

# WISENTEINER RESIDENCE ADDITION

2967 74th AVE SE, Mercer Island, WA 98040



303 Nickerson Street | Seattle, WA  
ryanrhodesdesigns.com | 206.632.1818

## PROJECT INFORMATION CONTACT INFORMATION

ADDRESS:  
2967 74th AVE SE  
MERCER ISLAND, WA 98040  
TAX I.D. #: 531510-0786

DESIGNER:  
RYAN RHODES DESIGNS, INC.  
CONTACT: RYAN RHODES  
303 NICKERSON STREET  
SEATTLE, WA 98109  
(206) 632-1818 -phone  
ryan@ryanrhodesdesigns.com

SCOPE OF WORK: SECOND STORY ADDITION

ZONING: R-9.6

LOT SIZE: 11,448 SF (.26 ACRES)

OWNER:  
DAVID & LORI WISENTEINER  
2967 74th AVE SE  
MERCER ISLAND, WA 98040

DESIGNER:  
RYAN RHODES DESIGNS, INC.  
CONTACT: RYAN RHODES  
303 NICKERSON STREET  
SEATTLE, WA 98109  
(206) 632-1818 -phone  
ryan@ryanrhodesdesigns.com

STRUCTURAL ENGINEER:  
SWENSON SAY FAGET  
CONTACT: CHRIS POTTER  
934 BROADWAY, SUITE 100  
TACOMA, WA 98402  
(253) 284-9470  
cpotter@swensonsayfaget.com

## SHEET INDEX

A0.0	SITE PLAN, PROJECT INFORMATION
A1.0	AS-BUILT FLOOR PLANS
A1.1	PROPOSED FLOOR PLANS
A2.0	PROPOSED EXTERIOR ELEVATIONS
A2.1	PROPOSED EXTERIOR ELEVATIONS
A3.0	BUILDING SECTIONS AND TYP. WALL SECTION
A4.0	WINDOW/DOOR SCHEDULES & TYP DETAILS
S0.0	GENERAL STRUCTURAL NOTES
S1.1	FRAMING PLANS
S2.0	STRUCTURAL DETAILS
S2.1	STRUCTURAL DETAILS <span style="color:red">▲</span>

## VENTILATION NOTES

ATTIC AREA: 625 SF  
S.F. REQUIRED: 625/150 = 4.2 SF  
PROPOSED: (12) vents @ .38 SF = 4.5 SF  
TOTAL = 4.5 SF ▲

## PROJECT/CODE SUMMARY

ALL WORK TO COMPLETED IN COMPLIANCE WITH THE NEWEST VERSION OF THE FOLLOWING CODES AND REGULATIONS AS REQUIRED:

2015 INTERNATIONAL BUILDING CODE  
2015 INTERNATIONAL RESIDENTIAL CODE  
2015 UNIFORM PLUMBING CODE  
2015 INTERNATIONAL FUEL GAS CODE  
2014 NATIONAL ELECTRIC CODE  
2015 INTERNATIONAL MECHANICAL CODE  
2015 INTERNATIONAL ENERGY CONSERVATION CODE

TABLE R402.1.1  
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT\*

CLIMATE ZONE	5 AND MARINE 4
FENESTRATION U-FACTOR*	0.30
SKYLIGHT* U-FACTOR	0.50
GLAZED FENESTRATION SHGC*	NR
CEILING R-VALUE*	49
WOOD FRAME WALL, 8" MIN R-VALUE	21 in1
Mass Wall R-Value†	21/21
FLOOR R-VALUE	30
BELOW-GRADE** WALL R-VALUE	10/15/21 in1 + TB
SLAB* R-VALUE & DEPTH	10, 2 ft

## ENERGY CREDITS

SMALL DWELLING UNIT 1.5 CREDITS REQUIRED PER SEC R406.2, ENERGY CREDITS MEET BY OPTION 1a AND OPTION 5b

Table 406.2  
Energy Credits (2015 Code)

OPTION	DESCRIPTION	CREDITS	Estimated Cost
1a	EFFICIENT BUILDING ENVELOPE 1a: Prescriptive compliance is based on Table R402.1.1 with the following modifications: Vertical fenestration U = 0.28 Floor R-18 Slab on grade R-10 perimeter and under entire slab Below grade slab R-10 perimeter and under entire slab or Compliance based on Section R402.1.4. Reduce the Total UA by 5%.	0.5	
5b	EFFICIENT WATER HEATING 5b: Water heating systems shall include one of the following: Gas, propane or oil water heater with a minimum EF of 0.74 or Water heater heated by ground source heat pump meeting the requirements of Option 3c. or For R-2 occupancy, a central heat pump water heater with an EF greater than 2.0 that would supply DHW to all the units through a central water loop insulated with R-8 minimum pipe insulation. To qualify to claim this credit, the building permit drawings shall specify the option being selected and shall specify the water heater equipment type and the minimum equipment efficiency.	1.0	

## GENERAL NOTES

- Any specific reference to codes, rules, regulations, standards, manufacturer's instructions or requirements of regulatory agencies shall mean the latest printed edition of each is in effect at the date of submission or bid unless the document is shown dated.
- A copy of the approved plan must be on site whenever construction is in progress.
- Paved surfaces including roadways, sidewalks, and curbs that are damaged by new construction shall be repaired as required by the street use inspector.
- All locations of existing utilities shown herein have been established by a field survey or obtained from available records and should be considered approximate only and not necessarily complete. It is the sole responsibility of the contractor to independently verify the accuracy of all utility locations shown and to further discover and void any other utilities not shown herein which may be affected by the implementation of this plan.
- The Contractor shall locate and protect all castings and utilities during construction and shall contact the underground utilities locator service (1-800-424-5555) at least 48 hours prior to construction.
- Utility Service connections shown on this plan are to be maintained privately.

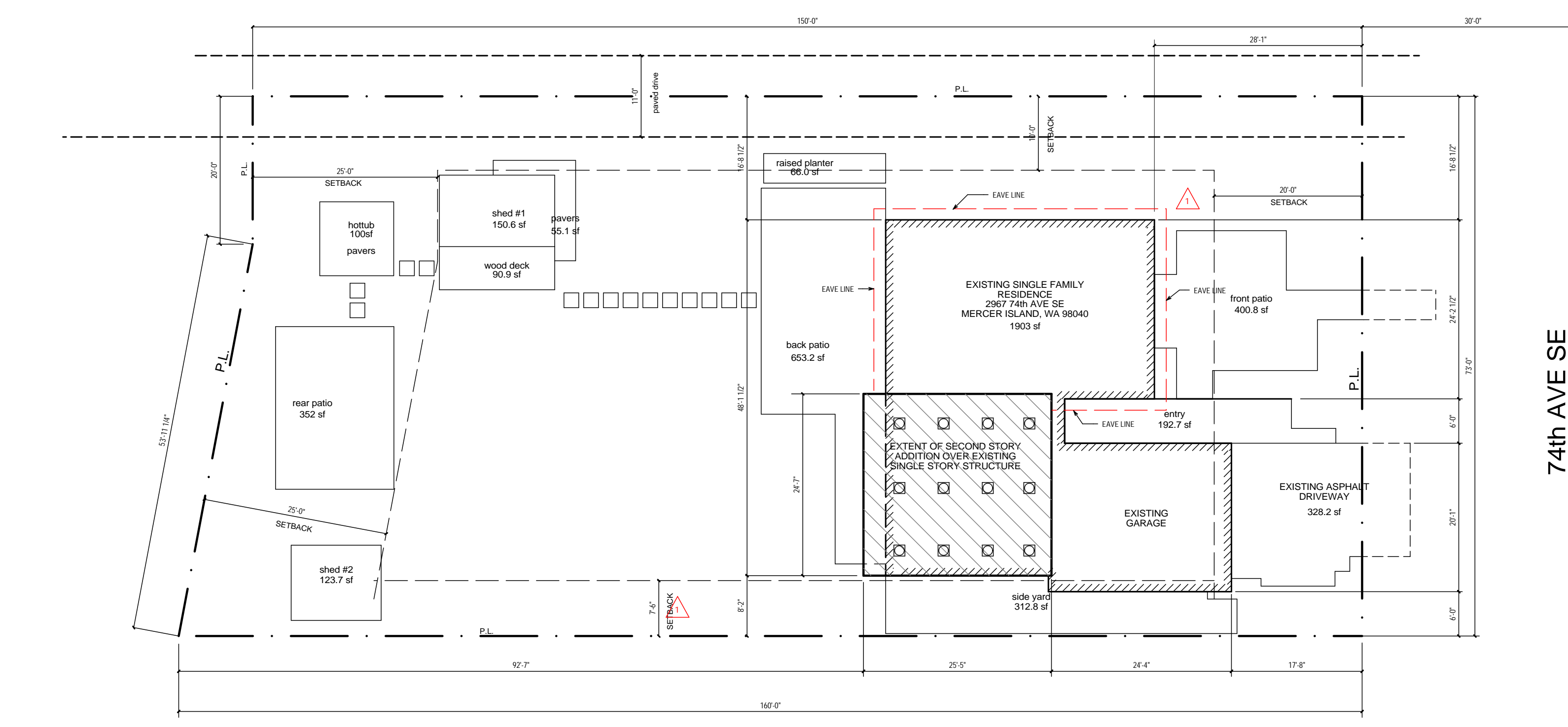
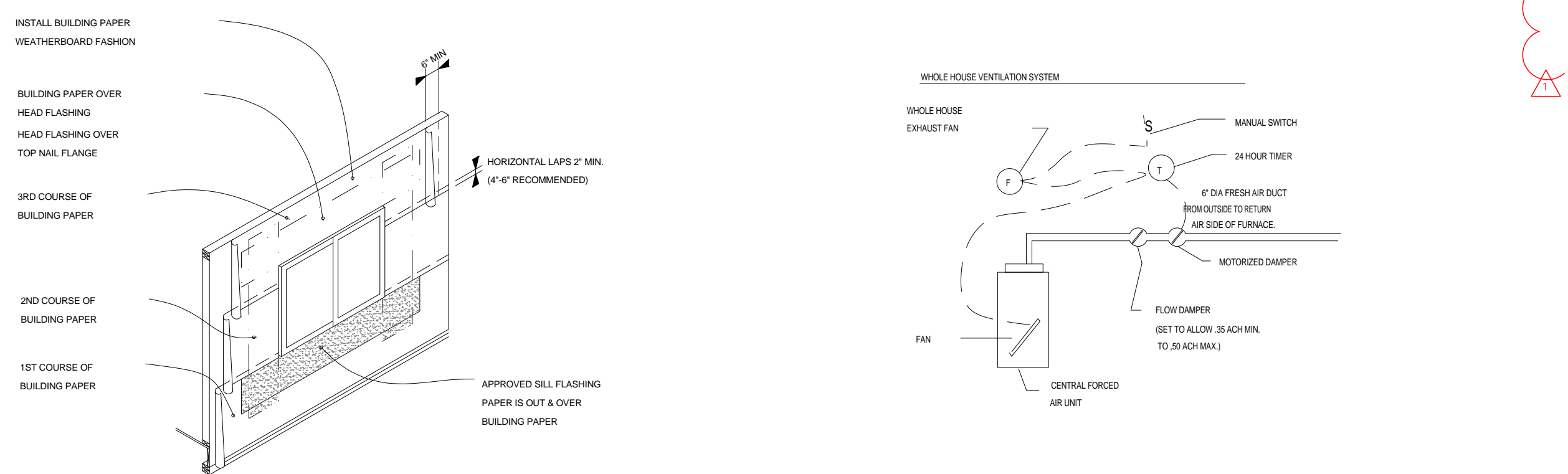
## PROJECT NOTES

- CARBON MONOXIDE & SMOKE DETECTOR NOTES:**
- All new detectors to be COMBINATION smoke AND carbon monoxide detectors.
  - All new detectors to be hard-wired with battery back-up.
  - Dwelling Units that are used for sleeping purposes shall be provided with detectors.
  - Detectors shall be installed in accordance with UL217 and NFPA 72.
  - Detectors shall be interconnected such that when one alarm is activated, all remaining alarms are activated.
- STAIR NOTES:**
- Walls and soffits of enclosed usable space underneath the stair shall be protected on the enclosed side as required for one-hour fire-resistive construction.
  - Guardrails shall be no less than 36 inches in height with a maximum spacing between intermediate rails to prevent passage of a 4 inch sphere.
  - Handrails shall be continuous, located between 34" - 38" above stair nosing with grasp dimensions between 1.25" and 2". Handrails shall terminate at either a newel post or safety terminal.
  - Treads shall be a minimum of 10" deep and risers shall be a maximum of 7 3/4".
  - Clear space between open risers shall be 3/8" maximum.
  - Stairways shall have a minimum clear width of 36" and ceiling shall be a minimum of 6'-8" vertically above nosing.
  - Outdoor stairs and their approaches shall be designed so that water will not accumulate on walking surfaces.

