ZETTEL RESIDENCE 6415 SE 24TH ST MERCER ISLAND 98040

PROJECT NOTES:

PROJECT NUMBERS: PROJECT DESCRIPTION: #########

INTERIOR ALTERATIONS—NEW MAIN FLOOR LAYOUT AND SECOND FLOOR ADDITION

WITHIN BUILDING FOOTPRINT

KING COUNTY ASSESSOR

PARCEL NUMBER: 409950-0875

PROJECT ADDRESS: 6415 SE 24TH ST MERCER ISLAND 98040

LAKE VIEW PLACE EAST SEATTLE ALL OF 21 THRU LEGAL DESCRIPTION: 24 LESS CO RD & E 20 FT OF 1 THRU 4

R - 8.4

TYPE V-NR CONSTRUCTION TYPE: LOT AREA 13,200 SF EXISTING LOT COVERAGE:

HOUSE: 1,480SF FRONT PORCH: 130SF SHED: 312SF CARPORT: 440SF

PROPOSED LOT COVERAGE:

BUILDING HEIGHT:

NO NEW LOT COVERAGE MAX ALLOWED: 4620 SF

26'-5 1/2" FROM AVERAGE GRADE NO INCREASE IN BUILDING HEIGHT PROPOSED

PARKING REQUIREMENTS: 1 EXISTING

GENERAL NOTES:

- . ALL WORK UNDER THIS CONTRACT SHALL COMPLY WITH THE CURRENT EDITIONS OF THE INTERNATIONAL RESIDENTIAL CODE, WASHINGTON STATE ENERGY CODE, WASHINGTON STATE VENTILATION AND INDOOR AIR QUALITY CODÉ, UNIFORM PLUMBING CODE, NATIONAL ELECTRIC CODE, AND WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES REGULATIONS.
- ALL NOTES AND SPECIFICATIONS TO COMPLY WITH THE 2006 SEATTLE IRC, AND CURRENT EDITIONS ENERGY CODE AND SEATTLE MECHANICAL CODE.
- 2. GENERAL CONTRACTOR SHALL VERIFY AND COORDINATE ALL EXISTING AND NEW UTILITIES AND SITE CONDITIONS BEFORE AND DURING CONSTRUCTION. INFORM ARCHITECT OF VARIATIONS BETWEEN CONTRACT DOCUMENTS AND EXISTING CONDITIONS.
- 3. DO NOT SCALE DRAWINGS; VERIFY ALL DIMENSIONS ON THE JOB.
- 4. DIMENSIONS ARE TO FACE OF FINISHED WALLS UNLESS OTHERWISE NOTED.
- 5. FLOOR-TO-FLOOR DIMENSIONS FROM TOP OF SUBFLOOR TO TOP PLATES, UNLESS NOTED OTHERWISE.
- 6. PROVIDE SOLID BLOCKING BEHIND ALL WALL HUNG FIXTURES AND ACCESSORIES.

ENERGY CONSERVATION ACT.

- OPENINGS SHALL BE CAULKED, SEALED, OR WEATHERSTRIPPED.
- SEAL TEARS AND JOINTS IN INSULATION WITH TAPE.
- MOISTURE CONTROL TO BE PROVIDED PER WA STATE ENERGY CODE. - HOT WATER HEATERS SHALL COMPLY WITH THE NATIONAL APPLIANCE
- PROVIDE SEISMIC STRAP FOR EXIST. WATER HEATER.
- SERVICE WATER PIPES IN UNHEATED SPACES SHALL BE INSULATED PER WA STATE ENERGY CODE.

- PROVIDE FIRE BLOCKING, DRAFTSTOPS AND FIRESTOPS PER THE SRC - PROVIDE APPROVED SECURITY AND LOCKING DEVICES AT NEW DOORS AND WINDOWS PER SRC

PROJECT DIRECTORY:

ZETTEL, TRAVIS +CHANTEL 6415 SE 24TH ST

MERCER ISLAND, WA 98040

ARCHITECT: PIANO NOBILE LLC 6227 5TH AVE NW SEATTLE, WA 98107 CONTACT: NICK ROBERTSON

(917) 714-5968

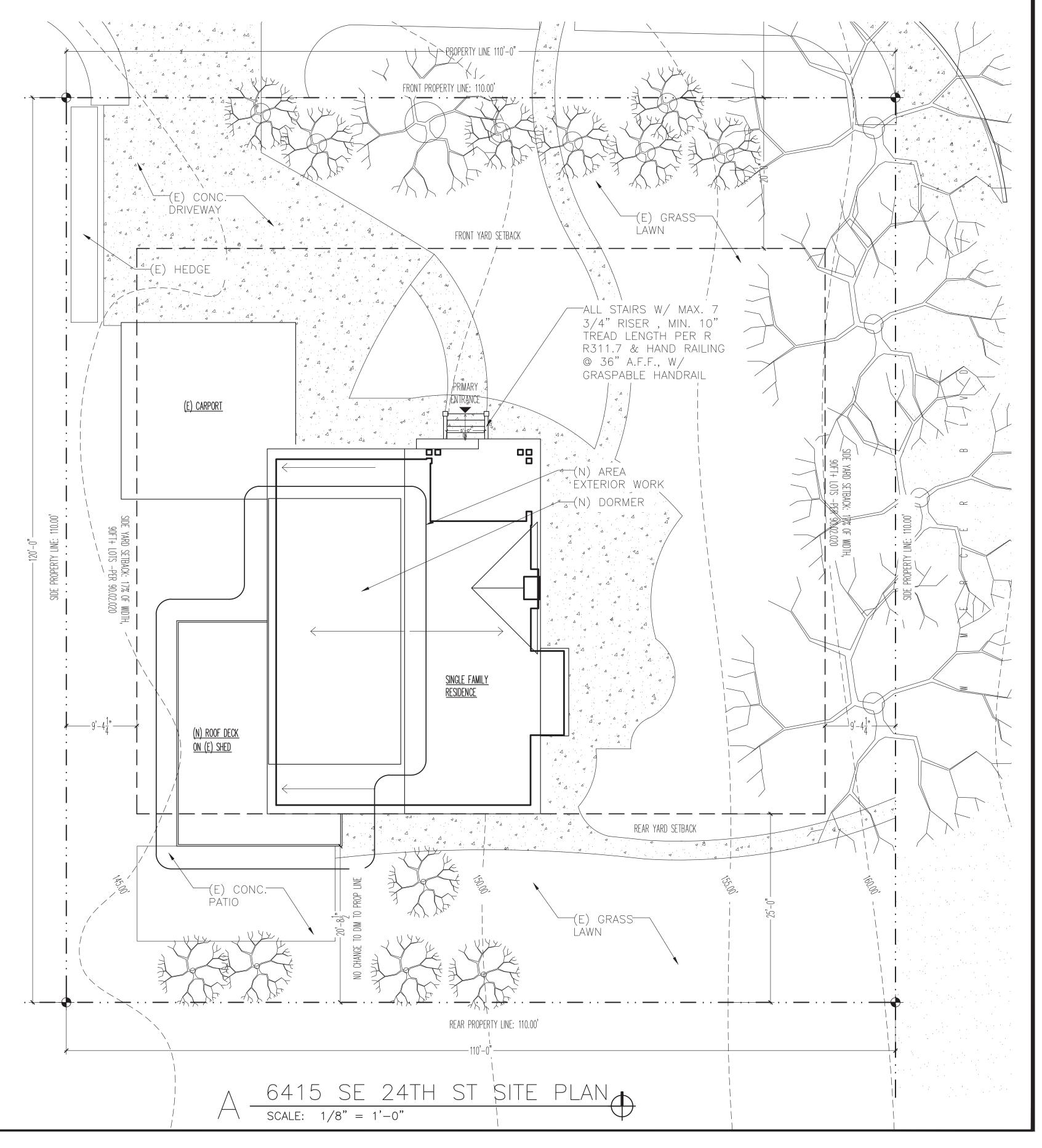
SCOPE OF WORK:

1. RENOVATION OF EXISTING SINGLE FAMILY RESIDENCE 2. NEW DORMER ADDITION AT 2ND FLOOR

TABLE OF CONTENTS:

- A1 PROJECT INFO/ SITE PLAN
- SCHEDULES DEMOLITION PLANS

- A10 PROPOSED BUILDING SECTION
- S1 FRAMING PLANS
- FRAMING PLANS
- FRAMING PLANS
- FRAMING DETAILS FRAMING DETAILS
- S6 STRUCTURAL NOTES
- S7 STRUCTURAL NOTES



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6415 SE 24TH ST MERCER ISLAND WA 980

INFO AND NOTES

Drawing No.

A1

Job No. ZETTEL RESIDENCE

Date: 08.6.20 Sode: As Noted

DOOR SCHEDULE

ZETTEL RESIDENCE

JOB SITE ADDRESS

MERCER ISLAND WA 98040

6415 SE 24TH ST

PIANO NOBILE LLC

WINDOW SCHEDULE CHEDULE

NICK ROBERTS ON

REVISION DATE 0712/2020

EDITED BY:

SITE LEAD:

DESIGNER PHON

DESIGNER EMAII

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revision date

7/12/2020

JOB SITE ADDRESS 6415 SE 24TH ST MERCER ISLAND WA 98

ZETTEL RESIDENCE

EDITED BY: NICK ROBERTS ON SITE LEAD:

DESIGNER PHONE: DESIGNER EMAIL.

							DESIC	GNER EMAIL:		_
SIMBOL	LOCATION	WIDTH IN INCHES	HEIGHT IN INCHES	STYLE	MANUFACTURER	FINISH	HARDWARE	GLAZING AREA	U VALUE	NOTES
Α	BASEMTENT BATHROOM	28	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
В	BASEMENT BEDROOM	32	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
С	MECH ROOM	48	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
D	LAUNDRY	32	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			POCKET DOOR
E	ENTRY	24	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
F	LIVING/DINNING ROOM	36	78	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			FRENCH DOOR W/ SAFETY GLASS- EXTERIOR DOOR
G	KITCHEN	30	78	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			SAFETY GLASS- EXTERIOR DOOR
Н	MASTER BEDROOM	30	78	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
i	MASTER BEDROOM	30	78	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
J	MASTER BATHROOM	32	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			FRENCH DOOR
K	MASTER BEDROOM	24	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
L	STAIR/HALLWAY	32	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
M	POWDER ROOM	24	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
N	2ND FLOOR STORAGE	48	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
0	2ND FLOOR BATHROOM	30	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
Р	OFFICE	32	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			POCKET DOOR
Q	2ND FLOOR BEDROOM	30	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			
R	2NS FLOOR BEDROOM	48	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			FRENCH DOOR
s	2NS FLOOR BEDROOM	48	80	SEE ELEVATION	FRANK LUMBER	PAINTED	10B			FRENCH DOOR
			TO	TAL WINDOW G	GLAZING AREA IN SG	QFT T				

