CITY OF MERCER ISLAND

Community Planning & Development
9611 SE 36TH STREET | MERCER ISLAND, WA 98040
PHONE: 206.275.7605 | www.mercerisland.gov

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:	Dave Buck, Chesmore/Buck architecture	Name:	Dave Buck
Address:	27 100th Ave NE, Bellevue, WA 98004	Address:	
Phone:	(425) 679-0907	Phone:	
Email:	dave@chesmorebuck.com	Email:	

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: Scott Tinker Company: Quantum Engineers Phone: (206) 957-3900
- [x] General Conformance to Construction Documents
- [ ] Other:

SOILS / GEOTECHNICAL:
Special Inspector: Sophie Holt Company: GEO Group Northwest Phone: (425) 649-8757
- [ ] Erosion control measures
- [ ] Shoring installation and monitoring
- [ ] Observe and monitor excavation
- [x] Verification of soil bearing
- [ ] Other:
- [ ] Subsurface drainage placement
- [ ] Verify fill material and compaction
- [ ] Rockery installation
- [x] Pile placement (auger cast/driven pile)
- [ ] Other:

REINFORCED CONCRETE:
Special Inspector: Company: Otto Rosenau Phone: (206) 725-4600
- [x] Concrete strength
- [x] Reinforcing steel and concrete placement
- [ ] Shotcrete placement
- [ ] Other:
- [ ] Retaining wall construction
- [ ] Prestressed / Precast construction
- [ ] Other:
- [ ] Other:

STRUCTURAL STEEL: *(AISC 360, Chapter N)*
Special Inspector: Company: Otto Rosenau Phone: (206) 725-4600
- [x] Fabrication and shop welds
- [x] Structural steel erection, field welds and bolting
- [ ] Other:
- [ ] Moment Frame construction
- [ ] Other:
- [ ] Other:

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

WOOD:
Special Inspector / Engineer of Record: Company: Otto Rosenau Phone: 2067254600
- [x] Lateral resisting system construction
- [ ] Other:
- [ ] High strength diaphragm construction
- [ ] Other:

OTHER SPECIAL INSPECTIONS:
Special Inspector: Company: Otto Rosenau Phone: 206-725-4600
- [x] Epoxy grout installations
- [x] Expansion anchor installations
- [x] Other post installed anchors
- [ ] Alternative construction methods:
- [ ] Alternative construction materials:
- [ ] Stucco installation
- [ ] Infiltration System
- [ ] Exterior Insulation Finish System (EIFS) installation
- [ ] Other:
- [ ] 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
- [ ] Metal joist / metal trusses
- [ ] Premanufactured structures (stairs, etc.)
- [ ] Precast concrete elements
- [ ] Other:
- [ ] Post tension layout
- [ ] Exterior cladding
- [ ] Window wall / curtain wall construction
- [ ] Other:
- [ ] Other:

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:
[x] Building envelope: *WSEC Table 402.1.1* (include U-factors, insulation and moisture control)	2.0, 6.0-6.2
[x] Whole house ventilation: *IRC Section M1507 WA Amended* (include ventilation option and duct sizing if applicable)	2.0
[x] Energy Credit Information: *WSEC Table 406.2* (include specific, written requirements)	2.0
[x] RECPC Form Information: (if incorporated within drawing set) http://www.mercergov.org/files/2012ResidentialEnergyCalcForm.pdf	2.0
[x] Air Leakage Testing. *IRC Section R402.4.1.2 WA Amendments* [x] Provide air leakage test report verifying air leakage rate does not to exceed 5 air changes per hour.	
[x] Duct Leakage Testing. *WSEC R403.2.2*	
[x] Postconstruction Test. *WSEC R403.2.2.1*	
[x] Rough-in Test. *WSEC R403.2.2.3*	

TO BE COMPLETED BY APPLICANT

FILE NAME: *CPD CVR 24x36.PDF*

TO BE COMPLETED BY CPD

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.

- [x] 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.
- [x] Temporary site address with minimum 6" high numbers visible from the street must be installed.
- [x] 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.
- [x] A City of Mercer Island Business License is required for all subcontractors. Call (206) 275-7783 for more information.

TREE PROTECTION REQUIREMENTS:

- [x] 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.
- [x] 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
  - [ ] FCA3
  - [ ] FCA4
- [ ] Monitored Household
  - Fire Alarm per NFPA 72
  - [ ] Monitored Sprinkler Water Flow Alarm
- [ ] Other:

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.
- [x] Pressure reducing valve required if pressure exceeds 80 psi.
- [x] 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:

- [x] 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: Phone:
- [ ] 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 CPD

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): • Sprinkler • Access Road • Fire Code Alternatives (see below) [ ] FCA1: [ ] FCA2: • Fuel Tank Installation • Fire Extinguishing System • Fire Alarm System [ ] FCA3: [ ] FCA4: TF
			Final Inspection: Water supply protection, including (but not limited to) backflow devices for: • Waterfront property • Well water on property • Fire / lawn sprinkler • Boiler TW
			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*

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 _____ *Date*, whichever occurs first.

PLAN REVIEW APPROVALS:

Not all review disciplines may be required to review the documents.

[ ] JH *Building* [ ] RH *Planning* [ ] KN *Engineering* [ ] N/A *Tree* [ ] N/A *Fire*

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

REVISED: *JULY 2019*

1 SF

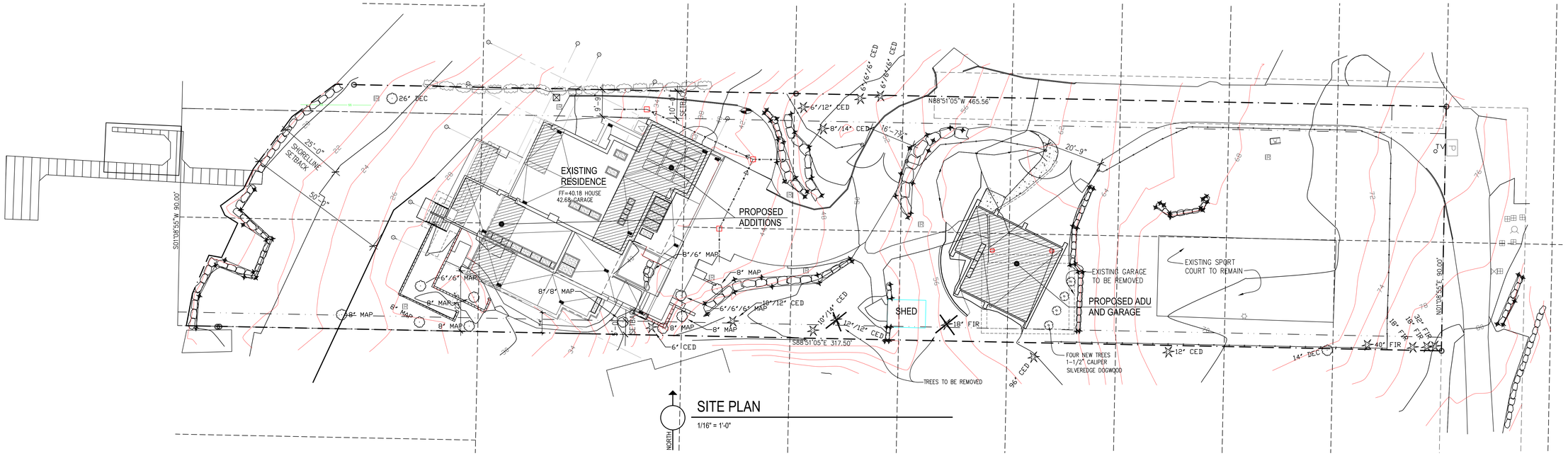
PERMIT NUMBER

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

REVIEWED FOR CODE COMPLIANCE
Date
Approved

PROJECT NAME: HONG AND KAO RESIDENCE

PROJECT ADDRESS: 5425 W. MERCER WAY



SITE PLAN

1/16" = 1'-0"

GENERAL NOTES

THESE DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND MAY BE REPRODUCED ONLY WITH THE WRITTEN PERMISSION OF THE ARCHITECT. AUTHORIZED REPRODUCTIONS MUST BEAR THE NAME OF THE ARCHITECT. COPYRIGHT 2023 BY CHESMORE/BUCK ARCHITECTURE. THESE DRAWINGS ARE FULLY PROTECTED BY FEDERAL AND STATE COPYRIGHT LAWS. ANY INFRINGEMENT WILL BE VIGOROUSLY PROSECUTED.

ALL CONSTRUCTION SHALL CONFORM TO THE 2015 INTERNATIONAL RESIDENTIAL CODE (IRC) AND BE IN ACCORDANCE WITH THE WASHINGTON STATE LAWS AND REGULATIONS AND VARIOUS CODES IMPOSED BY LOCAL AUTHORITIES.

CONTRACTORS RESPONSIBILITY:

CONTRACTOR TO VERIFY ALL DIMENSIONS AND STRUCTURAL MEMBER SIZES PRIOR TO CONSTRUCTION. CONTRACTOR TO INFORM ARCHITECT OF ANY DISCREPANCIES IN THE DRAWINGS OR FROM THE CODES.

CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHTECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON THE DRAWING ONLY WILL NOT SATISFY THIS REQUIREMENT.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES,SEQUENCES OR PROCEDURES REQUIRED TO PERFORM HIS WORK.

ALL STUCTURAL SYSTEMS SUCH AS WOOD TRUSSES WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ARCHITECT IF UNUSUAL, UNFORESEEABLE, OR UNEXPECTED SUBSURFACE CONDITIONS ARE ENCOUNTERED.

BECAUSE THE CONTRACT DOCUMENTS ARE COMPLEMENTARY, THE CONTRACTOR SHALL, BEFORE STARTING EACH PORTION OF THE WORK, CAREFULLY STUDY AND COMPARE THE VARIOUS CONTRACT DOCUMENT RELATIVE TO THAT PORTION OF THE WORK, AS WELL AS THE INFORMATION PROVIDED BY THE OWNER, SHALL TAKE FIELD MEASUREMENTS OF ANY EXISTING CONDITIONS RELATED TO THAT PORTION OF THE WORK AND SHALL OBSERVE ANY CONDITIONS AT THE SITE AFFECTING IT. THESE OBLIGATIONS ARE FOR THE PURPOSE OF FACILITATING COORDINATION AND CONSTRUCTION BY THE CONTRACTOR. THE CONTRACTOR SHALL REPORT TO THE ARCHITECT ANY ERRORS, INCONSISTENCIES, OR OMMISSIONS DISCOVERED BY OR MADE KNOWN TO THE CONTRACTOR AS A REQUEST FOR INFORMATION IN SUCH FORM AS THE ARCHITECT MAY REQUIRE. THE CONTRACTOR'S REVIEW IS MADE IN THE CONTRACTOR'S CAPACITY AS A CONTRACTOR AND NOT AS A LICENSED DESIGN PROFESSIONAL.

PROJECT NOTES

PROPOSED ADDITION TO EXISTING RESIDENCE AND NEW ADU/GARAGE

OWNERS

STEVE KAO & HUI HONG
21722 CHINOOK ROAD
WOODWAY, WA 98020

ZONING

R-15

PROPERTY TAX ACCT#

PROPERTY TAX ACCOUNT NUMBER: 294890-0015

LEGAL DESCRIPTION

GROVELAND PARK ADD VAC 3-4 & S 10 FT OF 2 & SH LDS ADJ & VAC ST ADJ IN BLK 22 & VAC N 40 FT OF 16 THRU 22 & VAC S 50 FT OF 9 THRU 15 & VAC ST ADJ IN BLK 2

LOT COVERAGE

TOTAL LOT AREA: 42,797 S.F. NET LOT AREA 39,844 S.F.
LOT COVERAGE:

HOUSE W/ ADDITIONS	5,266 S.F.
DADU	1,108 S.F.
SHED	143 S.F.
STRUCTURAL TOTAL	6,517 S.F.
SPORT COURT	1,950 S.F.
DRIVING SURFACES	6,766 S.F.
TOTAL	15,233 S.F.

HARDSCAPE MAX. ALLOWED 9% OF 42,797 S.F. = 3,852 S.F.

STEPPING STONES & ROCKERIES	976 S.F.

40% ALLOWABLE LOT COVERAGE OR 17,119 S.F

GROSS FLOOR AREA

BASEMENT	640 S.F.
MAIN FLOOR	3,916 S.F.
UPPER FLOOR	1,908 S.F.
DADU	1,952 S.F.
TOTAL	8,416 S.F.
ALLOWABLE GROSS FLOOR AREA	12,000 S.F.

LOT SLOPE CALCULATION

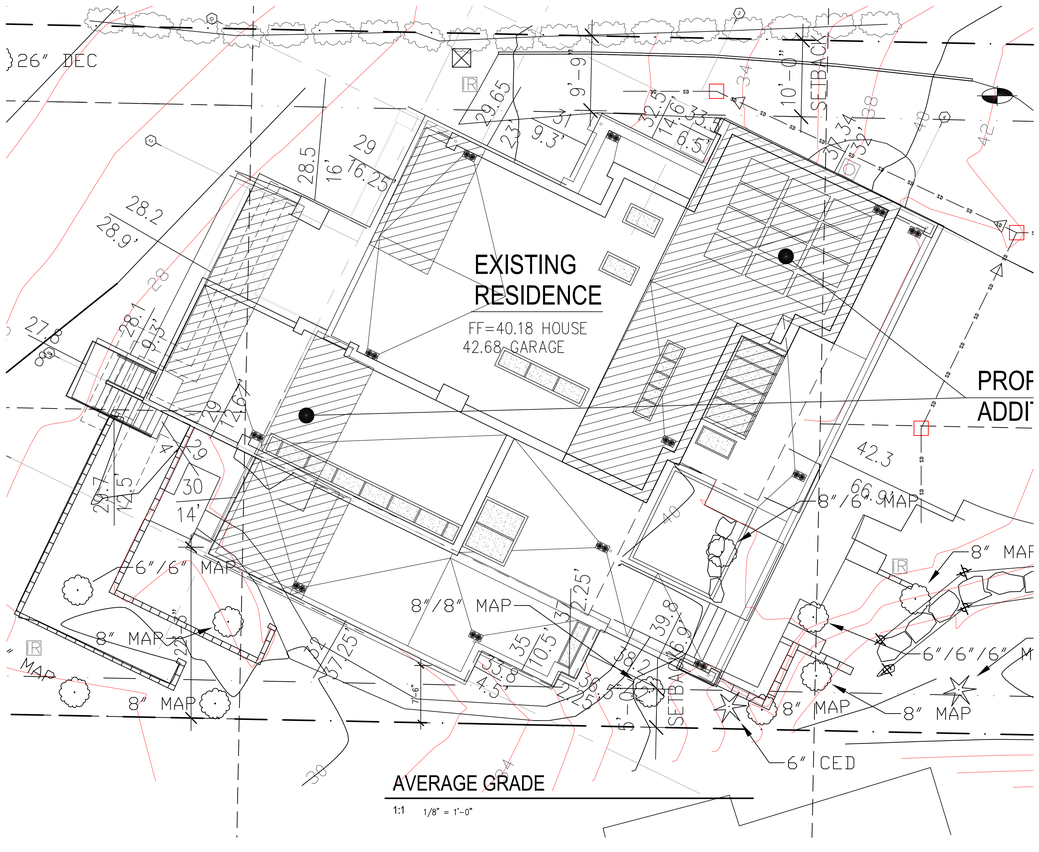
HIGH POINT 80'-LOW POINT 18'=62' DIFFERENCE
62'/438.3' HORIZONTAL DISTANCE*100=12.8% LOT SLOPE

FIRE SPRINKLERS

PROVIDE A NFPA 13D FIRE SPRINKLER SYSTEM THROUGHOUT THE MAIN HOUSE. THIS SYSTEM WILL REQUIRE A SEPARATE FIRE PERMIT.

PROVIDE THE DADU WITH A NFPA 13D MONITORED FIRE ALARM SYSTEM.

SHEET INDEX



length	elevation	axb
32	37.34	1194.88
6.5	33.5	217.75
14.6	32.5	474.5
9.3	31	288.3
23	29.65	681.95
16.25	29	471.25
16	28.5	456
28.9	28.2	814.98
9.3	28.1	261.33
8	27.8	222.4
12.5	29.7	371.25
4	29	116
14	30	420
37.25	32	1192
4.5	33.8	152.1
10.5	35	367.5
2.25	36.5	82.125
2.25	37	83.25
7.2	38.2	275.04
16.9	39.8	672.62
66.9	42.3	2829.87
342.1		11645.1

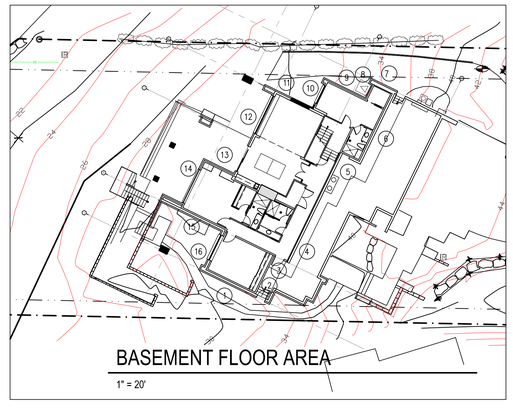
34.04 average grade

DADU AVERAGE GRADE

length	elevation	axb
29.5	59	1740.5
31	60	1860
37	60.1	2223.7
19	59.2	1124.8
8	59.1	472.8
12	59.1	709.2
136.5		8131

59.57 average grade

WALL SEGMENT #	LENGTH	% COVERAGE	SEGMENT LENGTH
1	20	0.27	5.4
2	14	0.27	3.78
3	5	0.44	2.2
4	40	0.44	17.6
5	5	0.44	2.2
6	26	0.53	13.78
7	8	0.53	4.24
8	6	0.53	3.18
9	14	0.35	4.9
10	8	0.18	1.44
11	14	0.18	2.52
12	30	0.05	1.5
13	11	0	0
14	20	0	0
15	16	0.27	4.32
16	14	0.27	3.78
	251		70.84
SEGMENT L/TOTAL L			0.282231076
FLOOR AREA	2266		639.5356175



CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0907
FAX: 425-679-0804

REGISTERED ARCHITECT
STEVEN BUCK
STATE OF WASHINGTON
S388

No.	Date	Revision

HONG AND KAO RESIDENCE

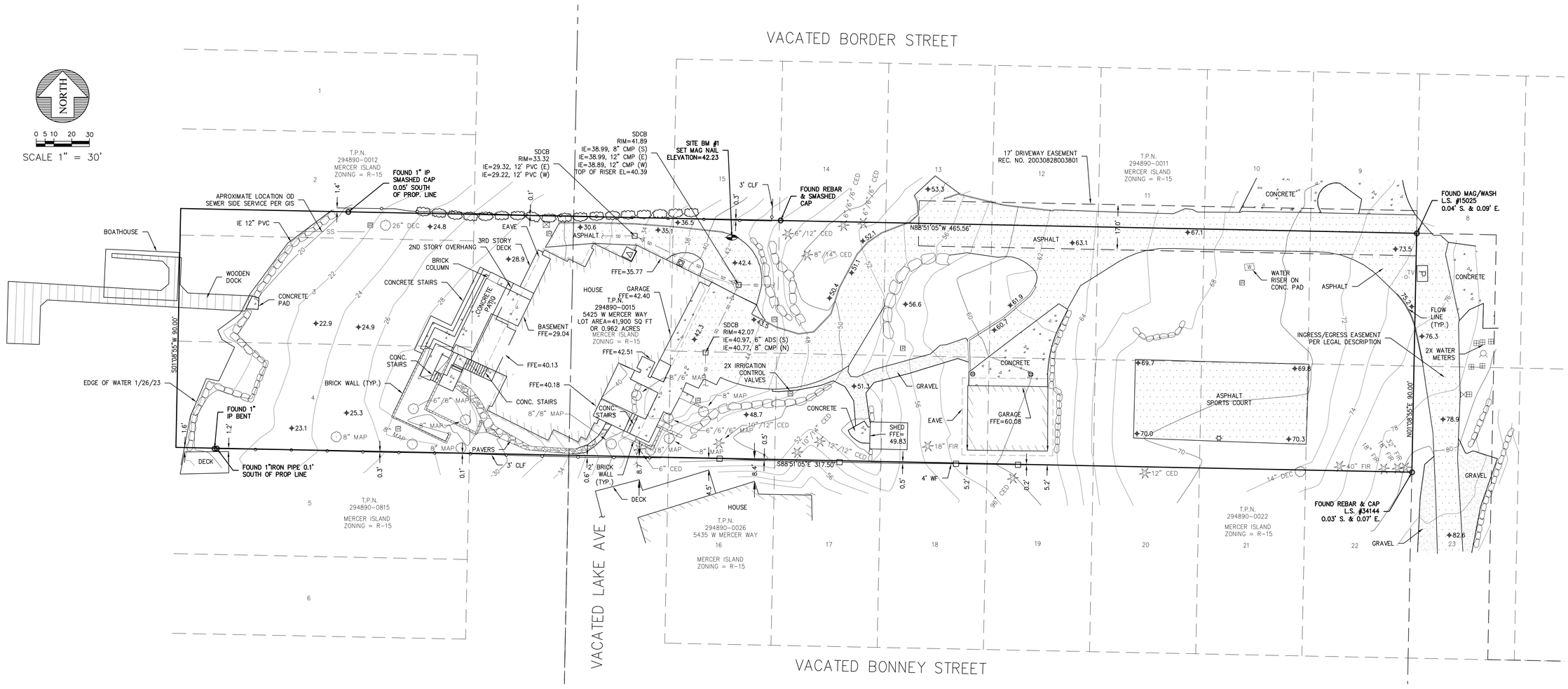
5425 W. MERCER WAY
MERCER ISLAND, WA 98040

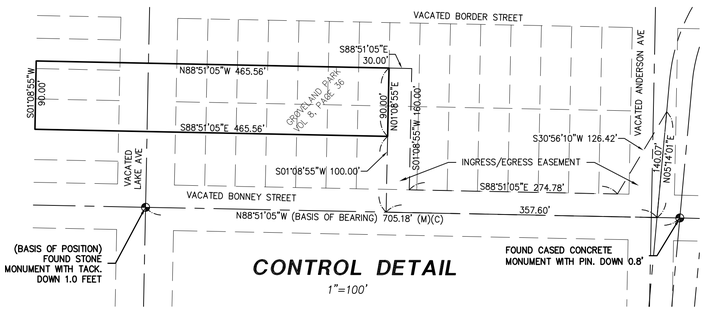
SITE PLAN

Sheet No. 1.0
Project No. 2222
Date: 6/7/23

STEVE KAO & HUI HONG TOPOGRAPHIC SURVEY

A PORTION OF THE SE 1/4 OF THE NE 1/4 OF SEC. 24, TWP 24 N., RGE 4 E., W.M.
KING COUNTY, STATE OF WASHINGTON





LEGEND

	FOUND MONUMENT IN CASE		LIGHT POST
	BENCHMARK	TV	CABLE TV RISER
	SECTION CORNER		ROCKERY
	QUARTER CORNER		GAS METER
(M)	MEASURED	50 50 50	STORM LINE
(C)	CALCULATED		WOOD FENCE (WF)
	WATER VALVE		CHAIN LINK FENCE (CLF)
	FIRE HYDRANT		HEDGE LINE
	WATER METER		EVERGREEN TREE
	IRRIGATION CONTROL VALVE		DECIDUOUS TREE
W	WATER RISER		CONCRETE
	CATCH BASIN		ASPHALT
	AREA DRAIN		GRAVEL
P	POWER VAULT		PAVERS
	GENERATOR		
	JUNCTION BOX		

SURVEY NOTES:

1. HORIZONTAL DATUM: NAD83–2011 EPOCH 2010.00 ESTABLISHED BY OBSERVATIONS TO THE WASHINGTON STATE REFERENCE NETWORK.

2. BASIS OF POSITION: HELD THE FOUND MONUMENTED INTERSECTION OF VACATED BONNEY STREET AND VACATED LAKE AVE. (SEE MAP FOR LOCATION AND DESCRIPTION).

3. BASIS OF BEARING: HELD THE BEARING OF S 88°51'05" E, PER DIRECT INVERSE, BETWEEN THE ABOVE NOTED BASIS OF POSITION AND FOUND MONUMENTED INTERSECTION OF VACATED BONNEY STREET AND WEST MERCER WAY (SEE MAP FOR LOCATION AND DESCRIPTION).

4. THE FOLLOWING INFORMATION WAS REFERENCED IN PREPARING THE BOUNDARY SHOWN HERE ON:

A) GROVELAND PARK, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 8 OF PLATS, PAGE 36, RECORDS OF KING COUNTY, WA.

B) RECORD OF SURVEY AS RECORDED IN VOLUME 23 OF SURVEYS, PAGE 100, RECORDS OF KING COUNTY, WA.

C) RECORD OF SURVEY AS RECORDED IN VOLUME 440 OF SURVEYS, PAGE 145, RECORDS OF KING COUNTY, WA.

D) KING COUNTY ASSESSOR'S MAP FOR THE NORTHEAST QUARTER OF SECTION 24, TOWNSHIP 24N, RANGE 04E, W.M.

5. VERTICAL DATUM: NAVD88 (ESTABLISHED PER WSRN NETWORK OBSERVATION ON SITE BM#1)

SITE BM #1: SET MAG NAIL 0.8 FEET SOUTH OF THE NORTH EDGE OF DRIVE, 3.8 FEET EAST OF THE END OF CURB. ELEVATION =42.23 FEET. (SEE MAP FOR LOCATION)

6. TRAVERSING AND DATA COLLECTION WERE PERFORMED USING A SPECTRA AND/OR TRIMBLE 5 SECOND TOTAL STATION. ALL FIELD WORK WAS PERFORMED, AND EQUIPMENT MAINTAINED, IN COMPLIANCE WITH WAC 332–130.

ADDITIONAL FIELD WORK WAS PERFORMED USING SPECTRA SP–80 GNSS POSITIONING SYSTEMS, THE WASHINGTON STATE REFERENCE NETWORK, AND/OR THE NATIONAL GEODETIC SURVEY'S ONLINE POSITIONING USER SERVICE (OPUS).

7. MONUMENTS SHOWN AS FOUND AND PLANIMETRIC INFORMATION SHOWN HEREON ARE THE RESULT OF A SURVEY BY ENCOMPASS, COMPLETED IN JANUARY 2023.

8. UNDERGROUND UTILITIES SHOWN HEREON ARE PER A COMBINATION OF FIELD LOCATED SURFACE OBSERVABLE FEATURES AND RECORDS OF THE APPLICABLE UTILITIES AND SHOULD BE FIELD VERIFIED PRIOR TO ANY CONSTRUCTION.

9. THE PURPOSE OF THIS EXHIBIT IS TO SHOW THE BOUNDARY AND EXISTING CONDITIONS ON THE SUBJECT PROPERTY.

LEGAL DESCRIPTION

THAT PORTION OF VACATED BLOCKS 2 AND 22 OF GROVELAND PARK, AS PER PLAT RECORDED IN VOLUME 8 OF PLATS, PAGE 36, RECORDS OF KING COUNTY AUDITOR, AND OF VACATED STREETS ADJOINING, DESCRIBED AS FOLLOWS;

BEGINNING AT THE INTERSECTION OF THE CENTER LINES OF VACATED LAKE AVENUE AND VACATED BONNEY STREET AS SHOWN ON SAID PLAT, SAID POINT BEING MARKED BY A CONCRETE POST;
THENCE NORTH ALONG THE CENTER LINE OF SAID VACATED LAKE AVENUE 100 FEET TO THE TRUE POINT OF BEGINNING;
THENCE EAST PARALLEL WITH THE CENTER LINE OF VACATED BONNEY STREET, 317.50 FEET TO THE EAST LINE OF LOT 22 OF SAID BLOCK 2;
THENCE NORTH ALONG SAID EAST LINE AND THE EAST LINE OF LOT 9 OF SAID 2, A DISTANCE OF 90 FEET;
THENCE WEST PARALLEL WITH THE CENTER LINE OF SAID VACATED BONNEY STREET TO THE SHORELINE OF LAKE WASHINGTON;
THENCE SOUTHERLY ALONG SAID SHORELINE 90 FEET, MORE OR LESS, TO AN INTERSECTION WITH THE WESTERLY PRODUCTION OF THE SOUTH LINE OF LOT 4 IN BLOCK 22 OF SAID PLAT;
THENCE EAST ALONG SAID SOUTH LINE AND ITS EASTERLY PRODUCTION THEREOF TO THE TRUE POINT OF BEGINNING;

TOGETHER WITH SECOND CLASS SHORE LANDS, AS CONVEYED BY THE STATE OF WASHINGTON, SITUATE IN FRONT OF, ADJACENT TO OR ABUTTING THEREON;

TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS DESCRIBED AS FOLLOWS:

THE WEST 30 FEET OF LOTS 8 AND 23 OF SAID BLOCK 2 AND THE NORTH 30 FEET OF THAT PORTION OF VACATED BONNEY STREET LYING BETWEEN THE WEST LINE OF SAID LOT 23, BLOCK 2, PRODUCED SOUTH AND THE WESTERLY LINE OF W. MERCER WAY;
AND THAT PORTION OF VACATED ANDERSON AVE. AND SAID BLOCK 2, WITHIN THE FOLLOWING DESCRIBED TRACT:

BEGINNING AT A POINT ON THE SOUTHERLY MARGIN OF THE NORTH 30 FEET OF VACATED BONNEY STREET 70 FEET WEST OF THE WESTERLY MARGIN OF WEST MERCER WAY;
THENCE EAST ALONG SAID SOUTHERLY MARGIN TO THE WESTERLY MARGIN OF WEST MERCER WAY;
THENCE NORTHERLY ALONG THE WEST MARGIN OF WEST MERCER WAY, A DISTANCE OF 110 FEET;
THENCE IN A STRAIGHT LINE TO THE POINT OF BEGINNING;

EXCEPT THAT PORTION OF SAID EASEMENT LYING NORTH OF THE EASTERLY PRODUCTION OF THE NORTH LINE OF THE ABOVE DESCRIBED MAIN TRACT.

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

LEGAL DESCRIPTION AND EASEMENTS SHOWN ARE PER CW TITLE COMMITMENT FOR TITLE INSURANCE NO 50025013–101, DATED 10/07/2022

SPECIAL EXCEPTIONS

4) EASEMENT AND THE TERMS AND CONDITIONS THEREOF:
GRANTEE: MERCER ISLAND SEWER DISTRICT
PURPOSE: SEWER PIPELINE(S)
AREA AFFECTED: A PORTION OF SAID PREMISES
RECORDED ON AUGUST 5, 1964 AS INSTRUMENT #5770410 IN THE OFFICIAL RECORDS
(NOT PLOTTABLE)

(SPECIAL EXCEPTIONS CONTINUED)

6. EASEMENT AND THE TERMS AND CONDITIONS THEREOF:
GRANTEE: WASHINGTON NATURAL GAS COMPANY
PURPOSE: GAS PIPELINE(S)
AREA AFFECTED: A PORTION OF SAID PREMISES
RECORDED ON JUNE 8, 1987 AS INSTRUMENT #8706081010 IN THE OFFICIAL RECORDS
(NOT PLOTTABLE)

8. DRIVEWAY EASEMENT AGREEMENT AND THE TERMS AND CONDITIONS THEREOF:
RECORDED ON AUGUST 28, 2003 AS INSTRUMENT #20030828003801 IN THE OFFICIAL RECORDS
SAID EASEMENT CONTAINS A COVENANT TO BEAR EQUAL SHARE OF COST OF CONSTRUCTION, MAINTENANCE OR REPAIR OF SAME.
(PLOTTED HEREON)

REVISIONS

DESCRIPTION	BY	DATE

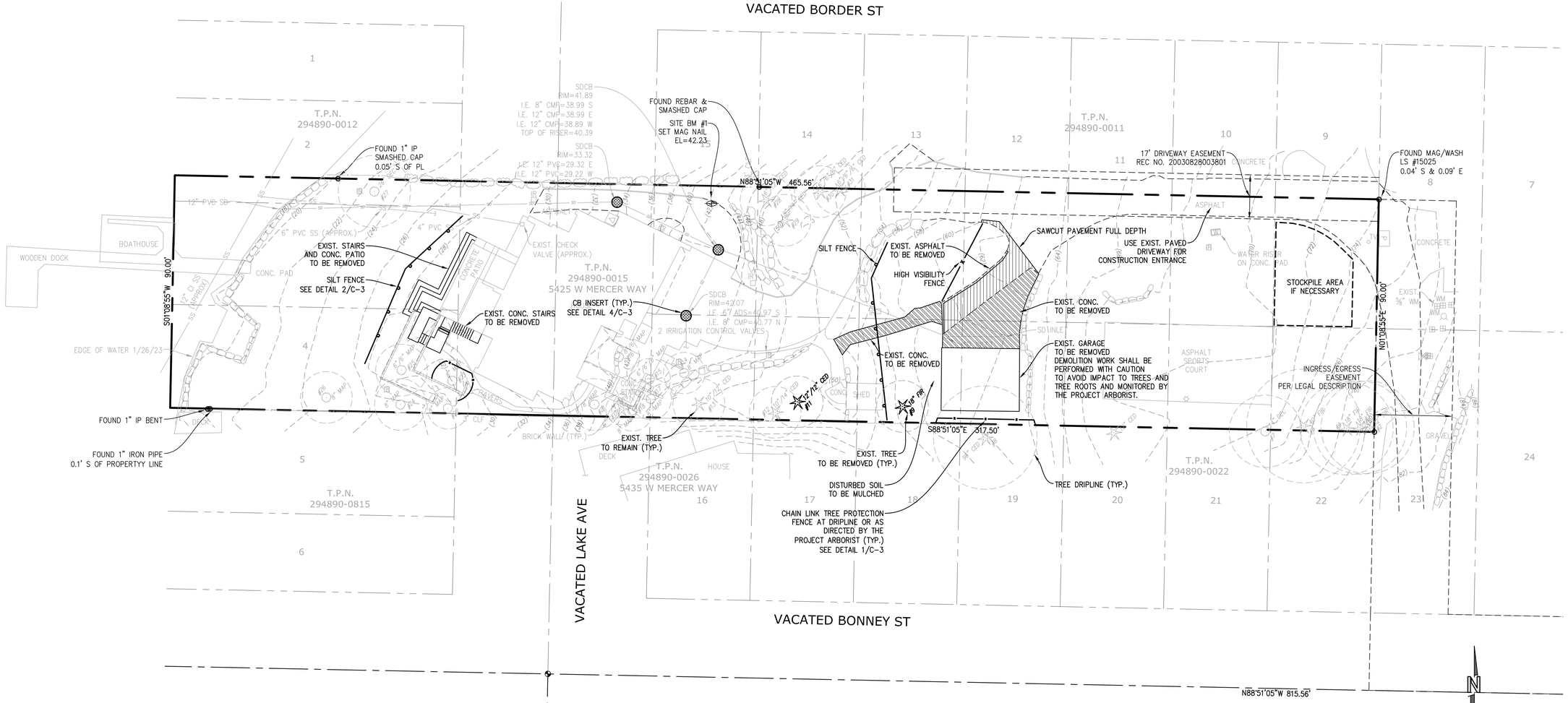
KEVIN M. REUSH — STATE OF WASHINGTON — 49917 — REGISTERED PROFESSIONAL LAND SURVEYOR — 2/7/2023

TOPOGRAPHIC SURVEY FOR STEVE KAO & HUI HONG

Encompass ENGINEERING & SURVEYING
Western Washington Division
165 NE Juniper Street, Suite 201 • Issaquah, WA 98027 • Phone: (425) 392-0250
Eastern Washington Division
407 Swiftwater Blvd. • Cle Elum, WA 98922 • Phone: (509) 674-7433

JOB NO.	22758
DATE	2/7/2023
SCALE	1"=20'
DESIGNED	N/A
DRAWN	LGK
CHECKED	N/A
APPROVED	KMR
SHEET	1 OF 2

A PORTION OF THE SE 1/4 OF THE NE 1/4 OF SEC. 24, TWP 24 N., RGE 4 E., W.M



EROSION AND SEDIMENT CONTROL NOTES

1. APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY A CONTINUOUS LENGTH OF SURVEY TAPE (OR FENCING, IF REQUIRED) PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
4. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
5. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
6. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
7. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
8. ANY AREA NEEDING ESC MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.
9. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY-EIGHT (48) HOURS FOLLOWING A STORM EVENT.
10. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
11. STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
12. ANY PERMANENT FLOW CONTROL FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
13. WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2 TO 3 INCHES.
14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE DDES INSPECTOR. THE DDES INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.

POLLUTION PREVENTION AND SPILL CONTROL

STORAGE AND HANDLING OF LIQUIDS

1. MINIMIZE AMOUNT OF LIQUIDS STORED ON SITE.
2. STORE AND CONTAIN LIQUID MATERIALS IN SUCH A MANNER THAT IF A VESSEL IS RUPTURED OR LEAKS, THE CONTENTS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORM DRAINAGE SYSTEM, SURFACE WATERS, OR GROUNDWATER. TYPICALLY THIS MEANS INSTALLING SECONDARY CONTAINMENT, SUCH AS A LINED EXCAVATION, LARGER CONTAINER, OR USING A DOUBLE-WALLED TANK OR SIMILAR COMMERCIALLY AVAILABLE CONTAINMENT FACILITY.
3. PLACE TIGHT-FITTING LIDS ON ALL CONTAINERS.
4. ENCLOSE OR COVER THE CONTAINERS WHERE THEY ARE STORED TO PROTECT FROM RAIN. THE LOCAL FIRE DISTRICT MUST BE CONSULTED FOR LIMITATIONS ON CLEARANCE OF ROOF COVERS OVER CONTAINERS USED TO STORE FLAMMABLE MATERIALS.
5. RAISE THE CONTAINERS OFF THE GROUND BY USING A SPILL CONTAINMENT PALLET OR SIMILAR METHOD THAT HAS PROVISIONS FOR SPILL CONTROL.
6. PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH ALL MOUNTED CONTAINER TAPS, AND AT ALL POTENTIAL DRIP AND SPILL LOCATIONS DURING FILLING AND UNLOADING OF CONTAINERS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
7. STORE AND MAINTAIN ABSORBENT PADS OR APPROPRIATE SPILL CLEANUP MATERIALS NEAR THE CONTAINER STORAGE AREA, IN A LOCATION KNOWN TO ALL. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH THE SITE'S SPILL PLAN AND/OR PROPER SPILL CLEANUP PROCEDURES.
8. CHECK CONTAINERS (AND ANY CONTAINMENT SUMPS) DAILY FOR LEAKS AND SPILLS. REPLACE CONTAINERS THAT ARE LEAKING, CORRODED, OR OTHERWISE DETERIORATING. IF THE LIQUID CHEMICALS ARE CORROSIVE, CONTAINERS MADE OF COMPATIBLE MATERIALS MUST BE USED INSTEAD OF METAL DRUMS. NEW OR SECONDARY CONTAINERS MUST BE LABELED WITH THE PRODUCT NAME AND HAZARDS.
9. PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH A CONTAINER THAT IS FOUND TO BE LEAKING. REMOVE THE DAMAGED CONTAINER AS SOON AS POSSIBLE. MOP UP THE SPILLED LIQUID WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.

FUELING

1. LOCATE THE FUELING OPERATION TO ENSURE LEAKS OR SPILLS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORM DRAINAGE SYSTEM, SURFACE WATER, OR GROUNDWATER.
2. USE DRIP PANS OR ABSORBENT PADS TO CAPTURE DRIPS OR SPILLS DURING FUELING OPERATIONS.
3. IF FUELING IS DONE DURING EVENING HOURS, LIGHTING MUST BE PROVIDED.
4. STORE AND MAINTAIN APPROPRIATE SPILL CLEANUP MATERIALS IN THE MOBILE FUELING VEHICLE. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH PROPER SPILL CONTROL AND CLEANUP PROCEDURES.
5. IMMEDIATELY MOP UP ANY SPILLED FUEL WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.

CONCRETE SAW CUTTING, SLURRY, AND WASHWATER DISPOSAL

1. SLURRY FROM SAW CUTTING THE SIDEWALK SHALL BE VACUUMED SO THAT IT DOES NOT ENTER NEARBY STORM DRAINS.
2. CONCRETE TRUCK CHUTES, PUMPS, AND INTERNALS SHALL BE WASHED OUT ONLY INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE.
3. UNUSED CONCRETE REMAINING IN THE TRUCK AND PUMP SHALL BE RETURNED TO THE ORIGINATING BATCH PLANT FOR RECYCLING.
4. HAND TOOLS INCLUDING, BUT NOT LIMITED, SCREEDS, SHOVELS, RAKES, FLOATS, AND TROWELS SHALL BE WASHED OFF ONLY INTO FORMED INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE OR IMPERMEABLE ASPHALT.
5. EQUIPMENT THAT CANNOT BE EASILY MOVED, SUCH AS CONCRETE PAVERS, SHALL ONLY BE WASHED IN AREAS THAT DO NOT DIRECTLY DRAIN TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.
6. WASHDOWN FROM AREAS SUCH AS CONCRETE AGGREGATE DRIVEWAY SHALL NOT DRAIN DIRECTLY TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.
7. WHEN NO FORMED AREAS ARE AVAILABLE, WASHWATER AND LEFTOVER PRODUCT SHALL BE CONTAINED IN A LINED CONTAINER. CONTAINED CONCRETE SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS.
8. CONTAINERS SHALL BE CHECKED FOR HOLES IN THE LINER DAILY DURING CONCRETE POURS AND REPLACED THE SAME DAY.

BASIS OF BEARINGS

HELD THE BEARING OF S 88°51'05" E, PER DIRECT INVERSE, BETWEEN THE ABOVE NOTED BASIS OF POSITION AND FOUND MONUMENTED INTERSECTION OF VACATED BONNEY STREET AND WEST MERCER WAY (SEE MAP FOR LOCATION AND DESCRIPTION).

HORIZONTAL DATUM

NAD83-2011 EPOCH 2010.00 ESTABLISHED BY OBSERVATIONS TO THE WASHINGTON STATE REFERENCE NETWORK.

