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CITY OF MERCER ISLAND
DEVELOPMENT SERVICES GROUP

9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercergov.org

INSPECTION REQUESTS:
online: MyBuildingPermit.com
voicemail: (206) 275-7730

NOTE: ALL RECORDS AND DRAWINGS ARE SUBJECT TO PUBLIC DISCLOSURE AS REQUIRED BY RCW 42.56

TO BE COMPLETED BY APPLICANT

CONTACT INFORMATION:
Applicant is to complete the following information.

Applicant Contact information *prior* to permit issuance:		Applicant Contact information *post* permit issuance:	
Name:	Susanne Foster	Name:	Heidi Schmitten
Address:	7247 SE 29th Street Mercer Island, WA 98040	Address:	12033 SE 40th Lane Bellevue WA 98006
Phone:		Phone:	(425) 765-3878
Email:	susanne.foster@me.com	Email:	heidischmitten@gmail.com

REQUIRED SPECIAL INSPECTIONS / STRUCTURAL OBSERVATIONS:
It is the Engineer of Record's responsibility to specify all required Special Inspections or Structural Observation (check items below). The owner is responsible for hiring an approved private Special Inspector for the checked inspections noted below. All Special Inspectors (except Geotechnical) must be WABO certified.
When Special Inspection or Structural Observation is required, the report shall be submitted to the City Building Inspector prior to the City Inspection. **Note: Inspection by the City Inspector is required in addition to the Special Inspection or Structural Observation indicated below. Do not cover or conceal any work prior to the City inspection.**

STRUCTURAL OBSERVATION BY ENGINEER OF RECORD (EOR):
Engineer of Record: Dwayne Barnes Company: Stoney Point Engineering Phone: (425) 644-9500
☐ General Conformance to Construction Documents ☐ Other:

SOILS / GEOTECHNICAL:
Special Inspector: Company: Phone:
☐ Erosion control measures ☐ Subsurface drainage placement
☐ Shoring installation and monitoring ☐ Verify fill material and compaction
☐ Observe and monitor excavation ☐ Rockery installation
☐ Verification of soil bearing ☐ Pile placement (auger cast/driven pile)
☐ Other: ☐ Other:

REINFORCED CONCRETE:
Special Inspector: Company: Phone:
☐ Concrete strength ☐ Retaining wall construction
☐ Reinforcing steel and concrete placement ☐ Prestressed / Precast construction
☐ Shotcrete placement ☐ Other:
☐ Other: ☐ Other:

STRUCTURAL STEEL: *(AISC 360, Chapter N)*
Special Inspector: Company: Phone:
☐ Fabrication and shop welds ☐ Moment Frame construction
☐ Structural steel erection, field welds and bolting ☐ Other:
☐ Other: ☐ Other:

STRUCTURAL MASONRY:
Special Inspector: Company: Phone:
☐ Mortar strength ☐ Glass unit masonry installation
☐ Masonry unit strength ☐ Wall panel and veneer installation
☐ Other: ☐ Other:
☐ Other: ☐ Other:

WOOD:
Special Inspector / Engineer of Record: Company: Phone:
☐ Lateral resisting system construction ☐ High strength diaphragm construction
☐ Other: ☐ Other:

OTHER SPECIAL INSPECTIONS:
Special Inspector: Company: Phone:
☐ Epoxy grout installations ☐ Stucco installation
☐ Expansion anchor installations ☐ Infiltration System
☐ Other post installed anchors ☐ Exterior Insulation Finish System (EIFS) installation
☐ Alternative construction methods: ☐ Other:
☐ Alternative construction materials: ☐ Other:

DEFERRED SUBMITTALS:
The Applicant is required to select all deferred submittals / shop drawings for submittal to the City for review and approval prior to item fabrication / construction.

☐ Connector plate wood trusses ☐ Post tension layout
☐ Metal joist / metal trusses ☐ Exterior cladding
☐ Premanufactured structures (stairs, etc.) ☐ Window wall / curtain wall construction
☐ Precast concrete elements ☐ Other:
☐ Other: ☐ Other:

TO BE COMPLETED BY APPLICANT

ENERGY CODE COMPLIANCE INFORMATION:
Indicate where the following information is located in the drawing set. Alternatively, incorporate or include the Residential Energy Code Prescriptive Compliance (RECPC) Form into the drawing set.

	Sheet:		
☑ Building envelope: *WSEC Table 402.1.1* (include U-factors, insulation and moisture control)	C0.0	☑ Air Leakage Testing. *IRC Section R402.4.1.2 WA Amendments* ☑ Provide air leakage test report verifying air leakage rate does not to exceed 5 air changes per hour.	
☑ Whole house ventilation: *IRC Section M1507 WA Amended* (include ventilation option and duct sizing if applicable)	A2.1	☑ Duct Leakage Testing. *WSEC R403.3.2*	
☑ Energy Credit Information: *WSEC Table 406.2* (include specific, written requirements)	C0.0	☑ Postconstruction Test. *WSEC R403.2.2.1*	
☐ RECPC Form Information: (if incorporated within drawing set) http://www.mercergov.org/files/2012ResidentialEnergyCalcForm.pdf		☑ Rough-in Test. *WSEC R403.2.2.3*	

TO BE COMPLETED BY DSG

PROJECT ALERTS:
Construction of the project shall be from ***approved plans only***. No deviation from the approved project plans is allowed without prior approval from the City of Mercer Island. Approved plans must be kept on site and maintained in good condition.

☑ Refer to "Conditions of Permit Approval" provided at permit issuance for required construction rules and regulations, including:
- Site Considerations
- Hours of Work
- Construction Vehicle Parking Restrictions
- Acess Road Requirements
- ROW restrictions
- Drainage Requirements
- Sewer Requirements
- Water Service Requirements
- Additional Fire Code Requirements
- Planning Requirements
- Noise Abatement Certification
- Tree Requirements

☐ Refer to "Preconstruction Meeting Checklist" provided at the preconstruction meeting for development related requirements.
☑ Temporary site address with minimum 6" high numbers visible from the street must be installed.
☑ Erosion control measures must be as shown on approved project drawings. All erosion control is to be in place and inspected prior to the start of any site work.
☑ A City of Mercer Island Business License is required for all subcontractors. Call (206) 275-7783 for more information.

TREE PROTECTION REQUIREMENTS:
☑ Tree protection as shown on approved drawings shall be installed at tree dripline prior to start of any site work and must remain in place throughout the project.
☑ No trees shall be cut without a City of Mercer Island tree permit.
☐ Replacement trees must be a minimum of six feet tall at installation. They must be planted and approved prior to final inspection.
☐ For this project, N/A trees are authorized to be removed and replaced with N/A trees.
☐ This project appears to be within a protected eagle nest area. Contact Federal Fish and Wildlife at (360) 534-9304 or visit their website at http://www.fws.gov/pacific/eagle

FIRE PROTECTION REQUIREMENTS:
Separate Permits are required for ALL fire protection systems. For more information, see http://www.mercergov.org/Page.asp?NavID=2614

☐ Fire Sprinkler
☐ NFPA 13D
☐ Plus
☐ NFPA 13R
☐ NFPA 13
☐ Approved Fire Code Alternatives:
☐ FCA1
☐ FCA2
☐ Monitored Household
Fire Alarm per NFPA 72
☐ Monitored Sprinkler
Water Flow Alarm
☐ Other:
☐ FCA3
☐ FCA4

TO BE COMPLETED BY DSG

WATER SUPPLY REQUIREMENTS:
☐ Fire sprinkler design calculations must be provided prior to determining water supply system requirements.
☐ Water Supply system upgrade required
☐ City Installation.
☐ Applicant Installation.
Required Service Line Size: N/A (water main to meter) Required Supply Line Size: N/A (water main to house) Required Meter Size: N/A
☐ Abandonment of existing service and meter required at main.
☑ Pressure reducing valve required if pressure exceeds 80 psi.
☑ Reduced pressure backflow assembly (RPBA) required for all lots with waterfront or non-city water supply (private wells or lake irrigation).
☐ Additional water supply requirements:

DRAINAGE REQUIREMENTS:
☐ On site detention system required.
☐ On site infiltration system required.
☐ As-built Utility drawings required.
☐ Full Size drawings required.
☐ Direct discharge into the lake.
☐ No Storm Water permit required.
☐ Connection to public storm drainage conveyance system req'd.
☐ Other:

SIDE SEWER REQUIREMENTS:
☑ Side sewer requires a backflow preventer when connecting to the lake line or when the elevation of the lowest plumbing fixture is lower than the elevation of the upstream manhole rim or when side sewer is shared with one or more properties.
☐ Video tape of existing sewer required (see standard details)
☐ New connection. ☐ Connect to existing. Disconnect permit required. ☐ Reconnect permit required.
☐ Other:
Note: When side sewer is to be connected to the lake line you will need to schedule three (3) days in advance with the City of Mercer Island Maintenance Department at (206) 275-7800.

APPROVED CODE ALTERNATIVES:
Code alternatives must be Inspected. Refer to the Inspection Checklist

☐ CA1: ☐ CA2:

SURVEY REQUIREMENTS (The following survey information must be submitted when checked):
Surveyor shall verify points chosen for height calculations and point verification shall be submitted at the time of City foundation Inspection. A property survey may be required to verify setbacks and in some cases buildings must be surveyed onto the lot. The City reserves the right to request an impervious area survey at any time prior to issuance of Certificate of Occupancy.

Surveyor: APS Survey and Mapping - Samuel Ward Phone: (425) 746-3200
☑ Building height survey
☑ Building setback survey
☐ Impervious surface survey
☐ Other:

☐ **MAXIMUM 40 PERCENT ALTERATION INSPECTION:** *MICC 19.01.050(D)(1)(b)(i)*
A Building Inspection prior to demolition is required for all legally nonconforming single family dwelling to ensure no more than 40 percent of the dwelling's exterior walls are structurally altered. Contact the Building Inspector at (206) 275-7730.
☐ Civil / Drainage ☐ LUP / Setback requirements

GEOTECHNICAL INFORMATION:
Land clearing, grading, filling and foundation work within geologic hazard areas is **NOT PERMITTED** between October 1 and April 1 without an approved Seasonal Development Limitation Waiver.

☐ Geotechnical Report provided. All construction must comply with the recommendations of the Geotechnical Report. A copy of report and other geotechnical information must be kept on site at all times.

Geotechnical Engineer *Phone*

SEASONAL DEVELOPMENT LIMITATION RESTRICTION:
☐ Applies (Geologic Hazard area). Grading not permitted between October 1 through April 1.
☐ Waiver approved. Grading and excavation permitted subject to all conditions noted in Seasonal Development Limitation Waiver Permit.

Permit number *Approved by* *Date*

TO BE COMPLETED BY DSG

REQUIRED CONSTRUCTION INSPECTIONS:
It is the applicant's responsibility to contact DSG to schedule ALL inspections appropriate for the project. Request inspections online at www.MyBuildingPermit.com or by calling the Inspection Hotline at (206) 275-7730. Allow at least 24 hours (48 hours for Reinforcing steel) in advance of desired inspection. Be specific as to type of inspection.

Inspector shall initial and date appropriate inspection *only* if approved. Note: ***Items marked with an "•" require a separate permit.*** It is the applicants responsibility to apply for and obtain all City of Mercer Island permits.

INSPECTIONS: (Listed in order of typical sequencing)

Inspector	Date	Approved	
		☐	Pre-construction Meeting to Review Conditions of Permit Approval.
		☐ •	Tree protection
		☐	Erosion control
		☐ •	Sewer disconnect and cap. If applicable, separate side-sewer permit required
		☐ •	Right-of-way use or work / easement, material delivery, etc. If applicable, separate ROW permit required
		☐	Land clearing, grading and demolition
		☐	Temporary power
		☐	Pilings / Shoring / Shotcrete. If applicable, provide survey letter (property line); Geotechnical Engineer / Special Inspector reports of inspections (pile and shoring installation, etc.)
		☐	Footings, setbacks, UFER ground. If applicable, provide survey letter (building height and setbacks); Special Inspector reports of inspections (soil bearing capacity, compaction, earthwork, pile installation, etc.)
		☐	Foundation walls / concrete columns
		☐	Roof and footing drains
		☐	Foundation damproofing
		☐ •	Storm drainage, including (but not limited to): • Connections to storm main in ROW • Detention systems • Infiltration systems • Catch basins including oil-water separator tees • Area drains • Conveyance piping / cleanouts • Storm drain in ROW • Control structures / manholes • Pump systems • Retaining wall drainage
		☐ •	Water Service
		☐	Water Supply
		☐	Water as-built drawings
		☐ •	Side sewer installation, including (but not limited to): • Connections to side sewer main • Connections to existing side sewer • Back-flow valves • Grinder pump systems • Sewer manholes
		☐	Driveway / Access road
		☐	Underslab electrical / mechanical / plumbing
		☐	Underslab insulation / vapor barrier / reinforcing
		☐	Underfloor framing
		☐	Nailing-Roof sheathing. If applicable, provide Special Inspection letter for lateral wood inspection.
		☐	Nailing-Exterior wall and Shearwall. If applicable, provide Special Inspection letter for lateral wood inspection.
		☐	Rough hydronic installation
		☐	Rough electric installation
		☐ •	Rough fire alarm (wiring inspection)
		☐	Rough plumbing installation (DWV, water)
		☐	Rough mechanical
		☐	Gas Piping
		☐ •	Rough fire sprinkler / hydrostatic and flow (bucket) test
		☐	Framing and glazing. If applicable, provide Special Inspection letter for lateral wood inspection, welding epoxy anchors, etc.
		☐	Masonry construction (fireplace / walls / veneer / etc.)
		☐	Insulation installation
		☐	Stucco (paper and lath)
		☐	Shower pan (or tub)
		☐	Miscellaneous
		☐	Code Alternative CA1:
		☐	Code Alternative CA2:
		☐	Impact Fees Paid (If applicable)
		☐	**Final Inspection:** Tree Restoration ☐ TT
		☐	**Final Inspection:** Fire protection, including (but not limited to): ☐ TF • Sprinkler • Access Road • Fire Code Alternatives (see below) ☐ FCA1: ☐ FCA2: • Fuel Tank Installation • Fire Extinguishing System • Fire Alarm System ☐ FCA3: ☐ FCA4:
		☐	**Final Inspection:** Water supply protection, including (but not limited to) backflow devices for: ☐ TW • Waterfront property • Fire / lawn sprinkler • Well water on property • Boiler
		☐	**Final Inspection:** Site and utility: includes landscape, utilities and ROW. Site restoration complete and as-built drawings ready for submittal. ☐ TS
		☐	**Final Inspection:** Building, including electrical / mechanical / plumbing. If applicable, provide closeout (summary) letters from Engineer, Special Inspectors, Geotechnical Engineer, and exterior wall cladding inspectors (EIFS). ☐ TB

90 DAY TEMPORARY CERTIFICATE OF OCCUPANCY (TCO):
Applicant option. Additional fees will be required and must be approved prior to occupancy. TCO requires tree plantings be completed.

Approved *Start Date* *End Date*

TO BE COMPLETED BY DSG

ADDITIONAL REQUIRED CITY INSPECTIONS:
Call the appropriate contact to arrange the inspection.

Required Inspection(s):	Contact:	Phone:	Scheduling:

IMPACT FEES:
If applicable.

☐ Impact fees apply and are due ***prior*** to Final Inspection or on _____, whichever occurs first.
Date

PLAN REVIEW APPROVALS:
Not all review disciplines may be required to review the documents.

☐ DC *Building* ☐ RP *Planning* ☐ N/A *Engineering* ☐ N/A *Tree* ☐ N/A *Fire*

APPROVED DRAWINGS MUST BE KEPT ON THE BUILDING SITE AT ALL TIMES

REVIEWED FOR CODE COMPLIANCE
Date
Approved

PERMIT NUMBER 5

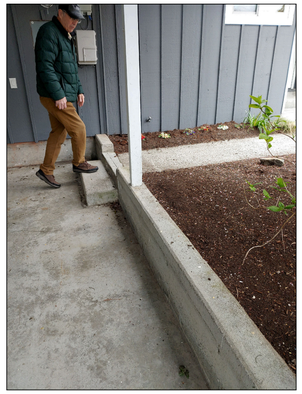
CERTIFICATE OF OCCUPANCY
Issued after all required inspections have been performed and approved.
Date
Approved

PROJECT NAME: Foster Residence

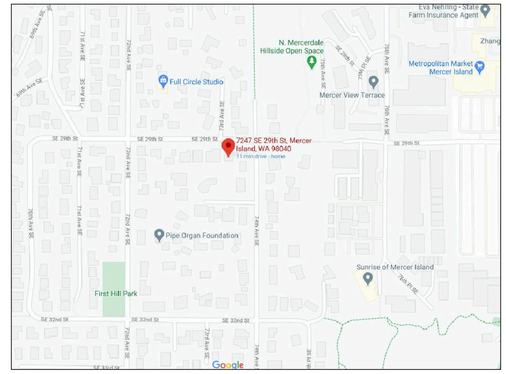
PROJECT ADDRESS: 7247 SE 29th Street

EXIST. FRONT ELEVATION

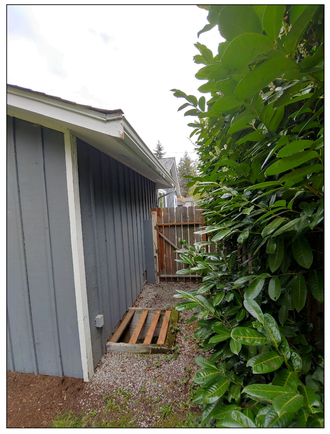
EXIST. REAR ELEVATION



EXIST. CARPORT



VICINITY MAP



EXIST. SIDEYARD

EXIST. CARPORT – SIDEYARD

EXIST. CARPORT

CODES

THIS DESIGN IS IN ACCORDANCE WITH THE FOLLOWING CODES AS AMENDED BY THE STATE OF WASHINGTON

2018 International Building Code – WAC 51-50
2018 International Residential Code – WAC 51-51
2018 International Fire Code – WAC 51-54A
2018 International Existing Building Code – WAC 51-50
2018 National Fuel Gas Code (NFPA 54) – WAC 51-50
2018 International Mechanical Code – WAC 51-52
2018 International Fuel Gas Code – WAC 51-52
2018 Uniform Plumbing Code – WAC 51 256
2018 Washington State Energy code – WAC 51-11C and WAC 51-11R
2018 National Design Specification for Wood Construction (NDS)

ENERGY CODE SUMMARY

FROM 2015 WSEC TABLE R402.1.1 CLIMATE ZONE 5 AND 4C (MARINE)		
	R-VALUE	U-VALUE
FENESTRATION	N/A	0.30
SKYLIGHTS	N/A	0.50
GLAZED FENESTRATION SHGC	N/A	N/A
CEILINGS (TRUSSES)	R-49	0.026
SINGLE RAFTER OR JOIST-VAULTED CEILINGS	R-38 IF INSULATION EXTENDS o/ TOP PLATE OF EXT. WALL	0.026
CEILINGS	R-49	0.026
WOOD FRAMED WALLS	R-21 (INT)	0.056
FLOORS	R-30	0.029
BELOW GRADE WALLS	R-10 C.I. INTERIOR R-15 C.I. INTERIOR R-21 INT & T.B.	0.042
SLAB ON GRADE	R-10 CONT. UNDER HEATED SLAB ON GRADE	

2018 WSEC NOTES

1. THE THERMAL ENVELOPE SHALL BE CONSTRUCTED TO LIMIT AIR LEAKAGE PER SECTION R402.4.1 THROUGH R402.4.4 AND SHALL BE TESTED PER SECTION R402.4.1.2. SEE TABLE R402.4.1.1 FOR AIR BARRIER AND INSULATION INSTALLATION.

