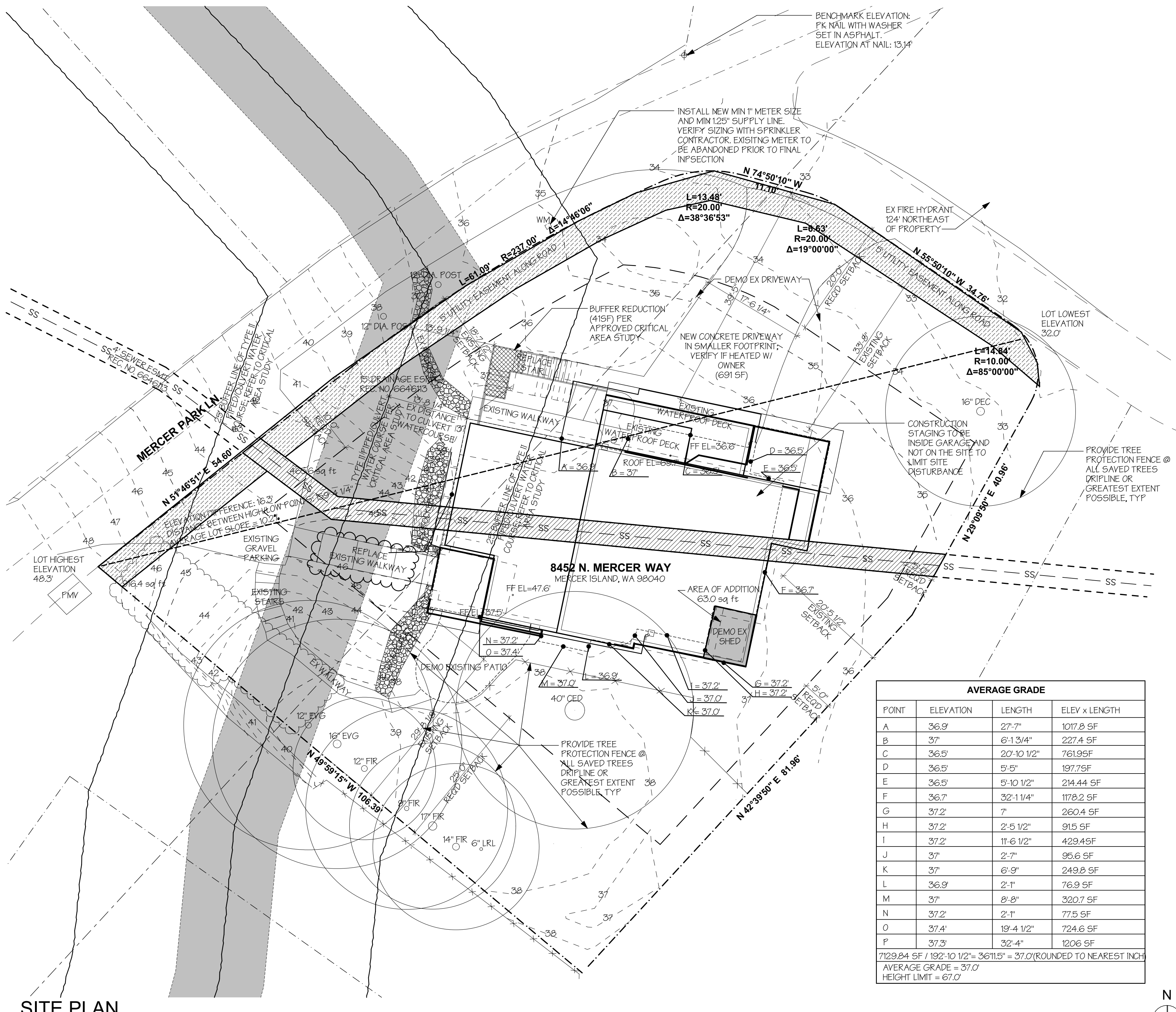


EXISTING HARDSCAPE:	EXISTING DECKS: 259.3 SF EXISTING WALKWAYS: 285.7 SF EXISTING EXTERIOR STAIRS: 71.1 SF EXISTING PATIO: 180.3 SF TOTAL EX HARDSCAPE COVERAGE: 796.4 SF ALLOWED HARDSCAPE COVERAGE: 11,630 SF X 9% = 1,046.7 SF _{OK}
PROPOSED HARDSCAPE:	PROPOSED DECKS: 145.9 SF EXISTING WALKWAYS: 285.7 SF EXISTING EXTERIOR STAIRS: 71.1 SF EXISTING PATIO: 180.3 SF TOTAL PROP. HARDSCAPE COVERAGE: 683.0 SF (5.8%) ALLOWED HARDSCAPE COVERAGE: 11,630 SF X 9% = 1,046.7 SF _{OK}
EXISTING IMPERVIOUS SURFACE:	EXISTING HOUSE/ROOF: 2,442.3 SF EXISTING DRIVEWAY: 217.8 SF EXISTING STREET ON PROPERTY: 434.4 SF EXISTING GRAVEL PARKING: 385.9 SF EXISTING WALKWAYS: 285.7 SF EXISTING STAIRS: 115.1 SF EXISTING ROCKERIES: 173.3 SF EXISTING PATIO (TO BE DEMO-ED): 186.3 SF TOTAL EXISTING IMPERVIOUS SURFACE: 5,086.4 SF (43.9%) ALLOWED IMPERVIOUS SURFACE: 11,630 SF X 40% = 4,652 SF
PROPOSED IMPERVIOUS SURFACE:	PROPOSED HOUSE/ROOF: 2,359.2 SF PROPOSED DECKS: 145.9 SF PROPOSED DRIVEWAY: 691 SF EXISTING STREET ON PROPERTY: 434.4 SF EXISTING GRAVEL PARKING: 385.9 SF EXISTING WALKWAYS TO REMAIN: 173.2 SF EXISTING WALKWAYS TO BE REPLACED: 112.5 SF PROPOSED STAIRS: 102.1 SF EXISTING ROCKERIES: 173.3 SF TOTAL PROPOSED IMPERVIOUS SURFACE: 4,580.4 SF (39.4%) ALLOWED IMPERVIOUS SURFACE: 11,630 SF X 40% = 4,652 SF TOTAL NEW + REPLACED IMPERVIOUS SURFACE: 1109.9 SF



AVERAGE GRADE			
POINT	ELEVATION	LENGTH	ELEV x LENGTH
A	36.9	27'-7"	1017.8 SF
B	37	6'-1 3/4"	227.4 SF
C	36.5	20'-10 1/2"	761.95 SF
D	36.5	5'-5"	197.75 SF
E	36.5	5'-10 1/2"	214.44 SF
F	36.7	32'-1 1/4"	1178.2 SF
G	37.2	7'	260.4 SF
H	37.2	2'-5 1/2"	91.5 SF
I	37.2	11'-6 1/2"	429.45 SF
J	37	2'-7"	95.6 SF
K	37	6'-9"	249.8 SF
L	36.9	2'-1"	76.9 SF
M	37	8'-8"	320.7 SF
N	37.2	2'-1"	77.5 SF
O	37.4	19'-4 1/2"	724.6 SF
P	37.3	32'-4"	1206 SF
7129.84 SF / 192'-10 1/2" = 36.115' = 37.0 (ROUNDED TO NEAREST INCH)			
AVERAGE GRADE = 37.0			
HEIGHT LIMIT = 67.0'			

SITE PLAN
SCALE: 1" = 10'

NOTES:
1. REFER TO CRITICAL AREAS DETERMINATION APPLICATION FOR NOTED LAND USE REVISIONS

WERELIUS RESIDENCE
8452 NORTH MERCER WAY
MERCER ISLAND WA 98040

9716 REGISTERED ARCHITECT
Heidi Michelle Helgeson
HEIDI MICHELLE HELGESON
STATE OF WASHINGTON



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DESIGN

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SITE PLAN

TOPOGRAPHIC & BOUNDARY SURVEY

LEGAL DESCRIPTION

(PER STATUTORY WARRANTY DEED REC. NO. 20150528001341)
 LOT 1, MERCER PARK LANE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 92 OF PLATS, PAGE 37, IN KING COUNTY, WASHINGTON.
 SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

BASIS OF BEARINGS

N 51°46'51" E ALONG THE MONUMENTED CENTERLINE OF MERCER PARK LANE PER NAD 1983/91, WASHINGTON STATE PLANE COORDINATES, NORTH ZONE.

REFERENCES

- R1 MERCER PARK LANE, RECORDED IN VOLUME 92 OF PLATS, PAGE 37, RECORDS OF KING COUNTY, WASHINGTON.
- R2 SUNNYBANK, RECORDED IN VOLUME 29 OF PLATS, PAGE 31, RECORDS OF KING COUNTY, WASHINGTON.

VERTICAL DATUM

NAVD(88) PER CITY OF MERCER ISLAND BENCHMARK NO. 9609 FOUND 2.5" DIA. CONC. FILLED IRON PIPE W/ TACK, FOUND ON CENTERLINE OF N. MERCER WAY @ WEST END OF CENTER PARK LANE.
 ELEV: 75.68'

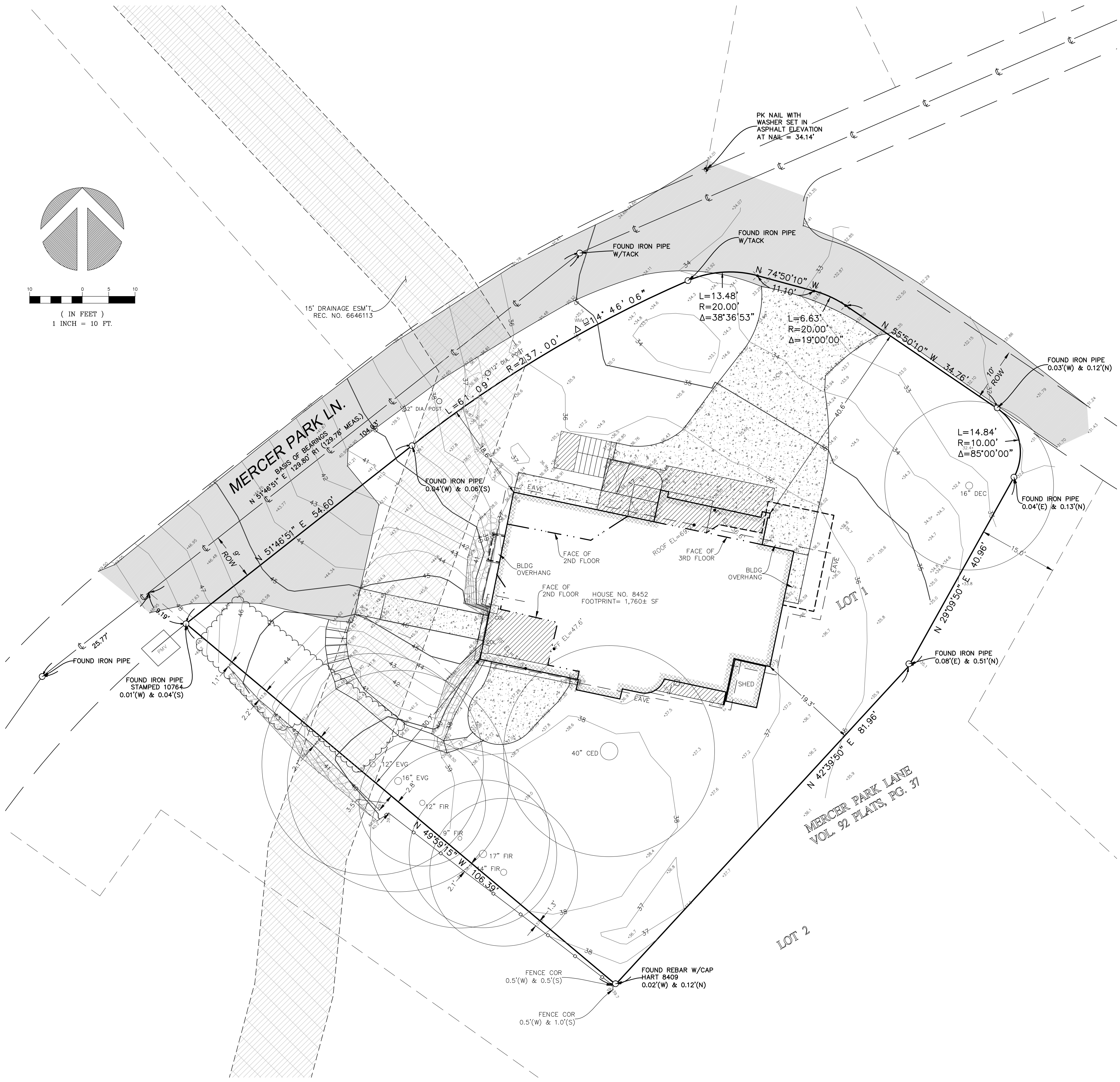
SURVEYOR'S NOTES

1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN AUGUST OF 2018. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. SUBJECT PROPERTY TAX PARCEL NO. 545260-0010
4. SUBJECT PROPERTY AREA PER THIS SURVEY IS 11,627± S.F. (0.27± ACRES)
5. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
6. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

LEGEND

- | | |
|-------------------|--------------------|
| ASPHALT SURFACE | GAS METER |
| BUILDING | HEDGE FOLIAGE LINE |
| BENCHMARK | IRON PIPE (FOUND) |
| CENTERLINE ROW | POST |
| CONCRETE SURFACE | POWER METER |
| RETAINING WALL | ELECTRICAL VENT |
| EASEMENT AREA | ROCKERY |
| DECK | TREE (AS NOTED) |
| FENCE LINE (WOOD) | WATER METER |
| FLAGSTONE SURFACE | |

VICINITY MAP



measure success

TOPOGRAPHIC & BOUNDARY SURVEY
 SW 1/4 OF NW 1/4 SEC. 7, TWP. 24 N., RGE. 05 E., W.M.
 PARCEL NO. 545260-0010

WERELIUS RESIDENCE
 8452 N. MERCER WAY
 SEATTLE, WA 98040



Terrane
 10801 Main Street, Suite 102, Bellevue, WA 98004
 phone 425.458.4488 support@terrane.net
 www.terrane.net

JOB NUMBER:	181386
DATE:	08/14/18
DRAFTED BY:	LCH
CHECKED BY:	EJG/RLS
SCALE:	1" = 10'
REVISION HISTORY	
2/19/19	UPDATE TREES
2/21/19	UPDATE TREES
6/21/19	ADD BENCHMARK
SHEET NUMBER	
1 OF 1	



SITE PLAN

SCALE: 1" = 10'

- EXISTING TO REMAIN
- DEMO
- REPLACED IMPERVIOUS SURFACE
- NEW IMPERVIOUS SURFACE

WERELIUS RESIDENCE
 8452 NORTH MERCER WAY
 MERCER ISLAND WA 98040

9716 REGISTERED ARCHITECT
Heidi Michelle Helgeson
 HEIDI MICHELLE HELGESON
 STATE OF WASHINGTON



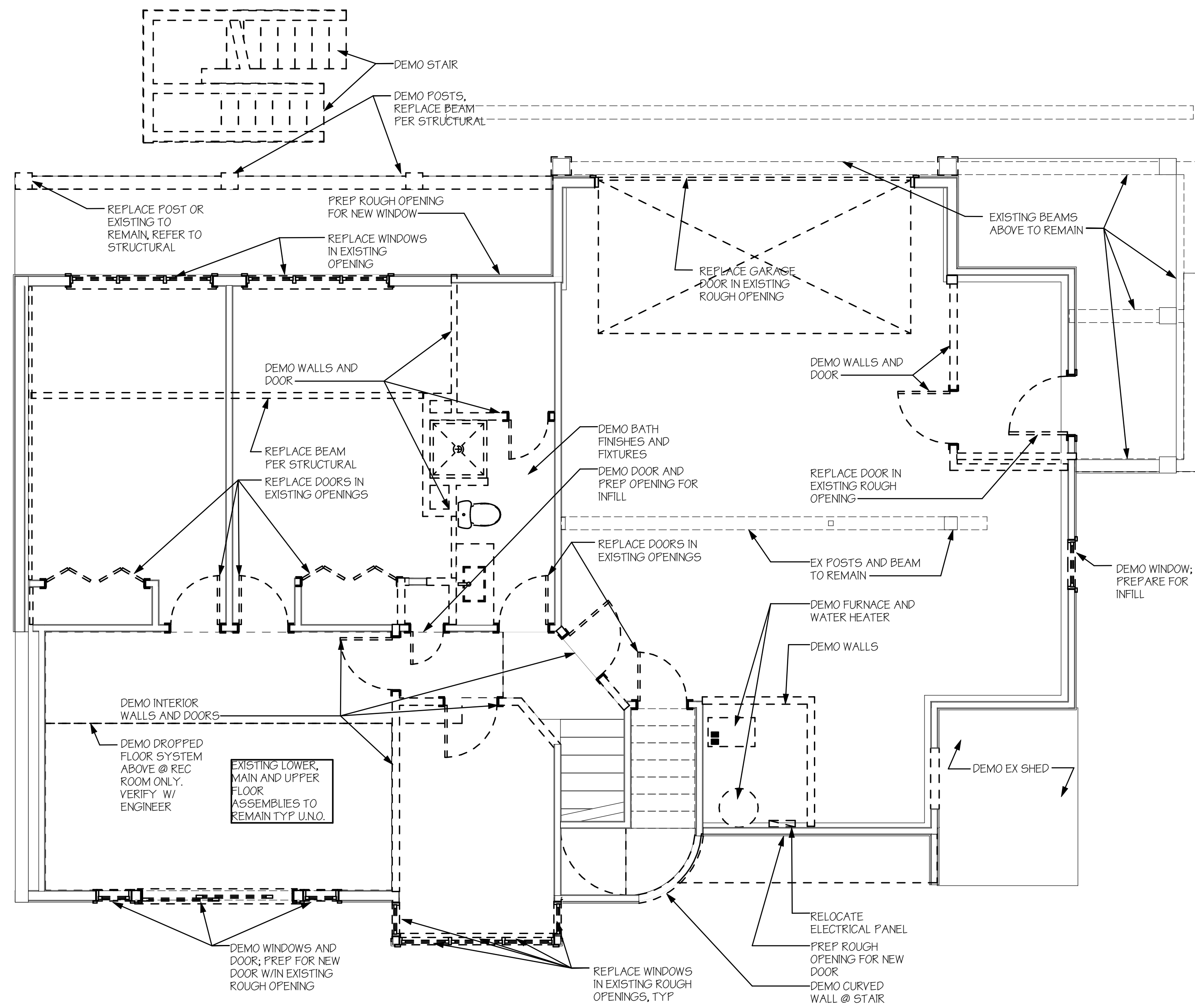
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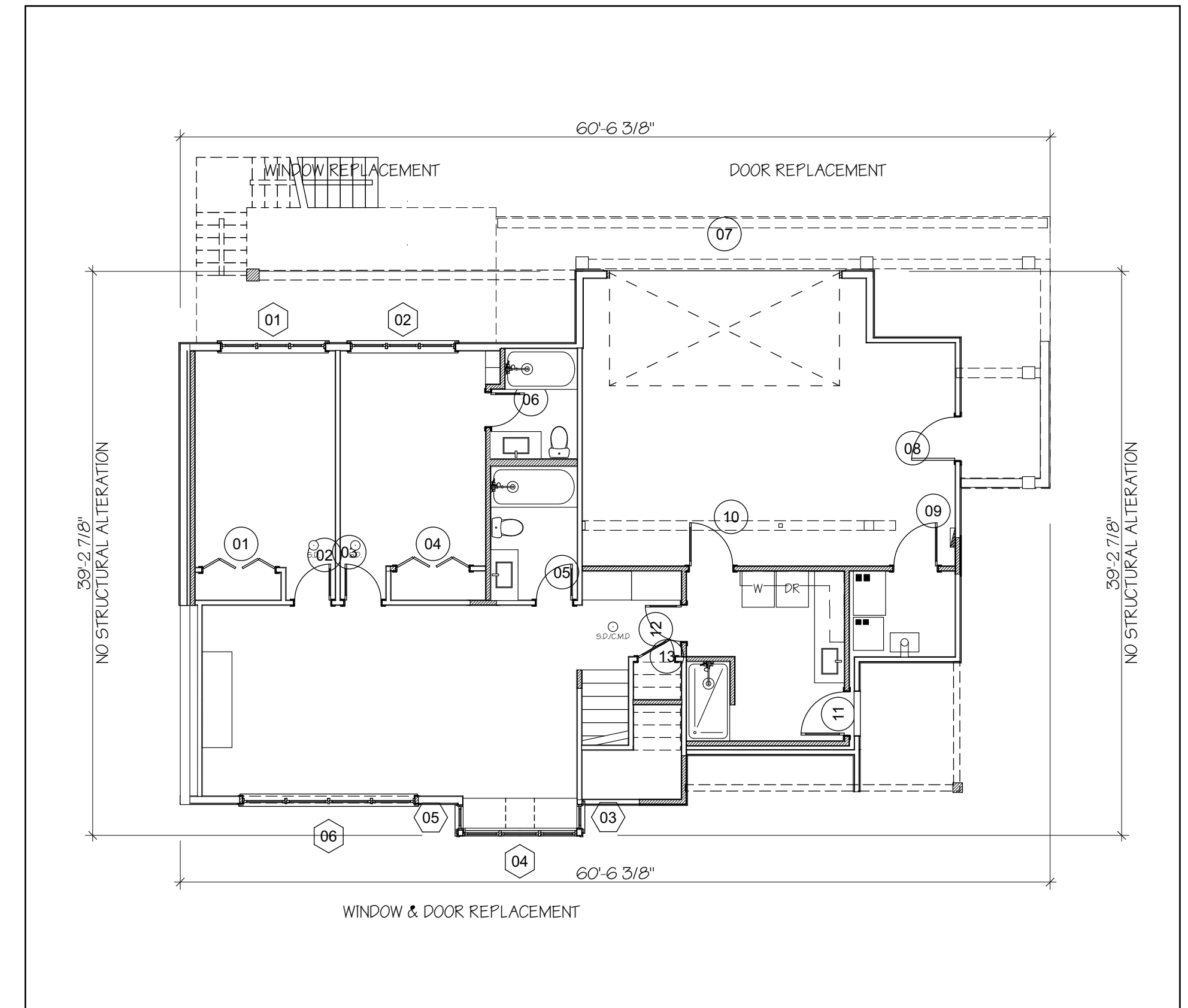
HARDSCAPE AND IMPERVIOUS SURFACE DIAGRAM



LOWER FLOOR DEMO PLAN

SCALE: 1/4" = 1'-0"
 [Solid Line] EXISTING WALLS
 [Dashed Line] DEMO WALLS

EXTERIOR WALL STRUCTURAL ALTERATION DIAGRAM - 40% THRESHOLD



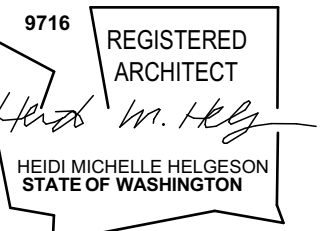
PROPOSED ALTERATION - LOWER FLOOR

SCALE: 1/8" = 1'-0"

TOTAL LENGTH OF LOWER FLOOR EXISTING EXTERIOR WALLS: 199'-6 1/2"
 LENGTH OF LOWER FLOOR WALLS WITH STRUCTURAL ALTERATIONS: 6'-8" = 3.3%

TOTAL STRUCTURAL ALTERATIONS (ALL FLOORS):
 TOTAL COMBINED LENGTH OF EXISTING EXTERIOR WALLS @ ALL FLOORS: 538'-7 1/4"
 TOTAL COMBINED LENGTH OF WALLS @ ALL FLOORS WITH STRUCTURAL ALTERATIONS: 207'-0 3/4" = 38.4%

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 8452 NORTH MERCER WAY
 MERCER ISLAND WA 98040



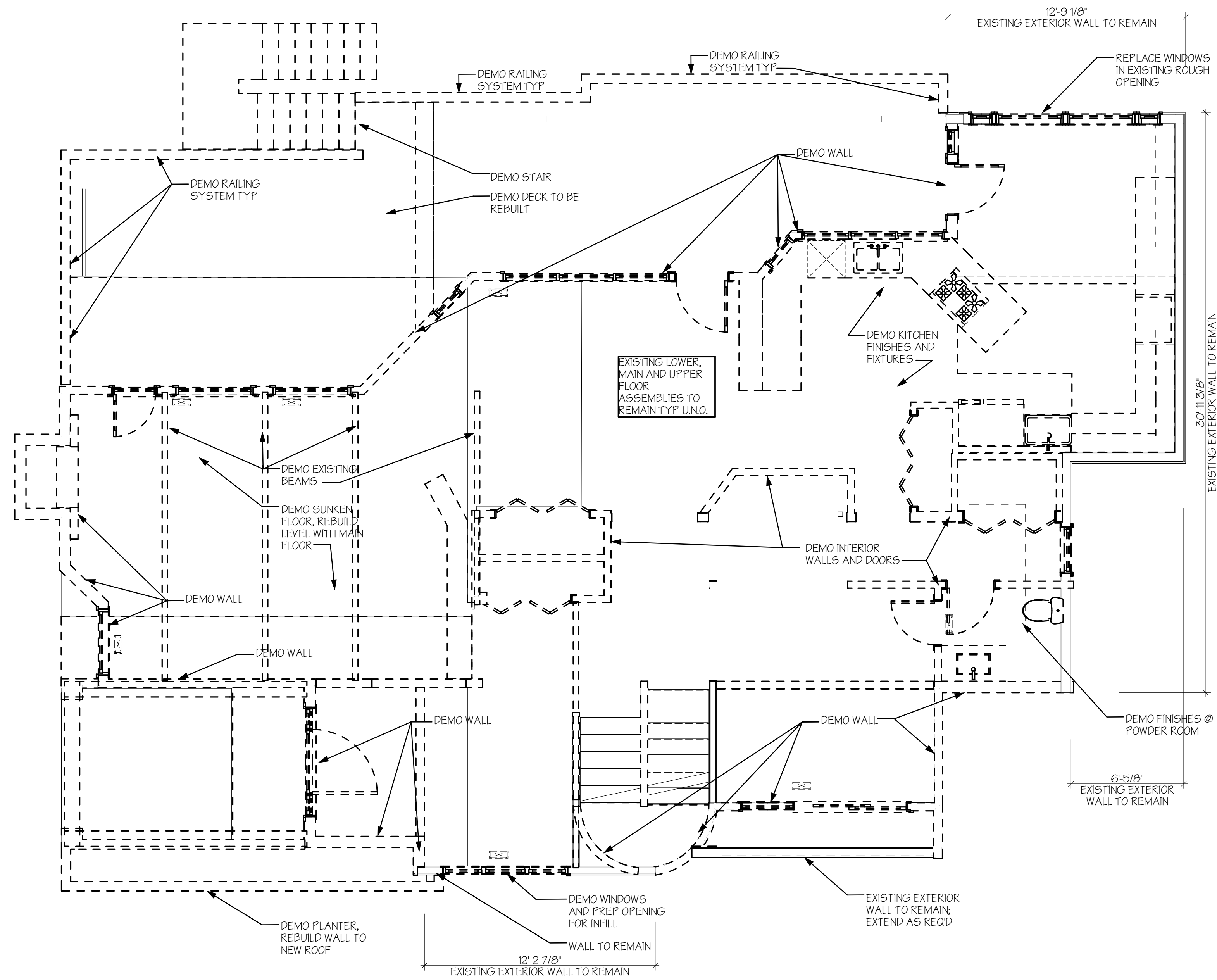
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DEMOLITION PLAN LOWER FLOOR



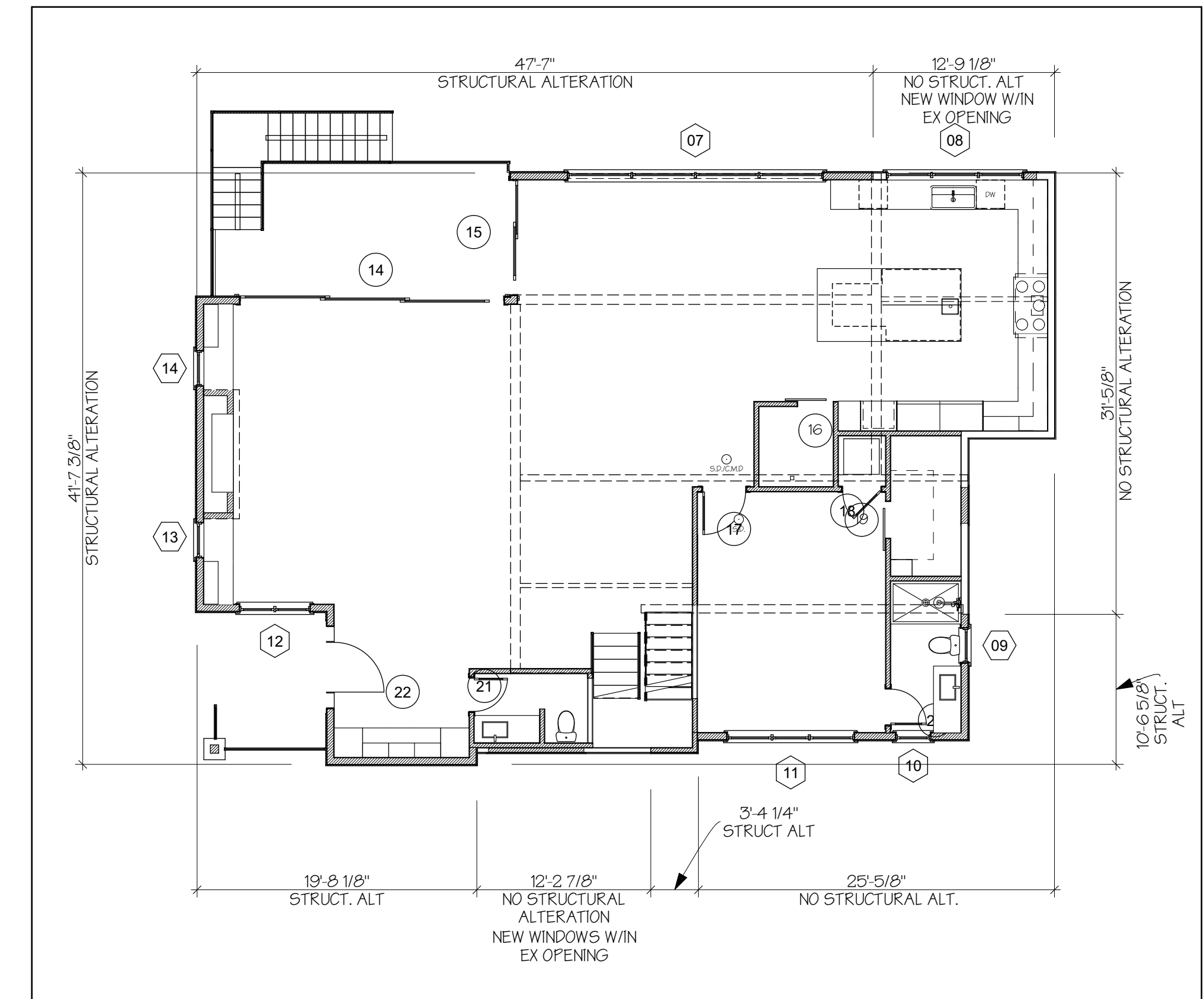
MAIN FLOOR DEMO PLAN

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

EXISTING WALLS
 DEMO WALLS



EXTERIOR WALL STRUCTURAL ALTERATION DIAGRAM - 40% THRESHOLD



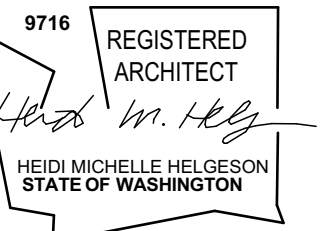
PROPOSED ALTERATION - MAIN FLOOR

SCALE: 1/8" = 1'-0"

TOTAL LENGTH OF MAIN FLOOR EXISTING EXTERIOR WALLS: 203'-10 5/8"
 LENGTH OF MAIN FLOOR WALLS WITH STRUCTURAL ALTERATIONS: 122'-10 5/8" = 60.3%

TOTAL STRUCTURAL ALTERATIONS (ALL FLOORS):
 TOTAL COMBINED LENGTH OF EXISTING EXTERIOR WALLS @ ALL FLOORS: 538'-7 1/4"
 TOTAL COMBINED LENGTH OF WALLS @ ALL FLOORS WITH STRUCTURAL ALTERATIONS: 207'-0 3/4" = 38.4%

WERELIUS RESIDENCE
 8452 NORTH MERCER WAY
 MERCER ISLAND WA 98040



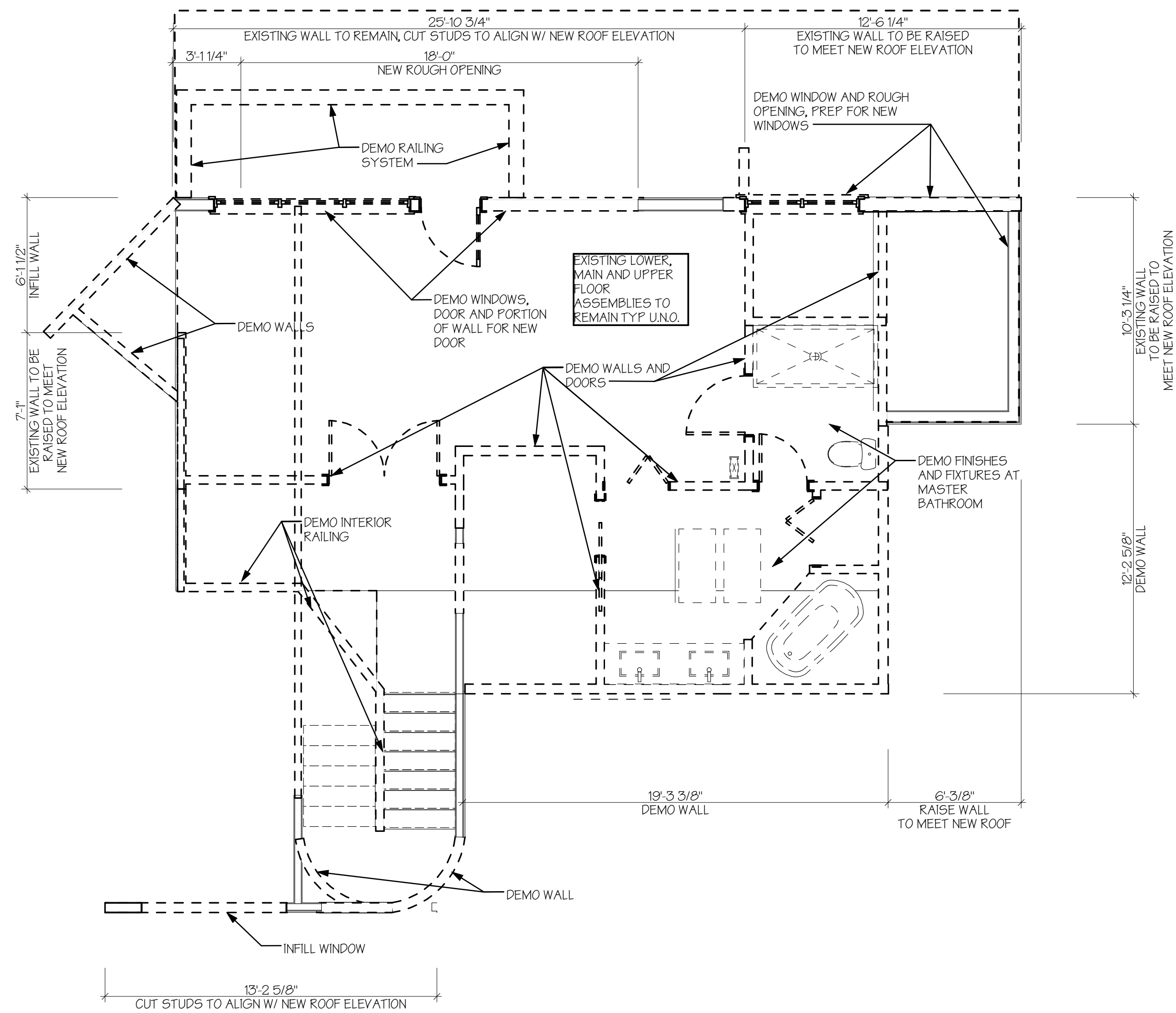
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DEMOLITION PLAN MAIN FLOOR



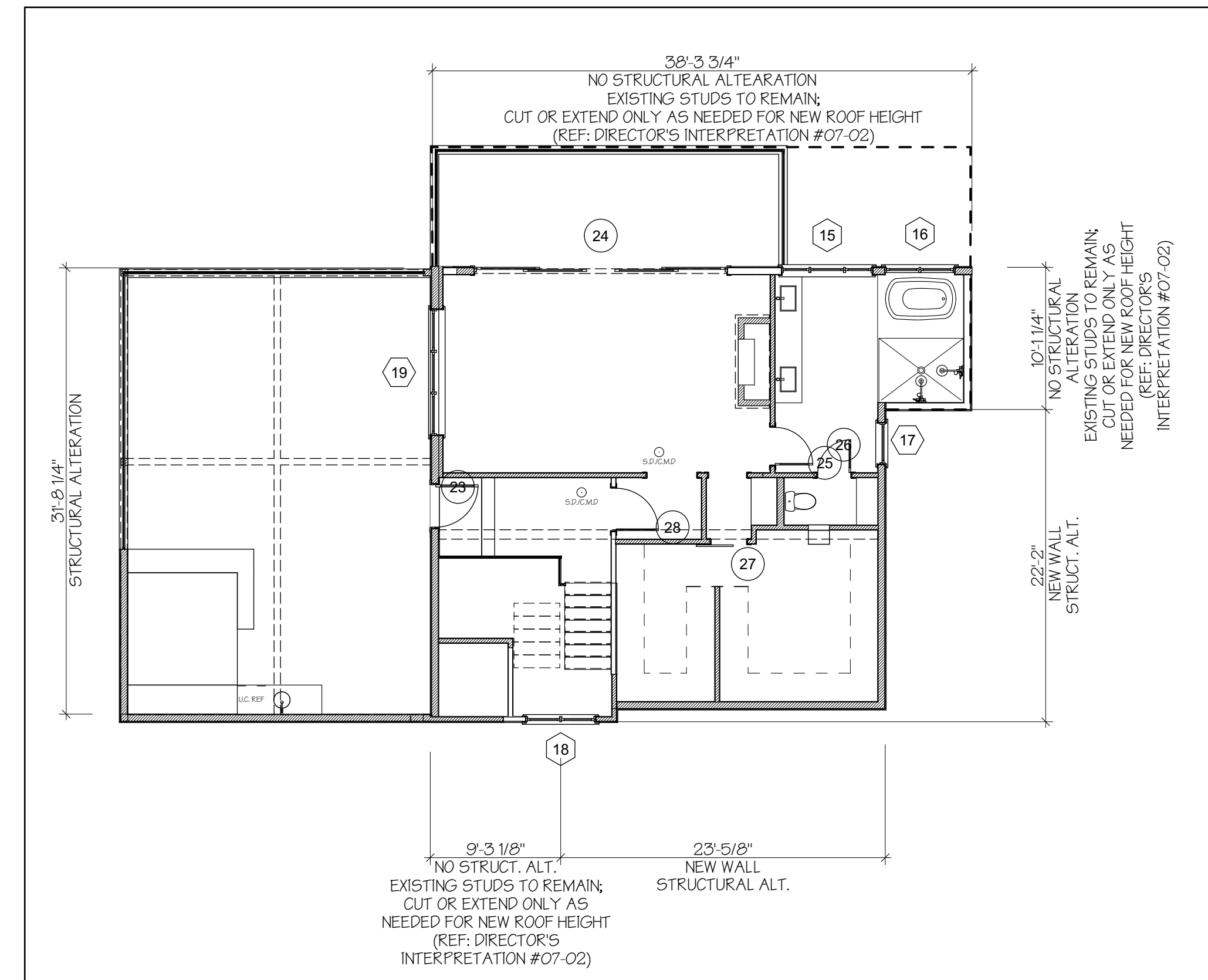
UPPER FLOOR DEMO PLAN

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

EXISTING WALLS
 DEMO WALLS



EXTERIOR WALL STRUCTURAL ALTERATION DIAGRAM - 40% THRESHOLD



PROPOSED ALTERATION - UPPER FLOOR

SCALE: 1/8" = 1'-0"

TOTAL LENGTH OF UPPER FLOOR EXISTING EXTERIOR WALLS: 135'-2 1/8"
 LENGTH OF UPPER FLOOR EXTERIOR WALLS WITH STRUCTURAL ALTERATIONS: 77'-6 1/8" = 57.3%
 REFER TO DSG POLICY MEMORANDUM ADMINISTRATIVE INTERPRETATION #07-02

TOTAL STRUCTURAL ALTERATIONS (ALL FLOORS):
 TOTAL COMBINED LENGTH OF EXISTING EXTERIOR WALLS @ ALL FLOORS: 538'-7 1/4"
 TOTAL COMBINED LENGTH OF WALLS @ ALL FLOORS WITH STRUCTURAL ALTERATIONS: 207'-0 3/4" = 38.4%

WERELIUS RESIDENCE
 8452 NORTH MERCER WAY
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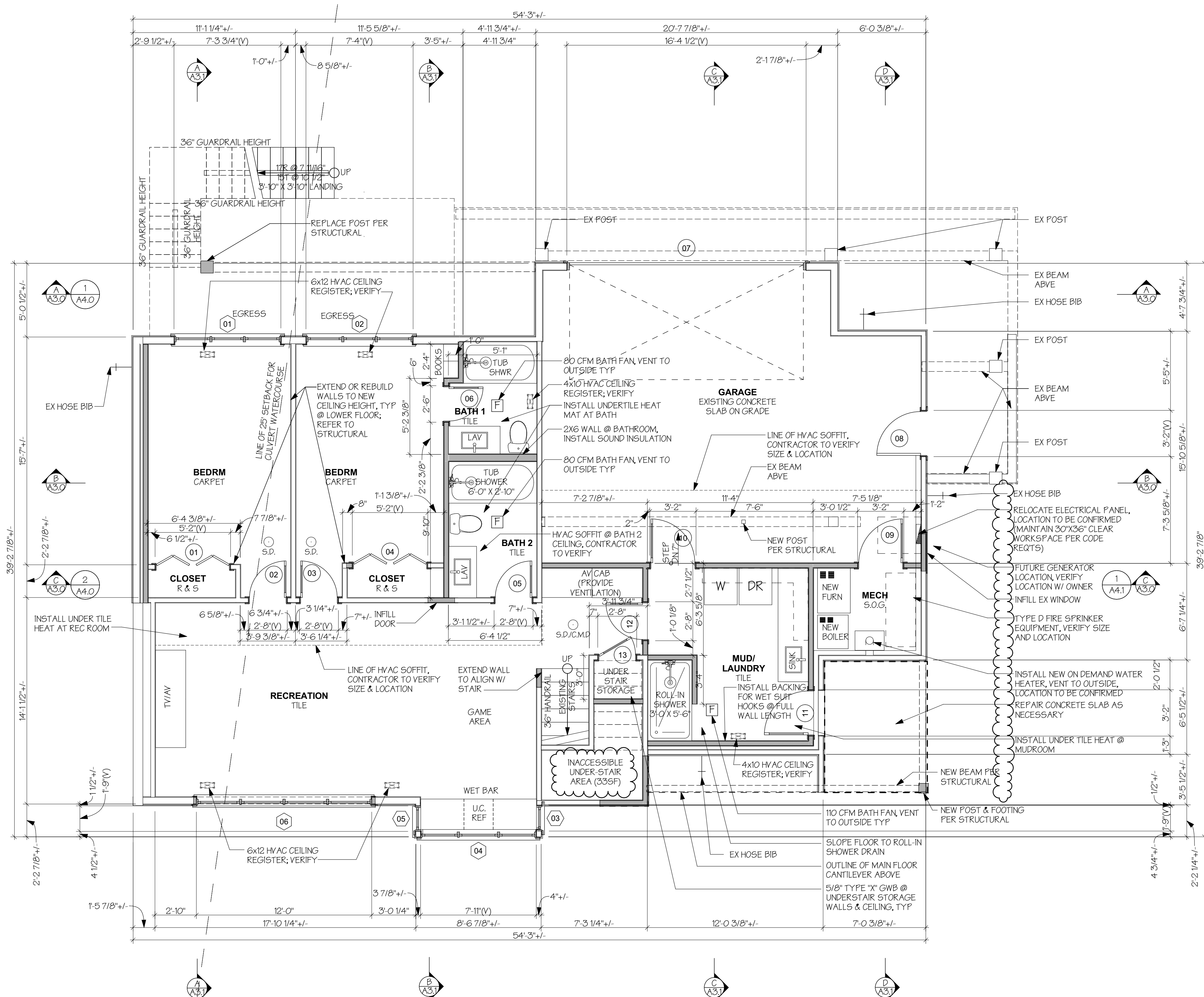
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DEMOLITION UPPER FLOOR
 PLAN



LOWER FLOOR PLAN

SCALE: 1/4" = 1'-0"
 [Symbol] EXISTING WALLS
 [Symbol] NEW OR MODIFIED WALLS

- NOTES:
 1. ALL DIMENSIONS ARE GIVEN TO THE FACE OF STUD WALL.
 2. ALL DOOR AND WINDOW DIMENSIONS ON THIS PLAN ARE ROUGH OPENING SIZES, UNO. REFER TO WINDOW AND DOOR SCHEDULE FOR MORE INFORMATION.
 3. SEE ATTACHED WSEC FORMS FOR ENERGY CODE COMPLIANCE INFORMATION.
 4. INSTALL SMOKE DETECTORS (S.D.) AT LOCATIONS SHOWN HARDWARE AND INTERCONNECT DETECTORS TO POWER SUPPLY AND PROVIDE BATTERY BACKUP AS REQUIRED.
 5. INSTALL CARBON MONOXIDE ALARMS (C.M.D.) OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS. THE ALARM AND SHALL BE LISTED AS COMPLYING WITH UL 2034 AND SHALL BE INSTALLED IN ACCORDANCE WITH IRC R310.3 AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 6. UNDERCUT INTERIOR DOORS 1/2" MINIMUM TO PROVIDE AIR FLOW TO ALL HABITABLE SPACES.