VERTICAL DATUM

NAVD88 (ESTABLISHED PER WSRN NETWORK OBSERVATION ON SITE BM#1)

LEGAL DESCRIPTION

THAT PORTION OF VACATED BLOCKS 2 AND 22 OF GROVELAND PARK, AS PER PLAT RECORDED IN VOLUME 8 OF PLATS, PAGE 36, RECORDS OF KING COUNTY AUDITOR, AND OF VACATED STREETS ADJOINING, DESCRIBED AS FOLLOWS;
BEGINNING AT THE INTERSECTION OF THE CENTER LINES OF VACATED LAKE AVENUE AND VACATED BONNEY STREET AS SHOWN ON SAID PLAT, SAID POINT BEING MARKED BY A CONCRETE POST;
THENCE NORTH ALONG THE CENTER LINE OF SAID VACATED LAKE AVENUE 100 FEET TO THE TRUE POINT OF BEGINNING;
THENCE EAST PARALLEL WITH THE CENTER LINE OF VACATED BONNEY STREET, 317.50 FEET TO THE EAST LINE OF LOT 22 OF SAID BLOCK 2;
THENCE NORTH ALONG SAID EAST LINE AND THE EAST LINE OF LOT 9 OF SAID 2, A DISTANCE OF 90 FEET;
THENCE WEST PARALLEL WITH THE CENTER LINE OF SAID VACATED BONNEY STREET TO THE SHORELINE OF LAKE WASHINGTON;
THENCE SOUTHERLY ALONG SAID SHORELINE 90 FEET, MORE OR LESS, TO AN INTERSECTION WITH THE WESTERLY PRODUCTION OF THE SOUTH LINE OF LOT 4 IN BLOCK 22 OF SAID PLAT;
THENCE EAST ALONG SAID SOUTH LINE AND ITS EASTERLY PRODUCTION THEREOF TO THE TRUE POINT OF BEGINNING;
TOGETHER WITH SECOND CLASS SHORE LANDS, AS CONVEYED BY THE STATE OF WASHINGTON, SITUATE IN FRONT OF, ADJACENT TO OR ABUTTING THEREON;
TOGETHER WITH AN EASEMENT FOR INGRESS AND EGRESS DESCRIBED AS FOLLOWS:
THE WEST 30 FEET OF LOTS 8 AND 23 OF SAID BLOCK 2 AND THE NORTH 30 FEET OF THAT PORTION OF VACATED BONNEY STREET LYING BETWEEN THE WEST LINE OF SAID LOT 23, BLOCK 2, PRODUCED SOUTH AND THE WESTERLY LINE OF W. MERCER WAY;
AND THAT PORTION OF VACATED ANDERSON AVE. AND SAID BLOCK 2, WITHIN THE FOLLOWING DESCRIBED TRACT:
BEGINNING AT A POINT ON THE SOUTHERLY MARGIN OF THE NORTH 30 FEET OF VACATED BONNEY STREET 70 FEET WEST OF THE WESTERLY MARGIN OF WEST MERCER WAY;
THENCE EAST ALONG SAID SOUTHERLY MARGIN TO THE WESTERLY MARGIN OF WEST MERCER WAY;
THENCE NORTHERLY ALONG THE WEST MARGIN OF WEST MERCER WAY, A DISTANCE OF 110 FEET;
THENCE IN A STRAIGHT LINE TO THE POINT OF BEGINNING;
EXCEPT THAT PORTION OF SAID EASEMENT LYING NORTH OF THE EASTERLY PRODUCTION OF THE NORTH LINE OF THE ABOVE DESCRIBED MAIN TRACT.
SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

CALL 48 HOURS BEFORE YOU DIG 1-800-424-5555

Nick Bossoff Engineering, Inc.
191 NE Tarl Lane
Stevenson, WA 98648-4201
Phone: (425) 881-5904

STATE OF WASHINGTON NICHOLAS E. BOSSOFF 29631 REGISTERED PROFESSIONAL ENGINEER
EXPIRES 7/2/23

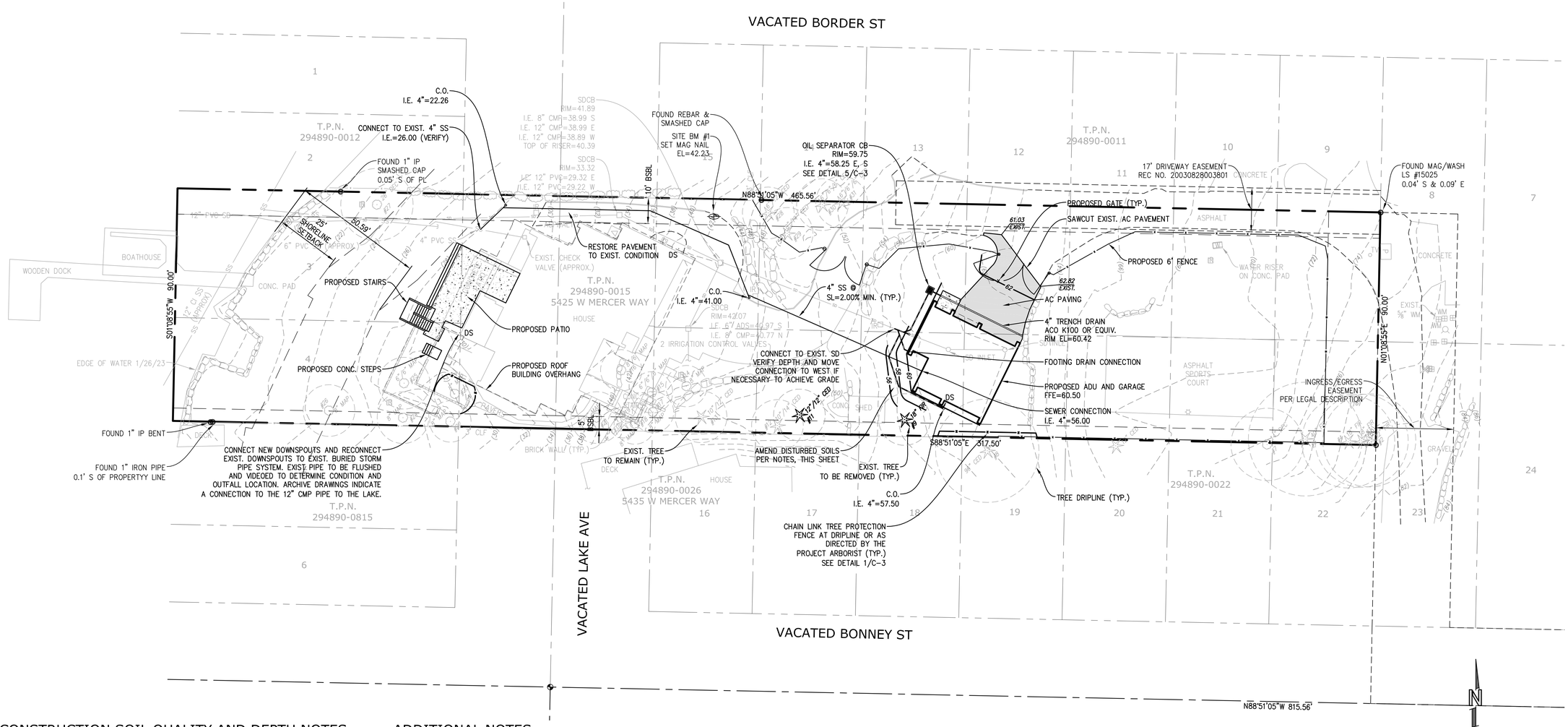
NO.	DATE	REVISION
	05/07/23	PERMIT SUBMITTAL

PROJECT MANAGER: N. BOSSOFF, P.E.
DESIGNED: NB
DRAWN: TKB
JOB NUMBER: CBAP-2301
FILE NAME: CBAP-2301pln.dwg

HONG AND KAO RESIDENCE
5425 W MERCER WAY
MERCER ISLAND WASHINGTON

TITLE: CSWPP PLAN

SHEET: C-1



POST-CONSTRUCTION SOIL QUALITY AND DEPTH NOTES

THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT GEOTECHNICAL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.

A. SOIL RETENTION. RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.

B. SOIL QUALITY. ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:
   1. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL. THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
   2. MULCH PLANTING BEDS WITH 2 INCHES OF ORGANIC MATERIAL.
   3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
      A. THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE DEFINITION OF "COMPOSTED MATERIALS" IN WAC 173-350-220, WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
      B. CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173- 350-220. THE RESULTING SOIL SHOULD BE CONDUCIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.

C. IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:
   1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
   2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PREAPPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
   3. STOCKPILE EXISTING TOPSOIL DURING GRADING AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
   4. IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS. MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

ADDITIONAL NOTES:

1. ALL CONSTRUCTION MATERIALS AND PRACTICE SHALL CONFORM TO THE CITY OF MERCER ISLAND STANDARDS AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARDS.
2. EXISTING UTILITIES AS SHOWN ARE FROM CITY RECORDS AND ARE APPROXIMATE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO IDENTIFY, LOCATE AND PROTECT ABOVE AND BELOW GRADE UTILITIES. CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION IF A CONFLICT EXISTS BETWEEN EXISTING UTILITIES AND THE PROPOSED IMPROVEMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL AND SHALL MAINTAIN THE NECESSARY SAFEGUARDS AND MANAGE THE CONSTRUCTION SO AS TO PREVENT WATERBORNE SEDIMENTS FROM LEAVING THE SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR.
5. ON-SITE PRIVATE STORM AND SEWER PIPE SHALL BE SOLVENT WELDED SCHEDULE 40 PVC OR PVC ASTM D3034 SDR35 UNLESS SHOWN OTHERWISE. PVC PIPE LAID AT A SLOPE IN EXCESS OF 20% SHALL BE SOLVENT WELDED SCHEDULE 40 PVC. STORM PIPE IN THE RIGHT-OF-WAY SHALL BE HIGH-DENSITY POLYETHYLENE DOUBLE-WALLED SMOOTH INTERIOR PIPE SUCH AS ADS N-12 OR EQUIVALENT.
6. FOOTING DRAINS SHALL BE INSTALLED AROUND THE BASE OF ALL FOUNDATION FOOTINGS THAT ENCLOSE A CRAWL SPACE, CELLAR, BASEMENT, GARAGE OR OTHER BUILDING SPACE. FOOTING DRAINS SHALL BE PERFORATED 4-INCH DIAMETER PVC CONFORMING TO D2729, PERFORATIONS DOWN. GRANULAR BACKFILL SHALL BE PLACED AROUND AND ABOVE THE DRAIN TO A DEPTH OF 2/3 OF THE WALL HEIGHT. FILTER FABRIC (MIRAFI 140N OR EQUIVALENT) SHALL BE PLACED BETWEEN THE GRANULAR BACKFILL AND NATIVE SOILS. TIE THE FOOTING DRAIN INTO THE STORM LINE AT A LOCATION WHERE THE FOOTING DRAIN ELEVATION IS AT LEAST 12-INCHES ABOVE THE STORM LINE.
7. EXISTING SIDE SEWER AND STORM DRAIN DEPTH AND LOCATION SHALL BE DETERMINED PRIOR TO ANY CONSTRUCTION, INCLUDING BUILDING CONSTRUCTION. REPORT CONFLICTS WITH PROPOSED CONSTRUCTION TO ENGINEER. NEW SIDE SEWER CONNECTION TO MAIN OR SEWER EJECTOR PUMP MAY BE NECESSARY FOR BASEMENT.
8. PROPOSED METER LOCATION, IF SHOWN, IS APPROXIMATE. CONTRACTOR TO COORDINATE EXACT LOCATION OF NEW SERVICE/METER/ SUPPLY LINE WITH CITY WATER DEPARTMENT DURING CONSTRUCTION. SERVICE SIZE IS PRELIMINARY, VERIFY WITH PLUMBING AND SPRINKLER DESIGNER.
9. EACH DOWNSPOUT SHALL CONNECT TO A RIGID NON-PERFORATED PIPE AT THE BUILDING PERIMETER. UNDER NO CIRCUMSTANCES SHALL DOWNSPOUTS CONNECT DIRECTLY TO THE PERFORATED FOOTING DRAIN.
10. USE SAND COLLARS FOR PVC PIPE CONNECTIONS TO MANHOLES.
11. VERTICAL BENDS ON THE STORM DRAINS MAY BE NECESSARY TO MAINTAIN MIN. 1.5' SOIL COVER OVER PIPE. MAX. PIPE BENDS TO BE 45°.
12. DOWNSPOUT LOCATIONS SHOWN ARE PRELIMINARY. REFER TO ARCHITECTURAL PLANS FOR FINAL DOWNSPOUT LOCATIONS. EXISTING DOWNSPOUTS AND COLLECTOR PIPES SHALL BE PRESERVED AND NOT DISCONNECTED FROM THE SYSTEM. CONNECT EXISTING DOWNSPOUTS TO NEW STORM SYSTEM AS NECESSARY.
13. AN UNDERSLAB DRAINAGE SYSTEM MAY BE NECESSARY DEPENDENT ON GEOTECHNICAL EVALUATION BY OTHERS.
14. WINDOW WELLS SHALL BE DESIGNED FOR PROPER DRAINAGE BY CONNECTING TO THE BUILDING'S FOUNDATION DRAINAGE SYSTEM REQUIRED PER SECTION R310.2.3.2 OF THE INTERNATIONAL RESIDENTIAL CODE. A DRAINAGE SYSTEM FOR WINDOW WELLS IS NOT REQUIRED WHERE THE FOUNDATION IS ON WELL-DRAINED SOIL OR SAND-GRAVEL MIXTURE SOILS IN ACCORDANCE WITH THE UNITED SOIL CLASSIFICATION SYSTEM, GROUP I SOILS, AS DETAILED IN TABLE R405.1 OF THE IRC.

N3L
Nick Bossoff Engineering, Inc.
191 NE Tarl Lane
Stevenson, WA 98648-4201
Phone: (425) 881-5904

BOSSOFF NICHOLAS WASHINGTON 28631 REGISTERED PROFESSIONAL ENGINEER
EXPIRES 7/2/23

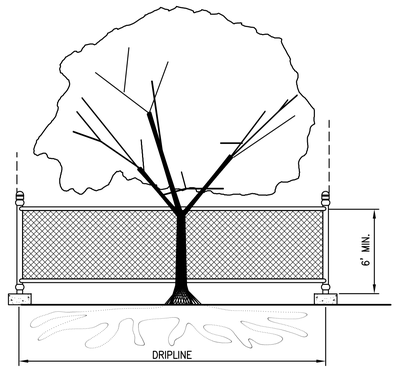
NO.	DATE	REVISION
	05/07/23	PERMIT SUBMITTAL

N. BOSSOFF, P.E.
PROJECT MANAGER:
NB
DESIGNED:
TKB
DRAWN:
CBAP-2301
JOB NUMBER:
CBAP-2301pln.dwg
FILE NAME:

HONG AND KAO RESIDENCE
5425 W MERCER WAY
MERCER ISLAND WASHINGTON

TITLE:
DRAINAGE PLAN

SHEET:
C-2

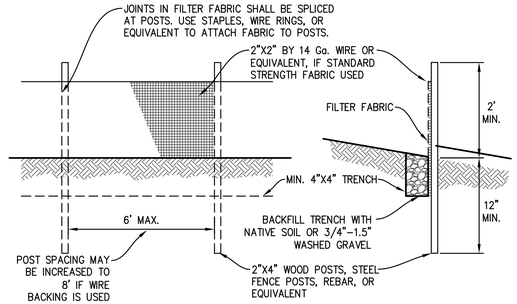


TREE PROTECTION DURING CONSTRUCTION

1. 6-FT. HIGH TEMPORARY CHAIN LINK FENCE SHALL BE PLACED AT THE DRIPLINE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE THE TREE(S). INSTALL FENCE POSTS USING PIER BLOCKS ONLY. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.
2. FOR ROOTS OVER 1-IN DIA. THAT ARE DAMAGED DURING CONSTRUCTION, MAKE A CLEAN, STRAIGHT CUT TO REMOVE THE DAMAGED PORTION. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH DAMP BURLAP TO PREVENT DRYING, AND SHALL BE COVERED WITH SOIL AS SOON AS POSSIBLE.
3. WORK WITHIN PROTECTION FENCE SHALL BE DONE MANUALLY. NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT OR MACHINERY SHALL BE ALLOWED WITHIN THE LIMIT OF THE FENCING.

TREE PROTECTION 1

SCALE: NTS



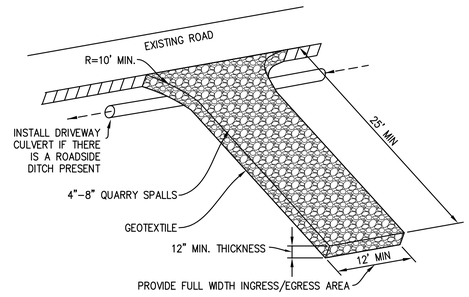
NOTE: FILTER FABRIC FENCE SHALL BE INSTALLED ALONG CONTOUR WHENEVER POSSIBLE.

MAINTENANCE STANDARDS

1. ANY DAMAGE SHALL BE REPAIRED IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.
3. IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGN OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCUR, REPLACE THE FENCE AND/OR REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT IS 6" HIGH.
5. IF THE FILTER FABRIC HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.

SILT FENCE 2

SCALE: NTS

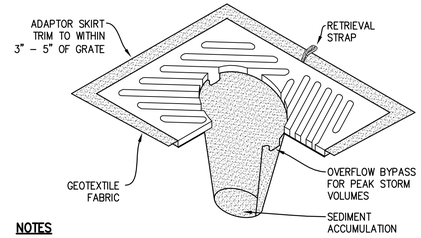


MAINTENANCE STANDARDS

1. QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
2. IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK, AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
3. ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON-SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREET, THE CONSTRUCTION OF A SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP.
4. ANY ROCK SPALLS THAT ARE LOOSENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
5. IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTRANCE(S), FENCING (SECTION 5.4.1) SHALL BE INSTALLED TO CONTROL TRAFFIC.

ROCK CONSTRUCTION ENTRANCE 3

SCALE: NTS



NOTES

1. INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
2. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH BASIN.

CB INSERT 4

SCALE: NTS

OIL SEPARATOR CB 5

SCALE: NTS

Nick Bossoff Engineering, Inc.
191 NE Tari Lane
Stevenson, WA 98648-4201
Phone: (425) 881-5904

EXPIRES 7/2/23

NO.	DATE	REVISION
	05/07/23	PERMIT SUBMITTAL

N. BOSSOFF, P.E.
PROJECT MANAGER:
NB
DESIGNED:
TKB
DRAWN:
CBAP-2301
JOB NUMBER:
CBAP-2301pln.dwg
FILE NAME:

HONG AND KAO RESIDENCE
5425 W MERCER WAY
MERCER ISLAND WASHINGTON

TITLE:
DETAILS

SHEET:
C-3

GLAZING:

TO BE IN COMPLIANCE WITH IRC SEC. R308, AND WASHINGTON STATE SAFETY GLASS LAW, EXCEPTIONS ARE AS OUTLINED IN IRC SEC R308.4.

GLAZING IN HAZARDOUS LOCATIONS SUBJECT TO HUMAN IMPACT SHALL BE SAFETY OR TEMPERED GLASS.

HAZARDOUS LOCATIONS ARE:

GLAZING IN SWINGING DOORS EXCEPT JALOUSIES

GLAZING IN FIXED AND SLIDING PANELS OF SLIDING DOOR ASSEMBLIES AND PANELS IN SWINGING DOORS OTHER THAN WARDROBE DOORS.

GLAZING IN STORM DOORS

GLAZING IN ALL UNFRAMED SWINGING DOORS

GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, AND SHOWERS. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A STANDING SURFACE AND DRAIN INLET.

GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24 INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE WALKING SURFACE.

GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL, OTHER THAN THOSE ABOVE, THAT MEETS ALL OF THE FOLLOWING CONDITIONS:

1. EXPOSED AREA ON AN INDIVIDUAL PANE GREATER THAN 9 SQURE FEET
2. EXPOSED BOTTOM EDGE LESS THAN 18 INCHES ABOVE THE FLOOR
3. EXPOSED TOP EDGE GREATER THAN 36 INCHES ABOVE THE FLOOR
4. ONE OR MORE WALKING SURFACES WITHIN 36 INCHES HORIZONTALLY OF THE PLANE OF THE THE GLAZING

GLAZING IN RAILINGS REGARDLESS OF HEIGHT.

GLAZING IN WARDROBE DOORS SHALL MEET THE IMPACT TEST REQUIREMENTS FOR SAFETY GLAZING AS SET FORTH IN UBC STANDARD NO. 24-2, PART II.

GLAZING IN WALLS AND FENCES USED AS THE BARRIER FOR INDOOR AND OURDOOR SWIMMING POOLS AND SPAS WHEN ALL OF THE FOLLOWING CONDITIONS ARE PRESENT:

THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A WALKING SURFACE

THE GLAZING IS WITHIN 5 FEET OF A SWIMMING POOL OR SPA WATER'S EDGE

GLAZING ADJACENT TO STARWAYS, LANDINGS AND RAMPS WITHIN 36" HORIZONTALLY OF A WALKING SURFACE WHEN THE EXPOSED SURFACE OF THE GLASS IS LESS THAN 60" ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE.

GLAZING ADJACENT TO STAIRWAYS, WITHIN 60" HORIZONTALLY OF THE BOTTOM TREAD OF A STAIRWAY IN ANY DIRECTION WHEN THE EXPOSED SURFACE OF THE GLASS IS LESS THAN 60" ABOVE THE NOSE OF THE TREAD.

EGRESS IN EVERY SLEEPING ROOM SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. THE MINIMUM NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24" MINIMUM NET CLEAR OPENING WIDTH DIMENSION OF 20" AND A FINISHED SILL HEIGHT NOT MORE THAN 44" ABOVE THE FLOOR. IRC SEC. R310.1

ENERGY:

ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE UNIFORM BUILDING CODE AND THE WASHINGTON STATE ENERGY CODE, LATEST EDITION. VERIFY ALL CONDITIONS BEFORE PROCEEDING WITH WORK.

APPLICATION AND INSTALLATIONS OF INSULATION AND VAPOR BARRIERS SHALL COMPLY WITH STATE OF WASHINGTON THERMAL INSULATION STANDARDS (H.B. 98).

WALLS: INSULATED WITH R-21 BATT

ROOF AND CEILING: INSULATED WITH R-49 BATT IN ATTICS. PROVIDE INSULATION IN CEILING WHERE POSSIBLE AND IN 2X12 RAFTERS R-38 IF VAULTED CEILING CONDITION EXISTS. MAINTAIN A MINIMUM OF 2" CLEAR BETWEEN TOP OF INSULATION AND BOTTOM OF SHEATHING FOR VENTING. VENTING MUST OCCUR IN EACH JOIST SPACE. WHERE CONTINUOUS VENTING WITHIN A JOIST SPACE IS INTERRUPTED BY A HEADER (I.E., SKYLIGHT OR AT HIP END), PROVIDE (2) 1 1/2" VENTING HOLES AT THE TOP OF THE RAFTER AT THE HEADER TO ALLOW FOR CONTINUAL THROUGH-VENTING INTO THE NEXT JOIST SPACE.

FLOORS: PROVIDE R-30 BATT INSULATION OVER UNHEATED SPACE (UNLESS NOTED OTHERWISE).

SLAB ON GRADE: PROVIDE EXTRUDED RIGID CLOSED CELL INSULATION R-10. INSULATION TO PROVIDE THERMAL BREAK BETWEEN SLAB AND FOOTING AND RUN FROM THE TOP OF THE SLAB TO THE BOTTOM OF THE FOOTING. INSULATION MAY BE INTERRUPTED FOR 6" EVERY 2'-0" TO ALLOW FOR DOWELING TO TIE SLAB AND FOOTING TOGETHER.

VAPOR BARRIERS: AN APPROVED VAPOR BARRIER SHALL BE INSTALLED AT EXTERIOR WALLS AND AT ALL ROOF DECKS, BELOW ENCLOSED JOIST SPACES WHERE CEILING FINISHES ARE DIRECTLY INSTALLED TO JOISTS, AND ANY OTHER WALL OR CEILING SURFACES WHICH RECEIVE INSULATION. THIS VAPOR BARRIER MAY BE A COMPONENT OF THE INSULATION MATERIAL. APPLICATION AND INSTALLATIONS OF INSULATION AND VAPOR BARRIERS SHALL COMPLY WITH STATE OF WASHINGTON THERMAL INSULATION STANDARDS (H.B. 96).

SECTION R406 ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS

R406.3 MEDIUM DWELLING UNIT ..... 6.0 CREDITS REQUIRED

FUEL NORMALIZATION CREDITS
SYSTEM TYPE 2 LISTED HEAT PUMP..... 1.0 CREDITS

2. AIR LEAKAGE CONTROL
2.3 REDUCE AIR LEAKAGE TO 1.5 AIR CHANGES..... 1.5 CREDITS

3. HIGH EFFICIENCY HVAC EQUIPMENT
3.5 AIR SOURCE DUCTED HEAT PUMP MIN. HSPF 11.0..... 1.5 CREDITS

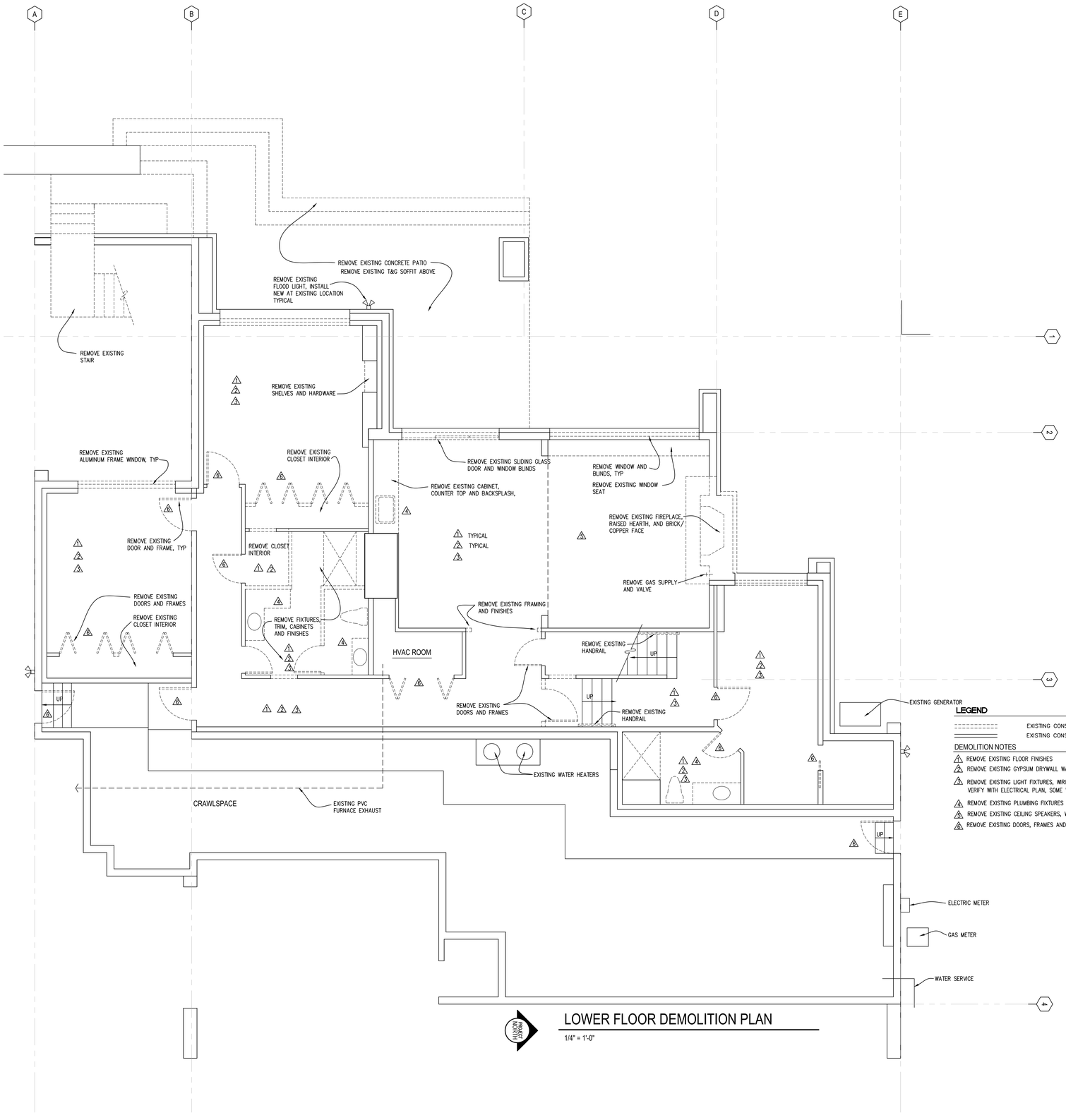
5. EFFICIENT WATER HEATING
5.3 ENERGY STAR UEF 0.91 WATER HEATER ..... 1.0 CREDITS

6. RENEWABLE ELECTRIC ENERGY OPTION
6.1 1200 KWH PHOTO VOLTAIC SYSTEM ..... 1.0 CREDITS

TOTAL PROVIDED..... 6.0 CREDITS

WHOLE HOUSE VENTILATION

INTEGRATE WHOLE HOUSE VENTILATION WITH AIR HANDLER FANS THAT ARE VARIABLE SPEED WITH LOW SPEED OPERATION NOT GREATER THAN 25% OF RATED SUPPLY AIRFLOW. OUTDOOR AIR INTAKE OPENINGS MUST MEET THE PROVISIONS OF R303.5 AND R303.6 AND MUST INCLUDE MOTORIZED DAMPERS ACTIVATED BY THE WHOLE HOUSE VENTILATION CONTROLLER. TEST AND VERIFY THAT OUTDOOR AIR INTAKE AT MINIMUM VENTILATION FAN SPEED AND MAXIMUM HEATING OR COOLING FAN SPEED.



LOWER FLOOR DEMOLITION PLAN

1/4" = 1'-0"

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
FAX: 425-679-0804
PHONE: 425-679-0907

REGISTERED ARCHITECT
S388
CHRISTOPHER BUCK
STATE OF WASHINGTON

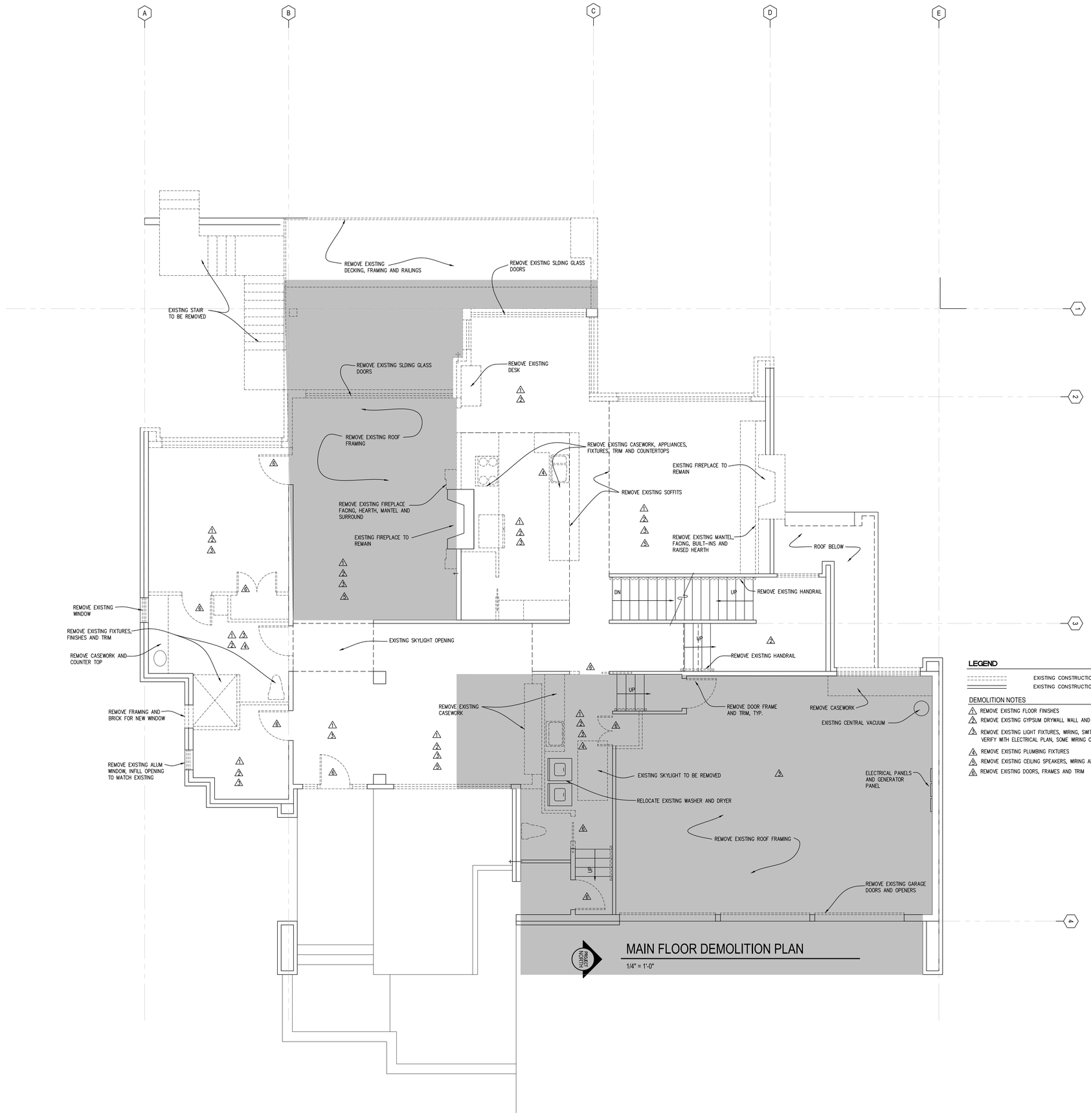
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

DEMOLITION PLAN

Sheet No. 2.0
Project No. 2222
Date: 6/7/23



MAIN FLOOR DEMOLITION PLAN

1/4" = 1'-0"

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0804
FAX: 425-679-0907

REGISTERED ARCHITECT
S388 CHRISTOPHER BUCK
STATE OF WASHINGTON

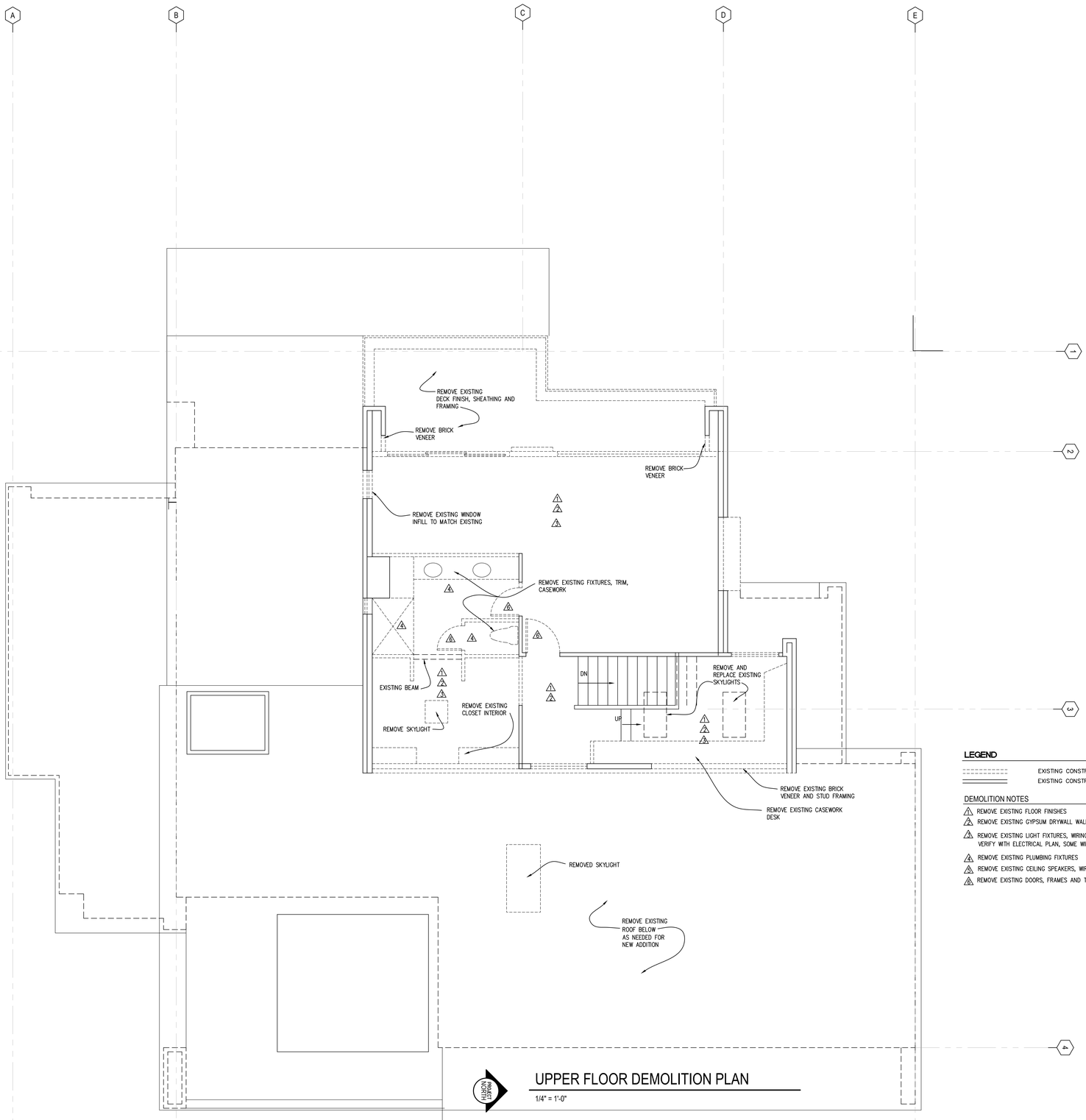
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

DEMOLITION PLAN

Sheet No.	2.1
Project No.	2222
Date:	6/7/23



UPPER FLOOR DEMOLITION PLAN

1/4" = 1'-0"

LEGEND

- EXISTING CONSTRUCTION TO BE REMOVED
- EXISTING CONSTRUCTION

DEMOLITION NOTES

1. REMOVE EXISTING FLOOR FINISHES
2. REMOVE EXISTING GYPSUM DRYWALL WALL AND CEILING FINISHES
3. REMOVE EXISTING LIGHT FIXTURES, WIRING, SWITCHES AND DEVICES VERIFY WITH ELECTRICAL PLAN, SOME WIRING CAN REMAIN
4. REMOVE EXISTING PLUMBING FIXTURES
5. REMOVE EXISTING CEILING SPEAKERS, WIRING AND DEVICES
6. REMOVE EXISTING DOORS, FRAMES AND TRIM

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0907
FAX: 425-679-0907

REGISTERED ARCHITECT
S380 Diane Buck
DIANE L. BUCK
STATE OF WASHINGTON

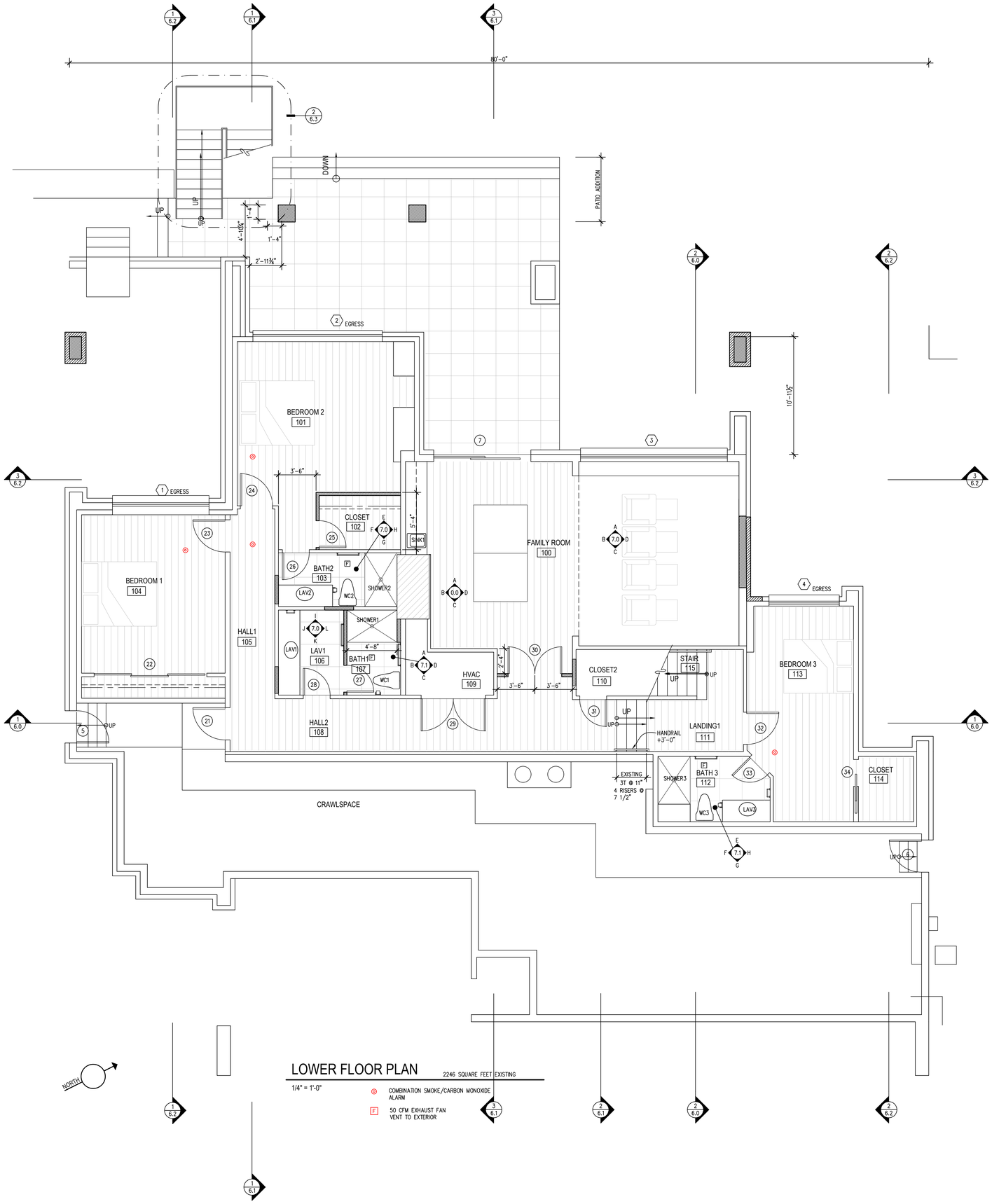
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

DEMOLITION PLAN

Sheet No. 2.2
Project No. 2222
Date: 6/7/23



Xref C:\Users\Eric\Desktop\X-GRID.dwg

LOWER FLOOR PLAN

2246 SQUARE FEET EXISTING

1/4" = 1'-0"

◎ COMBINATION SMOKE/CARBON MONOXIDE ALARM

F 50 CFM EXHAUST FAN VENT TO EXTERIOR

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0907
FAX: 425-679-0907

S380 REGISTERED ARCHITECT CHRISTOPHER BUCK STATE OF WASHINGTON

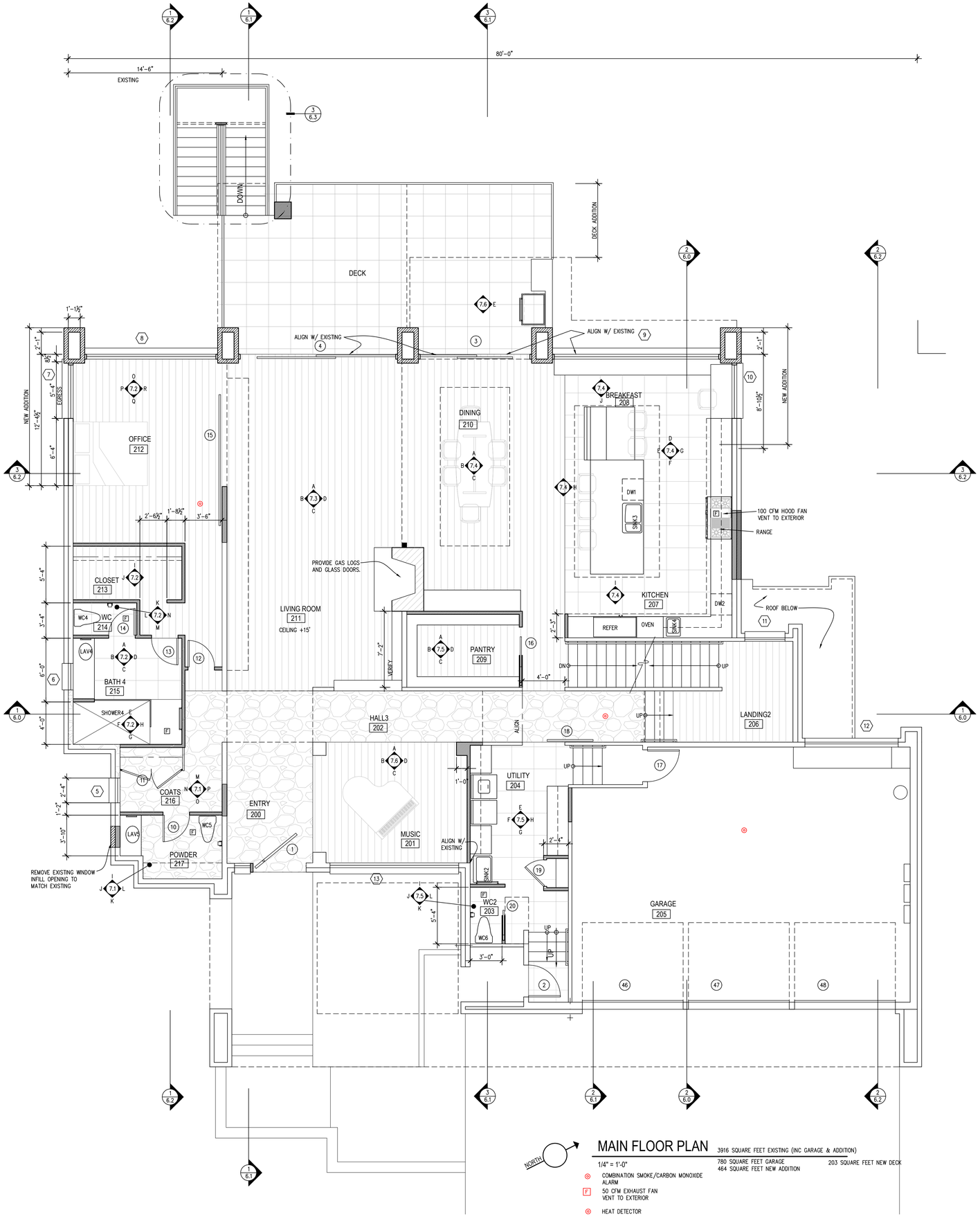
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

LOWER FLOOR

Sheet No. 3.0
Project No. 2222
Date: 6/7/23



NORTH

MAIN FLOOR PLAN

3916 SQUARE FEET EXISTING (INC GARAGE & ADDITION)
780 SQUARE FEET GARAGE
464 SQUARE FEET NEW ADDITION
203 SQUARE FEET NEW DECK

1/4" = 1'-0"