2. INDOOR AND OUTDOOR LIGHTING SHALL COMPLY WITH SECTION 404.

3. HVAC DUCTS SHALL BE SEALED AND LEAK TESTED AS REQUIRED PER SECTION R403.2.2

4. OPEN BLOWN OUR POURED LOOSE FILL INSULATION MAY BE USED ONLY WHEN THE CEILING IS 3:12 SLOPE OR LESS AND THERE IS AT LEAST 30" ON CLEAR SPACE FROM THE TOP OF THE BOTTOM TRUSS CHORD TO THE ROOF SHEATHING. SEE SECTION R402.2.1.1.

5. OPEN BLOWN POURED OR SPRAY APPLIED ROOF/CEILING INSULATION SHALL BE IDENTIFIED BY INCHES OF THICKNESS WITH DENSITY AND R-VALUE MARKERS INSTALLED AT ONE FOR EVERY 300 SQ. FT. THROUGH THE ATTIC SPACE PER SECTION R303.1.1.1.

6. A PERMANENT CERTIFICATE SHALL BE POSTED WITHIN 3 FEET OF THE ELECTRICAL PANEL AND IS TO BE COMPLETED BY THE BUILDER OR REGISTERED DESIGN PROFESSIONAL PER SECTION R401.3. THE CERTIFICATE SHALL INCLUDE:

A) PREDOMINANT R-VALUES OF INSTALLED INSULATION.
B) U-FACTORS AND SHGC OF WINDOWS AND SKYLIGHTS INSTALLED AT THE HEATED ENVELOPE.
C) THE TYPE AND EFFICIENCY OF HVAC AND WATER HEATING EQUIPMENT.
D) DUCT LEAKAGE RATES FROM THE DUCT TEST.
E) AIR LEAKAGE RATES IF A BLOWER DOOR TEST WAS CONDUCTED.

7. ATTIC AND CRAWL SPACE ACCESS DOORS SHALL BE INSULATED TO ADJACENT INSULATION STANDARD AND WEATHER STRIPPED PER R402.2.4.

8. R404.1 LIGHTING EQUIPMENT (MANDATORY). A MINIMUM OF 75 PERCENT OF LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS.

2018 WSEC CREDITS

SEE R402.2.9.1	
R406- ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS	
CREDITS REQUIRED	
SMALL DWELLING UNIT <1,500 SQ. FT.	3
MEDIUM DWELLING UNIT 1,500 > 5,000 SQ. FT.	6
LARGE DWELLING UNIT >5,000 SQ. FT.	7
ADDITIONS LESS THAN 500 S.F.	1.5
CREDITS PROVIDED- OPTIONS SELECTED FROM TABLE 406.2	

HEATING OPTIONS	FUEL DESCRIPTIONS	CREDITS
2	Heat pump	1.0

ENERGY OPTIONS	DESCRIPTIONS	CREDITS
1.1	Prescriptive compliance is based on Table R402.1.1 with the following modifications: Vertical fenestration U=0.24	.5
		1.5 TOTAL CREDITS

PROJECT DESCRIPTION

ADDITION/REMODEL TO SINGLE FAMILY RESIDENCE AT 7247 SE 29th Street Mercer Island, WA ZONING: R8.4 PARCEL #531510-0829

BUILDING AREAS

MAIN FLOOR	(1,446 EXIST. -15 NEW)	1,431 SQ. FT.
TOTAL HEATED SPACE		**1,431 SQ. FT.**
NEW GARAGE (EXISTING CARPORT)		423 SQ. FT.
NEW DECK		350 SQ. FT.

LOADING & DEFLECTION

CURRENT TO 2015 IRC	LOADING (PSF)			DEFLECTION	
TYPE OF CONSTRUCTION	LIVE LOAD	DEAD LOAD	TOTAL LOAD	LIVE LOAD	TOTAL LOAD
ROOF (STICK, COMP, OR MTL)	25	10	35	L/240	L/240
ROOF (STICK, COMP, GWB)	25	15	40	L/240	L/240
ROOF (TRUSS, COMP, GWB)	25	15	40	L/240	L/240
CEILING ONLY [1]	10	5	15	L/240	L/240
ATTIC W/ LIMITED STORAGE [2]	20	5	25	L/240	L/240
HABITABLE ATTIC	30	10	40	L/240	L/240
FLOOR	40	10	50	L/480	L/240
DECK (CONC. PAVER)	60	10+30	70	L/480	L/240
DECK (SPACED WOOD)	60	10	70	L/480	L/240
EXTERIOR WALL	---	10	10	---	---
INTERIOR WALL	---	10	10	---	---
STAIRS	40	10	50	L/480	---

ASSUMED SOIL BEARING = 1,500 PSF.

1. UNINHABITABLE ATTIC WITHOUT STORAGE- DO NOT USE IF ANY OTHER LIVE LOAD IS ALREADY APPLIED.
2. ATTIC W/ LIMITED STORAGE DEFINED AS:
   A) MAX. CLEAR SPACE BETWEEN JOISTS AND RAFTERS IS 42" HIGH OR GREATER, OR:
   B) TWO OR MORE ADJACENT TRUSSES HAVE WEB CONFIGURATIONS CAPABLE OF ACCOMMODATING A CLEAR SPACE OF 24"x42" OR GREATER WITHIN THE PLANE OF THE TRUSSES AND BOTTOM CHORD DEPTH IS GREATER THAN REQUIRED INSULATION DEPTH.

SEE IRC TABLE R301.5 FOR FOOTNOTES

LUMBER STRENGTHS

FRAMING MEMBER TYPE	Fb	Fv	Fcl	E x 10 [6]
JOISTS AND RAFTERS (HF#2)	850	150	405	1.3
BEAMS (4" NOMINAL DF#2)	900	180	625	1.6
BEAMS (6" NOMINAL DF#1)	1350	170	625	1.6
LAMINATED STRAND LUMBER (LSL)	1700	425	710	1.3
LAMINATED STRAND LUMBER (LSL)	2325	310	900	1.55
LAMINATED VENEER LUMBER (LVL)	2600	285	750	2.0
PARALLEL STRAND LUMBER (PSL)	2900	290	750	2.2
GLUELAM TIMBERS	2400	265	650	1.8
POSTS	**Fb**	**Fv**	**Fcl**	**E x 10 [6]**
4" NOMINAL DF#1	1000	180	1500	1.7
6" NOMINAL DF#1	1200	170	1000	1.6
2x HEM FIR STUD	675	150	800	1.2
APA RATED SHEATHING	**EXPOSURE**		**SPAN RATING**	
ROOF	EXTERIOR		32/16	
WALL	EXTERIOR		24/10	
FLOOR (T&G)	EXTERIOR		48/24	

PROJECT CONSULTANTS

CONTRACTOR:
Steve Kunkel
Steve Kunkel Master Builders
stevekmb@gmail.com
(425) 643-9095

STRUCTURAL ENGINEER:
STONEY POINT ENGINEERING
Dwayne Barnes, PE
dwayne@stoneypointengineering.com
(425) 644-9500

SURVEYOR:
APS Survey & Mapping
Samuel Ward
(425) 746-3200

DRAWING INDEX

ID	SHEET TITLE
SF	MI COVER SHEET
C0.0	COVER SHEET
C0.1	TYPICAL NOTES & ENERGY FORM
1 OF 1	SURVEY
A1.0	SITE PLAN
A2.0	FOUNDATION PLAN
A2.1	MAIN FLOOR PLAN
A2.2	ROOF FRAMING PLAN
A3.0	ELEVATIONS
A3.0	ELEVATIONS & SECTION
A4.0	TYPICAL DETAILS
S1.0	STRUCTURAL NOTES & DETAILS

SCHMITTEN DESIGN
Schmitten Design, LLC
Heidi Schmitten
heidischmitten@gmail.com
425.765.3878

Foster Residence
7247 SE 29th Street
Mercer Island, WA 98040

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The drawings and documents on this sheet shall remain the property of Schmitten Design, Inc. The use of these drawings are limited to the construction for: Foster Residence
Any use or reuse of these drawings without permission is prohibited.

Issued	Date
Permit Plans	3/19/21

20-032

C0.0
COVER SHEET

GENERAL NOTES

CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS, AND CONDITIONS PRIOR TO CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL OMISSIONS AND/ OR DISCREPANCIES TO THE ARCHITECT/ DESIGNER PRIOR TO PROCEEDING WITH WORK. DIMENSIONS TAKE PRECEDENT OVER SCALED DRAWINGS.

DEFERRED SUBMITTAL ITEMS
THE FOLLOWING IS A LIST OF ITEMS THAT ARE NOT INCLUDED IN THIS PLAN:
1) ALTERNATIVE I-JOIST/ BEAM MANUFACTURER PLANS
2) MANUFACTURED TRUSS DESIGNS AND LAYOUTS
3) HVAC SYSTEMS DESIGN
4) ELECTRICAL PLANS AND SPECIFICATIONS (IF REQUIRED)

SITE WORK

GENERAL
UNLESS A SOILS INVESTIGATION BY A QUALIFIED SOILS ENGINEER IS PROVIDED, FOUNDATION DESIGN IS BASED ON AN ASSUMED AVERAGE SOIL BEARING OF 1500 PSF. EXTERIOR FOOTINGS SHALL BEAR 18" (MINIMUM) BELOW FINISHED GRADE. ALL FOOTINGS TO BEAR ON FIRM UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. BACK FILL TO BE THOROUGHLY COMPACTED. BOLT HEADS AND NUTS BEARING AGAINST WOOD TO BE PROVIDED WITH 3"x3"x.3" PLATE WASHERS. PROVIDE ½" DIA. FOUNDATION SILL BOLTS @ 4'-0" o.c. WITH A MIN. OF 7" EMBEDMENT. WOOD BEARING ON OR INSTALLED WITHIN 1" OF MASONRY OR CONCRETE TO BE PRESSURE TREATED WITH AN APPROVED PRESERVATIVE. METAL FRAMING CONNECTORS TO BE MANUFACTURED BY SIMPSON STRONG TIE OR USP STRUCTURAL CONNECTORS.

FOUNDATION WATERPROOFING AND DAMPROOFING

DAMPPROOFING
EXCEPT WHERE REQUIRED BY SEC R206.2 TO BE WATERPROOFED, FOUNDATION WALLS THAT RETAIN EARTH OR ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE DAMPROOFED FROM THE TOP OF THE FOOTING TO THE FINISHED GRADE. MASONRY WALLS SHALL HAVE NOT LESS THAN ⅜" PORTLAND CEMENT PARKING APPLIED TO THE EXTERIOR SURFACE OF THE WALL. PARKING SHALL BE DAMPROOFED BY ONE OF THE FOLLOWING:
1) BITUMINOUS COATING
2) 3 POUNDS/ SQ. YD. OF ACRYLIC MODIFIED CEMENT
3) ⅜" COAT OF SURFACE BONDING CEMENT COMPLYING WITH ASTN C 887
4) ANY MATERIAL APPROVED FOR WATERPROOFING IN SEC R406.2
5) OTHER APPROVED METHODS OR MATERIALS.
EXCEPTION: PARKING OF UNIT MASONRY WALLS IS NOT REQUIRED WHERE A MATERIAL IS APPROVED FOR DIRECT APPLICATION OF MASONRY.

WATERPROOFING:
IN AREAS WHERE HIGH WATER TABLE OR OTHER SEVERE SOIL/ WATER CONDITIONS ARE KNOWN TO EXIST, EXTERIOR FOUNDATION WALLS THAT RETAIN EARTH OR ENCLOSE INTERIOR SPACES AND FLOORS BELOW GRADE SHALL BE WATERPROOFED FROM THE TOP OF FOOTING TO FINISHED GRADE. WALLS SHALL BE WATERPROOFED IN ACCORDANCE WITH ONE OF THE FOLLOWING:
1) 2-PLY HOT MOPPED FELT
2) 55# ROOF ROLLING
3) 6 MIL POLYVINYL CHLORIDE
4) 6 MIL POLYETHYLENE
5) 40 MIL POLYMER MODIFIED ASPHALT
6) 60 MIL FLEXIBLE POLYMER CEMENT
7) ⅛" CEMENT BASED, FIBER REINFORCED, WATERPROOF COATING
8) 60 MIL SOLVENT FREE, LIQUID APPLIED SYNTHETIC RUBBER
EXCEPTION: ORGANIC SOLVENT BASED PRODUCTS SUCH AS HYDROCARBONS, CHLORINATED HYDROCARBONS, KETONS, AND ESTERS SHALL NOT BE USED FOR ICF WALLS WITH EXPANDED POLYSTYRENE FOAM MATERIAL. USE OF PLASTIC ROOFING CEMENTS, ACRYLIC COATINGS, LATEX COATINGS, MORTARS AND PARKINGS TO SEAL ICF WALLS IS PERMITTED. COLD SETTING ASPHALT OR HOT ASPHALT SHALL CONFORM TO TYPE C OF ASTM D 449. HOT ASPHALT SHALL BE APPLIED AT A TEMPERATURE OF LESS THAN 200 DEGREES FAHRENHEIT. ALL JOINTS IN MEMBRANE WATERPROOFING SHALL BE LAPPED AND SEALED WITH AN ADHESIVE COMPATIBLE WITH THE MEMBRANE.

CARPENTRY

GENERAL
ALL NAILING TO COMPLY WITH REQUIREMENTS OF IRC TABLE R602.3(1). GYPSUM WALL BOARD AT INTERIOR WALLS TO BE FASTENED ACCORDING TO TABLE R702.3.5. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED. FIELD CUT ENDS, NOTCHES, AND DRILLED HOLES OF PRESSURE TREATED LUMBER SHALL BE RETREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4. PER IRC 317.3, FASTENERS FOR PRESSURE PRESERVATIVE AND FIRE RETARDANT TREATED WOOD SHALL BE OF HOT DIPPED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER.
1) 6" MIN. CLEARANCE BETWEEN WOOD AND EARTH.
2) 12" MIN. CLEARANCE BETWEEN FLOOR BEAMS AND EARTH.
3) 18" MIN. CLEARANCE BETWEEN FLOOR JOISTS AND EARTH.

FASTENERS:
ALL NAILS SPECIFIED ON THIS PLAN SHALL BE COMMON OR GALVANIZED BOX (UNLESS NOTED OTHERWISE) OF THE DIAMETER AND LENGTH LISTED BELOW OR AS PER APPENDIX "L) O FHTE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (NDS).
8d COMMON (0.131" DIA., 2-1/2" LENGTH), 8d BOX (0.013" DIA., 2-1/2" LONG), 10d COMMON (0.148" DIA., 3" LONG), 10d BOX (0.128" DIA., 3" LENGTH), 16d COMMON (0.162" DIA., 3-1/2" LONG), 16d SINKER (0.148" DIA., 3-1/4" LONG), 5d COOLER (0.086" DIA., 1-5/8" LONG), 6d COOLER (0.092" DIA., 1-7/8" LONG).

LUMBER GRADES:
FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION BUREAU. ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY.

GLUE LAMINATED BEAMS (GLB):
ALL GLUE LAMINATED BEAMS SHALL BE 24F-V4 FOR SINGLE SPANS AND 24F-V8 FOR CONTINUOUS OR CANTILEVER SPANS.

ENGINEERED WOOD BEAMS AND I-JOIST:
CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SPECIFICATIONS FOR APPROVAL BY BUILDING OFFICIAL. DESIGN, FABRICATION, AND ERECTION IN ACCORDANCE WITH THE LATEST ICC EVALUATION REPORT. CALCULATIONS SHALL INCLUDE DEFLECTION AND CAMBER REQUIREMENTS. DEFLECTION SHALL BE LIMITED AS FOLLOWS:
FLOOR LIVE LOAD MAXIMUM = L/480
FLOOR TOTAL LOAD MAXIMUM = L/240

PREFABRICATED WOOD TRUSSES:
PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED TO SUPPORT SELF WEIGHT PLUS LIVE LOAD AND SUPERIMPOSED DEAD LOADS AS STATED IN THE GENERAL NOTES. TRUSSES SHALL BE DESIGNED AND STAMPED BY A REGISTERED DESIGN PROFESSIONAL AND FABRICATED ONLY FROM THOSE DESIGNS. NONBEARING WALLS SHALL BE HELD AWAY FROM THE TRUSS BOTTOM CHORD WITH AN APPROVED FASTENER (SUCH AS SIMPSON STC) TO ENSURE THAT THE TRUSS BOTTOM CHORD WILL NOT BEAR ON THE WALL. ALL PERMANENT TRUSS MEMBER BRACING SHALL BE INSTALLED PER THE TRUSS DESIGN DRAWINGS.

ROOF/ WALL FLOOR SHEATHING
TYPICAL WALL AND ROOF SHEATHING SHALL BE 7/16" MINIMUM UNLESS OTHERWISE SPECIFIED. MINIMUM NAILING SHALL BE 8d COMMON @ 6" O.C.AT PANEL EDGES AND 12" O.C. IN FIELD, U.N.O. ON SHEAR WALL SCHEDULE. SPAN INDEX SHALL BE 24/0 FOR WALLS AND 24/16 FOR ROOF. FLOOR SHEATHING SHALL BE ¾" T&G SHEATHING, UNLESS OTHERWISE SPECIFIED. MINIMUM NAILING SHALL BE 8d COMMON AT 6" O.C. AT PANEL EDGES AND 12" O.C. IN FIELD. SPAN INDEX SHALL BE 40/20 UNLESS NOTED OTHERWISE. STAGGER END LAPS AT ROOF AND FLOOR SHEATHING.