## HARDSCAPE CALCULATIONS ALLOWABLE COVERAGE GROSS FLOOR AREA CALCS

GROSS LOT AREA:	11,448.0 SF	GROSS LOT AREA:	11,448.0 SF	EXISTING BUILDING AREA:	2,648 SF
NET LOT AREA:	5,553.2 SF	NET LOT AREA:	5,553.2 SF	NEW BUILDING AREA:	625 SF
AREA BARROWED FROM LOT COVERAGE:	57.2 SF	ALLOWED LOT COVERAGE AREA:	3,896.5 SF	TOTAL FLOOR AREA:	2,808 SF
ALLOWED HARDSCAPE:	9 %	ALLOWED LOT COVERAGE:	40%	STAIRCASE MODIFIER:	104 SF
ALLOWED HARDSCAPE:	1,030.3 SF	EXISTING LOT COVERAGE:	3,422.3 SF	PROPOSED GROSS FLOOR AREA:	3,377 SF = 29.4%
TOTAL EXISTING HARDSCAPE AREA:	1,749.6 SF	TOTAL PROJECT LOT COVERAGE AREA:	3,422.3 SF		
TOTAL EXISTING HARDSCAPE AREA REMOVED:	0 SF	PROPOSED LOT COVERAGE AREA:	39.5%		
TOTAL NEW HARDSCAPE AREA:	0 SF				
TOTAL PROJECT HARDSCAPE AREA:	1,749.6 SF = 31.5%				

## TYPICAL WINDOW INSTALLATION DETAIL WHOLE HOUSE VENTILATION DIAGRAM

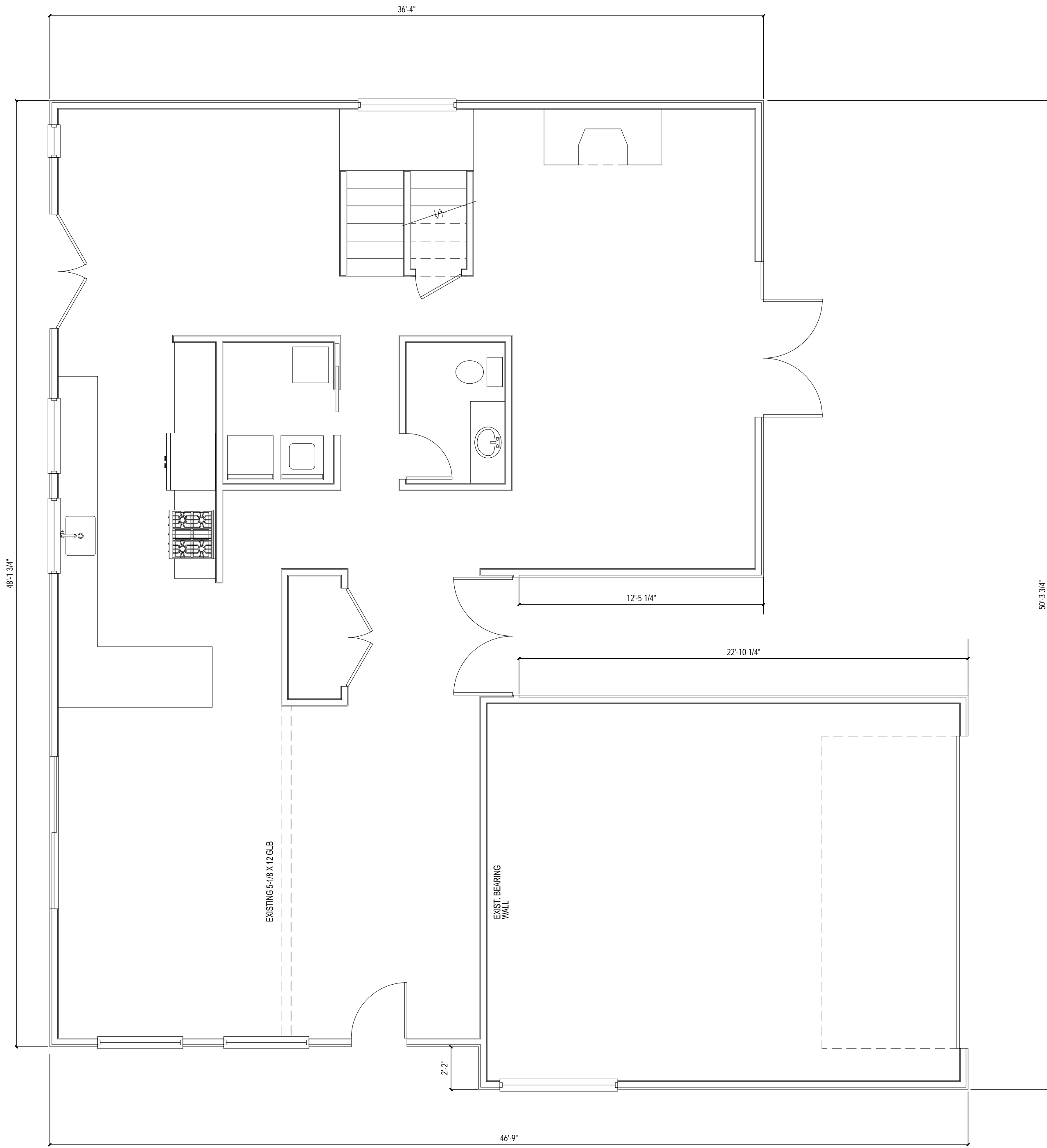


project number  
14-11

Remodel for:  
WISENTEINER RESIDENCE  
2967 74th AVE SE  
MERCER ISLAND, WA 98040

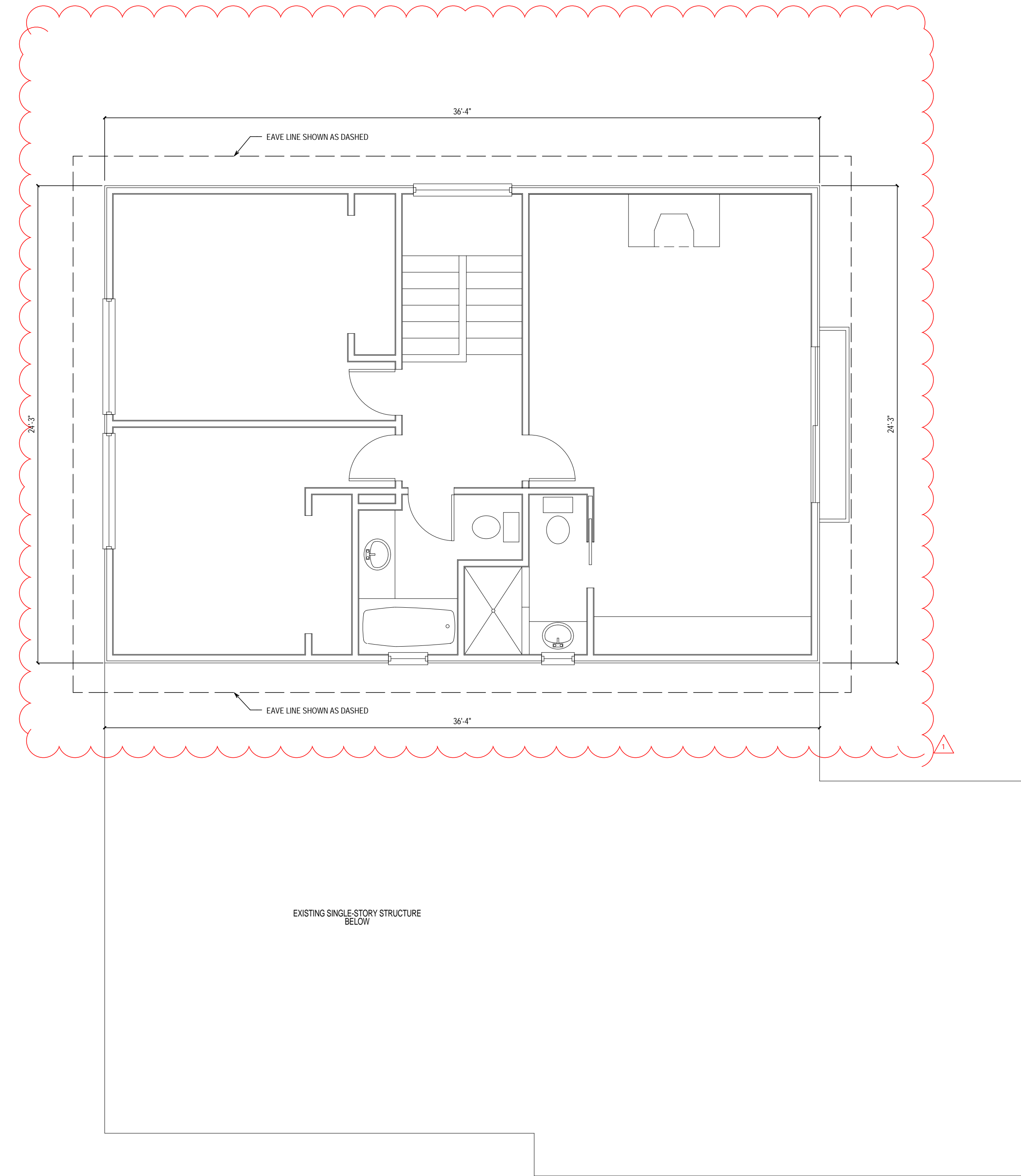
ISSUE	REVISION	DATE
	CONSTRUCTION REPORT	

Permit Set  
GENERAL PROJECT NOTES & SITE PLAN



AS-BUILT LOWER FLOOR PLAN

1/4" = 1'-0"



AS-BUILT UPPER FLOOR PLAN

1/4" = 1'-0"



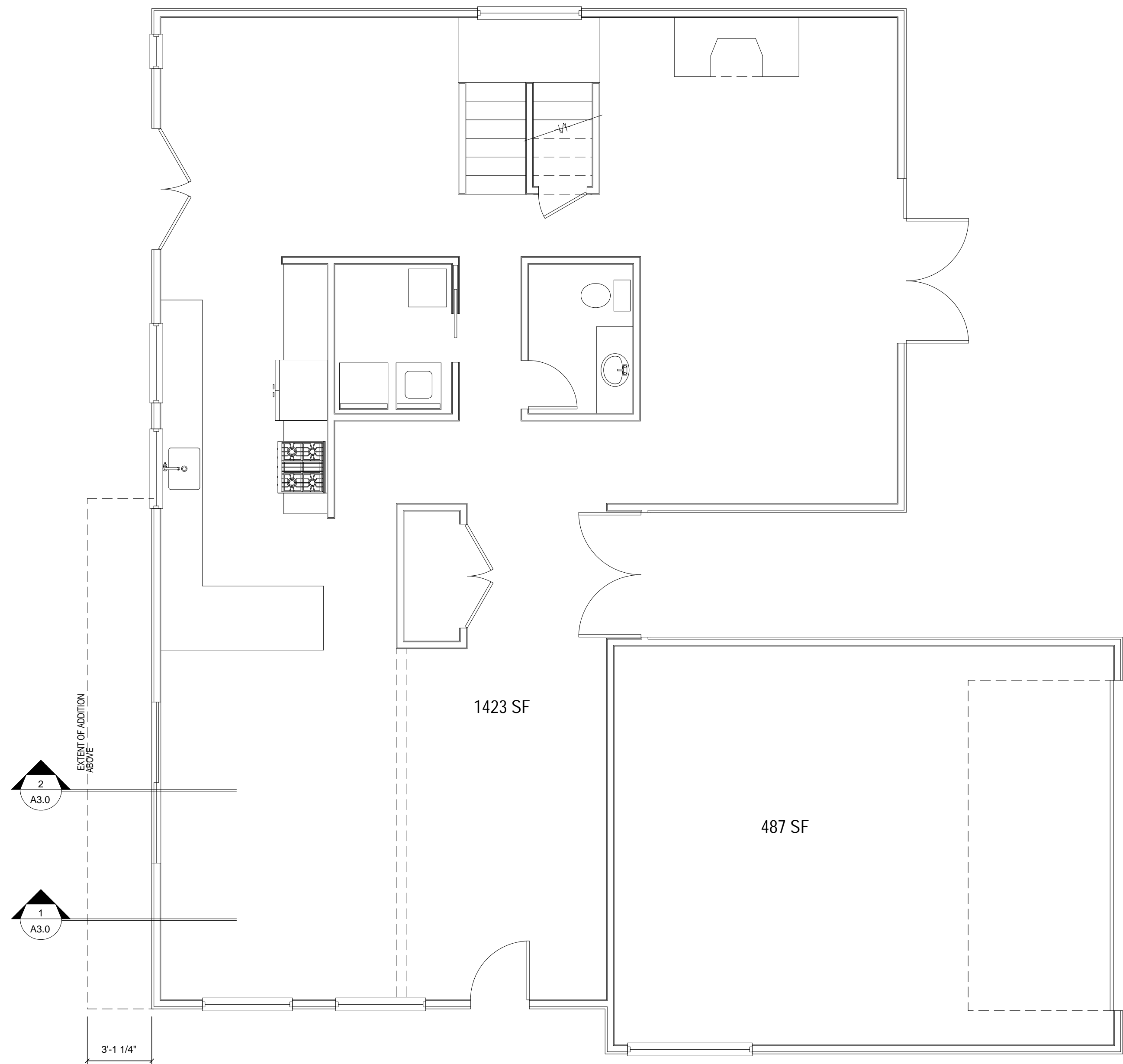
project  
14-11  
number

Remodel for:  
**WISENTEINER RESIDENCE**  
2967 74th AVE SE  
MERCER ISLAND, WA 98040

ISSUE	REVISION	DATE
	CORRECTIONS (09/09/2021)	

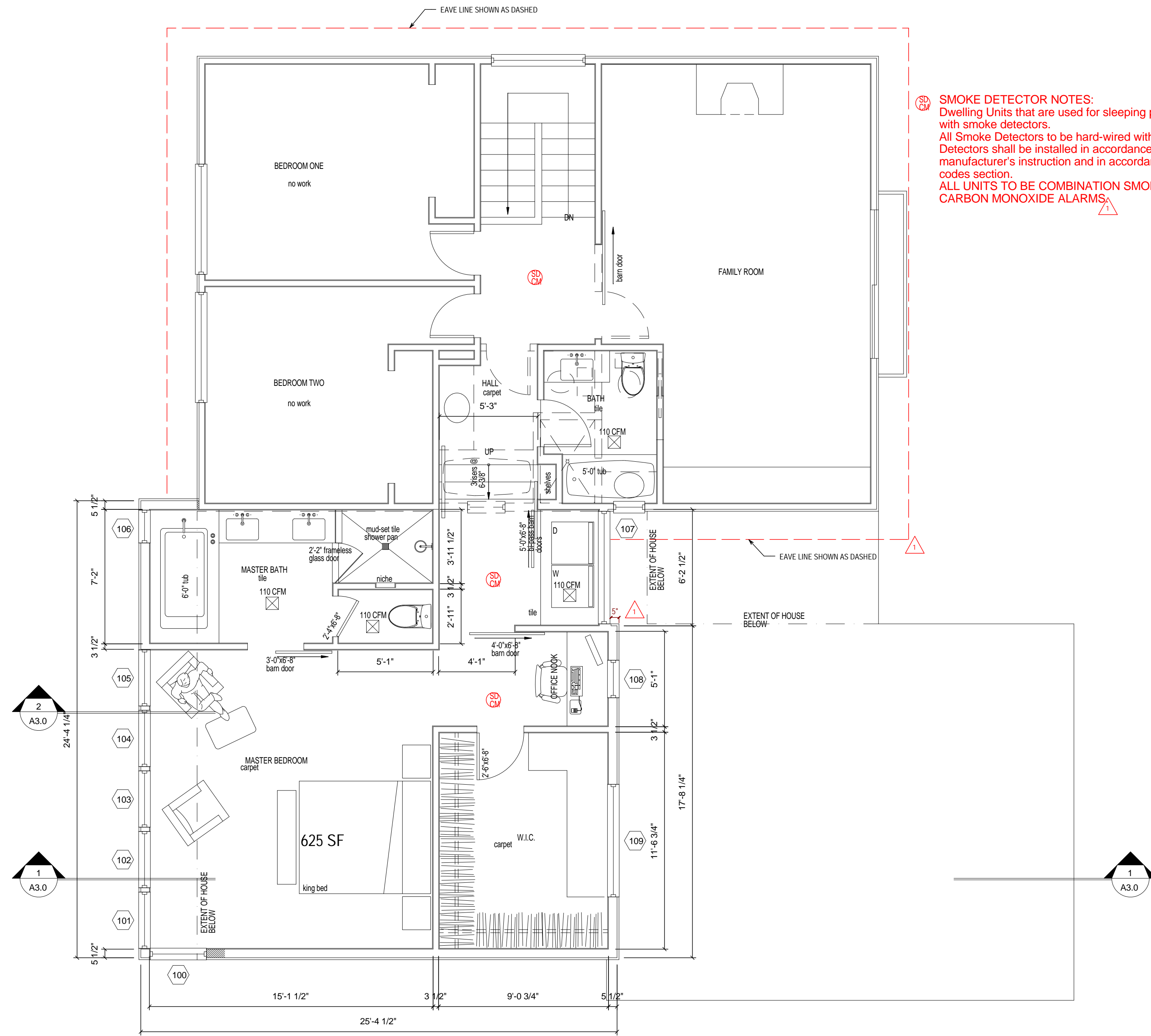
Permit Set:  
**AS-BUILT FLOOR PLANS**

07/08/2020  
sheet  
**A1.0**  
number



**PROPOSED LOWER FLOOR PLAN**

1/4" = 1'-0"



