCE WITH **IRC G2404 & IRC M1307.2.**

IRC G2408.5. PROVIDE CLEARANCE FROM COMBUSTIBLE MATERIALS PER **IRC G2408.5.**

SEE **FIREPLACES** SECTION ABOVE FOR ADDITIONAL INFORMATION REGARDING GAS FIREPLACES.

EXTERIOR FINISHES:

IRC R703. IRC SECTION 703.8. IRC SECTION 703.2. EXTERIOR WALLS SHALL PROVIDE THE BUILDING WITH A WEATHER-RESISTANT EXTERIOR WALL ENVELOPE. THE EXTERIOR WALL ENVELOPE SHALL INCLUDE FLASHING AS DESCRIBED IN (IRC) SECTION 703.4. THE EXTERIOR WALL ENVELOPE SHALL BE DESIGNED AND CONSTRUCTED IN SUCH A MANNER AS TO PREVENT THE ACCUMULATION OF WATER WITHIN THE WALL ASSEMBLY BY PROVIDING A WATER-RESISTIVE BARRIER BEHIND THE EXTERIOR VENEER AS REQUIRED BY (IRC) SECTION 703.2.

- UNDERLAYMENT: APPLY TWO (2) LAYERS OF 60 MIN. BUILDING PAPER OVER SHEATHING PRIOR TO INSTALLATION OF WINDOWS, WRAP INTO OPENINGS. AFTER INSTALLATION OF WINDOWS, APPLY SELF-ADHESIVE 'BLUESKIN' PER MANUFACTURER'S INSTRUCTIONS.

- ADHERED STONE VENEER: **USE PRESSURE-TREATED SHEATHING BEHIND ADHERED STONE VENEER, TYP.** APPLY ADHERED STONE VENEER OVER UNDERLAYMENT PER MANUFACTURER'S RECOMMENDATION. **DO NOT BACKFILL OR POUR CONCRETE AGAINST STONE VENEER.**

IRC R703.5.
- WOOD SIDING: INSTALL OVER UNDERLAYMENT IN ACCORDANCE WITH **IRC R703.3.**

IRC R703.6.
- WOOD SHINGLES: INSTALL OVER UNDERLAYMENT IN ACCORDANCE WITH **IRC R703.5.**

IRC R703.10.
- FIBER CEMENT SIDING: INSTALL OVER UNDERLAYMENT IN ACCORDANCE WITH **IRC R703.10.**

IRC R703.4.
- FLASHING: INSTALL FLASHINGS IN ACCORDANCE WITH **IRC R703.4.** VERTICAL LEG OF FLASHING SHALL BE 4" MIN. 'KICK-OUT' FLASHING TO GUTTERS SHALL EXTEND 3" MIN. BEYOND WALL.

DECKS & EXTERIOR STAIRWAYS:

IRC R317. WOODEN STRUCTURAL SUPPORTS AND MEMBERS THAT ARE EXPOSED TO WEATHER WITHOUT PROTECTION FROM A ROOF, EAVE, OVERHANG OR OTHER COVERING THAT WOULD PREVENT MOISTURE OR WATER ACCUMULATION ON THE MEMBER SURFACE SHALL BE PRESSURE TREATED OR CEDAR LUMBER.

IRC 317.3. ALL METAL FRAMING CONNECTORS AND FASTENERS USED WITH PRESSURE TREATED LUMBER SHALL BE CERTIFIED FOR USE WITH THE TREATED MATERIAL.

VENTILATION (VIAQ) & LIGHTING:

COMPLY WITH **2021 WASHINGTON ENERGY CODE (WSEC)** USING ***PRESCRIPTIVE METHOD*** FOR GROUP R OCCUPANCIES UNLESS OTHERWISE DETECTED.

INSTALL WHOLE HOUSE VENTILATION SYSTEM IN ACCORDANCE WITH **THE CURRENT WSEC WORKSHEET PREPARED FOR THIS PROJECT.**

IN HABITABLE ROOMS NOT PROVIDED WITH AN OPENABLE EXTERIOR OPENING OF AT LEAST 4% OF THE FLOOR AREA, A MECHANICAL VENTILATION SYSTEM MUST BE PROVIDED THAT PROVIDES A MINIMUM OF .35 AIR CHANGES PER HOUR. **IRC R303.1.**

IRC R303.1. NATURAL LIGHTING IN ALL HABITABLE SPACES SHALL BE PROVIDED WITH AGGREGATE GLAZING AREA OF NOT LESS THAN 8% OF THE FLOOR AREA OF EACH SPACE.

IRC M1505.4.4. LAUNDRY, BATH AND UTILITY ROOM FANS TO BE 50 CFM MIN. AND KITCHEN, RANGE/OVEN FANS TO BE 100 CFM MINIMUM. ALL VENTILATION DUCTS SHALL VENT TO THE OUTSIDE OF THE BUILDING AND TERMINATE A MINIMUM OF 3 FEET FROM ANY OPENINGS IN THE BUILDING. INSTALL BACK DRAFT DAMPERS IN SYSTEMS DESIGNED TO OPERATE INTERMITTENTLY. ALL DUCTWORK SHALL HAVE A SMOOTH NONCOMBUSTIBLE, NONABSORBENT SURFACE. EXHAUST DUCTS IN UNCONDITIONED SPACES & SUPPLY DUCTS IN CONDITIONED SPACES SHALL BE INSULATED TO R-4 MIN.

WSEC TABLE R402.4.1.1. PROVIDE TIGHT FITTING GLASS OR METAL DOORS ON SOLID FUEL BURNING APPLIANCES.

ENERGY:

METHOD OF COMPLIANCE - PRESCRIPTIVE METHOD FOR GROUP R OCCUPANCY, CLIMATE ZONE - MARINE 4, TABLE R402.1.1.

ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE **INTERNATIONAL RESIDENTIAL CODE (IRC)** AND THE **WASHINGTON STATE ENERGY CODE, LATEST EDITION.** VERIFY ALL CONDITIONS BEFORE PROCEEDING WITH WORK.

ALL INSULATION MATERIALS, INCLUDING FACING AND VAPOR BARRIERS, SHALL HAVE A FLAME SPREAD RATING NOT TO EXCEED 25 AND A SMOKE DENSITY RATING NOT TO EXCEED 450.

(R-21)
- WALLS: INSULATED PER TABLE R402.1.1. **(R-21)** IN NEW 2X6 EXTERIOR WALLS, R-13 IN 2X4 FURRED WALLS.

(R-49) (R-38)
- ROOF & CEILING: INSULATED PER TABLE R402.1.1. PROVIDE INSULATION IN ROOF AND CEILING: ABOVE CEILING **(R-49)** WHERE POSSIBLE AND IN 2X12 RAFTERS **(R-38)** IF VAULTED CEILING CONDITION EXISTS. MAINTAIN A MINIMUM OF 2" CLEAR BETWEEN TOP OF INSULATION AND BOTTOM OF SHEATHING FOR VENTING. VENTING MUST OCCUR IN EACH JOIST SPACE. WHERE CONTINUOUS VENTING WITHIN A JOIST SPACE IS INTERRUPTED BY A HEADER (I.E., SKYLIGHT OR AT HIP END), PROVIDE (2) 1½" VENTING HOLES AT THE TOP OF THE RAFTER AT THE HEADER TO ALLOW FOR CONTINUAL THROUGH-VENTING INTO THE NEXT JOIST SPACE. PROVIDE INSULATION BAFFLES EAVE VENTS AT CEILINGS/ATTICS TO MAINTAIN 2" MIN. OF VENTILATION ABOVE INSULATION. EXTEND BAFFLES 6" VERTICALLY ABOVE BATT INSULATION AND 12" VERTICALLY ABOVE LOOSE-FILL INSULATION. WEATHERSTRIP AND INSULATE ATTIC ACCESS DOORS AND PANELS TO THE R-VALUE OF THE SURROUNDING SURFACES.

R402.1.1. (R-30)
- FLOORS: INSULATE PER TABLE R402.1.1. PROVIDE INSULATION IN ROOF AND CEILING: ABOVE CEILING **(R-49)** WHERE POSSIBLE AND IN 2X12 RAFTERS **(R-38)** IF VAULTED CEILING CONDITION EXISTS. MAINTAIN A MINIMUM OF 2" CLEAR BETWEEN TOP OF INSULATION AND BOTTOM OF SHEATHING FOR VENTING. VENTING MUST OCCUR IN EACH JOIST SPACE. WHERE CONTINUOUS VENTING WITHIN A JOIST SPACE IS INTERRUPTED BY A HEADER (I.E., SKYLIGHT OR AT HIP END), PROVIDE (2) 1½" VENTING HOLES AT THE TOP OF THE RAFTER AT THE HEADER TO ALLOW FOR CONTINUAL THROUGH-VENTING INTO THE NEXT JOIST SPACE. PROVIDE INSULATION BAFFLES EAVE VENTS AT CEILINGS/ATTICS TO MAINTAIN 2" MIN. OF VENTILATION ABOVE INSULATION. EXTEND BAFFLES 6" VERTICALLY ABOVE BATT INSULATION AND 12" VERTICALLY ABOVE LOOSE-FILL INSULATION. WEATHERSTRIP AND INSULATE ATTIC ACCESS DOORS AND PANELS TO THE R-VALUE OF THE SURROUNDING SURFACES.

R402.1.1. (R-10). WSEC 402.2.9 (OR 402.2.9.1 FOR HEATED FLOORS).
- SLAB ON GRADE: INSULATE PER TABLE R402.1.1. PROVIDE EXTRUDED RIGID CLOSED CELL INSULATION **(R-10).** INSULATION MAY BE INSTALLED ON EITHER THE OUTSIDE FACE OR THE INSIDE FACE OF THE FOUNDATION WALL IN ACCORDANCE WITH **WSEC 402.2.9 (OR 402.2.9.1 FOR HEATED FLOORS).**

IRC R702.7 & R703.
- VAPOR BARRIERS: VAPOR RETARDERS SHALL BE INSTALLED ON THE WARM SIDE (IN WINTER) OF INSULATION. FLOORS SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL HAVE MIN. 4 MIL POLYETHYLENE OR KRAFT FACED MATERIAL. ROOF/CEILING ASSEMBLIES WHERE THE VENTILATION SPACE ABOVE THE INSULATION IS LESS THAN AN AVERAGE OF 12 INCHES SHALL BE PROVIDED WITH A VAPOR RETARDER. WALLS SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL HAVE A VAPOR RETARDER INSTALLED. FACED BATT INSULATION SHALL BE FACE STAPLED. A GROUND COVER OF MIN. 6 MIL BLACK POLYETHYLENE SHALL BE LAID OVER THE GROUND WITHIN CRAWL SPACES W/ JOINTS LAPPED MIN. 12".

IRC R702.7 & R703.
- CAULKING & SEALANTS: EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES; OPENINGS BETWEEN WALLS AND FOUNDATION; OPENINGS BETWEEN ROOF AND WALL PANELS, OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH WALLS, FLOORS & ROOFS; AND ALL OTHER OPENINGS IN THE EXTERIOR BUILDING ENVELOPE SHALL BE SEALED, CAULKED, GASKETED OR WEATHERSTRIPPED.

WSEC R303.
- WINDOWS AND DOORS: **ALL VERTICAL FENESTRATIONS SHALL HAVE A MAXIMUM U-FACTOR OF .30. OVERHEAD GLAZING SHALL HAVE A MAXIMUM U-FACTOR OF .50.** GLAZING AND DOOR U-FACTORS SHALL BE DETERMINED AND DISPLAYED IN ACCORDANCE WITH **WSEC R303.**

IRC N1103.2 & M1601.3.
- DUCTWORK: INSULATE HEATING DUCTS IN UNCONDITIONED SPACES TO R-8 MINIMUM. DUCTWORK SEAMS & JOINTS SHALL BE TAPED, SEALED, AND FASTENED WITH A MINIMUM NUMBER OF FASTENERS.

IRC P2603.
- PIPING: INSULATE NON-CIRCULATING HOT AND COLD WATER PIPES IN UNCONDITIONED SPACES TO R-3 MINIMUM.

WAC 51-56 SECTION 402.
- WATER FLOW: FLOW RATES FRO PLUMBING FIXTURES SHALL COMPLY WITH **WAC 51-56 SECTION 402.**: TOILETS @ 1.6 GALLONS PER FLUSH MAXIMUM; SHOWERS, TUBS AND LAVATORIES @ 2.5 GPM, MAXIMUM.

DRIFT
INTERIOR ARCHITECTURE

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13073 REGISTERED ARCHITECT JENNIFER TAMBLIN STATE OF WASHINGTON

Registered Architect in WA State

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XIAO ZHOU HOUSE ADDITION

BUILDER NAME | BUILDER CONTACT | BUILDER ADDRESS

CLIENT NAME: Xiao Zhou

PROJECT ADDRESS: 4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY:

SHEET NAME: INTERNATIONAL RESIDENTIAL CODE

SHEET NO.: G003

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

FILE PATH: Z:\Shared\RESIDENTIAL\Xiao Zhou\Xiao Zhou\03 Revit\01 Work\D-IA-Xiao Zhou-PD-R0-V25.rvt

PLOT DATE: 25-02-2026 01:17:43

ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS

ENERGY NOTES

1. ALL SLEEPING ROOMS AND EACH FLOOR SHALL BE PROVIDED WITH HEAT AND WALL-MOUNTED THERMOSTATIC CONTROLS. HEATED SPACE SHALL MAINTAIN A TEMPERATURE OF 70 DEGRESS FAHRENHEIT AT 3' ABOVE THE FLOOR IN ALL HABITABLE ROOMS.

2. ALL CRACKS SHALL BE CAULKED TO PREVENT AIR INFILTRATION FROM EXTERIOR CLIMATE AND INTER-UNIT AIR EXCHANGE.

3. EACH OCCUPIABLE SPACE SHALL HAVE A MINIMUM OF ONE INLET THAT HAS A MINIMUM OF 4 SQ. INCHES OF NET FREE AREA PER SMC 403.8.6.1 .

4. A MINIMUM OF 90% OF PERMANENTLY INSTALLED LAMPS IN LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS PER SEC R404.1.

WINDOW & DOOR HEADER INSULATION

PER TABLE R402.1.1. PROVIDE MINIMUM OF R-10 INSULATION AT ALL WINDOW AND DOOR HEADERS

VENTILATION REQUIREMENTS

MINIMUM FAN CFM - M1505.4.4

KITCHEN	100 CFM INTERMITTENT
BATHROOM	50 CFM INTERMITTENT
TOILET	50 CFM INTERMITTENT

1. NEW CONSTRUCTION TO CONFROM TO THE REQUIREMENTS OF 2021 SRC & 2021 SEC.

2. EXHAUST DUCTS TO TERMINATE OUTSIDE THE BUILDING WITH BACKDRAFT DAMPERS. VENT DUCTS SHOWN THROUGH CEILING OR SOFFIT.

3. ALL FANS TO BE SWITCHED INTERMITTENTLY.

4. ENVIRONMENTAL AIR EXHAUST VENTS ON BUILDING EXTERIOR TO COMPLY WITH SMC 501.3.1 #3 CLEARANCE. SEE EXTERIOR ELEVATIONS WITH IDENTIFIED CLEARANCES.

WHOLE HOUSE FAN

1. M1505.4.3 REQUIRES 60 CFM CONTINUOUS AIRFLOW RATE FOR A 3 BEDROOM HOME OF 2,501-3,000SF. THIS FAN SHALL BE CONNECTED TO A TIMER SET TO RUN THE FAN AT A FACTOR OF 50% OF EACH DAY IN 4-HOUR INCREMENTS THERFORE REQUIRING A FAN OF 120 CFM.

2. WHOLE-HOUSE FANS NOT TO EXCEED MAXIMUM SONE RATING OF 1.0.

PRESCRIPTIVE COMPLIANCE

Docusign Envelope ID: 9560A78C-61FD-49A2-AEB6-962A10928FFA

WASHINGTON STATE UNIVERSITY
Energy Program

Permit#	
Address or Lot & Block	
4433 86th Ave SE	
City	Mercer Island, WA
Zip	98040

These requirements apply to all the IRC building types, including detached one- and two-family dwellings and multiple single-family dwellings (townhouses).

Instructions: This single-family project uses the requirements of the Prescriptive Path below to incorporate the minimum values listed. Based on the conditioned floor area of the structure, the number of required additional credits must be selected by the permit applicant.

Provide all information from the following tables in building permit drawings: Table R402.1.2 - Insulation and Fenestration Requirements by Component, Table R406.2 - Fuel Normalization Credits and R406.3 Energy Credits.

Authorized Representative Signature	Docusigned by: Jennifer Tamblin	*Date*	5/5/2025

	All Climate Zones Table 402.1.3	and Table R402.1.2
	R-Value [a]	U-Factor [a]
Fenestration U-Factor [b,j]	n/a	0.30
Skylight U-Factor [b]	n/a	0.50
Ceiling [e]	60	0.024
Above-Grade Wall U-Factor [e,j]	20+5 or 13+10	0.056
Floor U-Factor	30	0.029
Below Grade Wall U-Factor [c,h]	10/15/21 int + 5TB	0.035
Slab [d,j] On Grade F-Factor	10, 4 ft	0.54
a	R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix Table A101.4 shall not be less than the R-value specified in the table	
b	The fenestration *U*-factor column excludes skylights.	
c	"10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.	
d	R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.	
e	For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.	
f	R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.	
g	For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400.	
h	Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78 percent of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.	
i	The first value is cavity insulation, the second value is continuous insulation. Therefore, as an example, "R13+10" means R-13 cavity insulation plus R-10 continuous insulation	
j	A maximum U-factor of 0.32 shall apply to vertical fenestration products installed in buildings located above 4000 feet in elevation above sea level, or in windborne debris regions where protection of openings is required under Section R301.2.1.2 of the International Residential Code.	

Each dwelling unit ***in a residential building*** shall comply with sufficient options from Table R406.2 (Energy Equalization credits) and Table 406.3 (energy credits) to achieve the minimum number of credits from the list below. To claim credits, the building permit drawings shall specify the option selected and the maximum tested building air leakage, and show the qualifying ventilation system and its control sequence of operation.

1. Small Dwelling Unit: ..... **5.0 credits**
   Dwelling units less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building greater than 500 square feet of heated floor area but less than 1500 square feet.
2. Medium Dwelling Unit: ..... **8.0 credits**
   All dwelling units that are not included in #1, #3 or #4.
3. Large Dwelling Unit: ..... **9.0 credits**
   Dwelling units exceeding 5000 square feet of conditioned floor area.
4. Dwelling units serving Group R-2 occupancies: ..... **6.5 credits**
   Section R401.1 and Residential Building Section R202 for Group R-2.
5. Additions 150 square feet to 500 square feet: ..... **2.0 credits**

The drawings included with the building permit application shall identify which options have been selected and the point value of each option, regardless of whether separate mechanical, plumbing, electrical, or other permits are utilized for the project

Before selecting your credits on this Summary table, review the option descriptions in Table R406.3 (Single Family).

Table R406.2 ENERGY EQUALIZATION CREDITS

System Type	Description of Primary Heating Source	Credits - select ONE system type	
1	For combustion heating equipment meeting minimum federal efficiency standards for the equipment listed in Table C403.3.2(5) or C403.3.2(6)	0	☐
2	For an initial heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) and supplemental heating provided by electric resistance or a combustion furnace meeting minimum standards listed in Table C403.3.2(5)b found in the 2021 WSEC- COMMERCIAL ENERGY CODE	1.5	☒
3	For heating system based on electric resistance only (either forced air or Zonal)	0.5	☐
4[c]	For heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or C403.3.2(9) or Air to water heat pump units that are configured to provide both heating and cooling and are rated in accordance with AHRI 550/590	3.0	☐
5	For heating system based on electric resistance with: 1. Inverter-driven ductless mini-split heat pump system installed in the largest zone in the dwelling, or 2. With 2kW or less total installed heating capacity per dwelling	2.0	☐

a. See Section R401.1 and residential building in Section R202 for Group R-2 scope.
b. The gas back-up furnace will operate as fan-only when the heat pump is operating. The heat pump shall operate at all temperatures above 38°F (3.3°C) (or lower). Below that "changeover" temperature, the heat pump would not operate to provide space heating. The gas furnace provides heating below 38°F (3.3°C) (or lower).
c. Additional points for the HVAC system are included in Table R406.3.

Summary of Table R406.3

Options	*Energy Credit Option Descriptions*	*Credits – limited to one energy option from each category [f]*		*Comments:*
1.1	Efficient Building Envelope	0.5	☐	
1.2	Efficient Building Envelope	1.0	☐	
1.3	Efficient Building Envelope	1.5	☒	
1.4	Efficient Building Envelope ☐	2.5	☐	
2.1	Air Leakage Control and Efficient Ventilation	1.0	☐	
2.2	Air Leakage Control and Efficient Ventilation	1.5	☐	
2.3	Air Leakage Control and Efficient Ventilation ☒	2.0	☐	
3.1[a]	High Efficiency HVAC	1.0	☐	
3.2[a]	High Efficiency HVAC	0.5	☒	
3.3[a,c,d]	High Efficiency HVAC	0.5	☐	
3.4[a,d]	High Efficiency HVAC	1.5	☐	
3.5[d]	High Efficiency HVAC	1.5	☐	
3.6[a]	High Efficiency HVAC	1.0	☐	
3.7[a,d,e]	High Efficiency HVAC	2.0	☐	
3.8[a,d]	High Efficiency HVAC	1.0	☐	
3.9	High Efficiency HVAC	1.5	☐	
3.10[f]	High Efficiency HVAC ☐	2.5	☐	
3.11[c]	High Efficiency HVAC	0.5	☐	
4.1	High Efficiency HVAC Distribution System	0.5	☐	
5.1	Efficient Water Heating	0.5	☐	
5.2	Efficient Water Heating	0.5	☐	
5.3	Efficient Water Heating	0.5	☐	
5.4	Efficient Water Heating	1.0	☐	
5.5	Efficient Water Heating	1.5	☒	
5.6	Efficient Water Heating	2.0	☐	
5.7	Efficient Water Heating	2.5	☐	
5.8	Efficient Water Heating ☐	2.5	☐	
6.1	Renewable Electric Energy (4.5 credits max)	0.5-4.5	0.0	
7.1	Appliance Package	0.5	☐	
	Total Credits	5.0	Calculate Total	

a. An alternative heating source sized at a maximum of 0.5 Watts/ft2 (equivalent) of heated floor area or 500 Watts, whichever is bigger, may be installed in the dwelling unit.
b. See Section R401.1 and residential building in Section R202 for Group R-2 scope.
c. Option 3.11 can only be taken with Options 3.1 and 3.3. To qualify to claim Option 3.11 with 3.3, the system shall be a 1-2 speed heat pump system. Variable capacity heat pumps are ineligible from claiming this option.
d. This option may only be claimed if serving System Type 4 from Table R406.2.
e. Primary living areas include living, dining, kitchen, family rooms, and similar areas.
f. Option 3.10 may only be taken with Efficient Water Heating Options 5.1 or 5.2. Equipment sizing for space heating shall be calculated as provided in Section R403.7 with increased capacity to provide a minimum of 75 percent of peak hot water demand or shall be sized in accordance with approved manufacturer's specifications or guidance. Supplementary heat for water heating system shall be in accordance with Section R403.5.7.

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XIAO ZHOU HOUSE ADDITION

BUILDER NAME
BUILDER CONTACT
BUILDER ADDRESS

CLIENT NAME: Xiao Zhou

PROJECT ADDRESS: 4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY:

SHEET NAME: ENERGY CODE COMPLIANCE

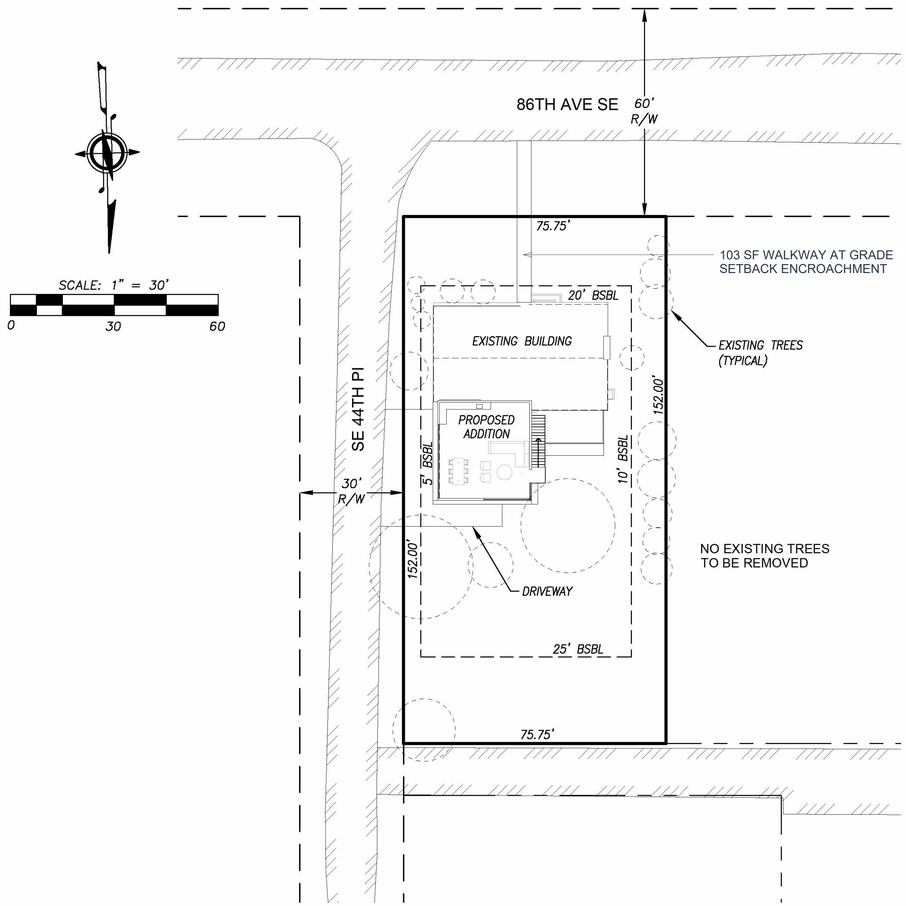
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TAX ACCOUNT NO.(S):
759810-0733

SITE ADDRESS:
4433 86TH AVENUE SE
MERCER ISLAND, WA 98040

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* 1000 CEDAR AVENUE * SUITE 100 * MARYSVILLE * WA * 98270 *
VISIT OUR WEBSITE AT: WWW.WESI.CO

EXHIBIT MAP FOR:
XIAO ZHOU HOUSE ADD.
SW 1/4, SEC.18, T.24N, R.05E, W.M.
MERCER ISLAND, WASHINGTON

DRAWN BY	DATE	REV. BY	DATE	PROJECT MANAGER	SCALE
TAS	09/08/25			T. SARKELA	1"=30'

DRAWING FILE NAME	CHECKED BY	F.B. NO.	JOB NUMBER	SHEET NO.
25000AH.DWG	TAS	–	25000AH	1 OF 1

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BUILDER NAME
BUILDER CONTACT
BUILDER ADDRESS

CLIENT NAME: Xiao Zhou

PROJECT ADDRESS: 4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

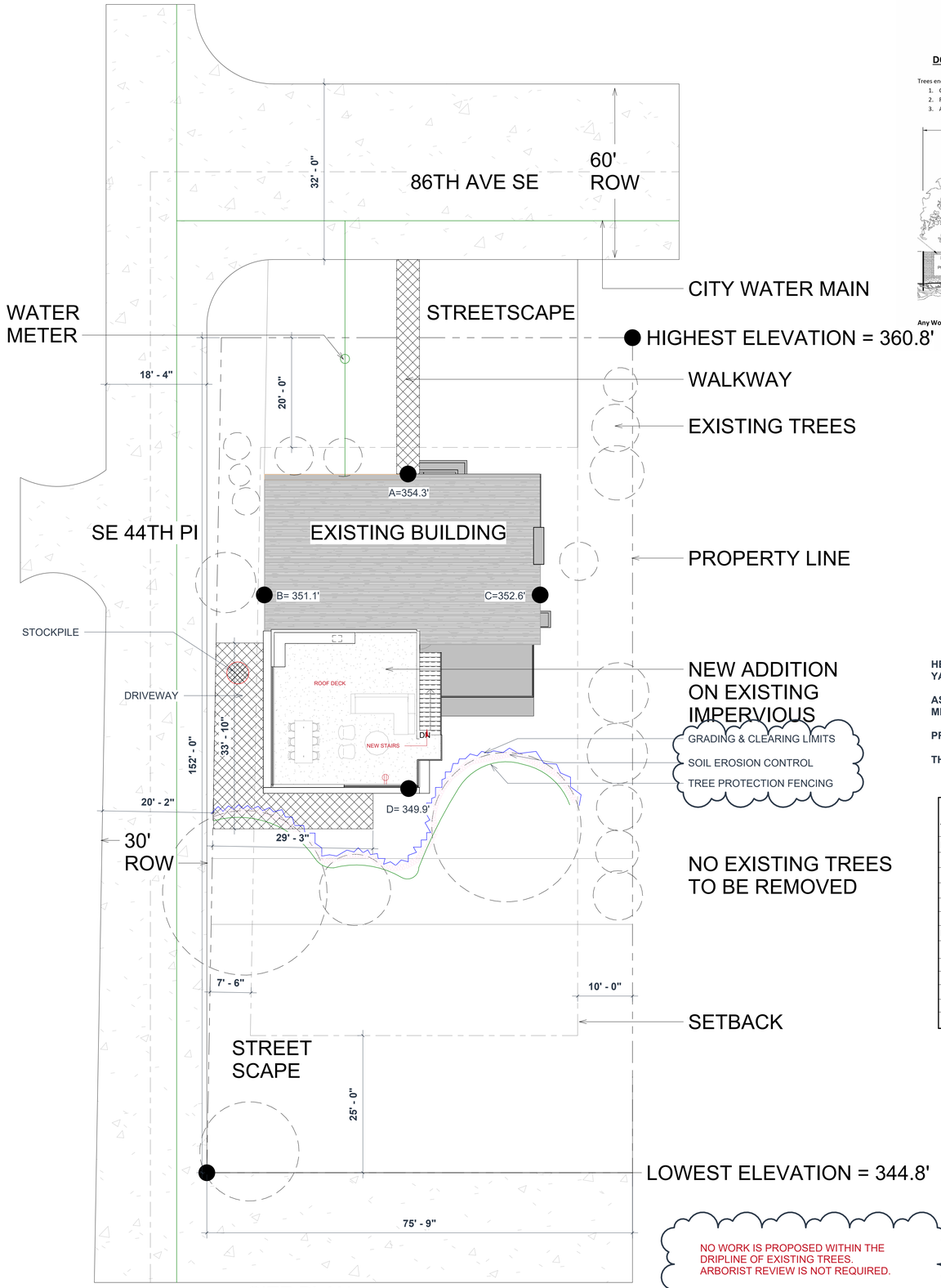
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SHEET NO.: Z000
Scale

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NO WORK IS PROPOSED WITHIN THE DRIPLINE OF EXISTING TREES. ARBORIST REVIEW IS NOT REQUIRED.

