

ength	elevation	axb
29.5	59	174

5	59	1740.5
1	60	1860
7	60.1	2223.7
9	59.2	1124.8
8	59.1	472.8
2	59.1	709.2

136.5

59.57 average grade

8131

TOTAL LOT AREA: 42,797 S.F. NET LOT AREA LOT COVERAGE:	39,844 S.F.
HOUSE W/ ADDITIONS	5,266 S.F.
DADU	1,108 S.F.
SHED	143 S.F.
STRUCTURAL TOTAL	6,517 S.F.
SPORT COURT DRIVING SURFACES	1,950 S.F. 6,766 S.F.
TOTAL	15,233 S.F.
HARDSCAPE MAX. ALLOWED 9% OF 42,797 S.F. = 3,852	S.F.

976 S.F. STEPPING STONES & ROCKERIES

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	<u>1,952 S.F.</u>
TOTAL	8,416 S.F.
ALLOWABLE GROSS FLOOR AREA	12,000 S.F.
LOT SLOPE CALCU	LATION
HIGH POINT 80'-LOW POINT 18'=62' DIFFI 62'/438.3' HORIZONTAL DISTANCE*100=12	
FIRE SPRINKLERS	
PROVIDE A NFPA 13D FIRE SPRINKLER SY	STEM THROUGHOUT THE MAIN HOUSE. THIS SYSTEM
WILL REQUIRE A SEPARATE FIRE PERMIT.	

S4.2 FLOOR DETAILS S4.3 DECK DETAILS

S4.4 WOOD DETAILS

S4.5 PARAPET AND FLAT ROOF DETAILS S5.0 STEEL DETAILS

S6.0 WOOD AND STEEL DETAILS

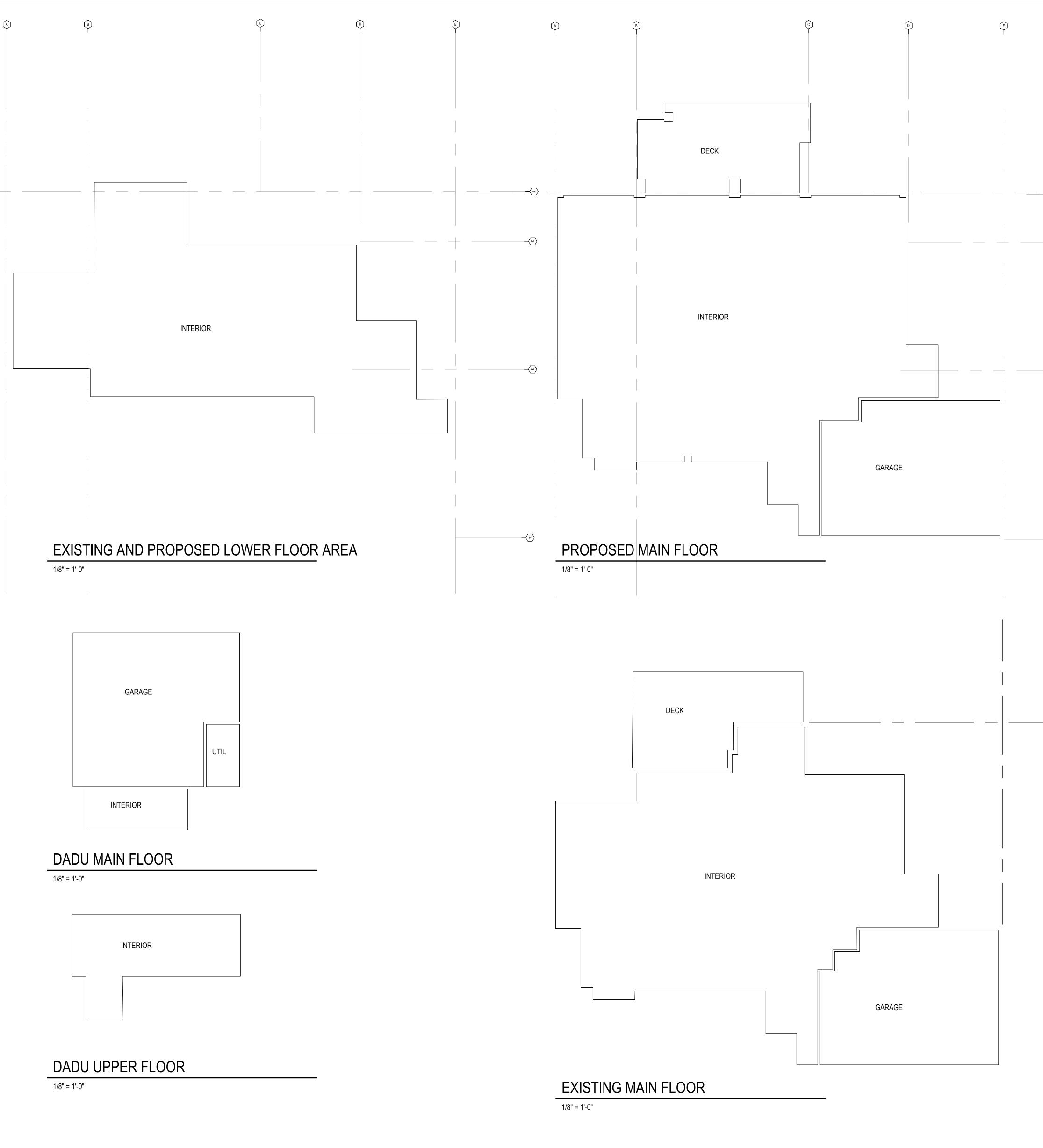


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Sheet No. Project No. Date:

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# EXISTING UPPER FLOOR

1/8" = 1'-0"



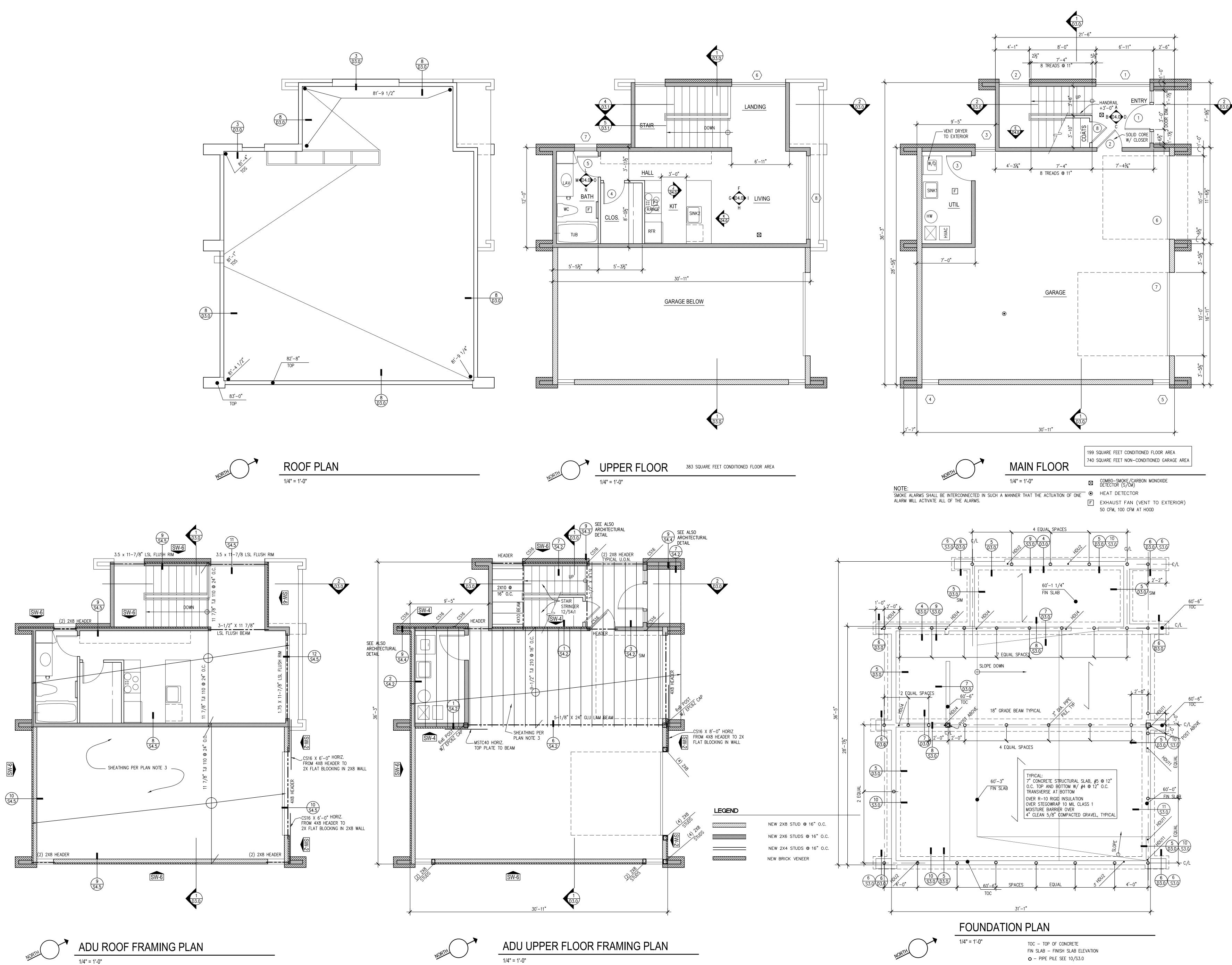
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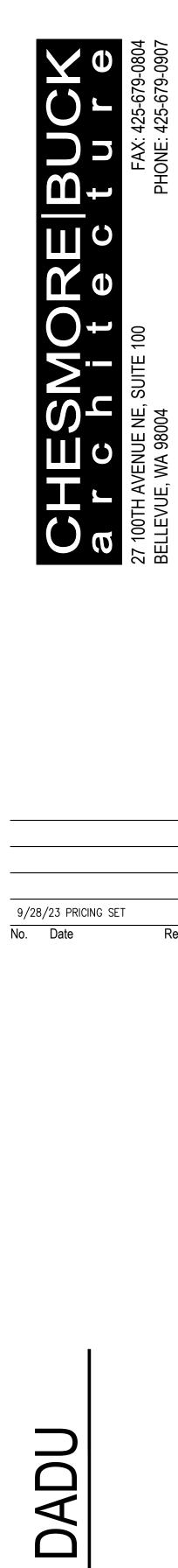
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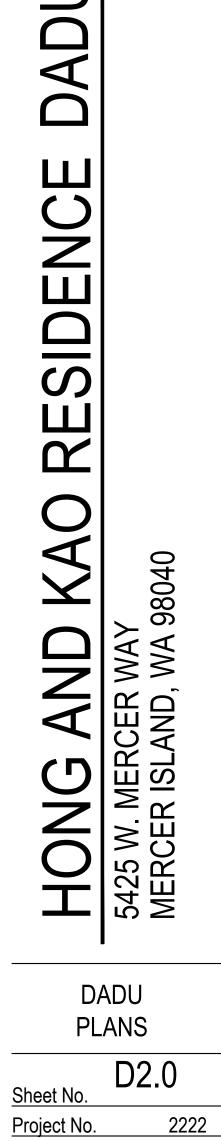
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Date:







9/8/23

Date:

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 MAXIMUM PER HOUR AT 50 PASCALS AND ALL WHOLE HOUSE VENTILATION REQUIREMENTS OR IRC M1505.4 OR IMC 403.4 SHALL BE MET WITH HEAT RECOVERY VENTILATION SYSTEM WITH MIN. SENSIBLE HEAT RECOVERY EFFICIENCY OF 0.65

3. HIGH EFFICIENCY HVAC EQUIPMENT 3.2 AIR SOURCE DUCTED HEAT PUMP MIN. HSPF 9.5...... 1.0 CREDITS TOTAL PROVIDED..... ..... 3.0 CREDITS

# TESTING

TEST AIR LEAKAGE CHANGES WITH A BLOWER DOOR AT A PRESSURE OF 0.2" W.G. (50 PASCALS) 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. FAN MUST BE SOUND RATED TO ONE SONE.

# **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, INSULATE HEADERS TO R-10.

ROOF AND CEILING: INSULATED WITH R-10 CLOSED CELL FOAMED IN-PLACE INSULATION, UNFACED FIBERGLAS BATTS IN 2X RAFTERS TO R-38 IN VAULTED CEILING CONDITIONS. FLOORS: PROVIDE R-30 BATT INSULATION OVER UNHEATED SPACE (UNLESS NOTED OTHERWISE).

<u>SLAB ON GRADE:</u> 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. 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).

CERTIFICATE: PRIOR TO SUBSTANTIAL COMPLETION POST ON A WALL NEAR THE HEATING EQUIPMENT OR ON AN ELECTICAL PANEL THE FOLLOWING: PREDOMINATE R- VALUES, U- VALUES OF FENESTRATION, RESULTS FROM DUCT SYSTEM AND BUILDING AIR LEAKAGE TESTING, THE RESULTS FROM THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FLOW RATE TEST, AND THE TYPES AND EFFICIENCIES OF HEATING/COOLING/WHOLE-HOUSE MECHANICAL VENTILATION/WATER HEATING EQUIPMENT.

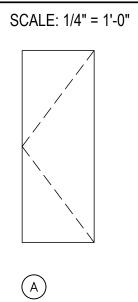
LEAK TESTING: DUCTS MUST BE LEAK TESTED IN ACCORDANCE WITH WSU RS-33 USING THE MAXIMUM DUCT LEAKAGE RATES SPECIFIED. TOTAL LEAKAGE MUST BE VERIFIED BY EITHER THE ROUGH-IN TEST OR POSTCONSTRUCTION TEST PER WSEC R403.3.3. TOTAL LEAKAGE MUST BE LESS THAN OR EQUAL TO 4CFM PER 100 SF OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1" W.G. (25 PA) ACROSS THE ENTIRE SYSTEM.

	MA	TERIA	NL									FIN	ISH								
	ЛR	중 BASE			SING	WA	LLS			CEI	ING	R		CASING         WALLS           DR.         WIN.         N         E         S         W           -         -         -         -         -         -         -           X1         -         -         -         -         -         -         -           X1         -         -         -         -         -         -         -         -           X1         -         -         -         -         -         -         -         -           X1         -			NG	-			
ROOM NAME	FLOOR	MTL.	DET.#/SHT.#	DR.	WIN.	N	E	S	W	MTL.	HEIGHT	FLOOR	BASE	DR.	WIN.	N	E	S	W	CEILING	REMARK
ENTRY	F2	B1	18/3.2	-	-	W1	W1	W1	W1	C-1	8'-0"	-	-	-	_	-	-	-	-	-	-
GARAGE	F1	B2	-	-	_	W5	W5	W5	W5	C-1	9'-1"/ 18'-0"	S1	X1	-	-	-	-	_	-	_	-
UTILITY	F1	B2	-	-	-	W5	W5	W5	W5	C-1	9'-1"	S1	X1	-	-	-	-	-	-	-	-
STAIR	F3	B1	18/3.2	-	_	W1	W1	W1	W1	C-1	18'-0"	S2	_	_	_	-	_	_	-	_	_
LANDING	F3	B1	18/3.2	-	-	W1	W1	W1	W1	C-1	8'-0"	S2	-	-	-	-	-	-	-	-	_
LIVING	F3	B1	18/3.2	-	-	W1	W1	W1	W1	C-1	8'-0"	S2	_	-	_	-	-	-	-	-	-
KITCHEN	F3	B1	18/3.2	-	-	W1	W1	W1	W1	C-1	8'-0"	S2	-	-	-	-	-	-	-	-	-
CLOSET	F2	B1	18/3.2	-	-	W1	W1	W1	W1	C-1	8'-0"	S2	-	-	-	_	-	-	-	-	-
BATH	F3	B1	18/3.2	-	_	W1	W1	W1	W1	C-1	8'-0"	S2	_	_	_	_		_	-	_	-
COATS	F2	B1	-	-	_	W5	W5	W5	W5	C-1	VARIES	-	_	_	_	_		_	-	_	-
F2 – TILE MTL: TERRA: MFR: ANN S MODEL: TERI COLOR: CAS SIZE: 24" X COO: IT F3 – LVP MTL: LUXUR MFR: PROVE	ACKS RAZZO R HMERE 24", OR Y VINYL	ENATA 12"X PLANK			<ul> <li>W2 – MIRROR</li> <li>W3 – TILE</li> <li>MTL: STATEMENTS</li> <li>PATTERN: MIKASA</li> <li>COLOR: BIANCO</li> <li>SIZE: 12" X 24"</li> <li>W4 – TILE</li> <li>MTL: ACCENT TILE</li> <li>MFR: CROSSVILLE – UNITED TILE</li> <li>PATTERN: YIN+YANG</li> <li>COLOR: BONSAI YY01/.1.51.5MOS</li> </ul>					MFR: COLOR: SHEEN: P2 – PAINT MTL: ACRYLIC LATEX PAINT MFR: COLOR: SHEEN:											
COLLECTION: COLOR: TO SIZE: BASE	UPTOW	N CHIC				- Dry' Mtl: Finis	5/8' H: LE	'TYPE EVEL FO	'X'GY	′PSUM	DRYWALL		<ul> <li>S1 – SEALER MTL: WATERBORNE DENSE STONE SEALER MFR: STAIN PROOF</li> <li>S2 – SEALER MTL: PREMIUM IMPREGNATING SEALER</li> </ul>								
B1 – WOOD BASE MTL: POPLAR SIZE: 1 X 4 B2 – RUBBER BASE MTL: RUBBER MFR: ROPPE	1 – WOOD BASE MTL: POPLAR SIZE: 1 X 4 SIZE: 1 X 4				DLID SU MBRIA EDALE MATTE S; 2CM OLID SI RATUS LEVINA POLISHE	MATTE LUXUR I, 3CM JRFACE QUART	RY SER E Z	IES				STAI				JLALEI	v				
					CEIL	INGS DRYW															

# DOOR SCHEDULE

									ALL INTER	IOR DOORS	TO	BE	Solie	) CO	RE							
			MENSION Door height)								(SET	CHSET	BOLT	ACY	H BOLTS	3 PULL	S. LATCH	- ROLLER	TS	)ER	WEATHERST.	
	(#)	WIDTH	HEIGHT		TYPE	U-VAL	HEAD DET#/SHT#	JAMB DET#/SHT#	JAMB DET#/SHT#	SILL det#/sht#	LOCKSE	LATC	DEADBOI	PRIVACY	FLUSH	KNOB	CLOS.	PCKT.	BUTT	CLOSER	WEA <sup>-</sup>	REMARKS
	1	3'-0"	8'-0"	-	A	.30	1/3.2	2/3.2	3/3.2	4/3.2		0		0	0	0	0	0	$\bullet$	0		WITH SIDELIGHTS
	2	3'-0"	6'-8"	_	A	.30	5/3.2	5/3.2	5/3.2	4/3.2		0		0	0	0	0	0	$\bullet$	0		SOLID CORE WITH CLOSER
	3	3'-0"	6'-8"	_	A	-	5/3.2	5/3.2	5/3.2	_	0		0	0	0	0	0	0	ullet	0	0	-
	4	2'-6"	6'-8"	_	A	-	5/3.2	5/3.2	5/3.2	-	0		0	0	0	0	0	0	$\bullet$	0	0	-
	5	2'-6"	6'-8"	_	A	-	5/3.2	5/3.2	5/3.2	-	0	0	0		0	0	0	0	$\bullet$	0	0	-
	6	10'-0"	8'-0"	_	-	-	7/3.2	6/3.2	6/3.2	-	0	0	0	0	0	0	0	0	0	0	0	GARAGE DOOR OPENER LIFTMAS
	7	10'-0"	12'-0"	_	-	-	9/3.2	8/3.2	8/3.2	_	0	0	0	0	0	0	0	0	0	0	0	GARAGE DOOR OPENER LIFTMAS
	5	2'-6"	6'-8"	_	A	-	5/3.2	5/3.2	5/3.2	-	0		0	0	0	0	0	0		0	0	-

# DOOR TYPES

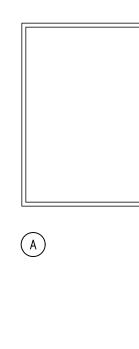


۷	VINI	DOW	/ SCH	Ε	D	ULE				WINDOWS BY: MARVIN ALUMINUM CLAD FRAMES; INSULATED HIGH PERFORMANCE
	ROUGH	OPENING			П.	DETAILS				
< <u>#</u> >	WIDTH	HEIGHT	ROUGH HEAD (FROM SUBFLOOR)	TYPE	U-VALUE	HEAD DET#/SHT#	JAMB DET#/SHT#	JAMB DET#/SHT#	SILL det#/sht#	REMARKS
1	6'-5"	7'-6"	8'-0"	A	.30	10/3.2	12/3.2	12/3.2	11/3.2	-
2	3'-7"	12'-5"	18'-0"	В	.30	10/3.2	12/3.2	12/3.2-14/3.2	11/3.2	-
3	2'-5"	5'-6"	6'-10"	С	.30	15/3.2	12/3.2	14/3.2	11/3.2	-
4	2'-0"	10'-6"	12'-0"	D	.30	15/3.2	12/3.2	14/3.2	11/3.2	-
5	2'-0"	10'-6"	12'-0"	D	.30	15/3.2	11/3.2	12/3.2	11/3.2	-
6	6'-5"	7'-7"	8'-0"	E	.30	10/3.2	12/3.2	14/3.2	11/3.2	-
7	2'-8"	4'-0"	6'-10"	F	.30	16/3.2	12/3.2	12/3.2	17/3.2	-
8	10'-0"	6'-6"	8'-0"	G	.30	10/3.2	14/3.2	14/3.2	11/3.2	-
	-	-	_	-	-	-	-	-	-	-
	_	_	-	-	-	-	-	-	_	-