◎ COMBINATION SMOKE/CARBON MONOXIDE ALARM
[F] 50 CFM EXHAUST FAN VENT TO EXTERIOR
◎ HEAT DETECTOR

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0907
FAX: 425-679-0904

S380 REGISTERED ARCHITECT CHRISTOPHER BUCK STATE OF WASHINGTON

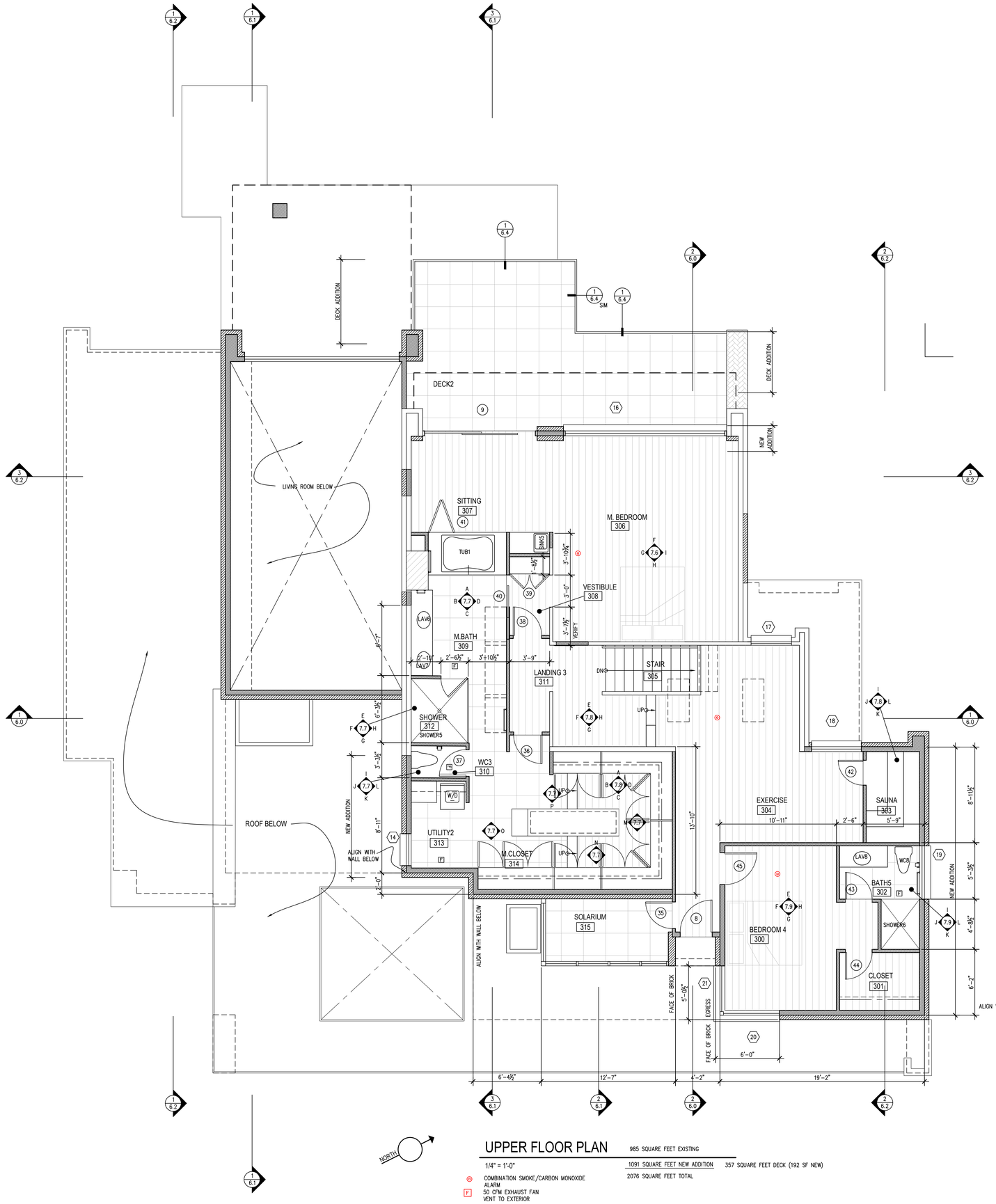
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

MAIN FLOOR

Sheet No. 3.1
Project No. 2222
Date: 6/7/23



Xref C:\Users\Eric\Desktop\X-GRID.dwg

NORTH

UPPER FLOOR PLAN

985 SQUARE FEET EXISTING

1/4" = 1'-0"

1091 SQUARE FEET NEW ADDITION

357 SQUARE FEET DECK (192 SF NEW)

2076 SQUARE FEET TOTAL

◎ COMBINATION SMOKE/CARBON MONOXIDE ALARM

F 50 CFM EXHAUST FAN VENT TO EXTERIOR

CHESMORE|BUCK architecture

27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004

PHONE: 425-679-0907
FAX: 425-679-0804

REGISTERED ARCHITECT
S380 CHRISTOPHER BUCK
STATE OF WASHINGTON

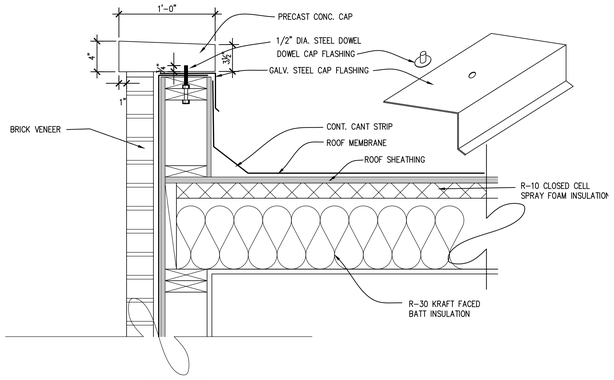
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

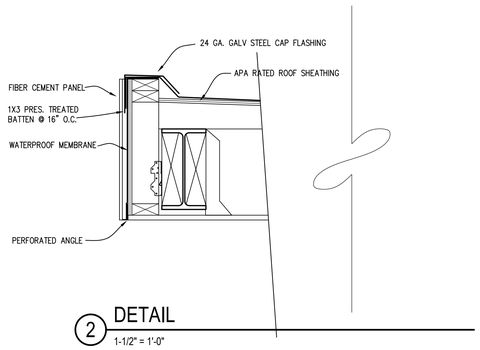
UPPER FLOOR

Sheet No. 3.2
Project No. 2222
Date: 6/7/23



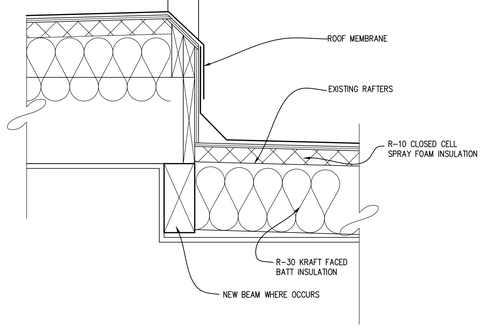
1 DETAIL

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



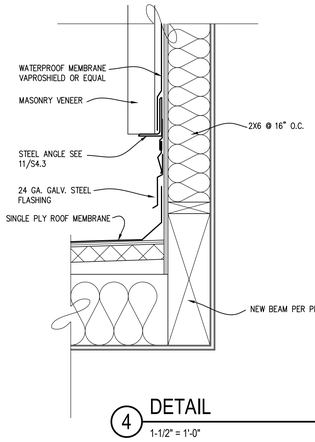
2 DETAIL

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



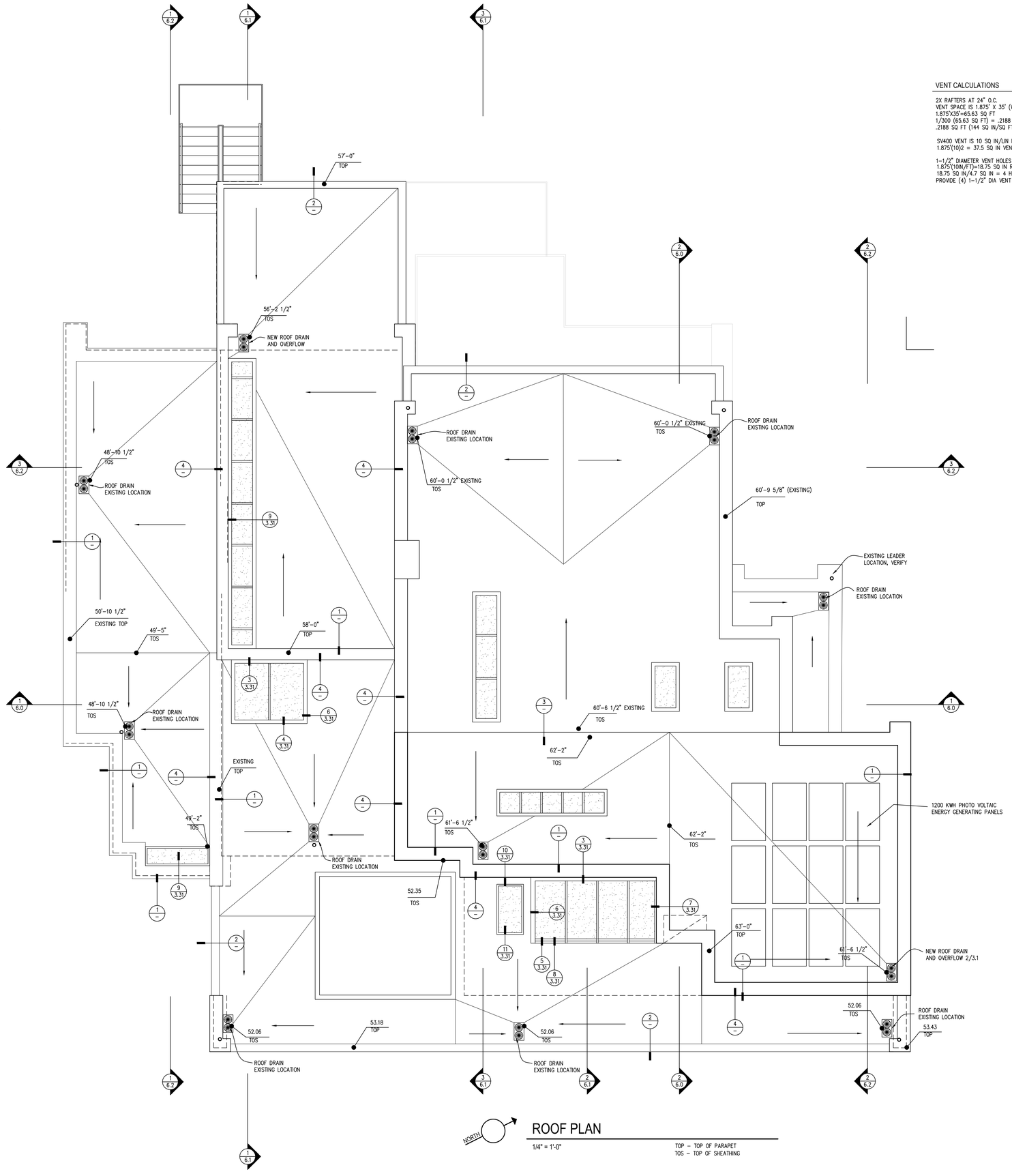
3 DETAIL

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



4 DETAIL

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



X-GRID.dwg

ROOF PLAN

1/4" = 1'-0"

TOP = TOP OF PARAPET
TOS = TOP OF SHEATHING

VENT CALCULATIONS

2X RAFTERS AT 24" O.C.
VENT SPACE IS 1.875" X 35" (WORST CASE)
1.875"X35"=65.63 SQ FT
1/300 (65.63 SQ FT) = .2188 SQ FT REQUIRED VENT AREA
.2188 SQ FT (144 SQ IN/SQ FT) = 31.5 SQ IN REQUIRED

SV400 VENT IS 10 SQ IN/LIN FT
1.875'(10)2 = 37.5 SQ IN VENT PROVIDED

1-1/2" DIAMETER VENT HOLES = 1.5(3.14)=4.7 SQ IN PER HOLE
1.875'(10IN/FT)=18.75 SQ IN REQUIRED
18.75 SQ IN/4.7 SQ IN = 4 HOLES PER RAFTER SPACE
PROVIDE (4) 1-1/2" DIA VENT HOLES PER RAFTER SPACE

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0804
FAX: 425-679-0907

REGISTERED ARCHITECT
S380 CHRISTINE BUCK
STATE OF WASHINGTON

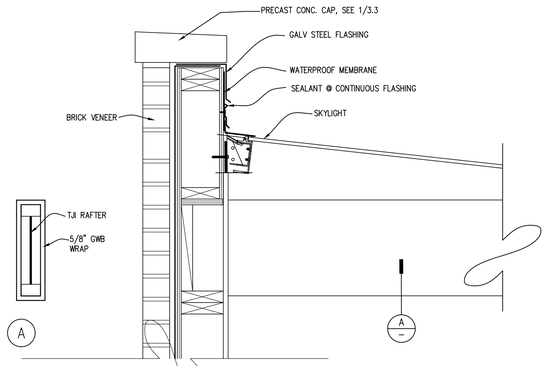
No.	Date	Revision

HONG AND KAO RESIDENCE

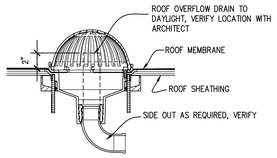
5425 W. MERCER WAY
MERCER ISLAND, WA 98040

ROOF PLAN

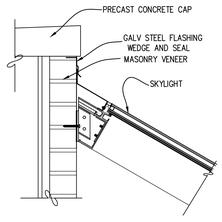
Sheet No.	3.3
Project No.	2222
Date:	6/7/23



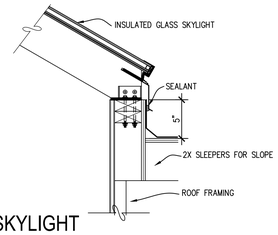
1 DETAIL
1-1/2" = 1'-0"



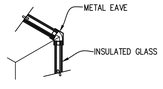
2 ROOF DRAIN
1-1/2" = 1'-0"



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

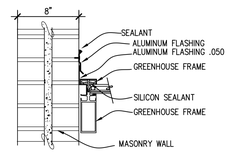


4 SKYLIGHT
1-1/2" = 1'-0"

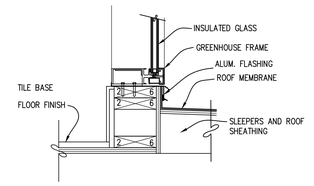


5 GREEN HOUSE
1-1/2" = 1'-0"

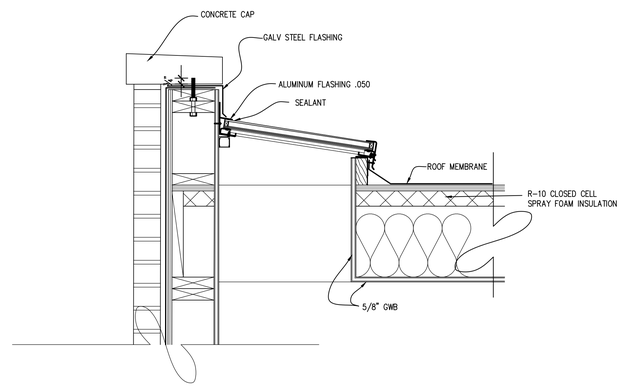
6 GREENHOUSE
1-1/2" = 1'-0"



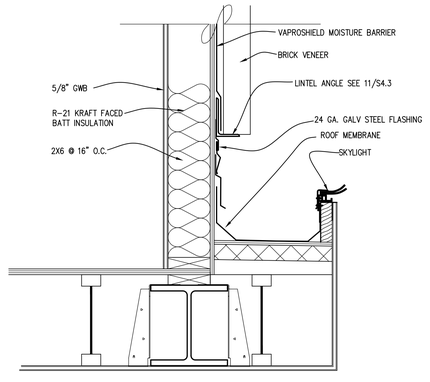
7 GREENHOUSE RAKE
1-1/2" = 1'-0"



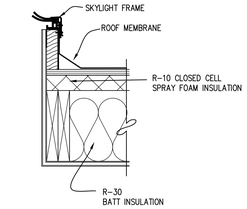
8 GREENHOUSE
1-1/2" = 1'-0"



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



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



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

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0807
FAX: 425-679-0804

REGISTERED ARCHITECT
S388
JAMES R. BUCK
STATE OF WASHINGTON

No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

ROOF DETAILS

Sheet No. 3.31
Project No. 2222
Date: 6/7/23

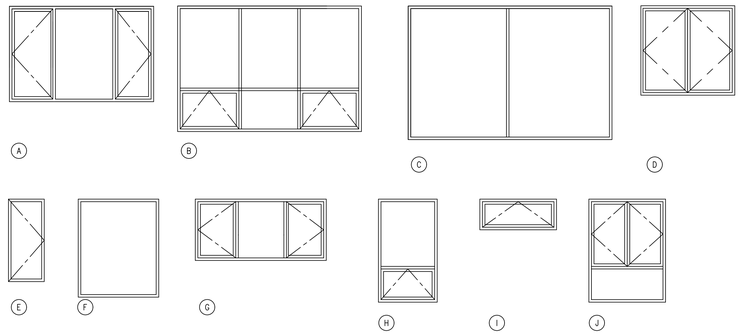
WINDOW SCHEDULE

WINDOWS BY:
ALUMINUM CLAD FRAMES; INSULATED HIGH PERFORMANCE GLAZING
EXT. FINISH=_____; INT. FINISH=_____;
HARDWARE=_____;

#	ROUGH OPENING WIDTH	ROUGH OPENING HEIGHT		TYPE	U-VALUE	DETAILS HEAD DET#/SHT#	DETAILS JAMB DET#/SHT#	DETAILS JAMB DET#/SHT#	DETAILS SILL DET#/SHT#	REMARKS
1	9'-0"	6'-3"	EGRESS	A	-	-	-	-	-	-
2	12'-0"	7'-3"	EGRESS	B	-	-	-	-	-	-
3	13'-8"	8'-6"	-	C	-	-	-	-	-	-
4	6'-6"	5'-9"	EGRESS	D	-	-	-	-	-	-
5	2'-4"	5'-3"	-	E	-	-	-	-	-	-
6	2'-4"	5'-3"	-	E	-	-	-	-	-	-
7	5'-6"	6'-3"	EGRESS	D	-	-	-	-	-	-
8	12'-6"	6'-3"	-	F	-	-	-	-	-	-
9	15'-4"	7'-9"	-	C	-	-	-	-	-	-
10	5'-4 1/2"	5'-6"	-	F	-	-	-	-	-	-
11	3'-8"	5'-9"	-	F	-	-	-	-	-	-
12	8'-8"	4'-0"	-	G	-	-	-	-	-	-
13	12'-0"	8'-0"	-	C	-	-	-	-	-	-
14	3'-0"	6'-6"	-	E	-	-	-	-	-	-
15	NOT	USED	-	-	-	-	-	-	-	-
16	15'-3"	8'-3"	-	C	-	-	-	-	-	-
17	3'-8"	6'-9"	-	H	-	-	-	-	-	-
18	4'-8"	6'-9"	-	H	-	-	-	-	-	-
19	5'-0"	2'-0"	-	I	-	-	-	-	-	-
20	5'-0"	7'-0"	-	H	-	-	-	-	-	-
21	5'-0"	7'-0"	EGRESS	J	-	-	-	-	-	-

WINDOW TYPES

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



DOOR SCHEDULE

EXTERIOR DOORS BY:
ALUMINUM CLAD FRAMES; INSULATED HIGH PERFORMANCE GLAZING
EXT. FINISH=_____; INT. FINISH=_____;
HARDWARE=_____;

#	DOOR DIMENSION (NOTE: VERIFY DOOR HEIGHT) WIDTH	HEIGHT		TYPE	U-VALUE	DETAILS HEAD DET#/SHT#	DETAILS JAMB DET#/SHT#	DETAILS JAMB DET#/SHT#	DETAILS SILL DET#/SHT#	LOCKSET	LATCHSET	DEADBOLT	PRIVACY	FLUSH BOLTS	KNOB PULL	CLOS. LATCH	PCKT. ROLLER	BUTTS	CLOSER	WEATHERST.	REMARKS
1	5'-0"	8'-0"	-	-	-	1/4.2	2/4.2	3/4.2	4/4.2	O	O	O	O	O	O	O	O	O	O	O	RIXSON 375 PIVOT
2	3'-0"	7'-0"	-	-	-	7/4.2	8/4.2	8/4.2	-	O	O	O	O	O	O	O	O	O	O	O	EXISTING ROUGH OPENING
3	10'-8"	9'-6"	-	-	-	9/4.2	10/4.2	10/4.2	11/4.2	O	O	O	O	O	O	O	O	O	O	O	LIFT/SLIDE
4	14'-11"	9'-6"	-	-	-	12/4.2	10/4.2	10/4.2	11/4.2	O	O	O	O	O	O	O	O	O	O	O	LIFT/SLIDE
5	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O	O	O	-
6	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O	O	O	-
7	9'-0"	9'-0"	-	-	-	9/4.2	10/4.2	10/4.2		O	O	O	O	O	O	O	O	O	O	O	-
8	3'-0"	8'-0"	-	-	-	13/4.2	13/4.2	13/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
9	10'-8"	8'-2"				9/4.2	10/4.2	10/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
10	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
11	PR 3'-0"	-	-	-	-	18/4.2	16/4.2	17/4.2	-	O	O	O	O	O	O	O	O	O	O	O	RIXSON 128-3/4
12	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
13	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
14	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
15	12'-4"	9'-6"	-	-	-	19/4.2	-	-	-	O	O	O	O	O	O	O	O	O	O	O	-
16	2'-8"	-	-	-	-	22/4.2	20/4.2	21/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
17	2'-8"	7'-0"	-	-	-	23/4.2	23/4.2	23/4.2	-	O	O	O	O	O	O	O	O	O	O	O	SOLID CORE WITH CLOSER
18	4'-4"	9'-6"	-	-	-	19/4.2	-	-	-	O	O	O	O	O	O	O	O	O	O	O	-
19	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
20	2'-8"	-	-	-	-	22/4.2	20/4.2	21/4.2	-	O	O	O	O	O	O	O	O	O	O	O	POCKET DOOR
21	3'-0"	7'-0"	-	-	-	23/4.2 SIM	23/4.2 SIM	23/4.2 SIM	-	O	O	O	O	O	O	O	O	O	O	O	-
22	3@ 3'-6"	-	-	-	-	24/4.2	25/4.2	26/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
23	3'-0"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
24	3'-0"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
25	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
26	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
27	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
28	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
29	PR. 3'-0"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
30	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
31	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
32	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
33	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
34	2'-6"	-	-	-	-	22/4.2	20/4.2	21/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
35	2'-6"	-	-	-	-	23/4.2	23/4.2	23/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
36	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
37	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
38	2'-8"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
39	PR. 1'-10"	-	-	-	-	27/4.2	29/4.2	29/4.2	28/4.2	O	O	O	O	O	O	O	O	O	O	O	-
40	3'-2"	8'-3"	-	-	-	30/4.2	21/4.2	26/4.2 SIM	-	O	O	O	O	O	O	O	O	O	O	O	POCKET DOOR
41	PR. 3'-8"	6'-5"	-	-	-	31/4.2	32/4.2	32/4.2 SIM	-	O	O	O	O	O	O	O	O	O	O	O	BIFOLD DOOR
42	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O	O	O	SAUNA DOOR
43	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
44	2'-6"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
45	3'-0"	-	-	-	-	14/4.2	15/4.2	15/4.2	-	O	O	O	O	O	O	O	O	O	O	O	-
46	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O	O	O	-
47	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O	O	O	-
48	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O	O	O	-
49	-	-	-	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O	O	O	-

DOOR TYPES

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

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
FAX: 425-679-0804
PHONE: 425-679-0907

REGISTERED ARCHITECT
S388
CHESMORE BUCK
STATE OF WASHINGTON

No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

SCHEDULES

Sheet No. 4.0
Project No. 2222
Date: 6/7/23

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	MANUFACTURER	MODEL NO.	FINISH/COLOR	FITTING	LOCATION	REMARKS
LAV1	–	–	–	–	–	–	–
LAV2	–	–	–	–	–	–	–
LAV3	–	–	–	–	–	–	–
LAV4	–	–	–	–	–	–	–
LAV5	–	–	–	–	–	–	–
LAV6	–	–	–	–	–	–	–
LAV7	–	–	–	–	–	–	–
LAV8	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–
SHOWER1	–	–	–	–	–	–	–
SHOWER2	–	–	–	–	–	–	–
SHOWER3	–	–	–	–	–	–	–
SHOWER4	–	–	–	–	–	–	–
SHOWER5	–	–	–	–	–	–	–
SHOWER6	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
SINK1	–	–	–	–	–	–	–
SINK2	–	–	–	–	–	–	–
SINK3	–	–	–	–	–	–	–
SINK4	–	–	–	–	–	–	–
SINK5	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
WC1	–	–	–	–	–	–	–
WC2	–	–	–	–	–	–	–
WC3	–	–	–	–	–	–	–
WC4	–	–	–	–	–	–	–
WC5	–	–	–	–	–	–	–
WC6	–	–	–	–	–	–	–
WC7	–	–	–	–	–	–	–
WC8	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–
TUB1	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–
	–	–	–	–	–	–	–

ROOM FINISH SCHEDULE

ROOM NAME	NUMBER	MATERIAL											FINISH									REMARKS
		FLOOR	BASE		CASING		WALLS				CEILING		FLOOR	BASE	CASING		WALLS				CEILING	
			MTL.	DET.#/SHT.#	DR.	WIN.	N	E	S	W	MTL.	HEIGHT			DR.	WIN.	N	E	S	W		
FAMILY ROOM	100	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
BEDROOM 2	101	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CLOSET	102	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
BATH2	103	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
BEDROOM 1	104	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
HALL1	105	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
LAV1	106	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
BATH1	107	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
HALL2	108	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
HVAC	109	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CLOSET2	110	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
LANDING	111	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
BATH3	112	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
BEDROOM3	113	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CLOSET	114	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
STAIR	115	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
ENTRY	200	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
MUSIC	201	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
HALL3	202	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
WC2	203	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
UTILITY	204	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
GARAGE	205	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
LANDING2	206	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
KITCHEN	207	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
BREAKFAST	208	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
PANTRY	209	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
DINING	210	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
LIVING ROOM	211	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
OFFICE	212	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CLOSET	213	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
WC	214	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
BATH4	215	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
COATS	216	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
POWDER	217	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
BEDROOM4	300	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
CLOSET	301	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
BATH5	302	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SAUNA	303	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
EXERCISE	304	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
STAIR	305	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
M.BEDROOM	306	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SITTING	307	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
VESTIBULE	308	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
M.BATH	309	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
WC3	310	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
LANDING	311	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SHOWER	312	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
UTILITY2	313	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
M.CLOSET	314	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SOLARIUM	315	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

LEGEND

APPLIANCE SCHEDULE

O.P.C.I. = OWNER TO PROVIDE/CONTRACTOR TO INSTALL

MARK	PRODUCT	MANUFACTURER	MODEL NO.	FINISH/COLOR	LOCATION	REMARKS
DW1	–	–	–	–	–	–
DW2	–	–	–	–	–	–
W/D	–	–	–	–	–	–
REFER	–	–	–	–	–	–
OVEN	–	–	–	–	–	–
MICRO	–	–	–	–	–	–
RANGE	–	–	–	–	–	–
HOOD	–	–	–	–	–	–
–	–	–	–	–	–	–

SPECIALTIES SCHEDULE

MARK	PRODUCT	MANUFACTURER	MODEL NO.	FINISH/COLOR	LOCATION	REMARKS
GAS LOG	–	RH PETERSON	SPLIT OAK DESIGNER PLUS 36" (SPD-36)	–	LIVING	–
GLASS DOOR	–	STOLL DOOR	ELITE THINLINE	STANDARD FINISH	LIVING	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0907
FAX: 425-679-0907

REGISTERED ARCHITECT
S388
CHRISTINE BUCK
STATE OF WASHINGTON

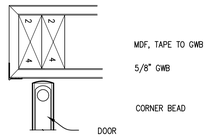
No. Date Revision

HONG AND KAO RESIDENCE

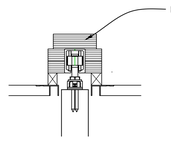
5425 W. MERCER WAY
MERCER ISLAND, WA 98040

SCHEDULES

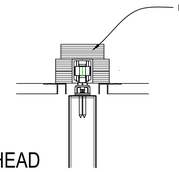
Sheet No. 4.1
Project No. 2222
Date: 6/7/23



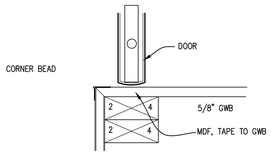
29 JAMB
3" = 1'-0"



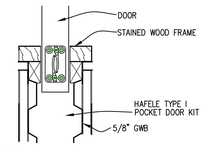
30 HEAD
3" = 1'-0"



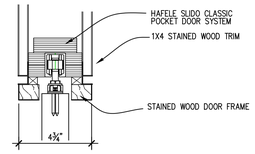
31 HEAD
3" = 1'-0"



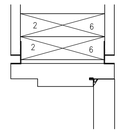
32 JAMB
3" = 1'-0"



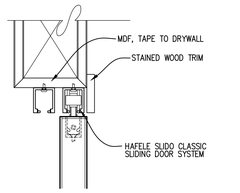
21 JAMB
3" = 1'-0"



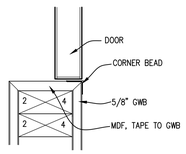
22 HEAD
3" = 1'-0"



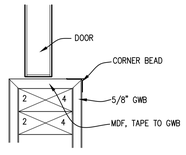
23 HEAD/ JAMB SIM.
3" = 1'-0"



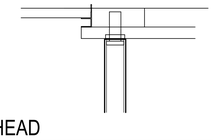
24 HEAD
3" = 1'-0"



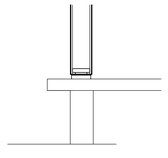
25 JAMB
3" = 1'-0"



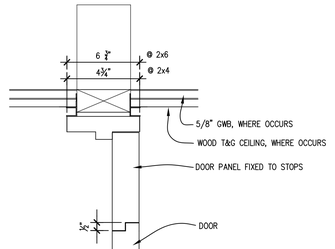
26 JAMB
3" = 1'-0"



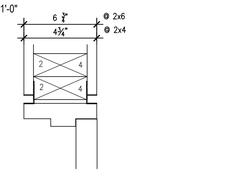
27 HEAD
3" = 1'-0"



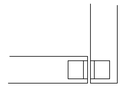
28 SILL
3" = 1'-0"



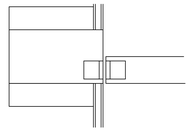
14 HEAD
3" = 1'-0"



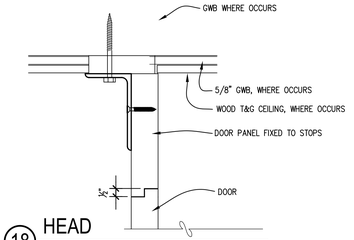
15 HEAD/JAMB SIM.
3" = 1'-0"



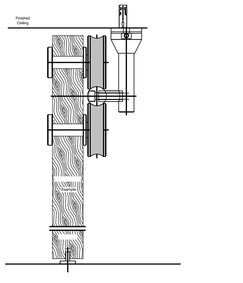
16 JAMB
3" = 1'-0"



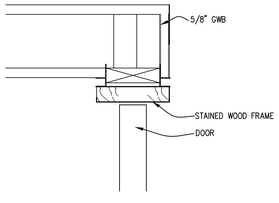
17 JAMB
3" = 1'-0"



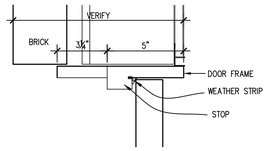
18 HEAD
3" = 1'-0"



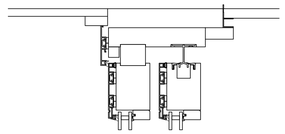
19 HEAD
3" = 1'-0"



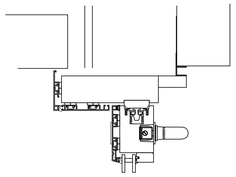
20 JAMB
3" = 1'-0"



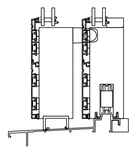
8 JAMB
3" = 1'-0"



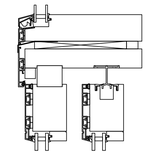
9 HEAD
3" = 1'-0"



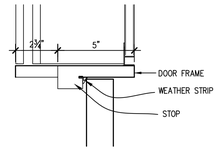
10 JAMB
3" = 1'-0"



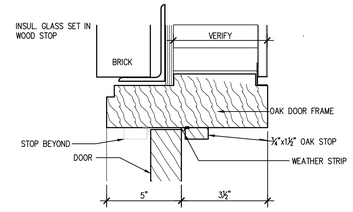
11 THRESHOLD
3" = 1'-0"



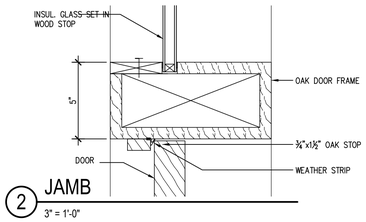
12 HEAD
3" = 1'-0"



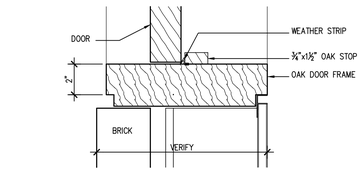
13 HEAD
3" = 1'-0"



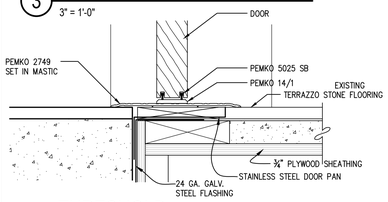
1 HEAD
3" = 1'-0"



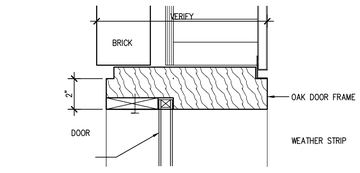
2 JAMB
3" = 1'-0"



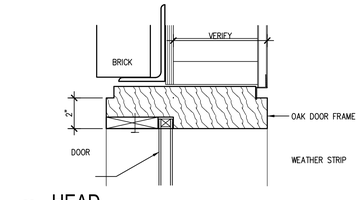
3 JAMB
3" = 1'-0"



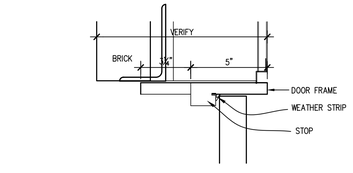
4 THRESHOLD
3" = 1'-0"



5 JAMB
3" = 1'-0"



6 HEAD
3" = 1'-0"



7 HEAD
3" = 1'-0"

CHESMORE|BUCK
architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0907
FAX: 425-679-0907

REGISTERED ARCHITECT
S388
CHRISTOPHER BUCK
STATE OF WASHINGTON

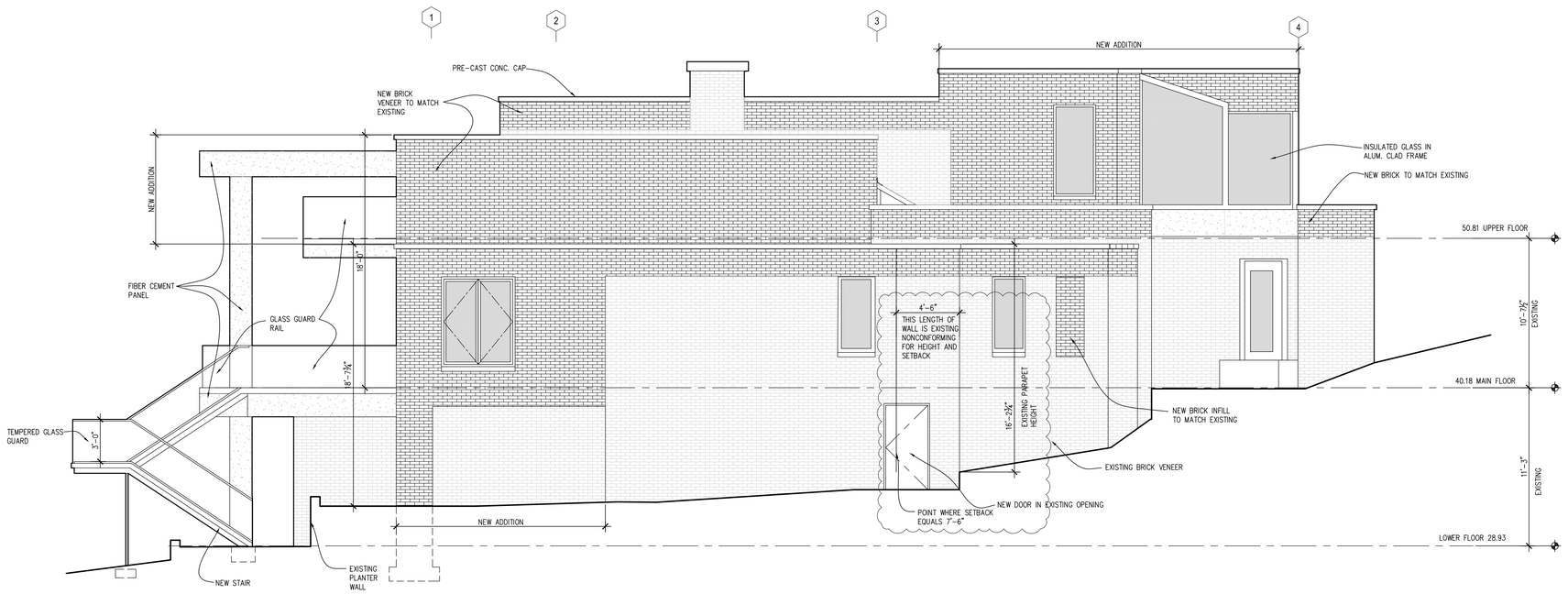
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

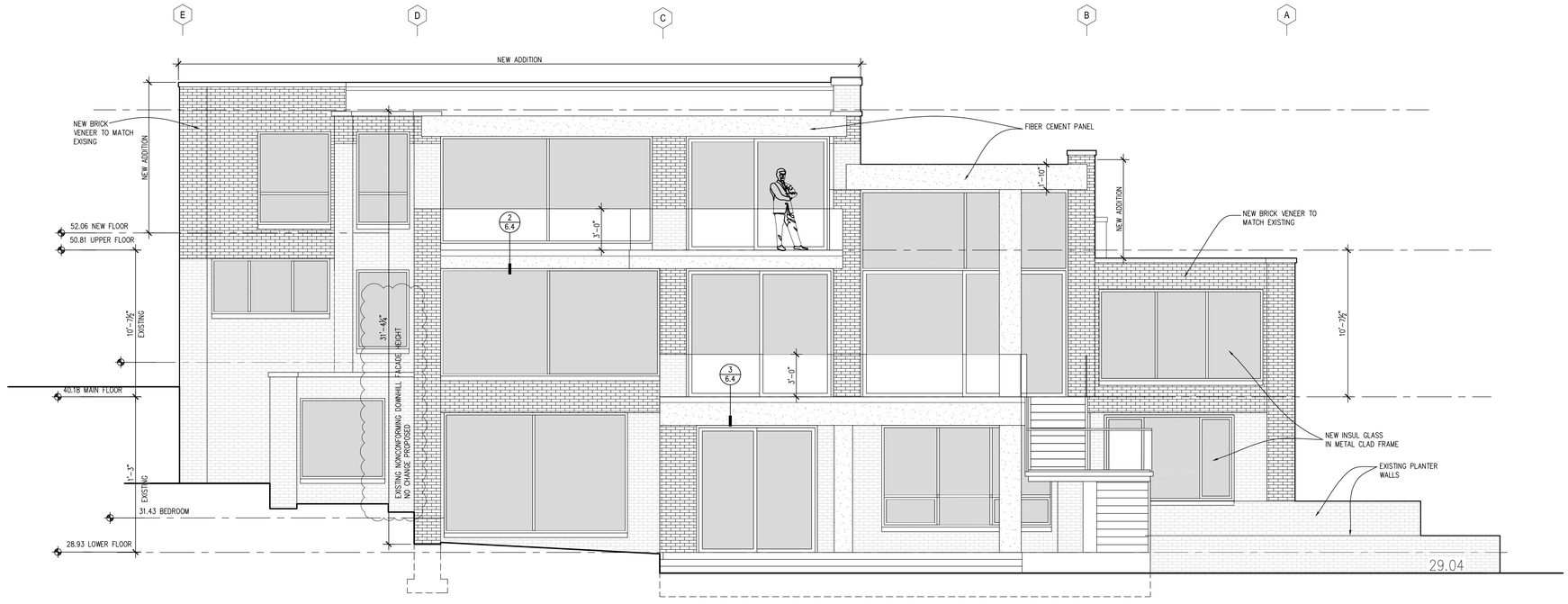
DETAILS

Sheet No. 4.2
Project No. 2222
Date: 6/7/23



SOUTH ELEVATION

1/4" = 1'-0"



WEST ELEVATION

1/4" = 1'-0"

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0807
FAX: 425-679-0804

REGISTERED ARCHITECT
S388
STATE OF WASHINGTON

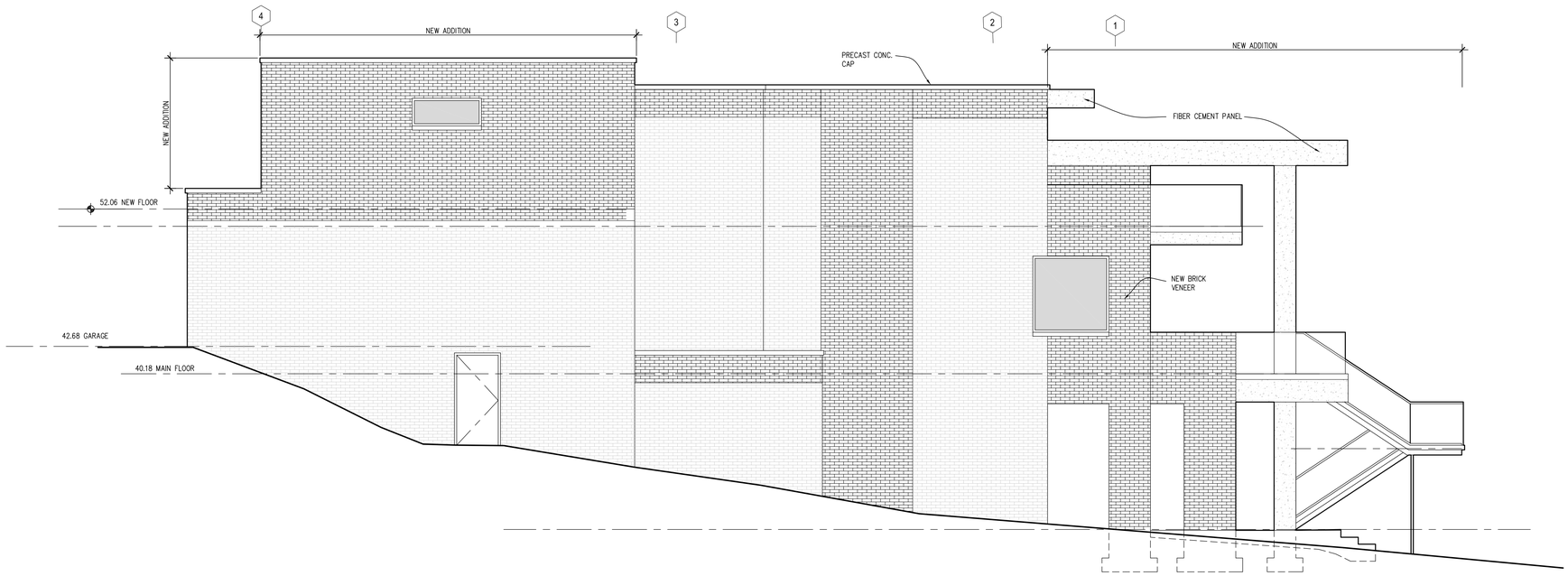
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

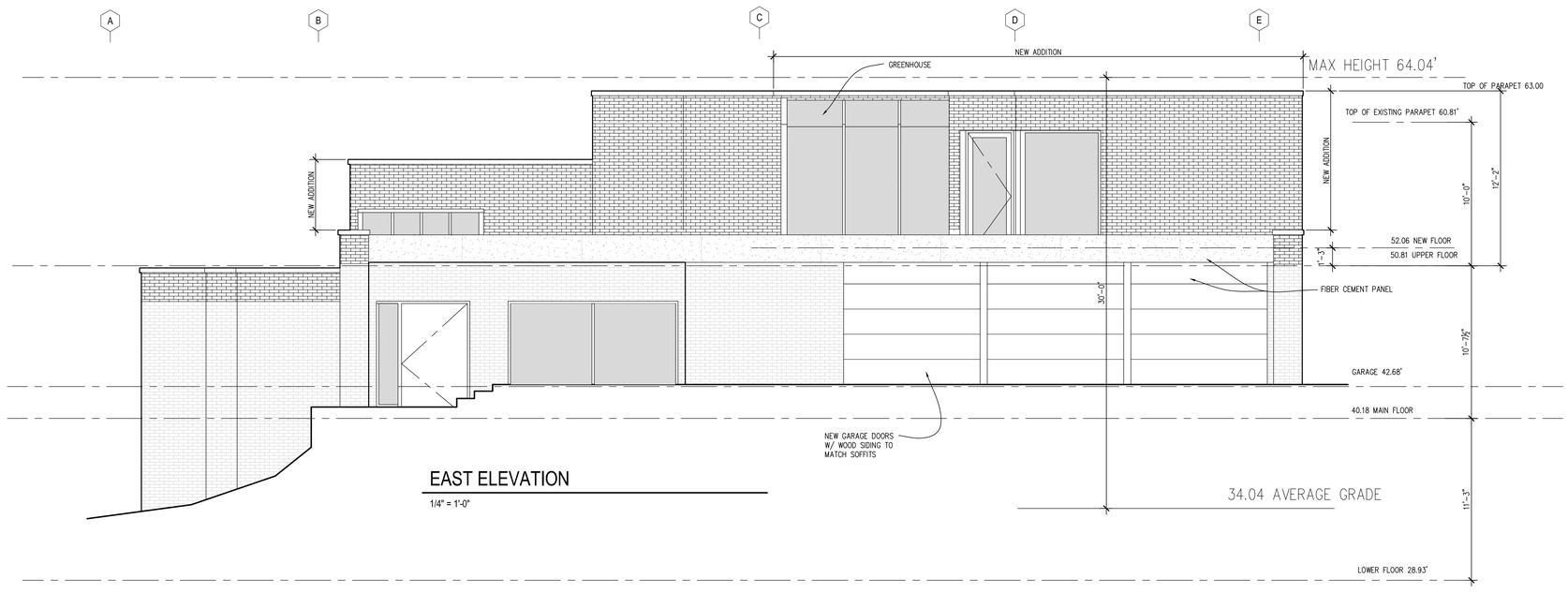
ELEVATIONS

Sheet No.	5.0
Project No.	2222
Date:	6/7/23



NORTH ELEVATION

1/4" = 1'-0"



EAST ELEVATION

1/4" = 1'-0"