1 SITE PLAN
3/32" = 1'-0"

TREE PROTECTION AREA (TPZ)

KEEP OUT!

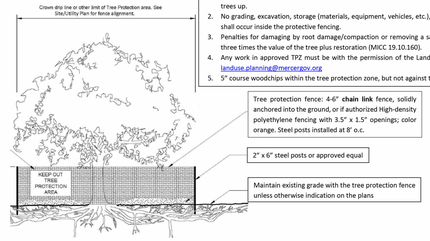
DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

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 Land Use and Planning Division at landuse.planning@mercergov.org
5. 5" course woodchips within the tree protection zone, but not against the tree trunk.



Any Work in the protected area must be with the permission of the Land Use and Planning Division at landuse.planning@mercergov.org

HEIGHT FROM FINISHED GRADE TO TOP OF EXTERIOR WALL ADJOINING SIDE YARD: 20 FEET.

AS THE HEIGHT EXCEEDS 15 FEET BUT DOES NOT EXCEED 25 FEET, THE MINIMUM REQUIRED SIDE YARD DEPTH IS 7'-6".

PROVIDED SIDE YARD SETBACK: 7'-6".

THE PROPOSED STRUCTURE COMPLIES WITH MICC 19.02.020(C)(1)(C)(III).

AREA CALCULATIONS

EXISTING	
EXISTING BASEMENT	1200 SF
EXISITING MAIN	1200 SF
EXISTING DECK	150 SF
EXISITNG DRIVEWAY	1150 SF
PROPOSED [REPLACED IMPERVIOUS]	
BASEMENT NEW	770 SF
MAIN NEW	770 SF
ROOF DECK	770 SF
DEMO EXISTING DRIVEWAY	-770 SF
LOT AREA	11250 SF

LOT COVERAGE CALCULATIONS

EXISTING	
EXISTING BUILDING FOOTPRINT	1200 SF
EXISTING COVERED DECK	150 SF
EXISTING DRIVEWAY	770 SF
PROPOSED [REPLACED IMPERVIOUS]	
NEW BUILDING FOOTPRINT [ON TOP OF EX.DRIVEWAY]	770 SF
DEMO OF EXISTING DRIVEWAY	-770 SF
TOTAL LOT COVER	2120 SF
LOT AREA	11250 SF
LOT COVERAGE	19% < 40% [COMPLIES]...

ADDRESS: DI
PARCEL: 759810-0733
LOT AREA: 11250 SF
LEGAL: SCHMIDS VITUS E SEATTLE ACRE TRS E 150 FT OF S 60 FT OF 3 & E 150 FT OF N 15 FT OF 4
PLAT BLOCK: 16
PLAT LOT: 3-4
ZONING: R-9.6
PRESENT USE: SINGLE FAMILY

PROPOSED BUILDING ADDITION:
NEW ADDITION IS ON EXISTING IMPERVIOUS DRIVEWAY

MAIN FLOOR	TOTAL: 770 SF
TOTAL CONDITIONED	**770 SF**
BASEMENT FLOOR	TOTAL: 770 SF
PROPOSED ROOF DECK	770 SF
TOTAL UN-CONDITIONED	**1540 SF**

EXISTING BUILDING AREAS:

BASEMENT FLOOR	TOTAL: 900 SF
MAIN FLOOR	TOTAL: 1200 SF
TOTAL CONDITIONED	**2100 SF**
GARAGE	300 SF
TOTAL UN-CONDITIONED	**300 SF**
OUTDOOR DECK	TOTAL: 150 SF

IMPERVIOUS SURFACES:
NO CHANGE TO THE EXISTING

LOT SCOPE CALCULATIONS:

HIGHEST ELEVATION POINT OF LOT: 360.8'
LOWEST ELEVATION POINT OF LOT: 344.8'
ELEVATION DIFFERENCE: 16'
HORIZONTAL DISTANCE BETWEEN HIGH AND LOW POINTS: 152'
LOT SLOPE: 10.5%

MAXIMUM LOT COVERAGE: 40%
REQUIRED LANDSCAPE AREA: 60%

HARDSCAPE CALCULATION
LOT AREA: 11,250 SF
BUILDING COVERAGE: 2,452 SF
DRIVEWAY / ACCESS: 380 SF
TOTAL HARDSCAPE: 2,832 SF
HARDSCAPE PERCENTAGE: 25.17%

BASEMENT GFA EXCLUSION CALCULATION
TOTAL BASEMENT AREA: 1,670 SF
EXCLUDED BASEMENT AREA (BELOW GRADE): 1,670 SF
BASEMENT AREA COUNTED TOWARD GFA: 0 SF

NOTE: BECAUSE THE ENTIRE BASEMENT SITS AT OR BELOW A 7-FT BELOW-GRADE CONDITION AT ITS PERIMETER WALLS, THE FULL 1,670 SF QUALIFIES FOR EXCLUSION.

GROSS FLOOR AREA (GFA) SUMMARY
EXISTING MAIN FLOOR: 1,200 SF
PROPOSED MAIN FLOOR: 770 SF
BASEMENT AREA COUNTED TOWARD GFA: 0 SF
TOTAL GFA USED FOR COMPLIANCE: 1,970 SF

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XIAO ZHOU HOUSE ADDITION

BUILDER NAME
BUILDER CONTACT
BUILDER ADDRESS

CLIENT NAME: Xiao Zhou
PROJECT ADDRESS: 4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION
1	Date 1	Revision 1

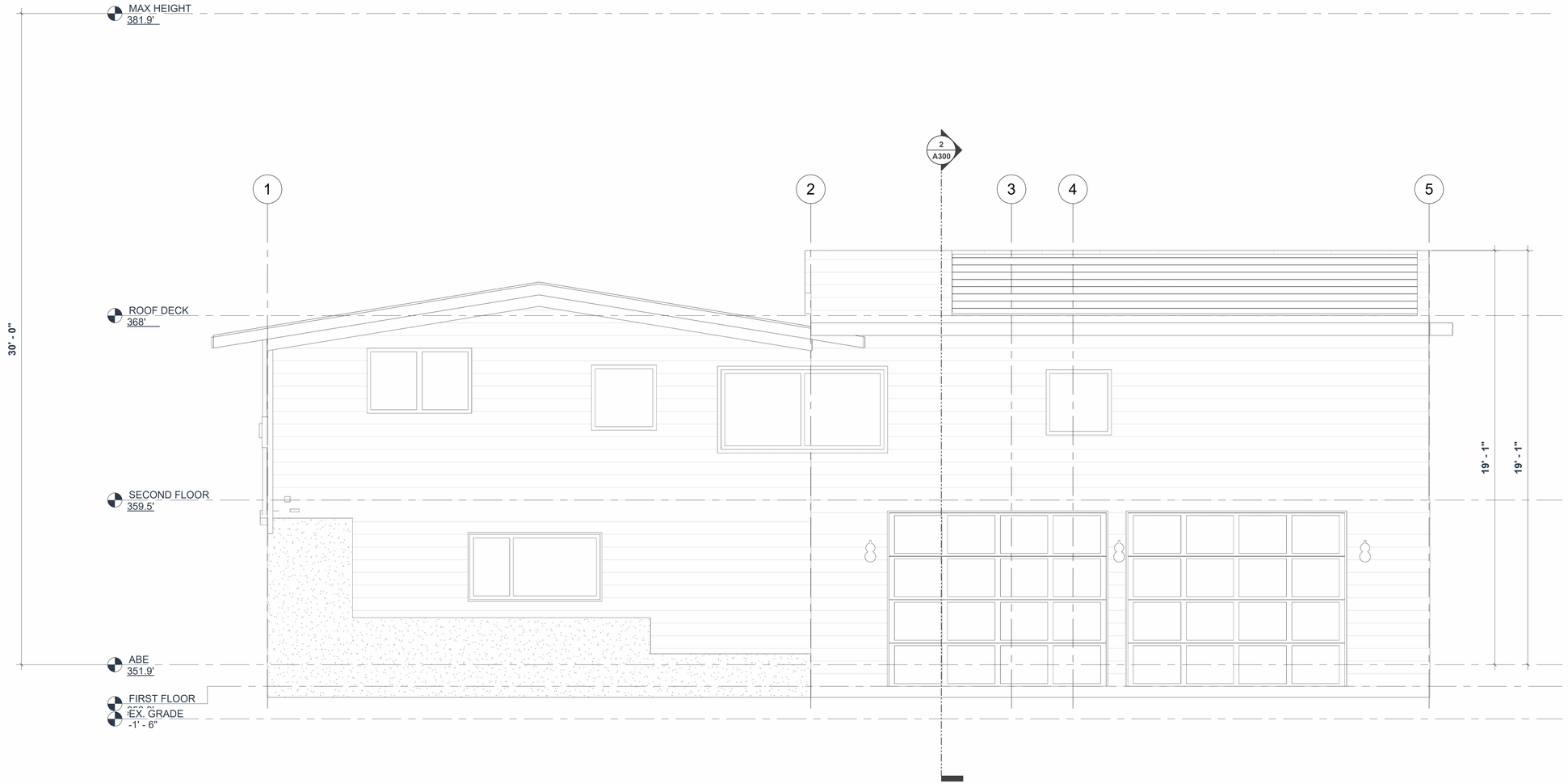
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BUILDING HEIGHT CALCULATION

	AREA (SF)
AVERAGE BASE GRADE	(354.3 + 351.1 + 352.6 + 349.9) / 4
AVERAGE BASE GRADE	351.9'
MAX. ALLOWED BUILDING HEIGHT	351.9' + 30' = 381.9'
PROPOSED BUILDING HEIGHT	372' 1"
BUILDING HEIGHT	OK



1 AVERAGE BUILDING ELEVATION
3/8" = 1'-0"

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PROJECT ADDRESS
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REVISION LOG

REV #	DATE	DESCRIPTION

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DPS PERMIT NUMBER:

BNA Project number: XXXXXX

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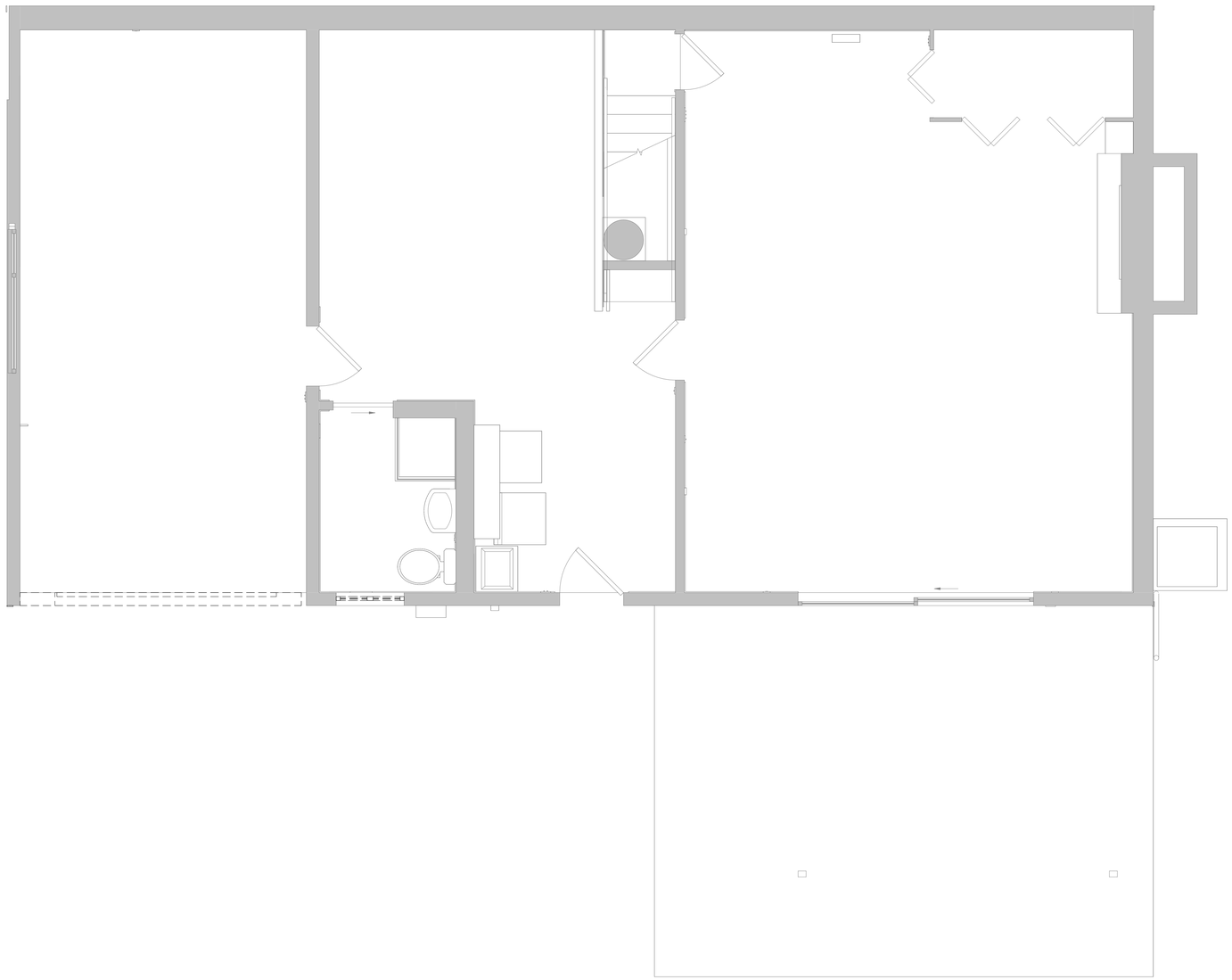
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1 DEMO BASEMENT
3/8" = 1'-0"

DEMOLITION GENERAL NOTES

A. EXISTING EXTERIOR AND FOUNDATION WALLS AND CONCRETE FOOTINGS TO REMAIN. EXISTING BASEMENT SLAB, TO REMAIN.

B. REMOVE FROM SITE AND LEGALLY DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION AND CONSTRUCTION OPERATIONS.

C. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY EXISTING UTILITIES NOT INDICATED ON DEMO/CONSTRUCTION PLANS THAT MAY INTERFERE WITH THE COMPLETION OF PROPOSED WORK.

TO BE REMOVED

EXISTING TO REMAIN

DEMOLITION KEYNOTES

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PROJECT ADDRESS
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DPS PERMIT NUMBER:

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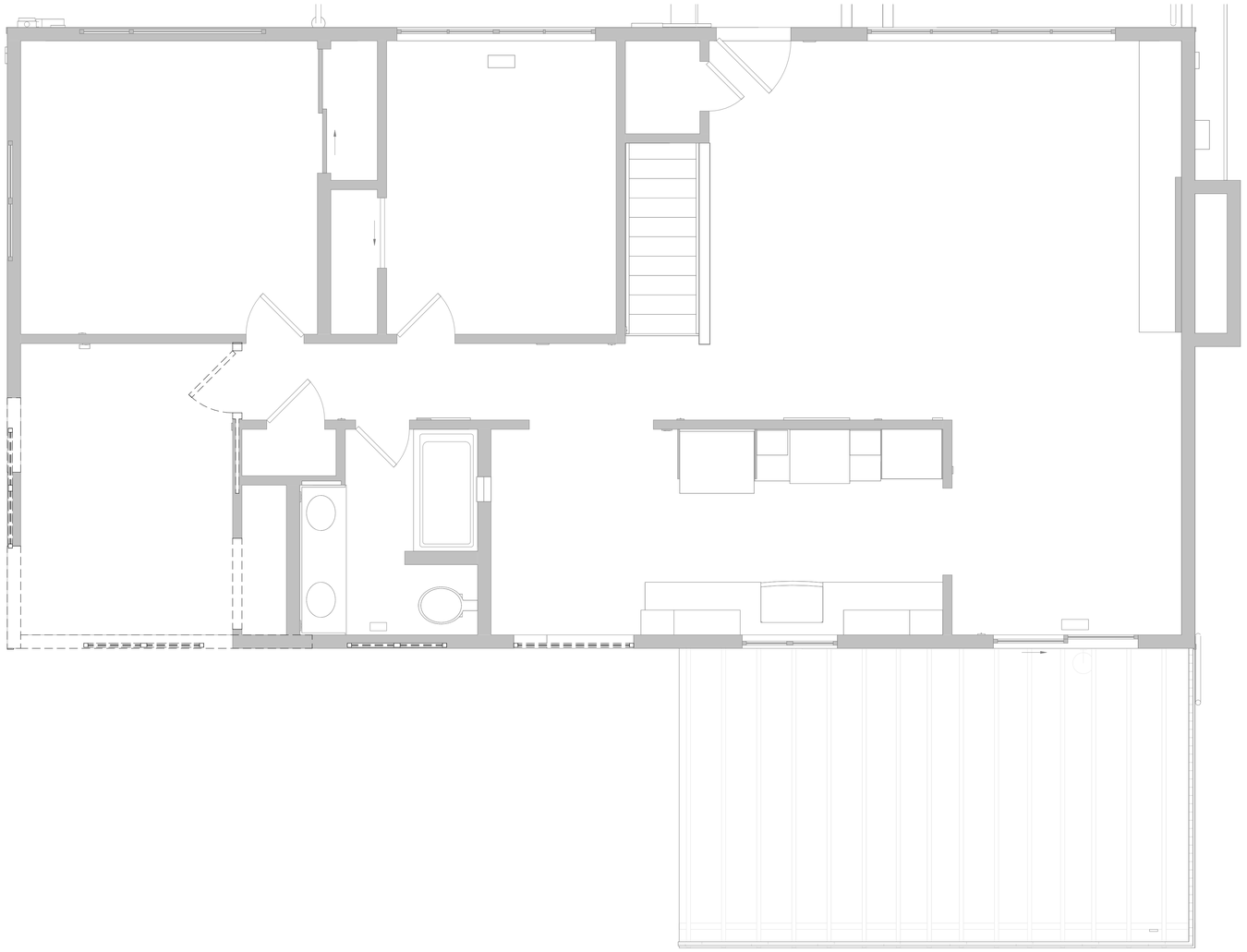
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1 DEMO MAIN LEVEL
3/8" = 1'-0"

DEMOLITION GENERAL NOTES

A. EXISTING EXTERIOR AND FOUNDATION WALLS AND CONCRETE FOOTINGS TO REMAIN. EXISTING BASEMENT SLAB, TO REMAIN.

B. REMOVE FROM SITE AND LEGALLY DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION AND CONSTRUCTION OPERATIONS.

C. CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY EXISTING UTILITIES NOT INDICATED ON DEMO/CONSTRUCTION PLANS THAT MAY INTERFERE WITH THE COMPLETION OF PROPOSED WORK.

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DPS PERMIT NUMBER:

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ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS



1 EXISTING ROOF
3/8" = 1'-0"

DEMOLITION GENERAL NOTES

A. EXISTING EXTERIOR AND FOUNDATION WALLS AND CONCRETE FOOTINGS TO REMAIN. EXISTING BASEMENT SLAB, TO REMAIN.

B. REMOVE FROM SITE AND LEGALLY DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM DEMOLITION AND CONSTRUCTION OPERATIONS.

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TO BE REMOVED

EXISTING TO REMAIN

DEMOLITION KEYNOTES

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REV #	DATE	DESCRIPTION

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DPS PERMIT NUMBER:

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SHEET NAME
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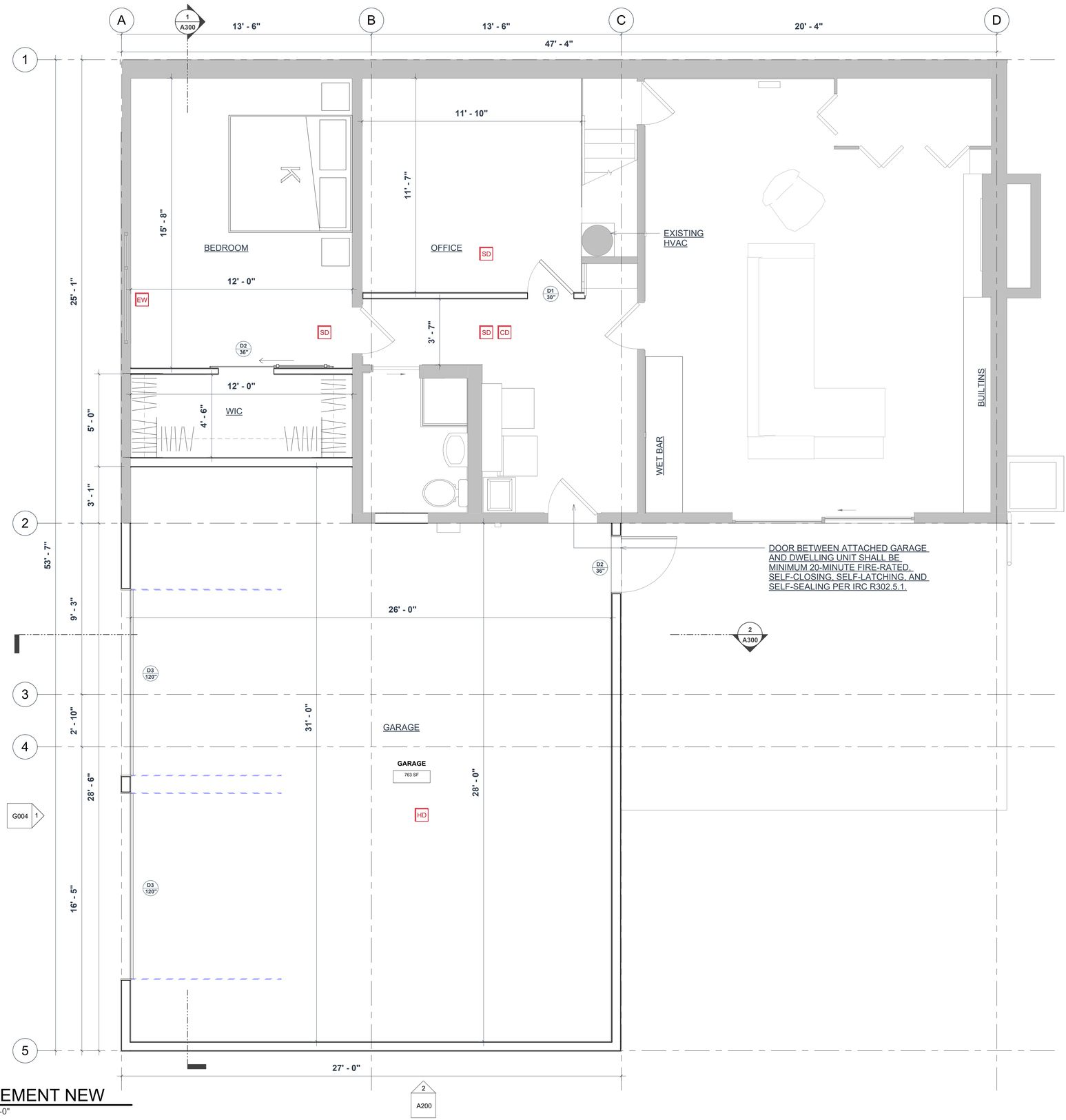
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1 BASEMENT NEW
3/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. ALL DIMENSIONS ARE FROM FACE OF STUD OF NEW WALLS AND FINISHED SURFACE OF EXISTING WALLS UNLESS OTHERWISE NOTED.
2. TYPICAL INTERIOR PARTITION IS 2x4 STUD @ 16" O.C. WITH ONE LAYER OF 1/2" GYP BOARD ON EACH SIDE, EXCEPT WHERE NOTED ON PLANS. USE 2x6 STUDS AT PLUMBING WALLS.
3. 50 CFM EXHAUST FAN AT ALL NEW BATHROOMS
4. CONTRACTOR WILL APPLY FOR PLUMBING, MECHANICAL, ELECTRICAL PERMITS SEPARATLY.
5. WHOLE HOUSE FAN SHALL BE LOCATED/ASSOCIATED WITH THE MAIN FLOOR LAUNDRY FAN (CONTRACTOR TO VERIFY). THIS FAN TO BE EQUIPPED WITH CONTROLS CAPABLE OF MANUAL AND AUTOMATIC OPERTION, SUCH AS A CLOCK TIMER AND SHALL BE DESIGNED TO RUN CONTINUOUSLY PER SRC M1507.3.3
   3.1 IN NEW MASTER BATH AND W.C ON MAIN FLOOR, INSTALL PANASONIC WHISPERQUIET FAN SIZED PER SPACE (75 CFM, 1.0 SONES OR BETTER) FANS SHALL TERMINATE HORIZONTALLY TO THE EXTERIOR OF THE HOUSE.
   3.2 NEW KITCHEN HOOD TO BE SELECTED- MIN 100 CFM, 1.5 SONES OR BETTER, FANS SHALL TERMINATE HORIZONTALLY OR VERTICALLY TO THE EXTERIOR OF THE HOUSE.
6. DOOR JAMBS SHALL BE 3 1/2" TYPICAL UNLESS OTHERWISE NOTES
7. CONTRACTOR TO VERIFY TO INSPECTOR PRIOR TO FINAL DEMO INSPECTION. LOCATION, AND CONFIRMATION OF NON-STRUCTURAL DEMOED WALLS.
8. ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WITH BATTERY BACK-UP. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN THOSE REQUIRED FOR OVERCURRENT PROTECTION. SMOKE ALARMS SHALL BE INTERCONNECTED AND COMPLY WITH HOUSEHOLD FIRE WARNING EQUIPMENT PROVISIONS OF NFPA 72. CONTRACTOR TO PULL FIRE ALARM PERMIT FOR APPROPRIATE FIRE ALARM SYSTEM INSTALLER.
9. KITCHEN EXHAUST FAN TO BE A MINIMUM OF 100 CFM
10. BATHROOM EXHAUST FAN TO BE A MINIMUM OF 50 CFM

INSULATION NOTES:

1. ABOVE GRADE WALL: R20+5 OR R13+10
R-20 CAVITY INSULATION PLUS R-5 CONTINUOUS INSULATION
R-13 CAVITY INSULATION PLUS R-10 CONTINUOUS INSULATION

2. BELOW GRADE WALL: 10/15/21 INT + 5TB
R-10 CONTINUOUS INSULATION ON THE EXTERIOR OF THE WALL, OR R-15 CONTINUOUS INSULATION ON THE INTERIOR OF THE WALL, OR R- 21 CAVITY INSULATION PLUS A THERMAL BREAK BETWEEN THE SLAB AND THE BASEMENT WALL AT THE INTERIOR OF THE BASEMENT WALL. "10/15/21 +5TB" SHALL BE PERMITTED TO BE MET WITH R-13 CAVITY INSULATION ON THE INTERIOR OF THE BASEMENT WALL PLUS R-5 CONTINUOUS INSULATION ON THE INTERIOR OR EXTERIOR OF THE WALL. "5TB" MEANS R-5 THERMAL BREAK BETWEEN FLOOR SLAB AND BASEMENT WALL.