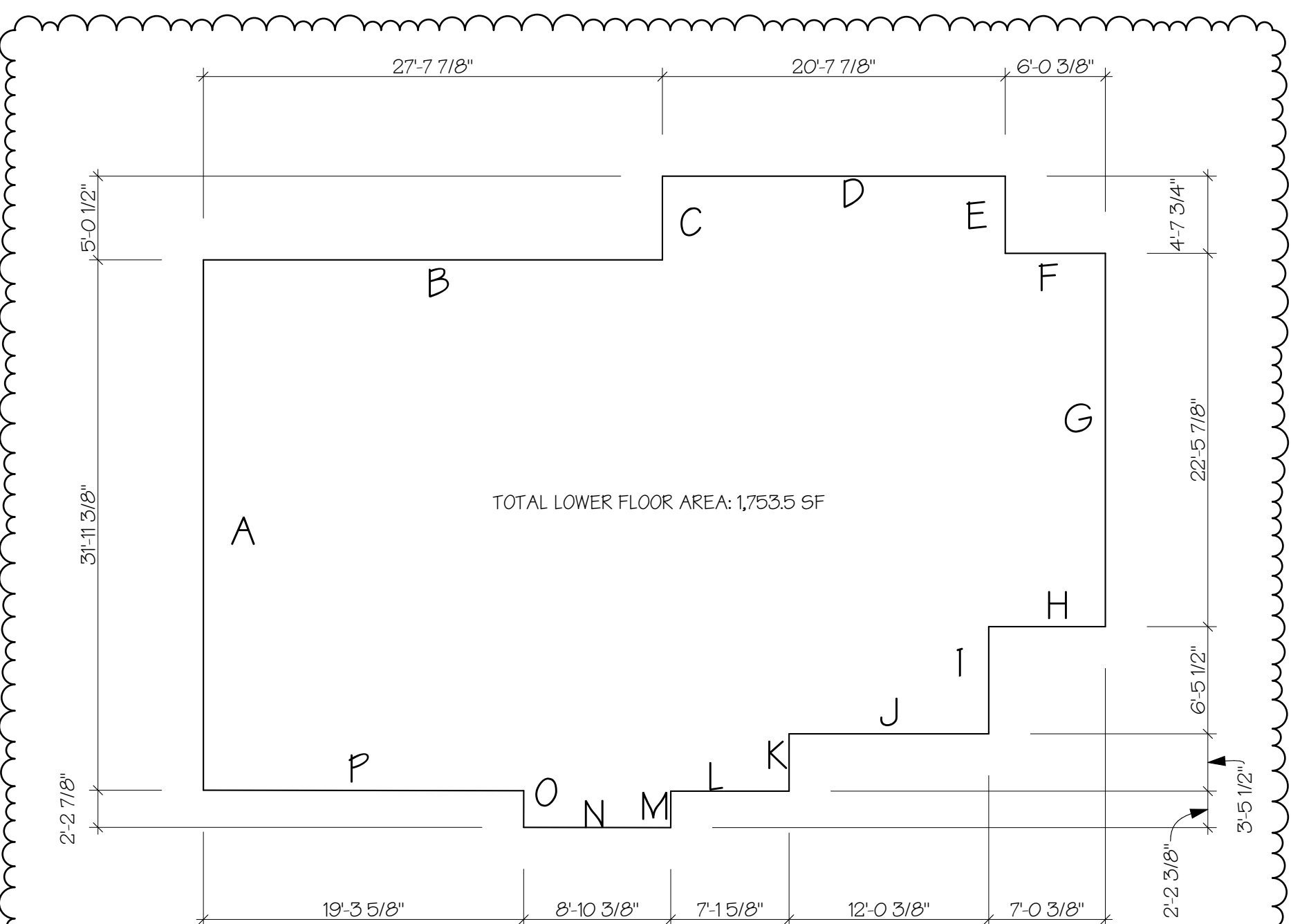


TABLE OF WALL LENGTHS AND COVERAGE

WALL SEGMENT	LENGTH X	COVERAGE =	RESULT
A	31'-11 3/8"	76.8%	24'-6 1/2"
B	27'-7 7/8"	0%	0"
C	5'-0 1/2"	0%	0"
D	20'-7 7/8"	0%	0"
E	4'-7 3/4"	0%	0"
F	6'-0 3/8"	0%	0"
G	22'-5 7/8"	0%	0"
H	7'-0 3/8"	0%	0"
I	6'-5 1/2"	0%	0"
J	12'-0 3/8"	0%	0"
K	3'-5 1/2"	0%	0"
L	7'-1 5/8"	0%	0"
M	2'-2 3/8"	0%	0"
N	8'-10 3/8"	0%	0"
O	2'-2 7/8"	0%	0"
P	19'-3 5/8"	10.6%	2'-0 1/2"
TOTALS	187'-1 3/4"	NA	26'-7"

26'-7" / 187'-1 3/4" = 14.2%
 1,753.5 SF X 14.2% = 249 SF EXCLUDED FROM THE GFA
 (PER APPENDIX B OF MICC TITLE 19)

LOWER FLOOR GFA EXEMPTION

SCALE: 1/8" = 1'-0"

NEW HVAC NOTES:

- INSTALL NEW HYDRONIC RADIANT SYSTEM @ LOWER FLOOR WALL RADIATORS WITH HIGH EFFICIENCY BOILER, WITH MINIMUM AFUE OF 92%, VENT TO OUTSIDE TYPICAL MAIN AND UPPER JOIST TRACK RADIANT HEAT SYSTEM.
- PROVIDE SHUT OFF VALVE @ CONNECTION TO APPLIANCE.
- INSTALL NEW FORCED AIR FURNACE TO PROVIDE COOLING AND VENTILATION TO ALL FLOORS OF THE HOME.
- PER IRC 1506.3.5; PROVIDE WHOLE HOUSE VENTILATION SYSTEM INTEGRATED WITH THE FORCED AIR SYSTEM.
- INTEGRATED WHOLE HOUSE VENTILATION SYSTEM SHALL OPERATE CONTINUOUSLY; PROVIDE CONTROLS TO ALLOW OPERATION OF VENTILATION SYSTEM WITHOUT NEED TO OPERATE HEATING SYSTEM. A LABEL SHALL BE AFFIXED TO THE CONTROLS THAT READS "WHOLE HOUSE VENTILATION (SEE OPERATING INSTRUCTIONS)".
- CONTINUOUS WHOLE HOUSE MECHANICAL VENTILATION MINIMUM AIRFLOW RATE OF 90 CFM. REFER TO IRC TABLE M1507.3.5.

GAS WATER HEATER NOTES:

- INSTALL NEW TANKLESS GAS WATER HEATER; RHEEM HIGH EFFICIENCY 110 GPM INDOOR NATURAL GAS TANKLESS WATER HEATER WITH RECIRCULATION PUMP, #RTGH-RH14MLVW/0.94 EFF (CONFIRM SELECTION W/ OWNER PRIOR TO PURCHASING).
- PROVIDE SHUT OFF VALVE @ CONNECTION TO APPLIANCE.
- PER IRC M1307.2 ANCHOR OR STRAP WATER HEATER APPLIANCE TO RESIST HORIZONTAL DISPLACEMENT CAUSED BY EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER 1/3RD AND LOWER 1/3RD OF THE APPLIANCE'S VERTICAL DIMENSIONS. AT THE LOWER POINT, THE STRAPPING SHALL MAINTAIN A MINIMUM DISTANCE OF 4" ABOVE CONTROLS.

VENTILATION REQUIREMENTS

VENTILATION NOTES:
 WHOLE HOUSE VENTILATION TO BE INTEGRATED INTO THE FORCED AIR SYSTEM TO MEET IRC M1507.3.5. PROVIDE CONTINUOUS AIRFLOW OF 90CFM.

GROSS FLOOR AREA (MEASURED FROM THE OUTSIDE OF EXTERIOR WALLS)

EXISTING/PROPOSED GROSS LOWER FLOOR AREA:	1,739.2 SF
EXEMPT AREA: BELOW GRADE	-(249 SF)
EXEMPT AREA: UNDER STAIR	(34 SF)
TOTAL GROSS FLOOR AREA AT LOWER FLOOR:	1,446.2 SF

CONDITIONED FLOOR AREA (MEASURED FROM THE INSIDE OF EXTERIOR WALLS)

EXISTING LOWER FLOOR AREA	921.6 SF
EXISTING GARAGE CONVERTED TO CONDITIONED AREA:	214.9 SF
TOTAL CONDITIONED AREA AT LOWER FLOOR:	1136.5 SF

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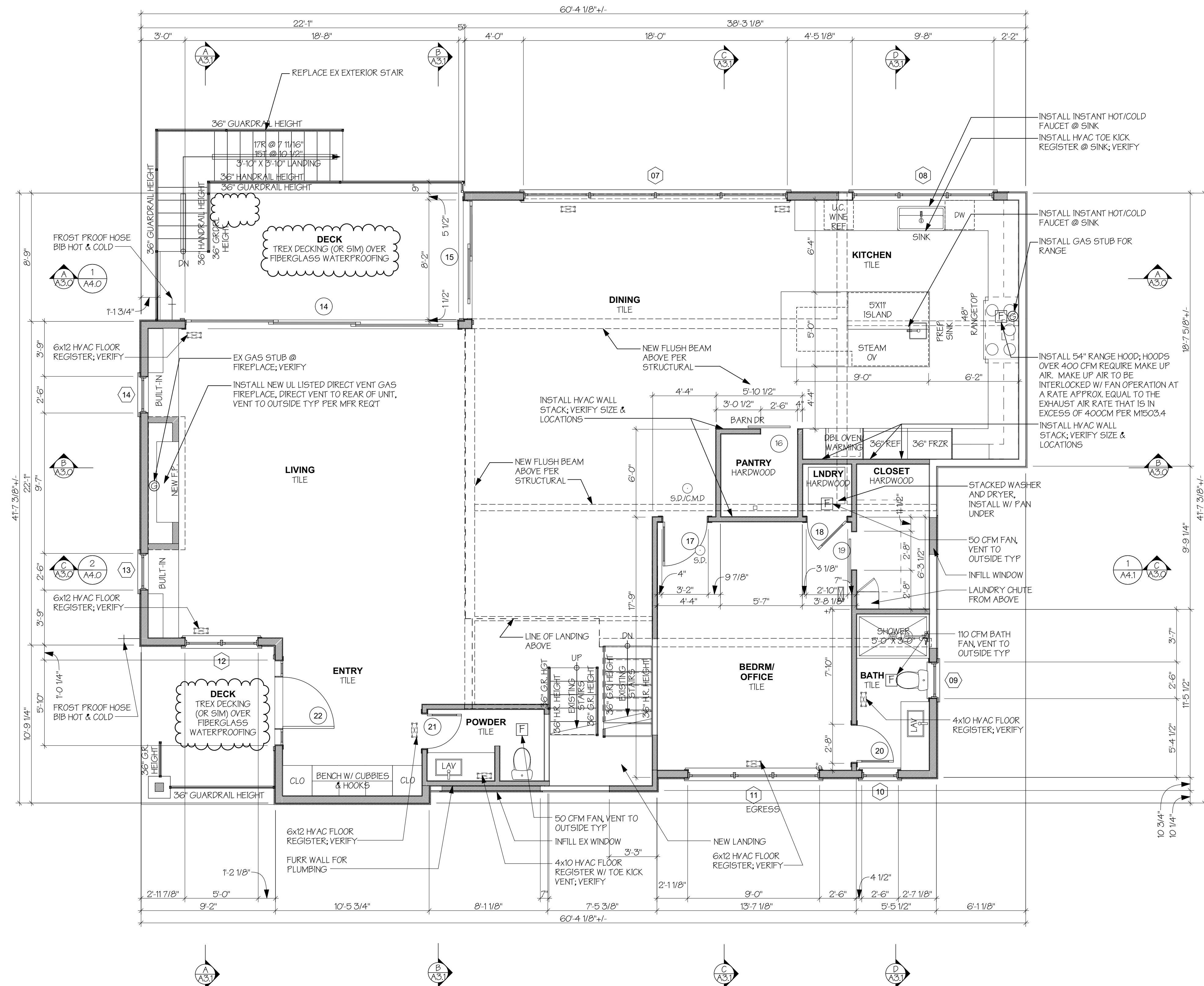
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LOWER FLOOR PLAN

A1.3



GROSS FLOOR AREA (MEASURED FROM THE OUTSIDE OF EXTERIOR WALLS)	
EXISTING MAIN FLOOR AREA:	1,564.3 SF
EXISTING AREA DEMOLISHED:	(19.4 SF)
NEW ADDITION:	487.2 SF
TOTAL GROSS FLOOR AREA AT MAIN FLOOR:	2,032.1 SF
TOTAL GROSS FLOOR AREA (ALL FLOORS):	4636.4 SF
MAXIMUM ALLOWED FLOOR AREA RATIO:	4652 SF

CONDITIONED FLOOR AREA (MEASURED FROM THE INSIDE OF EXTERIOR WALLS)	
EXISTING MAIN FLOOR AREA:	1479.8 SF
EXISTING AREA DEMOLISHED:	(19.4 SF)
NEW ADDITION:	394.6 SF
TOTAL CONDITIONED AREA AT MAIN FLOOR:	1874.4 SF
EXISTING UNCOVERED DECK TO BE REBUILT:	190.2 SF
EXISTING COVERED PORCH TO HAVE NEW FINISHES:	97.6 SF
TOTAL CONDITIONED FLOOR AREA:	3918.5 SF
TOTAL CONDITIONED FLOOR AREA (ALL FLOORS):	4463.5 SF

MAIN FLOOR PLAN

SCALE: 1/4" = 1'-0"
 [Symbol] EXISTING WALLS
 [Symbol] NEW OR MODIFIED WALLS

NOTES:
 1. ALL DIMENSIONS ARE GIVEN TO THE FACE OF STUD UNO.
 2. ALL DOOR AND WINDOW DIMENSIONS ON THIS PLAN ARE ROUGH OPENING SIZES, UNO. REFER TO WINDOW AND DOOR SCHEDULE FOR MORE INFORMATION.
 3. SEE ATTACHED WSEC FORMS FOR ENERGY CODE COMPLIANCE INFORMATION.
 4. INSTALL SMOKE DETECTORS (S.D.) AT LOCATIONS SHOWN. HARDWARE AND INTERCONNECT DETECTORS TO POWER SUPPLY AND PROVIDE BATTERY BACKUP AS REQUIRED.
 5. INSTALL CARBON MONOXIDE ALARMS (C.M.) OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS. THE ALARM SHALL BE LISTED AS COMPLYING WITH UL 2034 AND SHALL BE INSTALLED IN ACCORDANCE WITH SRC R3153 AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

WERELIUS RESIDENCE
 8452 NORTH MERCER WAY
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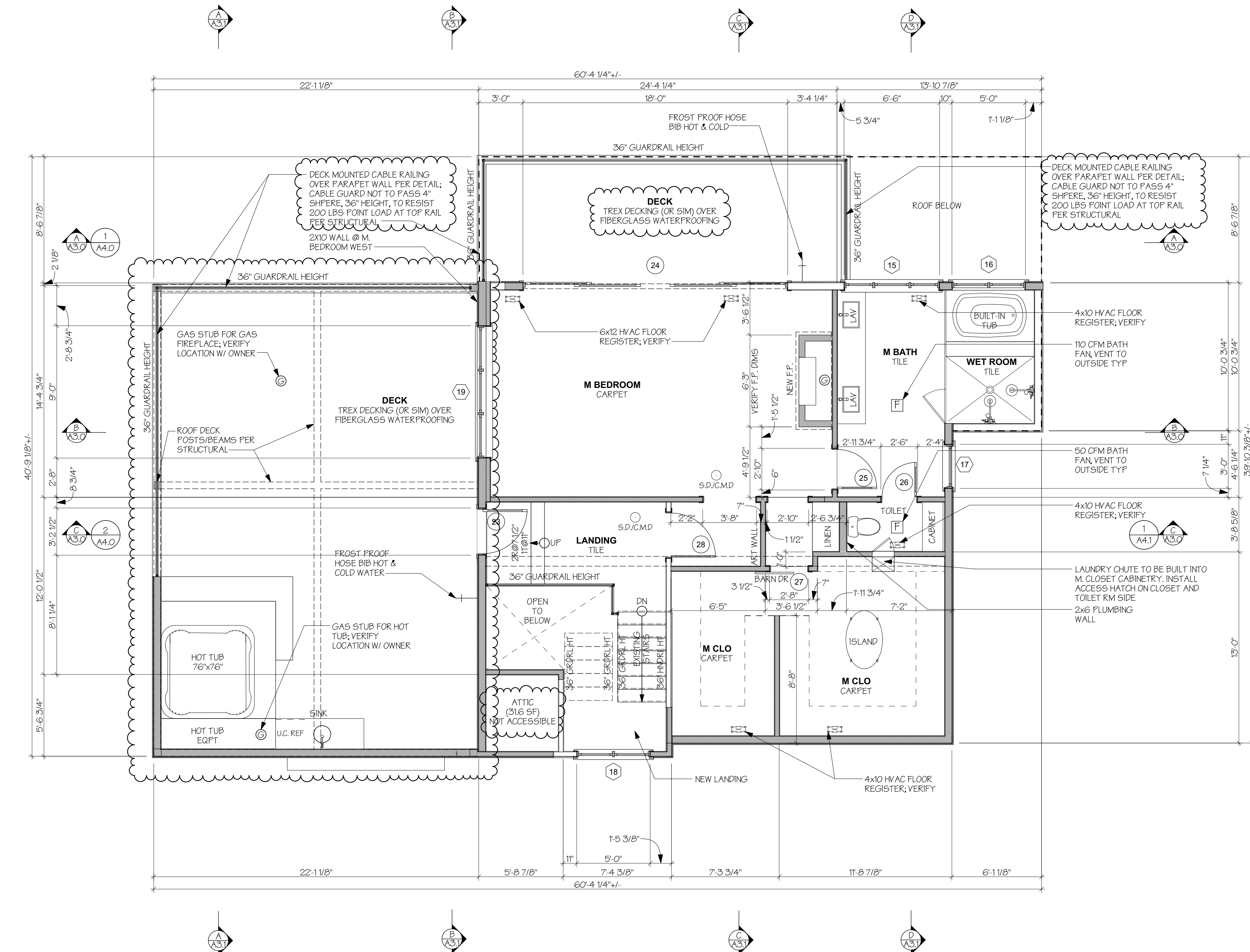
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MAIN FLOOR PLAN

A1.4



UPPER FLOOR PLAN

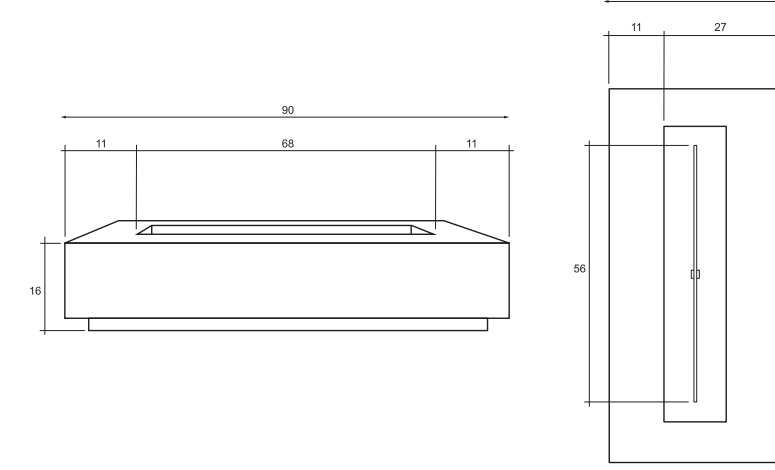
SCALE: 1/4" = 1'-0"

- EXISTING WALLS
- NEW OR MODIFIED WALLS

- NOTES:**
1. ALL DIMENSIONS ARE GIVEN TO THE FACE OF STUD UNO.
 2. ALL DOOR AND WINDOW DIMENSIONS ON THIS PLAN ARE ROUGH OPENING SIZES, UNO. REFER TO WINDOW AND DOOR SCHEDULE FOR MORE INFORMATION.
 3. SEE ATTACHED WSEC FORMS FOR ENERGY CODE COMPLIANCE INFORMATION.
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 5. INSTALL CARBON MONOXIDE ALARMS (C.M.D.) OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS. THE ALARM AND SHALL BE LISTED AS COMPLYING WITH UL 2034 AND SHALL BE INSTALLED IN ACCORDANCE WITH IRC R3153 AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS

OUTDOOR GAS FIREPLACE SPECIFICATION:

SECTION 3: DIMENSIONS & DIAGRAMS



SPECIFICATIONS	
Height	36"
Length	36"
Surface	11'
Burner Size	87" / 45,000 BTU
Weight	450 lbs.
Finish/Stone	12" x 12"
Options	See Notes
Material	Class B non-vented vent

SECTION 4: PARTS LIST

PART NO.	PART NAME	QTY.
01	40" x 11" Burner	1
02	48" x 16" Burner Plate	1
03	70,000 BTU Orifices	1
04	3/8" Mide Flared fitting	1
05	3/8" Max line hose	1
06	Key	1
07	Gas Key Valve	1
08	1/2" x 3/8" x 1 1/4" Fire Table	1
09	Lava Rock	50 LBS
IF MODEL ONLY		
10	1/2" Propane Hose 10ft	1
11	90,000 BTU LP Regulator	1

TOOLS REQUIRED

- Gloves
- Screw Gun with #2 Phillips Head tip to remove packaging
- Box cutter to cut bands & miscellaneous plastic
- Crescent wrench to attach gas line

SECTION 5: GAS REQUIREMENTS

Read this section before installation. It explains what you need to know about liquid propane & natural gas prior to setting up your fire feature.

LIQUID PROPANE
Your fire feature is not provided with a propane tank. You will need to provide one. Use the following specifications for purchasing your propane tank.

SPECIFICATIONS
The 2-lb. propane gas supply cylinder is constructed and marked in accordance with the specifications for propane gas cylinders as required by the U.S. Department of Transportation (DOT).

MANIFOLD PRESSURE
For plumbed-in liquid propane installation, use a regulator.

SUPPLY PRESSURE
Maximum line pressure for plumbed-in propane is 14" W.C.
Normal (3.5 kPa). Minimum line pressure for propane is 11" W.C.
Maximum
- 11.0" W.C.
- 14.0" W.C. (12psi)

PRESSURE REGULATOR
The unit must be used with the supplies gas pressure regulator and hose assembly. The regulator will control and maintain a uniform gas pressure in the manifold. The burner orifice has been sized for the gas pressure delivered by the regulator. Replacement pressure regulator and hose assemblies must be those specified in the instructions.

CYLINDER SPECIFICATION
Any propane gas supply cylinder used with this fire feature must be approximately 12" in diameter and 18" high. The maximum fuel capacity is 20 lbs. of propane or 5 gallons. Full cylinder weight should be approximately 38 lbs. Always use the cylinder dust cap on the cylinder valve outlet during transport and when the cylinder is not connected to the fire feature. The 20-lb. propane gas cylinder used must include a collar to protect the cylinder valve.

FILLER VALVE
If you do not have an updated filler valve on your existing propane tank, you will need to purchase one at your local hardware store, otherwise you will not be able to refill the propane tank at the refill station.

TRANSPORTING GAS CYLINDER
Only one cylinder should be transported at a time. Be sure that the cylinder is secure and transported in an upright position with the control valve turned off.

NATURAL GAS
Ensure that the service supplying the fire feature is fitted with a positioned shut off valve that is easily accessible.

REQUIREMENTS
Always check the rating plate to make sure the gas supply you are connecting is the gas type for the manufactured fire feature. The installation of this appliance must conform with local codes or, in the absence of local codes, to the National Fuel Gas Code, ANSI Z223.1, NFPA 54, National Fuel Gas Code, Natural Gas and Propane Installation Code, CSA B149.1, or Propane Storage and Handling Code, CSA B146.2 as applicable. Natural gas connection must be performed by a licensed contractor or local gas company representative.

SUPPLY PRESSURE

- Minimum - 3.5" W.C.
- Normal - 7.0" W.C.
- Maximum - 14.0" W.C. (12psi)

PRESSURE TESTING
If the fire feature is installed with a fixed fuel piping system and equipped with an appliance gas pressure regulator, the fire feature and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressure in excess of 1/2psi (3.5 kPa).

The fire feature must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2psi (3.5 kPa).

GROSS FLOOR AREA (MEASURED FROM THE OUTSIDE OF EXTERIOR WALLS)

EXISTING UPPER FLOOR AREA:	846.5 SF
EXISTING AREA DEMOLISHED:	(-216 SF)
NEW ADDITION:	254.4 SF
PROPOSED GROSS FLOOR AREA AT UPPER FLOOR:	1,079.35F
EXEMPT AREA: ATTIC (316 SF) NOT ACCESSIBLE	(-316 SF)
DOUBLE-HEIGHT SPACE:	+51.4 SF
STAIRCASE:	+59 SF
TOTAL FLOOR AREA AT UPPER FLOOR:	1,581.9F

CONDITIONED FLOOR AREA (MEASURED FROM THE INSIDE OF EXTERIOR WALLS)

EXISTING UPPER FLOOR AREA:	684.1 SF
EXISTING AREA DEMOLISHED:	(-216 SF)
NEW ADDITION:	223.5 SF
DOUBLE HEIGHT SPACE AT UPPER LEVEL (COUNT AT 100%)	51.4SF
TOTAL CONDITIONED AREA AT UPPER FLOOR:	907.6 SF
TOTAL FLOOR AREA AT UPPER FLOOR:	959 SF

WERELIUS RESIDENCE
8452 NORTH MERCER WAY
MERCER ISLAND WA 98040

9716 REGISTERED ARCHITECT
Heidi M. Helgeson
HEIDI MICHELLE HELGESON
STATE OF WASHINGTON



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ARCHITECTURE
DESIGN

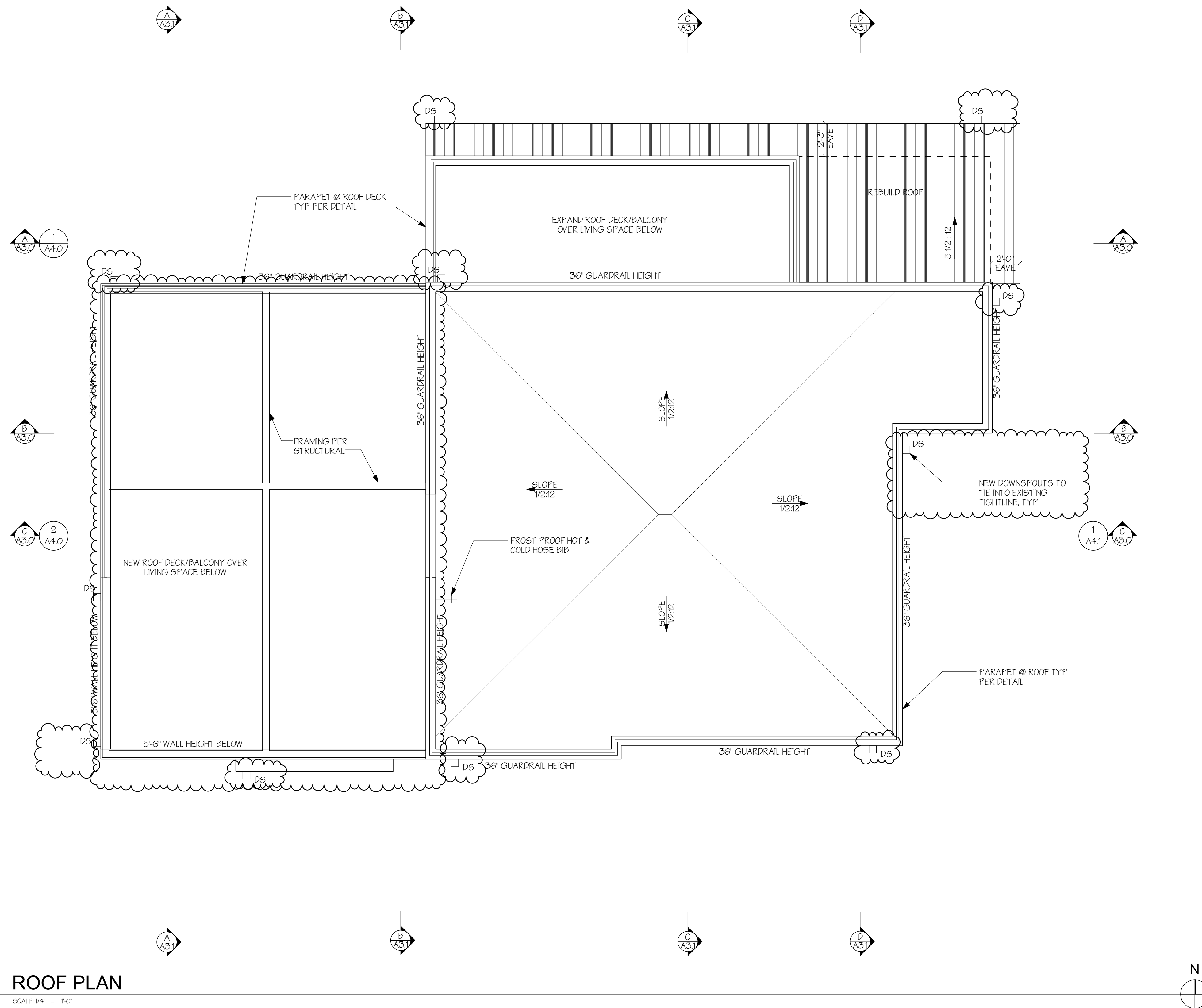
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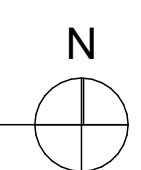
PERMIT SET

UPPER FLOOR PLAN

A1.5



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



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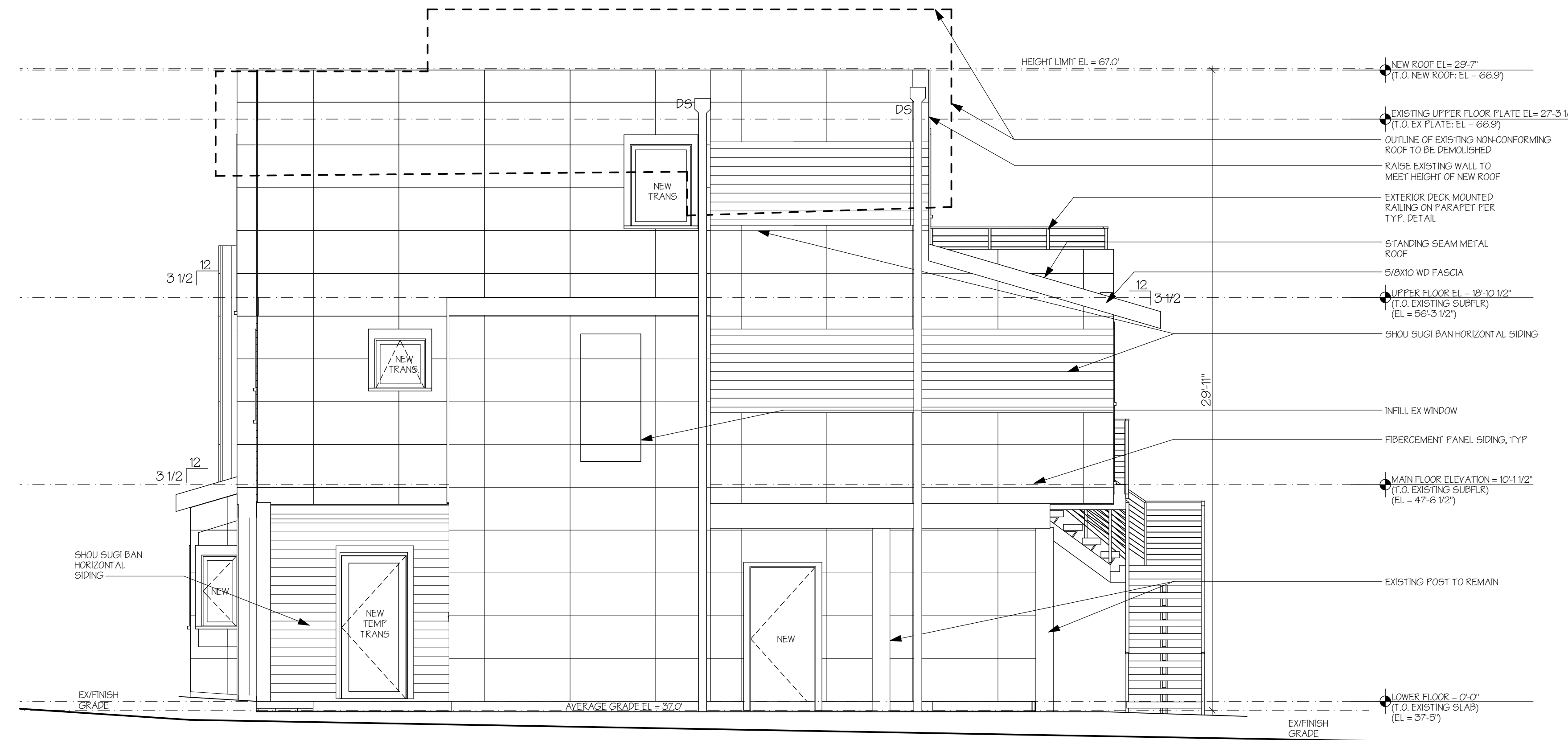
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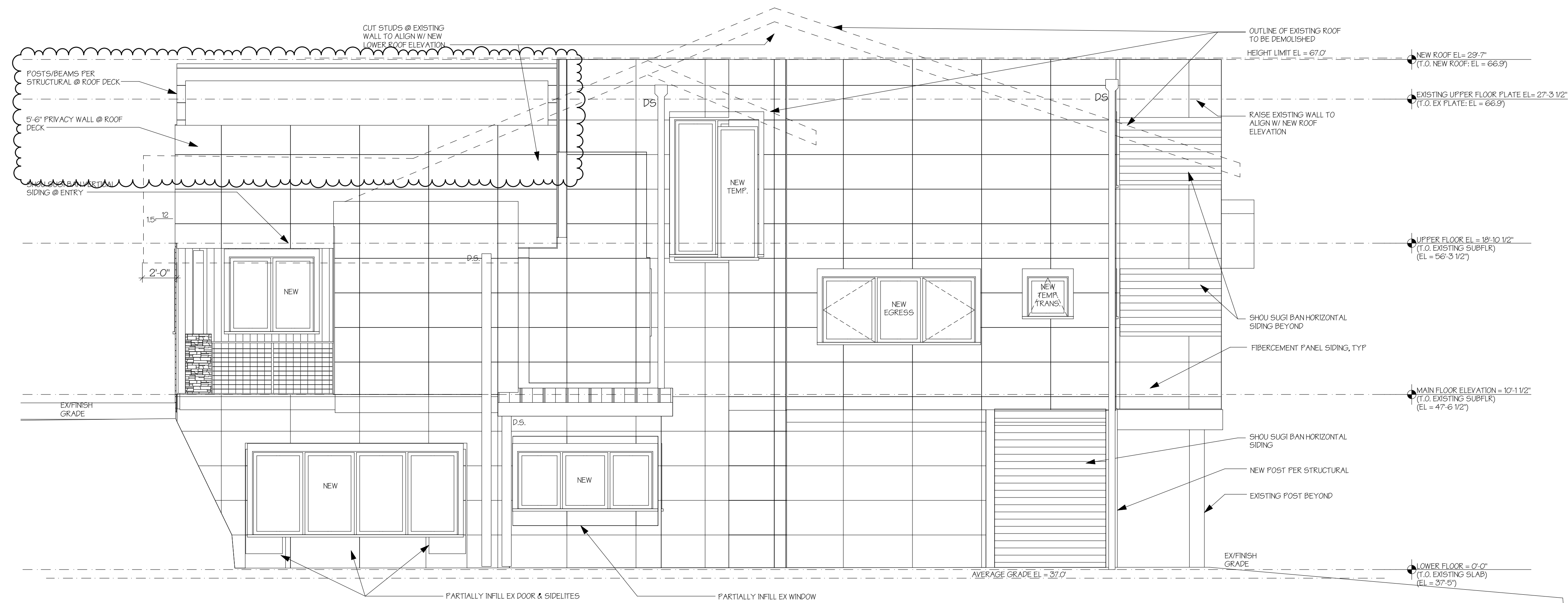
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ROOF PLAN



EAST ELEVATION

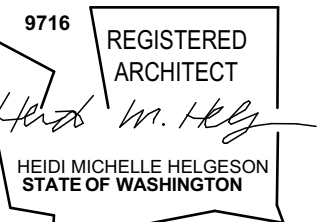
SCALE: 1/4" = 1'-0"