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0807
FAX: 425-679-0804

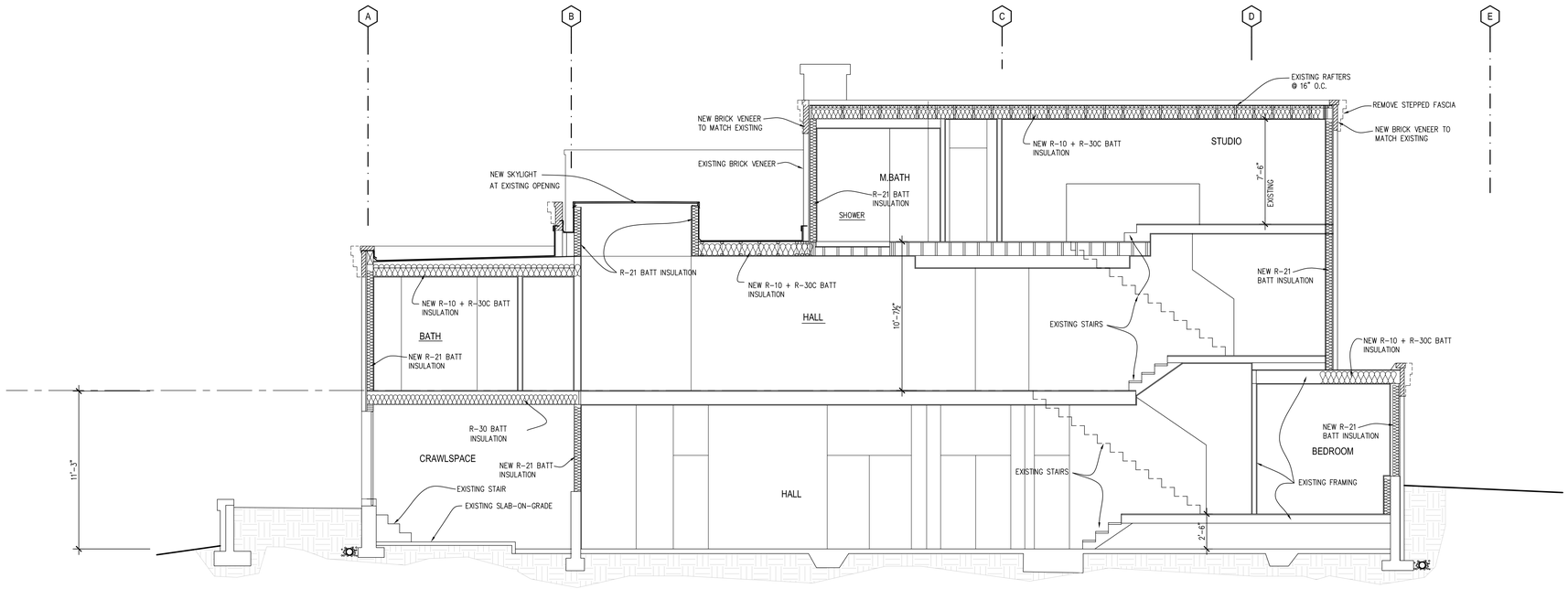
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

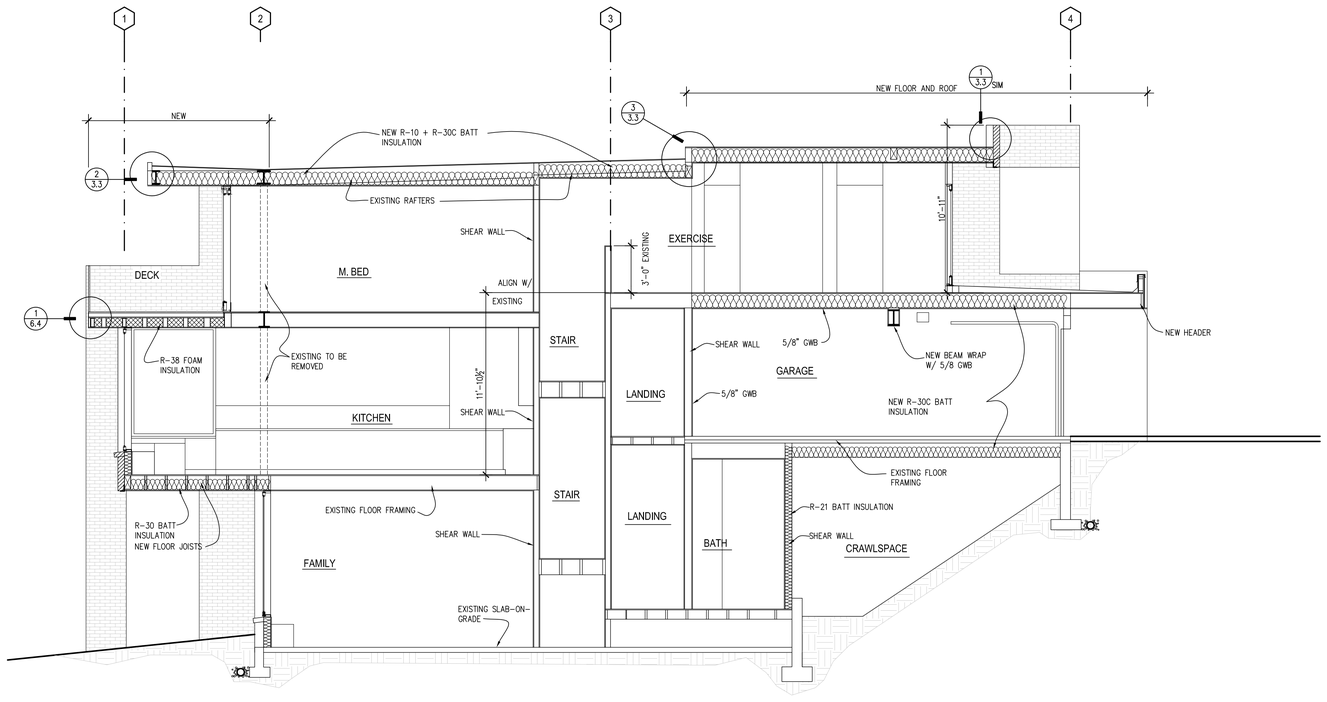
ELEVATIONS

Sheet No. 5.1
Project No. 2222
Date: 6/7/23



1 BUILDING SECTION

1/4" = 1'-0"



2 BUILDING SECTION

1/4" = 1'-0"

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0807
FAX: 425-679-0804

REGISTERED ARCHITECT 5380 STATE OF WASHINGTON

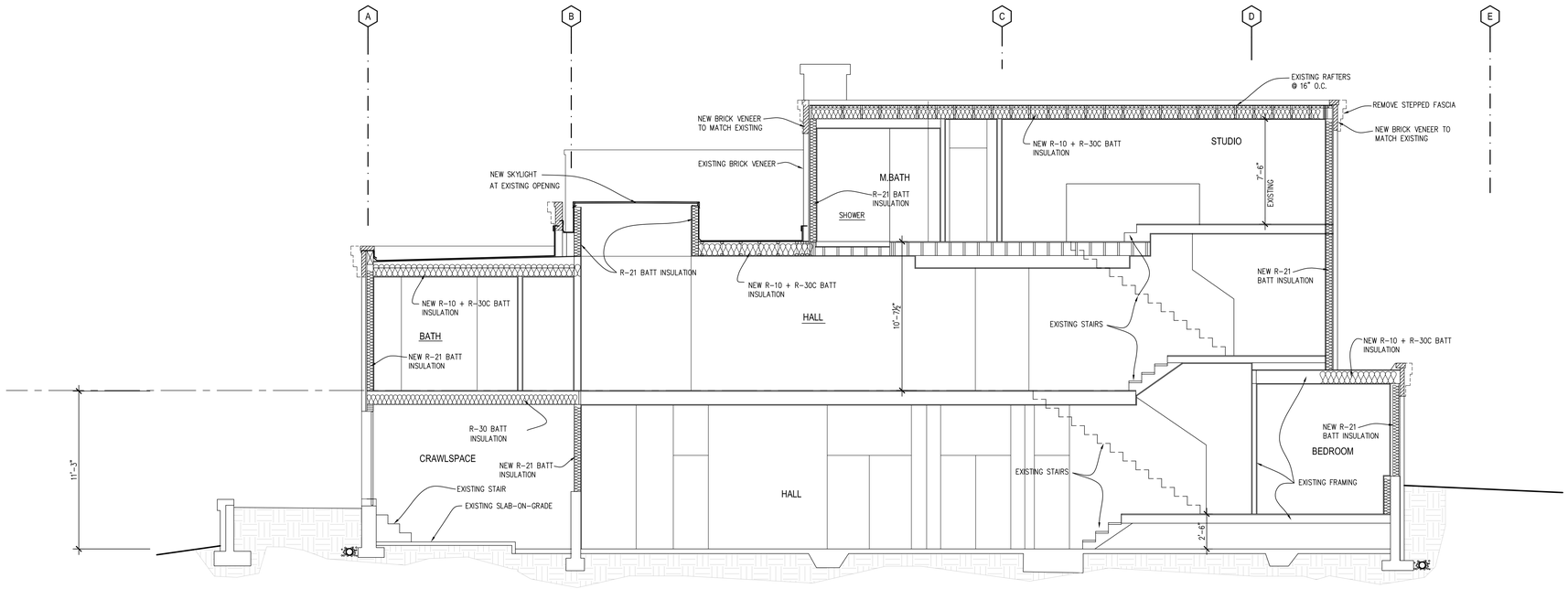
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

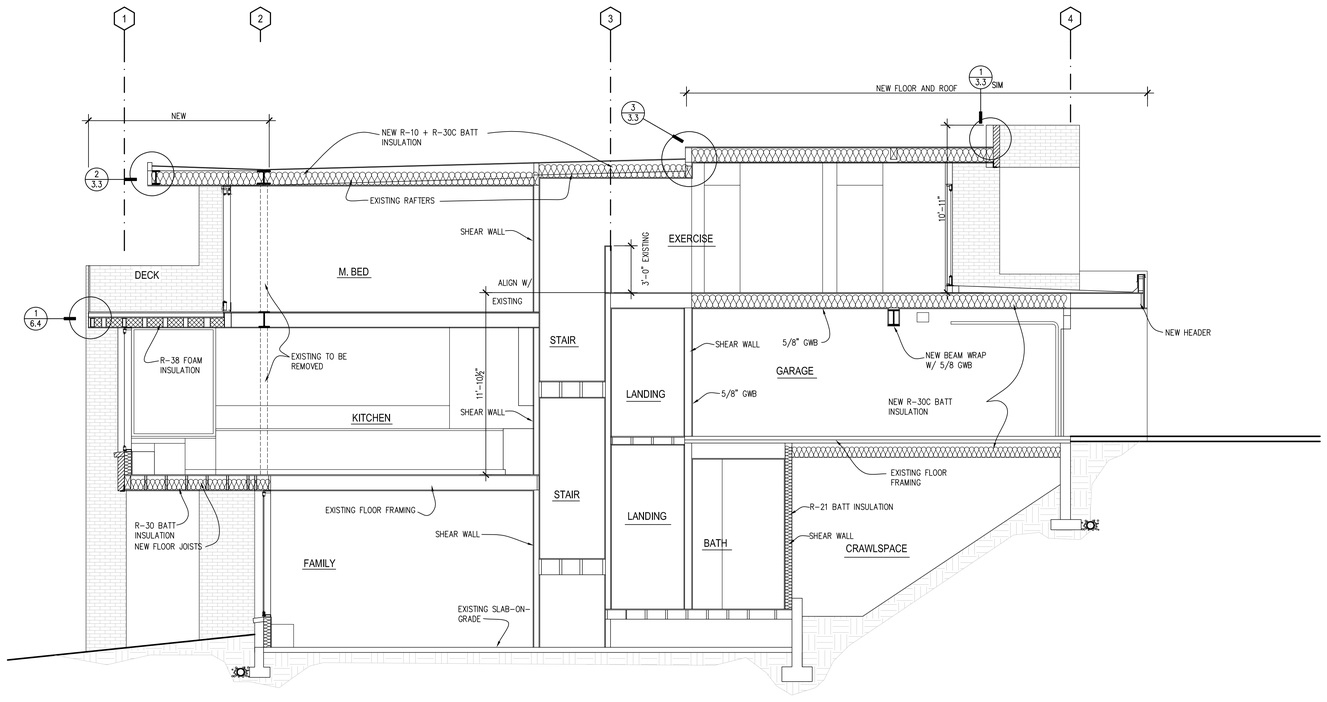
SECTION

Sheet No. 6.0
Project No. 2222
Date: 6/7/23



1 BUILDING SECTION

1/4" = 1'-0"



2 BUILDING SECTION

1/4" = 1'-0"

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0807
FAX: 425-679-0804

REGISTERED ARCHITECT 5380 STATE OF WASHINGTON

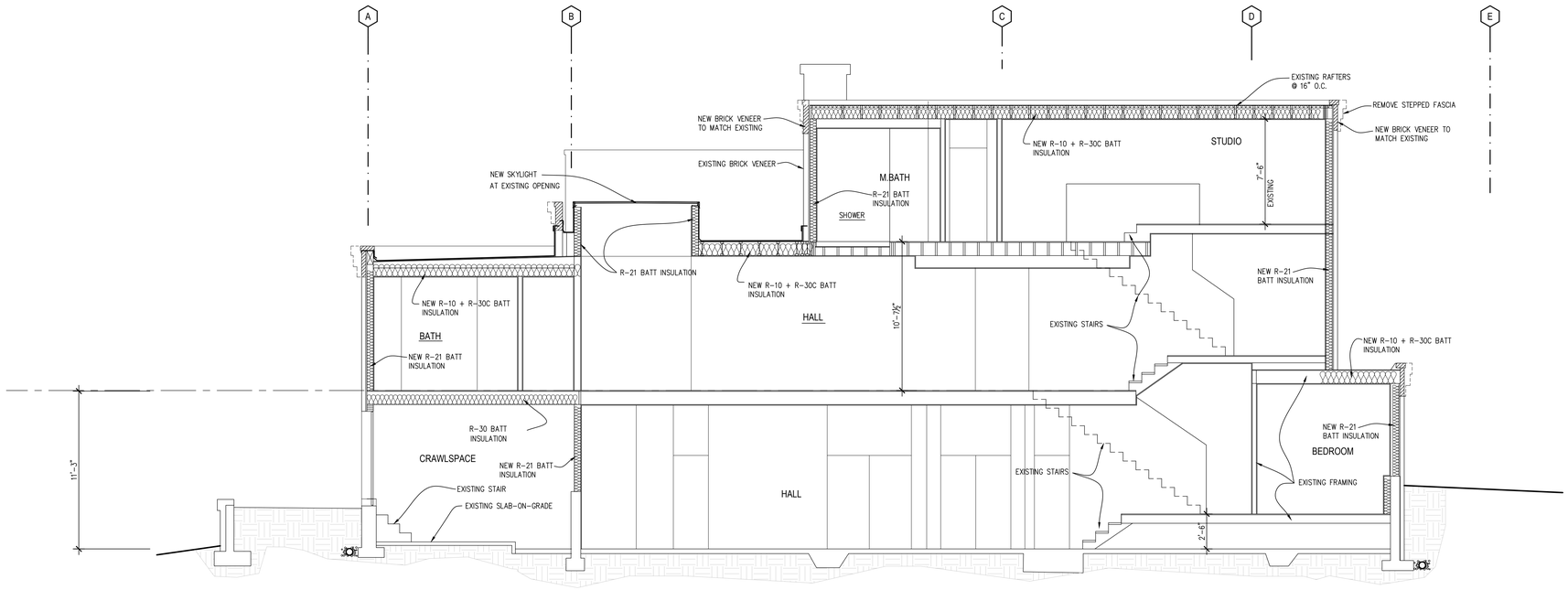
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

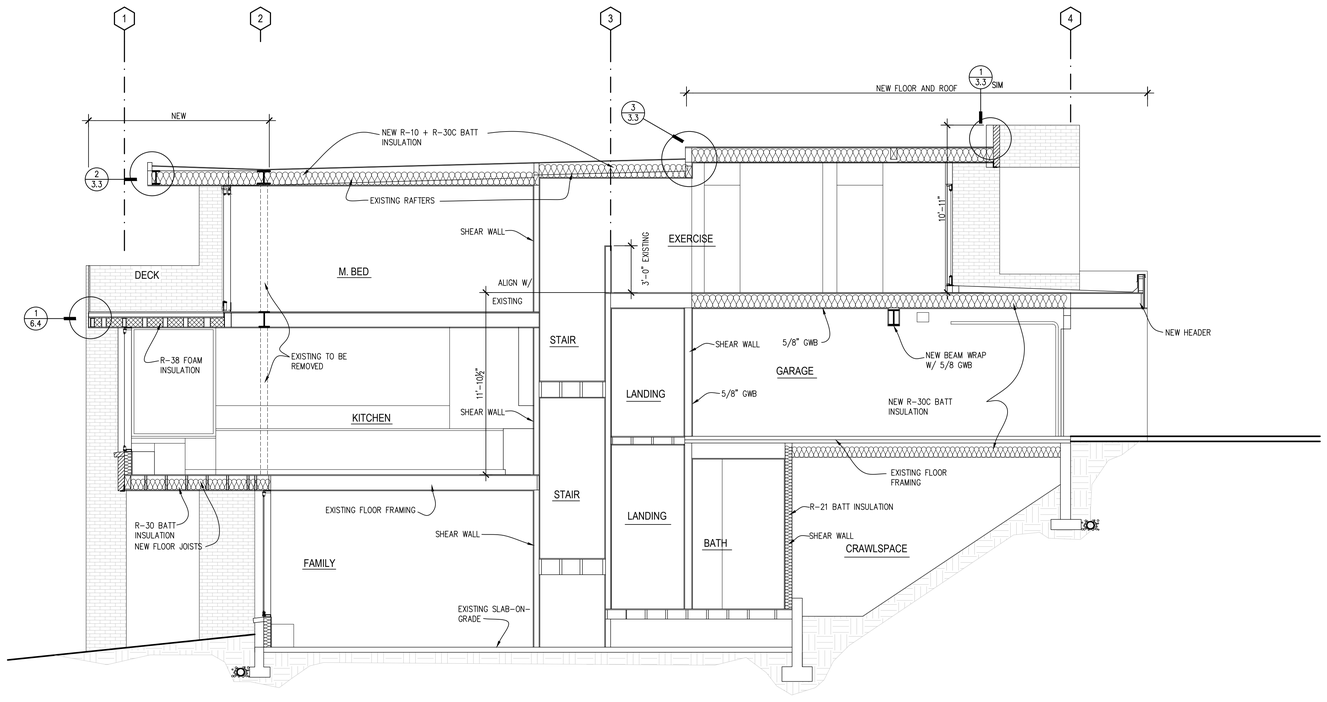
SECTION

Sheet No. 6.0
Project No. 2222
Date: 6/7/23



1 BUILDING SECTION

1/4" = 1'-0"



2 BUILDING SECTION

1/4" = 1'-0"

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0907
FAX: 425-679-0804

REGISTERED ARCHITECT
S388
CHRISTINE BUCK
STATE OF WASHINGTON

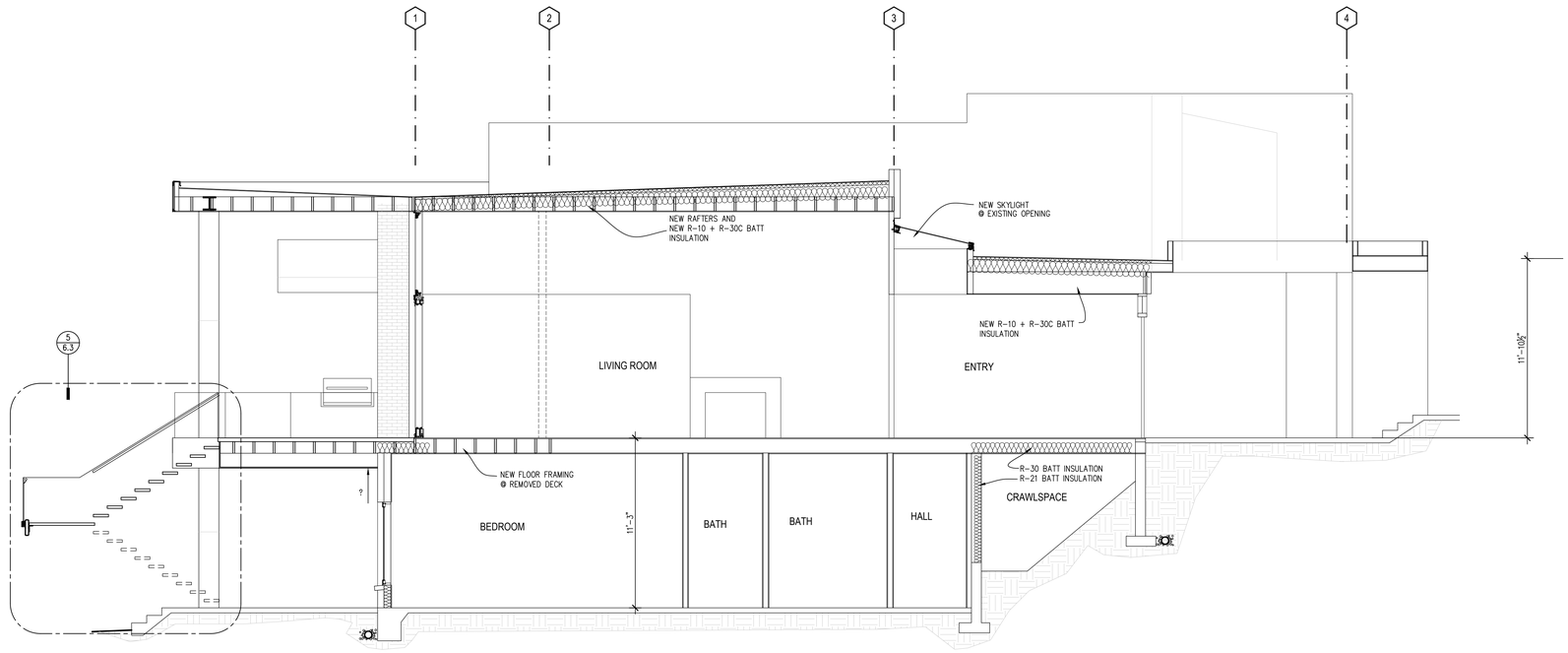
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

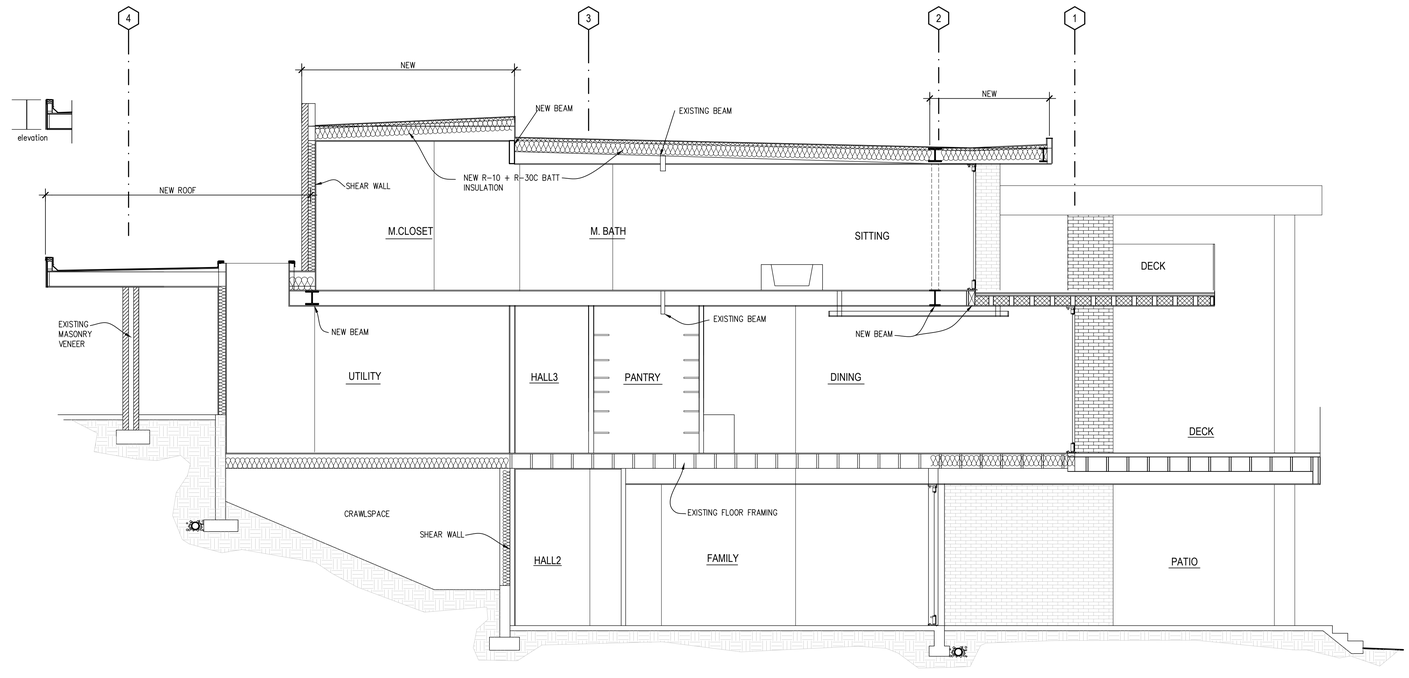
SECTION

Sheet No. 6.0
Project No. 2222
Date: 6/7/23



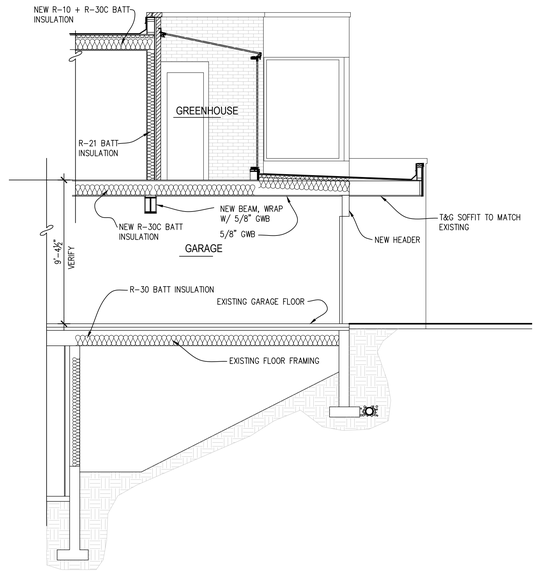
1 BUILDING SECTION

1/4" = 1'-0"



3 BUILDING SECTION

1/4" = 1'-0"



2 BUILDING SECTION

1/4" = 1'-0"

CHESMORE|BUCK
architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0907
FAX: 425-679-0804

S380 REGISTERED ARCHITECT
DAVID BUCK
STATE OF WASHINGTON

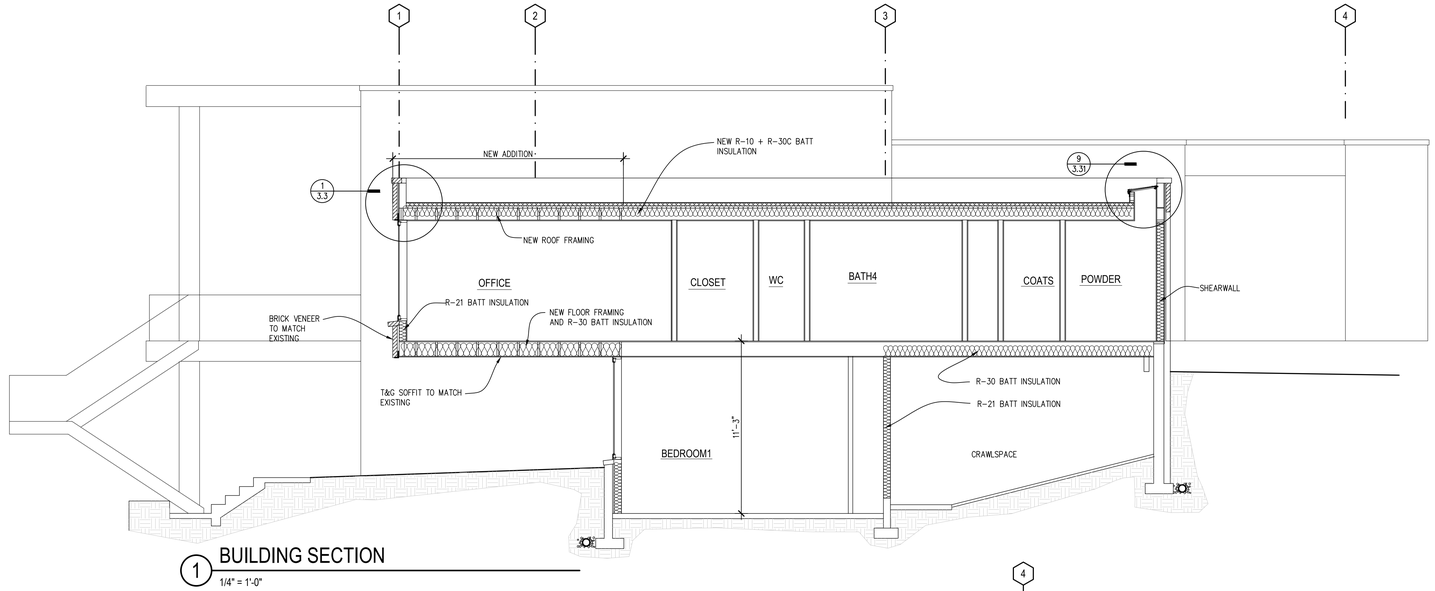
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

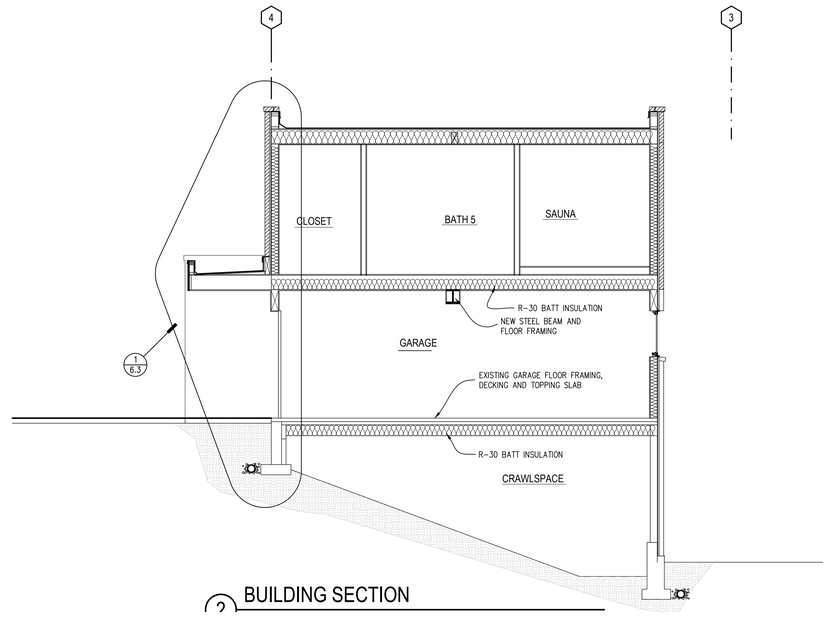
SECTION

Sheet No. 6.1
Project No. 2222
Date: 6/7/23

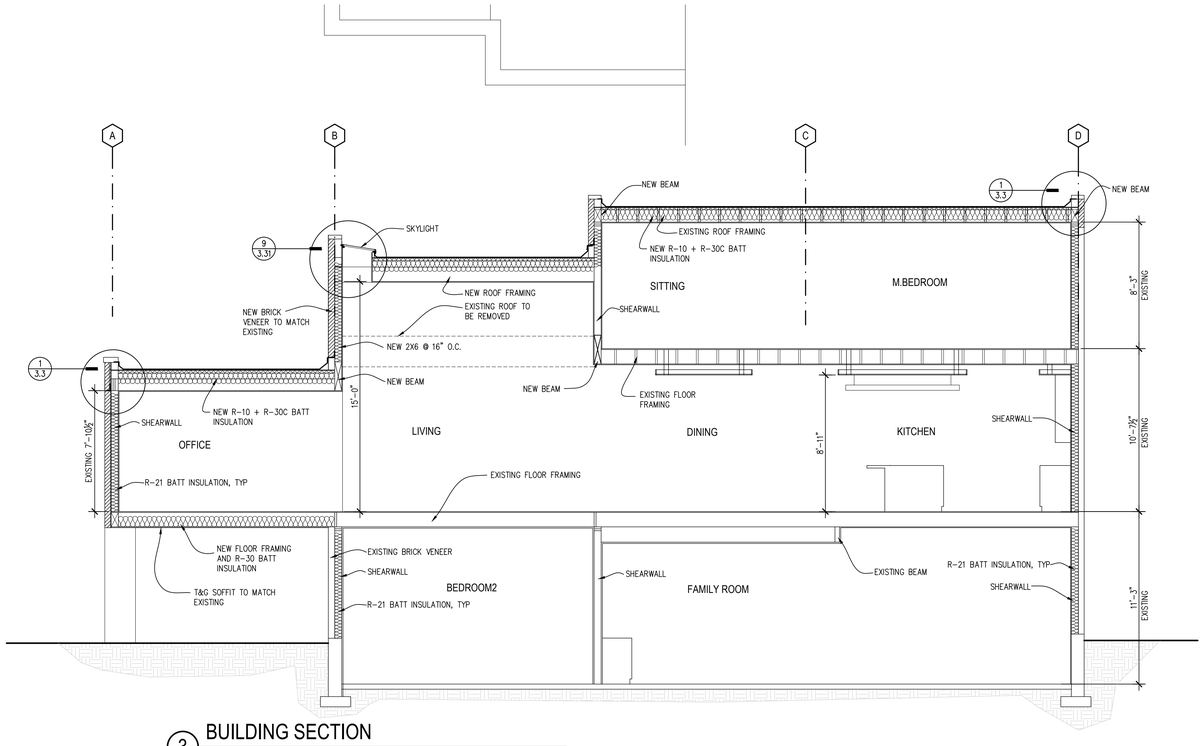


1 BUILDING SECTION

1/4" = 1'-0"



2 BUILDING SECTION



3 BUILDING SECTION

1/4" = 1'-0"

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0804
FAX: 425-679-0907

REGISTERED ARCHITECT
S388
STATE OF WASHINGTON

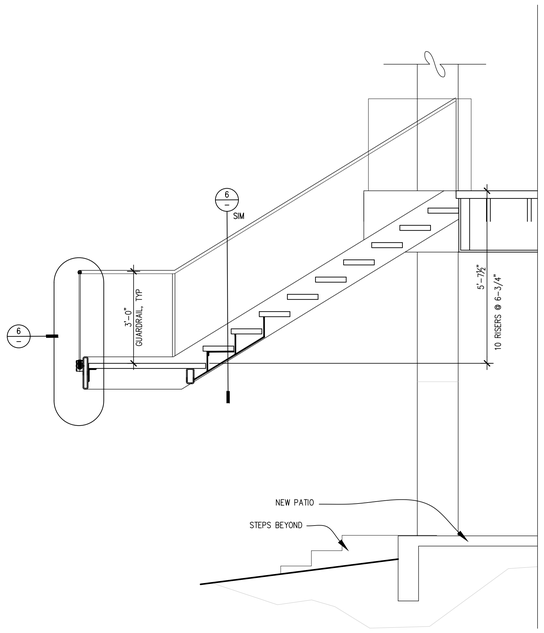
No.	Date	Revision

HONG AND KAO RESIDENCE

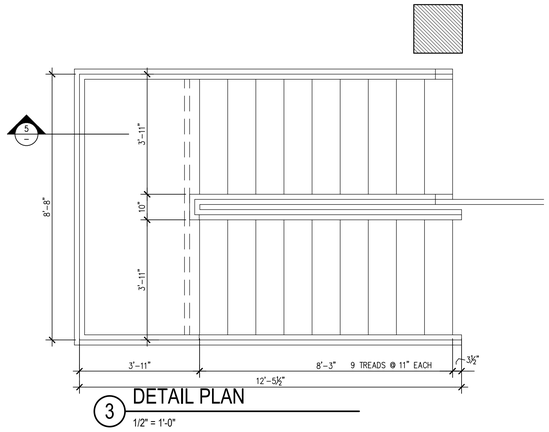
5425 W. MERCER WAY
MERCER ISLAND, WA 98040

SECTION

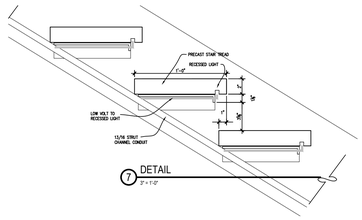
Sheet No. 6.2
Project No. 2222
Date: 6/7/23



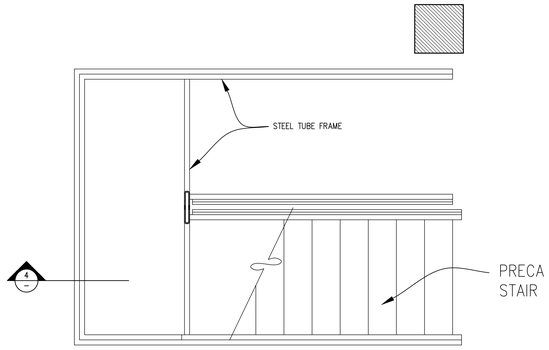
5 DETAIL PLAN
1/2" = 1'-0"



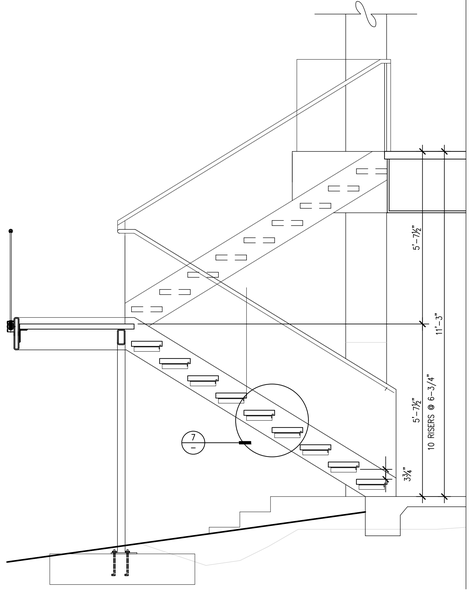
3 DETAIL PLAN
1/2" = 1'-0"



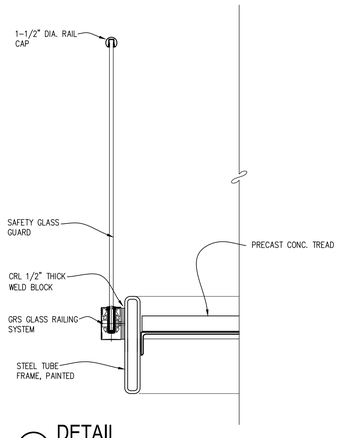
7 DETAIL
3" = 1'-0"



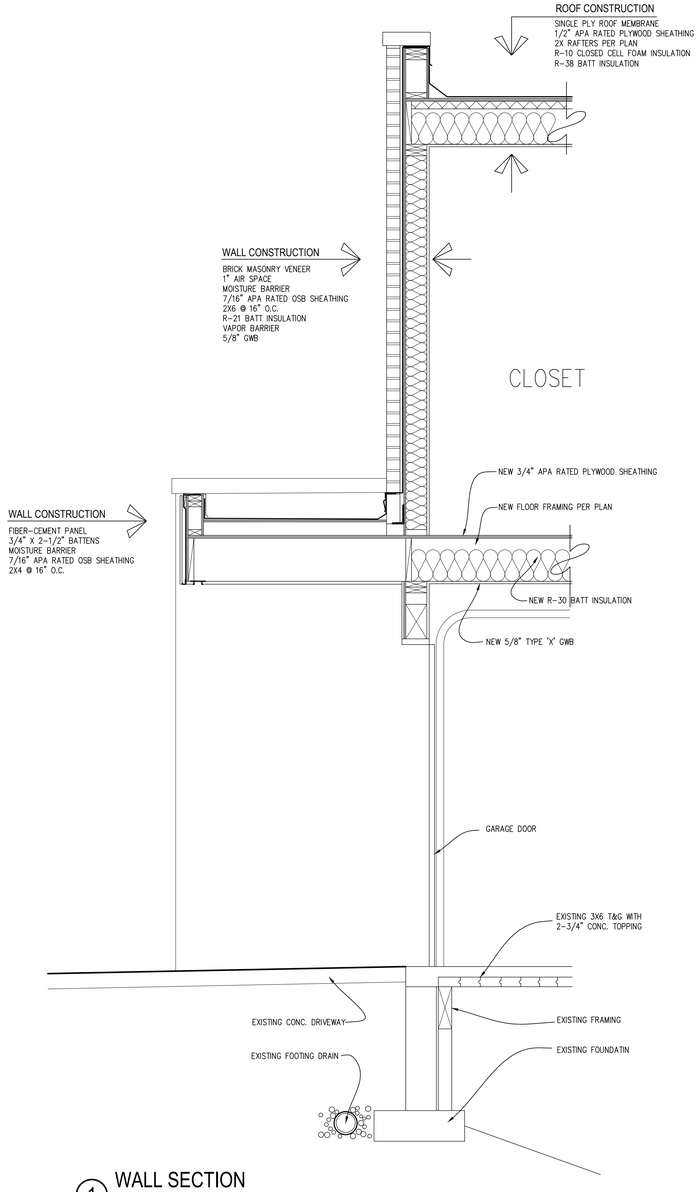
2 DETAIL PLAN
1/2" = 1'-0"



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



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



1 WALL SECTION
3/4" = 1'-0"

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0804
FAX: 425-679-0907

REGISTERED ARCHITECT
S380
STATE OF WASHINGTON

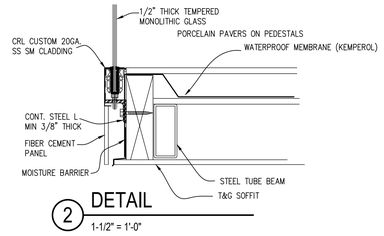
No.	Date	Revision

HONG AND KAO RESIDENCE

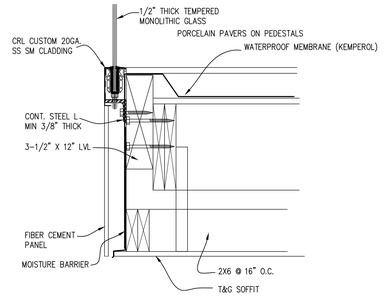
5425 W. MERCER WAY
MERCER ISLAND, WA 98040

SECTION

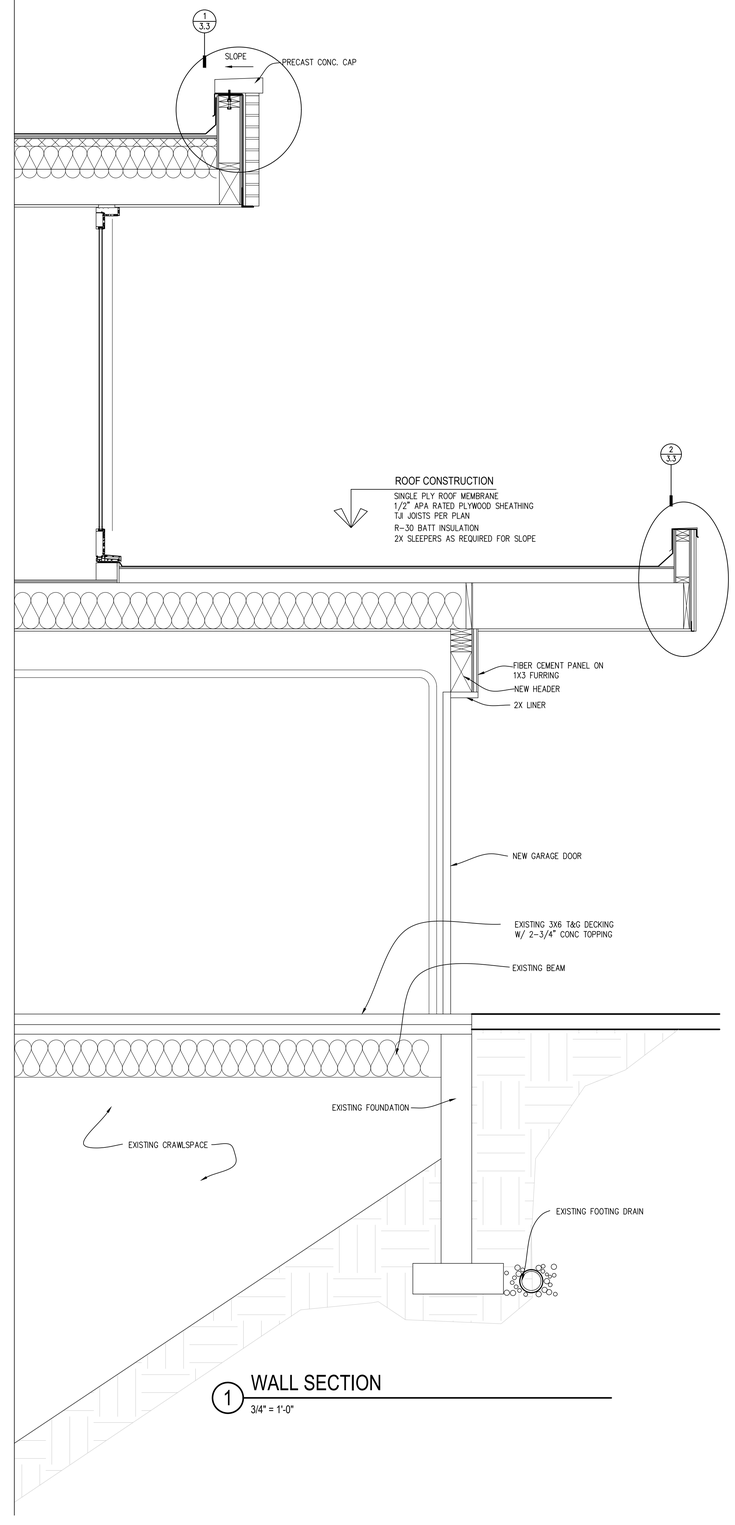
Sheet No. 6.3
Project No. 2222
Date: 6/7/23



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



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



1 WALL SECTION
3/4" = 1'-0"

CHESMORE|BUCK
architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0907
FAX: 425-679-0904

REGISTERED ARCHITECT
S388
DAVID R. BUCK
STATE OF WASHINGTON

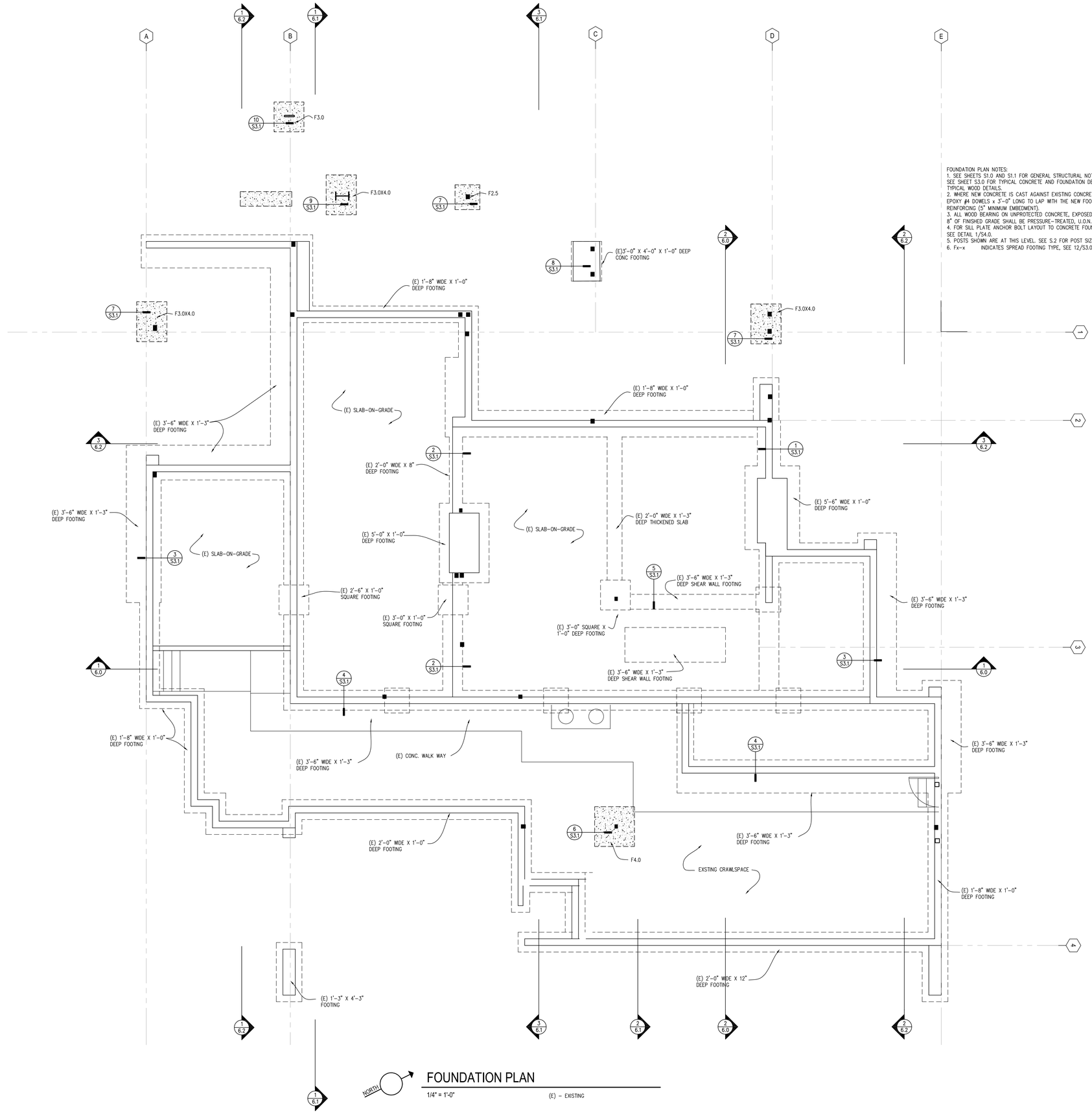
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

SECTION

Sheet No. 6.4
Project No. 2222
Date: 6/7/23



FOUNDATION PLAN

1/4" = 1'-0"

(E) – EXISTING

FOUNDATION PLAN NOTES:
1. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS. SEE SHEET S3.0 FOR TYPICAL CONCRETE AND FOUNDATION DETAILS. SEE SHEET S4.0 FOR TYPICAL WOOD DETAILS.
2. WHERE NEW CONCRETE IS CAST AGAINST EXISTING CONCRETE FOUNDATIONS, DRILL AND EPOXY #4 DOWELS x 3'-0" LONG TO LAP WITH THE NEW FOOTING LONGITUDINAL REINFORCING (5" MINIMUM EMBEDMENT).
3. ALL WOOD BEARING ON UNPROTECTED CONCRETE, EXPOSED TO WEATHER, OR WITHIN 8" OF FINISHED GRADE SHALL BE PRESSURE-TREATED, U.O.N.
4. FOR SILL PLATE ANCHOR BOLT LAYOUT TO CONCRETE FOUNDATION WALLS AND SLABS, SEE DETAIL 1/S4.0.
5. POSTS SHOWN ARE AT THIS LEVEL. SEE S.2 FOR POST SIZES.
6. Fx-x INDICATES SPREAD FOOTING TYPE, SEE 12/S3.0 FOR SCHEDULE.