**PROPOSED ROOF FRAMING PLAN**

1/4" = 1'-0"



**SMOKE DETECTOR NOTES:**  
 Dwelling Units that are used for sleeping purposes shall be provided with smoke detectors.  
 All Smoke Detectors to be hard-wired with battery back-up. Detectors shall be installed in accordance with the approved manufacturer's instruction and in accordance with applicable IRC codes section.  
**ALL UNITS TO BE COMBINATION SMOKE DETECTORS AND CARBON MONOXIDE ALARMS.**

**NOTE:**  
 EXTERIOR WALL LENGTH:  
 352.3 LF OF EXISTING EXTERIOR WALL LENGTH.  
 PROPOSED 36.4 LF ALTERED EXTERIOR WALL .  
 36.4/352.3 = 10.3% < 40%

**LEGEND**

- NEW WALLS
- EXISTING WALLS TO REMAIN
- EXISTING WALLS TO BE REMOVED
- SMOKE DETECTOR

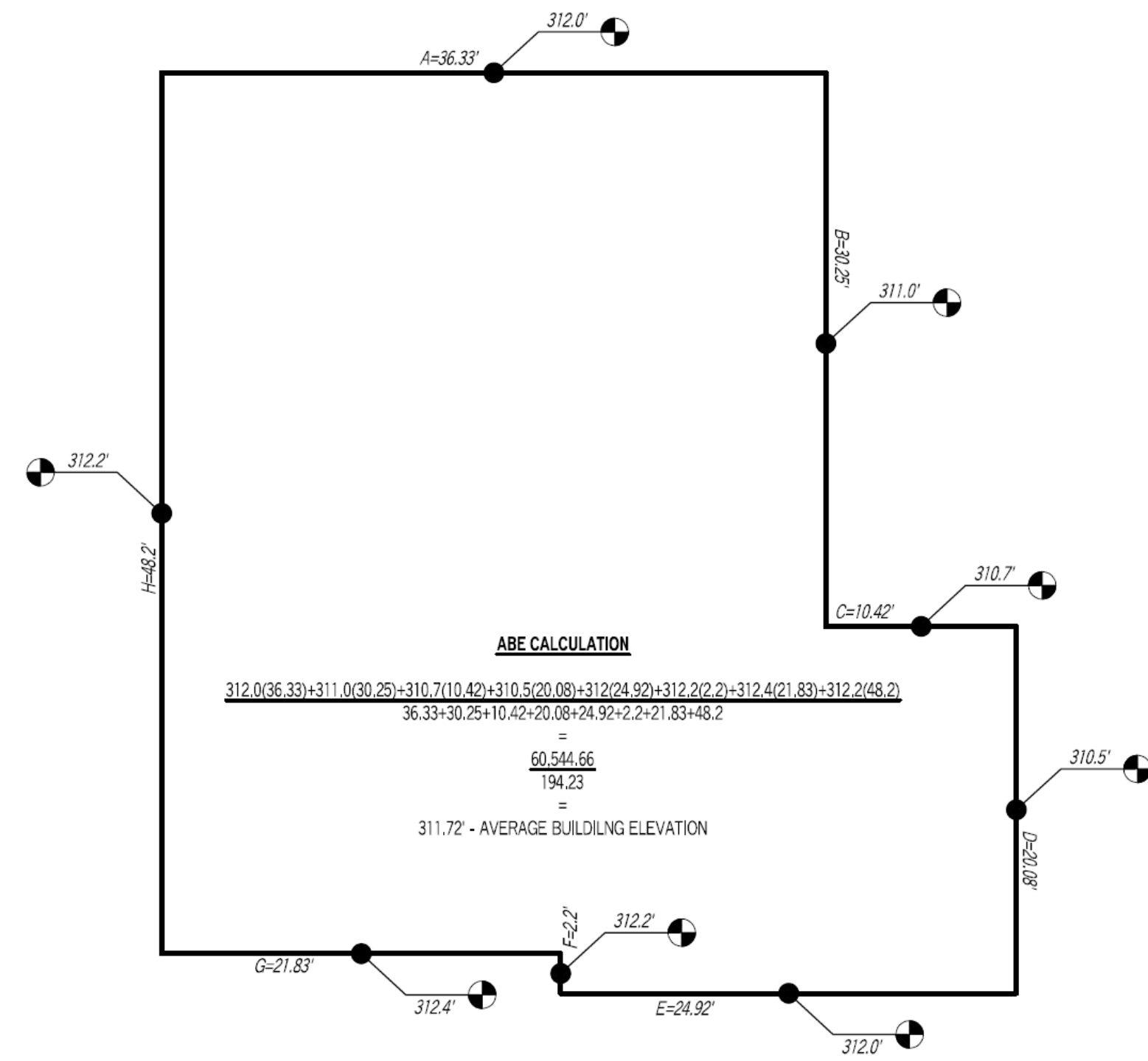
project number  
**14-11**

Remodel for:  
**WISENTEINER RESIDENCE**  
 2967 74th AVE SE  
 MERCER ISLAND, WA 98040

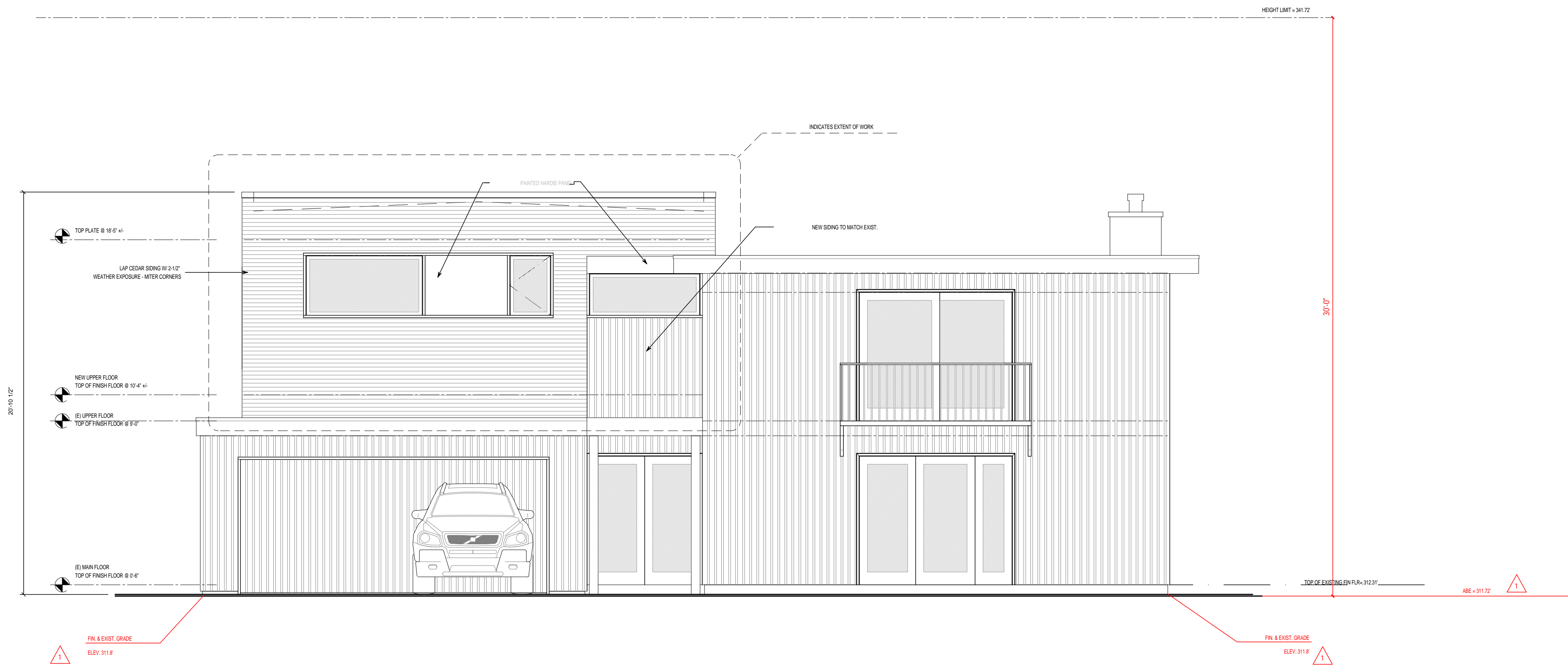
Issue	REVISION	DATE
	CORRECTIONS (09/09/2021)	

Permit Set  
**PROPOSED FLOOR PLANS**

07/08/2020  
 sheet  
**A1.1**  
 number

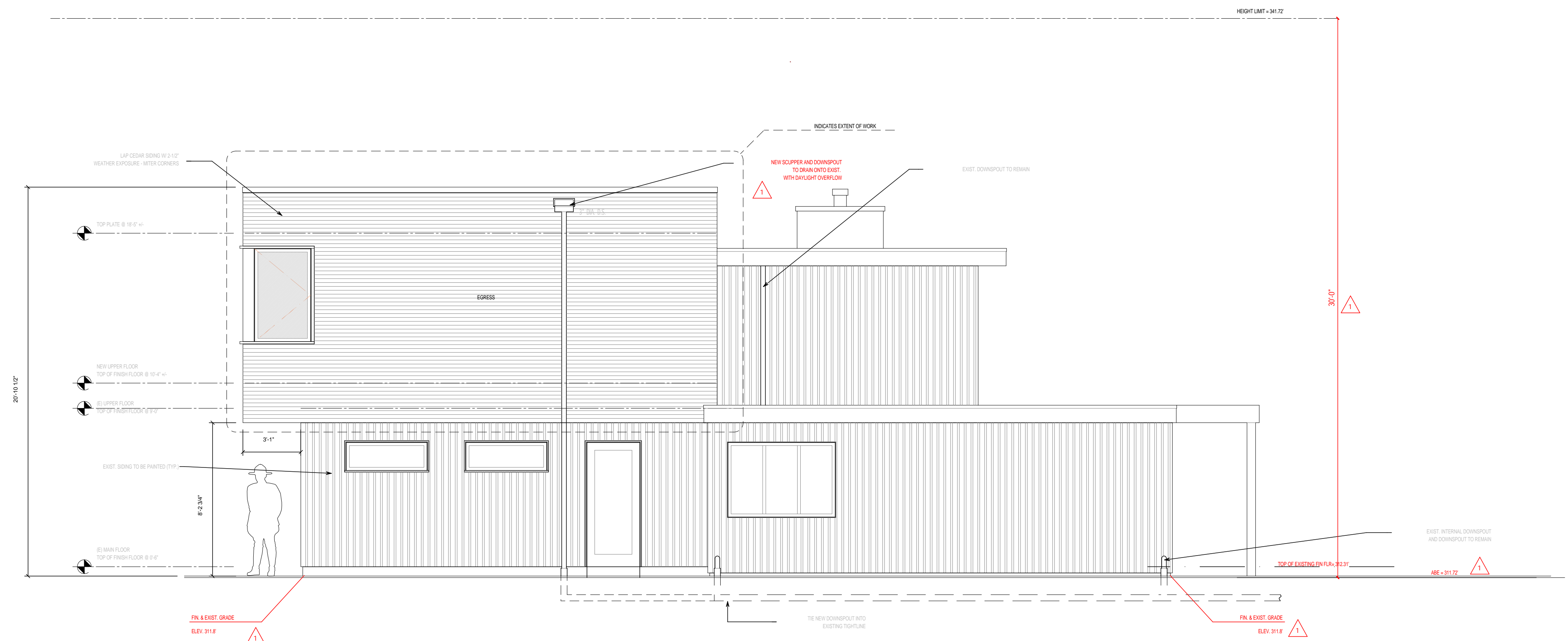


AVERAGE BUILDING HEIGHT CALCULATION



EAST ELEVATION

1/4" = 1'-0"



SOUTH ELEVATION

1/4" = 1'-0"

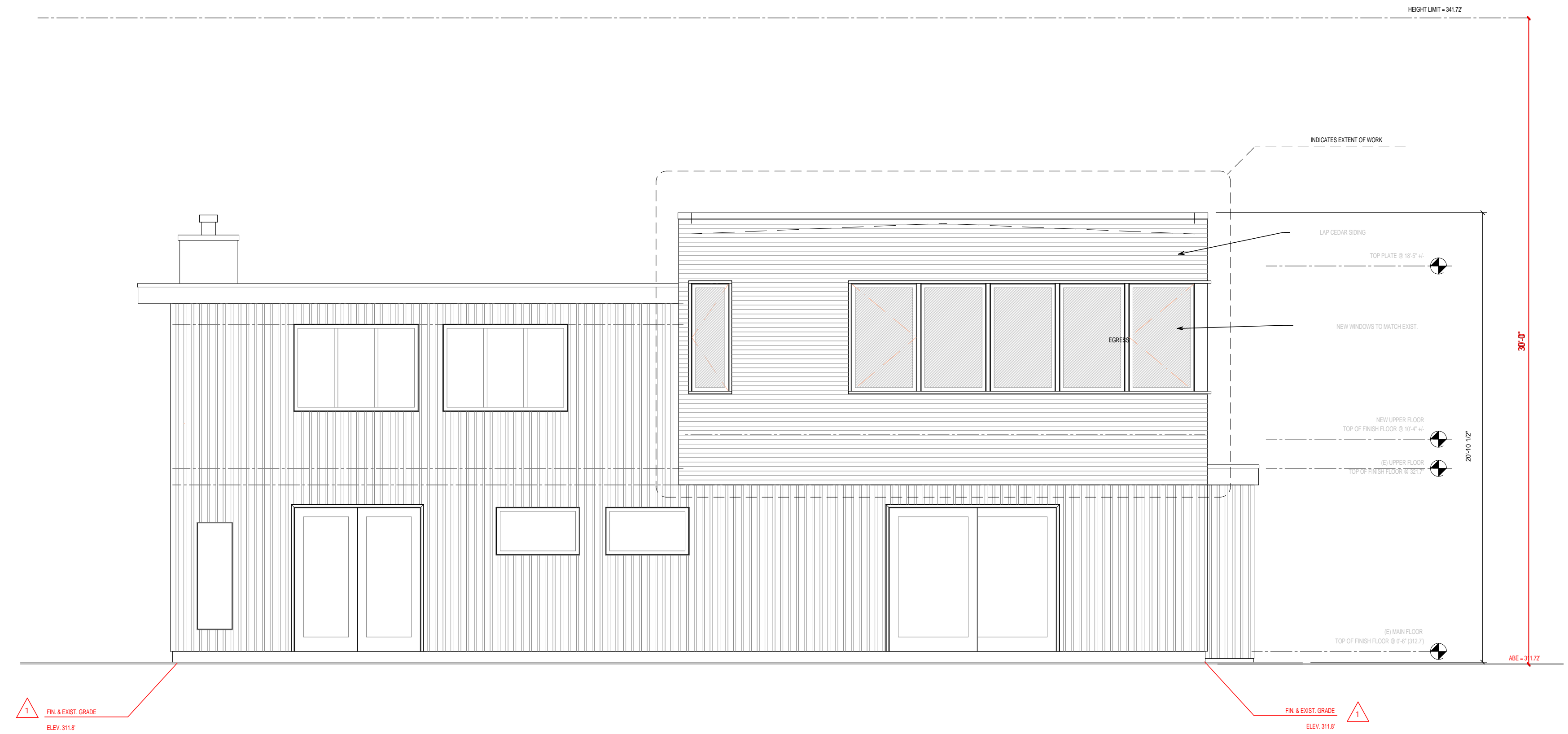
Project  
14-11  
number

Remodel for:  
**WISENTEINER RESIDENCE**  
2967 74th AVE SE  
MERCER ISLAND, WA 98040

