

AV100.2 Construction Permit; Safety Features Required

(a) Except as provided in Section AV100.5, when a building permit is issued for the construction of a new swimming pool or spa or the remodeling of an existing swimming pool or spa at a private single-family home, the respective swimming pool or spa shall be equipped with at least two of the following seven drowning prevention safety features:

1. An enclosure that meets the requirements of Section AV100.3 and isolates the swimming pool or spa from the private single-family home.
2. Removable mesh fencing that meets American Society for Testing and Materials (ASTM) Specification F2286 standards in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device.
3. An approved safety pool cover, as defined in Section AV100.1.
4. Exit alarms on the private single-family home's doors that provide direct access to the swimming pool or spa. The exit alarm may cause either an alarm noise or a verbal warning, such as a repeating notification that "the door to the pool is open."
5. A self-closing, self-latching device with a release mechanism placed no lower than 54 inches (1372 mm) above the floor on the private single-family home's doors providing direct access to the swimming pool or spa.
6. An alarm that, when placed in a swimming pool or spa will sound upon detection of accidental or unauthorized entrance into the water. The alarm shall meet and be independently certified to the ASTM Standard F2208 "Standard Safety Specification for Residential Pool Alarms," which includes surface motion, pressure, sonar, laser and infrared type alarms. A swimming protection alarm feature designed for individual use, including an alarm directed to a child that sounds when the child exceeds a certain distance or becomes submerged in water, is not a qualifying drowning prevention safety feature.
7. Other means of protection, if the degree of protection afforded is equal to or greater than that afforded by any of the features set forth above and has been independently verified by an approved testing laboratory as meeting standards for those features established by the ASTM or the American Society of Mechanical Engineers (ASME).

(b) Before the issuance of a final approval for the completion of permitted construction or remodeling work, the local building code official shall inspect the drowning safety prevention features required by this section and, if no violations are found, shall give final approval.

PROJECT LOCATION:
4850 GASTMAN WAY,
FAIR OAKS, CA 95628
APN: 242-0440-016

**(N) 737 SF DETACHED ADU
2 BEDROOM
2 BATHROOM**

NEW ADU ADDRESS:
4854 GASTMAN WAY

**(N) 400A SINGLE METER
MAIN SERVICE PANEL
GC TO COORD
W/ SMUD AND FEED
THE ADU W/ A 125A SUB**

**(E) DRIVEWAY
(CONCRETE)**

(E) POOL

**(E) POOL GATE
PER CRC AV100.2 (4) &
AV100.2(6)**

(E) POOL FENCE

(E) PAVERS

**(E) TREES SHOWN
FOR REFERENCE**

(E) 160.00' PROPERTY LINE

(E) 89.00' PROPERTY LINE

(E) GAS METER

**(E) EXTERIOR WALL
BELOW SHOWN DASHED**

**EXISTING MAIN DWELLING
WATER SUPPLY**

**BACK FLOW DEVICE
INSTALLED PER FOWD
DETAIL #21**

(E) 1" WATER METER

**(N) 1-1/4" WATER LINE TO
ADU AND MAIN HOUSE**

**(N) ELEC CONDUIT TO
DETACHED ADU**

(E) SEWER CLEANOUT, VIF

**(N) 4" ABS SEWER LINE
IN TRENCH
TO (E) CLEANOUT
& 4" SEWER LINE TO
CITY SEWER PER CPC
TABLE 703.2**

(N) 2-WAY CLEANOUT

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NOTES:

1. THE BACKFLOW DEVICES ALLOWN WITHIN FOWD MUST INDICATE LEAD-FREE AND SHALL BE APPROVED BY FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH OF THE UNIVERSITY OF SOUTHERN CALIFORNIA AND SHALL BE IN THE MOST RECENT LIST OF THE APPROVED ASSEMBLIES.
2. THE SIZE AND TYPE OF THE REDUCED PRESSURE PRINCIPLE ASSEMBLY BACKFLOW DEVICE (RPPA) SHALL BE APPROVED BY FAIR OAKS WATER DISTRICT AND SHALL BE NOTED ON THE CONSTRUCTION PLANS.
3. THE BACKFLOW ASSEMBLY SHALL BE INSTALLED AS CLOSE AS PRACTICAL TO THE METER BOX. NO TEES OR OTHER TYPE FITTINGS ARE ALLOWED BETWEEN METER BOX AND BACKFLOW DEVICE.
4. 3" CONCRETE SLAB - 18" WIDE WITH VARYING LENGTH. EXTEND CONCRETE 6" BEYOND PIPE RISERS (SEE BELOW)
5. FAIR OAKS WATER DISTRICT RECOMMENDS INSTALLATION OF STRAINER UPSTREAM FROM THE BACKFLOW DEVICE. THE SIZE AND TYPE OF THE STRAINER SHALL BE PER MANUFACTURER SPECIFICATIONS.
6. INSTALLATION OF SECURITY ENCLOSURE IS RECOMMENDED IN LOCATIONS SUBJECT TO INCIDENTAL DAMAGE BUT NOT REQUIRED.
7. FAIR OAKS WATER DISTRICT RECOMMENDS INSTALLATION OF RIGID (TYPE L) COPPER PIPE OR BRASS PIPE AND FITTINGS FROM POC AT METER SETTER THROUGH DOWNSTREAM RISING OR BACKFLOW DEVICE.

PLAN VIEW

NOTE 3

NO CONNECTIONS ALLOWED-5' MAX.

OWNED/MAINTAINED BY FOWD

OWNER/DEVELOPER INSTALLED AND MAINTAINED

BACKFLOW PREVENTION DEVICE

1

7

7

12" MIN.

36" MAX.

3" CONC.

6" (TYP)

VARIES

7

INSTALLATION NOTE:

ALL BACKFLOW DEVICES ARE NOW REQUIRED TO BE (LEAD-FREE) AND IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY DEVICE IS LEAD-FREE PRIOR TO INSTALLATION.

BACK OF SIDEWALK

TYPICAL METER INSTALLATION

TO MAIN

TYPICAL METER INSTALLATION

CONTRACTOR NOTE:

INSTALLATION OF AN INSULATED PROTECTIVE COVER IS RECOMMENDED IN AREAS SUBJECT TO FREEZING.

Fair Oaks Water District

10326 FAIR OAKS BLVD, FAIR OAKS, CA 95628-7187
 OFFICE (916) 967-5723, FAX (916) 967-0153
 WEBSITE: WWW.FOWD.COM

REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY FOR 1" - 2" METERS

APPROVED: M. HENNINGSEN
 DRAWING BY: T. ESCOBAR
 DESIGNER: STD-21
 REVISED: JAN-2014
 SCALE: N/A

Standard Specifications

FAIR OAKS
 WATER DISTRICT

Standard Drawing # 21

PROJECT INFO:

NEW ADU















ADDRESS:

4850 Gastman Way,
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APN: 242-0440-016

[illegible]

PERMIT SET	
DRAWING TITLE:	PROPOSED SITE PLAN
DATE:	08.27.2024
DRAWN BY:	MJH
SCALE:	AS SHOWN
SHEET #:	

A0.3

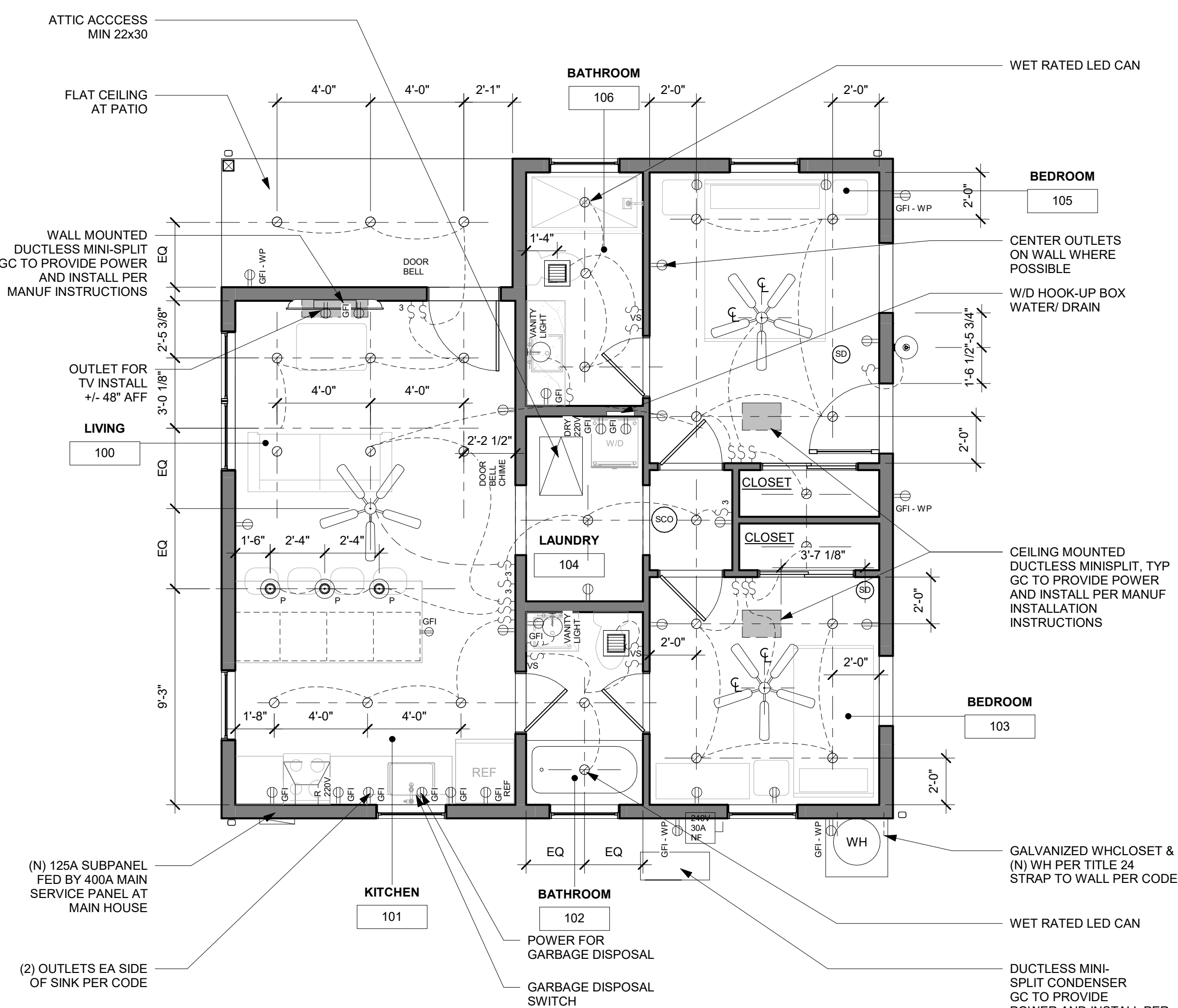
LIGHTING LEGEND	
	P LED PENDANT LIGHT FIXTURE
	SURFACE MOUNTED LED FIXTURE
	LED RECESSED 5" CAN LIGHT
	LED RECESSED STRIPPED LIGHT UNDER CABINET
	WALL MOUNTED LED LIGHT FIXTURE
	HARDWIRED SMOKE AND CO DETECTOR
	S SINGLE POLE SWITCH W/ DIMMER +44" AFF TYP. U.O.N.
	Y3 3-WAY SWITCH W/ DIMMER + 44" AFF TYP UON
	DUPLEX CONVENIENCE RECEPTACLE GFI +12" AFF TYP UON
	240V DUPLEX CONVENIENCE RECEPTACLE GFI AT DRYER +12" AFF TYP UON
	220V DUPLEX CONVENIENCE RECEPTACLE GFI AT RANGE +12" AFF TYP UON
	ENERGY STAR RATED FAN W/ SEPARATE SWITCH, HUMIDITY SENSOR & 110 CFM
	30A FUSED DISCONNECT
	30A NON-FUSED DISCONNECT