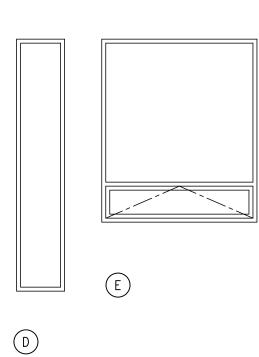
# WINDOW TYPES

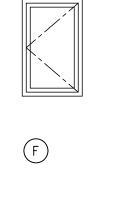
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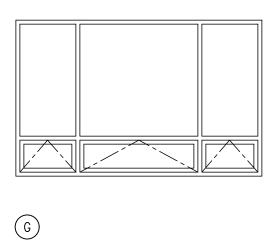
SCALE: 1/4" = 1'-0"



<b>C</b>	







AI	PPLIA	NCE SCHE	DULE		0.P.C.I. = OWNER TO PF	ROVIDE/CONTRACTOR TO
MARK	PRODUCT	MANUFACTURER	MODEL NO.	FINISH/COLOR	LOCATION	REMARKS
DW	-	-	-	-	-	-
RANGE	-	-	-	-	-	-
REFER	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-

PL	UMBIN	NG FIXTU	JRE SC	HEDULE		
MARK	FIXTURE	MANUEACTURER		FINISH/COLOR	FITTING	REMARKS

MARK	FIXTURE	MANUFACIURER	MODEL NO.	FINISH/COLOR	FITTING		REMARKS
LAV		KOHLER	LADENA K-2214		HANSGROHE 71710821		
TUB	TUB	JACUZZI	LNS6032BRXXXXW, MF35826 DRAIN	_	HANSGROHE 04233820 TRIM 01850181 VALVE, 26036821 HEAD	28632820 B/ 28417EN0 H	AR, 27458823 ELBOW, OSE
SINK1	_	EL MUSTEE	14CP COMBO	-	INCLUDES FAUCET AND STOPPER		-
SINK2	-	KOHLER	K-3335	STAINLESS	BRIZO 61063LF-BLGL	K-8799 DR	AIN & STRAINER
WC	TOILET	SIGNATURE HARDWARE	447355		K-10349-0 SEAT		
-	-	-	_	-			_

SI	SPECIALTIES SCHEDULE											
MARK	PRODUCT	MANUFACTURER	MODEL NO.	FINISH/COLOR	LOCATION	REMARKS						
-	-	-	-	-	-	-						
-	-	-	-	-	-	-						
-	-	-	-	-	-	-						
-	-	_	-	-	-	-						
-	-	_	-	-	-	-						
-	-	-	-	-	-	-						
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-	-	-	-	-	-	-						
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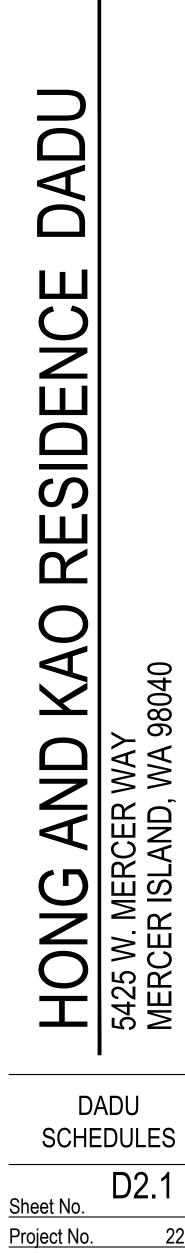
ASTER	8500W	 
ASTER	8500W	

LAZING	
	_
	_

T0	INSTALL
V, 7	2411821 SPOUT



9/28/23 PRICING SET No. Date



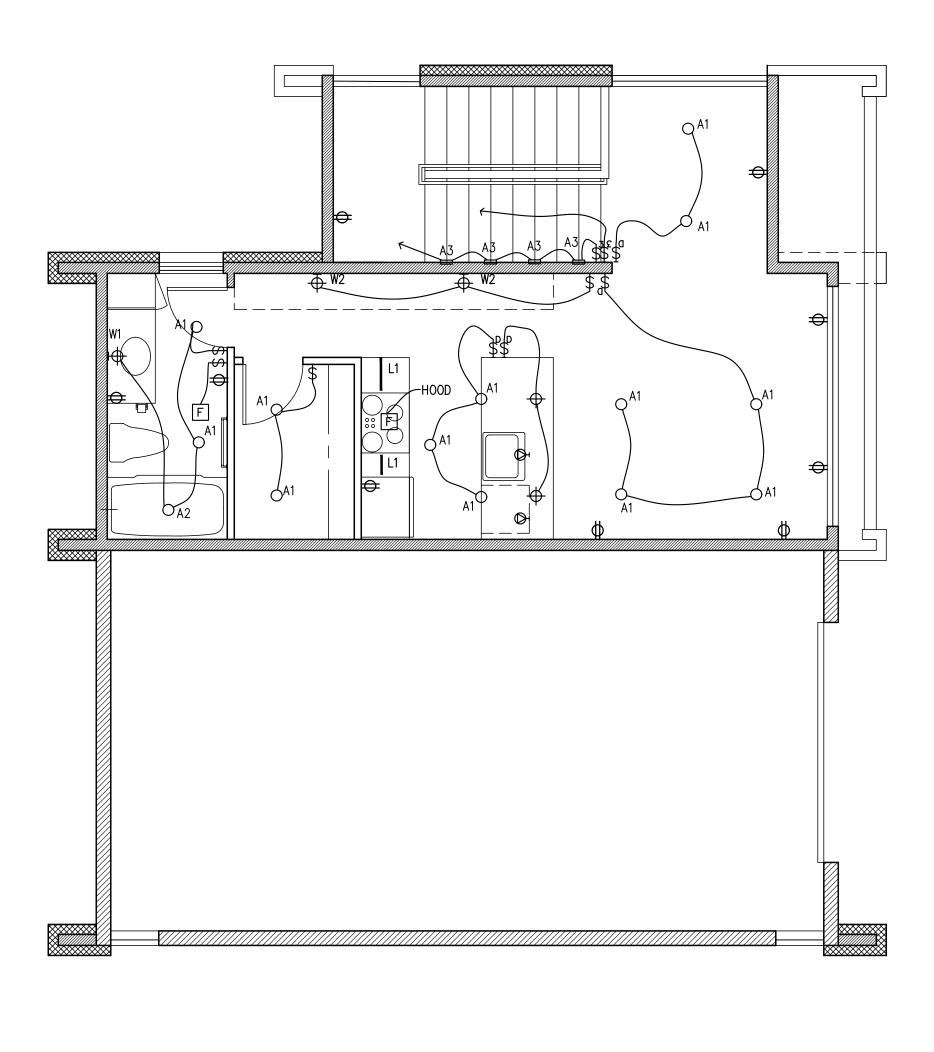
Date:

2222 9/8/23

ELECTRICAL SYMBOLS						
0 ◘ ♣ ♠ ● ₄┡ ┃	RECESSED LIGHT/ROUND TRIM RECESSED LIGHT/SQUARE TRIM WALL MOUNTED LIGHT SURFACE/PENDANT LIGHT WALLWASH LIGHT FLOOD LIGHT STRIP LIGHT STEP LIGHT	S K \$ <sup>cs</sup> \$ \$ \$ S	SWITCH 3-WAY SWITCH DIMMING SWITCH SWITCH W/ TIMER SWITCH W/ OCCUPANCY SENSOR 6-BUTTON KEYPAD, LUTRON SMART DIMMER SWITCH, LUTRON			
Ø	CERAMIC SOCKET	<b>⇔</b>	DUPLEX RECEPTACLE DUPLEX RECEPT./HALF-SWITCHED			
0	SMOKE DETECTOR (SD)	€	DUPLEX RECEPT. W/ DUAL USB-C			
٥	CARBON MONOXIDE DETECTOR (C	м₩	FOURPLEX RECEPTACLE			
0	COMBO-SMOKE/CARBON MONOXIDE DETECTOR (S/CM) HEAT DETECTOR	Ø Ø Ø	FLOOR RECEPTICAL CEILING/SOFFIT RECEPTACLE 1××V SPECIAL PURPOSE			
F S •	EXHAUST FAN (VENT TO EXTERIO CENTRAL VACUUM WALL PORT MOTION SENSOR DOORBELL THERMOSTAT GARAGE DOOR CONTROL PANEL	$ \overset{\bullet}{\mathbb{R}} \overset{\bullet}{\to} $	2xxV SPECIAL PURPOSE TELEPHONE TELEVISION TELEVISION/MULTI-FUNCTION CABLE CAT 6 COMPUTER NETWORK/DATA FIBER OPTIC OUTLET			
	CIRCUIT BREAKER PANEL METER	*	SPEAKER OUTLET SOUND SPEAKER WINDOW SHADE			

MARK	DESCRIPTION	MANUF.	MODEL NO.	FINISH / TRIM	LAMP
A1	DOWNLIGHT	NORA	NLCBS-4W51-85-30-MPW	NHSIC-485LE3LT	_
A2	SHOWER LIGHT	NORA	NL-427W-	NSERIC-407AT/20	20W/LED
A3	STEP LIGHT	NORA	NSW-851/32BN		3W/LED
F	FAN	PANASONIC	FV-0511VFC1	_	N/A
LS1	SURFACE	NORA	NLSTR-4L1334W	_	24W
L1	UNDERCABINET	NWLED	LINF12-NT-F-MB-30K		
W1	WALL LIGHT	TBS			
W2	WALL LIGHT	BEGA	33817-K3	BLACK	

LAM4B408R259730DE0103MB





UPPER FLOOR ELECTRICAL PLAN

# GENERAL NOTES

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ALL CONSTRUCTION SHALL CONFORM TO THE 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) AND BE IN ACCORDANCE WITH THE WASHINGTON STATE LAWS AND REGULATIONS AND VARIOUS CODES IMPOSED BY LOCAL AUTHORITIES. INCLUDING WASHINGTON AMMENDMENTS TO IRC, AND MERCER ISLAND CITY CODE.

SOILS: REFER TO TABLE R401.4.1 FOR MAXIMUM LOAD-BEARING VALUES OF FOUNDATION MATERIALS UNLESS ENGINEERING INFORMATION IS PROVIDED. ALL FOOTINGS AND SLABS SHALL BEAR ON UNYIELDING SOIL.

DRAWING ONLY WILL NOT SATISFY THIS REQUIREMENT.

UNEXPECTED SUBSURFACE CONDITIONS ARE ENCOUNTERED.

UNLESS A SOILS REPORT BY A SOILS ENGINEER IS PROVIDED AND ATTACHED THIS OFFICE ASSUMES NO RESPONSIBILITY AS TO THE PHYSICAL CHARACTERISTICS OF THE SOIL. FOUNDATION DESIGN IS BASED ON AN ASSUMED AVERAGE SOIL BEARING OF 2,000 PSF. ALL FOOTINGS SHALL BE CAST ON UNDISTURBED FIRM NATURAL SOIL OR COMPACTED SOIL OF 2,000 PSF BEARING CAPACITY AT LEAST 1'-6" BELOW LOWEST ADJACENT GRADE, FREE OF ORGANIC MATERIALS. FOOTING EXCAVATION SHALL BE FREE OF LOOSE SOILS, DEBRIS, AND FREE WATER AT ALL TIMES. THIS OFFICE TAKES NO RESPONSIBILITY IN VERIFYING THE ACCURACY OF ENGINEERING DATA SUPPLIED BY OTHERS. 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

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

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.

# **GLAZING**: TO BE IN COMPLIANCE WITH IRC SEC. R308, AND WASHINGTON

GLAZING IN HAZARDOUS LOCATIONS SUBJECT TO HUMAN IMPACT SHALL BE SAFETY OR TEMPERED GLASS. HAZARDOUS LOCATIONS ARE: GLAZING IN SWINGING DOORS EXCEPT JALOUSIES

DOORS OTHER THAN WARDROBE DOORS. GLAZING IN STORM DOORS GLAZING IN ALL UNFRAMED SWINGING DOORS ABOVE A STANDING SURFACE AND DRAIN INLET. 60 INCHES ABOVE THE WALKING SURFACE.

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 THE GLAZING GLAZING IN RAILINGS REGARDLESS OF HEIGHT.

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:

ADJACENT WALKING SURFACE.

FLOOR. IRC SEC. R310.1

NOSE OF THE TREAD.

# CAR CHARGER 30 AMP

1/4" = 1'-0"

# MAIN FLOOR ELECTRICAL PLAN

STATE SAFETY GLASS LAW, EXCEPTIONS ARE AS OUTLINED IN IRC SEC R308.4.

GLAZING IN FIXED AND SLIDING PANELS OF SLIDING DOOR ASSEMBLIES AND PANELS IN SWINGING

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

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

GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL, OTHER THAN THOSE ABOVE, THAT MEETS

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

GLAZING IN WARDROBE DOORS SHALL MEET THE IMPACT TEST REQUIREMENTS FOR SAFETY GLAZING AS

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

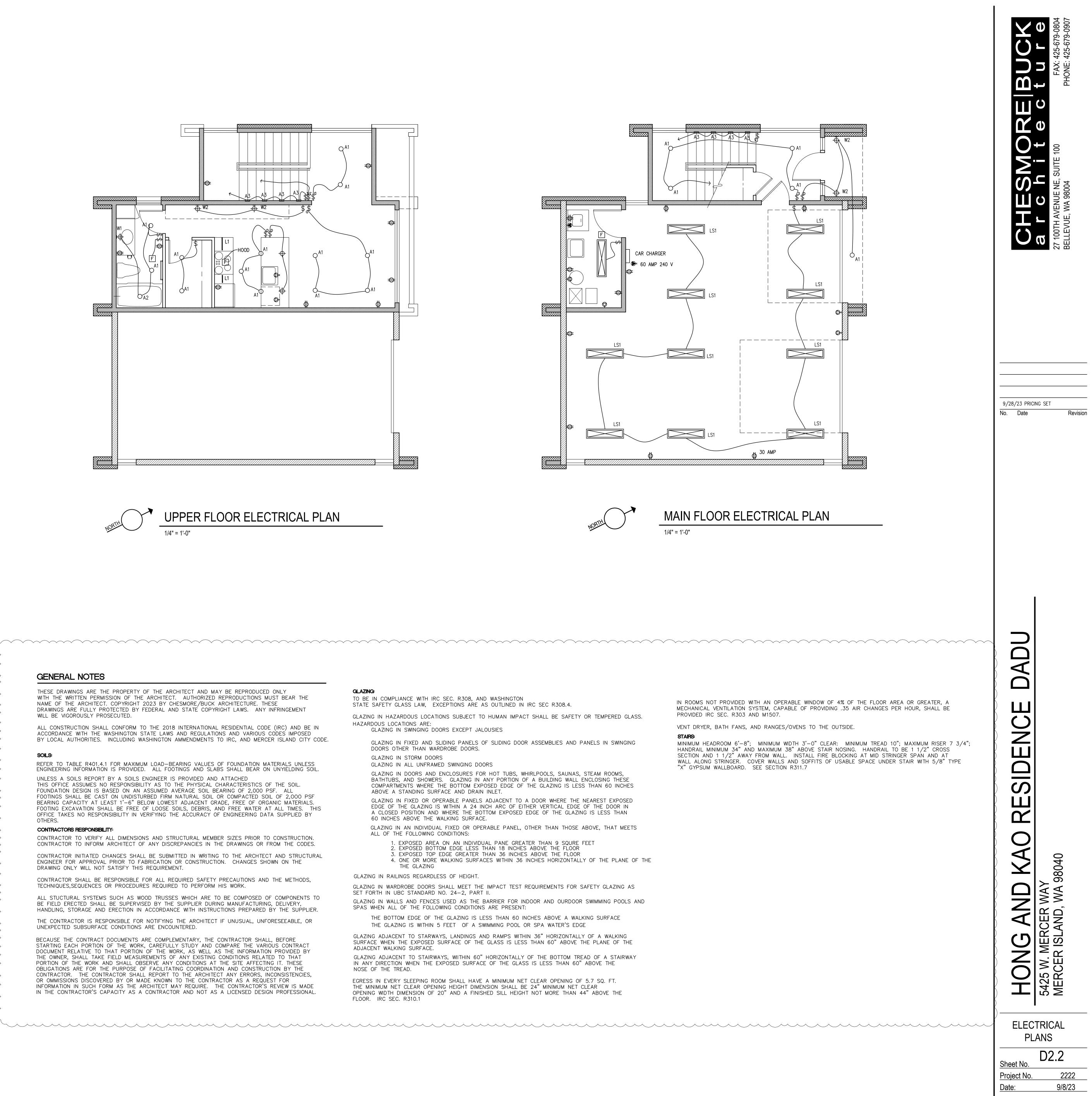
GLAZING ADJACENT TO STAIRWAYS, WIITHIN 60" HORIZONTALLY OF THE BOTTOM TREAD OF A STAIRWAY IN ANY DIRECTION WHEN THE EXPOSED SURFACE OF THE GLASS IS LESS THAN 60" ABOVE THE

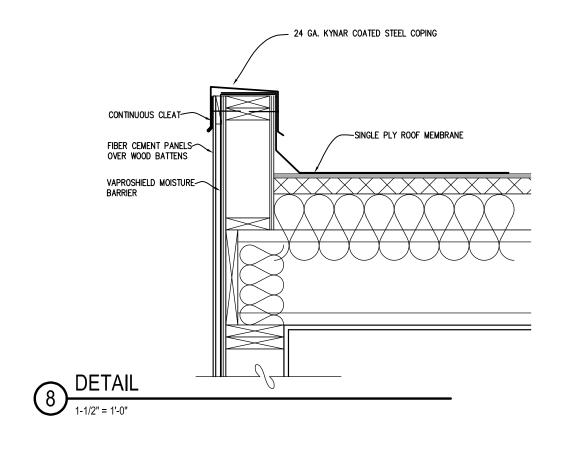
EGRESS IN EVERY SLEEPING ROOM SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. THE MINIMUM NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24" MINIMUM NET CLEAR OPENING WIDTH DIMENSION OF 20" AND A FINISHED SILL HEIGHT NOT MORE THAN 44" ABOVE THE

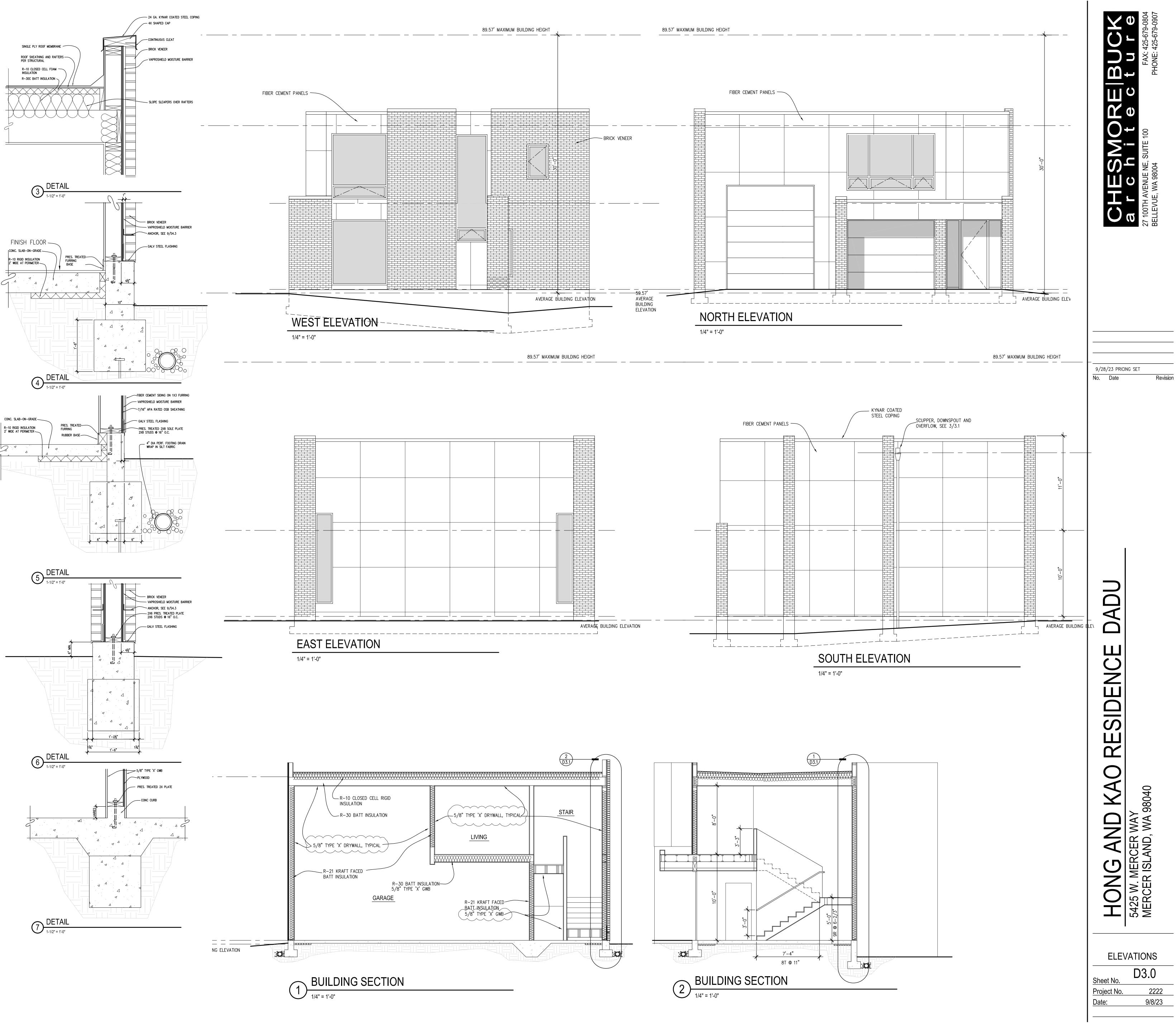
IN ROOMS NOT PROVIDED WITH AN OPERABLE WINDOW OF 4% OF THE FLOOR AREA OR GREATER, A MECHANICAL VENTILATION SYSTEM, CAPABLE OF PROVIDING .35 AIR CHANGES PER HOUR, SHALL BE PROVIDED IRC SEC. R303 AND M1507.