#	LOCATION	WIDTH IN INCHES	HEIGHT IN INCHES	MODEL	STYLE	MANUFACTURER	FINISH	HARDWARE	GLAZING AREA SQFT	U VALUE	EGRESS UNIT	NOTES
1	KITCHEN	80	41 1/2	ULTIMATE G2	SEE ELEVATION	MARVIN	WHITE	T.B.D.	23.06	0.30	NO	
2	KITCHEN	80	41 1/2	ULTIMATE G3	SEE ELEVATION	MARVIN	WHITE	T.B.D.	23.06	0.30	NO	
3	KITCHEN	80	41 1/2	ULTIMATE G4	SEE ELEVATION	MARVIN	WHITE	T.B.D.	23.06	0.30	NO	SAFETY GLASS
4	MASTER BEDROOM	39 1/2	52 1/2	ULTIMATE G5	SEE ELEVATION	MARVIN	WHITE	T.B.D.	14.40	0.30	NO	
5	MASTER BEDROOM	87	52 1/2	ULTIMATE G6	SEE ELEVATION	MARVIN	WHITE	T.B.D.	31.72	0.30	YES	
6	MASTER BEDROOM	39 1/2	52 1/2	ULTIMATE G7	SEE ELEVATION	MARVIN	WHITE	T.B.D.	14.40	0.30	NO	
7	MASTER BATHROOM	32	43 1/2	ULTIMATE G8	SEE ELEVATION	MARVIN	WHITE	T.B.D.	9.67	0.30	NO	
8	MASTER BATHROOM	32	43 1/2	ULTIMATE G9	SEE ELEVATION	MARVIN	WHITE	T.B.D.	9.67	0.30	NO	
9	2ND FLOOR BEDROOM	45	41 1/2	ULTIMATE G10	SEE ELEVATION	MARVIN	WHITE	T.B.D.	12.97	0.30	YES	
10	OFFICE	23	35 1/2	ULTIMATE G11	SEE ELEVATION	MARVIN	WHITE	T.B.D.	5.67	0.30	NO	
11	OFFICE	23	59 1/2	ULTIMATE G12	SEE ELEVATION	MARVIN	WHITE	T.B.D.	9.50	0.30	NO	
12	OFFICE	47 1/2	59 1/2	ULTIMATE G13	SEE ELEVATION	MARVIN	WHITE	T.B.D.	19.63	0.30	NO	
13	OFFICE	23	59 1/2	ULTIMATE G14	SEE ELEVATION	MARVIN	WHITE	T.B.D.	9.50	0.30	NO	SAFETY GLASS
14	FAMILY ROOM	23	59 1/2	ULTIMATE G15	SEE ELEVATION	MARVIN	WHITE	T.B.D.	9.50	0.30	NO	SAFETY GLASS
15	FAMILY ROOM	73	59 1/2	ULTIMATE G16	SEE ELEVATION	MARVIN	WHITE	T.B.D.	30.16	0.30	NO	SAFETY GLASS
16	FAMILY ROOM	23	59 1/2	ULTIMATE G 17	SEE ELEVATION	MARVIN	WHITE	T.B.D.	9.50	0.30	NO	
17	FAMILY ROOM	23	59 1/2	ULTIMATE G 18	SEE ELEVATION	MARVIN	WHITE	T.B.D.	9.50	0.30	NO	
18	FAMILY ROOM	47 1/2	59 1/2	ULTIMATE G 19	SEE ELEVATION	MARVIN	WHITE	T.B.D.	19.63	0.30	NO	
19	FAMILY ROOM	23	59 1/2	ULTIMATE G20	SEE ELEVATION	MARVIN	WHITE	T.B.D.	9.50	0.30	NO	
20	FAMILY ROOM	23	35 1/2	ULTIMATE G21	SEE ELEVATION	MARVIN	WHITE	T.B.D.	5.67	0.30	NO	
21	2ND FLOOR BATHROOM	67 1/2	43 1/2	ULTIMATE G22	SEE ELEVATION	MARVIN	WHITE	T.B.D.	20.39	0.30	NO	
			TO	TAL WINDOW G	LATING AREAU	N SOFT			320.16			

