

APPROVED PLAN
SET MUST REMAIN
ON SITE.

CITY MARKUPS &
APPROVALS MUST
BE PRINTED IN RED.



Development Services

Building Permit Cover Sheet

VERY IMPORTANT

A PRINTED COPY OF ALL APPROVED DOCUMENTS MUST REMAIN ON THE JOB SITE AND BE AVAILABLE AT ALL TIMES FOR INSPECTORS.

Fire

*FIRE STAMPS

SPRINKLERS ARE NOT REQUIRED

City of Kirkland
123 5th Avenue
Kirkland, WA 98033

INSPECTION RECORD - THIS CARD MUST BE POSTED ON SITE
Schedule an inspection by 6:00 PM for next day inspections
Schedule online at: www.MyBuildingPermit.com



Permit #: **BSF24-07761**

How to request an inspection:
1) Go to <http://www.MyBuildingPermit.com>
2) Select Kirkland as the Jurisdiction.
3) Select Permit Number or Address.
4) Follow the on-screen instructions.

Description of Work:
*New Cottage Home: New cottage home unit 2 [eLSM24-03620]

BUILDING ADDRESS	PARCEL NUMBER	DATE PRINTED	PERMIT TYPE	WORKCLASS	SQ FT	VALUATION
11607 NE 112TH ST	3893100825	12/18/24	Building Single Family	New	0	

REQUIRED INSPECTIONS - DO NOT COVER ANY WORK PRIOR TO INSPECTION

Inspection	Date	Insp	Inspection	Date	Insp
BLD - Pre-con	_____	_____	PLM - Membrane Test/Tub or Shower Pan Test	_____	_____
BLD - Footings/Setback/UFER	_____	_____	PLM - Other	_____	_____
BLD - Foundation Walls	_____	_____	PCD - Tree Fencing Installation	_____	_____
BLD - Insulation Slab on Grade	_____	_____	PW - 1st Erosion Control	_____	_____
BLD - Footing Perimeter Drains	_____	_____	PW - 2nd Erosion Control	_____	_____
BLD - Subfloor Framing	_____	_____	PW - Water Meter Drop In	_____	_____
BLD - Height Verification	_____	_____	PW - Storm System	_____	_____
BLD - Exterior Wall Sheathing	_____	_____	PW - ROW Restoration	_____	_____
BLD - Roof Sheathing	_____	_____	ELE - Final	_____	_____
BLD - Interior Shearwall	_____	_____	MEC - Final	_____	_____
BLD - Floor Sheathing	_____	_____	PLM - Final	_____	_____
BLD - Draft & Fire Stopping & Caulking	_____	_____	PW - Final Site Stabilization & Erosion Control	_____	_____
BLD - Framing	_____	_____	PW - Final	_____	_____
BLD - Height Survey	_____	_____	PCD - Final	_____	_____
BLD - Wall Insulation	_____	_____	BLD - Final	_____	_____
BLD - Floor Insulation	_____	_____			
BLD - Wallboard Nailing	_____	_____			
BLD - Other	_____	_____			
ELE - Temporary Power	_____	_____			
ELE - Ditch	_____	_____			
ELE - Service	_____	_____			
ELE - Feeder	_____	_____			
ELE - Rough In	_____	_____			
ELE - Soffits Cover	_____	_____			
ELE - Low Voltage Rough In	_____	_____			
ELE - Other	_____	_____			
MEC - Fuel Gas Piping	_____	_____			
MEC - Rough Mechanical	_____	_____			
MEC - Other	_____	_____			
PLM - Underslab	_____	_____			
PLM - Water Service Line	_____	_____			
PLM - Rough Plumbing DWV	_____	_____			
PLM - Rough Water Lines	_____	_____			

* Note: 1st erosion control inspection is required prior to any excavation. * 2nd erosion control inspection is required after foundation backfill.
(These erosion control inspections only apply if they are listed on the above checklist)
Departmental staff: BLD is Building Dept, PW is Public Works Dept, PCD is Planning Dept, and FIR is Fire Dept
NOTE: THIS INSPECTION RECORD IS THE CERTIFICATE OF OCCUPANCY WHEN THE BUILDING FINAL INSPECTION HAS BEEN APPROVED

Building

*BLDG. STAMPS

City of Kirkland
Reviewed by: **J.Moe**
12/18/2024

BLDG. DEPT. CONDITIONS

HOURS OF WORK:
MON - FRI: 7AM - 8PM
SAT: 9AM TO 6PM

SUN & HOLIDAYS: NO WORK

KZC SEC 115.25. Exceptions must be approved in writing by Planning Official.

CONSTRUCTION TIP SHEETS: Under the Resources tab at MyBuildingPermit.com, you will find Guidelines and Tip Sheets that provide helpful single family project information. NOTE: City of Kirkland approval is required before you do the work.

INSPECTION CHECKLISTS: Under the Resources tab at MyBuildingPermit.com, you will find Inspection Checklists that provide general information and commonly written items during the inspection process.

INSPECTIONS REQUIRED - WHEN TO COVER: By default, un-needed inspections are often listed on your permit. Please call only for the inspections you need and ask your inspector which inspections apply or if any are missing if you are not sure. See permit for how to schedule inspections. All building elements and each layer of construction must be inspected prior to cover. Photos are not a substitute for inspections.

SUBJECT TO FIELD INSPECTION: The constructed elements of this project are subject to field inspection. Your inspector may not approve of site built details that differ from the approved plans. Revisions may not be inspected/approved in the field without prior review first. Revisions should be submitted to Development Services for review prior to construction.

SCOPE OF WORK: Changes to the scope of work, design, materials or method of construction will require revised plans to be submitted. The plans must be reviewed and approved by city staff prior to being implemented in the field. Additional review fees may apply.

ADDRESS NUMBERS: New and existing buildings shall have approved address numbers placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contract with their background. Numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches in height with a stroke width of not less than 0.5 inch. Address identification shall be maintained. IFC Sec. 505.

SMOKE AND CARBON MONOXIDE ALARMS: Smoke Alarms are required for all new dwelling units and in existing dwelling units when alterations or repairs require a permit, or when one or more sleeping rooms are created within an existing space. Alarms shall be hard wired with battery backup and interconnected. Smoke Alarms and Carbon Monoxide Alarms locations are required per IRC 314 & 315.

IRC 308.6.2
Dedicated circuit for electric vehicle charging.
A minimum of one 40-ampere dedicated 208/240-volt branch circuit shall be installed in the electrical panel for each dwelling unit.
The branch circuit shall terminate at a junction box, receptacle outlet, or electric vehicle charging equipment.

WSEC R403.7 - Equipment sizing and efficiency rating
Heating and cooling equipment shall be sized in accordance with ACCA Manual 5 based on building loads calculated in accordance with ACCA Manual 3. The output capacity of heating and cooling equipment shall not be greater than that of the smallest available equipment size that exceeds the loads calculated, including allowable oversizing limits.

BLOWER DOOR/AIR LEAKAGE TESTING REQUIRED

WSEC-R 402.4.1.2 & WSEC-R402.4.1.3.1

- Blower door testing required by third party agency and provided to field inspector.
- The components of the building envelope listed in Table R402.4.1.1 shall be installed per the manufacturer's installation instructions and the component criteria.
- Maximum air leakage rate shall not exceed 4.0 air changes per hour (for projects utilizing an energy credit within option 2, testing shall comply with the required reduced air changes).
- Testing shall be conducted with a blower door test at a test pressure of 0.2 inches w.g. (50 Pa).

SPECIAL INSPECTION REQUIRED BY LICENSED 3RD PARTY FOR ALL EPOXY SET ANCHORS OR STRUCTURAL HOLD DOWNS

WSEC-R Lighting - 2021
4.404.1 Lighting equipment.
All permanently installed lighting fixtures, excluding kitchen appliance lighting fixtures, shall contain only high-efficacy lighting sources.
4.404.2 Interior lighting controls.
Permanently installed fixtures shall be controlled with either a dimmer, an occupancy sensor control or other control that is installed or built into the fixture in all areas of the home except bathrooms, hallways, or lighting designed for safety or security.
4.404.3 Exterior lighting controls.
Where total permanently installed exterior lighting power is greater than 30 watts, lighting shall comply with requirements.

WSEC-R 401.3 Certificate.
A permanent certificate shall be completed by the builder or other approved party and posted on a wall in the space where the furnace is located, a utility room, or an approved location inside the building. When located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label, or other required labels. The certificate shall indicate the following:
1.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.
2.U-factors for fenestration and the solar heat gain coefficient (SHGC) of fenestration. Where there is more than one value for each component, the certificate shall indicate the area weighted average value.
3.The results from any required duct system and building envelope air leakage testing done on the building.
4.The results from the whole-house mechanical ventilation system flow rate test.
5.The types, sizes and efficiencies of heating, cooling, whole-house mechanical ventilation, and service water heating appliances. Where a gas-fired unvented room heater, electric furnace, or baseboard electric heater is installed in the residence, the certificate shall list "gas-fired unvented room heater," "electric furnace" or "baseboard electric heater," as appropriate. An efficiency shall not be listed for gas-fired unvented room heaters, electric furnaces or electric baseboard heaters.
6.Where on-site photovoltaic panel systems have been installed, the array capacity, inverter efficiency, panel tilt, orientation and estimated annual electrical generation shall be noted on the certificate.
7.The code edition under which the structure was permitted, and the compliance path used.

The code official may require that documentation for any required test results include an electronic record of the time, date and location of the test. A date-stamped smart phone photo or air leakage testing software may be used to satisfy this requirement.

Planning

*PLANNING CONDITIONS

PCD APPROVED SITE PLAN
Any proposed changes to the approved site plan, such as but not limited to added hard surfaces, HVAC units, tree removals and accessory structures, must be submitted to the Planning and Building Department as a revision to the permit for review and approval by all departments prior to implementation.

NOTICE HOURS OF WORK:
7 AM TO 8 PM MON-FRI
9 AM TO 6 PM SAT
NO WORK SUNDAYS & HOLIDAYS (PER KZC SEC. 115.25). Exceptions must be approved in writing by Planning Official.

All mechanical units shall comply with the maximum environmental noise levels established pursuant to the Noise Control Act of 1974, Revised Code of Washington (RCW) 70.107. See Chapter 173-60 Washington Administrative Code (WAC).

The combined height of fences and retaining walls within five feet of each other in a required yard may be a maximum of six feet. (KZC115.115.3.g.2)

NO ADDITIONAL LOT COVERAGE
Any gravel pathways, mechanical unit pads, or additional hardscape must be submitted as a revision to the permit.

FIELD HEIGHT VERIFICATION
Completed building height verification form required at subfloor inspection/slab insulation inspection

FIELD HEIGHT VERIFICATION
Completed building height survey must be submitted to building inspector at roof sheathing inspection

Arborist Report
All recommendations in report produced by project arborist, as reviewed and approved by City of Kirkland, must be followed.

Limits of Disturbance
Project arborist shall be on-site during excavation or disturbances within the limits of disturbance of trees to remain. If substantial impacts occur, the Project Arborist shall prepare, and provide to the Planning Official, a report documenting the impacts and subsequent recommendations.

PLACING MATERIAL NEAR TREES
No person may conduct any activity within the protected area of any tree designated to remain, including but not limited to, operating or parking equipment, placing solvents, storing building material or soil deposits, or dumping concrete washout or other chemicals. During construction no person shall attach any object to any tree designated for protection.

Illicit Discharges and Connections (Municipal Code 15.52) are prohibited into the Storm Drain System:
Contractor is responsible for keeping streets clean and free of contaminants at all times, removing pollutants from a private system that enters the municipal storm system and/or surface and ground water, and preventing an illicit discharge (KMC 15.52) into a the municipal storm drain system and/or surface and ground water. If your construction project violates Municipal Code 15.52, the City of Kirkland Storm Maintenance Division will be called to clean the public storm system, and other affected public infrastructure. The contractor(s), property owner, vendor, and any other responsible party may be charged all costs associated with the clean-up and may also be assessed a fine (KMC 1.12.200). The minimum fine is \$500. A fine for a repeat violation shall be determined by multiplying the surface water fine by the number of violations. A fine may be reduced or waived for persons who immediately self-report violation to the city at 425-587-3900. A Final Inspection of your Project will not be granted until all costs associated with the clean-up, and penalties, are paid to the City of Kirkland.

WASHINGTON STATE UNIVERSITY
ENERGY PROGRAM

2021 WSEC-R Compliance Certificate

Property Address: _____		<u>R & U Values</u>	
Contractor / Design Professional: _____		Floors / Slabs: _____	
Conditioned Floor Area: _____		Walls Above Grade _____	
Conditioned Volume: _____		Walls Below Grade _____	
R2 MF Units / DUEA: _____		2': _____ 3.5' _____ 7': _____	
_____		Permit # _____	
_____		_____	
Heating & Cooling Equipment:			
System Type: _____	Model # _____	Efficiency _____	
Heating: _____			
Cooling: _____			
DHW: _____			
<u>Energy Equalization Credits & 406.3 Credit Selection</u>		Total Credits: _____	
☐ Energy Equalization #: _____ Credits _____			
☐ Envelope / Efficient Building #: _____ Credits _____			
☐ Air Leakage Control +ERV/HRV # _____ Credits _____			
☐ HVAC selection #: _____ Crd: _____ Ducts Inside Option? _____			
☐ Domestic Water Heater # _____ Credits: _____			
☐ Water Distribution?: 5.1 _____ 5.2 _____ Credits: _____			
☐ Renewable(s): _____ KWH Credits: _____			
☐ Appliance Package: Heat pump dryer model #: _____ Crd: _____			
<u>Test Results</u>			
Blower Door: ACH@50PA or DUEA: _____			
Target _____ Tested _____			
Duct Leakage (CFM@25PA): _____			
Target _____ Tested _____			
Stove Hood CFM / Utility Room _____			
ERV / HRV & Bathroom Ventilation: _____			
CFM _____ CFM _____			
CFM _____ CFM _____			

Check Permit Status

<https://PermitSearch.MyBuildingPermit.com>

Request an Inspection

<https://Inspection.MyBuildingPermit.com>

PERMIT NUMBER: BSF24-07761
PROJECT NAME: COTTAGE UNIT 2
SITE ADDRESS: 11607 NE 112TH ST



Development Services

Building Permit Cover Sheet

VERY IMPORTANT
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PUBLIC WORKS - PERMIT CONDITIONS AND STAMPS

PUBLIC WORKS CONDITIONS General Conditions 1.Pre-construction Meeting Required Before Any Construction Activity: Request a pre-construction meeting online at www.mybuildingpermit.com after the permit has been issued. 2.Scheduling a Public Works Inspection: All required inspections must be requested by the contractor or permit applicant by 3:00 PM on the day prior to the inspection. Request inspections by going online at www.mybuildingpermit.com. If you need to speak with your Public Works Construction Inspector prior to scheduling your first inspection, call 425.587.3800; be prepared to provide your permit number and site address. 3.Clearing limits shall be accurately flagged and tree protection in place prior to commencement of site work. 4.A copy of the approved plans must be on the job site whenever construction is in progress. All changes agreed to must be shown on the "record drawings" prior to project completion. 5.Streets and sidewalks shall not be used for stockpiling building materials, debris, or equipment. 6.Before a street, traffic lane, pedestrian route, or sidewalk is closed, a traffic/pedestrian plan must be submitted to and approved by the City of Kirkland 48 hours prior to closure. Do not block sidewalks with equipment or traffic control signs unless you have a pedestrian detour route in place. 7.Daily work is limited to Monday through Friday, from 7:00 a.m. to 8:00 p.m. (arterial traffic lanes is 9 a.m. to 3:30 p.m.) and Saturday 9:00 a.m. to 6:00 p.m. No utility work in the ROW after 12:00 p.m. on Fridays; restoration only. A.No work will be allowed on holidays that are observed by the City of Kirkland. B.No work on Sunday. C.No work is allowed on Saturday in the public right-of-way or any on-site utilities; light grading is permitted onsite. Also, no trucks permitted to haul in or out. D.The following is the schedule of City closure days and holidays, and the work allowed: •MLK Jr. Day - onsite grading only •President's Day - onsite grading only •Memorial Day - no work •Independence Day - no work •Labor Day - no work •Veteran's Day observed - onsite grading only •Thanksgiving Day - no work •Day after Thanksgiving - onsite grading only •Christmas Eve observed - onsite grading only •Christmas Day - no work •New Year's Eve observed - onsite grading only •New Year's Day - no work 8.No water system work allowed on Fridays (or any day before a holiday or City closure day). 9.No steel sheets are allowed in Right-of-Way over weekend or on city closure days. Sheets must be removed and asphalt patching in place before 3:00 p.m. Friday. 10.All water valves shall be operated ONLY by City field crews. 11.For water emergencies such as a service or main break, first call Public Works Water Department at (425) 587-3900. Then, call your inspector. 12.Dust / Erosion / Sedimentation Controls, Developer and Contractor Responsibilities: A.All required erosion /sedimentation controls must be constructed and in operation prior to land clearing. B.During the period from October 1 to April 30, any area stripped of vegetation, including roadway embankments, shall be stabilized within 12 hours with the approved control methods (e.g., seeding, mulching, netting, erosion blankets, etc.). C.During the period from May 1 to September 30, any cleared areas shall not lie open for a period longer than 7 days. If any erosion problem already exists on the site, immediate seeding, mulching, or other cover protection will be required. D.Per Kirkland Municipal Code 15.52.100, the City of Kirkland may determine at any time during construction that implemented dust, erosion, and sedimentation control measures are not sufficient and additional action is required. E.Developer/Contractor is responsible for controlling dust, mud, and debris within the project limits and onto existing streets. F.DO NOT ALLOW RUNOFF FROM THE WASHING OF TRUCKS OR OTHER TOOLS OR EQUIPMENT (GENERATING MUD, SILT, CONCRETE WASTE, PAINT, ETC) INTO DRAINAGE SYSTEM. 13.All Work Must Meet Kirkland Standards: All work associated with this project, including street improvements and utility connections, must meet the City of Kirkland Public Works Standards and Policies. Purchase the Manual from Public Works or view on-line at www.kirklandwa.gov (navigate to PW Development Services). 14.Field Conditions May Warrant Revisions: Field conditions during construction may warrant required revisions or modifications to the site plan, utility plan, or street improvement plan. 15.Maintain Survey Monuments: Any existing survey monuments or other permanent survey markers within the public right-of-way shall be maintained during construction. If a monument or other survey marker in the right-of-way is disrupted during construction, it shall be replaced by a licensed surveyor. 16.Redline Comments Included: The owner/contractor is responsible for the implementation of any "redline", plan review comments found in the plans submitted to, and reviewed by the Public Works Department. 17.Traffic Control per MUTCD: All construction activity within the public right-of-way shall have traffic control signing and flagging per the standards within the Manual on Uniform Traffic Control Devices (MUTCD). 18.Re-inspection Fee: An additional review or inspection fee will be assessed for additional review or inspection of a modified design and for re-inspections when the applicant is not prepared for the requested inspection. 19.Plan Revision Clouding: Revisions submitted after the permit is issued shall be clouded and indexed with a number circumscribed in a triangle with the revision described in a revision block. 20.Replace Damaged Public Improvement: Any public improvements damaged during construction shall be replaced prior to final building inspection. 21.Contact PW Inspector when unknown utility lines are encountered: If existing unknown utility lines are encounter during construction, contact your Public Works Inspector before proceeding with work. Do not place any structure over an existing utility line. 22.Do no install utility lines in foundation bearing zone: No utility lines will be allowed in the "load bearing zone" of piers and footings. The Public Works Inspector shall be notified if these utilities are found near the excavation area for piers or footings. 23.Underground All Overhead Utility Lines: All new or existing overhead utility lines (power, phone, TV, etc) shall be placed underground from the building to the point of origin at the primary/distribution lines of the utility (overhead lines to secondary or service poles will not be allowed). New service lines shall be installed underground even if the site has existing overhead service lines that will remain in place.
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Water and Sewer Conditions

24.Water Meter Installation Request: To request a water meter installation, call your Public Works inspection line to request a water service inspection and water meter installation. If the water service passes inspection and is ready for a water meter installation, your inspector will schedule the meter installation with the Water Department; please allow 48 hours for installation, once it has been approved.

25.AC Pipe Certification Required: All persons working with or on Asbestos Cement (AC) pipe are required to have proof of certification for working with AC pipe as prescribed in WAC 296-62-07705 and follow OSHA, WISHA, and PSAPCO requirements.

26.Monthly Sewer Billing Begins Before Final Inspection: Monthly Sewer billing will start upon completion of Rough Plumbing inspection and the side sewer connection.

27.Side Sewer and/or Storm Drainage As-built: The side sewer and/or storm drainage as-built drawings must be prepared prior to the arrival of the Public Works Inspector. If the as-built is not ready, an inspection of those systems will not be conducted at that time and a re-inspection will be required. As-built drawings shall have the following information: address, permit number, building outline, surface features (eg driveway), north arrow, street name, reflect all bends and pipe lengths, triangulation measurements, and be neat and legible. Each as-built shall have the measurement from stub to downstream manhole (distance, ft) or catch basin. Storm as-builts shall also show all LID features (eg porous pavement, rain garden, infiltration areas, etc.).

Erosion Control Conditions

28.Install Erosion Control Prior to Construction: Erosion control measures approved by the Public Works Department must be installed and inspected prior to the commencement of any construction.

29.Mandatory TESC Material Stockpiling: In addition to the mandatory TESC materials installed at the time of grading, the owner/contractor shall stockpile the following materials prior to work startup:

✓Minimum of 6 straw bales or wattles, and 6 additional bales /wattles per additional acre disturbed.

✓Minimum 75 feet of filter fabric, and 75 feet per additional disturbed acre.

✓Minimum of 15 silt fence stakes, and 15 stakes per additional disturbed acre.

This material must be protected from the elements and readily available to the contractor, if installation of emergency erosion control measures becomes necessary. Also, if any of the stockpiled materials are used, they shall be replaced within 2 days.

30.Protect Adjacent Property: Adequate drainage protection must be provided for adjacent properties. Applicants must control development runoff to ensure activities will not cause nuisance or adverse impact to adjacent private and public property.

31.Erosion Control Inspections: Erosion and Sediment Control (ESC) Inspections Required: Approved ESC measures must be installed prior to commencement of construction, and periodic inspections will be conducted during the course of construction.

✓ESC Inspection #1 - Required prior to pouring concrete for foundation and footings.

✓ESC Inspection #2 - Required after foundation backfill, rough grading, and prior to subfloor framing inspection. Subfloor framing inspection will not be performed until this ESC inspection has been successfully completed.

✓ESC Inspection #3 - Required for final site stabilization. A final building department inspection and sign-off will not occur until the final ESC inspection has been fully completed.

✓For demolition permits, only ESC Inspection #3 is required.

32.Cover All Exposed Soil: Construction drainage control shall be maintained by the developer and subject to periodic inspections. During the period from May 1 to September 30, all denuded soils must be covered within 7 days; between October 1 and April 30, all denuded soils must be covered within 12 hours. Additional erosion control measures may be required based on site and weather conditions. Exposed soils shall be stabilized at the end of the workday prior to a weekend, holiday, or predicted rain event.