NEW CONSTRUCTION

EXISTING TO REMAIN

FLOOR PLAN KEYNOTES

CD	CARBON MONOXIDE DETECTOR
EF	EXHAUST FAN
EW	EGRESS WINDOW
HD	HEAT DETECTOR
SD	SMOKE DETECTOR
WHF	WHOLE HOUSE FAN

ROOF DRAINAGE CALCULATION

PER 2021 UPC TABLE 1103.2

ROOF DECK AREA = 770 SF
DESIGN RAINFALL RATE = 3.0 INCHES PER HOUR

CONVERT RAINFALL TO GALLONS PER MINUTE:

FORMULA:
GPM = (ROOF AREA × RAINFALL RATE) / 96.23

GPM = (770 × 3.0) / 96.23
GPM = 2310 / 96.23
GPM = 24.0 GPM

REQUIRED FLOW CAPACITY = 24 GPM

PER UPC TABLE 1103.2:

A 3-INCH VERTICAL ROOF DRAIN EXCEEDS REQUIRED CAPACITY FOR 24 GPM.

PROVIDED:

PRIMARY ROOF DRAIN: 3-INCH DIAMETER
SECONDARY OVERFLOW: 3-INCH SCUPPER / OVERFLOW DRAIN

ROOF SLOPE: 1/4 INCH PER FOOT MINIMUM TOWARD PRIMARY DRAIN PER UPC 1101.12.

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HOUSE ADDITION

XIAO ZHOU HOUSE

BUILDER NAME
BUILDER CONTACT
BUILDER ADDRESS

CLIENT NAME
Xiao Zhou

PROJECT ADDRESS
4433 86th Ave SE Mercer Island, WA 98040

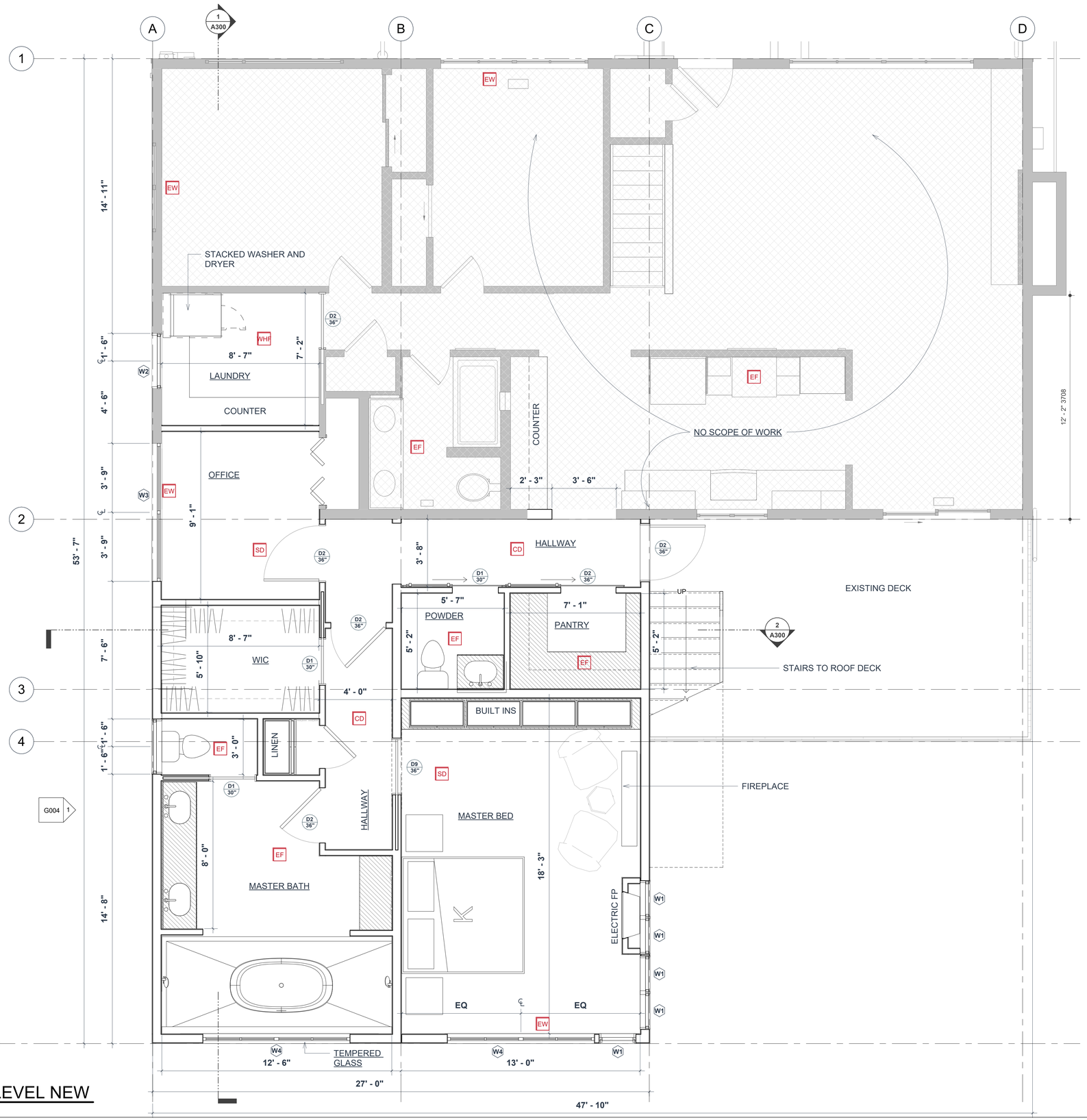
REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT
DPS PERMIT NUMBER:
BNA Project number: XXXXXX
DRAWN BY: Author
SHEET NAME: FLOOR PLAN
SHEET NO.: A100
Scale: As indicated

FILE PATH: Z:\Shared\RESIDENTIAL\Xiao Zhou\Xiao Zhou\03 Revit\01 Work\D-JA-Xiao Zhou-PD-R0-V25.rvt
PLOT DATE: 25-02-2026 01:17:52

ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS



1 MAIN LEVEL NEW
3/8" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. ALL DIMENSIONS ARE FROM FACE OF STUD OF NEW WALLS AND FINISHED SURFACE OF EXISTING WALLS UNLESS OTHERWISE NOTED.
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4. CONTRACTOR WILL APPLY FOR PLUMBING, MECHANICAL, ELECTRICAL PERMITS SEPARATLY.
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EXISTING TO REMAIN

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SECONDARY OVERFLOW: 3-INCH SCUPPER / OVERFLOW DRAIN

ROOF SLOPE: 1/4 INCH PER FOOT MINIMUM TOWARD PRIMARY DRAIN PER UPC 1101.12.

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XIAO ZHOU HOUSE ADDITION

BUILDER NAME

BUILDER CONTACT

BUILDER ADDRESS

CLIENT NAME
Xiao Zhou

PROJECT ADDRESS
4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY: Author

SHEET NAME
FLOOR PLAN

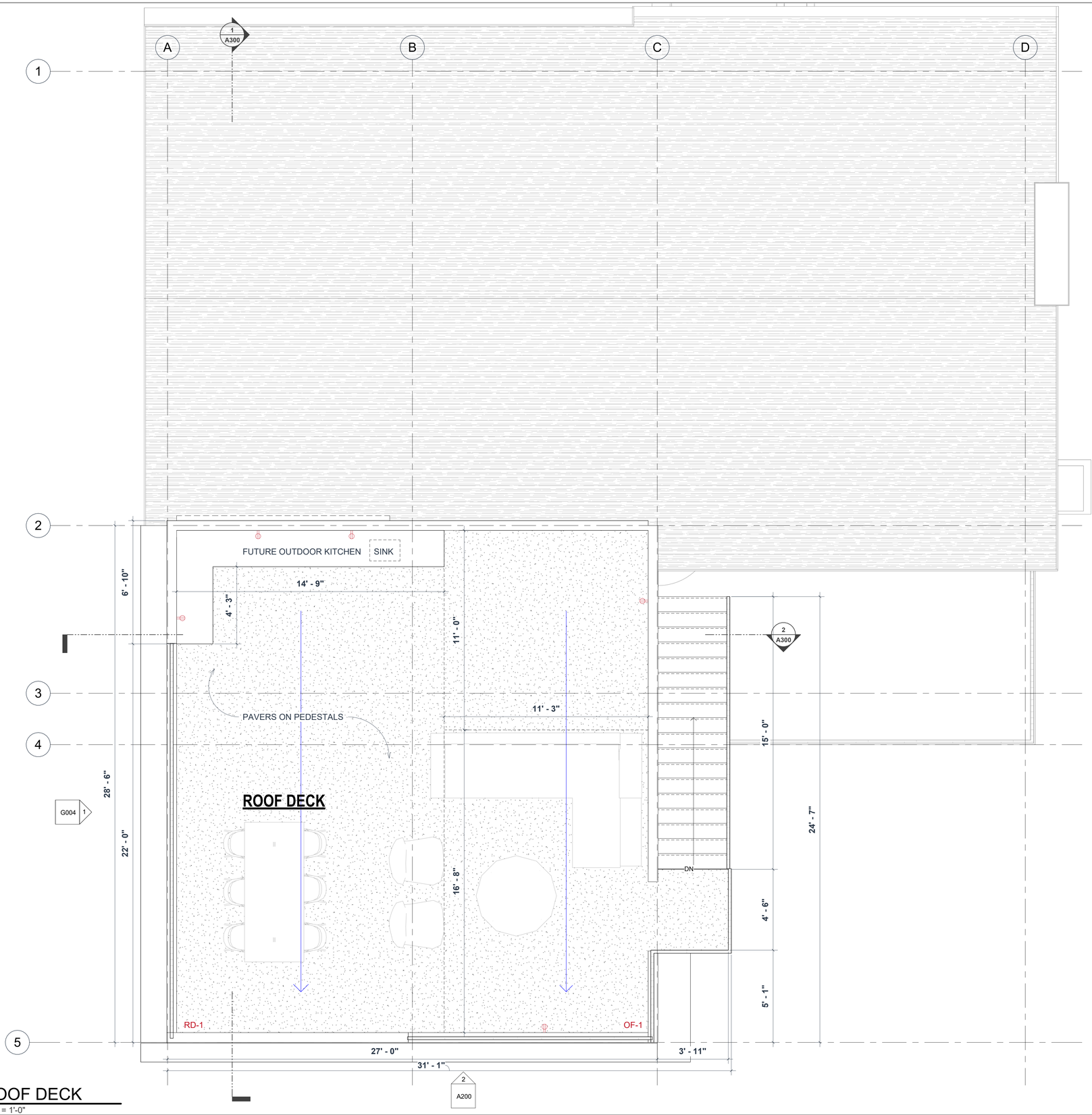
SHEET NO.
A101

Scale: As indicated

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PLOT DATE: 25-02-2026 01:17:53

ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS



1 ROOF DECK
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SECONDARY OVERFLOW: 3-INCH SCUPPER / OVERFLOW DRAIN

ROOF SLOPE: 1/4 INCH PER FOOT MINIMUM TOWARD PRIMARY DRAIN PER UPC 1101.12.

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XIAO ZHOU HOUSE ADDITION

BUILDER NAME
BUILDER CONTACT
BUILDER ADDRESS

CLIENT NAME: Xiao Zhou

PROJECT ADDRESS: 4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY: Author

SHEET NAME: ROOF PLAN

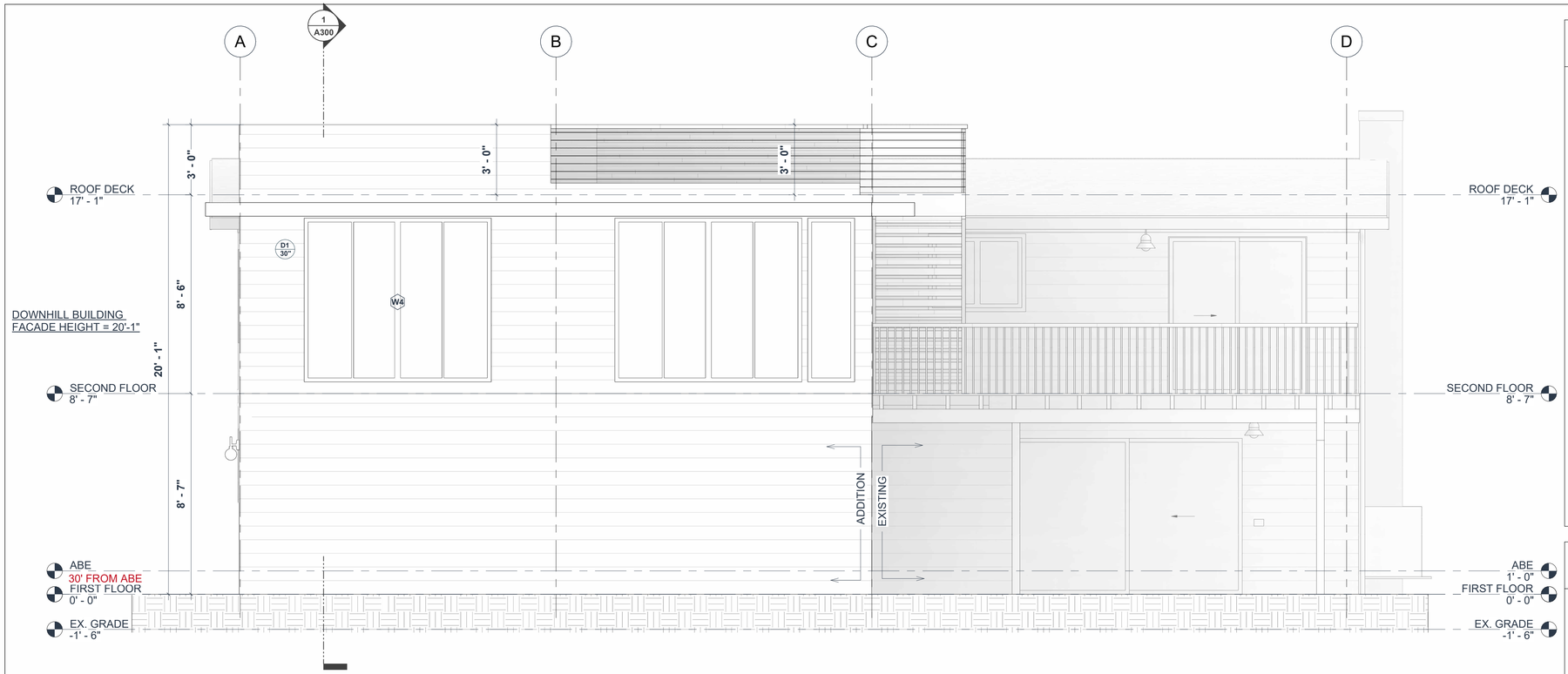
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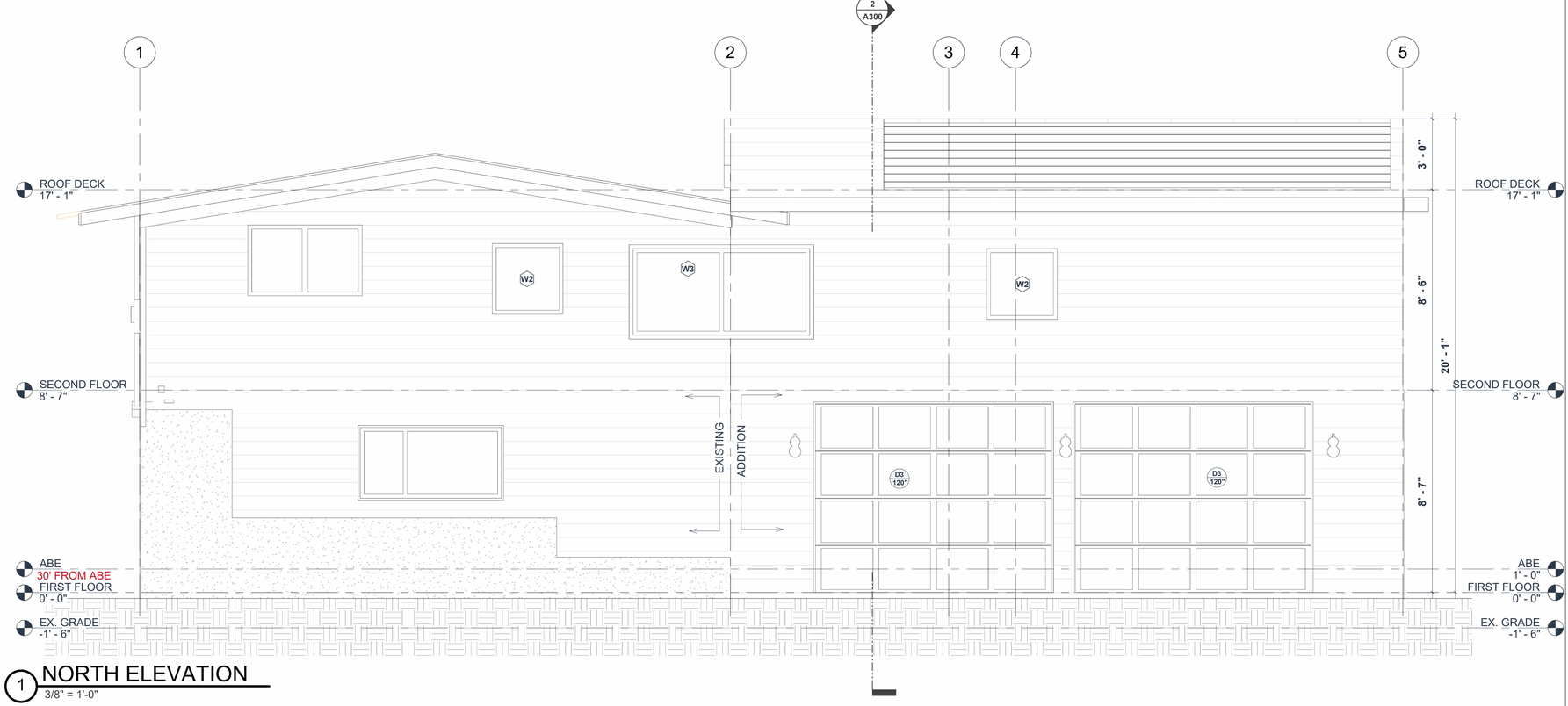
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ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS



2 WEST ELEVATION

3/8" = 1'-0"



1 NORTH ELEVATION

3/8" = 1'-0"

ELEVATION GENERAL NOTES

ELEVATION KEYNOTES

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XIAO ZHOU HOUSE ADDITION

BUILDER NAME

BUILDER CONTACT

BUILDER ADDRESS

CLIENT NAME
Xiao Zhou

PROJECT ADDRESS
4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY: Author

SHEET NAME
BUILDING ELEVATION

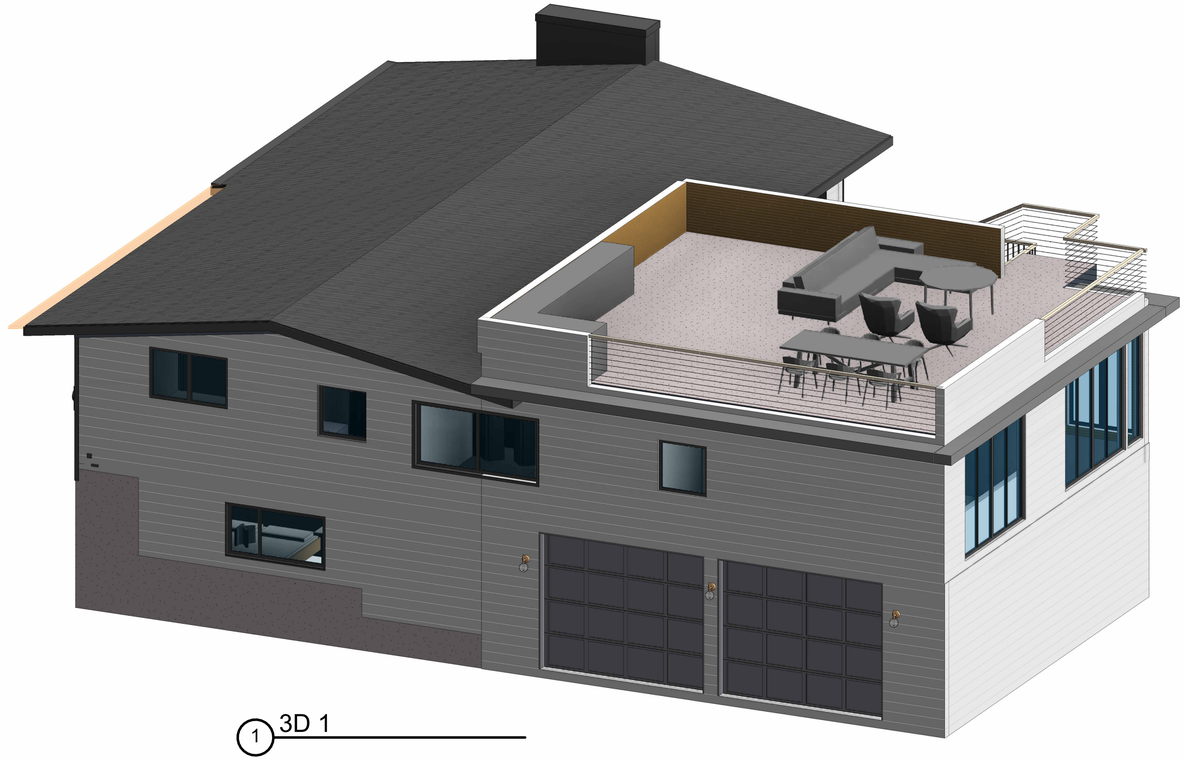
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Scale 3/8" = 1'-0"

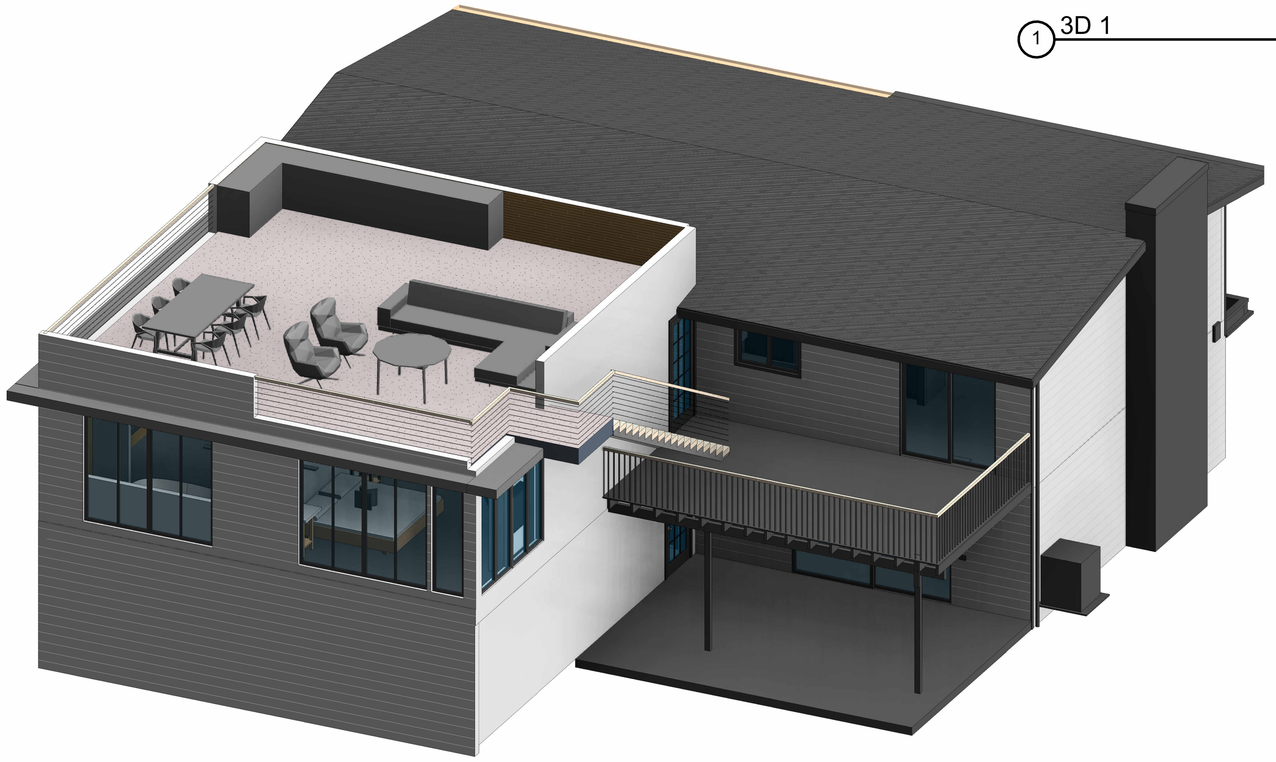
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PLOT DATE: 25-02-2026 01:17:59

ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS



1 3D 1



2 3D 2

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4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY: Author

SHEET NAME
BUILDING ELEVATION

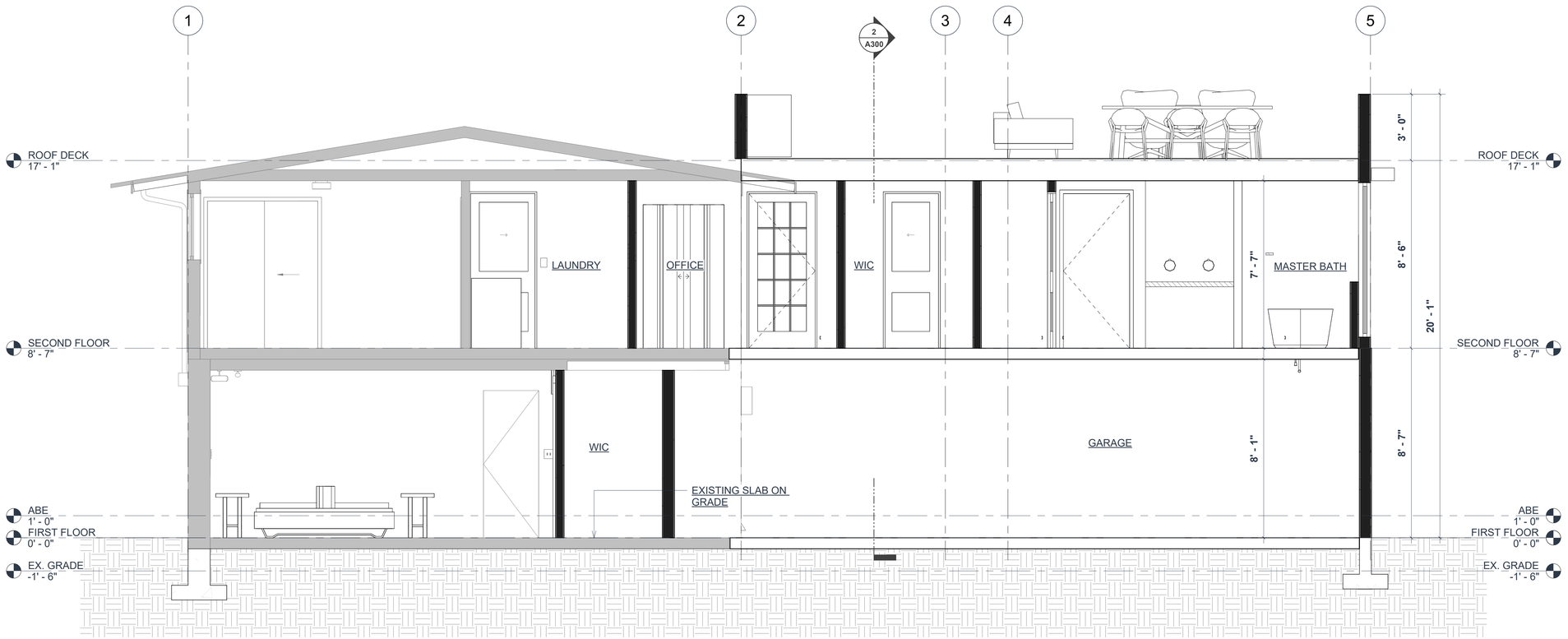
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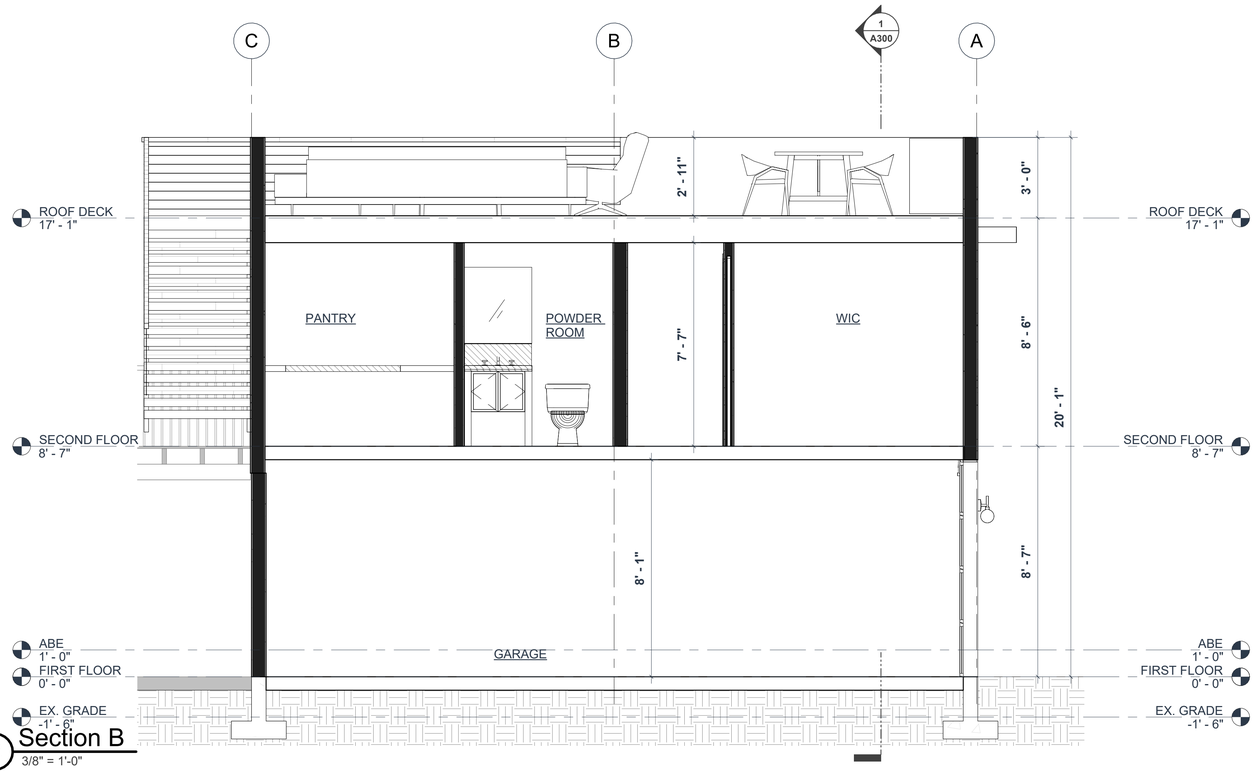
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PLOT DATE: 25-02-2026 01:18:06

ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS



1 Section A
3/8" = 1'-0"



2 Section B
3/8" = 1'-0"

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BUILDER NAME

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Xiao Zhou

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4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY: Author

SHEET NAME
BUILDING SECTIONS

SHEET NO.
A300

Scale 3/8" = 1'-0"

FILE PATH: Z:\Shared\RESIDENTIAL\Xiao Zhou\Xiao Zhou\03 Revit\01 Work\D-IA-Xiao Zhou-PD-R0-V25.rvt

PLOT DATE: 25-02-2026 01:18:06

ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS

ROOF

SPRAY FOAM INFORMATION:

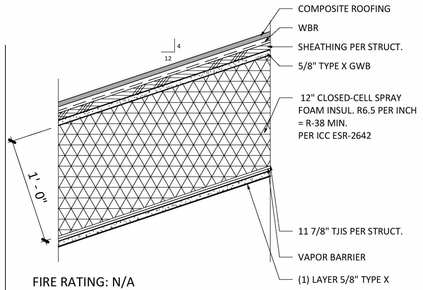
PRODUCT NAME: SPRAYTITE, 158, 178, 81205 AND 81206

MANUFACTURER: BASF CORPORATION

ICC-ES REPORT ISSUE: ESR-2642

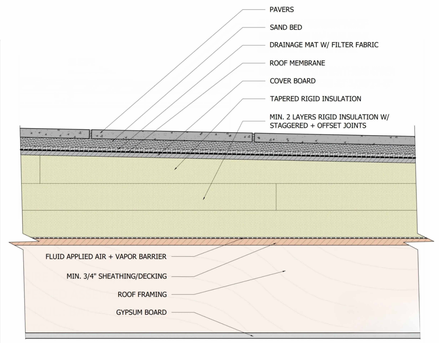
ADDITIONAL NOTES:

1. CONFIRM THAT THE APPLICATION OF SPRAY FOAM IS CONSISTANT WITH THE "CONDITIONS OF USE" AND COMPLIES WITH IRC R806.5.5.1.2. WHERE AIR-PERMEABLE INSULATION IS PROVIDED INSIDE THE BUILDING THERMAL ENVELOPE, IT SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 5.1. IN ADDITION TO THE AIR-PERMEABLE INSUALTION INSTALLED DIRECTLY BELOW THE STRUCTURAL SHEATHING, RIGID BOARD OR SHEET INSULATION SHALL BE INSTALLED DIRECTLY ABOVE THE STRUCTURAL ROOF SHEATHING IN ACCORDANCE WITH THE R-VALUES IN TABLE R806.5 FOR CONDENSATION CONTROL.
2. A COPY OF THE ICC-ES REPORT FOR THE INSULATION PRODUCT MUST BE PROVIDED ON SITE FOR THE FIELD INSPECTOR.
3. THE APPLIED SPRAY FOAM MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS BY A CERTIFIED INSTALLER.



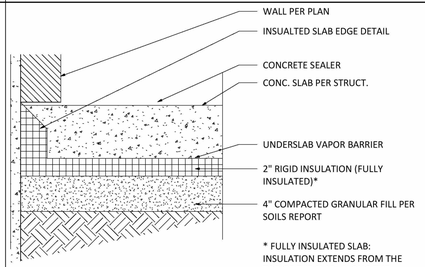
FIRE RATING: N/A
TESTED ASSEMBLY: N/A
INSUL.: R-51.7, COMPLIANT PER SBC 1203.3.4.1.1
STC: N/A

R1 ROOF/CLG @ SLOPED ROOF
1 1/2" = 1'-0"



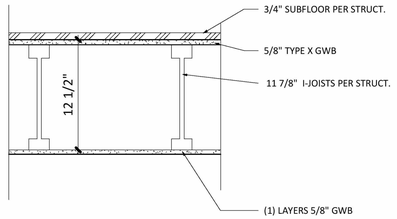
R2 ROOF/CEILING @ DECK
1 1/2" = 1'-0"

FLOOR



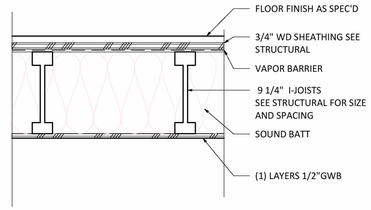
FIRE RATING: N/A
INSUL.: PER TABLE A104.1 @ 3.5', R-11 W/ TB = F0.57 / U 0.064; @ 7', R-11 W/ TB = F0.42 / U 0.056
STC: N/A

F1 FLOOR @ SLAB ON GRADE1
1 1/2" = 1'-0"



FIRE RATING: N/A
TESTED ASSEMBLY: N/A
INSUL.: N/A
STC: N/A

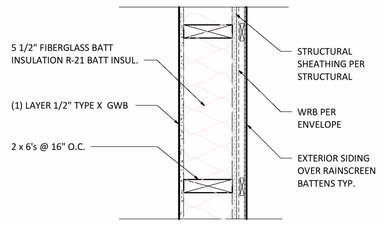
F2 TYP FLOOR/CEILING @ UNITS
1 1/2" = 1'-0"



FIRE TEST: 1 HR
TEST ASSEMBLY: 1 HR, SBC TABLE 721.1(3) #21-1.1
INSUL: R-30 MIN.
STC: N/A

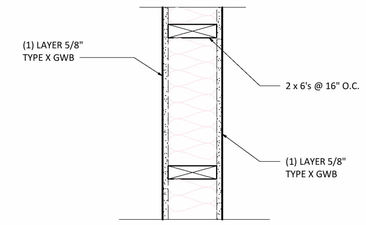
F3 TYP FLOOR/CEILING
1 1/2" = 1'-0"

WALL



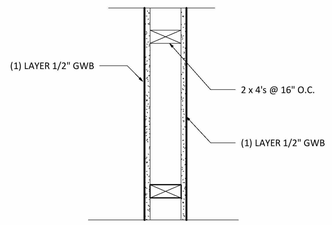
FIRE RATING: N/A
TESTED ASSEMBLY: CALC. PER SEC. 721.6
INSUL.: R-21, BATT INSUL.
STC: N/A

W1 TYP. EXT. WALL @ 2X6
1 1/2" = 1'-0"



FIRE RATING: 1 HR
TEST: NA
INSUL.: BATT
STC: NA

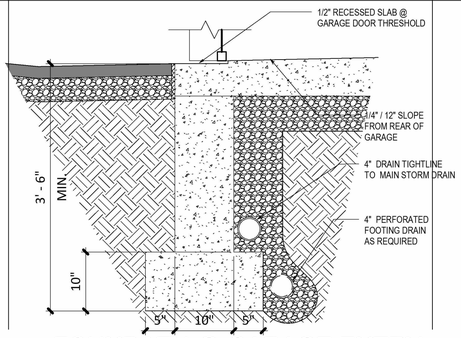
W2 TYP INTERIOR WALL @ 2X6
1 1/2" = 1'-0"



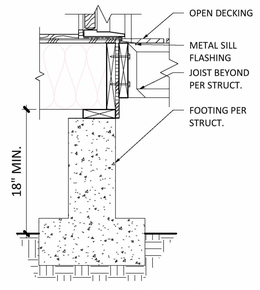
FIRE RATING: NA
TEST: NA
INSUL.: NA
STC: NA

W3 TYP INTERIOR WALL @ 2X4
1 1/2" = 1'-0"

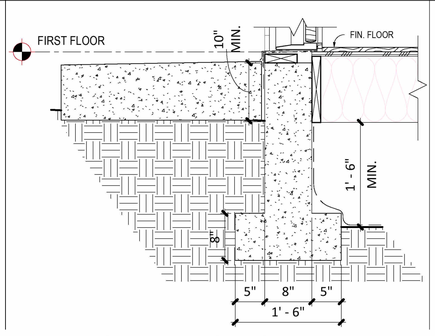
FOUNDATION



1 FOUNDATN @ GARAGE ENTRY



2 FOUNDATION @ DECK



3 FOUNDATION @ ENTRY

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XIAO ZHOU HOUSE ADDITION

BUILDER NAME
BUILDER CONTACT
BUILDER ADDRESS

CLIENT NAME: Xiao Zhou

PROJECT ADDRESS: 4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY: Author

SHEET NAME: WALL,FLOOR,ROOF & FOUNDATION DETAILS

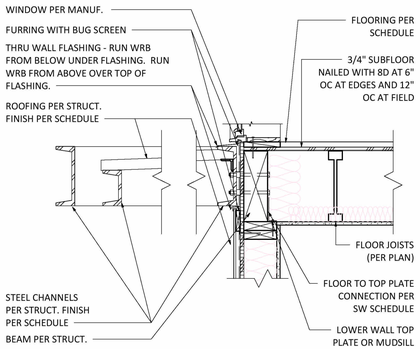
SHEET NO.: A500

Scale

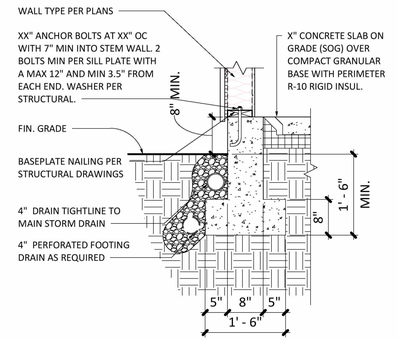
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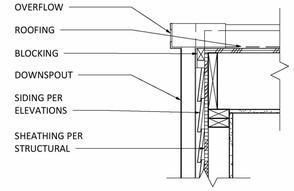
ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS



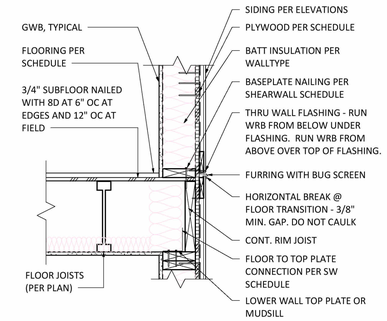
1 ENTRY AWNING
1" = 1'-0"



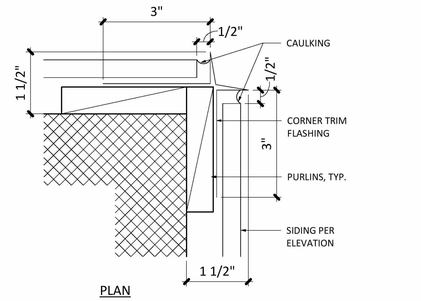
2 FOUNDTN @ SLAB ON GD
3/4" = 1'-0"



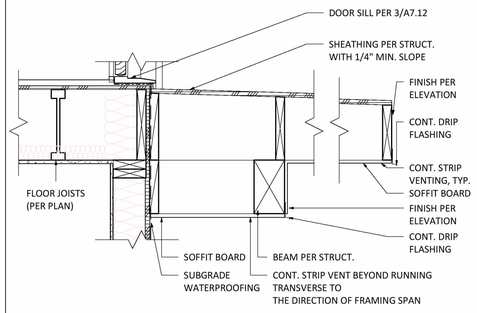
3 TYP. SCUPPER
1" = 1'-0"



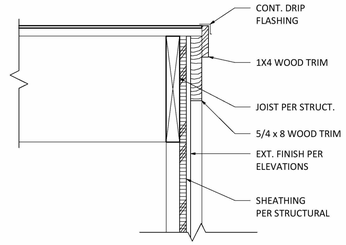
4 TYP. FLOOR LEVEL
1" = 1'-0"



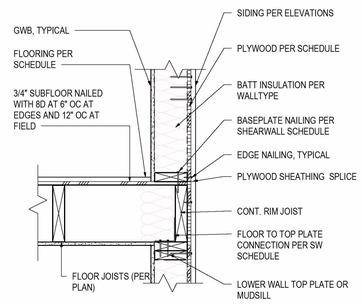
5 FLASHING @ EXT CORNER
6" = 1'-0"



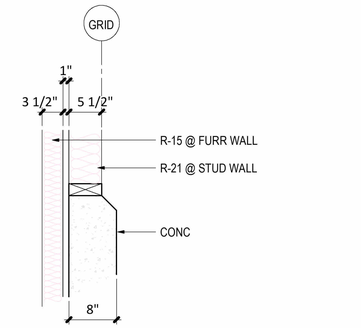
6 SECTION @ DECK
1" = 1'-0"



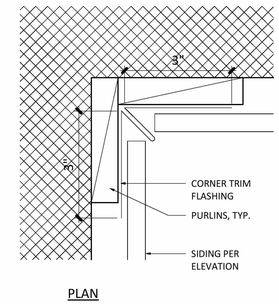
7 TYP. FLAT RAKE
1 1/2" = 1'-0"



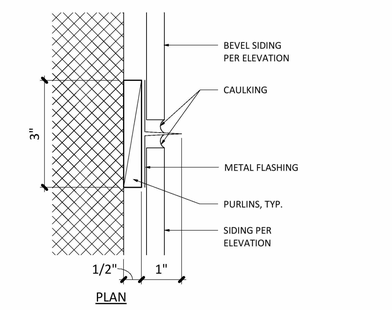
8 TYP. PERP. JOIST TO WALL
1" = 1'-0"



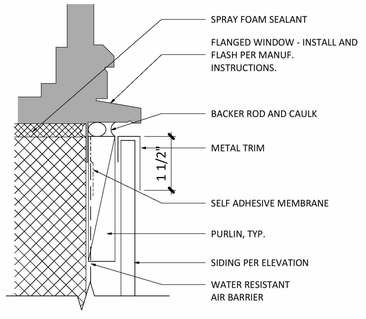
9 FOUNDATION WALL DTL.
1" = 1'-0"



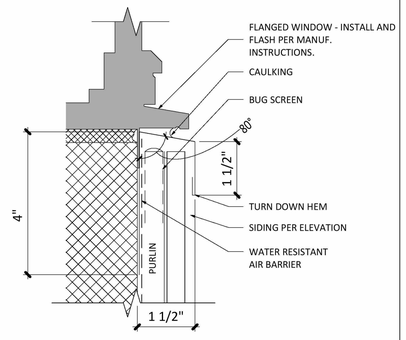
10 FLASHING @ INT CORNER
6" = 1'-0"



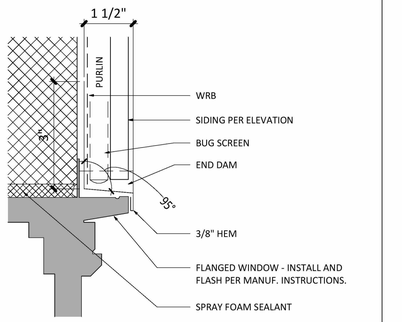
11 FLASHING @ SDG TRANSITION
6" = 1'-0"



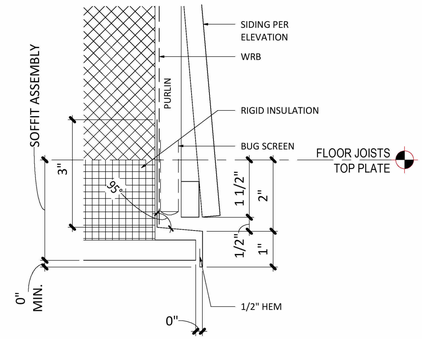
12 FLASHING @ WINDOW JAMB
6" = 1'-0"



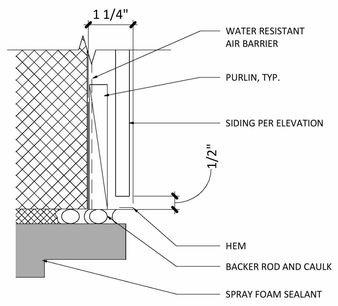
13 FLASHING @ WINDOW SILL
6" = 1'-0"



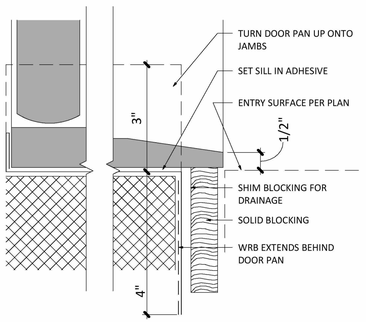
14 FLASHING @ WINDOW HEAD
6" = 1'-0"



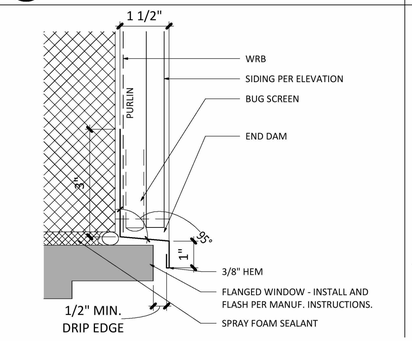
15 FLASHING @ SOFFIT
6" = 1'-0"



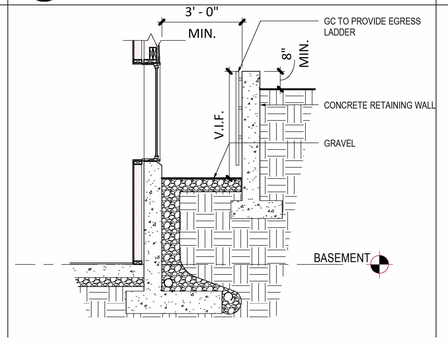
16 FLASHING @ DOOR JAMB
6" = 1'-0"



17 FLASHING @ DOOR SILL
6" = 1'-0"



18 FLASHING @ DOOR HEAD
6" = 1'-0"



19 TYPICAL WINDOW WELL - SECTION
3/8" = 1'-0"

EMERGENCY ESCAPE AND RESCUE:

ONE WINDOW (OR DOOR) IN THE BASEMENT, A HABITABLE ATTIC, AND IN EACH BEDROOM, MUST MEET THESE REQUIREMENTS (SRC R310):

THE MINIMUM NET CLEAR OPEN AREA IS 5.7 SQUARE FEET (HOWEVER, OPENINGS AT GRADE FLOOR MAY BE A MINIMUM OF 5 SQUARE FEET)

THE MINIMUM CLEAR OPEN WIDTH IS 20"

THE MINIMUM CLEAR OPEN HEIGHT IS 24"

THE MAXIMUM ALLOWED SILL HEIGHT IS 44"

THE INSIDE OF THE WINDOW WELLS MUST BE A MINIMUM OF 9 SQUARE FEET IN AREA, WITH A MINIMUM 3' WIDTH, AND MUST ALLOW THE WINDOW TO OPEN ALL THE WAY. A LADDER IS REQUIRED IF THE BOTTOM OF THE WINDOW WELL IS MORE THAN 44" BELOW THE ADJACENT GROUND.