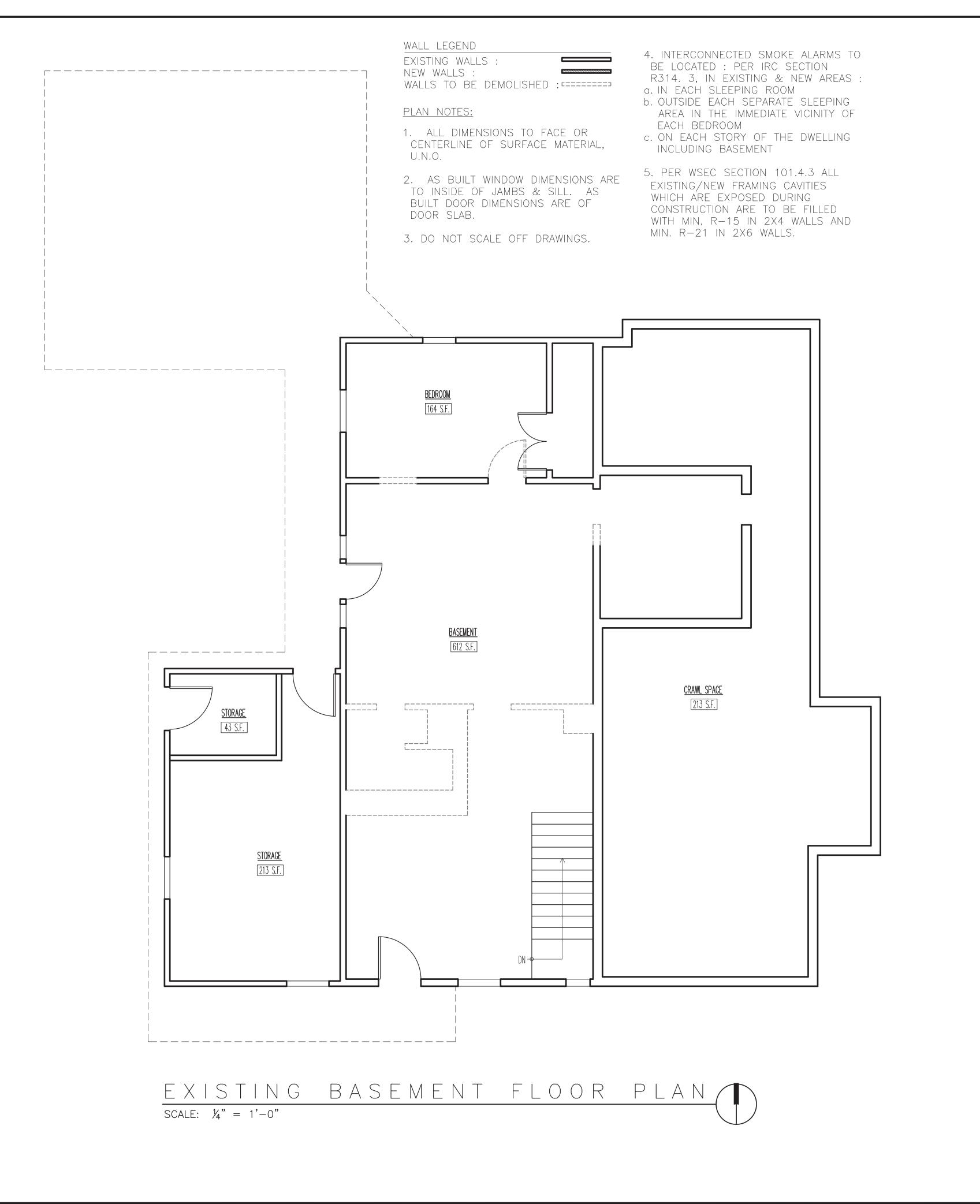
6415 SE 24TH ST MERCER ISLAND WA 980

SCHEDULES

A2

Job No. ZETTEL RESIDENCE

Date: 08.6.20 Scale: As Noted



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Drawing Titl

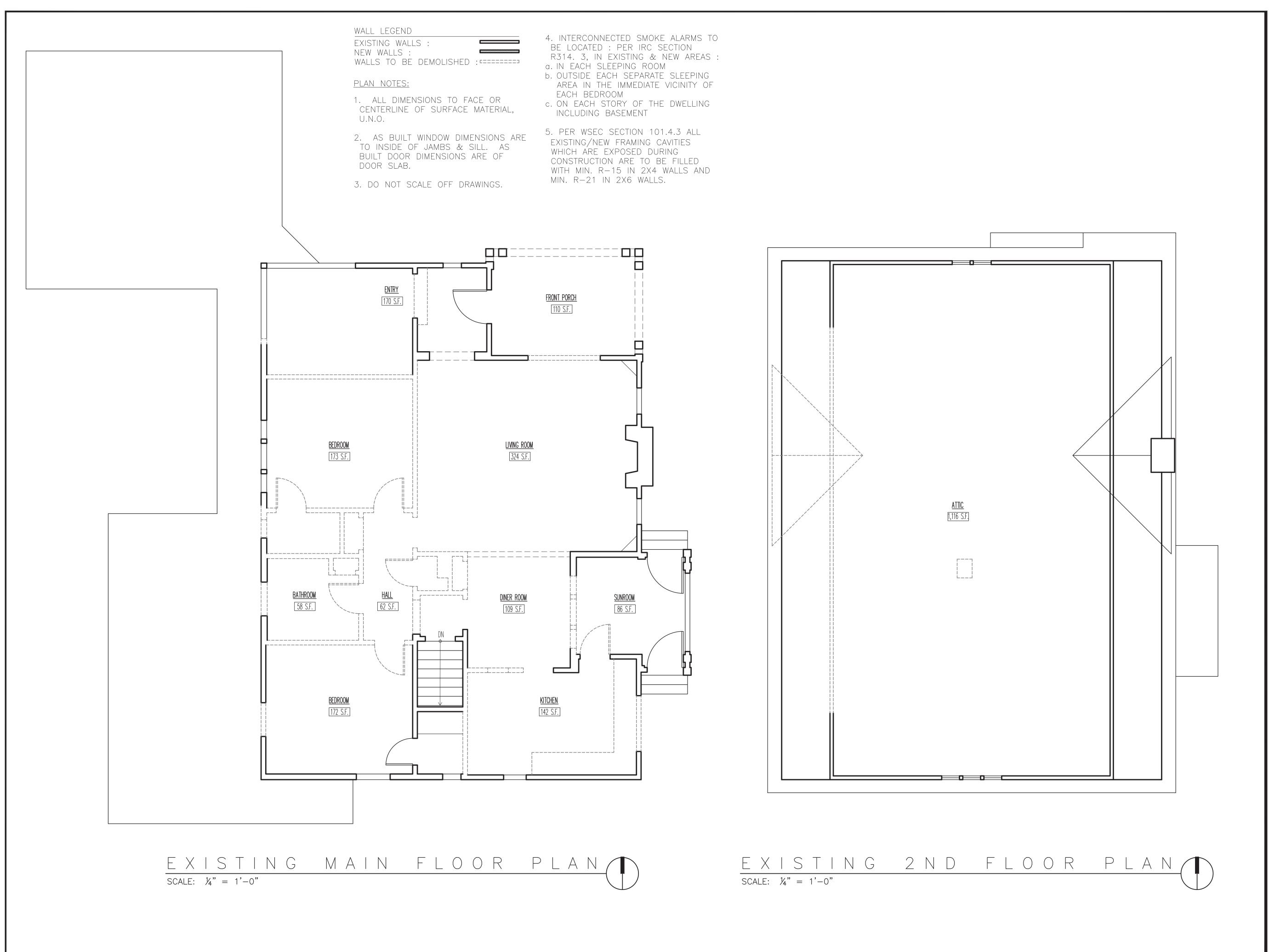
EXISTING FLOOR PLANS

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A3

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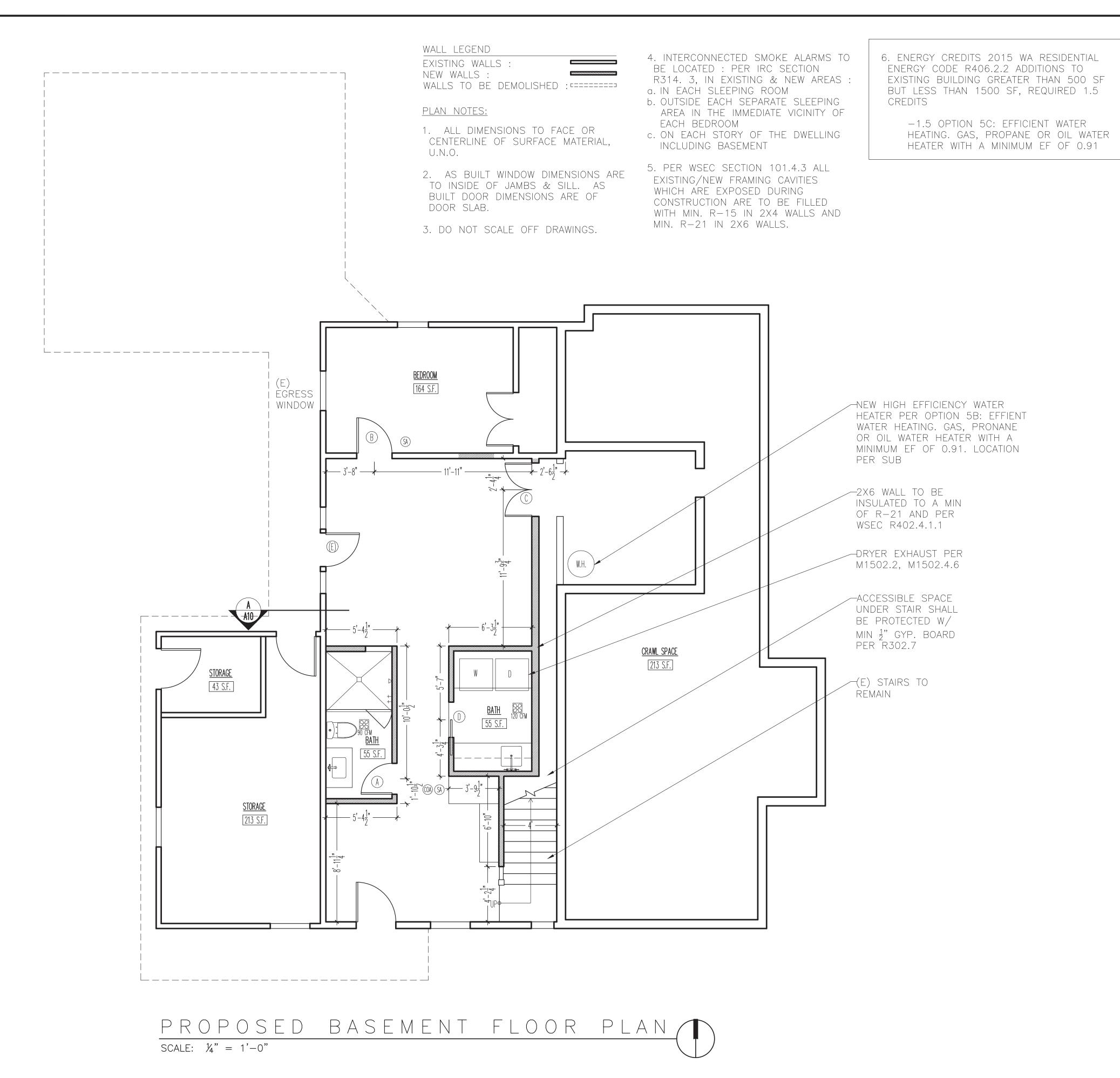
EXISTING FLOOR PLANS

Drawing No.

A4

Job No. ZETTEL RESIDENCE

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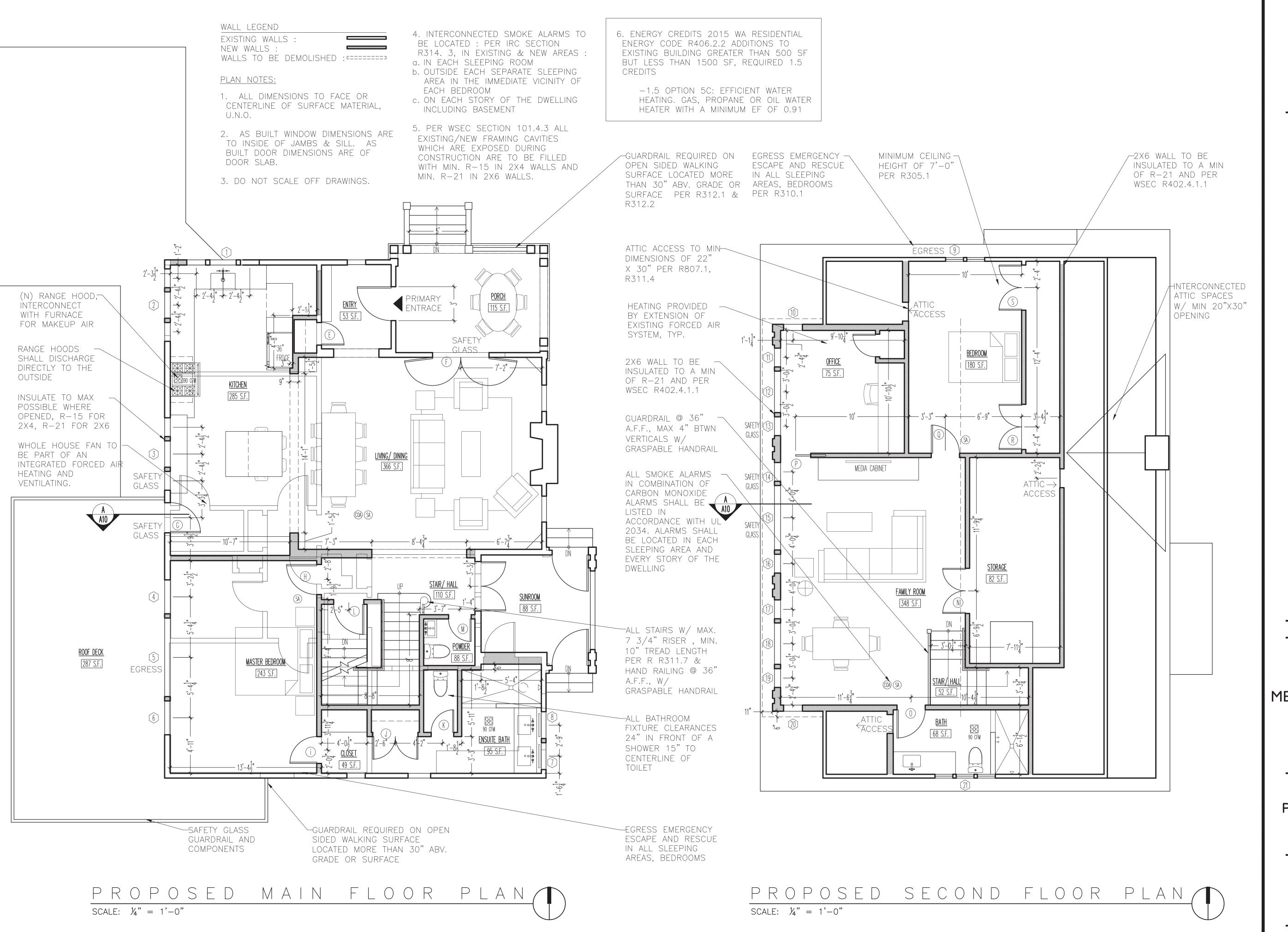
PROPOSED FLOOR PLANS

Drawing No.

A5

Job No. ZETTEL RESIDENCE

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PROPOSED FLOOR PLANS

Drawing No.

A6

Job No. ZETTEL RESIDENCE

Date: 08.6.20 Sodie: As Noted

INSULATION CERTIFICATE:

A PERMANENT CERTIFICATE SHALL BE COMPLETED AND POSTED ON OR WITHIN THREE FEET OF THE ELECTRICAL DISTRIBUTION PANEL BY THE BUILDER OR REGISTERED DESIGN PROFESSIONAL. THE CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR REGISTERED DESIGN PROFESSIONAL AND SHALL NOT COVER OR OBSTRUCT THE VISIBILITY OF THE CIRCUIT DIRECTORY LABEL, SERVICE DISCONNECT LABEL OR OTHER REQUIRED LABELS. THE CERTIFICATE SHALL LIST THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN OR ON CEILING/ROOF, WALLS, FOUNDATION (SLAB, BELOW-GRADE WALL, AND/OR FLOOR) AND DUCTS OUTSIDE CONDITIONED SPACES; U-FACTORS FOR FENESTRATION AND THE SOLAR HEAT GAIN COEFFICIENT (SHGC) OF FENESTRATION, AND THE RESULTS FROM ANY REQUIRED DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING DONE ON THE BUILDING. WHERE THERE IS MORE THAN ONE VALUE FOR EACH COMPONENT, THE CERTIFICATE SHALL LIST THE VALUE COVERING THE LARGEST AREA. THE CERTIFICATE SHALL LIST THE TYPES AND EFFICIENCIES OF HEATING, COOLING AND SERVICE WATER HEATING EQUIPMENT.

ROOF VENTUATION

VENTILATION REQUIRED. ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATION OPENINGS SHALL HAVE A LEAST DIMENSION OF $\frac{1}{16}$ INCH MINIMUM AND $\frac{1}{4}$ INCH MAXIMUM. VENTILATION OPENINGS HAVING A LEAST DIMENSION LARGER THAN $\frac{1}{4}$ INCH SHALL BE PROVIDED WITH CORROSION—RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH, OR SIMILAR MATERIAL WITH OPENINGS HAVING A LEAST DIMENSION OF $\frac{1}{16}$ INCH MINIMUM AND $\frac{1}{4}$ INCH MAXIMUM.

MINIMUM VENT AREA. THE MINIMUM NET FREE VENTILATING AREA SHALL BE 150 OF THE AREA OF THE VENTED SPACE.

EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE $\frac{1}{300}$ OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET:

1. IN CLIMATE ZONES 6, 7 AND 8, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM—IN—WINTER SIDE OF THE CEILING.

2. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET (914 MM) BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

<u>VENTING WILL BE ACHIEVED BY:</u>
COR—A—VENT VENTING AT RIDGE AND BIRD BLOCKING BETWEEN EACH RAFTER.