Issue	REVISION	DATE
	CORRECTIONS (09/09/20)	

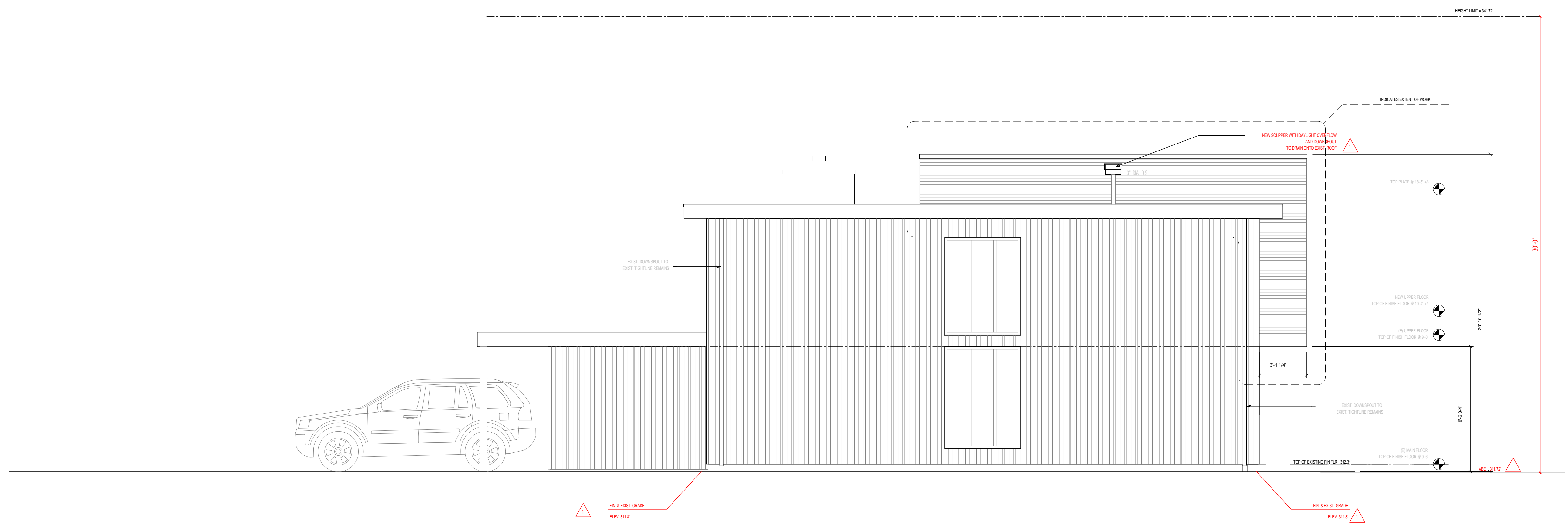
Permit Set  
**PROPOSED EXTERIOR ELEVATIONS**

07/08/2020  
sheet  
**A2.0**  
number



**WEST ELEVATION**

1/4" = 1'-0"



**NORTH ELEVATION**

1/4" = 1'-0"

project  
number

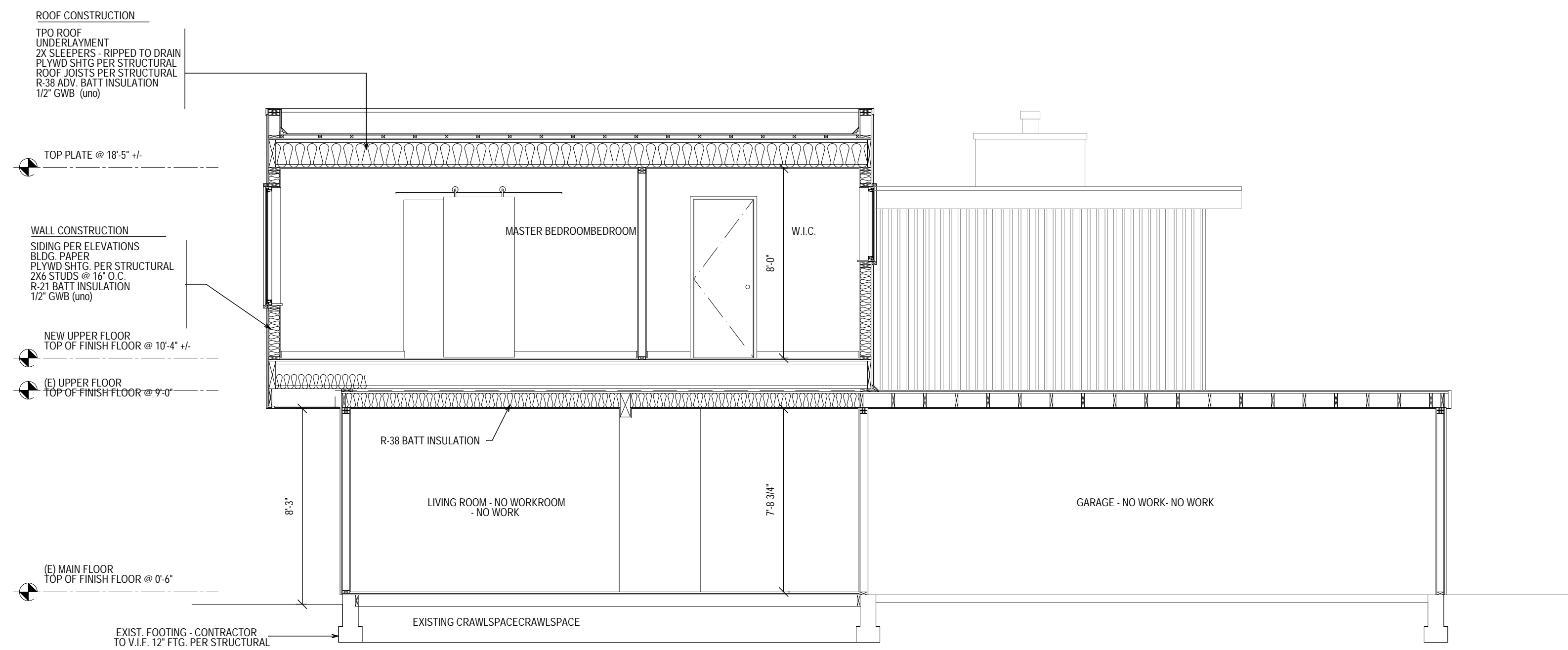
14-11

Remodel for:  
**WISENTEINER RESIDENCE**  
2967 74th AVE SE  
MERCER ISLAND, WA 98040

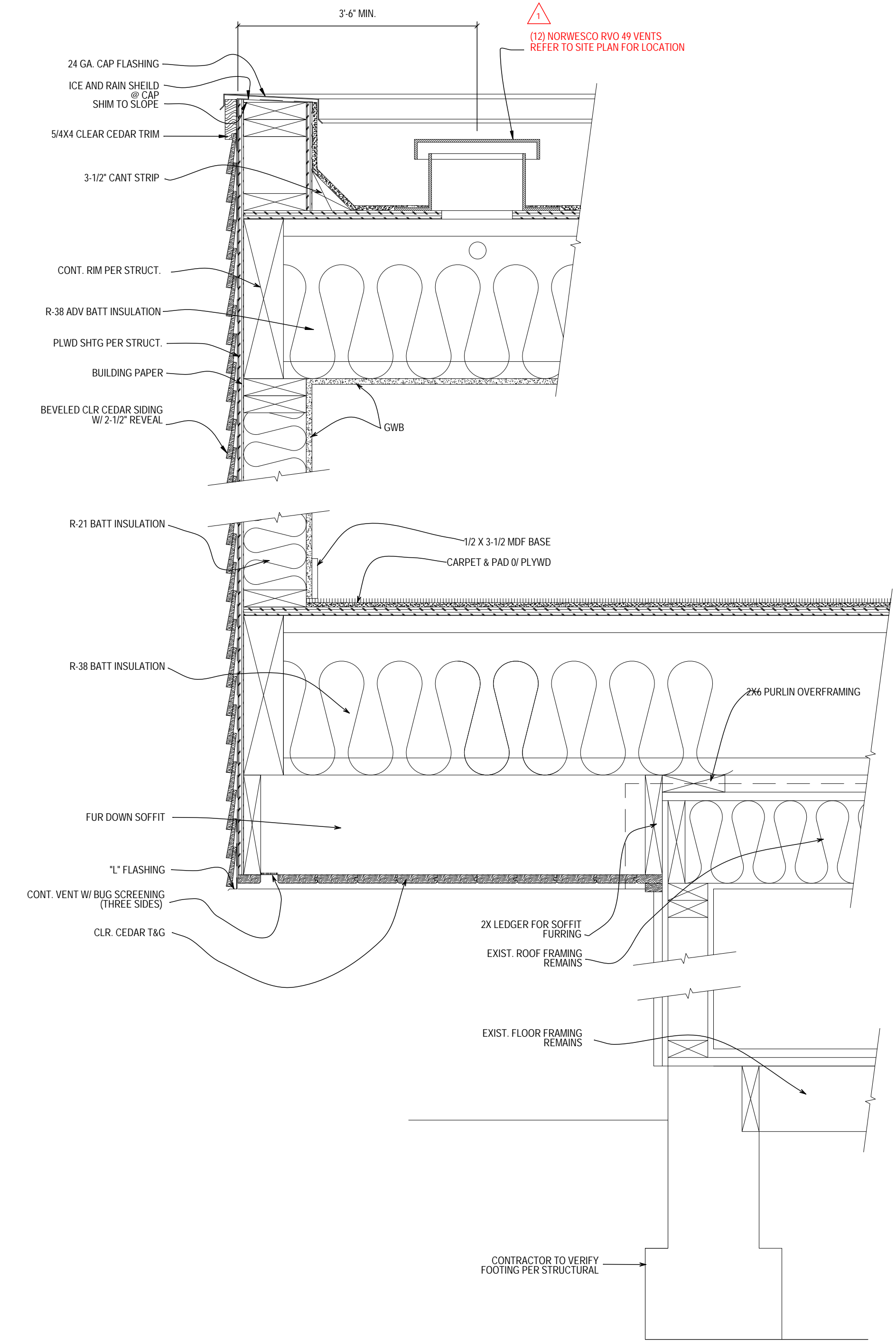
ISSUE	REVISION	DATE
△	CORRECTIONS (09/09/2021)	

Permit Set:  
**PROPOSED EXTERIOR ELEVATIONS**

07/08/2020  
sheet  
**A2.1**  
number



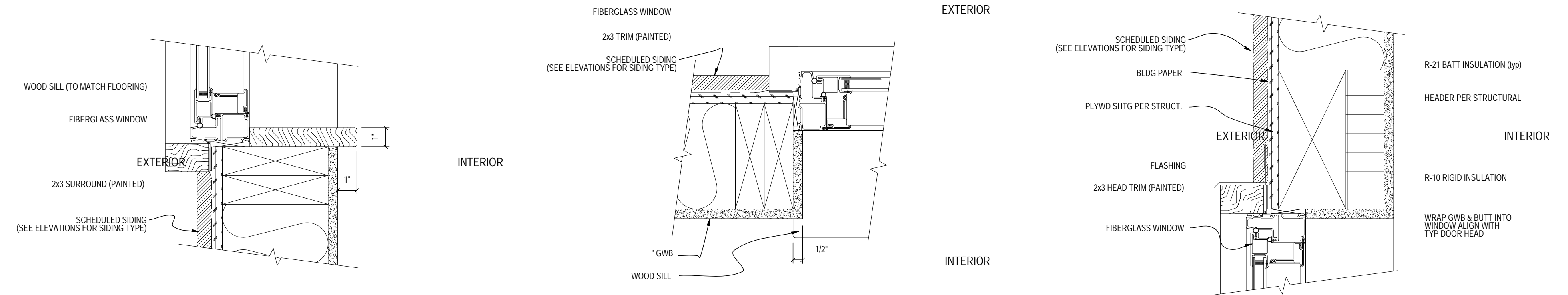
**1** BUILDING SECTION  
1/4" = 1'-0"



**2** TYPICAL WALL SECTION  
1/4" = 1'-0"

WINDOW SCHEDULE						
Wisenteiner Residence						
WINDOW	ROOM	FRAME WIDTH	FRAME HEIGHT	HEAD	GLAZING	NOTES
<b>Main Level</b>						
100	Master Bedroom	36	60	84		CASEMENT - EGRESS
101	Master Bedroom	36	60	84		CASEMENT - EGRESS
102	Master Bedroom	36	60	84		PICTURE
103	Master Bedroom	36	60	84		PICTURE
104	Master Bedroom	36	60	84		PICTURE
105	Master Bedroom	36	60	84		CASEMENT - EGRESS
106	Master Bathroom	24	60	84	safety	CASEMENT
107	Laundry	68	26	80 +/-		PICTURE
108	Hall Office	24	36	84		CASEMENT
109	W.I.C.	72	36	84		PICTURE

**Note:** Unit sizes are based off Milgard Styleline Vinyl Window Standards  
**Note:** Field Measure and Verify all dimensions. R.O.'s listed in this schedule are for energy code purposes.  
**Note:** All exterior doors and windows to meet or exceed U values on Sheet A0.0 (Maximum Windows U= .28 - no new doors proposed)  
**Note:** All units to be NFRC certified - Model and CPD numbers shall be submitted and approved by Architect / Designer



**TYPICAL WINDOW DOOR DETAILS**

3" = 1'-0"



**TYPICAL INT. DOOR DETAILS**

3" = 1'-0"