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0804
FAX: 425-679-0807

REGISTERED ARCHITECT
S380
STATE OF WASHINGTON

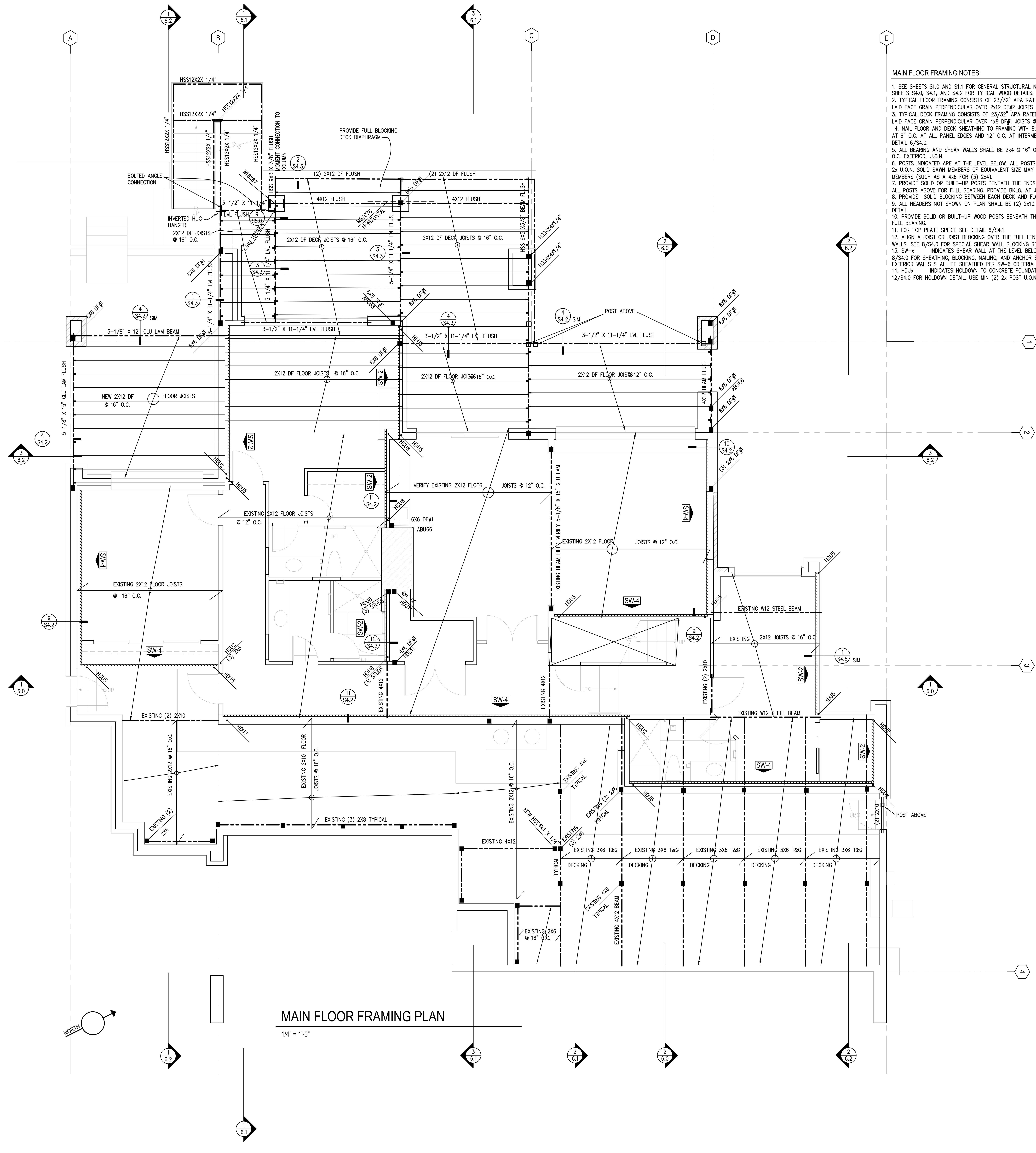
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

FOUNDATION

Sheet No.	S.1
Project No.	2222
Date:	6/7/23



MAIN FLOOR FRAMING PLAN

1/4" = 1'-0"

MAIN FLOOR FRAMING NOTES:

1. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS. SEE SHEETS S4.0, S4.1, AND S4.2 FOR TYPICAL WOOD DETAILS.
2. TYPICAL FLOOR FRAMING CONSISTS OF 23/32" APA RATED SHEATHING (INDEX 48/24), LAID FACE GRAIN PERPENDICULAR OVER 2x12 DF#2 JOISTS @ 16" O.C., U.O.N.
3. TYPICAL DECK FRAMING CONSISTS OF 23/32" APA RATED SHEATHING (INDEX 48/24), LAID FACE GRAIN PERPENDICULAR OVER 4x8 DF#1 JOISTS @ 16" O.C., U.O.N.
4. NAIL FLOOR AND DECK SHEATHING TO FRAMING WITH 8d NAILS (0.131" Ø x 2.5" LONG) AT 6" O.C. AT ALL PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS. SEE DETAIL 6/S4.0.
5. ALL BEARING AND SHEAR WALLS SHALL BE 2x4 @ 16" O.C. INTERIOR AND 2x6 @ 16" O.C. EXTERIOR, U.O.N.
6. POSTS INDICATED ARE AT THE LEVEL BELOW. ALL POSTS NOT SPECIFIED SHALL BE (2) 2x U.O.N. SOLID SAWN MEMBERS OF EQUIVALENT SIZE MAY BE SUBSTITUTED FOR BUILT-UP MEMBERS (SUCH AS A 4x6 FOR (3) 2x4).
7. PROVIDE SOLID OR BUILT-UP POSTS BENEATH THE ENDS OF ALL FLOOR BEAMS AND ALL POSTS ABOVE FOR FULL BEARING. PROVIDE BKLG. AT JOISTS PER DETAIL 7/S4.1.
8. PROVIDE SOLID BLOCKING BETWEEN EACH DECK AND FLOOR JOIST AT SUPPORTS.
9. ALL HEADERS NOT SHOWN ON PLAN SHALL BE (2) 2x10. SEE 10/S4.1 FOR HEADER DETAIL.
10. PROVIDE SOLID OR BUILT-UP WOOD POSTS BENEATH THE ENDS OF ALL BEAMS FOR FULL BEARING.
11. FOR TOP PLATE SPLICE SEE DETAIL 6/S4.1.
12. ALIGN A JOIST OR JOIST BLOCKING OVER THE FULL LENGTH OF ALL BEARING/SHEAR WALLS. SEE 8/S4.0 FOR SPECIAL SHEAR WALL BLOCKING REQUIREMENTS.
13. SW-x INDICATES SHEAR WALL AT THE LEVEL BELOW. SEE SHEAR WALL SCHEDULE 8/S4.0 FOR SHEATHING, BLOCKING, NAILING, AND ANCHOR BOLT REQUIREMENTS. ALL EXTERIOR WALLS SHALL BE SHEATHED PER SW-6 CRITERIA, U.O.N.
14. HDUx INDICATES HOLDOWN TO CONCRETE FOUNDATION WALLS OR FOOTINGS. SEE 12/S4.0 FOR HOLDOWN DETAIL. USE MIN (2) 2x POST U.O.N.

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
FAX: 425-679-0804
PHONE: 425-679-0907

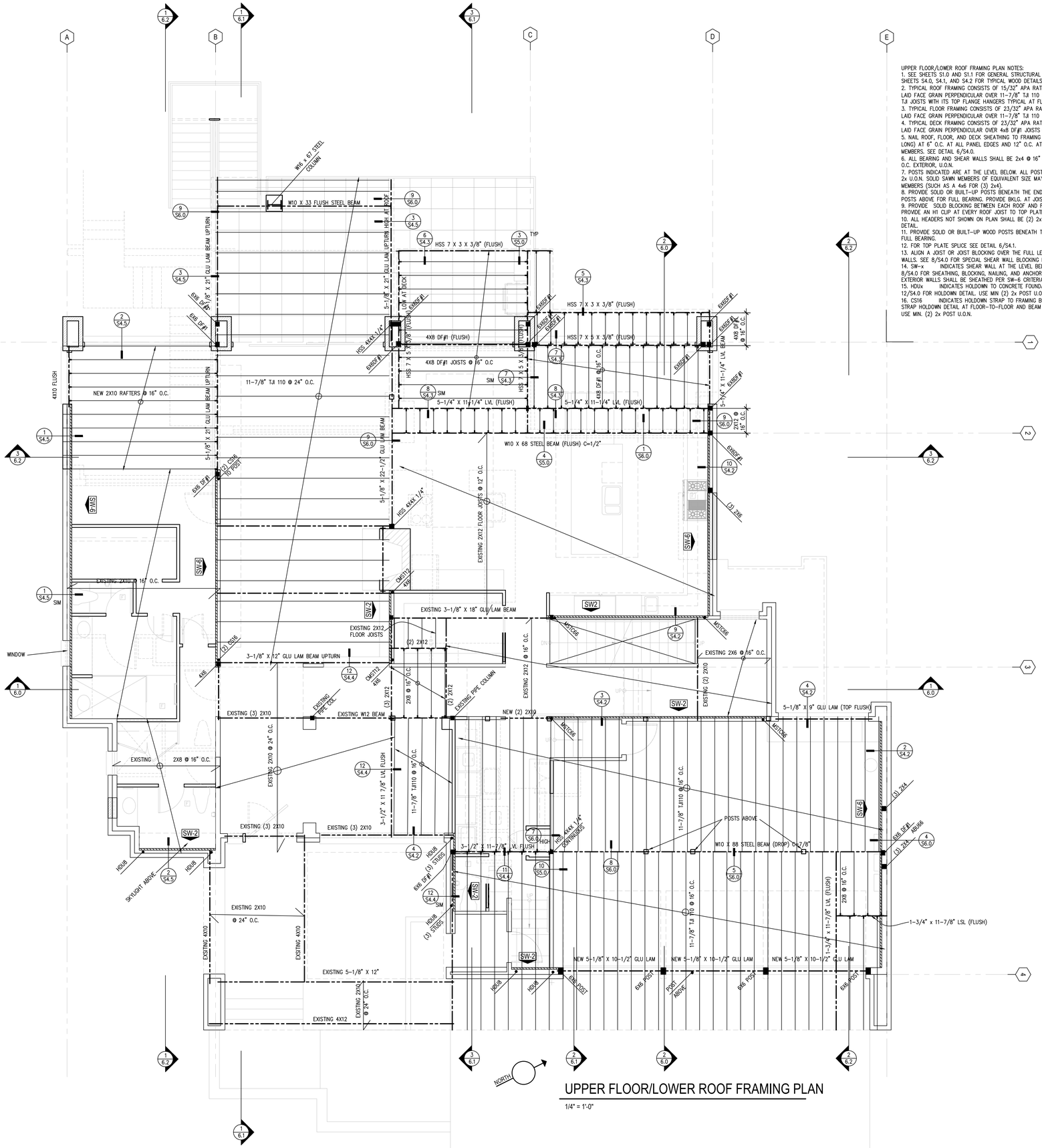
No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

MAIN FLOOR FRAMING PLAN

Sheet No. S.2
Project No. 2222
Date: 6/7/23



UPPER FLOOR/LOWER ROOF FRAMING PLAN

1/4" = 1'-0"

UPPER FLOOR/LOWER ROOF FRAMING PLAN NOTES:

1. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS. SEE SHEETS S4.0, S4.1, AND S4.2 FOR TYPICAL WOOD DETAILS.
2. TYPICAL ROOF FRAMING CONSISTS OF 15/32" APA RATED SHEATHING (INDEX 32/12), LAID FACE GRAIN PERPENDICULAR OVER 11-7/8" TJI 110 JOISTS @ 24" O.C., U.O.N. HANG TJI JOISTS WITH ITS TOP FLANGE HANGERS TYPICAL AT FLUSH BEAMS, U.O.N.
3. TYPICAL FLOOR FRAMING CONSISTS OF 23/32" APA RATED SHEATHING (INDEX 48/24), LAID FACE GRAIN PERPENDICULAR OVER 11-7/8" TJI 110 JOISTS @ 16" O.C., U.O.N.
4. TYPICAL DECK FRAMING CONSISTS OF 23/32" APA RATED SHEATHING (INDEX 48/24), LAID FACE GRAIN PERPENDICULAR OVER 4x8 DF#1 JOISTS @ 16" O.C., U.O.N.
5. NAIL ROOF, FLOOR, AND DECK SHEATHING TO FRAMING WITH 8d NAILS (0.131" Ø x 2.5" LONG) AT 6" O.C. AT ALL PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS. SEE DETAIL 6/S4.0.
6. ALL BEARING AND SHEAR WALLS SHALL BE 2x4 @ 16" O.C. INTERIOR AND 2x6 @ 16" O.C. EXTERIOR, U.O.N.
7. POSTS INDICATED ARE AT THE LEVEL BELOW. ALL POSTS NOT SPECIFIED SHALL BE (2) 2x U.O.N. SOLID SAWN MEMBERS OF EQUIVALENT SIZE MAY BE SUBSTITUTED FOR BUILT-UP MEMBERS (SUCH AS A 4x6 FOR (3) 2x4).
8. PROVIDE SOLID OR BUILT-UP POSTS BENEATH THE ENDS OF ALL FLOOR BEAMS AND ALL POSTS ABOVE FOR FULL BEARING. PROVIDE BKLG. AT JOISTS PER DETAIL 7/S4.1.
9. PROVIDE SOLID BLOCKING BETWEEN EACH ROOF AND FLOOR JOIST AT SUPPORTS. PROVIDE AN H1 CLIP AT EVERY ROOF JOIST TO TOP PLATE.
10. ALL HEADERS NOT SHOWN ON PLAN SHALL BE (2) 2x10. SEE 10/S4.1 FOR HEADER DETAIL.
11. PROVIDE SOLID OR BUILT-UP WOOD POSTS BENEATH THE ENDS OF ALL BEAMS FOR FULL BEARING.
12. FOR TOP PLATE SPLICE SEE DETAIL 6/S4.1.
13. ALIGN A JOIST OR JOIST BLOCKING OVER THE FULL LENGTH OF ALL BEARING/SHEAR WALLS. SEE 8/S4.0 FOR SPECIAL SHEAR WALL BLOCKING REQUIREMENTS.
14. SW-x INDICATES SHEAR WALL AT THE LEVEL BELOW. SEE SHEAR WALL SCHEDULE 8/S4.0 FOR SHEATHING, BLOCKING, NAILING, AND ANCHOR BOLT REQUIREMENTS. ALL EXTERIOR WALLS SHALL BE SHEATHED PER SW-6 CRITERIA, U.O.N.
15. HDUx INDICATES HOLDOWN TO CONCRETE FOUNDATION WALLS OR FOOTINGS. SEE 12/S4.0 FOR HOLDOWN DETAIL. USE MIN (2) 2x POST U.O.N.
16. CS16 INDICATES HOLDOWN STRAP TO FRAMING BELOW WALL. SEE 10/S4.0 FOR STRAP HOLDOWN DETAIL AT FLOOR-TO-FLOOR AND BEAM SUPPORTING SHEAR WALL END. USE MIN. (2) 2x POST U.O.N.

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0804
FAX: 425-679-0907

REGISTERED ARCHITECT
CHRISTINE BUCK
STATE OF WASHINGTON
5380

No.	Date	Revision

QUANTUM CONSULTING ENGINEERS

SCOTT H. TINKER
STATE OF WASHINGTON
20009
REGISTERED PROFESSIONAL ENGINEER

HONG AND KAO RESIDENCE

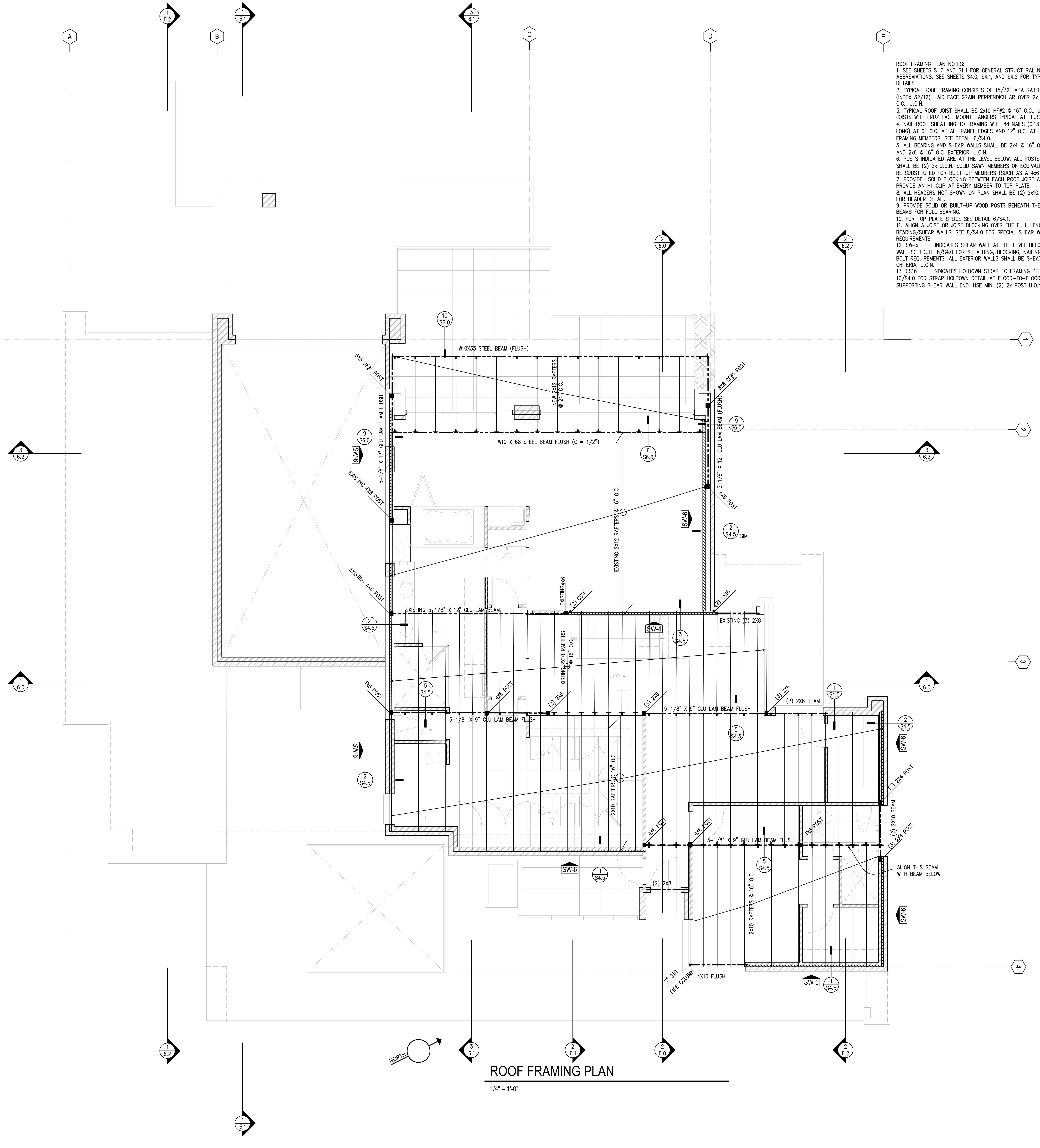
5425 W. MERCER WAY
MERCER ISLAND, WA 98040

UPPER FLOOR FRAMING PLAN

Sheet No. S.3
Project No. 2222
Date: 6/7/23

ROOF FRAMING PLAN NOTES:

1. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS. SEE SHEETS S4.0, S4.1, AND S4.2 FOR TYPICAL WOOD DETAILS.
2. TYPICAL ROOF FRAMING CONSISTS OF 15/32" APA RATED SHEATHING (INDEX 32/12), LAID FACE GRAIN PERPENDICULAR OVER 2x FRAMING @ 16" O.C., U.O.N.
3. TYPICAL ROOF JOIST SHALL BE 2x10 HF#2 @ 16" O.C., U.O.N. HANG JOISTS WITH LRUZ FACE MOUNT HANGERS TYPICAL AT FLUSH BEAMS.
4. NAIL ROOF SHEATHING TO FRAMING WITH 8d NAILS (0.131" Ø x 2.5" LONG) AT 6" O.C. AT ALL PANEL EDGES AND 12" O.C. AT INTERMEDIATE FRAMING MEMBERS. SEE DETAIL 6/S4.0.
5. ALL BEARING AND SHEAR WALLS SHALL BE 2x4 @ 16" O.C. INTERIOR AND 2x6 @ 16" O.C. EXTERIOR, U.O.N.
6. POSTS INDICATED ARE AT THE LEVEL BELOW. ALL POSTS NOT SPECIFIED SHALL BE (2) 2x U.O.N. SOLID SAWN MEMBERS OF EQUIVALENT SIZE MAY BE SUBSTITUTED FOR BUILT-UP MEMBERS (SUCH AS A 4x6 FOR (3) 2x4).
7. PROVIDE SOLID BLOCKING BETWEEN EACH ROOF JOIST AT SUPPORTS. PROVIDE AN H1 CLIP AT EVERY MEMBER TO TOP PLATE.
8. ALL HEADERS NOT SHOWN ON PLAN SHALL BE (2) 2x10. SEE 10/S4.1 FOR HEADER DETAIL.
9. PROVIDE SOLID OR BUILT-UP WOOD POSTS BENEATH THE ENDS OF ALL BEAMS FOR FULL BEARING.
10. FOR TOP PLATE SPLICE SEE DETAIL 6/S4.1.
11. ALIGN A JOIST OR JOIST BLOCKING OVER THE FULL LENGTH OF ALL BEARING/SHEAR WALLS. SEE 8/S4.0 FOR SPECIAL SHEAR WALL BLOCKING REQUIREMENTS.
12. SW-x INDICATES SHEAR WALL AT THE LEVEL BELOW. SEE SHEAR WALL SCHEDULE 8/S4.0 FOR SHEATHING, BLOCKING, NAILING, AND ANCHOR BOLT REQUIREMENTS. ALL EXTERIOR WALLS SHALL BE SHEATHED PER SW-6 CRITERIA, U.O.N.
13. CS16 INDICATES HOLDOWN STRAP TO FRAMING BELOW WALL. SEE 10/S4.0 FOR STRAP HOLDOWN DETAIL AT FLOOR-TO-FLOOR AND BEAM SUPPORTING SHEAR WALL END. USE MIN. (2) 2x POST U.O.N.



ROOF FRAMING PLAN

1/4" = 1'-0"

CHESMORE|BUCK
architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
FAX: 425-679-0804
PHONE: 425-679-0907

No.	Date	Revision

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

ROOF FRAMING PLAN

Sheet No.	S.4
Project No.	2222
Date:	6/7/23

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).

2. DESIGN LOADING CRITERIA

ROOF SNOW LOAD	25 PSF
ROOF RAIN ON SNOW LOAD	5 PSF
ROOF DEAD LOAD ALLOWANCE FOR PV PANELS	5 PSF
FLOOR LIVE LOAD	40 PSF
FLOOR LIVE LOAD (EXTERIOR DECKS AND BALCONIES)	60 PSF
FLOOR LIVE LOAD (PARKING GARAGE)	50 PSF
GUARDRAILS/BALCONY RAILS	200 LBS

WIND : ANALYSIS PROCEDURE: ASCE 7-16 CHAPTER 27 "PART 1 - BUILDINGS OF ALL HEIGHTS"
RISK CATEGORY II
97 MPH
EXPOSURE "C"
TOPOGRAPHIC FACTOR Kzt = 1.0
MAIN HOUSE WIND BASE SHEAR, NORTH/SOUTH Vn = 32.6 K
MAIN HOUSE WIND BASE SHEAR, EAST/WEST Vn = 38.9 K
DADU WIND BASE SHEAR, NORTH/SOUTH Vn = 11.6 K
DADU WIND BASE SHEAR, EAST/WEST Vn = 10.9 K

EARTHQUAKE : ANALYSIS PROCEDURE: IBC "EQUIVALENT LATERAL FORCE PROCEDURE"
SEISMIC DESIGN CATEGORY (SDC) = D
RISK CATEGORY = II
SEISMIC SITE CLASS = D
IMPORTANCE FACTOR Ie = 1.0
MAPPED MCE Ss = 1.45; S_1 = 0.51
DESIGN ACCELERATION Sds = 0.97; S_{d1} = 0.61
SEISMIC RESISTING SYSTEM: WOOD PANEL BEARING SHEAR WALL, R = 6.5
SEISMIC RESPONSE COEFFICIENT: Cs = 0.149
MAIN HOUSE SEISMIC BASE SHEAR Vs = 67.7 K
DADU SEISMIC BASE SHEAR Vs = 10.8 K

3. LATERAL LOADS ARE TRANSFERRED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE SHEAR WALLS. FORCES ARE BASED ON THE TRIBUTARY AREA FOR EACH SHEAR WALL AND ARE CARRIED BY THE SHEAR WALLS TO THE FOUNDATION.

4. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

5. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED.

6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THEIR WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

8. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

9. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. WHERE INFORMATION ON THE DRAWINGS IS IN CONFLICT WITH THE SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. DO NOT SCALE THE DRAWINGS.

10. ALL STRUCTURAL SYSTEMS WHICH ARE COMPOSED OF FIELD ERECTED COMPONENTS SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

11. SHOP DRAWINGS STRUCTURAL STEEL AND GLUED LAMINATED MEMBERS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

12. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, AND THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. A MINIMUM OF TWO WEEKS SHALL BE ALLOWED FOR REVIEW.

13. SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

14. DEFERRED SUBMITTALS OF DESIGN BUILD COMPONENTS SHALL BEAR THE STAMP AND SIGNATURE OF A STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO CURSORY REVIEW BY THE ENGINEER OF RECORD FOR LOADS IMPOSED ON THE BASIC STRUCTURE. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. DEFERRED SUBMITTALS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE AND SHALL INCLUDE DESIGN CALCULATIONS WITH THE ENGINEER'S STAMP.

THE FOLLOWING COMPONENTS SHALL BE DEFERRED SUBMITTALS FOR THIS PROJECT:
STAIRS, RAILINGS.

15. SPECIAL INSPECTION: STRUCTURAL STEEL FABRICATION AND ERECTION (INCLUDING FIELD WELDING AND HIGH-STRENGTH FIELD BOLTING), EXPANSION BOLTS AND THREADED EXPANSION INSERTS, SCREW ANCHORS, EPOXY GROUTED INSTALLATIONS, AND DRIVEN PILE INSTALLATION SHALL BE SUPERVISED IN ACCORDANCE WITH IBC SECTIONS 1704 & 1705 AND THE PROJECT SPECIFICATIONS BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE OWNER, ARCHITECT, STRUCTURAL ENGINEER, CONTRACTOR AND BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET PROJECT SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.

GEOTECHNICAL

16. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE GEOTECHNICAL REPORT OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND GEOTECHNICAL ENGINEER. UNLESS OTHERWISE NOTED, FOOTINGS SHALL BE CENTERED UNDER COLUMNS OR WALLS ABOVE.

BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE GEOTECHNICAL REPORT.

THE STRUCTURAL DESIGN IS BASED ON THE FOLLOWING VALUES FROM THE REFERENCED GEOTECHNICAL REPORT:

ALLOWABLE SOIL BEARING PRESSURE	2,000 PSF
LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED)	55 PCF/35 PCF
SEISMIC SURCHARGE PRESSURE (RESTRAINED/UNRESTRAINED)	8H PSF/5H PSF
PASSIVE SOIL PRESSURE	350 PCF
SOIL COEFFICIENT OF FRICTION	0.35
PILE CAPACITY (3 INCH)	12 KIPS

GEOTECHNICAL REPORT REFERENCE: #G-5881 BY GEO GROUP NORTHWEST, INC. DATED MAY 20, 2023.

17. PIPE PILES SHALL BE GALVANIZED SCHEDULE-40 (STD) ASTM A53 (TYPE E OR S, GRADE A OR B) 3 INCH NOMINAL PIPE DRIVEN TO REFUSAL PER THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER. THE ALLOWABLE AXIAL COMPRESSION CAPACITY SHALL BE 12 KIPS. SECTIONS OF PIPE SHALL BE CONNECTED TOGETHER WITH COMPRESSION FITTED SLEEVE COUPLERS.

18. PIPE PILING INSPECTION SHALL BE CONTINUOUSLY PERFORMED BY THE GEOTECHNICAL ENGINEER DURING PLACEMENT TO CONFIRM THAT THE PILES ARE INSTALLED IN ACCORDANCE WITH THE PLANS AND GEOTECHNICAL REPORT. AT LEAST 3% OF THE 3 INCH PILES SHALL BE LOAD TESTED IN ACCORDANCE WITH ASTM D1143. MAXIMUM PILE MIS-LOCATION SHALL BE 2" LATERALLY. ACTUAL PILE LENGTH SHALL BE DETERMINED IN THE FIELD BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO DRIVING PILES.

RENOVATION

19. DEMOLITION: VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. EXISTING REINFORCING SHALL BE SAVED WHERE AND AS NOTED ON THE PLANS. SAW CUTTING, IF AND WHERE USED, SHALL NOT CUT EXISTING REINFORCING THAT IS TO BE SAVED. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF.

20. ALL EXTERIOR WALLS SHALL BE INSPECTED AND REPAIRED AS FOLLOWS:
SCRAPE ALL LOOSE AND WEAKENED MORTAR OUT TO FULL DEPTH OF THE DETERIORATION; REMOVE AND REPLACE ANY LOOSE MASONRY UNITS; CHECK FOR LOOSE FACING BRICK VENEERS; TUCK POINT ALL JOINTS SOLID. ALL MASONRY RESTORATION AND REPAIR SHALL BE PERFORMED IN SUCH A MANNER THAT THE EXISTING STRUCTURE IS NOT WEAKENED OR LEFT UNSUPPORTED DURING THE PROCESS OF THE WORK. ALL EXTERIOR APPENDAGES SUCH AS FIRE ESCAPES, CORNICES AND EYEBROWS SHALL BE INSPECTED FOR STRUCTURAL INTEGRITY AND THE CONDITION OF THE CONNECTIONS TO THE STRUCTURE. NOTIFY THE STRUCTURAL ENGINEER AS TO THE FINDINGS OF THIS INSPECTION.

21. CHECK FOR DRYROT AT ALL EXTERIOR WALLS, EXISTING TOILET ROOM FLOORS AND WALLS, AREAS SHOWING WATER STAINS, AND ALL WOOD MEMBERS IN BASEMENT AND CRAWL SPACES. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.

CONCRETE

22. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301. CONSTRUCTION TOLERANCES SHALL NOT EXCEED THOSE LISTED IN ACI 117. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 2500 PSI. ALL CONCRETE EXPOSED TO THE WEATHER AND ALL GARAGE SLABS-ON-GRADE SHALL ATTAIN A 28-DAY STRENGTH f'c OF 3,000 PSI IN ACCORDANCE WITH IBC SECTION 1904.1. AND ACI 318 TABLE 19.3.2.1 THIS INCREASE IN REQUIRED STRENGTH IS FOR DURABILITY ONLY (SPECIAL INSPECTION IS NOT REQUIRED). MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS (BEFORE THE ADDITION OF ADMIXTURES). THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.55 FOR FOOTINGS AND 0.45 FOR ALL SLABS AND EXPOSED CONCRETE UNLESS OTHERWISE NOTED, EXCEPT FOR FOOTINGS AND SLAB ON GRADE, AGGREGATE SIZE SHALL NOT EXCEED 3/4".

THE MINIMUM AMOUNT OF CEMENT AND THE MAXIMUM SLUMP MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. (THE W/C RATIO LIMITS STILL APPLY). THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, CEMENTITIOUS MATERIAL, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 301. CHEMICAL ADMIXTURES AND FLY ASH SHALL CONFORM TO ASTM C494 AND C618 RESPECTIVELY. FLY ASH PERCENTAGE OF TOTAL CEMENTITIOUS MATERIAL SHALL NOT EXCEED 20%. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY TO CONTRACT DOCUMENTS. CONTRACTOR MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14 TABLE 19.3.3.1. ALL CONCRETE TO RECEIVE A STEEL TROWELED FINISH SHALL NOT BE AIR-ENTRAINED.

23. REINFORCING STEEL SHALL CONSIST OF #4 BARS CONFORMING TO ASTM A615, GRADE 40, f_y = 40,000 PSI AND SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315 AND 318. LAP ALL CONTINUOUS REINFORCEMENT 48 BAR DIAMETERS, 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS, LAP 2'-0" MINIMUM. PROVIDE (2) #4 MIN. U.N.O. TRIM BARS AROUND ALL OPENINGS IN CONCRETE WALLS OR SLABS EXTENDING 2'-0" PAST CORNERS, TYPICAL.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. NO REINFORCING BARS SHALL BE "WET-SET" INTO THE CONCRETE. PROVIDE A 20' LONG REBAR GROUND (UFER GROUND) PER ELECTRICIAN.

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

FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST EARTH	3"
FORMED SURFACES EXPOSED TO EARTH (i.e. WALLS BELOW GROUND) OR WEATHER	2"
SLABS AND WALLS (INTERIOR FACE)	1"

CONCRETE WALL REINFORCING - PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

WALL THICKNESS	VERTICAL BARS	HORIZONTAL BARS
6" WALLS	#4 @ 18" (1 CURTAIN)	#4 @ 12" (1 CURTAIN)
8" WALLS	#4 @ 16" (1 CURTAIN)	#4 @ 10" (1 CURTAIN)
10" WALLS	#4 @ 18" (2 CURTAIN)	#4 @ 16" (2 CURTAIN)

25. NON-SHRINK GROUT SHALL BE NON-METALLIC CONFORMING TO ASTM C1107 AND BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (5000 PSI MINIMUM).

ANCHORAGE

26. EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2 WEDGE ANCHOR", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-3037 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.

27. SCREW ANCHORS INTO CONCRETE SHALL BE "TITEN HD", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-2713 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL SCREW ANCHOR INSTALLATION.

28. DRIVE PINS, SHOT PINS AND OTHER POWDER-ACTUATED FASTENERS SHALL BE LOW VELOCITY TYPE FASTENERS AS MANUFACTURED BY HILTI CORPORATION. WHEN CALLED FOR IN THE DRAWINGS, PROVIDE THE APPROPRIATE FASTENER AS NOTED IN THE TABLE BELOW FOR EACH GIVEN APPLICATION. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORTS NO. ESR-2269 FOR THE X-U FASTENERS AND ESR-2379 FOR THE X-CP FASTENERS. MINIMUM EMBEDMENT IN CONCRETE SHALL BE 1" UNLESS OTHERWISE NOTED. MAINTAIN AT LEAST 3" TO NEAREST CONCRETE EDGE AND 4" CENTER TO CENTER SPACING. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES.

ALLOWABLE APPLICATION	ALLOWABLE FASTENER TYPE	SHEAR CAPACITY (LBS)	TENSION CAPACITY (LBS)
2X TREATED LUMBER TO CONCRETE (2000 PSI MIN.)	X-CP 72 P8 S23 w/ 1.33" EMBED	250	175
2X LUMBER TO STRUCTURAL STEEL (3/16" MIN., 36 OR 50 KSI)	X-U 52 MX PLUS R-23 WASHERS	250	175

29. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) INTO CONCRETE SHALL BE INSTALLED USING "SET-3G" ADHESIVE ANCHOR AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-4057, INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.

MASONRY

30. MASONRY VENEER SHALL HAVE W1.7 (9 GAUGE) WIRE JOINT REINFORCEMENT SPACED AT 16" O.C. VERTICALLY AND SHALL BE ANCHORED TO BACKING WALLS PER IBC SECTION 1404.6 WITH SHEET METAL ANCHORS, WIRE ANCHORS OR ADJUSTABLE ANCHORS. MECHANICALLY CONNECT THE ANCHORS TO THE JOINT REINFORCEMENT WITH CLIPS OR HOOKS THAT WILL ENGAGE OR ENCLOSE THE WIRE. THE WIRE SHALL BE CONTINUOUS WITH BUTT SPLICES BETWEEN ANCHORS PERMITTED.

SHEET METAL ANCHORS (NON-CORRUGATED) SHALL BE AT LEAST 7/8" WIDE, 0.03" THICK, COMPLY WITH TMS 402/602 REQUIREMENTS AND BE SPACED AT 16" O.C. VERTICALLY AND A MAX. OF 24" O.C. HORIZONTALLY.

THE MAXIMUM HEIGHT OF CONTINUOUS BRICK VENEER FROM A CONCRETE FOUNDATION SHALL BE 30 FEET. PROVIDE VERTICAL EXPANSION JOINTS IN CONTINUOUS VENEER @ 25' O.C. MAX. TYPICAL U.O.N. LINTEL ANGLES OVER OPENINGS 6'-0" WIDE OR LESS SHALL BE L4" X 4" X 1/4" HOT DIP GALVANIZED, U.N.O. AND SHALL BEAR ON A MINIMUM OF 4" OF MASONRY EACH END.

QUANTUM
CONSULTING ENGINEERS
1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKER
STATE OF WASHINGTON
36098
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

SHEET TITLE:

GENERAL STRUCTURAL NOTES

SHEET NO.

S1.0

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

STEEL

31. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON THE LATEST EDITIONS OF THE A.I.S.C. SPECIFICATIONS AND CODES:

    A. AISC - STEEL CONSTRUCTION MANUAL, 15TH EDITION
    B. AISC 303-16 - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
    C. 2014 RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS.

32. STRUCTURAL STEEL, WIDE FLANGE (W AND WT) SHAPES SHALL CONFORM TO ASTM A992, Fy = 50 KSI; ALL OTHER ROLLED SHAPES SHALL CONFORM TO ASTM A36, Fy = 36 KSI. STEEL PLATE SHALL CONFORM TO ASTM A36, Fy = 36 KSI. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B, Fy = 35 KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE C, Fy = 50 KSI. CONNECTION BOLTS SHALL CONFORM TO ASTM A307. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GRADE 36, Fy = 36 KSI.

33. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

34. ALL A325 CONNECTION BOLTS SHALL BE INSTALLED TO THE SNUG-TIGHT CONDITION PER RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. ALL NUTS SHALL CONFORM TO ASTM A563. ALL WASHERS SHALL CONFORM TO ASTM F436 OR ASTM F959 TYPE 325. ALL BOLT HOLES SHALL BE STANDARD SIZE UNLESS OTHERWISE NOTED.

35. ALL A307 CONNECTION BOLTS SHALL BE PROVIDED WITH LOCK WASHERS UNDER NUTS OR SELF-LOCKING NUTS. ALL BOLT HOLES SHALL BE STANDARD SIZE UNLESS OTHERWISE NOTED.

36. ALL WELDING SHALL BE IN CONFORMANCE WITH A.I.S.C. AND A.W.S. STANDARDS AND SHALL BE PERFORMED BY W.A.B.O. CERTIFIED WELDERS USING E70 XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY A.W.S.) SHALL BE USED. WELDING OF GRADE 60 REINFORCING BARS (IF REQUIRED) SHALL BE PERFORMED USING LOW HYDROGEN ELECTRODES. WELDING OF GRADE 40 REINFORCING BARS (IF REQUIRED) SHALL BE PERFORMED USING E70XX ELECTRODES. WELDING WITHIN 4" OF COLD BENDS IN REINFORCING STEEL IS NOT PERMITTED. SEE REINFORCING NOTE FOR MATERIAL REQUIREMENTS OF WELDED BARS. ALL WELDING SHALL BE PERFORMED BY WELDERS WITH AWS / W.A.B.O. CERTIFICATION WITH THE MATERIAL AND METHOD REQUIRED.

    SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AWS A2.4 SYMBOLS. WELDS SHOWN ON DRAWINGS ARE MINIMUM SIZES. INCREASE WELD SIZE TO AWS MINIMUM SIZES BASED ON PLATE THICKNESS. MINIMUM WELDING SHALL BE 3/16-INCH. THE WELDS SHOWN ARE FOR THE FINAL CONNECTIONS. FIELD WELD ARROWS ARE SHOWN WHERE A FIELD WELD IS REQUIRED BY THE STRUCTURAL DESIGN; THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IF A WELD SHOULD BE SHOP OR FIELD WELDED IN ORDER TO FACILITATE THE STRUCTURAL STEEL DELIVERY AND ERECTION.