SOUTH ELEVATION

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

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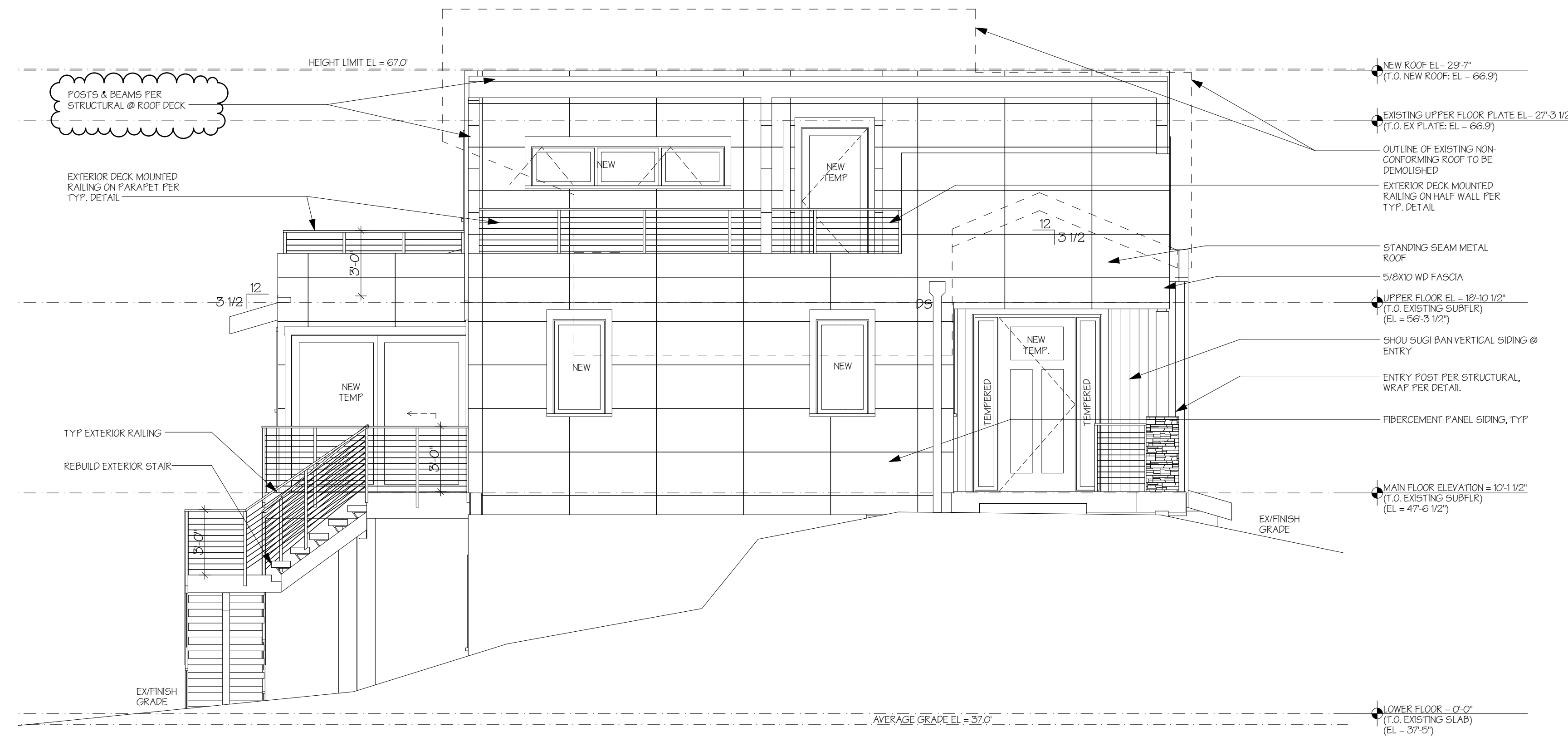
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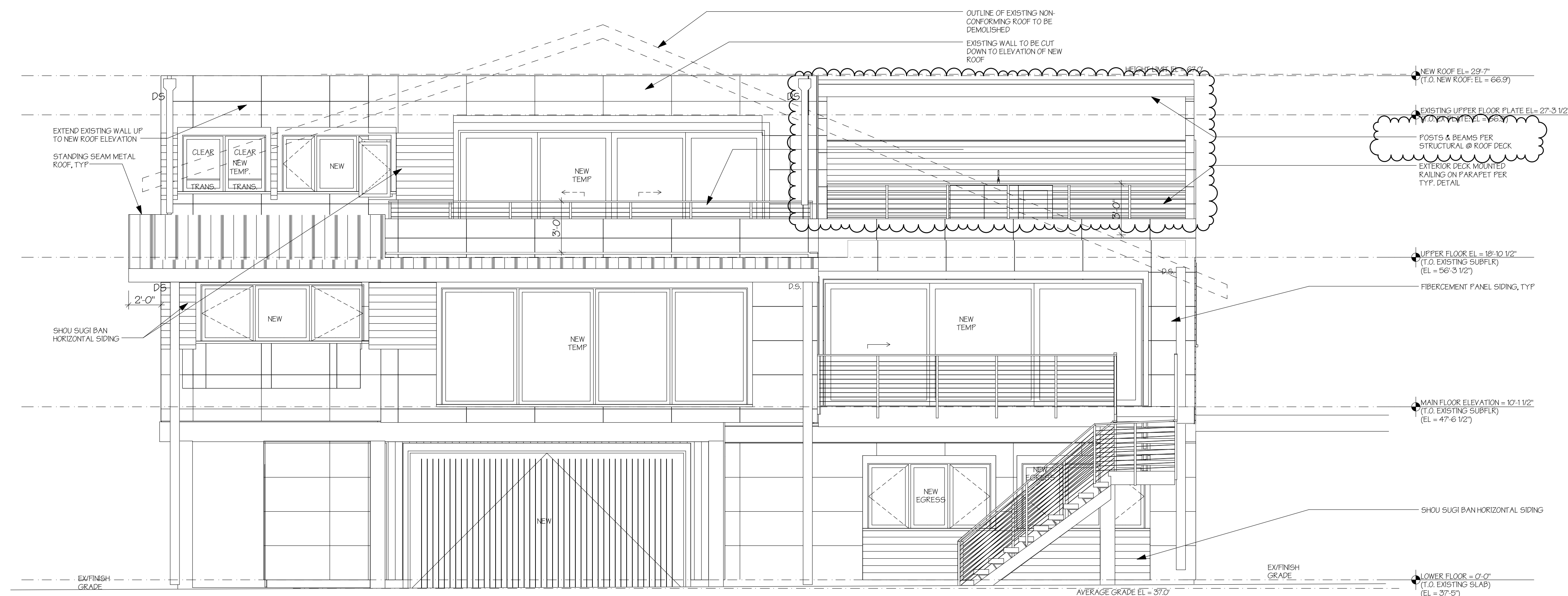
PERMIT SET

EXTERIOR ELEVATIONS



WEST ELEVATION

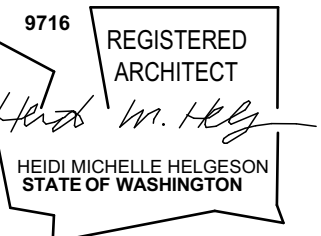
SCALE: 1/4" = 1'-0"



NORTH ELEVATION

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

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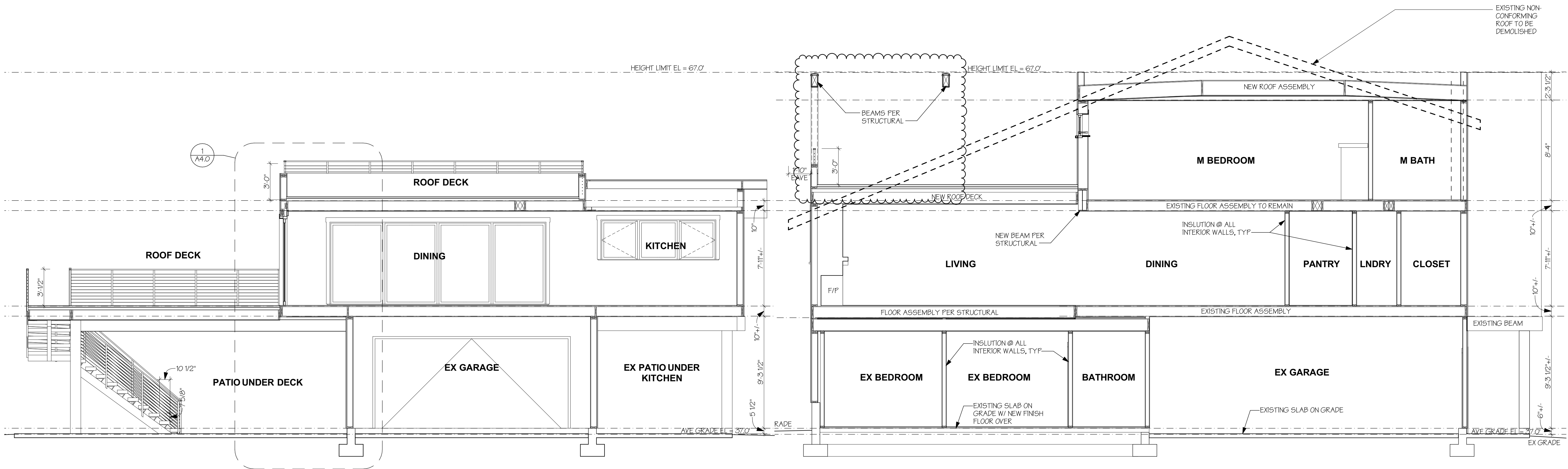
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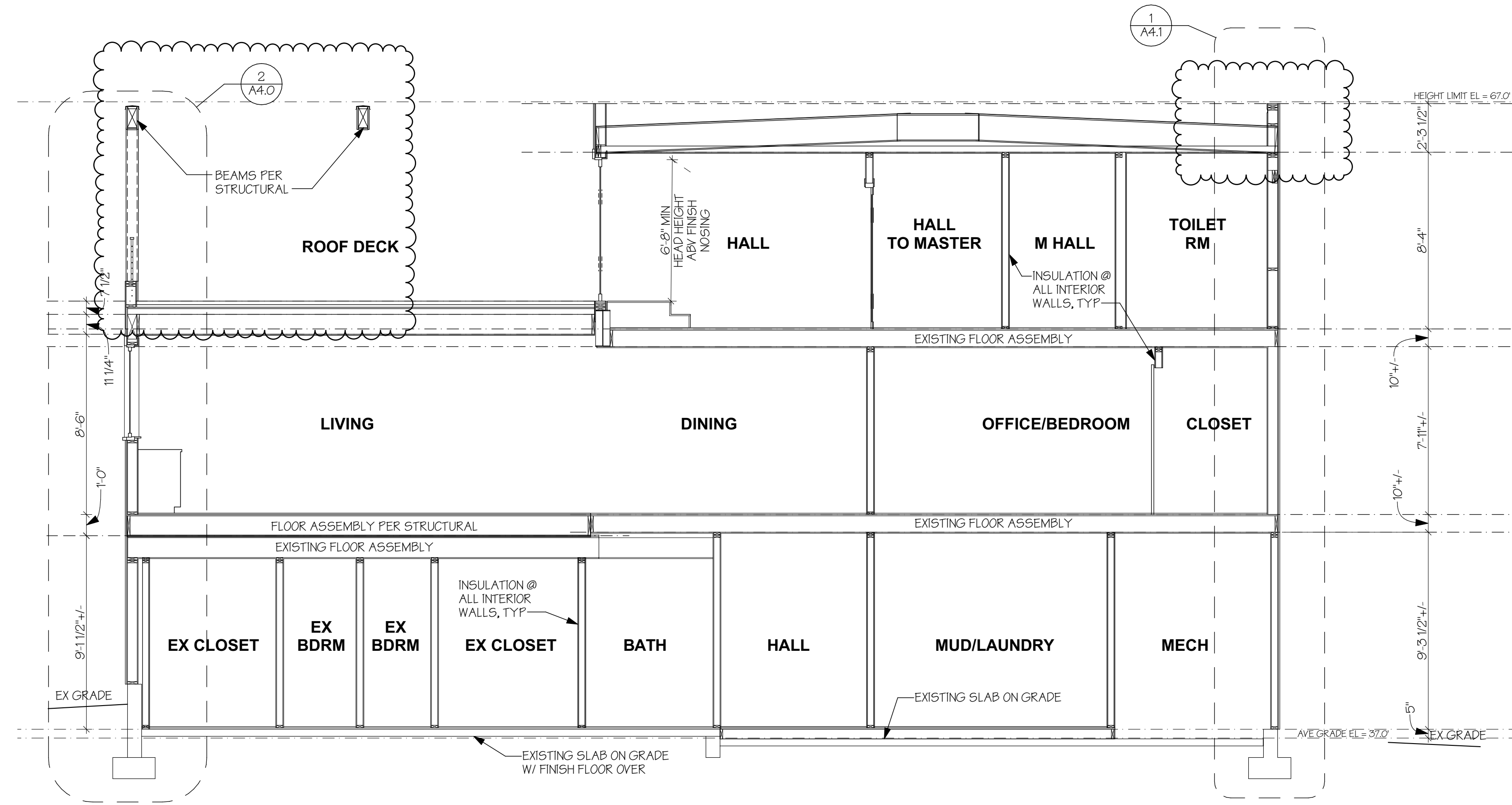
PERMIT SET

EXTERIOR ELEVATIONS



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

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



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

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9716 REGISTERED ARCHITECT
Heidi M. Hely
HEIDI MICHELLE HELGESSON
STATE OF WASHINGTON

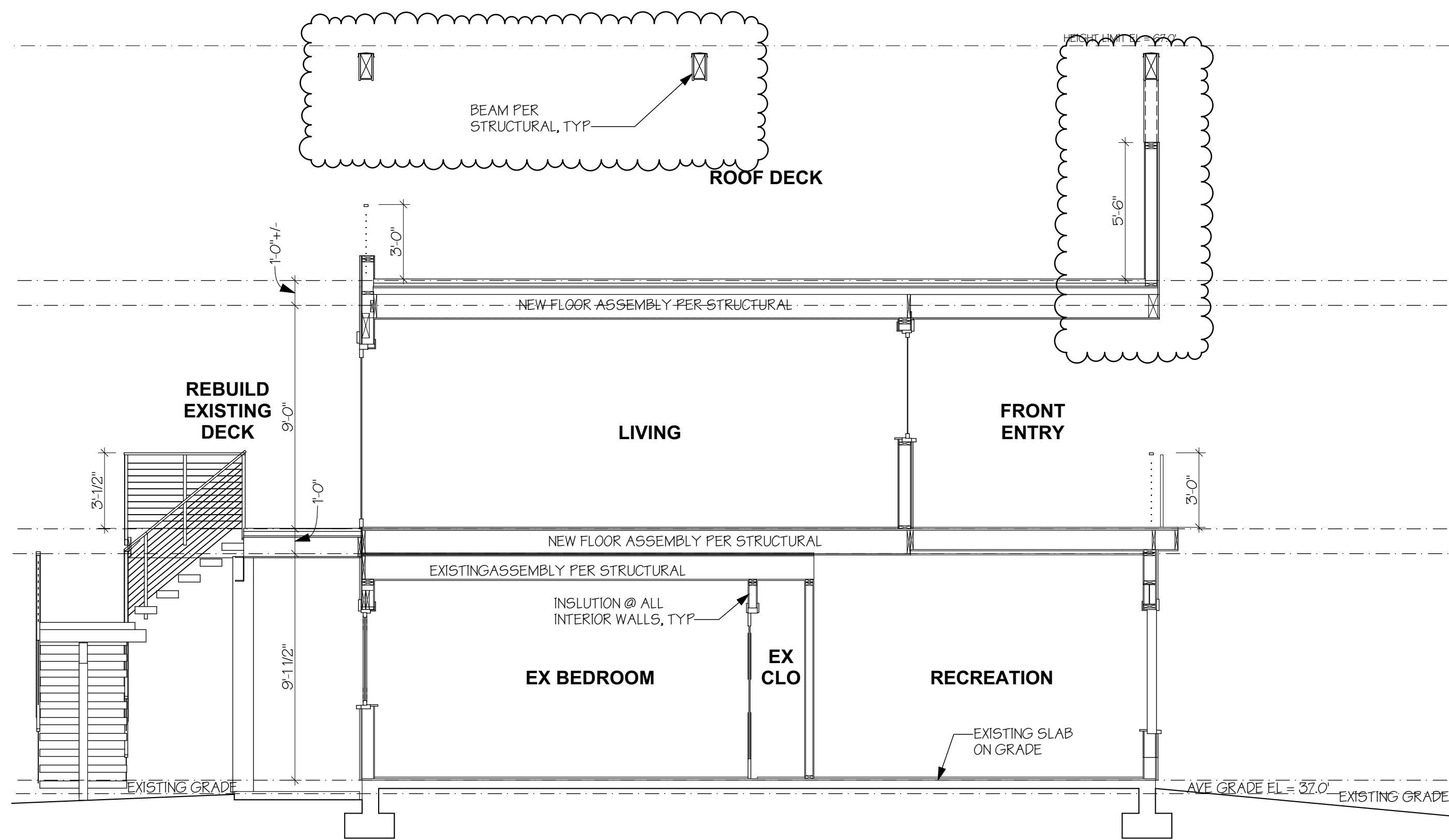


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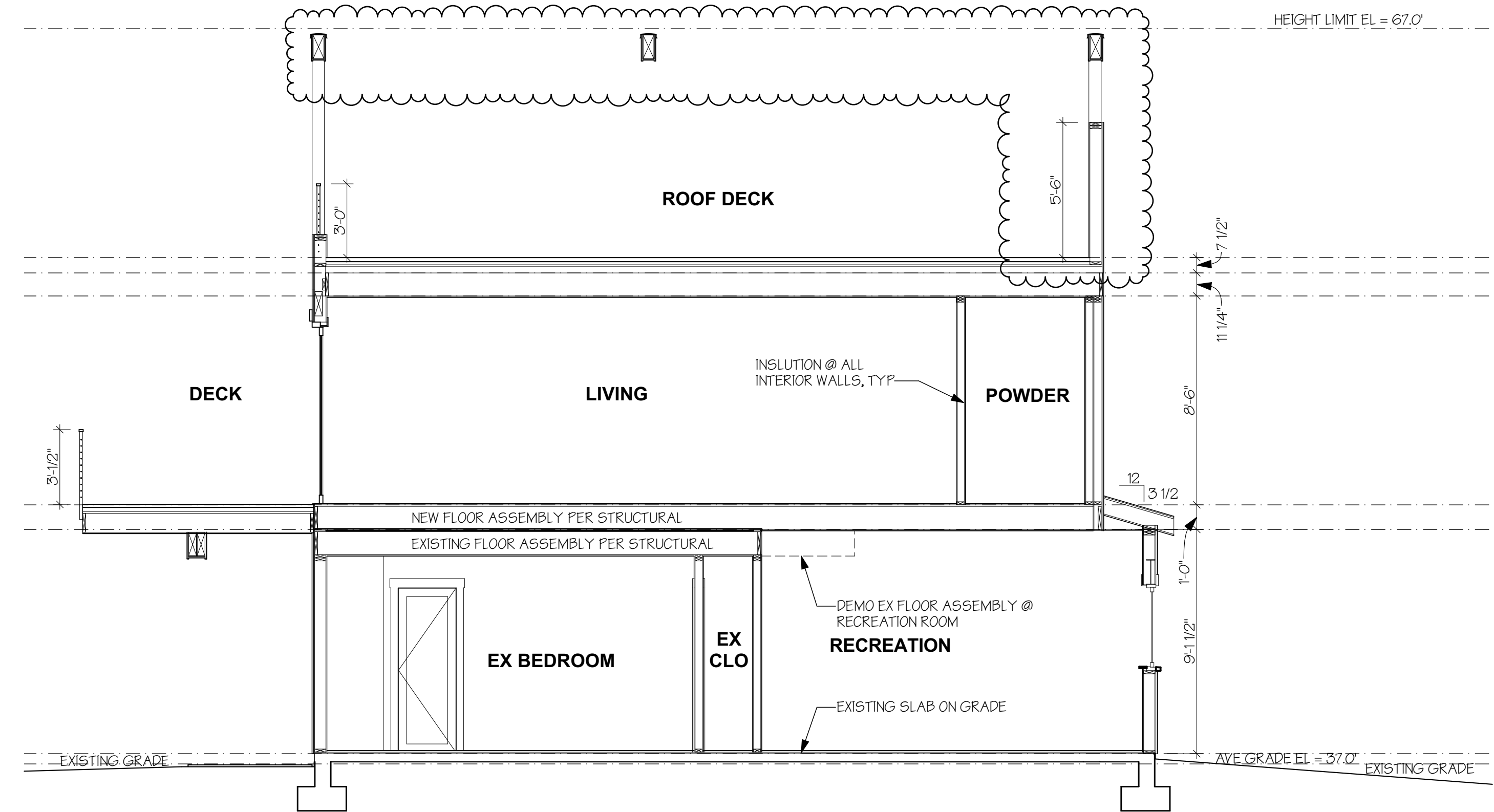
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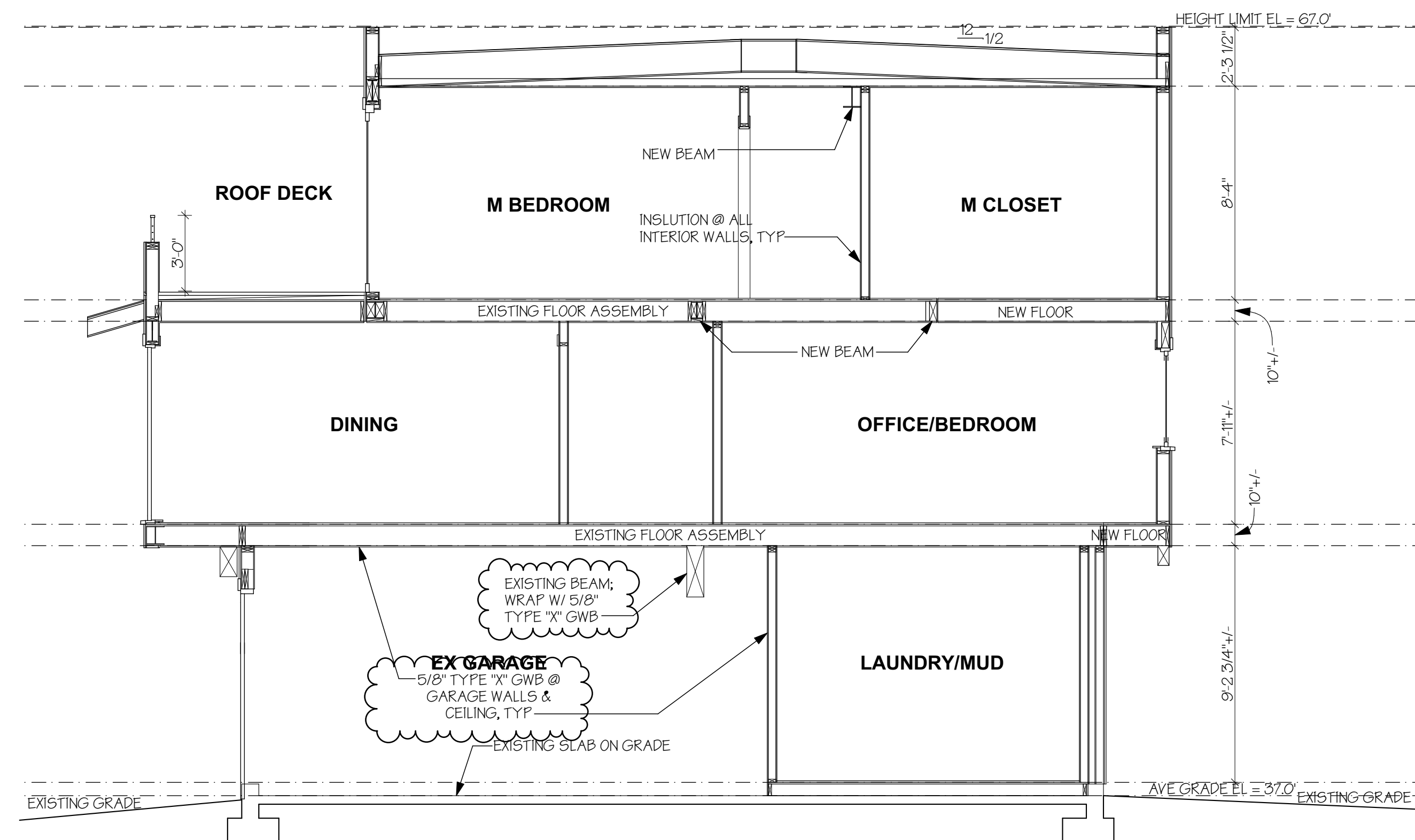
BUILDING SECTIONS



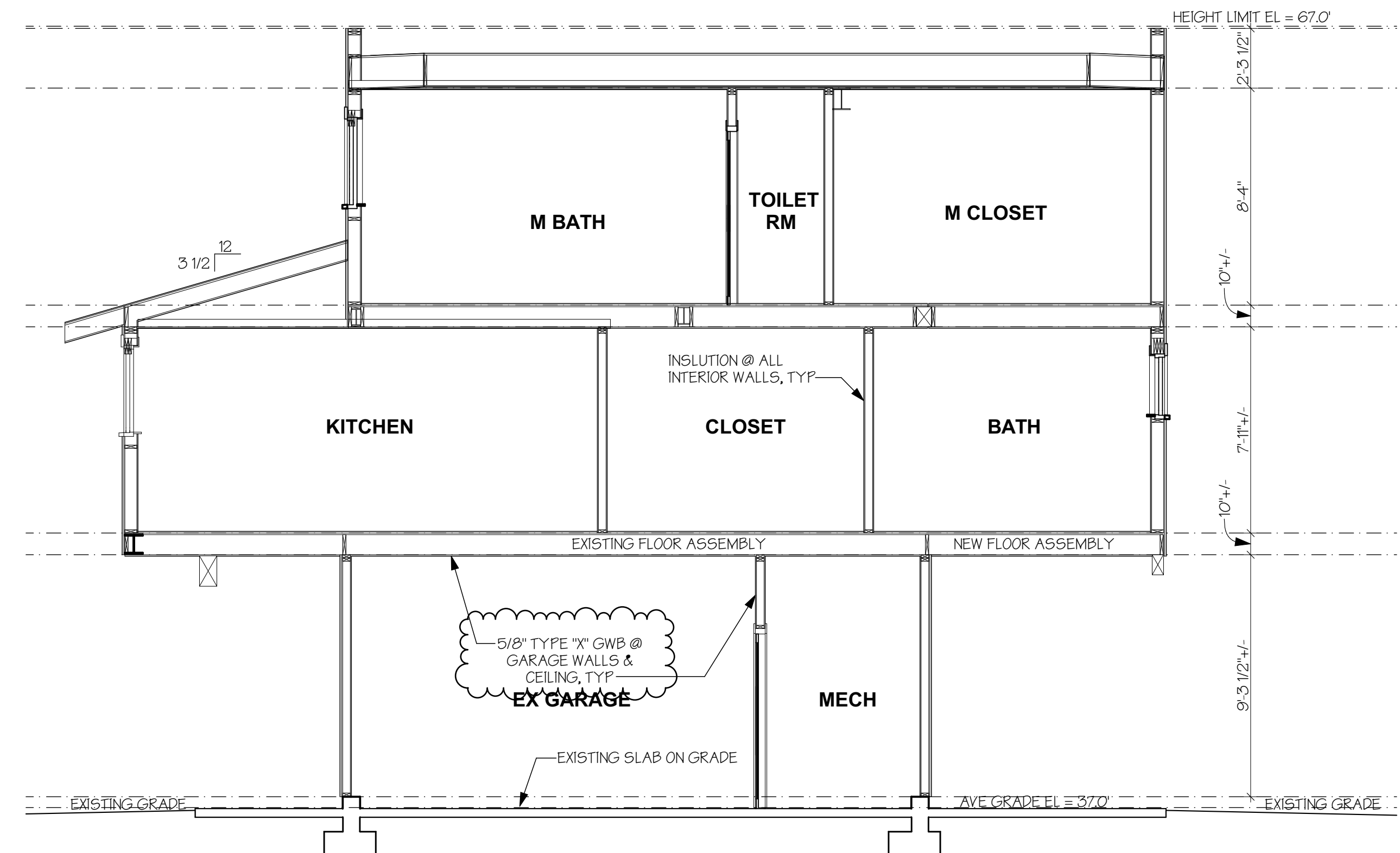
A BUILDING SECTION
SCALE: 1/4" = 1'-0"



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



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



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

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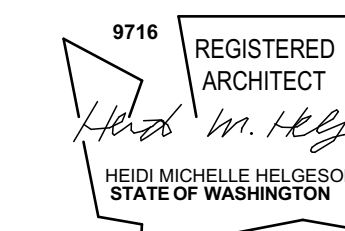
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BUILDING SECTIONS



TYP WATERPROOF ROOF DECK ASSEMBLY

- TREX DECKING (OR SIMILAR)
- P.T. SLEEPERS PER STRUCTURAL
- CLASS WATERPROOFING SYSTEM, SLOPE MIN 1/4"
- MARINE GRADE PLYWOOD OR PER STRUCTURAL AND MANUFACTURER
- SLEEPERS CUT TO SLOPE (VERIFY W/ STRUCTURAL)
- FRAMING PER STRUCTURAL
- MIN R-30 INSULATION: 3" CLOSED CELL SPRAY FOAM INSULATION (R-19 +/-) W/ MIN R-19 UNFACED BATT OR BLOWN-IN INSULATION, NON VENTED
- 5/8" GWB
- PVA PRIMER

TYP ROOF DECK PARTIAL WALL ASSEMBLY

- CEDAR SIDING
- 3/4" VENTED AIRSPACE W/ 1X4 P.T. FURRING STRIPS @ 16" O.C.
- 1 1/2" FURRING (FLUSH W/ EXTERIOR RIGID INSULATION BELOW)
- HENRY BLUESKIN VP100 BUILDING WRAP OR BETTER
- CDX PLYWOOD SHEATHING PER STRUCTURAL
- 2X6 FRAMING PER STRUCTURAL
- CDX PLYWOOD SHEATHING PER STRUCTURAL
- HENRY BLUESKIN VP100 BUILDING WRAP OR BETTER
- CEDAR SIDING

- HEADER PER STRUCTURAL W/ R-10 FOAM
- METAL FLASHING OVER WD TRIM, TYP

TYP NEW MAIN FLOOR ASSEMBLY OVER UNCONDITIONED SPACE

- FINISH FLOOR
- PLYWOOD SHEATHING PER STRUCTURAL
- FRAMING PER STRUCTURAL
- R-30 BATT INSULATION
- FURRED FRAMING TO MATCH CEILING HEIGHT @ ROOF DECKS
- 1/2" T&G CEDAR SOFFIT

TYP WATERPROOF DECK ASSEMBLY

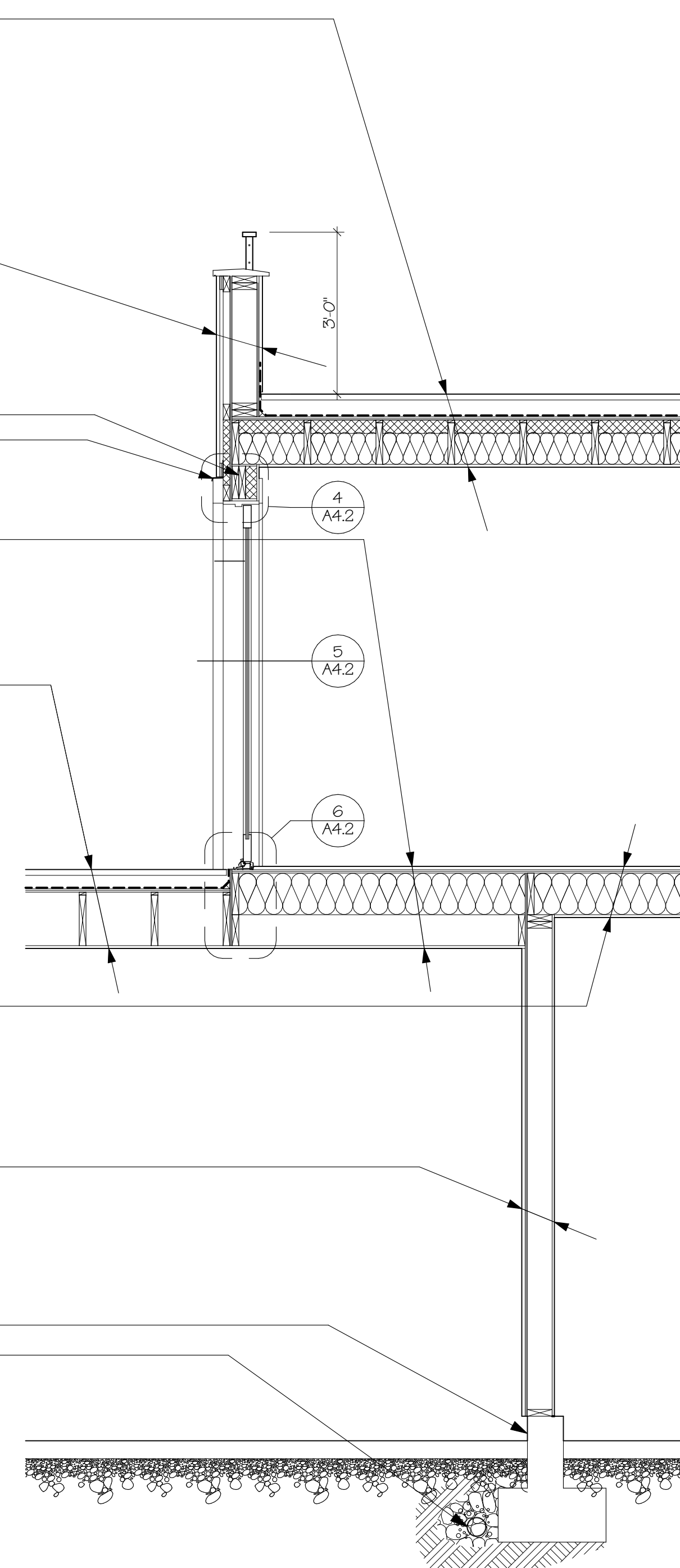
- TREX DECKING (OR SIMILAR)
- P.T. SLEEPERS PER STRUCTURAL
- CLASS WATERPROOFING SYSTEM, SLOPE MIN 1/4"
- MARINE GRADE PLYWOOD OR PER STRUCTURAL AND MANUFACTURER
- SLEEPERS CUT TO SLOPE (VERIFY W/ STRUCTURAL)
- FRAMING PER STRUCTURAL
- 1/2" T&G CEDAR SOFFIT

TYP NEW MAIN FLOOR ASSEMBLY OVER UNCONDITIONED SPACE

- FINISH FLOOR
- PLYWOOD SHEATHING PER STRUCTURAL
- FRAMING PER STRUCTURAL
- R-30 BATT INSULATION
- 5/8" GWB (5/8" TYPE 'X' GWB @ AREAS OVER GARAGE)
- PVA PRIMER

TYP EX EXTERIOR WALL ASSEMBLY @ GARAGE

- CEDAR SIDING
- 3/4" VENTED AIRSPACE W/ 1X4 P.T. FURRING STRIPS @ 16" O.C.
- 1 1/2" FURRING (FLUSH W/ EXTERIOR RIGID INSULATION BELOW)
- HENRY BLUESKIN VP100 BUILDING WRAP OR BETTER
- EXISTING SHEATHING OR PER STRUCTURAL
- EXISTING FRAMING
- 1/2" GWB
- PVA PRIMER
- EXIST CONCRETE FOUNDATION AND FOOTING TO REMAIN OR PER STRUCTURAL
- EXIST FOOTING DRAIN TO REMAIN (VERIFY)



1 WALL SECTION

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

METAL FLASHING

BEAM PER STRUCTURAL, WRAP W/ SIDING

POST BEYOND PER STRUCTURAL, WRAP W/ SIDING

BEAM PER STRUCTURAL, WRAP W/ SIDING

TYP WATERPROOF ROOF DECK ASSEMBLY PER 1/A4.0

TYP ROOF DECK PARTIAL WALL ASSEMBLY PER 1/A4.0

BEAM PER STRUCTURAL

METAL FLASHING OVER WD TRIM, TYP

TYP NEW FLOOR ASSEMBLY

- FINISH FLOOR
- PLYWOOD SHEATHING PER STRUCTURAL
- FRAMING PER STRUCTURAL
- INSULATION
- 5/8" GWB

TYP MAIN FLOOR EXTERIOR WALL ASSEMBLY

- CEDAR SIDING
- 3/4" VENTED AIRSPACE W/ 1X4 P.T. FURRING STRIPS @ 16" O.C.
- 1 1/2" RIGID INSULATION
- HENRY BLUESKIN VP100 BUILDING WRAP OR BETTER
- CDX PLYWOOD SHEATHING PER STRUCTURAL
- 2X6 FRAMING PER STRUCTURAL
- R-21 BATT INSULATION
- 1/2" GWB
- PVA PRIMER

TYP LOWER FLOOR CONDITIONED EXTERIOR WALL ASSEMBLY

- CEDAR SIDING
- 3/4" VENTED AIRSPACE W/ 1X4 P.T. FURRING STRIPS @ 16" O.C.
- 1 1/2" RIGID INSULATION
- HENRY BLUESKIN VP100 BUILDING WRAP OR BETTER
- CDX PLYWOOD SHEATHING PER STRUCTURAL
- EXISTING FRAMING
- R-21 BATT INSULATION
- 2X4 FRAMING FURRING WALL
- R-21 RIGID INSULATION @ EXISTING CONCRETE STEM WALL
- 1/2" GWB
- PVA PRIMER

TYP EXISTING CONCRETE SLAB ON GRADE

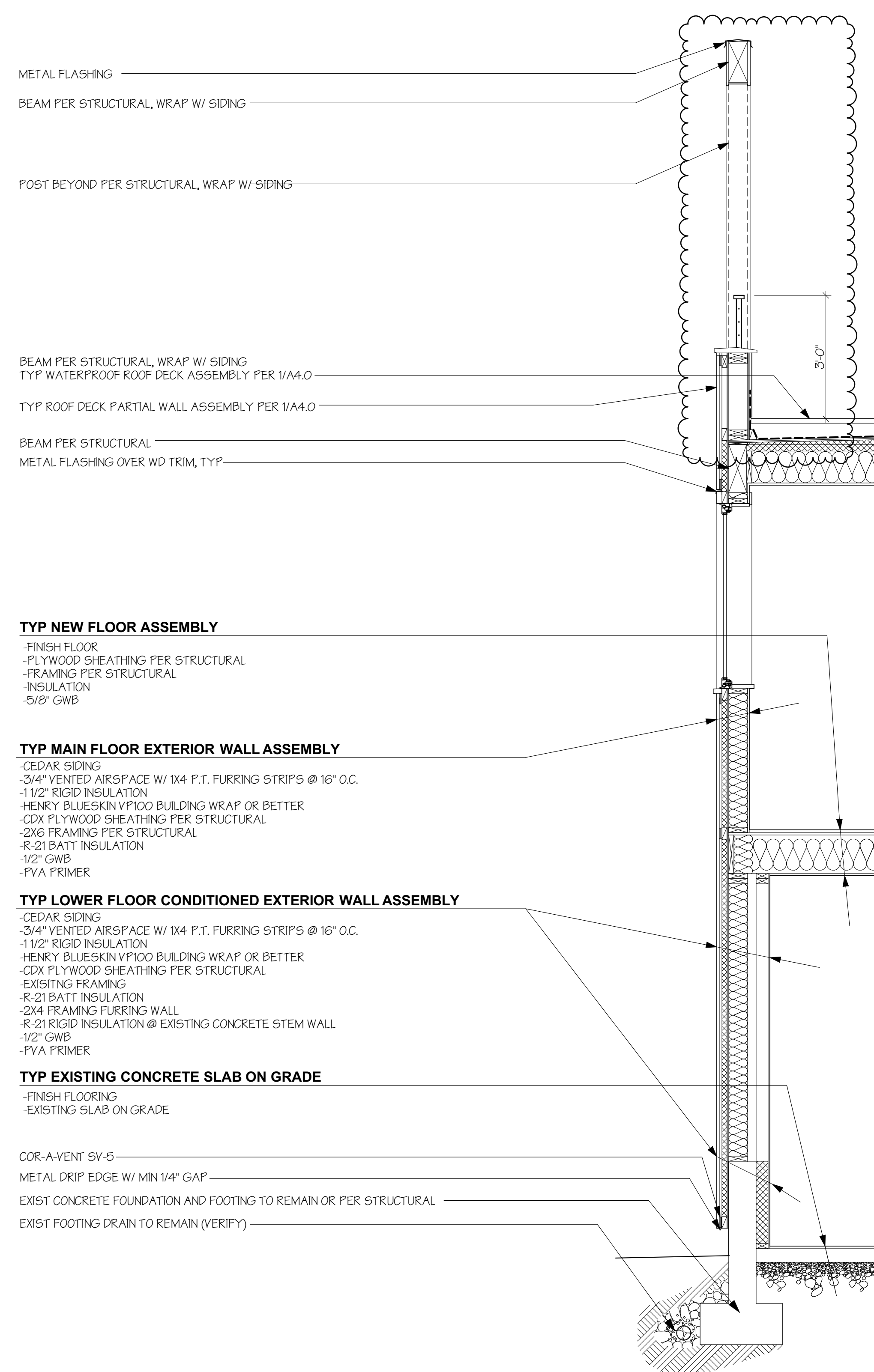
- FINISH FLOORING
- EXISTING SLAB ON GRADE

COR-A-VENT SV-5

METAL DRIP EDGE W/ MIN 1/4" GAP

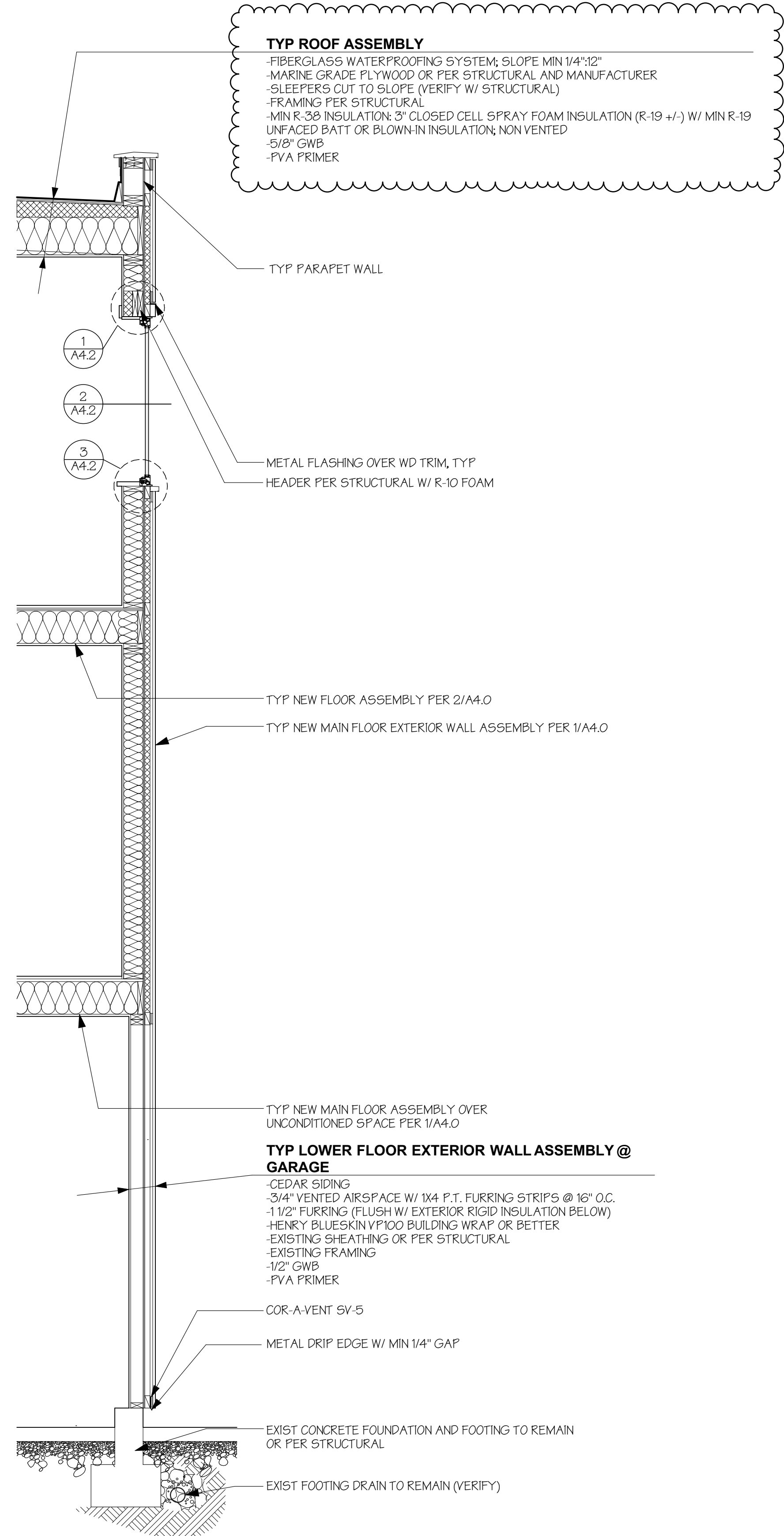
EXIST CONCRETE FOUNDATION AND FOOTING TO REMAIN OR PER STRUCTURAL

EXIST FOOTING DRAIN TO REMAIN (VERIFY)



2 WALL SECTION

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



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

haysite
haysite reinforced plastics
ENGINEERING DATA

GPO-3 H900 12/8/2009

H900 is recognized throughout the world as a reliable, consistent GPO-3 material. Standard size sheets are available in thicknesses ranging from .094" to 2.00". H900 also exhibits excellent smoke, flame and toxicity characteristics. Govt. Spec I-24768/6. Standard color - red.