33.Illicit Discharges and Connections (Municipal Code 15.52) are prohibited into the Storm Drain System:

Contractor is responsible for keeping streets clean and free of contaminants at all times, removing pollutants from a private system that enters the municipal storm system and/or surface and ground water, and preventing an illicit discharge (KMC 15.52) into the municipal storm drain system and/or surface and ground water. If your construction project violates Municipal Code 15.52, the City of Kirkland Storm Maintenance Division will be called to clean the public storm system, and other affected public infrastructure. The contractor(s), property owner, vendor, and any other responsible party may be charged all costs associated with the clean-up and may also be assessed a fine (KMC 1.12.200). The minimum fine is \$500. A fine for a repeat violation shall be determined by multiplying the surface water fine by the number of violations. A fine may be reduced or waived for persons who immediately self-report violation to the city at 425-587-3900. A Final Inspection of your Project will not be granted until all costs associated with the clean-up, and penalties, are paid to the City of Kirkland.

Stormwater Conditions

34.Roof Drainage shall be Separate from Footing Drains: When roof and downspout drains are connected to the Public storm system, the onsite private storm must be tight lined separately from the foundation footing drains. All pipe material must be PVC gravity storm-sewer pipe meeting the requirements of ASTM D-3034, from the building to the stub or connection.

35.Curtain Drain may be Required: To protect adjacent properties from site runoff and groundwater due to site grading and soil modification, the owner/developer may be required to install a curtain drain/exfiltration trench along the property lines. The water collected by this drain must be conveyed to the storm drainage system. The configuration of this drain may need to be designed by a civil or geotechnical engineer, as directed by the Public Works Department.

Right-of-Way Conditions

36.Driveway Inspection Required: A Public Works inspection is required before pouring or paving any driveway to confirm that the location and dimensions of the driveway are according to plan.

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PERMIT NUMBER:
PROJECT NAME:
SITE ADDRESS:

Check Permit Status

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Request an Inspection

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WRITTEN DIMENSIONS ON THIS DRAWING SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ETC. PERTAINING TO THE WORK BEFORE PROCEEDING. THE OWNER MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND/OR CONDITIONS SHOWN ON THESE DRAWINGS. ANY SUCH VARIATION SHALL BE RESOLVED BY THE OWNER PRIOR TO PROCEEDING WITH THE WORK, OR THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR THE COST TO RECTIFY SAME.

11607 NE 112th STREET UNIT 2 KIRKLAND, WA

PCD APPROVED SITE PLAN
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NO ADDITIONAL LOT COVERAGE
Any gravel pathways, mechanical unit pads, or additional hardscape must be submitted as a revision to the permit.

FIELD HEIGHT VERIFICATION
Completed building height field verification form required at subfloor inspection/slab insulation inspection

FIELD HEIGHT VERIFICATION
Completed building height survey must be submitted to building inspector at roof sheathing inspection

Arborist Report
All recommendations in report produced by project arborist, as reviewed and approved by City of Kirkland, must be followed.

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Project arborist shall be on-site during excavation or disturbances within the limits of disturbance of trees to remain. If substantial impacts occur, the Project Arborist shall prepare, and provide to the Planning Official, a report documenting the impacts and subsequent recommendations.

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CITY OF KIRKLAND GFA SQUARE FOOTAGES	
MAIN FLOOR ENCLOSED SQFT	749 SQFT
UPPER FLOOR ENCLOSED SQFT	945 SQFT
COVERED PORCH (OVER 64 SQFT)	0 SQFT
TOTAL ENCLOSED SQFT (FROM INSIDE OF EXTERIOR WALL IN)	1,694 SQFT (MAX: 1,700 SQFT)
GARAGE ENCLOSED SQFT	202 SQFT
TOTAL ENCLOSED SQFT (FROM INSIDE OF EXTERIOR WALL IN)	1,896 SQFT

CONSULTANTS

ARCHITECT
NASH AND ASSOCIATES ARCHITECTS
8003 118th AVE NE
KIRKLAND, WA 98033
PHONE: (425) 242-7490

STRUCTURAL ENGINEER
MULHERN AND KULP ENGINEERS
7220 TRADE STREET SUITE 350
SAN DIEGO, CA 92121
PHONE: (619) 650-0010

CODE INFORMATION

CONSTRUCTION TYPE: 5B
OCCUPANCY: R3/U-1
2021 INTERNATIONAL RESIDENTIAL CODE FOR ONE AND TWO FAMILY DWELLINGS
2021 INTERNATIONAL FIRE CODE
2021 UNIFORM PLUMBING CODE
2021 WASHINGTON STATE ENERGY CODE
2021 INTERNATIONAL MECHANICAL CODE

SQUARE FOOTAGE'S:

MAIN FLOOR	746 S.F.
UPPER FLOOR	1008 S.F.
TOTAL	1,804 S.F.
GARAGE	212 S.F.
CVRD. PORCH	64 S.F.

(TO OUTSIDE OF EXTERIOR WALLS)

TOTAL SITE F.A.R.

UNIT 1	1,950 S.F.
UNIT 2	1,960 S.F.
UNIT 3	1,924 S.F.
UNIT 4	1,950 S.F.
TOTAL	7,784 S.F.
SITE AREA	17,260 S.F.
7,784 / 17,260 = 45.1%	
MAX 50% PER CODE	

LOT COVERAGE:

UNIT 1	1260 S.F.
UNIT 2	1072 S.F.
UNIT 3	1017 S.F.
UNIT 4	1260 S.F.
TOTAL BLDG.	4609 S.F.
TOTAL PAVEMENT (WALKWAYS, DRIVEWAYS, PATIOS)	3607 S.F.
TOTAL LOT COVERAGE	8216 S.F.
SITE AREA	17,260 S.F.
8216/17260= 47.6% (MAXIMUM 50%)	

DIRECTORY

C	- COVER SHEET
EN-1	- ENERGY CALCULATION SHEETS
EN-2	- ENERGY CALCULATION SHEETS
EN-3	- ENERGY CALCULATION SHEETS
EN-4	- ENERGY CALCULATION SHEETS
C1	- SITE PLAN
A1	- ELEVATIONS
A2	- FOUNDATION & MAIN FLOOR PLAN
A3	- ROOF PLAN & UPPER FLOOR PLAN
A4	- STAIR SECTION & BUILDING SECTION
SO.0	- GENERAL STRUCTURAL NOTES
SI.0	- FOUNDATION PLANS
S2.0	- FRAMING PLANS
SD-1	- STRUCTURAL DETAILS
SD-2	- STRUCTURAL DETAILS



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LEGACY
GROUP CAPITAL

11607 NE 112th STREET
KIRKLAND, WA

UNIT 2

Project:

date: 04-04-24
permit:
revisions:
08-30-24
12-04-24

drawn by: CML
checked by: MMJ

SHEET

C

TABLE R402.1.3
INSULATION MINIMUM R-VALUES AND FENESTRATION
REQUIREMENTS BY COMPONENTS.

CLIMATE ZONE 5 AND MARINE 4 (PRESCRIPTIVE)	
FENESTRATION U-FACTOR b, j	0.30
SKYLIGHT b U-FACTOR	0.50
CEILING R-VALUE e	60
WOOD FRAME WALL g, i R-VALUE	20+5 OR 13+10
FLOOR R-VALUE	30
BELOW-GRADE c, h WALL R-VALUE	10/15/21 INT + 5TB
SLAB d, f R-VALUE & DEPTH	10, 4 FT

- a. R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix A Table A101.4 of [chapter 51-11C WAC](#) shall not be less than the R-value specified in the table.
- b. The fenestration U-factor column excludes skylights.
- c. "10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-21 cavity insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.
- d. R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.
- e. For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.
- f. R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.
- g. For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for *climate zone 5* of ICC 400.
- h. Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78 percent of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.
- i. The first value is cavity insulation, the second value is continuous insulation. Therefore, as an example, "R13+10" means R-13 cavity insulation plus R-10 continuous insulation.
- j. A maximum U-factor of 0.32 shall apply to vertical fenestration products installed in buildings located above 4000 feet in elevation above sea level, or in windborne debris regions where protection of openings is required under Section R301.2.1.2 of the International Residential Code.

CLIMATE ZONE 5 AND MARINE 4 (PROPOSED)	
FENESTRATION U-FACTOR b, j	U=.25
SKYLIGHT b U-FACTOR	0.50
CEILING R-VALUE e	R-60
WOOD FRAME WALL g, i R-VALUE	R-21
FLOOR R-VALUE	R-38
BELOW-GRADE c, h WALL R-VALUE	10/15/21 INT + 5TB
SLAB d, f R-VALUE & DEPTH	10, 4 FT

INSULATION VALUES HAVE BEEN CALCULATED USING THE
2021 CODE COMPLIANCE CALCULATOR OR PER ENERGY
CREDITS CHOSEN. SEE WSU CODE COMPLIANCE CALCULATOR
CALCULATIONS (8X11 ENERGY CODE PAPERWORK IN SUBMITTAL)

THIS PROJECT:

	WILL REQUIRE CONTINUOUS EXTERIOR INSULATION (R-5) AND WILL USE RIGID FOAM.
	WILL REQUIRE CONTINUOUS EXTERIOR INSULATION (R-5) AND WILL USE ZIP-SHEATHING OR A SIMILAR PRODUCT.
	WILL NOT REQUIRE CONTINUOUS EXTERIOR INSULATION PER WSU'S CODE COMPLIANCE CALCULATOR.

SECTION R403
SYSTEMS

R403.3.5 Duct testing. Ducts shall be leak tested in accordance with WSU RS-33, using the maximum duct leakage rates specified.

Exception: A duct air leakage test shall not be required for ducts serving ventilation systems that are not integrated with ducts serving heating or cooling systems.

A written report of the results shall be signed by the party conducting the test and provided to the code official.

R403.3.6 Duct leakage. The total leakage of the ducts, where measured in accordance with Section R403.3.3, shall be as follows:

- Rough-in test: Total leakage shall be less than or equal to 4.0 cfm (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 3.0 cfm (85 L/min) per 100 square feet (9.29 m²) of conditioned floor area.
- Postconstruction test: Leakage to outdoors shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area or total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m²) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.
- Test for ducts within thermal envelope: Where all ducts and air handlers are located entirely within the *building thermal envelope*, total leakage shall be less than or equal to 8.0 cubic feet per minute (226.6 L/min) per 100 square feet (9.29 m2) of conditioned floor area. For forced air ducts, a maximum of 10 linear feet of return ducts and 5 linear feet of supply ducts may be located outside the conditioned space. All metallic ducts located outside the conditioned space must have both transverse and longitudinal joints sealed with mastic. If flex ducts are used, they cannot contain splices. Flex duct connections must be made with nylon straps and installed using a plastic strapping tensioning tool. Ducts located in crawl spaces do not qualify for this exception.

SECTION R404
ELECTRICAL POWER AND LIGHTING SYSTEMS

R404.1 Lighting equipment. All permanently installed lighting fixtures, excluding kitchen appliance lighting fixtures, shall contain only *high-efficacy* lighting sources.

R404.1.1 Exterior lighting. Connected exterior lighting for residential buildings shall comply with Section C405.5.

Exceptions: Solar-powered lamps not connected to any electrical service.

R404.1.2 Fuel gas lighting equipment. Fuel gas lighting systems shall not have continuously burning pilot lights.

R404.2 Interior lighting controls. Permanently installed interior lighting fixtures shall be controlled with either a dimmer, an occupant sensor control or other control that is installed or built into the fixture.

Exception: Lighting controls shall not be required for the following:

- Bathrooms.
- Hallways.
- Lighting designed for safety or security.

R404.3 Exterior lighting controls. Where the total permanently installed exterior lighting power is greater than 30 watts, the permanently installed exterior lighting shall comply with the following:

- Lighting shall be controlled by a manual on and off switch which permits automatic shut-off actions.
Exception: Lighting serving multiple *dwelling units*.
- Lighting shall be automatically shut off when daylight is present and satisfies the lighting needs.
- Controls that override automatic shut-off actions shall not be allowed unless the override automatically returns automatic control to its normal operation within 24 hours.

SECTION R405
TOTAL BUILDING PERFORMANCE

R405.3.2.2 Compliance report for certificate of occupancy. A compliance report submitted for obtaining the certificate of occupancy shall include all of the following:

- Building street address, or other building site identification
- Declaration of the total building performance path on the title page of the energy report and the title page of the building plans.
- A statement, bearing the name of the individual performing the analysis and generating the report, along with their organization and contact information, indicating that the as-built building complies with Section R405.2.
- The name and version of the compliance software tool.
- A site-specific energy analysis report that is in compliance with Section R405.2.
- A final confirmed certificate indicating compliance based on inspection, and a statement indicating that the confirmed rated design of the built home complies with Section R405.2. The certificate shall report the energy features that were confirmed to be in the home, including component level insulation R-values or U-factors; results from any required duct system and building envelope air leakage testing; and the type and rated efficiencies of the heating, cooling, mechanical ventilation and service water-heating equipment installed.
- Where on-site renewable energy systems have been installed, the certificate shall report the type and production size of the installed system. Additional documentation reporting estimated annual energy production shall be provided.

Additional Items:

- Provide door blower test affidavit by final building inspection.
- Provide (1) programmable thermostat.
- A minimum of 75% of all permanent lighting shall be high efficiency.
- Building framing cavities shall not be used for ducts or plenums. Installation of ducts in exterior walls, floors, or ceilings shall not displace required envelope insulation.

TABLE R406.2 ENERGY EQUALIZATION CREDITS

SYSTEM TYPE	DESCRIPTION OF PRIMARY HEATING SOURCE	CREDITS	
		ALL OTHER	GROUP R-2 ^a
1	FOR COMBUSTION HEATING EQUIPMENT MEETING MINIMUM FEDERAL EFFICIENCY STANDARDS FOR THE EQUIPMENT LISTED IN TABLE C403.3.2(5) OR C403.3.2(6)	0	0
2	FOR AN INITIAL HEATING SYSTEM USING A HEAT PUMP THAT MEETS FEDERAL STANDARDS FOR THE EQUIPMENT LISTED IN TABLE C403.3.2(2) AND SUPPLEMENTAL HEATING PROVIDED BY ELECTRIC RESISTANCE OR A COMBUSTION FURNACE MEETING MINIMUM STANDARDS LISTED IN TABLE C403.3.2(5) ^b	1.5	0
3	FOR HEATING SYSTEM BASED ON ELECTRIC RESISTANCE ONLY (EITHER FORCED AIR OR ZONAL)	0.5	-0.5
4	FOR HEATING SYSTEM USING A HEAT PUMP THAT MEETS FEDERAL STANDARDS FOR THE EQUIPMENT LISTED IN TABLE C403.3.2(2) OR C403.3.2(9) OR AIR TO WATER HEAT PUMP UNITS THAT ARE CONFIGURED TO PROVIDE BOTH HEATING AND COOLING AND ARE RATED IN ACCORDANCE WITH AHRI 550/590	3.0	2.0
5	FOR HEATING SYSTEM BASED ON ELECTRIC RESISTANCE WITH: 1. INVERTER-DRIVEN DUCTLESS MINI-SPLIT HEAT PUMP SYSTEM INSTALLED IN THE LARGEST ZONE IN THE DWELLING, OR 2. WITH 2KW OR LESS TOTAL INSTALLED HEATING CAPACITY PER DWELLING	2.0	0

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

R406.3 Additional energy efficiency requirements. Each dwelling unit in a residential building shall comply with sufficient options from Tables R406.2 and R406.3 so as to achieve the following minimum number of credits:

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

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

TABLE R406.3 ENERGY CREDITS

OPTION	DESCRIPTION	CREDITS	
		ALL OTHER	GROUP R-2 ^b
1. EFFICIENT BUILDING ENVELOPE OPTIONS ONLY ONE OPTION FROM ITEMS 1.1 THROUGH 1.4 MAY BE SELECTED IN THIS CATEGORY. COMPLIANCE WITH THE CONDUCTIVE UA TARGETS IS DEMONSTRATED USING SECTION R402.1.5, TOTAL UA ALTERNATIVE, WHERE [1-(PROPOSED UA/TARGET UA)] > THE REQUIRED %UA REDUCTION			
1.1	PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1.3 WITH THE FOLLOWING MODIFICATIONS: VERTICAL FENESTRATION U = 0.22.	0.5	0.5
1.2	PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1.3 WITH THE FOLLOWING MODIFICATIONS: VERTICAL FENESTRATION U = 0.25 FLOOR-R-38 SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB OR COMPLIANCE BASED ON SECTION R402.1.5: REDUCE THE TOTAL CONDUCTIVE UA BY 15%.	1.0	1.0



FOR FOOTNOTES, SEE SHEET EN-3



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2021 WSEC INFORMATION

Project:

date: 3-11-24
permit:
revisions:

drawn by: CML
checked by: MAJ

SHEET

EN-1

TABLE R406.3 CONTINUED

OPTION	DESCRIPTION	CREDITS	
		ALL OTHER	GROUP R-2 ^b
1. EFFICIENT BUILDING ENVELOPE OPTIONS ONLY ONE OPTION FROM ITEMS 1.1 THROUGH 1.4 MAY BE SELECTED IN THIS CATEGORY. COMPLIANCE WITH THE CONDUCTIVE UA TARGETS IS DEMONSTRATED USING SECTION R402.1.5, TOTAL UA ALTERNATIVE, WHERE [(PROPOSED UA/TARGET UA)] > THE REQUIRED %UA REDUCTION			
1.3	PREScriptive COMPLIANCE IS BASED ON TABLE R402.1.3 WITH THE FOLLOWING MODIFICATIONS: VERTICAL FENESTRATION U = 0.18 CEILING AND SINGLE-RAFTER OR JOIST-VAULTED R-60 ADVANCED WOOD FRAME WALL R-21 INT PLUS R-12 C1 FLOOR R-38 BASEMENT WALL R-21 INT PLUS R-12 C1 SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB OR COMPLIANCE BASED ON SECTION R402.1.5; REDUCE THE TOTAL CONDUCTIVE UA BY 22.5%.	1.5	0.5
1.4	PREScriptive COMPLIANCE IS BASED ON TABLE R402.1.3 WITH THE FOLLOWING MODIFICATIONS: VERTICAL FENESTRATION U = 0.18 CEILING AND SINGLE-RAFTER OR JOIST-VAULTED R-60 ADVANCED WOOD FRAME WALL R-21 INT PLUS R-16 C1 FLOOR R-48 BASEMENT WALL R-21 INT PLUS R-16 C1 SLAB ON GRADE R-20 PERIMETER AND UNDER ENTIRE SLAB BELOW GRADE SLAB R-20 PERIMETER AND UNDER ENTIRE SLAB OR COMPLIANCE BASED ON SECTION R402.1.5; REDUCE THE TOTAL CONDUCTIVE UA BY 30%.	2.5	2.0
2. AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION OPTIONS ONLY ONE OPTION FROM ITEMS 2.1 THROUGH 2.3 MAY BE SELECTED IN THIS CATEGORY.			
2.1	COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 2.0 AIR CHANGES PER HOUR MAXIMUM AT 50 PASCALS, OR FOR R-2 OCCUPANCIES, OPTIONAL COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 0.25 CFM/FT² MAXIMUM AT 50 PASCALS AND ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M1505.3 OF THE INTERNATIONAL RESIDENTIAL CODE OR SECTION 403.8 OF THE INTERNATIONAL MECHANICAL CODE SHALL BE MET WITH A HEAT RECOVERY VENTILATION SYSTEM WITH MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY OF 0.65. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED, THE MAXIMUM TESTED BUILDING AIR LEAKAGE, AND SHALL SHOW THE QUALIFYING VENTILATION SYSTEM AND ITS CONTROL SEQUENCE OF OPERATION.	1.0	1.0
2.2	COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 1.5 AIR CHANGES PER HOUR MAXIMUM AT 50 PASCALS, OR FOR R-2 OCCUPANCIES, OPTIONAL COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 0.20 CFM/FT² MAXIMUM AT 50 PASCALS AND ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M1505.3 OF THE INTERNATIONAL RESIDENTIAL CODE OR SECTION 403.8 OF THE INTERNATIONAL MECHANICAL CODE SHALL BE MET WITH A HEAT RECOVERY VENTILATION SYSTEM WITH MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY OF 0.75. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE MAXIMUM TESTED BUILDING AIR LEAKAGE AND SHALL SHOW THE HEAT RECOVERY VENTILATION SYSTEM.	1.5	1.5
2.3	COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 0.6 AIR CHANGES PER HOUR MAXIMUM AT 50 PASCALS, OR FOR R-2 OCCUPANCIES, OPTIONAL COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 0.15 CFM/FT² MAXIMUM AT 50 PASCALS AND ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M1505.3 OF THE INTERNATIONAL RESIDENTIAL CODE OR SECTION 403.8 OF THE INTERNATIONAL MECHANICAL CODE SHALL BE MET WITH A HEAT RECOVERY VENTILATION SYSTEM WITH MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY OF 0.80. DUCT INSULATION SHALL COMPLY WITH SECTION R403.3.2. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE MAXIMUM TESTED BUILDING AIR LEAKAGE AND SHALL SHOW THE HEAT RECOVERY VENTILATION SYSTEM.	2.0	2.0