DRILLING AND NOTCHING STUDS

DRILLING AND NOTCHING STUDS (R602.6):
DRILLING AND NOTCHING OF STUDS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
1) NOTCHING- ANY STUD IN AN EXTERIOR WALL OR BEARING PARTITION MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. STUDS IN NONBEARING PARTITIONS MAY BE NOTCHED TO A DEPTH NOT TO EXCEED 40 PERCENT OF A SINGLE STUD WIDTH.
2) DRILLING- ANY STUD MAY BE BORED OR DRILLED, PROVIDED THAT THE DIAMETER OF THE RESULTING HOLE IS NO MORE THAN 60 PERCENT OF THE STUD WIDTH, AND THE HOLE IS NO MORE THAN ⅝" (16MM) TO THE EDGE OF THE STUD, AND THE HOLE IS NOT LOCATED IN THE SAME SECTION AS A CUT OR NOTCH. STUDS LOCATED IN EXTERIOR WALLS OR BEARING PARTITIONS DRILLED OVER 40 PERCENT AND UP TO 60 PERCENT SHALL ALSO BE DOUBLED WITH NO MORE THAN TWO SUCCESSIVE DOUBLED STUDS BORED. (SEE R602.6(1) AND R602.6(2))
EXCEPTION: USE OF APPROVED STUD SHOES IS PERMITTED WHEN THEY ARE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

DRILLING AND NOTCHING OF TOP PLATE (R602.6.1):
WHEN PIPING OR DUCTWORK IS PLACED IN OR PARTLY IN AN EXTERIOR WALL OR INTERIOR LOAD BEARING WALL NECESSITATING CUTTING, DRILLING, OR NOTCHING OF THE TOP PLATE BY MORE THAN 50 PERCENT OF ITS WIDTH, A GALVANIZED METAL TIE OF NOT LESS THAN 16ga (0.054 INCH THICK,1.37mm) AND 1-1/2" (38MM) WIDE SHALL BE FASTENED ACROSS AND TO THE PLATE AT EACH SIDE OF THE OPENING WITH NOT LESS THAN EIGHT 16d NAILS AT EACH SIDE OF EQUIVALENT (SEE R602.6.1).
EXCEPTION: WHEN THE ENTIRE SIDE OF THE WALL WITH THE NOTCH OR CUT IS COVERED BY WOOD STRUCTURAL PANEL SHEATHING.

INSULATION AND MOISTURE PROTECTION

GENERAL:
MAINTAIN 1" CLEARANCE ABOVE INSULATION FOR FREE AIR FLOW. INSULATION BAFFLES TO EXTEND 6" ABOVE BATT INSULATION. INSULATION BAFFLES TO EXTEND 12" ABOVE LOOSE FILL INSULATION. INSULATE BEHIND TUBS/SHOWERS, PARTITIONS, AND CORNERS. FACED BATTS TO BE FACE STAPLED. FRICTION FIT UNFACED BATTS SHALL BE INSTALLED PER MFR. SPECS. USE 4 MIL POLY VAPOR RETARDER AT EXTERIOR WALLS.

INSULATION MATERIALS:
INSULATION MATERIAL, INCLUDING FACINGS, SUCH AS VAPOR RETARDERS OR VAPOR PERMEABLE MEMBRANES INSTALLED WITHIN FLOOR/CEILING ASSEMBLIES, ROOF/CEILING ASSEMBLIES, WALL ASSEMBLIES, CRAWL SPACES, AND ATTICS SHALL HAVE A FLAME SPREAD INDEX NOT TO EXCEED 25 WITH AN ACCOMPANYING SMOKE DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 64.
EXCEPTIONS:
1) WHEN SUCH MATERIALS ARE INSTALLED IN CONCEALED SPACES, THE FLAME SPREAD AND SMOKE DEVELOPMENT LIMITATIONS DO NOT APPLY TO THE FACINGS, PROVIDED THAT THE FACING IS INSTALLED IN SUBSTANTIAL CONTACT WITH THE UNEXPOSED SURFACE OF THE CEILING, FLOOR, OR WALL FINISH.
2) CELLULOSE LOOSE FILL INSULATION, WHICH IS NOT SPRAY APPLIED, COMPLYING WITH THE REQUIREMENTS OF IRC R316.3, SHALL ONLY BE REQUIRED TO MEET THE SMOKE DEVELOPED INDEX OF NOT MORE THAN 450.

INFILTRATION CONTROL:
EXTERIOR JOINTS AROUND WINDOWS AND DOOR PANELS, PENETRATIONS IN FLOORS, ROOFS, AND WALLS, AND ALL SIMILAR OPENINGS SHALL BE SEALED, CAULKED, GASKETED, OR WEATHER STRIPPED TO LIMIT AIR LEAKAGE.

VAPOR BARRIERS/ GROUND COVERS:
AN APPROVED VAPOR BARRIER SHALL BE PROPERLY INSTALLED IN ROOF DECKS, IN ENCLOSED CEILING SPACES, AND AT EXTERIOR WALLS. A GROUND COVER OF 6 MIL (0.006") BLACK POLYETHYLENE OR EQUIVALENT SHALL BE LAID OVER THE GROUND IN ALL CRAWL SPACES. THE GROUND COVER SHALL BE OVERLAPPED ONE FOOT AT EACH JOINT AND SHALL EXTEND TO THE FOUNDATION WALL.

WALL FLASHING:
APPROVED CORROSION RESISTANT FLASHING SHALL BE PROVIDED TO THE EXTERIOR WALL ENVELOPE IN SUCH A MANNER AS TO PREVENT ENTRY OF WATER INTO THE WALL CAVITY OR PENETRATION OF WATER TO THE BUILDING STRUCTURAL FRAMING COMPONENTS. THE FLASHING SHALL EXTEND TO THE SURFACE OF THE EXTERIOR WALL FINISH AND SHALL BE INSTALLED TO PREVENT WATER FROM REENTERING THE EXTERIOR WALL ENVELOPE. APPROVED CORROSION RESISTANT FLASHINGS SHALL BE INSTALLED AT ALL OF THE FOLLOWNG LOCATIONS:
1) AT THE TOP OF ALL EXTERIOR WINDOW AND DOOR OPENINGS IN SUCH A MANNER AS TO BE LEAK PROOF, EXCEPT THAT SELF FLASHING WINDOWS, HAVING A CONTINUOUS LAP OF NOT LEES THAN 1-1/8" (28mm) OF THE SHEATHING MATERIAL AROUND THE PERIMETER OF THE OPENING, INCLUDING CORNERS, DO NOT REQUIRE ADDITIONAL FLASHING. JAMB FLASHING MAY ALSO BE OMITTED WHEN SPECIFICALLY APPROVED BY THE BUILDING OFFICIAL.
2) AT THE INTERSECTION OF CHIMNEYS OR OTHER MASONRY CONSTRUCTION WITH FRAME OR STUCCO WALLS, WITH PROJECTING LIPS ON BOTH SIDES UNDER STUCCO OPENINGS.
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 CONSTRUCTION.
6) AT WALL AND ROOF INTERSECTIONS.
7) AT BUILT IN GUTTERS.

DRAFT STOPPING & FIRE BLOCKING

DRAFT STOPPING:
WHEN THERE IS USABLE SPACE BOTH ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR/ CEILING ASSEMBLY, DRAFT STOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000 SQUARE FEET. DRAFT STOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS. WHERE THE ASSEMBLY IS ENCLOSED BY A FLOOR MEMBRANE ABOVE AND A CEILING MEMBRANE BELOW, DRAFT STOPPING SHALL BE PROVIDED IN FLOOR/ CEILING ASSEMBLIES UNDER THE FOLLOWING CIRCUMSTANCES:
1) CEILING IS SUSPENDED UNDER THE FLOOR FRAMING.
2) FLOOR FRAMING IS CONSTRUCTED OF TRUSS TYPE OPEN WEB OR PERFORATED MEMBERS.
DRAFT STOPPING SHALL CONSIST OF MATERIALS LISTED IN IRC SECTION R302.12.

FIRE BLOCKING:
FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICALLY AND HORIZONTALLY) AND TO FORM AN EFFECTIVE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. FIRE BLOCKING SHALL BE PROVIDED IN WOOD FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:
1) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS AS FOLLOWS:
1.1) VERTICALLY AT THE CEILING AND FLOOR LEVELS
1.2) HORIZONTALLY AT INTERVALS NOT EXCEEDING 10'-0"
2) AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS, AND COVE CEILINGS.
3) IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH IRC SECTION R311.2.2.
4) AT OPENINGS AROUND VENTS, PIPES, AND DUCTS AT CEILING AND FLOOR LEVEL, WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION.
5) FOR THE FIRE BLOCKING OF CHIMNEYS AND FIREPLACES, SEE IRC SECTION R1003.19.
6) FIRE BLOCKING OF CORNICES OF A TWO FAMILY DWELLING IS REQUIRED AT THE LINE OF DWELLING UNIT SEPARATION.

FIRE BLOCKING SHALL CONSIST OF MATERIALS LISTED IN IRC SECTION R302.11.1. LOOSE FILL INSULATION MATERIAL SHALL NOT BE USED AS A FIRE BLOCK UNLESS SPECIFICALLY TESTED IN THE FORM AND MANNER INTENDED. THE INTEGRITY OF ALL FIRE BLOCKS SHALL BE MAINTAINED.

FLOOR FIRE PROTECTION:
FIRE PROTECTION OF FLOORS REQUIRES A MINIMUM OF 1/2" GYPSUM BOARD (OR EQUIVALENT) MATERIAL TO BE APPLIED TO THE UNDERSIDE OF FLOOR ASSEMBLIES OF DWELLING UNITS AND ACCESSORY BUILDINGS.

POSTING OF CERTIFICATE

WSEC 105.4:
A PERMANENT CERTIFICATE SHALL BE POSTED WITHIN THREE FEET OF THE ELECTRICAL DISTRIBUTION PANEL. THE CERTIFICATE SHALL BE COMPLETED BY THE BUILDER OR REGISTERED DESIGN PROFESSIONAL. THE CERTIFICATE SHALL LIST THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN OR ON CEILING/ROOF, WALLS, FOUNDATION (SLAB, BASEMENT WALL, CRAWL SPACE WALL AND/OR FLOOR), AND DUCTS OUTSIDE THE CONDITIONED SPACES, 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 LIST THE VALUE COVERING THE LARGEST AREA. THE CERTIFICATE SHALL LIST THE TYPE AND EFFICIENCY OF HEATING, COOLING, AND SERVICE WATER HEATING EQUIPMENT. DUCT LEAKAGE RATES INCLUDING TEST CONDITIONS AS SPECIFIED IN SECTION 503.10.2, AND AIR LEAKAGE RESULTS IF A BLOWER DOOR TEST WAS CONDUCTED.

DOORS, WINDOWS, AND SKYLIGHTS

GENERAL:
ALL SKYLIGHTS AND SKY WALLS TO BE LAMINATED GLASS UNLESS NOTED OTHERWISE. BEDROOM EMERGENCY EGRESS WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET WITH A MINIMUM NET CLEAR OPENING WIDTH OF 20" AND A MINIMUM NET CLEAR OPENING HEIGHT OF 24". FINISHED SILL HEIGHT SHALL BE A MAXIMUM 44" ABOVE FINISHED FLOOR.
1) WINDOW FLASHING TO BE FASTENED PER IRC R703.8
2) WINDOW GUARDS ARE REQUIRED PER IRC R612.

OPERABLE SECTIONS OF THE WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER (102mm) SPHERE WHERE SUCH OPENINGS ARE LOCATED WITHIN 24 INCHES (610mm) OF THE FINISHED FLOOR.

EXCEPTION:
1) WINDOWS WHOSE OPENINGS WILL NOT ALLOW A 4 INCH DIAMETER (102mm) SPHERE TO PASS THROUGH THE OPENING WHEN THE OPENING IS IN ITS LARGEST OPENED POSITION.
2) OPENINGS THAT ARE PROVIDED WITH WINDOW FALL PREVENTION DEVICES THAT COMPLY WITH ASTM F 2000.
3) WINDOWS THAT ARE PROVIDED WITH WINDOW OPENING CONTROL DEVICES THAT COMPLY WITH SECTION R312.2.2.

EMERGENCY ESCAPE AND RESCUE:
WINDOW OPENING HEIGHT OF NOT MORE THAN 44 INCHES FROM THE FINISHED FLOOR TO THE BOTTOM OF THE CLEAR WINDOW OPENING.

WINDOW INSTALLATION:
WINDOWS SHALL BE INSTALLED AND FINISHED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. WRITTEN INSTALLATION INSTRUCTIONS SHALL BE PROVIDED BY THE MANUFACTURER FOR EACH WINDOW.

SAFETY GLAZING SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS OR AS OTHERWISE REQUIRED PER IRC R308.4:
1) SIDE HINGED DOORS EXCEPT JALOUSIES.
2) SLIDING GLASS DOORS AND PANELS IN SLIDING AND BI-FOLD CLOSET DOOR ASSEMBLIES.
3) STORM DOORS.
4) SHOWER AND BATH TUB, HOT TUB, WHIRLPOOL, SAUNA, STEAM ENCLOSURES.
5) GLAZING WITH THE EXPOSED EDGE WITHIN A 24" ARC OF EITHER VERTICAL EDGE OF A DOOR IN THE CLOSED POSITION AND BOTTOM EDGE IS LESS THAN 60" ABOVE THE WALKING SURFACE.
6) GLAZING IS GREATER THAN 9 SQUARE FEET AND LESS THAN 18" ABOVE FINISHED FLOOR.
7) GLAZING IN GUARDRAILS.
8) GLAZING IS LESS THAN 18" ABOVE FINISHED FLOOR.
9) STAIRWAYS, LANDINGS, AND RAMPS WITHIN 36" HORIZONTAL OF WALKING SURFACE AND 60" ABOVE ADJACENT WALKING SURFACE.

GLAZING ADJACENT TO STAIRS AND RAMPS:
A MINIMUM HEIGHT OF 36" ABOVE A TREAD AT THE SIDE OF A STAIRWAY SHALL BE MAINTAINED.
GLAZING ADJACENT TO THE BOTTOM OF STAIR LANDING:
SAFETY GLAZING IS REQUIRED IF:
1)LESS THAN 60" MEASURED HORIZONTALLY FROM THE BOTTOM STAIR TREAD NOSING.
2) BOTTOM EDGE OF GLAZING IS LESS THAN 36" ABOVE THE LANDING/WALKING SURFACE.
EXCEPTION: THE GLAZING IS PROTECTED BY A GUARD COMPLYING WITH SECTION R312 AND THE PLANE OF THE GLASS IS MORE THAN 18" FROM THE GUARD.

LIGHTING

STAIRWAY ILLUMINATION (R303.7):
STAIRWAY ILLUMINATION- ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A MEANS TO ILLUMINATE THE STAIRS, INCLUDING THE LANDINGS AND TREADS. INTERIOR STAIRWAYS SHALL BE PROVIDED AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF EACH LANDING OF THE STAIRWAY. FOR INTERIOR STAIRS THE ARTIFICIAL LIGHT SOURCES SHALL BE CAPABLE OF ILLUMINATING TREADS AND LANDINGS TO LEVELS NOT LESS THAN 1 FOOT CANDLE (11 LUX) MEASURED AT THE CENTER OF TREADS AND LANDINGS. EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE TOP LANDING OF THE STAIRWAY. EXTERIOR STAIRWAYS PROVIDING ACCESS TO A BASEMENT FROM THE OUTSIDE GRADE LEVEL SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE BOTTOM LANDING OF THE STAIRWAY.

EXCEPTION: AN ARTIFICIAL LIGHT SOURCE IS NOT REQUIRED AT THE TOP AND BOTTOM LANDING, PROVIDED AN ARTIFICIAL LIGHT SOURCE IS LOCATED DIRECTLY OVER EACH STAIRWAY SECTION.

WSEC 505.1 INTERIOR LIGHTING:
A MINIMUM OF 75 PERCENT OF ALL LUMINARIES SHALL BE HIGH EFFICACY LUMINARIES.

EXCEPTION: LIGHTING THAT COMPLIES WITH THE PRESCRIPTIVE LIGHTING OPTION IN SECTION 1520 OR THE LIGHTING POWER ALLOWANCE OPTION IN SECTION 1530.

WSEC 505.2 EXTERIOR LIGHTING:
LUMINARIES PROVIDING OUTDOOR LIGHTING AND PERMANENTLY MOUNTED TO A RESIDENTIAL BUILDING OR TO OTHER BUILDINGS ON THE SAME LOT SHALL BE HIGH EFFICACY LUMINARIES.

EXCEPTION:
1) PERMANENTLY INSTALLED OUTDOOR LUMINARIES THAT ARE NOT HIGH EFFICACY SHALL BE ALLOWED PROVIDED THEY ARE CONTROLLED BY A MOTION SENSOR(S) WITH INTEGRAL PHOTO CONTROL PHOTO SENSOR.
2) PERMANENTLY INSTALLED LUMINARIES IN OR ADJURND SWIMMING POOLS, WATER FEATURES.

WSEC 505.3 LINEAR FLUORESCENT FIXTURES:
LINEAR FLUORESCENT FIXTURES MUST BE FITTED WITH T-8 OR SMALLER LAMPS (BUT NOT T-10 OR T-12 LAMPS).

2018 Washington State Energy Code – Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington
Single Family – New & Additions (effective February 1, 2021)

Each dwelling unit *in a residential building* shall comply with sufficient options from Table R406.2 (fuel normalization credits) and Table 406.3 (energy credits) to achieve the following minimum number of credits. To claim this credit, the building permit drawings shall specify the option selected and the maximum tested building air leakage, and show the qualifying ventilation system and its control sequence of operation.
1. **Small Dwelling Unit: 3 credits**
   Dwelling units less than 1,500 sf in conditioned floor area with less than 300 sf of fenestration area.
   Additions to existing building that are greater than 500 sf of heated floor area but less than 1,500 sf.
2. **Medium Dwelling Unit: 6 credits**
   All dwelling units that are not included in #1 or #3
3. **Large Dwelling Unit: 7 credits**
   Dwelling units exceeding 5,000 sf of conditioned floor area
4. **Additions less than 500 square feet: 1.5 credits**
   All other additions shall meet 1-3 above

Before selecting your credits on this Summary table, review the details in Table 406.3 (Single Family), on page 4.

Summary of Table R406.2

Heating Options	Fuel Normalization Descriptions	Credits - select ONE heating option		User Notes
1	Combustion heating, minimum NAECA[b]	0.0	☐	
2	Heat pump[c]	1.0	☑	
3	Electric resistance heat only - furnace or zonal	-1.0[d]	☐	
4	DHP with zonal electric resistance per option 3.4	0.5	☐	
5	All other heating systems	-1.0[d]	☐	
Energy Options	**Energy Credit Option Descriptions**	**Credits - select ONE energy option from each category[a]**		
1.1	~~Envelope package~~	0.5	☑	
1.2	Efficient Building Envelope	1.0	☐	
1.3	Efficient Building Envelope	0.5	☐	
1.4	Efficient Building Envelope	1.0	☐	
1.5	Efficient Building Envelope	2.0	☐	
1.6	Efficient Building Envelope	3.0	☐	
1.7	Efficient Building Envelope	0.5	☐	
2.1	Air Leakage Control and Efficient Ventilation	0.5	☐	
2.2	Air Leakage Control and Efficient Ventilation	1.0	☐	
2.3	Air Leakage Control and Efficient Ventilation	1.5	☐	
2.4	Air Leakage Control and Efficient Ventilation	2.0	☐	
3.1[e]	High Efficiency HVAC	1.0	☐	
3.2	High Efficiency HVAC	1.0	☐	
3.3[e]	High Efficiency HVAC	1.5	☐	
3.4	High Efficiency HVAC	1.5	☐	
3.5	High Efficiency HVAC	1.5	☐	
3.6[e]	High Efficiency HVAC	2.0	☐	
4.1	High Efficiency HVAC Distribution System	0.5	☐	
4.2	High Efficiency HVAC Distribution System	1.0	☐	

2018 Washington State Energy Code – Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington
Single Family – New & Additions (effective February 1, 2021)

Summary of Table R406.2 (cont.)