Physical	Test Method	Unit	Result
Barcol Hardness	Barcol	Scale	62
Specific Gravity	D-792		1.80
Density, Lbs/in ³		Lbs/Cu. In.	0.065
Water Absorption, %	D-229	%	0.20
UL Flammability, File# E81893	UL94	Class	94V-0
Flame Resistance, Seconds			
Ignition Time	D-229	Seconds	130
Burning Time	D-229	Seconds	33
Radiant Panel	E-162	Flame Spread	5.0
Smoke Density at 4.0 minutes, flaming	E-662	Optical Density	0.33
Tunnel Test, 1/4" Thickness	E-84	Flame Spread	<25
Temperature Class*	--	Degrees C	160
Mechanical			
Tensile Strength, PSI	D-638	PSI	9,000
Flexural Strength, PSI	D-790	PSI	18,000
Modulus of Elasticity in Flexure, PSI	D-790	X10 ⁴ PSI	1.50
Compressive Strength, PSI	D-695	PSI	30,000
Bond Strength, 1/2" Thickness, PSI	D-229	PSI	1400
Shear Strength, PSI	D-732	PSI	14,000
Impact Strength, Izod Edgewise	D-256	ft lbs/in. Notch	8.0

haysite
haysite reinforced plastics
ENGINEERING DATA

GPO-3 H900 12/8/2009

Electrical	Test Method	Unit	Result
Dielectric Strength, J, Short Time In Oil 1/16", VPM	D-149	VPM	450
Dielectric Strength, Parallel, Step-By-Step In Oil, KV	D-149	KV	55.0
Arc Resistance, Seconds	D-495	Seconds	190
Comparative Track Index	CTI	Seconds	600+
Inline Plane Track Resistance -	D-2303	Minutes	1000
Dielectric Constant @60HZ	D-150		5.20
Dissipation Factor @ 60 Hz	D-150		0.06

Unless otherwise indicated, all properties published are based on test performed on standard ASTM test samples and according to ASTM test methods. Values shown are for test samples made from production materials and they are believed to be conservative. No warranty is to be construed, however, in fabricated or molded form, parts may vary considerably from this standard test data. Where specific or unusual applications arise, test should be made on actual parts, and test procedures agreed upon between Haysite Reinforced Plastics and the customer.

WERELIUS RESIDENCE
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MERCER ISLAND WA 98040



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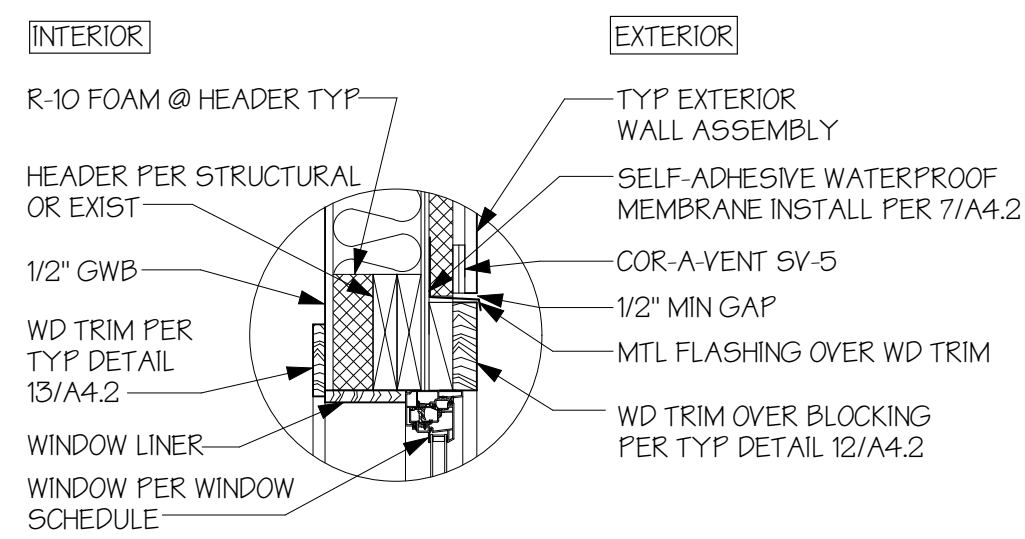
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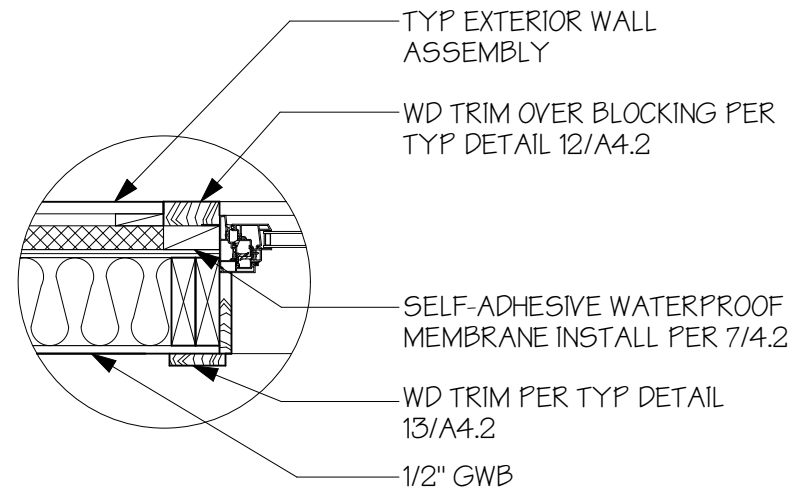
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WALL SECTION

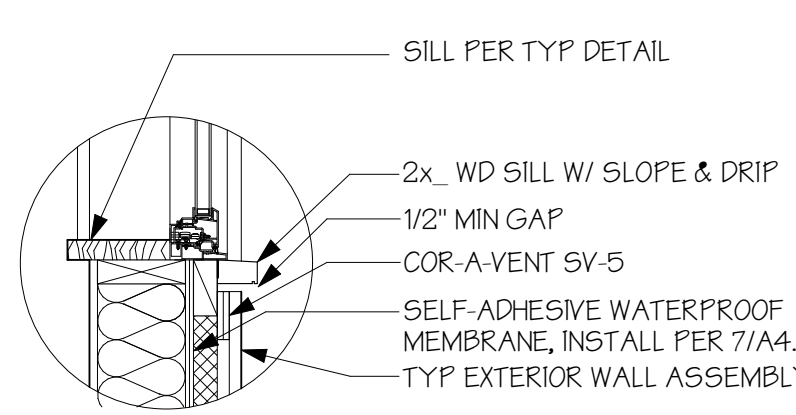
A4.1



1 TYP WINDOW HEAD
1" = 1'-0"

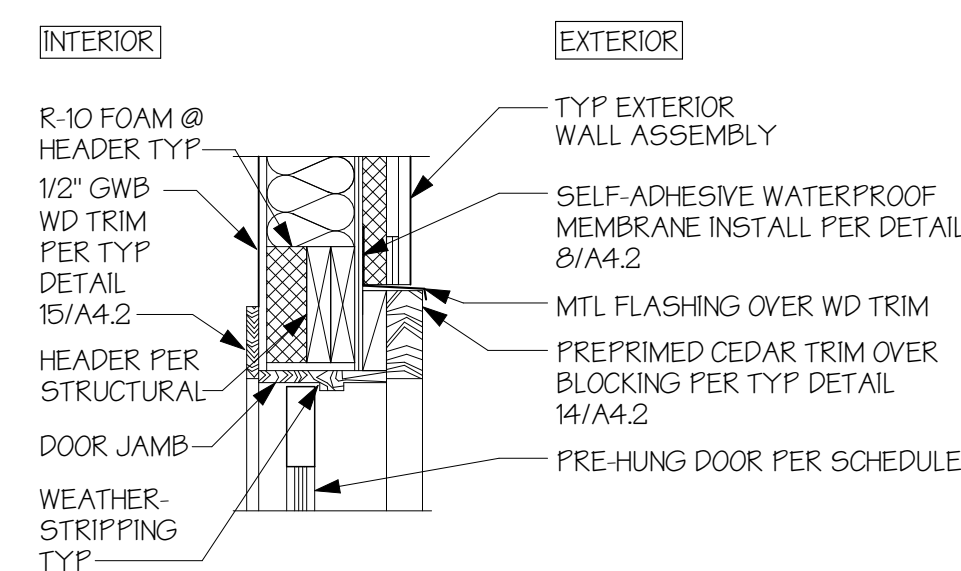


2 TYP WINDOW JAMB
1" = 1'-0"

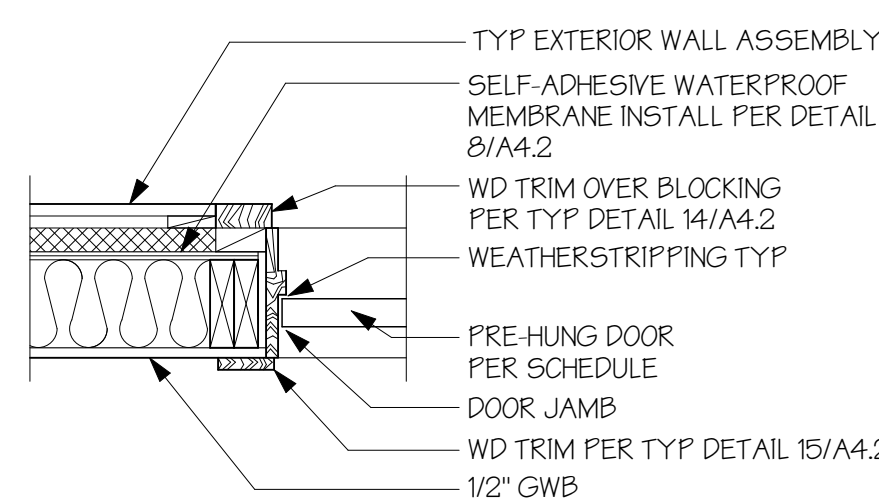


3 TYP WINDOW SILL
1" = 1'-0"

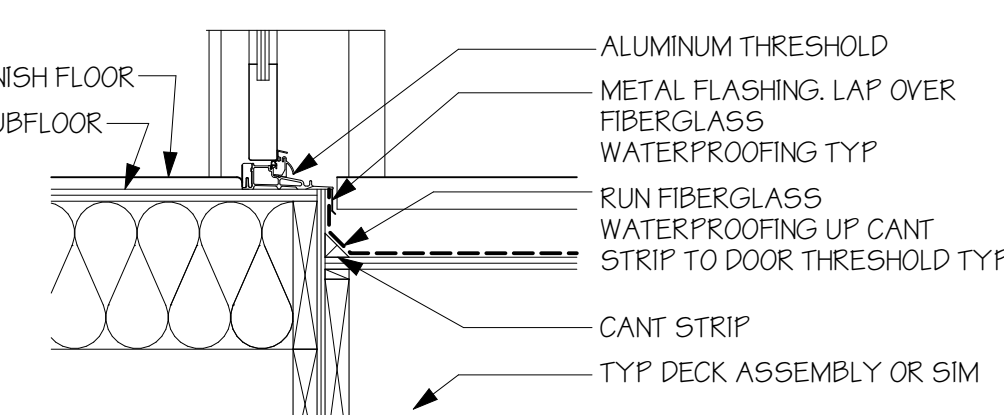
TYPICAL WINDOW NOTE:
1. INSTALL BACKER ROD AND/OR FOAM INSULATION @ ANY GAP BETWEEN WINDOW AND ROUGH FRAME, TYP



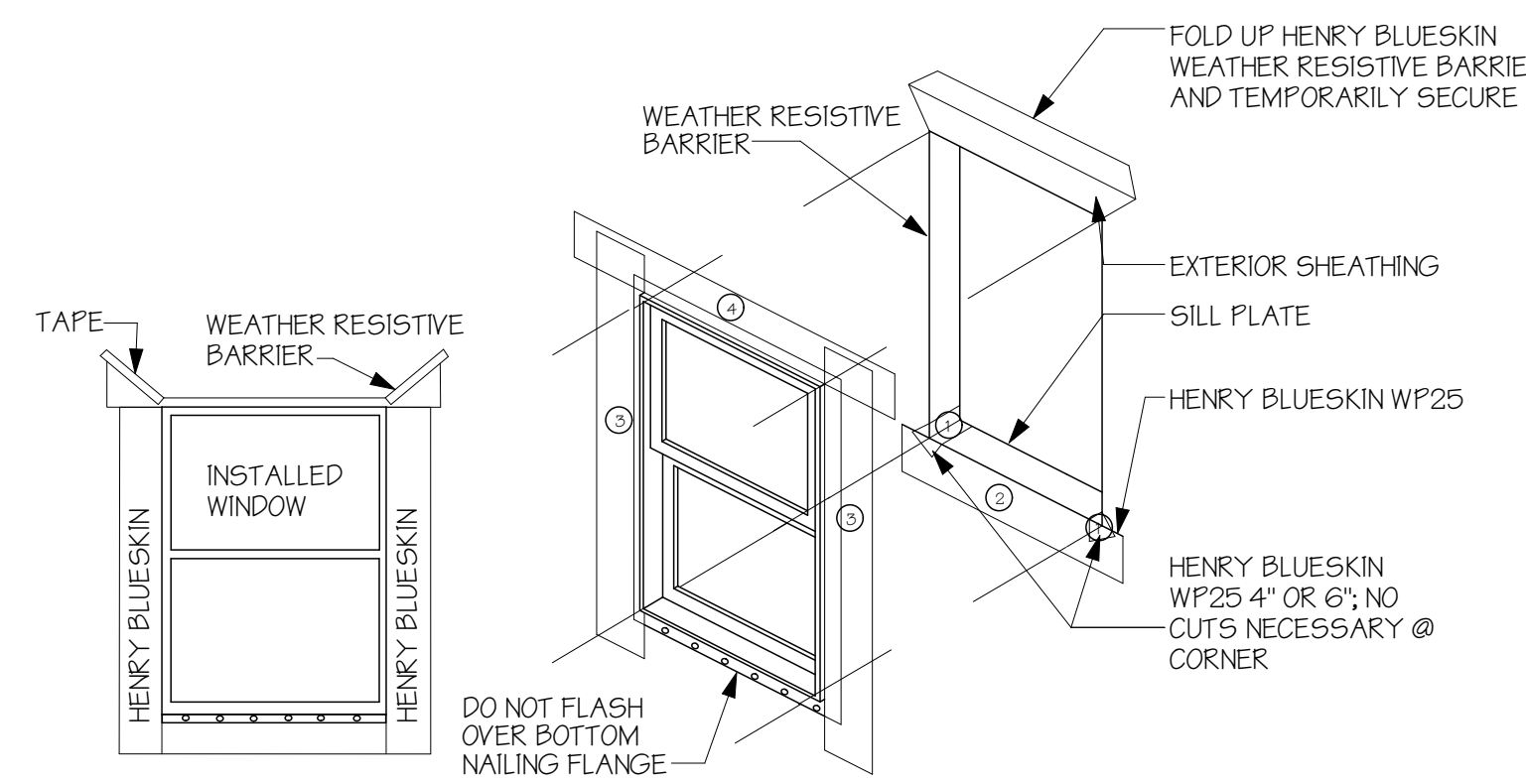
4 TYP EXTERIOR DOOR HEAD
1" = 1'-0"



5 TYP EXTERIOR DOOR JAMB
1" = 1'-0"

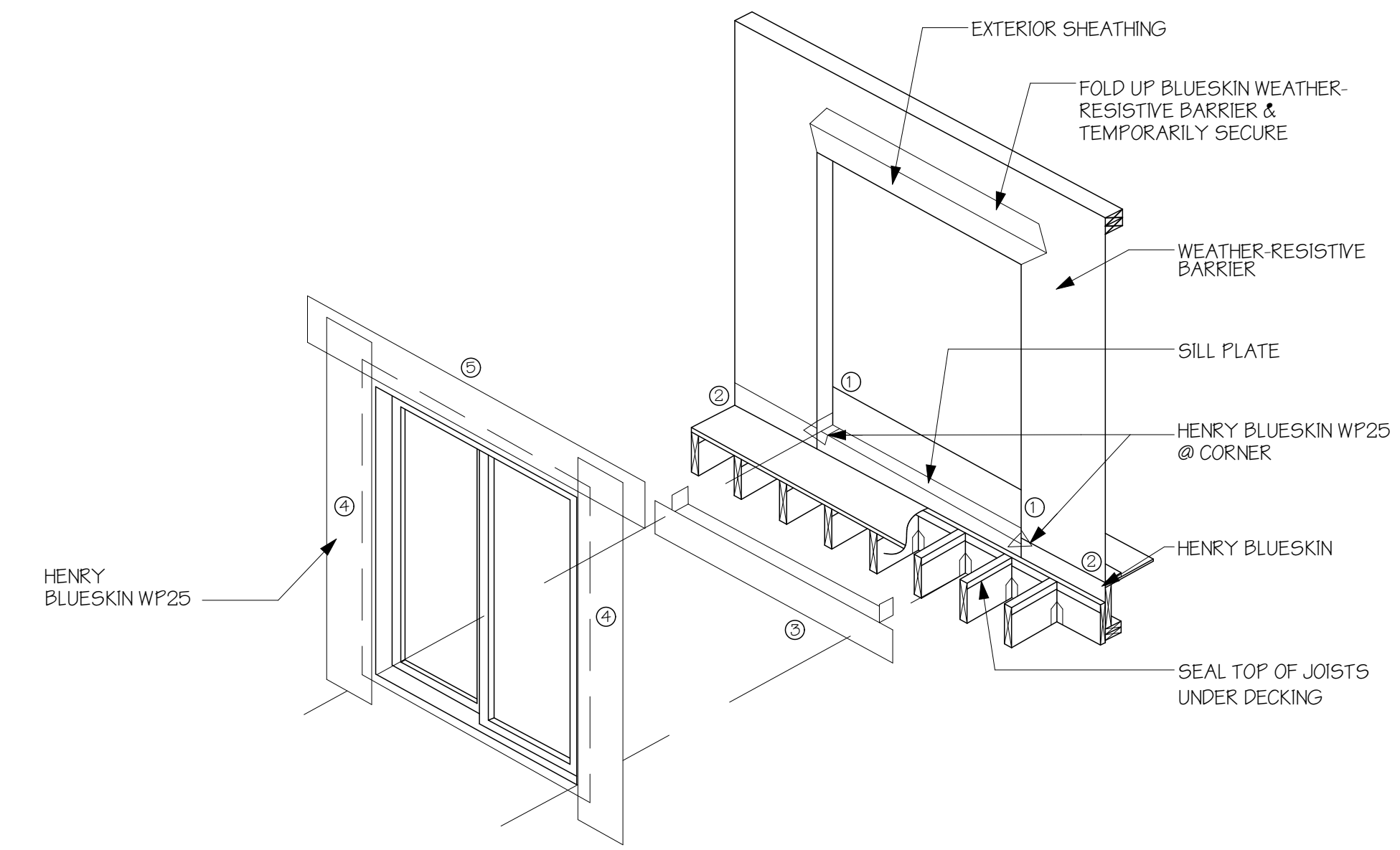


6 TYP DOOR THRESHOLD
1" = 1'-0"



- WINDOW FLASHING**
- CUT THE BLUESKIN FLUSH WITH THE ROUGH OPENING
 - CUT THE BLUESKIN AT 45 DEGREE ANGLE TO A POINT 9\"/>
 - FOLD UP BLUESKIN FLAP AT HEAD AND TEMPORARILY SECURE WITH TAPE
 - CUT BLUESKIN WP25 (4\"/>
 - FOLD BLUESKIN WP25 ALONG THE SPLIT BACKING PAPER
 - SLIDE INTO CORNER
 - PEEL OFF ONE BACKING STRIP AFTER ANOTHER AND PRESS ON FIRMLY
 - STARTING AT THE CORNER, SPREAD THE LOOSE END OF THE BLUESKIN WP25 GRADUALLY ONTO THE WALL FACE
 - USE BOTH THUMBS FOR A UNIFORM APPLICATION AND PRESS ON FIRMLY
 - REPEAT STEPS 8 AND 9 TO SEAL ALL CORNERS
 - CUT BLUESKIN WP25 6\"/>
 - PEEL OFF SECOND BACKING PAPER AND SEAL ONTO THE WALL FACE/FAÇADE AND PRESS ON FIRMLY
 - REPEAT STEPS 11-14 TO SEAL ALL EDGES OF THE RO: SILL, JAMBS, AND HEAD
 - INSTALL THE WINDOW ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS, UNLESS SPECIFIED, SEALANT IS NOT REQUIRED BEHIND THE NAIL FLANGE
 - USE BLUESKIN WP25 4\"/>
 - BOTTOM FLANGE REMAINS UNTAPED JAMB FLASHING EXTENDS 2\"/>
 - HEAD FLASHING EXTENDS 1\"/>
 - DRAP THE BLUESKIN FLAP OVER THE HEAD FLASHING
 - SEAL THE 45 DEGREE CUTS WITH BLUESKIN

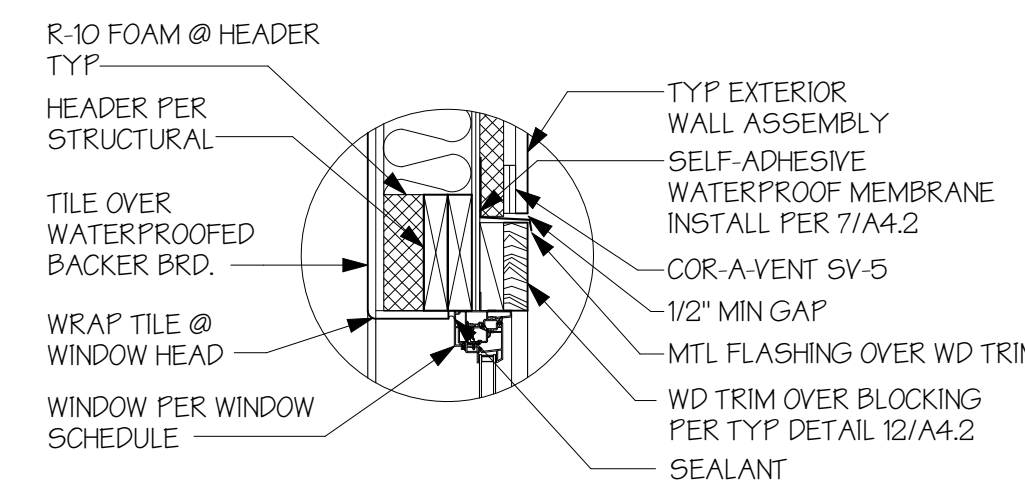
7 HENRY BLUESKIN WP25 FLASHING DTL
N.T.S.



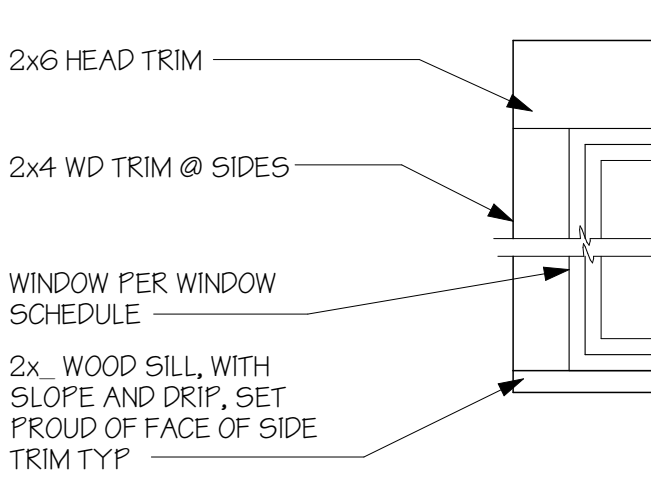
- TIE-IN WITH WEATHER RESISTIVE BARRIER INSTRUCTIONS
- INTEGRATE INSTALLATION OF HENRY BLUESKIN WEATHER-RESISTIVE BARRIER WITH HENRY BLUESKIN WP25 TO FORM WATER SHEDDING LAP'S
 - SCORE AND FOLD WEATHER-RESISTIVE BARRIER ABOVE HEADER TO ALLOW FOR HENRY BLUESKIN WP25 INSTALLATION
 - INSTALL HENRY BLUESKIN WP25 HEAD FLASHING UNDER WEATHER-RESISTIVE BARRIER
 - FOLD WEATHER-RESISTIVE BARRIER BACK OVER HEAD FLASHING AND SEAL WITH HENRY BLUESKIN TAPE

NOTES:
1. VISIT RESIDENTIAL.HENRY.COM FOR THE MOST CURRENT DETAILS, INSTALLATION VIDEOS AND PRODUCT DATA SHEETS
2. INSTALL HENRY BLUESKIN WP25 IN ORDER AS SHOWN BY NUMBERS

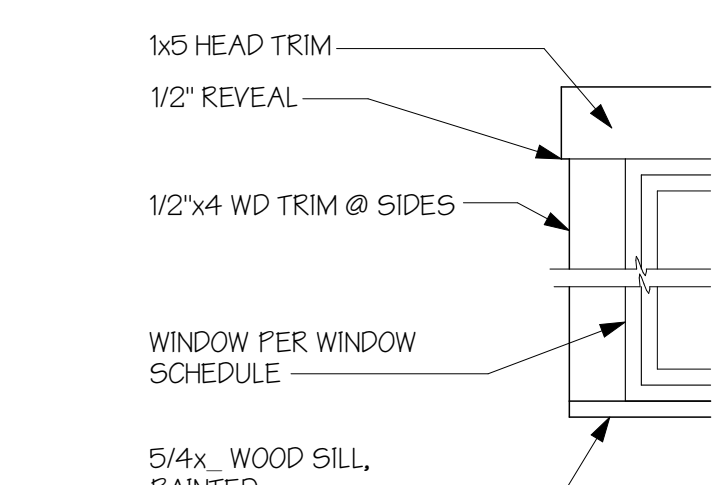
8 HENRY BLUESKIN WP25 FLASHING DTL @ EXTERIOR
N.T.S.



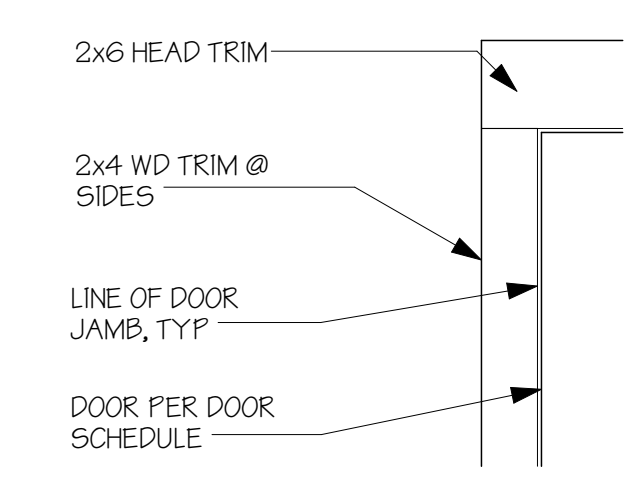
9 TYP WNDW HEAD @ SHOWER
1" = 1'-0"



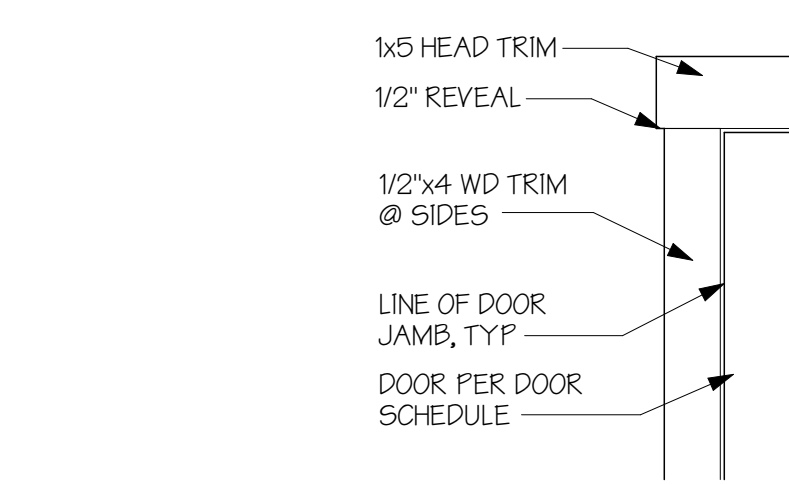
12 TYP EXT. WNDW TRIM
1" = 1'-0"



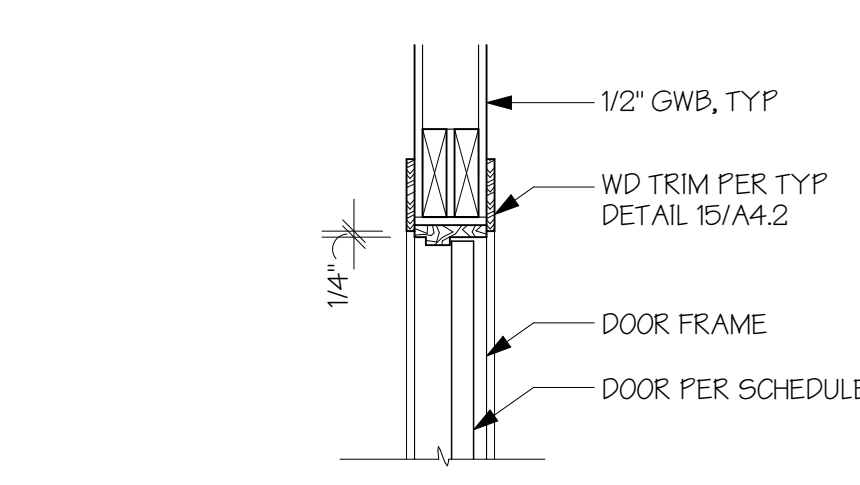
13 TYP INT. WNDW TRIM
1" = 1'-0"



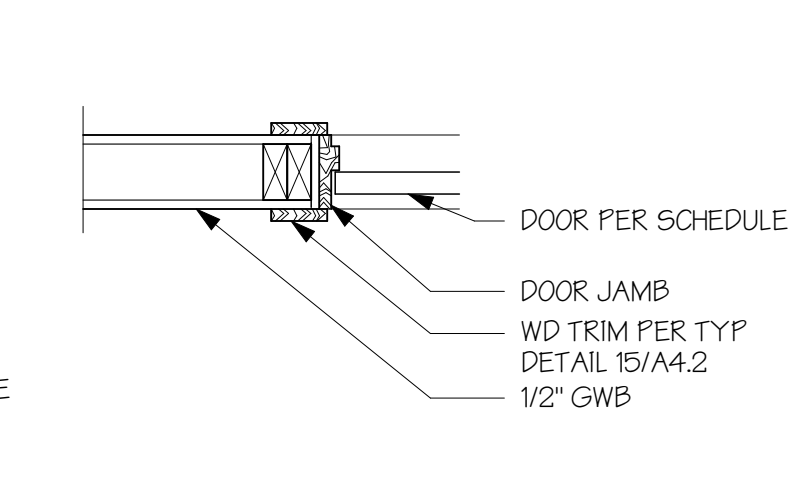
14 TYP EXT. DOOR TRIM
1" = 1'-0"



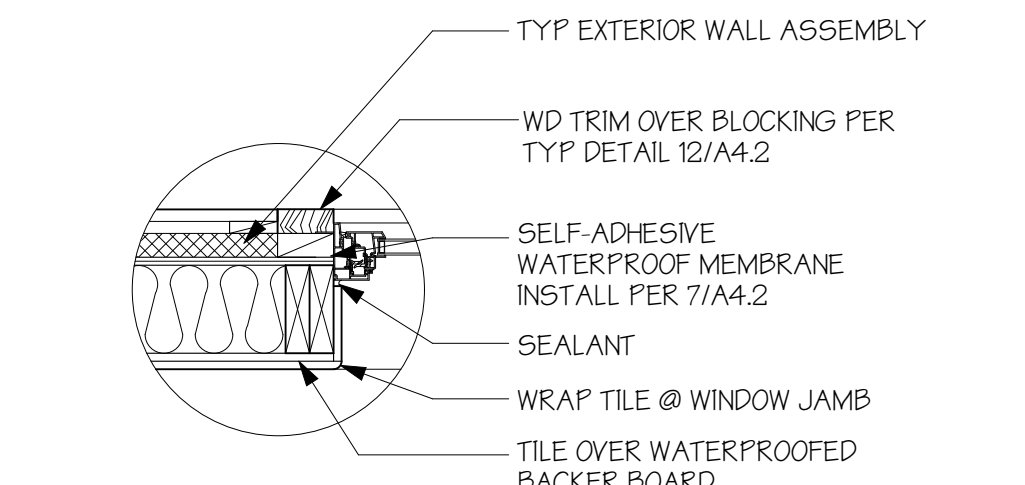
15 TYP INT. DOOR TRIM
1" = 1'-0"



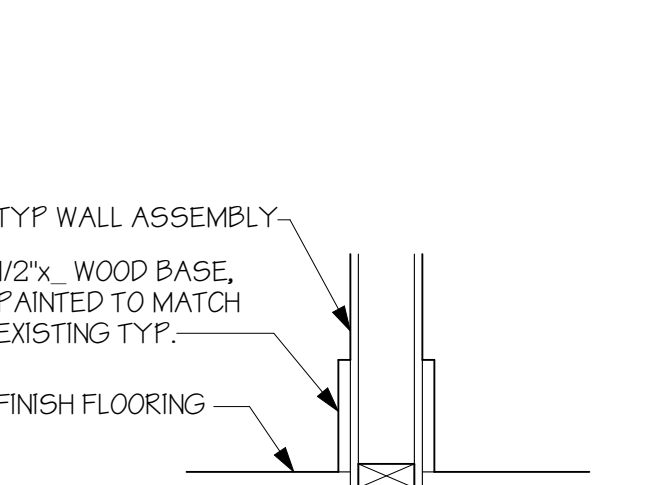
16 TYP INT DOOR HEAD
1" = 1'-0"



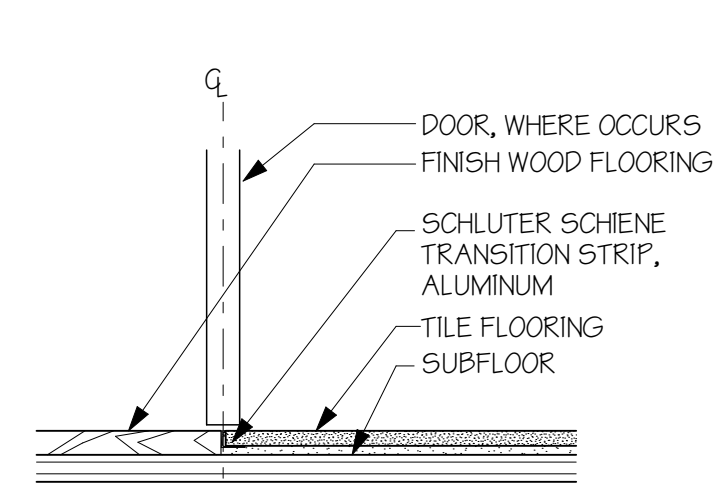
17 TYP INT DOOR JAMB
1" = 1'-0"



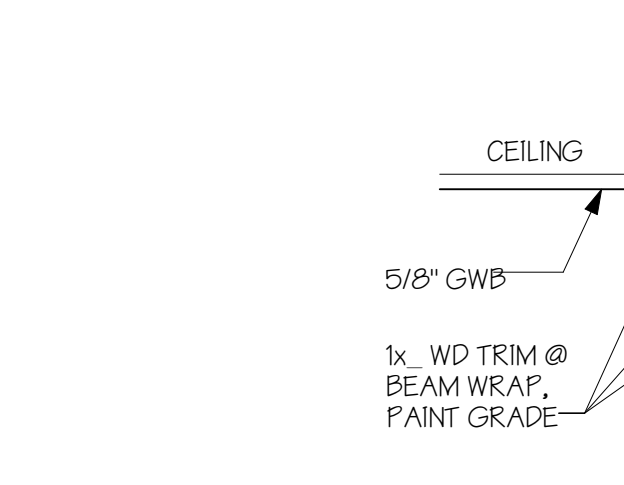
10 TYP WNDW JAMB @ SHOWER
1" = 1'-0"



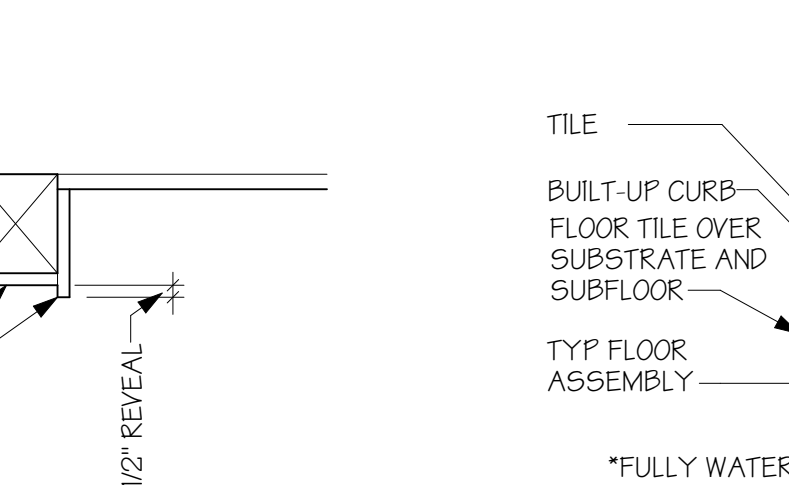
18 TYP WD BASE DTL
3/4" = 1'-0"



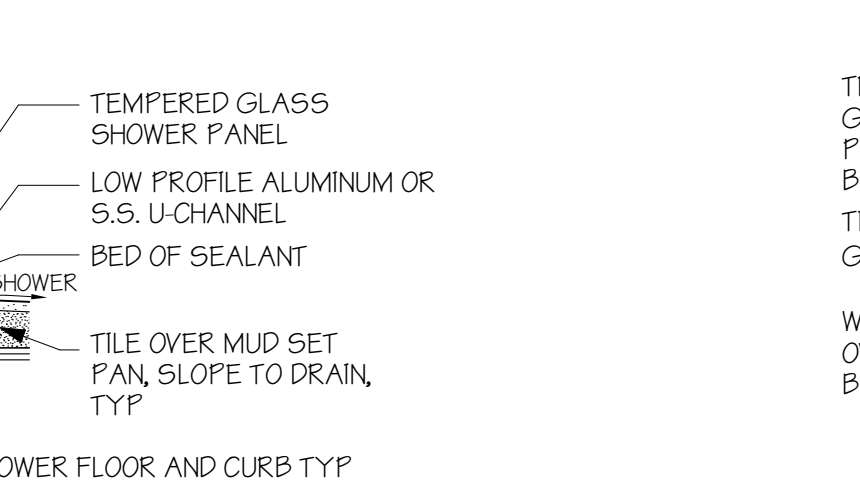
19 TYP WD TO TILE TRANSITION
1-1/2" = 1'-0"



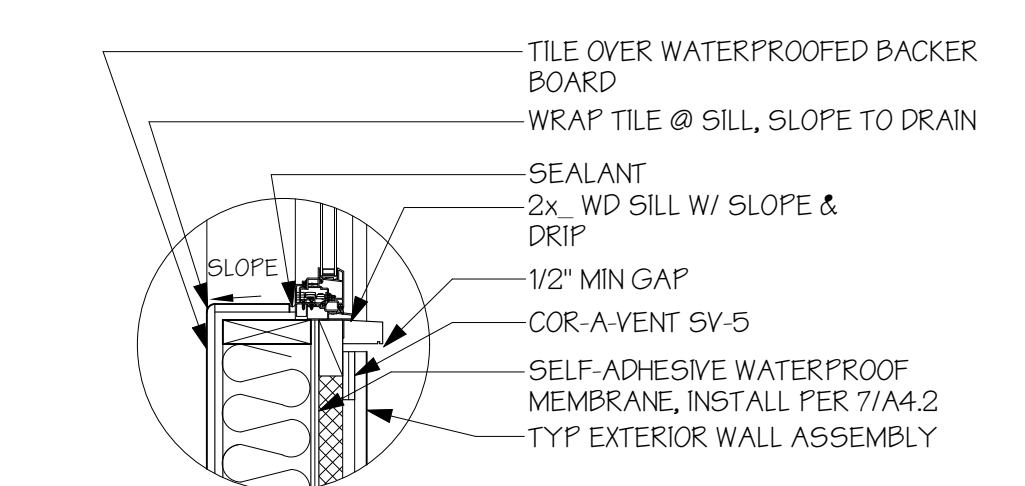
20 TYP BOX BEAM DETAIL
1-1/2" = 1'-0"