ELECTRICAL NOTES

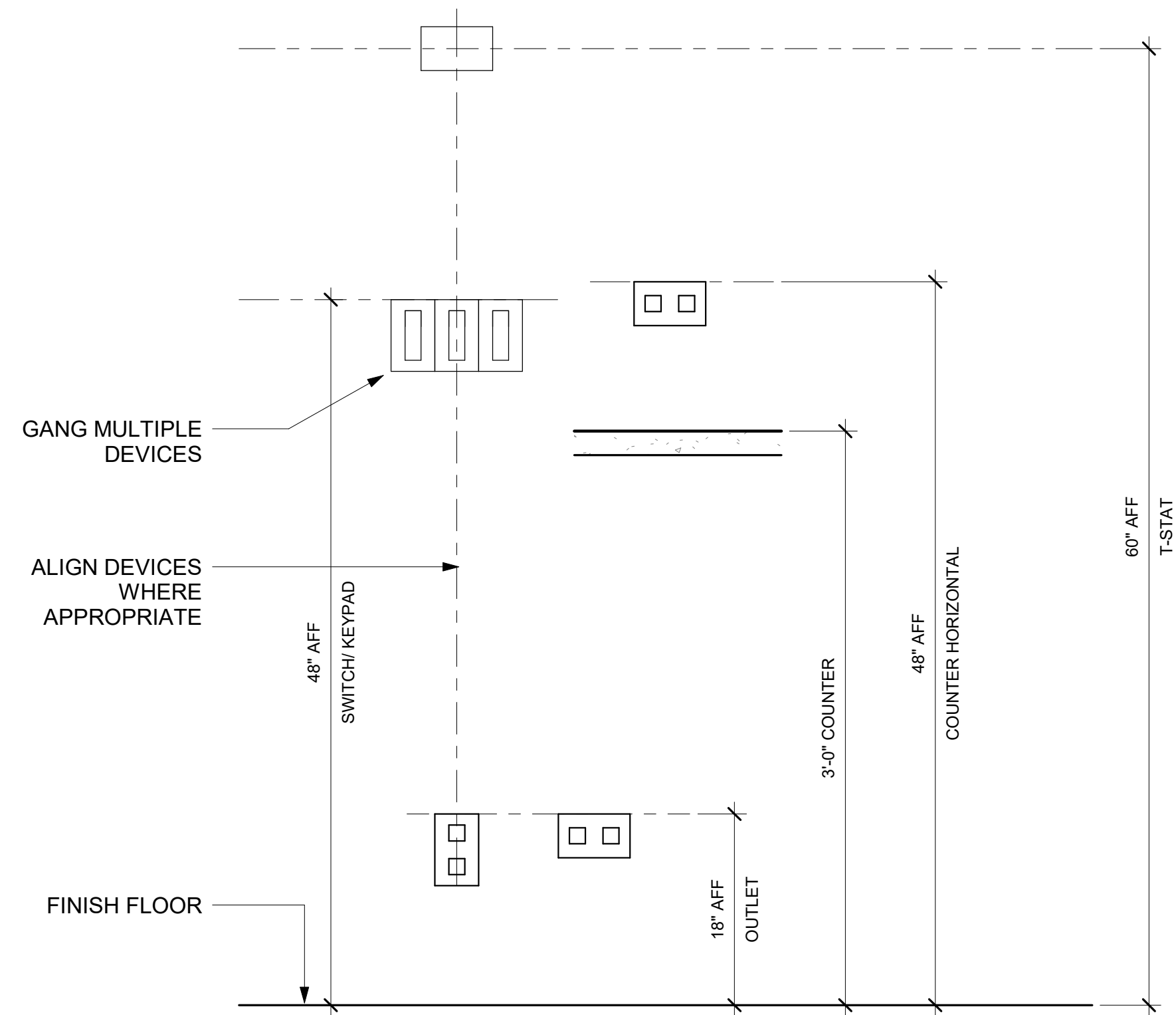
1. ALL SWITCHES TO BE DIMMABLE WITH ON/OFF FUNCTION U.O.N.
2. RECESSED LUMINAIRES TO BE ASTM E283 CERTIFIED AND IC RATED.
3. BATHROOM LIGHT FIXTURES TO BE ON VACANCY SENSOR, PER CODE
4. ALL LIGHT FIXTURES TO BE HIGH EFFICACY
5. ELECTRICAL CONVENIENCE OUTLETS SHALL BE LOCATED AT 12' MAX. APART, AND NO MORE THAN 6'-0" FROM THE EDGE OF ANY WALL SURFACE.
6. ALL INTERIOR SPACES INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH SPACE HEATING PER CBC 1204.1
7. LIGHTING PER CEC 150.0(K) AND CEC TABLE 150.0-A
8. AT LEAST ONE LUMINAIRE IN EACH OF THESE SPACES IS TO BE CONTROLLED BY A VACANCY SENSOR IN ADDITION TO HAVING ALL OF THE LIGHTS IN THESE SPACES TO BE HIGH EFFICACY. CA ENERGY CODE SEC. 150.0(K)2J
9. OUTDOOR LIGHTING IS TO BE HIGH EFFICACY THAT IS CONTROLLED BY AN ON AND OFF SWITCH IN ADDITION TO ONE OF THE FOLLOWING PER CA ENERGY CODE SEC. 150.0(K)3A:
 - a. PHOTOCONTROL AND MOTION SENSOR
 - b. PHOTOCONTROL AND AUTOMATIC TIME SWITCH CONTROL
 - c. ASTRONOMICAL TIME SWITCH CONTROL
 - d. ENERGY MANAGEMENT CONTROL SYSTEM
10. NEW ELECTRICAL RECEPTACLES TO BE TAMPER RESISTANT. CEC ARTICLE 406.12 E2. PLEASE INDICATE THAT ALL BRANCH CIRCUITS SUPPLYING OUTLETS OR DEVICES INSTALLED IN KITCHENS, FAMILIAR ROOMS, DINING ROOMS, LIVING ROOMS, BEDROOMS, LAUNDRY ROOMS, CLOSETS, HALLWAYS, AND SIMILAR ROOMS/SPACES SHALL HAVE A LISTED COMBINATION-TYPE ARC-FAULT CIRCUIT INTERRUPTER (AFCI). CEC ARTICLE 210.12
11. PROVIDE A MINIMUM OF (2) 20 AMP DEDICATED BRANCH CIRCUITS FOR THE KITCHEN. CEC ART. 210.11(C)(1)
12. PROVIDE ONE 20 AMP DEDICATED BRANCH CIRCUITS TO SUPPLY THE LAUNDRY RECEPTACLE OUTLET(S). THIS CIRCUIT SHALL HAVE NO OTHER OUTLETS CEC ART. 210.11(C)(2)
13. AT LEAST ONE 20-AMPERE BRANCH CIRCUIT SHALL BE PROVIDED TO SUPPLY BATHROOM RECEPTACLE OUTLET(S) AND SUCH CIRCUITS SHALL HAVE NO OTHER OUTLETS. CEC ARTICLE 210.11(C)(3)
14. LAUNDRY RECEPTACLE OUTLET TO BE SUPPLIED BY A DEDICATED 20 AMP BRANCH CIRCUIT PER CEC 210.11(C)(2)
15. PROVIDE A 30 AMP CIRCUIT FOR THE ELECTRIC CLOTHES DRYER. CEC 220.54
16. RECEPTACLES MUST BE INSTALLED AT 12 FOOT ON CENTER MAXIMUM IN WALLS. WALLS LONGER THAN 2 FEET AND HALLS LONGER THAN 10 FEET MUST HAVE A RECEPTACLE. A RECEPTACLE MUST BE PROVIDED WITHIN 3 FEET OF BATHROOM SINKS CEC 210.52
17. SMOKE ALARMS SHALL BE LISTED AS COMPLYING W/ UL 217 & BE INSTALLED AND MAINTAINED IN ACCORDANCE W/ NFPA 720 & THE MANUFACTURER'S INSTRUCTIONS
18. GC TO COORDINATE ALL OUTLET AND SWITCH LOCATION W/ THE OWNER

SMOKE & CARBON MONOXIDE DETECTOR NOTES:

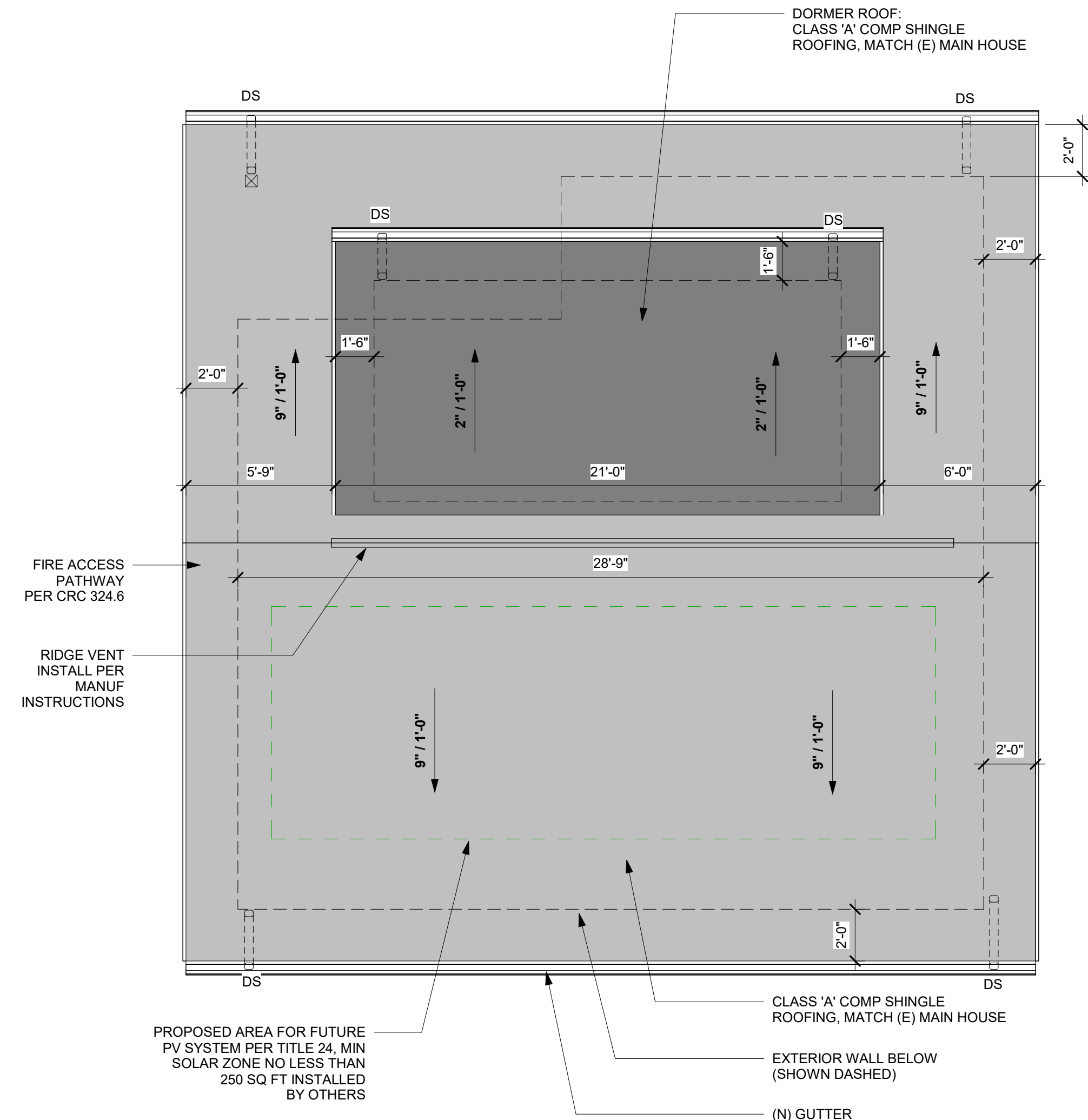
1. ALL SMOKE DETECTORS AND CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED IN A MANNER THAT ACTIVATION OF ONE ALARM SHALL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT PER 2022 CRC. BATTERY OPERATED SMOKE DETECTORS ARE PERMITTED FOR RETROFITTING IN EXISTING CONSTRUCTION.
2. SMOKE ALARMS SHALL NOT BE INSTALLED WITHIN A 36" HORIZONTAL PATH FROM THE SUPPLY REGISTERS OF A FORCED AIR HEATING OR COOLING SYSTEM AND SHALL BE INSTALLED OUTSIDE OF THE DIRECT AIRFLOW FROM THOSE REGISTERS.
3. SMOKE ALARMS SHALL NOT BE INSTALLED WITHIN A 36" HORIZONTAL PATH FROM THE TIP OF THE BLADE OF A CEILING-SUSPENDED FAN.
4. SMOKE ALARMS & CARBON MONOXIDE ALARMS ARE HARDWIRED AND INTERCONNECTED.
5. CARBON MONOXIDE ALARMS SHALL BE LISTED AS COMPLYING WITH THE REQUIREMENTS OF UL 2034. CARBON MONOXIDE DETECTORS SHALL BE LISTED AS COMPLYING WITH THE REQUIREMENTS OF UL 2075.
6. SMOKE ALARMS SHALL BE PERMANENTLY WIRED WITH A BATTERY BACKUP AND SHALL BE LOCATED IN EACH BEDROOM, OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS AND ON EACH ADDITIONAL STORY OF THE DWELLING. SMOKE ALARMS SHALL BE INTERCONNECTED.
7. CARBON MONOXIDE ALARMS SHALL BE LOCATED OUTSIDE OF EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOM(S) AND ON EVERY LEVEL OF THE DWELLING.
8. INSTANTANEOUS WATER HEATERS SHALL HAVE ISOLATION VALVES ON BOTH THE COLD-WATER SUPPLY AND THE HOT-WATER PIPE LEAVING THE WATER HEATER, AND HOSE BIBS OR OTHER FITTINGS ON EACH VALVE FOR FLUSHING THE WATER HEATER.



1 LIGHTING PLAN



3 OUTLET LEGEND



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

ROOF VENT CALCULATION:
ATTIC AREA: 731 SF
TOTAL NET FREE VENTILATING AREA: $731/300= 2.4$ SF
ATTIC REQUIRED VENT AREA: 2.4 NFVA (SF)
VENT TYPE: GAF MASTER FLOW™ RIDGE VENT OR SIM GAF MASTER FLOW RIDGE VENT, N.F.A. = 21 SQ. IN./ LINEAR FT = 0.149 S.F $20 \text{ LINEAR FT} \times 0.149 \times 20 \text{ LF} = 2.9$
2.9 > 2.4 VENT AREA PROVIDED IS GREATER THAN REQUIRED
NOTES:
1. FOR INFO NOT NOTED SEE A2.1
4. ALL NEW CEILINGS EXPOSED TO UNCONDITIONED SPACE SHALL BE INSULATED WITH MIN R-30 INSULATION.
3. OPENINGS FOR ALL VENTS SHALL BE COVERED WITH CORROSION RESISTANT METAL MESH WITH 1/4" OPENING DIMENSIONS
4. ATTIC VENTILATION: 1/150 OF ATTIC AREA, IF 40 PERCENT TO 50 PERCENT OF THE VENTS ARE NO MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE ROOF AREA; THEN THE RATIO MAY BE REDUCED TO 1/300. (CRC R806.2) UNVENTED ATTICS MAY BE ALLOWED IF MEETING THE REQUIREMENTS OF CRC R806.5.
5. DOWNSPOUTS MAY DRAIN TO SPLASH BLOCKS, COBBLESTONES, OR SWALES THAT DIRECT WATER AWAY FROM THE BUILDING.
8. ROOF CONSTRUCTION AND COVERING SHALL COMPLY WITH R905 AND LOCAL ORDINANCE. ALL ROOFING SHALL BE OF CLASS A FIRE RESISTIVE MATERIAL, SUPPORTED BY SOLID SHEATHING.

SIGNATURE:



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Redwood ADU

Built in California



PERMIT SET

DRAWING TITLE:

LIGHTING AND ROOF PLAN

DATE: 08.27.2024

DRAWN BY: MJH

SCALE: **AS SHOWN**

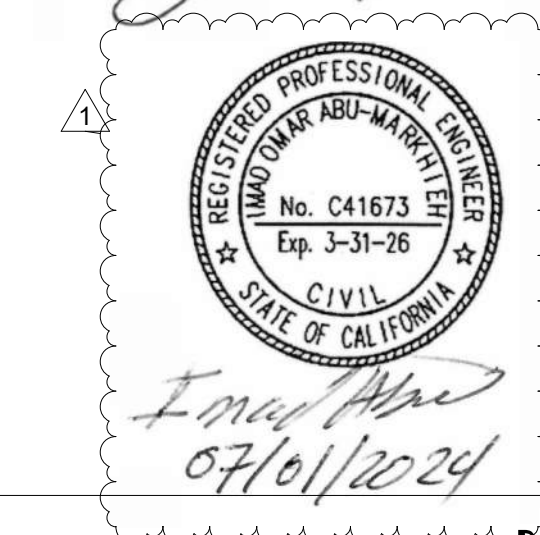
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P2 - 2-2x or 4x TRIMMER POST. FOR EXTERIOR POSTS USE PT. 4x4 POST W/SIMPSON CAP AND BASE TO SUIT.

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[illegible]

PERMIT SET

DRAWING TITLE:

FOUNDATION AND ROOF FRAMING

DATE: 08.27.2024

DRAWN BY: MJH

SCALE: AS SHOWN

SHEET #:

A2.3



(N) ADU ADDRESS NUMBERS (NUMBERS ASSUMED) ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS. NUMBERS SHALL BE A MINIMUM OF 4 INCHES HIGH WITH A MINIMUM STROKE WIDTH OF ½ INCH. NUMBERS SHALL NOT BE SPELLED OUT. THESE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESSING SHALL BE ILLUMINATED AT NIGHT IN ALL NEW BUILDINGS. ADDRESS SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED BY ANY MEANS OR ON THE FACE OF A SIGN IS FROM AN EXTERNAL SOURCE, IT SHALL HAVE AN INTENSITY OF NOT LESS THAN 5.0 FOOTCANDLES. INTERNALLY ILLUMINATED SIGNS SHALL PROVIDE EQUIVALENT LUMINANCE.

[R319.1 & 15.20.030 CITY OF SAC AMENDMENT]



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APN: 242-0440-016

[illegible]

PERMIT SET

DRAWING TITLE:

EXTERIOR ELEVATIONS

DATE: 08.27.2024

DRAWN BY: MJH

SCALE: **AS SHOWN**

SHEET #:

A4.0



Redwood
ADU
Built in California



PROJECT INFO:

NEW ADU

ADDRESS:
4850 Gastman Way,
Fair Oaks, CA 95628
APN: 242-0440-016

PERMIT SET

DRAWING TITLE:

SECTIONS

DATE: 08.27.2024

DRAWN BY: MJH

SCALE: **AS SHOWN**

SHEET #:

A5.0

WINDOW SHEDULE														
TYPE	OPERATION	MFG	Model	Width	Height	Head Height	SHGC (MAX)	HEAT TRANSFER COEFFICIENT (U MAX)	HARDWARE	FINISH	SCREEN	EGRESS	TEMPERED	NOTES
01	SINGLE HUNG	MILGARD	TBD	3' - 0"	4' - 0"	6' - 10"	0.23	0.3000 BTU/(h·ft²·°F)				Yes		
01	SINGLE HUNG	MILGARD	TBD	3' - 0"	4' - 0"	6' - 10"	0.23	0.3000 BTU/(h·ft²·°F)				Yes		
01	SINGLE HUNG	MILGARD	TBD	3' - 0"	4' - 0"	6' - 10"	0.23	0.3000 BTU/(h·ft²·°F)				Yes		
01	SINGLE HUNG	MILGARD	TBD	3' - 0"	4' - 0"	5' - 9 1/4"	0.23	0.3000 BTU/(h·ft²·°F)				Yes		
01	SINGLE HUNG	MILGARD	TBD	3' - 0"	4' - 0"	5' - 9 1/4"	0.23	0.3000 BTU/(h·ft²·°F)				Yes		
02	SINGLE HUNG	MILGARD	TBD	3' - 0"	3' - 0"	6' - 10"	0.23	0.3000 BTU/(h·ft²·°F)				Yes		
02	SINGLE HUNG	MILGARD	TBD	3' - 0"	3' - 0"	6' - 10"	0.23	0.3000 BTU/(h·ft²·°F)				Yes		
02	SINGLE HUNG	MILGARD	TBD	3' - 0"	3' - 0"	6' - 10"	0.23	0.3000 BTU/(h·ft²·°F)				Yes		
03	CASEMENT	MILGARD	TBD	3' - 0"	4' - 0"	6' - 10"	0.23	0.3000 BTU/(h·ft²·°F)				Yes		
03	CASEMENT	MILGARD	TBD	3' - 0"	4' - 0"	6' - 10"	0.23	0.3000 BTU/(h·ft²·°F)				Yes		
04	DOUBLE HUNG	MILGARD	TBD	5' - 11 1/2"	4' - 0"	6' - 10"	0.23	0.3000 BTU/(h·ft²·°F)				Yes		
05	AWNING	MILGARD	TBD	3' - 0"	2' - 0"	SEE A5.0	0.23	0.3000 BTU/(h·ft²·°F)						
05	AWNING	MILGARD	TBD	3' - 0"	2' - 0"	SEE A5.0	0.23	0.3000 BTU/(h·ft²·°F)						
05	AWNING	MILGARD	TBD	3' - 0"	2' - 0"	SEE A5.0	0.23	0.3000 BTU/(h·ft²·°F)						