Energy Options	Energy Credit Option Descriptions (cont.)	Credits - select ONE energy option from each category[a]		User Notes
5.1[d]	Efficient Water Heating	0.5	☐	
5.2	Efficient Water Heating	0.5	☐	
5.3	Efficient Water Heating	1.0	☐	
5.4	Efficient Water Heating	1.5	☐	
5.5	Efficient Water Heating	2.0	☐	
5.6	Efficient Water Heating	2.5	☐	
6.1*	Renewable Electric Energy (3 credits max)	1.0	☐	
7.1	Appliance Package	0.5	☐	
	Total Credits	1.5	Calculate Total	Clear Form

SCHMITTEN DESIGN
Schmitten Design, LLC
Heidi Schmitten
heidischmitten@gmail.com
425.765.3870

Foster Residence
7247 SE 29th Street
Mercer Island, WA 98040

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Permit Plans	3/19/21

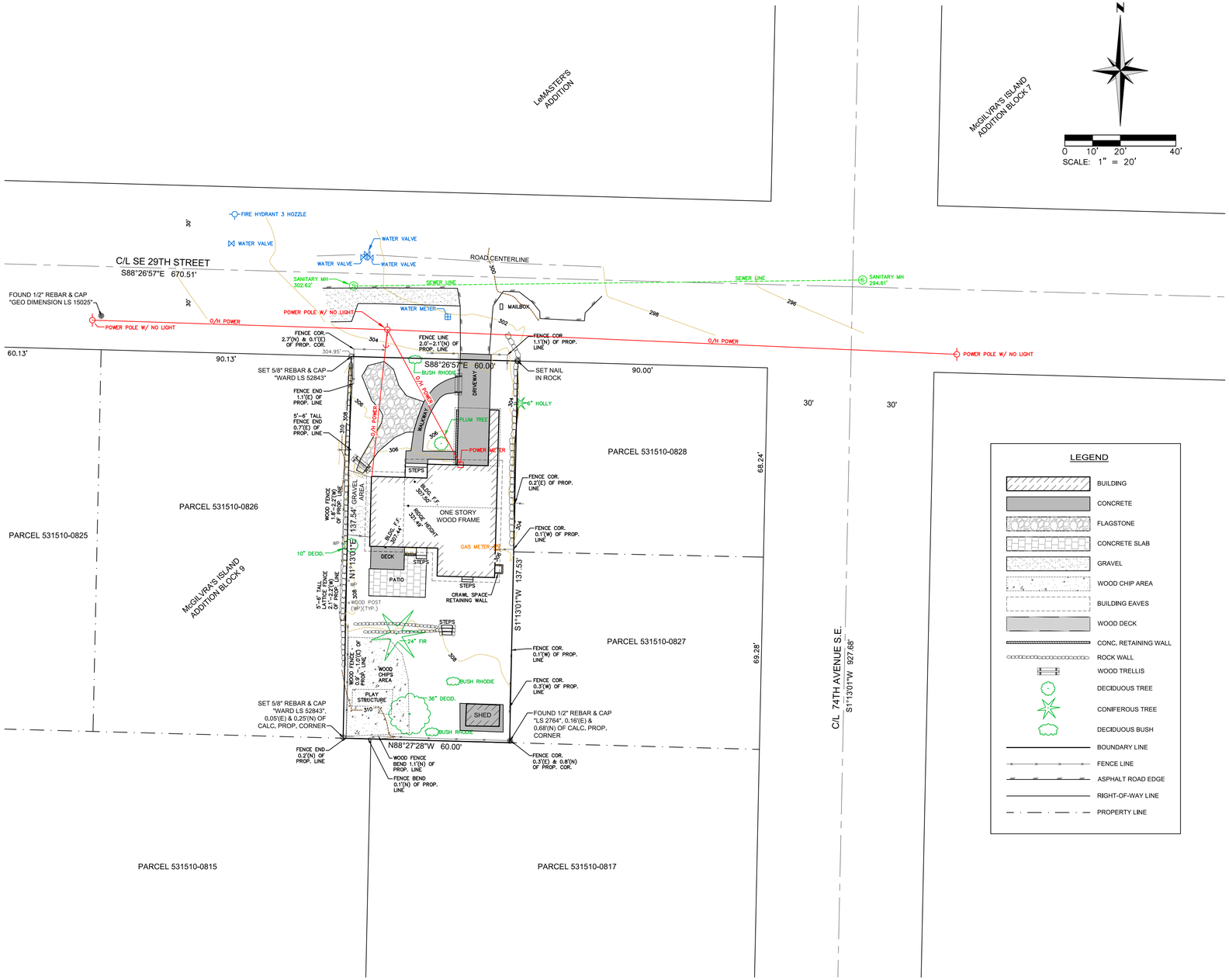
20-032

C0.1
TYPICAL NOTES

BOUNDARY & TOPOGRAPHIC SURVEY

A PORTION OF LOT 12, BLOCK 9 OF McGILVRA'S ISLAND ADDITION

WITHIN THE SE1/4 OF THE NW1/4 OF SECTION 12, TOWNSHIP 24 NORTH, RANGE 04 EAST, W.M., KING COUNTY, WASHINGTON



LEGEND

- BUILDING
- CONCRETE
- FLAGSTONE
- CONCRETE SLAB
- GRAVEL
- WOOD CHIP AREA
- BUILDING EAVES
- WOOD DECK
- CONC. RETAINING WALL
- ROCK WALL
- WOOD TRELLIS
- DECIDUOUS TREE
- CONIFEROUS TREE
- DECIDUOUS BUSH
- BOUNDARY LINE
- FENCE LINE
- ASPHALT ROAD EDGE
- RIGHT-OF-WAY LINE
- PROPERTY LINE

VERTICAL DATUM:

NAVD 88

CONTOUR INTERVAL-2 FOOT:

THE CONTOURS SHOWN HEREON WERE COMPUTER GENERATED FROM DIRECT FIELD OBSERVATIONS WITH RESULTING ACCURACY THAT MEETS OR EXCEEDS NATIONAL MAPPING STANDARDS, ONE-HALF THE CONTOUR INTERVAL.

PROJECT BENCHMARK:

DESIGNATION: MI 1013

ELEVATION = 309.98'

FOUND 2" BRASS CAP IN MONUMENT CASE LOCATED IN THE INTERSECTION OF SE 32ND STREET AND 72ND AVENUE SE.

NOTES:

1. THE PURPOSE OF THIS SURVEY IS TO SHOW THE EXTERIOR BOUNDARY LINES, EXISTING SITE IMPROVEMENTS, NATURAL FEATURES AND EXISTING TERRAIN FOR THAT PORTION OF LOT 12, BLOCK 9 OF McGILVRA'S ISLAND ADDITION SHOWN HEREON, FOR THE INTENDED USE OF ARCHITECTURAL AND CIVIL ENGINEERING DESIGN.
2. THIS SURVEY WAS PERFORMED USING A TRIMBLE S SERIES, 3" TOTAL STATION WITH RESULTING ACCURACY THAT MEETS OR EXCEEDS STANDARDS PER WAC 332-130-090.
3. THE INFORMATION ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE IN MAY OF 2020, AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME.
4. ALL MONUMENTS SHOWN AS FOUND WERE LOCATED DURING THE COURSE OF THIS SURVEY.
5. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS, ENCUMBRANCES AND RESTRICTIONS MAY EXIST ON THIS PROPERTY THAT ARE NOT SHOWN HEREON.
6. THE BASIS OF BEARINGS SHOWN HEREON IS BASED ON THE WASHINGTON STATE PLANE COORDINATE SYSTEM, NAD83/1991, NORTH ZONE, EXPRESSED IN US SURVEY FEET.
7. UTILITIES SHOWN HEREON ARE BASED UPON ABOVE GROUND OBSERVATIONS. ACTUAL LOCATIONS OF UNDERGROUND UTILITIES MAY VARY AND UTILITIES NOT SHOWN ON THIS SURVEY MAY EXIST ON THE SITE.

LEGAL DESCRIPTION:

STATUTORY WARRANTY DEED
AFN: 20200403000307

THE WEST 60 FEET OF THE EAST 150 FEET OF LOT 12, BLOCK 9, McGILVRA'S ISLAND ADDITION, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 16 OF PLATS, PAGE 58, IN KING COUNTY, WASHINGTON.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

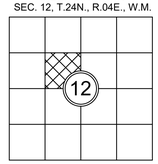
REFERENCES:

R1. McGILVRA'S ISLAND ADDITION
AFN: 520803
VOLUME 16 OF PLATS, PAGE 58
DATE: NOVEMBER 16, 1907

R2. MERCER ISLAND SHORT PLAT NO. M.I. 96-020
AFN: 9605239024
BOOK 109 OF SURVEYS, PAGE 119, 119A
DATE: MAY 23, 1996

R3. RECORD OF SURVEY
AFN: 8802029003
BOOK 59 OF SURVEYS, PAGE 160
DATE: FEBRUARY 2, 1988

INDEX LOCATION
SEC. 12, T.24N., R.04E., W.M.



LOT 12, BLOCK 9
8,252 SQ. FT.
0.189 ACRES

SURVEYED BY: BN CHECKED BY: VW
DRAWN BY: MAGG APPROVED BY: SRW

DATE	BY	REVISION	CK'D	APPR.

SAMUEL R. WARD STATE OF WASHINGTON REGISTERED PROFESSIONAL LAND SURVEYOR LS 52843

SURVEYOR'S CERTIFICATE

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF STEVE KUNKEL MASTER BUILDERS, INC., IN MAY OF 2020.

SAMUEL R. WARD, PLS — 5/28/2020 DATE

STATE OF WASHINGTON CERTIFICATE NO. 52843

APS SURVEY & MAPPING
TY-BUILT TY-STRONG
13221 S.E. 26TH STREET, SUITE A , BELLEVUE, WA 98005
TEL: (425) 746-3200 WWW.APSSM.COM

TOPOGRAPHIC SURVEY

TAX PARCEL NO. 531510-0829 - 7247 SOUTHEAST 29TH STREET, 98040

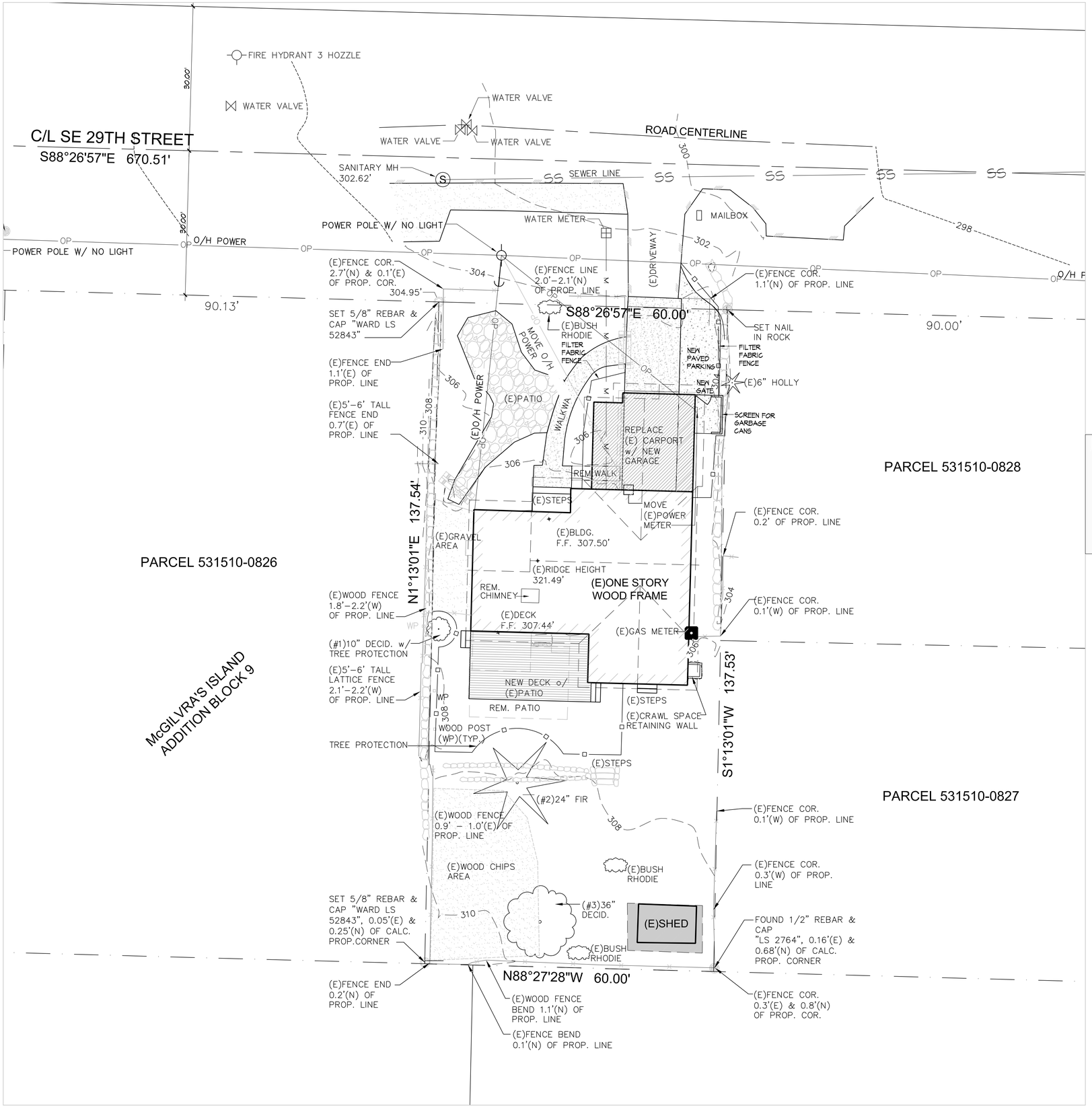
FOR

STEVE KUNKEL MASTER BUILDERS, INC.

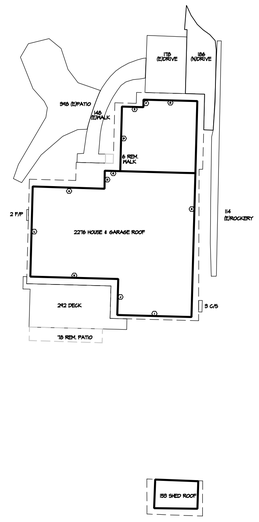
MERCER ISLAND WASHINGTON

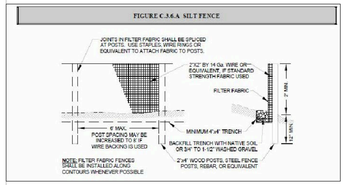
DWN. BY: SBM/MAGG	CHKD. BY: VW	SURV. BY: BN	JOB NO.: 1510004
DATE: MAY 2020	SCALE: 1" = 20'	DWG. NAME: 1510004T (2018).DWG	

SHEET 1 OF 1



COVERAGE MAP





GROSS FLOOR AREA (GFA)

40% OF LOT AREA
LOT AREA = 8,781 40%= 3,512.4 MAX.

MAIN FLOOR = 1,431
GARAGE ADDTION = 423
TOTAL = 1,854 PROPOSED

AVERAGE BUILDING ELEVATION

	EXISTING	FINISHED	WALL SEGMENT LENGTH	LOWEST MIDPOINT ELEV. x WALL SEGMENT LENGTH =
A	306	306	20'	6,120
B	306	306	5'	1,530
C	306	306	4'	1,224
D	306	306	18'	5,508
E	305	305	6'	1,830
F	304	304	2'	608
G	304	304	15'	4,560
H	305	305	60'	18,300
I	306	306	20'	6,120
J	306	306	10'	3,060
K	306	306	25'	7,650
L	306	306	25'	7,650
TOTALS:			210'-0"	64,160
				64,160/210 = 305.52

AVERAGE BUILDING ELEVATION (ABE):	305.52'
MAX. RIDGE HEIGHT ELEVATION (ABE + 30'):	335.52'
PROPOSED RIDGE HEIGHT ELEVATION :	321.49'

HARDSCAPE

FRONT PATIO & WALKWAY	227 SQ. FT.
DECK	136 SQ. FT.
SITE WALLS (27 DRIVEWAY WALLS + 9 LANDSCAPE)	36 SQ. FT.
WINDOW WELLS (24.5 + 57)	81.5 SQ. FT.
TOTAL HARDSCAPE	480.5 SQ. FT.
HARDSCAPING PERCENTAGE (%)	5.0%
MAX. HARDSCAPE	9.0%

LOT COVERAGE

LOT AREA	8,781 SQ. FT.
EXIST. ROOF AREA 2,091 + 153 shed	2,208 SQ. FT.
EXIST. DRIVEWAY	196 SQ. FT.
EXIST. LOT COVERAGE	2,440 SQ. FT.
NEW ROOF AREA	144 SQ. FT.
NEW DRIVEWAY	221 SQ. FT.
NEW LOT COVERAGE	365 SQ. FT.
TOTAL LOT COVERAGE	2,805 SQ. FT.
PERCENTAGE OF LOT COVERAGE	31.94%
MAX PERCENTAGE ALLOWED	40.0%

IMPERVIOUS COVERAGE

ROOF AREA (INCLUDING EAVES)	2,208 SQ. FT.
DRIVEWAY	471 SQ. FT.
UNCOVERED FRONT WALKWAY	236 SQ. FT.
UNCOVERED REAR DECK	136 SQ. FT.
WINDOW WELLS (24.5 + 57)	81.5 SQ. FT.
TOTAL IMPERVIOUS AREA	3,132.5 SQ. FT.
MAX. IMPERVIOUS AREA	3,749 SQ. FT.
LOT AREA	9,672 SQ. FT.
PERCENTAGE OF IMPERVIOUS	32.39%
TOTAL IMPERVIOUS ALLOWED	40.00%

TREES

TREE #1 FRAXINUS LATIFOLIA - OREGON ASH 10" DIA	TO REMAIN
TREE #2 PSEUDOTSUGA MENZIESILL - DOUGLAS FIR 24" DIA.	TO REMAIN
TREE #3 CORNUS NUTTALLII - PACIFIC DOGWOOD 30" DIA.	TO REMAIN

PER MICC 19.02.020(F)(3)(d): THIS PROJECT SHALL REMOVE JAPANESE KNOTWEED (POLYGONUM CUSPIDATUM) AND REGULATED CLASS C WEED IDENTIFIED ON THE KING COUNTY NOXIOUS WEEK LIST, AS AMENDED FROM REQUIRED LANDSCAPING AREA ESTABLISHED PURSUANT TO SUBSECTION (F)(3)(a) OF THIS SECTION. NEW LANDSCAPING ASSOCIATED WITH NEW SINGLE-FAMILY HOME SHALL NOT INCORPORATE ANY WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEEK LIST, AS AMENDED. PROVIDED, THAT REMOVAL SHALL NOT BE REQUIRED IF THE REMOVAL WILL RESULT IN INCREASED SLOPE INSTABILITY OR RISK OF LANDSLIDE OF EROSION.