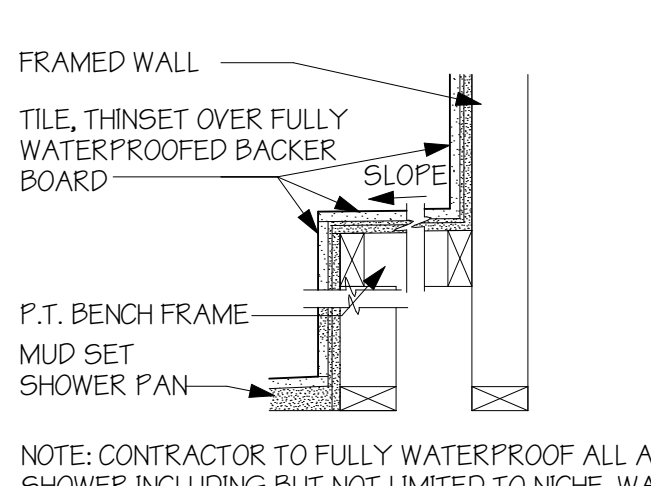
21 TYP U-CHANNEL DTL @ CURB
1" = 1'-0"



22 TYP U-CHANNEL @ WALL
1" = 1'-0" PLAN VIEW



11 TYP WNDW SILL @ SHOWER
1" = 1'-0"



23 TYP BENCH DTL - SECTION
1-1/2" = 1'-0"

NOTE: CONTRACTOR TO FULLY WATERPROOF ALL AREAS OF SHOWER INCLUDING BUT NOT LIMITED TO NICHE, WALLS, SHOWER PAN, AND CURB

WERELIUS RESIDENCE
8452 NORTH MERCER WAY
MERCER ISLAND WA 98040

9716 REGISTERED ARCHITECT
Heidi M. Kelly
HEIDI MICHELLE HELGESSON
STATE OF WASHINGTON



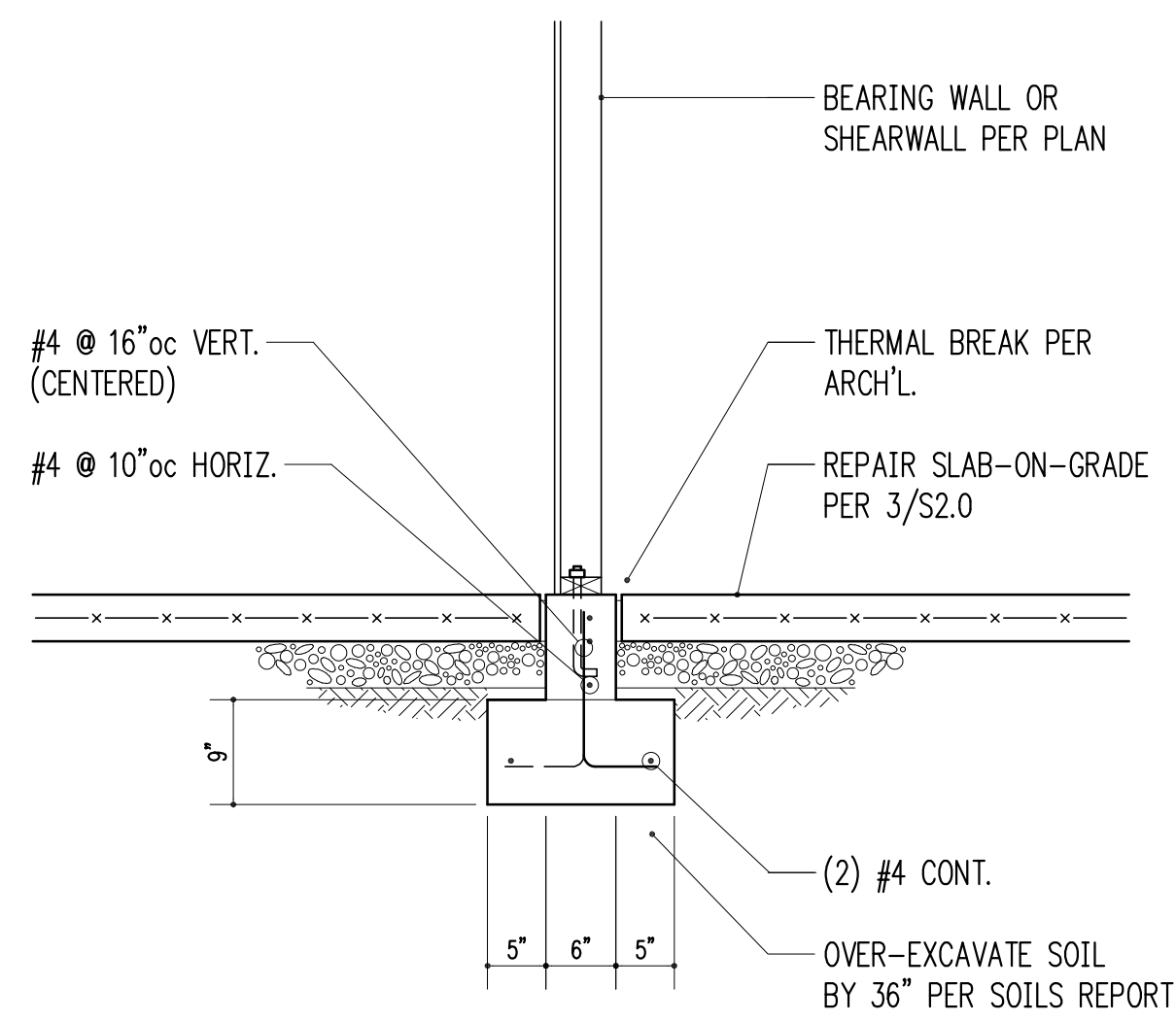
H 2 D ARCHITECTURE + DESIGN
23020 EDMONDS WAY, #113 EDMONDS, WA 98020
P. 206.542.3734
www.h2darchitects.com

DATE: 7/26/2019
REVISED: 5/14/2020

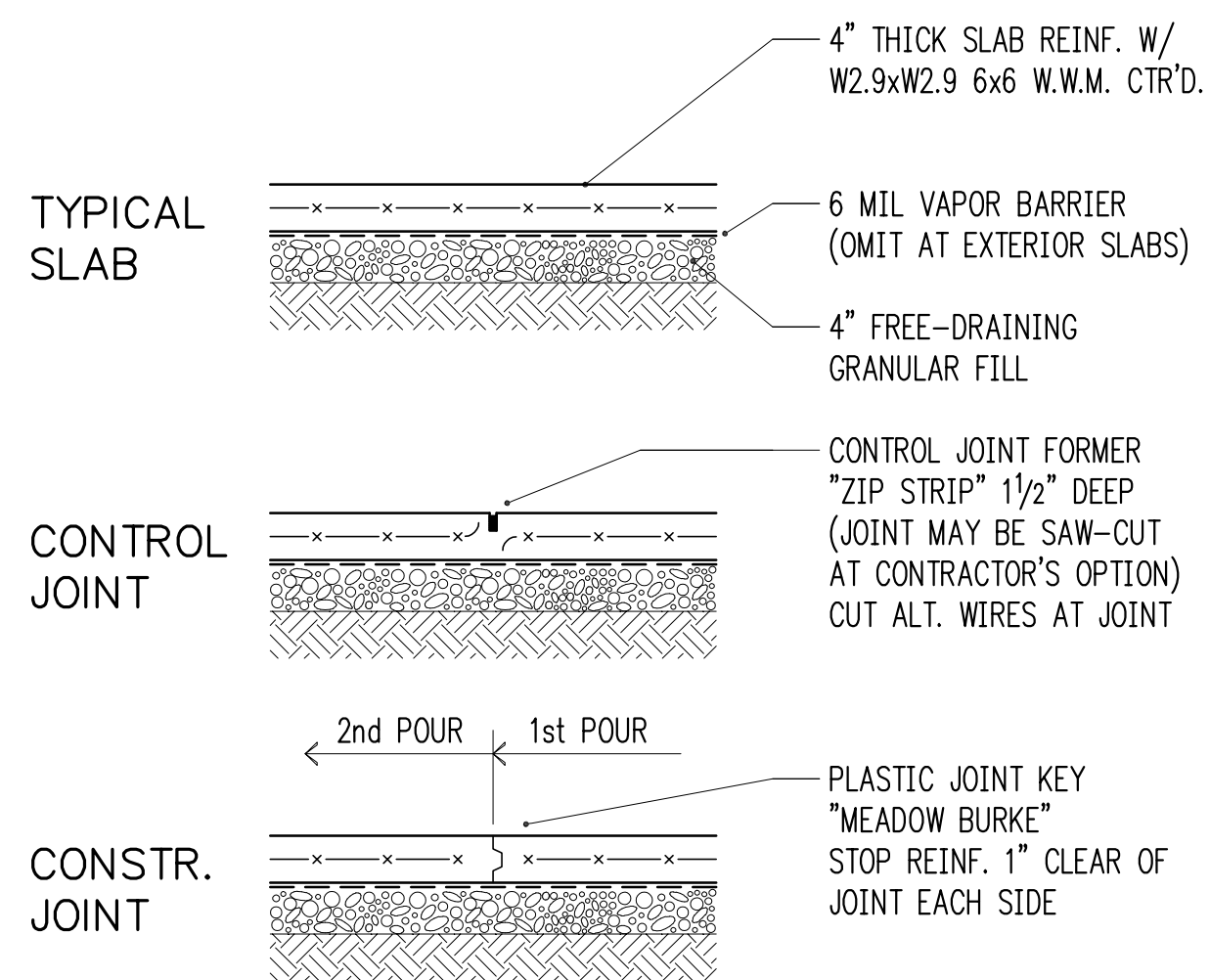
PERMIT SET

TYP. DETAILS

A4.2

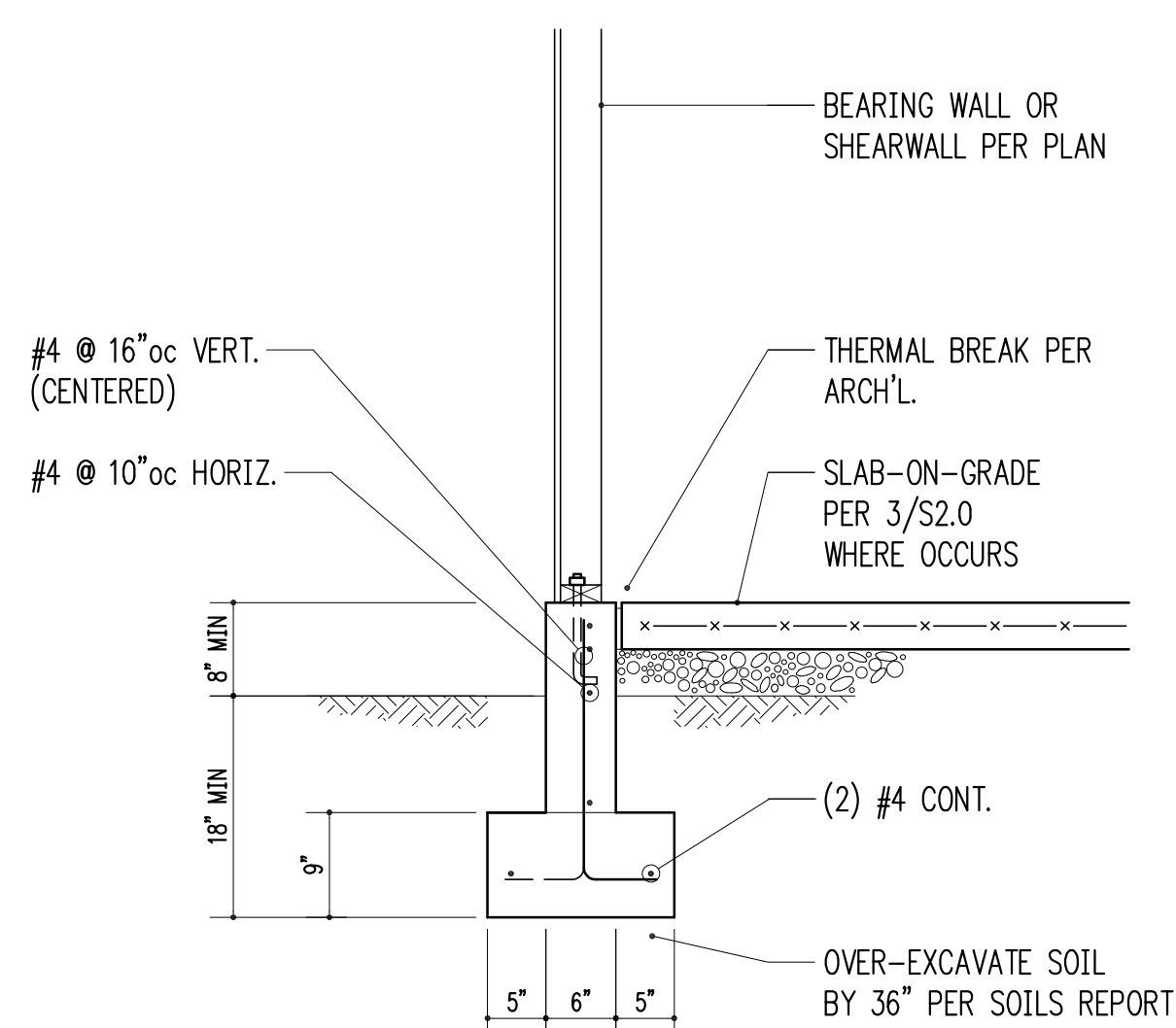


3/4" = 1'-0" 2

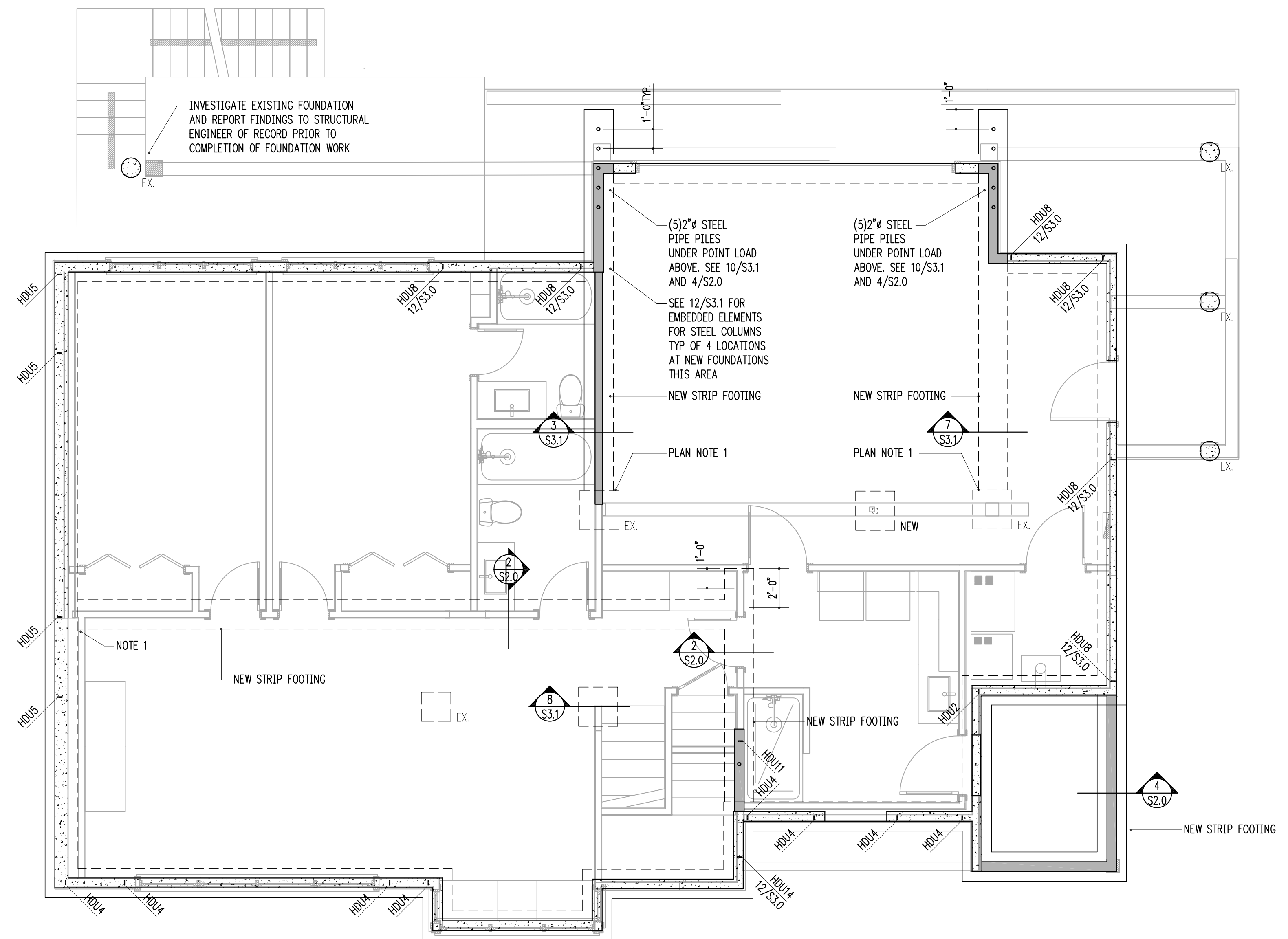


SLAB-ON-GRADE (NOT INSULATED)

3/4" = 1'-0" 3



3/4" = 1'-0" 4



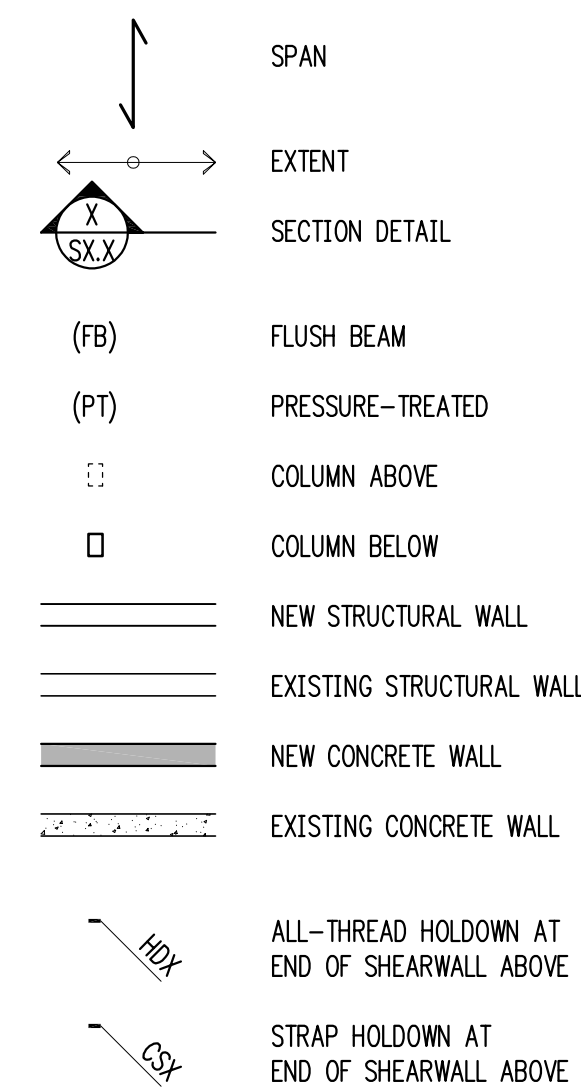
FOUNDATION PLAN
scale: 1/4" = 1'-0"

HANGER SCHEDULE

MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
2x10 or 2x12	LUS210	10d COMMON	1275 lb
(2)2x10	HUS210-2	0.162x3/2	2110 lb
4x10	HUC410	0.162x3/2	2680 lb
11 7/8" TJI 560	IUS3.56/11.88	10d COMMON	1405 lb
(2) 1 3/4"x9/4 LVL	HUC410	0.162x3/2	2680 lb

NOTE!! EXISTING FRAMING MEMBERS AS INDICATED ON THIS PLAN ARE ASSUMED FOR DESIGN PURPOSES ONLY. HARRIOTT VALENTINE ENGINEERS SHALL NOT BE HELD LIABLE FOR LOCATION/ SIZE OF EXISTING MEMBERS AS CALLED ON THIS PLAN. EXISTING MEMBERS SHALL BE VERIFIED AND REPORTED TO STRUCTURAL ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

LEGEND



FOUNDATION PLAN NOTES

- WHERE NEW CONCRETE WALLS OR FOOTING ABUT EX. CONCRETE, PROVIDE DOWELS #4 x 2'-0" TO MATCH HORIZ. REINFORCING, EMBED 5" IN EPOXY GROUT.
- SEE 10/S4.0 FOR TYPICAL HOLD-DOWN REQUIREMENTS AT CONCRETE WALLS AND FOOTINGS.
- SLAB-ON-GRADE SHALL BE PLACED AND CURED FOR A MINIMUM OF SEVEN DAYS BEFORE RETAINING WALLS ARE BACKFILLED. SEE RETAINING WALL DETAILS FOR SPECIFIC CONFIGURATION.
- SEE 11/S3.0 FOR CORNER REINFORCING AT NEW CONCRETE STEMS AND FOOTINGS

HV

Harrriott Valentine Engineers Inc.
1932 First Avenue, Suite 720
Seattle, Washington 98101-2447
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Mercer Island, WA 98040

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4/17/20	Construction
4/24/20	Trellis Revisions

Building Department Approval

Drawing Title
FOUNDATION PLAN

Drawing Number

S2.0

WERELIUS RESIDENCE



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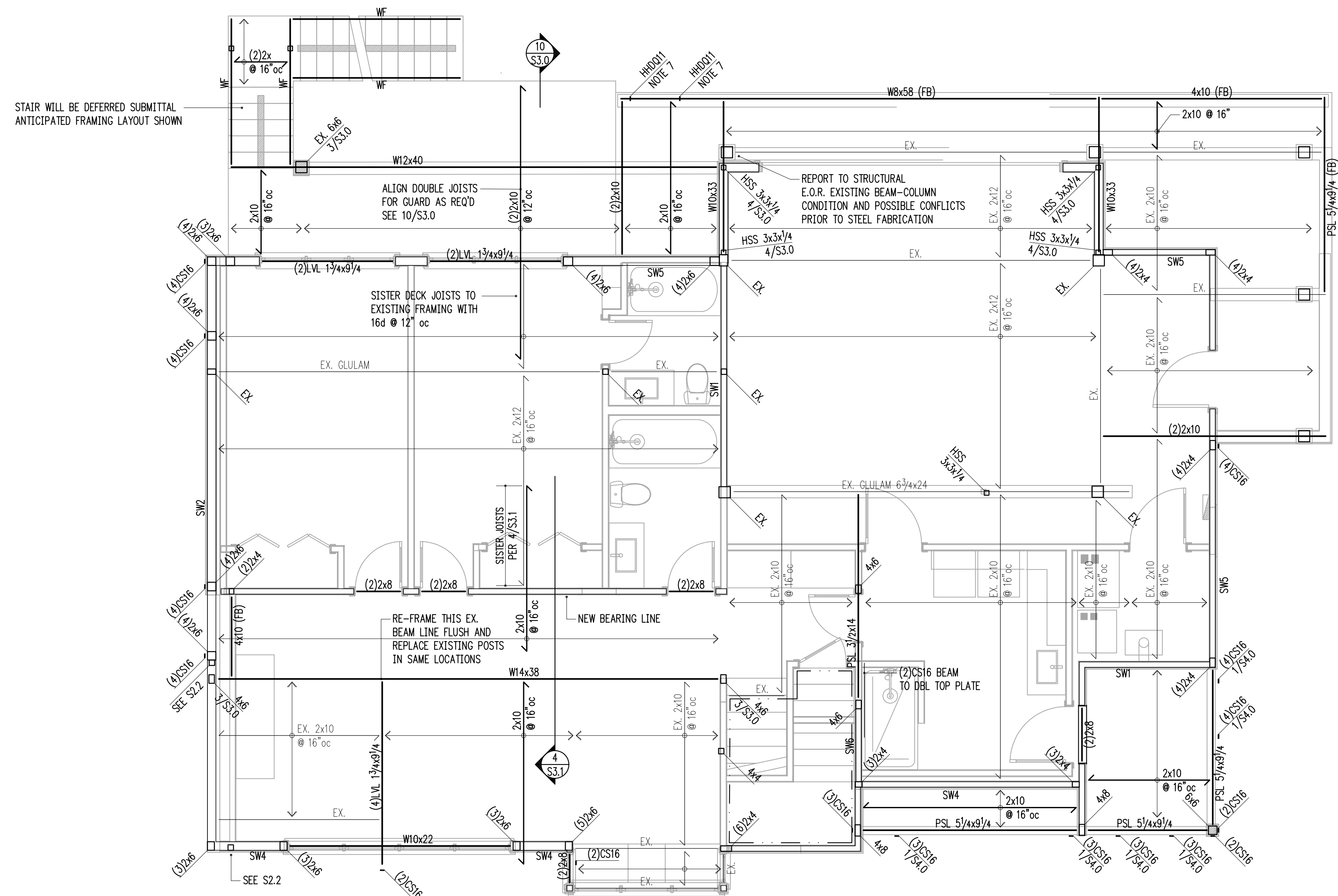
Building Department Approval

Drawing Title
MAIN FLOOR FRAMING PLAN

Drawing Number

S2.1

WERELIUS RESIDENCE



STAIR WILL BE DEFERRED SUBMITTAL ANTICIPATED FRAMING LAYOUT SHOWN

3/4" = 1'-0" 2

3/4" = 1'-0" 3

1-1/2" = 1'-0" 4

1 MAIN FLOOR FRAMING PLAN (BASEMENT WALLS)
S2.1 scale: 1/4" = 1'-0"

HANGER SCHEDULE

MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
2x10 or 2x12	LUS210	10d COMMON	1275 lb
(2)2x10	HUS210-2	0.162x3/2	2110 lb
4x10	HUC410	0.162x3/2	2680 lb
11 7/8" TJI 560	IUS3.56/11.88	10d COMMON	1405 lb
(2) 1 3/4x9 1/4 LVL	HUC410	0.162x3/2	2680 lb

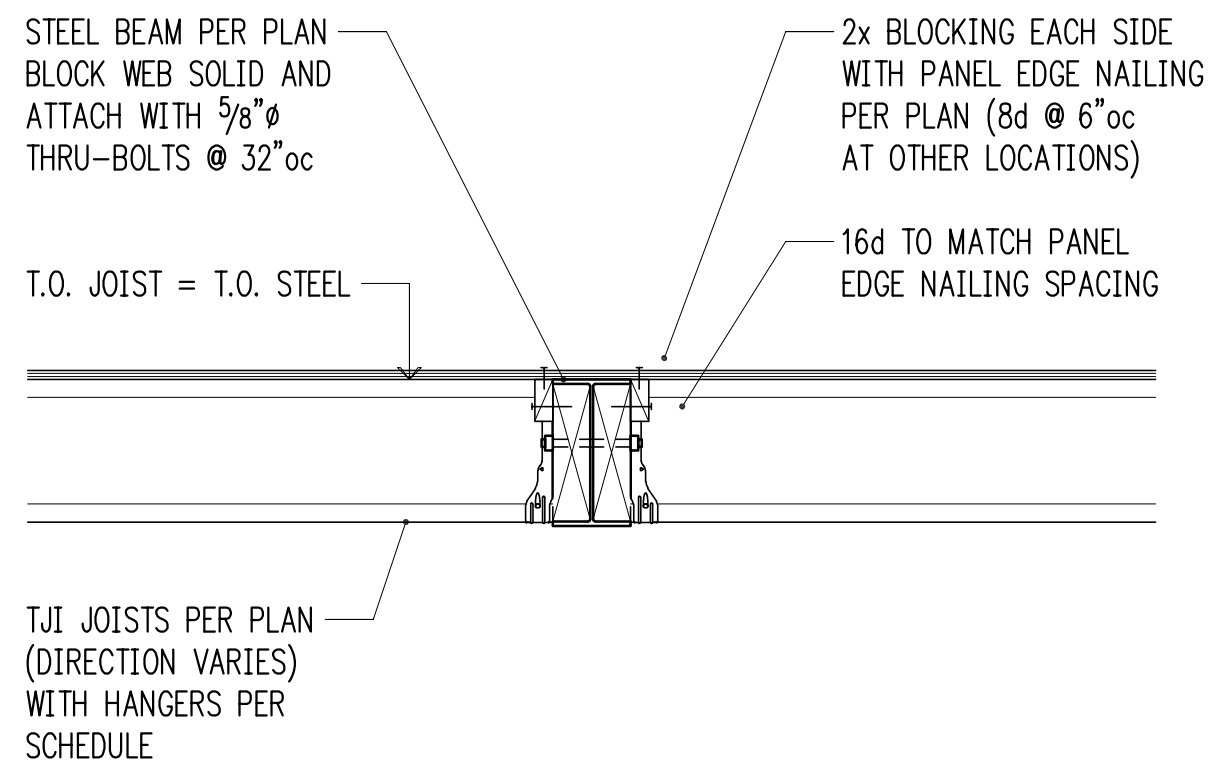
NOTE! EXISTING FRAMING MEMBERS AS INDICATED ON THIS PLAN ARE ASSUMED FOR DESIGN PURPOSES ONLY. HARRIOTT VALENTINE ENGINEERS SHALL NOT BE HELD LIABLE FOR LOCATION/ SIZE OF EXISTING MEMBERS AS CALLED ON THIS PLAN. EXISTING MEMBERS SHALL BE VERIFIED AND REPORTED TO STRUCTURAL ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

LEGEND

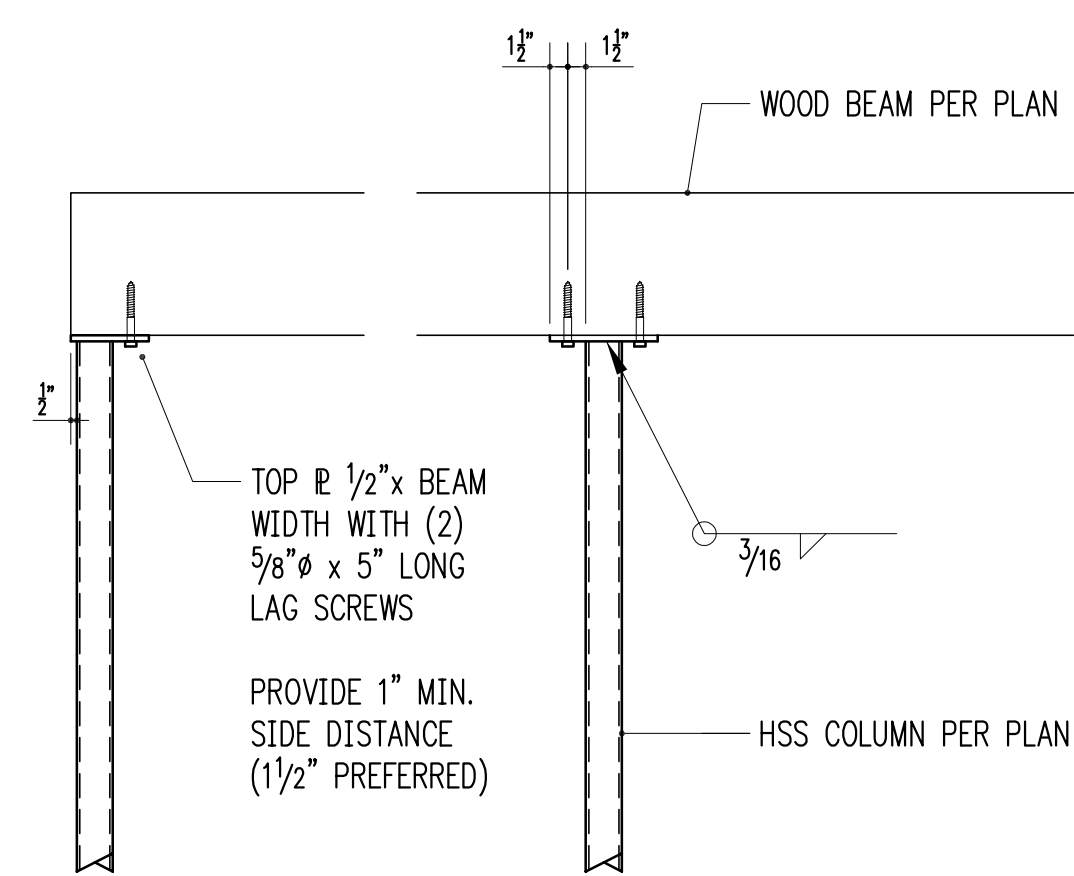
- SPAN
- EXTENT
- SECTION DETAIL
- (FB) FLUSH BEAM
- (PT) PRESSURE-TREATED
- ⋮ COLUMN ABOVE
- COLUMN BELOW
- ▬ NEW STRUCTURAL WALL
- ▬ EXISTING STRUCTURAL WALL
- ▬ NEW CONCRETE WALL
- ▬ EXISTING CONCRETE WALL
- ALL-THREAD HOLDOWN AT END OF SHEARWALL ABOVE
- STRAP HOLDOWN AT END OF SHEARWALL ABOVE

FRAMING PLAN NOTES

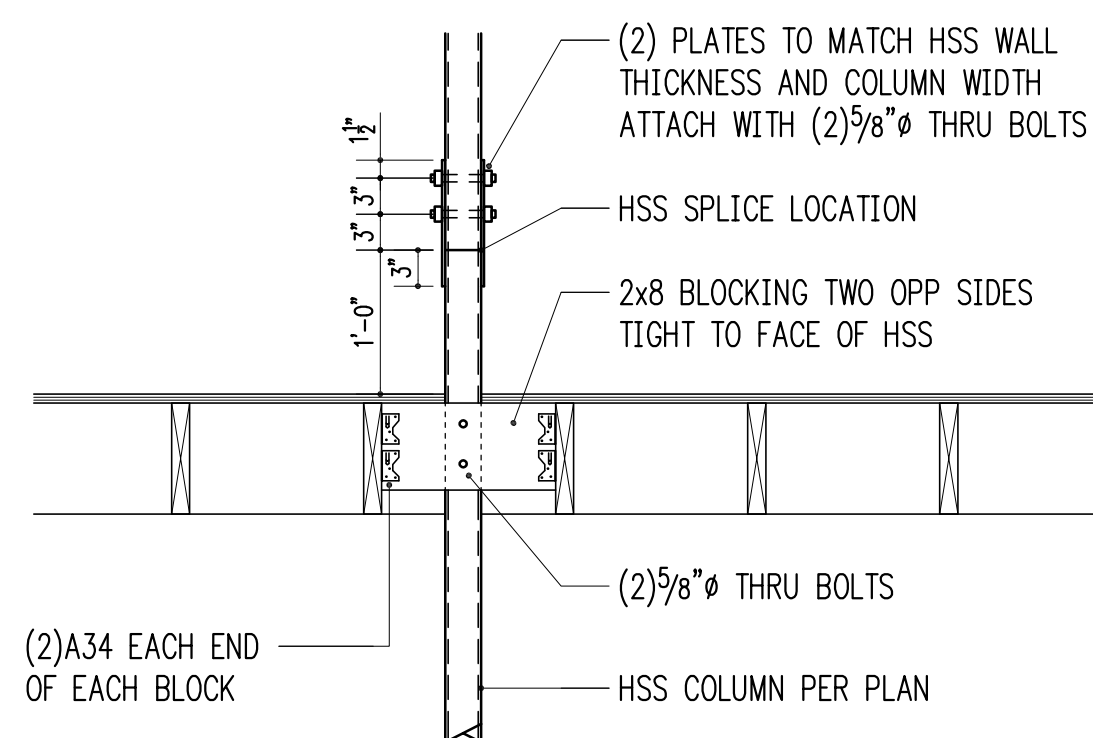
- SW ___ INDICATES SHEARWALL TYPE PER SCHEDULE 8/S4.0. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
- REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
- COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S4.0.
- AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S4.0.
- CS ___ INDICATES COILED STRAP TYPE PER SCHEDULE 6/S4.0. REFER TO DETAILS FOR TYPICAL STRAP ASSEMBLY.
- POSTS □, INCLUDING ENDS OF WALL OPENINGS, SHALL BE (2)2x6 UNLESS NOTED OTHERWISE.
- WELD THREADED RODS FOR HOLD DOWNS AND BOTTOM PLATE ATTACHMENT TO STEEL BEAMS BELOW



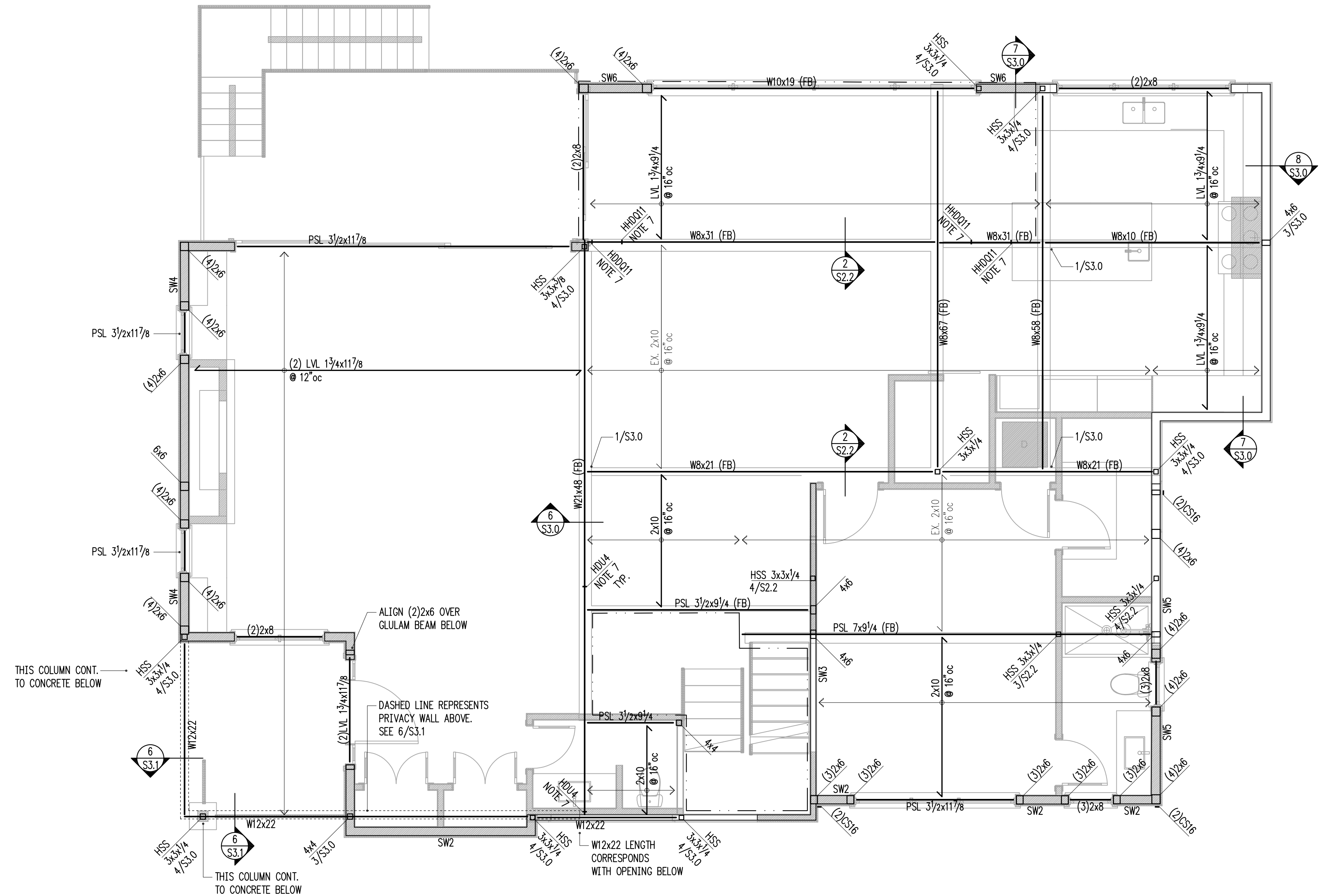
3/4" = 1'-0" 2



WOOD BEAM BEARING ON HSS COLUMN
3/4" = 1'-0" 3



HSS COLUMN SPLICE
3/4" = 1'-0" 4



1 SECOND FLOOR FRAMING PLAN (MAIN FLOOR WALLS)
scale: 1/4" = 1'-0"

HANGER SCHEDULE

MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
2x10 or 2x12	LUS210	10d COMMON	1275 lb
(2)2x10	HUS210-2	0.162x3/2	2110 lb
4x10	HUC410	0.162x3/2	2680 lb
11 7/8" TJI 560	IUS3.56/11.88	10d COMMON	1405 lb
(2) 1 3/4x9/4 LVL	HUC410	0.162x3/2	2680 lb

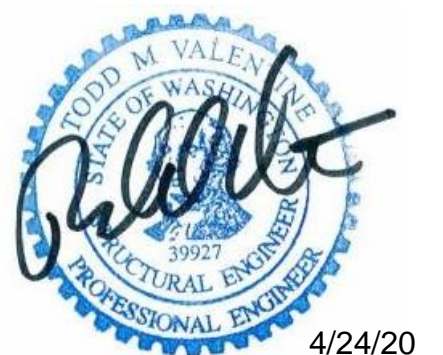
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LEGEND