37. WELDING OF LATERAL FORCE RESISTING MEMBERS SHALL BE PERFORMED IN ACCORDANCE WITH A WELDING PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1 AND APPROVED BY THE STRUCTURAL ENGINEER BEFORE WORK BEGINS. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER METAL MANUFACTURER. WELDING ELECTRODES SHALL BE E70T6-K2 OR E70T6 WITH A MINIMUM SPECIFIED CHARPY V-NOTCH (CVN) OF 20 ft-lbs AT -20 DEGREES FAHRENHEIT AND 40 ft-lbs AT 70 DEGREES FAHRENHEIT. REMOVE BOTTOM FLANGE WELD TAB AT MOMENT FRAME CONNECTIONS AND REINFORCE WITH 5/16"' FILLET WELD IN CONFORMANCE WITH FEMA-353 RECOMMENDATIONS. WELD ACCESS HOLE DETAILING AT MOMENT FRAME CONNECTIONS SHALL CONFORM WITH FEMA-350 AND FEMA-353 RECOMMENDATIONS.

WOOD

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

JOISTS (2X, 3X, AND 4X MEMBERS)	DOUGLAS FIR OR HEM-FIR NO. 2
BEAMS AND STRINGERS (INCLUDING 6 X AND LARGER MEMBERS)	DOUGLAS FIR NO. 1
POSTS AND TIMBERS	DOUGLAS FIR NO. 1
STUDS, PLATES & MISCELLANEOUS LIGHT FRAMING (AS NOTED ON PLANS / DETAILS)	DOUGLAS FIR OR HEM-FIR NO. 2

39. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM D3737 AND ANSI A190.1 STANDARDS. EACH MEMBER SHALL BEAR AN A.I.T.C. IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN A.I.T.C. CERTIFICATE OF CONFORMANCE. CERTIFICATES OF CONFORMANCE MUST BE MADE AVAILABLE TO BUILDING INSPECTORS. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv = 240 PSI, E = 1,800 KSI. ALL CANTILEVERED OR CONTINUOUS BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2,400 PSI, Fv = 240 PSI, E = 1,800 KSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS TO 5,000' RADIUS UNLESS SHOWN OTHERWISE ON THE PLANS. ALL GLUE LAMINATED COLUMNS SHALL BE DOUGLAS FIR COMBINATION 2, Fc = 1,900 PSI, Fby = 1,800 PSI, Fbx = 1,700 PSI, E = 1,700 KSI (4 LAMS MINIMUM DEPTH). CONTRACTOR SHALL VERIFY AVAILABILITY OF THE GL MEMBER SIZES SHOWN ON THE DRAWINGS AND ADJUST THE CONNECTOR SIZES IF NEEDED FOR LARGER MEMBER SIZES.

40. LAMINATED VENEER LUMBER (LVL) SHALL BE DESIGNED AND MANUFACTURED PER ASTM D5456. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO. ALL LAMINATED VENEER LUMBER SHALL BE MANUFACTURED USING DOUGLAS FIR VENEER GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. MINIMUM STRUCTURAL PROPERTIES ARE AS FOLLOWS:

    Fb = 2600 PSI, E = 2.0 x 10^6 PSI, Fv = 285 PSI

    DESIGN SHOWN ON PLANS IS BASED ON MATERIALS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

41. LAMINATED STRAND LUMBER (LSL) SHALL BE DESIGNED AND MANUFACTURED PER ASTM D5456. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO. ALL LAMINATED STRAND LUMBER SHALL BE MANUFACTURED USING A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559. MINIMUM STRUCTURAL PROPERTIES ARE AS FOLLOWS:

    RIM JOISTS AND BLOCKING (1-1/4" MINIMUM THICKNESS AT NON-SHEAR WALLS; SEE SCHEDULE FOR MINIMUM THICKNESS AT SHEAR WALLS):

    Fb = 1700 PSI, E = 1.3 x 10^6 PSI, Fv = 400 PSI

    BEAMS AND HEADERS:

    Fb = 2325 PSI, E = 1.55 x 10^6 PSI, Fv = 310 PSI

    DESIGN SHOWN ON PLANS IS BASED ON MATERIALS MANUFACTURED BY THE WEYERHAEUSER CORPORATION.

    ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

42. WOOD I-JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE I-JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE I.C.C. OR IAPMO UES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH WOOD JOIST PROVIDED. GLUE FLOOR JOISTS TO SHEATHING AS REQUIRED BY THE JOIST MANUFACTURER.

43. WOOD SHEATHING SHALL BE APA RATED, EXTERIOR GLUE; EXPOSURE 1, IN CONFORMANCE WITH THE REQUIREMENTS FOR THEIR TYPE IN DOC PS-1 OR PS-2. SEE PLANS FOR THICKNESS, PANEL IDENTIFICATION INDEX AND NAILING REQUIREMENTS.

    UNLESS OTHERWISE NOTED ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH (2) 10d-F NAILS AT EACH END, UNLESS OTHERWISE NOTED. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PANEL EDGES AND NAIL WITH EDGE NAILING SPACED PER PLANS. WHERE NOT NOTED OTHERWISE, NAIL PANEL EDGES WITH 8d NAILS @ 6" O.C. EDGES, 12" O.C. IN THE FIELD.

44. ALL WOOD EXPOSED TO WEATHER, OR BEARING ON UNPROTECTED CONCRETE BELOW GRADE, OR BEARING ON UNPROTECTED CONCRETE LESS THAN 8" FROM EXPOSED EARTH SHALL BE PRESSURE-TREATED, U.O.N. PRESSURE TREATMENT SHALL BE WITH AN APPROVED PRESERVATIVE CONFORMING TO AMERICAN WOOD PRESERVERS ASSOCIATION U1 AND M4 AND SHALL BE BRANDED WITH A QUALITY CONTROL AGENCY MARK BY THE AWPA OR EQUAL. ALL METAL HARDWARE IN CONTACT WITH TREATED WOOD SHALL BE PROTECTED WITH A G185 GALVANIZED COATING (ZMAX) OR BETTER. ALL NAILS IN TREATED WOOD SHALL BE HOT-DIP GALVANIZED OR BETTER. PROVIDE 2 LAYERS OF 30# ASPHALT IMPREGNATED BUILDING PAPER BETWEEN NON-PRESSURE-TREATED LEDGERS, BLOCKING, ETC., AND CONCRETE.

45. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NO. C-C-2021. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE I.C.C. OR IAPMO UES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. CONNECTORS SHALL BE SIZED TO MATCH THE SIZE OF THE FRAMING MEMBERS BEING CONNECTED. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. ALL BOLTS TIGHTENED TO SNUG TIGHT.

46. WOOD FASTENERS:

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

DRAWING ID	NAIL NAME	NAIL DIAMETER	NAIL LENGTH
"6d"	6d Common	0.113"	2"
"8d Box"	8d Box	0.113"	2-1/2"
"8d"	8d Common	0.131"	2-1/2"
"10d-F"	10d Framer	0.131"	3"
"10d"	10d Shear	0.148"	2-1/4"
"16d"	16d Sinker	0.148"	3-1/4"

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

    B. NAILS - SHEATHING FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

    C. SCREWS SHALL BE WOOD SCREWS OF THE DIAMETER AND LENGTH NOTED ON THE DRAWINGS. SDS FASTENERS ARE SIMPSON STRONG DRIVE SCREWS.

    D. HOT DIPPED GALVANIZED NAILS, BOLTS AND METAL PLATES - ALL NAILS, BOLTS AND METAL PLATES IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED.

47. WOOD FRAMING NOTES: THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:

    A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. TIGHTEN BOLTS AND LAG SCREWS SNUGLY AGAINST WOOD FRAMING AFTER WOOD HAS REACHED SPECIFIED MOISTURE CONTENT.

    B. WALL FRAMING: ALL BEARING AND SHEAR WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2 x 4 STUDS @ 16" O.C. AT INTERIOR WALLS AND 2 x 6 @ 16" O.C. AT EXTERIOR WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL BEARING AND SHEAR WALLS AND AT EACH SIDE OF ALL OPENINGS. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW.

    ALL BEARING STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS AT 8" O.C. STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS WITH 3"x3"x1/4" PLATE WASHERS @ 4'-0" O.C., UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH 10d-F NAILS @ 8" O.C. STAGGERED. REFER TO THE PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING. WHEN NOT OTHERWISE NOTED, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES ATTACHED TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH SCREWS AT 8" O.C. USE 1-1/4 " W #6 SCREWS FOR 1/2" GNB AND 5/8" GNB WHERE OCCURS. VERIFY THE FIRE ASSEMBLY REQUIREMENTS WHERE APPLICABLE WITH THE ARCHITECT.

    C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 10d-F NAILS @ 8" O.C. STAGGERED UNLESS OTHERWISE NOTED.

    D. POSITIVE CONNECTIONS: PROVIDE THE FOLLOWING SIMPSON CONNECTORS AT TYPICAL FRAMING UNLESS OTHERWISE NOTED ON PLAN OR DETAIL. PROVIDE CCQ/ECCQ CAPS AND PBS BASES AT POSTS. PROVIDE BC BASE WHERE POST BEARS ON WOOD FRAMING BELOW. PROVIDE LUS SERIES HANGERS FOR 2X FLOOR AND ROOF JOISTS. CONNECTORS SHALL BE SIZED TO MATCH THE SIZE OF THE FRAMING MEMBERS BEING CONNECTED.

QUANTUM
CONSULTING ENGINEERS

1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumcs.com

SEAL:

SCOTT H. TINKA
STATE OF WASHINGTON
36098
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

SHEET TITLE:

GENERAL STRUCTURAL NOTES

SHEET NO.

S1.1

File: 127-s101.dwg Plotted: Wed, 06/07/2023 1:08 pm

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

ABBREVIATIONS

@	At
d	Penny (Nails)
Ø	Diameter
°	Degrees
...#	Pounds
#...	Number
(A)	Above
A.B.	Anchor Bolt
ADD'L	Additional
ALT.	Alternate
APPROX.	Approximate
ARCH.	Architect
A.S.D.	Allowable Stress Design
(B)	Below
B/	Bottom of
BF	Braced Frame
BLKG.	Blocking
BLDG.	Building
BM.	Beam
BOT.	Bottom
BRG.	Bearing
BTWN.	Between
CL or ℄	Centerline
C	Camber
CIP	Cast In Place
C.J.	Construction Joint or Control Joint
CJP	Complete Joint Penetration
CLG.	Ceiling
CLR.	Clear
CMU	Concrete Masonry Unit
COL.	Column
CONC.	Concrete
CONN.	Connections
CONST.	Construction
CONT.	Continuous
CSK.	Countersink
DBA	Deformed Bar Anchor
DBL.	Double
DEG.	Degree
DF	Doug Fir-Larch
DIA.	Diameter
DIAG.	Diagonal
DIAPH.	Diaphragm
DIM.	Dimension
DN.	Down
DO	Ditto
DTL.	Detail
DTP	Double Top Plate
DWG.	Drawing
(E)	Existing
E.	East
EA.	Each
E.F.	Each Face
EL.	Elevation
ELEV.	Elevator
EMBED.	Embedment Length
ENGR.	Engineer
EQ.	Equal
E.W.	Each Way
EXP.	Expansion
EXT.	Exterior
FDN.	Foundation
FIN.	Finish
FLR.	Floor
FRP	Fiber Reinforced Polymer
F.S.	Far Side
FT.	Foot or Feet
FTG.	Footing
GA.	Gauge
GALV.	Galvanized
GL	Glue Laminated
GWB	Gypsum Wall Board
HDG	Hot Dipped Galvanized
HDR.	Header
HF	Hem Fir
HGR.	Hanger
HORIZ.	Horizontal
HSS	Hollow Structural Section
HT.	Height
I.D.	Inside Diameter
I.F.	Inside Face
IN.	Inch
INFO.	Information
INT.	Interior
JT.	Joint
K	Kips
KSF	Kips per Square Foot
KSI	Kips per Square Inch

L	Angle
LB.	Pound
LL	Live Load
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
LONGIT.	Longitudinal
LT. WT.	Lightweight
MAX.	Maximum
MECH.	Mechanical
MEZZ.	Mezzanine
MF	Moment Frame
MFR.	Manufacturer
MIN.	Minimum
MISC.	Miscellaneous
MK.	Mark
(N)	New
N.	North
N.S.	Near Side
NOM.	Nominal
NTS	Not to Scale
O.C.	On Center
O.D.	Outside Diameter
O.F.	Outside Face
O.H.	Overhang
OPNG.	Opening
OPP.	Opposite
PAF	Powder Actuated Fastener
PC	Precast
PERM.	Permanent
PERP.	Perpendicular
PJP	Partial Joint Penetration
PL or ℙ	Plate
PLF	Pounds per linear Foot
PLYWD	Plywood
PREFAB.	Prefabricated
PSF	Pounds per Square Foot
PSI	Pounds per Square Inch
P.T. or PT	Post-Tensioning
P/T	Pressure-Treated
RAD.	Radius
REF.	Reference
REINF.	Reinforce or Reinforcement
REQD.	Required
REV.	Revise
R.O.	Rough Opening
S.	South
SCH. or SCHED.	Schedule
SECT.	Section
SHT.	Sheet
SIM.	Similar
SOG	Slab On Grade
SPEC.	Specification
SQ.	Square
SQ. FT.	Square Feet
SQ. IN.	Square Inch(es)
SPF	Spruce-Pine-Fir
S.S.	Stainless Steel
STD.	Standard
STIFF.	Stiffener
STL.	Steel
STR.	Structural
SUB.	Substitute
SYM.	Symmetrical
T/	Top of
T&B	Top and Bottom
T&G	Tongue & Groove
TEMP.	Temporary
THRU	Through
T.O.C.	Top of Concrete
T.O.S.	Top of Steel
T.O.W.	Top of Wall
TRANS.	Transverse
TS	Tube Steel
TYP.	Typical
U.O.N.	Unless Otherwise Noted
VERT.	Vertical
VIF	Verify in Field
W.	West
W/ or w/	With
W.H.S.	Welded Headed Stud
W/O	Without
W.P.	Work Point
W.T.S.	Welded Threaded Stud
WWF	Welded Wire Fabric
X SECT.	Cross Section
X-STR	Extra Strong
XX-STR	Double Extra Strong

QUANTUM
CONSULTING ENGINEERS

1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKEY — STATE OF WASHINGTON — 36098 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

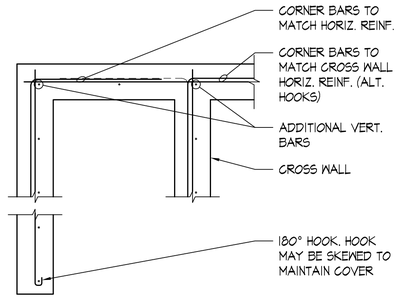
SHEET TITLE:

GENERAL STRUCTURAL NOTES

SHEET NO.

S1.2

File: 127-s102.dwg Plotted: Wed, 06/07/2023 1:08 pm

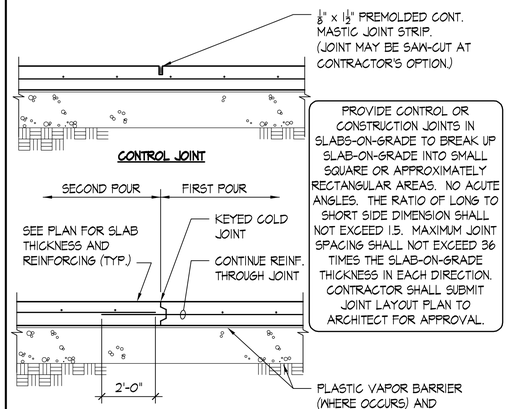


SINGLE CURTAIN

PLAN VIEW

1 TYPICAL CORNER BAR AND WALL END BAR ARRANGEMENT AT CONCRETE WALLS OR FOOTINGS

SCALE: NONE

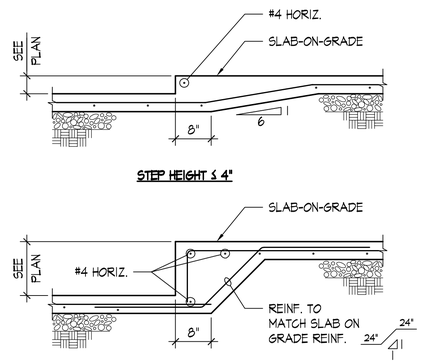


PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS-ON-GRADE TO BREAK UP SLAB-ON-GRADE INTO SMALL SQUARE OR APPROXIMATELY RECTANGULAR AREAS. NO ACUTE ANGLES. THE RATIO OF LONG TO SHORT SIDE DIMENSION SHALL NOT EXCEED 1.5. MAXIMUM JOINT SPACING SHALL NOT EXCEED 36 TIMES THE SLAB-ON-GRADE THICKNESS IN EACH DIRECTION. CONTRACTOR SHALL SUBMIT JOINT LAYOUT PLAN TO ARCHITECT FOR APPROVAL.

CONSTRUCTION JOINT

2 TYPICAL SLAB-ON-GRADE JOINTS

SCALE: NONE



STEP HEIGHT ≤ 4"

4" < STEP HEIGHT ≤ 1'-0"

3 TYPICAL SLAB-ON-GRADE STEP DETAIL

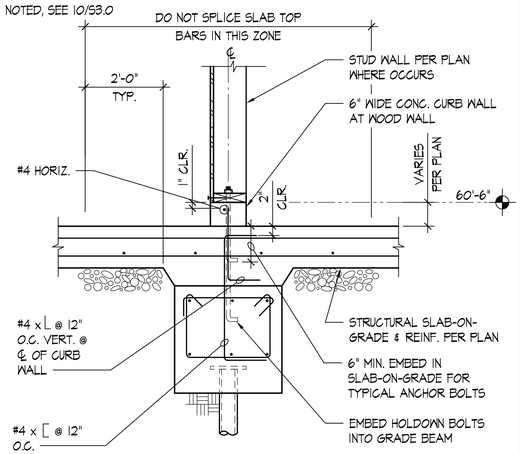
SCALE: NONE

4

5

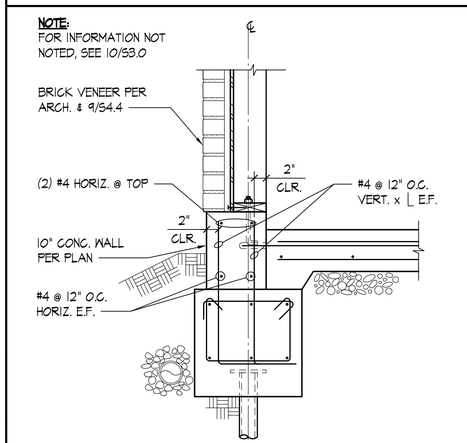
DETAIL

SCALE: NONE



8 TYPICAL PIPE PILE FOUNDATION - INTERIOR

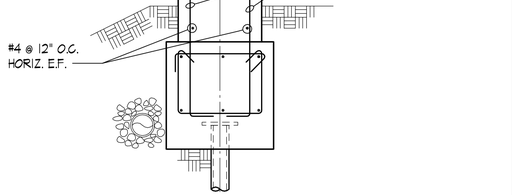
SCALE: NONE



EXACT CONFIGURATION OF STAIR (INCLUDING TREAD AND RISER DIMENSIONS) PER ARCH. DRAWINGS.

TYPICAL STAIR ON GRADE

SCALE: NONE



6 PIPE PILE FOUNDATION - EXTERIOR w/ VENEER BOTH SIDES

SCALE: NONE

7 DETAIL

SCALE: NONE

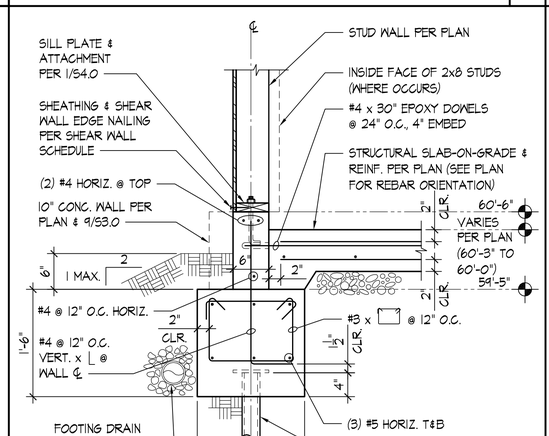
MARK	SIZE	DEPTH	REINFORCING	REMARKS
F2.0	2'-0" x 2'-0"	10"	(2) #4 EA. WAY	.
F2.5	2'-6" x 2'-6"	10"	(3) #4 EA. WAY	.
F3.0	3'-0" x 3'-0"	12"	(4) #4 EA. WAY	.
F4.0	4'-0" x 4'-0"	12"	(6) #4 EA. WAY	.
F3.0x4.0	3'-0" x 4'-0"	12"	(6) #4 TRANSV. (4) #4 LONGIT.	.

SPREAD FOOTING SCHEDULE

SCALE: NONE

9 PIPE PILE FOUNDATION - EXTERIOR w/ VENEER

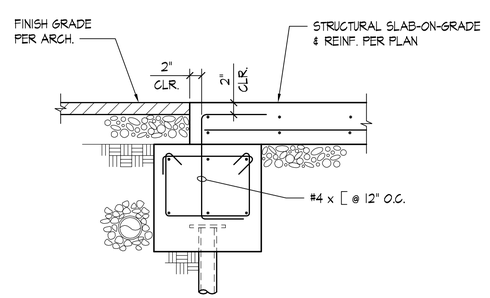
SCALE: NONE



10 TYPICAL PIPE PILE FOUNDATION - EXTERIOR

SCALE: NONE

NOTE:
FOR INFORMATION NOT NOTED, SEE 10/S3.0



11 TYPICAL THICKENED SLAB AT DOOR

SCALE: NONE

12

QUANTUM
CONSULTING ENGINEERS
1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKER
STATE OF WASHINGTON
36098
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

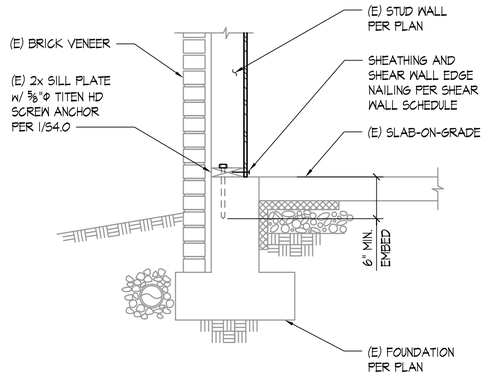
SHEET TITLE:

FOUNDATION DETAILS

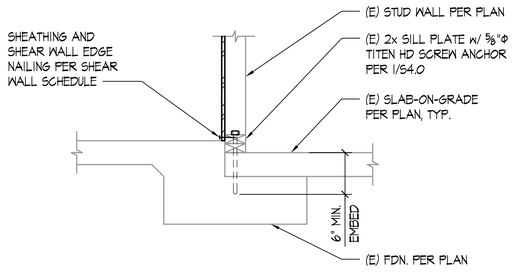
SHEET NO.

S3.0

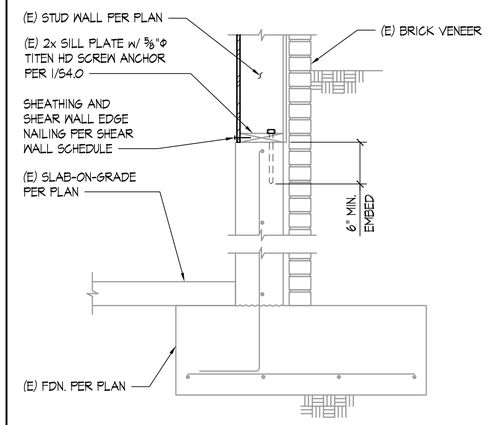
File: 127-s300.dwg Plotted: Wed, 06/07/2023 1:08 pm



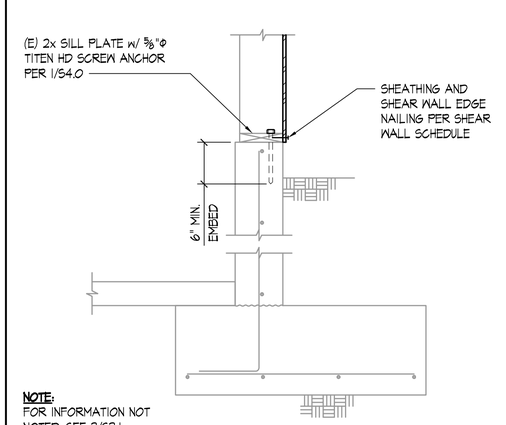
TYPICAL PERIMETER WALL FOUNDATION AT SLAB-ON-GRADE SCALE: 1"=1'-0" | 1



INTERIOR WALL AT EXISTING FOUNDATION STEP SCALE: 1"=1'-0" | 2

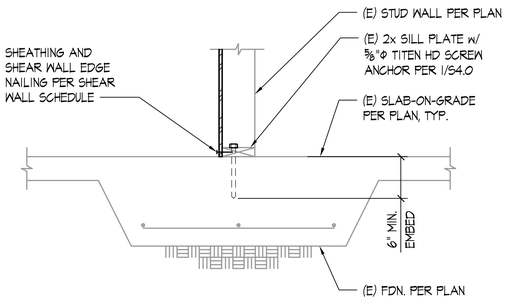


EXTERIOR WALL AT EXISTING RETAINING WALL SCALE: 1"=1'-0" | 3

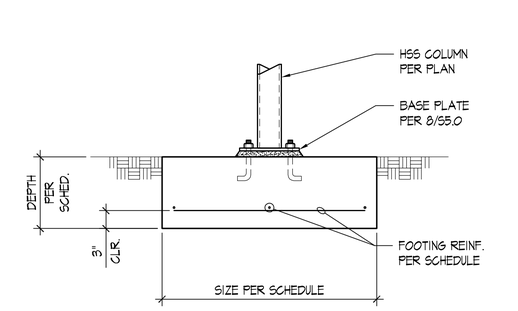


NOTE:
FOR INFORMATION NOT NOTED, SEE 3/S3.1

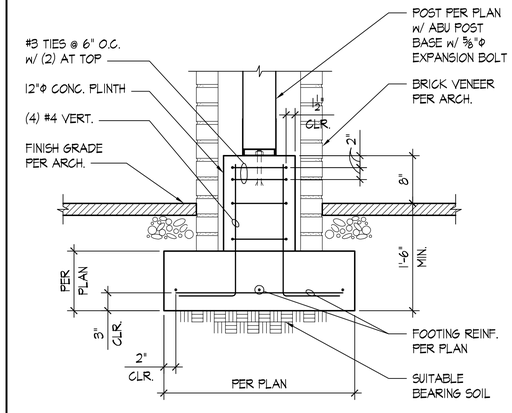
INTERIOR WALL AT EXISTING RETAINING WALL SCALE: 1"=1'-0" | 4



INTERIOR WALL AT EXISTING THICKENED SLAB SCALE: 1"=1'-0" | 5

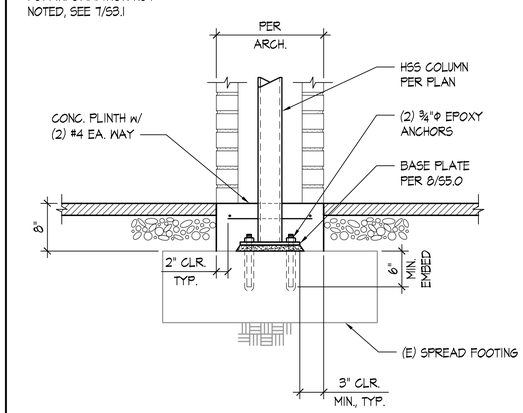


CRAWL SPACE FOOTING AT HSS COLUMN SCALE: 1"=1'-0" | 6

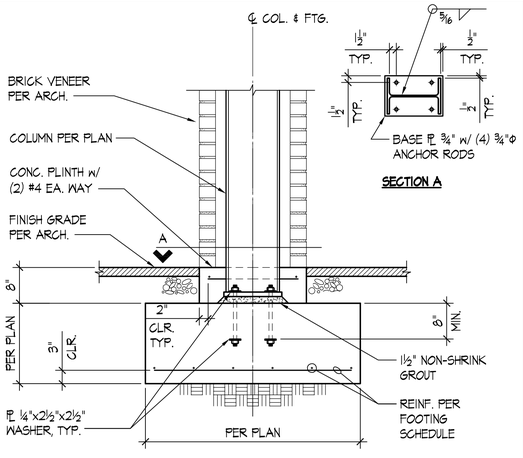


TYPICAL EXTERIOR POST FOOTING SCALE: 1"=1'-0" | 7

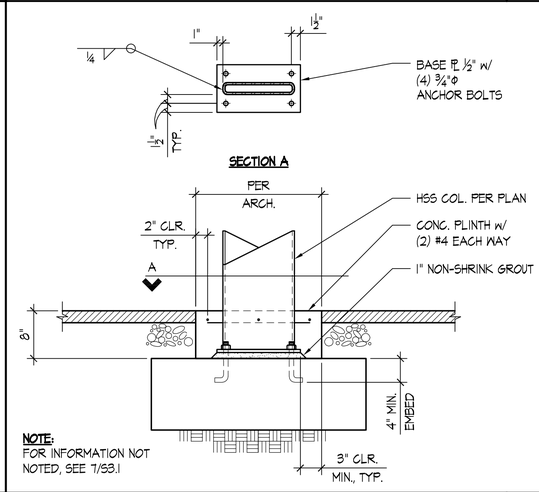
NOTE:
FOR INFORMATION NOT NOTED, SEE 7/S3.1



EXISTING SPREAD FOOTING AT HSS COLUMN SCALE: 1"=1'-0" | 8



TYPICAL SPREAD FOOTING SUPPORTING WF COLUMN SCALE: NONE | 9



NOTE:
FOR INFORMATION NOT NOTED, SEE 7/S3.1

EXTERIOR SPREAD FOOTING AT HSS COLUMN SCALE: 1"=1'-0" | 10

DETAIL SCALE: 1"=1'-0" | 11

DETAIL SCALE: 1"=1'-0" | 12

File: 127-s301.dwg Plotted: Wed, 06/07/2023 1:08 pm

QUANTUM
CONSULTING ENGINEERS
1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKER — STATE OF WASHINGTON — 36098 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

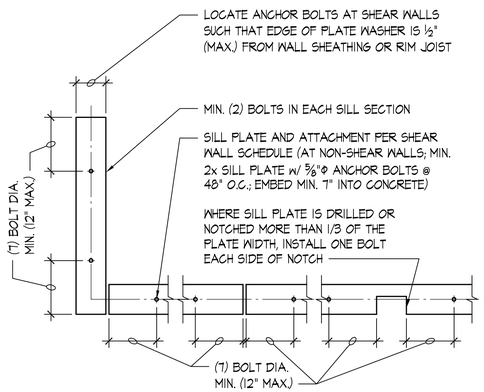
P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

SHEET TITLE:

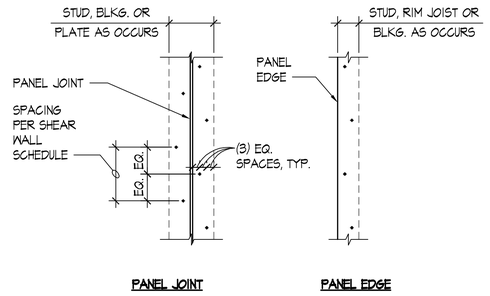
FOUNDATION DETAILS

SHEET NO.

S3.1



TYPICAL SILL PLATE BOLTING - PLAN VIEW SCALE: NONE



PANEL JOINT **PANEL EDGE**

NOTE:
STAGGER EACH LINE OF NAILING (AT ALL PANEL EDGES) AS INDICATED

TYPICAL STAGGERED NAILING SCALE: NONE | 2

SHEAR WALL TYPE	SHEAR WALL SHEATHING (1)	PANEL EDGE FRAMING (2)(7)	PANEL EDGE NAILING (3)	BOTTOM PLATE ATTACHMENT			TOP PLATE ATTACHMENT	
				2x BOTTOM PLATE CONNECTION TO RIM JOIST OR BLOCKING BELOW	ANCHOR BOLTING OF SILL PLATE TO CONCRETE BELOW (4)(5)		RIM JOIST OR BLOCKING CONNECTION TO TOP PLATE (6)	
					3x PLATE	2x PLATE	INTERIOR WALL	EXTERIOR WALL
SW-6	7/16" APA ONE-SIDE SHTG.	2x	0.148"Φx2¼" @ 6" O.C.	0.148"Φx3¼" @ 6" O.C. (9)	⅝"Φ @ 48" O.C.	⅝"Φ @ 48" O.C.	A35 @ 16" O.C.	LTP4 @ 16" O.C.
SW-4	7/16" APA ONE-SIDE SHTG.	3x OR (2) 2x	0.148"Φx2¼" @ 4" O.C. (8)	0.148"Φx3¼" @ 4" O.C. (9)	⅝"Φ @ 32" O.C.	⅝"Φ @ 24" O.C.	A35 @ 12" O.C.	LTP4 @ 12" O.C.
SW-3	7/16" APA ONE-SIDE SHTG.	3x OR (2) 2x	0.148"Φx2¼" @ 3" O.C. (8)	0.148"Φx3¼" @ 3" O.C. (9)	⅝"Φ @ 32" O.C.	⅝"Φ @ 24" O.C.	A35 @ 8" O.C.	LTP4 @ 8" O.C.
SW-2	7/16" APA ONE-SIDE SHTG.	3x OR (2) 2x	0.148"Φx2¼" @ 2" O.C. (8)	(2) ROWS 0.148"Φx3¼" @ 4" O.C. (10)	⅝"Φ @ 24" O.C.	⅝"Φ @ 16" O.C.	A35 @ 6" O.C.	LTP4 @ 8" O.C.

NOTES:

(1) INSTALL PANEL SHEATHING EITHER HORIZONTALLY OR VERTICALLY FOR THE ENTIRE LENGTH OF THE WALL PER PLAN. WALL STUD SPACING SHALL BE 16" O.C. MAXIMUM.

(2) ALL INTERMEDIATE WALL STUDS SHALL BE PER PLAN. PROVIDE BACKING FRAMING AT ALL PANEL EDGES INCLUDING HORIZONTAL BLOCKING PER THE SCHEDULE.

(3) PROVIDE NAILING TO ALL PANEL EDGES, TOP & BOTTOM PLATES AND HORIZONTAL BLOCKING. PROVIDE THE SAME NAILING PATTERN TO EACH MULTIPLE STUD OF THE BUILT-UP HOLD DOWN POST. NAIL PANEL TO INTERMEDIATE FRAMING MEMBERS W/ 0.148"Φ x 2-1/4" @ 12" O.C.

(4) EMBED CAST-IN-PLACE 5/8"Φ ANCHOR BOLTS 7" MIN. (OR EMBED ADHESIVE ANCHOR BOLTS 5 1/2" IN (E) CONCRETE; SEE STRUCTURAL NOTES). PROVIDE PLATE WASHER 3" x 3" x 1/4" AT EACH ANCHOR BOLT. SILL PLATES SHALL BE TREATED PER GENERAL NOTES, AND SHALL BE 2x OR 3x PER THE SCHEDULE. SEE DETAIL 1/S4.0 FOR OTHER REQUIREMENTS.

(5) PROVIDE HOT DIPPED GALVANIZED NAILS, BOLTS, OR METAL PLATES FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED MEMBERS.

(6) PROVIDE 0.131"Φ x 1-1/2" LONG NAILS FOR CLIPS DIRECTLY ATTACHED TO FRAMING MEMBERS; PROVIDE 0.131"Φ x 2-1/2" LONG NAILS FOR CLIPS INSTALLED OVER FLOOR OR WALL SHEATHING ON FRAMING MEMBERS. SEE 6/S4.1 FOR TOP PLATE SPLICE.

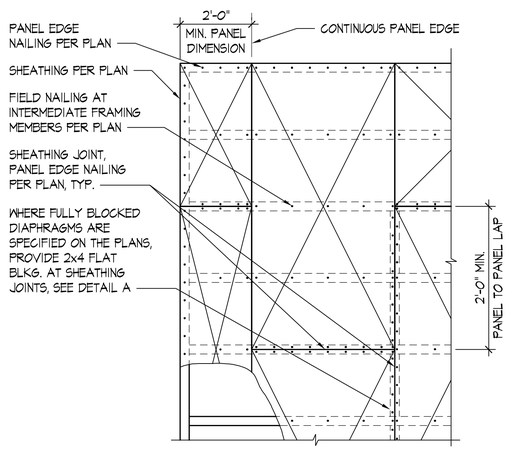
(7) ALTERNATIVE TO 3x STUDS IS (2) 2x STUDS NAILED TOGETHER WITH 0.148"Φ x 3" LONG NAILS WITH THE SAME SPACING AS THE PANEL EDGE NAILING PER THE SCHEDULE (STAGGER).

(8) STAGGER THE PANEL EDGE NAILS PER 2/S4.0.

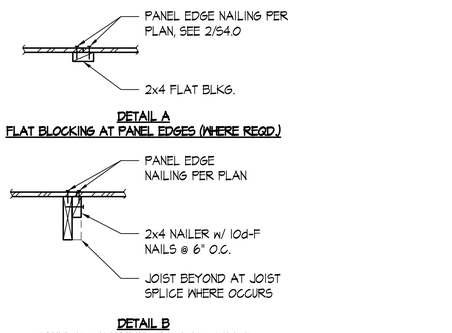
(9) RIM JOIST/BLOCKING MINIMUM WIDTH OF 1¾". STAGGER NAILS PER 2/S4.0 WHERE SPACING IS LESS THAN 6" O.C.

(10) RIM JOIST/BLOCKING MINIMUM WIDTH OF 1¾" AT EXTERIOR WALLS, 3½" AT INTERIOR WALLS. STAGGER NAILS SIMILAR TO 2/S4.0.

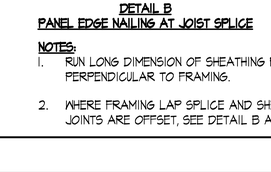
SHEAR WALL SCHEDULE - 10d NAILS SCALE: NONE | 8



TYPICAL ROOF AND FLOOR DIAPHRAGM SHEATHING SCALE: NONE | 6

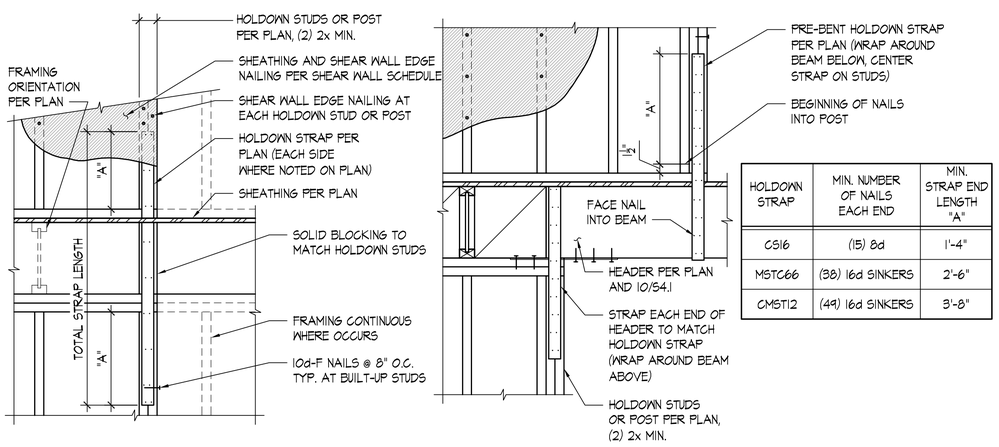


DETAIL A
FLAT BLOCKING AT PANEL EDGES (WHERE REQD.)



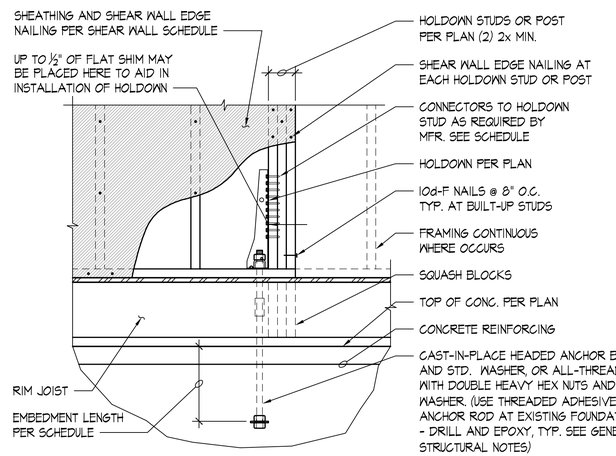
DETAIL B
PANEL EDGE NAILING AT JOIST SPLICE

NOTES:
1. RUN LONG DIMENSION OF SHEATHING PANELS PERPENDICULAR TO FRAMING.
2. WHERE FRAMING LAP SPLICE AND SHEATHING JOINTS ARE OFFSET, SEE DETAIL B ABOVE.



HOLDOWN STRAP	MIN. NUMBER OF NAILS EACH END	MIN. STRAP END LENGTH "A"
CS16	(15) 8d	1'-4"
MSTC66	(38) 16d SINKERS	2'-6"
CMST12	(49) 16d SINKERS	3'-8"

TYPICAL FLOOR TO FLOOR HOLDOWN STRAP & FLOOR TO HEADER HOLDOWN STRAP SCALE: NONE | 10



HOLDOWN	ANCHOR BOLT Φ	ANCHOR BOLT IN CONCRETE EMBED LENGTH	CONNECTORS TO HOLDOWN STUDS
HDU2	⅝"Φ	13"	(6) ¼"x2½" SDS
HDU4	⅝"Φ	13"	(10) ¼"x2½" SDS
HDU5	⅝"Φ	13"	(14) ¼"x2½" SDS
HDU8	⅞"Φ	18"	(20) ¼"x2½" SDS
HDU11	1"Φ	20"	(30) ¼"x2½" SDS

NOTE:
PROVIDE HOT DIPPED GALVANIZED NAILS, BOLTS, OR METAL PLATES FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED MEMBERS.

TYPICAL HOLDOWN TO CONCRETE AT RIM JOIST SCALE: NONE | 12

QUANTUM
CONSULTING ENGINEERS
1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKER — STATE OF WASHINGTON — 36098 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

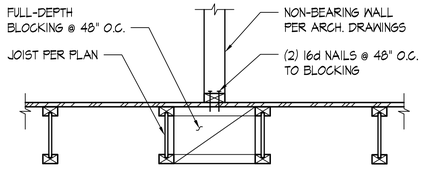
SHEET TITLE:

TYPICAL WOOD DETAILS

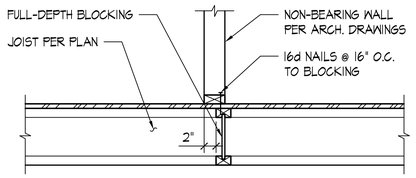
SHEET NO.

S4.0

File: 127-s400.dwg Plotted: Wed, 06/07/2023 1:08 pm

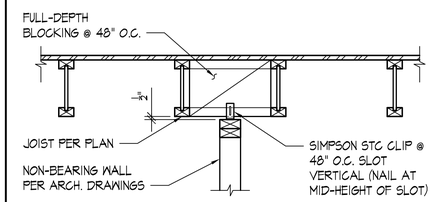


WALL PARALLEL TO FLOOR FRAMING

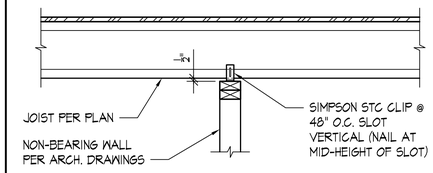


WALL PERPENDICULAR TO FLOOR FRAMING

TYPICAL NON-BEARING WALL SUPPORT (BOTTOM) - I-JOIST SCALE: NONE | 1



WALL PARALLEL TO ROOF/FLOOR FRAMING



WALL PERPENDICULAR TO ROOF/FLOOR FRAMING

TYPICAL NON-STRUCTURAL WALL SUPPORT (TOP) - I-JOIST SCALE: NONE | 2

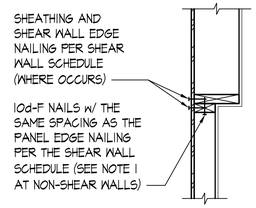
CEILING JOIST SCHEDULE	
SIZE	MAX. SPAN
2x4 @ 24" O.C. 2x4 @ 16" O.C.	8'-0" 9'-2"
2x6 @ 24" O.C. 2x6 @ 16" O.C.	12'-6" 14'-4"
2x8 @ 24" O.C. 2x8 @ 16" O.C.	16'-6" 19'-0"
2x10 @ 24" O.C. 2x10 @ 16" O.C.	21'-2" 24'-3"

NOTES:
CEILING JOIST TABLE BASED ON HF #2, Fb=850 PSI (REPETITIVE MEMBER USE), Fv = 150 PSI E=1.3X10^6 PSI, DEFL. < L/240

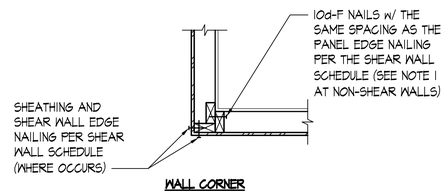
ATTIC LIVE LOAD = 10.0 PSF
CEILING DEAD LOAD = 5.0 PSF

CEILING JOIST SCHEDULE SCALE: NONE | 3

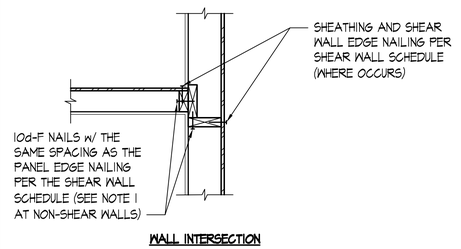
NOTES:
1. AT NON-SHEAR WALLS, NAIL STUDS TOGETHER w/ 10d-F NAILS @ 8" O.C.
2. ADDITIONAL STUDS REQUIRED AS NAILERS, ETC. ARE NOT SHOWN.