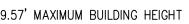
VENT DRYER, BATH FANS, AND RANGES/OVENS TO THE OUTSIDE. STAIRS:

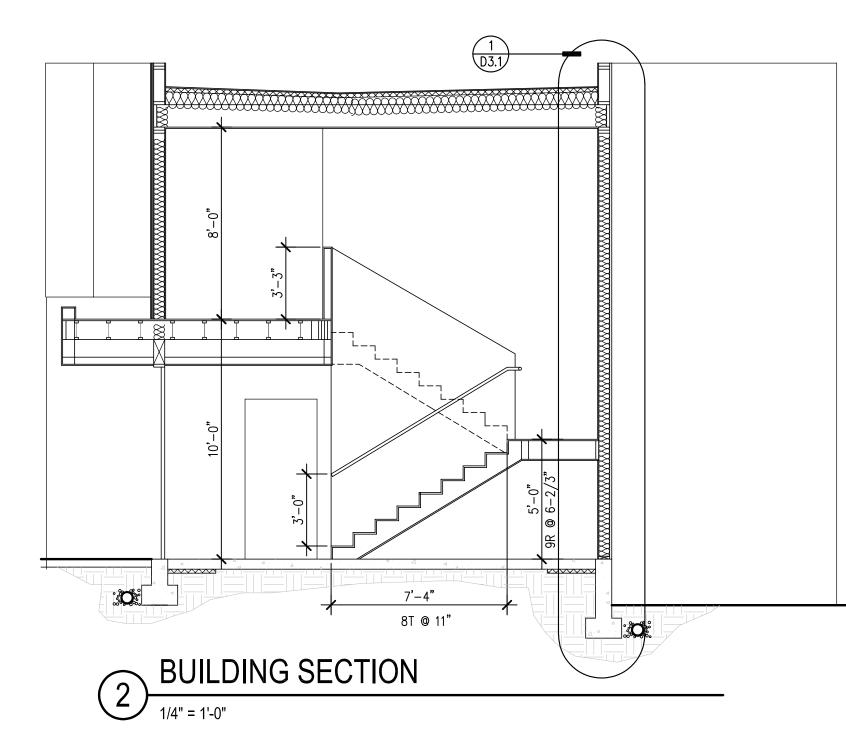
MINIMUM HEADROOM 6'-8"; MINIMUM WIDTH 3'-0" CLEAR: MINIMUM TREAD 10"; MAXIMUM RISER 7 3/4"; HANDRAIL MINIMUM 34" AND MAXIMUM 38" ABOVE STAIR NOSING. HANDRAIL TO BE 1 1/2" CROSS SECTION AND 1 1/2" AWAY FROM WALL. INSTALL FIRE BLOCKING AT MID STRINGER SPAN AND AT WALL ALONG STRINGER. COVER WALLS AND SOFFITS OF USABLE SPACE UNDER STAIR WITH 5/8" TYPE "X" GYPSUM WALLBOARD. SEE SECTION R311.7

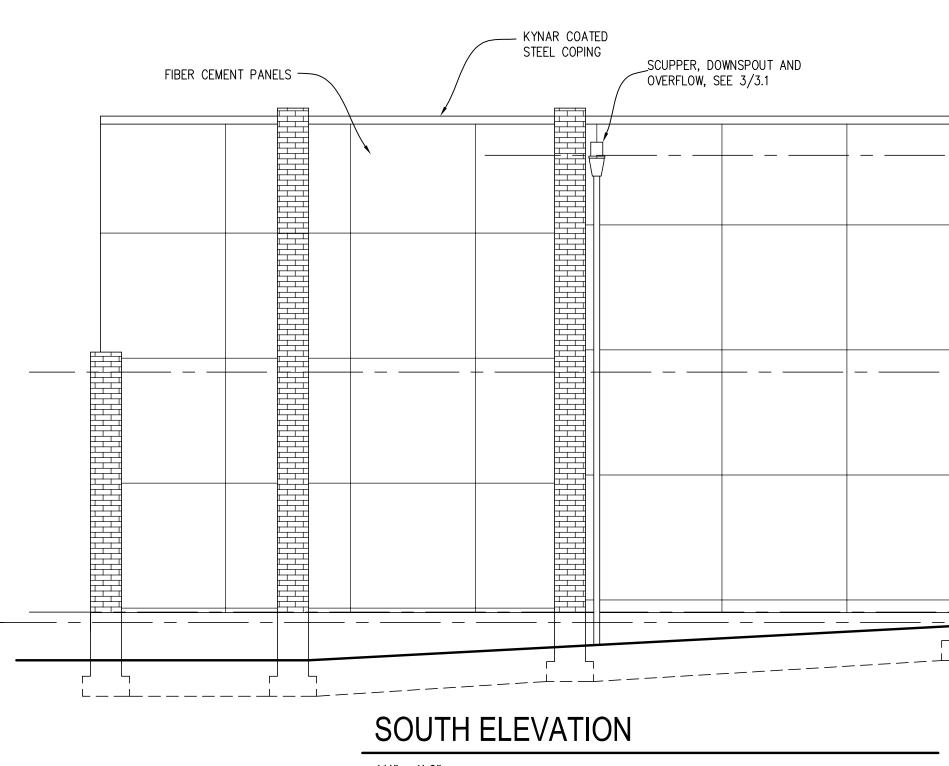


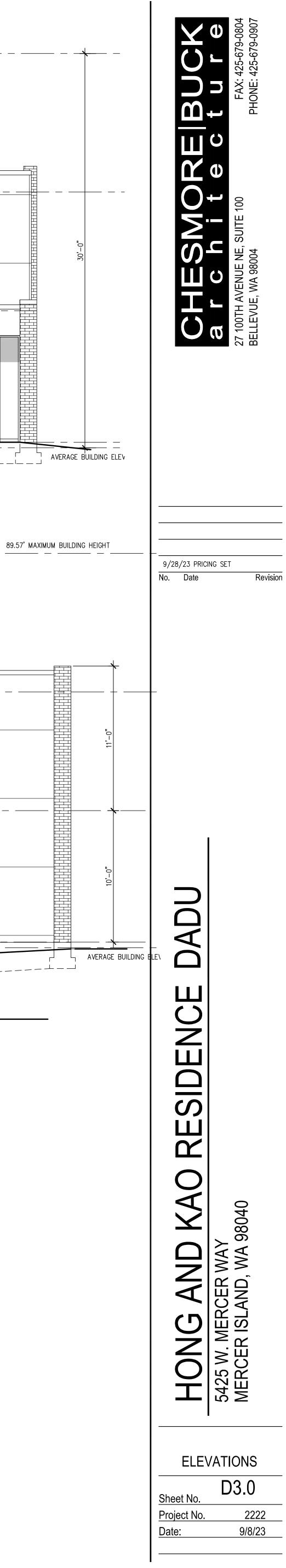


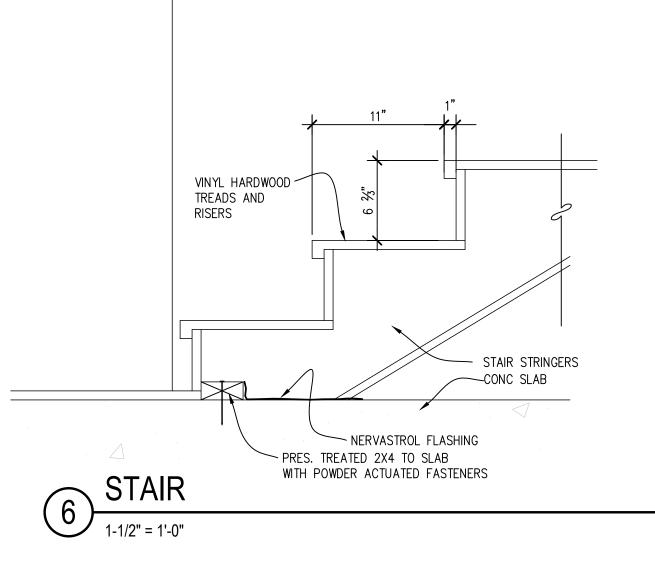


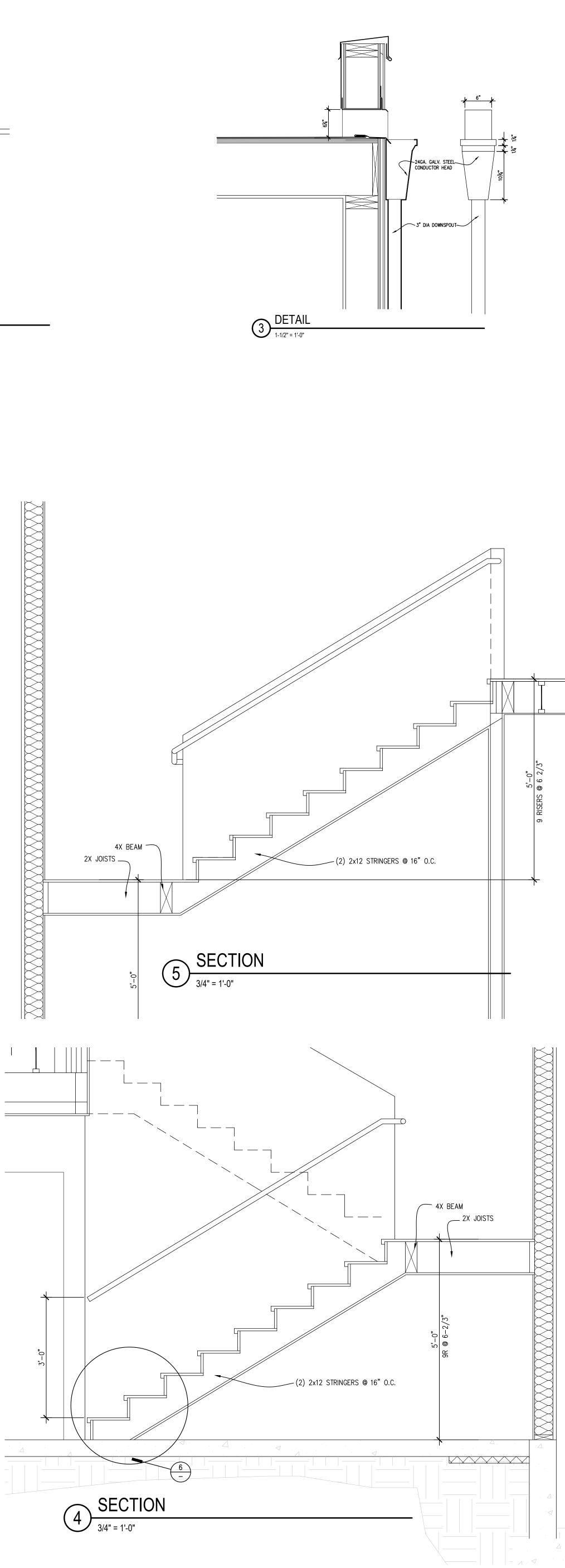


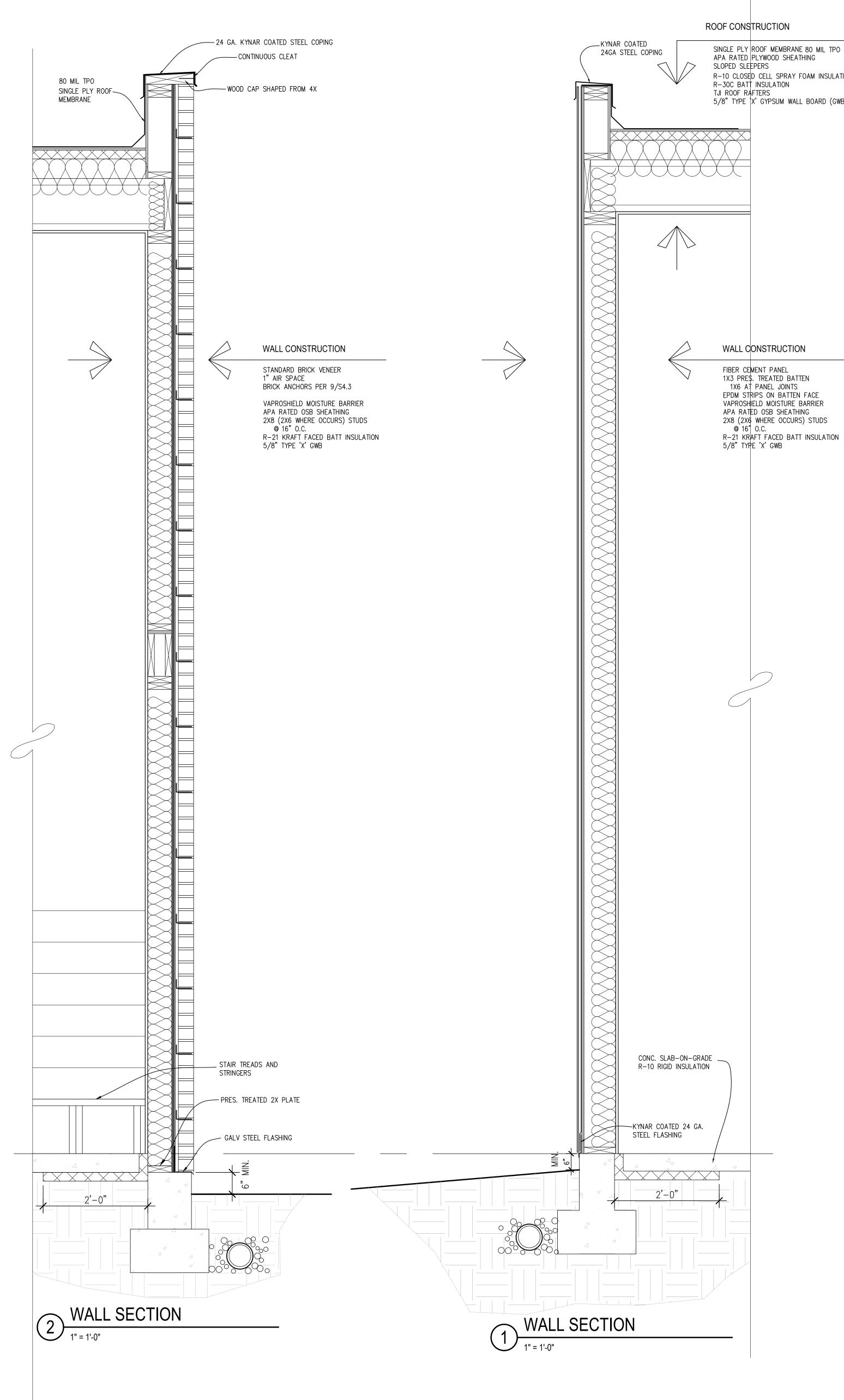












SINGLE PLY ROOF MEMBRANE 80 MIL TPO APA RATED PLYWOOD SHEATHING R-10 CLOSED CELL SPRAY FOAM INSULATION R-30C BATT INSULATION TJI ROOF RAFTERS 5/8" TYPE X' GYPSUM WALL BOARD (GWB)



VAPROSHIELD MOISTURE BARRIER APA RATED OSB SHEATHING 2X8 (2X6 WHERE OCCURS) STUDS

9/28/23 PRICING SET No. Date

DADU

RESIDENCE

KAO

HONG AND 5425 W. MERCER WAY MERCER ISLAND, WA 90

DETAILS

Sheet No.