- WINDOW SCHEDULE NOTES
1. DOORS, FLOOR-LEVEL WINDOWS, TRANSOM WINDOWS AND SKYLIGHTS ARE TAGGED IN PLANS

2. ALL GLAZING IN DOORS AND WINDOWS TO MEET THE SAFETY REQUIREMENTS AS LISTED IN CBC SECTION 2406: SAFETY GLAZING

3. VERIFY ALL DIMENSIONS IN FIELD

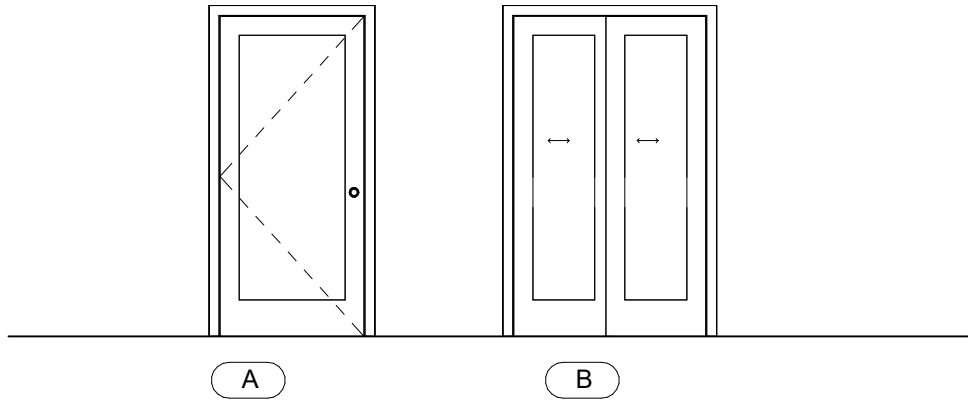
4.SEE TYPICAL WINDOW DETAILS

5. ALL DIMENSIONS ON THIS SCHEDULE ARE TAKEN TO THE "WINDOW DIMENSION POINT"

6. WINDOW SUPPLIER AND GC TO COORDINATE THE ROUGH OPENING TO THE ROUGH FRAMING DIMENSIONS IN THE FIELD

EXTERIOR DOOR SCHEDULE								
MARK	OPERATION	MFG	WIDTH	HEIGHT	GLASS	HARDWAR E	FINISH	COMMENTS
01	SWING	TBD	3' - 0"	6' - 8"				
02	SWING	TBD	3' - 0"	6' - 8"	TEMPERED			

INTERIOR DOOR SCHEDULE										
MARK	TYPE MARK	LOCATION	OPERATION	MFG	WIDTH	HEIGHT	GLASS	HARDWARE	FINISH	COMMENTS
03	A		BY-PASS	TBD	4' - 0"	6' - 8"				
04	A		BY-PASS	TBD	4' - 0"	6' - 8"				
05	B		SWING	TBD	2' - 8"	6' - 8"				
06	B		SWING	TBD	2' - 8"	6' - 8"				
07	J		SWING	TBD	2' - 6"	6' - 8"				
08	J		SWING	TBD	2' - 6"	6' - 8"				
09	J		SWING	TBD	2' - 6"	6' - 8"				



Redwood

ADU

Built in California

SIGNATURE:

PROJECT INFO:

NEW ADU

ADDRESS: 4850 Gastman Way, Fair Oaks, CA 95628
APN: 242-0440-016

NO.	DESCRIPTION	DATE
1	PLAN CHECK COMMENTS	08.27.2024

PERMIT SET

DRAWING TITLE:

SCHEDULES

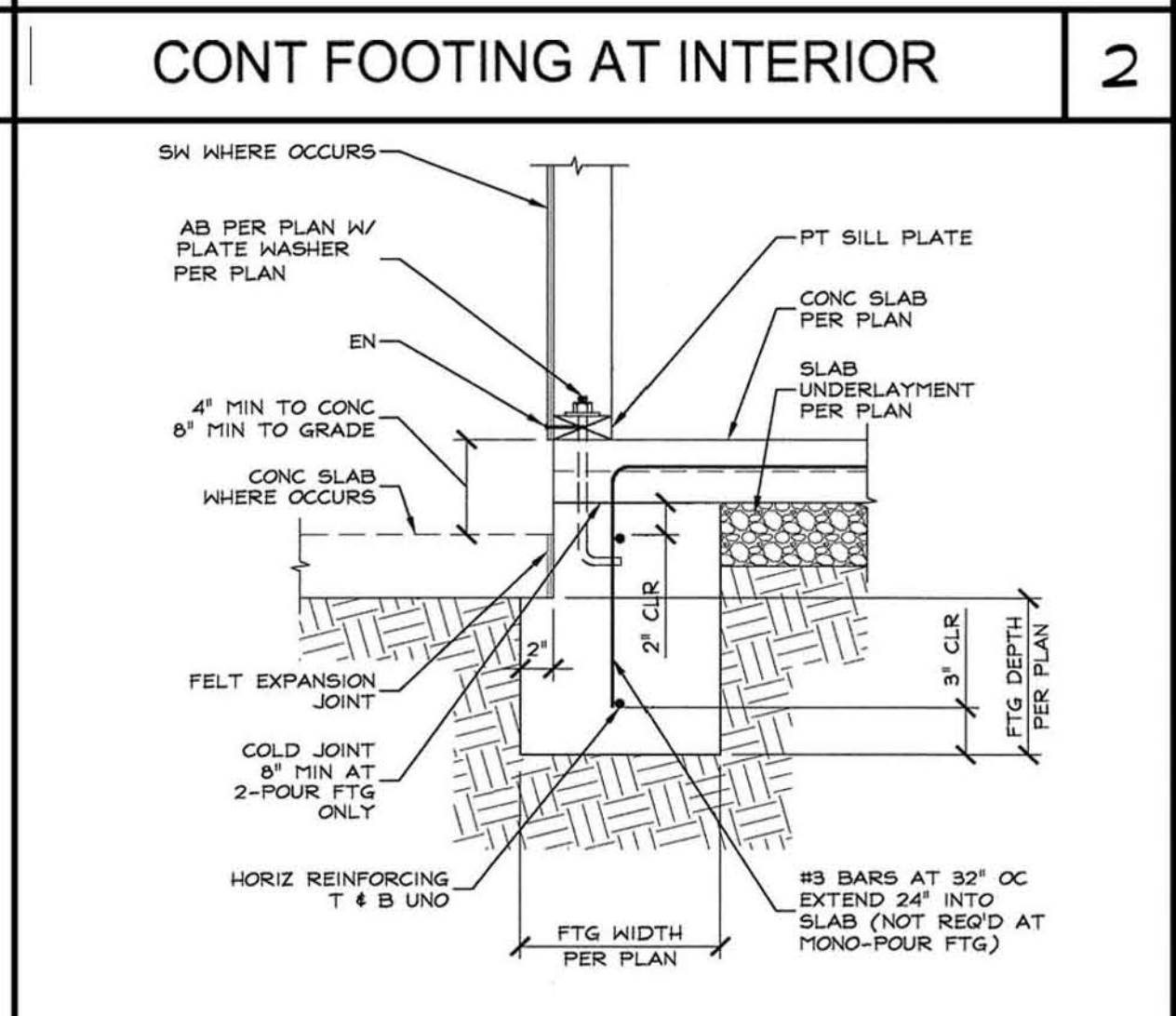
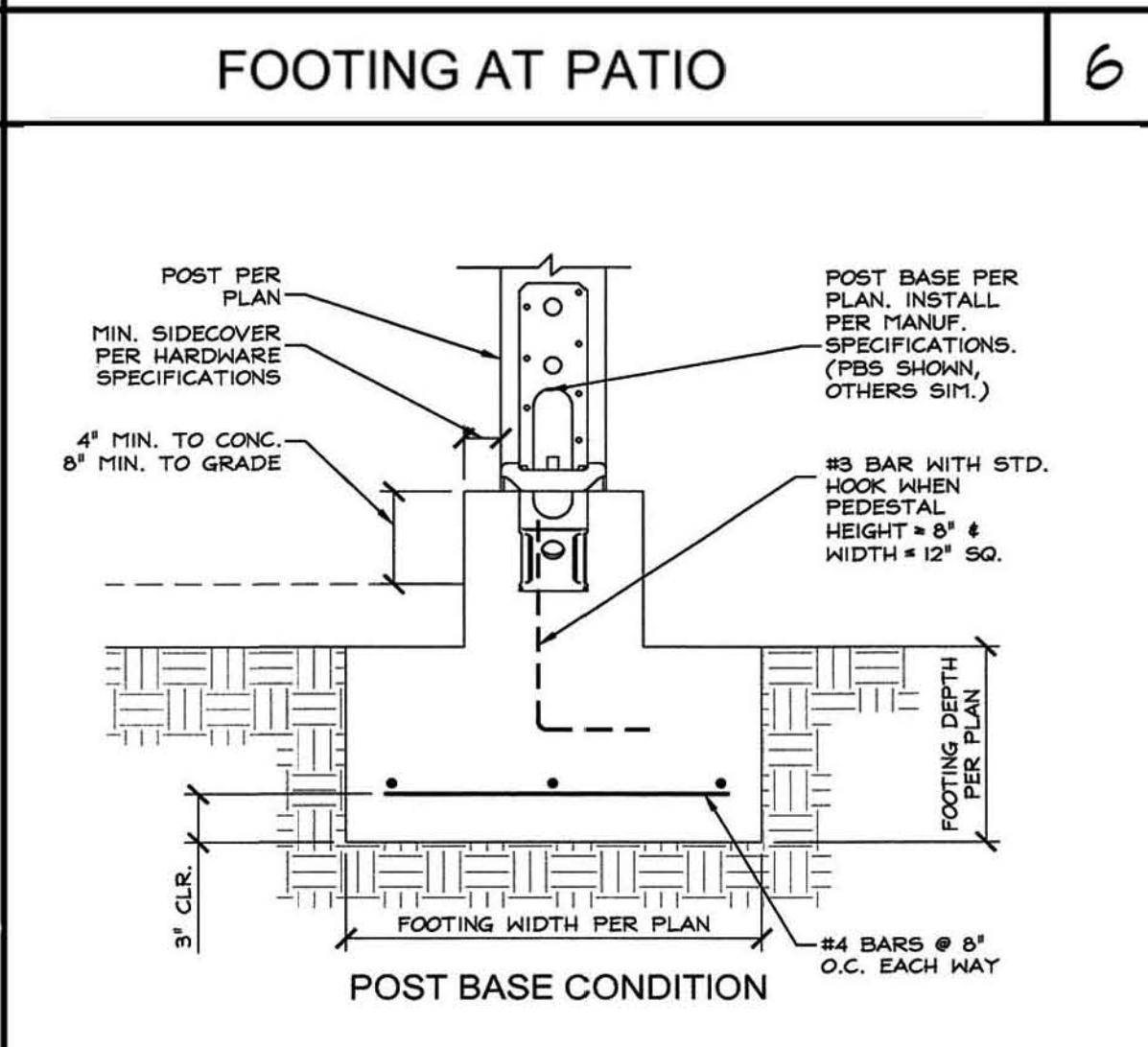
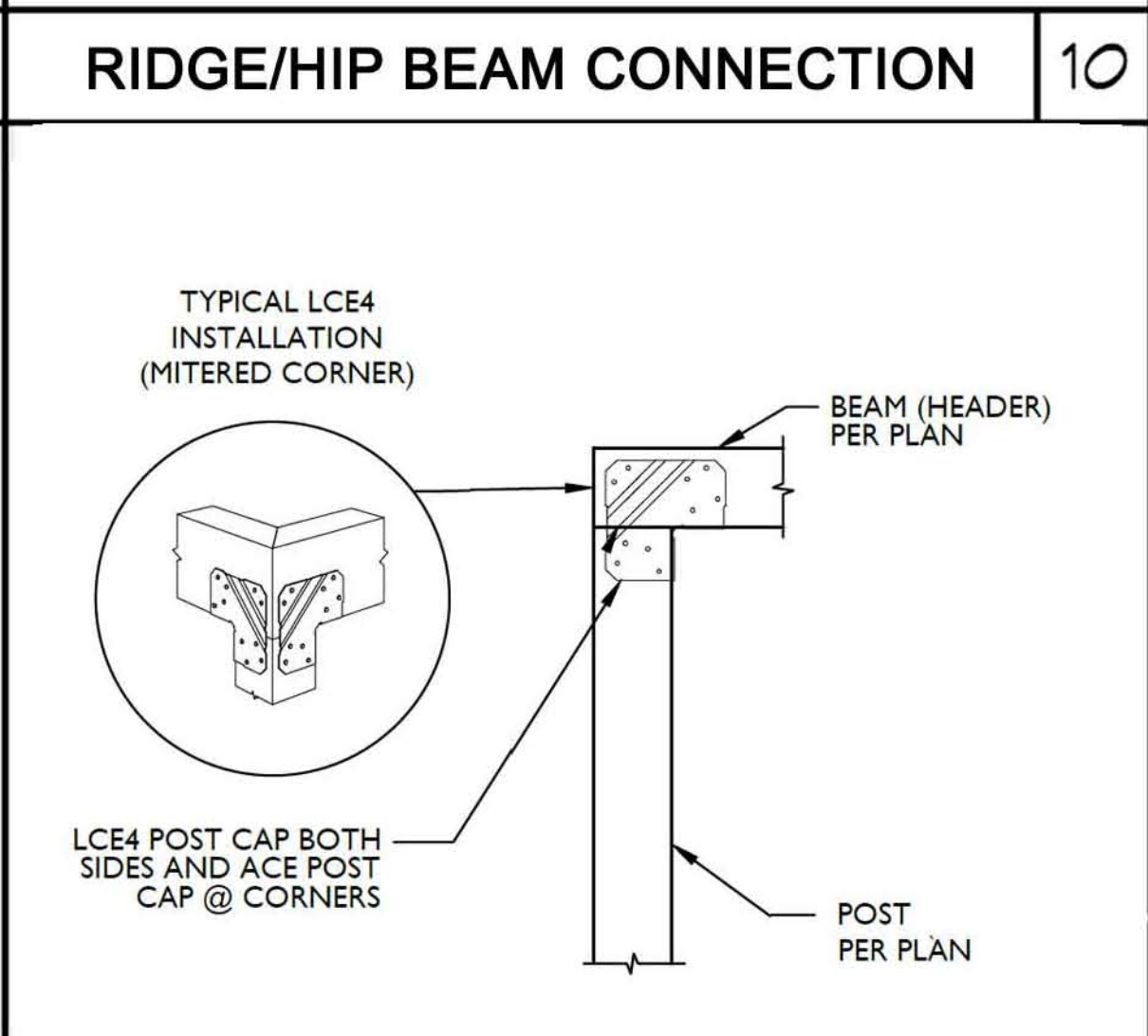