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

CRITERIA

- ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (2015 EDITION).
  - DESIGN LOADING CRITERIA:  
RESIDENTIAL  
FLOOR LIVE LOAD (UPPER LEVEL SLEEPING AREA). . . . . 40 PSF  
ENVIRONMENTAL LOADS  
SNOW . . . . . Ce=1.0, Is=1.0, Ct=1.1, Pg=25 PSF, Pf=20 PSF  
WIND . . . . . GCp1=0.18, 110 MPH, RISK CATEGORY II, EXPOSURE "B"  
EARTHQUAKE . . . ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE  
LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS, SITE CLASS=D  
Ss=150, Sds=100, S1=50, SD1=33, Cs=0.154, SDC D, Ie=1.0, R=6.5
  - CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS 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 TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
  - CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-02 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION".
- GEOTECHNICAL
- FOUNDATION NOTES: ALLOWABLE SOIL PRESSURE IS ASSUMED AND THEREFORE MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER OR APPROVED BY THE BUILDING OFFICIAL. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE STRUCTURAL ENGINEER FOR POSSIBLE FOUNDATION REDESIGN.
- FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH AT LEAST 18" BELOW ADJACENT FINISHED GRADE. UNLESS OTHERWISE NOTED, FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS ABOVE.
- ALLOWABLE SOIL PRESSURE. . . . . 2000 PSF

WOOD

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

JOISTS AND BEAMS:	(2X & 3X MEMBERS)	DOUGLAS FIR-LARCH NO. 2	MINIMUM BASE VALUE, Fb = 900 PSI
	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 1	MINIMUM BASE VALUE, Fb = 1000 PSI
BEAMS:	(INCL. 6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1	MINIMUM BASE VALUE, Fb = 1350 PSI
POSTS:	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 2	MINIMUM BASE VALUE, Fc = 1350 PSI
	(6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1	MINIMUM BASE VALUE, Fc = 1000 PSI
STUDS, PLATES & MISC. FRAMING:		DOUGLAS-FIR-LARCH NO. 2	
- MANUFACTURED LUMBER, PSL, LVL, AND LSL, SHALL BE MANUFACTURED UNDER A PROCESS APPROVED BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL PSL, LVL, AND LSL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH ICC-ES REPORT ESR-1387 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. ALL BIG BEAM LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH ICC-ES REPORT ESR-1940 WITH A WATERPROOF ADHESIVE MEETING ALL REQUIREMENTS OF ASTM D2559. THE MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:  

PSL (2.0E)	Fb = 2900 PSI, E = 2000 KSI, Fv = 290 PSI
LVL (1.9E)	Fb = 2600 PSI, E = 1900 KSI, Fv = 285 PSI
LSL (1.55E)	Fb = 2325 PSI, E = 1550 KSI, Fv = 310 PSI
BIG BEAM (2.1E)	Fb = 3000 PSI, E = 2100 KSI, Fv = 300 PSI

DESIGN SHOWN ON PLANS FOR PSL, LVL, AND LSL IS BASED ON LUMBER MANUFACTURED BY THE WEYERHAEUSER CORPORATION. DESIGN SHOWN ON PLANS FOR BIG BEAMS ARE BASED ON LUMBER MANUFACTURED BY ROSBORO. ALTERNATE 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 ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS PROVIDED.

MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEEDS THIS VALUE.
- PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE PLYWOOD WEB 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.B.O. APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH PLYWOOD WEB JOIST PROVIDED.

- PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1 OR PS 2. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.  

ROOF SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 32/16.

FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24.

WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 24/0.

PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING.

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.
- ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.
- PRESSURE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. PRESSURE TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO AWPA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWPA UCA4. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWPA UC4B.  

FASTENERS AND TIMBER CONNECTORS USED WITH WOOD TREATED WITHOUT AMMONIA CARRIERS AND USED IN INTERIOR, DRY CONDITIONS (WOOD MOISTURE CONTENT LESS THAN 19%) SHALL BE G90 GALVANIZED (MINIMUM).

FASTENERS AND TIMBER CONNECTORS USED WITH WOOD TREATED WITH AMMONIA CARRIERS AND USED IN INTERIOR, DRY CONDITIONS (WOOD MOISTURE CONTENT LESS THAN 19%) SHALL BE G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653.

FASTENERS AND TIMBER CONNECTORS USED WITH WOOD TREATED WITH AMMONIA CARRIERS AND USED WHERE WOOD MOISTURE CONTENT EXCEEDS 19% (EXTERIOR DRY AND EXTERIOR WET CONDITIONS) OR WITH ACZA TREATED WOOD SHALL BE TYPE 304 OR 316 STAINLESS STEEL.
- TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-2013. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER FOR MAXIMUM LOAD CARRYING CAPACITY. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.  

ALL 2X JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "IUS" SERIES JOIST HANGERS.

WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.
- WOOD FASTENERS  

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

SIZE	LENGTH	DIAMETER
6d	2"	0.113"
8d	2-1/2"	0.131"
10d	3"	0.148"
12d	3-1/4"	0.148"
16d BOX	3-1/2"	0.135"

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

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (2005 EDITION) WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS.
- NOTCHES AND HOLES IN WOOD FRAMING:  

A. NOTCHES ON THE ENDS OF SOLID SAWN JOISTS AND RAFTERS SHALL NOT EXCEED ONE-FOURTH THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF SOLID SAWN JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. HOLES BORED IN SOLID SAWN JOISTS AND RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE JOIST.

B. IN EXTERIOR WALLS AND BEARING PARTITIONS, ANY WOOD STUD IS PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH IS PERMITTED TO BE BORED IN ANY WOOD STUD. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8" INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.

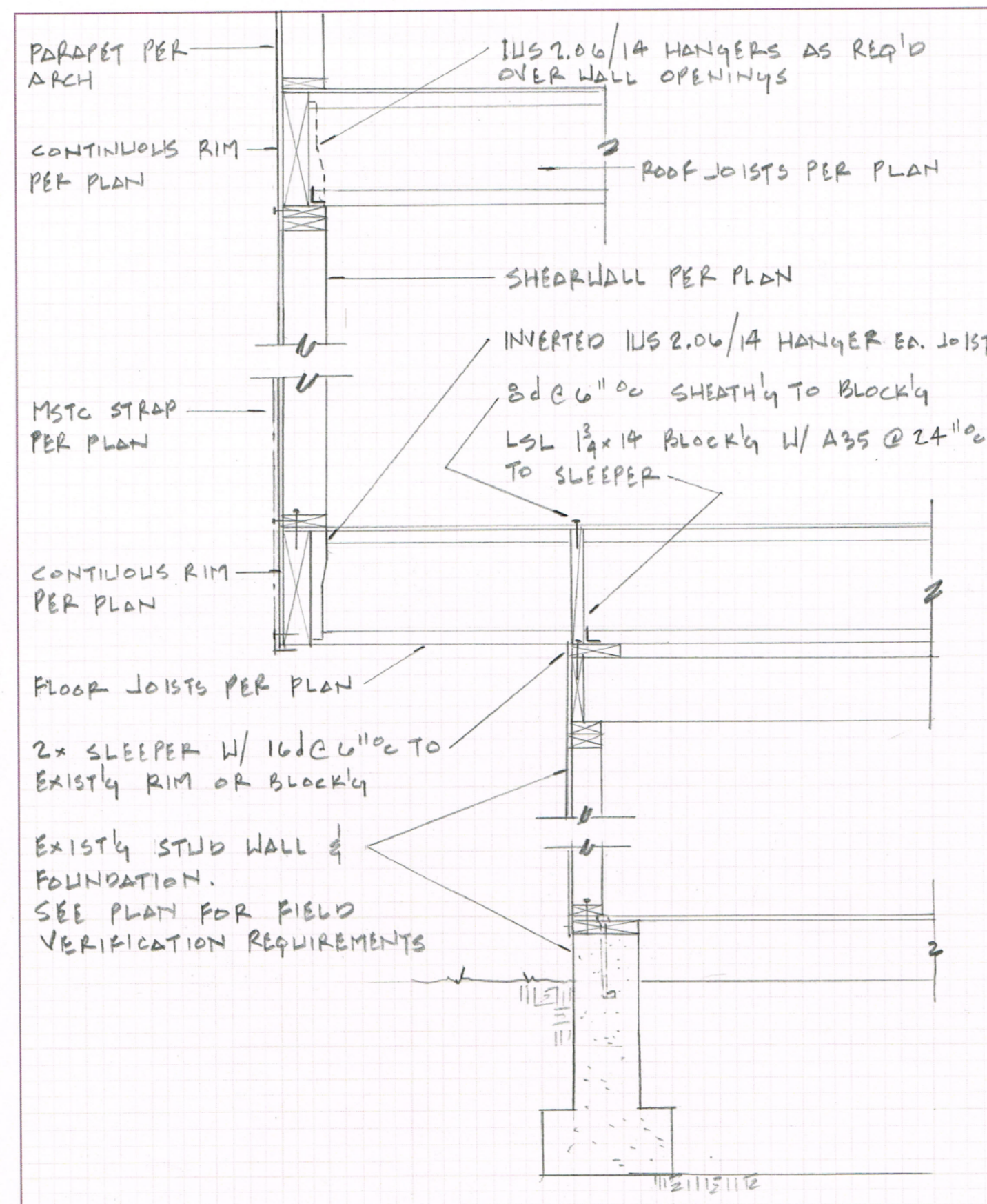
C. NOTCHES AND HOLES IN MANUFACTURED LUMBER AND PREFABRICATED PLYWOOD WEB JOISTS SHALL BE PER THE MANUFACTURERS RECOMMENDATIONS UNLESS OTHERWISE NOTED.
- WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:  

A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE, THE AITC "TIMBER CONSTRUCTION MANUAL" AND THE AF&PA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.9.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

B. WALL FRAMING: REFER ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16" O.C. UNO. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS, AND AT BEAM OR HEADER BEARING LOCATIONS. TWO 2x8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL

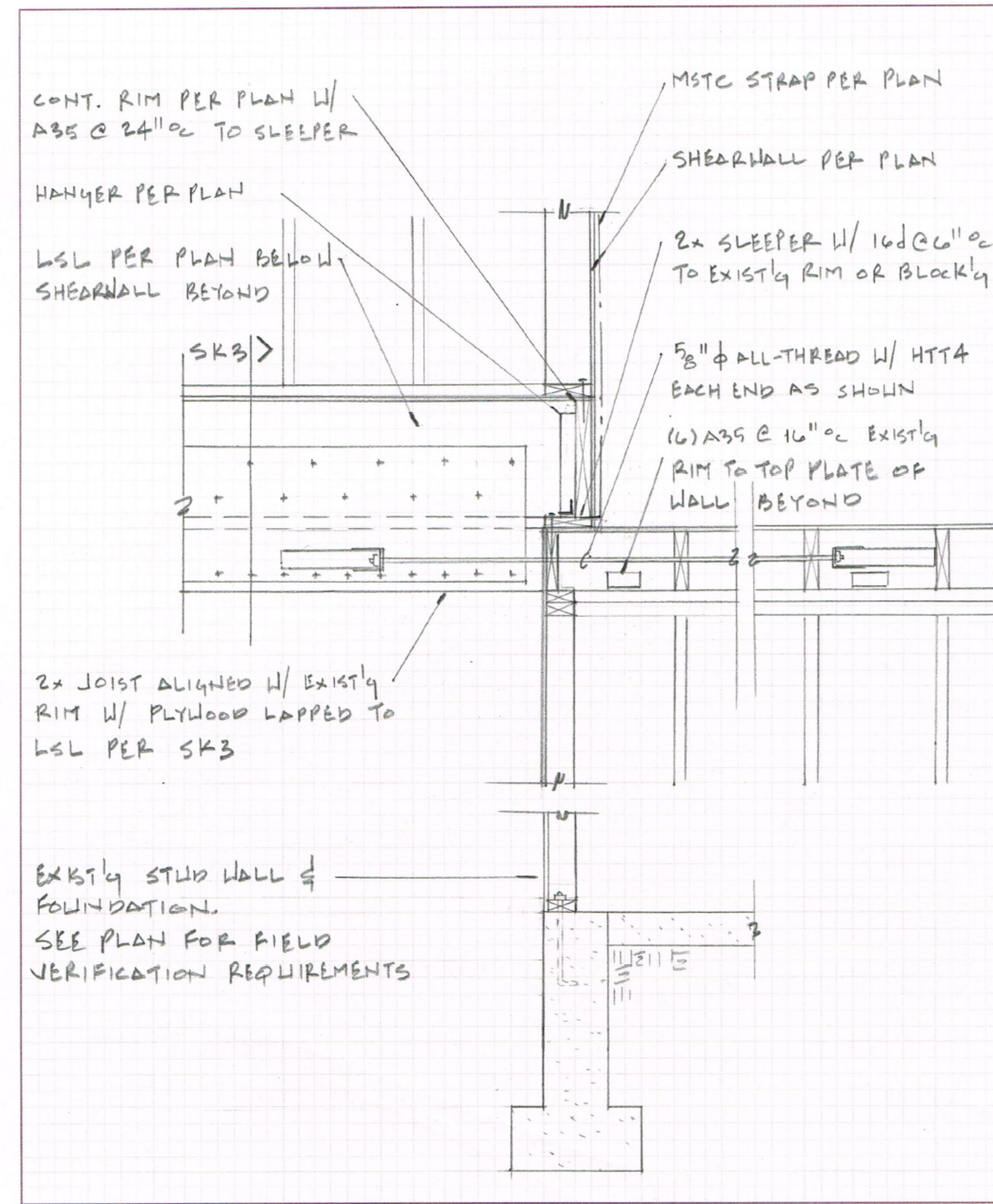
- BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.
- ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16d NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d @ 12" O.C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE EIGHT 16d NAILS @ 4" O.C. EACH SIDE JOINT.
- ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 16d NAILS @ 12" ON-CENTER, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS @ 4'-0" ON-CENTER EMBEDDED 7" MINIMUM, UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 16d @ 12" ON-CENTER. UNLESS OTHERWISE NOTED, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH NO. 6 X 1-1/4" TYPE S OR W SCREWS @ 8" ON-CENTER. UNLESS INDICATED OTHERWISE, 1/2" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS @ 6" ON-CENTER AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS @ 12" ON-CENTER ALLOW 1/8" SPACING AT ALL PANEL EDGES AND PANEL ENDS.
- 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. TOENAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI JOIST BEAMS TOGETHER WITH TWO ROWS 16d @ 12" ON-CENTER.
- UNLESS OTHERWISE NOTED ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AT 6" ON-CENTER WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" ON-CENTER TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G 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 16d @ 12" ON-CENTER UNLESS OTHERWISE NOTED.