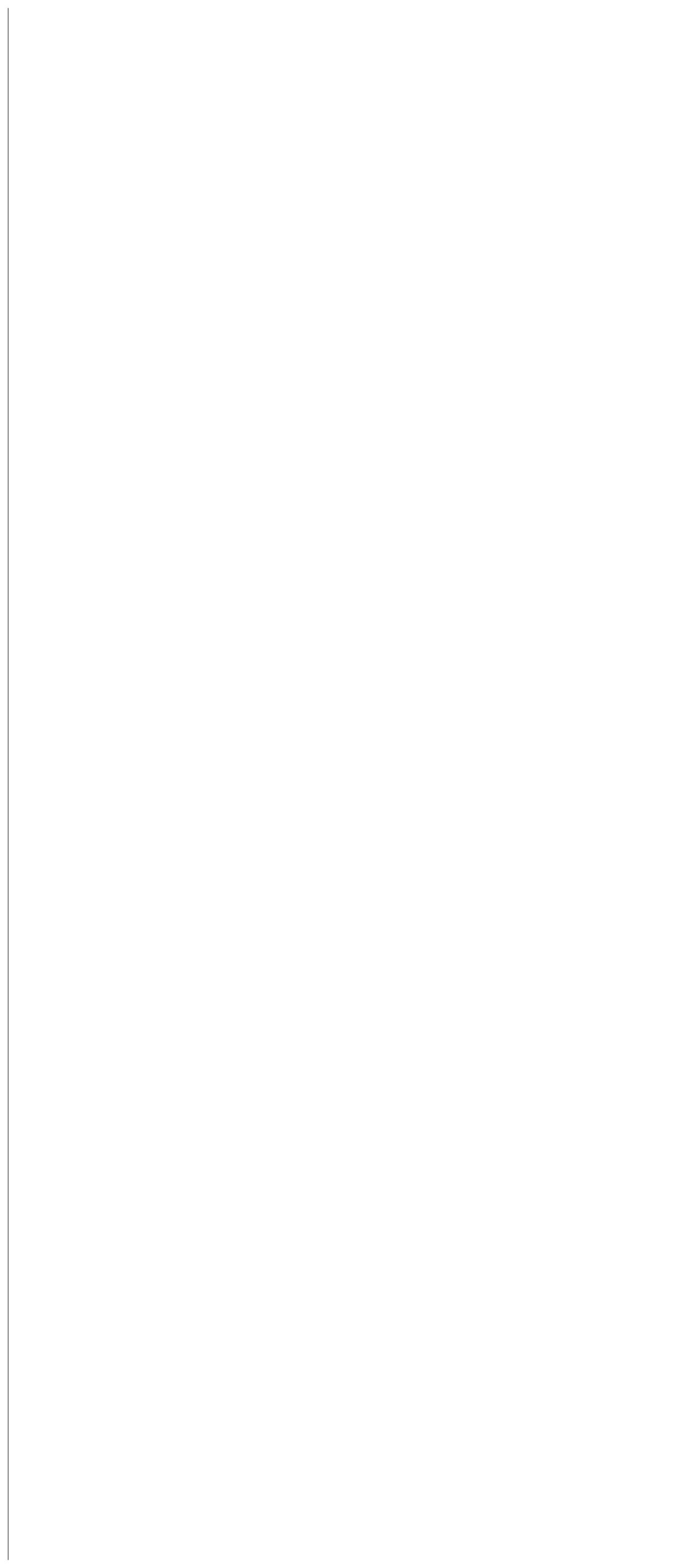
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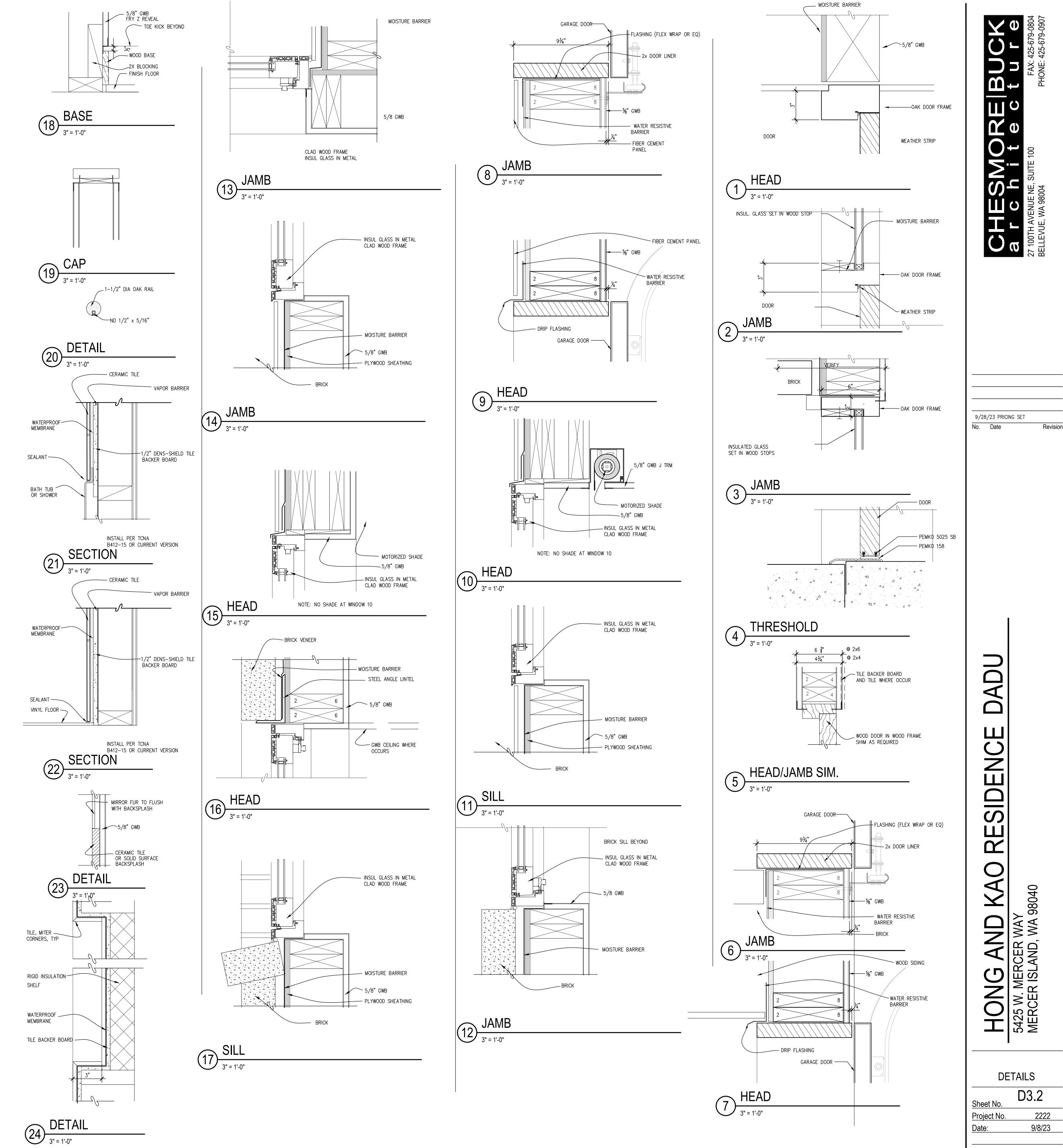
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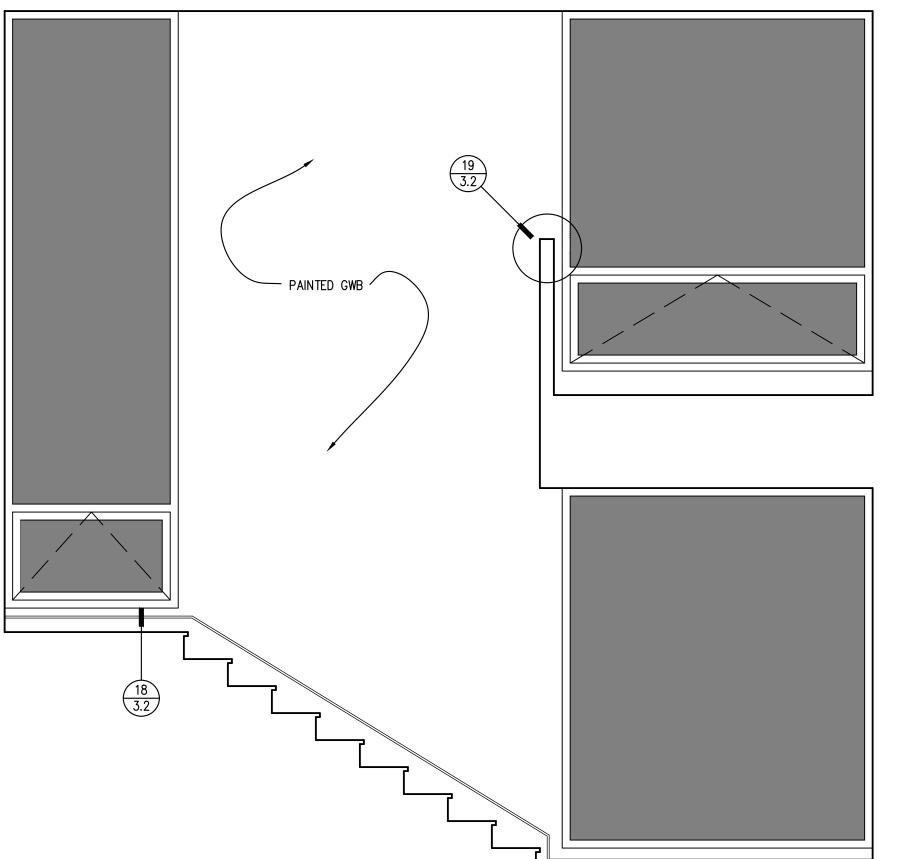
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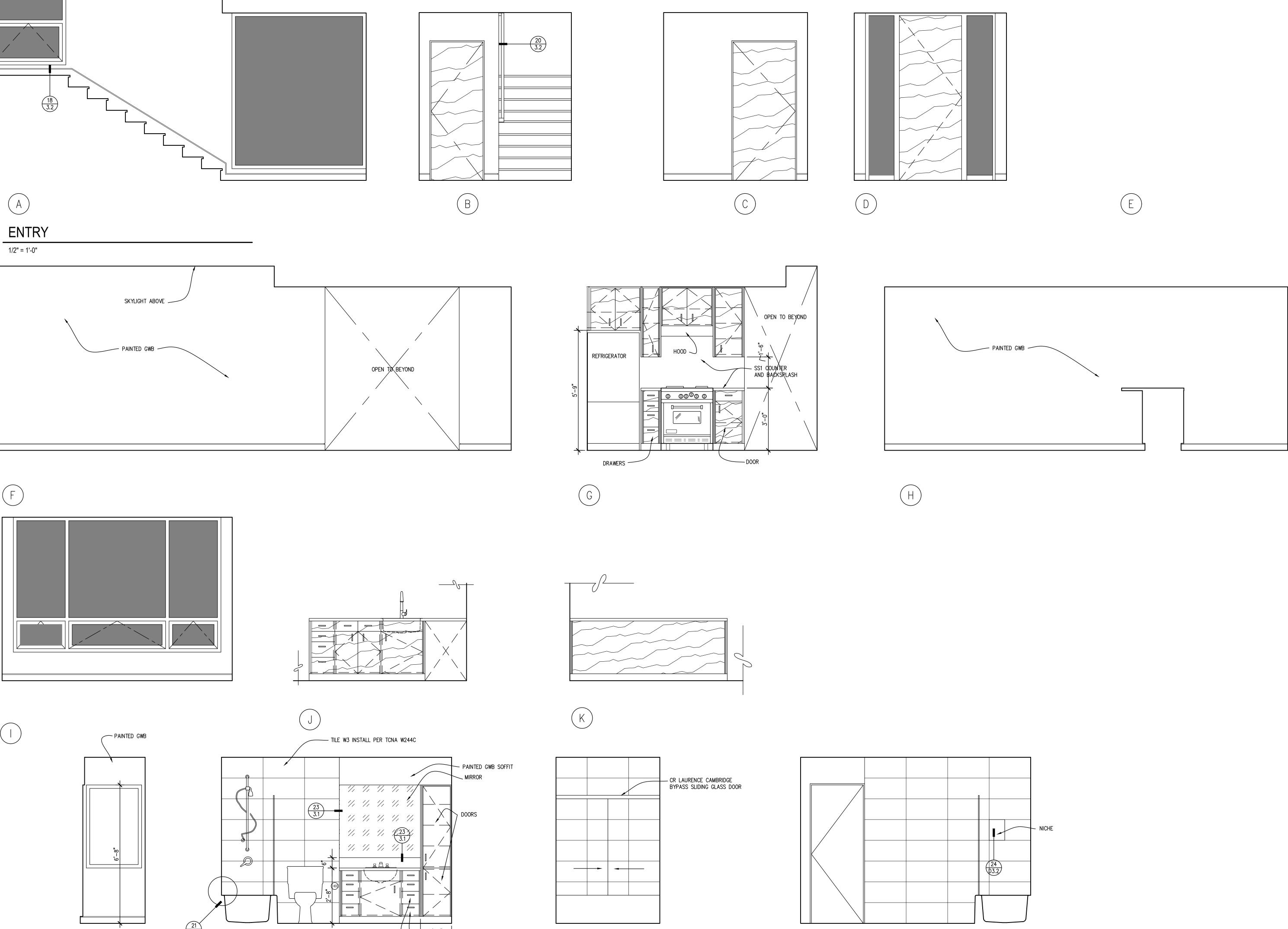
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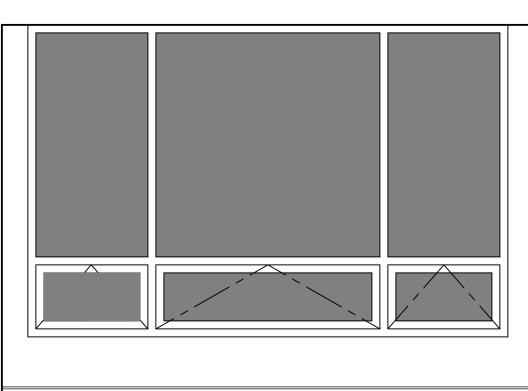


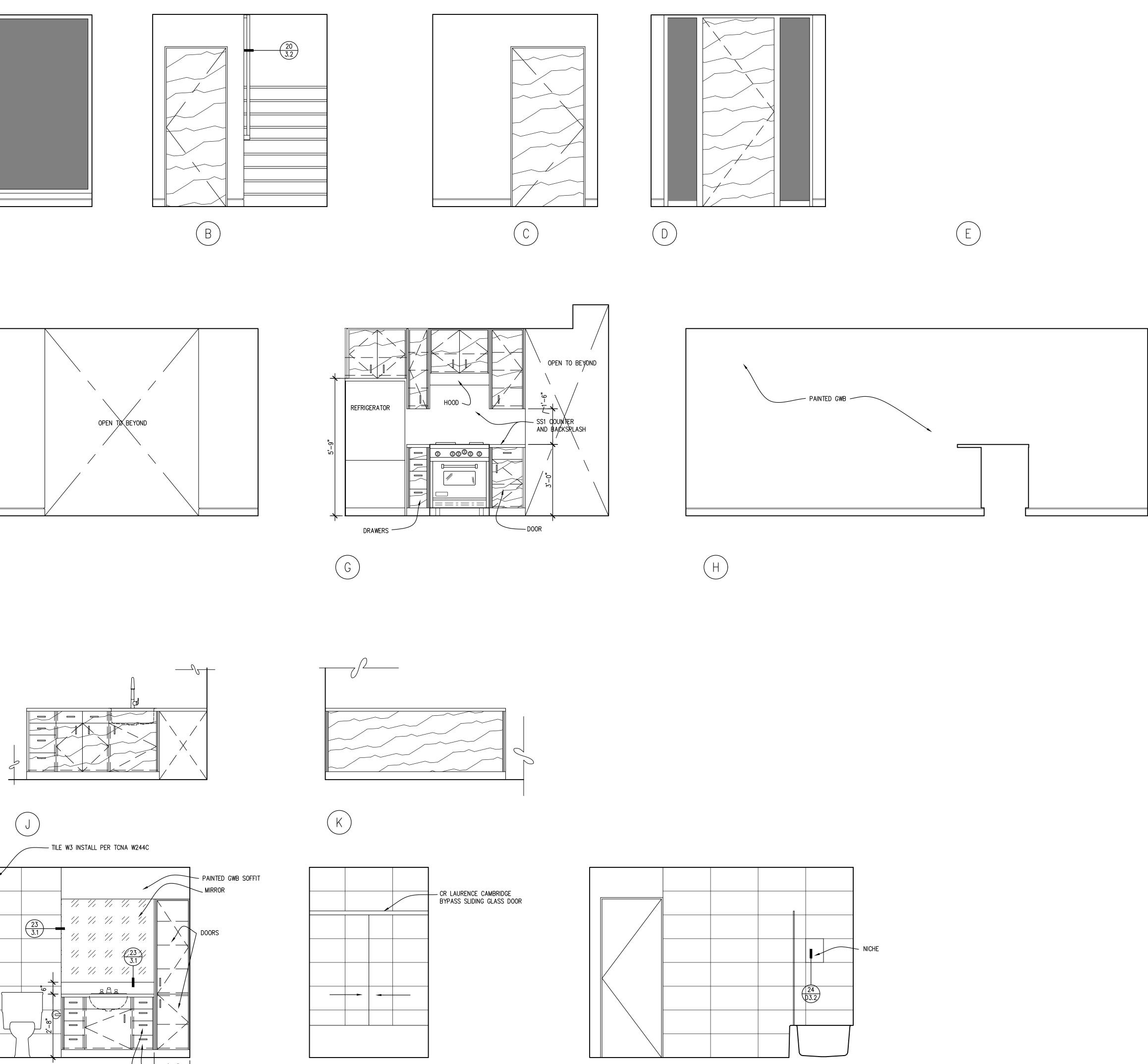


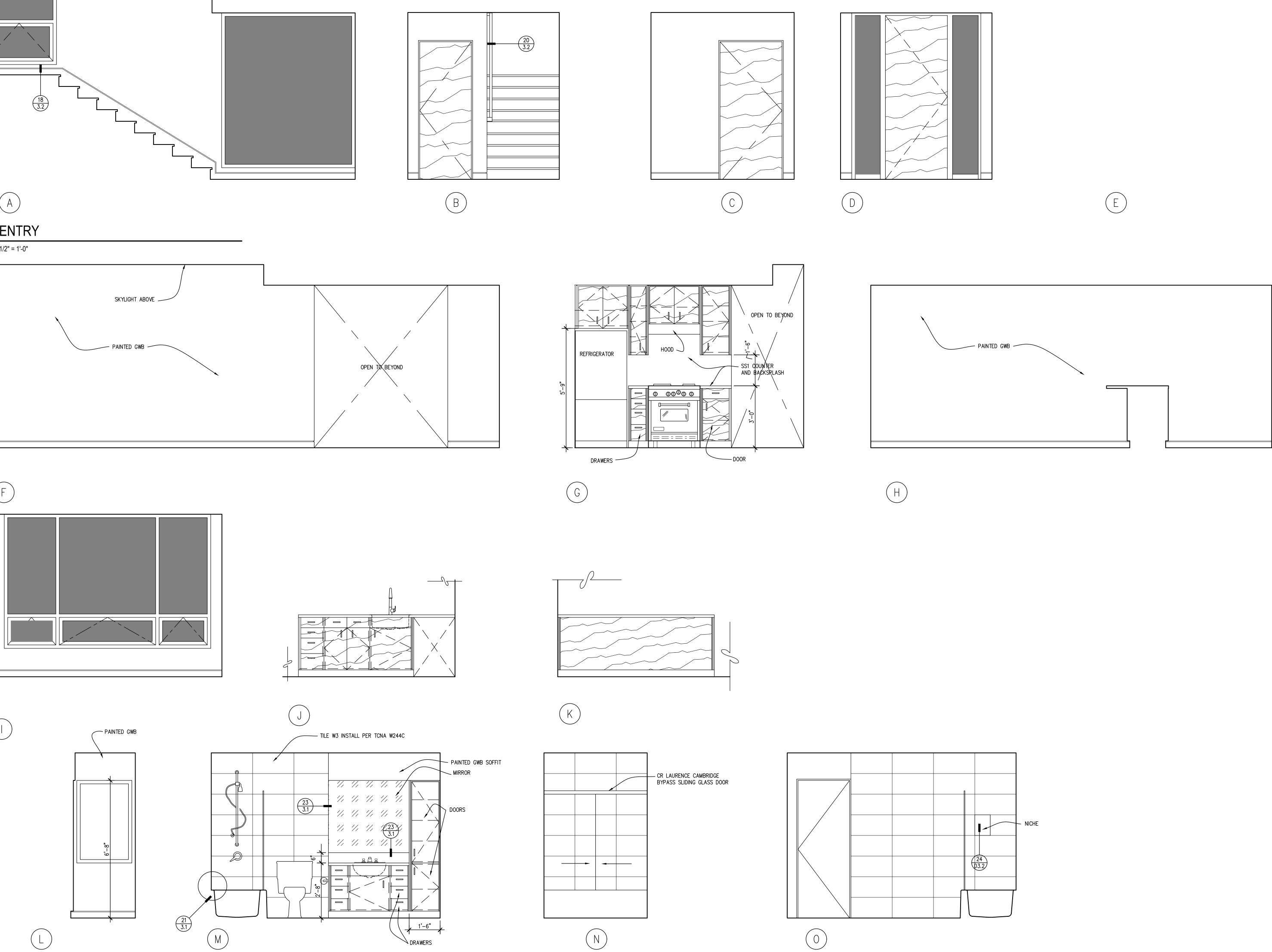








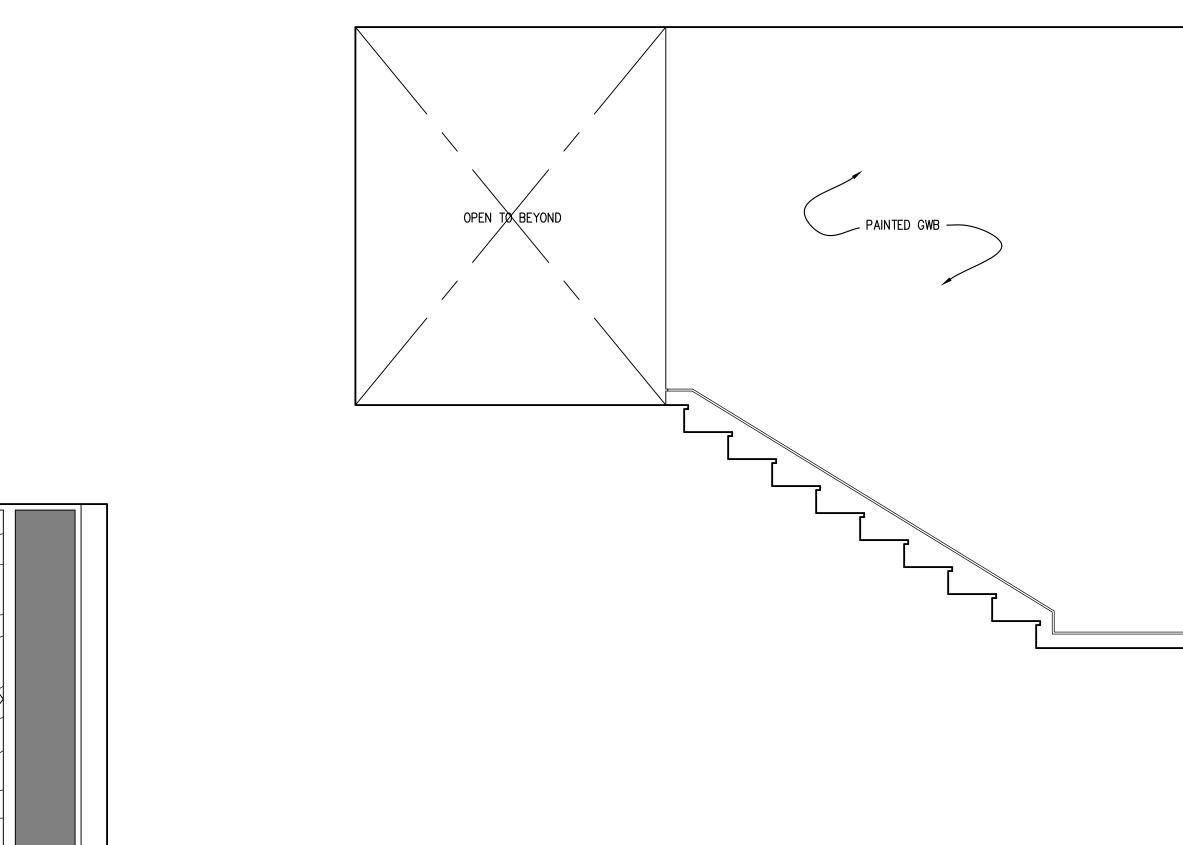




DRAWERS

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Date:

# TPO MEMBRANE ROOFING

SECTION 07531 - TPO MEMBRANE ROOFING

PART 1 - GENERAL

- 1.1 SECTION REQUIREMENTS A. Submittals: Shop Drawings of tapered insulation.
- B. Exterior Fire-Test Exposure: ASTM E 108, Class [A] [B] [C].
- defects in materials or workmanship for period of [10] [15] years.

# PART 2 - PRODUCTS

- 2.1 ROOFING MATERIALS
- A. TPO Sheet: 80 mils thick; color to be selected
- 1. Products: a. Carlisle Sure-Weld TPO or equivalent
- B. Auxiliary Materials: Recommended by roofing system manufacturer for intended use and as follows: 1. Sure-Weld reinforced flashing, low VOC adhesive, Pressure sensitive cover strip, TPO joint covers, Cut edge sealant and others as recommended by manufacturer.