NORTH

SITE PLAN

SCALE: 1" = 10'-0"

SCHMITTEN DESIGN
Schmitten Design. LLC
Heidi Schmitten
heidischmitten@gmail.com
425.765.3878

Foster Residence
7247 SE 29th Street
Mercer Island, WA 98040

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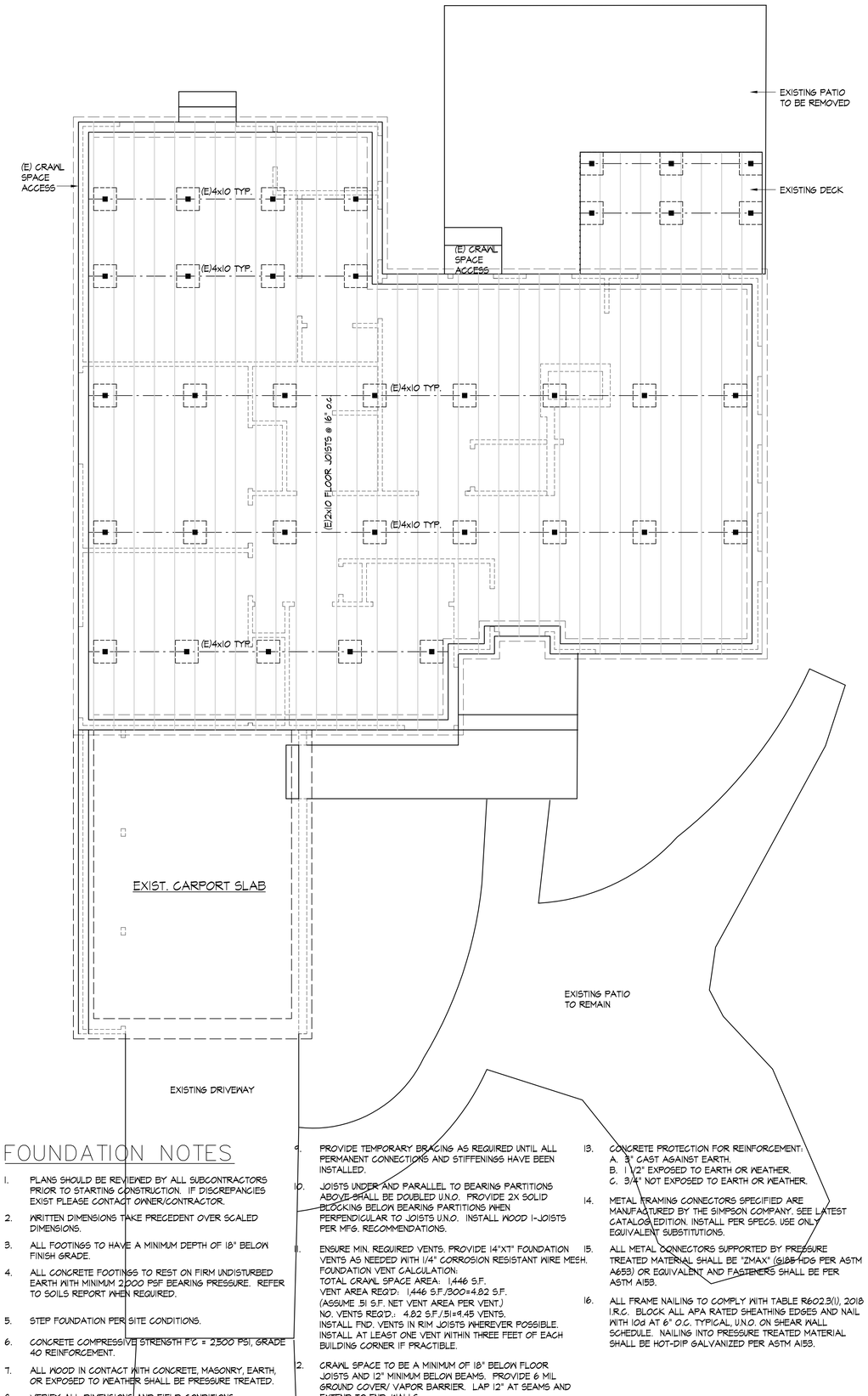
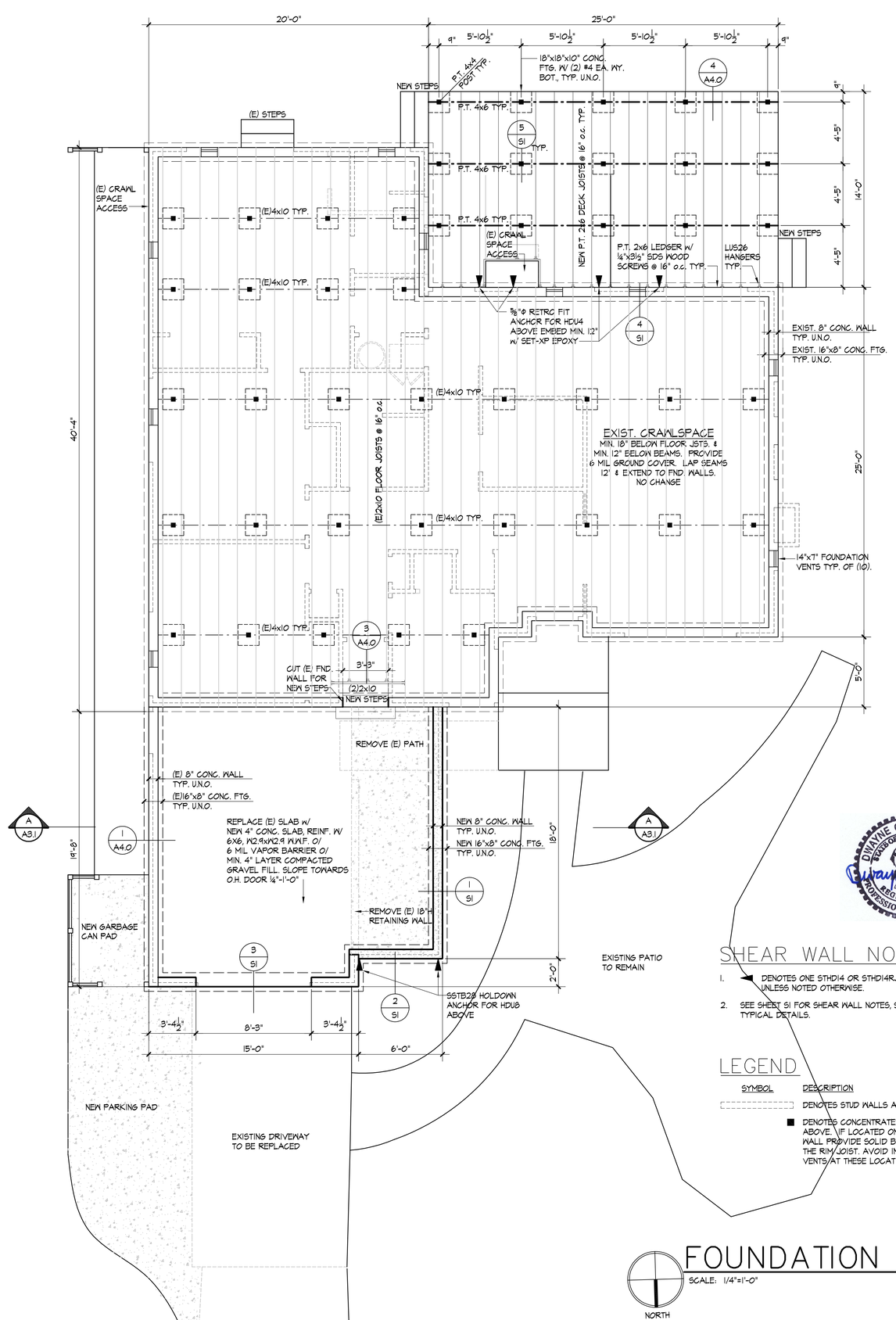
Issued	Date
Permit Plans	3/19/21

20-032

A1.0





FOUNDATION NOTES

1. PLANS SHOULD BE REVIEWED BY ALL SUBCONTRACTORS PRIOR TO STARTING CONSTRUCTION. IF DISCREPANCIES EXIST PLEASE CONTACT OWNER/CONTRACTOR.
2. WRITTEN DIMENSIONS TAKE PRECEDENT OVER SCALED DIMENSIONS.
3. ALL FOOTINGS TO HAVE A MINIMUM DEPTH OF 18" BELOW FINISH GRADE.
4. ALL CONCRETE FOOTINGS TO REST ON FIRM UNDISTURBED EARTH WITH MINIMUM 2,000 PSF BEARING PRESSURE. REFER TO SOILS REPORT WHEN REQUIRED.
5. STEP FOUNDATION PER SITE CONDITIONS.
6. CONCRETE COMPRESSIVE STRENGTH F'C = 2500 PSI, GRADE 40 REINFORCEMENT.
7. ALL WOOD IN CONTACT WITH CONCRETE, MASONRY, EARTH, OR EXPOSED TO WEATHER SHALL BE PRESSURE TREATED.
8. VERIFY ALL DIMENSIONS AND FIELD CONDITIONS.
9. PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS AND STIFFENINGS HAVE BEEN INSTALLED.
10. JOISTS UNDER AND PARALLEL TO BEARING PARTITIONS ABOVE SHALL BE DOUBLED U.N.O. PROVIDE 2X SOLID BLOCKING BELOW BEARING PARTITIONS WHEN PERPENDICULAR TO JOISTS U.N.O. INSTALL WOOD I-JOISTS PER MFG. RECOMMENDATIONS.
11. ENSURE MIN. REQUIRED VENTS. PROVIDE 14"X7" FOUNDATION VENTS AS NEEDED WITH 1/4" CORROSION RESISTANT WIRE MESH. FOUNDATION VENT CALCULATION:
TOTAL CRAWL SPACE AREA: 1,446 S.F.
VENT AREA REQ'D: 1,446 S.F./300=4.82 S.F.
(ASSUME .5% S.F. NET VENT AREA PER VENT.)
NO. VENTS REQ'D.= 4.82 S.F./.5%=9.45 VENTS.
INSTALL FND. VENTS IN RIM JOISTS WHEREVER POSSIBLE. INSTALL AT LEAST ONE VENT WITHIN THREE FEET OF EACH BUILDING CORNER IF PRACTIBLE.
12. CRAWL SPACE TO BE A MINIMUM OF 18" BELOW FLOOR JOISTS AND 12" MINIMUM BELOW BEAMS. PROVIDE 6 MIL GROUND COVER/ VAPOR BARRIER. LAP 12" AT SEAMS AND EXTEND TO FND. WALLS.
13. CONCRETE PROTECTION FOR REINFORCEMENT:
A. 3" CAST AGAINST EARTH.
B. 1 1/2" EXPOSED TO EARTH OR WEATHER.
C. 3/4" NOT EXPOSED TO EARTH OR WEATHER.
14. METAL FRAMING CONNECTORS SPECIFIED ARE MANUFACTURED BY THE SIMPSON COMPANY. SEE LATEST CATALOG EDITION. INSTALL PER SPECS. USE ONLY EQUIVALENT SUBSTITUTIONS.
15. ALL METAL CONNECTORS SUPPORTED BY PRESSURE TREATED MATERIAL SHALL BE "ZMAX" (G185 HDG PER ASTM A653) OR EQUIVALENT AND FASTENERS SHALL BE PER ASTM A153.
16. ALL FRAME NAILING TO COMPLY WITH TABLE R602.3(1), 2018 I.R.C. BLOCK ALL APA RATED SHEATHING EDGES AND NAIL WITH 10d AT 6" O.C. TYPICAL, U.N.O. ON SHEAR WALL SCHEDULE. NAILING INTO PRESSURE TREATED MATERIAL SHALL BE HOT-DIP GALVANIZED PER ASTM A153.

SHEAR WALL NOTES

1. ▲ DENOTES ONE STHD14 OR STHD14RJ HOLD DOWN, UNLESS NOTED OTHERWISE.
2. SEE SHEET S1 FOR SHEAR WALL NOTES, SCHEDULES, AND TYPICAL DETAILS.

LEGEND

SYMBOL	DESCRIPTION
- - -	DENOTES STUD WALLS ABOVE.
■	DENOTES CONCENTRATED LOAD FROM ABOVE. IF LOCATED ON THE EXTERIOR FND. WALL PROVIDE SOLID BLOCKING NEXT TO THE RIM JOIST. AVOID INSTALLING FND. VENTS AT THESE LOCATIONS.

FOUNDATION PLAN

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

NORTH

DWAYNE CARL BARNES STATE OF WASHINGTON 60779 REGISTERED PROFESSIONAL ENGINEER

SCHMITTEN DESIGN

Schmitten Design. LLC
Heidi Schmitten
heidischmitten@gmail.com
425.765.3878

Foster Residence
7247 SE 29th Street
Mercer Island, WA 98040

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20-032

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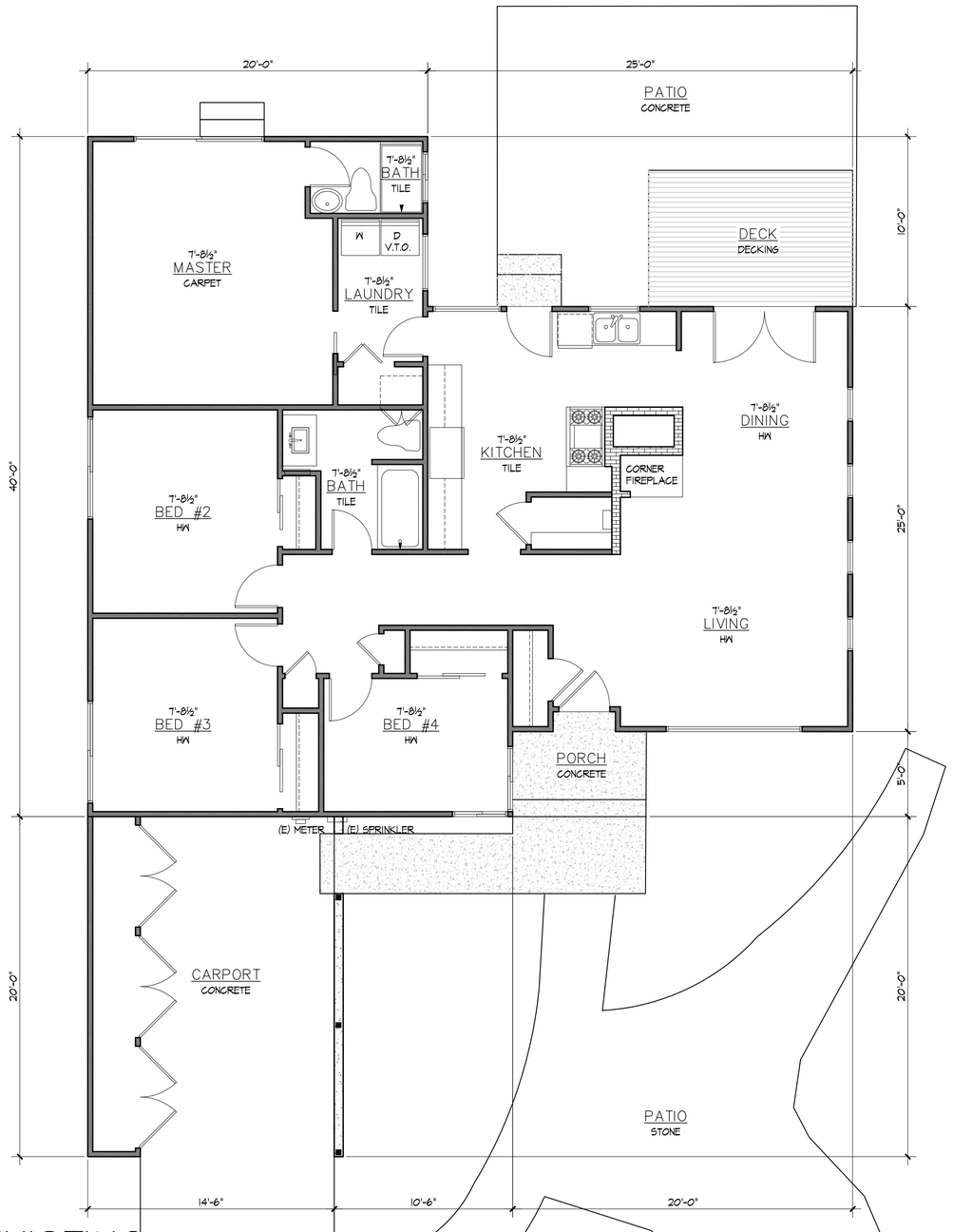
FOUNDATION PLAN



EXISTING MAIN FLOOR PLAN

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

LIVING SPACE: 1,446 S.F.
CARPORT: 290 S.F.

GENERAL NOTES

1. PLANS SHOULD BE REVIEWED BY ALL SUBCONTRACTORS PRIOR TO STARTING CONSTRUCTION. IF DISCREPANCIES EXIST PLEASE NOTIFY SCHMITTEN DESIGN OR OWNER/CONTRACTOR.

2. PLATE HEIGHT TO BE 7'-8 1/2" U.N.O..

3. TOP OF WINDOW R.O. HEIGHT TO BE 6'-10"

4. SEE A2.2 ROOF FRAMING PLAN FOR WINDOW/DOOR HEADER SIZES.

5. NEW GARAGE EXTERIOR WALLS TO BE FRAMED WITH 2X4 H.F. (STUD GRADE OR BETTER).

6. ALL FRAME NAILING TO COMPLY WITH TABLE R602.3(1), 2018 I.R.C. BLOCK ALL APA RATED SHEATHING EDGES AND NAIL WITH 10d AT 6" O.C. TYPICAL, U.N.O. ON SHEAR WALL SCHEDULE. NAILING INTO PRESSURE TREATED MATERIAL SHALL BE HOT-DIP GALVANIZED PER ASTM A153.

7. PROVIDE FIRE BLOCKING AT ALL PLUMBING PENETRATIONS AND WALL/ROOF INTERSECTIONS.

8. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NO LESS THAN 1/2 INCH G.W.B. APPLIED TO THE GARAGE SIDE. LIVING AREAS ABOVE THE GARAGE SHALL BE SEPARATED FROM THE GARAGE WITH NO LESS THAN 5/8 INCH TYPE X G.W.B. ALL SUPPORTING STRUCTURE SHALL BE PROTECTED BY NO LESS THAN 1/2 INCH G.W.B.

9. FINISH ALL CEILINGS WITH 5/8" TYPE "X" G.W.B. WHERE JOISTS ARE SPACED GREATER THAN 16".

10. ■ DENOTES POSTING UNDER CONCENTRATED LOADS. PROVIDE POSTING THE WIDTH OF STUD WALL X BEAM WIDTH WITH EITHER SOLID WOOD POST OR MULTIPLE 2x STUDS, TYPICAL, U.N.O.