TABLE R406.3 CONTINUED

OPTION	DESCRIPTION	CREDITS	
		ALL OTHER	GROUP R-2 ^b
3. HIGH EFFICIENCY HVAC EQUIPMENT OPTIONS ONLY ONE OPTION FROM ITEMS 3.1 THROUGH 3.10 MAY BE SELECTED IN THIS CATEGORY. ITEM 3.11 MAY BE TAKEN WITH ITEMS 3.1 AND 3.3 ONLY.			
3.1 ^a	FOR A SYSTEM TYPE 1 IN TABLE R406.2: ENERGY STAR RATED (U.S. NORTH) GAS OR PROPANE FURNACE WITH MINIMUM AFUE OF 95% OR ENERGY STAR RATED (U.S. NORTH) GAS OR PROPANE BOILER WITH MINIMUM AFUE OF 90%. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	1.0	1.0
3.2 ^a	FOR SECONDARY HEATING SYSTEM SERVING SYSTEM TYPE 2 IN TABLE R406.2: AIR-SOURCE CENTRALLY DUCTED HEAT PUMP WITH MINIMUM HSPF OF 9.5 OR ENERGY STAR RATED (U.S. NORTH) GAS OR PROPANE BOILER WITH MINIMUM AFUE OF 90%. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	0.5	0.5
3.3 ^{a,c,d}	AIR-SOURCE, CENTRALLY DUCTED HEAT PUMP WITH MINIMUM HSPF 2 OF 8.1 (HSPF OF 9.5). IN AREAS WHERE THE WINTER DESIGN TEMPERATURE AS SPECIFIED IN APPENDIX RC IS 23°F OR BELOW, A COLD CLIMATE HEAT PUMP FOUND ON THE NEEP CC ASHP QUALIFIED PRODUCT LIST SHALL BE USED. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	0.5	N/A
3.4 ^{a,d}	CLOSED-LOOP GROUND SOURCE HEAT PUMP, WITH A MINIMUM COP OF 3.3 OR OPEN LOOP WATER SOURCE HEAT PUMP WITH A MAXIMUM PUMPING HYDRAULIC HEAD OF 150 FEET AND MINIMUM COP OF 3.6. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	1.5	1.0
3.5 ^d	DUCTLESS MINI-SPLIT HEAT PUMP SYSTEM, ZONAL CONTROL: IN HOMES WHERE THE PRIMARY SPACE HEATING SYSTEM IS ZONAL ELECTRIC HEATING, A DUCTLESS MINI-SPLIT HEAT PUMP SYSTEM WITH A MINIMUM HSPF 2 OF 9 (HSPF OF 10.0) SHALL BE INSTALLED AND PROVIDE HEATING TO THE LARGEST ZONE OF THE HOUSING UNIT. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	1.5	2.0
3.6 ^a	AIR-SOURCE, CENTRALLY DUCTED HEAT PUMP WITH MINIMUM HSPF 2 OF 9.4 (HSPF OF 11.0). A CENTRALLY DUCTED AIR SOURCE COLD CLIMATE VARIABLE CAPACITY HEAT PUMP (CC VCHP) FOUND ON THE NEEP CC VCHP QUALIFIED PRODUCT LIST WITH A MINIMUM OF 9 HSPF 2 (10 HSPF) MAY BE USED TO SATISFY THIS REQUIREMENT. IN AREAS WHERE THE WINTER DESIGN TEMPERATURE AS SPECIFIED IN APPENDIX RC IS 23°F OR BELOW, AN AIR SOURCE CENTRALLY DUCTED HEAT PUMP SHALL BE A COLD CLIMATE VARIABLE CAPACITY HEAT PUMP AS LISTED ON THE NEEP QUALIFIED PRODUCT LIST. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	1.0	N/A
3.7 ^{a,d,e}	DUCTLESS SPLIT SYSTEM HEAT PUMPS WITH NO ELECTRIC RESISTANCE HEATING IN THE PRIMARY LIVING AREAS, A DUCTLESS HEAT PUMP SYSTEM WITH A MINIMUM HSPF 2 OF 9 (HSPF OF 10) SHALL BE SIZED AND INSTALLED TO PROVIDE HEAT TO ENTIRE DWELLING UNIT AT THE DESIGN OUTDOOR AIR TEMPERATURE. EXCEPTION: IN HOMES WITH TOTAL HEATING LOADS OF 24,000 OR LESS USING MULTI-ZONE MINI-SPLIT SYSTEMS WITH NOMINAL RATINGS OF 24,000 OR LESS, THE MINIMUM HSPF 5 TO CLAIM THIS CREDIT SHALL BE 8.19 HSPF 2 (OR 9 HSPF). TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED, THE HEATED FLOOR AREA CALCULATION, THE HEATING EQUIPMENT TYPE(S), THE MINIMUM EQUIPMENT EFFICIENCY, AND TOTAL INSTALLED HEAT CAPACITY (BY EQUIPMENT TYPE).	2.0	3.0



FOR FOOTNOTES, SEE SHEET EN-3

TABLE R406.3 CONTINUED

OPTION	DESCRIPTION	CREDITS	
		ALL OTHER	GROUP R-2 ^b
3.8 ^{a,d}	AIR-TO-WATER HEAT PUMP WITH MINIMUM COP OF 3.2 AT 47°F, RATED IN ACCORDANCE WITH AHRI 550/590 BY AN ACCREDITED OR CERTIFIED TESTING LAB. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED, THE HEATED FLOOR AREA CALCULATION, THE HEATING EQUIPMENT TYPE(S), THE MINIMUM EQUIPMENT EFFICIENCY, AND TOTAL INSTALLED HEAT CAPACITY (BY EQUIPMENT TYPE).	1.0	N/A
3.9	GAS-FIRED HEAT PUMP(S) MEETING ANSI Z21.40.2 AND Z21.40.4 OR CSA, WITH A MINIMUM UEF OF 1.15. FOR R-2 OCCUPANCY, GAS-FIRED HEAT PUMP(S) MEETING ANSI Z21.40.2 AND Z21.40.4 OR CSA, WITH A MINIMUM UEF OF 1.15, SHALL SERVE ALL UNITS.	1.5	1.5
3.10 ^f	COMBINATION WATER HEATING AND SPACE HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: GAS-FIRED HEAT PUMP WATER HEATER(S) MEETING TIER 2 OF THE NEEA ADVANCED WATER HEATING SPECIFICATION FOR GAS-FUELED RESIDENTIAL STORAGE WATER HEATERS VERSION 1.0. OR FOR R-2 OCCUPANCY, GAS-FIRED HEAT PUMP WATER HEATER(S) MEETING TIER 2 OF THE NEEA ADVANCED WATER HEATING SPECIFICATION FOR GAS-FUELED RESIDENTIAL STORAGE WATER HEATERS VERSION 1.0., SHALL SERVE ALL UNITS. OR FOR R-2 OCCUPANCY, GAS-FIRED HEAT PUMP(S) MEETING ANSI Z21.40.2 AND Z21.40.4 OR CSA, WITH A MINIMUM UEF OF 1.15, SHALL SERVE ALL UNITS. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY AND, FOR SOLAR WATER HEATING SYSTEMS, THE CALCULATION OF THE MINIMUM ENERGY SAVINGS.	2.5	2.5
3.11 ^g	CONNECTED THERMOSTAT MEETING ENERGY STAR CERTIFIED SMART THERMOSTATS/EPA ENERGY STAR SPECIFICATIONS. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE THERMOSTAT MODEL.	0.5	0.5
4. HIGH EFFICIENCY HVAC DISTRIBUTION SYSTEM OPTIONS			
4.1	HVAC EQUIPMENT AND ASSOCIATED DUCT SYSTEM(S) INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF SECTION R403.3.2. ELECTRIC RESISTANCE HEAT, HYDRONIC HEATING AND DUCTLESS HEAT PUMPS ARE NOT PERMITTED UNDER THIS OPTION. DIRECT COMBUSTION HEATING EQUIPMENT WITH AFUE LESS THAN 80% IS NOT PERMITTED UNDER THIS OPTION. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND SHALL SHOW THE LOCATION OF THE HEATING AND COOLING EQUIPMENT AND ALL THE DUCTWORK.	0.5	N/A
5. EFFICIENT WATER HEATING OPTIONS ONLY ONE OPTION FROM ITEMS 5.1 THROUGH 5.8 MAY BE SELECTED IN THIS CATEGORY. ITEMS 5.1 AND 5.2 MAY BE COMBINED WITH ANY OPTION.			
5.1	A DRAIN WATER HEAT RECOVERY UNIT(S) SHALL BE INSTALLED, WHICH CAPTURES WASTE WATER HEAT FROM AT LEAST TWO SHOWERS, INCLUDING TUB/SHOWER COMBINATIONS. IT IS ACCEPTABLE, BUT NOT REQUIRED, FOR SINK WATER TO BE CONNECTED. UNIT SHALL HAVE A MINIMUM EFFICIENCY OF 40% IF INSTALLED FOR EQUAL FLOW OR A MINIMUM EFFICIENCY OF 54% IF INSTALLED FOR UNEQUAL FLOW. SUCH UNITS SHALL BE RATED IN ACCORDANCE WITH CSA B55.1 OR IAPMO IEC 346-2017 AND BE SO LABELED. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL INCLUDE A PLUMBING DIAGRAM THAT SPECIFIES THE DRAIN WATER HEAT RECOVERY UNITS AND THE PLUMBING LAYOUT NEEDED TO INSTALL IT. LABELS OR OTHER DOCUMENTATION SHALL BE PROVIDED THAT DEMONSTRATES THAT THE UNIT COMPLIES WITH THE STANDARD.	0.5	0.5
5.2	FOR COMPACT HOT WATER DISTRIBUTION SYSTEM CREDIT, THE VOLUME SHALL STORE NOT MORE THAN 16 OUNCES OF WATER BETWEEN THE NEAREST SOURCE OF HEATED WATER AND THE TERMINATION OF THE FIXTURE SUPPLY PIPE WHERE CALCULATED USING SECTION R403.5.2. CONSTRUCTION DOCUMENTS SHALL INDICATE THE OUNCES OF WATER IN PIPING BETWEEN THE HOT WATER SOURCE AND THE TERMINATION OF THE FIXTURE SUPPLY. WHEN THE HOT WATER SOURCE IS THE NEAREST PRIMED PLUMBING LOOP OR TRUNK, THIS MUST BE PRIMED WITH AN ON DEMAND RECIRCULATION PUMP AND MUST RUN A DEDICATED AMBIENT RETURN LINE FROM THE FURTHEST FIXTURE OR END OF LOOP TO THE WATER HEATER. TO QUALIFY FOR THIS CREDIT, THE DWELLING MUST HAVE A MINIMUM OF 1.5 BATHROOMS.	0.5	0.5



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2021 WSEC INFORMATION

project:

date: 3-11-24
permit:
revisions:

drawn by: CNL
checked by: MNJ

SHEET

EN-2

TABLE R406.3 CONTINUED

OPTION	DESCRIPTION	CREDITS	
		ALL OTHER	GROUP R-2 ^b
5.3	WATER HEATING SYSTEM SHALL INCLUDE THE FOLLOWING: ENERGY STAR RATED GAS OR PROPANE WATER HEATER WITH A MINIMUM UEF OF 0.80. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	0.5	0.5
5.4	WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: ENERGY STAR RATED GAS OR PROPANE WATER HEATER WITH A MINIMUM UEF OF 0.91 OR SOLAR WATER HEATING SUPPLEMENTING A MINIMUM STANDARD WATER HEATER. SOLAR WATER HEATING WILL PROVIDE A RATED MINIMUM SAVINGS OF 85 THERMS OR 2000 KWH BASED ON THE SOLAR RATING AND CERTIFICATION CORPORATION (SRCC) ANNUAL PERFORMANCE OF 06-300 CERTIFIED SOLAR WATER HEATING SYSTEM OR WATER HEATER HEATED BY GROUND SOURCE HEAT PUMP MEETING THE REQUIREMENTS OF OPTION 3.4. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY AND, FOR SOLAR WATER HEATING SYSTEMS, THE CALCULATION OF THE MINIMUM ENERGY SAVINGS.	1.0	1.0
5.5	WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: GAS-FIRED HEAT PUMP WATER HEATER(S) MEETING TIER 2 OF THE NEEA ADVANCED WATER HEATING SPECIFICATION FOR GAS-FUELED RESIDENTIAL STORAGE WATER HEATERS VERSION 1.0. OR FOR R-2 OCCUPANCY, GAS-FIRED HEAT PUMP WATER HEATER(S) MEETING TIER 2 OF THE NEEA ADVANCED WATER HEATING SPECIFICATION FOR GAS-FUELED RESIDENTIAL STORAGE WATER HEATERS VERSION 1.0. SHALL SUPPLY DOMESTIC HOT WATER TO ALL UNITS. OR FOR R-2 OCCUPANCY, GAS-FIRED HEAT PUMP WATER HEATER(S) MEETING ANSI Z21.40.2 AND Z21.40.4 OR CSA, WITH A MINIMUM UEF OF 1.15, SHALL SUPPLY DOMESTIC HOT WATER TO ALL UNITS. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY AND, FOR SOLAR WATER HEATING SYSTEMS, THE CALCULATION OF THE MINIMUM ENERGY SAVINGS.	1.5	1.5
5.6	WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: ELECTRIC HEAT PUMP WATER HEATER MEETING THE STANDARDS FOR TIER III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION OR FOR R-2 OCCUPANCY, ELECTRIC HEAT PUMP WATER HEATER(S), MEETING THE STANDARDS FOR TIER III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION, SHALL SUPPLY DOMESTIC HOT WATER TO ALL UNITS. IF ONE WATER HEATER IS SERVING MORE THAN ONE DWELLING UNIT, ALL HOT WATER SUPPLY AND RECIRCULATION PIPING SHALL BE INSULATED WITH R-8 MINIMUM PIPE INSULATION. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	2.0	2.5
5.7	WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: ELECTRIC HEAT PUMP WATER HEATER WITH A MINIMUM UEF OF 2.9 AND UTILIZING A SPLIT SYSTEM CONFIGURATION WITH THE AIR-TO-REFRIGERANT HEAT EXCHANGER LOCATED OUTDOORS. EQUIPMENT SHALL MEET SECTION 4, REQUIREMENTS FOR ALL UNITS, OF THE NEEA STANDARD ADVANCED WATER HEATING SPECIFICATION WITH THE UEF NOTED ABOVE OR FOR R-2 OCCUPANCY, ELECTRIC HEAT PUMP WATER HEATER(S), MEETING THE STANDARDS FOR TIER III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION AND UTILIZING A SPLIT SYSTEM CONFIGURATION WITH THE AIR-TO-REFRIGERANT HEAT EXCHANGER LOCATED OUTDOORS, SHALL SUPPLY DOMESTIC HOT WATER TO ALL UNITS. IF ONE WATER HEATER IS SERVING MORE THAN ONE DWELLING UNIT, ALL HOT WATER SUPPLY AND RECIRCULATION PIPING SHALL BE INSULATED WITH R-8 MINIMUM PIPE INSULATION. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	2.5	3.0

TABLE R406.3 CONTINUED

OPTION	DESCRIPTION	CREDITS	
		ALL OTHER	GROUP R-2 ^b
5.8	COMBINATION WATER HEATING AND SPACE HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: GAS-FIRED HEAT PUMP WATER HEATER(S) MEETING TIER 2 OF THE NEEA ADVANCED WATER HEATING SPECIFICATION FOR GAS-FUELED RESIDENTIAL STORAGE WATER HEATERS VERSION 1.0. OR FOR R-2 OCCUPANCY, GAS-FIRED HEAT PUMP WATER HEATER(S) MEETING TIER 2 OF THE NEEA ADVANCED WATER HEATING SPECIFICATION FOR GAS-FUELED RESIDENTIAL STORAGE WATER HEATERS VERSION 1.0., SHALL SUPPLY ALL UNITS. OR FOR R-2 OCCUPANCY, GAS-FIRED HEAT PUMP(S) MEETING ANSI Z21.40.2 AND Z21.40.4 OR CSA, WITH A MINIMUM UEF OF 1.15, SHALL SUPPLY ALL UNITS. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY AND, FOR SOLAR WATER HEATING SYSTEMS, THE CALCULATION OF THE MINIMUM ENERGY SAVINGS.	2.5	2.5
6. RENEWABLE ELECTRIC ENERGY OPTION			
6.1	FOR EACH 600 KWH OF ELECTRICAL GENERATION PER HOUSING UNIT PROVIDED ANNUALLY BY ON-SITE WIND OR SOLAR EQUIPMENT A 0.5 CREDIT SHALL BE ALLOWED, UP TO 4.5 CREDITS. GENERATION SHALL BE CALCULATED AS FOLLOWS: FOR SOLAR ELECTRIC SYSTEMS, THE DESIGN SHALL BE DEMONSTRATED TO MEET THIS REQUIREMENT USING THE NATIONAL RENEWABLE ENERGY LABORATORY CALCULATOR FVWATTS OR ALTERNATIVE APPROVED BY THE CODE OFFICIAL. DOCUMENTATION NOTING SOLAR ACCESS SHALL BE INCLUDED ON THE PLANS. FOR WIND GENERATION PROJECTS DESIGNS SHALL DOCUMENT ANNUAL POWER GENERATION BASED ON THE FOLLOWING FACTORS: THE WIND TURBINE POWER CURVE; AVERAGE ANNUAL WIND SPEED AT THE SITE; FREQUENCY DISTRIBUTION OF THE WIND SPEED AT THE SITE AND HEIGHT OF THE TOWER. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SHOW THE PHOTOVOLTAIC OR WIND TURBINE EQUIPMENT TYPE, PROVIDE DOCUMENTATION OF SOLAR AND WIND ACCESS, AND INCLUDE A CALCULATION OF THE MINIMUM ANNUAL ENERGY POWER PRODUCTION.	0.5 - 4.5	0.5 - 4.5
7. APPLIANCE PACKAGE OPTION			
7.1	ALL OF THE FOLLOWING APPLIANCES SHALL BE NEW AND INSTALLED IN THE DWELLING UNIT AND SHALL MEET THE FOLLOWING STANDARDS: 1. DISHWASHER, STANDARD - ENERGY STAR RATED, MOST EFFICIENT 2021 OR DISHWASHER, COMPACT - ENERGY STAR RATED (VERSION 6.0) 2. REFRIGERATOR (IF PROVIDED) - ENERGY STAR RATED (VERSION 5.1) 3. WASHING MACHINE (RESIDENTIAL) - ENERGY STAR RATED (VERSION 8.1) 4. DRYER - ENERGY STAR RATED, MOST EFFICIENT 2022 TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SHOW THE APPLIANCE TYPE AND PROVIDE DOCUMENTATION OF ENERGY STAR COMPLIANCE. AT THE TIME OF INSPECTION, ALL APPLIANCES SHALL BE INSTALLED AND CONNECTED TO UTILITIES. DRYER DUCTS AND EXTERIOR DRYER VENT CAPS ARE NOT PERMITTED TO BE INSTALLED IN THE DWELLING UNIT	1.0	N/A
TOTAL CREDITS:		8.0	8.0

FOOTNOTES

- a. An alternative heating source sized at a maximum of 0.5 Watts/ft² (equivalent) of heated floor area or 500 Watts, whichever is bigger, may be installed in the dwelling unit.
- b. See Section R401.1 and *residential building* in Section R202 for Group R-2 scope.
- c. Option 3.11 can only be taken with Options 3.1 and 3.3. To qualify to claim Option 3.11 with 3.3, the system shall be a 1-2 speed heat pump system. Variable capacity heat pumps are ineligible from claiming this option.
- d. This option may only be claimed if serving System Type 4 or 5 from Table R406.2.
- e. Primary living areas include living, dining, kitchen, family rooms, and similar areas.
- f. Option 3.10 may one be taken with Efficient Water Heating Option 5.1 or 5.2. Equipment sizing for space heating shall be calculated as provided in Section R403.7 with increased capacity to provide a minimum of 75 percent of peak hot water demand or shall be sized in accordance with *approved* manufacturer's specifications or guidance. Supplementary heat for water heating shall be in accordance with Section R403.5.7.

HVAC LAYOUT PER OPTION 4.1

(IF OPTION IS CHOSEN)



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project:
2021 WSEC INFORMATION

date: 3-11-24
permit:
revisions:

drawn by: CWL
checked by: MMJ

SHEET

EN-3



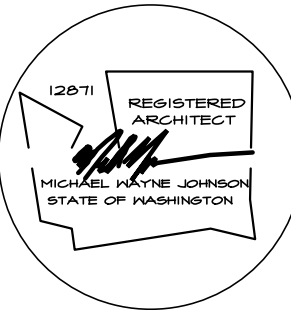
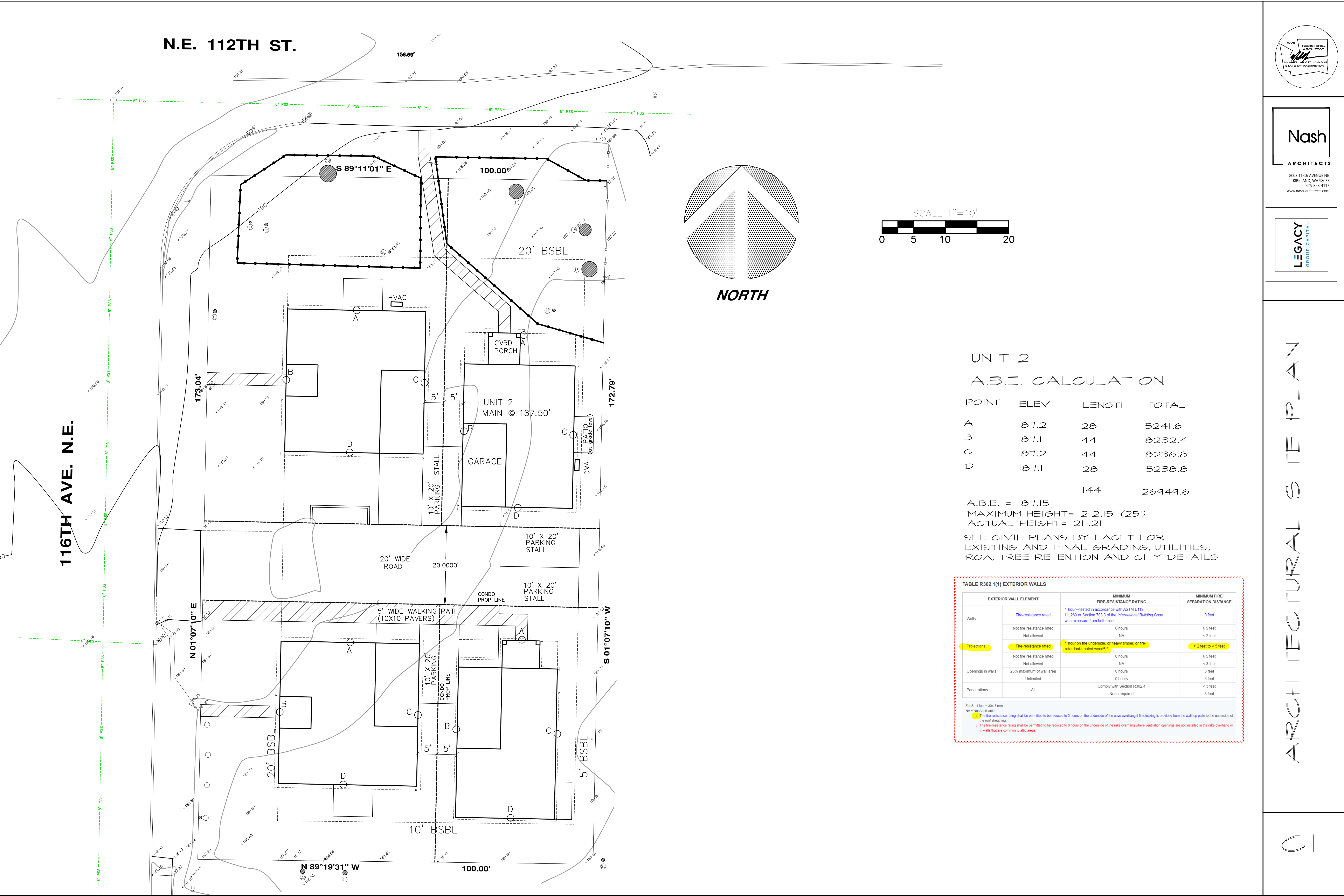
2021 WSEC INFORMATION

SHEET

*Refer to WSEC 2015 Table R406.2 for complete option descriptions and requirements