- SPAN
- EXTENT
- SECTION DETAIL
- (FB) FLUSH BEAM
- (PT) PRESSURE-TREATED
- COLUMN ABOVE
- COLUMN BELOW
- NEW STRUCTURAL WALL
- EXISTING STRUCTURAL WALL
- NEW CONCRETE WALL
- EXISTING CONCRETE WALL
- ALL-THREAD HOLDOWN AT END OF SHEARWALL ABOVE
- STRAP HOLDOWN AT END OF SHEARWALL ABOVE

FRAMING PLAN NOTES

- SW... INDICATES SHEARWALL TYPE PER SCHEDULE 8/S4.0. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
- REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
- COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S4.0.
- AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S4.0.
- CS... INDICATES COILED STRAP TYPE PER SCHEDULE 6/S4.0. REFER TO DETAILS FOR TYPICAL STRAP ASSEMBLY.
- POSTS □, INCLUDING ENDS OF WALL OPENINGS, SHALL BE (2)2x6 UNLESS NOTED OTHERWISE.
- WELD THREADED RODS FOR HOLD DOWNS AND BOTTOM PLATE ATTACHMENT TO STEEL BEAMS BELOW



4/24/20

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4/24/20	Trellis Revisions

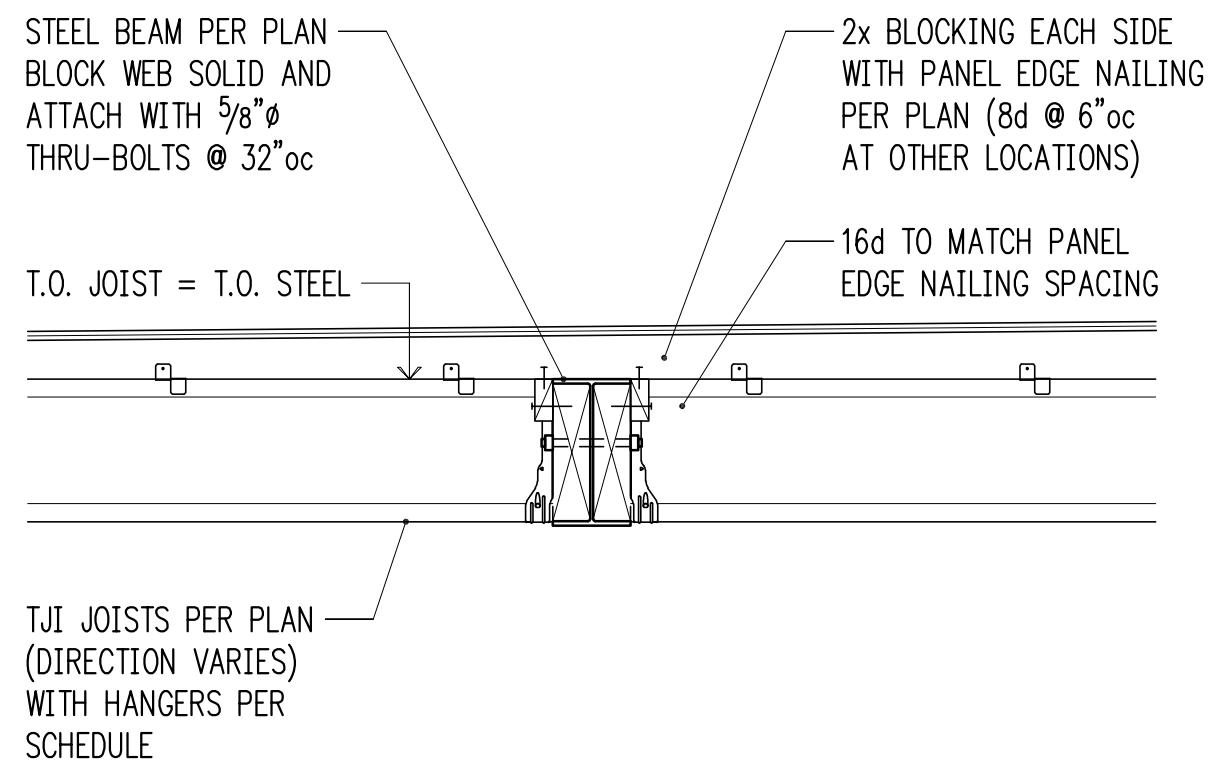
Building Department Approval

Drawing Title
SECOND FLOOR FRAMING PLAN

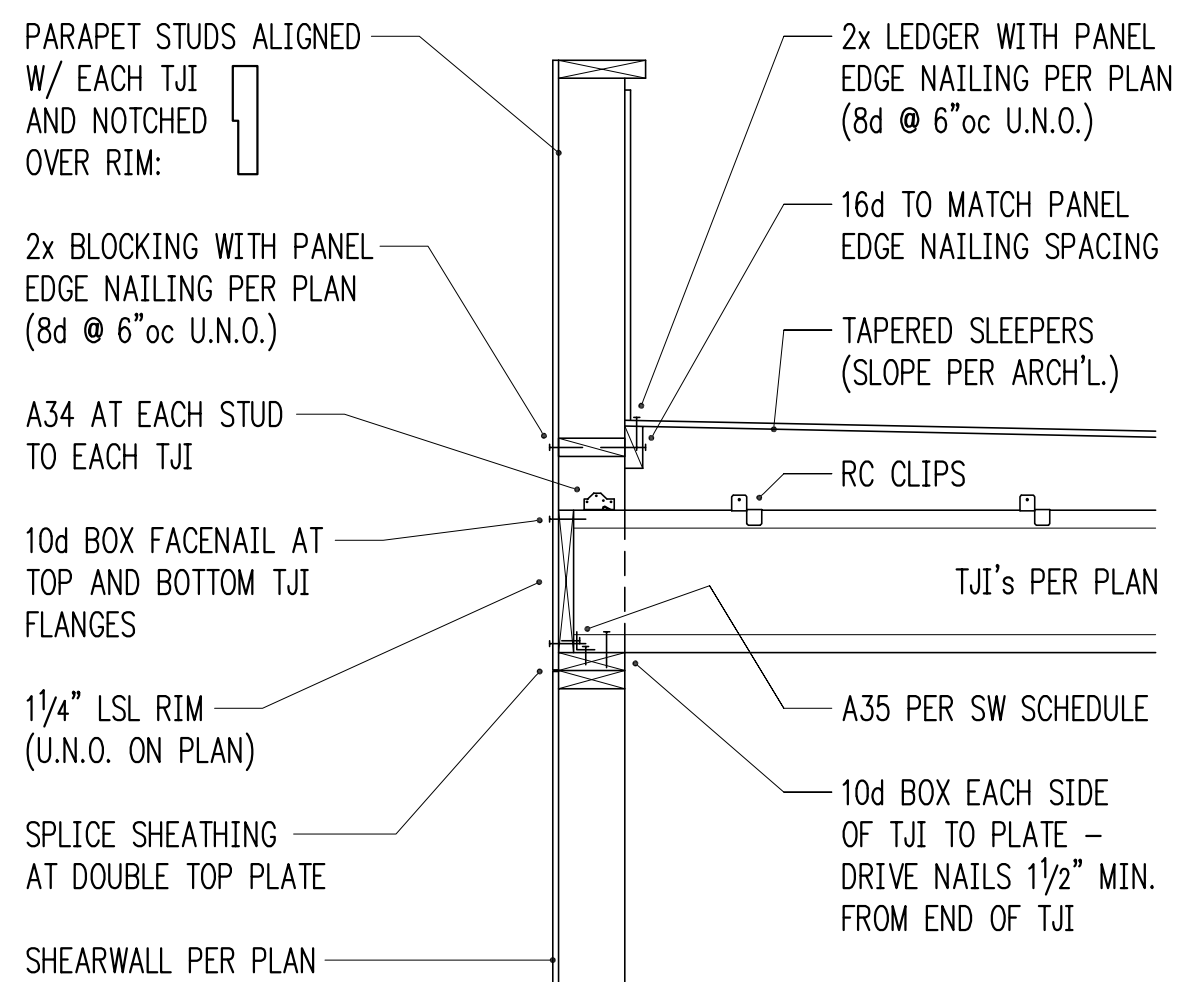
Drawing Number

S2.2

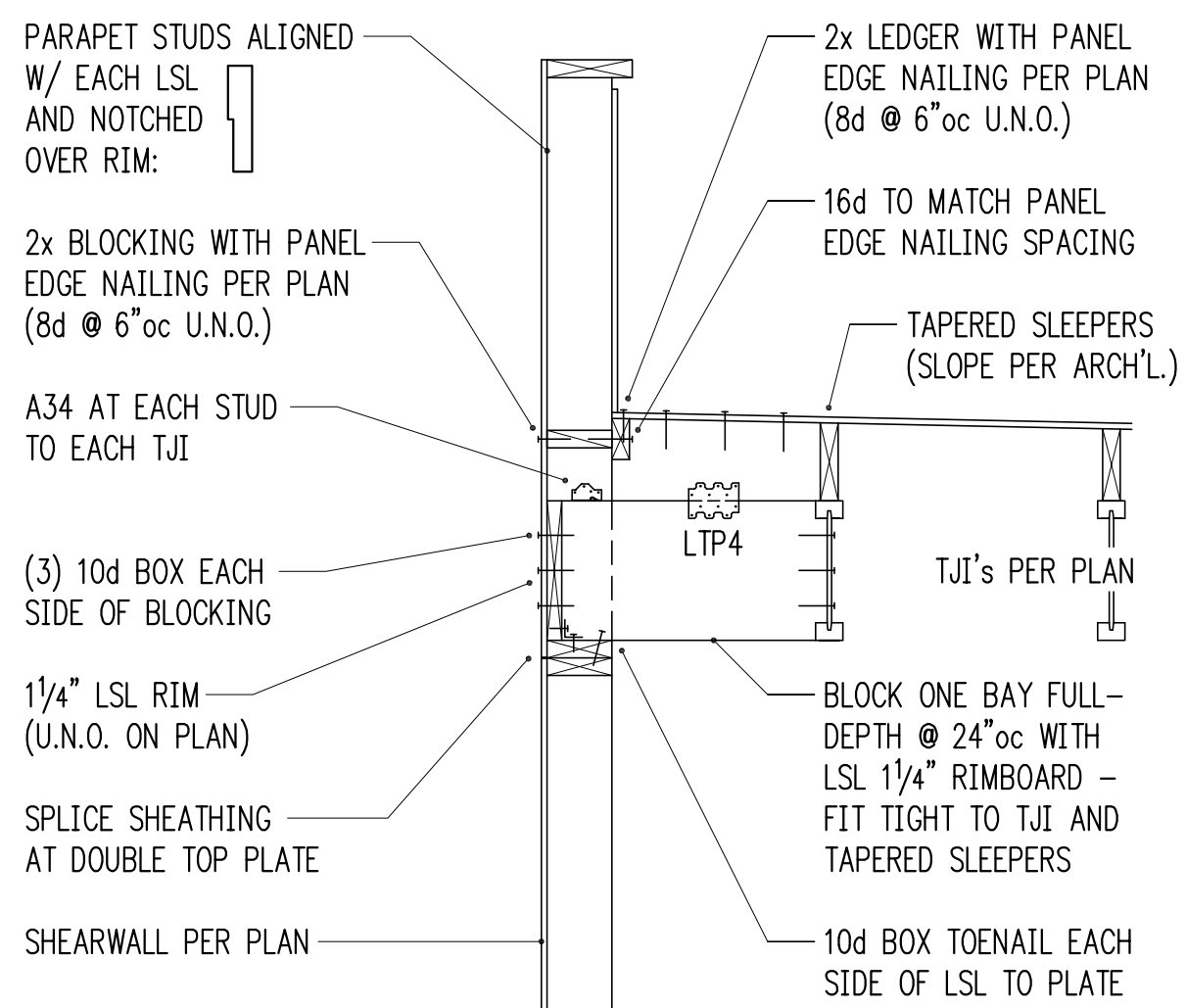
WERELIUS RESIDENCE



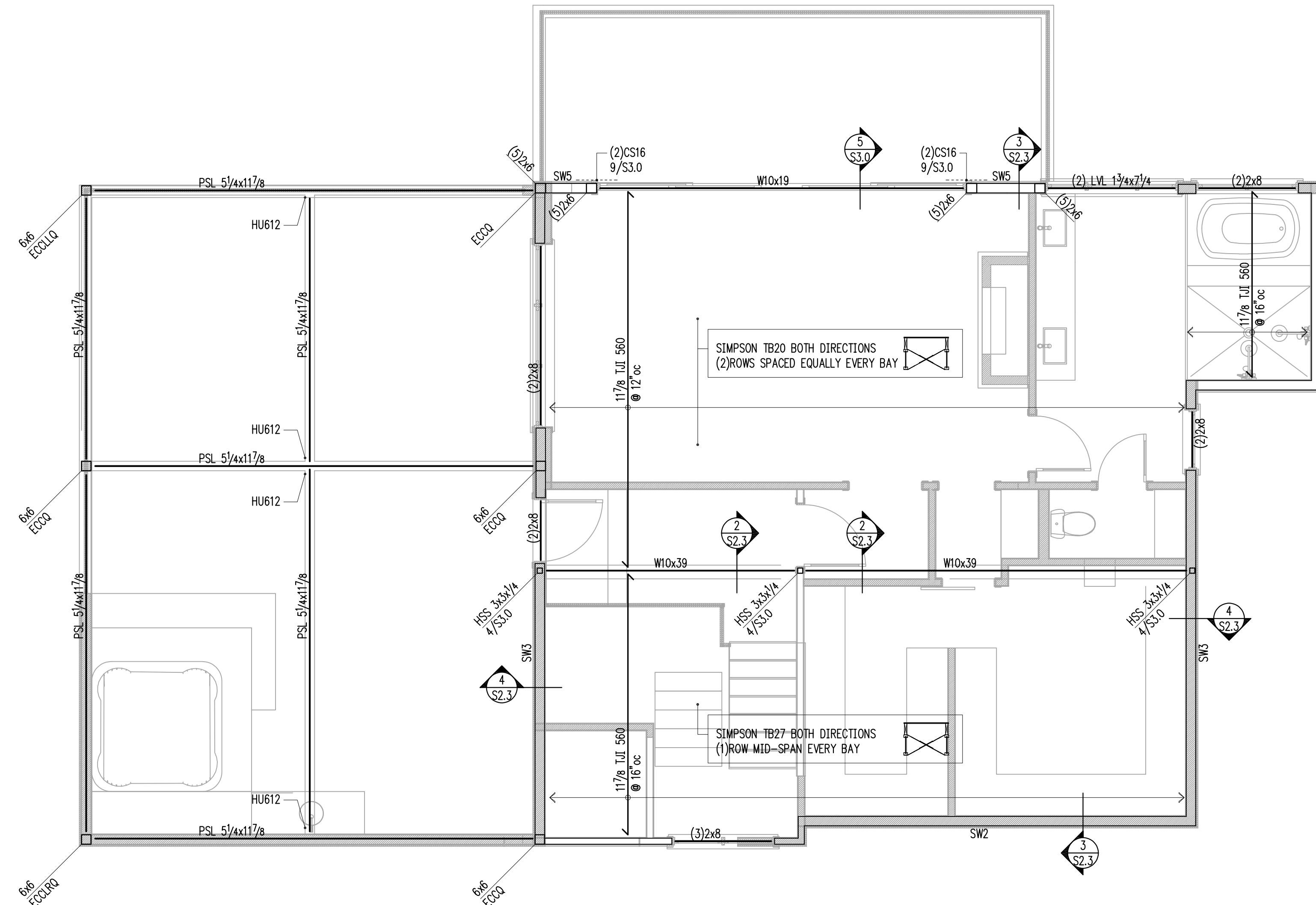
3/4" = 1'-0" 2



3/4" = 1'-0" 3



3/4" = 1'-0" 4



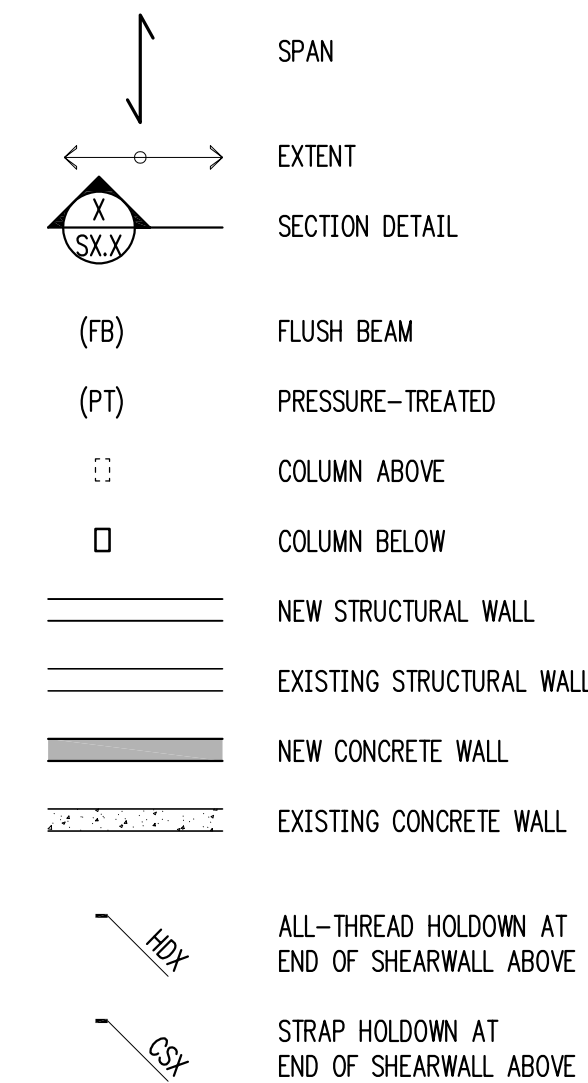
1 ROOF FRAMING PLAN (SECOND FLOOR WALLS)
scale: 1/4" = 1'-0"

HANGER SCHEDULE

MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
2x10 or 2x12	LUS210	10d COMMON	1275 lb
(2)2x10	HUS210-2	0.162x3/2	2110 lb
4x10	HUC410	0.162x3/2	2680 lb
117/8" TJI 560	IUS3.56/11.88	10d COMMON	1405 lb
(2) 13/4x9/4 LVL	HUC410	0.162x3/2	2680 lb

NOTE!! EXISTING FRAMING MEMBERS AS INDICATED ON THIS PLAN ARE ASSUMED FOR DESIGN PURPOSES ONLY. HARRIOTT VALENTINE ENGINEERS SHALL NOT BE HELD LIABLE FOR LOCATION/ SIZE OF EXISTING MEMBERS AS CALLED ON THIS PLAN. EXISTING MEMBERS SHALL BE VERIFIED AND REPORTED TO STRUCTURAL ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

LEGEND



FRAMING PLAN NOTES

- SW ___ INDICATES SHEARWALL TYPE PER SCHEDULE 8/S4.0. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
- REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
- COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S4.0.
- AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S4.0.
- CS___ INDICATES COILED STRAP TYPE PER SCHEDULE 6/S4.0. REFER TO DETAILS FOR TYPICAL STRAP ASSEMBLY.
- POSTS □, INCLUDING ENDS OF WALL OPENINGS, SHALL BE (2)2x6 UNLESS NOTED OTHERWISE.



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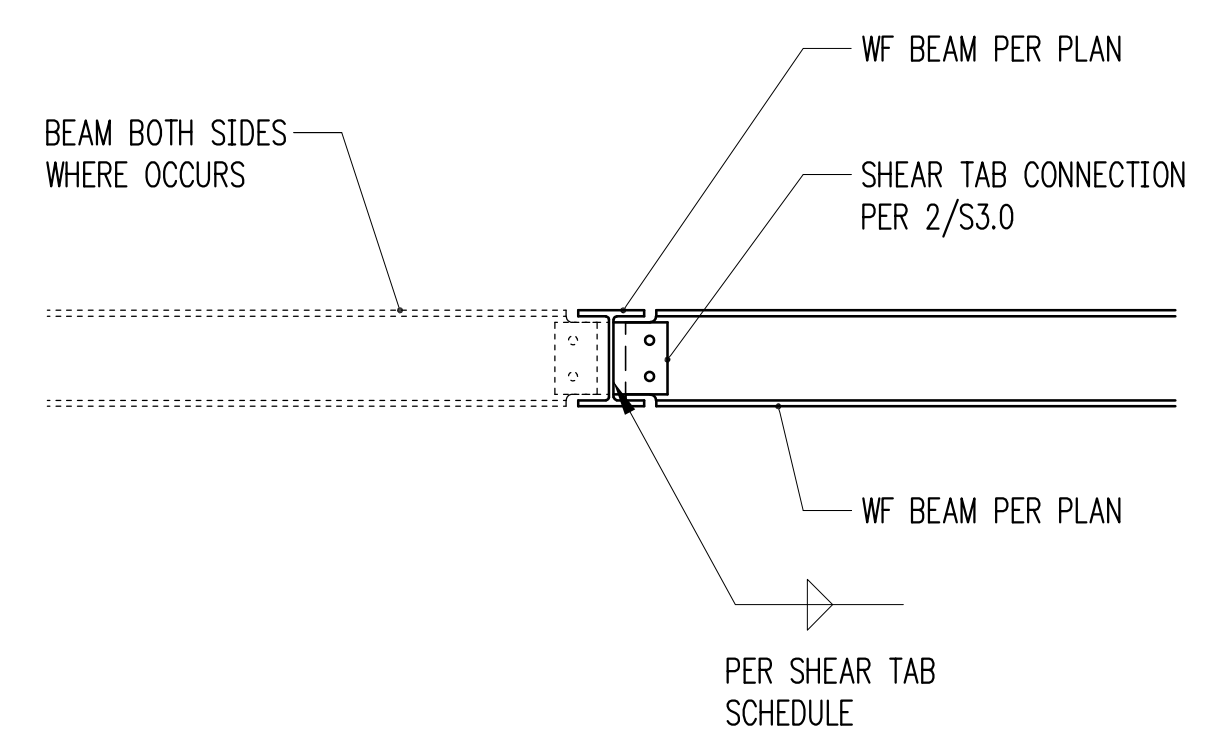
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Building Department Approval

Drawing Title
ROOF FRAMING PLAN

Drawing Number

S2.3

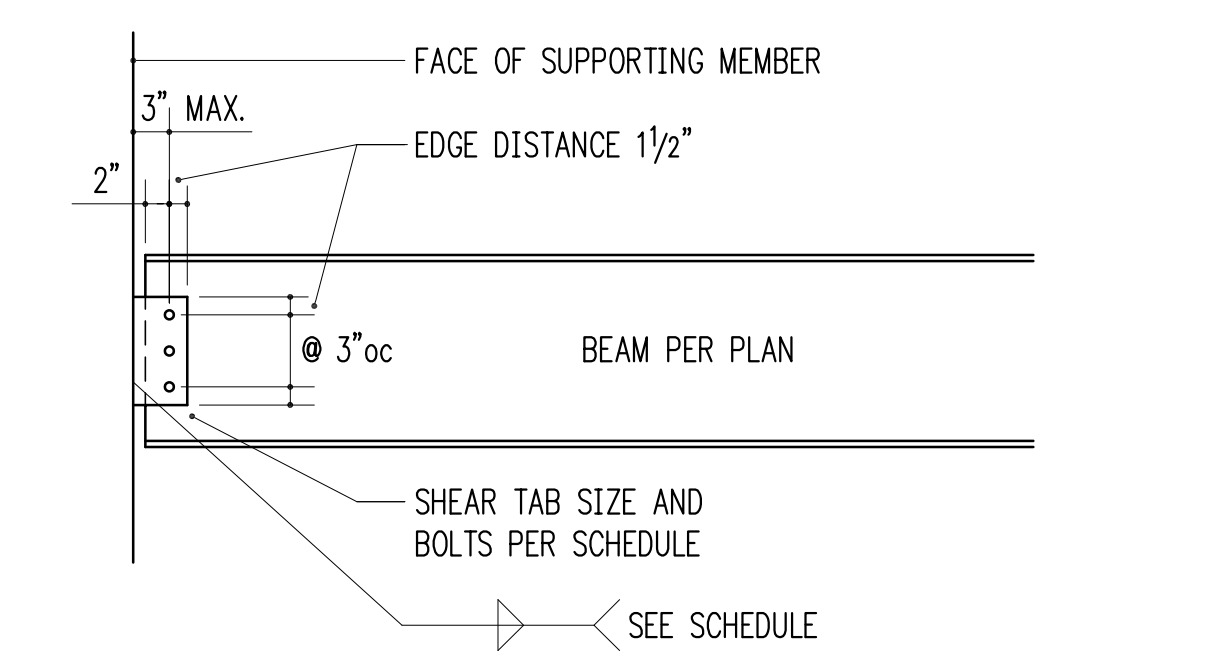


WF BEAM TO SIDE OF WF BEAM
 3/4" = 1'-0" 1

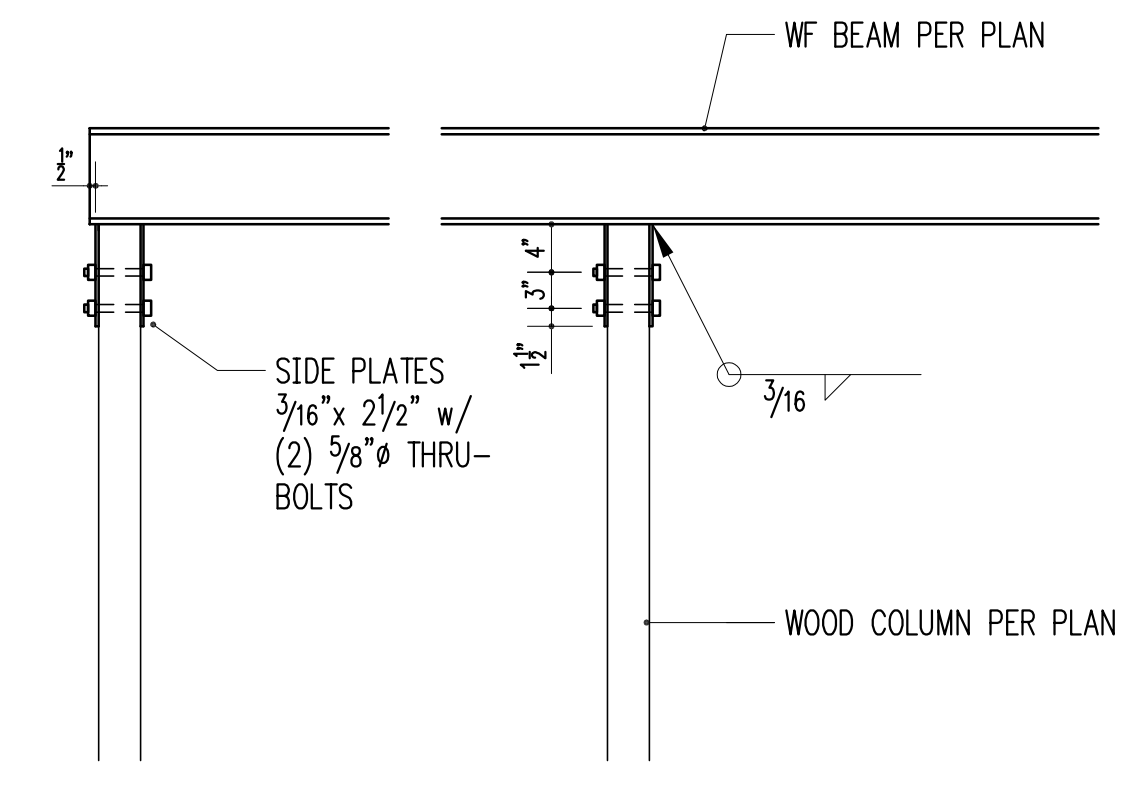
SHEAR TAB SCHEDULE

BEAM SIZE	# BOLTS	BOLT SIZE	PL THICK.	WELD SIZE	CAPACITY
W8, W10	(2)	3/4"Ø	1/4"	3/16"	8,200 lb
W14 OR DEEPER	(3)	3/4"Ø	1/4"	3/16"	16,300 lb

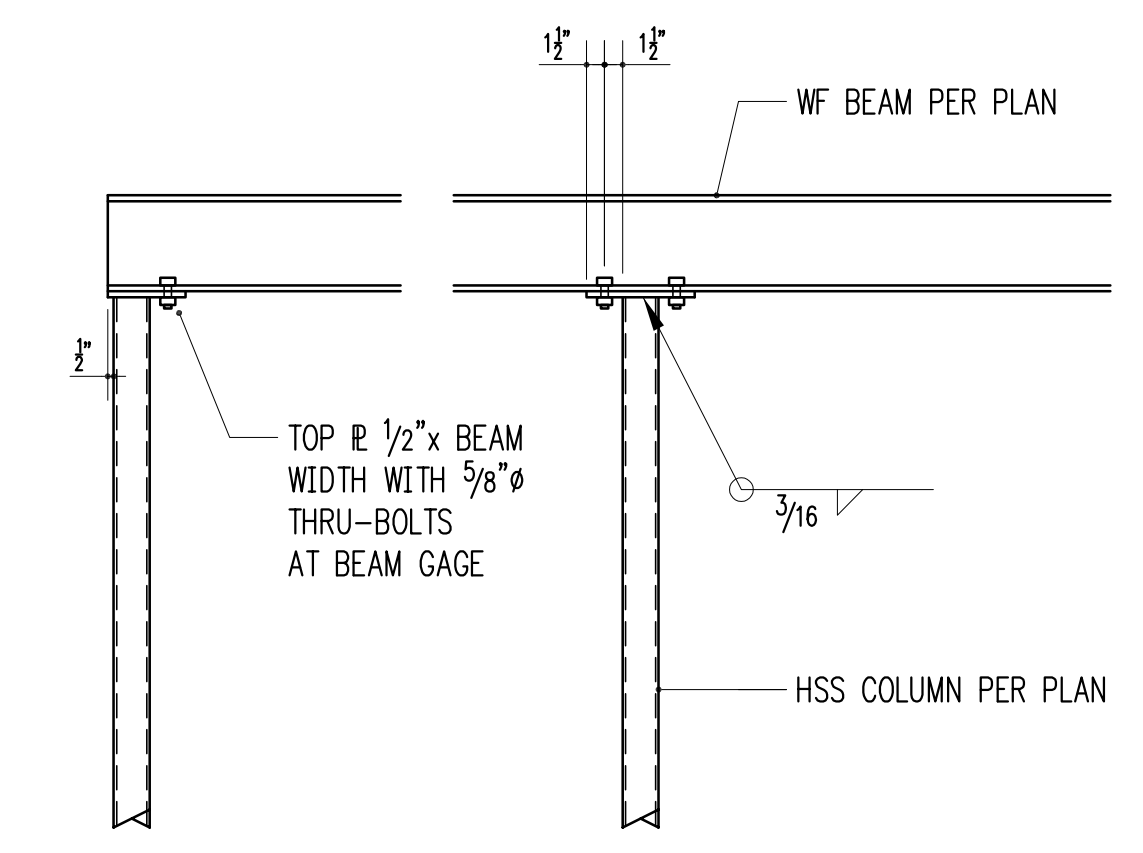
BOLT TYPE SHALL BE A325N. PLATE MATERIAL SHALL BE A36.



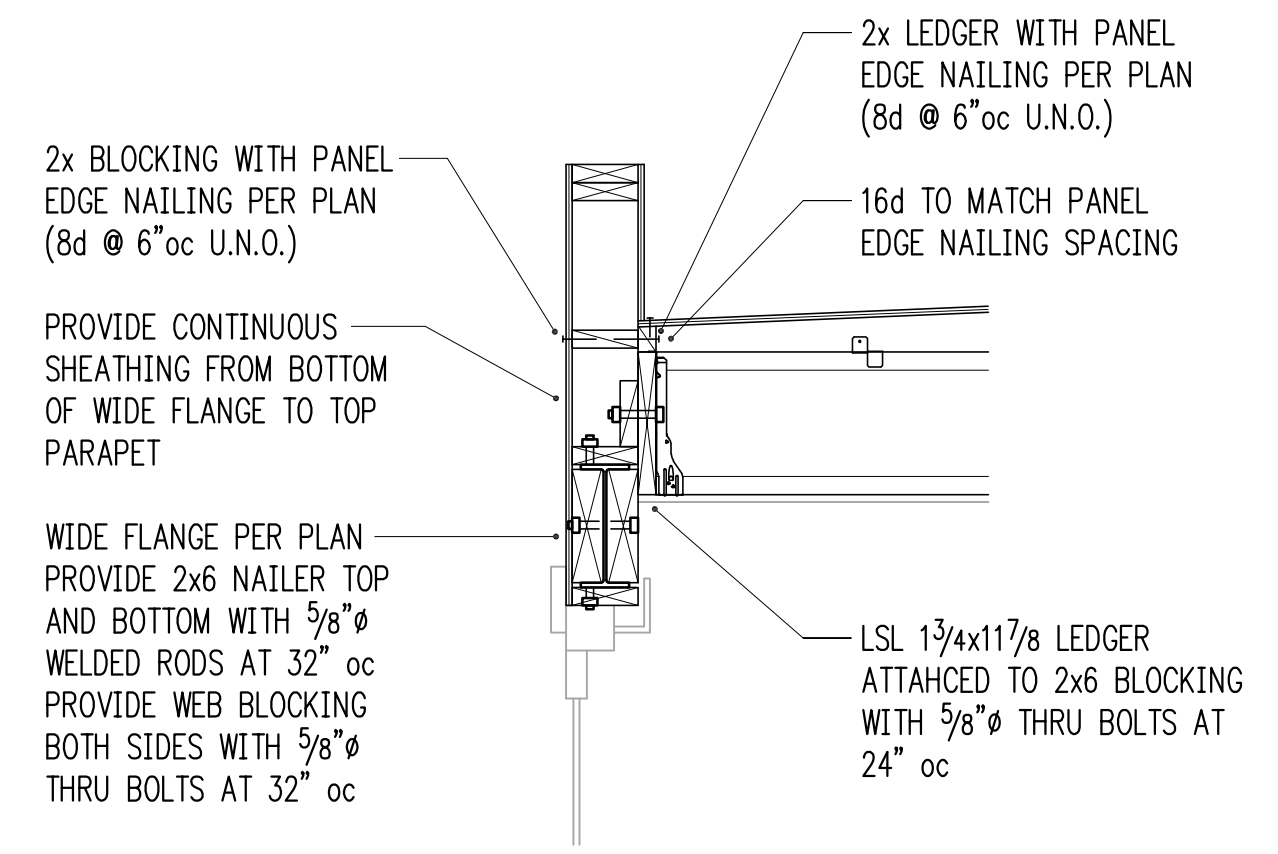
TYPICAL SHEAR TAB CONNECTION
 3/4" = 1'-0" 2



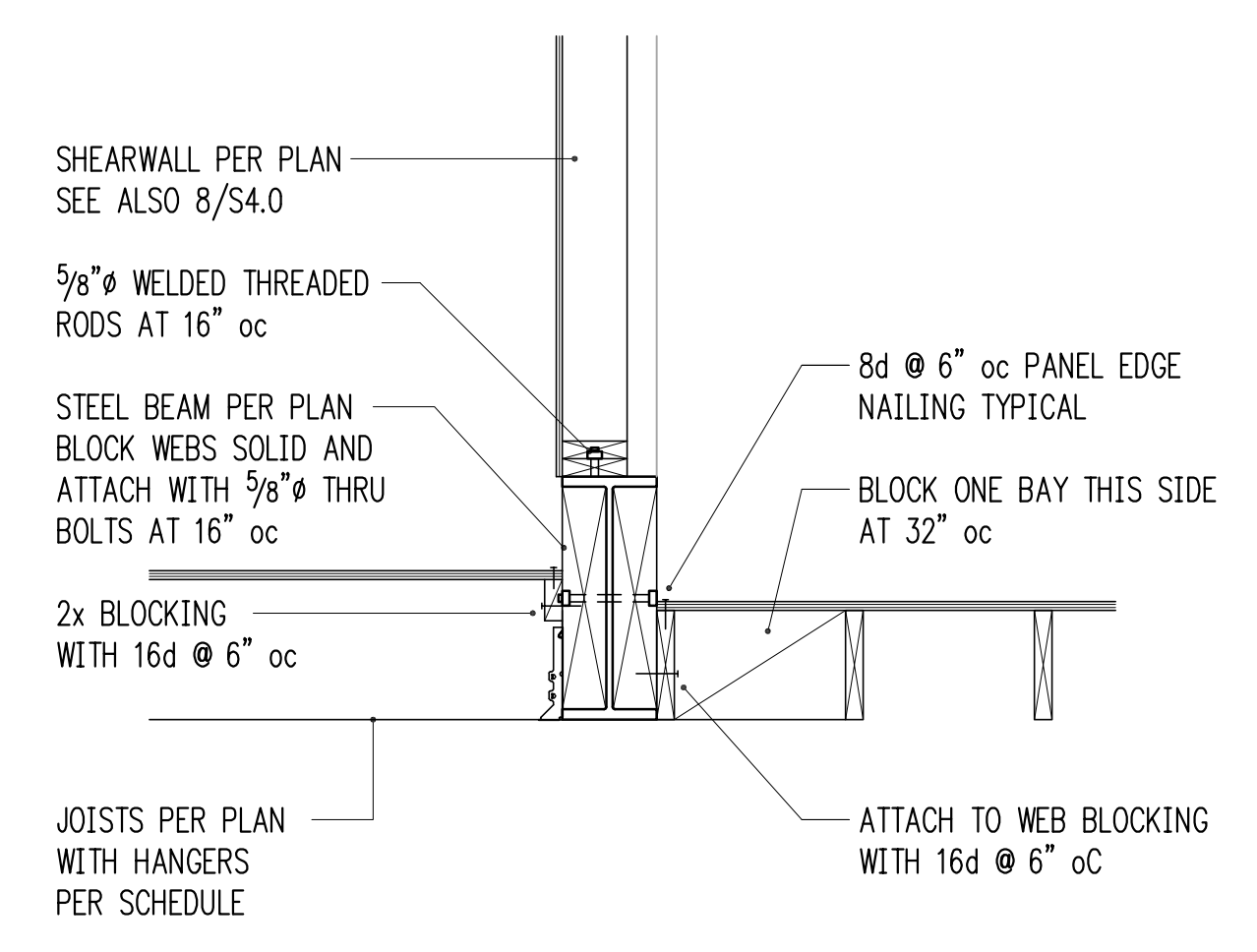
WF BEAM BEARING ON WOOD COLUMN
 3/4" = 1'-0" 3



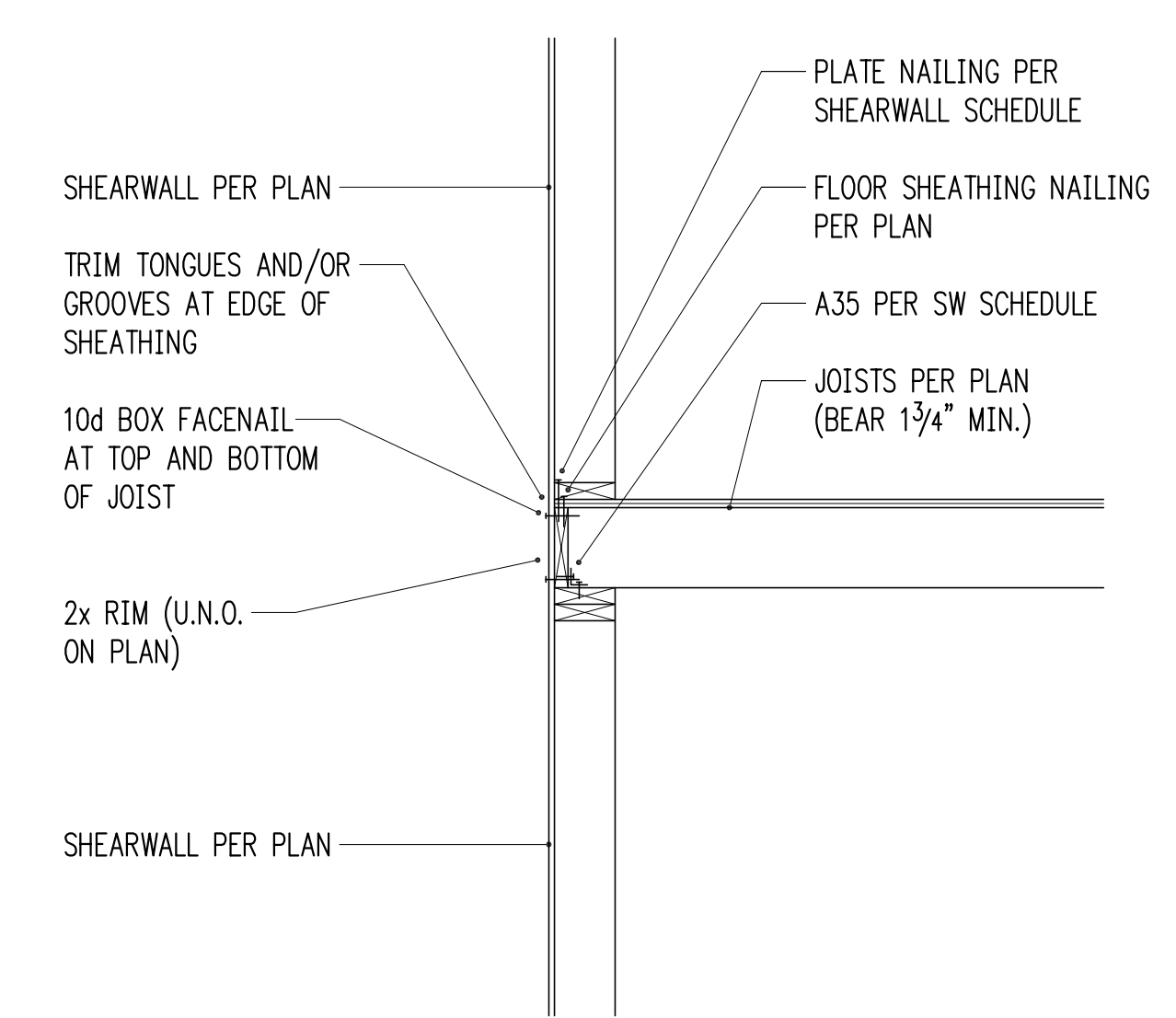
WF BEAM BEARING ON HSS COLUMN
 3/4" = 1'-0" 4