11. PROVIDE 26 GA GALVANIZED SHEET METAL FLASHING ABOVE WINDOWS AND DOORS, LAP BUILDING PAPER OVER.

12. INSTALL SIDING 6" ABOVE FINISH GRADE.

13. WINDOWS TO BE SPECIFIED OWNER/CONTRACTOR. CONTRACTOR TO VERIFY ALL ROUGH OPENINGS PRIOR TO CONSTRUCTION.

14. ALL CONCEALED VOIDS TO BE FIRE AND DRAFT STOPPED PER SECTION R602.8, 2018 I.R.C..

15. ALL TUBS AND SHOWER STALLS:
A) FIRE BLOCK BETWEEN STUDS
B) LIMIT SHOWER FLOW TO 2.5 GPM.
C) WALLS SHALL BE WATERPROOFED TO A MIN. OF 70" ABOVE DRAIN INLET.
D) ALL GLAZING, INCLUDING WINDOWS, WITHIN 70" OF DRAIN INLET SHALL BE SAFETY GLAZING.

16. ENGINEERED LUMBER SPECIFIED SHALL MEET OR EXCEED THE DESIGN STRESS VALUES INDICATED ON SHEET A0.01. INSTALL PER MFG. RECOMMENDATIONS. THESE DRAWINGS ONLY SHOW SIZE, SPAN,

17. ◉ DENOTES 110 VOLT SMOKE DETECTOR WITH BATTERY BACK-UP AND INTERCONNECTED.
CM INDICATES CARBON MONOXIDE DETECTOR.

18. ◐ DENOTES 50 CFM EXHAUST FAN VENTED TO OUTSIDE.

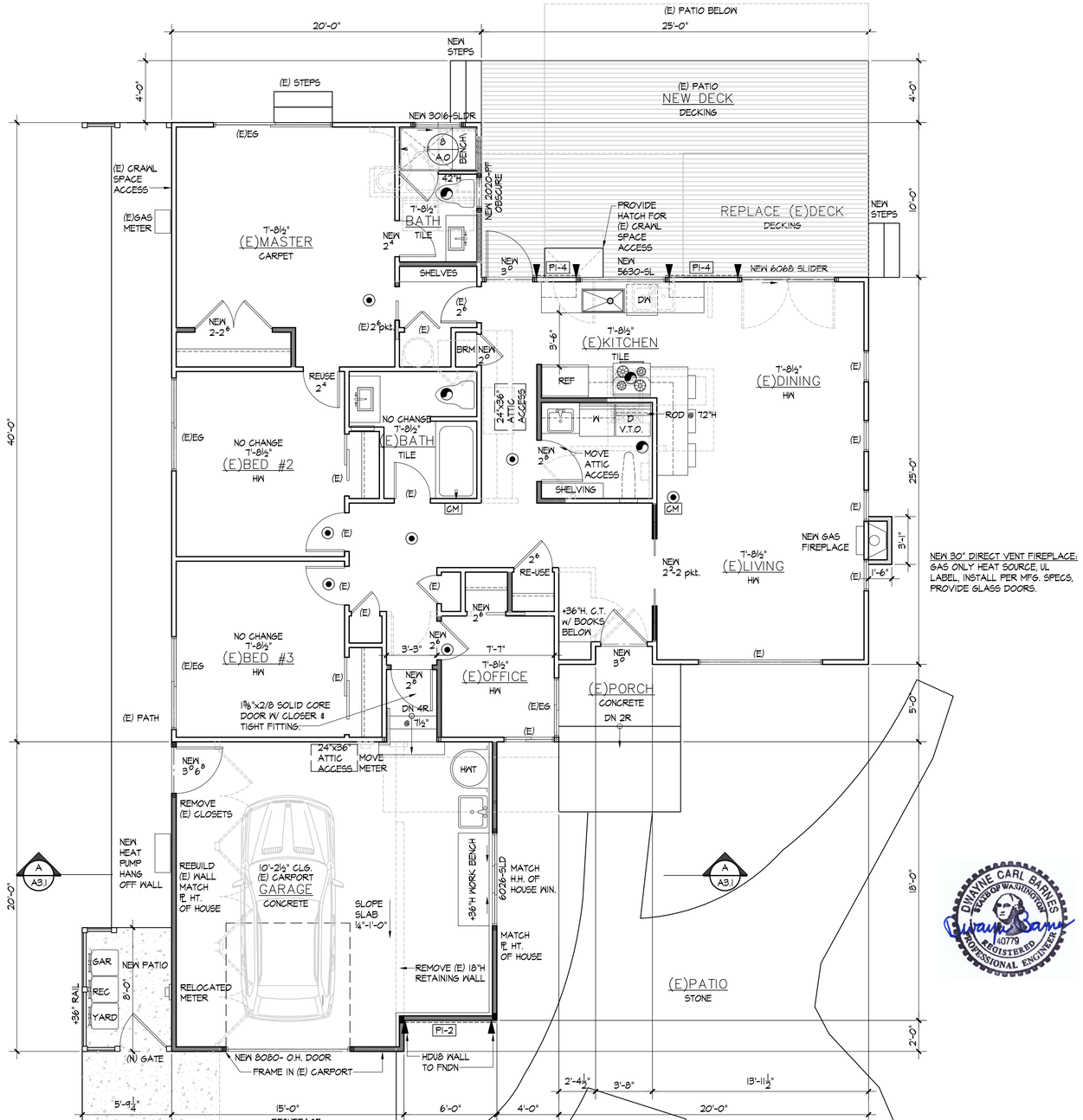
19. ALL DOORS TO BE 6'-8" HIGH U.N.O.

20. PROVIDE ELECTRIC ILLUMINATION AT OUTSIDE DOORS SWITCHED FROM INSIDE.

21. PROVIDE ELECTRIC ILLUMINATION AT STAIRWAY, INCLUDING LANDING, SWITCHED AT EACH FLOOR LEVEL.

22. MIN. OF 75% OF PERMANENTLY INSTALLED LAMPS IN LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS.

23. DOORS FROM GARAGE TO LIVING SPACES TO BE 1⅜" MIN. THICK SOLID CORE DOOR WITH SELF CLOSER AND WEATHER STRIPPING, U-VALUE = 0.20 MAX.



NEW 30" DIRECT VENT FIREPLACE; GAS ONLY HEAT SOURCE, UL LABEL, INSTALL PER MFG. SPECS, PROVIDE GLASS DOORS.

SHEAR WALL NOTES

1. ═══ DENOTES EXTENT OF SHEAR WALL.
2. PI-4 DENOTES SHEAR WALL MARK. MARK IS ON SIDE OF WALL TO BE SHEATHED IF ONE SIDE IS INDICATED.
3. ◆ DENOTES ONE TIE STRAP WITH END LENGTH (EL) PER PLAN. FROM MAIN FLOOR SHEAR WALLS TO FRAMING BELOW, U.N.O.
4. ALL EXTERIOR WALLS ARE TYPE PI-6 SHEAR WALL, U.N.O.
5. SEE SHEET 3 FOR SHEAR WALL NOTES, SCHEDULE, AND TYPICAL DETAILS.

NORTH

PROPOSED MAIN FLOOR PLAN

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

LIVING SPACE: 1,431 S.F. DECK: 350 S.F.
GARAGE: 423 S.F. NEW DRIVEWAY 186 S.F.

DWAYNE CARL BARNES
STATE OF WASHINGTON
40779
REGISTERED PROFESSIONAL ENGINEER

SCHMITTEN DESIGN
Schmitten Design, LLC
Heidi Schmitten
heidischmitten@gmail.com
425.765.3878

Foster Residence
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Mercer Island, WA 98040

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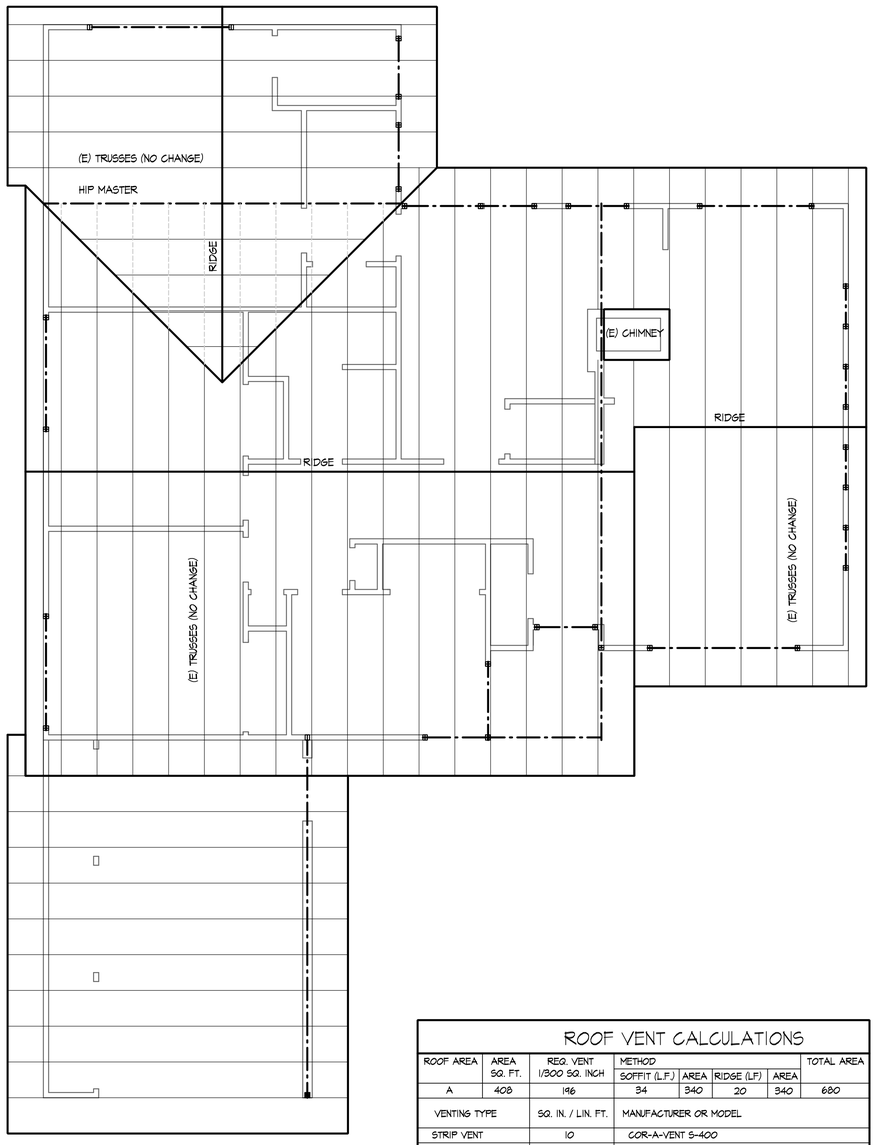
20-032

A2.1
MAIN FLOOR

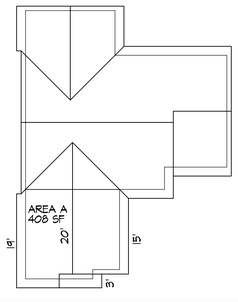


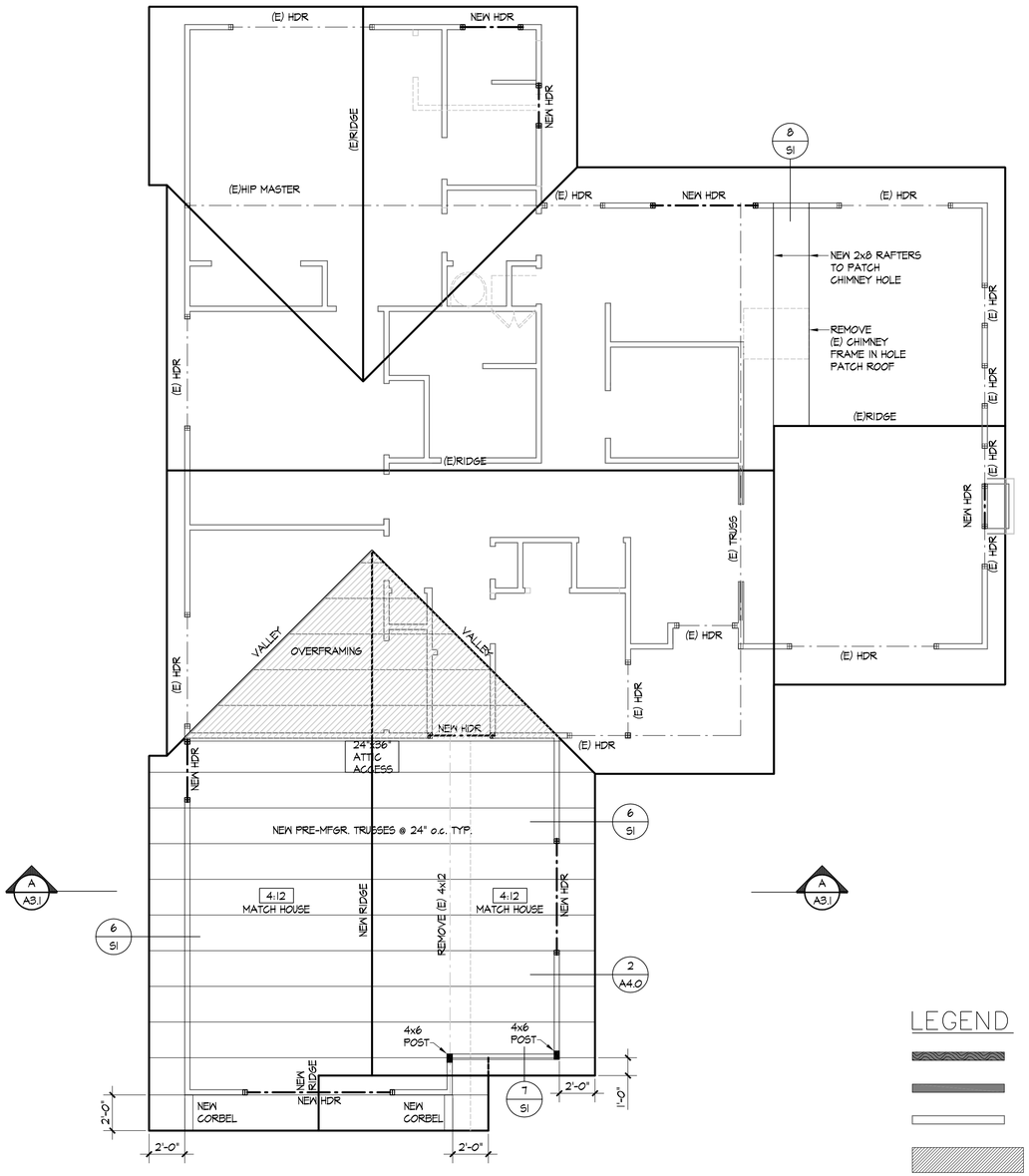
EXISTING ROOF FRAMING PLAN

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

ROOF VENT CALCULATIONS

ROOF AREA	AREA SQ. FT.	REQ. VENT 1/300 SQ. INCH	METHOD				TOTAL AREA
			SOFFIT (L.F.)	AREA	RIDGE (LF)	AREA	
A	408	196	34	340	20	340	680
VENTING TYPE		SQ. IN. / LIN. FT.	MANUFACTURER OR MODEL				
STRIP VENT		10	COR-A-VENT S-400				
RIDGE VENT		17	CORE-A-VENT X-5 or Eq.				
ROOF JACKS		50	ROOF JACK (SQ. IN. / EA)				
*RIDGE & JACK VENTS MUST BE 40-50% OF TOTAL AREA & CLASS I VAPOR RETARDER MUST BE INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING TO USE 1/300							





NEW ROOF FRAMING PLAN

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

ROOF FRAMING NOTES

1. PLANS SHOULD BE REVIEWED BY ALL SUBCONTRACTORS PRIOR TO STARTING CONSTRUCTION. IF DISCREPANCIES EXIST, PLEASE CONTACT OWNER/ CONTRACTOR IMMEDIATELY.

2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENT OVER SCALED DIMENSIONS.

3. ALL HEADERS TO BE 4x8 D.F. #2, TYPICAL, U.N.O.

4. SHADED AREAS DENOTE OVER FRAMING ABOVE ROOF FRAMING BELOW.

5. ROOF VENT CALCULATION– SEE VENTILATION TABLE ON ROOF FRAMING PLAN. VENT AREA TO BE A MINIMUM 1/300 OF ATTIC AREA. PROVIDE A MIN. 40% AND A MAX. 50% OF REQUIRED VENT AREA WITHIN 3 FEET OF THE HIGHEST POINT IN THE ATTIC. APPLY PVA PAINT WITH A PERM RATING OF NOT MORE THAN (1) AT ALL CEILINGS AND INSULATION ABOVE.

6. ROOF PITCH IS $\frac{4}{12}$ TYPICAL AND ROOF OVERHANG TO BE 2'-0" TYPICAL.

7. PROVIDE VENTED BLOCKING AT EAVES.

8. TRUSSES SHALL CARRY MFG. STAMP AND SHALL BE INSTALLED AND SPACED PER MFG. SPECIFICATIONS. DO NOT ALTER WITHOUT PRIOR BUILDING DEPARTMENT APPROVAL OF ENGINEERING CALCULATIONS. DESIGN DETAILS AND DRAWINGS SHALL BE ON SITE FOR FRAMING INSPECTION.

9. CONTRACTOR TO VERIFY LOCATION OF ALL ROOF SUPPORT BRACING AND POSTING AND PROVIDE ADEQUATE BEARING TO FOUNDATION.

10. ALL ROOF COVERINGS SHALL COMPLY WITH THE PROVISIONS IN CHAPTER 9, 2018 IRC.

11. ROOF MATERIAL TO BE ARCHITECTURAL COMPOSITION ROOFING (MATCH EXISTING).

12. NON-BEARING WALLS MUST BE HELD DOWN FROM THE TRUSS BOTTOM CHORD WITH AN APPROVED FASTENER TO INSURE THE TRUSS BOTTOM CHORD WILL NOT BEAR ON THE WALL.

13. TYPICAL WOOD ROOF FRAMING CONSISTS OF ROOFING PER ARCHITECTURAL DRAWINGS OVER $\frac{1}{2}$" CDX PLYWOOD, FACE GRAIN PERPENDICULAR TO SUPPORTS OVER JOISTS PER PLAN. NAIL SHEATHING WITH 8d AT 6" o.c. EDGES AND OVER SHEAR WALLS, 12" o.c. FIELD.

14. ALL HEADERS SHALL BE 4x8 UNLESS NOTED OTHERWISE. PROVIDE (2) BEARING STUDS EACH END OF LL HEADERS AND BEAMS UNLESS NOTED OTHERWISE.

15. ALL NEW EXTERIOR WALLS SHALL BE P1-6 UNLESS NOTED OTHERWISE.

16. ALL POSTS ABOVE SHALL BEAR FULLY ON BEAMS OR POSTS BELOW AND SHALL HAVE FULL CONTINUOUS BEARING THROUGH FLOORS TO FOUNDATION.

17. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

18. ALL GLULAM BEAMS TO BE DF 24F-V4 WITH (ARCHITECTURAL GRADE IF EXPOSED TO VIEW)

NORTH

LEGEND

- DENOTES INTERIOR UPPER FLOOR BEARING WALLS.
- DENOTES UPPER FLOOR WALLS.
- DENOTES MAIN FLOOR WALLS.
- DENOTES OVER-FRAMING ABOVE ROOF FRAMING BELOW.
- DENOTES BEAMS, HEADERS, OR TRUSSES.
- (E) DENOTES EXISITING
- ■ DENOTES SOLID AND FULL BEARING UNDER CONCENTRATED LOADS.