Walls (Above Grade)						
Plan ID	Component Description	Ref.	Wall U		Net Area	UA
	R21 cavity+R0 foam INT 2X6W Lap (2018 Code Basis)	10-5	0.054		1,812	98
Sum of Area and UA					1,812	98

Show Heating System Sizing		Show	
Heating System Sizing - Proposed Design		Try Out BetterBuilt™'s HVAC Sizing Tool: https://betterbuilt.com/wp-content/themes/spring-bloom	
Nearest Weather Station	Kirkland		
Indoor Design Temperature	70 F		
Outdoor Design Temperature	17 F		
Design Temperature Difference (ΔT)	53 F		
Conditioned Floor Area, Proposed Design	1,804 sq ft		
Conditioned Volume	15,334 cu ft		
Look back to determine if 0.5 ft. ceiling height	☐		
HVAC System Type	Heat Pump		
Location of HVAC Distribution System	Unducted		
Sum of UA	243		
Envelope Heat Load	12.87 Btu / Hour		
Sum of UA x ΔT	8,777 Btu / Hour		
Air Leakage Heat Load (Volume x 0.05 x ΔT x 60)	21,656 Btu / Hour		
Building Design Heat Load (Air Leakage + Envelope Heat Load)	21,656 Btu / Hour		
Building and Duct Heat Load	21,656 Btu / Hour		
For ducts located in unconditioned space: Sum of Building Heat Loss x 1.1			
For ducts located in conditioned space or ductless: Sum of Building Heat Loss x 1.1			
Maximum Heat Equipment Output Building and Duct Heat Loss x 1.25 for heat pumps	27,070 Btu / Hour		
Building and Duct Heat Loss x 1.40 for all other systems	3.0 kW		



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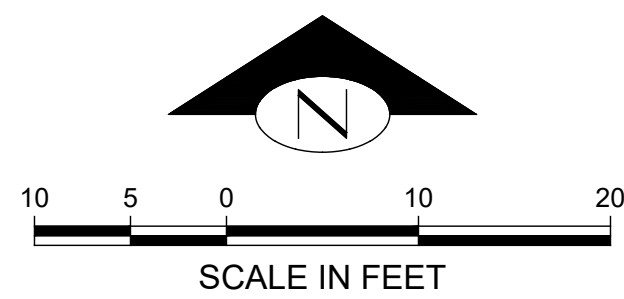
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ARCHITECTURAL SITE PLAN

C I

FILE LOCATION: Z:\SHARED\PROJECTS\B24\07761_116TH AVE NE KIRKLAND\DRAWINGS\116TH AVE NE KIRKLAND CIVIL PLANS.DWG - ORIGINAL SHEET SIZE: ARCH/FILL BLEED D (36.00 X 24.00 INCHES) - LAST MODIFIED BY: CERDA SZ050324L
PRINCIPAL: BI PROJECT MANAGER: LG DESIGNED BY: LG DRAIN BY: CK, GS CHECKED BY: BI



KEY NOTES:		
KEY	NOTE	DETAIL/ SHEET
1	4" SDCO RIM 187.58 4" IE 185.58	N/C14
2	40 LF 4" SD @ 2.00% MIN	-
3	6" SDCO RIM 188.48 6 IE 184.45	N/C14
4	59 LF 6" SD @ 2.00% MIN	-
5	47 LF 6" SD @ 2.00% MIN	-
6	CB TYPE 1 W/ VANED GRATE RIM 186.75 6" IE (N) 183.33 6" IE (S) 182.95 6" IE (W) 182.95	O&P/C15
7	1 LF 6" SD @ 2.00% MIN	-
8	INFILTRATION FILTER RIM 186.79 6" IE (E) 182.95 6" IE (W) 182.95	Y/C16
9	31 LF 6" PERF PVC @ ELEV 182.95 (LAID FLAT)	-
10	TYPE 1 CB RIM 187.89 6" IE (W) 186.50 6" IE(E) 182.95	O&P/C15
11	5'W X 31' L X 3'D INFILTRATION TRENCH W/ GEOTEXTILE ALONG THE TOP AND SIDES OF FACILITY TOP ELEV 185.20 6" IE 182.95 BOTTOM ELEV 182.20	R/C15
12	4" SDCO RIM 189.21 4" IE 187.21	N/C14
13	39 LF 4" SD @ 2.00% MIN	-
14	4" SDCO RIM 189.31 4" IE 186.20	N/C14
15	42 LF 4" SD @ 2.00% MIN	-
16	4" SDCO RIM 188.80 4" IE 186.80	N/C14
17	52 LF 4" SD @ 2.00% MIN	-
18	6" SDCO RIM 187.22 6 IE 185.00	N/C14
19	20 LF 6" SD @ 2.00% MIN	-
20	6" SDCO RIM 186.94 6" IE 183.97	N/C14
21	4" SDCO RIM 186.99 4" IE 185.00	N/C14
22	39 LF 4" SD @ 2.00% MIN	-
23	18 LF 6" SD @ 2.00% MIN	-
24	4" SDCO RIM 187.41 4" IE 184.50	-
25	47 LF 4" SD @ 2.00% MIN	-
26	6" SDCO RIM 188.75 6 IE 184.50	-
27	ROOF DS AND TIGHTLINE @ 2.00% MIN (TYP)	-
28	4" ROOF DS (TYP)	-
29	PERIMETER FOOTING DRAIN - 4" PERFORATED PVC PIPE IN 6" MIN WASHED GRAVEL, WRAPPED IN NON-WOVEN GEOTEXTILE FILTER FABRIC (TYP)	-
30	SOLID WALL FOOTING DRAIN TIGHTLINE (SLOPE WEST TO EAST)	-
31	EX CB RIM 189.30 12" IE (E) 185.70 EX 12" IE (S) 185.70	-
32	REPLACE EX 6" SD W/ 32 LF 12" SD @ 0.50% MIN	-
33	STA 21+48.96, 16.91' LT CB TYPE 1 W/ THROUGH-CURB INLET FRAME & GRATE RIM 189.86 6" IE (E) 185.95 12" IE (N) 185.87 12" IE (W) 185.87	O&Q/C15
34	109 LF 12" SD @ 0.50% MIN	-
35	STA 20+40.04, 18.27' LT CB TYPE 1 W/ THROUGH-CURB INLET FRAME & GRATE RIM 190.94 12" IE (NE) 186.42 12" IE (S) 186.42	O&Q/C15

38	12" IE (E) 186.58 12" IE (SW) 186.58	-
39	55 LF 6" SD @ 1.00% MIN	-
40	6" SDCO RIM 187.11 6" IE 183.27	N/C14
41	16 LF 6" SD @ 2.00% MIN	-
42	6" SDCO RIM 187.16 6" IE 183.50	N/C14
43	12 LF 6" SD @ 2.00% MIN	-
44	6" SDCO RIM 187.27 6" IE 183.57	N/C14
45	3 LF 4" SD @ 2.00% MIN	-
46	12" AREA DRAIN RIM 187.01 4" IE (N) 184.00 4" IE (E) 183.90 4" IE (S) 184.00 2' MIN SUMP	M/C14
47	SOLID WALL FOOTING DRAIN TIGHTLINE (SLOPE SOUTH TO NORTH)	-
48	SOLID WALL FOOTING DRAIN TIGHTLINE (SLOPE NORTH TO SOUTH)	-
49	4'X3'D INFILTRATION DRYWELL W/ GEOTEXTILE INSTALLED ALONG THE SIDES OF THE FACILITY FG 187.00 TOP ELEV 186.00 4" IE 183.80 BOTTOM ELEV 183.00	S/C15
50	12" AREA DRAIN RIM 188.84 4" IE 186.60 2' MIN SUMP	-
51	3 LF 4" SD @ 2.00% MIN	-
52	12" AREA DRAIN RIM 187.34 4" IE 185.00 2' MIN SUMP	-
53	3 LF 4" SD @ 2.00% MIN	-
54	89 LF 12" SD @ 0.50% MIN	-
55	STA 11+28.84, 17.17' RT CB TYPE 1 W/ THROUGH-CURB INLET FRAME & GRATE RIM 189.55 12" IE (W) 187.03	-

LEGEND:

	CONCRETE
	CONCRETE ROADWAY
	ASPHALT
	LANDSCAPE
	INFILTRATION TRENCH
	PERMEABLE PAVEMENT SURFACING
	PERMEABLE PAVER WALKWAYS

For Storm Connection
Reference Only



DRAINAGE PLAN
SCALE: 1" = 10'

NO.	DATE	BY	REVISION
1	09/13/2024	LG	CITY CORRECTIONS #1
2	12/02/2024	LG	CITY CORRECTIONS #2

BASE MAP/TOPOGRAPHY PROVIDED BY OTHERS. FACET CANNOT BE HELD LIABLE FOR ANY ERRORS OR OMISSIONS. OTHER EXISTING FEATURES AND CONDITIONS IF NOT AS SHOWN AND/OR PLANS CANNOT BE CONSTRUCTED AS SHOWN. CONTACT FACET PRIOR TO CONSTRUCTION.

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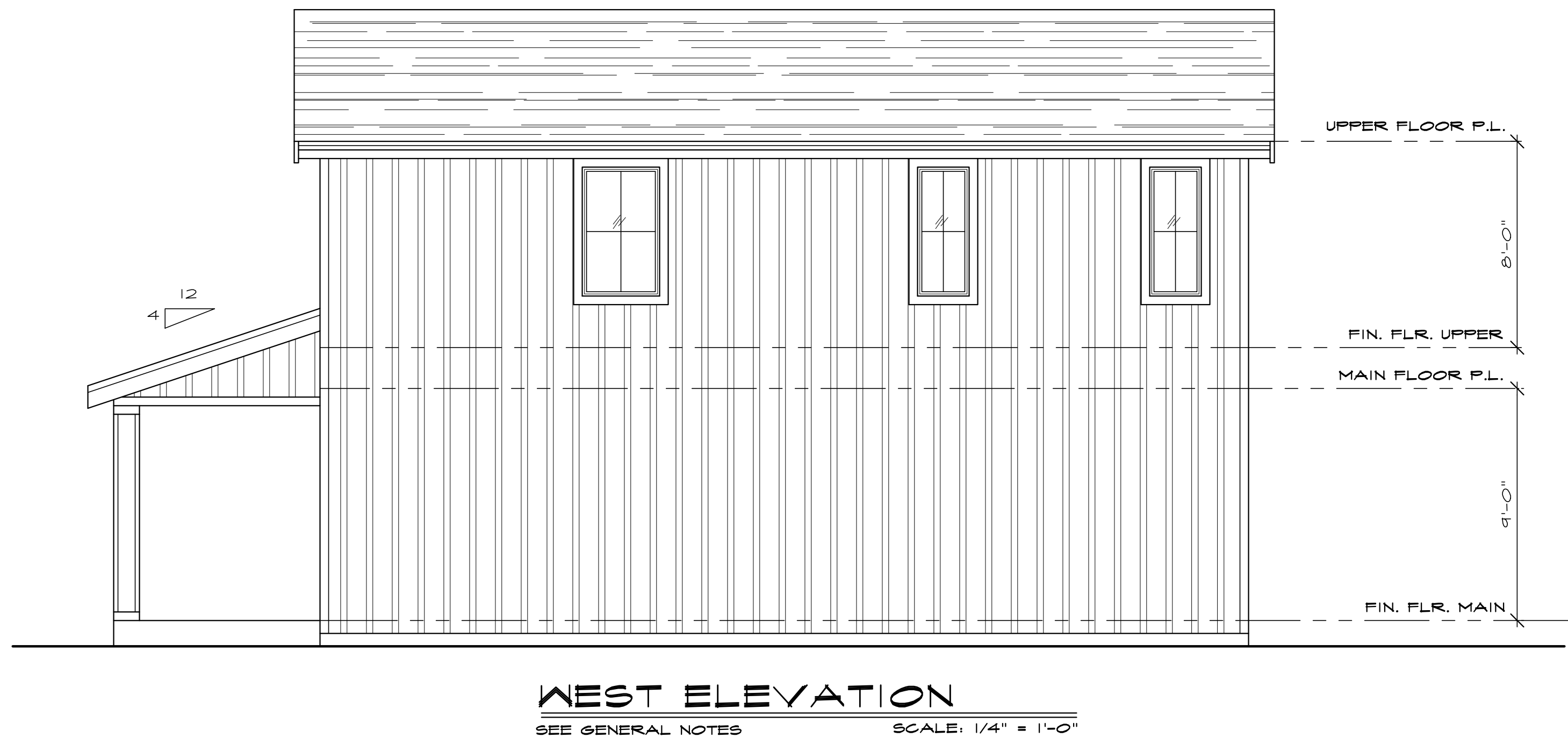
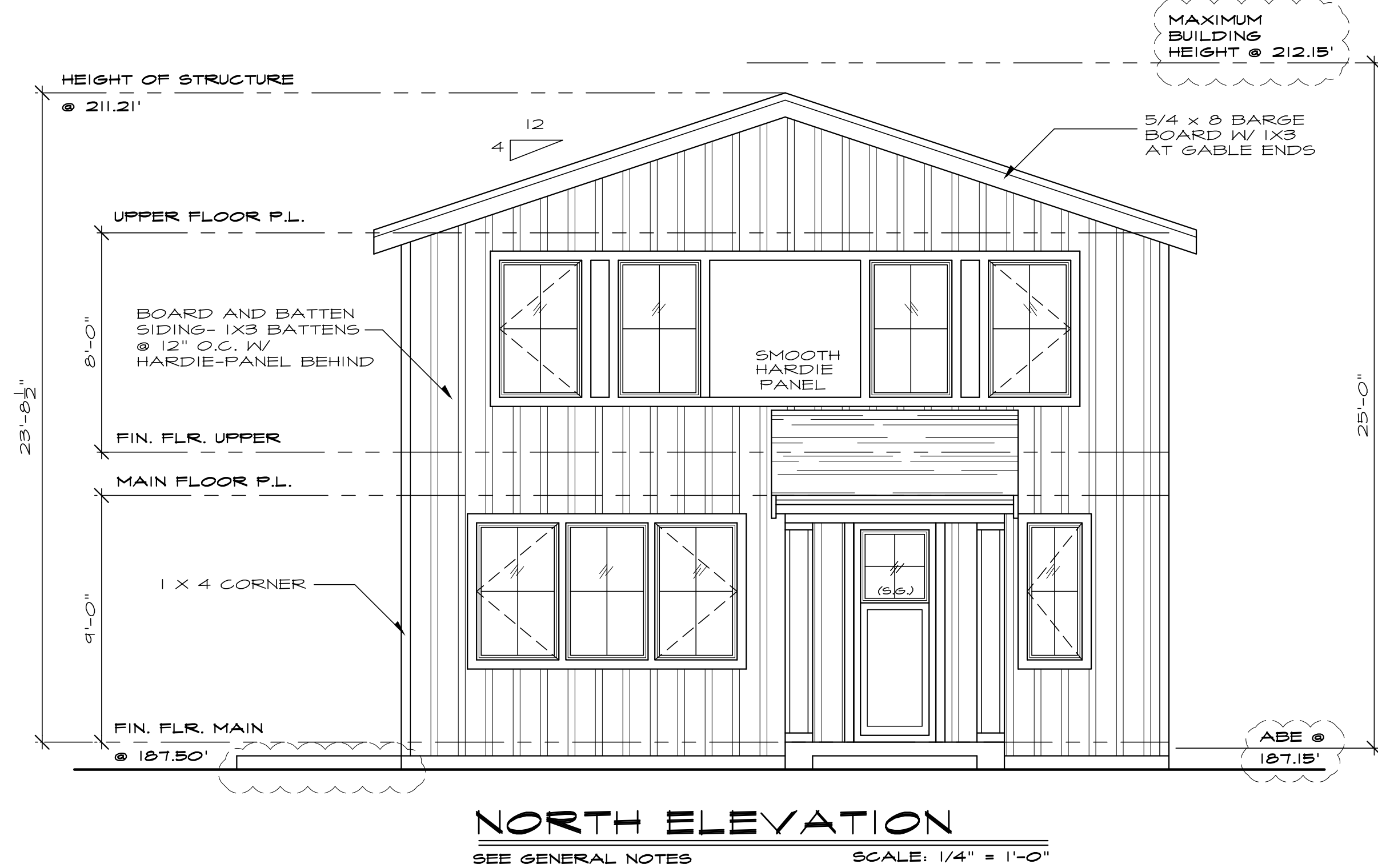
11058 16TH AVE NE
KIRKLAND, WA 98033
2401 0368.00

PERMIT PLAN

DRAINAGE PLAN

DATE: 12/9/2024
PLAN NUMBER:
C08
SHEET 8 OF 16

WRITTEN DIMENSIONS ON THIS DRAWING SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ETC. PERTAINING TO THE WORK BEFORE PROCEEDING. THE OWNER MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND/OR CONDITIONS SHOWN ON THESE DRAWINGS. ANY SUCH VARIATION SHALL BE RESOLVED BY THE OWNER PRIOR TO PROCEEDING WITH THE WORK, OR THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR THE COST TO RECTIFY SAME.

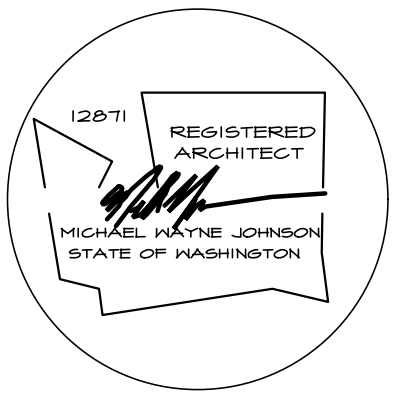


NOTES:

1. ALL WOOD EXPOSED TO WEATHER SHALL BE PRESSURE TREATED, PAINTED OR CEDAR.
2. CAULK AND SEAL ALL WINDOW/DOOR AND EXTERIOR ENVELOPE PENETRATIONS.
3. GLAZING PER STATE ENERGY CODE.
4. PROTECTION FROM DECAY IS REQUIRED FOR ALL WOOD SIDING AND WALL FRAMING LESS THAN 2" ABOVE CONCRETE STEPS, PORCH SLABS, PATIO SLABS, AND SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER
5. REFER TO ALL ELEVATIONS FOR TYPICAL NOTES.
6. S.G. = SAFETY GLASS

FLASHING NOTE

- APPROVED CORROSION-RESISTANT FLASHING SHALL BE APPLIED SHINGLE FASHION IN SUCH A MANNER TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER INTO THE BUILDING STRUCTURAL FRAMING COMPONENTS. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH. APPROVED CORROSION RESISTANT FLASHING SHALL BE INSTALLED AT THE FOLLOWING LOCATIONS:
1. EXTERIOR WINDOW AND DOOR OPENINGS. FLASHING AT EXTERIOR WINDOW AND DOOR OPENINGS SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH OR TO THE WATER RESISTIVE BARRIER FOR SUBSEQUENT DRAINAGE
 2. AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS
 3. UNDER AND AT THE ENDS OF MASONRY, WOOD, OR METAL COPINGS AND SILLS
 4. CONTINUOUSLY ABOVE ALL PROJECTING WOOD TRIM
 5. WHERE EXTERIOR PORCHES, DECKS, OR STAIRS ATTACH TO A WALL OR FLOOR ASSEMBLY OF WOOD FRAME CONSTRUCTION
 6. AT WALL AND ROOF INTERSECTIONS
 7. AT BUILT IN GUTTERS



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UNIT 2

Project:

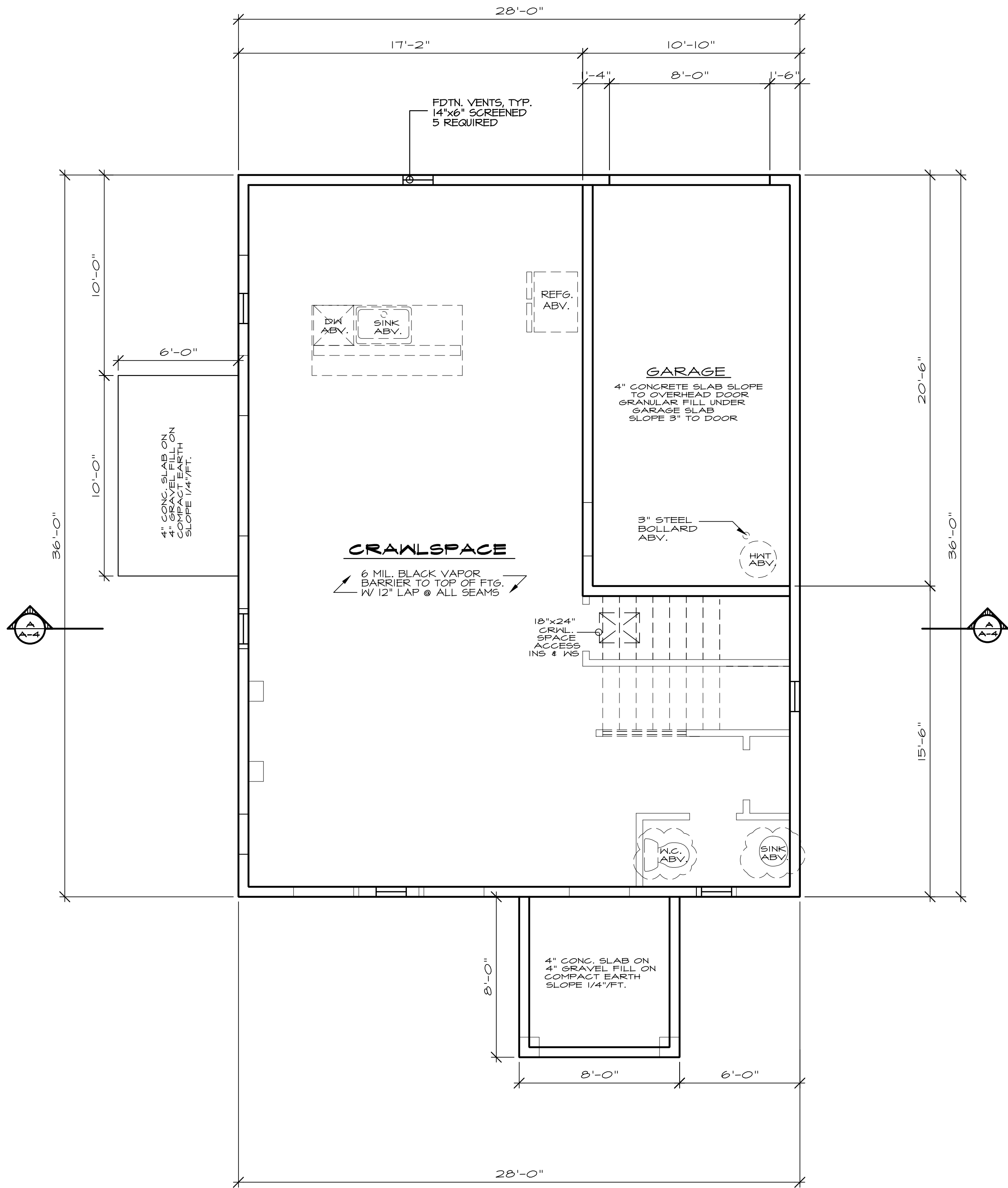
date: 04-04-24
permit:
revisions:

drawn by: CML
checked by: MMJ

SHEET



WRITTEN DIMENSIONS ON THIS DRAWING SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, CONDITIONS, ETC. PERTAINING TO THE WORK BEFORE PROCEEDING. THE OWNER MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND/OR CONDITIONS SHOWN ON THESE DRAWINGS. ANY SUCH VARIATION SHALL BE RESOLVED BY THE OWNER PRIOR TO PROCEEDING WITH THE WORK, OR THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR THE COST TO RECTIFY SAME.