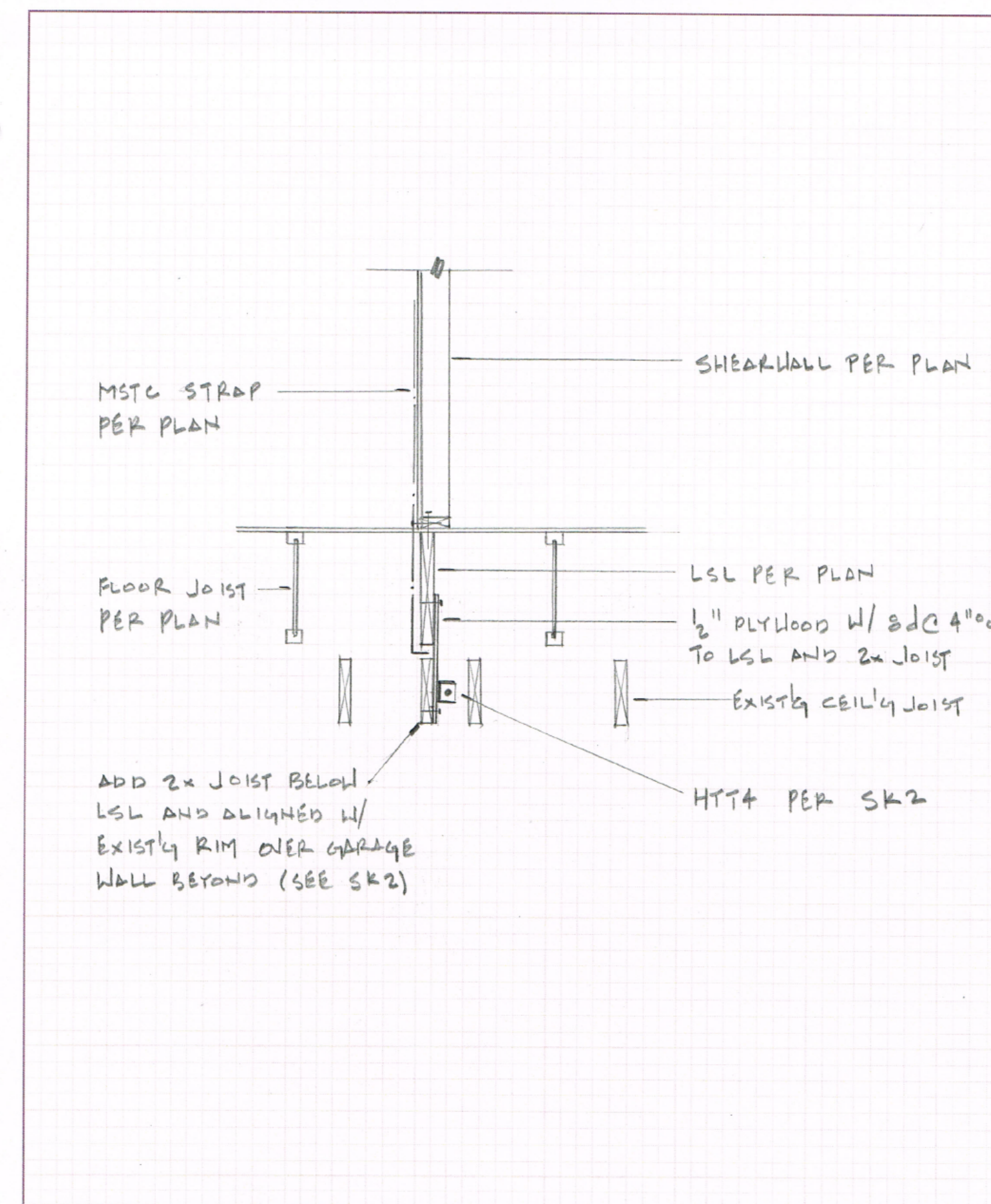
**SWENSON SAY FAGÉT**  
A STRUCTURAL ENGINEERING CORPORATION  
Seattle: 2124 Third Avenue, Suite 100 - Seattle, WA 98121  
Tel: 206.443.6212 Fax: 206.443.4870  
Tacoma: 934 Broadway, Suite 100 - Tacoma, WA 98402  
Tel: 253.284.9470 Fax: 253.284.9471

Project: \_\_\_\_\_ Date: \_\_\_\_\_  
Proj. No: \_\_\_\_\_  
Design: **SK1**  
Sheet: \_\_\_\_\_



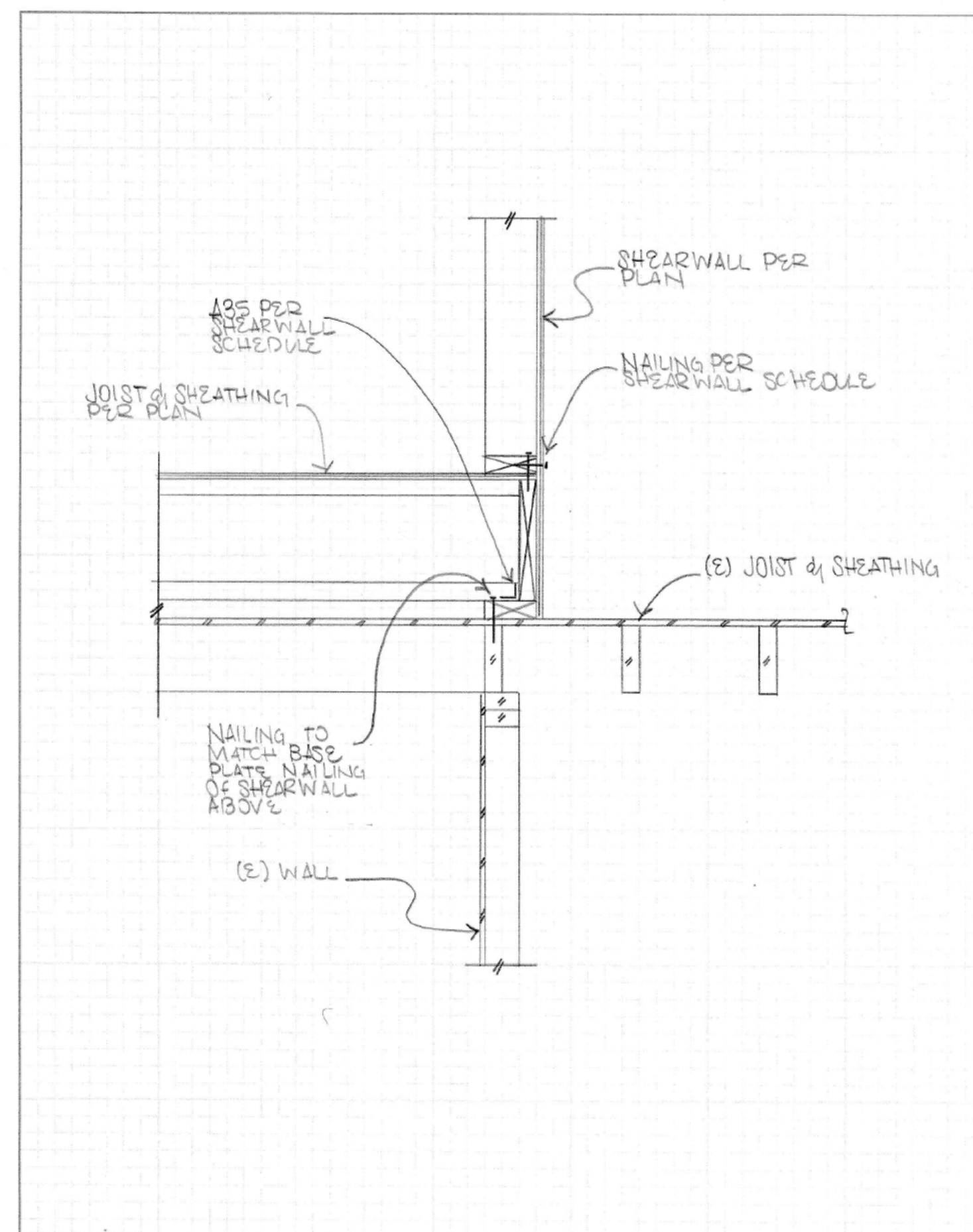
**SWENSON SAY FAGÉT**  
A STRUCTURAL ENGINEERING CORPORATION  
Seattle: 2124 Third Avenue, Suite 100 - Seattle, WA 98121  
Tel: 206.443.6212 Fax: 206.443.4870  
Tacoma: 934 Broadway, Suite 100 - Tacoma, WA 98402  
Tel: 253.284.9470 Fax: 253.284.9471

Project: \_\_\_\_\_ Date: \_\_\_\_\_  
Proj. No: \_\_\_\_\_  
Design: **SK2**  
Sheet: \_\_\_\_\_



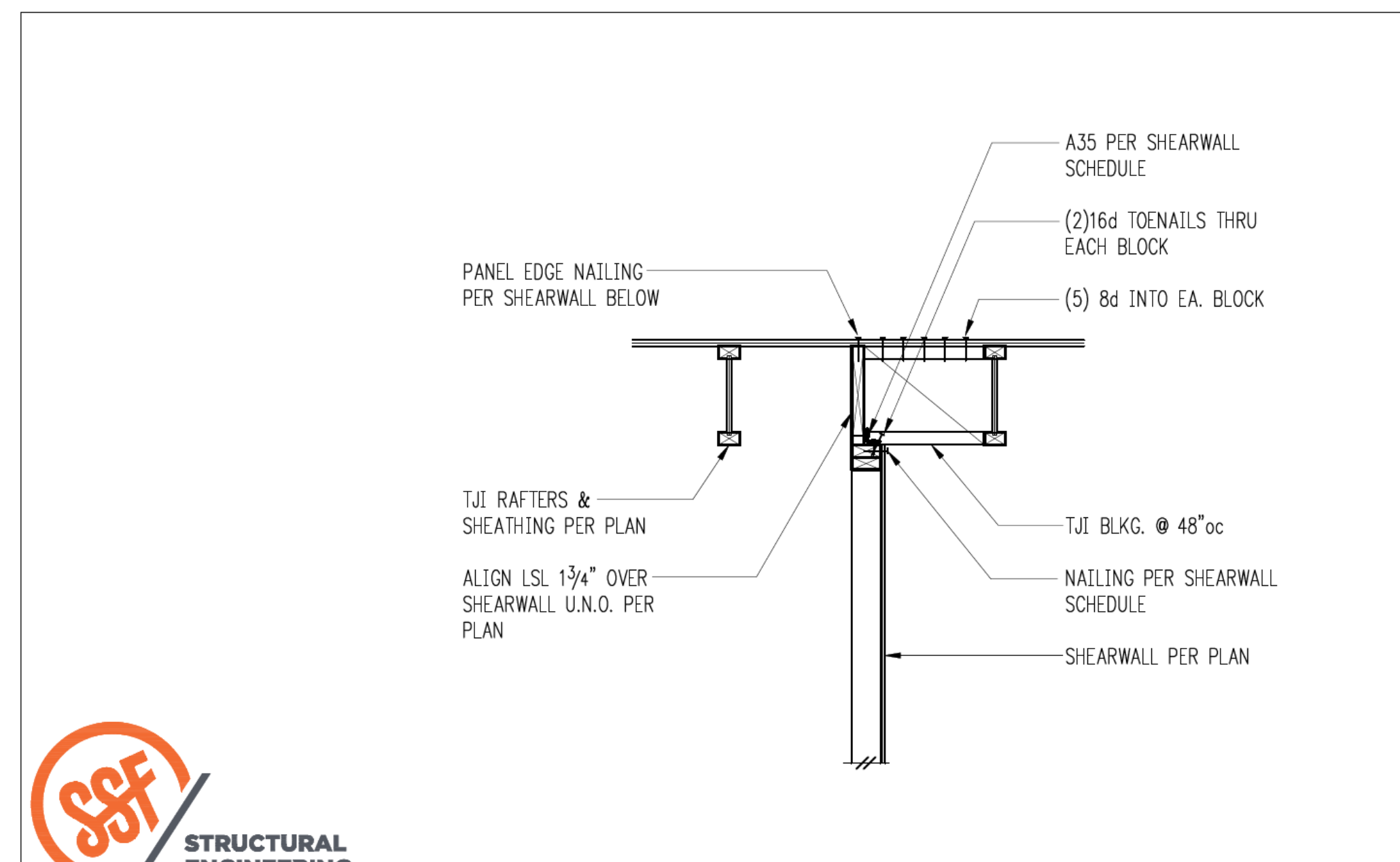
**SWENSON SAY FAGÉT**  
A STRUCTURAL ENGINEERING CORPORATION  
Seattle: 2124 Third Avenue, Suite 100 - Seattle, WA 98121  
Tel: 206.443.6212 Fax: 206.443.4870  
Tacoma: 934 Broadway, Suite 100 - Tacoma, WA 98402  
Tel: 253.284.9470 Fax: 253.284.9471

Project: \_\_\_\_\_ Date: \_\_\_\_\_  
Proj. No: \_\_\_\_\_  
Design: **SK3**  
Sheet: \_\_\_\_\_