DWAYNE CARL BARNES
STATE OF WASHINGTON
60779
REGISTERED
PROFESSIONAL ENGINEER

SCHMITTEN DESIGN

Schmitten Design, LLC
Heidi Schmitten
heidischmitten@gmail.com
425.765.3878

Foster Residence
7247 SE 29th Street
Mercer Island, WA 98040

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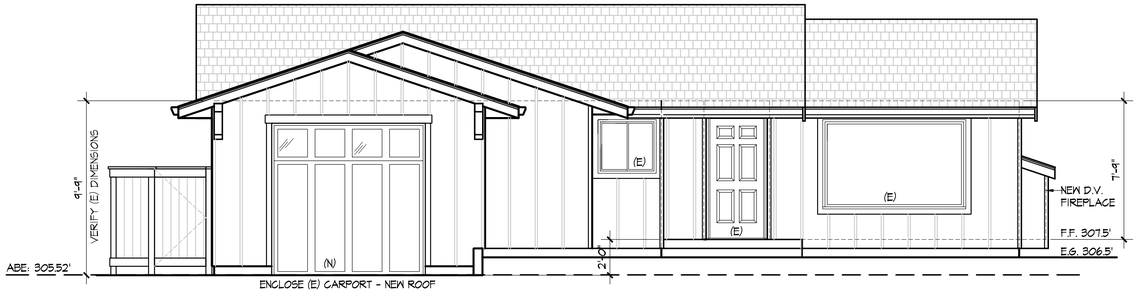
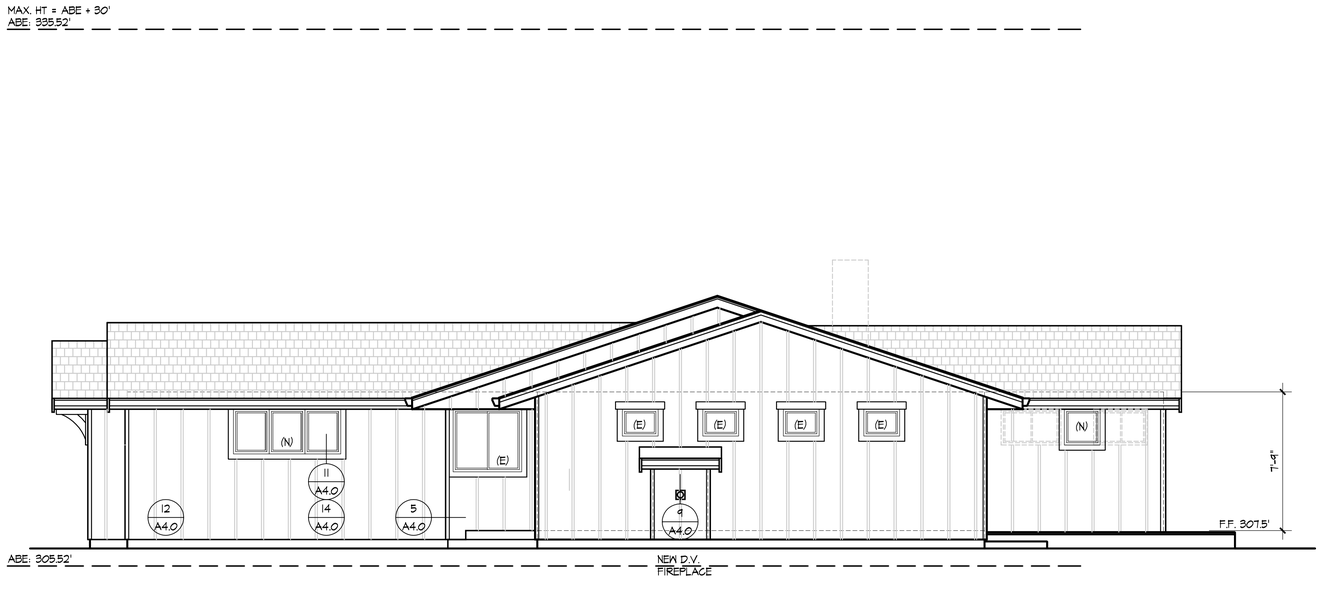
A2.2

ROOF FRAMING PLAN



FRONT ELEVATION

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



RIGHT ELEVATION

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

GENERAL NOTES

1. PROVIDE CONTINUOUS METAL GUTTERS, TYPICAL.
2. PROVIDE GALVANIZED SHEET METAL FLASHING AND COUNTER-FLASHING AT ALL ROOF PENETRATIONS INCLUDING CHIMNEYS.
3. PROVIDE WEATHERSTRIPPING AT ALL DOOR AND WINDOWS. CAULK ALL JOINTS AND PENETRATIONS IN EXTERIOR WALLS.

SCHMITTEN DESIGN

Schmitten Design, LLC
Heidi Schmitten
heidischmitten@gmail.com
425.765.3878

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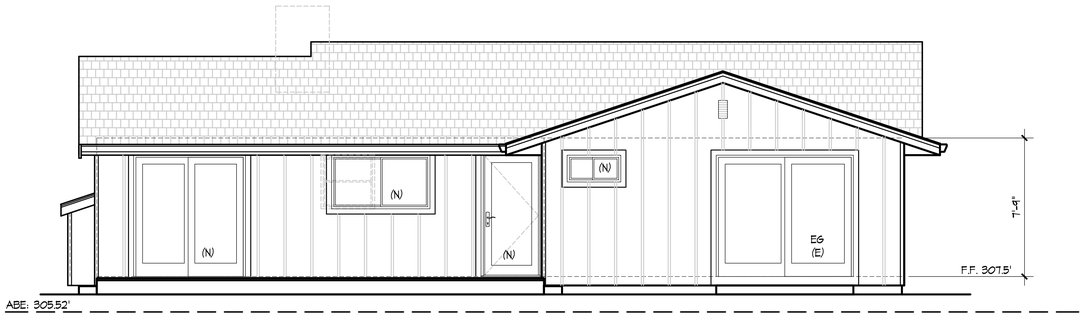
ELEVATIONS



REAR ELEVATION

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

ROOF CONSTRUCTION

1. COMPOSITION ROOF
2. 15# FELT INTERWOVEN
3. APA RATED ROOF SHEATHING. SEE STRUCTURAL NOTES SHEET S1
4. TRUSSES PER PLAN
5. 5/8" GYPSUM WALL BOARD

WALL CONSTRUCTION

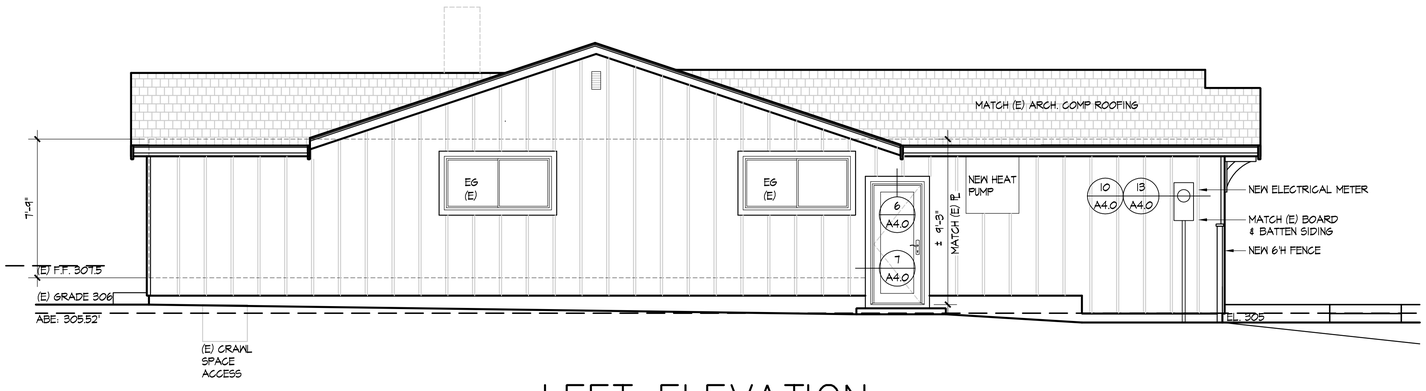
1. FINISH WALL MATERIAL PER ELEVATIONS
2. 60 MINUTE BUILDING PAPER MINIMUM
3. APA RATED WALL SHEATHING. SEE STRUCTURAL NOTES SHEET S1
4. 2x4 STUDS 16" O.C., TYPICAL UNLESS NOTED OTHERWISE
5. 1/2" GYPSUM WALL BOARD

FLOOR CONSTRUCTION

1. FINISH FLOOR PER PLAN
2. 3/4" TONGUE & GROOVE APA RATED FLOOR SHEATHING, GLUED & NAILED
3. FLOOR JOISTS PER PLAN
4. R-30 BATT INSULATION OVER UNHEATED SPACES
5. 4" CONC. SLAB ON GRADE SLP. TOWARD O.H. DOOR 1/4" PER 1'-0"

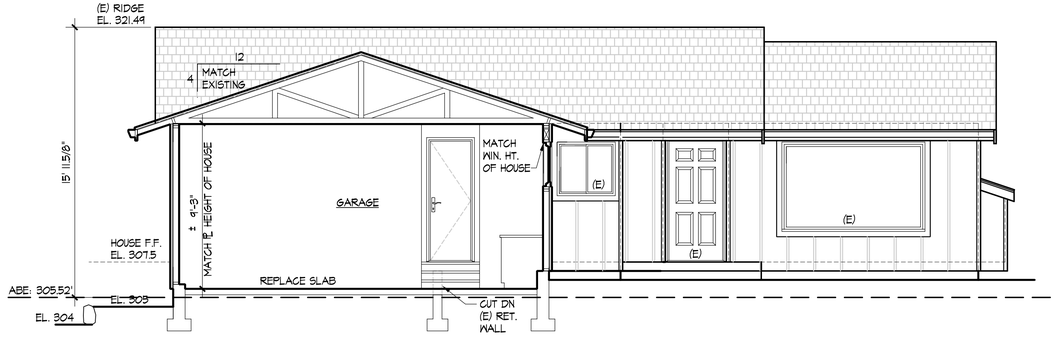
GENERAL NOTES

1. PROVIDE CONTINUOUS METAL GUTTERS, TYPICAL.
2. PROVIDE GALVANIZED SHEET METAL FLASHING AND COUNTER-FLASHING AT ALL ROOF PENETRATIONS INCLUDING CHIMNEYS.
3. PROVIDE WEATHERSTRIPPING AT ALL DOOR AND WINDOWS. CAULK ALL JOINTS AND PENETRATIONS IN EXTERIOR WALLS.



LEFT ELEVATION

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



SECTION AA

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

SCHMITTEN DESIGN
Schmitten Design, LLC
Heidi Schmitten
heidischmitten@gmail.com
425.765.3878

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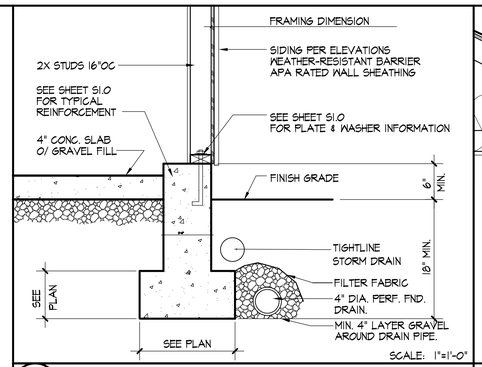
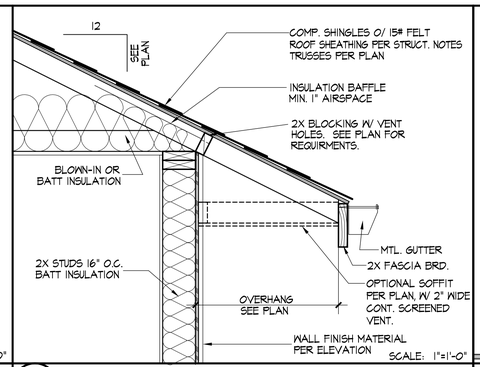
A3.1

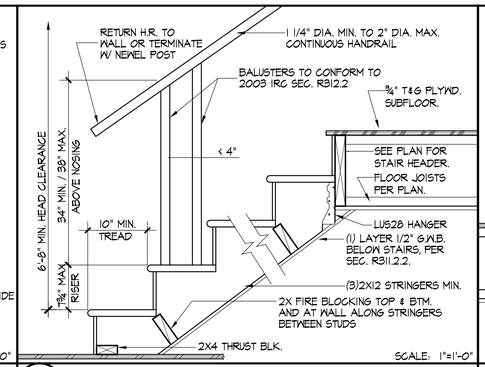
ELEVATIONS



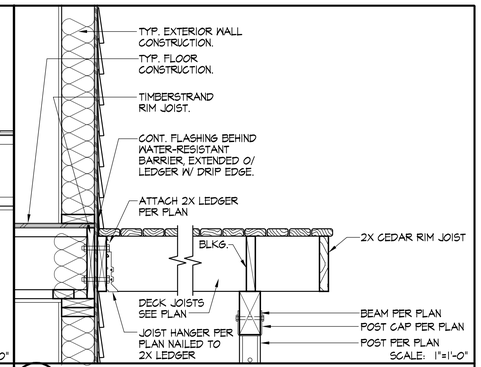
1 TYPICAL GARAGE FND.



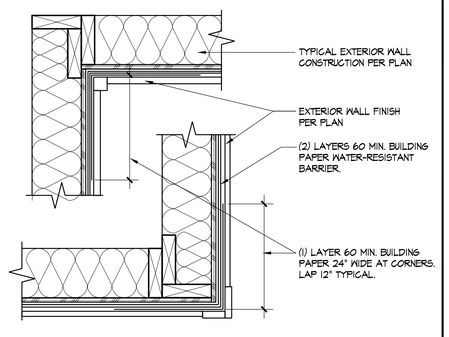
2 TYP. EAVE W/ TRUSSES / COMP. SHINGLES



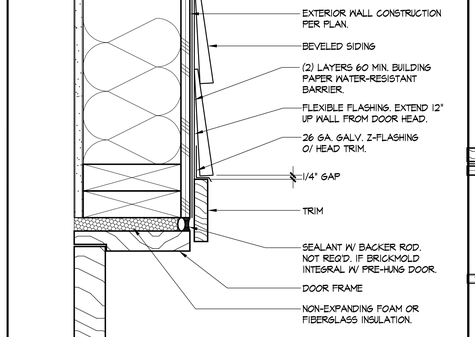
3 TYP. INTERIOR STAIR



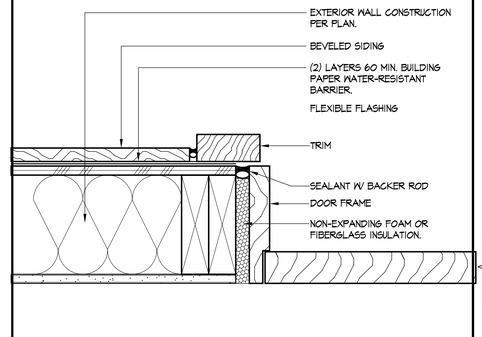
4 DECK FRAMING



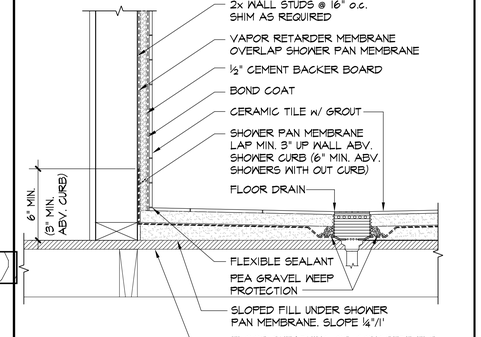
5 OUTSIDE - INSIDE WALL CORNERS



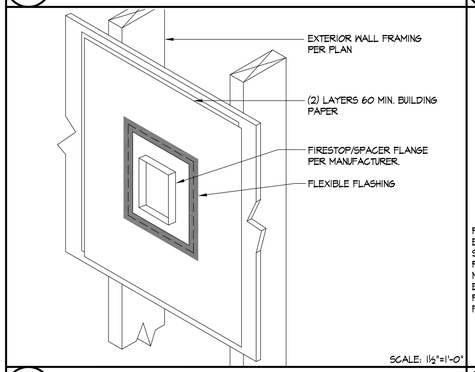
6 DOOR HEAD



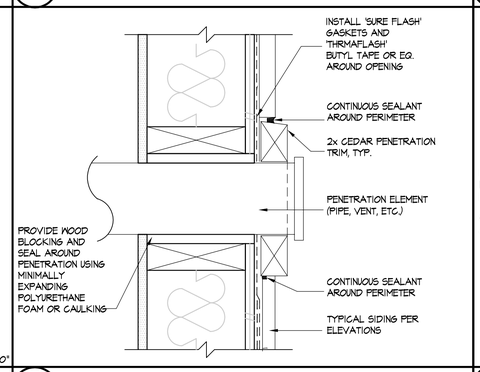
7 DOOR JAMB



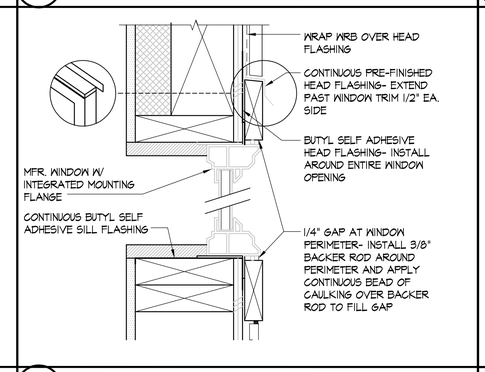
8 SHOWER WATERPROOF DETAIL



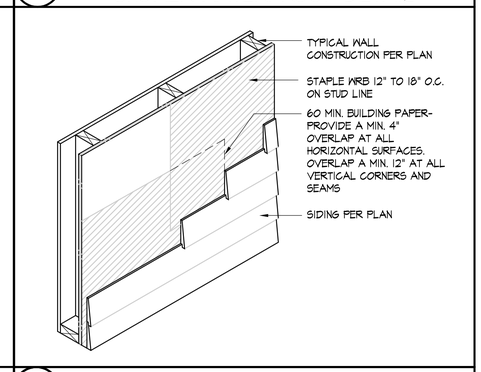
9 HOT STACK VENT



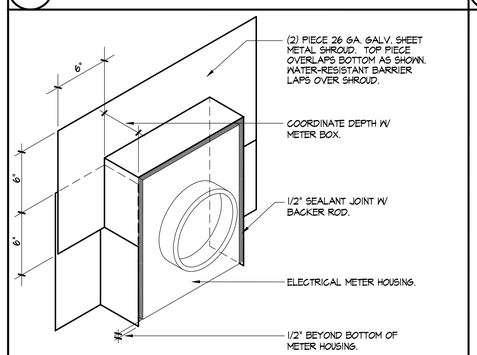
10 WALL PENETRATION DETAIL



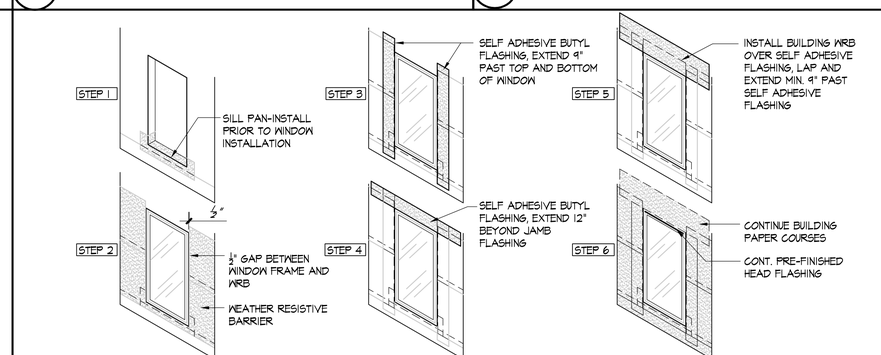
11 TYP. WINDOW TREATMENT



12 BUILDING PAPER INSTALLTION



13 ELECTRICAL METER BOX



14 WEATHER BARRIER AT WINDOW/DOORS

STEP ONE:
PREPARE OPENING WITH SLOPED SILL. LAY WRB 60 MIN. TYPE 'D' BUILDING PAPER OR EQUIVALENT UNDER BOTTOM OF WINDOW OPENING. INSTALL SILL FLASHING WITH 6" OVERLAP OF WRB.