VARYING WALL SIZE

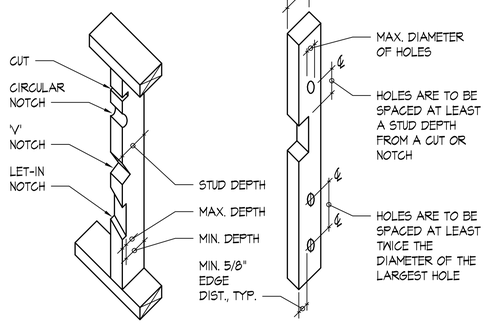


WALL CORNER



WALL INTERSECTION

TYPICAL WALL INTERSECTIONS - RESIDENTIAL SCALE: NONE | 8



A. CUTTING AND NOTCHING WOOD STUDS
(DO NOT NOTCH MORE THAN 3 ADJACENT STUDS w/o REVIEW BY ENGINEER)

BEARING WALL STUDS:

STUD SIZE	MAX. DEPTH OF SAW CUT OR NOTCH	MIN. DEPTH REMAINING AFTER CUT OR NOTCH
2x4	1"/8"	2-3/8"
2x6	1-3/8"	4-1/8"
2x8	1-7/8"	5-3/8"

NON-BEARING WALL STUDS:

STUD SIZE	MAX. DEPTH OF SAW CUT OR NOTCH	MIN. DEPTH REMAINING AFTER CUT OR NOTCH
2x4	1-1/2"	2"
2x6	2-3/8"	3-1/8"
2x8	3"	4-1/4"

B. HOLES IN WOOD STUDS

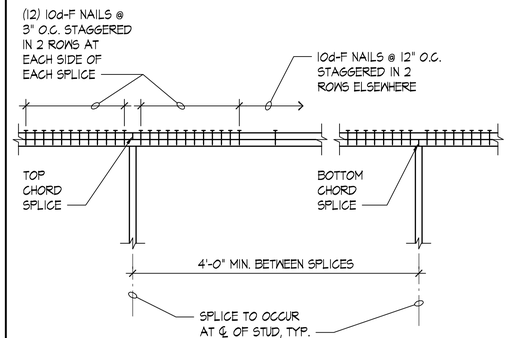
BEARING WALL:

STUD SIZE	MAX. DIAMETER OF HOLE
2x4	1-1/2"
2x6	2-3/8"
2x8	3"

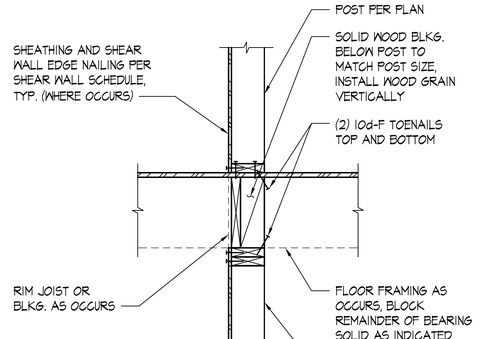
NON-BEARING WALL:

STUD SIZE	MAX. DIAMETER OF HOLE
2x4	2-1/4"
2x6	3-3/8"
2x8	4-1/2"

TYPICAL ALLOWABLE HOLES AND NOTCHES IN STUDS SCALE: NONE | 9

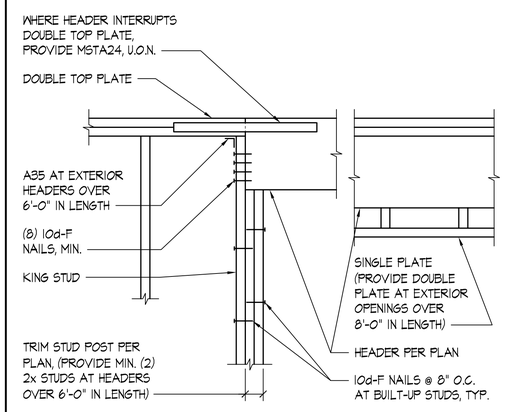


TYPICAL TOP PLATE SPLICE SCALE: NONE | 6

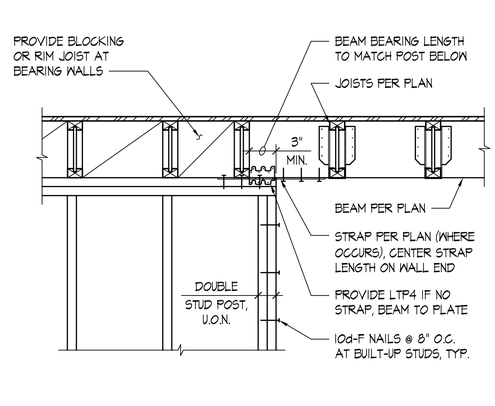


NOTE:
FRAMING CONDITIONS VARY, FOR INFORMATION NOT NOTED SEE PLAN & APPROPRIATE DETAILS

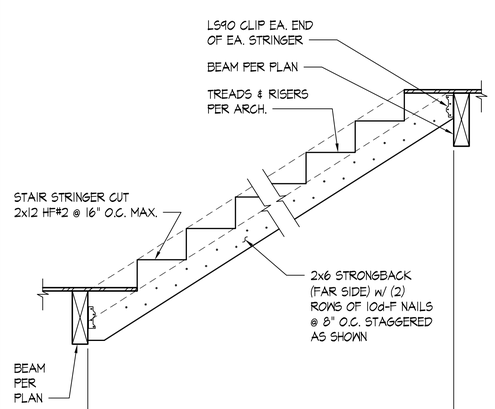
TYPICAL POST AT FLOOR SCALE: NONE | 7



TYPICAL HEADER SCALE: NONE | 10



TYPICAL FLUSH BEAM SCALE: NONE | 11



TYPICAL STAIR STRINGER SCALE: NONE | 12

QUANTUM
CONSULTING ENGINEERS
1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKER
STATE OF WASHINGTON
36098
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ○ REVISIONS: △

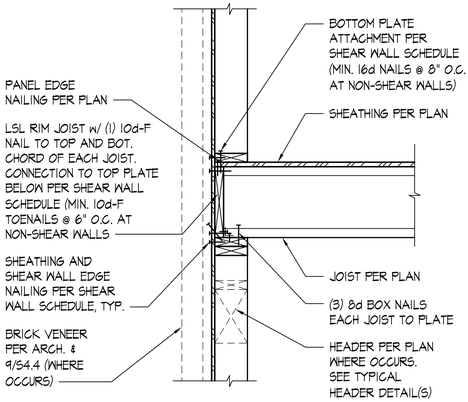
P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

SHEET TITLE:

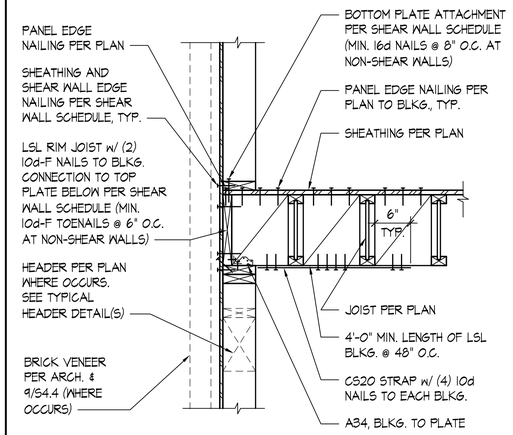
TYPICAL WOOD DETAILS

SHEET NO.

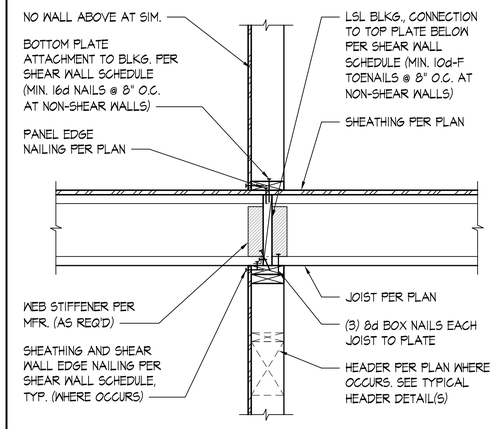
S4.1



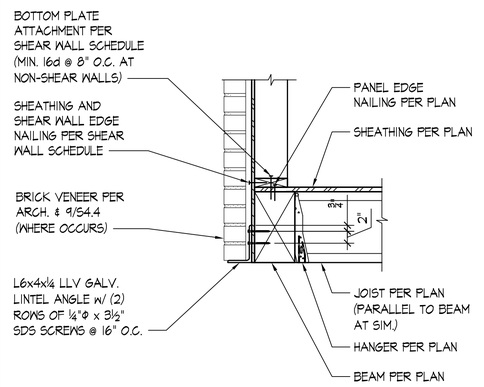
TYPICAL EXTERIOR WALL - I-JOIST PERPENDICULAR SCALE: NONE | 1



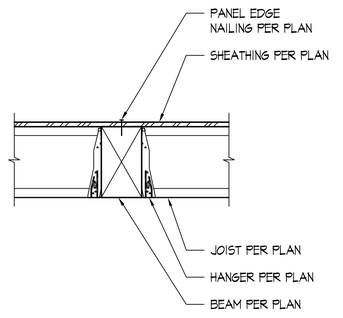
TYPICAL EXTERIOR WALL - I-JOIST PARALLEL SCALE: NONE | 2



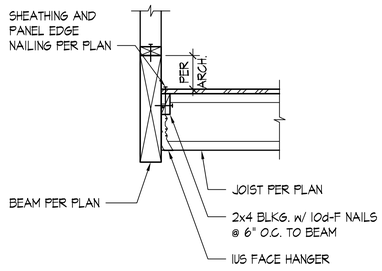
TYPICAL INTERIOR WALL - I-JOIST PERPENDICULAR SCALE: NONE | 3



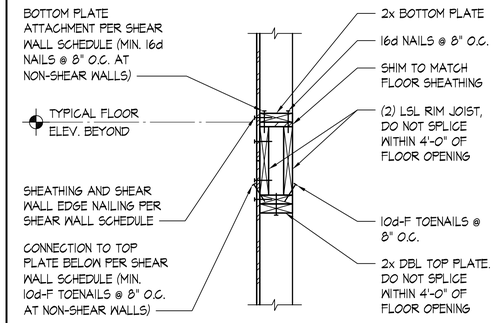
TYPICAL STRUCTURAL WALL TO PARALLEL PERIMETER BEAM BELOW - I-JOIST PERPENDICULAR SCALE: NONE | 4



TYPICAL I-JOIST TO FLUSH BEAM CONNECTION SCALE: NONE | 5

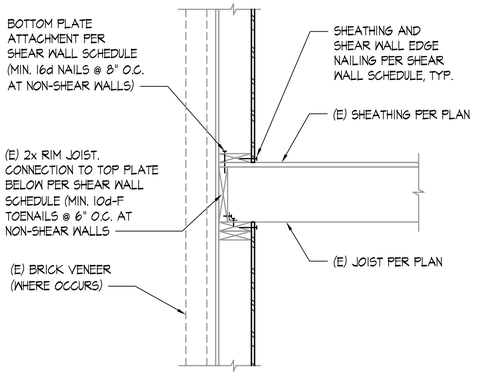


FLOOR JOIST TO UP-SET BEAM CONNECTION SCALE: NONE | 6

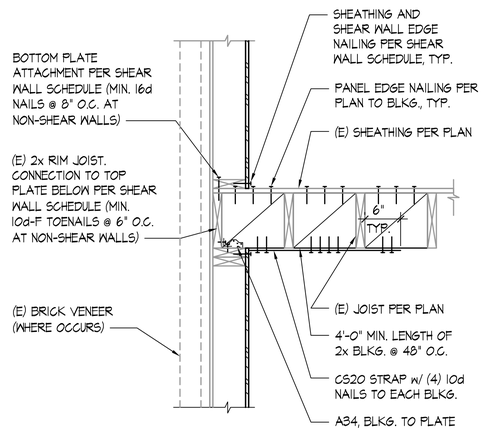


EXTERIOR WALL AT FLOOR OPENING - I-JOIST SCALE: NONE | 7

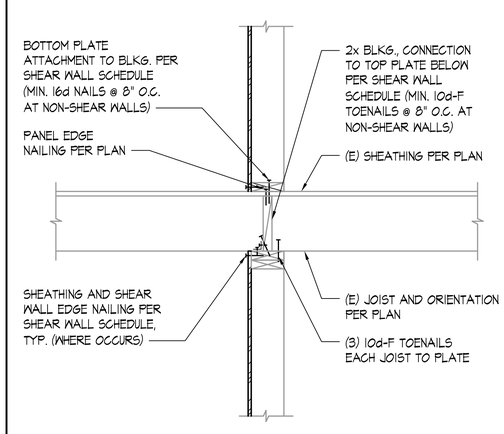
DETAIL SCALE: NONE | 8



TYPICAL EXTERIOR WALL - (E) 2x JOIST PERPENDICULAR SCALE: NONE | 9



TYPICAL EXTERIOR WALL - (E) 2x JOIST PARALLEL SCALE: NONE | 10



TYPICAL INTERIOR WALL - (E) 2x JOIST PERPENDICULAR SCALE: NONE | 11

DETAIL SCALE: NONE | 12

QUANTUM
CONSULTING ENGINEERS
1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKER — STATE OF WASHINGTON — 36098 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

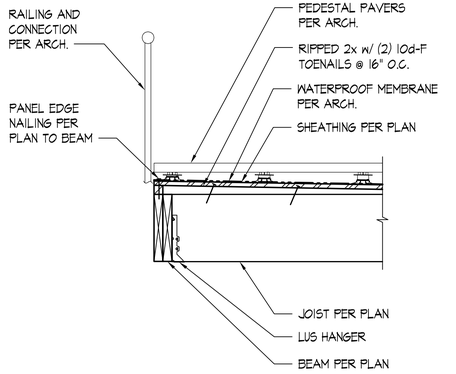
SHEET TITLE:

FLOOR DETAILS

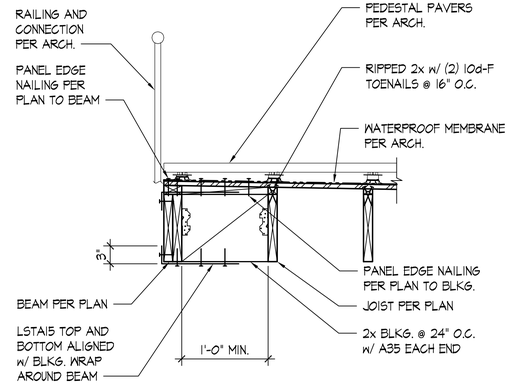
SHEET NO.

S4.2

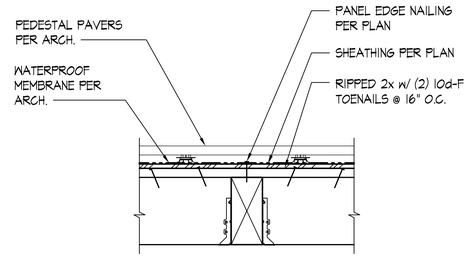
File: 127-s402.dwg Plotted: Wed, 06/07/2023 1:08 pm



TYPICAL DECK EDGE - JOIST PERPENDICULAR TO BEAM SUPPORT SCALE: 1"=1'-0" | 1

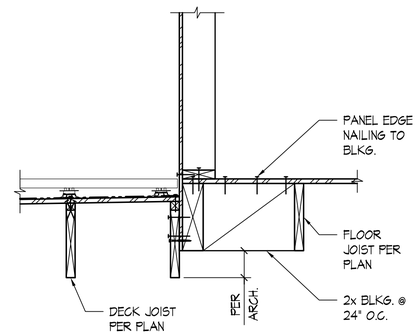


TYPICAL DECK EDGE - JOIST PARALLEL SCALE: 1"=1'-0" | 2



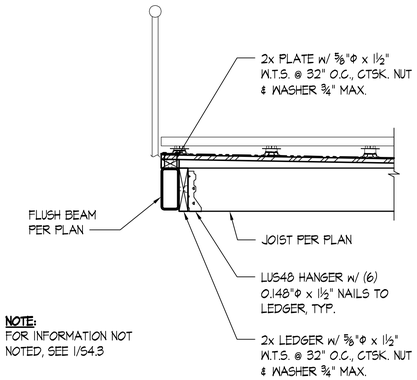
NOTE:
FOR INFORMATION NOT NOTED, SEE 5/S4.2

TYPICAL FLUSH BEAM AT DECK SCALE: 1"=1'-0" | 3



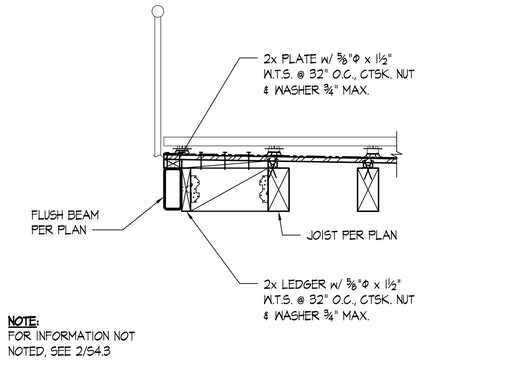
NOTE:
FOR INFORMATION NOT NOTED, SEE 8/S4.3

DETAIL SCALE: 1"=1'-0" | 4



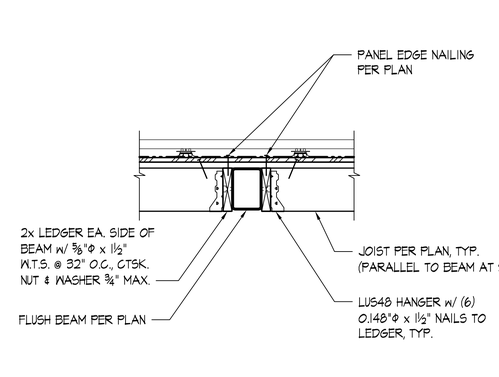
NOTE:
FOR INFORMATION NOT NOTED, SEE 1/S4.3

DECK EDGE AT STEEL BEAM - JOIST PERPENDICULAR SCALE: 1"=1'-0" | 5

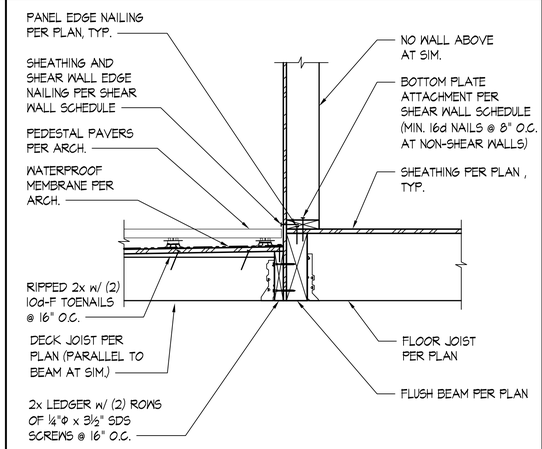


NOTE:
FOR INFORMATION NOT NOTED, SEE 2/S4.3

DECK EDGE AT STEEL BEAM - JOIST PARALLEL SCALE: 1"=1'-0" | 6



FLUSH STEEL BEAM AT DECK SCALE: 1"=1'-0" | 7



TYPICAL FLUSH BEAM AT DECK - DECK JOIST PARALLEL SCALE: 1"=1'-0" | 8

DETAIL SCALE: 1"=1'-0" | 9

DETAIL SCALE: 1"=1'-0" | 10

DETAIL SCALE: 1"=1'-0" | 11

DETAIL SCALE: 1"=1'-0" | 12

File: 127-s403.dwg Plotted: Wed, 06/07/2023 1:09 pm

QUANTUM
CONSULTING ENGINEERS
1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKER
STATE OF WASHINGTON
36098
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

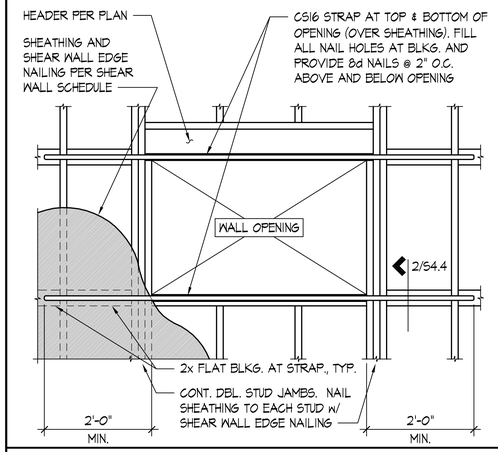
P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

SHEET TITLE:

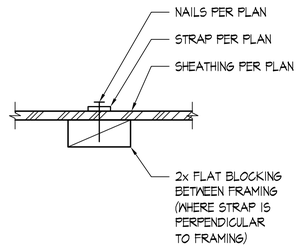
DECK DETAILS

SHEET NO.

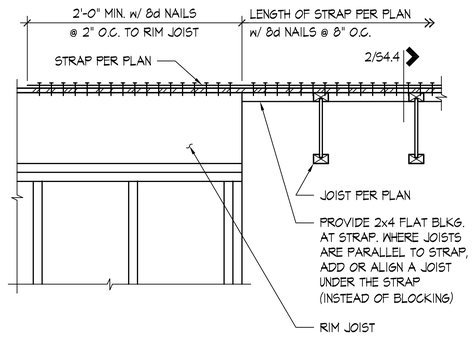
S4.3



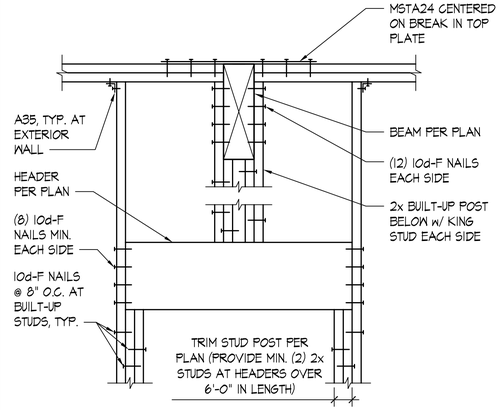
STRAPPING AROUND SHEAR WALL OPENING — SCALE: NONE — 1



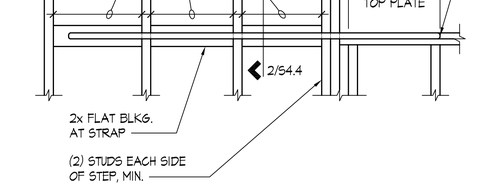
STRAP TO BLOCKING DETAIL — SCALE: NONE — 2



TYPICAL DRAG STRUT DETAIL — SCALE: NONE — 3



TYPICAL DROP BEAM TO WALL SUPPORT (OVER HEADER) — SCALE: NONE — 4

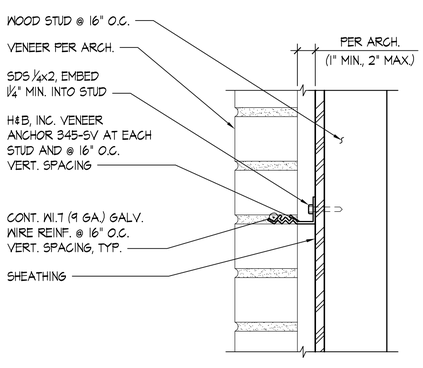


TYPICAL PLATE HEIGHT STEP — SCALE: NONE — 5

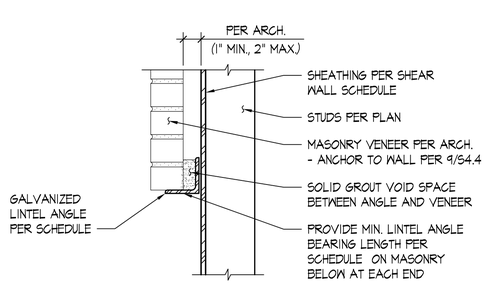
DETAIL — SCALE: NONE — 6

DETAIL — SCALE: NONE — 7

DETAIL — SCALE: NONE — 8

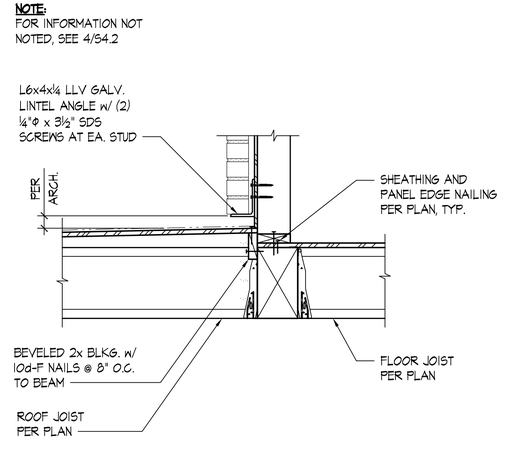


MASONRY VENEER ANCHORAGE DETAIL - WOOD STUD WALL — SCALE: NONE — 9

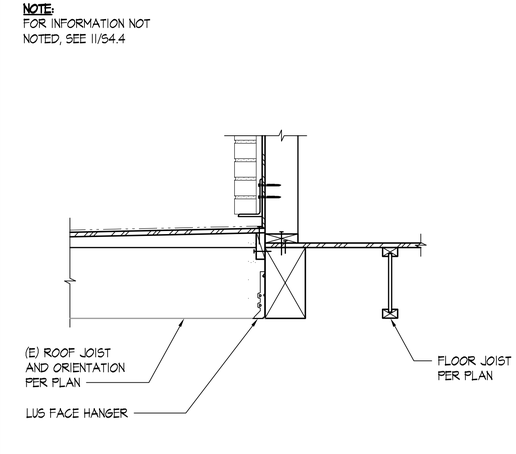


BRICK LINTEL ANGLE SCHEDULE		
MAX. OPENING WIDTH	ANGLE SIZE (LLV)	MIN. END BEARING
6'-0"	L4x4x¼	4"
12'-0"	L6x4x5⁄16	4"
15'-0"	L7x4x7⁄16	6"

BRICK LINTEL ANGLE SCHEDULE — SCALE: 1 1/2"=1'-0" — 10



EXTERIOR WALL TO FLUSH BEAM AT FLAT ROOF - FLOOR JOIST PERPENDICULAR — SCALE: NONE — 11



EXTERIOR WALL TO FLUSH BEAM AT FLAT ROOF - FLOOR JOIST PARALLEL — SCALE: NONE — 12

QUANTUM
CONSULTING ENGINEERS
1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKER — STATE OF WASHINGTON — 36098 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

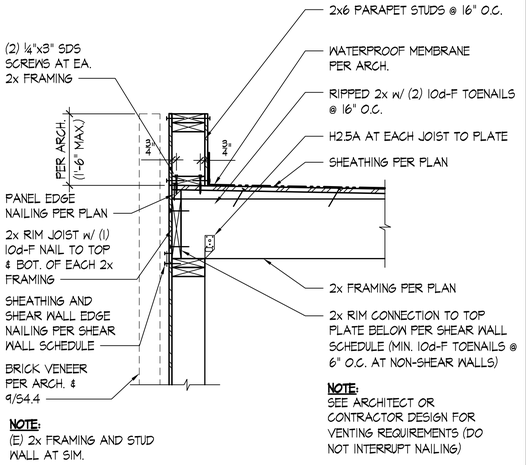
SHEET TITLE:

TYPICAL WOOD DETAILS

SHEET NO.

S4.4

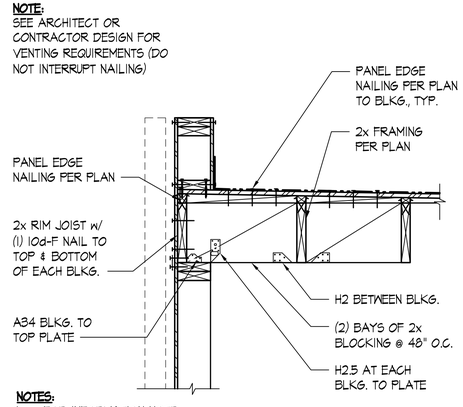
File: 127-s404.dwg Plotted: Wed, 06/07/2023 1:09 pm



NOTE:
(E) 2x FRAMING AND STUD WALL AT SIM.

NOTE:
SEE ARCHITECT OR CONTRACTOR DESIGN FOR VENTING REQUIREMENTS (DO NOT INTERRUPT NAILING)

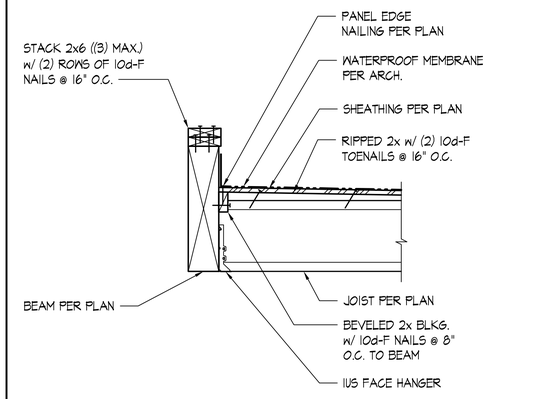
TYPICAL EXTERIOR WALL AT ROOF - 2x FRAMING PERPENDICULAR SCALE: NONE | 1



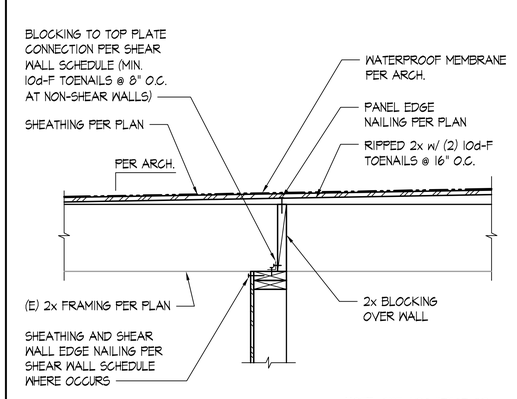
NOTES:
1. FOR INFORMATION NOTR NOTED SEE 1/S4.5.
2. (E) 2x FRAMING AND STUD WALL AT SIM.

NOTE:
SEE ARCHITECT OR CONTRACTOR DESIGN FOR VENTING REQUIREMENTS (DO NOT INTERRUPT NAILING)

TYPICAL EXTERIOR WALL AT ROOF - 2x FRAMING PARALLEL SCALE: NONE | 2

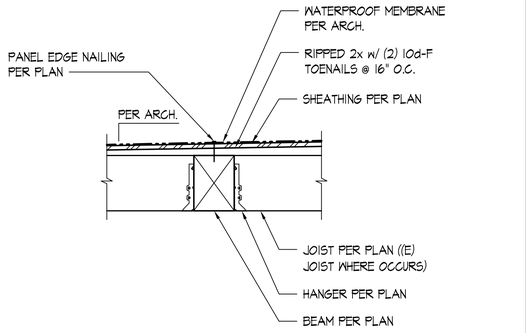


FLUSH BEAM AT FLAT ROOF - JOIST PERPENDICULAR SCALE: NONE | 3

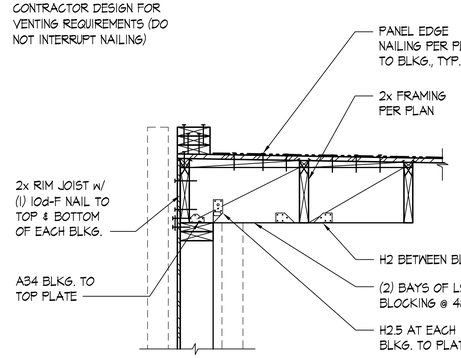


NOTE: SEE ARCHITECT OR CONTRACTOR DESIGN FOR VENTING REQUIREMENTS (DO NOT INTERRUPT NAILING)

TYPICAL INTERIOR STRUCTURAL WALL AT FLAT ROOF - 2x FRAMING PERPENDICULAR SCALE: NONE | 4

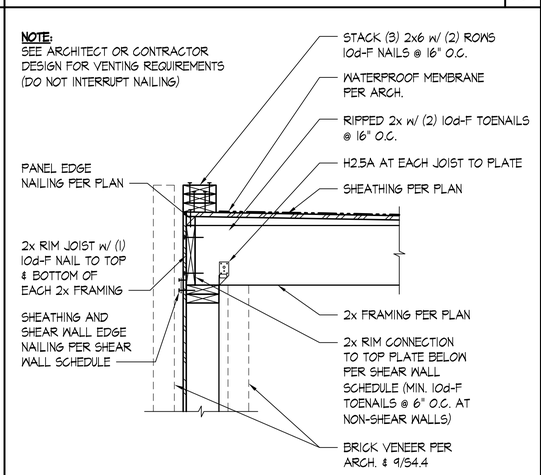


TYPICAL 2x JOIST TO FLUSH BEAM CONNECTION SCALE: NONE | 5

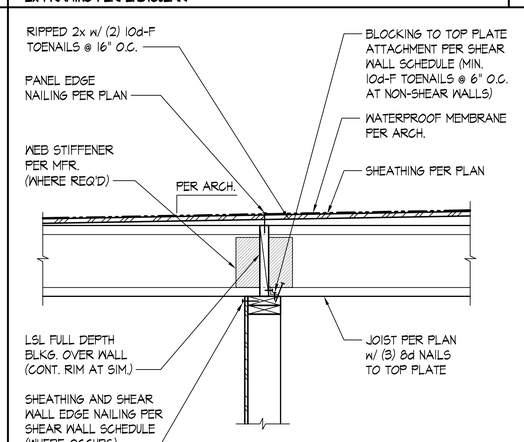


NOTE:
FOR INFORMATION NOT NOTED, SEE 7/S4.5

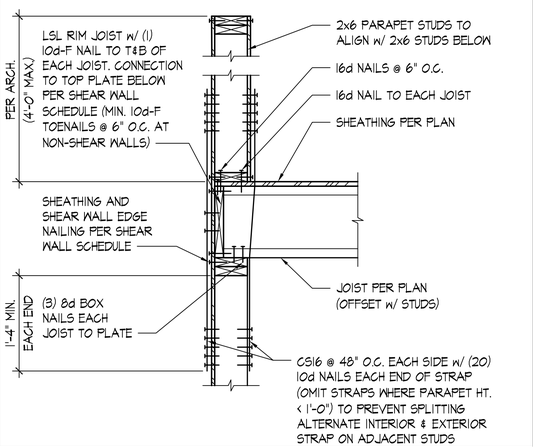
TYPICAL EXTERIOR WALL AT ROOF - 2x FRAMING PARALLEL SCALE: NONE | 6



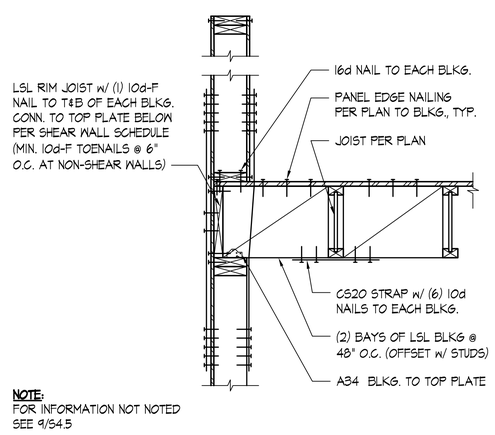
TYPICAL EXTERIOR WALL AT ROOF - 2x FRAMING PERPENDICULAR SCALE: NONE | 7



TYPICAL INTERIOR STRUCTURAL WALL AT ROOF - I-JOIST PERPENDICULAR SCALE: NONE | 8

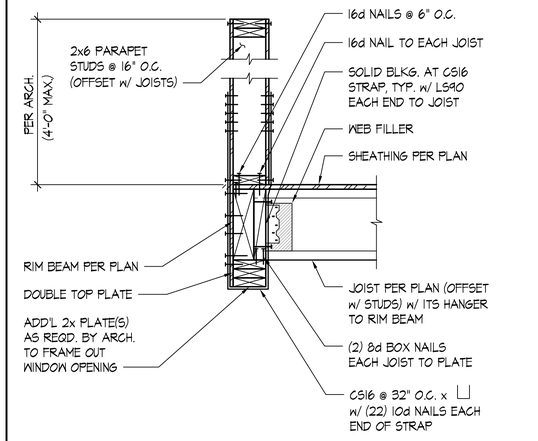


TYPICAL PARAPET - I-JOIST PERPENDICULAR SCALE: NONE | 9

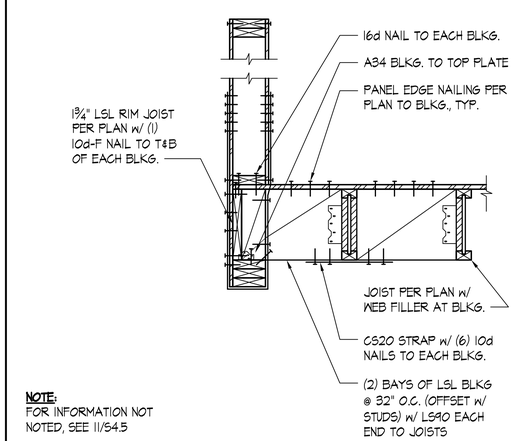


NOTE:
FOR INFORMATION NOT NOTED SEE 9/S4.5

TYPICAL PARAPET - I-JOIST PARALLEL SCALE: NONE | 10



TYPICAL PARAPET - I-JOIST PERPENDICULAR AT OPENING SCALE: NONE | 11



NOTE:
FOR INFORMATION NOT NOTED, SEE 11/S4.5

TYPICAL PARAPET - I-JOIST PARALLEL AT OPENING SCALE: NONE | 12

QUANTUM
CONSULTING ENGINEERS
1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKER — STATE OF WASHINGTON — 36098 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

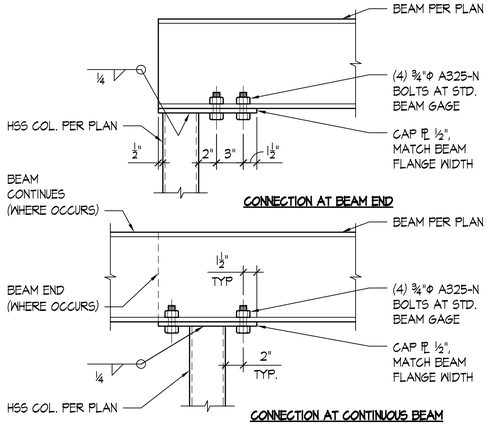
SHEET TITLE:

PARAPET & FLAT ROOF DETAILS

SHEET NO.

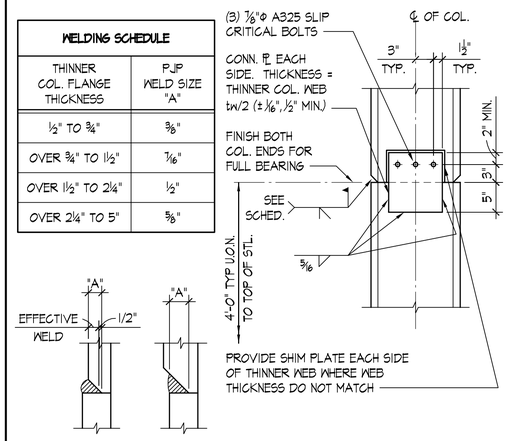
S4.5

File: 127-4405.dwg Plotted: Wed, 06/07/2023 1:09 pm



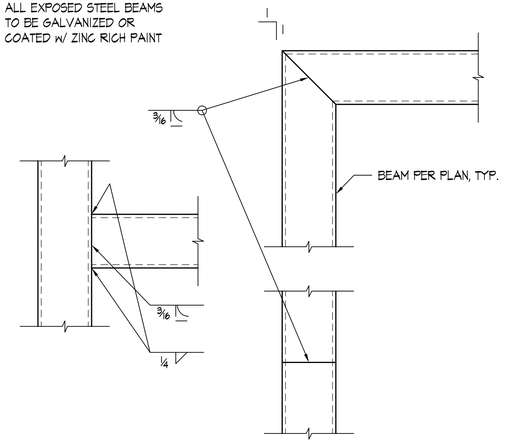
TYPICAL BEAM BEARING ON HSS COLUMN — SCALE: NONE | 1

WELDING SCHEDULE	
THINNER COL. FLANGE THICKNESS	PJP WELD SIZE "A"
½" TO ¾"	⅜"
OVER ¾" TO 1½"	7/16"
OVER 1½" TO 2¼"	½"
OVER 2¼" TO 5"	⅝"

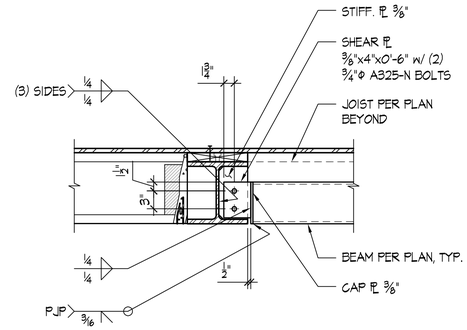


TYPICAL WIDE FLANGE GRAVITY COLUMN SPLICE — SCALE: NONE | 2

NOTE:
ALL EXPOSED STEEL BEAMS TO BE GALVANIZED OR COATED W/ ZINC RICH PAINT

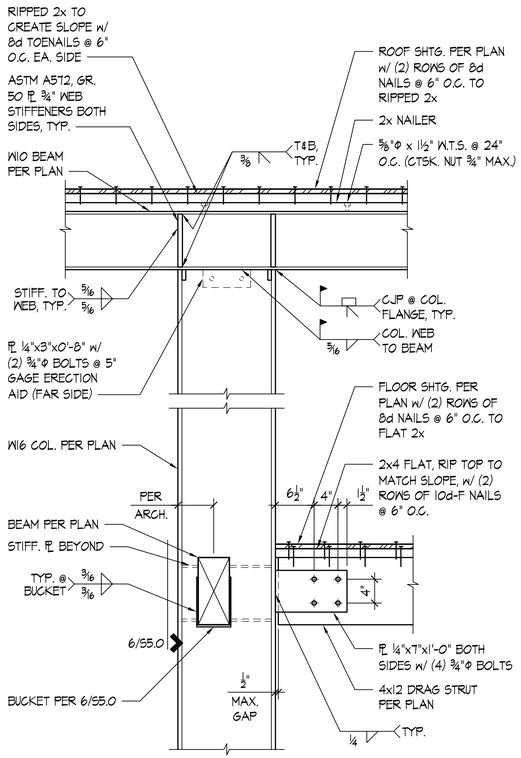


TYPICAL HSS BEAM WELDED CONNECTION — SCALE: NONE | 3



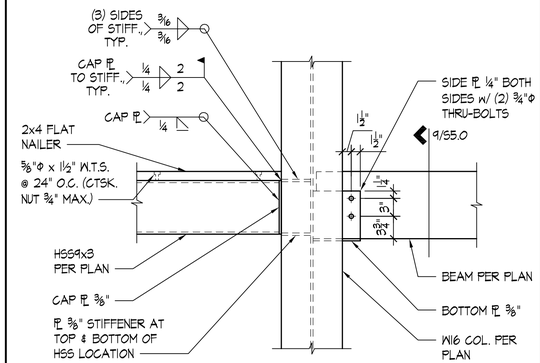
NOTE:
FOR INFORMATION NOT NOTED, SEE 1/S6.0

HSS BOLTED BEAM CONNECTION — SCALE: 1"=1'-0" | 4

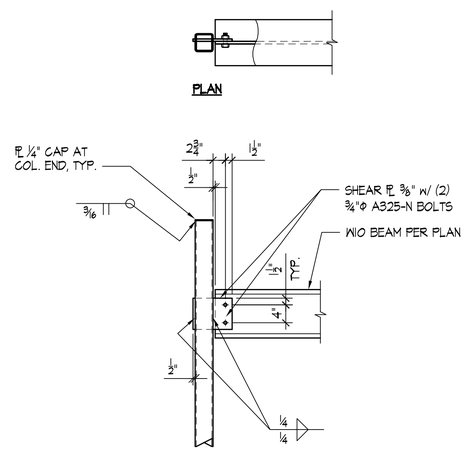


WIDE FLANGE BEAM TO COLUMN MOMENT CONNECTION — SCALE: 1"=1'-0" | 9

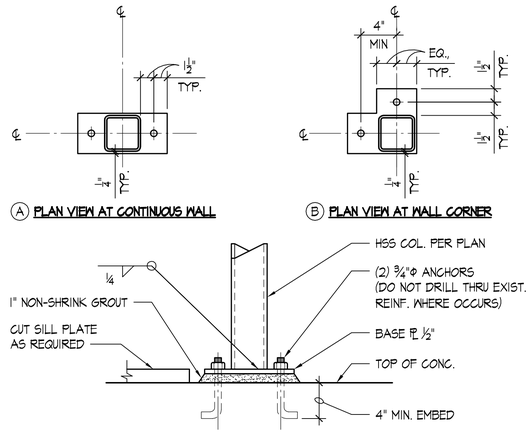
NOTE:
TYPICAL WOOD FRAMING NOT SHOWN.



BEAM TO COLUMN WEB MOMENT CONNECTION — SCALE: 1"=1'-0" | 6



TYPICAL BEAM TO HSS COLUMN — SCALE: NONE | 10



DETAIL — SCALE: 1"=1'-0" | 11

DETAIL — SCALE: 1"=1'-0" | 12

QUANTUM
CONSULTING ENGINEERS
1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKEY — STATE OF WASHINGTON — 36098 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

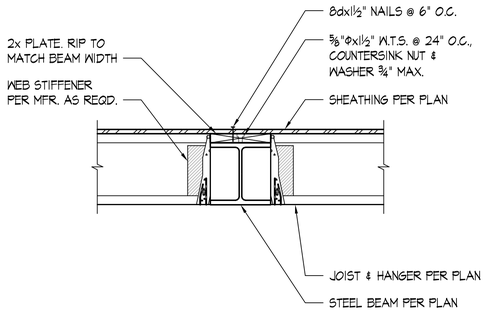
SHEET TITLE:

STEEL DETAILS

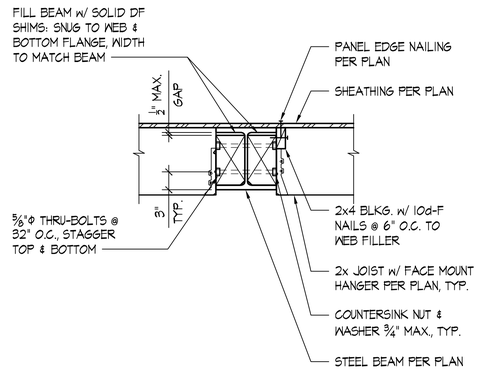
SHEET NO.