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XIAO ZHOU HOUSE ADDITION

BUILDER NAME
BUILDER CONTACT
BUILDER ADDRESS

CLIENT NAME: Xiao Zhou

PROJECT ADDRESS: 4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY: Author

SHEET NAME: EXTERIOR ENVELOPE DETAILS

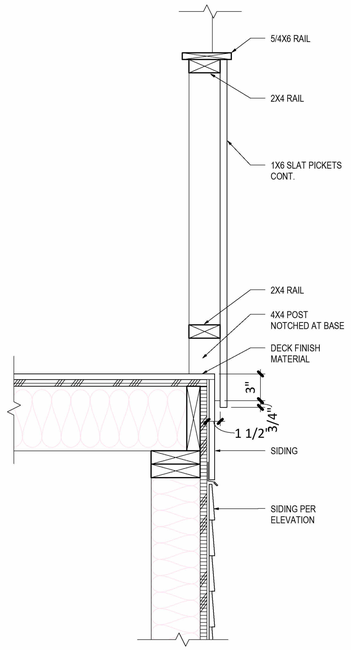
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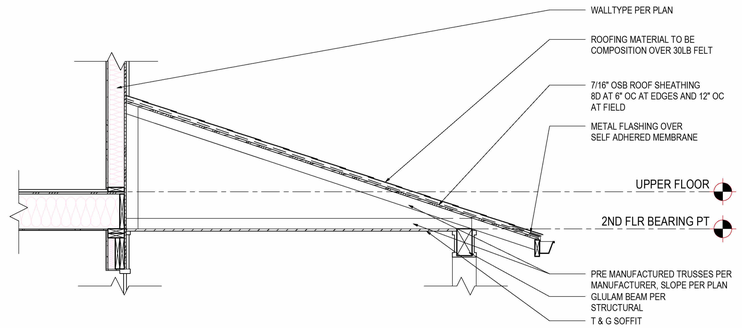
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PLOT DATE: 25-02-2026 01:18:11

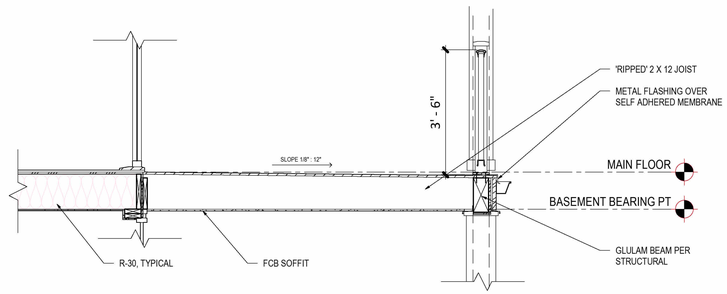
ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS



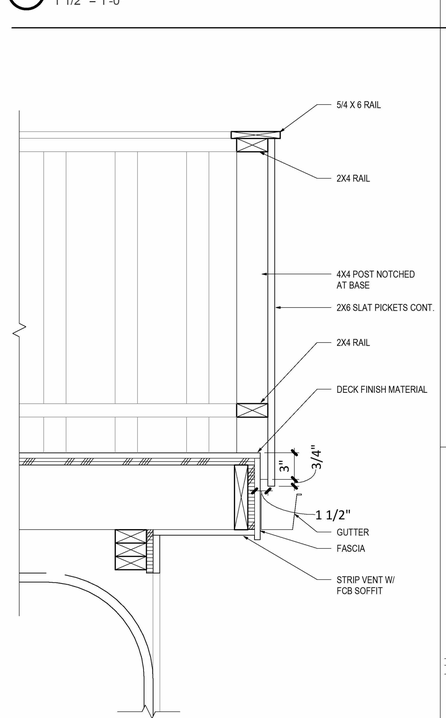
1 TYP. EXT. STAIR RAILING
1 1/2" = 1'-0"



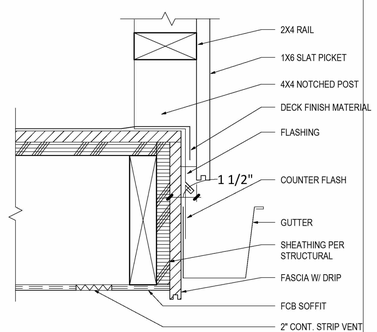
2 TYP. TRUSS ROOF @ DECK
1/2" = 1'-0"



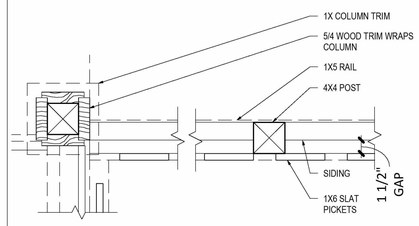
3 TYP. WATER PROOF DECK
1/2" = 1'-0"



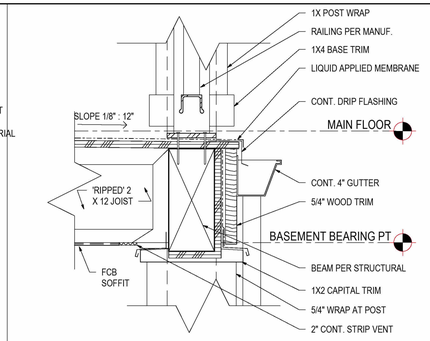
4 TYP. EXT. STAIR RAILING 2
1 1/2" = 1'-0"



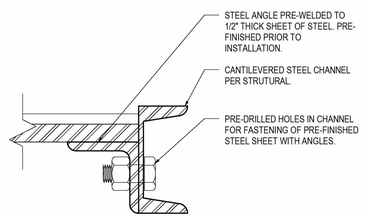
5 TYP. PICKET BASE
3" = 1'-0"



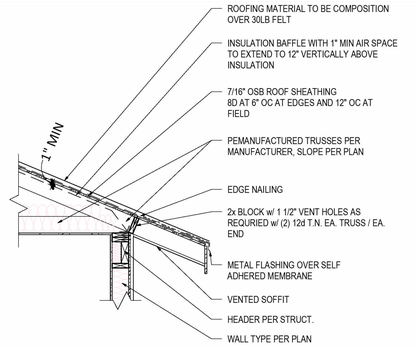
7 TYP. RAILING PLAN
1 1/2" = 1'-0"



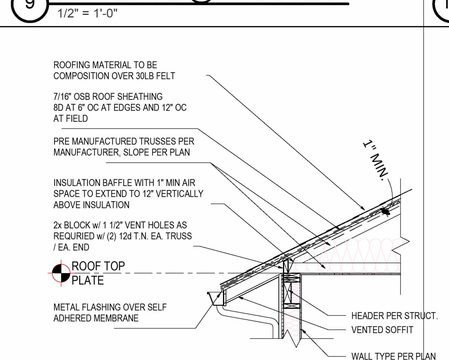
6 TYP. DECK RIM
1 1/2" = 1'-0"



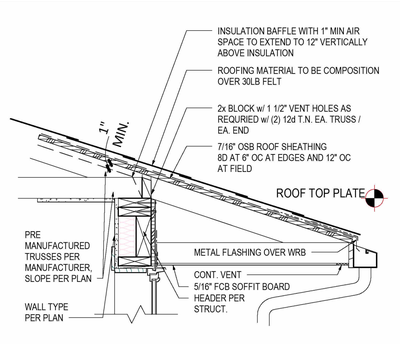
8 CANT. STL AWNG @ EAVE
6" = 1'-0"



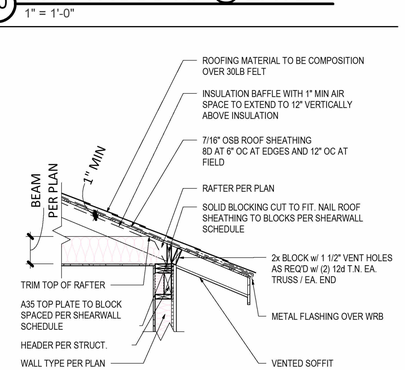
9 TYP. EAVE @ TRUSSES
1/2" = 1'-0"



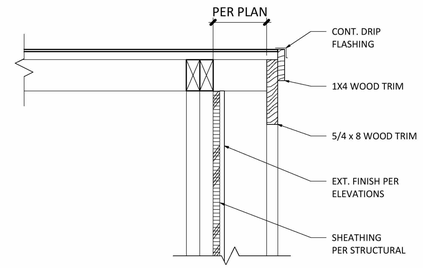
11 TYP. TRUSS ROOF @ EAVE 2
1/2" = 1'-0"



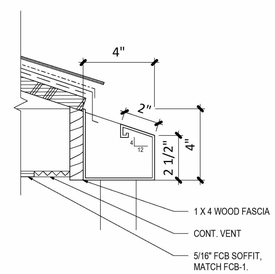
10 TYP. TRUSS RF @ EAVE
1" = 1'-0"



12 TYP. EAVE @ RAFTERS
1/2" = 1'-0"



13 TYP. RAKE
1 1/2" = 1'-0"



14 TYP. GUTTER
3" = 1'-0"

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XIAO ZHOU HOUSE ADDITION

BUILDER NAME
BUILDER CONTACT
BUILDER ADDRESS

CLIENT NAME: Xiao Zhou

PROJECT ADDRESS: 4433 86th Ave SE Mercer Island, WA 98040

REVISION LOG

REV #	DATE	DESCRIPTION

STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY: Author

SHEET NAME: DETAILS

SHEET NO.: A502

Scale

PLOT DATE: 25-02-2026 01:18:14

FILE PATH: Z:\Shared\RESIDENTIAL\Xiao Zhou\Xiao Zhou\03 Revit\01 Work\DJA-Xiao Zhou-PD-R0-V25.rvt

DOOR SCHEDULE - EXTERIOR

NUMBER	DOOR				FRAME		FIRE RATING	HARDWARE		GLAZING AREA	NOTES
	WIDTH	HEIGHT	MATERIAL	FINISH	MATERIAL	FINISH		GROUP	CLOSER		
D3	10' - 0"	8' - 0"									EXTERIOR
Grand total: 2											

DOOR SCHEDULE - INTERIOR

NUMBER	DOOR				FRAME		FIRE RATING	HARDWARE		NOTES
	WIDTH	HEIGHT	MATERIAL	FINISH	MATERIAL	FINISH		GROUP	CLOSER	
D1	2' - 6"	7' - 0"								INTERIOR
D2	3' - 0"	7' - 0"								INTERIOR
Grand total: 7										

DOOR AND WINDOW GENERAL NOTES

- DOORS AND WINDOWS ARE TYPICALLY CENTERED IN WALL UNLESS DIMENSIONED OTHERWISE.
- DOOR HINGE JAMB TO BE 4 1/2" FROM ADJACENT WALL UNLESS OTHERWISE NOTED.
- DOOR AND WINDOW SIZES ARE NOMINAL, CONFIRM R.O. WITH MANUFACTURER.
- ALL DOOR AND WINDOW HEADERS TO ALIGN AT HEADER LEVEL.
- PROVIDE SAFETY GLAZING AT ALL LOCATIONS REQUIRED BY CODE (IRC R308.4)
- ALL EXTERIOR FENESTRATION TO MEET REQUIREMENTS OF CURRENT WASHINGTON STATE ENERGY CODE (W.S.E.C.) AS INDICATED IN ENERGY WORKSHEET.

DOOR SCHEDULE NOTES

1. PROVIDE LOCKS
2. PROVIDE KICK PLATE
3. PROVIDE HOLD OPEN
4. PROVIDE PULL AND PUSH PLATE
5. INSULATED DOOR

GLAZING TYPE SCHEDULE:

GL-1: TINTED
GL-2: TEMPERED/ INSULATED
GL-3: TEMPERED/FIRE RATED
GL-4: TEMPERED

DRIFT
INTERIOR ARCHITECTURE

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13073 REGISTERED ARCHITECT JENNIFER TAMBLIN STATE OF WASHINGTON

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STATUS: PERMIT

DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY: Author

SHEET NAME: DOOR TYPES & SCHEDULE

SHEET NO.: A600

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

FILE PATH: Z:\Shared\RESIDENTIAL\Xiao Zhou\Xiao Zhou\03 Revit\01 Work\D-JA-Xiao Zhou-PD-R0-V25.rvt

PLOT DATE: 25-02-2026 01:18:14

EXTERIOR GLAZING SCHEDULE									
TYPE MARK	COUNT	HEIGHT	WIDTH	U VALUE	WINDOW AREA	UA	OPERATION	FRAME MATERIAL	REMARKS
W1	5	7' - 0"	2' - 0"	0.30	70 SF	21 SF			
W2	2	3' - 0"	3' - 0"	0.30	18 SF	5 SF			
W3	1	3' - 8"	7' - 6"	0.30	28 SF	8 SF			
W4	2	7' - 0"	8' - 0"	0.30	112 SF	34 SF			
TOTAL	10				228 SF	68 SF			

GENERAL NOTES:

A.) CONTRACTOR TO VERIFY ALL GLAZING SIZING, AND DOOR DIMENSIONS IN FIELD PRIOR TO ROUGH FRAMING & ORDERING OF GLAZING/WINDOW/DOOR MATERIALS. REVIEW SIZES AND ANY DISCREPANCIES W/ OWNER.

B.) ALL GLAZING TO BE "LOW E", INSULATED GLASS UNLESS NOTED OTHERWISE.

C.) ALL OPERABLE WINDOWS TO HAVE SCREENS.

D.) GLAZING INDOORS AND/OR WITHIN 24" OF A DOOR TO BE TEMPERED OR PROVIDE SAFETY GLASS. SEE EXTERIOR DOOR AND WINDOW TYPES FOR SAFETY GLASS LOCATION. SEE SCHEDULES FOR LOCATIONS OF EGRESS WINDOWS/DOORS.

E.) ALL FACTORY FINISH DOORS & FRAMES TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.

F.) ALL INTERIOR & EXTERIOR DOORS ARE 1 3/4" THICK, UNLESS NOTED OTHERWISE

G.) EMERGENCY & ESCAPE OPENINGS (FROM IRC R310), WHERE EMERGENCY & ESCAPE OPENINGS ARE PROVIDED, THEY SHALL:
- HAVE A SILL HEIGHT OF NOT MORE THAN 44 INCHES ABOVE THE FLOOR.
- HAVE A MIN. NET CLEAR OPENING OF 5.7 SQUARE FEET.
- HAVE A MIN. NET CLEAR OPENING HEIGHT OF 24 INCHES.
- HAVE A MIN. NET CLEAR OPENING WIDTH OF 20 INCHES.
- BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS, TOOLS, OR SPECIAL KNOWLEDGE.

H.) WHOLE HOUSE VENTILATION TO INCLUDE OUTDOOR AIR INLETS (FROM IRC M1508.4.5):
OUTDOOR AIR SHALL SHALL BE DISTRIBUTED TO EACH HABITABLE ROOM BY INDIVIDUAL OUTDOOR AIR INLETS. PROVIDE NOT LESS THAN 4 SQUARE INCHES (0.003 m2) OF NET FREE AREA OF OPENING FOR EACH HABITABLE SPACE. ANY INLET OR COMBINATION OF INLETS WHICH PROVIDE 10 CFM AT 10 PASCALS AS DETERMINED BY THE HOME VENTILATING INSTITUTE AIR FLOW TEST STANDARD (HVI 901 NOVEMBER 1996) ARE DEEMED EQUIVALENT TO 4 SQUARE INCHES NET FREE AREA.

I.) ALL PRODUCTS SHALL BE NFRC CERTIFIED AND NFRC (CPD) NUMBERS PER R303.1.3 SHALL BE PROVIDED - FROM ENERGY CORRECTION COMMENT.

GLAZING SCHEDULE NOTES:

1. SEE EXTERIOR DOOR & WINDOW ELEVATIONS FOR OPERATION, LAYOUT, & DIMENSION.
2. EMERGENCY EGRESS OPENING.
3. SUITABLE TO INCLUDE OUTDOOR AIR INLET PER ITEM (H) IN DOOR & WINDOW NOTES.

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DPS PERMIT NUMBER:

BNA Project number: XXXXXX

DRAWN BY: Author

SHEET NAME
WINDOW TYPES & SCHEDULE

SHEET NO.
A601

Scale 3" = 1'-0"

FILE PATH: Z:\Shared\RESIDENTIAL\Xiao Zhou\Xiao Zhou\03 Revit\01 Work\D-IA-Xiao Zhou-PD-R0-V25.rvt

PLOT DATE: 25-02-2026 01:18:15

ORIGINAL DRAWING SIZE IS 36" X 24" DO NOT SCALE DRAWINGS FOR MEASUREMENTS

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE 2021 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).

2. THIS STRUCTURE DOES NOT CONFORM TO PRESENT EARTHQUAKE CODE REQUIREMENTS. IT HAS BEEN ANALYZED AND REINFORCED FOR MINIMUM MAINTENANCE IN ACCORDANCE WITH THE INTERNATIONAL EXISTING BUILDING CODE (IEBC) SECTIONS 502, 503 & CHAPTER 4 AND IS WITHIN THE CURRENT PRACTICE FOR THE RENOVATION OF EXISTING BUILDINGS OF THIS AGE AND TYPE OF CONSTRUCTION. THIS STRUCTURE HAS NOT BEEN ANALYZED OR DESIGNED FOR A COMPLETE SEISMIC UPGRADE.

3. DESIGN LOADING CRITERIA

ROOF SNOW LOAD	25 PSF
ROOF DECK LIVE LOAD	60 PSF
FLOOR LIVE LOAD (RESIDENTIAL)	40 PSF
FLOOR LIVE LOAD (RESIDENTIAL EXTERIOR DECKS AND BALCONIES)	60 PSF
GUARDRAILS/BALCONY RAILS	50 PLF OR 200 LBS.

SNOW : ROOF SNOW LOAD = 25 PSF
GROUND SNOW LOAD = 20 PSF
EXPOSURE Ce = 1.00
IMPORTANCE FACTOR Is = 1.00
THERMAL FACTOR Ct = 1.00

WIND : ANALYSIS PROCEDURE: ASCE 7-16 CHAPTER 27 "PART 1 - BUILDINGS OF ALL HEIGHTS"
RISK CATEGORY II
98 MPH
EXPOSURE "B"
TOPOGRAPHIC FACTOR Kzt = 1.0

CLADDING / WINDOW DESIGN PRESSURE (MAX.)	30 PSF
ROOFING DESIGN PRESSURE NOT AT A CORNER (MAX.)	40 PSF
ROOFING DESIGN PRESSURE AT CORNER (MAX.)	48 PSF

THE DESIGN WIND PRESSURES LISTED ABOVE ARE INWARD OR OUTWARD AND ARE BASED ON AN EFFECTIVE WIND AREA OF 10 SQUARE FEET NEAR A BUILDING CORNER, U.O.N. CORNER AND OTHER ZONES ARE DEFINED BY FIGURE 30.3-1, 30.3-2A TO 2I AND 30.3-5A TO 5B IN ASCE 7-16. REDUCED DESIGN PRESSURES MAY BE CALCULATED USING ASCE 7. NOTE THAT THE DESIGN WIND PRESSURES NOTED ABOVE ARE ULTIMATE VALUES PER THE 2018 IBC AND SHALL BE MULTIPLIED BY 0.6 FOR ALLOWABLE STRESS DESIGN.

EARTHQUAKE : ANALYSIS PROCEDURE: IBC "EQUIVALENT LATERAL FORCE PROCEDURE"
SEISMIC DESIGN CATEGORY (SDC) = D
RISK CATEGORY = II
SEISMIC SITE CLASS = D-(DEFAULT)
IMPORTANCE FACTOR Ie = 1.0
MAPPED MCE Ss =1.428; S_1 = 0.496
DESIGN ACCELERATION Sds = 1.142; Sd_1 = 0.597
SEISMIC RESISTING SYSTEM: WOOD PANEL BEARING SHEAR WALL, R = 6.5

4. LATERAL LOADS ARE TRANSFERRED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE SHEAR WALLS. FORCES ARE BASED ON THE TRIBUTARY AREA FOR EACH SHEAR WALL AND ARE CARRIED BY THE SHEAR WALLS TO THE FOUNDATION.

5. 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.

6. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED.

7. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

8. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THEIR WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

9. 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.

10. 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. WHERE INFORMATION ON THE DRAWINGS IS IN CONFLICT WITH THE SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. DO NOT SCALE THE DRAWINGS.

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

12. SHOP DRAWINGS FOR CONNECTOR PLATE WOOD ROOF JOISTS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

13. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, AND THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO.

14. SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING

SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

15. DEFERRED SUBMITTALS OF DESIGN BUILD COMPONENTS SHALL BEAR THE STAMP AND SIGNATURE OF A STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO CURSORY REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. DEFERRED SUBMITTALS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE AND SHALL INCLUDE DESIGN CALCULATIONS WITH THE ENGINEER'S STAMP.

THE FOLLOWING COMPONENTS SHALL BE DEFERRED SUBMITTALS FOR THIS PROJECT:
TJI JOIST,

16. SPECIAL INSPECTION: EPOXY GROUTED INSTALLATIONS SHALL BE SUPERVISED IN ACCORDANCE WITH IBC SECTIONS 1704 & 1705 AND THE PROJECT SPECIFICATIONS BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE OWNER, ARCHITECT, STRUCTURAL ENGINEER, CONTRACTOR AND BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET PROJECT SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

GEOTECHNICAL

17. FOUNDATION NOTES: ALLOWABLE SOIL PRESSURE AND LATERAL EARTH PRESSURE ARE ASSUMED AND THEREFORE MUST BE VERIFIED IN THE FIELD. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN.

FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD. UNLESS OTHERWISE NOTED, FOOTINGS SHALL BE CENTERED UNDER COLUMNS OR WALLS ABOVE.

BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE.

THE STRUCTURAL DESIGN IS BASED ON THE FOLLOWING ASSUMED VALUES:

ALLOWABLE SOIL PRESSURE	1,500 PSF

RENOVATION

18. DEMOLITION: VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. EXISTING REINFORCING SHALL BE SAVED WHERE AND AS NOTED ON THE PLANS. SAW CUTTING, IF AND WHERE USED, SHALL NOT CUT EXISTING REINFORCING THAT IS TO BE SAVED. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF

19. CHECK FOR DRYROT AT ALL EXTERIOR WALLS, EXISTING TOILET ROOM FLOORS AND WALLS, AREAS SHOWING WATER STAINS, AND ALL WOOD MEMBERS IN BASEMENT AND CRAWL SPACES. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

CONCRETE

20. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301. CONSTRUCTION TOLERANCES SHALL NOT EXCEED THOSE LISTED IN ACI 117. STRENGTHS AT 28 DAYS AND MIX CRITERIA SHALL BE AS FOLLOWS:

TYPE OF CONSTRUCTION	28 DAY STRENGTH (f'c)	MAXIMUM SLUMP	MIN. CEMENT CONTENT PER CUBIC YARD	MAX. AGGREGATE SIZE
A. FOOTINGS, SLABS-ON-GRADE, TOPPING SLABS	2,500 PSI	5"	5-1/2 SACKS	1 1/4"

MIXES SHALL BE PROPORTIONED SO AS NOT TO EXCEED THE MAXIMUM SLUMPS INDICATED (BEFORE THE ADDITION OF ADMIXTURES). THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.55 FOR FOOTINGS AND 0.45 FOR ALL SLABS AND EXPOSED CONCRETE. LIGHTWEIGHT CONCRETE SHALL HAVE A MAXIMUM DENSITY OF 110 PCF.

THE MINIMUM AMOUNT OF CEMENT AND THE MAXIMUM SLUMP MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. (THE W/C RATIO LIMITS STILL APPLY). THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, CEMENTITIOUS MATERIAL, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER/CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 301. CHEMICAL ADMIXTURES AND FLY ASH SHALL CONFORM TO ASTM C494 AND C618 RESPECTIVELY. FLY ASH PERCENTAGE OF TOTAL CEMENTITIOUS MATERIAL SHALL NOT EXCEED 20%. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY TO CONTRACT DOCUMENTS.CONTRACTOR MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

21. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, fy = 60,000 PSI. GRADE 60 REINFORCING STEEL INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING STEEL COMPLYING WITH ASTM A615 (S1) MAY BE WELDED ONLY IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN A.W.S. D1.4 ARE SUBMITTED. LONGITUDINAL REINFORCING STEEL IN DUCTILE FRAME MEMBERS AND IN SHEAR WALL BOUNDARY MEMBERS SHALL COMPLY WITH ASTM A706. ASTM A615 GRADE 60 REINFORCING STEEL IS ALLOWED IN THESE MEMBERS IF (A) THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN AN ADDITIONAL 3,000 PSI) AND (B) THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRESS TO THE ACTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1.25.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

SPIRAL REINFORCEMENT SHALL BE PLAIN WIRE CONFORMING TO ASTM A615, GRADE 60, fy = 60,000 PSI.

22. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315 AND 318. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 60 BAR DIAMETERS, 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 60 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS. PROVIDE (2) #5 MIN. U.N.O. TRIM BARS AROUND ALL OPENINGS IN CONCRETE WALLS OR SLABS EXTENDING 2'-6" PAST CORNERS, TYPICAL

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. NO REINFORCING BARS SHALL BE "WET-SET" INTO THE CONCRETE. PROVIDE A 20' LONG REBAR GROUND (UFER GROUND) PER ELECTRICIAN.

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

FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST EARTH	3"
FORMED SURFACES EXPOSED TO EARTH (i.e. WALLS BELOW GROUND) OR WEATHER (#5 BARS OR SMALLER)	1-1/2"
SLABS AND WALLS (INTERIOR FACE)	GREATER OF (BAR DIAMETER PLUS 1/8") OR 3/4"

24. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRECAST.

ANCHORAGE

25. SCREW ANCHORS INTO CONCRETE SHALL BE "TITEN HD", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-2713 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL SCREW ANCHOR INSTALLATION.

26. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) INTO CONCRETE SHALL BE INSTALLED USING "SET-XP" ADHESIVE ANCHOR AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-2508, INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.

STEEL

27. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON THE LATEST EDITIONS OF THE A.I.S.C.
SPECIFICATIONS AND CODES:

A. AISC - STEEL CONSTRUCTION MANUAL, 15TH EDITION
B. AISC 303-16 - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
C. 2014 RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS.

28. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

TYPE OF MEMBER	ASTM SPECIFICATION	Fy
A. ANCHOR BOLTS AND THREADED RODS (EMBEDDED IN CONCRETE)	F1554 (GRADE 36) OR	36 KSI

SUBSTITUTION OF MEMBER SIZES OR STEEL GRADE SHALL NOT BE ALLOWED WITHOUT PRIOR APPROVAL OF THE ENGINEER. STEEL BEAMS ARE EQUALLY SPACED BETWEEN DIMENSIONED POINTS. ALL STEEL ANCHORS AND TIES AND OTHER MEMBERS EMBEDDED IN CONCRETE OR MASONRY SHALL BE LEFT UNPAINTED. ALL STEEL TO BE FIREPROOFED SHALL BE LEFT UNPAINTED. ALL OTHER STEEL SHALL HAVE ONE COAT OF APPROVED SHOP PAINT.

WOOD

29. FRAMING LUMBER: SHALL BE KILN DRIED OR MC-19 (MOISTURE CONTENT LESS THAN 19%), AND GRADED AND MARKED IN CONFORMANCE WITH W.C.L.I.B. STANDARD NO. 17 GRADING RULES FOR WEST COAST LUMBER. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS (2X AND 4X MEMBERS)	DOUGLAS FIR OR HEM-FIR NO. 2 (U.N.O. ON PLAN)
BEAMS AND STRINGERS (INCLUDING 6 X AND LARGER MEMBERS)	DOUGLAS FIR NO. 1
POSTS AND TIMBERS	DOUGLAS FIR NO. 1
STUDS, PLATES & MISCELLANEOUS LIGHT FRAMING (AS NOTED ON PLANS / DETAILS)	DOUGLAS FIR OR HEM-FIR NO. 2

30. WOOD SETTLEMENT SHRINKAGE: DUE TO CROSS GRAIN WOOD SHRINKAGE, THIS BUILDING IS EXPECTED TO SETTLE APPROXIMATELY 1/8 TO 1/4 INCH PER STORY. ALL UTILITIES SHALL BE DESIGNED WITH FLEXIBLE JOINTS OR OTHER MEANS TO APPROPRIATELY ACCOMMODATE THIS NORMAL SETTLEMENT. ALL INTERIOR AND EXTERIOR SHEATHING AND FINISHES SHALL BE INSTALLED SUCH THAT NO DAMAGE WILL OCCUR. SHRINKAGE IS EXPECTED IN THE THICKNESS OF THE WALL PLATES AND NOT IN THE LENGTH OF THE WALL STUDS.