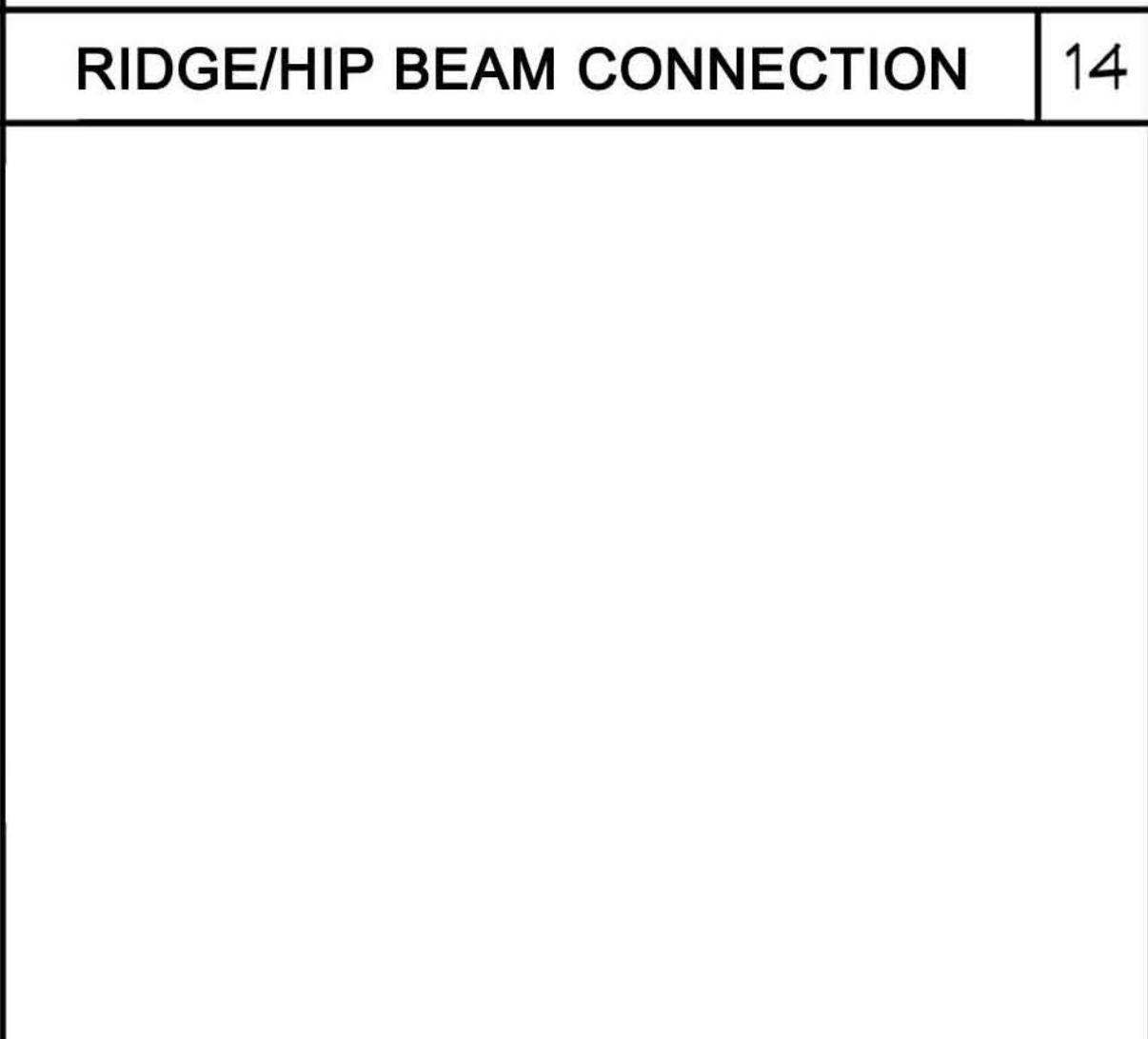
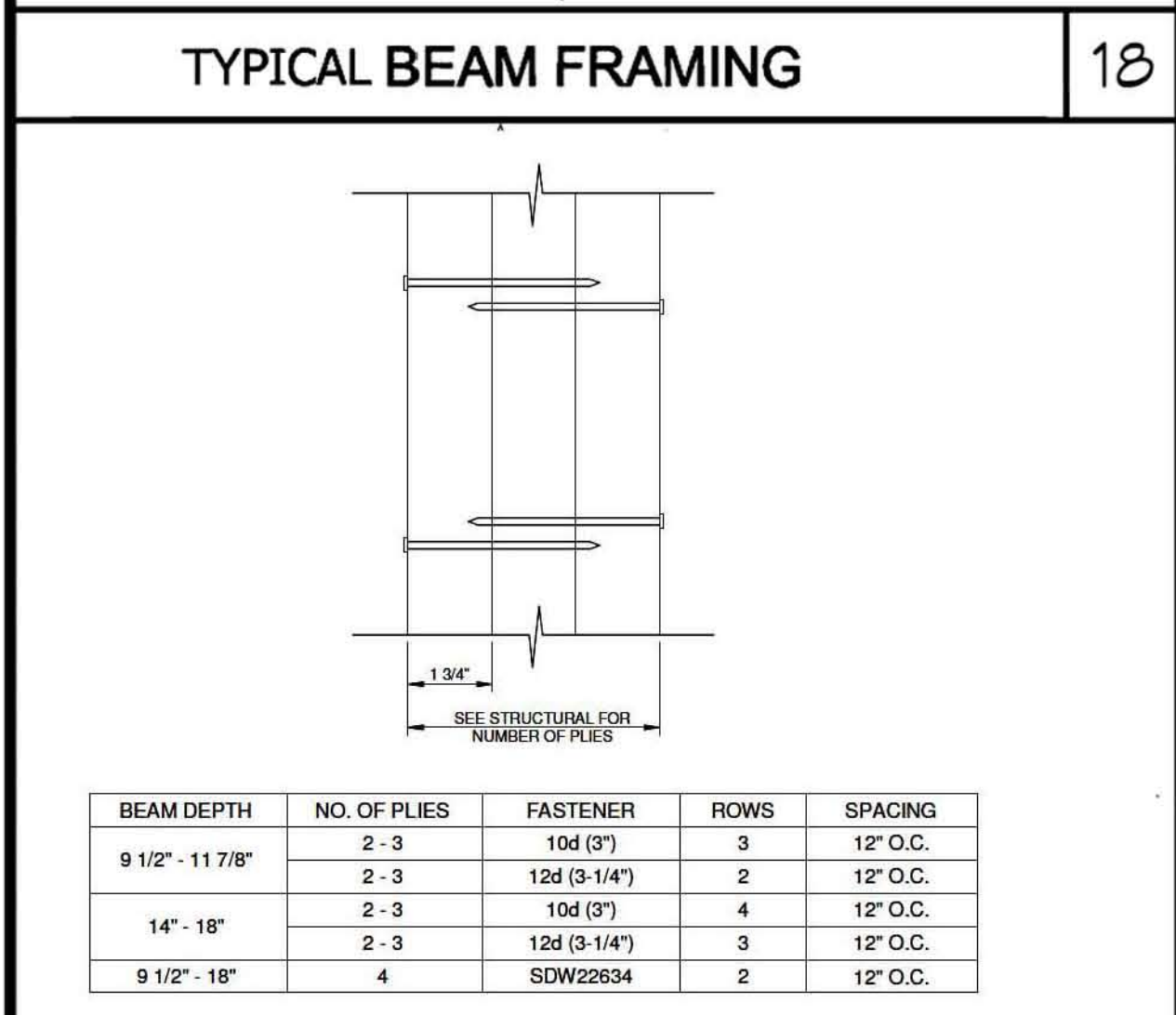
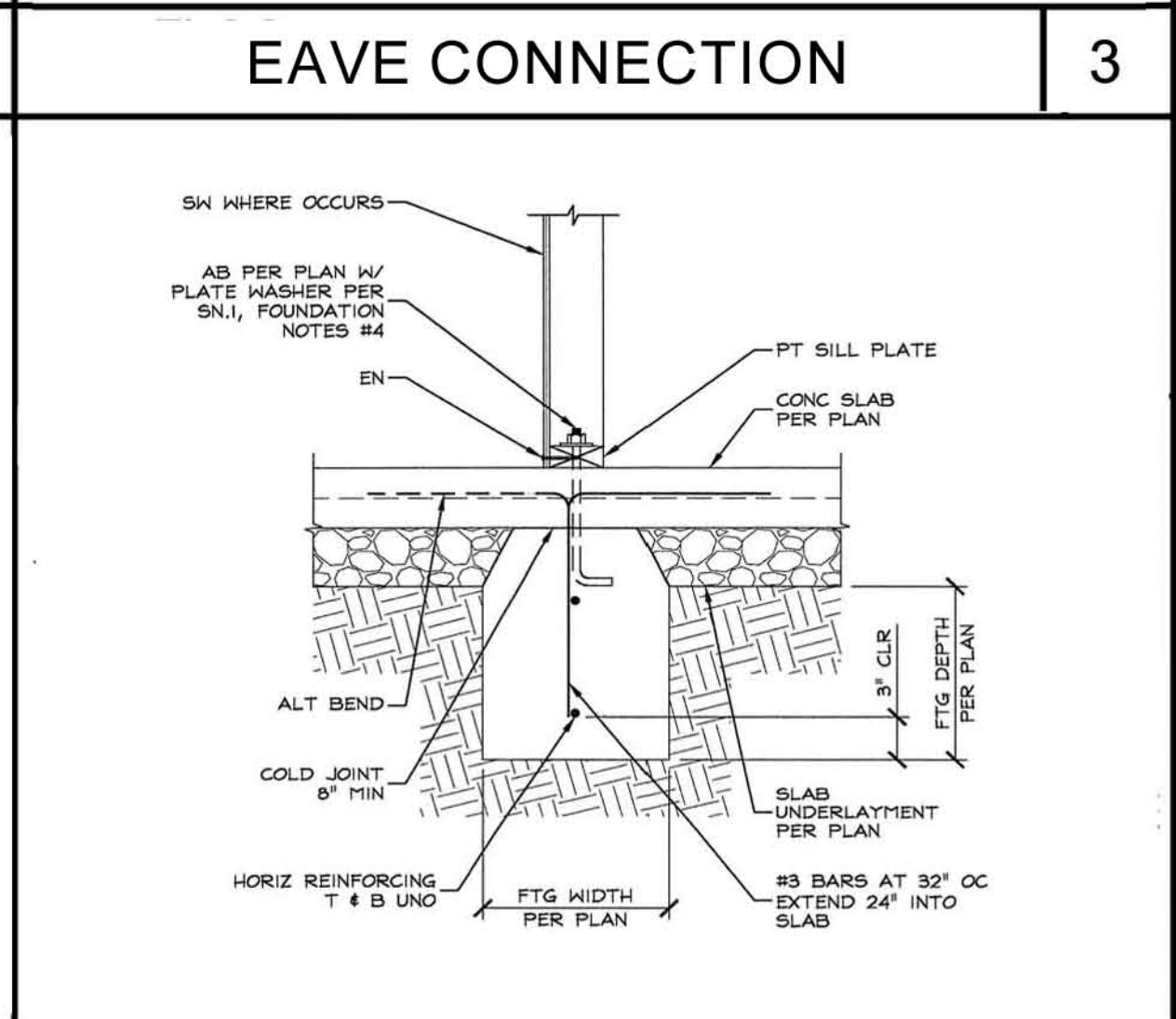