# 2.2 BALLAST

A. Aggregate Ballast: Smooth, washed, black riverbed gravel or other acceptable smooth-faced stone, 3/4 to 1-1/2 inches. PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install TPO sheet according to roofing system manufacturer's written instructions and as follows:
- B. 1. Sweep loose debris from the substrate.
- C. 2. Position Sure-Weld Membrane over acceptable substrate and fold membrane back so half the underside is exposed.
- D. 3. Apply the applicable Carlisle Bonding Adhesive to the exposed underside of the membrane and the corresponding substrate area with a plastic core medium nap paint roller at the published application rate on the applicable Product Data Sheet.
- E. 4. Allow adhesive to dry until tacky and roll coated membrane into coated substrate and avoid wrinkling.
- F. 5. Brush down the bonded section of membrane immediately with a soft bristle push broom.
- G. 6. Fold back the un-bonded half of the sheet and repeat the bonding procedure. H. 7. Install adjoining membrane sheets in the same manner, overlapping edges a minimum of 2" to provide for a minimum 1- 1/2" hot air weld. It is recommended that all splices be shingled to avoid bucking of water.
- I. 8. Hot air weld the membrane sheets a minimum of 1-1/2" with an Automatic Hot Air Welding Machine. J. 9. Membrane that has been exposed to the elements for approximately 7 days must be prepared with Weathered Membrane Cleaner. Wipe
- the surface where Weathered Membrane Cleaner has been applied with a clean, dry HP Splice Wipe or other white rag to remove cleaner residue prior to hot air welding

# END OF SECTION 07531

- SECTION 08211 FLUSH WOOD DOORS
- PART 1 GENERAL
- 1.1 SECTION REQUIREMENTS
- A. Submittals: Samples for doors, shop drawings.
- B. Quality Standard: NWWDA I.S.1-A.
- 1.2 FLUSH WOOD DOORS
- A. Doors for Transparent Finish: **Premium** grade.
- 1. Faces: white oak, rift cut, horizontal grain.
- 2. Veneer Matching: **Book and balance** match.
- 3. Pair matching **and set matching**.
- Continuous matching for doors with transoms
- B. Doors for Opaque Finish: Custom grade.
- 1. Faces: Medium-density overlay.
- C. Interior Veneer-Faced Solid-Core Doors: Five-ply, structural composite lumber cores.
- D. Interior Solid-Core Doors with Hardboard Faces: Three-ply, particleboard cores.
- 1.3 FABRICATION AND FINISHING
- A. Factory fit doors to suit frame-opening sizes indicated and to comply with referenced quality standard.
- 1. Comply with NFPA 80 for fire-resistance-rated doors.
- B. Factory machine doors for hardware that is not surface applied.
- C. Cut and trim openings to comply with referenced standards.
- 1. Trim light openings with moldings indicated.
- 2. Factory install louvers in prepared openings.

varnish

### PART 2 -EXECUTION 1.1

INSTALLATION A. Comply with WDMA's "How to Store, Handle, Finish, Install, and Maintain Wood Doors."

1. Install fire-rated doors to comply with NFPA 80. Align and fit doors in frames with uniform clearances and bevels. Machine doors for hardware. Repair, refinish, or replace factory-finished doors damaged during installation, as directed by Architect.

END OF SECTION 08211

DOOR HARDWARE 08710 - 1

SECTION 08710 - DOOR HARDWARE

# PART 1 - GENERAL

- 1.1 SECTION REQUIREMENTS
- Allowances: Provice Hardware Allowance in Division 8 Section 8700
- A. Submittals: Hardware Schedule. B. Deliver keys to Owner.
- "Fire Exit Hardware."

# PART 2 - PRODUCTS

- 2.1 HARDWARE
- A. Manufacturers:
- 1. Baldwin
- B. Hinges:

# Two hinges for 1-3/8-inch- thick wood doors.

- C. Locksets and Latchsets: 1. BHMA A156.13, Series 1000, Grade 3 for mortise locks and latches.
- 2. Lever handles on locksets and latchsets, Baldwin LO22 lever.
- 3. Pocket door pulls see schedule

# Provide wall stops or floor stops for doors without closers.

- D. Provide hardware finishes as follows: 1. Hinges: Matching finish of lockset/latchset.
- 2. Locksets, Latchsets, and Exit Devices: Brushed Nickel US15
- 3. Other Hardware: Matching finish of lockset/latchset.
- PART 3 EXECUTION
- 3.1 INSTALLATION
- A. Mount hardware in locations recommended by the Door and Hardware Institute, unless otherwise indicated.
- END OF SECTION 08710

C. Warranties: Manufacturer's standard form, without monetary limitation, signed by roofing manufacturer agreeing to repair leaks due to

D. Factory doors indicated for transparent finish with stain and manufacturer's standard finish comparable to AWI System TR-4, conversion

C. For fire-rated openings provide hardware tested and listed by UL or FMG (NFPA 80). On exit devices provide UL or FMG label indicating

2. Three hinges for 1-3/4-inch- thick doors 90 inches or less in height; four hinges for doors more than 90 inches in height.

INTERIOR ARCHITECTURAL WOODWORK SECTION 06402 - INTERIOR ARCHITECTURAL WOODWORK

PART1- GENERAL

1.1 SECTION REQUIREMENTS

A. Submittals: Product Data for solid-surfacing materials, Shop Drawings and Samples showing the full range of colors, textures, and patterns available for each type of finish.

06402 - 1

B. Quality Standard: Architectural Woodwork Institute's "Architectural Woodwork Quality Standards C. Environmental Limitations: Do not deliver or install woodwork until building is enclosed, wet work is completed, and HVAC system is operating.

PART 2 - PRODUCTS

- 2.1 MATERIALS
- A. Hardboard: AHA A135.4. B. Medium-Density Fiberboard: ANSI A208.2, Grade MD.
- C. Particleboard: not allowed
- D. Softwood Plywood: DOC PS 1.
- E. Hardwood Plywood and Face Veneers: HPVA HP-1.
- F. Solid-Surfacing Material:
- 1. Products:
- a. See finish schedule

# 2.2 CABINET HARDWARE AND ACCESSORY MATERIALS

- A. Hardware Standards: Comply with BHMA A156 series standards. B. Exposed Hardware Finishes: Comply with BHMA A156.18 for BHMA code number indicated.
- 1. Finish: Satin Chrome: BHMA 626 or BHMA 652 or Satin Stainless Steel: BHMA 630.
- C. Furring, Blocking, Shims, and Hanging Strips: **Softwood or hardwood** lumber, kiln dried to 15 percent moisture content.
- 2.3 INTERIOR WOODWORK
- A. Complete fabrication before shipping to Project site to maximum extent possible. Disassemble only as needed for shipping and installing. Where necessary for fitting at Project site, provide for scribing and trimming.
- B. Backout or groove backs of flat trim members, kerf backs of other wide, flat members, except for members with ends exposed in finished Work
- C. Interior Standing and Running Trim for Transparent Finish: Premium grade, made from white oak, rift sawn.
- D. Interior Standing and Running Trim for Opaque Finish: Premium grade, made from any closed-grain hardwood.
- E. Wood Cabinets (Casework) for Transparent Finish: **Premium** grade.
- 1. AWI Type of Cabinet Construction: **Reveal overlay, see details**.
- 2. Wood Species for Exposed Surfaces: White oak, rift sawn or cut.
- 3. Grain Matching: Run and match grain **horizontal** for drawer fronts, doors, and fixed panels.
- Matching of Veneer Leaves: Slip and balance match. 5. Semiexposed Surfaces Other Than Drawer Bodies: Same species and cut as exposed surfaces.
- 6. Drawer Sides and Backs: Solid hardwood, stained to match exposed surfaces
- 7. Drawer Bottoms: Hardwood plywood.
- 2.4 SHOP FINISHING OF INTERIOR ARCHITECTURAL WOODWORK
- A. Finishes: Same grades as items to be finished.
- B. Finish architectural woodwork at the fabrication shop; defer only final touch up until after installation.
- Apply one coat of sealer or primer to concealed surfaces of woodwork.
- 2. Apply a vinyl wash coat to woodwork made from closed-grain wood before staining and finishing. 3. After staining, if any, apply paste wood filler to open-grain woods and wipe off excess. Tint filler to match stained wood.
- C. Transparent Finish: AWI Finish System **TR-4**, conversion varnish.
- PART 3 EXECUTION
- 3.1 INSTALLATION
- A. Condition woodwork to prevailing conditions before installing.
- B. Install woodwork to comply with AWI Section 10 for grade specified.
- C. Install woodwork level, plumb, true, and straight. Shim as required with concealed shims. Install to a tolerance of 1/8 inch in 96 inches for level and plumb.
- D. Scribe and cut woodwork to fit adjoining work, seal cut surfaces, and repair damaged finish at cuts.
- E. Install trim with minimum number of joints possible, using full-length pieces to greatest extent possible. Stagger joints in adjacent and related members.
- F. Anchor countertops securely to base units. Seal space between backsplash and wall.
- G. Anchor paneling to supports with concealed panel-hanger clips and by blind nailing on back-up strips, splined-connection strips, and similar associated trim and framing. H. Stairwork and Rails: Cut carriages to accurately fit treads and risers and securely anchor to supporting substrates. Glue treads to
- risers, and glue and nail treads and risers to carriages. Glue and wedge treads and risers to housed stringers. Glue and dowel or pin balusters to treads and railings, and railings to newel posts.
- 3.2 CABINET HARDWARE AND ACCESSORY SCHEDULE
- A. Butt Hinges: 2-3/4-inch, 5-knuckle steel hinges made from 0.095-inch- thick metal; BHMA A156.9, B01361 for flush doors and BHMA A156.9, B01521 for overlay doors.
- B. Concealed (European-Type) Hinges: Clip top Blumotion BHMA A156.9, B01602.
- C. Pulls: TOPKNOB EUROPA TAB PULL BRUSHED SATIN NICKEL.
- D. Catches: Magnetic catches, BHMA A156.9, B03141.
- E. Adjustable Shelf Standards: BHMA A156.9, B04071; with shelf rests, BHMA A156.9, B04081.
- F. Drawer Slides: Blum Movento under-mounted, zinc-plated steel drawer slides with steel ball bearings, complying with BHMA A156.9, Grade 1 and rated for the following loads:

07210 - 1

- 1. Box Drawer Slides: 75 lbf
- 2. File Drawer Slides: 150 lbf
- 3. Pencil Drawer Slides: 45 lbf
- G. Door Locks: BHMA A156.11, E07121
- H. Drawer Locks: BHMA A156.11, E07041.

I. Grommets for Cable Passage through Countertops: 1-inch- OD brown, molded-plastic grommets with brown plastic cap.

END OF SECTION 06402

BUILDING INSULATION SECTION 07210 - BUILDING INSULATION

- PART 1 GENERAL
- 1.1 SECTION REQUIREMENTS A. Submittals: Product Data.
- B. Surface-Burning Characteristics: ASTM E 84, and as follows:
- 1. Flame-Spread Index: 25 or less where exposed; otherwise, as indicated in Part 2 "Insulation Products" Article.
- 2. Smoked-Developed Index: 450 or less.
- PART 2 PRODUCTS
- 2.1 INSULATION PRODUCTS

2.2 ACCESSORIES

PART 3 - EXECUTION

voids with insulation.

3.1 INSTALLATION

END OF SECTION 07210

- Foamed-in-Place Insulation: closed cell spray applied polyurethane foam insulation.
- 1. Product: Icynene ProSeal LE, R-7.1 per inch

Vapor Retarder: Polyethylene, Reinforced polyethylene 6 mil thick.

on between attic spaces and vented eaves.

Locate seams at framing members, overlap, and seal with tape.

- C. Fiberglas Insulation Kraft Faced Batt Insulation: ASTM C 665, Type II, Class C preformed formaldehyde free glass fiber batt type, Kraft paper faced one side.
- B. Acoustic Batt Insulation: ASTM C 665, Type I, unfaced with fibers manufactured from rock wool, with flame-spread index of 25 or less.

C. Eave Ventilation Troughs: Preformed, rigid fiberboard or plastic sheets designed to fit between roof framing members and to provide

A. Install insulation in areas and in thicknesses indicated or required to produce R-values indicated. Cut and fit tightly around obstructions and fill

B. Extend vapor retarder to extremities of areas to be protected from vapor transmission. Secure in place with adhesives or other anchorage.

UNIT MASONRY ASSEMBLIES

SECTION 04810 - UNIT MASONRY ASSEMBLIES

# 1.1 SECTION REQUIREMENTS

PART 1 - GENERAL

PART 2 - PRODUCTS

Products:

2.2 MORTAR AND GROUT

having jurisdiction.

1. Products:

PART 3 - EXECUTION

textures.

3.2 LINTELS

mortar.

3.4 CLEANING

END OF SECTION 04810

of structure above.

2.1 MASONRY UNITS

A. Submittals: Samples for face brick and colored mortar

# B. Comply with ACI 530.1/ASCE 6/TMS 602.

C. Mockups: Construct a sample wall panel approximately 48 inches long by 48 inches high to demonstrate aesthetic effects and set quality standards for materials and execution.

04810 - 1

A. Face Brick: Grade SW, Type FBX.

# a. Mutual Materials (Jackson Valencia 425-452-2430)

2. Size: Standard match existing. 3. Solid brick with exposed surfaces finished for ends of sills and caps.

# 4. Special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.

A. Mortar: Ready-mixed mortar, ASTM C 1142, may be used at Contractor's option.

## 1. Do not use calcium chloride in mortar. 2. For masonry below grade or in contact with earth, use Type **M**.

For exterior, above-grade, load-bearing and non-load-bearing walls and parapet walls; for interior load-bearing walls; for interior

# non-load-bearing partitions, and for other applications where another type is not indicated, use Type N. 2.3 REINFORCEMENT, TIES, AND ANCHORS

A. Veneer Anchors: Two-piece adjustable masonry veneer anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall, for attachment over sheathing to studs, and acceptable to authorities

# a. see detail 9 on sheet s4.4

2.4 EMBEDDED FLASHING MATERIALS A. Sheet Metal Flashing: Stainless steel, 0.0156 inch thick or Copper, 10-oz./sq. ft. weight or 0.0135 inch thick for fully concealed flashing, 16-oz./sq. ft. weight or 0.0216 inch thick elsewhere.

# 2.5 MISCELLANEOUS MASONRY ACCESSORIES

A. Compressible Filler: Premolded strips complying with ASTM D 1056, Grade 2A1. B. Preformed Control-Joint Gaskets: Designed to fit standard sash block and to maintain lateral stability in masonry wall; made

from styrene-butadiene rubber or PVC. C. Weep Holes: [Round polyethylene tubing, 3/8-inch OD] [Cotton or polyester rope, 1/4 to 3/8 inch in diameter, 24 inches

# 3.1 INSTALLATION, GENERAL

A. Cut masonry units with saw. Install with cut surfaces and, where possible, cut edges concealed. B. Mix units for exposed unit masonry from several pallets or cubes as they are placed to produce uniform blend of colors and

# Matching Existing Masonry: Match coursing, bonding, color, and texture of existing masonry.

C. Stopping and Resuming Work: Rack back units; do not tooth.

# D. Build non-load-bearing interior partitions full height and install compressible filler in joint between top of partition and underside

E. Tool exposed joints slightly concave when thumbprint hard, unless otherwise indicated. F. Keep cavities clean of mortar droppings and other materials during construction. Strike joints facing cavities flush.

# A. Install steel lintels where indicated.

3.3 FLASHING AND WEEP HOLES

# A. Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to the downward flow of

water in the wall, and where indicated. B. Place through-wall flashing on sloping bed of mortar and cover with mortar. Seal penetrations in flashing before covering with

# 1. Extend flashing 4 inches into masonry at each end and turn up 2 inches to form a pan.

C. Trim wicking material used in weep holes flush with outside face of wall after mortar has set.

# A. Clean masonry as work progresses. Remove mortar fins and smears before tooling joints.

B. Final Cleaning: After mortar is thoroughly cured, remove large mortar particles, scrub, and rinse unit masonry. Wet wall surfaces with water before applying acidic cleaner, then remove cleaner promptly by rinsing thoroughly with clear water.

repair.

# END OF SECTION 01700

SECTION 01732 - SELECTIVE DEMOLITION

# PART 1 - GENERAL

# 1.1 SECTION REQUIREMENTS

- A. Unless otherwise indicated, demolished materials become Contractor's property. Remove from Project site.
- B. Items indicated to be removed and salvaged remain Owner's property. Remove, clean, and deliver to Owner's designated storage area.
- C. Comply with EPA regulations and disposal regulations of authorities having jurisdiction.
- D. Conduct demolition without disrupting Owner's use of the building.
- E. It is not expected that hazardous materials will be encountered in the Work. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner.

### PART 2 -PRODUCTS (Not Applicable) PART 3 -EXECUTION

3.1 DEMOLITION

- A. Maintain and protect existing utilities to remain in service before proceeding with demolition.
- B. Locate, identify, shut off, disconnect, and cap off utility services to be demolished.
- C. Conduct demolition operations and remove debris to prevent injury to people and damage to adjacent buildings and site improvements.
- D. Provide and maintain shoring, bracing, or structural support to preserve building stability and prevent movement, settlement, or collapse.
- E. Protect building structure and interior from weather and water leakage and damage.
- F. Protect walls, ceilings, floors, and exposed finishes that are to remain.
- G. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction.
- H. Promptly patch and repair holes and damaged surfaces of building caused by demolition. Restore exposed finishes of patched areas and extend finish restoration into remaining adjoining construction.
- I. Promptly remove demolished materials from Owner's property and legally dispose of them.

END OF SECTION 01732

# 1. Manufacturer's operation and maintenance brochures. 2. Emergency instructions

EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 CLOSEOUT SUBMITTALS

information. . Include the following:

SECTION 01701 - EXECUTION AND CLOSEOUT REQUIREMENTS

- Spare parts list.
- 4. Wiring diagrams.
- 5. Copies of warranties.

### PART 2 - PRODUCTS (Not Applicable) PART 3 -EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Examine substrates and conditions for compliance with manufacturer's written requirements including, but not limited to, surfaces that are sound, level, plumb, smooth, clean, and free of deleterious substances; substrates within installation tolerances; and application conditions within environmental limits. Proceed with installation only after unsatisfactory conditions have been corrected.

01701 - 1

- B. Verify layout information shown on Drawings, in relation to property survey and existing benchmarks, before laying out the Work.
- C. Prepare substrates and adjoining surfaces according to manufacturer's written instructions, including, but not limited to, filler and primer application.
- D. Take field measurements as required to fit the Work properly. Where fabricated products are to be fitted to other construction, verify dimensions by field measurement before fabricating and, when possible, allow for fitting and trimming during installation.
- 3.2 CUTTING AND PATCHING
- A. Do not cut structural members[ or operational elements] without prior written approval of Architect.
- B. For patching, provide materials whose installed performance will equal or surpass that of existing materials. For exposed surfaces, provide or finish materials to visually match existing adjacent surfaces to the fullest extent possible.
- 3.3 INSTALLATION
- A. Comply with manufacturer's written instructions for installation. Anchor each product securely in place, accurately located and aligned. Clean exposed surfaces and protect from damage. If applicable, prepare surfaces for field finishing.
- B. Clean Project site and work areas daily, including common areas.
- 3.4 FINAL CLEANING A. Clean each surface or item as follows before requesting inspection for certification of Substantial Completion:
- 1. Remove labels that are not permanent.
- 2. Clean transparent materials, including mirrors. Remove excess glazing compounds. Replace chipped or broken glass.
- 3. Clean exposed finishes to a dust-free condition, free of stains, films, and foreign substances. Leave concrete floors broom clean.
- 4. Vacuum carpeted surfaces and wax resilient flooring.
- 5. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication. Clean plumbing fixtures. Clean light fixtures and lamps. 6. Clean the site. Sweep paved areas; remove stains, spills, and foreign deposits. Rake grounds to a smooth, even-textured surface.

# 3.5 CLOSEOUT PROCEDURES

- A. Substantial Completion: Before requesting Substantial Completion inspection, complete the following:
- 1. Advise Owner of pending insurance changeover requirements.
- 2. Submit specific warranties, maintenance agreements, and similar documents.
- 3. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases. 4. Submit Record Drawings[ and Specifications], operation and maintenance manuals,[ property surveys,] and similar final record information.
- 5. Deliver tools, spare parts, extra materials, and similar items.
- 6. Changeover locks and transmit keys to Owner.
- 7. Complete startup testing of systems and instruction of operation and maintenance personnel.
- 8. Remove temporary facilities and controls.
- 9. Advise Owner of changeover information related to Owner's occupancy, operation, and maintenance.
- 10. Complete final cleaning requirements, including touchup painting.
- 11. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. On receipt of a request for inspection, Architect will proceed with inspection or advise Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or advise Contractor of items that must be completed or corrected before the certificate will be issued.
- C. Request inspection for certification of Final Completion, once the following are complete:
- 1. Submit a copy of Substantial Completion inspection list stating that each item has been completed or otherwise resolved for acceptance. 2. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- D. Architect will reinspect the Work on receipt of notice that the Work has been completed.
- 1. On completion of reinspection, Architect will prepare a final Certificate for Payment. If the Work is incomplete, Architect will advise Contractor of the Work that is incomplete or obligations that have not yet been fulfilled.