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GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

31. LAMINATED LUMBER (LVL) SHALL BE DESIGNED AND MANUFACTURED PER ASTM D5456. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO. ALL LAMINATED VENEER LUMBER SHALL BE MANUFACTURED USING DOUGLAS FIR VENEER GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. MINIMUM STRUCTURAL PROPERTIES ARE AS FOLLOWS:

    RIM JOISTS AND BLOCKING (1-1/2" MINIMUM THICKNESS):
    FB = 1800 PSI, E = 1.4 X 10^6 PSI, FV = 225 PSI

    BEAMS AND HEADERS:
    FB = 2800 PSI, E = 2.0 X 10^6 PSI, FV = 285 PSI

    STUDS AND COLUMN:
    FB = 2800 PSI, E = 2.0 X 10^6 PSI, FV = 190 PSI

    DESIGN SHOWN ON PLANS IS BASED ON MATERIALS MANUFACTURED BY THE BOISE CASCADE CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

32. LAMINATED STRAND LUMBER (LSL) SHALL BE DESIGNED AND MANUFACTURED PER ASTM D5456. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO. ALL LAMINATED STRAND LUMBER SHALL BE MANUFACTURED USING A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559. MINIMUM STRUCTURAL PROPERTIES ARE AS FOLLOWS:

    RIM JOISTS AND BLOCKING (1-1/4" MINIMUM THICKNESS AT NON-SHEAR WALLS; SEE SCHEDULE FOR MINIMUM THICKNESS AT SHEAR WALLS):

    FB = 1700 PSI, E = 1.3 X 10^6 PSI, FV = 400 PSI

    BEAMS AND HEADERS:
    FB = 2325 PSI, E = 1.55 X 10^6 PSI, FV = 310 PSI

    STUDS:
    2X4 & 2X6 FB = 1700 PSI, E = 1.3 X 10^6 PSI, FV = 400 PSI
    > 2X6 FB = 2425 PSI, E = 1.6 X 10^6 PSI, FV = 400 PSI

    COLUMNS:
    FB = 1700 PSI, E = 1.3 X 10^6 PSI, FV = 400 PSI

    DESIGN SHOWN ON PLANS IS BASED ON MATERIALS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

33. WOOD I-JOISTS SHALL BE DESIGNED BY THE MANUFACTURER FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS AND SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH MANUFACTURER'S PUBLISHED SPECIFICATIONS. ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS, STIFFENERS, ETC., SHALL BE DETAILED AND FURNISHED BY THE MANUFACTURER. SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. DESIGN SUBMITTALS SHALL BEAR THE STAMP AND SIGNATURE OF A STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER. PERMANENT AND TEMPORARY BRIDGING SHALL BE INSTALLED IN CONFORMANCE WITH MANUFACTURERS SPECIFICATIONS. GLUE FLOOR JOISTS TO SHEATHING AS REQUIRED BY THE JOIST MANUFACTURER.

    DESIGN SHOWN ON PLANS IN BASED ON JOISTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE WOOD I-JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE I.C.C. OR IAPMO UES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH PLYWOOD WEB JOIST PROVIDED.

    FLOOR JOIST:
    LOADING
    LIVE LOAD 40 PSF
    DEAD LOAD 15 PSF
    DEFLECTION
    LIVE LOAD L/480
    TOTAL LOAD L/360

    ROOF DECK JOIST:
    LOADING
    LIVE LOAD 60 PSF
    DEAD LOAD 25 PSF

34. WOOD SHEATHING SHALL BE APA RATED, EXTERIOR GLUE; EXPOSURE 1, IN CONFORMANCE WITH THE REQUIREMENTS FOR THEIR TYPE IN DOC PS-1 OR PS-2. SEE PLANS FOR THICKNESS, PANEL IDENTIFICATION INDEX AND NAILING REQUIREMENTS.

    UNLESS OTHERWISE NOTED ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH (2) 10d-F NAILS AT EACH END, UNLESS OTHERWISE NOTED. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PANEL EDGES AND NAIL WITH EDGE NAILING SPACED PER PLANS. WHERE NOT NOTED OTHERWISE, NAIL PANEL EDGES WITH 8d NAILS @ 6" O.C. EDGES, 12" O.C. IN THE FIELD.

35. ALL WOOD EXPOSED TO WEATHER, OR BEARING ON UNPROTECTED CONCRETE BELOW GRADE, OR BEARING ON UNPROTECTED CONCRETE LESS THAN 8" FROM EXPOSED EARTH SHALL BE PRESSURE-TREATED, U.O.N. PRESSURE TREATMENT SHALL BE WITH AN APPROVED PRESERVATIVE AND BRANDED WITH A QUALITY CONTROL AGENCY MARK BY THE AMERICAN WOOD PRESERVERS BUREAU OR EQUAL. ALL METAL HARDWARE IN CONTACT WITH TREATED WOOD SHALL BE PROTECTED WITH A G185 GALVANIZED COATING (ZMAX) OR BETTER. ALL NAILS IN TREATED WOOD SHALL BE HOT-DIP GALVANIZED OR BETTER. PROVIDE 2 LAYERS OF 30# ASPHALT IMPREGNATED BUILDING PAPER BETWEEN NON-PRESSURE-TREATED LEDGERS, BLOCKING, ETC., AND CONCRETE

36. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NO. C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE I.C.C. OR IAPMO UES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. CONNECTORS SHALL BE SIZED TO MATCH THE SIZE OF THE FRAMING MEMBERS BEING CONNECTED. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. ALL BOLTS TIGHTENED TO SNUG TIGHT.

37. WOOD FASTENERS:

    A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

DRAWING ID	NAIL NAME	NAIL DIAMETER	NAIL LENGTH
"6d"	6d Common	0.113"	2"
"8d Box"	8d Box	0.113"	2-1/2"
"8d"	8d Common	0.131"	2-1/2"
"10d-F"	10d Framer	0.131"	3"
"10d"	10d Shear	0.148"	2-1/4"
"16d"	16d Sinker	0.148"	3-1/4"

    IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

    B. NAILS - SHEATHING FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

    C. SCREWS SHALL BE WOOD SCREWS OF THE DIAMETER AND LENGTH NOTED ON THE DRAWINGS. SDS FASTENERS ARE SIMPSON STRONG DRIVE SCREWS.

    D. HOT DIPPED GALVANIZED NAILS, BOLTS AND METAL PLATES - ALL NAILS, BOLTS AND METAL PLATES IN CONTACT WITH PRESSURE TREATED (INCLUDING FIRE-RETARDANT TREATED) LUMBER SHALL BE HOT DIPPED GALVANIZED.

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

    A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. TIGHTEN BOLTS AND LAG SCREWS SNUGLY AGAINST WOOD FRAMING AFTER WOOD HAS REACHED SPECIFIED MOISTURE CONTENT.

    B. WALL FRAMING: ALL BEARING AND SHEAR WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2 x 4 STUDS @ 16" O.C. AT INTERIOR WALLS AND 2 x 6 @ 16" O.C. AT EXTERIOR WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL BEARING AND SHEAR WALLS AND AT EACH SIDE OF ALL OPENINGS. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. ALL BEARING STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS AT 8" O.C. STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS WITH 3"x3"x1/4" PLATE WASHERS @ 4'-0" O.C., UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH 10d-F NAILS @ 8" O.C. STAGGERED. REFER TO THE PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING. WHEN NOT OTHERWISE NOTED, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES AND GYPSUM SHEATHING ON EXTERIOR SURFACES ATTACHED TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH SCREWS AT 8" O.C. USE 1-1/4 " W #6 SCREWS FOR 1/2" GWB AND 5/8" GWB WHERE OCCURS. USE 1-1/4" W #6 GALVANIZED SCREWS FOR 1/2" GWB AND 5/8" EXTERIOR GYPSUM SHEATHING, WHERE OCCURS. VERIFY THE FIRE ASSEMBLY REQUIREMENTS WHERE APPLICABLE WITH THE ARCHITECT.

    C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 10d-F NAILS @ 8" O.C. STAGGERED UNLESS OTHERWISE NOTED.

    D. POSITIVE CONNECTIONS: PROVIDE THE FOLLOWING SIMPSON CONNECTORS AT TYPICAL FRAMING UNLESS OTHERWISE NOTED ON PLAN OR DETAIL. PROVIDE CCQ/ECCQ CAPS AND PBS BASES AT POSTS. PROVIDE BC BASE WHERE POST BEARS ON WOOD FRAMING BELOW. PROVIDE LUS SERIES HANGERS FOR 2X FLOOR AND ROOF JOISTS. CONNECTORS SHALL BE SIZED TO MATCH THE SIZE OF THE FRAMING MEMBERS BEING CONNECTED.

ABBREVIATIONS

@	At	L	Angle
d	Penny (Nails)	LB.	Pound
ø	Diameter	LL	Live Load
°	Degrees	LLH	Long Leg Horizontal
...#	Pounds	LLV	Long Leg Vertical
#...	Number	LONGIT.	Longitudinal
		LT. WT.	Lightweight
(A)	Above		
A.B.	Anchor Bolt	MAX.	Maximum
ADD'L.	Additional	MECH.	Mechanical
ALT.	Alternate	MEZZ.	Mezzanine
APPROX.	Approximate	MF	Moment Frame
ARCH.	Architect	MFR.	Manufacturer
		MIN.	Minimum
(B)	Below	MISC.	Miscellaneous
B/	Bottom of	MK.	Mark
BF	Braced Frame		
BLKG.	Blocking	(N)	New
BLDG.	Building	N.	North
BM.	Beam	N.S.	Near Side
BOT.	Bottom	NOM.	Nominal
BRG.	Bearing	NTS	Not to Scale
BTWN.	Between		
		O.C.	On Center
℄	Centerline	O.D.	Outside Diameter
C	Camber	O.F.	Outside Face
CIP	Cast In Place	O.H.	Overhang
C.J.	Construction Joint or Control Joint	OPNG.	Opening
CJP	Complete Joint Penetration	OPP.	Opposite
CLG.	Ceiling		
CLR.	Clear	PAF	Powder Actuated Fastener
CMU	Concrete Masonry Unit	PC	Precast
COL.	Column	PERM.	Permanent
CONC.	Concrete	PERP.	Perpendicular
CONN.	Connections	PJP	Partial Joint Penetration
CONST.	Construction	PL or ℙ	Plate
CONT.	Continuous	PLF	Pounds per linear Foot
CSK.	Countersink	PLYWD	Plywood
		PREFAB.	Prefabricated
DBA	Deformed Bar Anchor	PSF	Pounds per Square Foot
DBL.	Double	PSI	Pounds per Square Inch
DEG.	Degree	P.T. or PT	Post-Tensioning
DF	Doug Fir-Larch	P/T	Pressure-Treated
DIA.	Diameter		
DIAG.	Diagonal	RAD.	Radius
DIAPH.	Diaphragm	REF.	Reference
DIM.	Dimension	REINF.	Reinforce or Reinforcement
DN.	Down	REQD.	Required
DO	Ditto	REV.	Revise
DTL.	Detail	R.O.	Rough Opening
DWG.	Drawing		
		S.	South
(E)	Existing	SCH. or SCHED.	Schedule
E.	East	SECT.	Section
EA.	Each	SHT.	Sheet
E.F.	Each Face	SIM.	Similar
EL.	Elevation	SOG	Slab On Grade
ELEV.	Elevator	SPEC.	Specification
EMBED.	Embedment Length	SQ.	Square
ENGR.	Engineer	SQ. FT.	Square Feet
EQ.	Equal	SQ. IN.	Square Inch(es)
E.W.	Each Way	SPF	Spruce-Pine-Fir
EXP.	Expansion	S.S.	Stainless Steel
EXT.	Exterior	STD.	Standard
		STIFF.	Stiffener
FDN.	Foundation	STL.	Steel
FIN.	Finish	STR.	Structural
FLR.	Floor	SUB.	Substitute
FRP	Fiber Reinforced Polymer	SYM.	Symmetrical
F.S.	Far Side		
FT.	Foot or Feet	T/	Top of
FTG.	Footing	T&B	Top and Bottom
		T&G	Tongue & Groove
GA.	Gauge	TEMP.	Temporary
GALV.	Galvanized	THRU	Through
GL	Glue Laminated	T.O.C.	Top of Concrete
GWB	Gypsum Wall Board	T.O.S.	Top of Steel
		T.O.W.	Top of Wall
HDG	Hot Dipped Galvanized	TRANS.	Transverse
HF	Hem Fir	TS	Tube Steel
HGR.	Hanger	TYP.	Typical
HORIZ.	Horizontal		
HSS	Hollow Structural Section	U.O.N.	Unless Otherwise Noted
HT.	Height		
		VERT.	Vertical
I.D.	Inside Diameter	VIF	Verify in Field
I.F.	Inside Face		
IN.	Inch	W.	West
INFO.	Information	W/ or w/	With
INT.	Interior	W.H.S.	Welded Headed Stud
		W/O	Without
JT.	Joint	WP	Work Point
		W.T.S.	Welded Threaded Stud
K	Kips	WWF	Welded Wire Fabric
KSF	Kips per Square Foot		
KSI	Kips per Square Inch	X SECT.	Cross Section
		X-STR	Extra Strong
		XX-STR	Double Extra Strong

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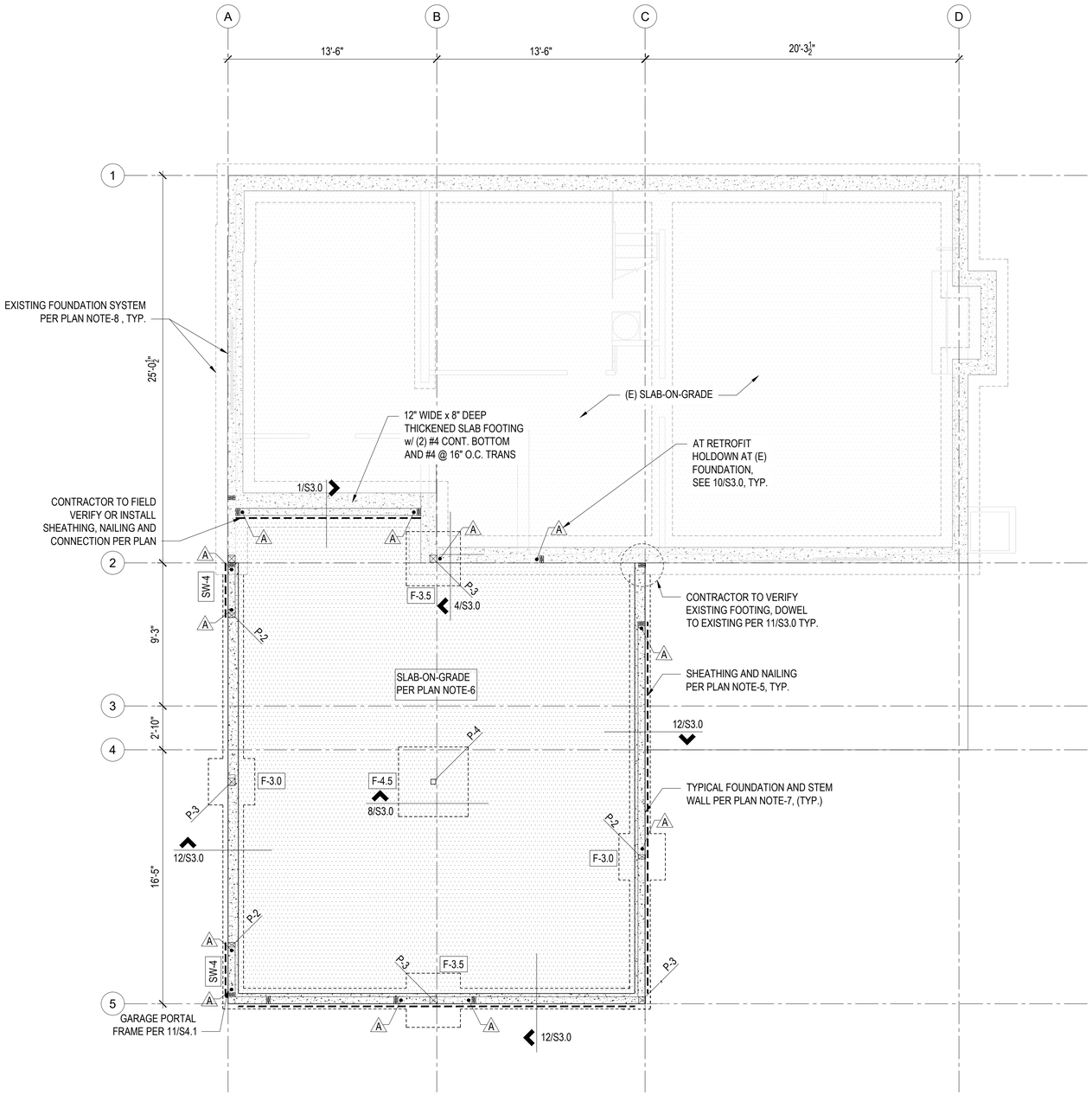
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GENERAL STRUCTURAL NOTES

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FOUNDATION PLAN

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

POST SCHEDULE	
MARK	SIZE
P-1	(3) 2x6
P-2	4x6
P-3	6x6
P-4	HSS 4x4x1/4"

NOTE: NOT ALL POSTS APPEAR ON ALL SHEETS.

FOOTING SCHEDULE	
MARK	SIZE
F-2.5	30" SQ. x 10" DEEP FOOTING w/ (3) #4 E.W. BOTTOM, TYP.
F-3.0	36" SQ. x 10" DEEP FOOTING w/ (4) #4 E.W. BOTTOM, TYP.
F-3.5	42" SQ. x 10" DEEP FOOTING w/ (4) #4 E.W. BOTTOM, TYP.
F-4.5	54" SQ. x 12" DEEP FOOTING w/ (6) #4 E.W. BOTTOM, TYP.

FOUNDATION PLAN NOTES:

1. TOPS OF ALL EXTERIOR FOOTINGS ON THIS PLAN SHALL BE BURIED BELOW FINISHED GRADE AS SHOWN IN THE DETAILS. FOOTINGS SHALL BEAR ON DENSE NATIVE MATERIAL, AS THERE IS NO GEOTECHNICAL ENGINEER ON THE PROJECT, CONTRACTOR TO VERIFY SUITABLE SOIL CONDITIONS.
2. FINAL SITE GRADES TO BE DETERMINED BY THE CONTRACTOR. CONTRACTOR SHALL COORDINATE UNDER SLAB PIPING REQUIREMENTS AS SHOWN IN 7/S3.0.
3. POSTS AND STUD PACKS SHALL BE CONTINUOUS TO FOUNDATION. TYPICAL STUD WALLS SHALL BE FRAMED USING HEM-FIR #2 2x STUDS @ 16" O.C., U.O.N.
4. ALL CONNECTIONS AND CONNECTORS IN CONTACT WITH PRESSURE-TREATED LUMBER TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL, PER GENERAL STRUCTURAL NOTES.
5. ALL NEW EXTERIOR WALLS TO BE SHEATHED AND NAILED PER SW-6 SCHEDULE U.N.O.
6. SLAB-ON-GRADE SHALL BE 4" THICK w/ WWF 6x6-W2.1xW2.1 MID-DEPTH OR #4 @ 16" O.C. E.W. MID-DEPTH, U.O.N. PROVIDE VAPOR BARRIER BELOW SLAB AS REQUIRED AND PER 2/S3.0. INSTALL CONSTRUCTION AND CONTROL JOINTS PER 2/S3.0.
7. TYPICAL FOOTING TO BE 16"W x 8" DP. CONC. FTG. w/(2) #4 BOTTOM AND #4 @ 16" O.C. TRANS. TYP. STEM WALL TO BE 8" STEM WALL w/REINF. PER 12/S3.0, TYP.
8. EXISTING FOUNDATION SYSTEM IS UNKNOWN AND WILL NEED TO BE FIELD VERIFIED.

TYPICAL REMODEL CONSTRUCTION NOTES:

1. CONTRACTOR MUST REVIEW STRUCTURAL DRAWINGS PRIOR TO CONSTRUCTION & NOTIFY DESIGN TEAM/OWNER OF ANY DISCREPANCY IN COMPARISON WITH ARCHITECTURAL DOCUMENTS OR FIELD CONDITIONS.
2. CONTRACTOR MUST FIELD VERIFY & NOTIFY DESIGN TEAM/OWNER OF EXISTING MECHANICAL, PLUMBING AND ELECTRICAL LINES THAT MAY INTERFERE WITH STRUCTURAL WORK PRIOR TO CONSTRUCTION. STRUCTURAL DRAWINGS MAY NOT REFLECT ALL EXISTING FRAMING CONDITIONS DUE TO LIMITED AVAILABILITY OF INFORMATION.
3. CONTRACTOR IS SOLELY RESPONSIBLE IN PROVIDING PROPER TEMPORARY SHORING PRIOR TO REMOVING ANY STRUCTURAL ELEMENTS.
4. ENGINEER IS NOT RESPONSIBLE FOR WATERPROOFING SYSTEM OR DETAILS. CONTRACTOR/OWNER SHALL CONSULT WITH QUALIFIED PROFESSIONALS AS REQUIRED.

DRAWING LEGEND	
MARK	DESCRIPTION
	(E) STUD WALL ABOVE
	(E) CONCRETE WALL
	(N) EXTERIOR STUD WALL ABOVE
	(N) CONCRETE WALL
	(E) FOOTING
	(N) FOOTING
	SLAB ON GRADE PER NOTE-6
	EXISTING SLAB ON GRADE
(N)	NEW
(E)	EXISITNG
PA	POST ABOVE
TYP	TYPICAL
SW-X	SHEAR WALL TYPE 'X' PER SCHEDULE 8/S4.0
X	HOLDOWN TYPE 'X' PER SCHEDULE 10/S3.0, 6/S3.0 & 12/S4.0

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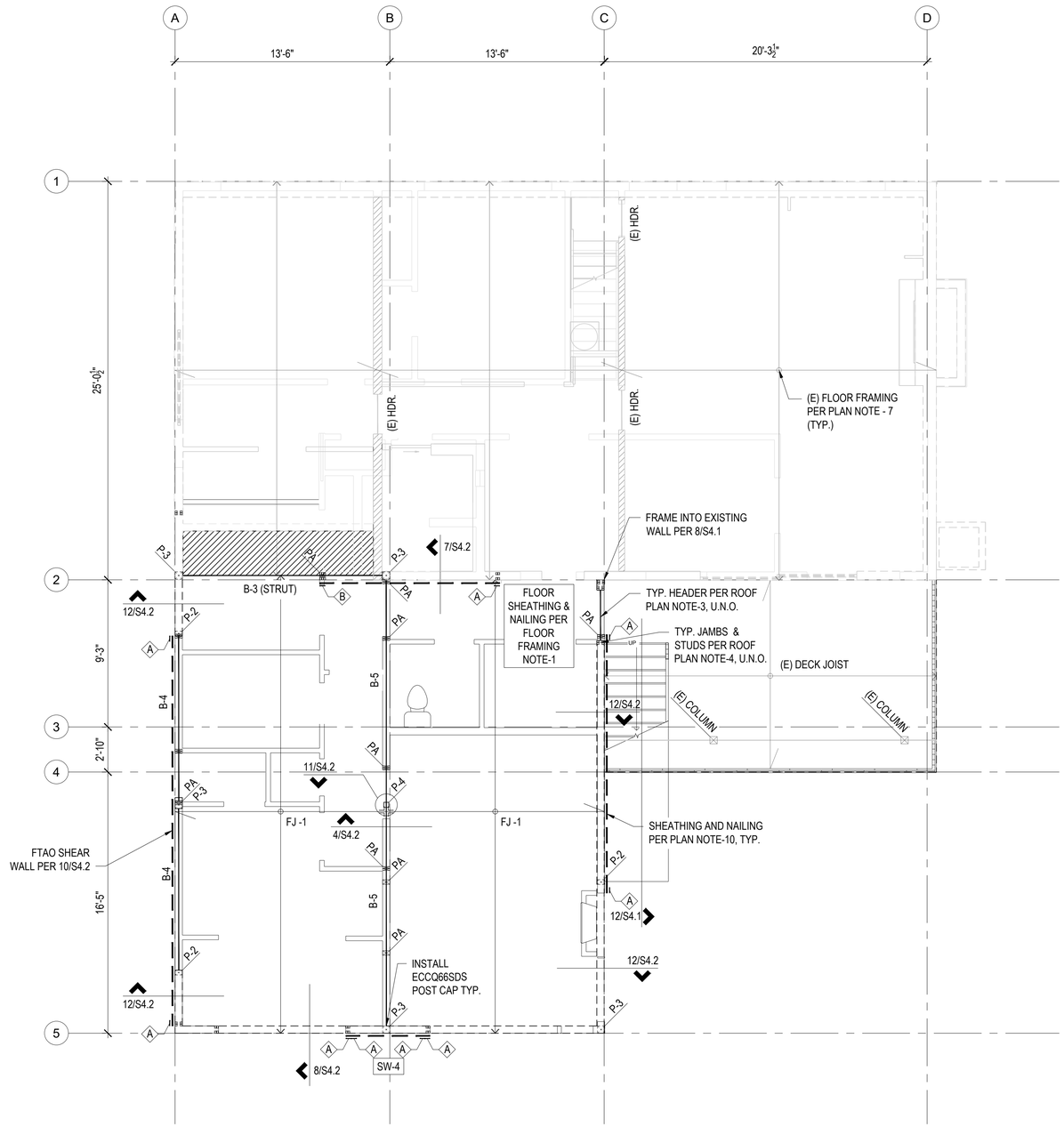
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SHEET NUMBER: S2.0



SECOND FLOOR FRAMING PLAN

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

DRAWING LEGEND	
MARK	DESCRIPTION
———	(N) HDR/BEAM
———	(E) HDR/BEAM
(E)	EXISTING
(N)	NEW
- - - - -	(E) STUD WALL BELOW
- - - - -	(E) INTERIOR WALL BELOW
	(N) INTERIOR BEARING STUD WALL BELOW
	(E) INTERIOR BEARING STUD WALL BELOW
	(N) STUD WALL ABOVE
	(E) STUD WALL ABOVE
	(N) EXTERIOR STUD WALL BELOW
	(N) INTERIOR NON BEARING WALL BELOW
PA	POST ABOVE
TYP	TYPICAL
SW-X	SHEAR WALL TYPE 'X' PER SCHEDULE 8/S4.0
X	STRAP TYPE 'X' PER SCHEDULE 10/S4.0
	(N) FRAMING DIRECTION
	EXISTING FRAMING DIRECTION
	WOOD BLOCKED DIAPHRAGM: AT ALL BLOCKED DIAPHRAGM AREAS ALL INSTALL 2x FLAT BLOCKING (PER GENERAL STRUCTURAL NOTES) AT ALL UNFRAMED PANEL EDGES. NAILS SHALL BE LOCATED AT LEAST 3/8" FROM EDGES OF PANEL. NAIL SHEATHING AT ALL INTERMEDIATE SUPPORTS w/ 10d @ 12" O.C.

JOIST SCHEDULE		
MARK	SIZE	HANGER
FJ-1	9 1/2" TJI 110 JOIST @ 16" O.C. PER FLOOR PLAN NOTE-2	PER MFR.

NOTE: NOT ALL JOISTS APPEAR ON ALL SHEETS.