FOUNDATION VENT CALCULATION

196 SQUARE FEET = 2.65
300 .57

(5) VENTS REQUIRED

*** SHEAR NOTE:

SEE SHEET L1 FOR SHEAR WALL
NAILING SCHEDULE, & DETAILS.

STRUCTURAL NOTES:

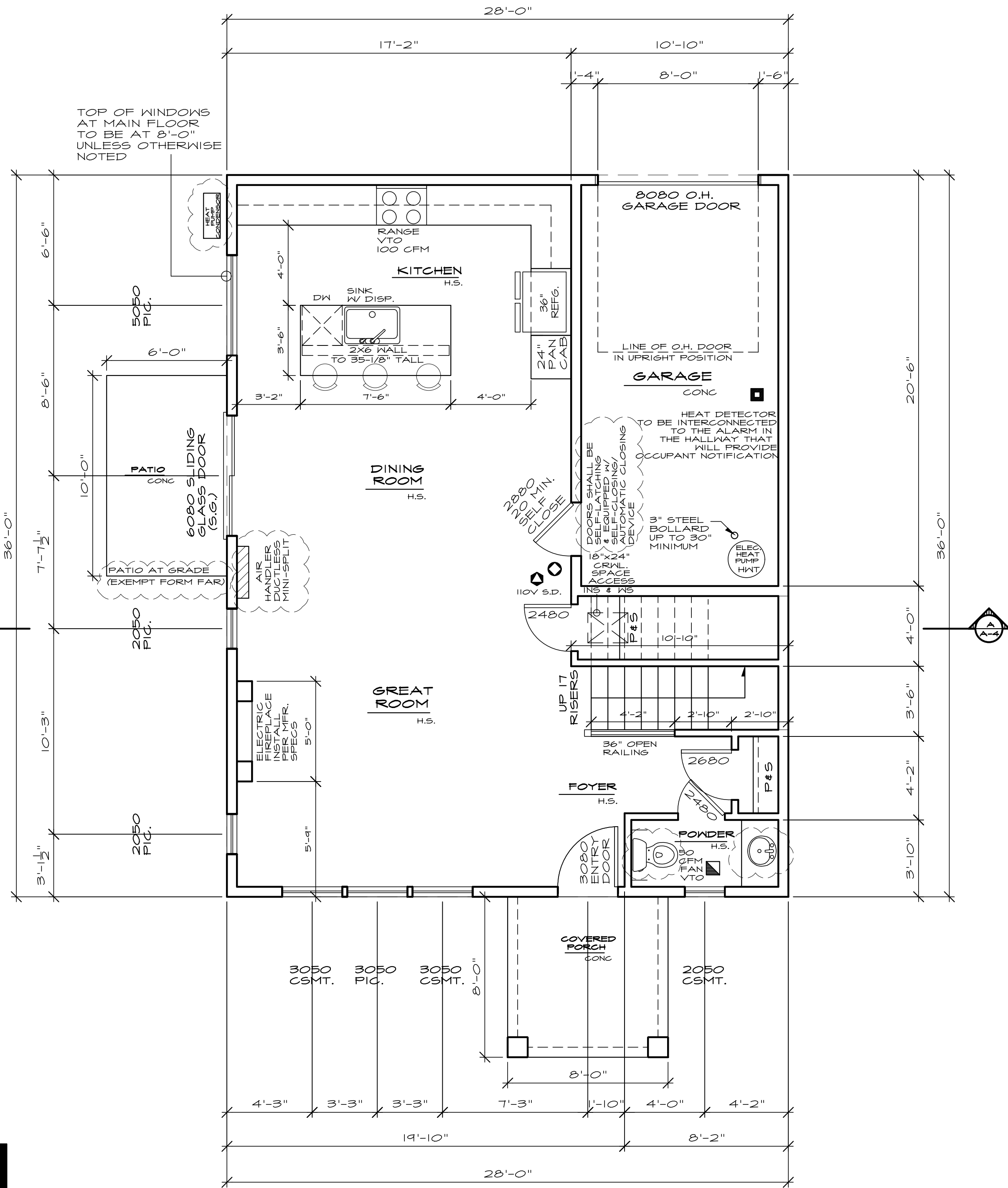
SEE STRUCTURAL SHEETS FOR
NOTES AND DETAILS PROVIDED BY
MULHERN AND KULP ENGINEERS

FOUNDATION PLAN

SEE GENERAL NOTES

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

BSF24-07761 APPROVED PLANS COTTAGE UNIT 2 01/14/25 Page 11 of 18



NOTES:

ALL EXTERIOR HEADERS MUST BE
INSULATED WITH R-10 INSULATION PER WSEC

FOR WINDOWS WITH OPERABLE OPENINGS MORE
THAN 12" ABOVE THE FINISHED GRADE OR SURFACE
BELOW THE LOWEST PART OF THE CLEAR OPENING
SHALL BE 24" MINIMUM ABOVE THE FLOOR. EXCEPTIONS:
FULLY OPEN WINDOWS WHERE A 4" SPHERE MAY NOT
PASS THROUGH OR WHERE FALL PROTECTION DEVICES
ARE PROVIDED PER ASTM F 2040 OR R612.3

TUB/SHOWER UNITS SHALL HAVE FIRE
BLOCKING BETWEEN WALL STUDS AND
WATERPROOF SURROUNDS TO 12"
FROM DRAIN. GLAZING, INCLUDING
WINDOWS WITHIN 12" OF DRAIN,
SHALL BE SAFETY GLASS. SHOWER
FLOOR IS LIMITED TO ITS GALV. MIN.

EXHAUST FANS LARGER THAN 50CFM MAY BE
CONNECTED TO 4" SMOOTH WALL VENT PIPE
IF RUNS DO NOT EXCEED 20' IN LENGTH.
THE MINIMUM SIZE OF FLEX DUCT IS 5"
DIAMETER WITH A MAXIMUM RUN OF 15'

COMBUSTION AIR REQUIRED FOR ALL
FUEL BURNING APPLIANCES

EXTERIOR DOORS SHALL BE PROVIDED
WITH LANDINGS OR FLOORS NOT MORE THAN
7-3/4" BELOW THE TOP OF THE THRESHOLD
PER IRC R511.3

PROVIDE A MOISTURE EXHAUST DUCT FOR THE
CLOTHES DRYER TO OUTSIDE AIR. THE
DUCT SHALL BE MINIMUM 4" INCH IN DIAMETER
OF METAL OR APPROVED MATERIAL WITH
SMOOTH SURFACE. THE LENGTH SHALL NOT
EXCEED 35 FEET (INCLUDING TRANSITION DUCTS)
IF FITTINGS ARE USED. THE MAXIMUM LENGTH
SHALL BE REDUCED TO BE PER DRYER
OR THE DRYER EXHAUST POWER VENTILATOR'S
MFG'S INSTALLATION PER IRC R24.2

ENVIRONMENTAL AIR DUCT EXHAUST SHALL TERMINATE
NOT LESS THAN 3 FEET FROM A PROPERTY LINE
AND 5 FEET FROM OPENINGS INTO A BUILDING
PER IMC 501.3.1

THE MIXING VALVE IN A SHOWER (INCLUDING OVER A TUB)
SHALL BE PRESSURE BALANCING SET AT 120F. THE WATER
HEATER THERMOSTAT CANNOT BE USED TO MEET THESE
PROVISIONS PER UPC 408.3 AND 409.4

COMBUSTION AIR TO BE PROVIDED TO FURNACE
CLOSET VIA FRESH AIR FROM OUTSIDE. VEGH
CONTRACTOR TO FIELD VERIFY

EXPANSION TANK, PRESSURE RELIEF VALVE, AND SHUT OFF
VALVE TO BE INSTALLED FOR THE WATER HEATER
PER UPC 608.3

BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS
OR PLENUMS. INSTALLATION OF DUCTS SHALL NOT DISPLACE
REQUIRED ENVELOPE INSULATION PER MISC R403.3.5

DUCTS WHICH PENETRATE THE WALL OR FLOOR BETWEEN
THE WALL OR FLOOR BETWEEN THE DWELLING AND GARAGE
SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET
STEEL OR APPROVED MATERIAL AND SHALL HAVE NO OPENINGS
INTO THE GARAGE PER IRC R302.3.2

LEGEND:

- SMOKE DETECTOR
110V INTERCONNECTED
W/ BATTERY BACK-UP.
PER IRC S14
- CARBON MONOXIDE DETECTOR
PER IRC S15
- HEAT DETECTOR
PER WA STATE AMENDMENT

GARAGE NOTES:

- GARAGE/LIVING SEPARATION. USE
5/8" TYPE 'X' GWB AT CEILING/WALL.
WRAP POSTS AND BEAMS.
- INSULATE ALL WARM HALLS AND
CEILING.
- DOOR BETWEEN GARAGE AND RESIDENCE
SHALL BE 1-3/8" MINIMUM THICK SOLID WOOD
OR STEEL WITH SOLID OR HONEYCOMB CORE
OR 20 MINUTE FIRE RATED EQUIPPED WITH A
SELF CLOSING DEVICE.
- DUCTS IN GARAGE AND DUCTS PENETRATING THE
WALLS OR CEILING SEPARATING THE RESIDENCE FROM
THE GARAGE SHALL BE NO. 26 GAGE SHEET STEEL AND
HAVE NO OPENINGS INTO THE GARAGE

STRUCTURAL NOTES:

SEE STRUCTURAL SHEETS FOR
NOTES AND DETAILS PROVIDED BY
MULHERN AND KULP ENGINEERS

MAIN FLOOR PLAN

SEE GENERAL NOTES

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



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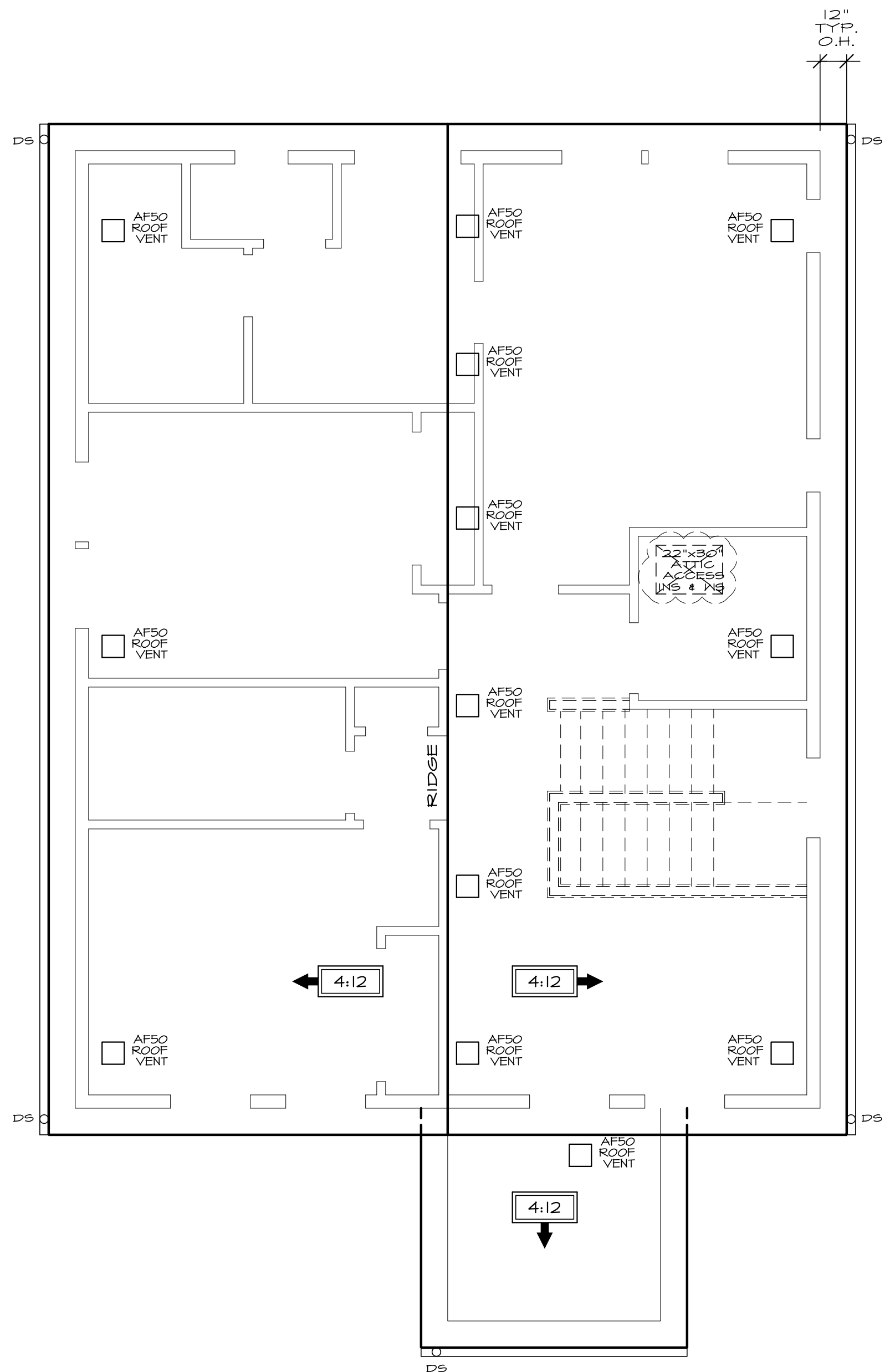
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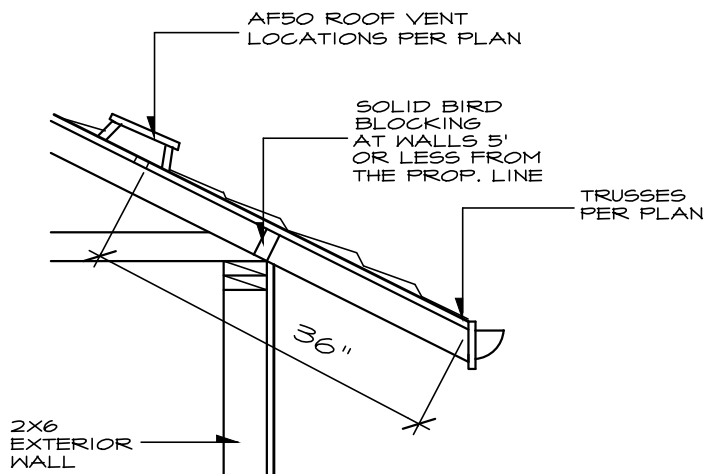
A2

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EAVE PROTECTION PER IRC R302.1

IF EAVES ARE WITHIN 5' OF THE PROPERTY LINE THEN A ONE HOUR FIRE RESISTANCE RATING IS REQUIRED IF THERE ARE BIRD BLOCKING VENTS OR GABLE END VENTS. IF THERE IS SOLID BLOCKING AND NO VENTS, THEN THE FIRE RESISTANCE RATING CAN BE REDUCED TO ZERO HOURS.



ROOF VENTING CALCULATION

1008 SQFT AREA = 3.36 SQFT REQUIRED
300

(3.36) X (50%) = 1.68 SQFT MIN. REQUIRED AT EAVES
AF50 ROOF JACK VENTS = .34 SQFT EACH VENT
PROVIDE 6 AF50 VENTS = 2.04 SQFT PROVIDED

(3.36) X (50%) = 1.68 SQFT MIN.
REQUIRED WITHIN 3' OF THE RIDGE
AF50 ROOF JACK VENTS = .34 SQFT EACH VENT
PROVIDE 6 AF50 VENTS = 2.04 SQFT PROVIDED

TOTAL VENT AREA PROVIDED = 4.08 SQ FT

STRUCTURAL NOTES:

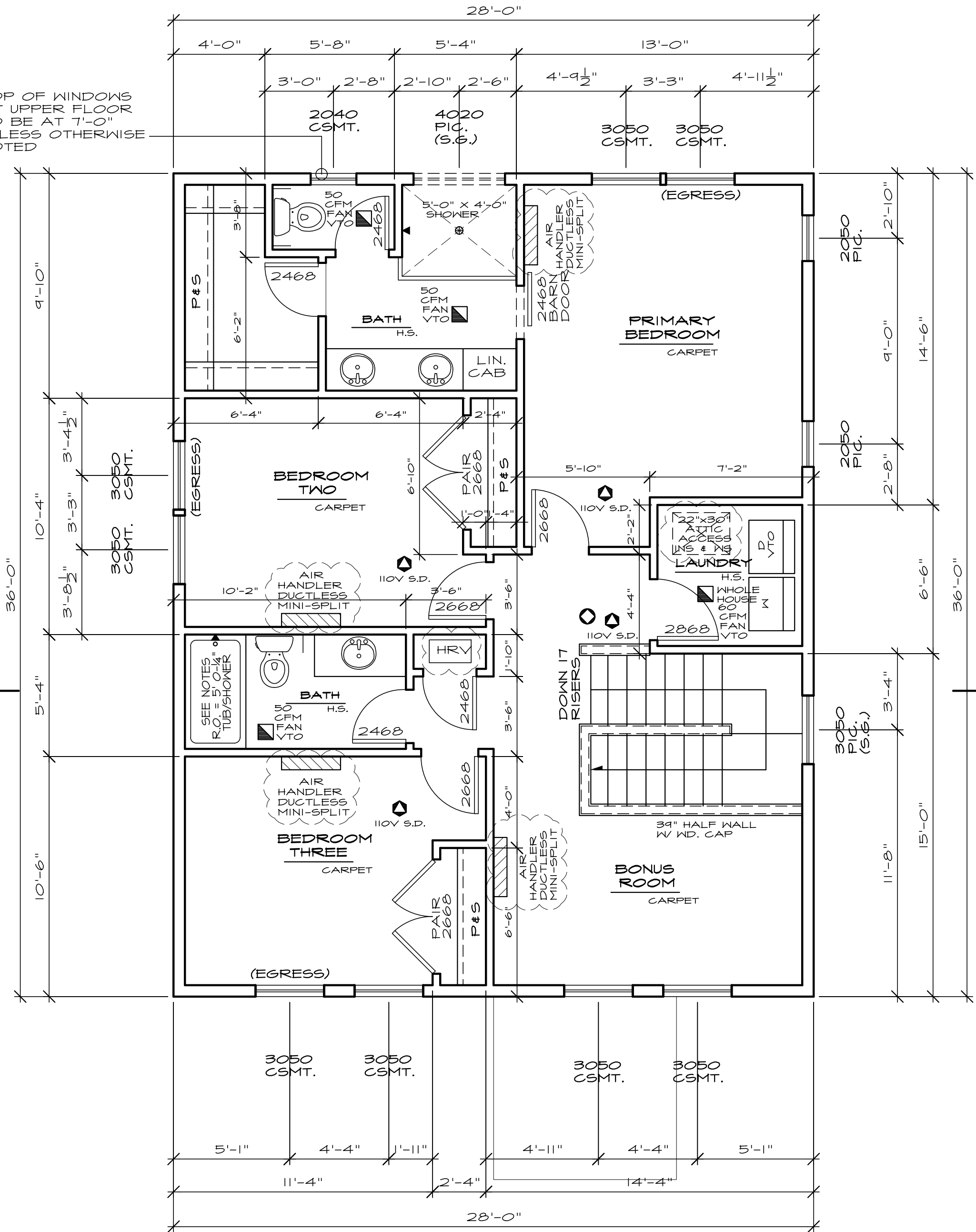
SEE "S" SHEETS FOR ALL STRUCTURAL NOTES AND DETAILS PROVIDED BY MULHERN AND KULP ENGINEERS

ROOF LAYOUT PLAN

SEE GENERAL NOTES

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

TOP OF WINDOWS
TO BE AT 7'-0"
UNLESS OTHERWISE
NOTED



NOTES:

ALL EXTERIOR HEADERS MUST BE INSULATED WITH R-10 INSULATION PER MSEC

FOR WINDOWS WITH OPERABLE OPENINGS MORE THAN 12" ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING SHALL BE 24" MINIMUM ABOVE THE FLOOR. EXCEPTIONS: FULLY OPEN WINDOWS WHERE A 4" SPHERE MAY NOT PASS THROUGH OR WHERE FALL PROTECTION DEVICES ARE PROVIDED PER ASTM F 2040 OR R612.3

TUB/SHOWER UNITS SHALL HAVE FIRE BLOCKING BETWEEN WALL STUDS AND WATERPROOF SURROUNDS TO 12" FROM DRAIN, GLAZING, INCLUDING WINDOWS WITHIN 12" OF DRAIN. SHALL BE SAFETY GLASS. SHOWER FLOOR IS LIMITED TO ITS GALV. FIN.

EXHAUST FANS LARGER THAN 50CFM MAY BE CONNECTED TO 4" SMOOTH WALL VENT PIPE IF RUNS DO NOT EXCEED 20' IN LENGTH. THE MINIMUM SIZE OF FLEX DUCT IS 5" DIAMETER WITH A MAXIMUM RUN OF 15'

COMBUSTION AIR REQUIRED FOR ALL FUEL BURNING APPLIANCES

EXTERIOR DOORS SHALL BE PROVIDED WITH LANDINGS OR FLOORS NOT MORE THAN 1-3/4" BELOW THE TOP OF THE THRESHOLD PER IRC R511.3

PROVIDE A MOISTURE EXHAUST DUCT FOR THE CLOTHES DRYER TO OUTSIDE AIR. THE DUCT SHALL BE MINIMUM 4" INCH IN DIAMETER OF METAL OR APPROVED MATERIAL WITH SMOOTH SURFACE. THE LENGTH SHALL NOT EXCEED 35 FEET (INCLUDING TRANSITION DUCTS) IF FITTINGS ARE USED, THE MAXIMUM LENGTH SHALL BE REDUCED TO BE PER DRYER OR THE DRYER EXHAUST FAN/VENTILATOR'S MFG'S INSTALLATION PER IRC R504.9

ENVIRONMENTAL AIR DUCT EXHAUST SHALL TERMINATE NOT LESS THAN 3 FEET FROM A PROPERTY LINE AND 3 FEET FROM OPENINGS INTO A BUILDING PER IRC R501.3

THE MIXING VALVE IN A SHOWER (INCLUDING OVER A TUB) SHALL BE PRESSURE BALANCING SET AT 120F. THE WATER HEATER THERMOSTAT CANNOT BE USED TO MEET THESE PROVISIONS PER UPC 408.3 AND 409.4

COMBUSTION AIR TO BE PROVIDED TO FURNACE CLOSET VIA FRESH AIR FROM OUTSIDE. MECH CONTRACTOR TO FIELD VERIFY

EXPANSION TANK, PRESSURE RELIEF VALVE, AND SHUT OFF VALVE TO BE INSTALLED FOR THE WATER HEATER PER UPC 608.3

BUILDING FRAMING CAVITIES SHALL NOT BE USED AS DUCTS OR FLENUMS. INSTALLATION OF DUCTS SHALL NOT DISPLACE REQUIRED ENVELOPE INSULATION PER MSEC R403.3.5

DUCTS WHICH PENETRATE THE WALL OR FLOOR BETWEEN THE WALL OR FLOOR BETWEEN THE DWELLING AND GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE SHEET STEEL OR APPROVED MATERIAL AND SHALL HAVE NO OPENINGS INTO THE GARAGE PER IRC R502.3.2.