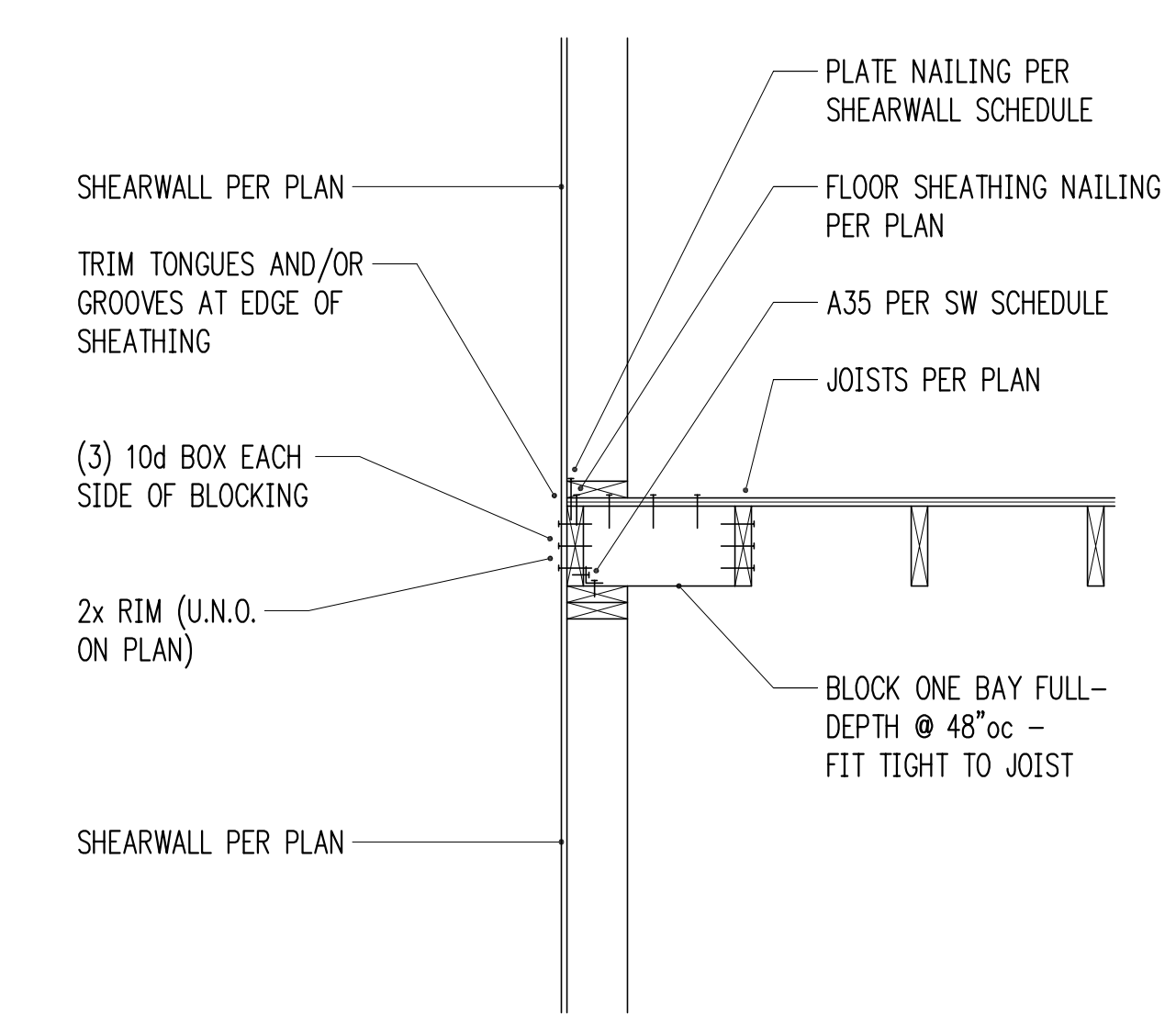
3/4" = 1'-0" 5



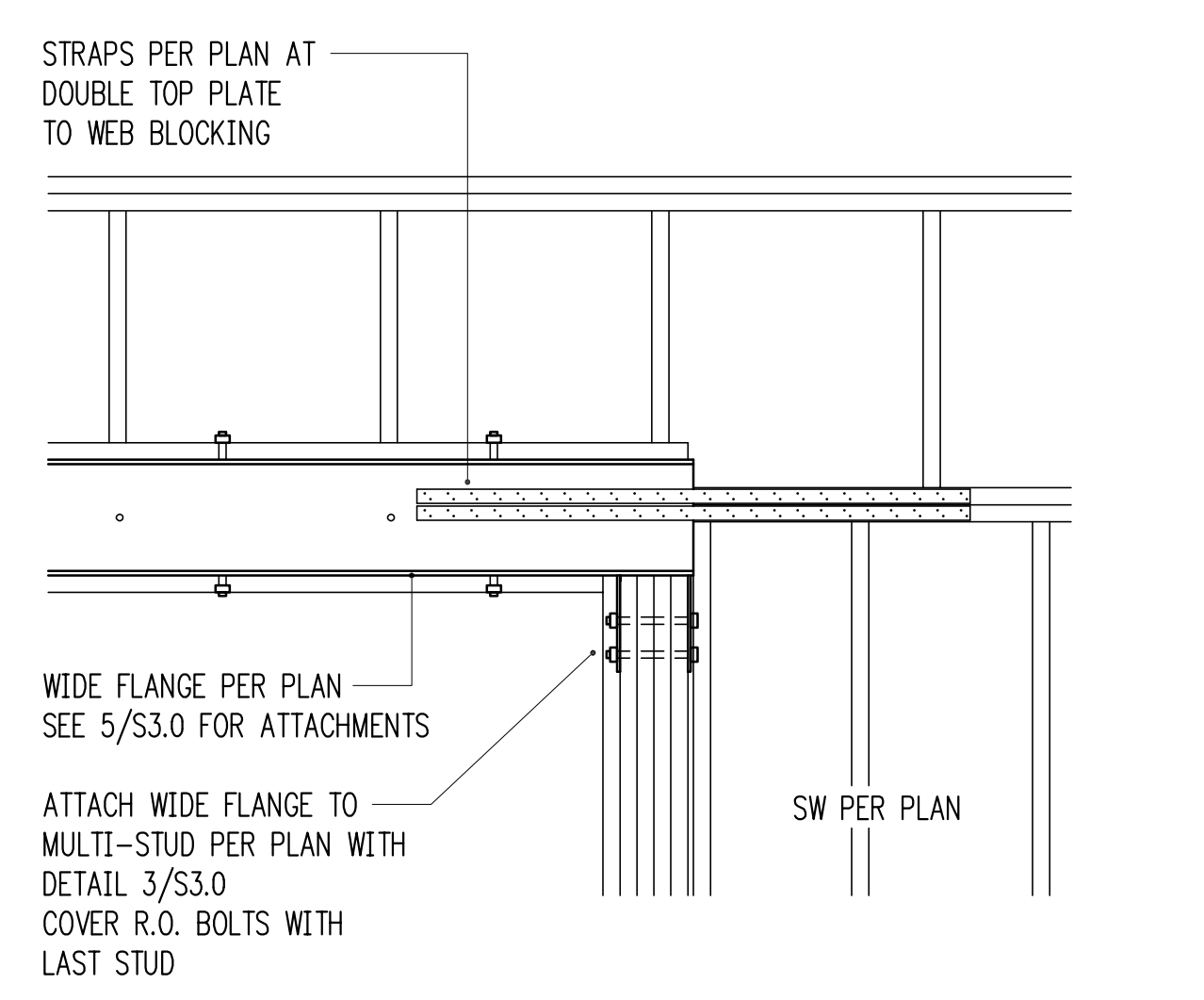
3/4" = 1'-0" 6



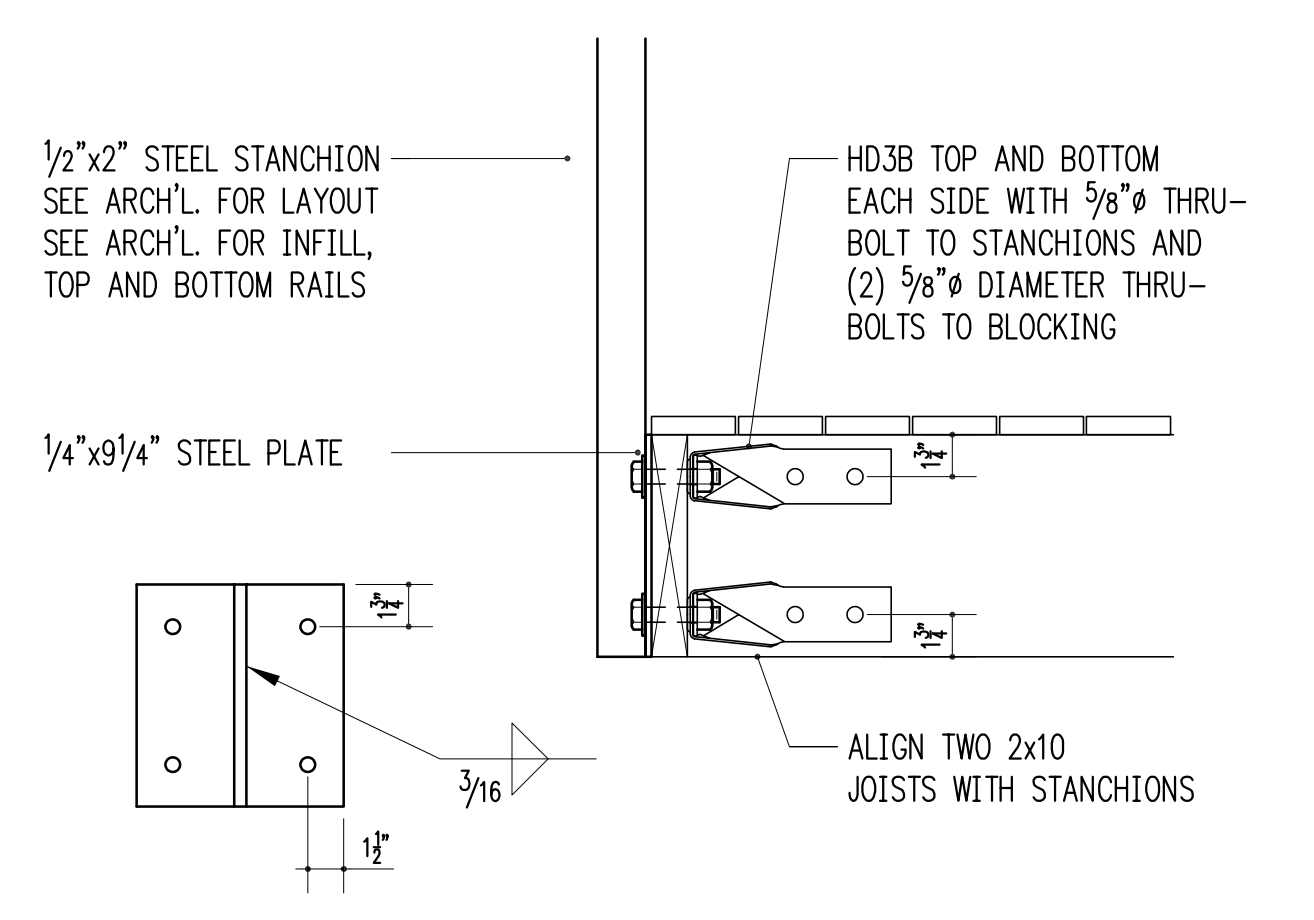
3/4" = 1'-0" 7



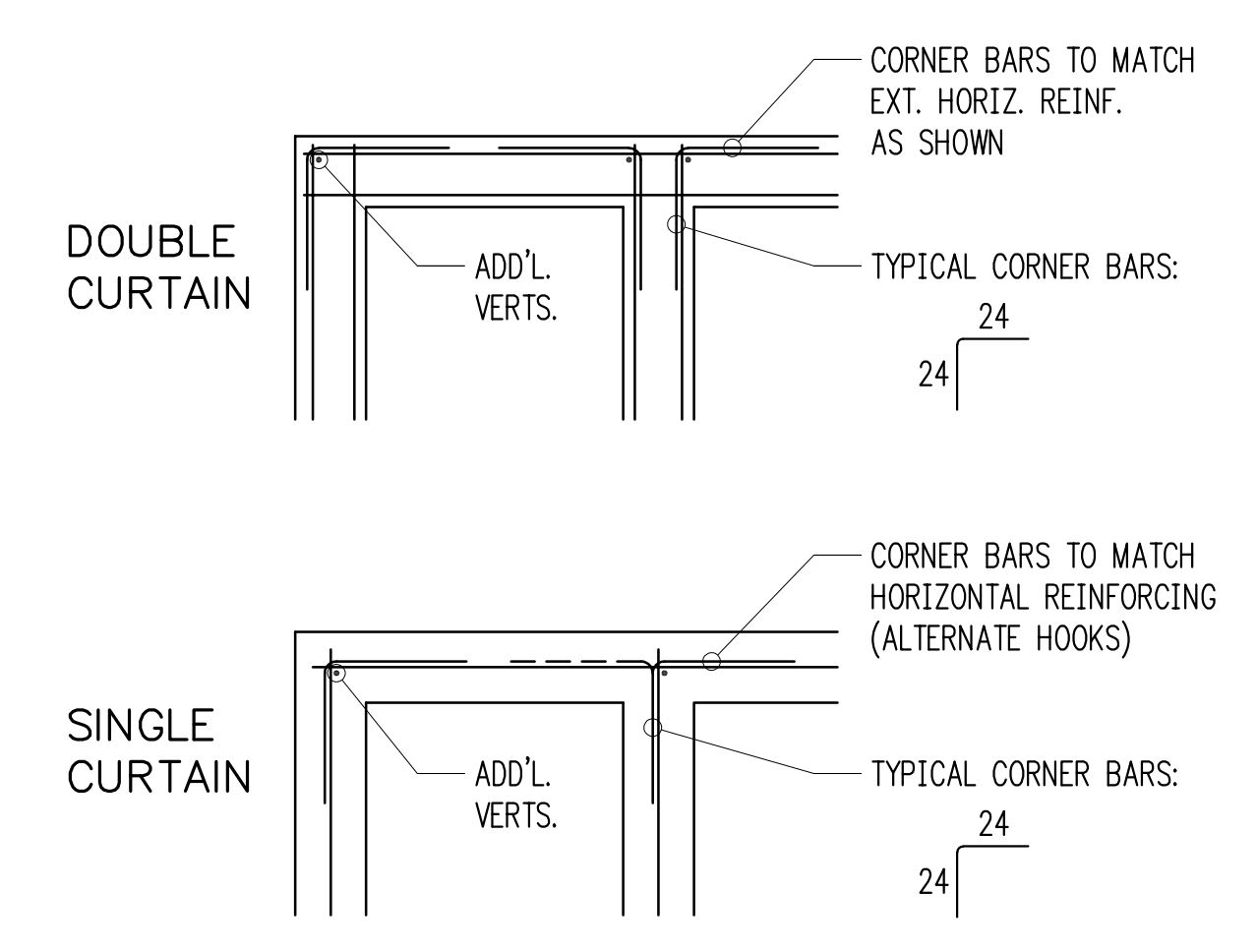
3/4" = 1'-0" 8



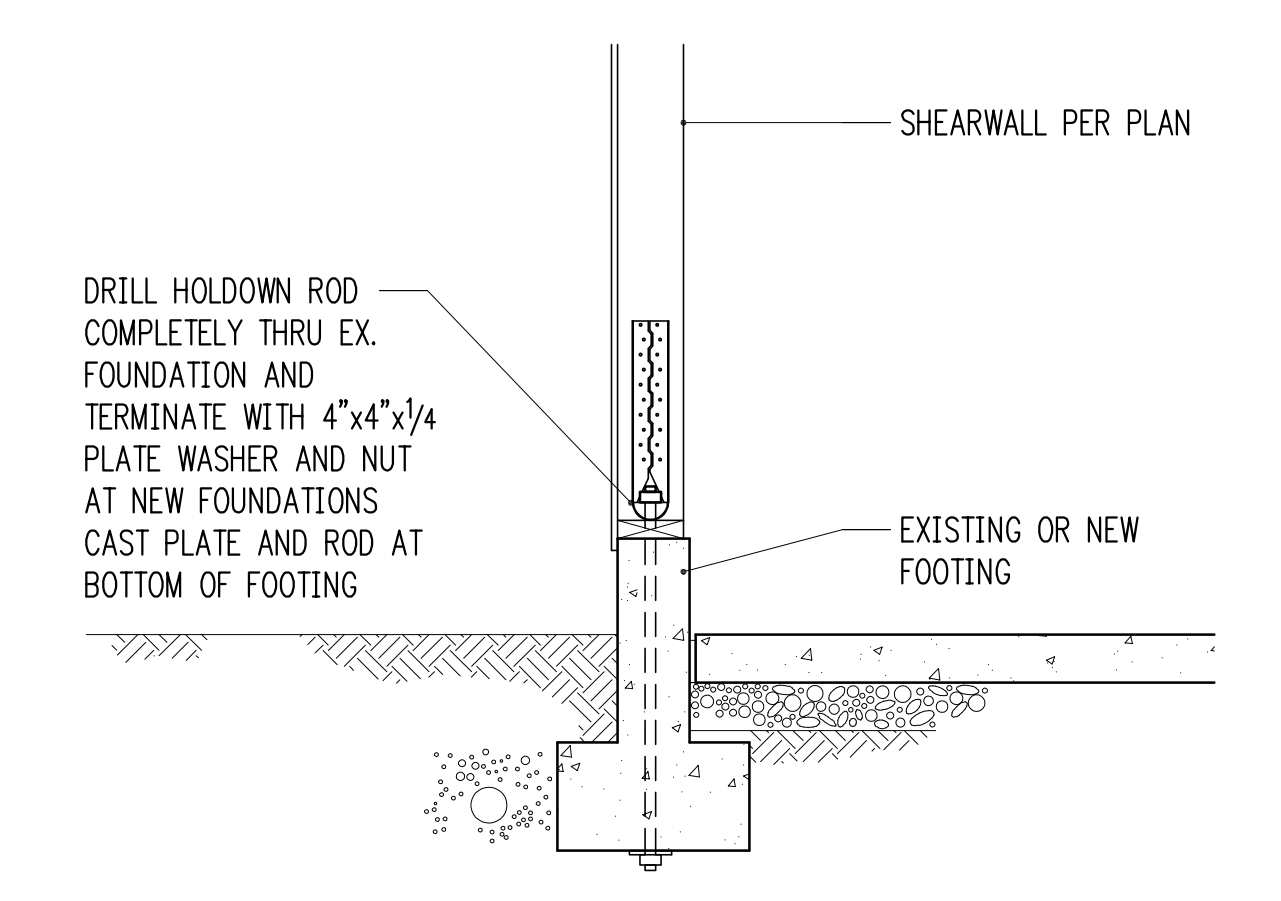
3/4" = 1'-0" 9



1-1/2" = 1'-0" 10



TYPICAL CORNER BARS AT CONCRETE WALLS
 3/4" = 1'-0" 11



3/4" = 1'-0" 12



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Building Department Approval

Drawing Title
STRUCTURAL DETAILS

Drawing Number

S3.0

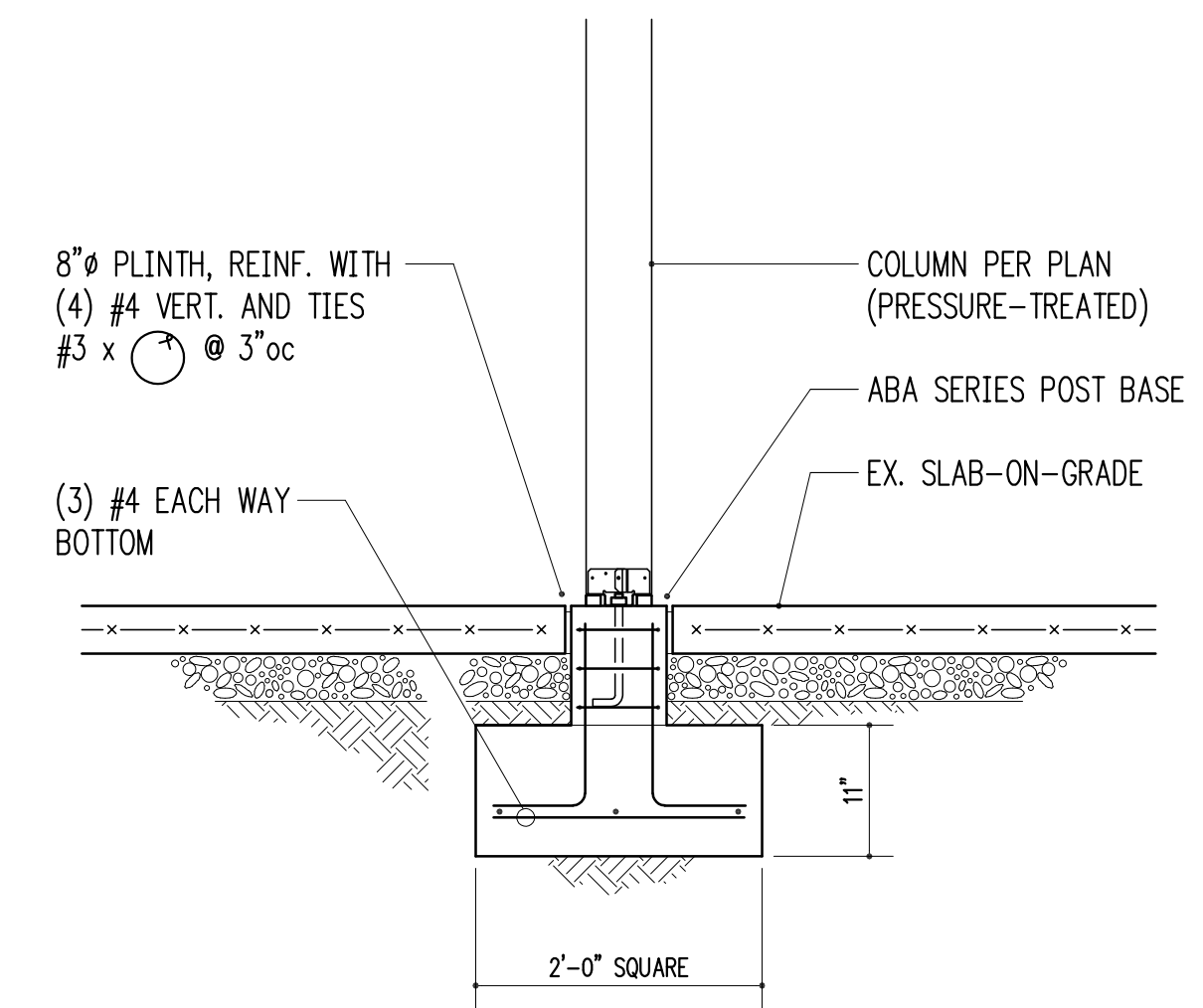
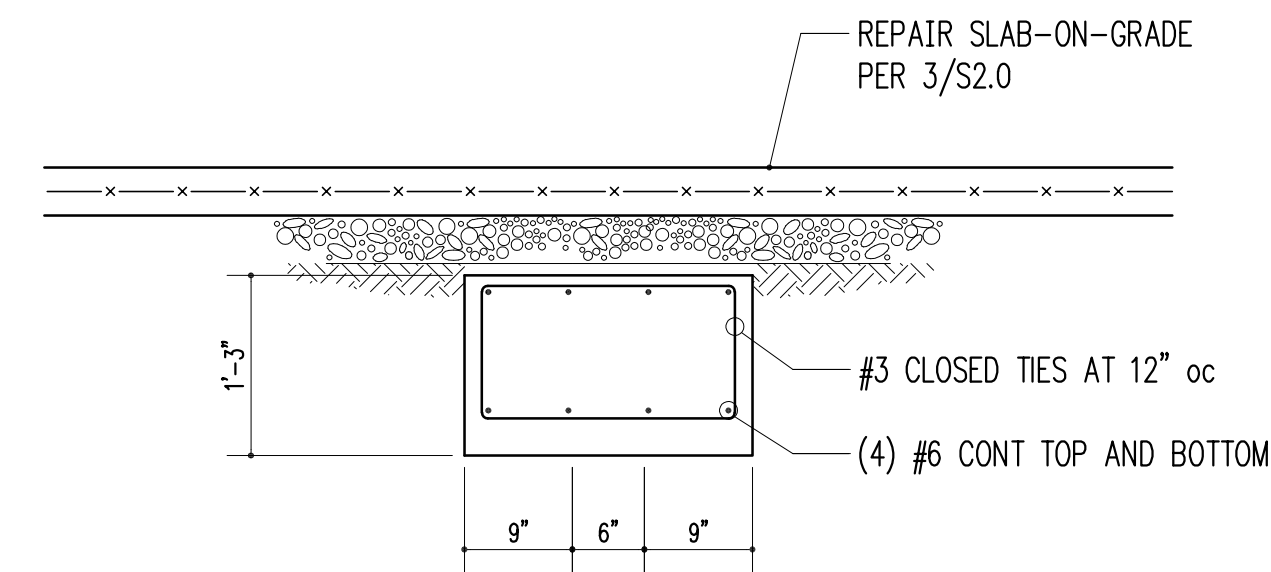
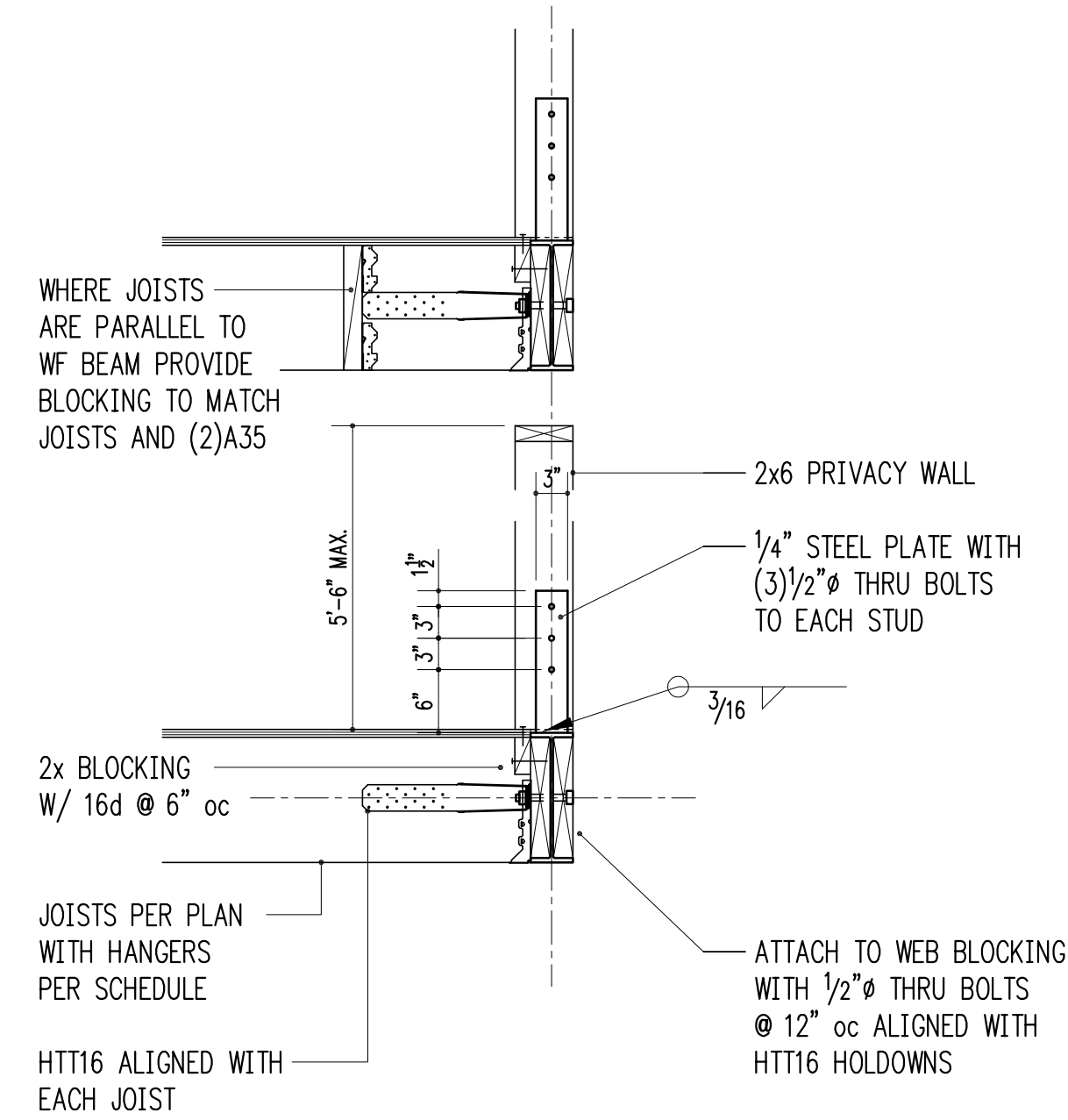
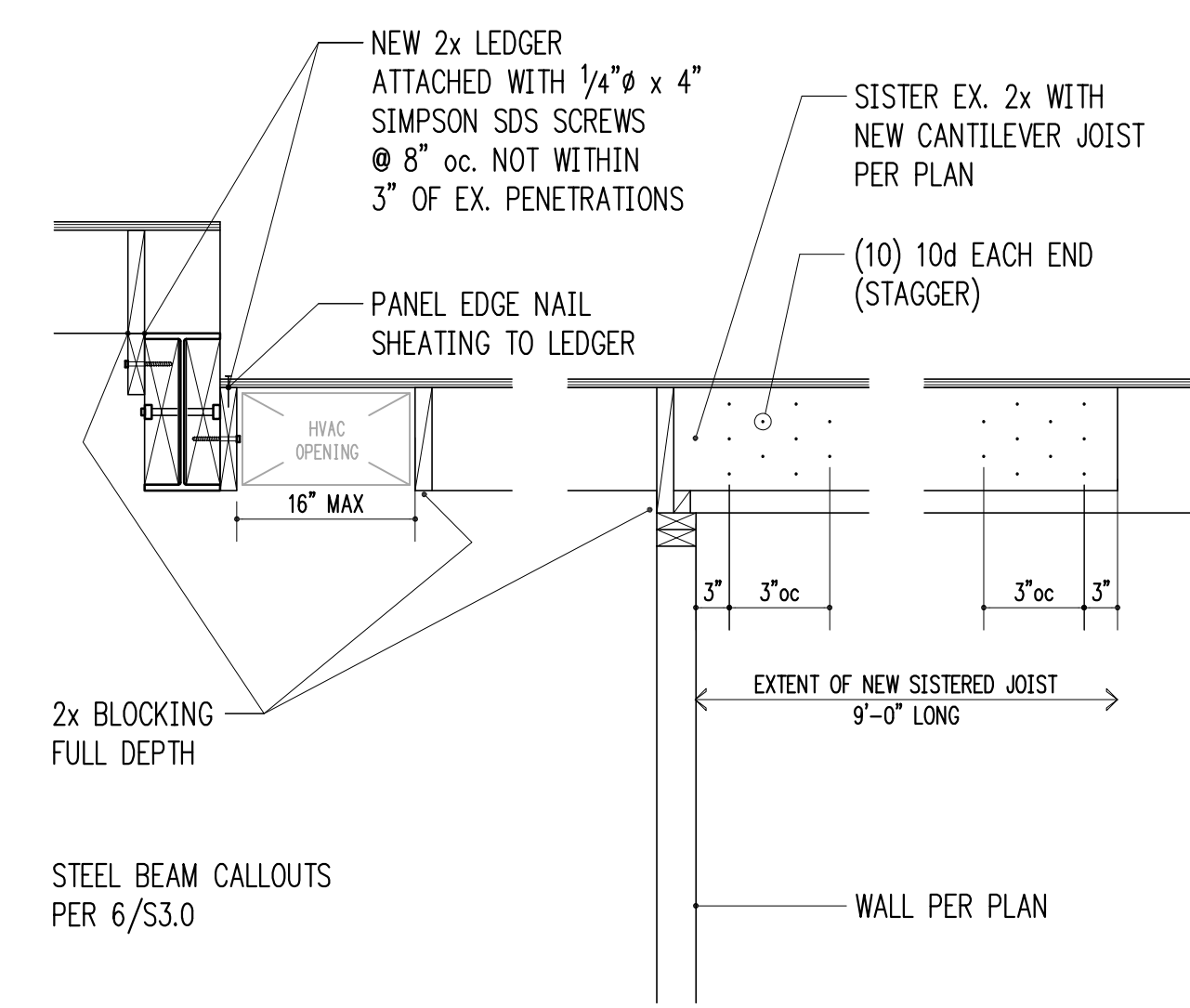
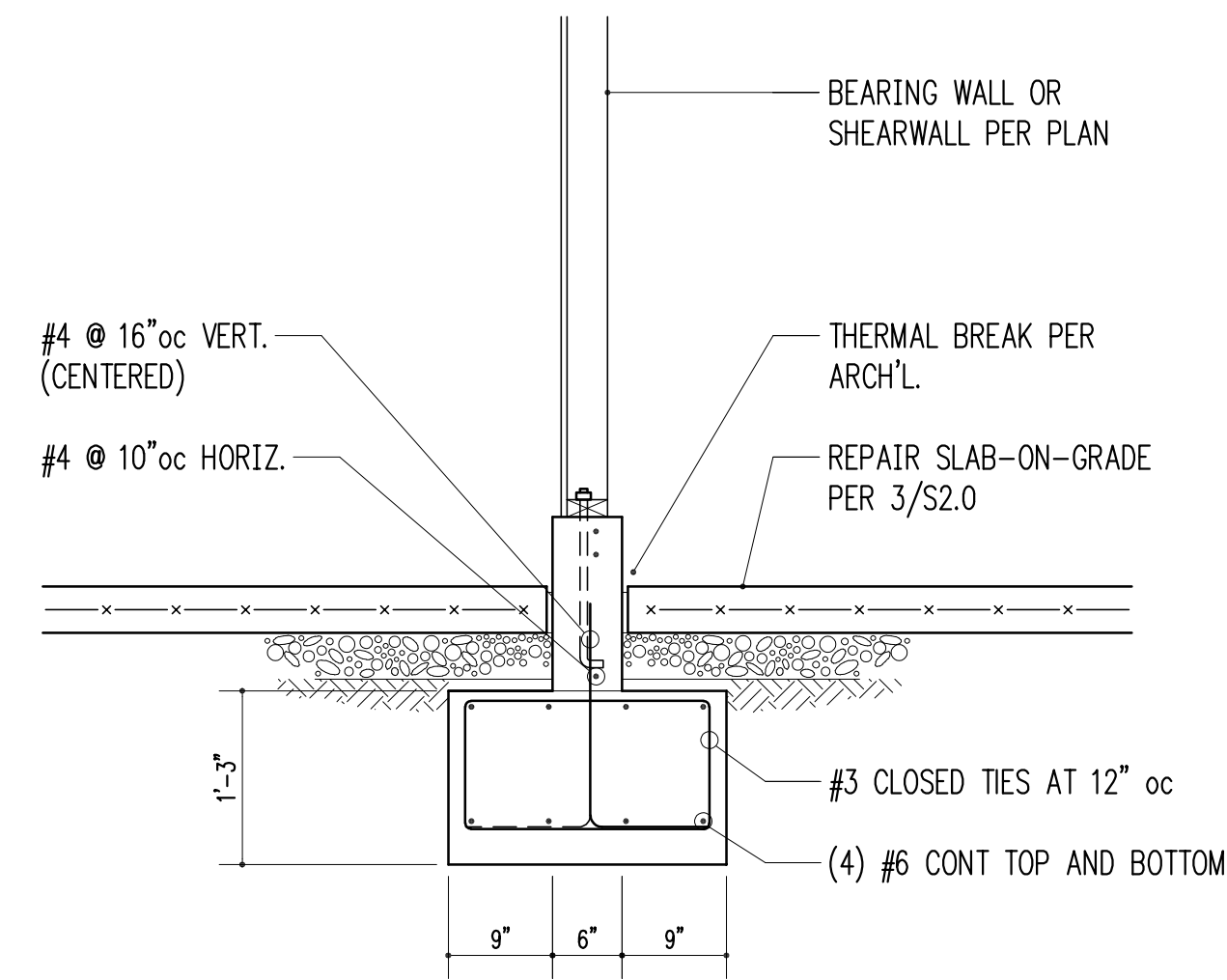
WERELIUS RESIDENCE

3/4" = 1'-0" 1

3/4" = 1'-0" 2

3/4" = 1'-0" 3

3/4" = 1'-0" 4

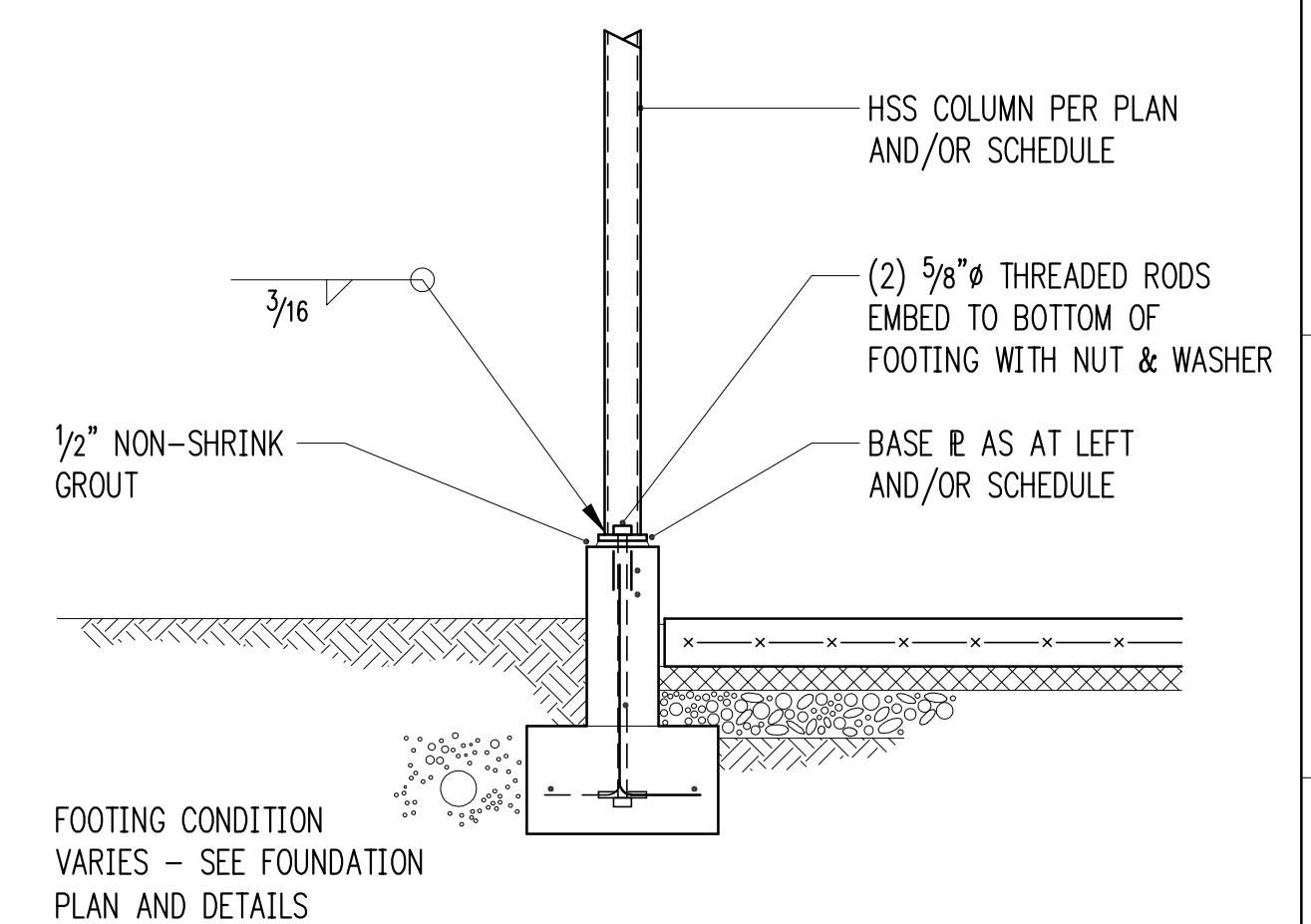
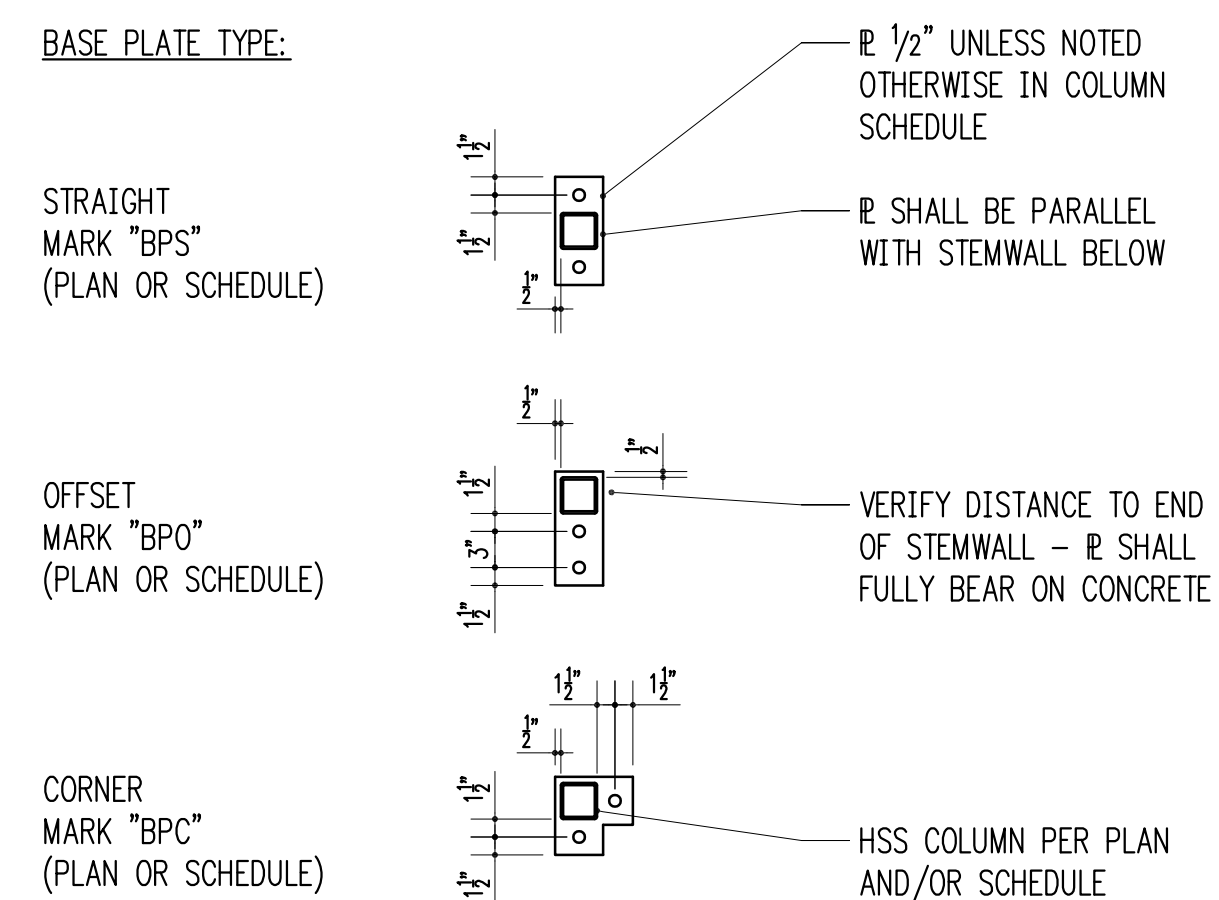
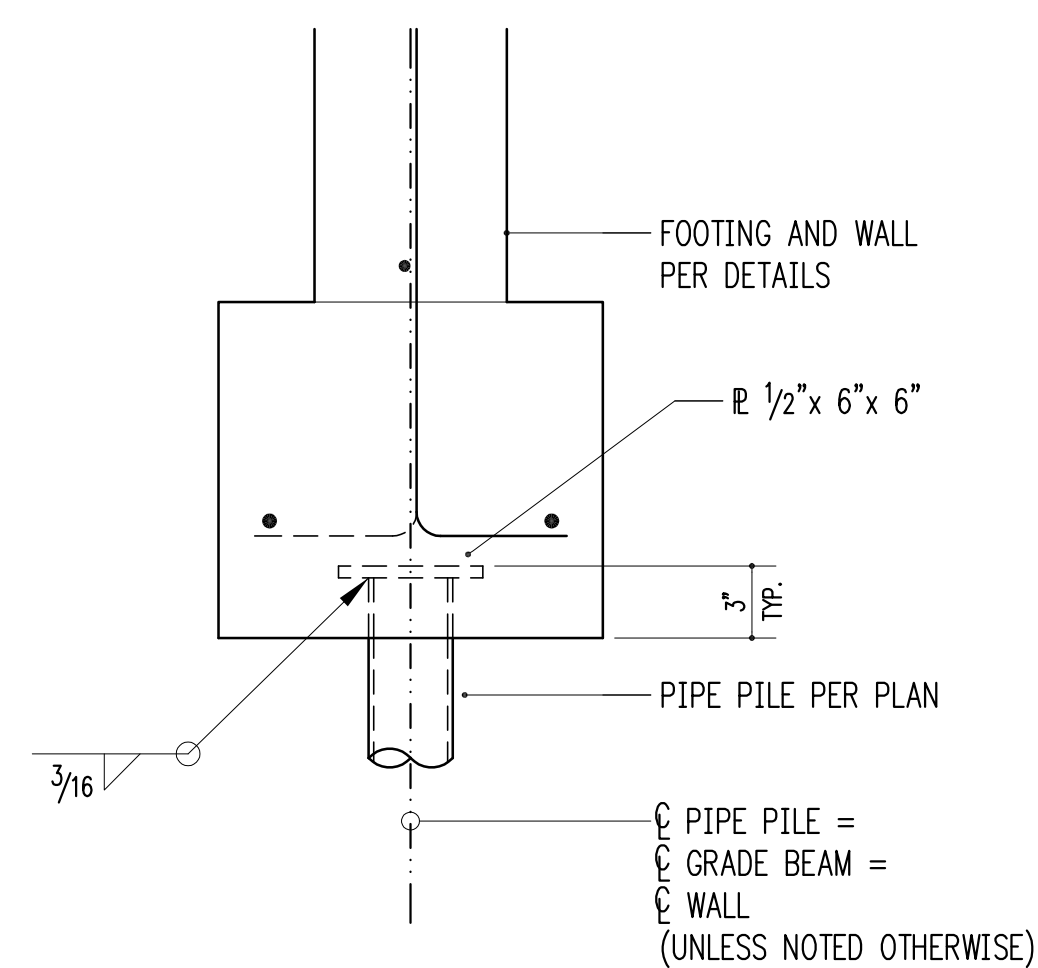