NOTE: ALL EXISTING FLOOR FRAMING TO BE FIELD VERIFIED AND CONFIRMED PRIOR TO CONSTRUCTION

FLOOR FRAMING PLAN NOTES:

1. FLOOR SYSTEM SHALL CONSIST OF $^{23}/_{32}$" PERFORMANCE CATEGORY, APA RATED SHEATHING, $^{48}/_{24}$, EXPOSURE 1, NOMINAL 4'x8' (T&G OR SQUARE EDGE) PERMANENT OUTDOOR SHEATHING GRADE SHALL BE "EXTERIOR". NAIL SHEATHING AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, BLOCKING AND EXTERIOR SHEAR WALLS BELOW WITH 8d @ 6" O.C. PROVIDE ⅛" GAP AT ALL PANEL EDGE. FASTENER EDGE DISTANCE TO PANEL EDGE OF ⅜" MINIMUM. NAIL SHEATHING IN PANEL FIELD TO ALL STRUTS, STRUT BLOCKING, AND INTERIOR SHEAR WALLS BELOW WITH 8d @ 3" O.C. STAGGERED. NAIL SHEATHING AT ALL INTERMEDIATE SUPPORTS WITH 8d @ 12" O.C. GLUE SHEATHING AT ALL SUPPORTS WITH ADHESIVE CONFORMING TO ASTM SPECIFICATIONS D3498.
2. FLOOR FRAMING TO BE 9 1/2" TJI JOISTS @ 16" O.C. PROVIDE HANGERS PER MFR. AS REQUIRED. ALLOWABLE HOLES IN JOIST PER SUPPLIER SPECIFICATIONS. SUBMIT JOIST SHOP DRAWINGS FOR REVIEW AND APPROVAL.
3. BEAMS OVER INTERIOR & EXTERIOR OPENINGS SHALL BE (2)-2x8 H.F. #2 U.N.O. & DROPPED BELOW STUD WALL TOP PLATES PER 10/S4.1. AT EXISTING FRAMING BELOW, CONTRACTOR TO VERIFY MIN. (2)-2x8 HDR OR INSTALL NEW HDR AS NOTED.
4. POST AND JAMB STUDS AT END OF SUPPORTING BEAMS, GIRDER TRUSSES OR BELOW POSTS SHALL BE (3) STUDS AT A MINIMUM. TYP. HEADER STUDS WILL BE (2) CRIPPLE STUDS AND (1) KING STUD.
5. OTHER TYPICAL FRAMING DETAILS SHOWN ON SHEET S4.1
6. DO NOT SCALE DRAWINGS, REFER TO ARCH. DRAWINGS FOR ALL DIMENSIONS.
7. EXISTING FLOOR FRAMING CONSISTS OF 2x10 @ 16" O.C. FRAMING AND INTERIOR SUPPORT LOCATIONS. CONTRACTOR TO CLARIFY INTERIOR BEARING LOCATIONS PRIOR TO CONSTRUCTION. CONTACT HAREZLAK ENGINEERING FOR FURTHER REVIEW AS NECESSARY.
8. ALL FRAMING CONDITIONS: SIZED, SPACING, FRAMING DIRECTION ASSUMED PROVIDED BY ARCH. DRAWINGS. CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. CONTACT HAREZLAK ENGINEERING IF THERE ARE ANY DEVIATIONS FROM PLANS AS NOTED.
9. DO NOT SCALE DRAWINGS, REFER TO ARCH. DRAWINGS FOR ALL DIMENSIONS.
10. ALL NEW EXTERIOR WALLS TO BE SHEATHED AND NAILED PER SW-6 SCHEDULE, U.N.O.
11. TYPICAL POST CAPS, CONNECTORS, NOT SPECIFICALLY NOTED ON THE PLANS PER GENERAL STRUCTURAL NOTES.
12. FOR ALL DUCTS, CHASES, AND PIPES, REFERENCE MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS.
13. AT NEW DOUBLE TOP PLATE INTERFACE WITH EXISTING, INSTALL STRAP PER 10/S4.1 TYP.

BEAM/HEADER SCHEDULE		
MARK	SIZE	HANGER
B-1	3 1/2" x 7 1/4" LVL	N/A
B-2	3 1/2" x 11 7/8" LVL	HUC412SDS
B-3	5 1/4" x 9 1/2" LVL	N/A
B-4	5 1/4" x 11 7/8" LVL	N/A
B-5	5 1/4" x 16" LVL	N/A

NOTE: NOT ALL BEAMS APPEAR ON ALL SHEETS.

POST SCHEDULE	
MARK	SIZE
P-1	(3) 2x6
P-2	4x6
P-3	6x6
P-4	HSS 4x4x1/4"

NOTE: NOT ALL POSTS APPEAR ON ALL SHEETS.

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CHECKED BY: DV
APPROVED BY: PAH

04/01/2025

PROJECT INFORMATION:
XIAO ZHOU HOUSE ADDITION

PROJECT ADDRESS:
4433 86TH AVE SE
MERCER ISLAND, WA 98040

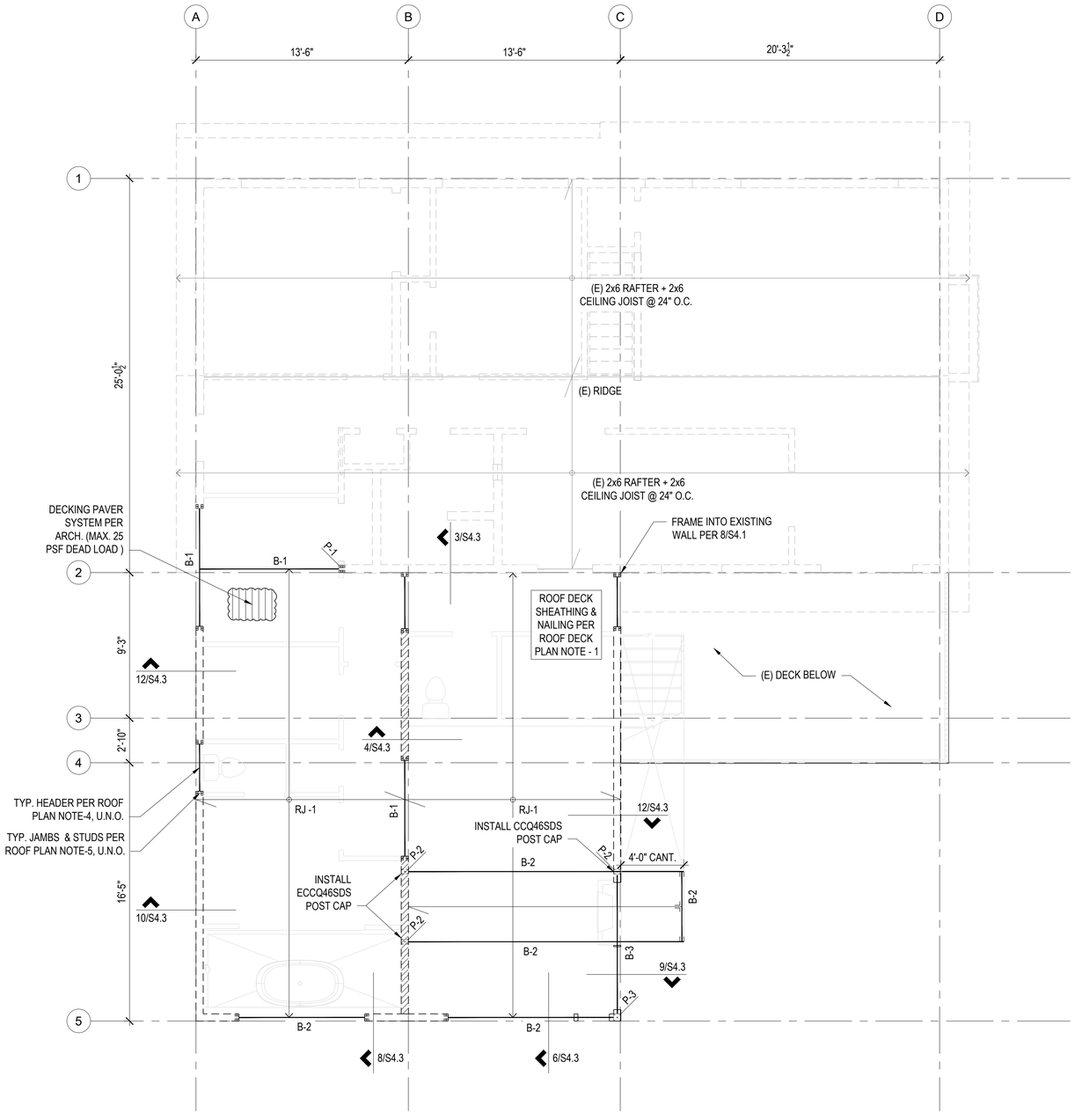
REVISIONS:

NO.	DESCRIPTION	DATE

PROJECT NUMBER: 25-009
ISSUE DATE: 04.01.2025
CURRENT REVISION: PERMIT

SHEET NAME:
SECOND FLOOR FRAMING PLAN

SHEET NUMBER:
S2.1



ROOF DECK FRAMING PLAN

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

POST SCHEDULE	
MARK	SIZE
P-1	(3) 2x6
P-2	4x6
P-3	6x6
P-4	HSS 4x4x1/4"

NOTE: NOT ALL POSTS APPEAR ON ALL SHEETS.

ROOF JOIST SCHEDULE	
MARK	SIZE
RJ-1	11 7/8" TJI 110 ROOF DECK JOIST @ 16" O.C.

NOTE: ALL EXISTING ROOF FRAMING TO BE FIELD VERIFIED AND CONFIRMED BY CONTRACTOR PRIOR TO CONSTRUCTION

ROOF DECK PLAN NOTES:

1. ROOF DECK SYSTEM SHALL CONSIST OF $^{23}/_{32}$" PERFORMANCE CATEGORY, APA RATED SHEATHING, $^{48}/_{24}$, EXPOSURE 1, NOMINAL 4'x8' (T&G OR SQUARE EDGE) PERMANENT OUTDOOR SHEATHING GRADE SHALL BE "EXTERIOR". NAIL SHEATHING AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, BLOCKING AND EXTERIOR SHEAR WALLS BELOW WITH 8d @ 6" O.C. PROVIDE $^1/_8$" GAP AT ALL PANEL EDGE. FASTENER EDGE DISTANCE TO PANEL EDGE OF $^3/_8$" MINIMUM. NAIL SHEATHING IN PANEL FIELD TO ALL STRUTS, STRUT BLOCKING, AND INTERIOR SHEAR WALLS BELOW WITH 8d @ 3" O.C. STAGGERED. NAIL SHEATHING AT ALL INTERMEDIATE SUPPORTS WITH 8d @ 12" O.C. GLUE SHEATHING AT ALL SUPPORTS WITH ADHESIVE CONFORMING TO ASTM SPECIFICATIONS D3498.
2. ROOF DECK FRAMING TO BE TJI JOIST PER PLAN AND SCHEDULE BELOW. MFR. TO PROVIDE TEMPORARY AND PERMANENT BRACING, BRIDGING, AND RELATED CONNECTIONS DETAILS. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS AND ARCH. DRAWINGS FOR HEIGHTS AND CONFIGURATIONS. TJI'S SHALL BE DESIGNED FOR TYPICAL TJI LOADING AS SHOWN IN THE GENERAL STRUCTURAL NOTES.
3. TJI SHOP DRAWINGS TO BE APPROVED BY HAREZLAK ENGINEERING PRIOR TO MANUFACTURING AND INSTALLATION.
4. ALL EXTERIOR HEADERS TO BE (2)-2x8 H.F. #2 U.N.O. AT EXISTING FRAMING BELOW, CONTRACTOR TO VERIFY MIN. (2)-2x8 HDR OR INSTALL NEW ADR AS NOTED.
5. POSTS OR JAMB STUDS AT END OF SUPPORTING BEAMS, GIRDER TRUSSES, OR BELOW POSTS SHALL BE (3) STUDS AT A MINIMUM. TYP. HEADER STUDS WILL BE (2) CRIPPLE STUDS AND (1) KING STUD.
6. EXISTING ROOF FRAMING ASSUMED AND NOTED ON PLAN. CONTRACTOR TO FIELD VERIFY EXISTING FRAMING SIZE, SPACING, SPANS, BEARING LOCATIONS. CONTACT HAREZLAK ENGINEERING FOR ANY DISCREPANCIES.
7. OTHER TYPICAL FRAMING DETAILS SHOWN ON SHEET S4.1
8. AT NEW DOUBLE TOP PLATE INTERFACE WITH EXISTING, INSTALL STRAP PER 10/S4.1, TYP.
9. OWNER AND ARCHITECT TO COORDINATE FRAMING WITH TJI SUPPLIER TO POSSIBLE ROOF INSTALLATION OVER ROOF DECK.
10. NON-STRUCTURAL WALL CONNECTION TO TJI PER 2/S4.1

DRAWING LEGEND	
MARK	DESCRIPTION
———	(N) HDR/BEAM
———	(E) HDR/BEAM
(E)	EXISTING
(N)	NEW
	(E) STUD WALL BELOW
	(N) EXTERIOR STUD WALL BELOW
	(N) INTERIOR NON BEARING WALL
	(N) INTERIOR BEARING STUD WALL BELOW
	(N) FRAMING DIRECTION
	EXISTING FRAMING DIRECTION

BEAM/HEADER SCHEDULE		
MARK	SIZE	HANGER
B-1	3 1/2" x 7 1/4" LVL	N/A
B-2	3 1/2" x 11 7/8" LVL	HUC412SDS
B-3	5 1/4" x 9 1/2" LVL	N/A
B-4	5 1/4" x 11 7/8" LVL	N/A
B-5	5 1/4" x 16" LVL	N/A

NOTE: NOT ALL BEAMS APPEAR ON ALL SHEETS.

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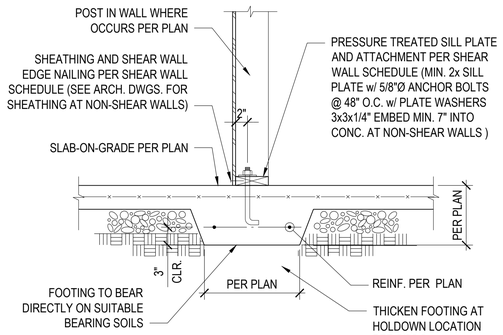
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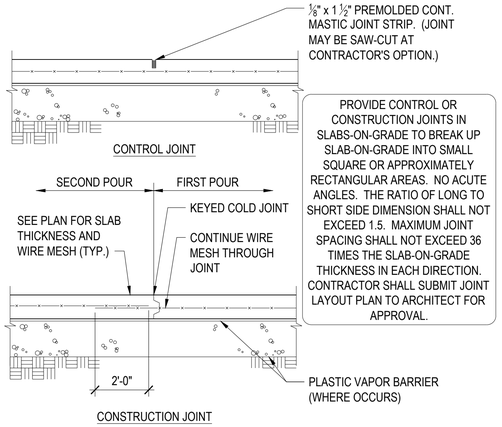
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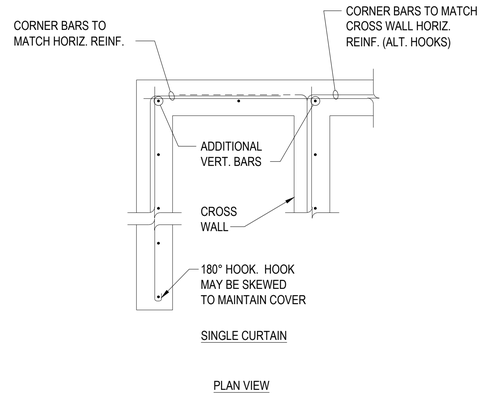
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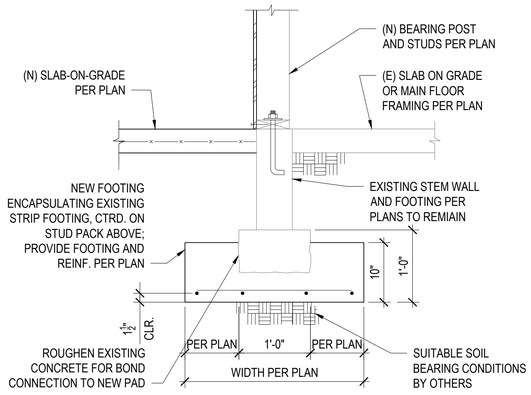
SHEET NAME:
ROOF DECK FRAMING PLAN

SHEET NUMBER:
S2.2



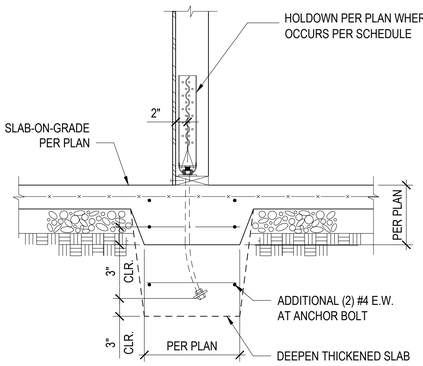






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NOTE:
FOR INFORMATION NOT NOTED, SEE 1/S3.0

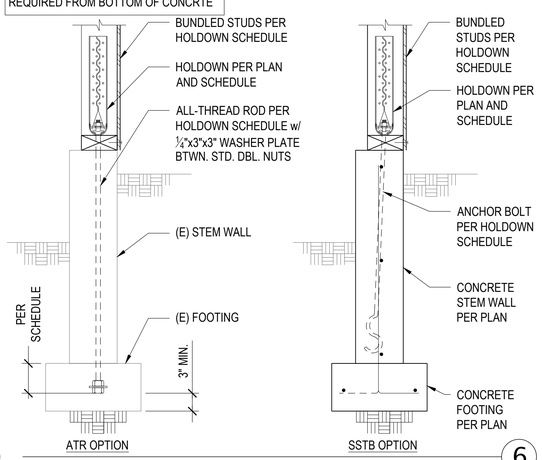


NOTE:
CONTRACTOR TO INSTALL
⅝"Ø ALL - THREAD ROD x 22" LONG w/ NUT & WASHER.

5

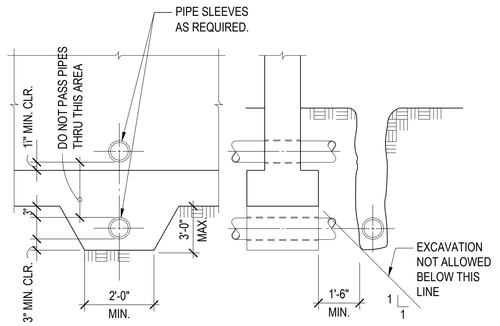
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NOTE:
THICKEN FOOTING AT HOLDOWN ANCHOR WHERE REQUIRED. MIN. 3" CLR. REQUIRED FROM BOTTOM OF CONCRTE



6

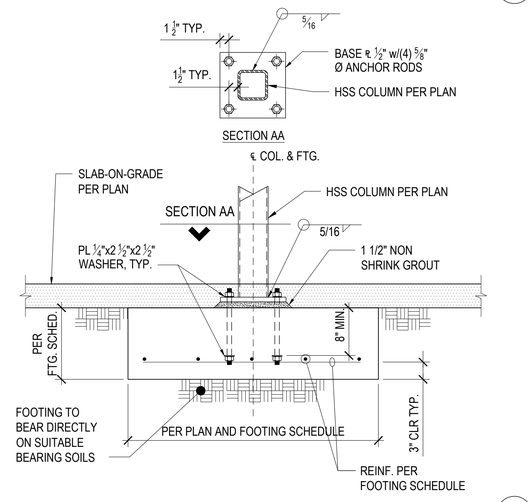
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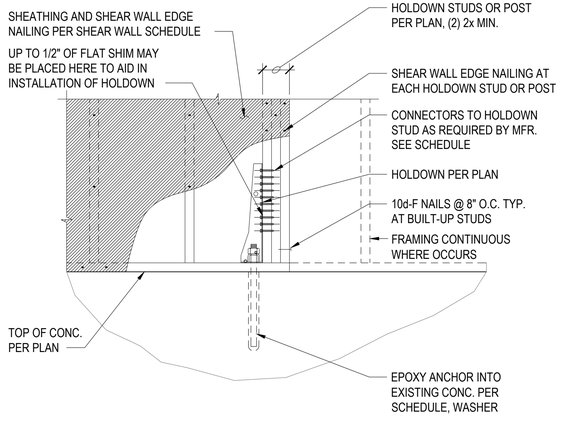
NOTE:
PIPES MUST RUN PERPENDICULAR THROUGH WALL (NOT SKEWED)

7

4



8

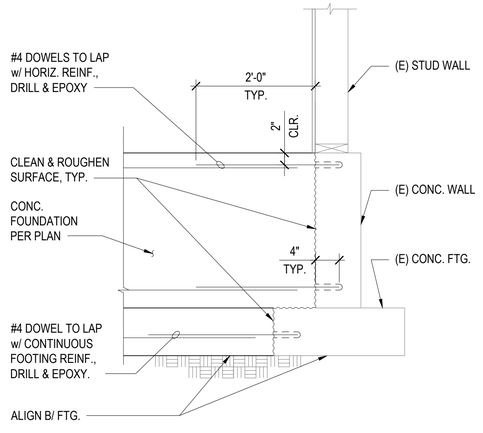


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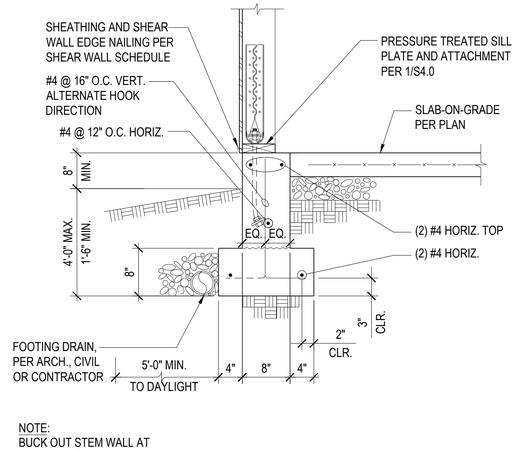
MARK	HOLDOWN	ANCHOR BOLT *	CONNECTORS TO HOLDOWN STUDS	END STUDS / POST
A	HDU5	SEE BELOW	(14) SDS ¼"x2 ½" SCREWS	(2) 2x

NOTE:
PROVIDE HOT DIPPED GALVANIZED NAILS, BOLTS, OR METAL PLATES FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED MEMBERS.

* INSTALL ⅝" Ø GALVANIZED ALL - THREAD ROD w/ 8" EMBED INTO (E) STEM WALL, STD. WASHER AND NUT ALL-THREAD INTO (E) SILL PLATE AT HOLDOWN LOCATIONS



11



NOTE:
BUCK OUT STEM WALL AT GARAGE DOOR AS NEEDED

12

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04/01/2025

PROJECT INFORMATION:
XIAO ZHOU HOUSE ADDITION

PROJECT ADDRESS:
4433 86TH AVE SE
MERCER ISLAND, WA 98040

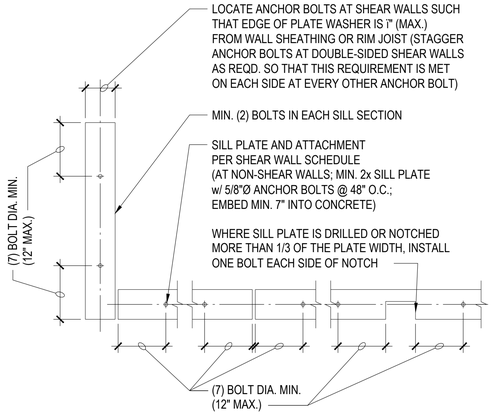
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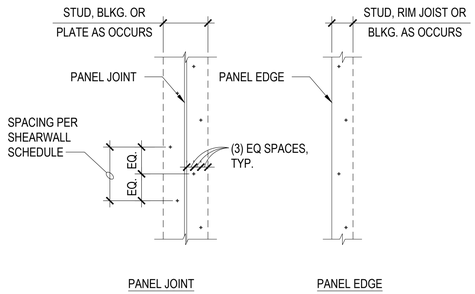
NO.	DESCRIPTION	DATE

PROJECT NUMBER: 25-009
ISSUE DATE: 04.01.2025
CURRENT REVISION: PERMIT

SHEET NAME:
FOUNDATION DETAILS

SHEET NUMBER:
S3.0





NOTE:
STAGGER EA. LINE OF NAILING (AT ALL PANEL EDGES) AS INDICATED

SHEAR WALL SCHEDULE (HEM-FIR, 10d NAILING)										
SHEAR WALL TYPE	SHEAR WALL SHEATHING (1)	PANEL EDGE FRAMING (2)(7)	PANEL EDGE NAILING (3)	BOTTOM PLATE ATTACHMENT			TOP PLATE ATTACHMENT		ALLOWABLE SHEAR WALL CAPACITY (PLF)	
				2x BOTTOM PLATE CONNECTION TO RIM JOIST OR BLOCKING BELOW	ANCHOR BOLTING OF SILL PLATE TO CONCRETE BELOW (4)(5)		RIM JOIST OR BLOCKING CONNECTION TO TOP PLATE (6)			
					3x PLATE	2x PLATE	INTERIOR WALL	EXTERIOR WALL	SEISMIC	WIND
SW-6	15/32" APA ONE-SIDE SHTG.	2x	0.148"Øx2 ¼" @ 6" O.C. (8)	0.148"Øx3 ¼" @ 6" O.C. (9)	5/8"Ø @ 48" O.C.	5/8"Ø @ 48" O.C.	A35 @ 16" O.C.	LTP4 @ 16" O.C.	288	405
SW-4	15/32" APA ONE-SIDE SHTG.	3x OR (2) 2x	0.148"Øx2 ¼" @ 4" O.C. (8)	0.148"Øx3 ¼" @ 4" O.C. (9)	5/8"Ø @ 48" O.C.	5/8"Ø @ 32" O.C.	A35 @ 16" O.C.	LTP4 @ 16" O.C.	428	600

NOTES:

(1) INSTALL PANEL SHEATHING EITHER HORIZONTALLY OR VERTICALLY FOR THE ENTIRE LENGTH OF THE WALL PER PLAN.

(2) ALL INTERMEDIATE WALL STUDS SHALL BE PER PLAN. PROVIDE BACKING FRAMING AT ALL PANEL EDGES INCLUDING HORIZONTAL BLOCKING PER THE SCHEDULE.

(3) PROVIDE NAILING TO ALL PANEL EDGES, TOP & BOTTOM PLATES AND HORIZONTAL BLOCKING. PROVIDE THE SAME NAILING PATTERN TO EACH MULTIPLE STUD OF THE BUILT-UP HOLD DOWN POST. NAIL PANEL TO INTERMEDIATE FRAMING MEMBERS w/ 0.131"Ø x 2 ½" @ 12" O.C.

(4) EMBED CAST-IN-PLACE 5/8"Ø ANCHOR BOLTS 7" MIN. (OR EMBED ADHESIVE ANCHOR BOLTS 5 1/2" IN (E) CONCRETE; SEE STRUCTURAL NOTES). PROVIDE PLATE WASHER 3" x 3" x 1/4" AT EACH ANCHOR BOLT. SILL PLATES SHALL BE TREATED PER GENERAL NOTES, AND SHALL BE 2x OR 3x PER THE SCHEDULE. SEE DETAIL 1/S4.0 FOR OTHER REQUIREMENTS.