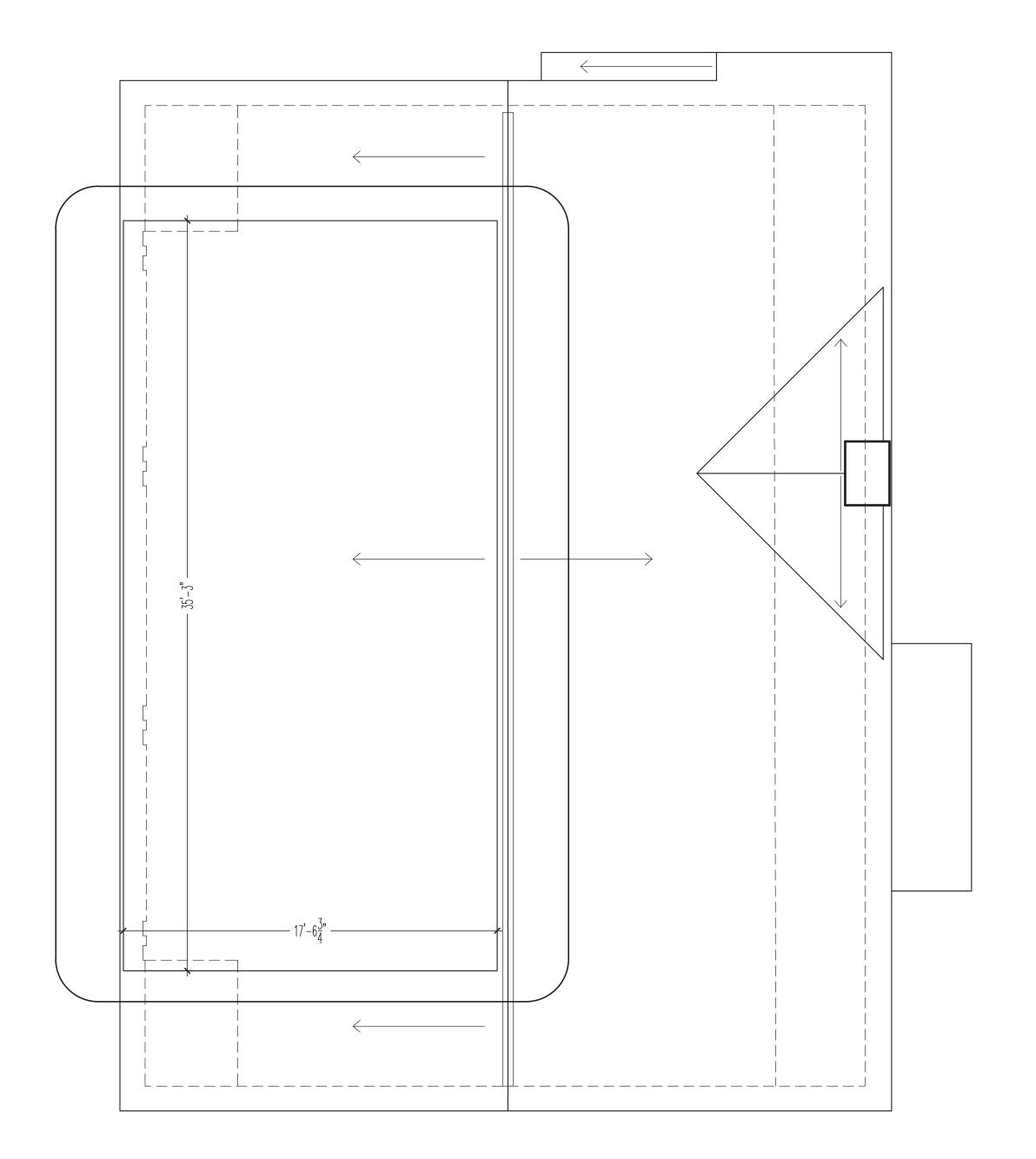
BAFFLE INSULATION WITH A MINIMUM 1" AIR SPACE BETWEEN THE RIGID INSULATION AND THE ROOF SHEATHING TO ALLOW AIR FLOW AND CROSS VENTILATION TO ROOF VENTS INSTALLED IN UPPER PORTION OF SPACE WHERE REQUIRED.

<u>VENTING REQUIREMENTS:</u>
TOTAL NEW REPLACED ROOF AREA = 618 SQ FT
618/ 150 = 4.14 SF VENTING REQ'D 50% REQUIRED AT EVES

PROPOSED ROOF VENTING:

- BIRD BLOCKING 5 SQ. IN/FT (65FT) = 27.0 S.F.

- 45 L.F. CONTINUOUS SCREENED RIDGE VENT @ 18
SQ. IN/FT = 67.5 SF
CROSS VENTILATION ACHIEVED 1" AIR GAP ABOVE
INSULATION
TOTAL PROPOSED VENTING AREA: 94.8 SF



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

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Drawing Title

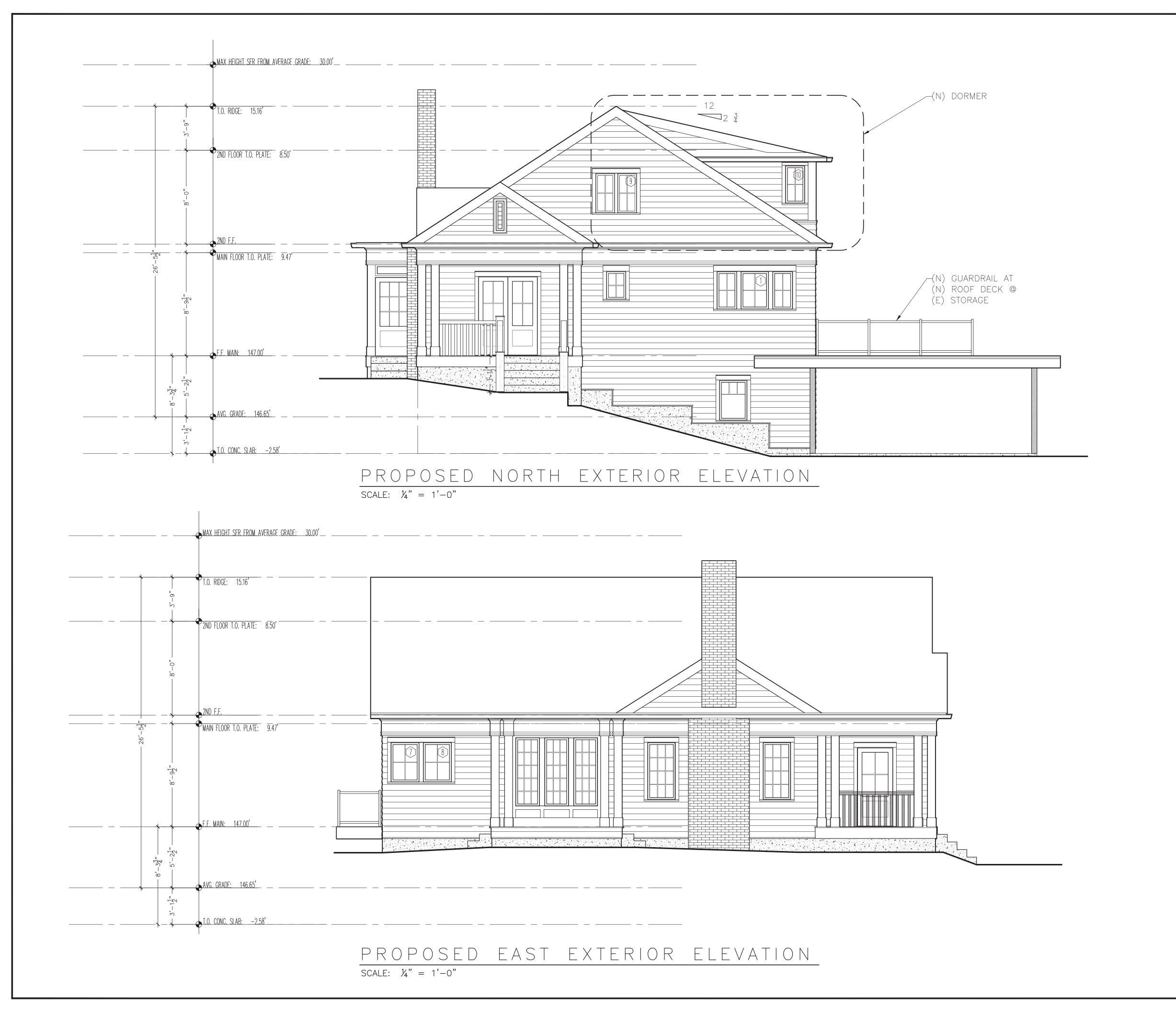
PROPOSED ROOF PLAN

Drawing No.

Α7

Job No. ZETTEL RESIDENCE

Date: 08.6.20 Scale: As Noted



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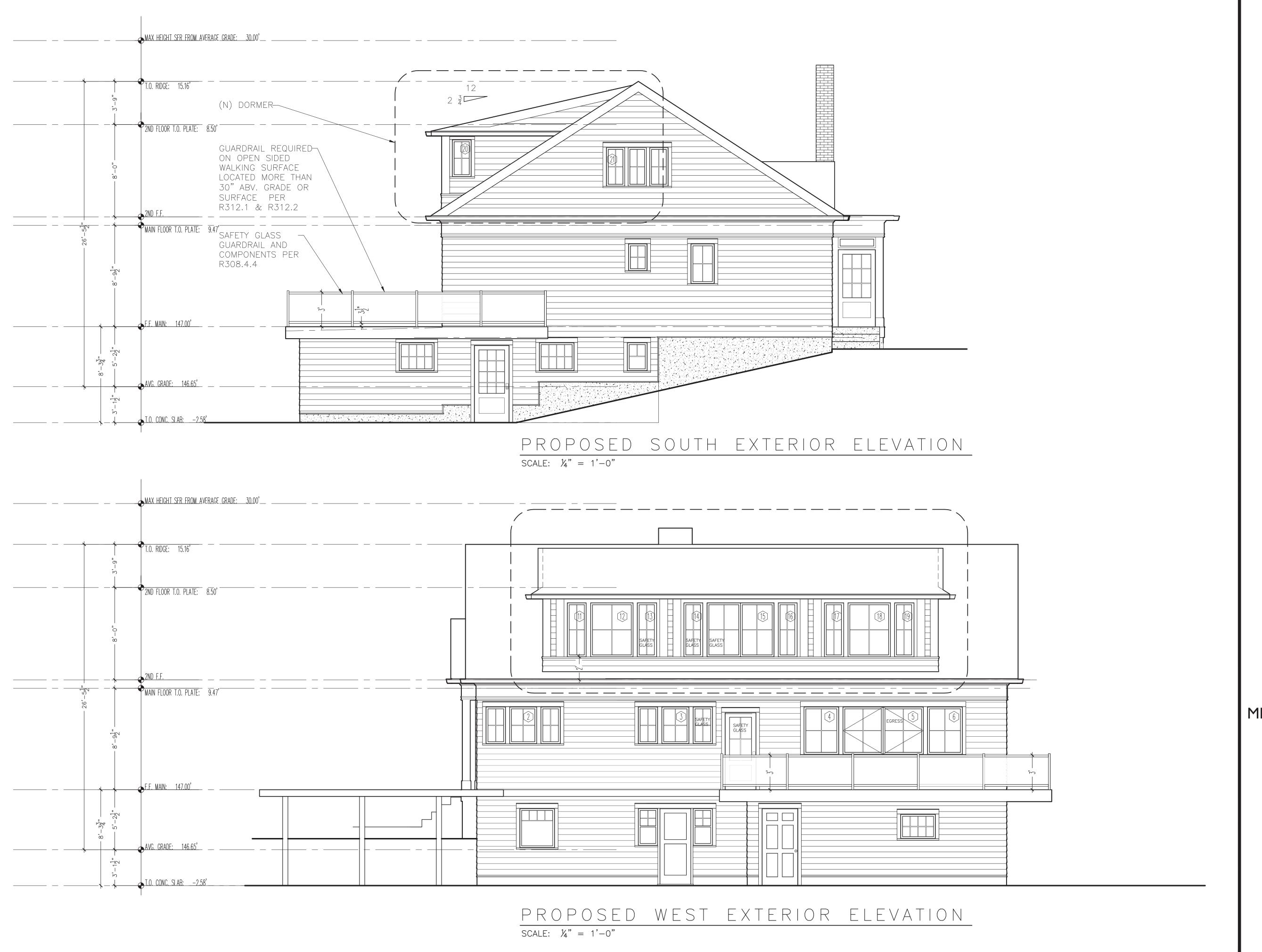
PROPOSED EXTERIOR ELEVATIONS

Drawing No.