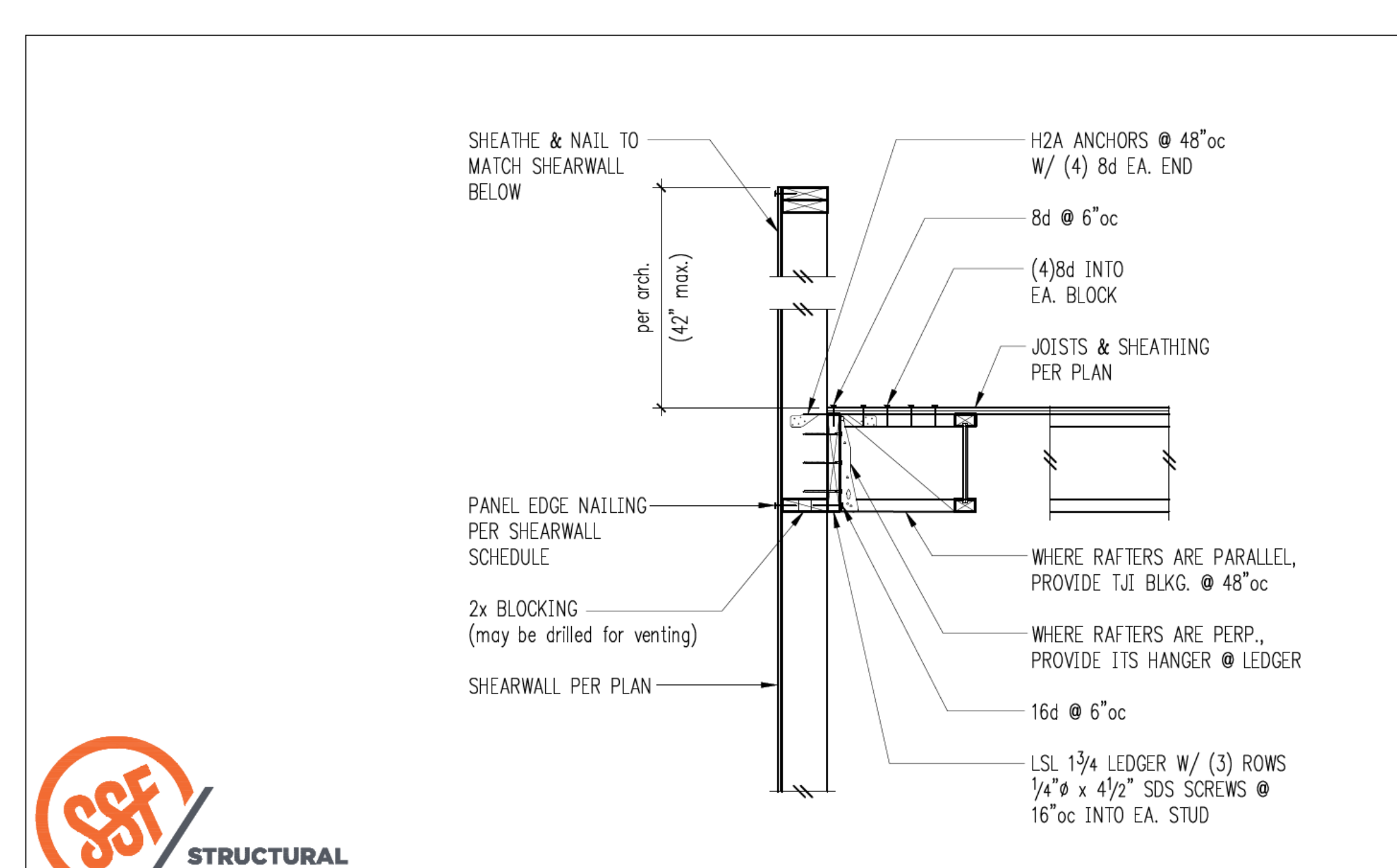
**SWENSON SAY FAGÉT**  
A STRUCTURAL ENGINEERING CORPORATION  
Seattle: 2124 Third Avenue, Suite 100 - Seattle, WA 98121  
Tel: 206.443.6212 Fax: 206.443.4870  
Tacoma: 934 Broadway, Suite 100 - Tacoma, WA 98402  
Tel: 253.284.9470 Fax: 253.284.9471

Project: \_\_\_\_\_ Date: \_\_\_\_\_  
Proj. No: \_\_\_\_\_  
Design: **SK4**  
Sheet: \_\_\_\_\_



**SSF STRUCTURAL ENGINEERING**  
2124 Third Avenue - Suite 100 - Seattle, WA 98121  
P: 206.443.6212 F: 206.443.4870  
934 Broadway - Tacoma, WA 98402  
P: 253.284.9470 F: 253.284.9471

File: **WO-08-05(tj)** Scale: **3/4" = 1'-0"** Title: **Interior Shearwall TJI Parallel** Boxes: **One**



**SSF STRUCTURAL ENGINEERING**  
2124 Third Avenue - Suite 100 - Seattle, WA 98121  
P: 206.443.6212 F: 206.443.4870  
934 Broadway - Tacoma, WA 98402  
P: 253.284.9470 F: 253.284.9471

File: **Wo-08-10(tj)** Scale: **3/4" = 1'-0"** Title: **Balloon Frame Parapet (w/TJI)** Boxes: **One**

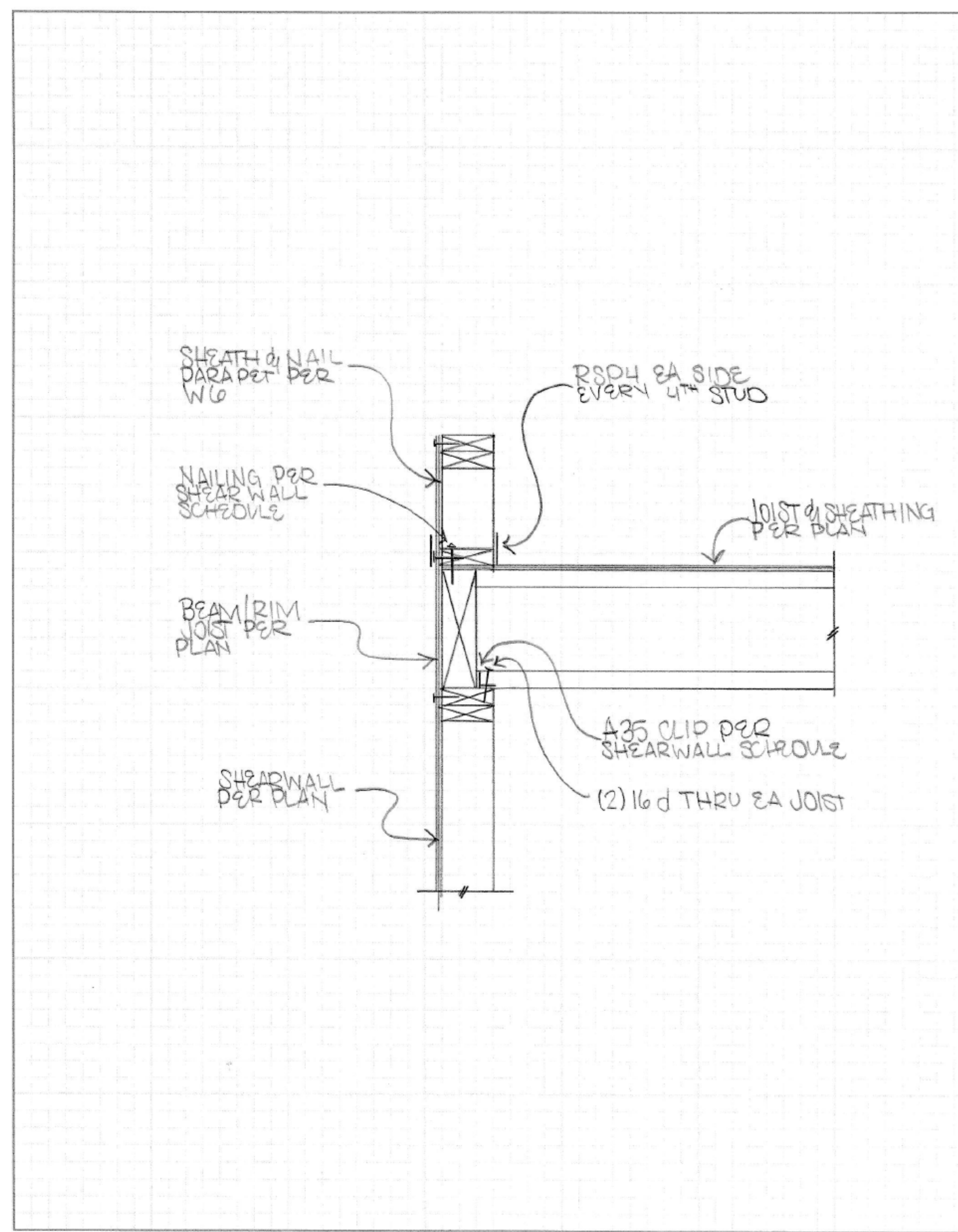
Project  
**14-11**  
number

Remodel for:  
**WISENTEINER RESIDENCE**  
2967 74th AVE SE  
MERCER ISLAND, WA 98040