S5.0

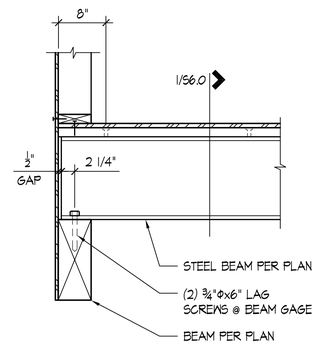
File: 127-s500.dwg Plotted: Wed, 06/07/2023 1:09 pm



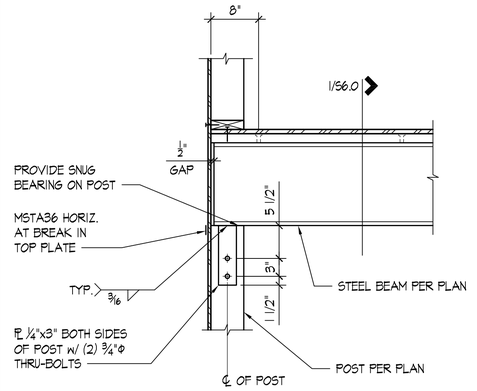
TYPICAL WOOD JOIST TO STEEL BEAM w/ 2x PLATE — SCALE: 1"=1'-0" — 1



TYPICAL WOOD JOIST TO STEEL BEAM - FACE MOUNT HANGER — SCALE: 1"=1'-0" — 2

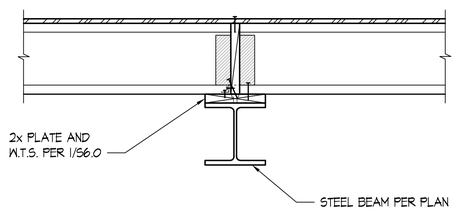


TYPICAL WOOD BEAM SUPPORTING STEEL BEAM — SCALE: 1"=1'-0" — 3



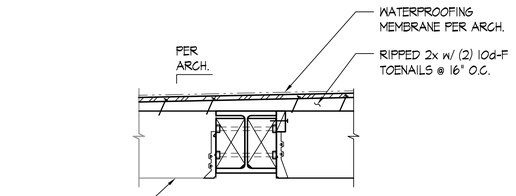
TYPICAL WOOD POST SUPPORTING STEEL BEAM — SCALE: 1"=1'-0" — 4

NOTE:
FOR INFORMATION NOT NOTED, SEE 3/S4.2 AND 1/S6.0

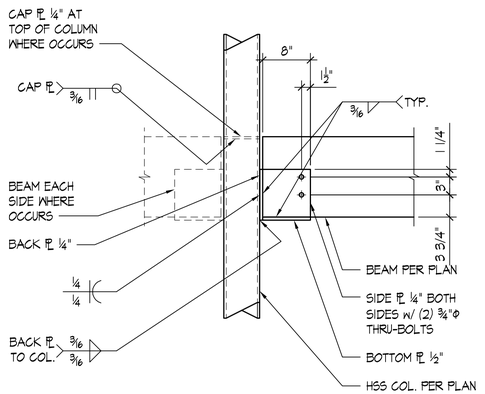


WOOD JOIST TO DROPPED STEEL BEAM — SCALE: 1"=1'-0" — 5

NOTE:
FOR INFORMATION NOT NOTED, SEE 2/S6.0

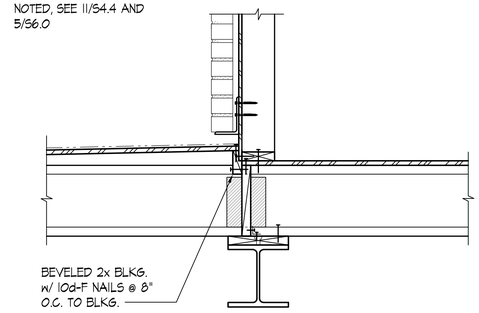


WOOD JOIST TO STEEL BEAM AT FLAT ROOF — SCALE: 1"=1'-0" — 6



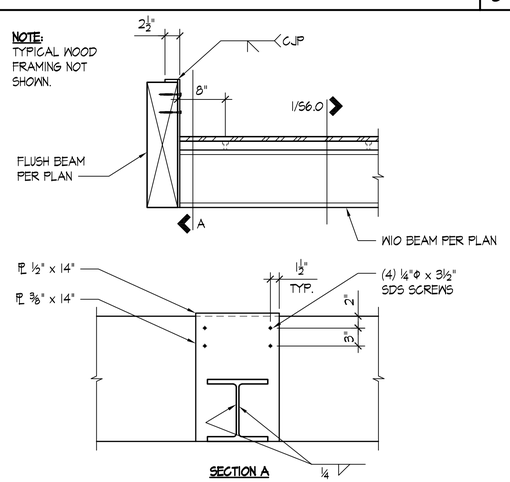
TYPICAL WOOD BEAM BUCKET AT HSS COLUMN — SCALE: 1"=1'-0" — 7

NOTE:
FOR INFORMATION NOT NOTED, SEE 11/S4.4 AND 5/S6.0

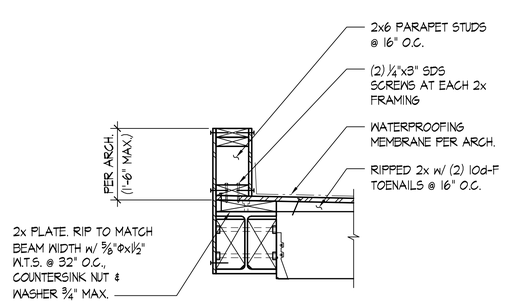


EXTERIOR WALL TO STEEL BEAM AT FLAT ROOF - FLOOR JOIST PERPENDICULAR — SCALE: 1"=1'-0" — 8

NOTE:
TYPICAL WOOD FRAMING NOT SHOWN.

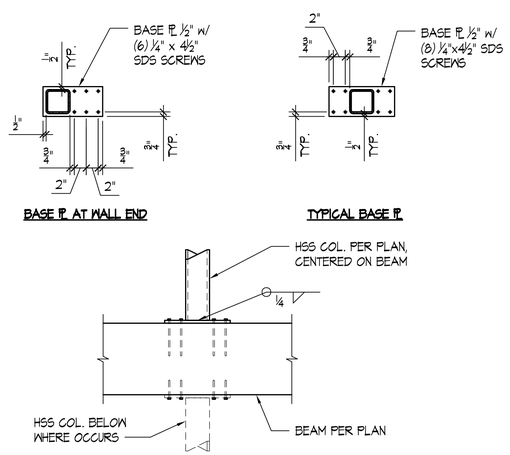


TYPICAL FLUSH BEAM SUPPORTING STEEL BEAM — SCALE: 1"=1'-0" — 9



NOTE:
FOR INFORMATION NOT NOTED, SEE 2/S6.0

PARAPET AT STEEL BEAM — SCALE: 1"=1'-0" — 10



HSS COLUMN AT GL BEAM — SCALE: NONE — 11

DETAIL — SCALE: 1"=1'-0" — 12

QUANTUM
CONSULTING ENGINEERS
1511 THIRD AVENUE
SUITE 323
SEATTLE, WA 98101
TEL 206.957.3900
www.quantumce.com

SEAL:

SCOTT H. TINKER — STATE OF WASHINGTON — 36098 — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

PROJECT:

HONG AND KAO RESIDENCE

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

APPROVAL:

NO.	DESCRIPTION	DATE	BY
	PERMIT SET	6/7/23	

ISSUES: ◯ REVISIONS: △

P.M.	SHT
P.E.	MKS
DRAWN BY:	TA
SCALE:	AS SHOWN
DATE:	6/7/23
JOB NO.	23127.01

SHEET TITLE:

WOOD AND STEEL DETAILS

SHEET NO.

S6.0

FOUNDATION NOTES:

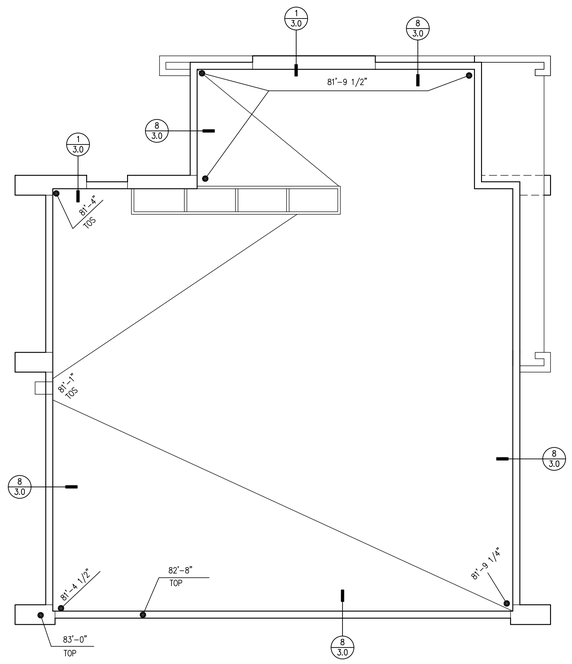
1. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS. SEE SHEET S3.0 FOR TYPICAL CONCRETE AND FOUNDATION DETAILS. SEE SHEET S4.0 FOR TYPICAL WOOD DETAILS.
2. ALL WOOD BEARING ON UNPROTECTED CONCRETE, EXPOSED TO WEATHER, OR WITHIN 8" OF FINISHED GRADE SHALL BE PRESSURE-TREATED, U.O.N.
3. FOR SILL PLATE ANCHOR BOLT LAYOUT TO CONCRETE FOUNDATION WALLS AND SLABS, SEE DETAIL 1/S4.0.
4. HDUx INDICATES HOLDOWN TO CONCRETE FOUNDATION WALLS OR FOOTINGS. SEE 12/S4.0 FOR HOLDOWN DETAIL. USE MIN. (2) 2x POST U.O.N.

ROOF FRAMING NOTES:

1. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS. SEE SHEETS S4.0, S4.1 AND S4.5 FOR TYPICAL WOOD DETAILS.
2. TYPICAL ROOF JOIST SHALL BE 11 7/8" TJI @ 24" O.C., U.O.N. HANG JOISTS WITH IUS HANGERS TYPICAL AT FLUSH BEAMS, U.O.N.
3. NAIL ROOF SHEATHING TO FRAMING WITH 8d NAILS (0.131" Φ X 2.5" LONG) AT 6" O.C. AT ALL PANELS EDGES AND 8d NAILS AT 12" O.C. AT INTERMEDIATE FRAMING MEMBERS. (UNBLOCKED). SEE DETAIL 6/S4.0
4. SW-x INDICATES SHEAR WALL AT LEVEL BELOW. SEE SHEAR WALL SCHEDULE 8/S4.0 FOR SHEATHING, BLOCKING, NAILING, AND ANCHOR BOLT REQUIREMENTS.

FLOOR FRAMING NOTES:

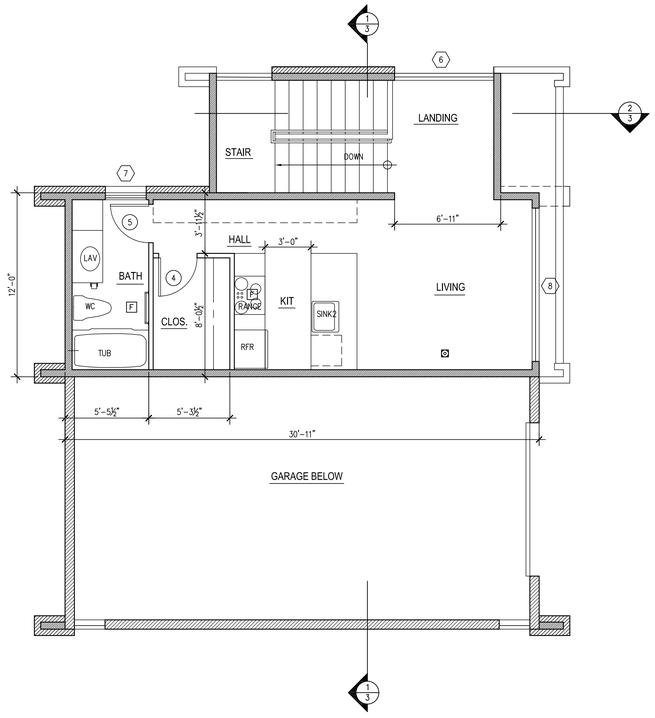
1. SEE SHEETS S1.0 AND S1.1 FOR GENERAL STRUCTURAL NOTES AND ABBREVIATIONS. SEE SHEETS S4.0, S4.1 AND S4.2 FOR TYPICAL WOOD DETAILS.
2. TYPICAL FLOOR FRAMING CONSISTS OF 23/32" APA RATED T&G SHEATHING (INDEX 48/24), LAID FACE GRAIN PERPENDICULAR OVER 9 1/2" TJI 210 JOISTS AT 16" O.C. HANG TJI JOISTS WITH IUS TOP FLANGE HANGERS TYPICAL AT FLUSH BEAMS, U.O.N.
3. NAIL FLOOR SHEATHING TO FRAMING WITH 8d NAILS (0.131"Φ X 2.5" LONG) AT 6" O.C. AT ALL PANELS EDGES AND 8d NAILS AT 12" O.C. AT INTERMEDIATE FRAMING MEMBERS. (UNBLOCKED). SEE DETAIL 6/S4.0.
4. SW-x INDICATES SHEAR WALL AT LEVEL BELOW. SEE SHEAR WALL SCHEDULE 8/S4.0 FOR SHEATHING, BLOCKING, NAILING, AND ANCHOR BOLT REQUIREMENTS.
5. CS16 INDICATES HOLDOWN STRAP TO FRAMING BELOW WALL. SEE 10/S4.0 FOR STRAP HOLDOWN DETAIL AT FLOOR-TO-FLOOR AND BEAM SUPPORTING SHEAR WALL END. USE MIN. (2) 2x POST U.O.N.



NORTH

ROOF PLAN

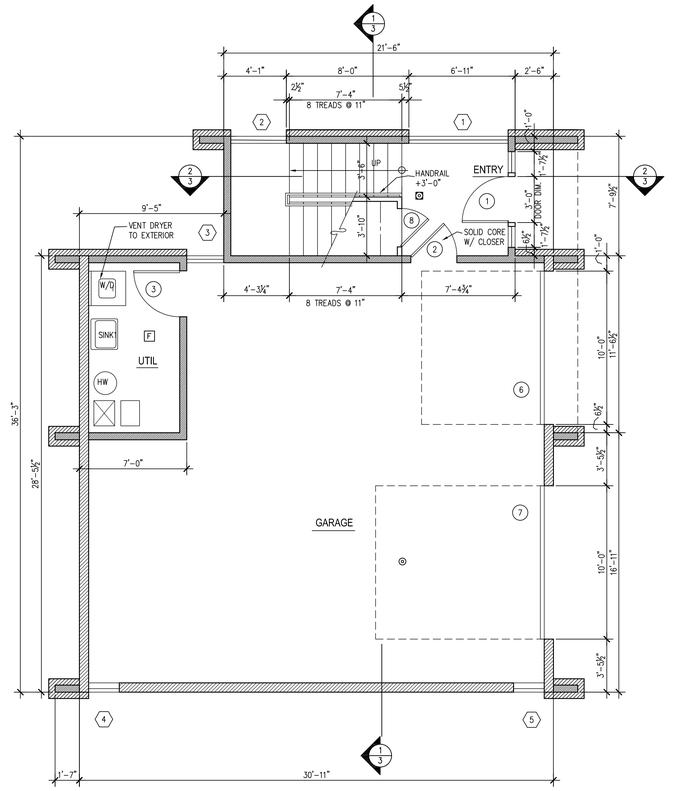
1/4" = 1'-0"



NORTH

UPPER FLOOR

1/4" = 1'-0"

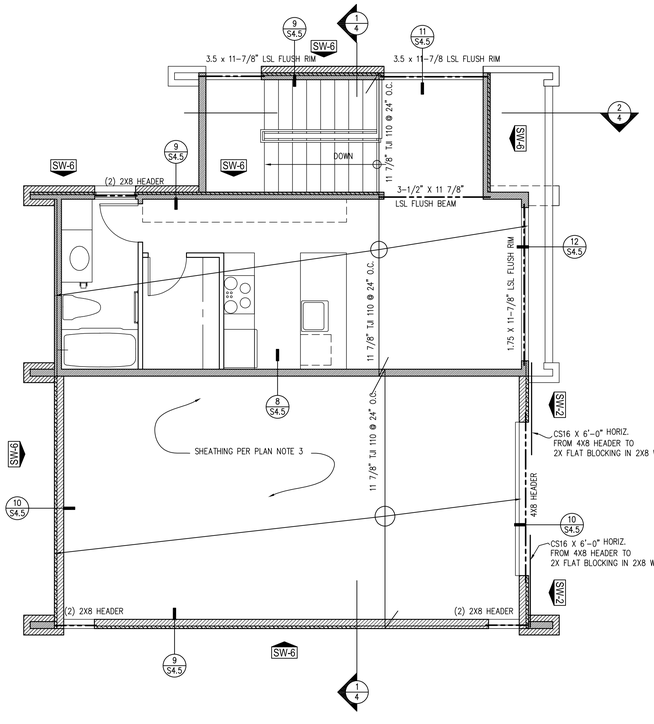


NORTH

MAIN FLOOR

1/4" = 1'-0"

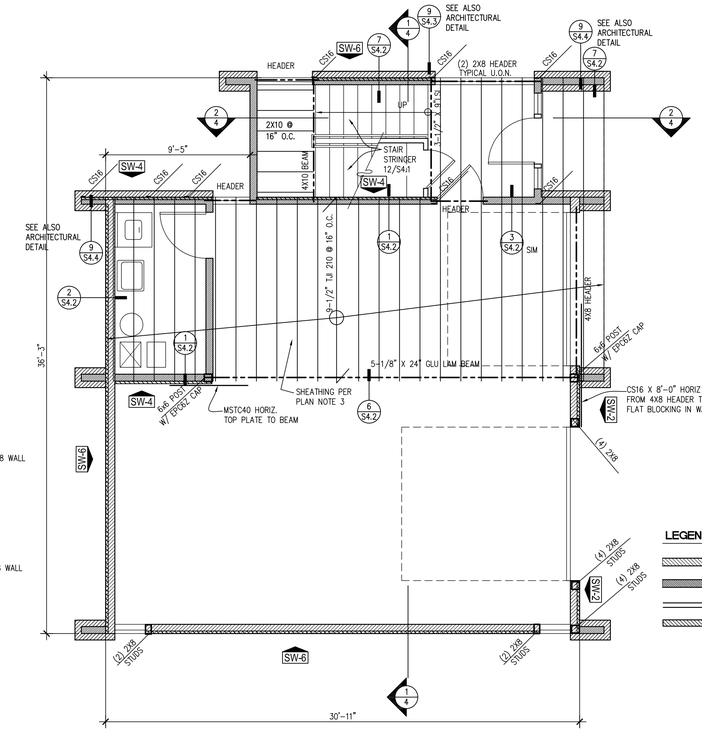
- COMBO-SMOKE/CARBON MONOXIDE DETECTOR (S/CM)
- HEAT DETECTOR
- F EXHAUST FAN (VENT TO EXTERIOR) 50 CFM, 100 CFM AT HOOD



NORTH

ADU ROOF FRAMING PLAN

1/4" = 1'-0"



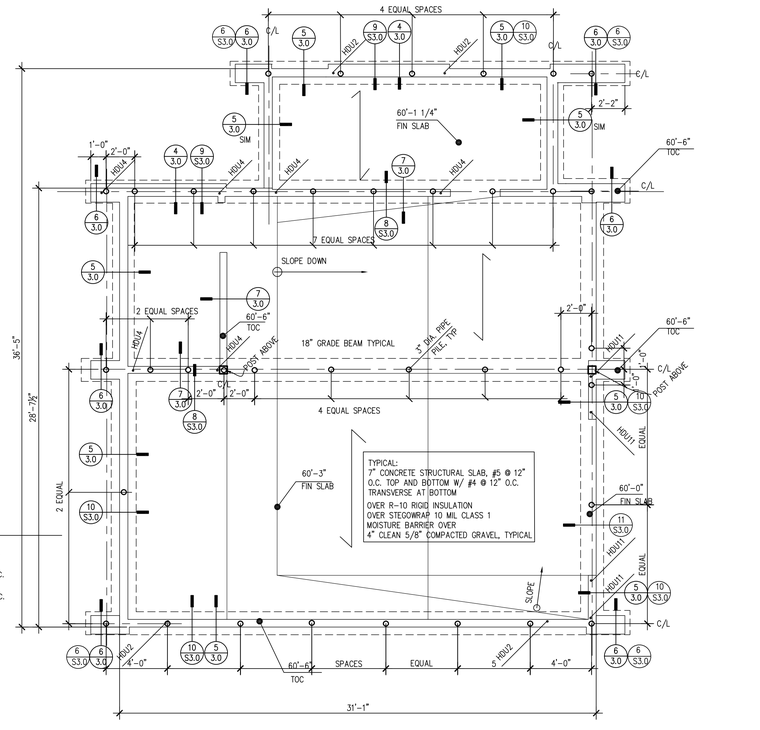
NORTH

ADU UPPER FLOOR FRAMING PLAN

1/4" = 1'-0"

LEGEND

- NEW 2X8 STUD @ 16" O.C.
- NEW 2X6 STUDS @ 16" O.C.
- NEW 2X4 STUDS @ 16" O.C.
- NEW BRICK VENEER



NORTH

FOUNDATION PLAN

1/4" = 1'-0"

TOC – TOP OF CONCRETE
FIN SLAB – FINISH SLAB ELEVATION

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0804
FAX: 425-679-0807

REGISTERED ARCHITECT 23362 STATE OF WASHINGTON

No.	Date	Revision

QUANTUM CONSULTING ENGINEERS
2315 130th AVENUE NE, SUITE 100
BELLEVUE, WA 98005
TEL: 425.284.5800
FAX: 425.284.5801
www.quantumce.com

SCOTT H. TINKER 36000 REGISTERED PROFESSIONAL ENGINEER STATE OF WASHINGTON

HONG AND KAO RESIDENCE DADU

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

DADU PLANS

Sheet No.	2.0
Project No.	2222
Date:	6/7/23

ROOM FINISH SCHEDULE

ROOM NAME	MATERIAL FLOOR	BASE MTL.	BASE DET.#/SHT.#	CASING DR.	CASING WIN.	WALLS N	WALLS E	WALLS S	WALLS W	CEILING MTL.	CEILING HEIGHT	FINISH FLOOR	BASE	CASING DR.	CASING WIN.	WALLS N	WALLS E	WALLS S	WALLS W	CEILING	REMARKS
ENTRY	–	–	–	–	–	W1	W1	W1	W1	–	–	–	–	–	–	–	–	–	–	–	–
GARAGE	–	–	–	–	–	W1	W1	W1	W1	–	–	–	–	–	–	–	–	–	–	–	–
UTILITY	–	–	–	–	–	W1	W1	W1	W1	–	–	–	–	–	–	–	–	–	–	–	–
STAIR	–	–	–	–	–	W1	W1	W1	W1	–	–	–	–	–	–	–	–	–	–	–	–
LANDING	–	–	–	–	–	W1	W1	W1	W1	–	–	–	–	–	–	–	–	–	–	–	–
LIVING	–	–	–	–	–	W1	W1	W1	W1	–	–	–	–	–	–	–	–	–	–	–	–
KITCHEN	–	–	–	–	–	W1	W1	W1	W1	–	–	–	–	–	–	–	–	–	–	–	–
CLOSET	–	–	–	–	–	W1	W1	W1	W1	–	–	–	–	–	–	–	–	–	–	–	–
BATH	–	–	–	–	–	W1	W1	W1	W1	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–					–	–	–	–	–	–	–	–	–	–	–	–

LEGEND

W1 – 5/8" TYPE 'X' GYPSUM DRYWALL

ENERGY:

ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE UNIFORM BUILDING CODE AND THE WASHINGTON STATE ENERGY CODE, LATEST EDITION. VERIFY ALL CONDITIONS BEFORE PROCEEDING WITH WORK.

APPLICATION AND INSTALLATIONS OF INSULATION AND VAPOR BARRIERS SHALL COMPLY WITH STATE OF WASHINGTON THERMAL INSULATION STANDARDS (H.B. 98).

WALLS: INSULATED WITH R–21 BATT

ROOF AND CEILING: INSULATED WITH R–49 BATT IN ATTICS. PROVIDE INSULATION IN CEILING WHERE POSSIBLE AND IN 2X12 RAFTERS R–38 IF VAULTED CEILING CONDITION EXISTS. MAINTAIN A MINIMUM OF 2" CLEAR BETWEEN TOP OF INSULATION AND BOTTOM OF SHEATHING FOR VENTING. VENTING MUST OCCUR IN EACH JOIST SPACE. WHERE CONTINUOUS VENTING WITHIN A JOIST SPACE IS INTERRUPTED BY A HEADER (I.E., SKYLIGHT OR AT HIP END), PROVIDE (2) 1 1/2" VENTING HOLES AT THE TOP OF THE RAFTER AT THE HEADER TO ALLOW FOR CONTINUAL THROUGH–VENTING INTO THE NEXT JOIST SPACE.

FLOORS: PROVIDE R–30 BATT INSULATION OVER UNHEATED SPACE (UNLESS NOTED OTHERWISE).

SLAB ON GRADE: PROVIDE EXTRUDED RIGID CLOSED CELL INSULATION R–10. INSULATION TO PROVIDE THERMAL BREAK BETWEEN SLAB AND FOOTING AND RUN FROM THE TOP OF THE SLAB TO THE BOTTOM OF THE FOOTING. INSULATION MAY BE INTERRUPTED FOR 6" EVERY 2'–0" TO ALLOW FOR DOWELING TO TIE SLAB AND FOOTING TOGETHER.

VAPOR BARRIERS: AN APPROVED VAPOR BARRIER SHALL BE INSTALLED AT EXTERIOR WALLS AND AT ALL ROOF DECKS, BELOW ENCLOSED JOIST SPACES WHERE CEILING FINISHES ARE DIRECTLY INSTALLED TO JOISTS, AND ANY OTHER WALL OR CEILING SURFACES WHICH RECEIVE INSULATION. THIS VAPOR BARRIER MAY BE A COMPONENT OF THE INSULATION MATERIAL. APPLICATION AND INSTALLATIONS OF INSULATION AND VAPOR BARRIERS SHALL COMPLY WITH STATE OF WASHINGTON THERMAL INSULATION STANDARDS (H.B. 96).

SECTION R406 ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS

R406.3 SMALL DWELLING UNIT ..... 3.0 CREDITS REQUIRED

FUEL NORMALIZATION CREDITS
SYSTEM TYPE 2 LISTED HEAT PUMP..... 1.0 CREDITS

2. AIR LEAKAGE CONTROL
2.2 REDUCE AIR LEAKAGE TO 2.0 AIR CHANGES..... 1.0 CREDITS

3. HIGH EFFICIENCY HVAC EQUIPMENT
3.2 AIR SOURCE DUCTED HEAT PUMP MIN. HSPF 9.5..... 1.0 CREDITS

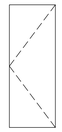
TOTAL PROVIDED..... 3.0 CREDITS

DOOR SCHEDULE

#	DOOR DIMENSION (NOTE: VERIFY DOOR HEIGHT) WIDTH	HEIGHT		TYPE	U-VALUE	DETAILS HEAD DET#/SHT#	JAMB DET#/SHT#	JAMB DET#/SHT#	SILL DET#/SHT#	LOCKSET	LATCHSET	DEADBOLT	PRIVACY	FLUSH BOLTS	KNOB PULL	CLOS. LATCH	PCKT. ROLLER	BUTTS	CLOSER	WEATHERST.	REMARKS
1	3'–0"	8'–0"	–	A	.30	–	–	–	–	●	○	●	○	○	○	○	○	●	○	●	–
2	3'–0"	6'–8"	–	A	–	–	–	–	–	●	○	●	○	○	○	○	○	●	○	●	SOLID CORE WITH CLOSER
3	3'–0"	6'–8"	–	A	–	–	–	–	–	○	●	○	○	○	○	○	○	●	○	○	–
4	2'–6"	6'–8"	–	A	–	–	–	–	–	○	●	○	○	○	○	○	○	●	○	○	–
5	2'–6"	6'–8"	–	A	–	–	–	–	–	○	○	○	●	○	○	○	○	●	○	○	–
6	10'–0"	8'–0"	–	–	–	–	–	–	–	○	○	○	○	○	○	○	○	○	○	○	GARAGE DOOR
7	10'–0"	11'–0"	–	–	–	–	–	–	–	○	○	○	○	○	○	○	○	○	○	○	GARAGE DOOR
5	2'–6"	6'–8"	–	A	–	–	–	–	–	○	●	○	○	○	○	○	○	●	○	○	–

DOOR TYPES

SCALE: 1/4" = 1'–0"



(A)

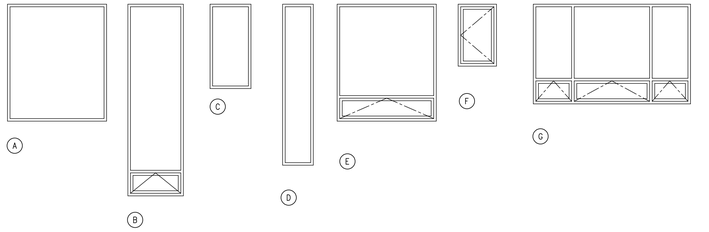
WINDOW SCHEDULE

WINDOWS BY: MARVIN
ALUMINUM CLAD FRAMES; INSULATED HIGH PERFORMANCE GLAZING

#	ROUGH OPENING WIDTH	HEIGHT	ROUGH HEAD (FROM SUBFLOOR)	TYPE	U-VALUE	DETAILS HEAD DET#/SHT#	JAMB DET#/SHT#	JAMB DET#/SHT#	SILL DET#/SHT#	REMARKS
1	6'–5"	7'–6"	–	A	.30	–	–	–	–	–
2	3'–7"	12'–6"	–	B	.30	–	–	–	–	–
3	2'–5"	5'–6"	–	C	.30	–	–	–	–	–
4	2'–0"	10'–6"	–	D	.30	–	–	–	–	–
5	2'–0"	10'–6"	–	D	.30	–	–	–	–	–
6	6'–5"	7'–7"	–	E	.30	–	–	–	–	–
7	2'–8"	4'–0"	–	F	.30	–	–	–	–	–
8	10'–0"	6'–7"	–	G	.30	–	–	–	–	–
	–	–	–	–	–	–	–	–	–	–
	–	–	–	–	–	–	–	–	–	–

WINDOW TYPES

SCALE: 1/4" = 1'–0"



(A) (B) (C) (D) (E) (F) (G)

APPLIANCE SCHEDULE

O.P.C.I. = OWNER TO PROVIDE/CONTRACTOR TO INSTALL

MARK	PRODUCT	MANUFACTURER	MODEL NO.	FINISH/COLOR	LOCATION	REMARKS
DW	–	–	–	–	–	–
RANGE	–	–	–	–	–	–
REFER	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	MANUFACTURER	MODEL NO.	FINISH/COLOR	FITTING	LOCATION	REMARKS
LAV	–	–	–	–	–	–	–
TUB	–	–	–	–	–	–	–
SINK1	–	–	–	–	–	–	–
SINK2	–	–	–	–	–	–	–
WC	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–

SPECIALTIES SCHEDULE

MARK	PRODUCT	MANUFACTURER	MODEL NO.	FINISH/COLOR	LOCATION	REMARKS
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0807
FAX: 425-679-0804

REGISTERED ARCHITECT 5380 STATE OF WASHINGTON

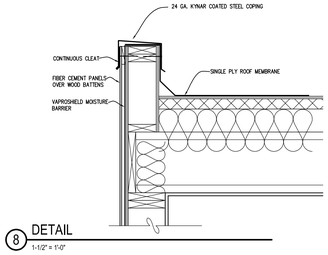
No. Date Revision

HONG AND KAO RESIDENCE DADU

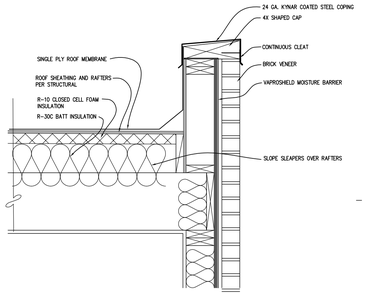
5425 W. MERCER WAY
MERCER ISLAND, WA 98040

DADU SCHEDULES

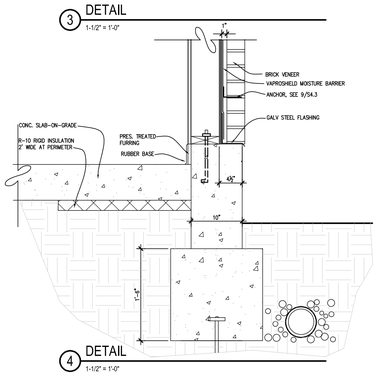
Sheet No. 2.1
Project No. 2222
Date: 6/7/23



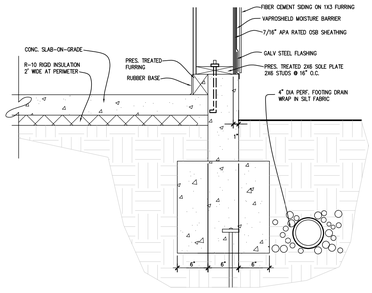
8 DETAIL
1-1/2" = 1'-0"



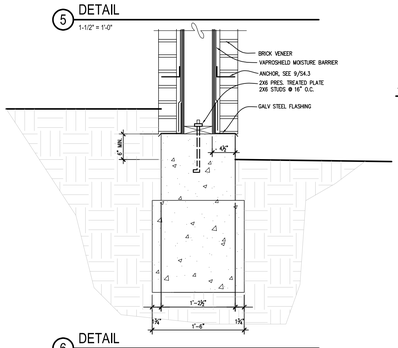
3 DETAIL
1-1/2" = 1'-0"



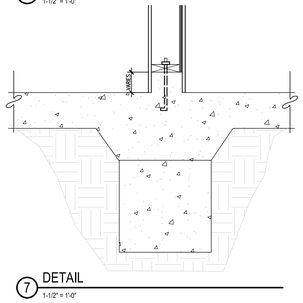
4 DETAIL
1-1/2" = 1'-0"



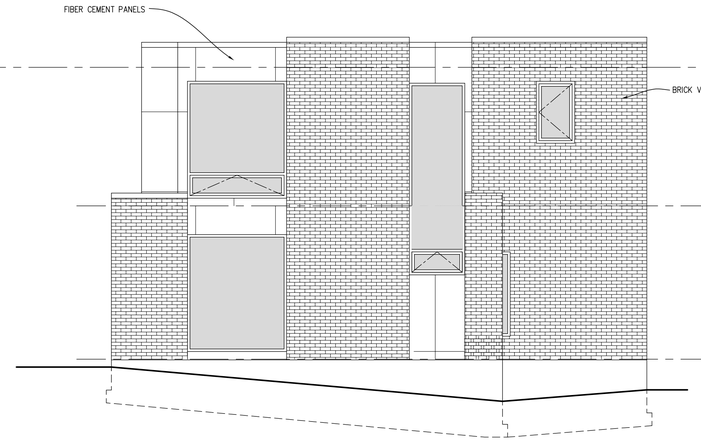
5 DETAIL
1-1/2" = 1'-0"



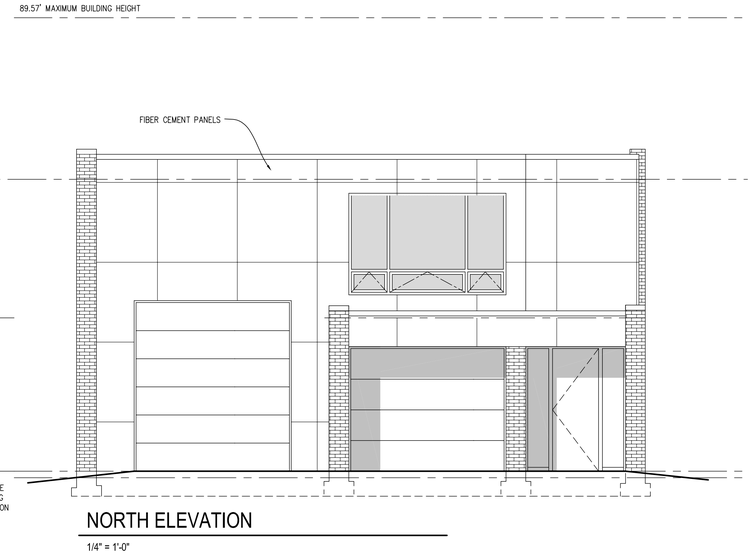
6 DETAIL
1-1/2" = 1'-0"



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



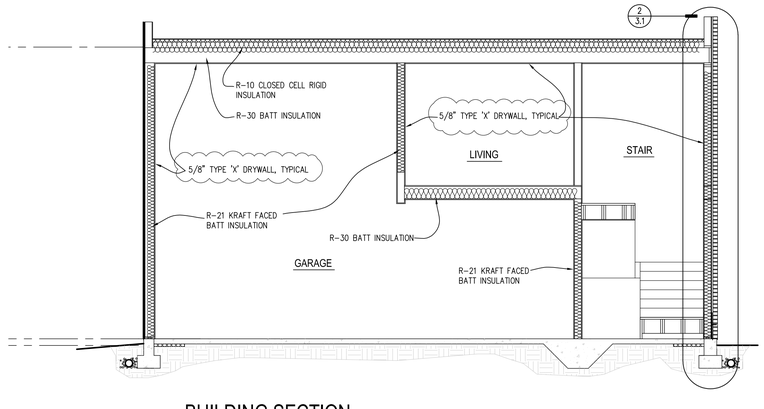
WEST ELEVATION
1/4" = 1'-0"



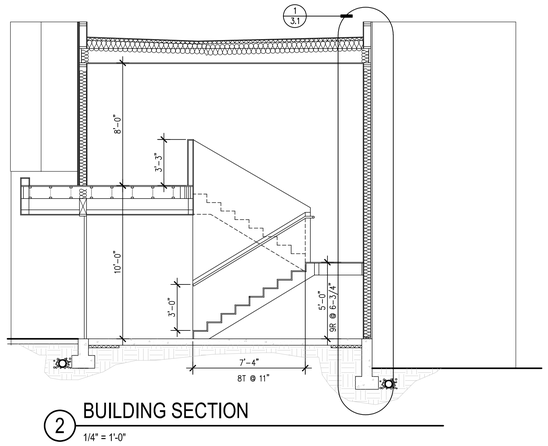
NORTH ELEVATION
1/4" = 1'-0"

EAST ELEVATION
1/4" = 1'-0"

SOUTH ELEVATION
1/4" = 1'-0"



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



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

CHESMORE|BUCK
architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0807
FAX: 425-679-0804

REGISTERED ARCHITECT
STATE OF WASHINGTON
S386

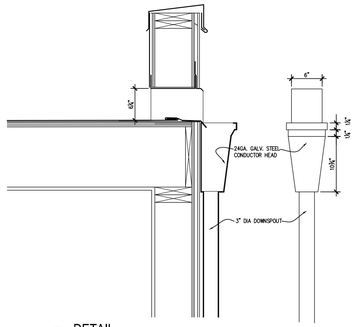
No.	Date	Revision

HONG AND KAO RESIDENCE DADU

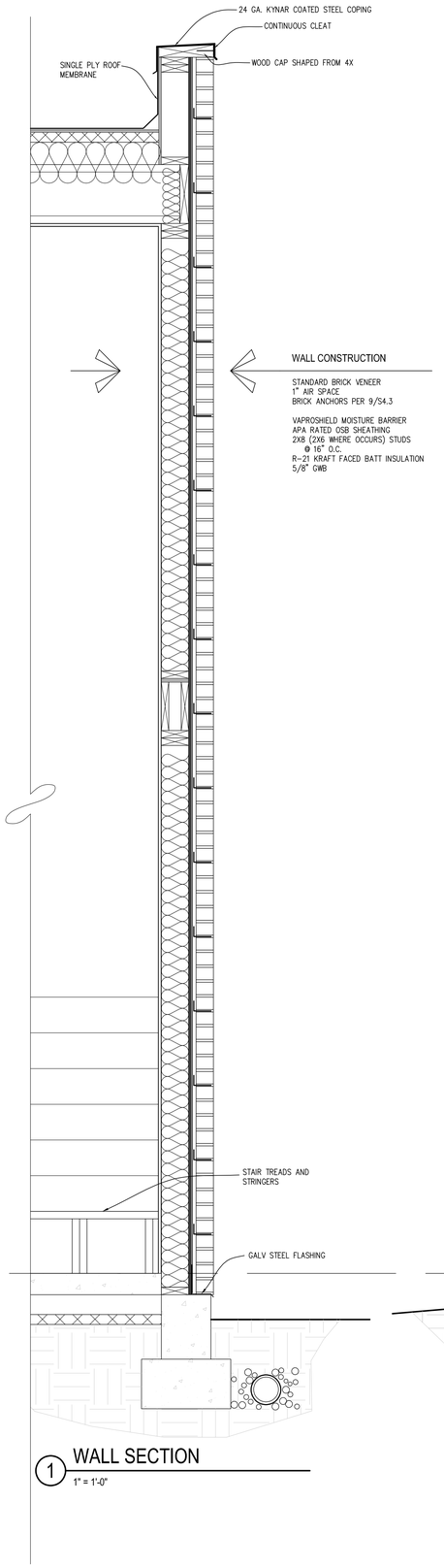
5425 W. MERCER WAY
MERCER ISLAND, WA 98040

ELEVATIONS

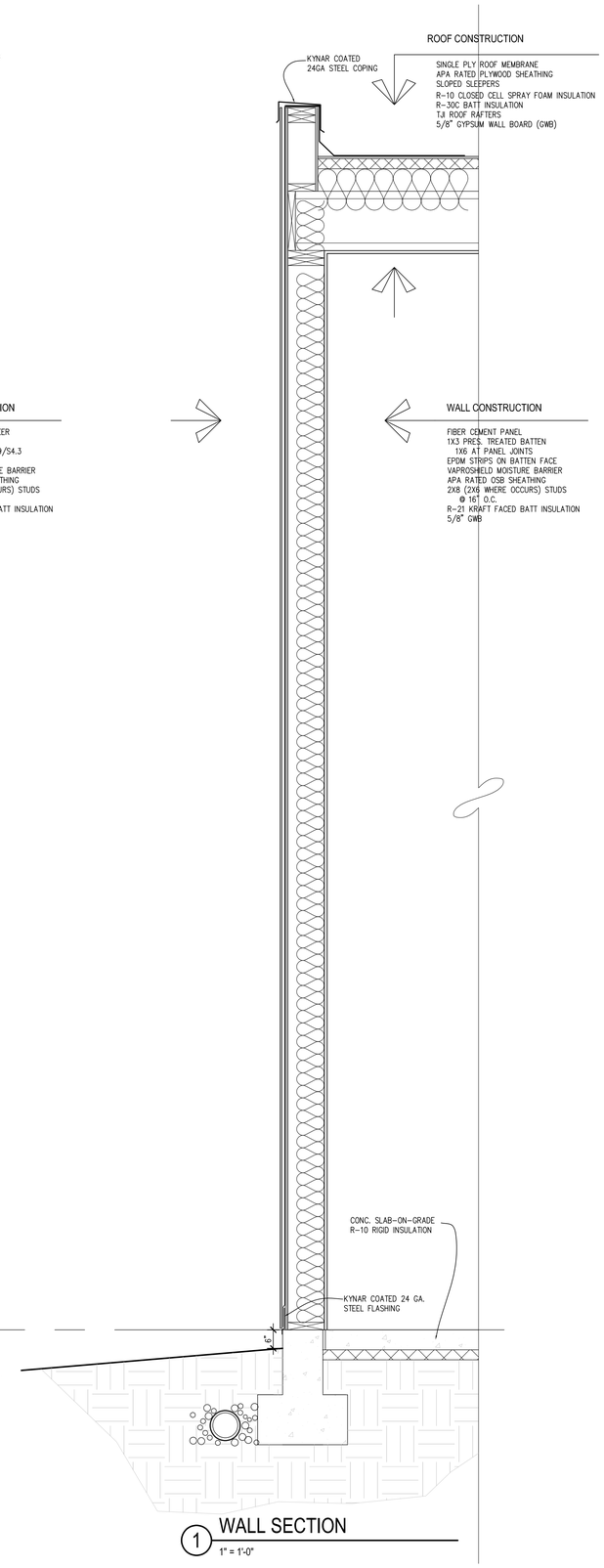
Sheet No.	3.0
Project No.	2222
Date:	6/7/23



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



1 WALL SECTION
1" = 1'-0"



1 WALL SECTION
1" = 1'-0"

CHESMORE|BUCK architecture
27 100TH AVENUE NE, SUITE 100
BELLEVUE, WA 98004
PHONE: 425-679-0804
FAX: 425-679-0807

REGISTERED ARCHITECT
S388
Steve Buck
STATE OF WASHINGTON

No.	Date	Revision

HONG AND KAO RESIDENCE DADU

5425 W. MERCER WAY
MERCER ISLAND, WA 98040

DETAILS

Sheet No.	3.1
Project No.	2222
Date:	6/7/23