8A

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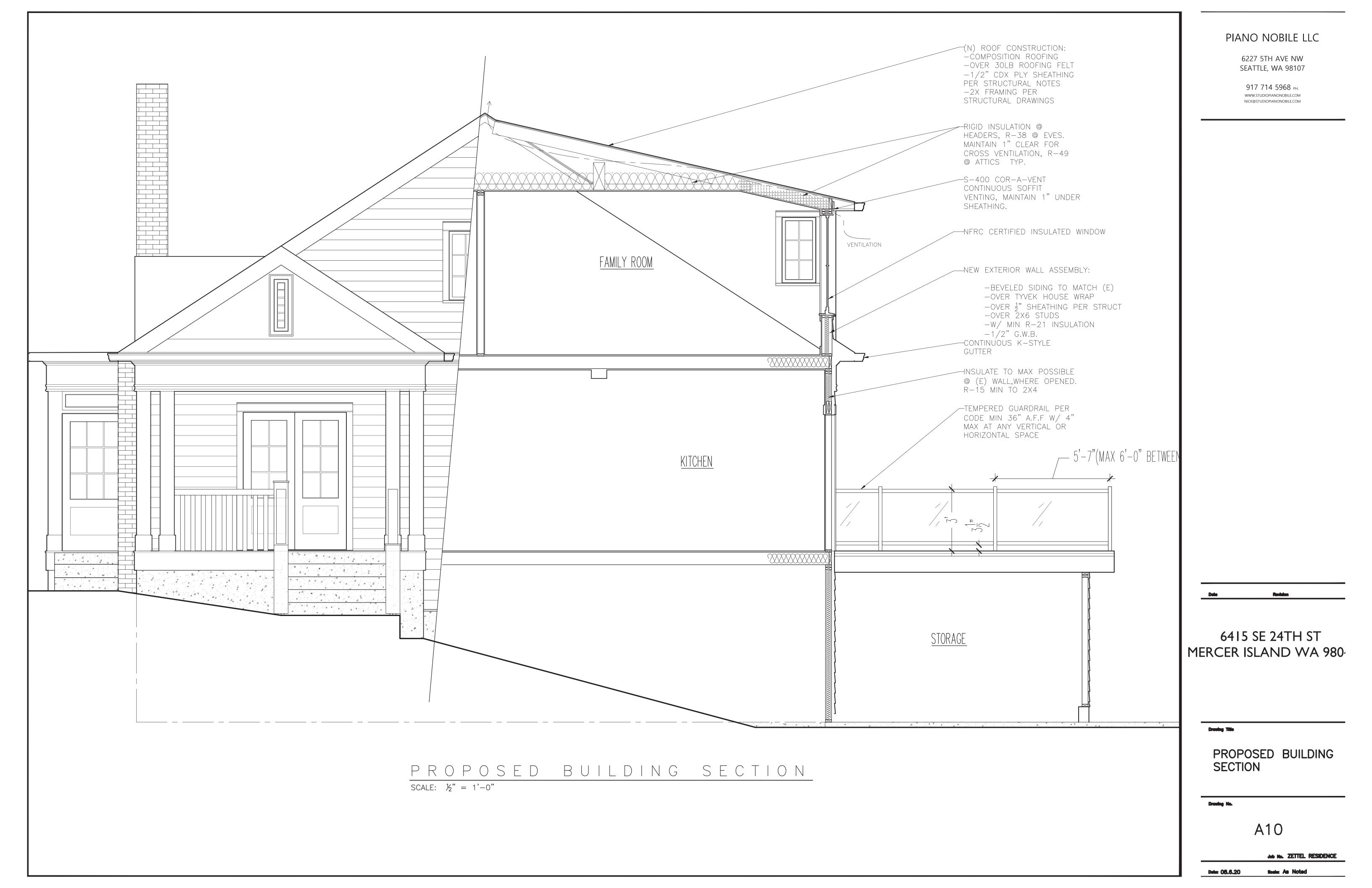
PROPOSED EXTERIOR ELEVATIONS

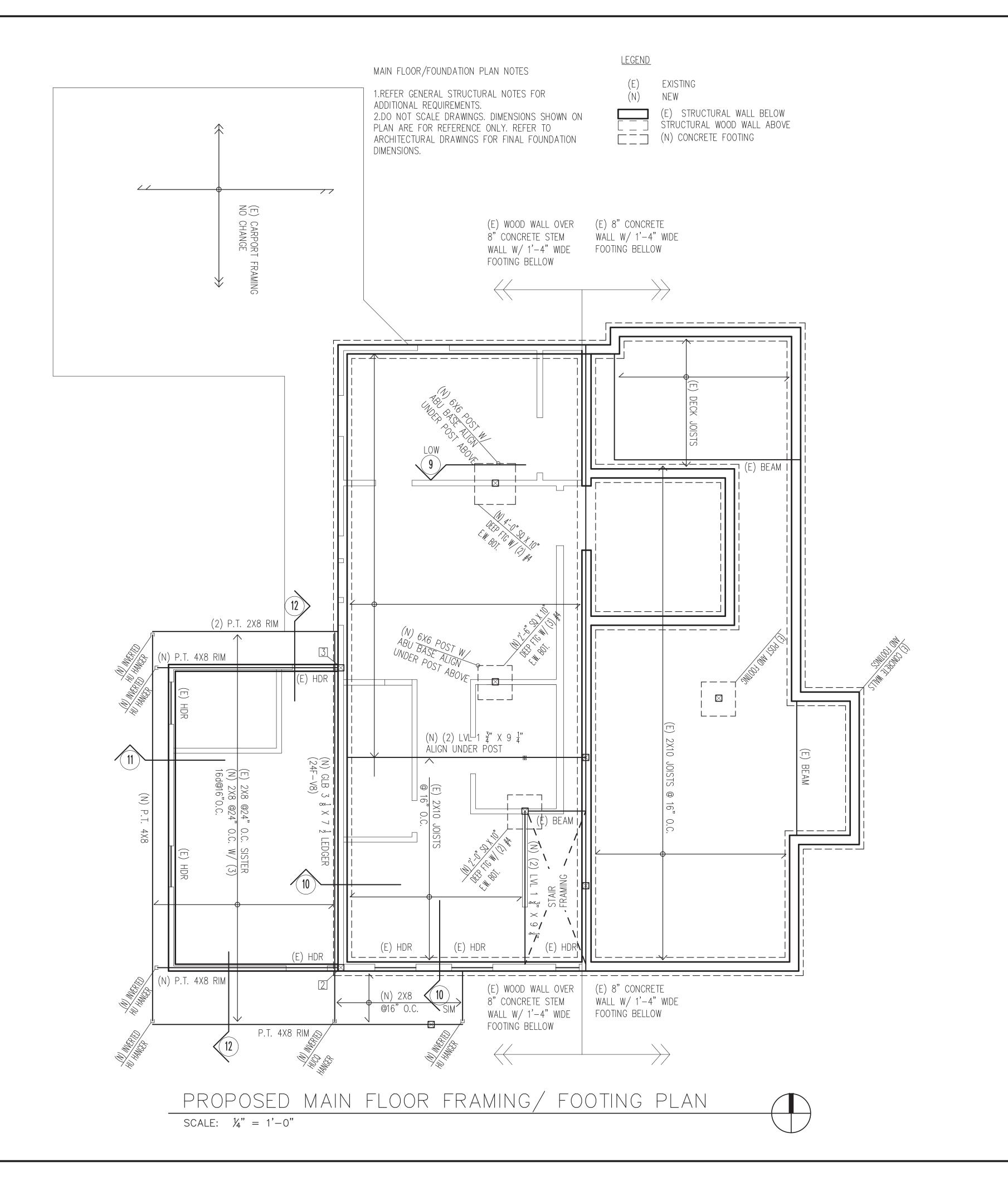
Drawing No

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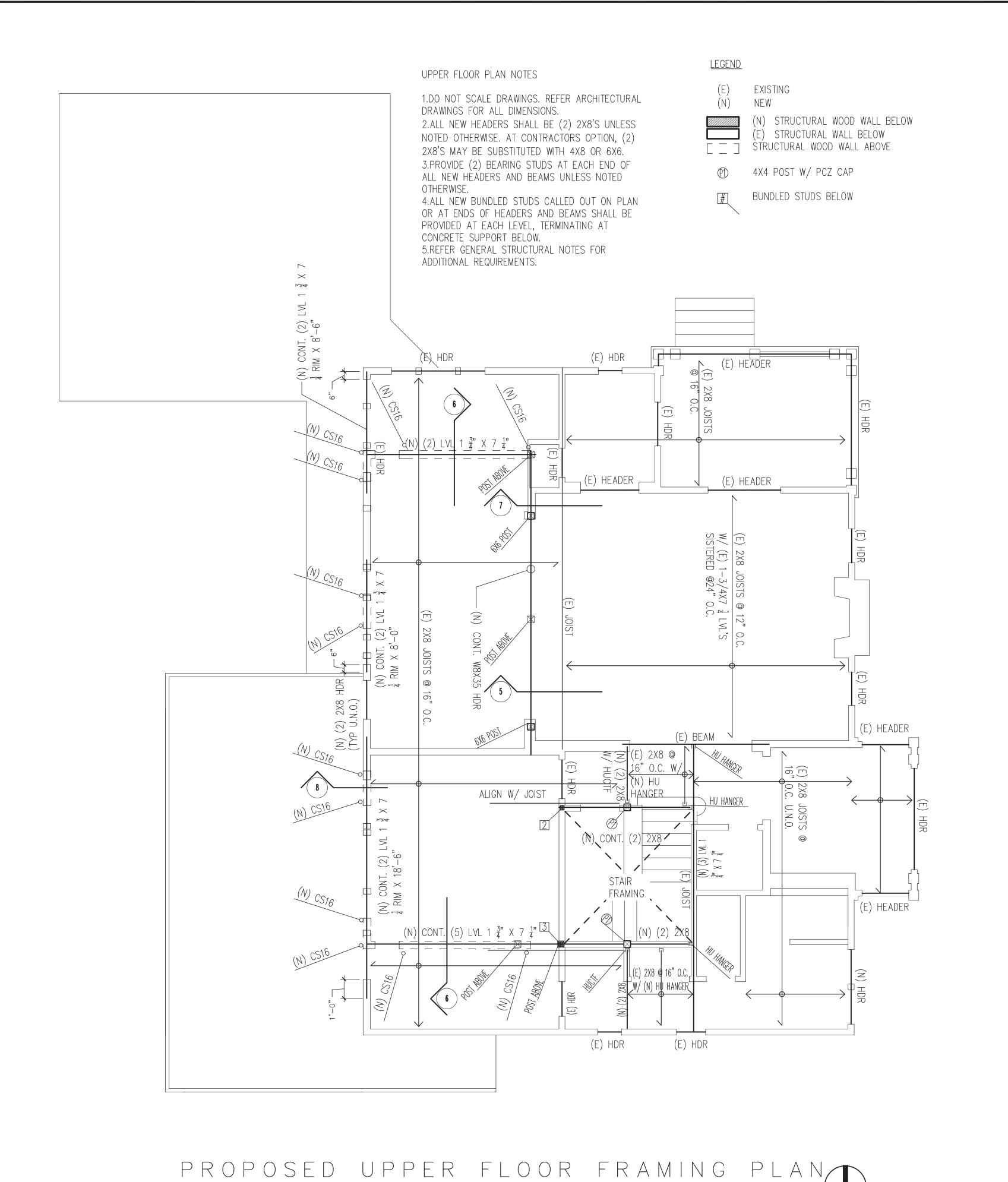
FRAMING PLANS