LEGEND:

- SMOKE DETECTOR
120V INTERCONNECTED
W/ BATTERY BACK-UP.
PER IRC R314
- CARBON MONOXIDE DETECTOR
PER IRC R315
- HEAT DETECTOR
PER WA STATE AMENDMENT

STRUCTURAL NOTES:

SEE STRUCTURAL SHEETS FOR NOTES AND DETAILS PROVIDED BY MULHERN AND KULP ENGINEERS

UPPER FLOOR PLAN

SEE GENERAL NOTES

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



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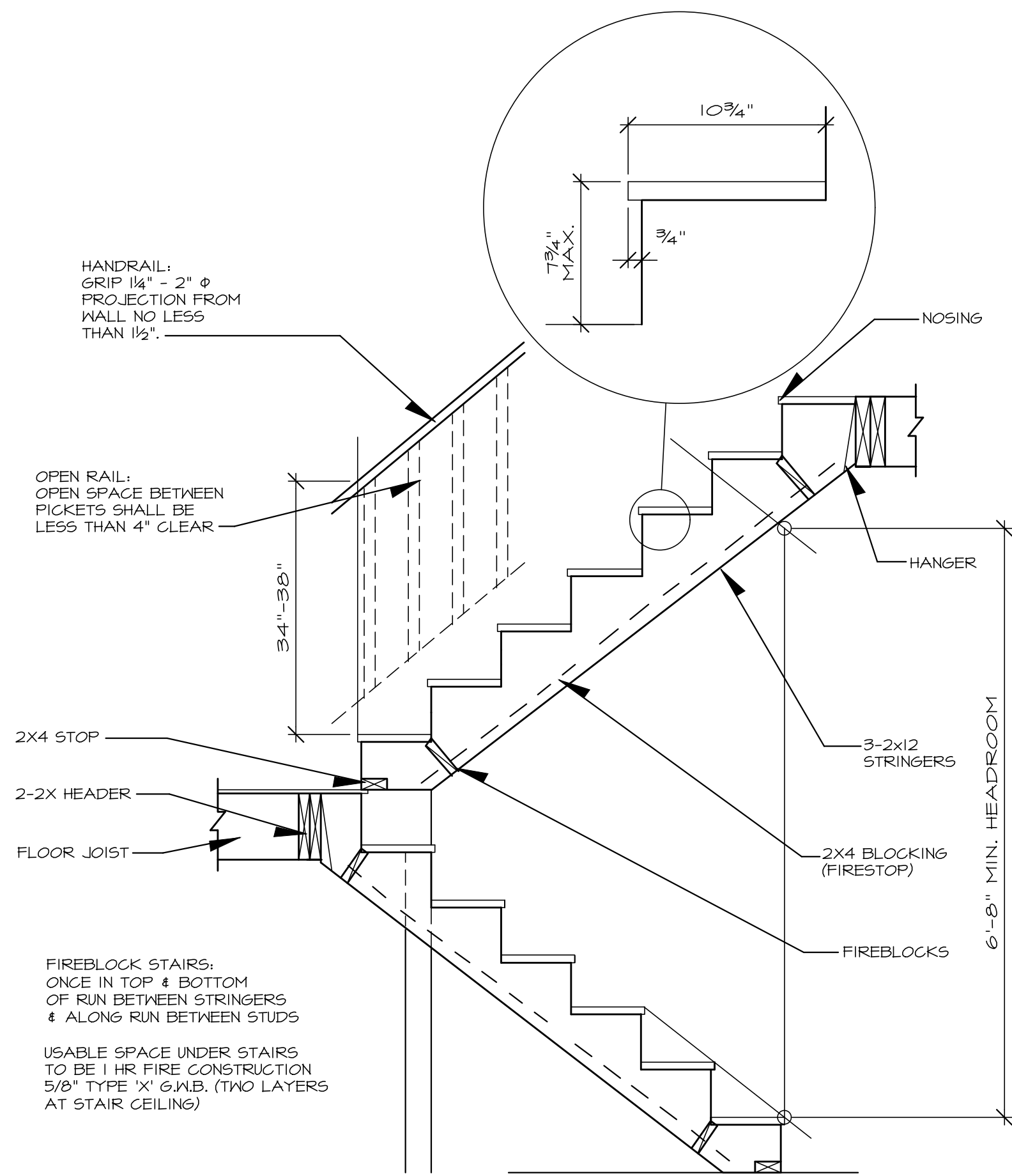
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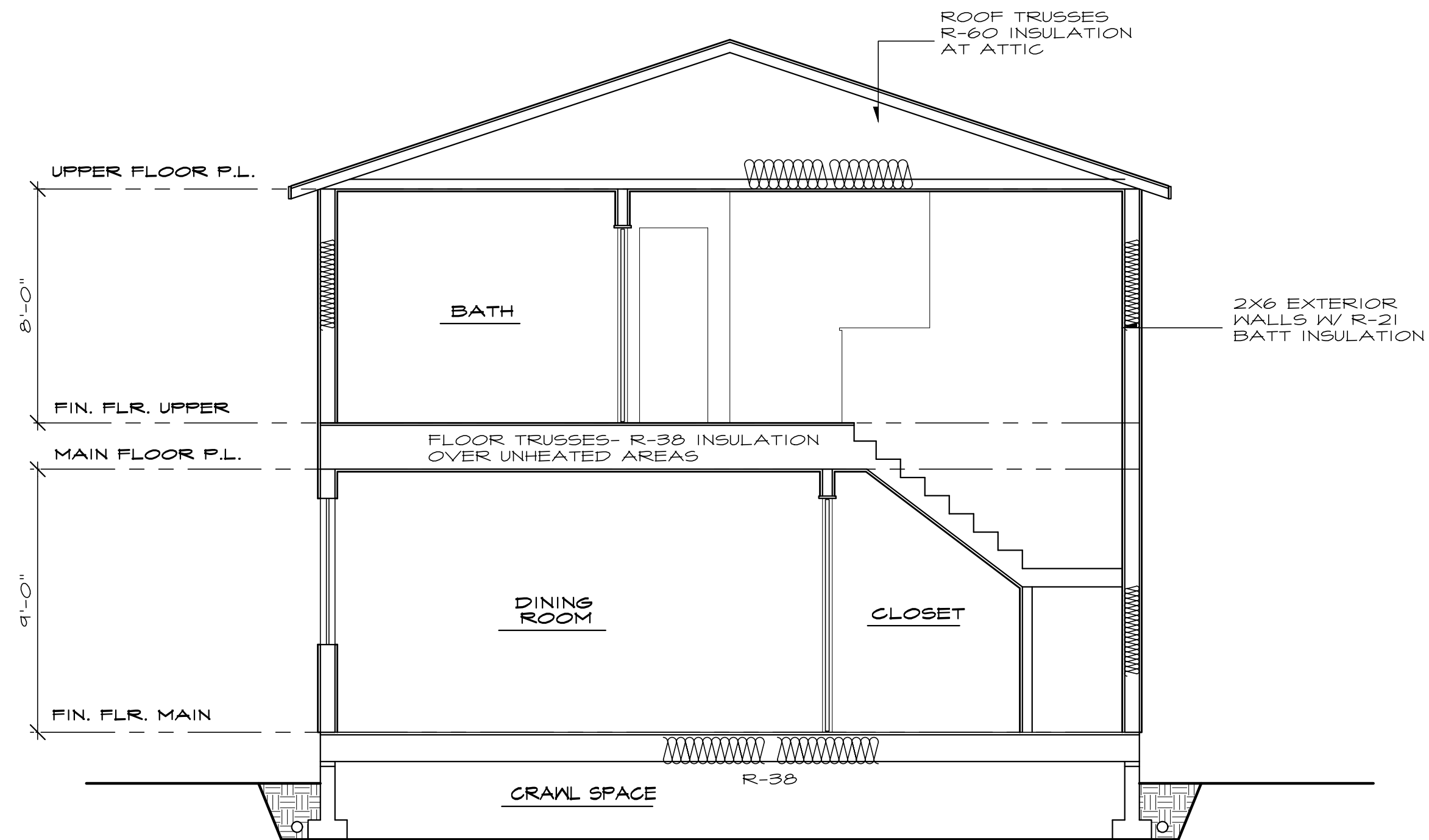
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1 STAIR DETAIL - TYPICAL
SCALE: N.T.S.

STAIR NOTES:
RISER HEIGHT = 7-3/4" MAX.
TREAD DEPTH = 10" MIN.



SECTION A-A
SEE GENERAL NOTES SCALE: 1/4" = 1'-0"



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A4

GARAGE SLAB

4" CONC. SLAB ON 4" MIN. GRANULAR FILL ON 45% COMPACTED FILL/VIRGIN SOIL

PORCH SLAB

4" CONC. SLAB ON GRADE ON 10 MIL VAPOR BARRIER ON 4" MIN. GRANULAR FILL ON 45% COMPACTED FILL/VIRGIN SOIL

GENERAL STRUCTURAL NOTES
FOUNDATION
- DESIGN IS BASED ON 2021 INTERNATIONAL RESIDENTIAL CODE & 2021 INTERNATIONAL BUILDING CODE. - DESIGN LOADS: - SOIL: 2500 PSF ALLOWABLE BEARING PRESSURE PER PANGELO GEOTECH REPORT DATED 04/2024 - CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS IN 28 DAYS, UNO. f'_c = 3000 psi. * FOUNDATION WALLS 3000 psi. * FOOTINGS 2500 psi. INTERIOR SLABS ON GRADE 3500 psi.* GARAGE & EXT. SLABS ON GRADE f'_ty = 60,000 psi * ALL CONCRETE HAS BEEN DESIGNED FOR 2500 PSI, ANYTHING GREATER THAN THIS SPECIFICATION IS FOR WEATHERING ONLY. - ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 7% AIR ENTRAINMENT. - FOUNDATION WALL DESIGN IS BASED ON BACKFILL SOIL PRESSURE OF 50 PSF AT REST, 35 PSF ACTIVE & 90 SEISMIC SURCHARGE. - TYPICAL REINFORCEMENT DETAILS: LAP ALL REBAR 24" MIN, BEND BARS AND LAP AT CORNERS; PROVIDE 6" HOOK INTO SUPPORTING FOOTINGS WHEN FOOTINGS INTERSECT; PROVIDE 3" MINIMUM COVER AT THE BOTTOM BARS AND 1 1/2" COVER AT THE SIDES. - FOUNDATION WALLS SHALL BE BRACED, PRIOR TO BACKFILLING, BY EITHER ADEQUATE TEMPORARY BRACING OR INSTALLATION OF FIRST FLOOR DECK. - ALL FOOTINGS SHALL BEAR BELOW FROST LINE. CONSULT SOILS REPORT/ LOCAL MUNICIPALITY FOR MINIMUM DEPTH BELOW GRADE. - FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 45% COMPACTED FILL. - PROVIDE CONTROL JOINTS AT ALL INSIDE CORNERS OF SLAB EDGES, AND OTHER LOCATIONS WHERE SLAB CRACKS ARE LIKELY TO DEVELOP. (15'-0" O.C.) - FASTEN SILL PLATES TO FOUNDATION WALLS WITH 3/8" DIA. ANCHOR BOLTS W/ MIN. 3"x3"x1/4" PLATE WASHERS (EDGE OF WASHER TO BE LOCATED WITHIN 1/2" OF EXTERIOR EDGE OF SILL PLATE) PROVIDE A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAXIMUM FROM PLATE ENDS, UNO. (SEE FND. DETAILS). - ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT W/ CONCRETE OR MASONRY FOUNDATION SHALL BE PRESERVATIVE TREATED HEM FIR #2. - ARCH/BUILDER TO VERIFY ALL DIMENSIONS

HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
 HD-1	SIMPSON SHD14 (R.J.) HOLD-DOWN

MEANS & METHODS NOTES
THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FINISHED AND ALL PLAN, DETAIL, AND NOTE SPECIFICATIONS HAVE BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUY, AND TIE-DOWNS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF THE PROJECT.
STRUCTURAL DESIGN AND SPECIFICATIONS ASSUME THAT ALL SUPPORTING AND NON-SUPPORTING ELEMENTS IN CONTACT WITH FLOOR FRAMING ARE LEVEL, INCLUDING, BUT NOT LIMITED TO: FOUNDATIONS, SLABS ON GRADE, BEAMS, WALLS, AND NON-BEARING ELEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY, INCLUDING CONSIDERATION OF THOSE AREAS THAT MAY BE WITHIN CONTRACTUAL, INDUSTRY, OR WARRANTY TOLERANCES.

ADDITIONAL NOTES FOR TRUSS & I-JOIST MANUFACTURER
ROOF TRUSS, FLOOR TRUSS AND ENGINEERED JOISTS SHALL BE DESIGNED TO MEET THE DIFFERENTIAL DEFLECTION CRITERIA BELOW (UNLESS NOTED OTHERWISE ON PLAN. MULHERN & KULP CANNOT BE HELD RESPONSIBLE FOR ANY STRUCTURAL ISSUES RELATED TO ANY BUILDING COMPONENT IF COMPONENT SHOP DRAWINGS ARE NOT SUBMITTED TO MKK FOR REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALLATION. TRUSSES SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES OR GIRDER TRUSSES DOES NOT EXCEED THE FOLLOWING: A. ROOF TRUSSES: 1/41" DEAD LOAD B. FLOOR TRUSSES, ATTIC TRUSSES, & I-JOISTS: 1/8" DEAD LOAD C. FLOOR TRUSSES & ATTIC TRUSSES ADJACENT TO FLOOR FRAMING BY OTHERS: LIMIT ABSOLUTE TRUSS DEFLECTION TO 3/16" DEAD LOAD. (NOT DIFFERENTIAL DEFLECTION)

LOADING AND DESIGN PARAMETERS
GRAVITY DESIGN LOADS: DEAD LOAD (PSF) (INCLUDING MEP's): ROOF TRUSS TOP CHORD : 10 ROOF TRUSS BOTTOM CHORD : 7 FLOOR (TRUSSES) : 15 TILE FLOORS : 10 LIVE LOAD (PSF): ROOF : 20 RESIDENTIAL LIVING AREAS : 40 RESIDENTIAL SLEEPING AREAS : 30 SNOW LOAD: GROUND SNOW LOAD (PSF) : 25 FLAT ROOF SNOW LOAD (PSF) (PSF) : 25 SNOW EXPOSURE FACTOR (C_s) : 0.9 SNOW LOAD IMPORTANCE FACTOR (I) : 1.0 THERMAL FACTOR (C_t) : 1.2 LATERAL DESIGN LOADS: WIND LOAD: (IBC 1609) SPEED (V_W) (MPH) : 100 WIND RISK CATEGORY : II IMPORTANCE FACTOR (I_w) : 1.0 EXPOSURE CATEGORY : C INTERNAL PRESSURE COEFF. (C_{GC}) : 0.0/0.8 TOPOGRAPHIC FACTOR (K_{zt}) : 1.0 SEISMIC LOAD: (IBC 1613) SEISMIC RISK CATEGORY : II SEISMIC IMPORTANCE FACTOR (I_s) : 1.0 MAPPED SPECTRAL RESPONSE : S_{MS} 1.26 S_{ML} 0.4394 SITE CLASS : C SPECTRAL RESPONSE COEFF. : S_{MS} 1.008 S_{ML} 0.4394 SEISMIC DESIGN CATEGORY: D BASIC SEISMIC-FORCE-RESISTING SYS : LIGHT FRAMED WALLS WOOD STRUCTURAL PANELS ULTIMATE BASE SHEAR: TRANS: T K LONG: T K SEISMIC RESPONSE COEFF. (C_d) : TRANS: 0.155 LONG: 0.155 RESPONSE MODIFICATION FACTOR (R) : TRANS: 6.5 LONG: 6.5 ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE

LATERAL BRACING NOTES
THIS HOME HAS BEEN ENGINEERED TO RESIST LATERAL FORCES RESULTING FROM: 100 MPH WIND SPEED, EXP. C (ASCE 7-16 WIND MAP, PER IRC R301.2.1.1) RISK CAT. 2 & SEISMIC CAT. D2. 100 MPH WIND IN 2021 IRC MAP ENGINEERED DESIGN WAS COMPLETED PER 2021 IBC (SECTION 1609 & 1613) & ASCE 7-16, AS PERMITTED BY R301.1.3 OF THE 2021 IRC. ACCORDINGLY, THIS HOME, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES, AND DOES NOT NEED TO CONFORM TO THE PRESCRIPTIVE PROVISIONS OF R602.10.
STANDARD EXTERIOR WALL SHEATHING SPECIFICATIONS (INTERIOR WALL SPECIFICATION WHERE NOTED ON PLANS)
1/4" OSB OR 1/2" PLYWOOD: FASTEN SHEATHING W/ 2 1/2"x0.131" NAILS @ 6" O.C. AT ALL SUPPORTED PANEL EDGES AND 12" O.C. IN THE PANEL FIELD. ALL SHEATHING SHEET PANEL EDGES SHALL OCCUR OVER WALL FRAMING MEMBERS OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT PANEL EDGE. ALL EXTERIOR WALLS SHALL BE CONSTRUCTED PER THIS SPECIFICATION UNO. ON PLANS.
3" o.c. EDGE NAILING (WHERE NOTED ON PLANS)
1/4" OSB OR 1/2" PLYWOOD: ONLY AT LOCATIONS INDICATED ON PLANS - SHEATH WALL SHOWN WITH 3/4" OSB, FASTEN SHEATHING W/ 2 1/2"x0.131" NAILS @ 3" O.C. AT EDGES AND 12" O.C. AT CENTER. ALL SHEATHING SHEET PANEL EDGES SHALL OCCUR OVER WALL FRAMING MEMBERS OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT PANEL EDGE AND 3" O.C. FASTENING.
NOTES:
- LATERAL ANALYSIS ASSUMES STUD SPACING @ 16" O.C. - ALL SHEAR WALLS SHALL HAVE DOUBLE TOP PLATES FASTENED TOGETHER W/ 3"x0.131" NAILS @ 8" O.C. USE (12) 9"x0.131" NAILS AT EACH LAP SPICE, (6) EACH SIDE OF JOINT (TYP. UNO.) - ALL EXTERIOR WALLS ARE CONTINUOUSLY SHEATHED. - ALL INTERIOR SHEAR WALLS AND EXTERIOR WALLS ARE SHEATHED ABOVE AND BELOW OPENINGS.