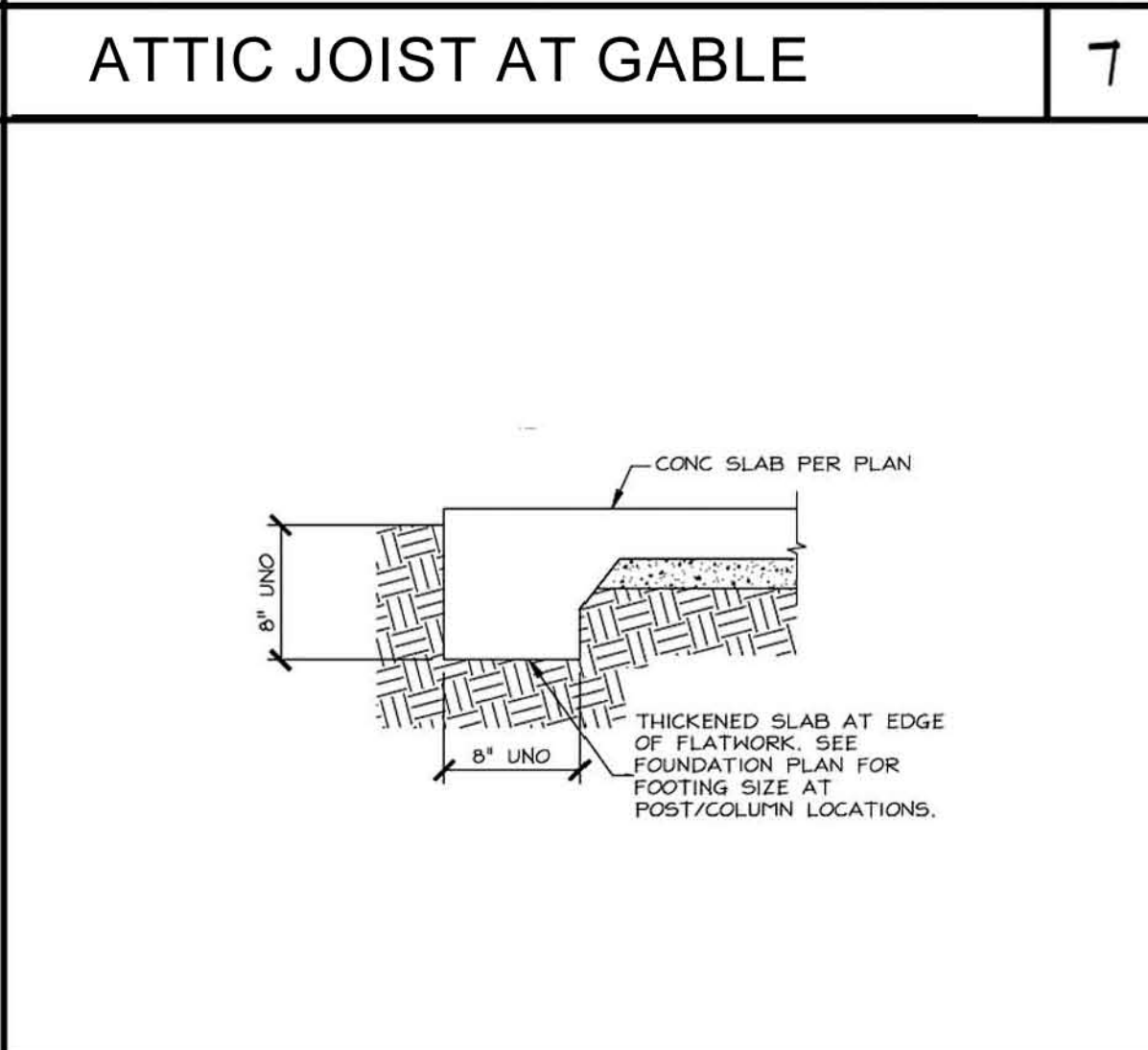
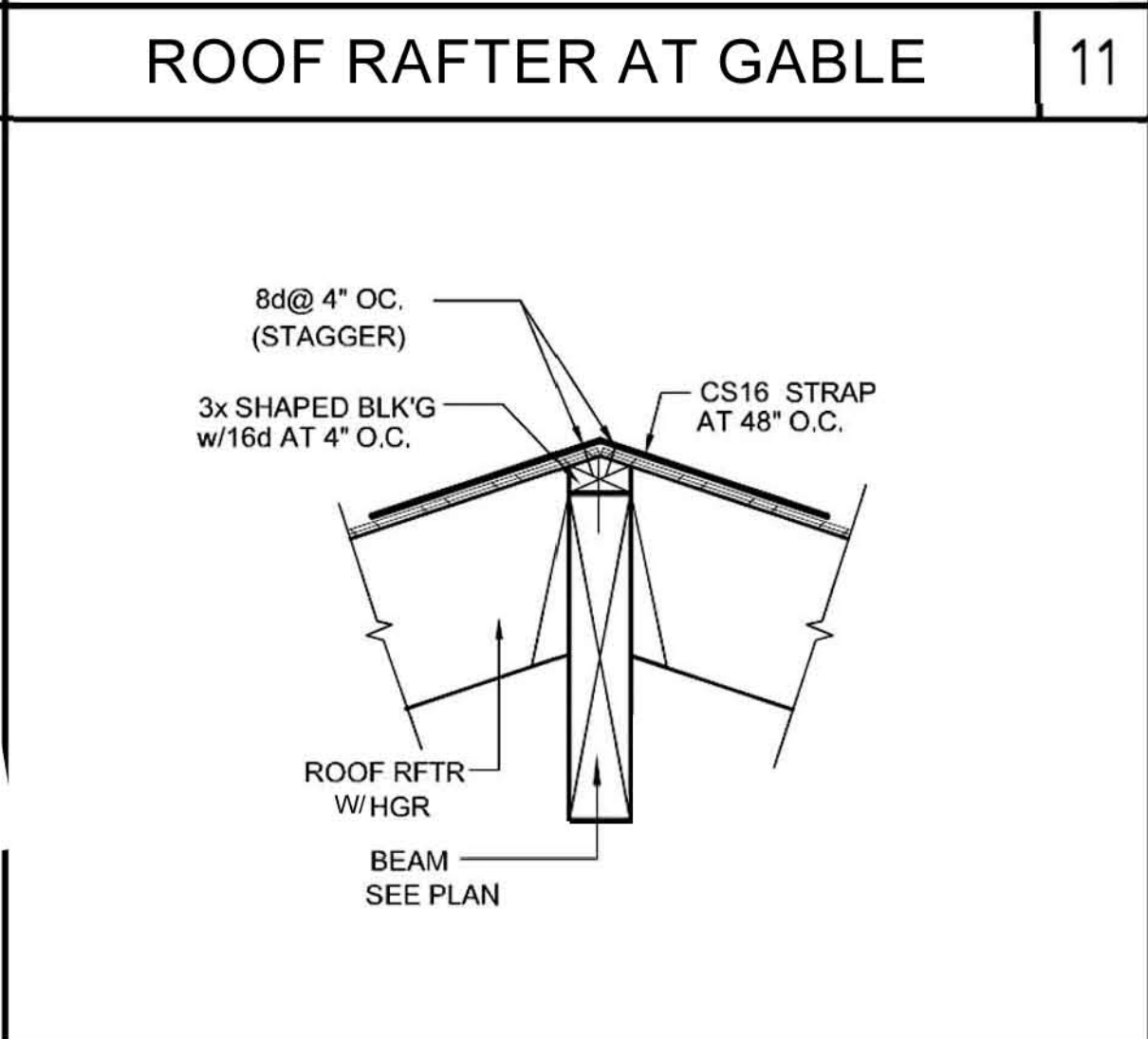
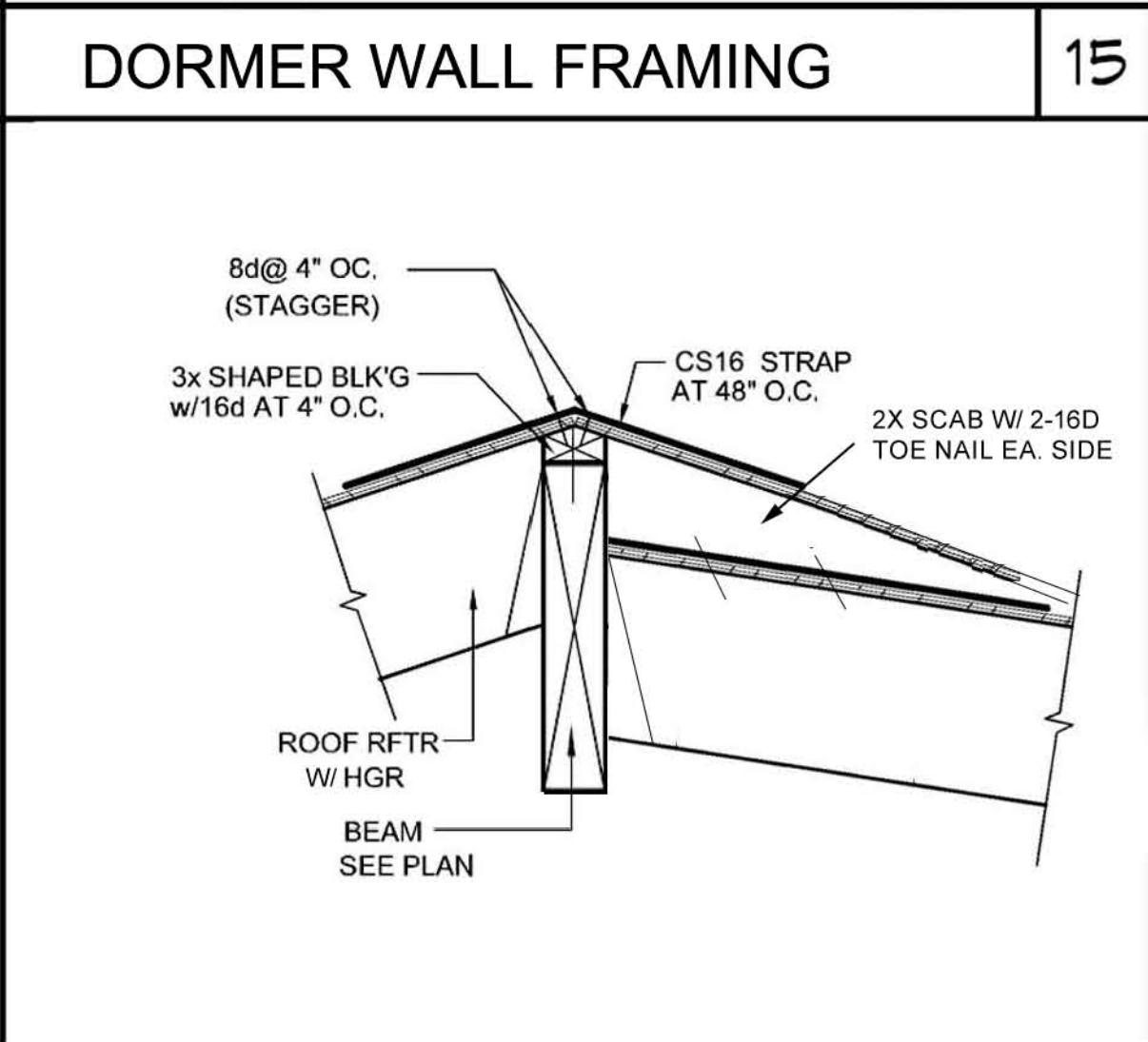
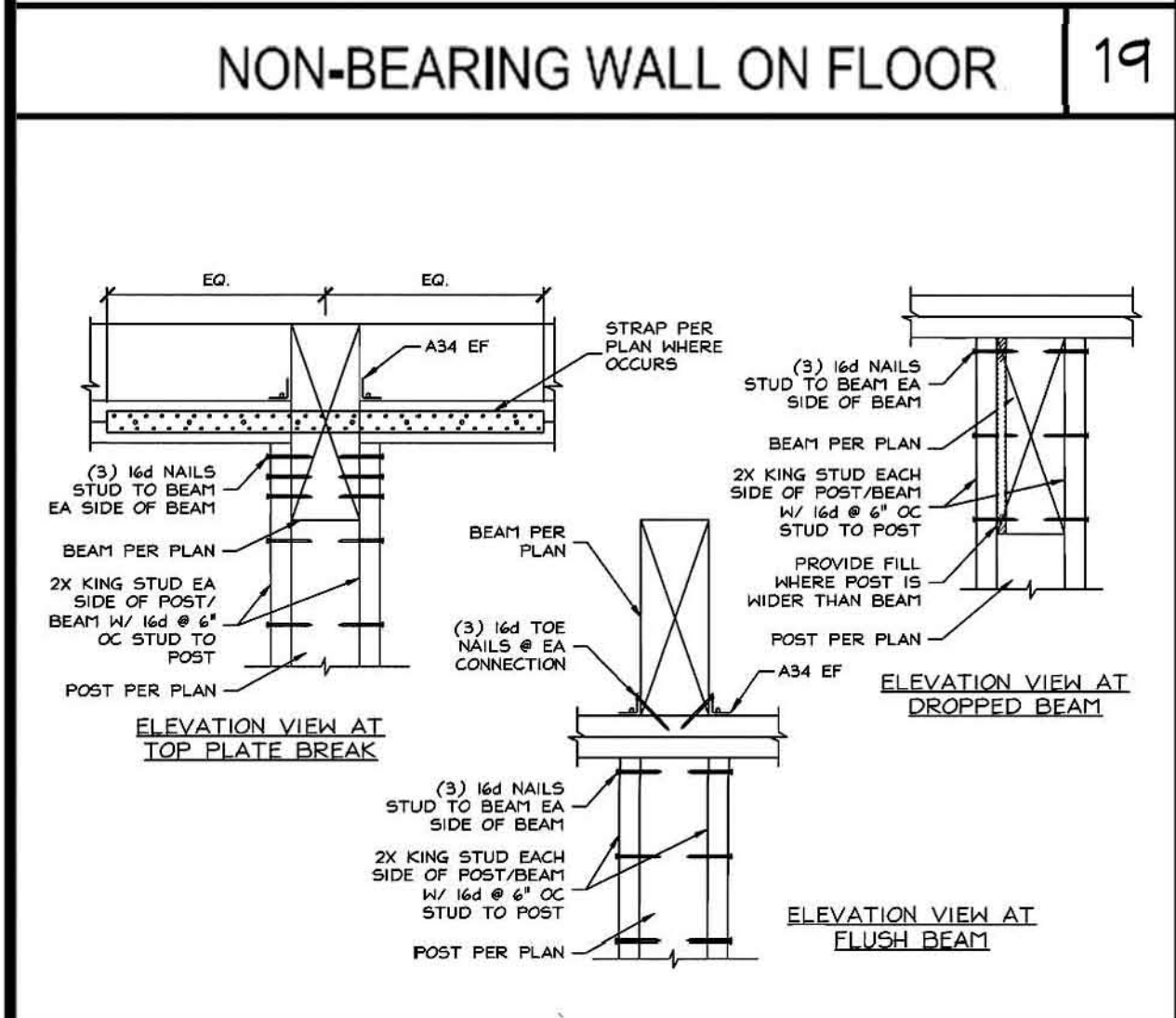