Drawing No.

S1

Job No. ZETTEL RESIDENCE

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SCALE: $\frac{1}{4}$ " = 1'-0"

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Drawing Tit

FRAMING PLANS

Drawing No.

S2

Job No. ZETTEL RESIDENCE

Date: 08.6.20 Socie: As Noted

ROOF PLAN NOTES

1.DO NOT SCALE DRAWINGS. REFER ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.

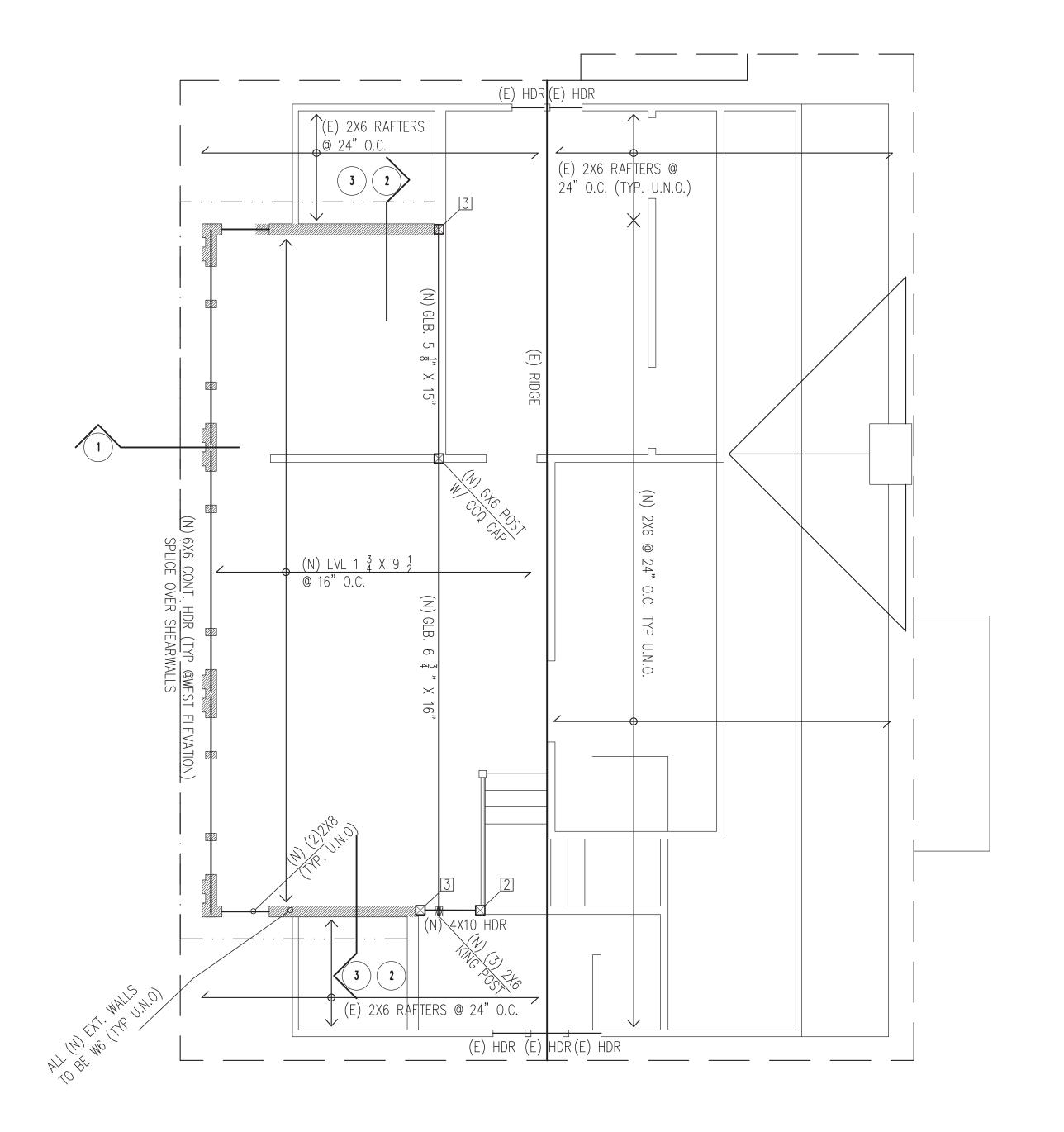
2.TYPICAL NEW ROOF FRAMING CONSISTS OF ROOF FRAMING PER ARCHITECTURAL DRAWINGS OVER ½" CDX PLYWOOD, FACE GRAIN PERPENDICULAR TO SUPPORTS OVER RAFTERS PER PLAN. NAIL SHEATHING WITH 8D @ 6" O.C. EDGES AND OVER SHEARWALLS, 12" O.C. FIELD

3.ALL NEW HEADERS SHALL BE (2) 2X8'S UNLESS NOTED OTHERWISE. AT CONTRACTORS OPTION, (2) 2X8'S MAY BE SUBSTITUTED WITH 4X8 OR 6X6.

4.PROVIDE (2) BEARING STUDS AT EACH END OF ALL NEW HEADERS AND BEAMS UNLESS NOTED OTHERWISE.
5.ALL NEW BUNDLED STUDS CALLED OUT ON PLAN OR AT ENDS OF HEADERS AND BEAMS SHALL BE PROVIDED AT EACH LEVEL, TERMINATING AT CONCRETE SUPPORT BELOW.

6."W" INDICATES PLYWOOD SHEATHED SHEARWALL BELOW FRAMING SHOWN. REFER SHEARWALL SCHEDULE ON DETAIL 9. ALL NEW EXTERIOR WALLS SHALL BE W6 UNLESS NOTED OTHERWISE.

7.REFER GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.



<u>LEGEND</u>

(E) (N)