GENERAL STRUCTURAL NOTES
DESIGN PARAMETERS
- DESIGN IS BASED ON 2021 INTERNATIONAL RESIDENTIAL CODE & 2021 INTERNATIONAL BUILDING CODE. - WOOD FRAME ENGINEERING IS BASED ON NDS, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" - LATEST EDITION.
GENERAL FRAMING
- EXTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. (W/ DOUBLE TOP PLATE) HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, UNO. - INTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. (W/ DOUBLE TOP PLATE) HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, UNO. - ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x "STUD" GRADE MEMBERS SPACED @ 24" O.C. (MAX.) - ALL WALLS TALLER THEN TYP. PLATE HEIGHT SHALL BE CONSIDERED BALLOON FRAMED & SHALL BE CONSTRUCTED FROM FLOOR TO UNDERSIDE OF FRAMING AT NEXT LEVEL. B.F. WALLS SHALL BE 2x6 HEM FIR (HF) #2 GRADE LUMBER, OR BETTER, UNO. - ALL SHEATHING AND LEDGERS ARE TO BE DIRECTLY APPLIED AND FASTENED TO FRAMING; DO NOT PROVIDE CONTINUOUS INSULATION BETWEEN FRAMING AND SHEATHING/LEDGERS - ALL HEADERS SHALL BE SUPPORTED BY (1)2x JACK STUD & (1)2x KING STUD, MINIMUM. - THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, UNO. - BUILT-UP POSTS SHALL BE 2x4 OR 2x6 HEM FIR (HF) "STUD" GRADE LUMBER, OR BETTER, UNO. 4 SOLID WOOD COLUMNS SHALL BE SPRUCE PINE FIR (SPF) #2 GRADE LUMBER, OR BETTER, UNO. - ALL 2x6 AND LARGER SOLID SAWN BEAMS/HEADERS SHALL BE HEM FIR #2 (HF #2) OR BETTER, ALL 4x6 AND LARGER SOLID SAWN LUMBER SHALL BE DOUG FIR #2 (DF #2) OR BETTER. - ALL FRAMING LUMBER SHALL BE KILN DRIED TO 15% MC (KD-15). - ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN GENERAL NOTES, IN DETAILS, OR ON PLANS. ALL NAILS SPECIFIED ARE MIN. DIAMETER AND LENGTH REQUIRED FOR CONNECTION. ALL HANGER NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX CHARTED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING GUN NAILS. - FASTEN ALL BEAMS TO COLUMNS, OR FLUSH BEAMS TO SUPPORTING BEAMS, W/ (4) 3"x0.131" TOENAILS (MIN), TYP. UNO. - PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS & HOLD-DOWNS CONTINUOUS TO FOUNDATION/BEARINGS, BLOCKING TO MATCH POST ABOVE. - ENGINEERED LUMBER TO MEET OR EXCEED THE FOLLOWING: - LSL MEMBERS - Fd=2325 PSI; Fv=310 PSI; E=1.55x10⁶ PSI - LVL MEMBERS - Fd=2600 PSI; Fv=285 PSI; E=2.0x10⁶ PSI - GLB MEMBERS - Fd(+)=2400 PSI; Fd(-)=1050 PSI; Fv=265 PSI; E=1.8x10⁶ PSI; DF/DF, 24F-V4 (UNO.) - ENGINEERED LUMBER POSTS TO MEET OR EXCEED THE FOLLOWING: - LVL MEMBERS - Fd=2400 PSI; Fc1F=2500 PSI; E=1.8x10⁶ PSI - FACE NAIL MULTI-PLY 2x BEAMS & HEADERS W/ 3-ROWS OF 3"x0.131" NAILS (MIN) @ 12" O.C. STAGGERED, APPLY NAILING FROM BOTH FACES @ 3-PLY OR MORE CONDITIONS. UTILIZE 2 ROWS OF NAILS FOR 2x6 & 2x8 MEMBERS. - TRUSS SHOP DWSG SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF PROPOSED CONSTRUCTION SHALL BE SUBMITTED TO BUILDING DESIGNER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY IN ACCORDANCE WITH TPI-1 2.3.2.3 & 2.3.4.3. - REFER TO IRC FASTENING SCHEDULE TABLE R602.3(I) FOR ALL CONNECTIONS, TYP. UNO. - BUILDER RESPONSIBLE TO DETERMINE CORROSION-RESISTANCE REQUIREMENTS AND COMPATIBILITY OF HARDWARE, FASTENERS AND CONNECTORS FOR ENVIRONMENTAL EXPOSURE AND IN CONTACT W/ PRESERVATIVE-TREATED WOOD OF ACTUAL FINAL CONDITIONS AND SOURCED MATERIALS. CONTACT LUMBER & HARDWARE SUPPLIERS TO COORD. - IN THE ABSENCE OF MANUFACTURER'S RECOMMENDATIONS, NOT LESS THAN ASTM A653, TYPE G185 ZINC-COATED GALVANIZED STEEL, OR EQUIVALENT, SHALL BE USED.
FLOOR FRAMING
- I-JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA AND SHALL RUN CONTINUOUS OVER SUPPORTS WHEREVER POSSIBLE. ALL LOADS SHOWN ON PLAN FOR MANUF. DESIGN ARE ASD LEVEL LOADS, UNO. (EXCLUDES STONE/MARBLE OR NET BED CONSTRUCTED FLOORS - CONTACT MKK FOR EXCLUDED DESIGNS). - ALL METAL I-JOIST/TRUSS HANGERS SHALL BE SPECIFIED BY I-JOIST/TRUSS MANUFACTURER, UNLESS OTHERWISE NOTED. 2x FLOOR JOISTS HAVE BEEN DESIGNED TO MEET OR EXCEED L/360 LIVE LOAD DEFLECTION CRITERIA. - TYPICAL 2x JOIST HANGERS (UNO. ON PLANS). SINGLE PLY: SIMPSON LU520 DOUBLES: SIMPSON LU520-2 - FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED "STURD-I-FLOOR" 24" O.C. EXPOSURE I (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS W/ GLUE AND 2 1/2" x 0.131" NAILS @ 6" O.C. @ PANEL EDGES & @ 12" O.C. FIELD. - ALL FLUSH CONNECTIONS SHALL BE CONNECTED WITH HANGER APPROPRIATE FOR MEMBER SIZE, UNO. - FASTEN HANGERS TO SINGLE PLY FLUSH BEAMS W/ 1/2" LONG NAILS.
ROOF FRAMING
- FASTEN EACH ROOF TRUSS TO TOP PLATE W/ (4) 3"x0.131" TOENAILS (MIN) & (1) SIMPSON H25T CLIP @ ALL BEARING POINTS. PROVIDE (2) SIMPSON H25T CLIPS AT 2-PLY GIRDER TRUSSES, (2) SIMPSON H25T CLIPS AT 3-PLY GIRDER TRUSSES AT ALL BEARING POINTS. - FASTEN EACH ROOF RAFTER TO TOP PLATE WITH (1) SIMPSON H25T CLIP PROVIDE (2) SIMPSON H25T CLIPS AT FLUSH BEAMS IN THE ROOF - AT ALL BEARING POINTS. - ROOF SHEATHING SHALL BE 1/16" A.P.A. RATED SHEATHING 24/16 EXPOSURE I (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS W/ 2 1/2" x 0.131" NAILS @ 6" O.C. AT PANEL EDGES & @ 6" O.C. AT INTERMEDIATE SUPPORTS. ROOF SHEATHING SHALL EXTEND BELOW ALL INSTANCES OF OVERFRAMING. BLOCKING SHALL BE INSTALLED AS REQUIRED TO LIMIT ROOF SHEATHING SPANS TO 24" MAX. - ALL METAL HANGERS SHALL BE SPECIFIED BY THE TRUSS MANUFACTURER, UNLESS OTHERWISE NOTED. - ROOF TRUSS SHOP DRAWINGS & CALCULATIONS SHALL BE DESIGNED FOR UNBALANCED SNOW LOADING PER ASCE 7-16, SECTION 7.6. - ERECT AND INSTALL ROOF TRUSSES PER NTC-A & TPI'S BC61 I-Q8 "GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES." - FASTEN OVER-FRAMED TRUSS SETS TO TRUSSES BELOW W/ (2) 3"x0.131" TOENAILS AT EA. TRUSS. - FASTEN ALL INTERIOR NON-BEARING PARTITION WALLS TO TRUSS BOTTOM CHORD ABOVE WITH SIMPSON STG CLIPS AT 24" O.C. MAX. PROVIDE BLOCKING BETWEEN THE TRUSS BOTTOM CHORDS AS REQUIRED FOR THE PARALLEL CONDITIONS.

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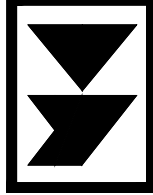


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M&K project number:
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project mgr: NJM
drawn by: MPM
issue date: 06-07-24

REVISIONS:

date: initial:

LEGACY GROUP CAPITAL

STRUCTURAL NOTES

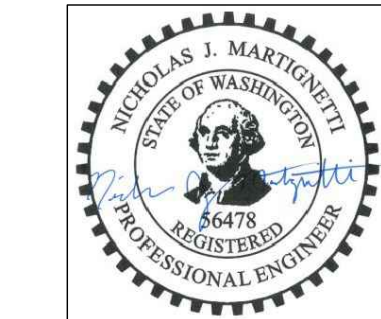
UNIT 2
116TH AVENUE NE
KIRKLAND, WASHINGTON

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S-O.O

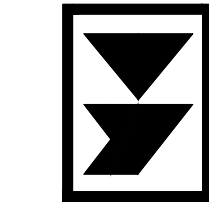
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STRUCTURAL PLANS

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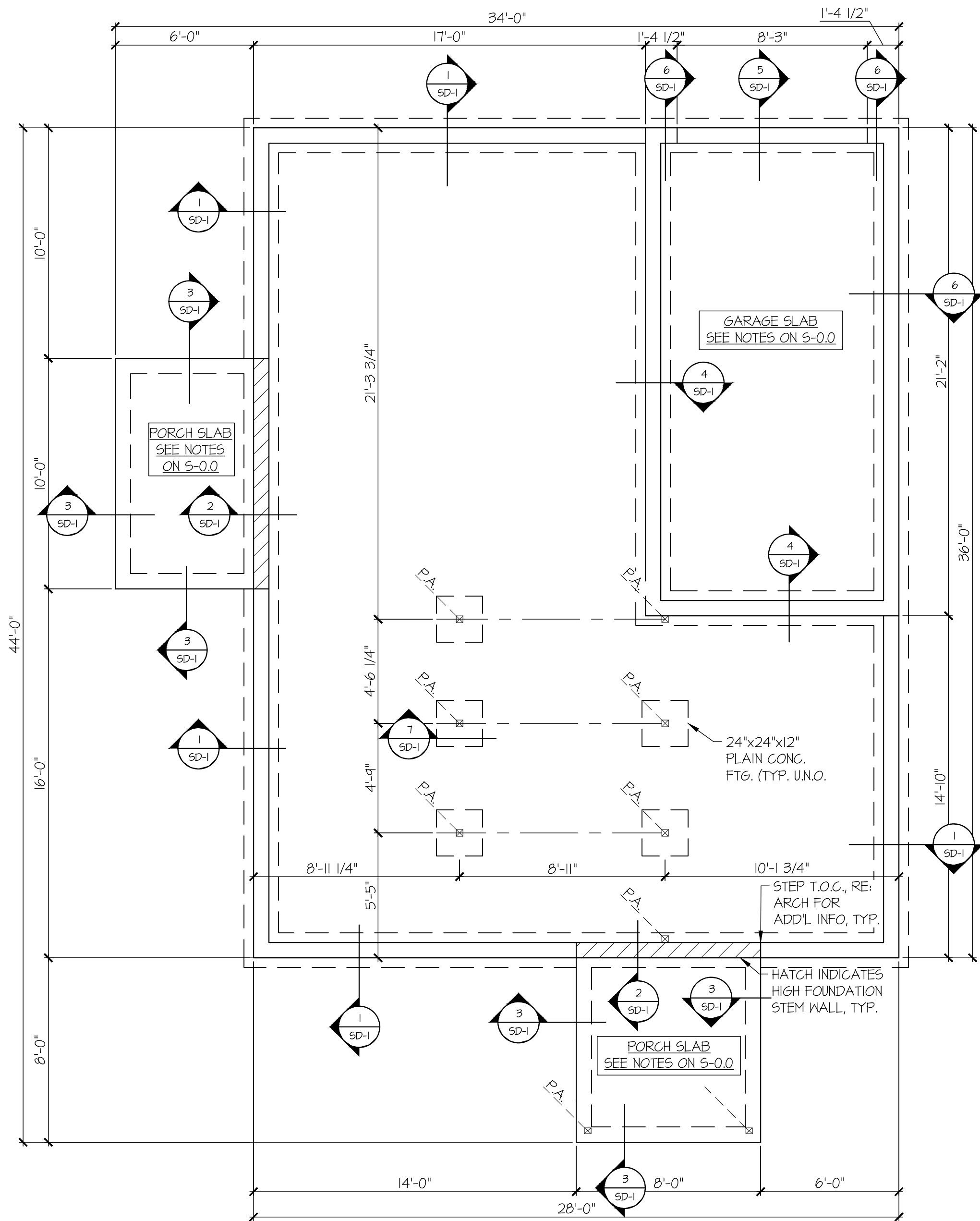
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REFER TO S-0.0 FOR
TYPICAL STRUCTURAL
NOTES & SCHEDULES

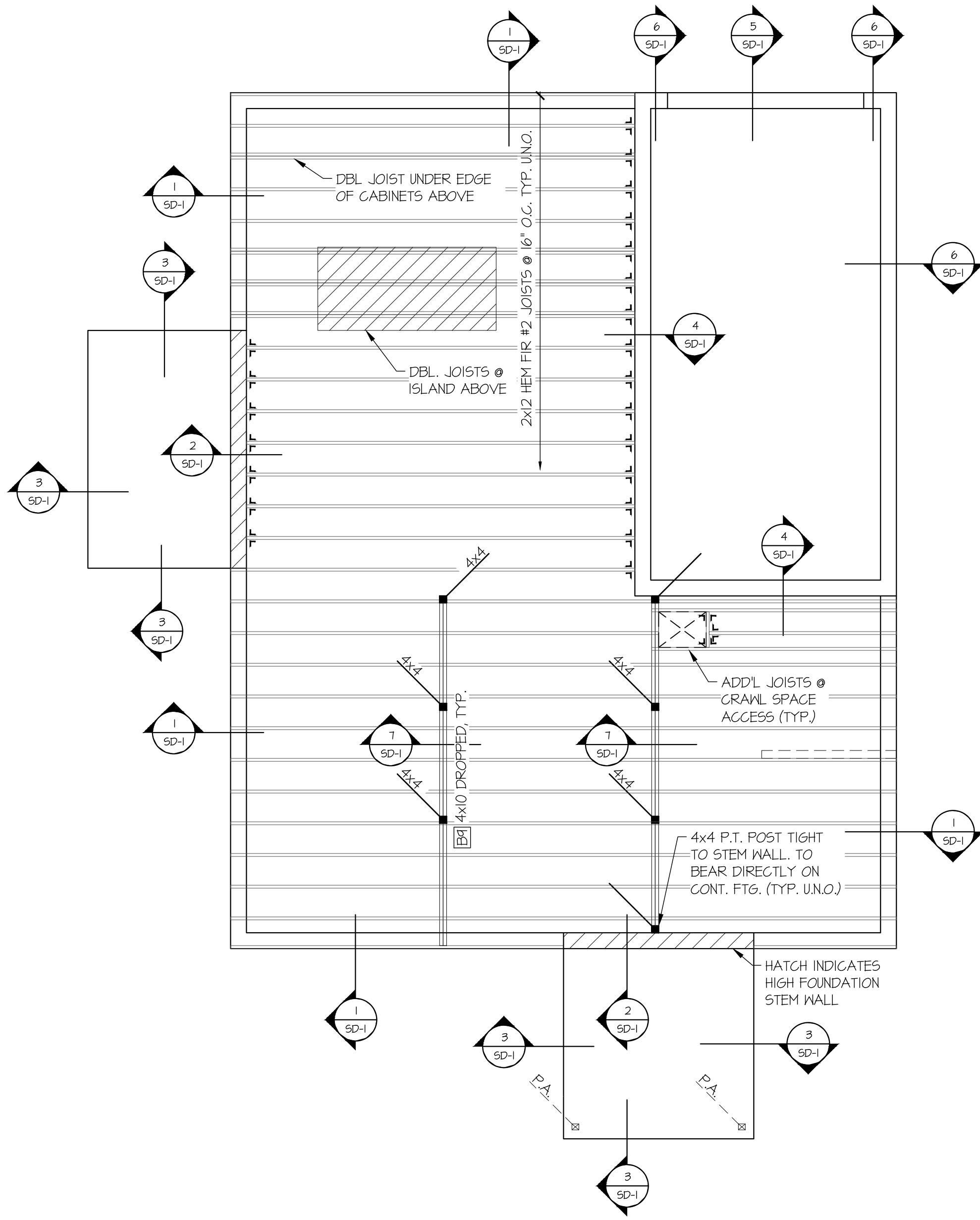
LEGEND

- INTERIOR BEARING WALL
- BEARING WALL ABOVE (B.W.A.) OR SHEARWALL ABOVE (S.W.A.)
- BEAM / HEADER
- INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" o.c. EDGE NAILING
- AREA OF OVERFRAMING
- JL METAL HANGER
- INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- INDICATES HOLDDOWN.

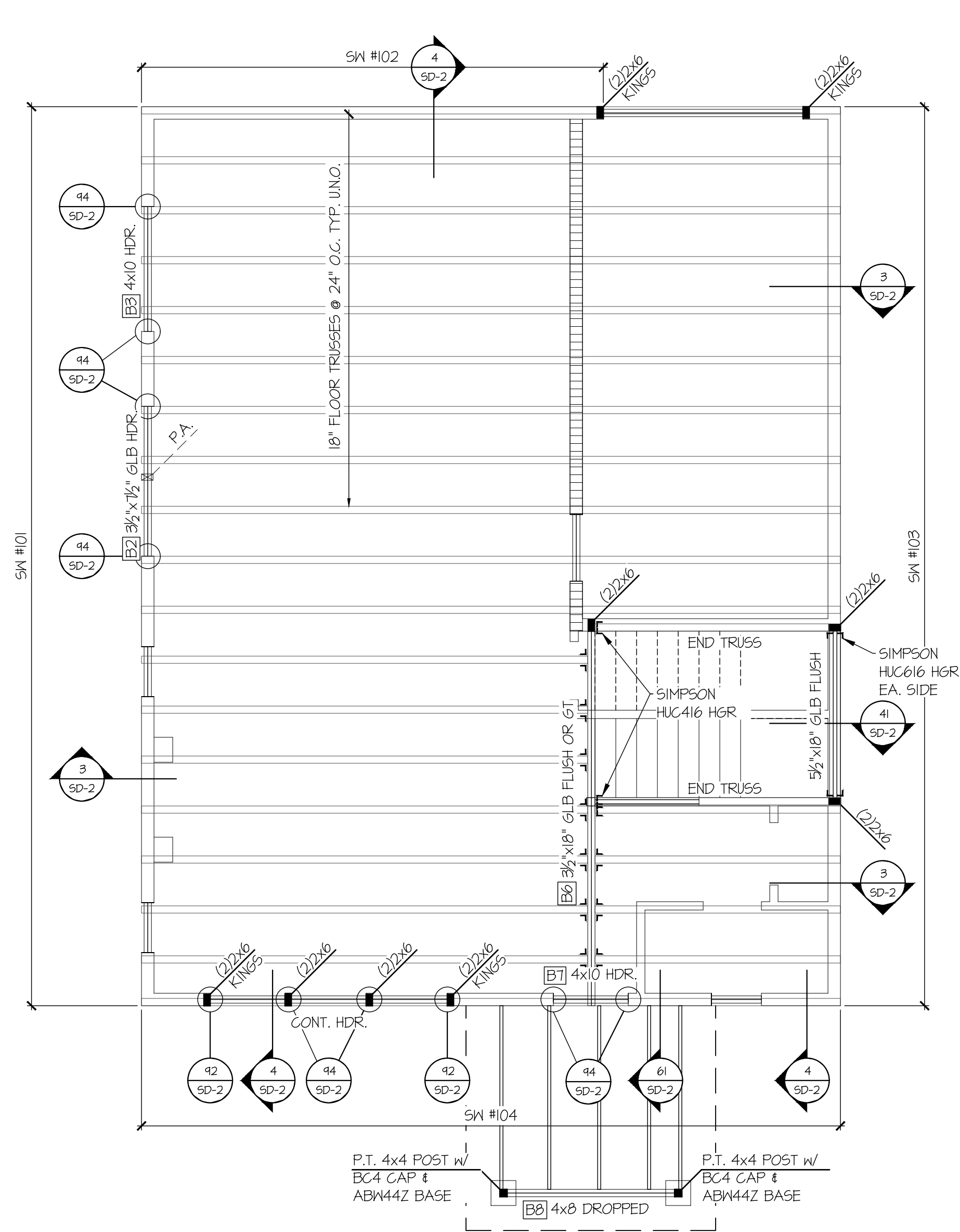


1 FOUNDATION PLAN
SCALE: 1/4"=1'-0"

FIELD HEIGHT VERIFICATION
Completed building height field verification form
required at subfloor inspection/slab insulation
inspection

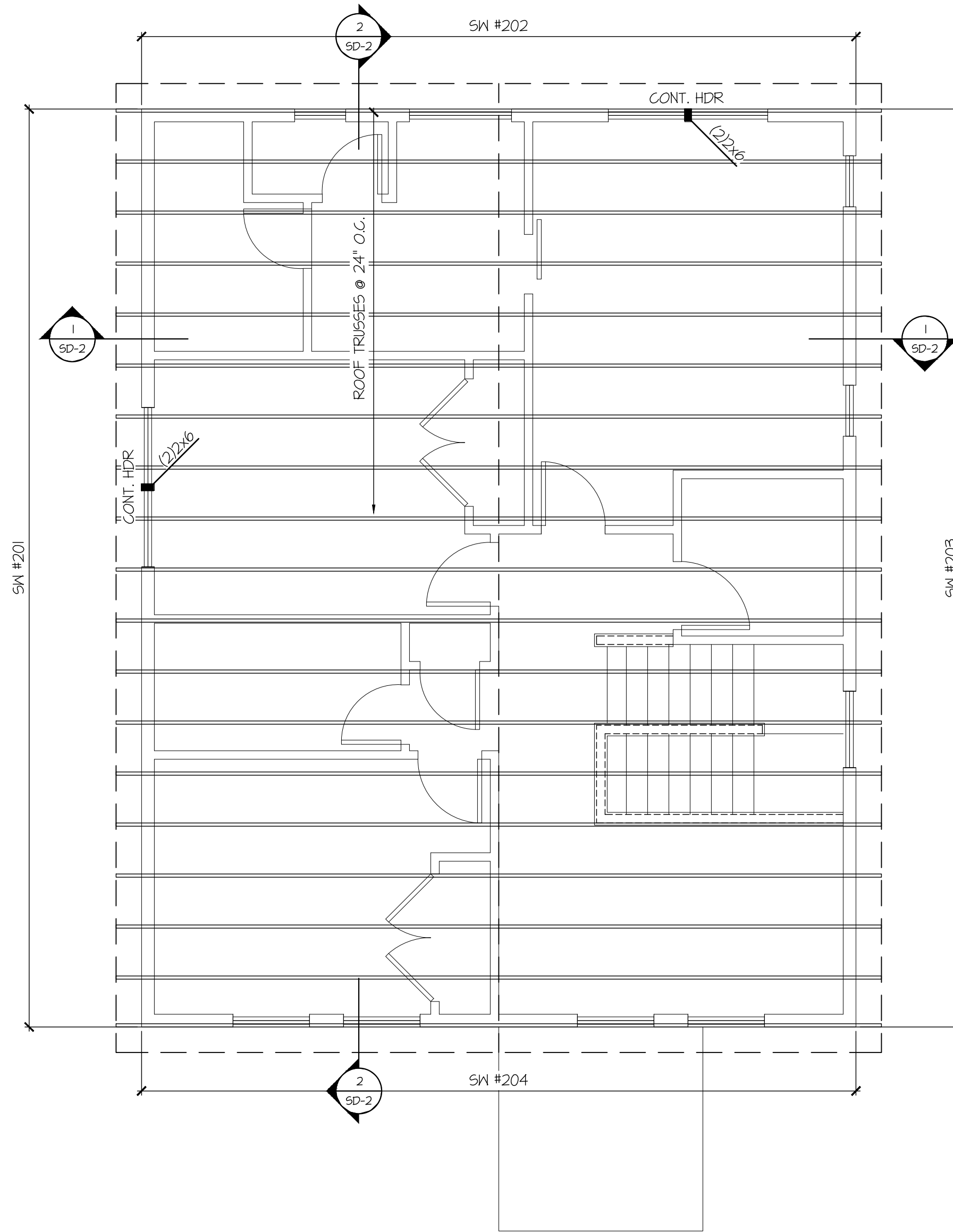


2 FIRST FLOOR FRAMING PLAN
SCALE: 1/4"=1'-0"



1 SECOND FLOOR FRAMING PLAN
SCALE: 1/4"=1'-0"

4x8 HDR @ ALL EXT./INT.
OPENINGS (TYP. U.N.O.) [B4] [B5]



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

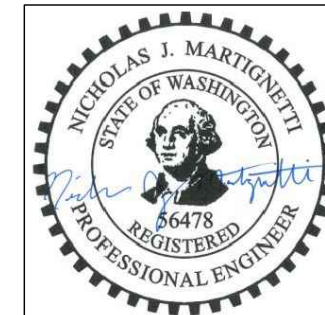
FIELD HEIGHT VERIFICATION
Completed building height survey must be
submitted to building inspector at roof sheathing
inspection

REFER TO S-0.0 FOR
TYPICAL STRUCTURAL
NOTES & SCHEDULES

LEGEND

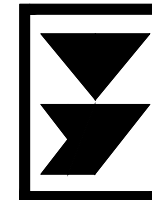
- INTERIOR BEARING WALL
- BEARING WALL ABOVE (B.W.A.) OR SHEARWALL ABOVE (S.W.A.)
- BEAM / HEADER
- INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" O.C. EDGE NAILING
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- INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
- INDICATES HOLDDOWN.

seal:



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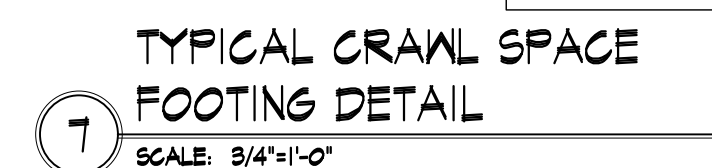
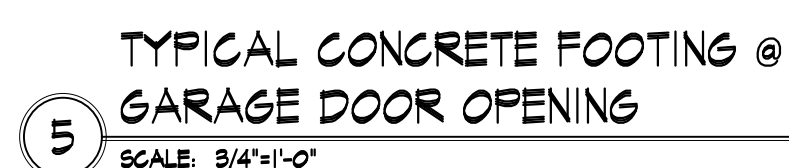
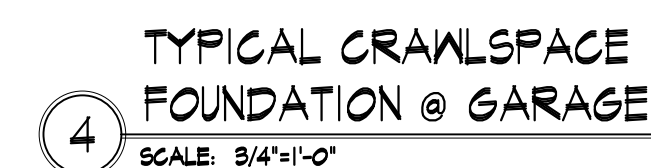
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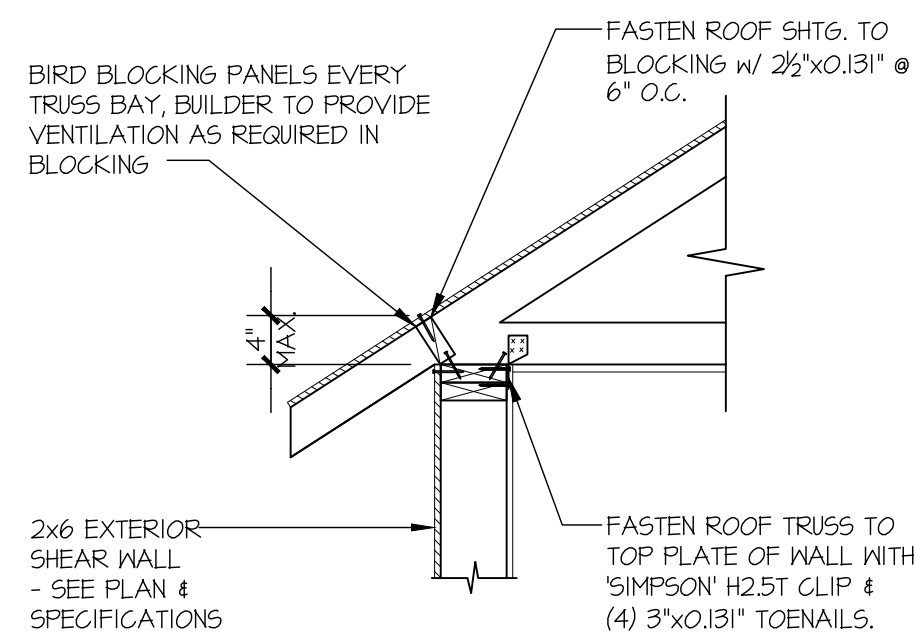
STRUCTURAL PLANS

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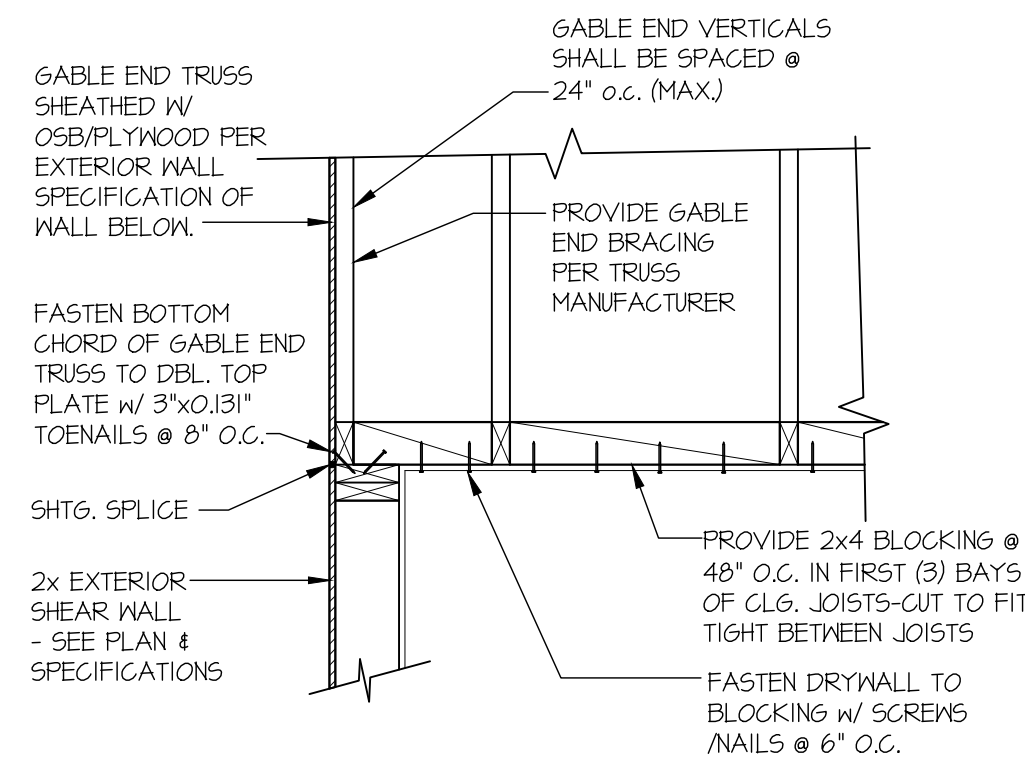
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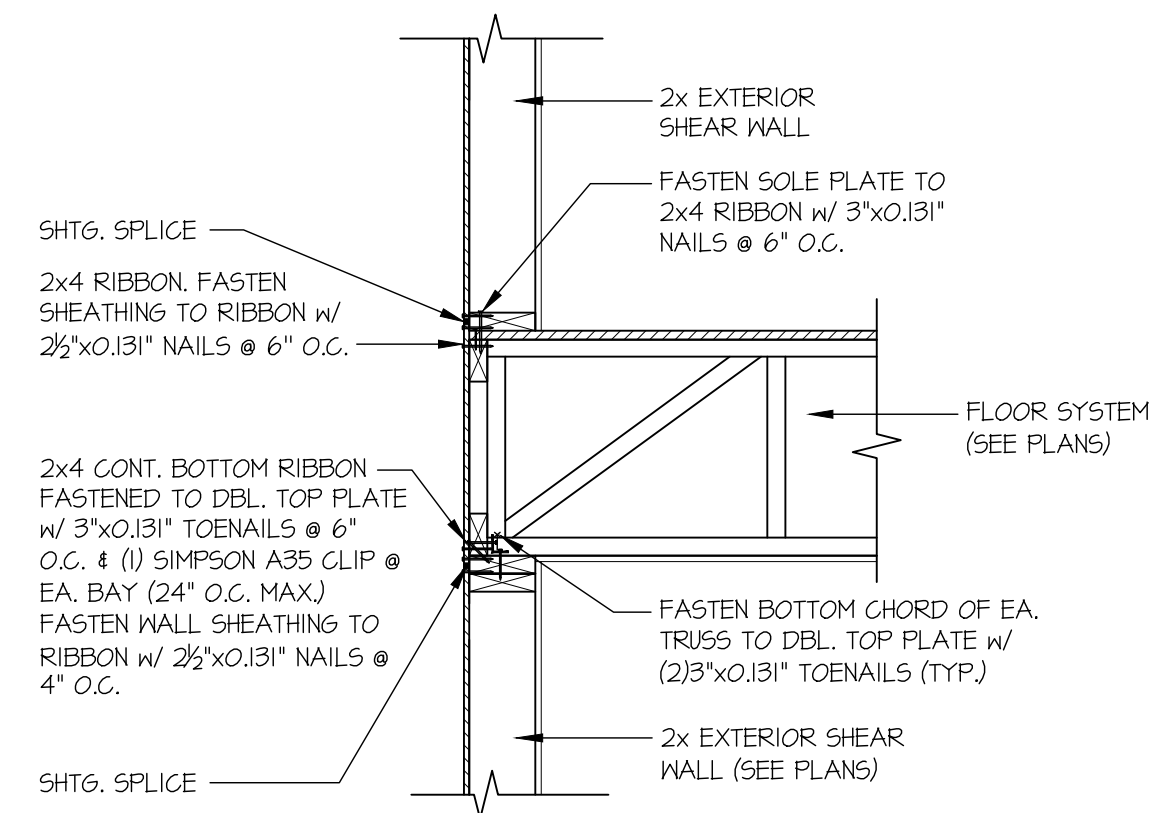




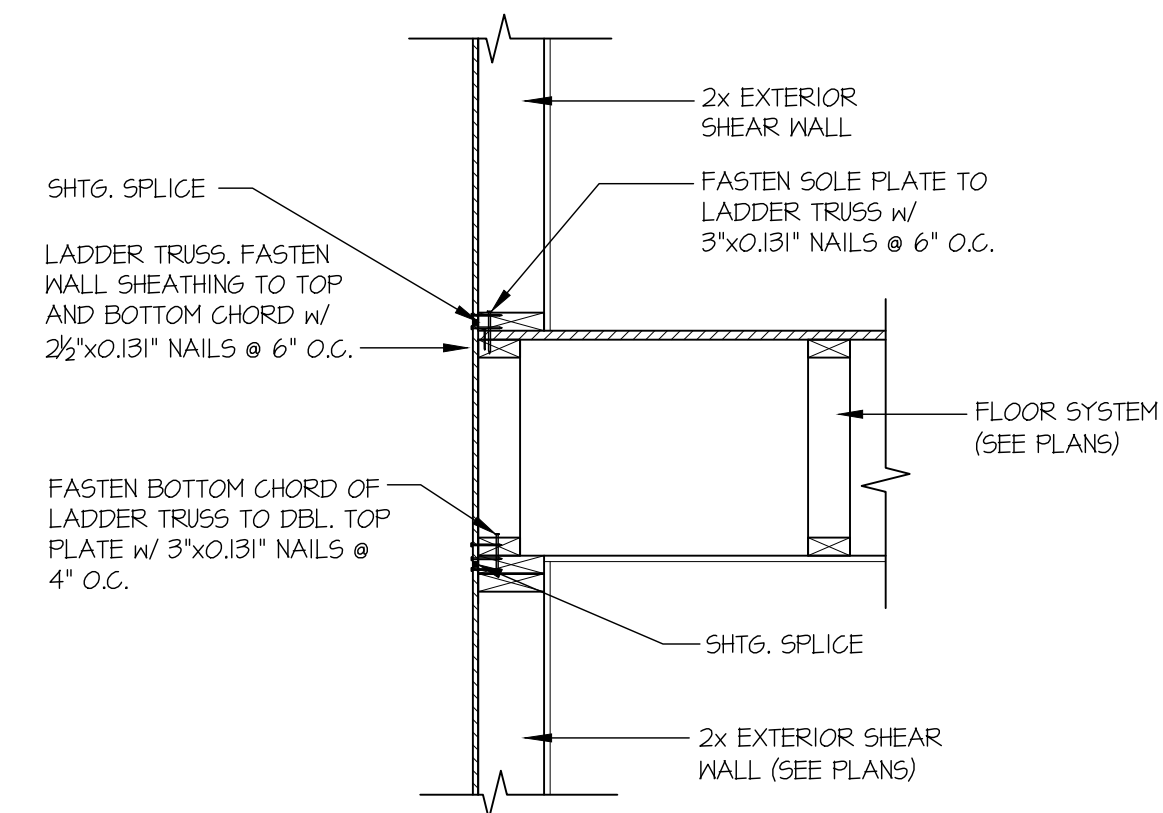
1 TYPICAL SHEAR
TRANSFER DETAIL @ ROOF
SCALE: 3/4"=1'-0" HEEL HEIGHT LESS THAN 6 1/2"



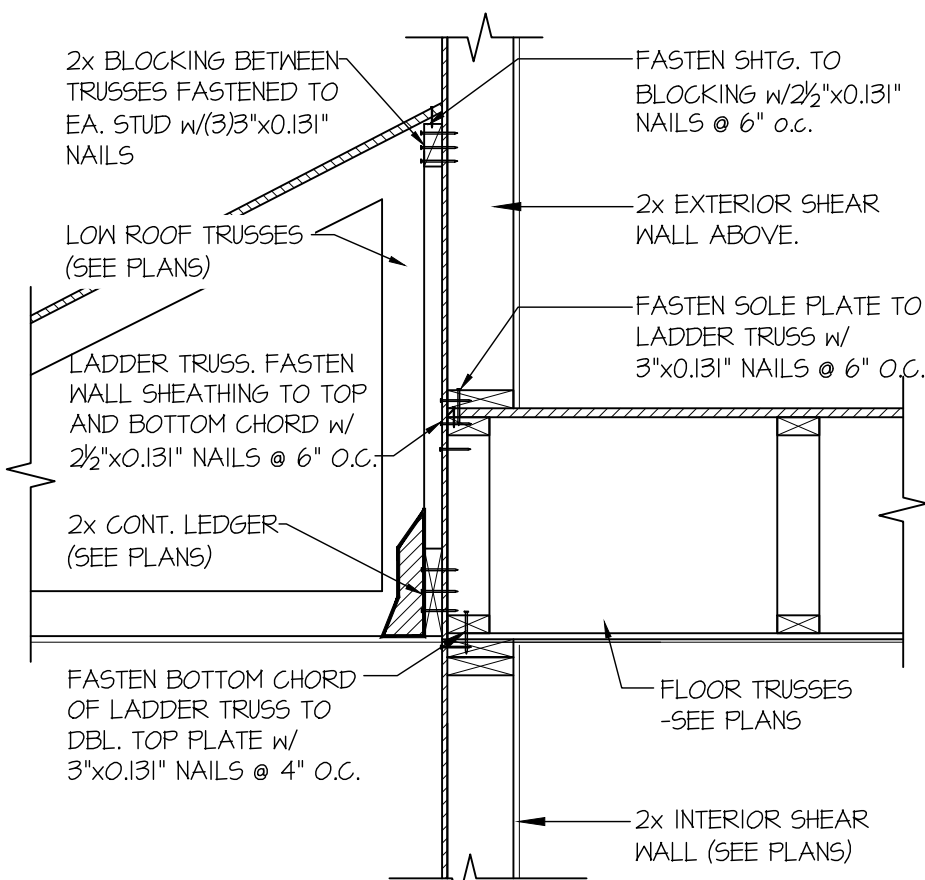
2 TYPICAL GABLE END DETAIL
SCALE: 3/4"=1'-0"



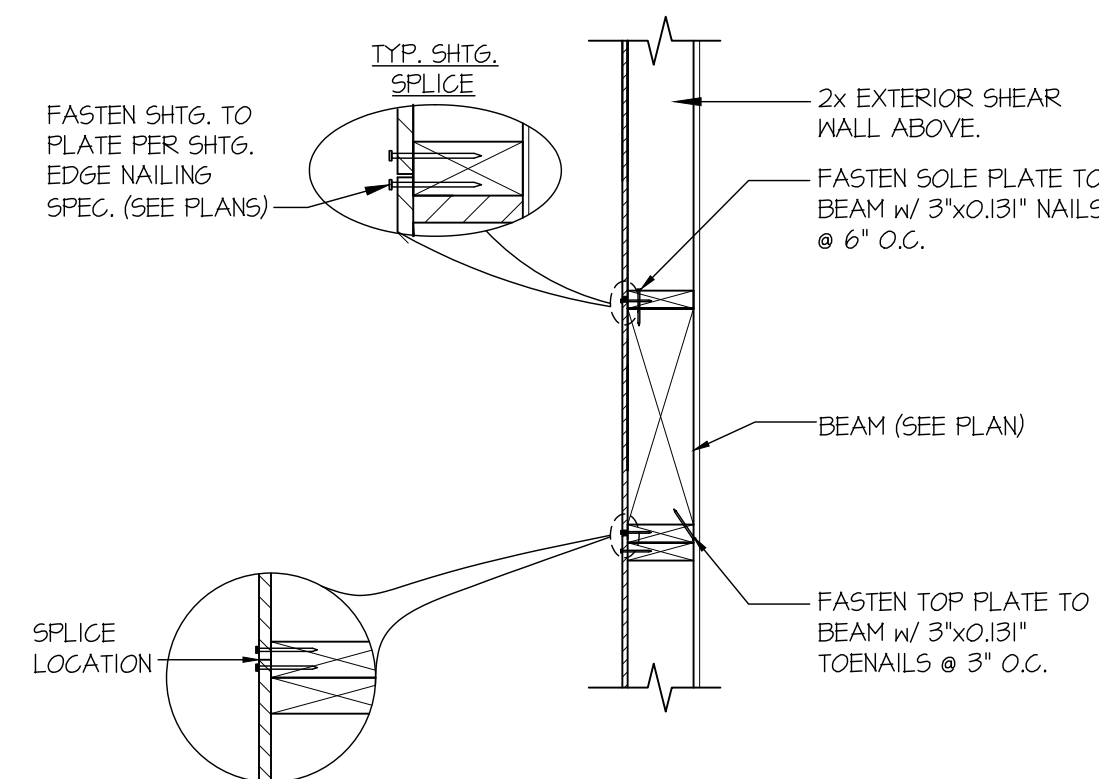
3 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ EXTERIOR WALL
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



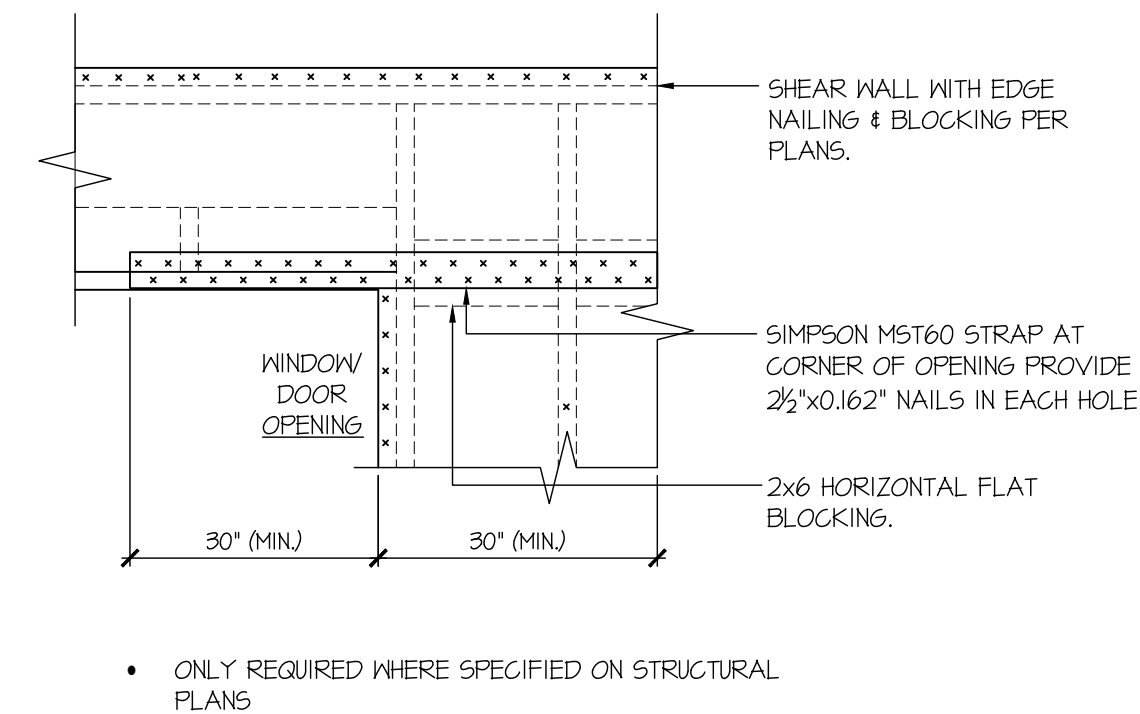
4 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ EXTERIOR WALL
SCALE: 3/4"=1'-0" PARALLEL FRAMING



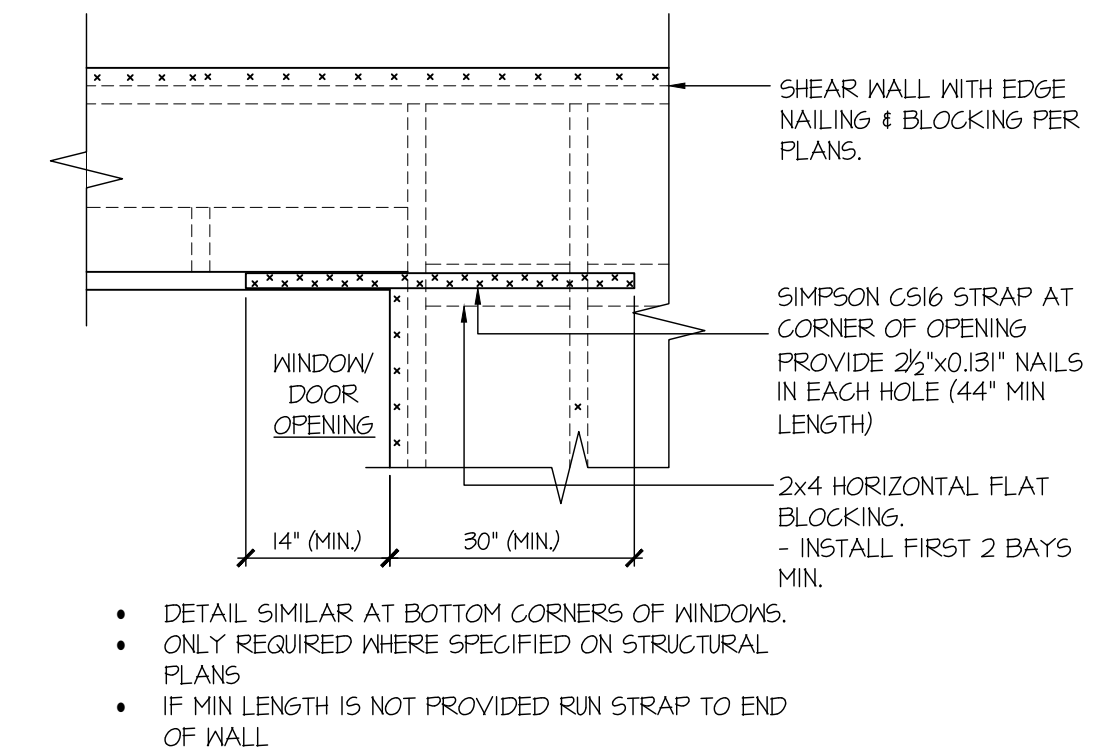
61 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4"=1'-0" PARALLEL FRAMING



41 SHEAR TRANSFER DETAIL @
PLATFORM FRAMED WALL
SCALE: 3/4"=1'-0"

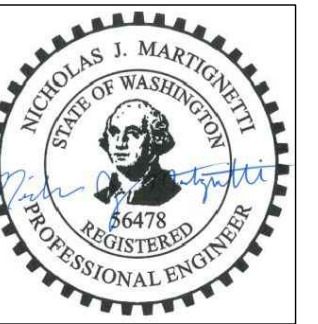


92 EXT. WALL & INT. SHEARWALL
OPENING ELEVATION
SCALE: NTS



94 EXT. WALL & INT. SHEARWALL
OPENING ELEVATION
SCALE: NTS

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