STEP TWO:
LAY BUILDING PAPER ON SHEATHING AROUND WINDOW WITH 6" OVERLAP. LEAVE 1/2" GAP BETWEEN BUILDING PAPER AND WNDOW FRAME. LEAVE SHEATHING EXPOSED ABOVE WINDOW.

STEP THREE:
INSTALL 9" BUTYL SELF ADHESIVE FLASHING ON SIDES OF WINDOW FRAME PER MFR. SPECS. EXTEND FLASHING 9" BEYOND TOP AND BOTTOM OF WINDOW. FLASHING TO TOUCH WINDOW FRAME AND COVER 1/2" GAP.

STEP FOUR:
INSTALL 9" BUTYL SELF ADHESIVE FLASHING OVER TOP OF WINDOW FRAME PER MFR. SPECS. EXTEND FLASHING 12" BEYOND JAMB FLASHINGS. FLASHING TO TOUCH WINDOW FRAME.

STEP FIVE:
LAY 30" BUILDING PAPER OVER TOP PIECE OF SELF ADHESIVE FLASHING. EXTEND BUILDING PAPER A MIN. 9" BEYOND EACH END OF FLASHING. BUILDING PAPER TO TOUCH WINDOW FRAME.

STEP SIX:
INSTALL PRE-FINISHED METAL OR VINYL WINDOW HEAD FLASHING AND LAP CONTINUOUS COURSES OF BUILDING PAPER OVER HEAD FLASHING.

NOTE:
CONTRACTOR TO VERIFY CHEMICAL COMPATIBILITY OF ALL EXTERIOR MATERIALS, INCLUDING FLASHING, CAULK, WATER RESISTIVE BARRIER, ALL SUBTSTRATES, WINDOW NAILING FINS, ROOFING, AND SIDING MATERIALS.

SCHMITTEN DESIGN
Schmitten Design. LLC
Heidi Schmitten
heidischmitten@gmail.com
425.765.3878

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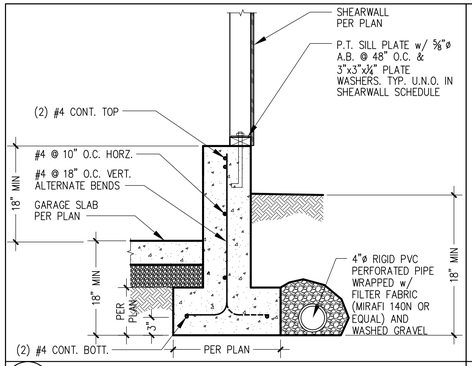
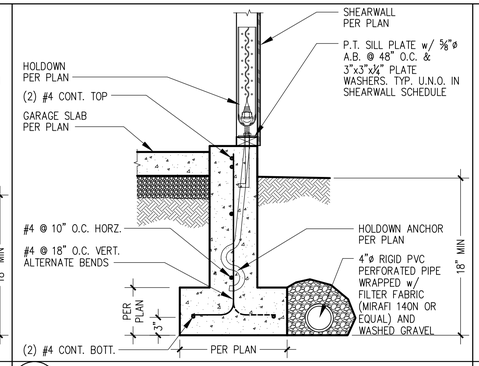
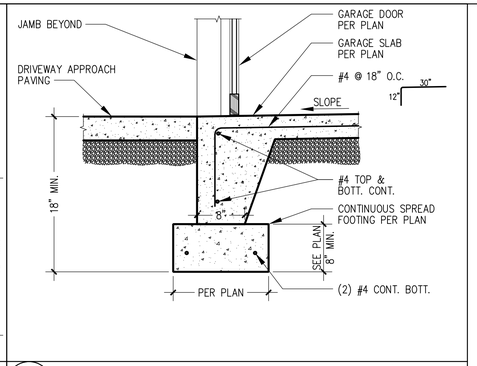
A4.0
TYPICAL DETAILS



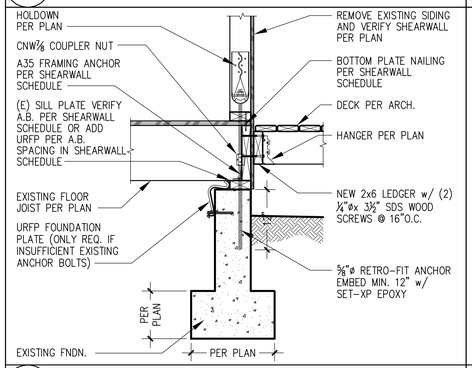
1 SHEAR TRANSFER @ RAISED FOUNDATION



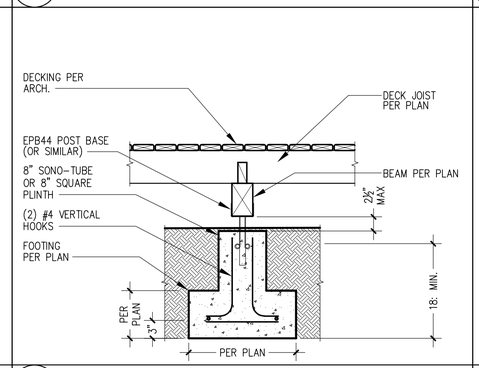
2 SSTB HOLDOWN ANCHOR TO FOUNDATION



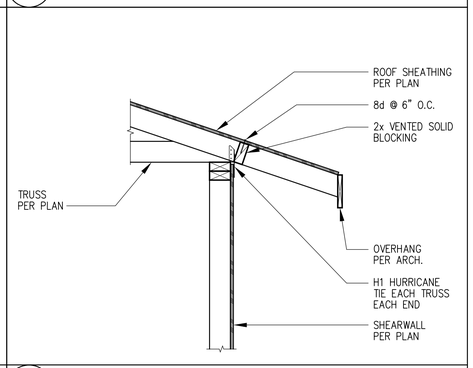
3 TYP. FOOTING @ GARAGE DOOR WALL



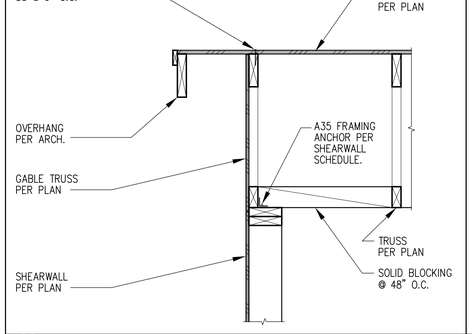
4 RETROFIT HOLDOWN ANCHOR @ FNDN.
(PERPENDICULAR 2x10 w/ DECK)



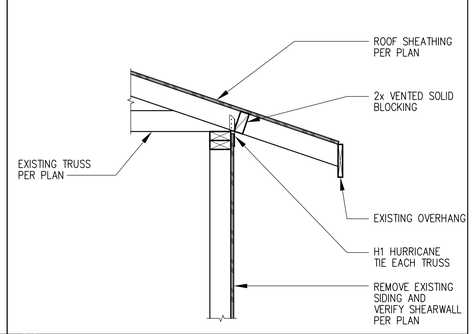
5 TYPICAL DECK POST



6 SHEAR TRANSFER @ EAVE
(TYPICAL COMMON TRUSS)



7 SHEAR TRANSFER @ GABLE



8 SHEAR TRANSFER @ EXISTING EAVE

STRUCTURAL NOTES

CODE:
DESIGN IS IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE (I.B.C.) AS AMENDED BY THE LOCAL BUILDING DEPARTMENT.

LIVE LOADS:
ROOF ..... 25 PSF
FLOOR ..... 40 PSF
DECKS ..... 60 PSF

DEAD LOADS:
ROOF ..... 15 PSF
FLOOR ..... 15 PSF
DECKS ..... 10 PSF

LATERAL:
WIND ..... BASIC WIND SPEED,110 MPH
(ASCE 7-10 Ch. 26-27) EXPOSURE CATEGORY, B
(DIRECTIONAL PROCEDURE) K_{zt}= 1.60

SEISMIC ..... S_S = 140.1
(ASCE 7-10 Ch. 12.14) S_{DS} = 112.1
(SIMPLIFIED METHOD) SEISMIC DESIGN CATEGORY, D
SITE CLASS, D
SITE COEFFICIENT, F_a =1.2

FOUNDATIONS:
ASSUMED BEARING CAPACITY OF 1500PSF. ALL EXTERIOR FOOTINGS SHALL EXTEND A MINIMUM OF 1'-6" BELOW ADJACENT EXTERIOR FINISHED GRADE.

CAST-IN-PLACE-CONCRETE:
F'_c = 3000 PSI @ 28 DAYS. MINIMUM 5½ SACKS OF CEMENT PER CUBIC YARD OF CONCRETE AND A MAXIMUM OF 6¾ GALLONS OF WATER PER 94# SACK OF CEMENT. F'_c = 3000 PSI IS USED FOR EXPOSURE PURPOSES ONLY. MAXIMUM SIZED AGGREGATE IS 1" MAXIMUM SLUMP IS 4". ALL PHASES OF WORK PERTAINING TO THE CONCRETE CONSTRUCTION SHALL CONFORM TO THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE. ALL REINFORCED STEEL DOWELS, ANCHOR BOLTS AND OTHER INSERTS SHALL BE SECURED IN POSITION PRIOR T POURING CONCRETE. ANCHOR BOLTS FOR SILL PLATES TO FOUNDATION WALLS SHALL BE A MINIMUM OF ⅝"ø WITH A MINIMUM OF 7" EMBEDMENT INTO CONCRETE AND A MAXIMUM SPACING OF 48" O.C. MINIMUM OF 2 BOLTS PER SILL PLATE. ONE BOLT TO BE PLACED WITHIN 12" OF EACH END OF THE SILL PLATE.

REINFORCING STEEL:
ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE WITH THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND THE MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION BY CRSI. DEFORMED REINFORCING STEEL BARS SHALL CONFORM TO ASTM GRADE 60. ALL REINFORCING BAR BENDS SHALL BE MADE COLD, WITH A MINIMUM RADIUS OF 6 BAR DIAMETERS. CORNER BARS (2-0" BEND) SHALL BE PROVIDED FOR ALL HORIZONTAL REINFORCEMENT. LAP ALL BARS A MINIMUM OF 48 BAR DIAMETERS UNLESS NOTED OTHERWISE. UNLESS NOTED OTHERWISE ON THE DRAWINGS REINFORCING STEEL SHALL HAVE THE FOLLOWING MINIMUM COVER:
CONCRETE CAST AGAINST EARTH ..... 3"
CONCRETE EXPOSED TO EARTH OR WEATHER
#6 THRU #18 BARS ..... 2"
#5 BAR AND SMALLER 1½
CONCRETE NOT EXPOSED TO EARTH OR WEATHER
#11 BAR AND SMALLER ..... ¾
SLAB ON GRADE (FROM THE SURFACE) 1½

WELDED WIRE FABRIC (WWF):
WWF SHALL CONFORM TO ASTM A-185. WWF SHALL BE LAPPED ONE CROSSWIRE PLUS 2" (i.e. 8" FOR 6X6 MESH). WWF SHALL BE CHAIRED IN POSITION WITH A MAXIMUM CHAIR SPACING OF 4'

PRESSURE TREATED WOOD:
ALL WOOD IN CONTACT WITH CONCRETE, MASONRY, EARTH, OR EXPOSED TO WEATHER SHALL BE PRESERVATIVE TREATED WOOD IN ACCORDANCE WITH AWPA U1 AND M4 STANDARDS.

MISCELLANEOUS HARDWARE:
ALL MISCELLANEOUS HANGERS AND HARDWARE TO BE SIMPSON OR APPROVED EQUAL. ALL HANGERS SHALL BE FASTENED TO WOOD WITH PROPER NAILS AND ALL NAIL HOLES FILLED. ALL NAILS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE BE HOT DIPPED GALVANIZED PER ASTM STANDARD 153 AND I.B.C. SECTION 2304.9.5. ALL METAL CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE ZMAX (HDG PER ASTM A653, CLASS G-185) OR EQUAL.

FLOOR SHEATHING:
FLOOR SHEATHING SHALL BE ¾" TONGUE AND GROOVE, A.P.A. RATED SHEATHING WITH A SPAN RATING OF 48/24, WITH LONG DIMENSION PERPENDICULAR TO SUPPORTS. UNLESS NOTED OTHERWISE, NAIL WITH 10d COMMON NAILS @ 6" O.C. AT SUPPORTED PANEL EDGES, AND @ 12" O.C. AT INTERMEDIATE SUPPORTS.

ROOF SHEATHING:
ROOF SHEATHING SHALL BE 15/32" A.P.A. RATED PLYWOOD OR 7/16" OSB A.P.A. RATED SHEATHING WITH A SPAN RATING OF 32/16, WITH LONG DIMENSION PERPENDICULAR TO SUPPORTS. UNLESS NOTED OTHERWISE, NAIL WITH 8d COMMON NAILS @ 6" O.C. AT SUPPORTED PANEL EDGES, AND @ 12" O.C. AT INTERMEDIATE SUPPORTS.

WALL SHEATHING:
WALL SHEATHING SHALL BE ⅜" A.P.A. RATED PLYWOOD OR 7/16" OSB A.P.A. RATED SHEATHING WITH A SPAN RATING OF 24/0. PANEL END JOINTS SHALL OCCUR AT SUPPORTS. NAIL ALL PANEL EDGES WITH 8d COMMON NAILS @ 6" O.C. AT SUPPORTED PANEL EDGES AND @ 12" O.C. AT INTERMEDIATE SUPPORTS.

FLOOR FRAMING:
PROVIDE FULL DEPTH BLOCKING FOR JOIST AT THE SUPPORTS. FLUSH BEAMS (FB) AND HEADERS NOT CALLED OUT ON THE PLANS SHALL BE (2) 2x8 DOUG-FIR #2. ALL LAMINATED BEAMS SHALL BE SPIKED TOGETHER WITH 16d NAILS @ 6" O.C. STAGGERED

BEARING WALL FRAMING:
ALL DOOR AND WINDOW HEADERS NOT CALLED OUT ON THE PLANS SHALL BE 4x8 DOUGLAS-FIR #2 WITH (1) CRIPPLE STUD AND (1) KING STUD ON EACH END FOR OPENINGS 5' AND LESS AND (2) CRIPPLE STUDS AND (1) KING STUD ON EACH END FOR OPENINGS GREATER THAN 5'. ALL COLUMNS NOT CALLED OUT ON THE PLANS SHALL BE A MINIMUM OF TWO LAMINATED STUDS. NAIL LAMINATED COLUMNS TOGETHER WITH (2) 16d NAILS @ 12" O.C. WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATES AND BOTTOM PLATES TO EACH STUD WITH MINIMUM (2) 16d NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16d NAILS AT 16" O.C. STAGGERED. LAP AND FACE NAIL NAIL TOP PLATES WITH (3) 16d NAILS @ EACH CORNER AND INTERSECTION. STAGGER TOP PLATE SPLICES A MINIMUM OF 48" AND NAIL w/ (4) 16d NAILS EACH SIDE OF SPLICE. FACE NAIL BOTTOM PLATE WITH (2) 16d NAILS AT 16" O.C. OR PER SHEARWALL SCHEDULE. PROVIDE (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER AT CONTACT SURFACES BETWEEN ALL WOOD AND CONCRETE.

PRE-MANUFACTURED ROOF TRUSSES:
ROOF TRUSSES SHALL BE FABRICATED OF DOUGLAS-FIR/LARCH OR HEM-FIR. TRUSS MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS STAMPED, SIGNED AND DATED BY A WASHINGTON STATE LICENSED STRUCTURAL ENGINEER. ALL TRUSS PLATES AND CONNECTORS SHALL BE I.C.B.O. APPROVED. VERIFY MECHANICAL UNIT LOADS AND LOCATIONS WITH SUPPLIER AND FURNISH ADDITIONAL TRUSSES AS REQUIRED. SUBMIT TRUSS SHOP DRAWINGS TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

GLUED-LAMINATED TIMBERS:
LAMINATED TIMBERS SHALL BE DOUGLAS-FIR/LARCH KILN DRIED STRESS GRADED COMBINATION 24F-V4 (F_b = 2400 PSI, F_v = 109 PSI) FOR SIMPLE SPANS AND 24F-V8 FOR CANTILEVER AND CONTINUOUS BEAMS. A.I.T.C. CERTIFICATE OF PERFORMANCE REQUIRED. COLUMNS SHALL CONFORM TO TO A.I.T.C. STANDARDS 117.

STRUCTURAL TIMBERS:
ALL GRADES SHALL CONFORM TO WWPA GRADING RULES FOR WESTERN LUMBER, LATEST EDITION. PROVIDE CUT WASHERS UNDER ALL NUTS AND BOLTS BEARING AGAINST WOOD. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED. ALL STRUCTURAL LUMBER SHALL BE AS NOTED BELOW:

FRAMING GRADES:

2x ROOF RAFTERS	DOUG-FIR/LARCH #2	F_b =900PSI
2x FLOOR/DECK JOIST	DOUG-FIR/LARCH #2	F_b =900PSI
4x BEAMS	DOUG-FIR/LARCH #2	F_b =900PSI
6x BEAMS	DOUG-FIR/LARCH #1	F_b =1350PSI
4x COLUMNS	DOUG-FIR/LARCH #1	F_c =1000PSI
6x COLUMNS	DOUG-FIR/LARCH #1	F_c =1200PSI
2x STUDS	HEM-FIR	F_b =675PSI
LSL	LSL 1.55E	F_b =2325PSI
LVL	LVL 2.0E	F_b =2600PSI
PSL	PSL 2.2E	F_b =2900PSI
GLB	GLU-LAM (24F-V4)	F_b =2400PSI

Stoney Point Engineering
Dwayne Barnes P.E.
dwayne@stoneypointengineering.com
Office: 425-644-9500

Foster Residence
7247 SE 29th Street
Mercer Island, WA 98040

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STRUCTURAL DETAILS