# 3.6 DEMONSTRATION AND TRAINING

A. Provide experienced instructors for each piece of equipment that requires operation and maintenance to provide instruction to Owner's personnel. Include a detailed review of the following:

1. Include instruction for system design and operational philosophy, review of documentation, operations, adjustments, troubleshooting, maintenance, and

## A. Record Drawings: Maintain a set of the Contract Drawings as Record Drawings. Mark to show installation that varies from the Work originally shown. Operation and Maintenance Data: Organize data into three-ring binders with identification on front and spine of each binder and pocket folders for folded sheet



# 9/28/23 PRICING SET No Date

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# SI SI SI

**SPECIFICATION** 

Project Date:

2222 9/8/23

	CRITERIA		
	HIP, <u>DESIGN, AND CONSTRUCTION</u> SHALL HE INTERNATIONAL BUILDING CODE (IBC).	CONFORM TO THE DRAWINGS, SPECIFICATIONS,	THE FO STAIRS
2. DESIGN LOADING CRITERIA			15. <u>SPECIA</u>
ROOF SNOW LOAD		25 PSF	HIGH-S' GROUTI
ROOF RAIN ON SNOW LOAD		5 PSF	SECTIC OWNER
ROOF DEAD LOAD ALLOWAN FLOOR LIVE LOAD	ICE FOR PV PANELS	5 PSF 40 PSF	DIRECT
FLOOR LIVE LOAD (EXTERIO	R DECKS AND BALCONIES)	60 PSF	MATER ARCHII
FLOOR LIVE LOAD (PARKING	,	50 PSF	
GUARDRAILS/BALCONY RAIL	5	200 LBS	
WIND : ANALYSIS PROCE	DURE: ASCE 7-16 CHAPTER 27 "PART I - E	BUILDINGS OF ALL HEIGHTS"	16. FOUND
		RISK CATEGORY II	REQUIR
		97 MPH EXPOSURE "C"	DIRECT COMPA
	TOPO	GRAPHIC FACTOR Kzt = 1.0	DEPTH
	MAIN HOUSE WIND BASE SHEAR,		ELEVA LAB A
	MAIN HOUSE WIND BASE SHEA DADU WIND BASE SHEAT	R, NORTH/SOUTH VM = $11.6$ K	WALLS
		AR, EAST/WEST $\forall w = 10.9 \text{ K}$	BACKF
			DRAIN
<u>EARTHQUAKE</u> : ANA	ALYSIS PROCEDURE: IBC "EQUIVALENT LA" SEISMIC DE	IERAL FORCE PROCEDURE" SIGN CATEGORY (SDC) = D	THE ST
		RISK CATEGORY =	ALLON
		SEISMIC SITE CLASS = D	LATER
		PORTANCE FACTOR  e = 1.0 PED MCE S5 = 1.45; S1 = 0.51	SEISMI PASSIN
		$ATION Sds = 0.97; Sd_1 = 0.61$	SOIL C
SEISM	11C RESISTING SYSTEM: WOOD PANEL BEA		PILE C
		BE COEFFICIENT: C5 = 0.149 C BASE SHEAR V5 = 67.7 K	CEOTE
		C BASE SHEAR VS = 10.8 K	<u>GEOTE</u>
3 I ATERAL I DADS ARE TRAN	SEERRED BY THE ROOF AND FLOOR DIA	PHRAGMS TO THE SHEAR WALLS. FORCES ARE	17. <u>PIPE P</u>
BASED ON THE TRIBUTARY		ARE CARRIED BY THE SHEAR WALLS TO THE	PIPE I Compr
FOUNDATION.			COMPR
		RCHITECTURAL DRAWINGS FOR BIDDING AND	18. <u>PIPE P</u>
	PANCIES PRIOR TO CONSTRUCTION.	PITIONS FOR COMPATIBILITY AND SHALL NOTIFY	TO CO LEAST
		ZES, AND CONDITIONS PRIOR TO COMMENCING	MIS-LC
	,	THE DRAWINGS ARE INTENDED AS GUIDELINES	GEOTE: UTILITIE
ONLY AND MUST BE VERIFIED	λ.		01121112
		TURE AND STRUCTURAL COMPONENTS UNTIL ALL	
FINAL CONNECTIONS HAVE B	EEN COMPLETED IN ACCORDANCE WITH TH	HE PLANS.	19. DEMOL
		NS AND THE METHODS, TECHNIQUES, SEQUENCES RAL ENGINEER HAS NO OVERALL SUPERVISORY	INSTAL
		SPECIFIC WORKING CONDITIONS AT THE SITE	SEQUEN WHERE
		ANY TRADE CONTRACTOR. THE STRUCTURAL REPORT ANY HEALTH OR SAFETY DEFICIENCIES	ALLOW
	RS, OR OTHER ENTITIES OR PERSONS AT T		DEMOL
8. CONTRACTOR-INITIATED CHA	NGES SHALL BE SUBMITTED IN WRITING "	TO THE ARCHITECT AND STRUCTURAL ENGINEER	20. <u>ALL E</u>
FOR APPROVAL PRIOR TO F		ES SHOWN ON SHOP DRAWINGS ONLY WILL NOT	SCRAP ANY L
SATISFY THIS REQUIREMENT.			MASON NOT WE
		NSTRUCTION. WHERE CONDITIONS ARE NOT TO DETAILS SHOWN, SIMILAR DETAILS OF	FIRE E
		AL BY THE ARCHITECT AND THE STRUCTURAL	THE CC
		NITH THE SPECIFICATIONS, THE MORE STRINGENT ECT AND THE STRUCTURAL ENGINEER. DO NOT	21. <u>CHECK</u>
SCALE THE DRAWINGS.	REVIEW AND ATTROVAL DI THE AROTH.	LOT AND THE STINGTONAL ENGINEER. DO NOT	STAINS MEMBE
IO. ALL STRUCTURAL SYSTEMS (	NHICH ARE COMPOSED OF FIELD ERECTE	D COMPONENTS SHALL BE SUPERVISED BY THE	
SUPPLIER DURING MANUFA	CTURING, DELIVERY, HANDLING, STORA	AGE AND ERECTION IN ACCORDANCE WITH	
INSTRUCTIONS PREPARED BY	THE SUPPLIER.		22. <u>CONC</u> R
	L STEEL AND GLUED LAMINATED MEMBERS REVIEW PRIOR TO FABRICATION OF THES	S SHALL BE SUBMITTED TO THE ARCHITECT AND	CONST
			STRENO SHALL
		EVIEWED BY THE ENGINEER OF RECORD, AND S SHALL REVIEW AND STAMP DRAWINGS PRIOR	19.3.2.1
TO REVIEW BY ENGINEER O	OF RECORD. CONTRACTOR SHALL REV	IEW DRAWINGS FOR CONFORMANCE WITH THE	MIX SH PRODU
	S, SEQUENCES AND OPERATIONS OF CONS RETO. A MINIMUM OF TWO WEEKS SHALL E	STRUCTION, AND ALL SAFETY PRECAUTIONS AND BE ALLOWED FOR REVIEW.	EXCEEI
			EXCEP
	-	DT CHANGE ORDERS. THE PURPOSE OF SHOP E TO THE ENGINEER THAT THE CONTRACTOR	THE MI
UNDERSTANDS THE DESIGN C	ONCEPT, BY INDICATING WHICH MATERIAL	IS INTENDED TO BE FURNISHED AND INSTALLED	SUBMIT PLACIN
		METHODS. IF DEVIATIONS, DISCREPANCIES, OR T DOCUMENTS ARE DISCOVERED EITHER PRIOR	AMOUN
		THE ENGINEER, THE DESIGN DRAWINGS AND	AS THE WITH A
SELUITICATIONS SHALL CON	TROL AND SHALL BE FOLLOWED.		ASH PI
		R THE STAMP AND SIGNATURE OF A STATE OF E APPROVED BY THE COMPONENT DESIGNER	REQUIR REVIEN
PRIOR TO CURSORY REVIEW	BY THE ENGINEER OF RECORD FOR LO	ADS IMPOSED ON THE BASIC STRUCTURE. THE	CONFO
		CE AND ALL NECESSARY CONNECTIONS NOT DRAWINGS. DEFERRED SUBMITTALS SHALL	PERFO
INDICATE MAGNITUDE AND D	PIRECTION OF ALL LOADS IMPOSED ON E	BASIC STRUCTURE AND SHALL INCLUDE DESIGN	
CALCULATIONS WITH THE ENG	INEER'S STAMP.		

# GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

DLLOWING COMPONENTS SHALL BE DEFERRED SUBMITTALS FOR THIS PROJECT: 5, RAILINGS.

<u>AL INSPECTION:</u> STRUCTURAL STEEL FABRICATION AND ERECTION (INCLUDING FIELD WELDING AND TRENGTH FIELD BOLTING), EXPANSION BOLTS AND THREADED EXPANSION INSERTS, SCREW ANCHORS, EPOXY ED INSTALLATIONS, AND DRIVEN PILE INSTALLATION SHALL BE SUPERVISED IN ACCORDANCE WITH IBC DNS 1704 & 1705 AND THE PROJECT SPECIFICATIONS BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS TLY TO THE OWNER, ARCHITECT, STRUCTURAL ENGINEER, CONTRACTOR AND BUILDING OFFICIAL. ANY RIALS WHICH FAIL TO MEET PROJECT SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE TECT.

# GEOTECHNICAL

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

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

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

OWABLE SOIL BEARING PRESSURE	2,000 PSF	
ERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED)	55 PCF/35 PCF	
MIC SURCHARGE PRESSURE (RESTRAINED/UNRESTRAINED)	8H PSF/5H PSF	
SIVE SOIL PRESSURE	350 PCF	
COEFFICIENT OF FRICTION	0.35	
CAPACITY (3 INCH)	12 KIPS	

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

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

ILING INSPECTION SHALL BE CONTINUOUSLY PERFORMED BY THE GEOTECHNICAL ENGINEER DURING PLACEMENT NFIRM THAT THE PILES ARE INSTALLED IN ACCORDANCE WITH THE PLANS AND GEOTECHNICAL REPORT. AT 3% OF THE 3 INCH PILES SHALL BE LOAD TESTED IN ACCORDANCE WITH ASTM DI143. MAXIMUM PILE CATION SHALL BE 2" LATERALLY. ACTUAL PILE LENGTH SHALL BE DETERMINED IN THE FIELD BY THE CHNICAL ENGINEER. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND ES PRIOR TO DRIVING PILES.

# RENOVATION

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

KTERIOR WALLS SHALL BE INSPECTED AND REPAIRED AS FOLLOWS:

PE ALL LOOSE AND WEAKENED MORTAR OUT TO FULL DEPTH OF THE DETERIORATION; REMOVE AND REPLACE OOSE MASONRY UNITS; CHECK FOR LOOSE FACING BRICK VENEERS; TUCK POINT ALL JOINTS SOLID. ALL NRY RESTORATION AND REPAIR SHALL BE PERFORMED IN SUCH A MANNER THAT THE EXISTING STRUCTURE IS EAKENED OR LEFT UNSUPPORTED DURING THE PROCESS OF THE WORK. ALL EXTERIOR APPENDAGES SUCH AS SCAPES, CORNICES AND EYEBROWS SHALL BE INSPECTED FOR STRUCTURAL INTEGRITY AND THE CONDITION OF DNNECTIONS TO THE STRUCTURE. NOTIFY THE STRUCTURAL ENGINEER AS TO THE FINDINGS OF THIS INSPECTION.

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

# CONCRETE

RETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301, RUCTION TOLERANCES SHALL NOT EXCEED THOSE LISTED IN ACI 117. CONCRETE SHALL ATTAIN A 28-DAY IGTH OF F'C = 2.500 PSI. ALL CONCRETE EXPOSED TO THE WEATHER AND ALL GARAGE SLABS-ON-GRADE . ATTAIN A 28-DAY STRENGTH F'C OF 3,000 PSI IN ACCORDANCE WITH IBC SECTION 1904.1. AND ACI 318 TABLE THIS INCREASE IN REQUIRED STRENGTH IS FOR DURABILITY ONLY (SPECIAL INSPECTION IS NOT REQUIRED) ALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO JCE A SLUMP OF 5" OR LESS (BEFORE THE ADDITION OF ADMIXTURES). THE WATER/CEMENT RATIO SHALL NOT D 0.55 FOR FOOTINGS AND 0.45 FOR ALL SLABS AND EXPOSED CONCRETE UNLESS OTHERWISE NOTED. T FOR FOOTINGS AND SLAB ON GRADE, AGGREGATE SIZE SHALL NOT EXCEED 3/4".

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

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, fy = 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'-O" MINIMUM, PROVIDE CORNER BARS AT ALL WALL AND FOOTING. INTERSECTIONS, LAP 2'-O" MINIMUM. PROVIDE (2) #4 MIN. U.N.O. TRIM BARS AROUND ALL OPENINGS IN CONCRETE WALLS OR SLABS EXTENDING 2'-O" 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 SURF FORMED SURFACES EXPOSED TO EAR SLABS AND WALLS (INTERIOR FACE)

CONCRETE WALL REINFORCING - PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

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

25. NON-SHRINK GROUT SHALL BE NON-METALLIC CONFORMING TO ASTM CIIOT 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).

- REQUIRED FOR ALL EXPANSION BOLT INSTALLATION.
- SCREW ANCHOR INSTALLATION.

ALLOWABLE APPLICATION	ALLOWABLE FASTENER TYPE	SHEAR CAPACITY (LBS) TEN	ISION CAPACITY (LBS)
2X TREATED LUMBER TO CONCRETE (2000 PSI MIN.)	X-CP 72 P8 523 w/ 1.33" EMBED	250	175
2X LUMBER TO	X-U 52 MX PLUS	250	175

2X LUMBER 10 STRUCTURAL STEEL R-23 WASHERS (3/16" MIN., 36 OR 50 KSI)

30. MASONRY VENEER SHALL HAVE WI.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'-O" 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.

FACES CAST AGAINST EARTH	З"
TH (i.e. WALLS BELOW GROUND) OR WEATHER	2"

# ANCHORAGE

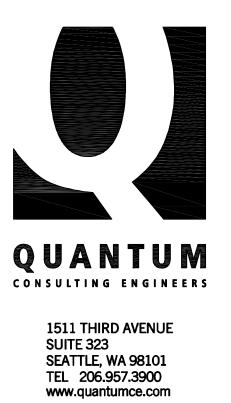
26. EXPANSION BOLTS INTO CONCRETE SHALL BE "STRONG-BOLT 2 WEDGE ANCHOR", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-3037 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C.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

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

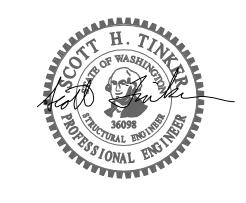
28. DRIVE PINS, SHOT PINS AND OTHER POWDER-ACTUATED FASTENERS SHALL BE LOW VELOCITY TYPE FASTENERS AS MANUFACTURED BY HILTI CORPORATION. WHEN CALLED FOR IN THE DRAWINGS. PROVIDE THE APPROPRIATE FASTENER AS NOTED IN THE TABLE BELOW FOR EACH GIVEN APPLICATION. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORTS NO. ESR-2269 FOR THE X-U FASTENERS AND ESR-2379 FOR THE X-CP FASTENERS. MINIMUM EMBEDMENT IN CONCRETE SHALL BE I" 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 JAPMO VES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES.

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



SEAL:

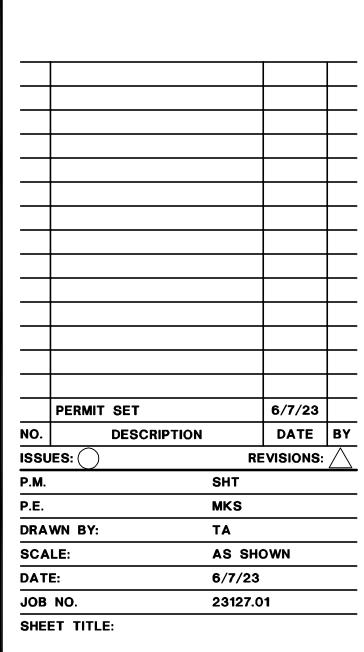


PROJECT:

# HONG AND KAO RESIDENCE

5425 W. MERCER WAY MERCER ISLAND, WA 98040

**APPROVAL:** 



# GENERAL STRUCTURAL **NOTES**

SHEET NO.

**S1.0** 

STEEL	
BI. <u>STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION</u> SHAL SPECIFICATIONS AND CODES:	L BE BASED ON THE LATEST EDITIONS OF THE A.I.S.C.
A. AISC - STEEL CONSTRUCTION MANUAL, 15 <sup>TH</sup> EDITION B. AISC 303-16 - CODE OF STANDARD PRACTICE FOR STEEL C. 2014 RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING	
2. <u>STRUCTURAL STEEL</u> , WIDE FLANGE (W AND WT) SHAPES SHALL ROLLED SHAPES SHALL CONFORM TO ASTM A36, Fy = 36 KSI. KSI. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S CONFORM TO ASTM A500, GRADE C, Fy = 50 KSI. CONNECTI BOLTS SHALL CONFORM TO ASTM FI554 GRADE 36, Fy = 36 KS	STEEL PLATE SHALL CONFORM TO ASTM A36, Fy = 36 3, GRADE B, Fy = 35 KSI. STRUCTURAL TUBING SHALL ION BOLTS SHALL CONFORM TO ASTM A307. ANCHOR
B. <u>ARCHITECTURALLY EXPOSED STRUCTURAL STEEL</u> SHALL CONFORMATICE FOR STEEL BUILDINGS AND BRIDGES.	ORM TO SECTION IO OF THE AISC CODE OF STANDARD
4. <u>ALL A325 CONNECTION BOLTS</u> SHALL BE INSTALLED TO THE S STRUCTURAL JOINTS USING HIGH STRENGTH BOLTS IN STRICT RECOMMENDATIONS. ALL NUTS SHALL CONFORM TO ASTM A56 ASTM F959 TYPE 325. ALL BOLT HOLES SHALL BE STANDARD	ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED 53. ALL WASHERS SHALL CONFORM TO ASTM F436 OR
5. <u>ALL A307 CONNECTION BOLTS</u> SHALL BE PROVIDED WITH LOC BOLT HOLES SHALL BE STANDARD SIZE UNLESS OTHERWISE NO	
36. <u>ALL WELDING</u> SHALL BE IN CONFORMANCE WITH A.I.S.C. AND W.A.B.O. CERTIFIED WELDERS USING ETO XX ELECTRODES. SHALL BE USED. WELDING OF GRADE 60 REINFORCING BAN HYDROGEN ELECTRODES. WELDING OF GRADE 40 REINFORCI ETOXX ELECTRODES. WELDING WITHIN 4" OF COLD BENDS REINFORCING NOTE FOR MATERIAL REQUIREMENTS OF WELDE WELDERS WITH AWS / W.A.B.O. CERTIFICATION WITH THE MATER	ONLY PREQUALIFIED WELDS (AS DEFINED BY A.W.S.) RS (IF REQUIRED) SHALL BE PERFORMED USING LOW ING BARS (IF REQUIRED) SHALL BE PERFORMED USING S IN REINFORCING STEEL IS NOT PERMITTED. SEE ED BARS. ALL WELDING SHALL BE PERFORMED BY
SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AWS A2.4 SIZES. INCREASE WELD SIZE TO AWS MINIMUM SIZES BASED 3/16-INCH. THE WELDS SHOWN ARE FOR THE FINAL CONNECTION WELD IS REQUIRED BY THE STRUCTURAL DESIGN; THE CONTRA SHOULD BE SHOP OR FIELD WELDED IN ORDER TO FACILITATE	ON PLATE THICKNESS. MINIMUM WELDING SHALL BE NS. FIELD WELD ARROWS ARE SHOWN WHERE A FIELD ACTOR IS RESPONSIBLE FOR DETERMINING IF A WELD
37. <u>WELDING OF LATERAL FORCE RESISTING MEMBERS</u> SHALL PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS DI.I AN WORK BEGINS. THE WPS VARIABLES SHALL BE WITHIN THE MANUFACTURER. WELDING ELECTRODES SHALL BE ETOTG-K2 O (CVN) OF 20 ft-Ibs AT -20 DEGREES FAHRENHEIT AND 40 F FLANGE WELD TAB AT MOMENT FRAME CONNECTIONS AND R WITH FEMA-353 RECOMMENDATIONS. WELD ACCESS HOLE D CONFORM WITH FEMA-350 AND FEMA-353 RECOMMENDATIONS.	ND APPROVED BY THE STRUCTURAL ENGINEER BEFORE PARAMETERS ESTABLISHED BY THE FILLER METAL OR ETOTG WITH A MINIMUM SPECIFIED CHARPY V-NOTCH It-Ibs AT 70 DEGREES FAHRENHEIT. REMOVE BOTTOM EINFORCE WITH 5/16" FILLET WELD IN CONFORMANCE DETAILING AT MOMENT FRAME CONNECTIONS SHALL
WOOD	
8. <u>FRAMING LUMBER:</u> SHALL BE KILN DRIED OR MC-19 (MOISTURE IN CONFORMANCE WITH W.C.L.I.B. STANDARD NO. 17 GRADING FOLLOWING MINIMUM STANDARDS:	
JOISTS (2X, 3X, AND 4X MEMBERS)	DOUGLAS FIR OR HEM-FIR NO. 2
BEAMS AND STRINGERS (INCLUDING 6 X AND LARGER MEMBER	DOUGLAS FIR NO. I
POSTS AND TIMBERS	DOUGLAS FIR NO. I
STUDS, PLATES & MISCELLANEOUS LIGHT FRAMING (AS NOTED ON PLANS / DETAILS)	DOUGLAS FIR OR HEM-FIR NO. 2
9. <u>GLUED LAMINATED MEMBERS</u> SHALL BE FABRICATED IN C STANDARDS. EACH MEMBER SHALL BEAR AN A.I.T.C. IDENTIF A.I.T.C. CERTIFICATE OF CONFORMANCE. CERTIFICATES OF CO INSPECTORS. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS PSI, E = 1,800 KSI. ALL CANTILEVERED OR CONTINUOUS BEAM 2,400 PSI, FV = 240 PSI, E = 1,800 KSI. CAMBER ALL SIMF SHOWN OTHERWISE ON THE PLANS. ALL GLUE LAMINATED CO 1,900 PSI, Fby = 1,800 PSI, Fbx = 1,700 PSI, E = 1,700 KSI (4 AVAILABILITY OF THE GL MEMBER SIZES SHOWN ON THE DRAW FOR LARGER MEMBER SIZES.	FICATION MARK AND SHALL BE ACCOMPANIED BY AN ONFORMANCE MUST BE MADE AVAILABLE TO BUILDING FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv = 240 IS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = PLE SPAN GLULAM BEAMS TO 5,000' RADIUS UNLESS OLUMNS SHALL BE DOUGLAS FIR COMBINATION 2, Fc = LAMS MINIMUM DEPTH). CONTRACTOR SHALL VERIFY
40. LAMINATED VENEER LUMBER (LVL) SHALL BE DESIGNED AND M BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT N INDEPENDENT INSPECTION AGENCY'S LOGO. ALL LAMINATED DOUGLAS FIR VENEER GLUED WITH A WATERPROOF ADHESIVE I GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. MINIMUM S	IUMBER OF THE MANUFACTURER, THE GRADE, AND THE D VENEER LUMBER SHALL BE MANUFACTURED USING MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL
Fb = 2600 PSI, E = 2.0 x 10 <sup>6</sup> PSI, Fv = 285 PSI	
DESIGN SHOWN ON PLANS IS BASED ON MATERIALS MAN	IUFACTURED 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:

# GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

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

 $Fb = 1700 PSI, E = 1.3 \times 10^{6} PSI, Fy = 400 PSI$ 

BEAMS AND HEADERS:

 $Fb = 2325 PSI, E = 1.55 \times 10^6 PSI, Fv = 310 PSI$ 

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 I, 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) IOD-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 UI 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 GI85 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 NA	AIL LENGTH
"6d" 6d Common 0.113" 2'	Ш
"8d Box" 8d Box 0.113" 2-	- /2"
"8d" 8d Common 0.131" 2-	-1/2"
"IOd-F" IOd Framer 0.131" 3'	I
"IOd" IOd Shear 0.148" 2-	- /4"
"16d" 16d Sinker 0.148" 3-	- /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 IOG-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" GWB AND 5/8" GWB WHERE OCCURS. VERIFY THE FIRE ASSEMBLY REQUIREMENTS WHERE APPLICABLE WITH THE ARCHITECT

- IOd-F NAILS @ 8" O.C. STAGGERED UNLESS OTHERWISE NOTED.
- CONNECTED.