(E) EXISTING (N) NEW

(N) STRUCTURAL WOOD WALL BELOW
(E) STRUCTURAL WALL BELOW
(N) ROOF OUTLINE
(E) ROOF OUTLINE

BUNDLED STUDS BELOW

ROOF FRAMING PLAN

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

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Date Revision

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Drawing Titl

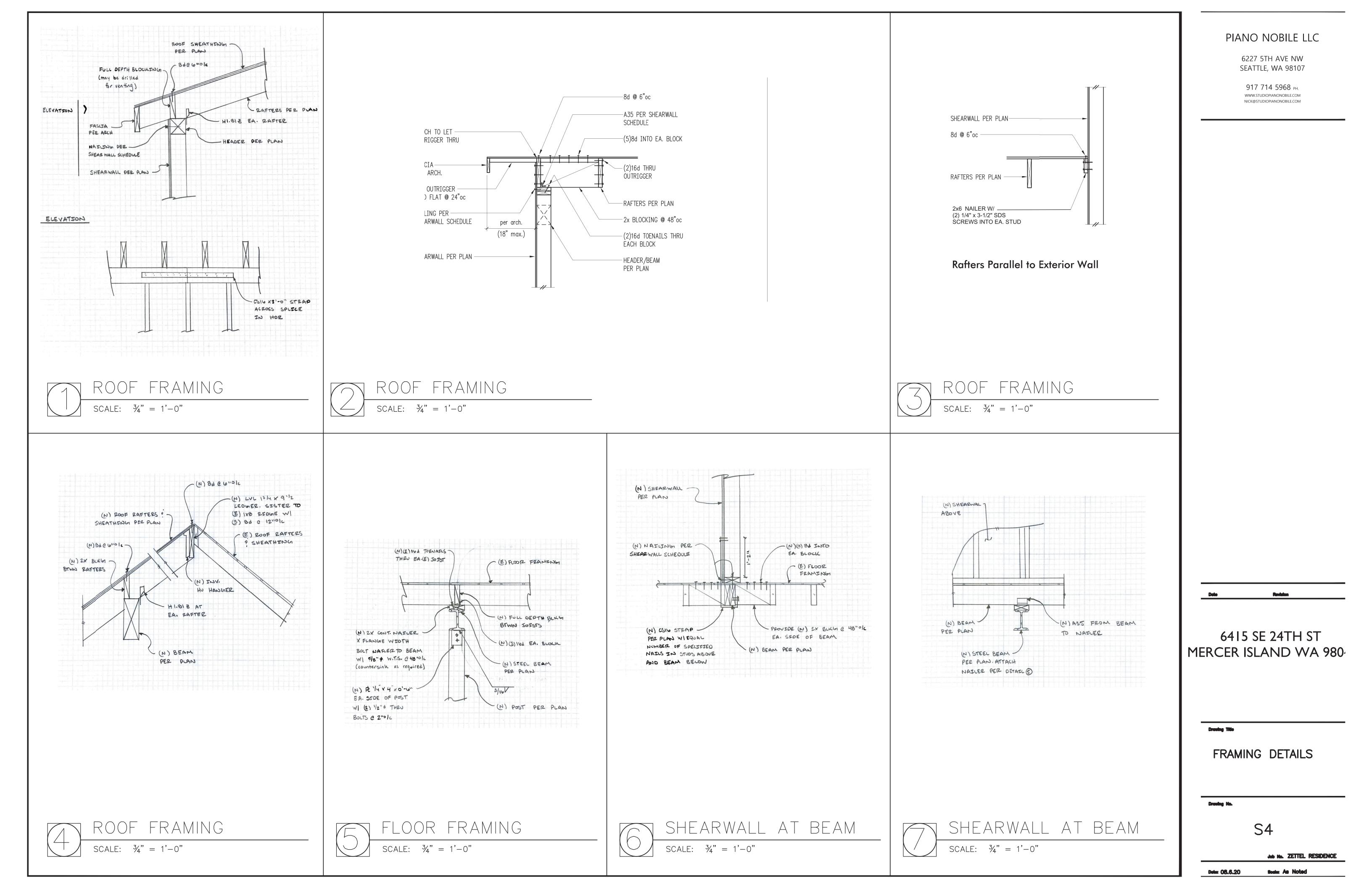
FRAMING PLANS

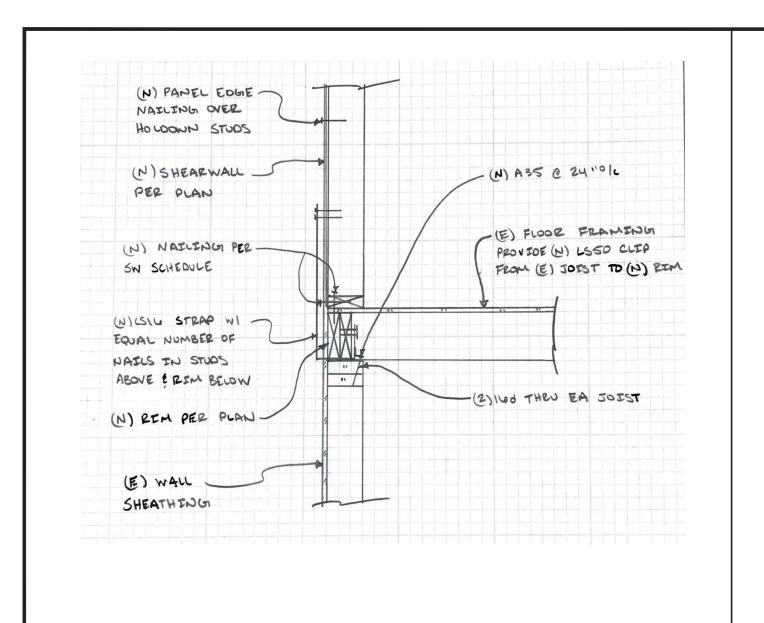
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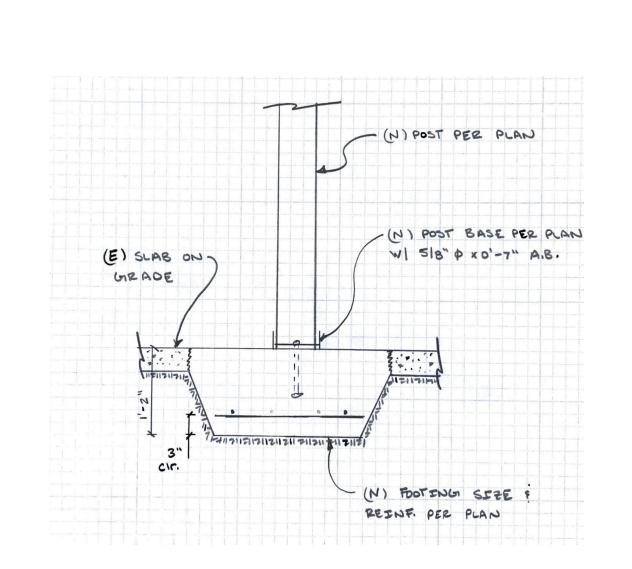
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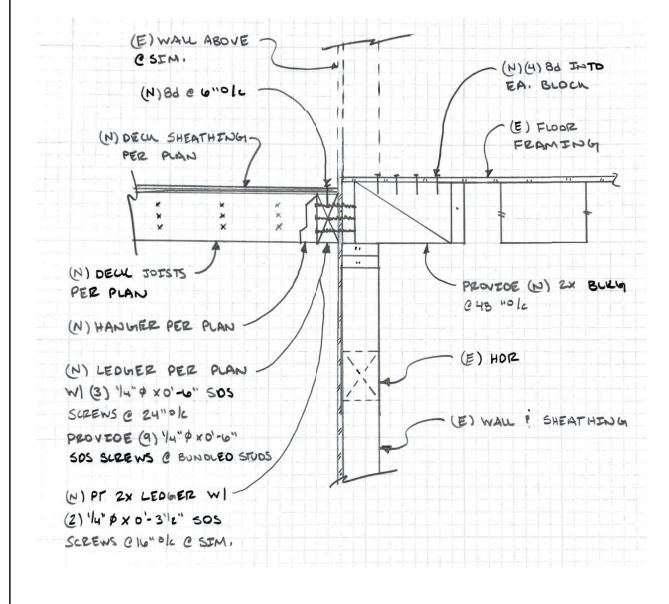
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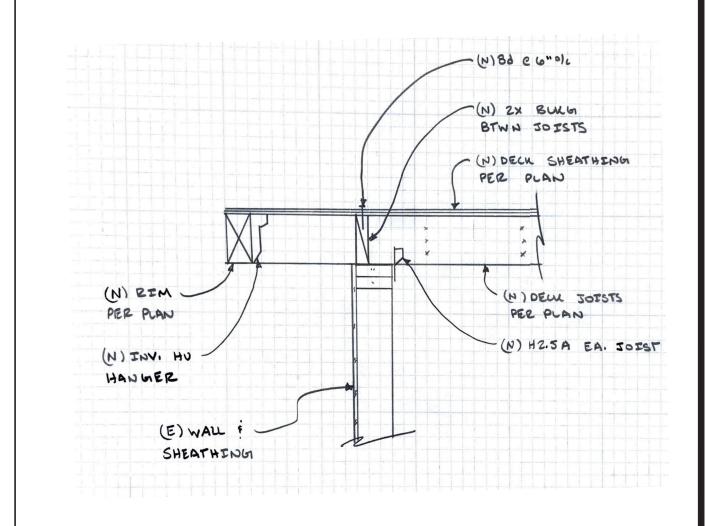
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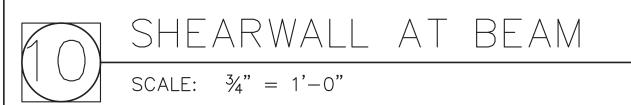
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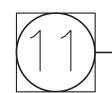




SHEARWALL AT BEAM

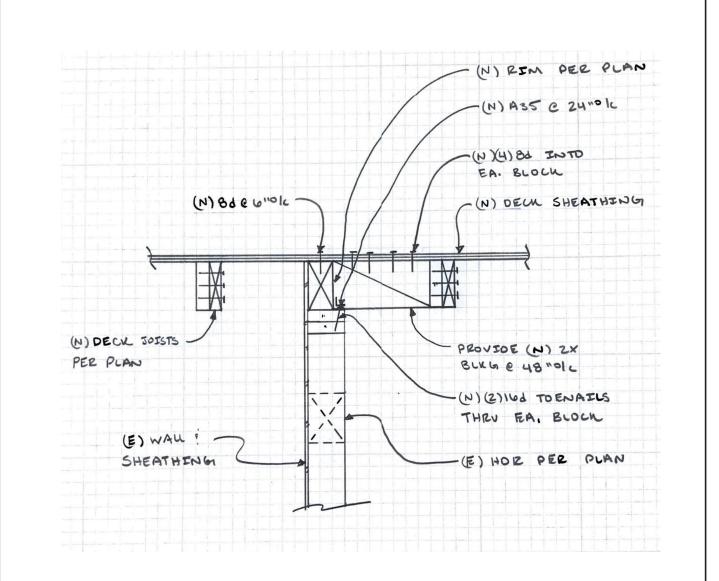
SCALE: $\frac{3}{4}$ " = 1'-0"

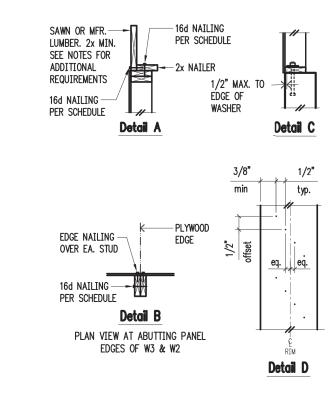




SHEARWALL AT BEAM

SCALE: $\frac{3}{4}$ " = 1'-0"





ا مساد	Chantleine	Panel Edge	Top Plate C	onnection	Base Plate Connection		
Mark	Sheathing	Nailing	if TJI	if Wood $^{\$}_{9}$	at Wood®	at Concrete	
W6	15/32" CDX PLYWOOD	8d @ 6"oc	16d @ 6"oc	A35 @ 24"oc	16d @ 6"oc	⁵ /8"ø A.B. @ 48"oc	
W4	15/32" CDX PLYWOOD	8d @ 4"oc	16d @ 4"oc	A35 @ 16"oc	(2)rows 16d @ 6"oc	⁵ /8"ø A.B. @ 32"oc	
W3 (4)	15/32" CDX PLYWOOD	8d @ 3"oc	(2)rows 16d @ 4"oc	A35 @ 12"oc	(2)rows 16d @ 6"oc	5/8"ø A.B. @ 24"oc	
W2 ⁴	15/32" CDX PLYWOOD	8d @ 2"oc	(2)rows 16d @ 4"oc	A35 @ 9"oc	(2)rows 16d @ 4"oc 110	5/8"ø A.B. @ 16"oc	

- ② 8d NAILS SHALL BE 0.131"ø x 2 1/2" (common) 16d NAILS SHALL BE 0.135"ø x 3 1/2" (box)
- 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.
- ⊕ 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2.
- ③ TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING.
- SEE PLANS AND HOLDOWN SCHEDULE FOR ALTERNATE REQUIREMENTS.
- ⑥ ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE. 7/16" O.S.B. MAY BE SUBSITUTED FOR 15/32" CDX.
- ® LTP4's (HORIZONTAL ORIENTATION) W/ 8d COMMON MAY BE SUBSTITUTED FOR A35'S AT CONTRACTORS OPTION.
- ① A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35'S AT CONTRACTORS OPTION.
- ① 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.

0-4-		O 4-4	

6415 SE 24TH ST MERCER ISLAND WA 980

Drawing Title

FRAMING DETAILS

Drawing No.

Date: 08.6.20

S5

Job No. ZETTEL RESIDENCE Sode: As Noted

SHEARWALL AT BEAM

SHEARWALL AT BEAM

CRITERIA

1. ALL NEW MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE INTERNATIONAL BUILDING CODE (2015 EDITION). THIS STRUCTURE DOES NOT CONFORM TO PRESENT EARTHQUAKE CODE REQUIREMENTS. IT HAS BEEN ANALYZED AND REINFORCED FOR MINIMUM MAINTENANCE IN ACCORDANCE WITH INTERNATIONAL EXISTING BUILDING CODE, AND IS WITHIN THE CURRENT PRACTICE FOR THE RENOVATION OF EXISTING BUILDINGS OF THIS AGE AND TYPE OF CONSTRUCTION.