3/4" = 1'-0" 5

3/4" = 1'-0" 6

3/4" = 1'-0" 7

3/4" = 1'-0" 8



3/4" = 1'-0" 9

1-1/2" = 1'-0" 10

HSS COLUMN BASE PLATES

3/4" = 1'-0" 12



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Issue Date	Issue Description
6/18/19	Permit
7/16/19	Framing Revisions
7/28/19	Framing Revisions
1/17/20	Corrections #1
4/3/20	Framing Revisions
4/17/20	Construction
4/24/20	Trellis Revisions

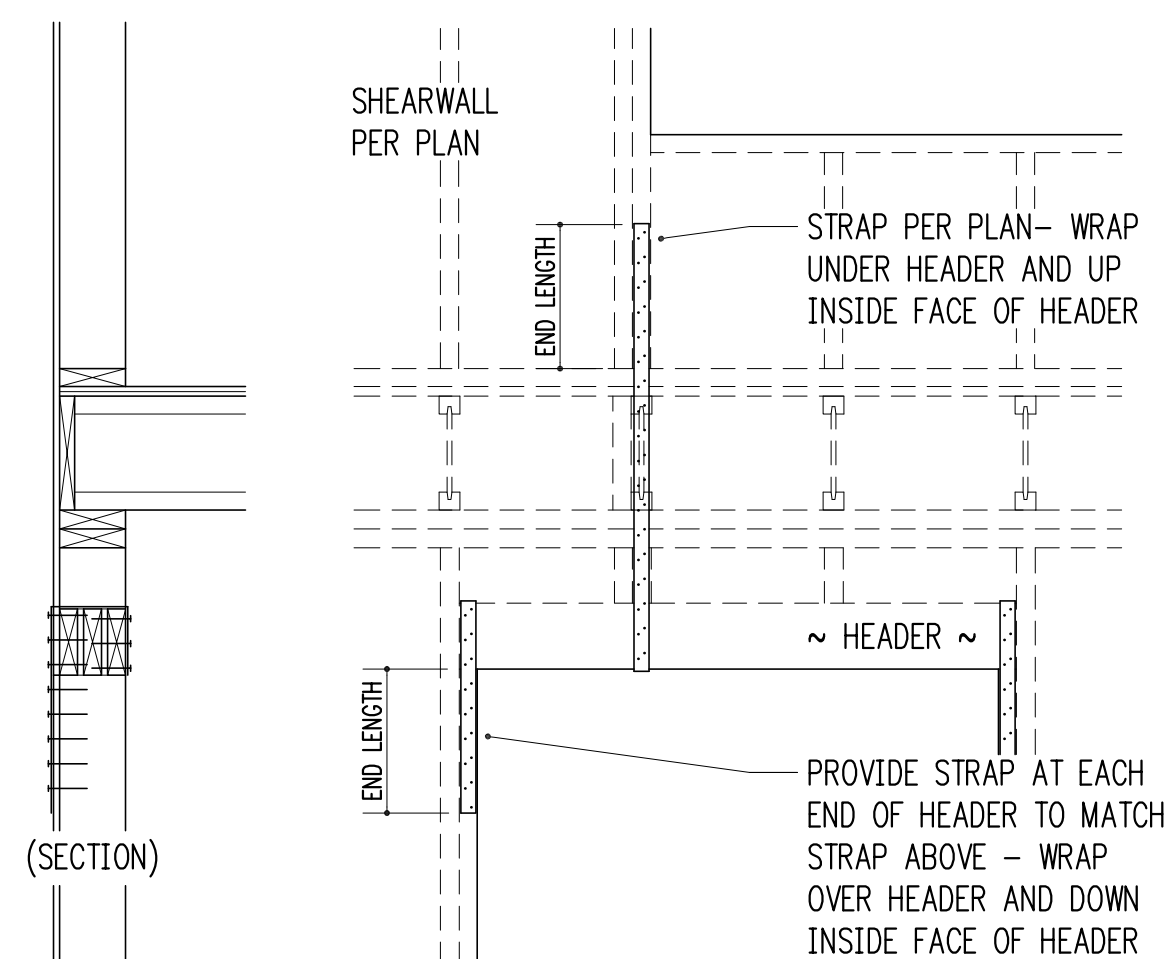
Building Department Approval

Drawing Title
STRUCTURAL DETAILS

Drawing Number

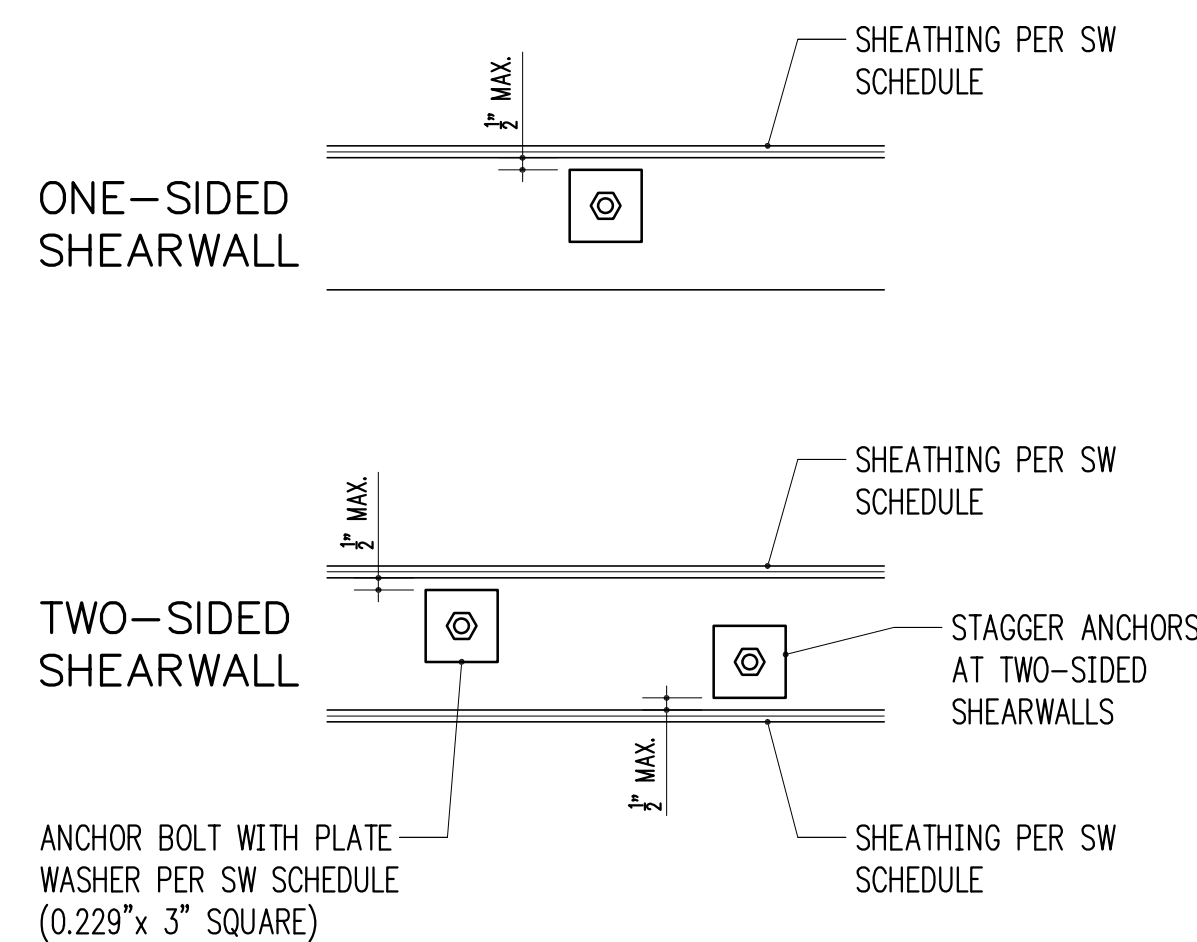
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WERELIUS RESIDENCE



TYPICAL STRAPPED HEADER

3/4" = 1'-0"



TYPICAL SHEARWALL ANCHOR BOLT PLACEMENT

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

SHEARWALL SCHEDULE (NOT ALL USED ON PLANS)

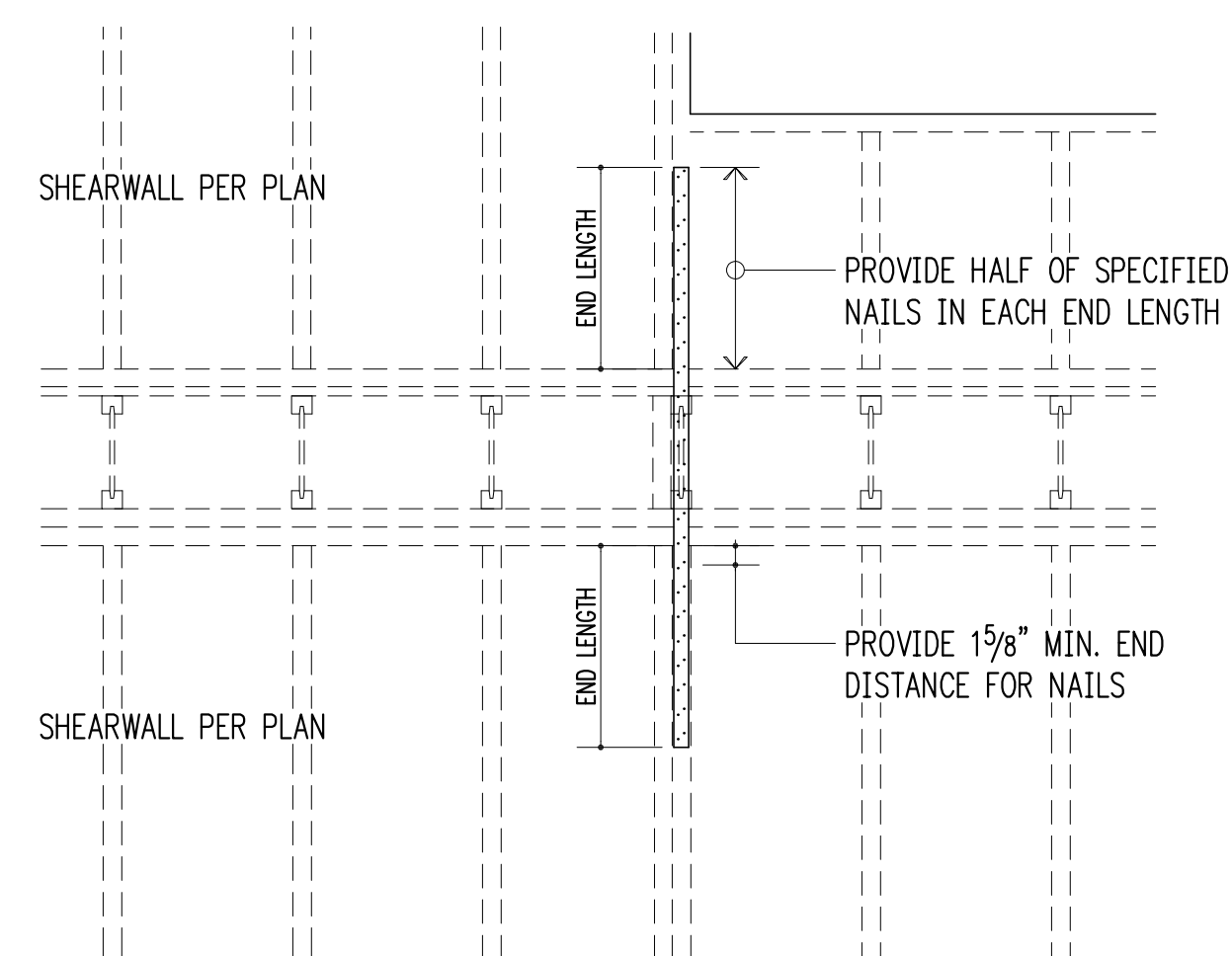
MARK	SHEATHING ¹	STUDS AT ABUTTING PANEL EDGES ²	PANEL EDGE NAILING ^{3,4}	RIM JOIST OR BLOCKING TO TOP PLATE		BOTTOM PLATE ATTACHMENT		
				SOLID RIM	TJI RIM	BOTTOM PLATE TO RIM JOIST BELOW ⁴	ANCHOR BOLT TO CONCRETE ⁵	SILL PLATE AT FOUND.
SW1	15/32" CDX PLYWOOD	2x	8d @ 6"oc	A35 @ 24"oc	16d @ 6"oc	16d @ 6"oc	5/8" @ 48"oc	2x
SW2	15/32" CDX PLYWOOD	2x	8d @ 4"oc	A35 @ 15"oc	16d @ 4"oc	16d @ 4"oc	5/8" @ 32"oc	2x
SW3	15/32" CDX PLYWOOD	3x	8d @ 3"oc	A35 @ 12"oc	N/A - USE SOLID RIM	16d @ 3"oc	5/8" @ 16"oc	2x
SW4	15/32" CDX PLYWOOD	3x	8d @ 2"oc	A35 @ 9"oc	N/A - USE SOLID RIM	16d @ 2"oc	5/8" @ 12"oc	2x
SW5	15/32" CDX PLYWOOD BOTH SIDES	3x	8d @ 3"oc	A35 @ 6"oc	N/A - USE SOLID RIM	(2) ROWS 16d @ 3"oc	5/8" @ 12"oc	3x
SW6	15/32" CDX PLYWOOD BOTH SIDES	3x	8d @ 2"oc	A35 @ 4 1/2"oc	N/A - USE SOLID RIM	(2) ROWS 16d @ 2"oc	5/8" @ 12"oc	3x

- WALL SHEATHING SHALL CONSIST OF APA RATED PLYWOOD WITH SPAN RATING 24/0. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF PANELS. 7/16" APA RATED SHEATHING (OSB) MAY BE USED IN PLACE OF 15/32" CDX.
- STUDS AT ABUTTING PANEL EDGES MAY CONSIST OF (2)2x STUDS IN PLACE OF 3x STUDS - NAIL (2)2x STUDS TOGETHER WITH BOTTOM PLATE ATTACHMENT NAILING.
- BLOCK ALL PANEL EDGES W/ 2x4 FLAT, ATTACH W/ PANEL EDGE NAILING. TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS. END STUDS SHALL RECEIVE PANEL EDGE NAILING. INTERMEDIATE STUDS SHALL BE 2x STUDS. NAIL SHEATHING TO INTERMEDIATE FRAMING MEMBERS WITH 8d @ 12"oc.
- 8d NAILS SHALL BE 0.131" DIAMETER x 2 1/2" (COMMON). 16d NAILS SHALL BE 0.135" DIAMETER x 3 1/2" (BOX).
- ANCHORS TO CONCRETE SHALL CONSIST OF CAST-IN-PLACE ANCHOR BOLTS, EXPANSION BOLTS, EPOXY GROUTED ALL-THREADS, OR TITEN HD HEAVY DUTY SCREW ANCHORS. CAST-IN-PLACE ANCHOR BOLTS HAVE A 7" EMBED AND SHALL BE J-BOLTS OR SHALL HAVE A HEX NUT AT THE BOTTOM END. EXPANSION BOLTS SHALL HAVE 5" EMBED AND SHALL NOT BE USED AT STEM WALL LOCATIONS WITH EDGE DISTANCE LESS THAN 5" (INSTEAD, USE EPOXY GROUTED ALL-THREADS OR TITEN HD ANCHORS). EPOXY GROUTED ANCHORS SHALL HAVE 5" EMBED AND 2 1/2" MIN. EDGE DISTANCE. TITEN HD ANCHORS SHALL HAVE 3 1/2" EMBED AND 1 3/4" MIN. EDGE DISTANCE. AT ALL ANCHOR BOLTS, PROVIDE STEEL PLATE WASHERS THAT ARE A MINIMUM OF 0.229" (3 GAUGE) x 3" x 3" (SIMPSON BP5/8-3 OR SIMILAR). PLACE BOLTS PER ANCHOR BOLT PLACEMENT DETAIL.

STRAP SCHEDULE (NOT ALL USED)

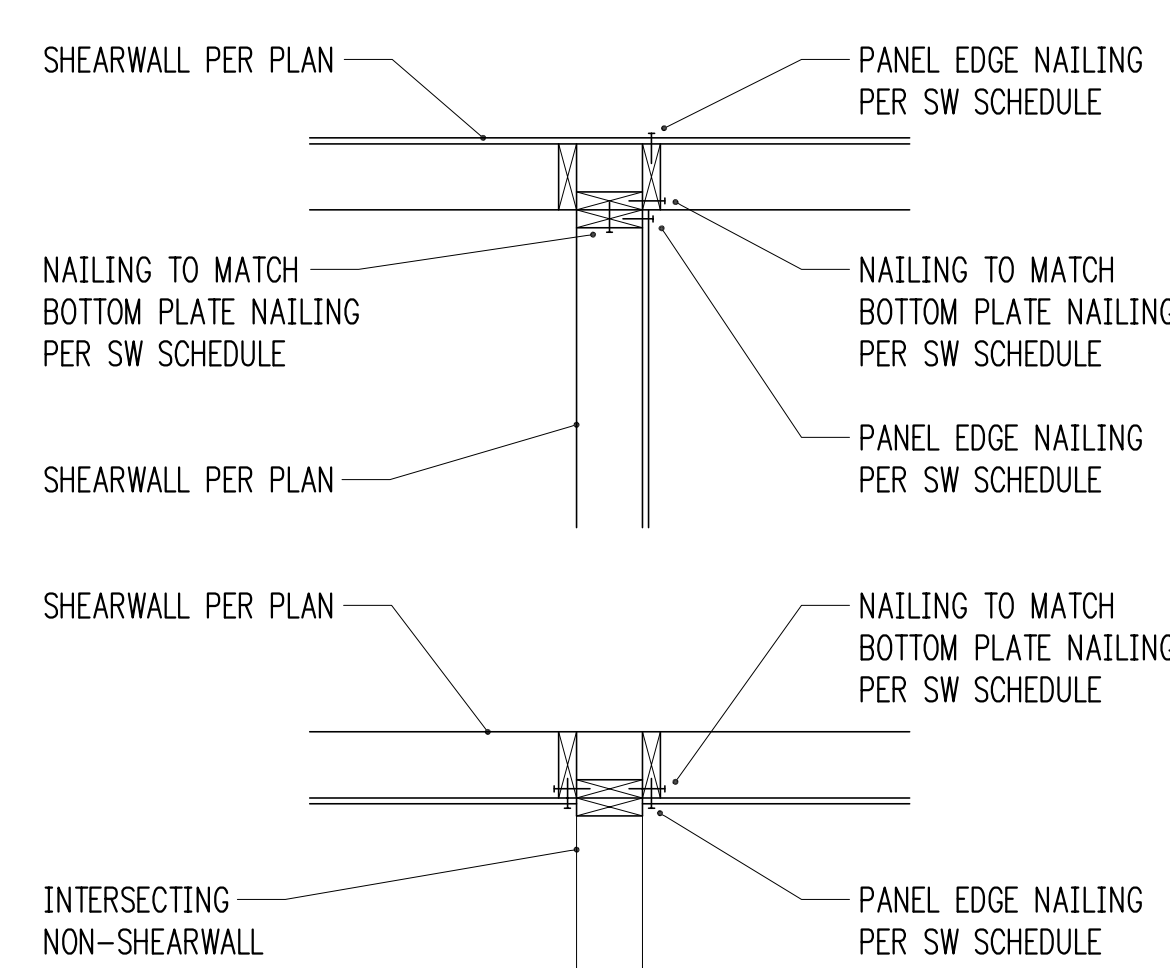
MARK	END LENGTH	NAILS	NAIL SPACING
CMST12	44"	(98) 10d x 3"	1 3/4"
CMST14	34"	(76) 10d x 3"	1 3/4"
CMSTC16	25"	(58) 12d x 3 1/4"	1 1/2"
CS14	19"	(36) 8d x 2 1/2"	2 1/16"
CS16	14"	(26) 8d x 2 1/2"	2 1/16"
CS18	12"	(22) 8d x 2 1/2"	2 1/16"
CS20	9"	(16) 8d x 2 1/2"	2 1/16"
CS22	8"	(14) 8d x 2 1/2"	2 1/16"

- 10d AND 12d DIAMETER = 0.148"; 8d DIAMETER = 0.131".
- USE HALF OF THE REQUIRED NAILS IN EACH MEMBER BEING CONNECTED (i.e. IN EACH END LENGTH).

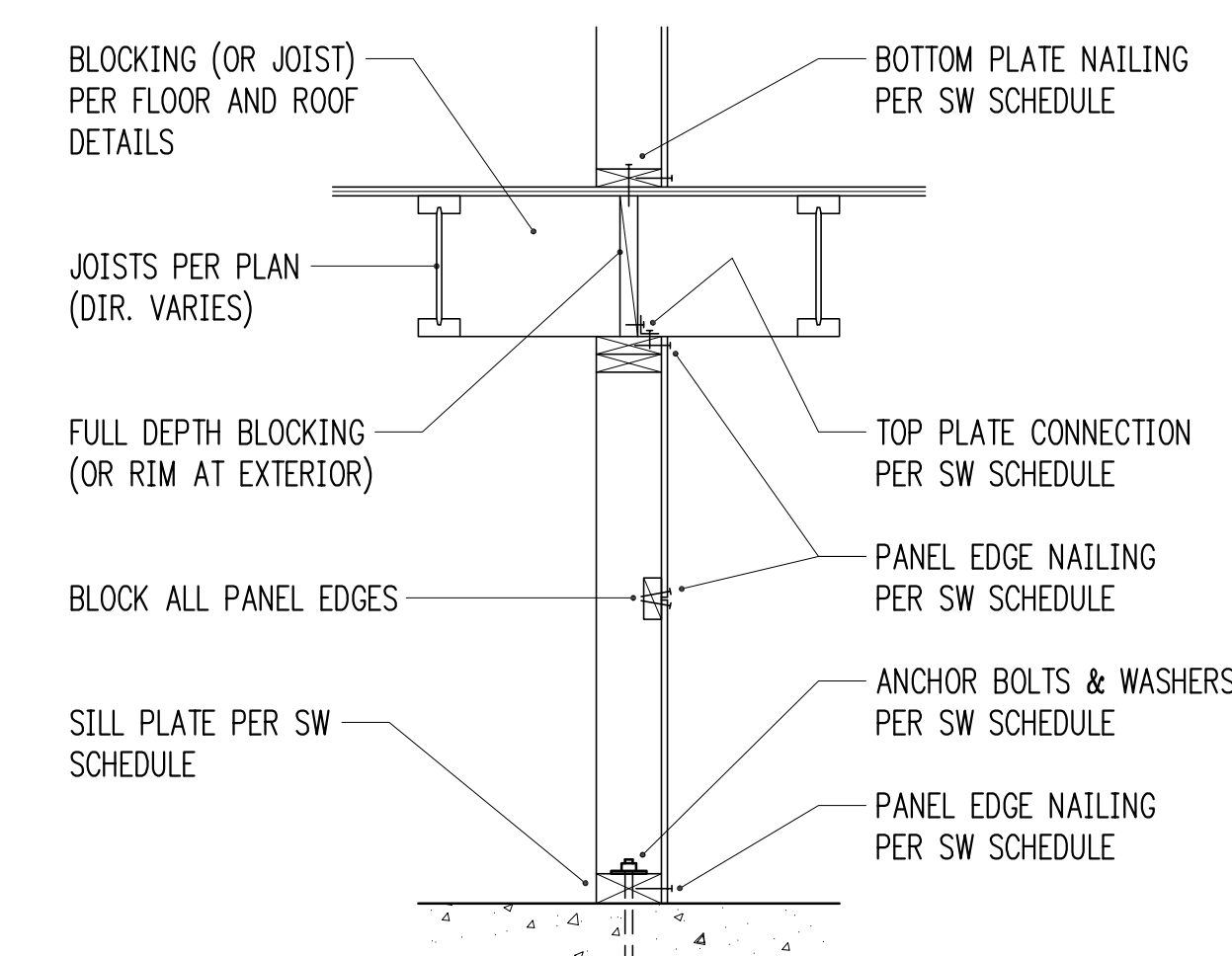


TYPICAL STRAP HOLDDOWN AT FLOOR

3/4" = 1'-0"



TYPICAL SHEARWALL INTERSECTIONS



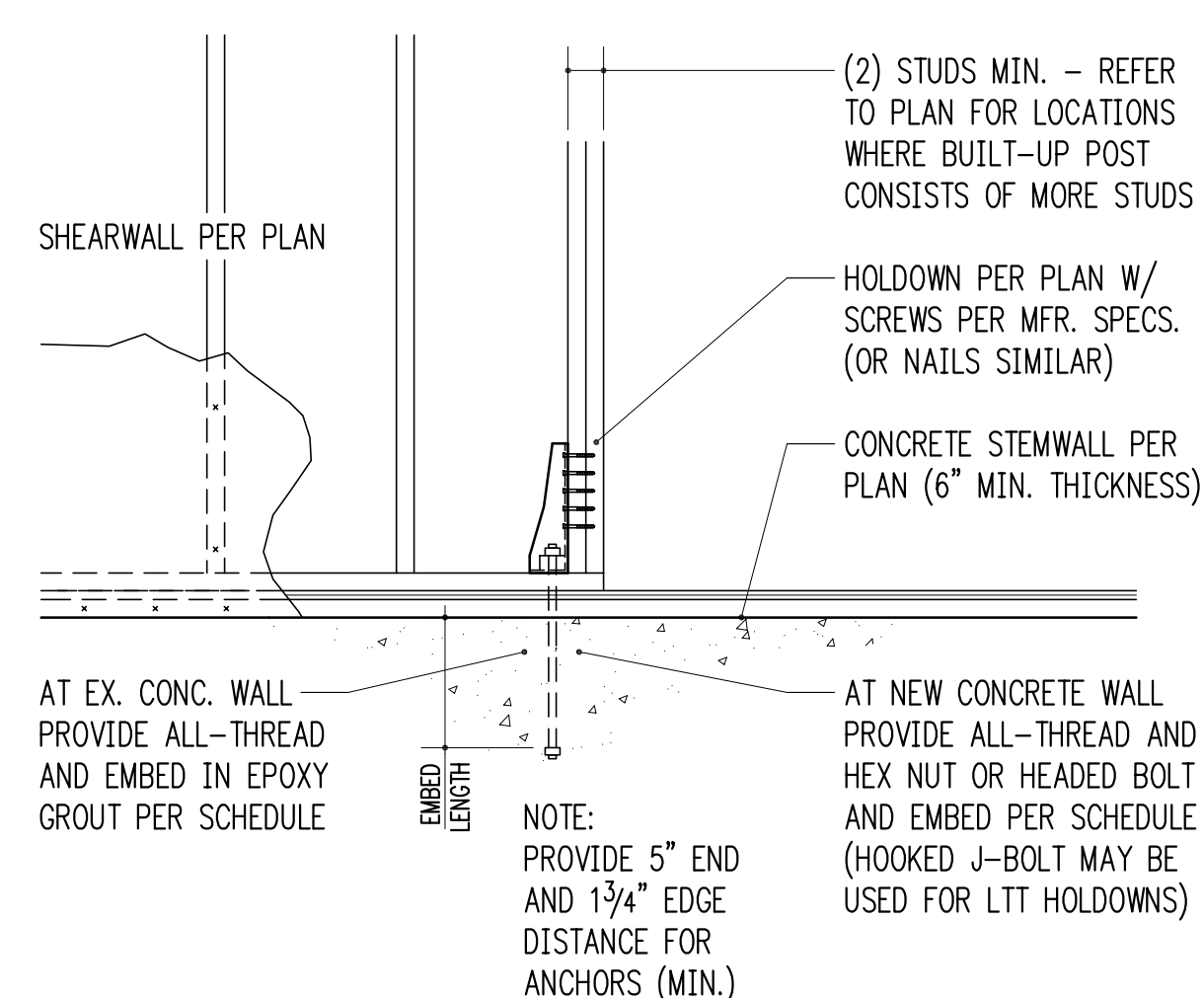
TYPICAL SHEARWALL SECTION

3/4" = 1'-0"

HOLDOWN SCHEDULE (NOT ALL USED ON PLANS)

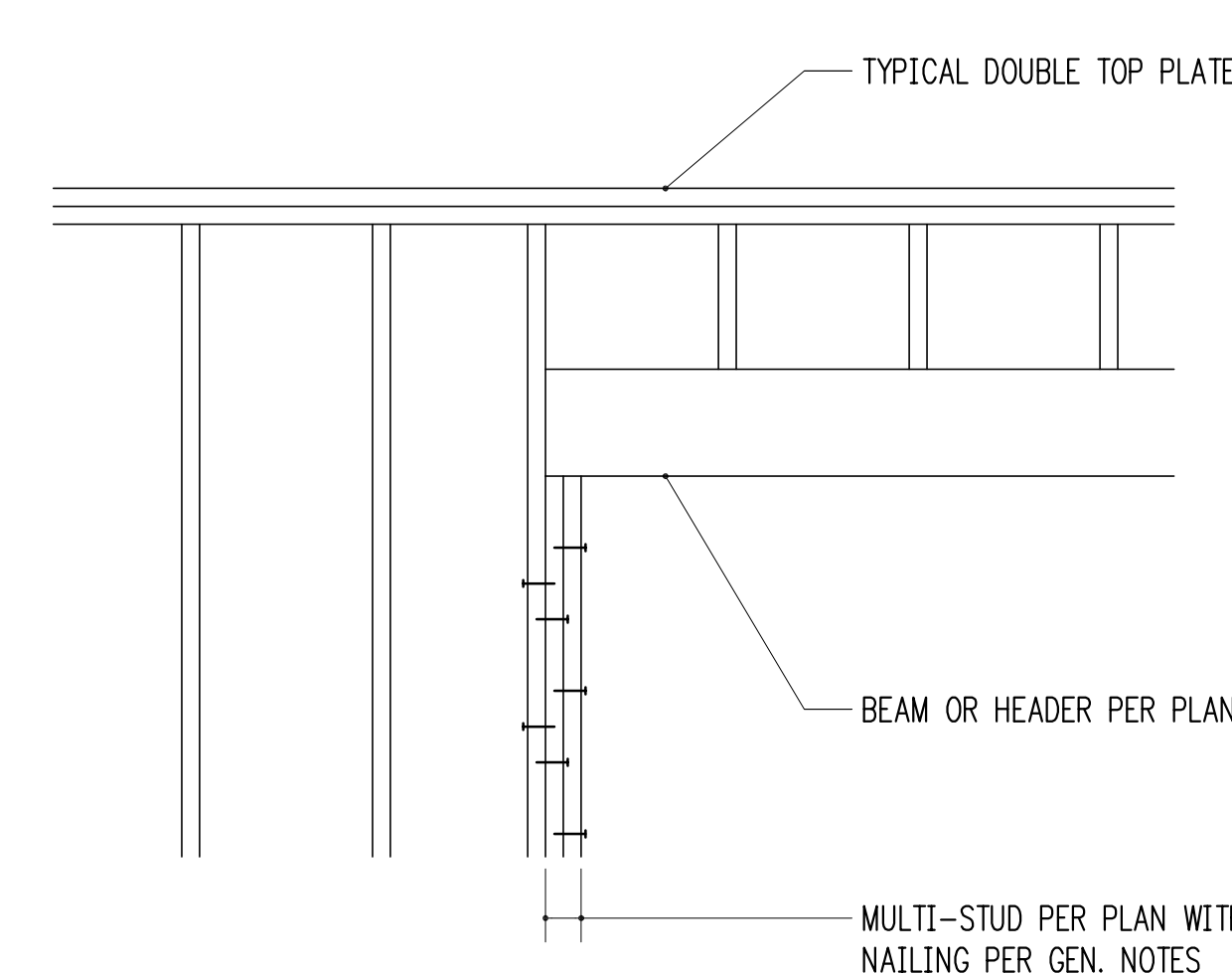
MARK	FASTENERS TO STUDS ¹	ANCHOR DIA. ²	EMBEDMENT LENGTH		SSTB ⁵
			EPOXY ³	CAST-IN ⁴	
HDU2	(6) 1/4" @ x 2 1/2" SCREWS	5/8"	12"	11"	SSTB16
HDU4	(10) 1/4" @ x 2 1/2" SCREWS	5/8"	24"	24"	SSTB20
HDU5	(14) 1/4" @ x 2 1/2" SCREWS	5/8"	N/A	37"	SSTB24
HDU8	(20) 1/4" @ x 2 1/2" SCREWS	7/8"	N/A - SEE 12/S3.0		
HDU11	(30) 1/4" @ x 2 1/2" SCREWS	1"	N/A - SEE 12/S3.0		
HDU14	(36) 1/4" @ x 2 1/2" SCREWS	1"	N/A - SEE 12/S3.0		

- 10d AND 12d DIAMETER = 0.148"; 16d DIAMETER = 0.162". SCREWS SHALL BE SIMPSON "SDS" TYPE SCREWS, INSTALL PER SIMPSON RECOMMENDATIONS.
- PROVIDE A36 OR A307 ALL-THREAD AT EPOXY AND CAST-IN ANCHORS.
- PROVIDE SIMPSON "SET-XP" EPOXY PER GENERAL STRUCTURAL NOTES. SPECIAL INSPECTION IS REQUIRED.
- AT CAST-IN ANCHORS PROVIDE HEAVY HEX NUT AT BOTTOM OF ALL-THREAD. HOOKED J-BOLT MAY BE USED FOR LTT HOLDDOWNS.
- AT 3x SILL PLATES, PROVIDE LONGER SSTB MODELS.



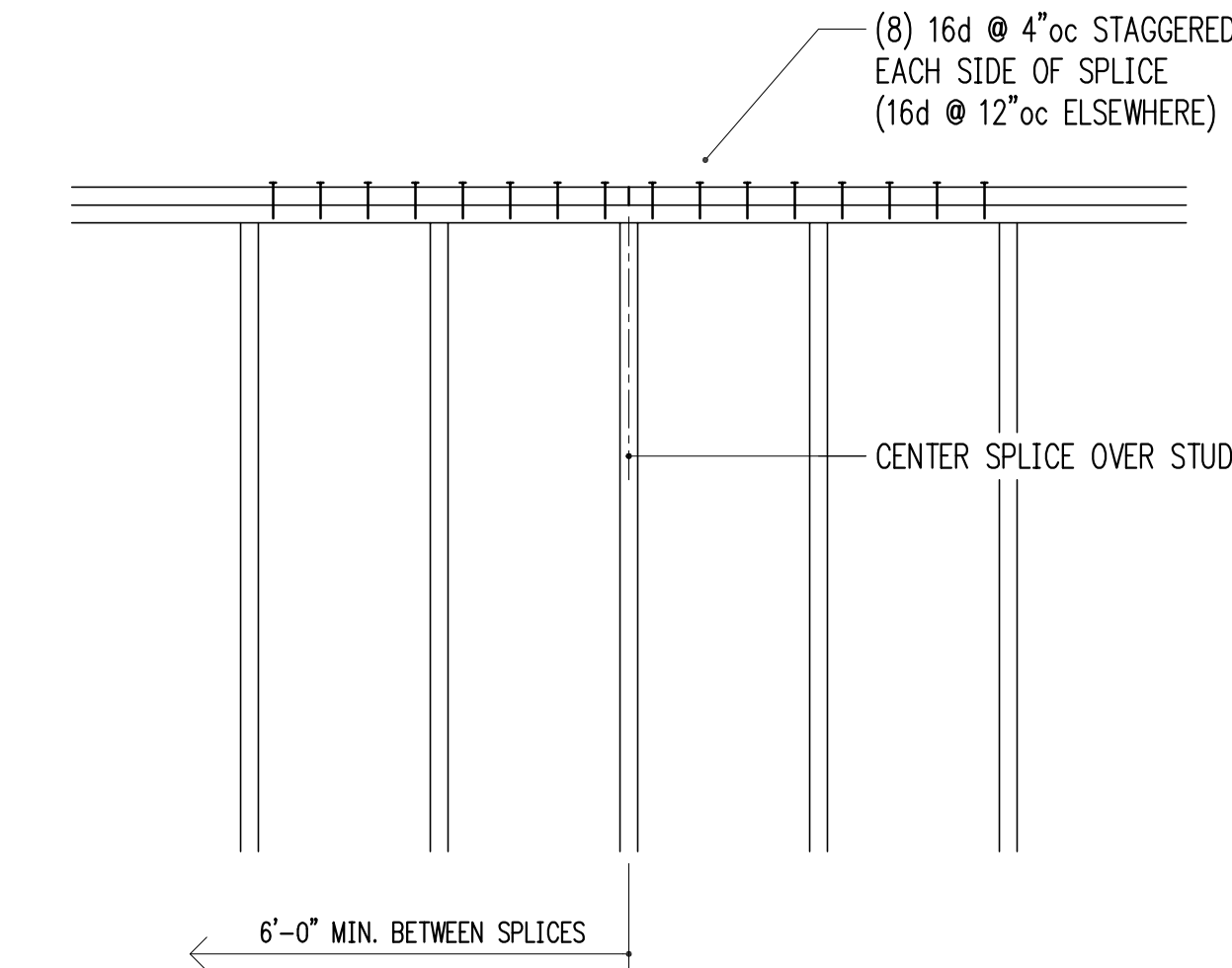
TYPICAL HOLDDOWN AT CONCRETE

3/4" = 1'-0"



TYPICAL MULTIPLE-STUD POST CONSTRUCTION

3/4" = 1'-0"



TYPICAL TOP PLATE SPLICE CONSTRUCTION

3/4" = 1'-0"



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S4.0

WERELIUS RESIDENCE