Issue  
REVISION  
CORRECTIONS (09/09/2021)  
DATE

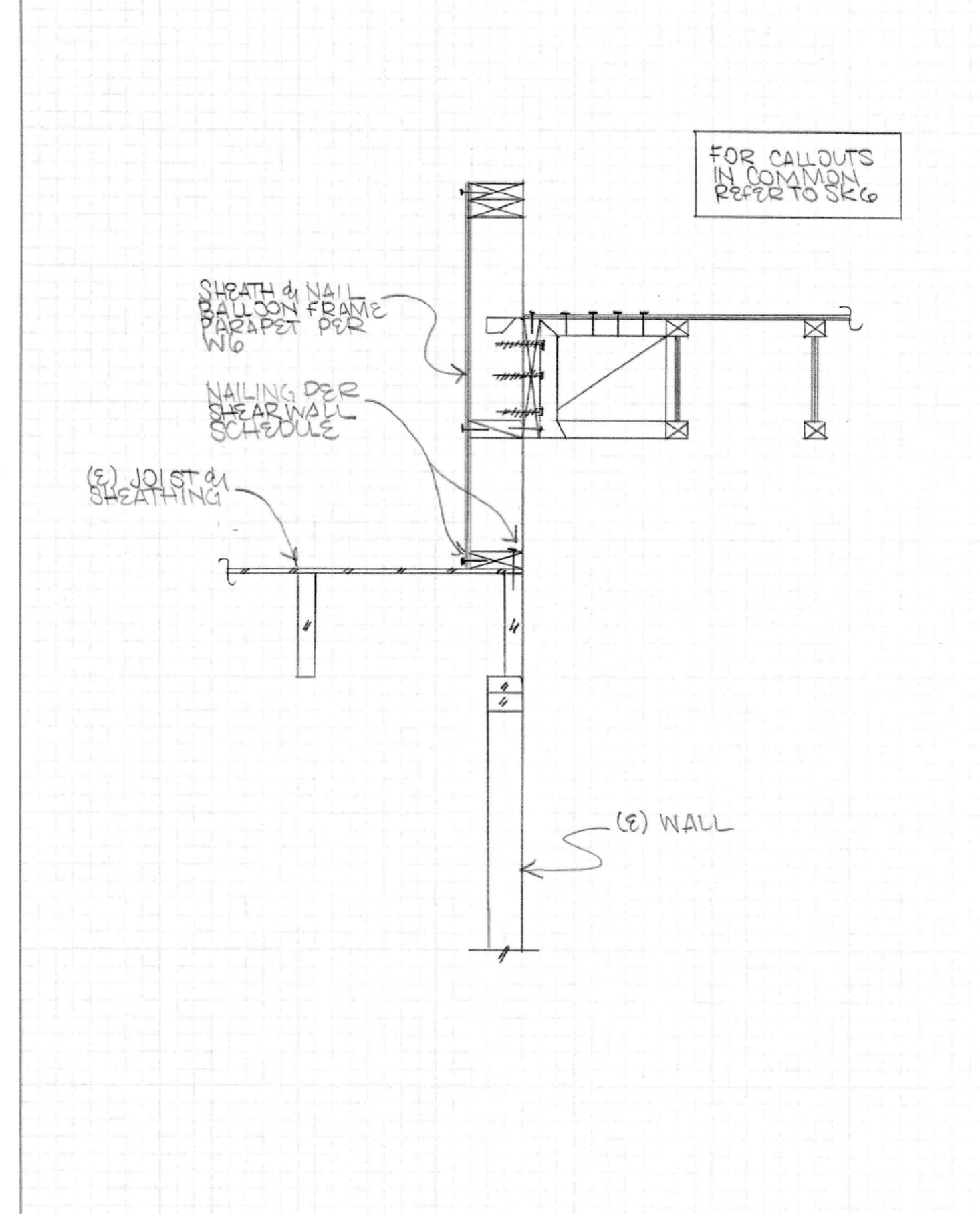
Permit Set:  
**STRUCTURAL DETAILS**

07/08/2020  
sheet  
**S2.0**  
number



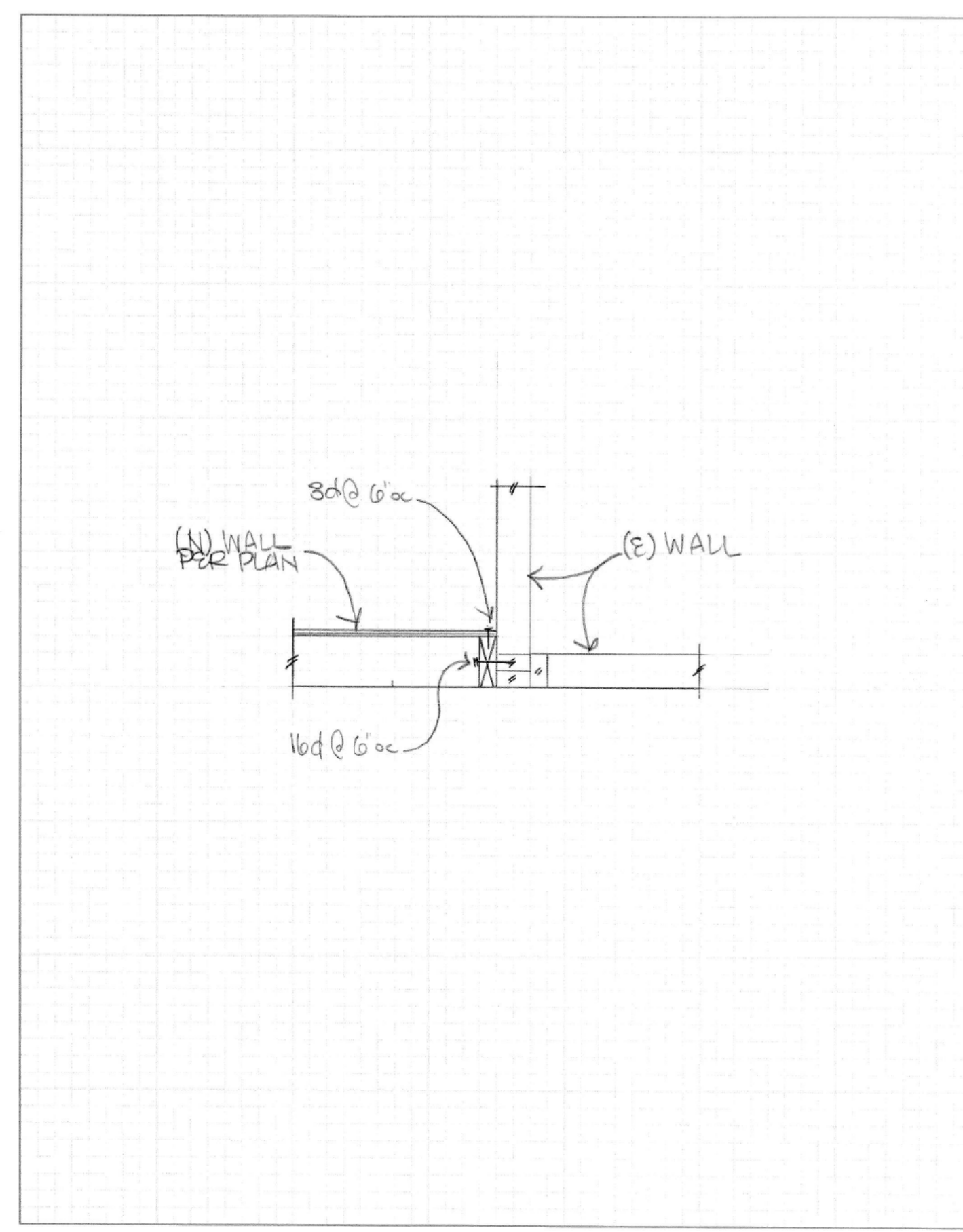
**SSF** STRUCTURAL ENGINEERING

PROJECT: \_\_\_\_\_ DATE: \_\_\_\_\_  
PROJ.#: \_\_\_\_\_  
DESIGN: SK1 SHEET



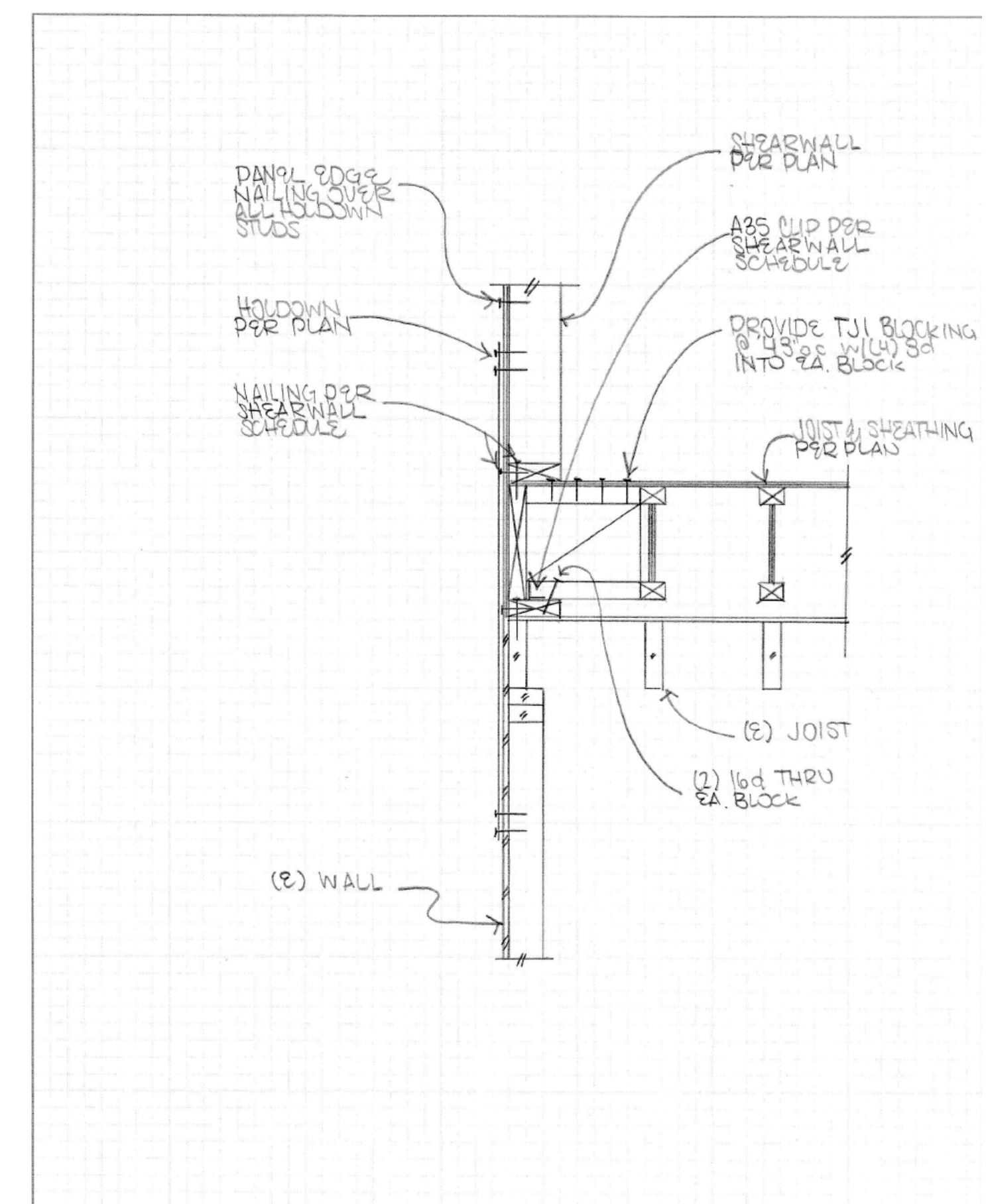
**SSF** STRUCTURAL ENGINEERING

PROJECT: \_\_\_\_\_ DATE: \_\_\_\_\_  
PROJ.#: \_\_\_\_\_  
DESIGN: SK8 SHEET



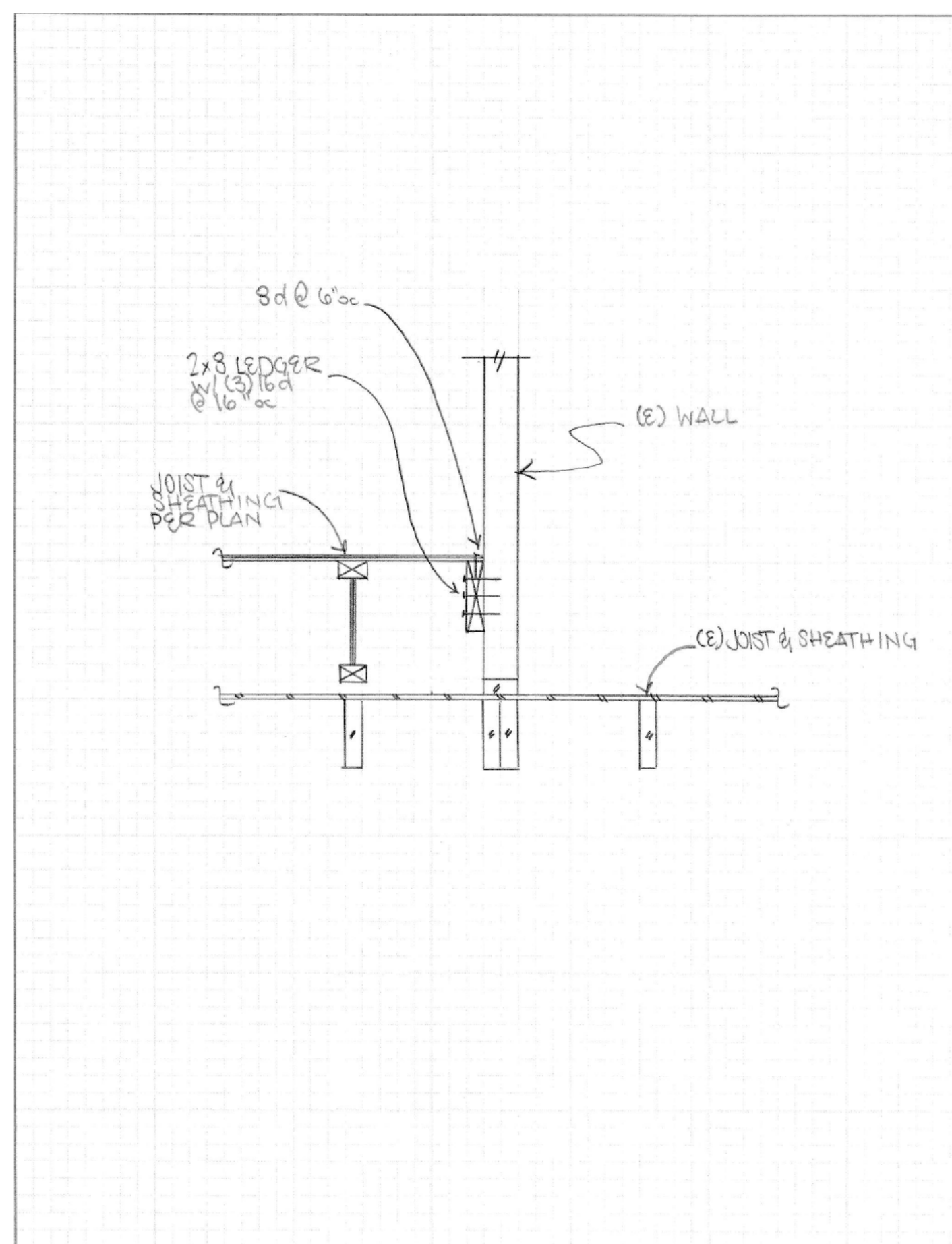
**SSF** STRUCTURAL ENGINEERING

PROJECT: \_\_\_\_\_ DATE: \_\_\_\_\_  
PROJ.#: \_\_\_\_\_  
DESIGN: SK4 SHEET



**SSF** STRUCTURAL ENGINEERING

PROJECT: \_\_\_\_\_ DATE: \_\_\_\_\_  
PROJ.#: \_\_\_\_\_  
DESIGN: SK10 SHEET



**SSF** STRUCTURAL ENGINEERING

PROJECT: \_\_\_\_\_ DATE: \_\_\_\_\_  
PROJ.#: \_\_\_\_\_  
DESIGN: SK11 SHEET

**SSF** STRUCTURAL ENGINEERING

2124 Third Avenue - Suite 100 - Seattle, WA 98121  
p: 206.443.6212 sffengineers.com  
934 Broadway - Tacoma, WA 98402  
p: 253.284.9470 sffengineers.com

File | Wo-09-01 | Scale | 3/4" = 1'-0" | Title | Shearwall Schedule - (Sheathed One Side) | Boxes | Two

**Shearwall Schedule**

Mark	Sheathing	Panel Edge Nailing	Top Plate Connection		Base Plate Connection	
			if TJI	if Wood	at Wood	at Concrete
W6	15/32" CDX PLYWOOD	8d @ 6"oc	A35 @ 24"oc	16d @ 6"oc	16d @ 6"oc	3/8" A.B. @ 48"oc
W4	15/32" CDX PLYWOOD	8d @ 4"oc	16d @ 4"oc	A35 @ 16"oc	(2)rows 16d @ 6"oc	3/8" A.B. @ 32"oc
W3	15/32" CDX PLYWOOD	8d @ 3"oc	(2)rows 16d @ 4"oc	A35 @ 12"oc	(2)rows 16d @ 6"oc	3/8" A.B. @ 24"oc
W2	15/32" CDX PLYWOOD	8d @ 2"oc	(2)rows 16d @ 4"oc	A35 @ 9"oc	(2)rows 16d @ 4"oc	3/8" A.B. @ 16"oc

① BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12"oc.  
 ② 8d NAILS SHALL BE 0.131" x 2 1/2" (common) - 16d NAILS SHALL BE 0.135" x 3 1/2" (com).  
 ③ EMBED ANCHOR BOLTS AT LEAST 7" EXPANSION BOLTS MAY BE SUBSTITUTED FOR ANCHOR BOLTS WITH 4" EMBEDMENT. TITEN HD SCREW ANCHORS MAY BE SUBSTITUTED FOR ANCHOR BOLTS W/ 4" EMBEDMENT. ALL BOLTS SHALL HAVE 3" x 3" x 1/4" MIN. PLATE WASHERS. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING. SEE DETAIL C.  
 ④ 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2. SEE DETAIL B. WHERE 3x STUDS ARE USED FOR W2, STAGGER NAILS AT ADJOINING PANEL EDGES.  
 ⑤ TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING. SEE PLANS AND HOLD-DOWN SCHEDULE FOR ALTERNATE REQUIREMENTS.  
 ⑥ ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.  
 ⑦ 7/16" O.S.B. MAY BE SUBSTITUTED FOR 15/32" CDX.  
 ⑧ LTP4's (HORIZONTAL ORIENTATION) W/ 8d COMMON MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.  
 ⑨ A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.  
 ⑩ AT MULTI-ROW NAILING, MINIMUM OFFSET BETWEEN ROWS AND ROW SPACING 1/2", SEE DETAIL D.  
 ⑪ PROVIDE (3) ROWS 16d @ 6"oc AT LVL RIMS.

SK12 Shearwall Schedule - (Sheathed One Side)

**SSF** STRUCTURAL ENGINEERING

2124 Third Avenue - Suite 100 - Seattle, WA 98121  
p: 206.443.6212 sffengineers.com  
934 Broadway - Tacoma, WA 98402  
p: 253.284.9470 sffengineers.com

File | Wo-09-01 | Scale | 3/4" = 1'-0" | Title | Shearwall Schedule - (Sheathed One Side) | Boxes | Two

**Shearwall Schedule**

Mark	Sheathing	Panel Edge Nailing	Top Plate Connection		Base Plate Connection	
			if TJI	if Wood	at Wood	at Concrete
W6	15/32" CDX PLYWOOD	8d @ 6"oc	16d @ 6"oc	A35 @ 24"oc	16d @ 6"oc	3/8" A.B. @ 48"oc
W4	15/32" CDX PLYWOOD	8d @ 4"oc	16d @ 4"oc	A35 @ 16"oc	(2)rows 16d @ 6"oc	3/8" A.B. @ 32"oc
W3	15/32" CDX PLYWOOD	8d @ 3"oc	(2)rows 16d @ 4"oc	A35 @ 12"oc	(2)rows 16d @ 6"oc	3/8" A.B. @ 24"oc
W2	15/32" CDX PLYWOOD	8d @ 2"oc	(2)rows 16d @ 4"oc	A35 @ 9"oc	(2)rows 16d @ 4"oc	3/8" A.B. @ 16"oc

① BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12"oc.  
 ② 8d NAILS SHALL BE 0.131" x 2 1/2" (common) - 16d NAILS SHALL BE 0.135" x 3 1/2" (com).  
 ③ EMBED ANCHOR BOLTS AT LEAST 7" EXPANSION BOLTS MAY BE SUBSTITUTED FOR ANCHOR BOLTS WITH 4" EMBEDMENT. TITEN HD SCREW ANCHORS MAY BE SUBSTITUTED FOR ANCHOR BOLTS W/ 4" EMBEDMENT. ALL BOLTS SHALL HAVE 3" x 3" x 1/4" MIN. PLATE WASHERS. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING. SEE DETAIL C.  
 ④ 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2. SEE DETAIL B. WHERE 3x STUDS ARE USED FOR W2, STAGGER NAILS AT ADJOINING PANEL EDGES.  
 ⑤ TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING. SEE PLANS AND HOLD-DOWN SCHEDULE FOR ALTERNATE REQUIREMENTS.  
 ⑥ ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.  
 ⑦ 7/16" O.S.B. MAY BE SUBSTITUTED FOR 15/32" CDX.  
 ⑧ LTP4's (HORIZONTAL ORIENTATION) W/ 8d COMMON MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.  
 ⑨ A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.  
 ⑩ AT MULTI-ROW NAILING, MINIMUM OFFSET BETWEEN ROWS AND ROW SPACING 1/2", SEE DETAIL D.  
 ⑪ PROVIDE (3) ROWS 16d @ 6"oc AT LVL RIMS.

SK13 Shearwall Schedule - (Sheathed One Side)

project  
14-11  
number

Remodel for:  
**WISENTEINER RESIDENCE**  
2967 74th AVE SE  
MERCER ISLAND, WA 98040

ISSUE  
REVISION  
CORRECTIONS (09/20/21)

Permit Set  
**STRUCTURAL DETAILS**

07/08/2020  
sheet  
**S2.1**  
number