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

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



CONSULTING ENGINEERS

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

SEAL:



PROJECT:

# HONG AND KAO RESIDENCE

5425 W. MERCER WAY MERCER ISLAND, WA 98040

APPROVAL:

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	PERMIT SET		6/7/23	
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# GENERAL **STRUCTURAL** NOTES

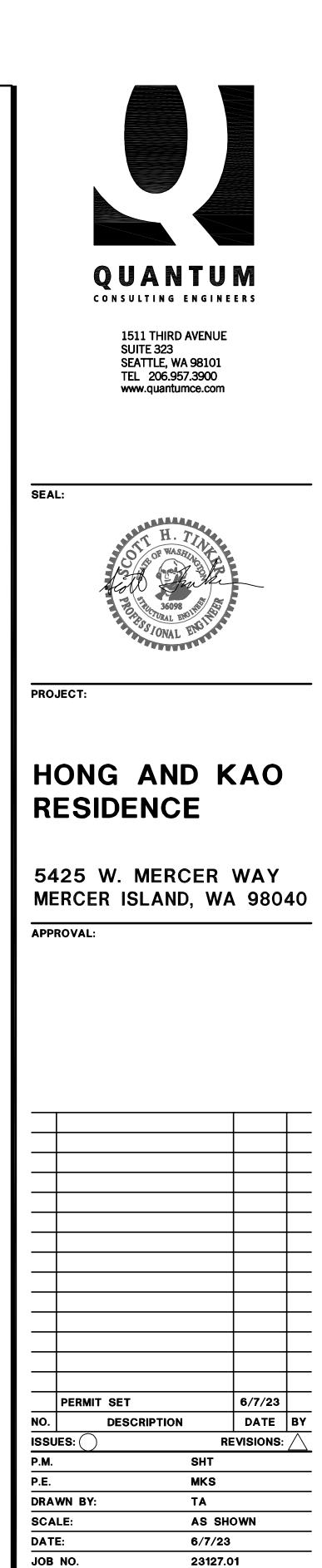
SHEET NO.

**S1.1** 

# GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

# #.. (A) A.B. ADD'L ALT. APPROX. ARCH. A.S.D. (B) B/ BF BLKG. BLDG. BM. BOT. BRG. BTWN. CL or E С CIP C.J. CJP CLG. CLR. CMU COL. CONC. CONN. CONST. CONT. CSK. DBA DBL. DEG. DF DIA. DIAG. DIAPH. DIM. DN. DO DTL. DTP DWG. (E) EA. E.F. EL. ELEV. EMBED. ENGR. EQ. E.M. EXP. EXT. FDN. FIN. FLR. FRP F.S. FT. FTG. GA. GALV. GL GMB HDG HDR. HF HGR. HORIZ. HSS HT. I.D. I.F. IN. INFO. INT. JT. K KSF KSI



# GENERAL STRUCTURAL NOTES

SHEET NO.

SHEET TITLE:

**S1.2** 

23127.01

ATIONS	
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
0.C.	On Center
0.D.	Outside Diameter
0.F.	Outside Face
0.H.	Overhang
0PNG.	Opening
0PP.	Opposite
PAF PC PERM. PERP. PJP PL or PL PLF PLF PLYWD PREFAB. PSF PSI P.T. or PT P/T	Powder Actuated Fastener Precast Permanent Perpendicular Partial Joint Penetration Plate Pounds per linear Foot Plywood Prefabricated Pounds per Square Foot Pounds per Square Inch Post-Tensioning 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.N.	Top of Wall
TRANS.	Transverse
TS	Tube Steel
TYP.	Typical
U.O.N.	Unless Otherwise Noted
VERT.	Vertical
VIF	Verify in Field
W. W/ or w/ W.H.S. W/O W.P. W.T.S. WWF	Wernig in Fried West With Welded Headed Stud Without Work Point Welded Threaded Stud Welded Wire Fabric
X SECT.	Cross Section
X-STR	Extra Strong
XX-STR	Double Extra Strong

ABBREVIATIONS

Ditto

At L Penny (Nails) LB. Diameter Degrees Pounds LL LLH LLV Number LONGIT. LT. WT.

Above

Anchor Bolt Additional Alternate Approximate Architect Allowable Stress Design Below Bottom of Braced Frame Blocking Building Beam Bottom Bearing Between Centerline Camber Cast In Place Construction Joint or Control Joint Complete Joint Penetration Ceiling Clear Concrete Masonry Unit Column Concrete Connections Construction Continuous Countersink Deformed Bar Anchor Double Degree Doug Fir-Larch Diameter Diagonal Diaphragm Dimension Down

> Detail Double Top Plate . Drawing Existing East Each Each Face Elevation Elevator Embedment Length Engineer Equal Each Way Expansion Éxterior

Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing

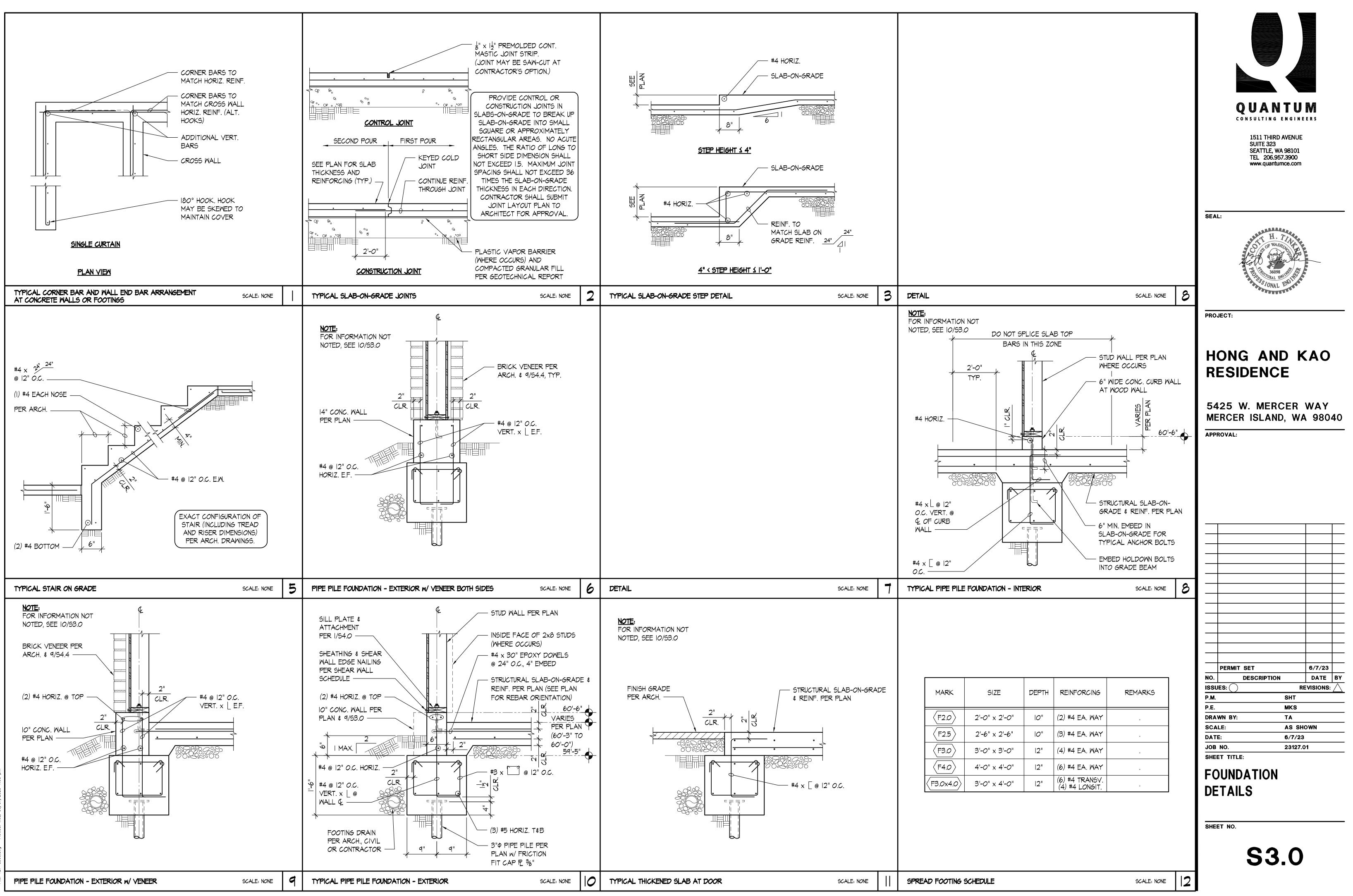
> Gauge Galvanized Glue Laminated Gypsum Wall Board

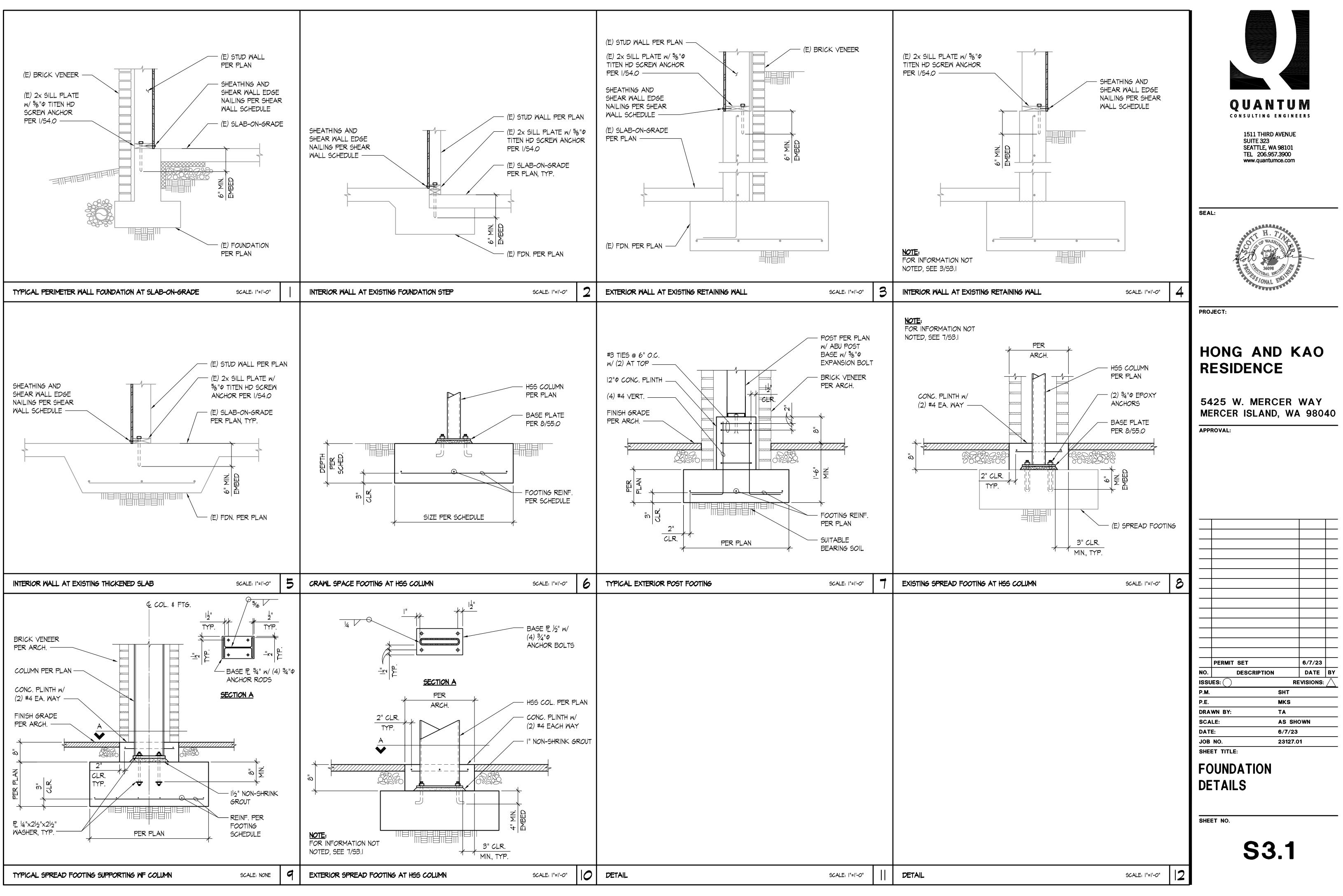
Hot Dipped Galvanized Header Hem Fir Hanger Horizontal Hollow Structural Section Height

> Inside Diameter Inside Face Inch Information Interior

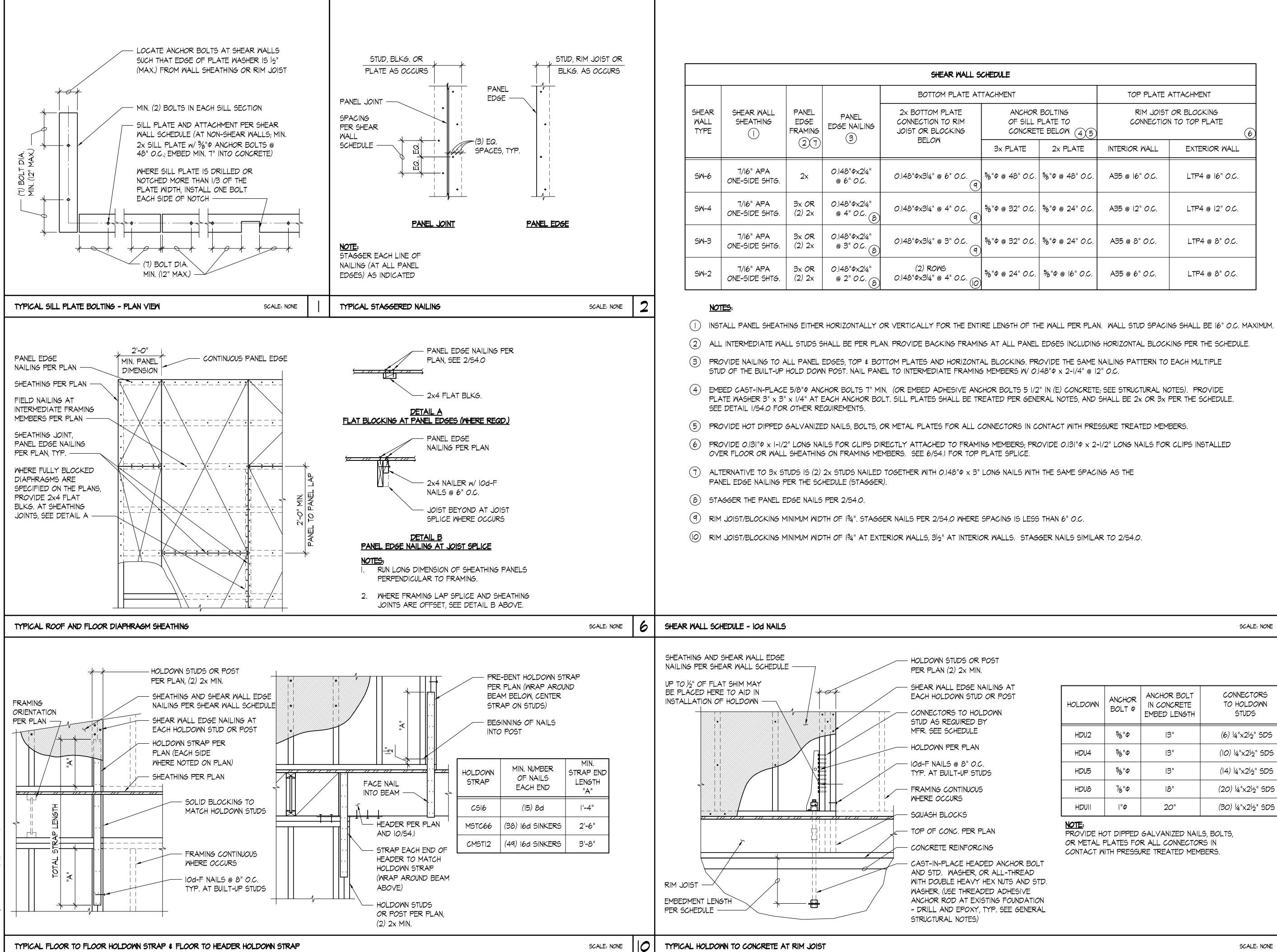
> > Joint

Kips Kips per Square Foot Kips per Square Inch





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		TOP PLATE ATTACHMENT		
FOR BOLTING LL PLATE TO RETE BELOW $(4)(5)$		RIM JOIST OR BLOCKING CONNECTION TO TOP PLATE		
	2x PLATE	INTERIOR WALL	EXTERIOR WALL	
D.C.	5%"¢ @ 48" O.C.	A35 @ 16" O.C.	LTP4 @ 16" O.C.	
D.C.	5⁄8"¢ @ 24" O.C.	A35 @  2" O.C.	LTP4 @ 12" O.C.	
D.C.	5∕8"Ф @ 24" О.С.	A35 @ 8" O.C.	LTP4 @ 8" O.C.	
D.C.	5∕6"Φ⊚∣6"Ο.C.	A35 @ 6" O.C.	LTP4 @ 8" O.C.	

SCALE: NONE

8

HOLDOWN	ANCHOR BOLT Ø	ANCHOR BOLT IN CONCRETE EMBED LENGTH	CONNECTORS TO HOLDOWN STUDS
HDU2	5%"Φ	13"	(6) <sup> </sup> 4"x2 <sup> </sup> 2" SDS
HDU4	5∕%"Φ	13"	(10) <sup>1</sup> 4"x2 <sup>1</sup> /2" SDS
HDU5	5∕%"Φ	13"	(14) <sup>1</sup> /4"x2 <sup>1</sup> /2" SDS
HDU8	7⁄6"Φ	18"	(20) ¼"x2½" SDS
HDUII	"Φ	20"	(30) ¼"x2½" SDS