(5) PROVIDE HOT DIPPED GALVANIZED NAILS, BOLTS, OR METAL PLATES FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED MEMBERS.

(6) PROVIDE 0.131"Ø x 1-1/2" LONG NAILS FOR CLIPS DIRECTLY ATTACHED TO FRAMING MEMBERS; PROVIDE 0.131"Ø x 2-1/2" LONG NAILS FOR CLIPS INSTALLED OVER FLOOR OR WALL SHEATHING ON FRAMING MEMBERS. SEE 6/S4.1 FOR TOP PLATE SPLICE.

(7) ALTERNATIVE TO 3x STUDS AND 3x HORIZ. BLOCKING IS (2) 2x STUDS/BLKG. NAILED TOGETHER WITH 0.148"Ø x 3" LONG NAILS WITH THE SAME SPACING AS THE PANEL EDGE NAILING PER THE SCHEDULE (STAGGER).

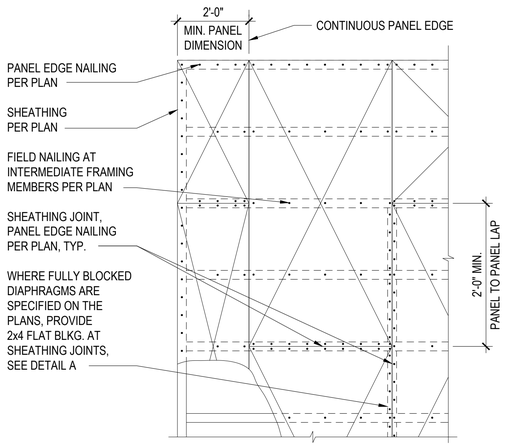
(8) STAGGER NAILS PER 2/S4.0.

(9) RIM JOIST/BLOCKING MINIMUM WIDTH OF 1 ¾". STAGGER NAILS PER 2/S4.0 WHERE SPACING IS LESS THAN 6" O.C.

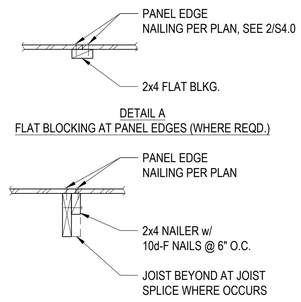
(10) RIM JOIST/BLOCKING MINIMUM WIDTH OF 1 ¾" AT EXTERIOR WALLS, 3 ½" AT INTERIOR WALLS. STAGGER NAILS PER 2/S4.0.

(11) STAGGER ANCHOR BOLTS ON EITHER SIDE OF SILL PLATE AS NOTED ON 1/S4.0.

1



2

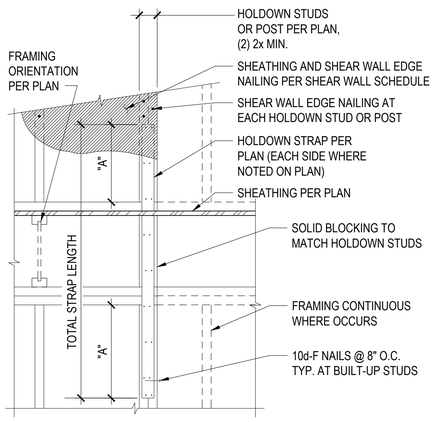


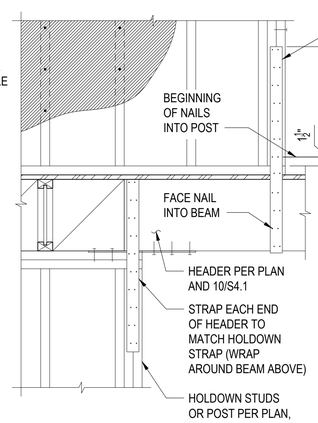
DETAIL A
FLAT BLOCKING AT PANEL EDGES (WHERE REQD.)

DETAIL B
PANEL EDGE NAILING AT JOIST SPLICE

NOTES:
1. RUN LONG DIMENSION OF SHEATHING PANELS PERPENDICULAR TO FRAMING.
2. WHERE FRAMING LAP SPLICE AND SHEATHING JOINTS ARE OFFSET, SEE DETAIL B ABOVE.

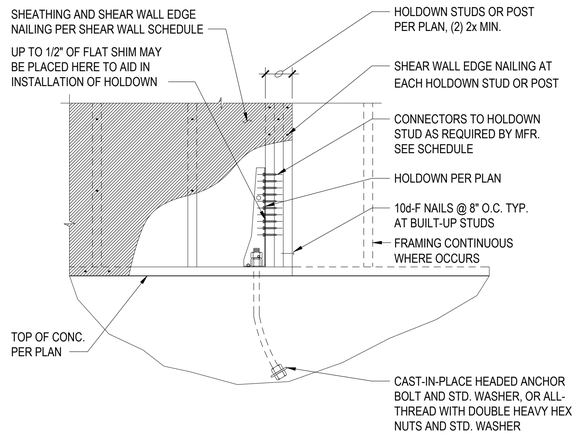
6





MARK	HOLDOWN STRAP	MIN. NUMBER OF NAILS EACH END	MIN. STRAP END LENGTH "A"
A	CS16	(15) 8d	1'-4"
B	MSTC66B3	(12) 10d FACE (4) 10d FACE	1'-0"

10



NOTE:
SEE 10/S3.0 FOR RETROFIT HOLDOWN AND 6/S3.0

MARK	HOLDOWN	ANCHOR BOLT *	CONNECTORS TO HOLDOWN STUDS	END STUDS / POST
A	HDU5	SB 5/8 x 24"	(14) SDS ¼"x2½" SCREWS	(2) 2x

NOTE:
PROVIDE HOT DIPPED GALVANIZED NAILS, BOLTS, OR METAL PLATES FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED MEMBERS.

* CONTRACTOR OPTION TO PROVIDE THREADED ROD IN LIEU OF ANCHOR IN SCHEDULE. DIAMETER TO BE AS INDICATED, CONTACT HAREZLAK ENGINEERING FOR PROJECT SPECIFIC EMBED REQUIREMENTS.

8

12

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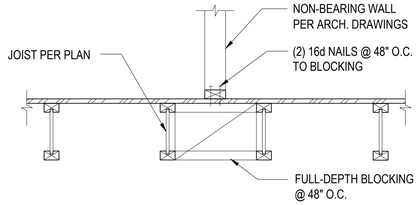
REVISIONS:

NO.	DESCRIPTION	DATE

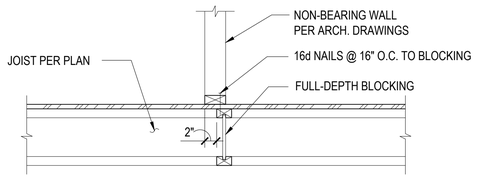
PROJECT NUMBER: 25-009
ISSUE DATE: 04.01.2025
CURRENT REVISION: PERMIT

SHEET NAME: FRAMING SCHEDULES

SHEET NUMBER: S4.0

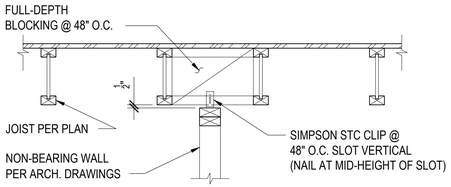


WALL PARALLEL TO FLOOR FRAMING

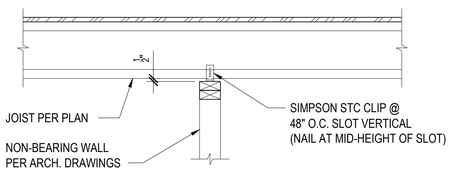


WALL PERPENDICULAR TO FLOOR FRAMING

1

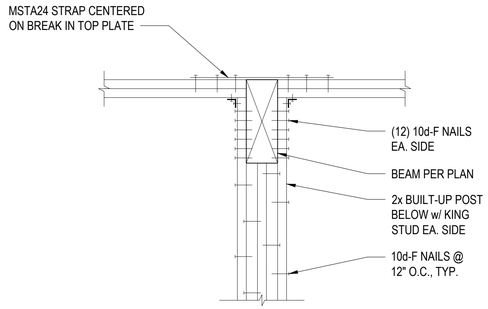


WALL PARALLEL TO ROOF/FLOOR FRAMING



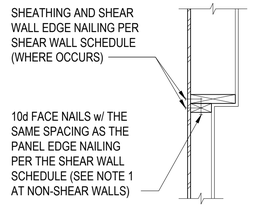
WALL PERPENDICULAR TO ROOF/FLOOR FRAMING

2

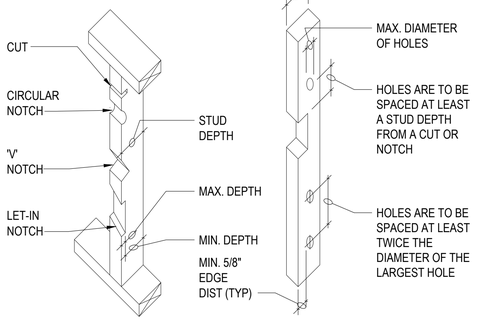


3

NOTES:
1. AT NON-SHEAR WALLS, NAIL STUDS TOGETHER WITH 10d-F NAILS @ 8" O.C.
2. ADDITIONAL STUDS REQUIRED AS NAILERS, ETC. ARE NOT SHOWN.



VARYING WALL SIZE



A. CUTTING AND NOTCHING WOOD STUDS
(DO NOT NOTCH MORE THAN 3 ADJACENT STUDS w/o REVIEW BY ENGINEER)

BEARING WALL STUDS:

STUD SIZE	MAX. DEPTH OF SAW CUT OR NOTCH	MIN. DEPTH REMAINING AFTER CUT OR NOTCH
2x4	7/8"	2-3/8"
2x6	1-3/8"	4-1/8"
2x8	1-7/8"	5-3/8"

NON-BEARING WALL STUDS:

STUD SIZE	MAX. DEPTH OF SAW CUT OR NOTCH	MIN. DEPTH REMAINING AFTER CUT OR NOTCH
2x4	1-1/2"	2"
2x6	2-3/8"	3-1/8"
2x8	3"	4-1/4"

B. HOLES IN WOOD STUDS

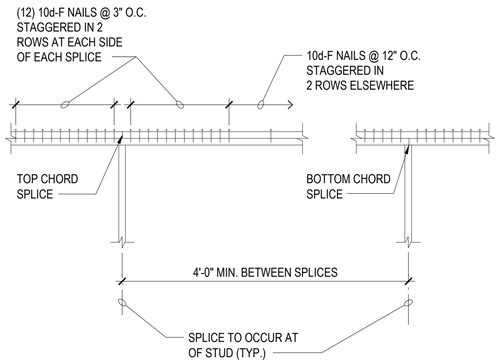
BEARING WALL:

STUD SIZE	MAX. DIAMETER OF HOLE
2x4	1-1/2"
2x6	2-3/8"
2x8	3"

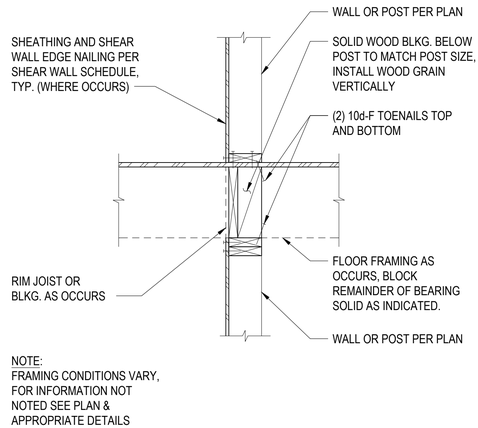
NON-BEARING WALL:

STUD SIZE	MAX. DIAMETER OF HOLE
2x4	2-1/4"
2x6	3-3/8"
2x8	4-1/2"

9

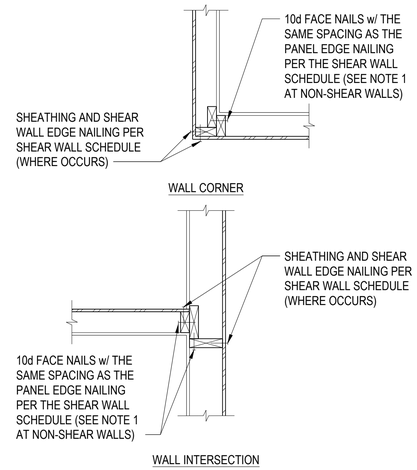


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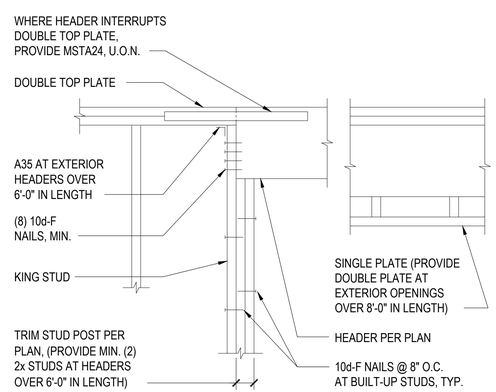
NOTE:
FRAMING CONDITIONS VARY, FOR INFORMATION NOT NOTED SEE PLAN & APPROPRIATE DETAILS

7

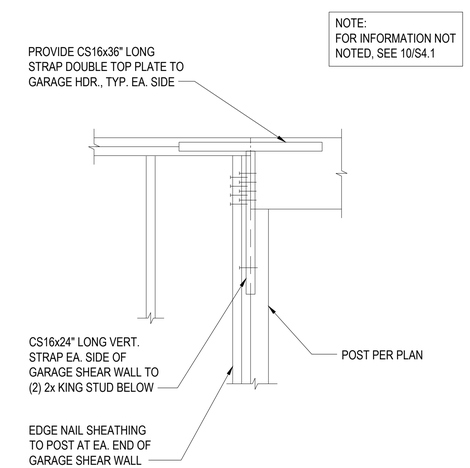


WALL INTERSECTION

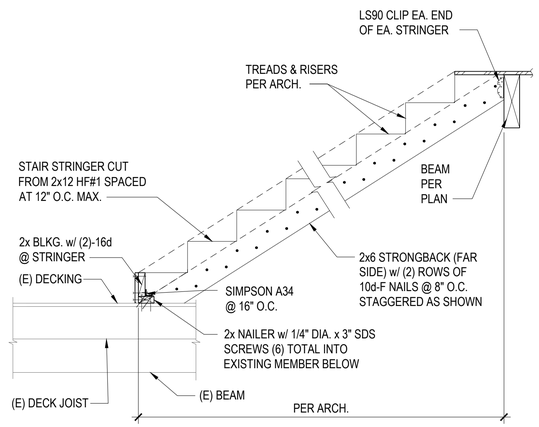
8



10



11



NOTE:
CONTRACTOR TO FIELD VERIFY EXISTING DECK FRAMING. INSTALL NEW DOUBLE JOIST AND BLKG EA. SIDE OF WHERE LANDING FRAMES INTO EXISTING STAIR

12

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55577
REGISTERED
PROFESSIONAL ENGINEER

DRAWN BY: NP
CHECKED BY: DV
APPROVED BY: PAH

04/01/2025

PROJECT INFORMATION:
XIAO ZHOU HOUSE ADDITION

PROJECT ADDRESS:
4433 86TH AVE SE
MERCER ISLAND, WA 98040

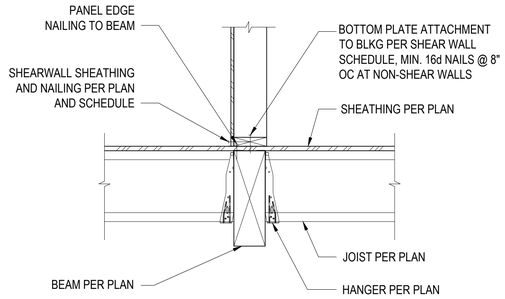
REVISIONS:

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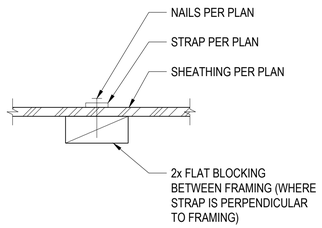
PROJECT NUMBER: 25-009
ISSUE DATE: 04.01.2025
CURRENT REVISION: PERMIT

SHEET NAME:
FRAMING DETAILS

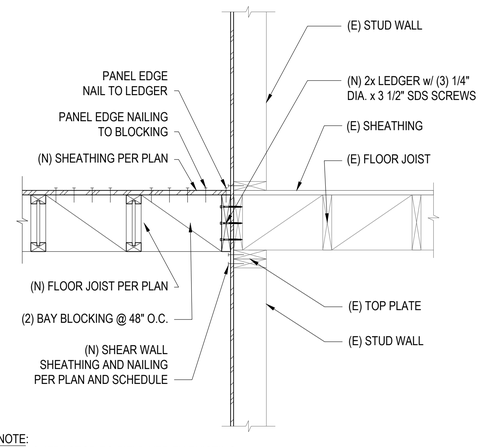
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S4.1



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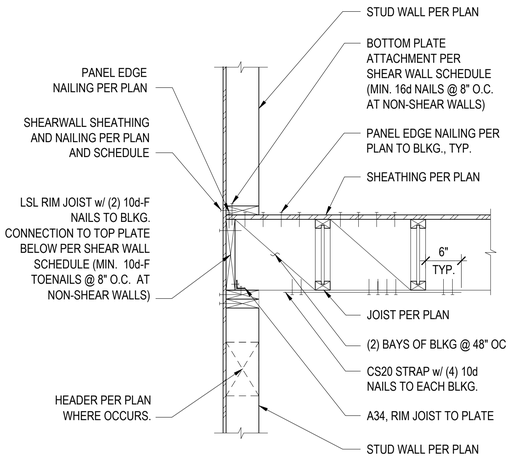


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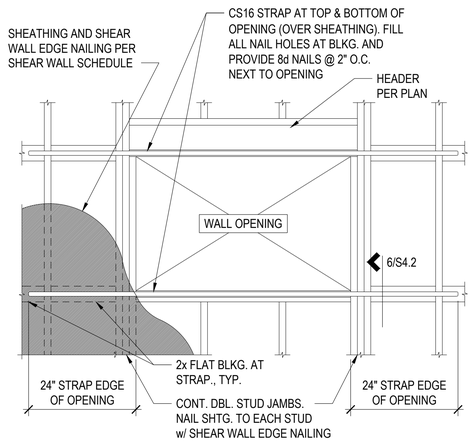
NOTE:
- CONTRACTOR TO FIELD VERIFY EXISTING FRAMING PRIOR TO CONSTRUCTION

3

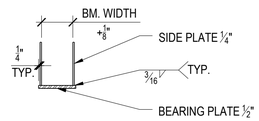


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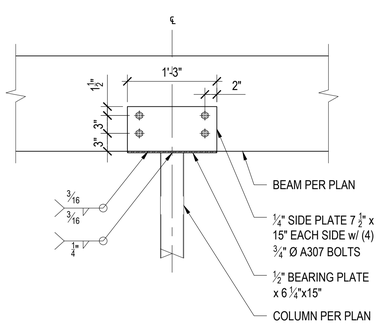
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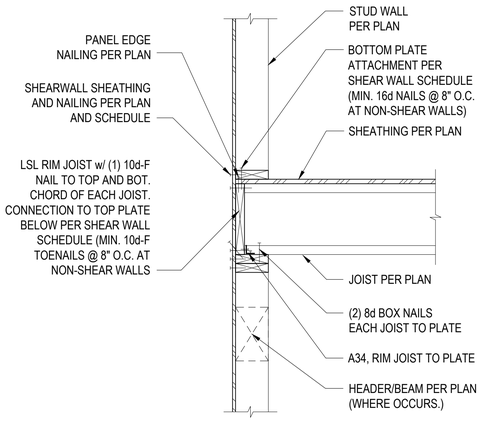


SECTION A



7

8



9

10

11

12

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04/01/2025

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REVISIONS:

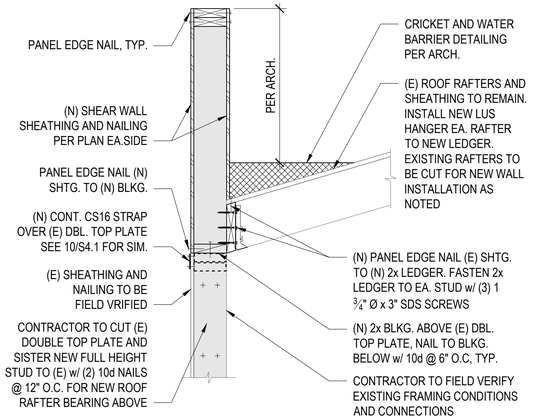
NO.	DESCRIPTION	DATE

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CURRENT REVISION: PERMIT

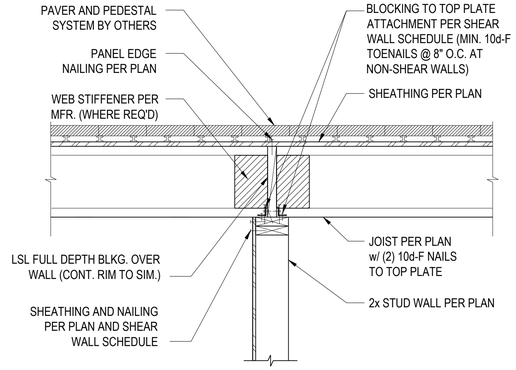
SHEET NAME:
FLOOR FRAMING DETAILS

SHEET NUMBER:
S4.2

NOTES:
1. SHORING OF ROOF SYSTEM IS BY CONTRACTOR.



1

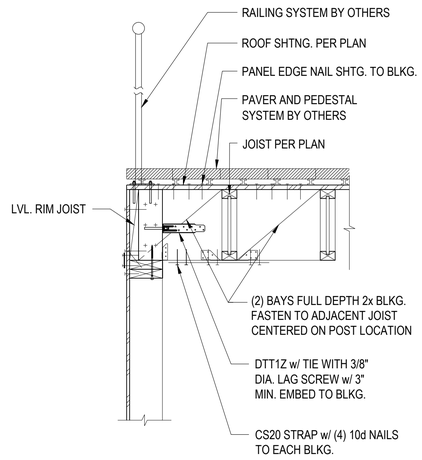


NOTES:
SEE ARCHITECT OR CONTRACTOR DESIGN FOR VENTING REQUIREMENTS (DO NOT INTERRUPT NAILING)

2

3

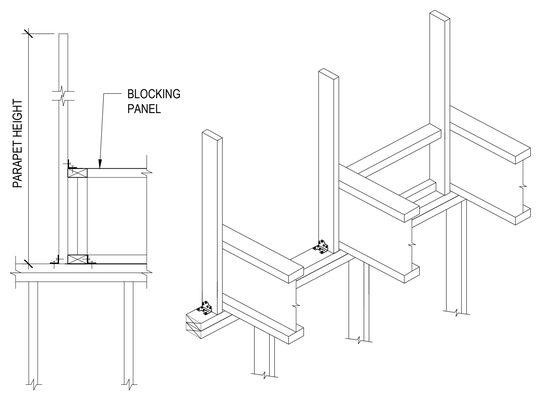
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NOTES:
FOR SIMILAR CALLOUTS, SEE 10/S4.3 & 8/S4.2

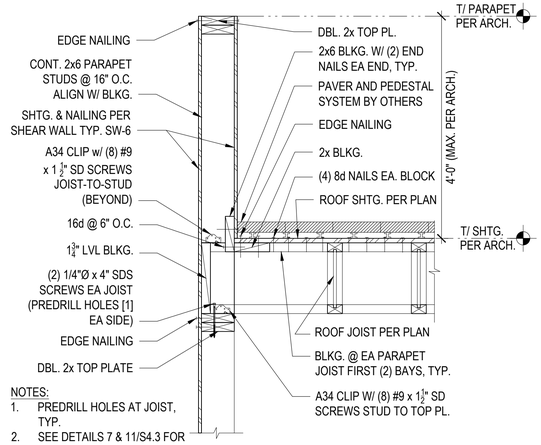
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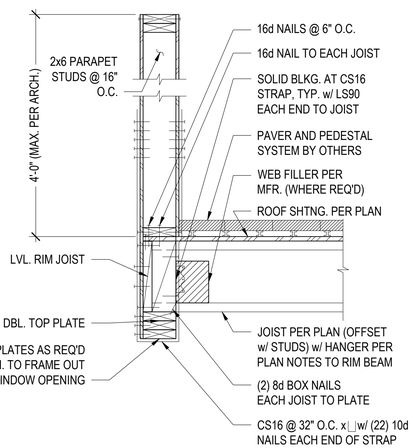
DETAIL FOR REFERENCE ONLY

7

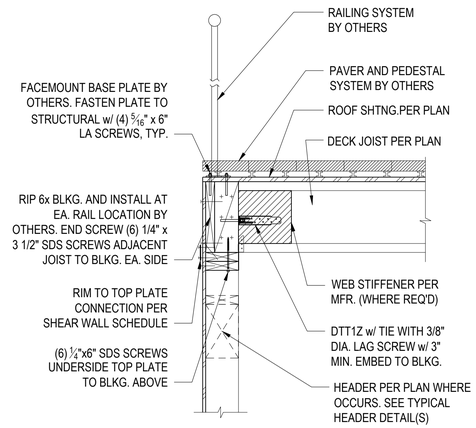


NOTES:
1. PREDRILL HOLES AT JOIST, TYP.
2. SEE DETAILS 7 & 11/S4.3 FOR ADDITIONAL CLARIFICATION

8



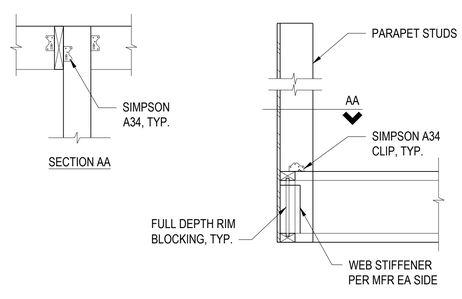
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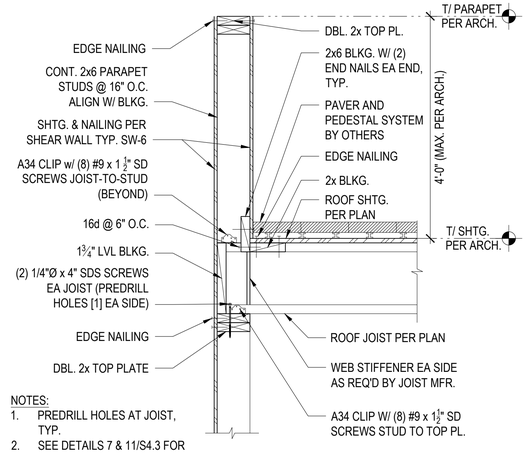


10

DETAIL FOR REFERENCE ONLY

11





NOTES:
1. PREDRILL HOLES AT JOIST, TYP.
2. SEE DETAILS 7 & 11/S4.3 FOR ADDITIONAL CLARIFICATION

12

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04/01/2025

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MERCER ISLAND, WA 98040

REVISIONS:

NO.	DESCRIPTION	DATE

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ISSUE DATE: 04.01.2025
CURRENT REVISION: PERMIT

SHEET NAME:
ROOF DECK FRAMING DETAILS

SHEET NUMBER:
S4.3