2. DESIGN LOADING CRITERIA: . . 40 PSF ROOF . . . 25 PSF x AREA SERVED . . . 15 PSF

... L/240 ENVIRONMENTAL LOADS

WIND GCpi=0.18, 110 MPH, RISK CATEGORY II, EXPOSURE "B"

EARTHQUAKE . ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE

LATERAL SYSTEM: LIGHT FRAMED SHEAR WALLS, Vs = 7.9 KIPS

SITE CLASS=D, Ss=1.143, Sds=0.795, S1=0.439, SD1=0.457, Cs=0.122, SDC D, Ie=1.0, R=6.5

SEE PLANS FOR ADDITIONAL LOADING CRITERIA

- 3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATION, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK.
- 4. PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL PLANS AND DETAILS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL WALL SECTIONS, BUILDING SECTION, AND PLANS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- 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.
- 6. 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 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION".
- 7. 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.
- 8. 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. ALL TYPICAL NOTES AND DETAILS SHOWN ON DRAWINGS SHALL APPLY, UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE PLANS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO TYPICAL DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED OR REQUEST ADDITIONAL INFORMATION. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.
- 9. ALL STRUCTURAL SYSTEMS, 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.

10.DEFERRED SUBMITTALS: SHOP DRAWINGS AND CALCULATIONS OF DEFERRED SUBMITTAL COMPONENTS SHALL BE STAMPED AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO REVIEW BY THE ARCHITECT OR ENGINEER OF RECORD FOR GENERAL CONFORMANCE. ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS SHALL BE INCLUDED. SHOP DRAWINGS SHALL INCLUDE THE MAGNITUDE AND DIRECTION SUBMITTALS TO THE BUILDING OFFICIAL WHERE REQUIRED.

> DEFERRED SUBMITTAL BUILDING COMPONENTS FOR THIS PROJECT SHALL INCLUDE:

PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES

QUALITY ASSURANCE

11.SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110 AND 1705 OF THE INTERNATIONAL BUILDING CODE BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS. SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION IS REQUIRED UNLESS NOTED OTHERWISE.

EXPANSION BOLTS AND THREADED EXPANSION INSERTS PER MANUFACTURER EPOXY GROUTED INSTALLATIONS

PERIODIC INSPECTION: INSPECTION SHALL BE PERFORMED AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS. CONTINUOUS INSPECTION: INSPECTOR SHALL BE ONSITE AND OBSERVE THE WORK REQUIRING INSPECTION AT ALL TIMES THAT WORK IS PERFORMED.

- 12.UNLESS OTHERWISE NOTED, THE FOLLOWING ELEMENTS COMPRISE THE SEISMIC-FORCE-RESISTING SYSTEM AND ARE SUBJECT TO SPECIAL INSPECTION FOR SEISMIC RESISTANCE IN ACCORDANCE WITH SECTION 1705.12 OF THE INTERNATIONAL BUILDING CODE.
- A. STRUCTURAL WOOD SHEAR WALL SYSTEMS REQUIRE PERIODIC INSPECTION FOR FIELD GLUEING, NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC FORCE, RESISTING SYSTEM INCLUDING SHEAR WALLS, DIAPHRAGMS, DRAG STRUTS, BRACES AND HOLDOWNS.
- 13.STRUCTURAL OBSERVATION SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 1704.6 OF THE INTERNATIONAL BUILDING CODE FOR THE FOLLOWING BUILDING ELEMENTS:

LIGHT FRAMED SHEAR WALLS HOLDDOWNS

MANUFACTURER

THE CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD ADEQUATE NOTICE TO SCHEDULE APPROPRIATE SITE VISITS FOR STRUCTURAL OBSERVATION.

THE STRUCTURAL SYSTEM, FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS, AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE 22. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED BY SECTION 110, 1705, OR OTHER SECTIONS OF THE INTERNATIONAL BUILDING CODE.

THE OWNER SHALL EMPLOY THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, TO PERFORM STRUCTURAL OBSERVATION. OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER'S REPRESENTATIVE, SPECIAL INSPECTOR, CONTRACTOR, AND THE BUILDING OFFICIAL. THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFYING ANY REPORTED DEFICIENCIES WHICH, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

GEOTECHNICAL

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

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

. . . . 1500 PSF LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED)55 PCF/35 PCF ALLOWABLE PASSIVE EARTH PRESSURE (FS OF 1.5 INCLUDED). 300 PCF COEFFICIENT OF FRICTION (FS OF 1.5 INCLUDED). 0.3

RENOVATION

- 15.DEMOLITION: CONTRACTOR SHALL 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. 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.
- 16.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. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND STRUCTURAL ENGINEER IF EXISTING CONDITIONS DETERMINED DURING WORK VARY FROM THE EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS.
- 17.CONTRACTOR SHALL CHECK FOR DRY ROT AT ALL AREAS OF NEW WORK. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

CONCRETE

- 18.CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 3,000 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF SECTION 1904 OF THE IBC. DESIGN STRENGTH IS f'c = 2,500
- 19.A CONCRETE PERFORMANCE MIX SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, 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 318-14, SECTIONS 26.4.3 AND 26.4.4. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE PAID BY THE GENERAL CONTRACTOR. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED
- 20. ALL CONCRETE WITH SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14, TABLE 19.3.2.1 MODERATE EXPOSURE, F1.
- STRUCTURAL OBSERVATION MEANS THE VISUAL OBSERVATION OF 21. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.
 - BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-14. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-14, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

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

FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED 3"

FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#6 BARS OR LARGER) . . . 2" FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER). 1-1/2"

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

#4 @ 12 HORIZ. #4 @ 18 VERTICAL 1 CURTAIN

25. NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT

ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3000 PSI

ANCHORAGE

- 26. EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2" WEDGE ANCHORS AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY AND INSTALLED IN STRICT CONFORMANCE TO ICC-ES REPORT NUMBER ESR-3037, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. PERIODIC SPECIAL INSPECTION IS REQUIRED TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, ANCHOR LOCATION, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS.
- 27. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-XP" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON STRONG, TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2508. MINIMUM BASE MATERIAL TEMPERATURE IS 50 DEGREES, F. RODS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED. PERIODIC SPECIAL INSPECTION OF INSTALLATION IS REQUIRED TO VERIFY ANCHOR OR EMBEDED BAR TYPE AND DIMENSIONS, LOCATION, ADHESIVE IDENTIFICATION AND EXPIRATION, HOLE DIMENSIONS, HOLE CLEANING PROCEDURE, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR HORIZONTAL AND OVERHEAD INSTALLATIONS.
- 28. CONCRETE SCREW ANCHORS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "TITEN HD" HEAVY DUTY SCREW ANCHOR AS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2713 (CONCRETE), NO. ESR-1056 (CMU), INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. SCREW ANCHORS INTO CONCRETE MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION IS REQUIRED.

FRAMING LUMBER SHALL BE S-DRY, KD, OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD "GRADING RULES FOR WEST COAST LUMBER NO. 17", OR WWPA STANDARD, "WESTERN LUMBER GRADING RULES 2011". FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS (2X & 3X MEMBERS) HEM-FIR NO. 2 MINIMUM BASE VALUE, AND BEAMS Fb = 850 PSI(4X MEMBERS) DOUGLAS FIR-LARCH MINIMUM BASE VALUE, Fb = 1000 PSI(INCL. 6X AND LARGER) DOUGLAS FIR-LARCH MINIMUM BASE VALUE, Fb = 1350 PSIDOUGLAS FIR-LARCH (4X MEMBERS) NO. 2 MINIMUM BASE VALUE, Fc = 1350 PSI

(6X AND LARGER) DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fc = 1000 PSI

DOUGLAS-FIR-LARCH STUDS, PLATES & MISC. FRAMING: OR HEM-FIR NO. 2

30.GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA-EWS CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv =265 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2400 PSI, Fv = 265 PSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS, WITH SPANS OVER 30', TO 3,500' RADIUS, UNLESS SHOWN OTHERWISE ON THE PLANS.

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Drawing Title

STRUCTURAL NOTES

Drawing No.

S6

Job No. ZETTEL RESIDENCE

Date: 08.6.20 Sode: As Noted 31.PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH THE "NATIONAL DESIGN STANDARD FOR METAL PLATE-CONNECTED WOOD TRUSS CONSTRUCTION, ANSI/TPI 1" BY THE TRUSS PLATE INSTITUTE FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. LOADING SHALL BE AS FOLLOWS:

TOP CHORD LIVE LOAD 25	PSF
TOP CHORD DEAD LOAD 10	PSF
BOTTOM CHORD DEAD LOAD 5	PSF
TOTAL LOAD 40	PSF
WIND UPLIFT (TOP CHORD) 5	PSF
BOTTOM CHORD LIVE LOAD 10	PSF
(BOTTOM CHORD LIVE LOAD DOES NOT ACT	
CONCURRENTLY WITH THE ROOF LIVE LOAD)	

 \square

WOOD TRUSSES SHALL UTILIZE APPROVED CONNECTOR PLATES (GANGNAIL OR EQUAL). SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. SUBMITTED DOCUMENTS SHALL BE SIGNED AND STAMPED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON. PROVIDE FOR SHAPES, BEARING POINTS, INTERSECTIONS, HIPS, VALLEYS, ETC., SHOWN ON THE DRAWINGS. EXACT COMPOSITION OF SPECIAL HIP, VALLEY, AND INTERSECTION AREAS (USE OF GIRDER TRUSSES, JACK TRUSSES, STEP-DOWN TRUSSES, ETC.) SHALL BE DETERMINED BY THE MANUFACTURER UNLESS SPECIFICALLY INDICATED ON THE PLANS. PROVIDE ALL TRUSS TO TRUSS AND TRUSS TO GIRDER TRUSS CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. PROVIDE FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.

32. 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.

- 33. 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.
- 34. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. 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 UC4A. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWPA UC4B.
- 35. FASTENERS AND TIMBER CONNECTORS USED WITH TREATED WOOD SHALL HAVE CORROSION RESISTANCE AS INDICATED IN THE FOLLOWING TABLE, UNLESS OTHERWISE NOTED.

TOLLOWING TREAL, ONLINE OTHE	IWIDE NOIED.	
WOOD TREATMENT	CONDITION	PROTECTION
HAS NO AMMONIA CARRIER	INTERIOR	DRY G90
GALVANIZED		
CONTAINS AMMONIA CARRIER	INTERIOR DRY	G185 OR
A185 HOT DIPPED OR		
		CONTINUOUS
HOT-GALVANIZED		
		PER ASTM
A653		
CONTAINS AMMONIA CARRIER	INTERIOR WET	TYPE 304 OR
316 STAINLESS		
CONTAINS AMMONIA CARRIER	EXTERIOR	TYPE 304 OR
316 STAINLESS		
AZCA	ANY	TYPE 304 OR
316 STAINLESS		

INTERIOR DRY CONDITIONS SHALL HAVE WOOD MOISTURE CONTENT LESS THAN 19%. WOOD MOISTURE CONTENT IN OTHER CONDITIONS (INTERIOR WET, EXTERIOR WET, AND EXTERIOR DRY) IS EXPECTED TO EXCEED 19%. CONNECTORS AND THEIR FASTENERS SHALL BE THE SAME MATERIAL. COMPLY WITH THE TREATMENT MANUFACTURERS RECOMMENDATIONS FOR PROTECTION OF METAL.

36. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2019. 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 "ITS" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIT" 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.

37. 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. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DEGREES WITH THE MEMBER AND STARTED 1/3 THE LENGTH OF THE NAIL FROM THE MEMBER END.

- B. 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 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.
- 38. 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.
- 39. 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 2304.10.1. 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. TOE-NAIL 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

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