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



# HONG AND KAO RESIDENCE

5425 W. MERCER WAY MERCER ISLAND, WA 98040

**APPROVAL:** 

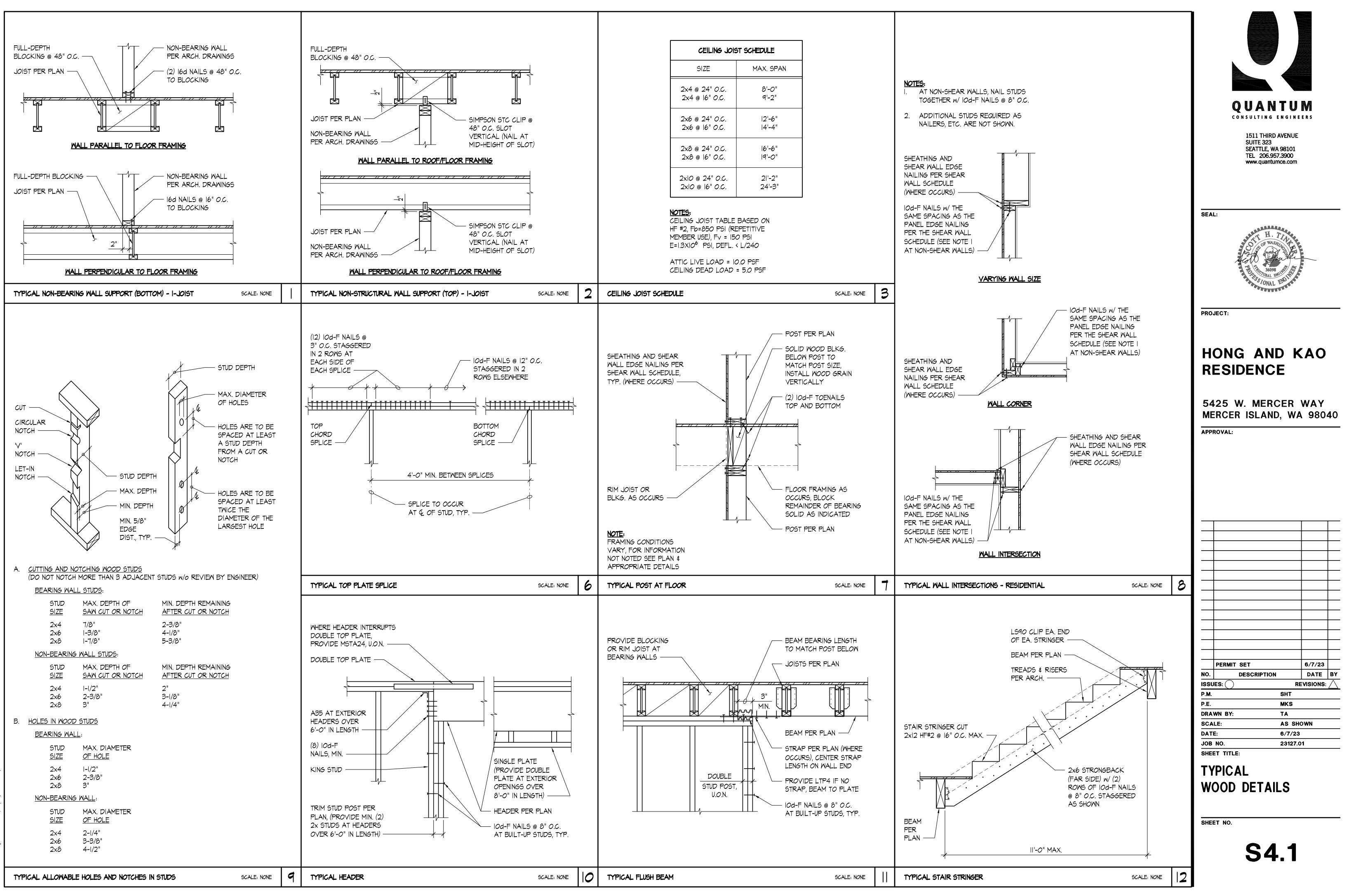
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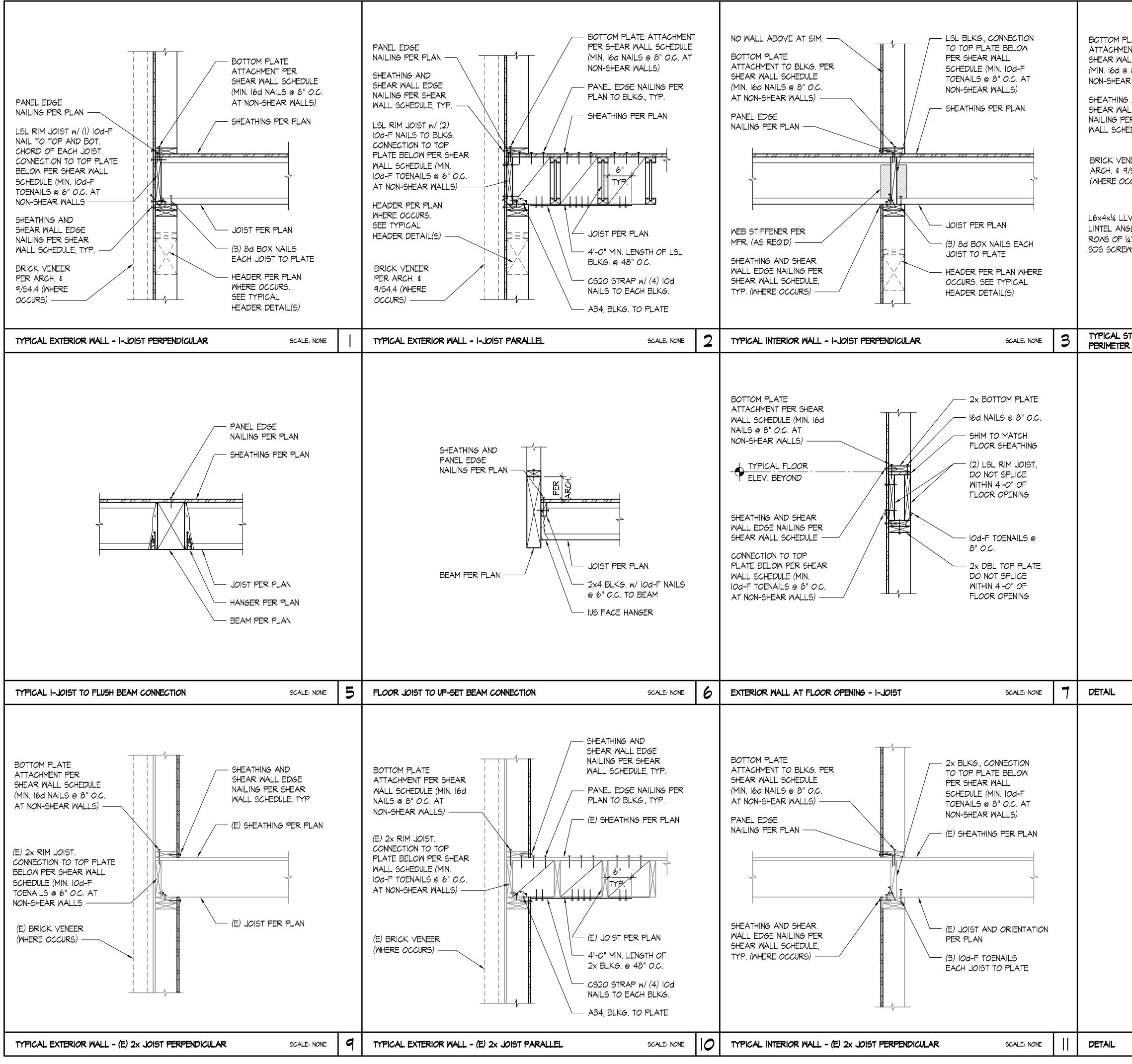
# **TYPICAL** WOOD DETAILS

SHEET NO.

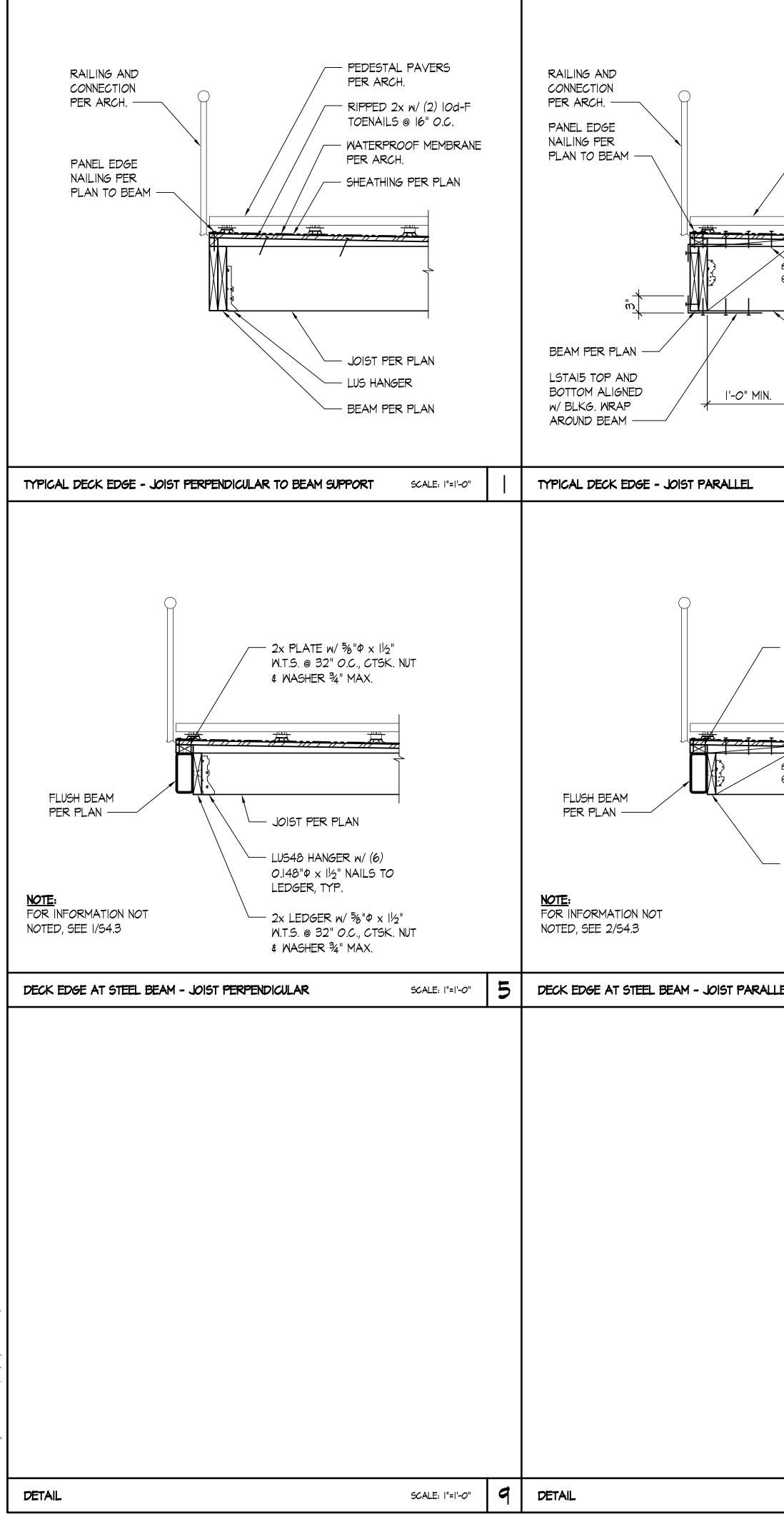
**S4.0** 

12



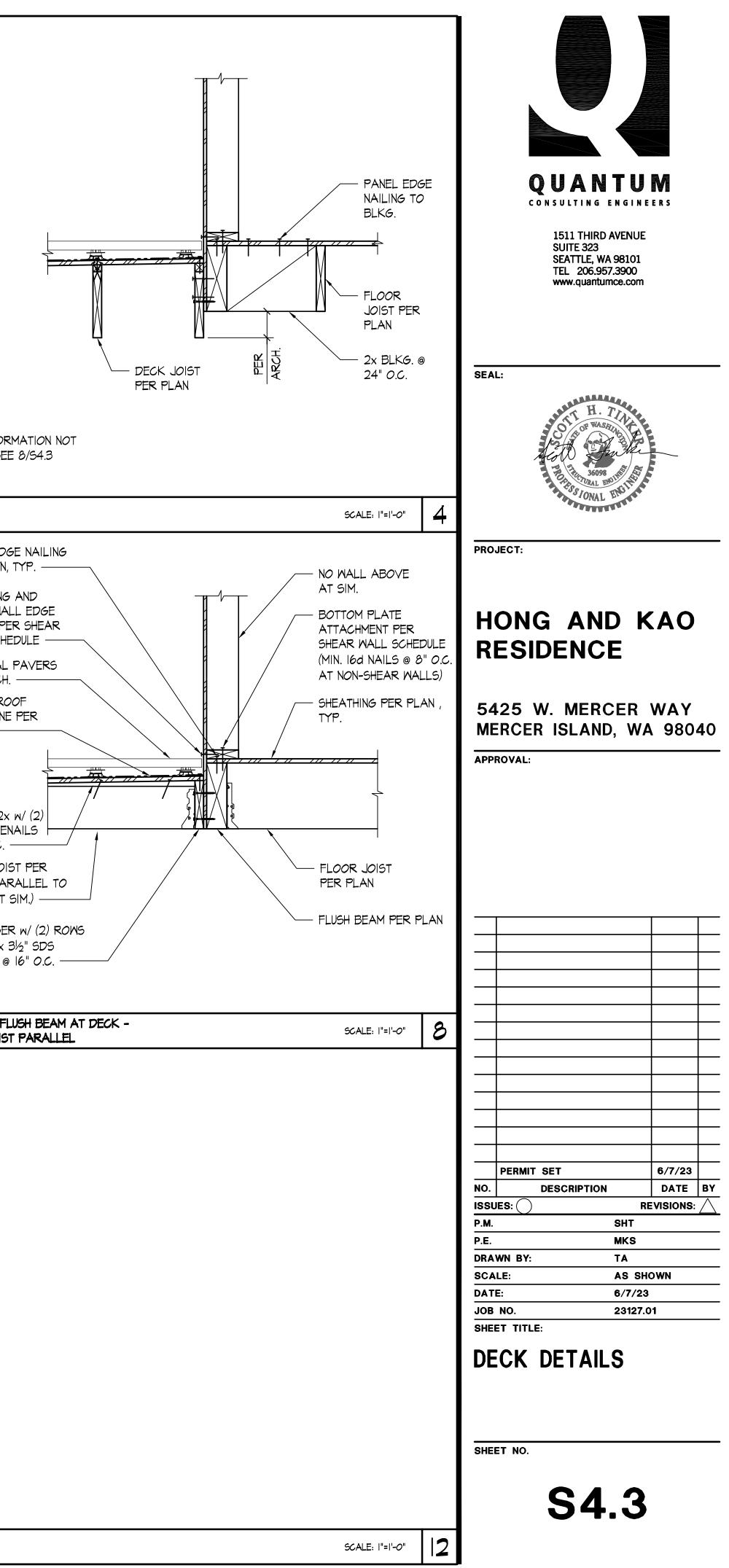


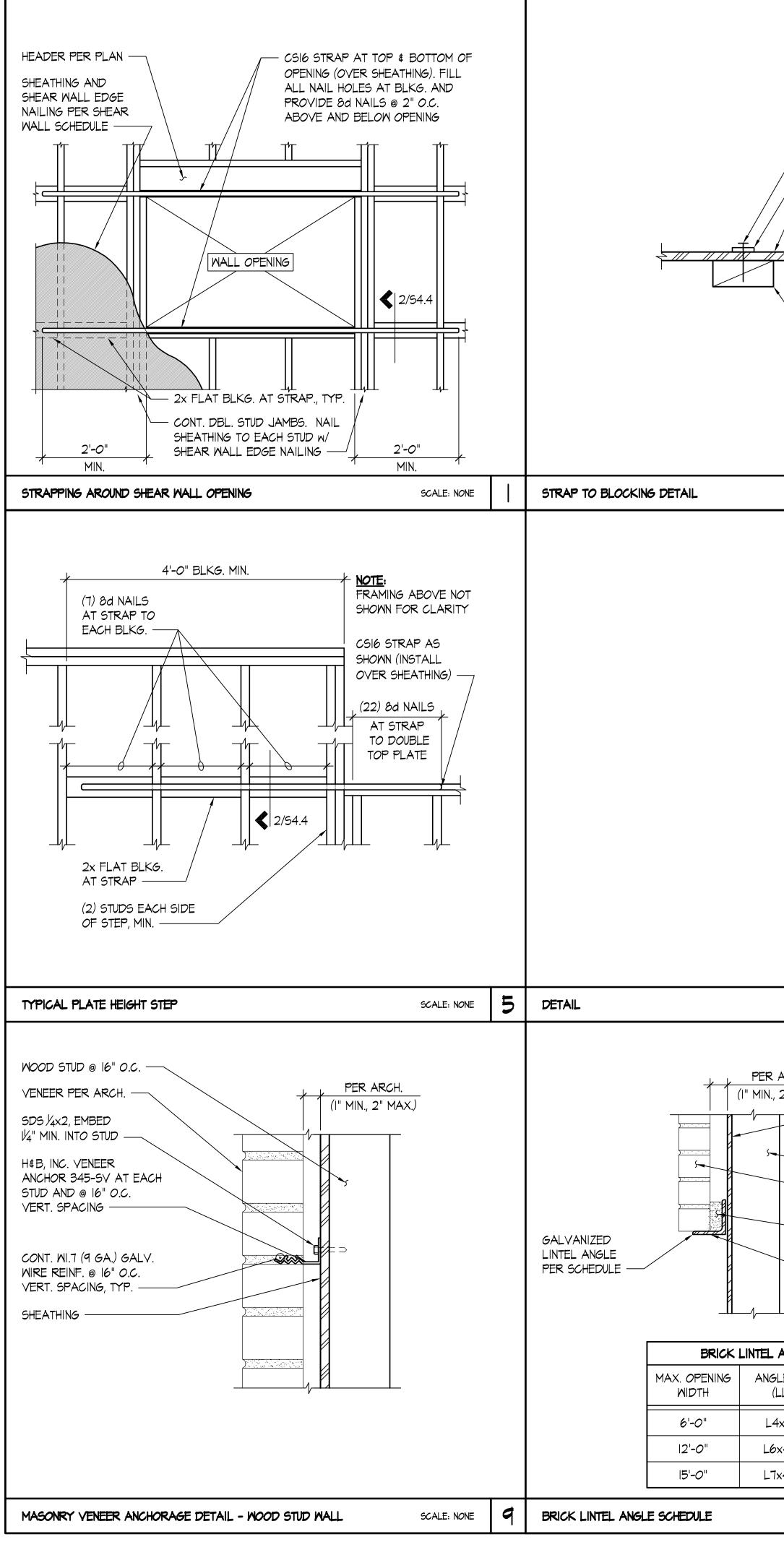
ATE NT PER L SCHEDULE 8" O.C. AT WALLS) AND L EDGE R SHEAR EDULE V GALV. DLE W/ (2) Y & 3½" YS @ 16" O.C. ATE NAILING PER PLAN PANEL EDGE NAILING PER PLAN SHEATHING PER PLAN (PARALLEL TO BEAM AT SIM.) HANGER PER PLAN BEAM PER PLAN		<image/>
TRUCTURAL WALL TO PARALLEL SCALE: NONE	4	STONAL ENCLOSE
		HONG AND KAO RESIDENCE 5425 W. MERCER WAY MERCER ISLAND, WA 98040 APPROVAL:
SCALE: NONE	8	
		PERMIT SET       6/7/23         NO.       DESCRIPTION         DATE       BY         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.       SHEET NO.
		34.2
SCALE: NONE	2	



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PEDESTAL PAVERS PER ARCH. RIPPED 2x w/ (2) IOd-F TOENAILS @ 16" O.C. WATERPROOF MEMBRANE PER ARCH. PER ARCH. PANEL EDGE NAILING PER PLAN TO BLKG. JOIST PER PLAN 2x BLKG. @ 24" O.C. w/ A35 EACH END	PEDESTAL PAVERS PER ARCH. WATERPROOF MEMBRANE PER ARCH. SHEATHING PER PLA RIPPED 2x w/ (2) IO TOENAILS @ 16" O.C. TOENAILS @ 16" O.C. WOTE: FOR INFORMATION NOT NOTED, SEE 5/54.2	N d-F	NOTE: FOR INFORI NOTED, SEE
SCALE:  "= '-0"	TYPICAL FLUSH BEAM AT DECK SCALE	<u> </u>	DETAIL
	NOTE: FOR INFORMATION NOT NOTED, SEE 3/S4.3		PANEL EDG PER PLAN, SHEATHING SHEAR WAL NAILING PE WALL SCHE PEDESTAL
- 2x PLATE w/ 5%"Φ x 1½" W.T.S. @ 32" O.C., CTSK. NUT & WASHER 34" MAX.	PANEL EDGE NA PER PLAN	ILING	RIPPED 2x
JOIST PER PLAN - 2x LEDGER W/ 5% "Φ x 1½" W.T.S. @ 32" O.C., CTSK. NUT & WASHER 34" MAX.	2x LEDGER EA. SIDE OF BEAM w/ 5% "\$ x 11/2" W.T.S. @ 32" O.C., CTSK. NUT & WASHER 3/4" MAX. FLUSH BEAM PER PLAN FLUSH BEAM PER PLAN	BEAM AT SIM.) w/ (6)	IDDECK JOIS PLAN (PAR BEAM AT S 2x LEDGER OF 1/4"\$ x S SCREWS @
LEL SCALE:  "=1'-0"	FLUSH STEEL BEAM AT DECK SCALE	:  "= '-0"	TYPICAL FL
			DECK JOIST
SCALE:  "= '-0"	DETAIL SCALE	:  "= '-O"	DETAIL
<b>_</b>			





NAILS PER PLAN STRAP PER PLAN SHEATHING PER PLAN 2x FLAT BLOCKING BETWEEN FRAMING (WHERE STRAP IS PERPENDICULAR TO FRAMING)		JOIST P PROVID AT STR. ADD OF UNDER	C. 2/54.4 PER PLAN DE 2x4 FLAT BLKG. AP. WHERE JOISTS ARALLEL TO STRAP, R ALIGN A JOIST THE STRAP D OF BLOCKING)		A35, TYP. A EXTERIOR WALL HEADER PER PLAN - (8) IOd-F NAILS MIN. EACH SIDE IOd-F NAILS @ 8" O.C. A BUILT-UP STUDS, TYP.
SCALE: NONE	2	TYPICAL DRAG STRUT DETAIL	SCALE: NONE	З	TYPICAL DR
SCALE: NONE	6	DETAIL	SCALE: NONE	7	DETAIL
ARCH. 2" MAX.) SHEATHING PER SHEAR WALL SCHEDULE STUDS PER PLAN MASONRY VENEER PER ARCH. - ANCHOR TO WALL PER 9/54.4 SOLID GROUT VOID SPACE BETWEEN ANGLE AND VENEER PROVIDE MIN. LINTEL ANGLE BEARING LENGTH PER SCHEDULE ON MASONRY BELOW AT EACH END ANGLE SCHEDULE LE SIZE MIN. END LV) BEARING ×4x¼ 4" ×4x <sup>5</sup> / <sub>6</sub> 4"		MOTE:         FOR INFORMATION NOT         NOTED, SEE 4/54.2         L6x4x4 LLV GALV.         LINTEL ANGLE w/ (2)         ¼"\$\phi x 31/2" SDS         SCREWS AT EA. STUD         Y	- SHEATHING AND PANEL EDGE NAILING PER PLAN, TYP.	6	NOTE: FOR INFOR NOTED, SE
 SCALE:    /2"=I'-O"	10	EXTERIOR WALL TO FLUSH BEAM AT FLAT ROOF -	SCALE: NONE		EXTERIOR M
		FLOOR JOIST PERPENDICULAR			FLOOR JOIS