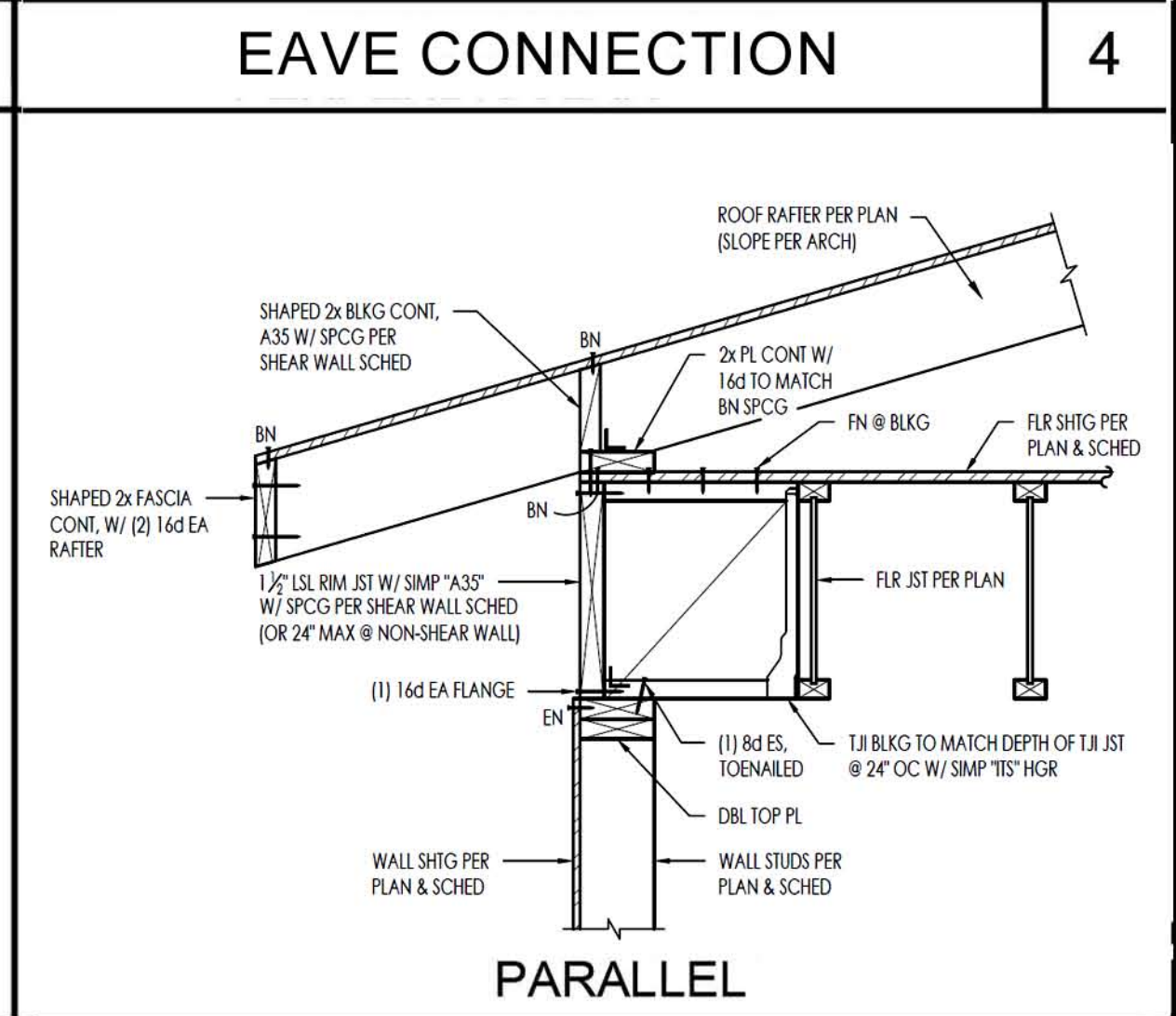
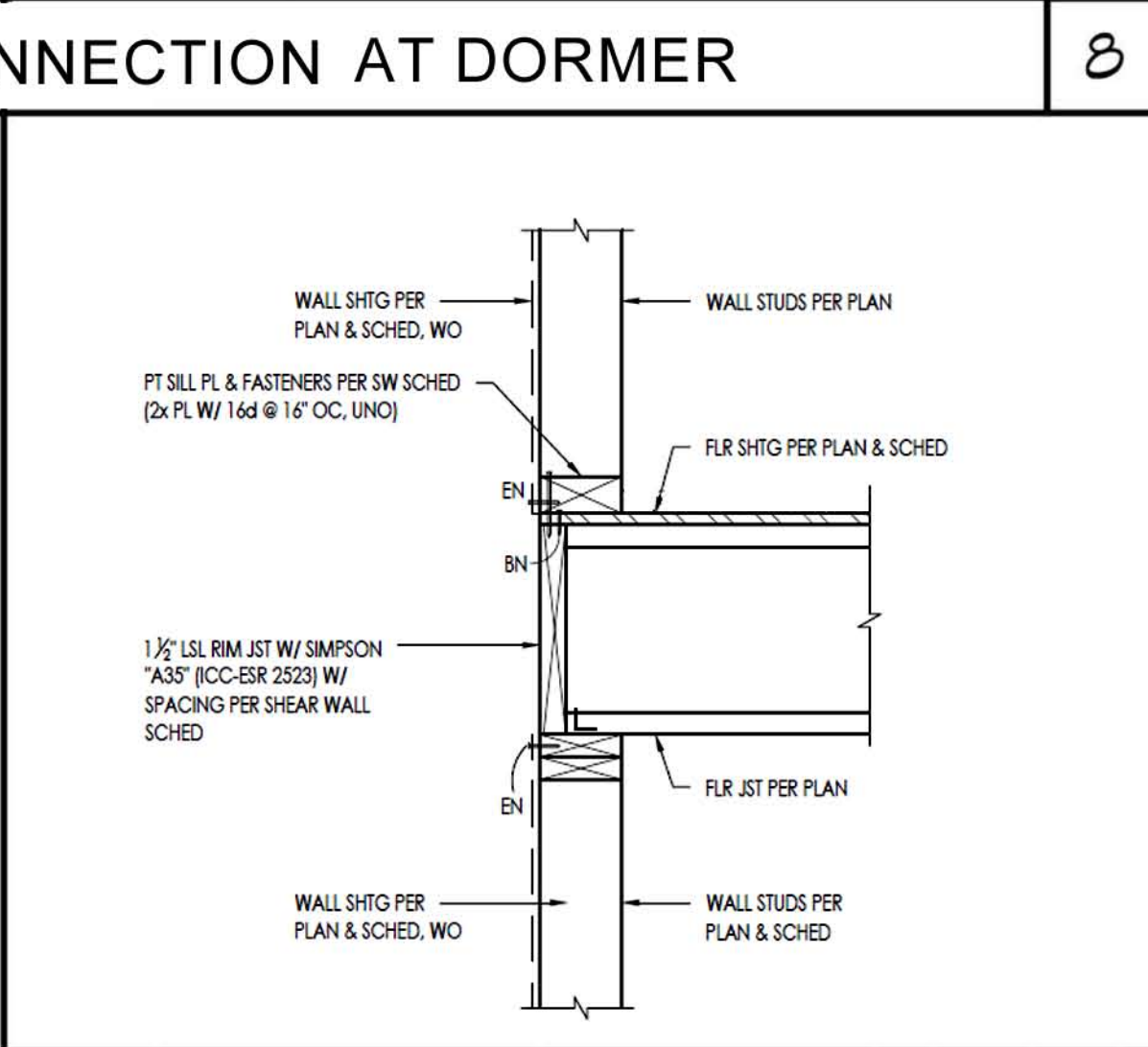
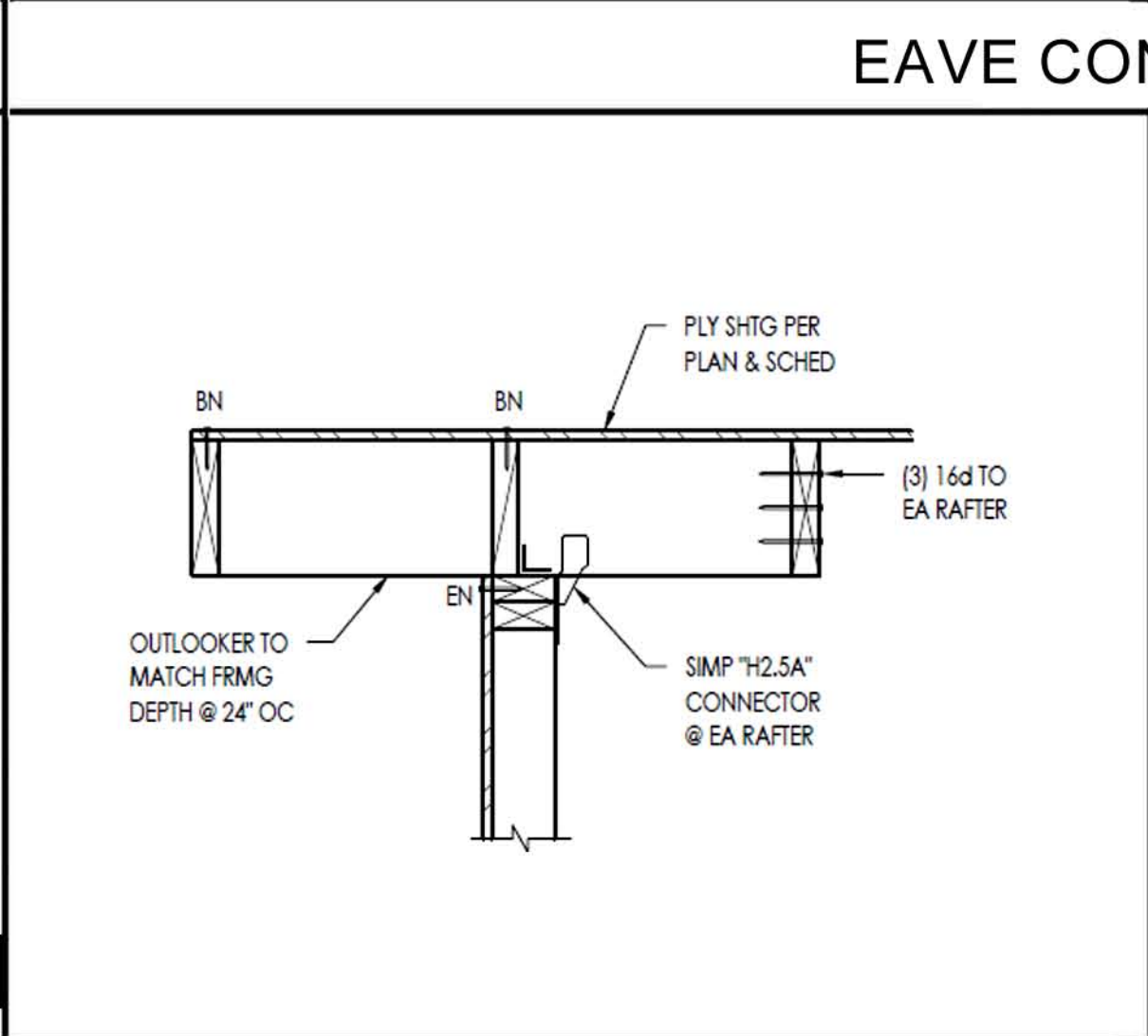
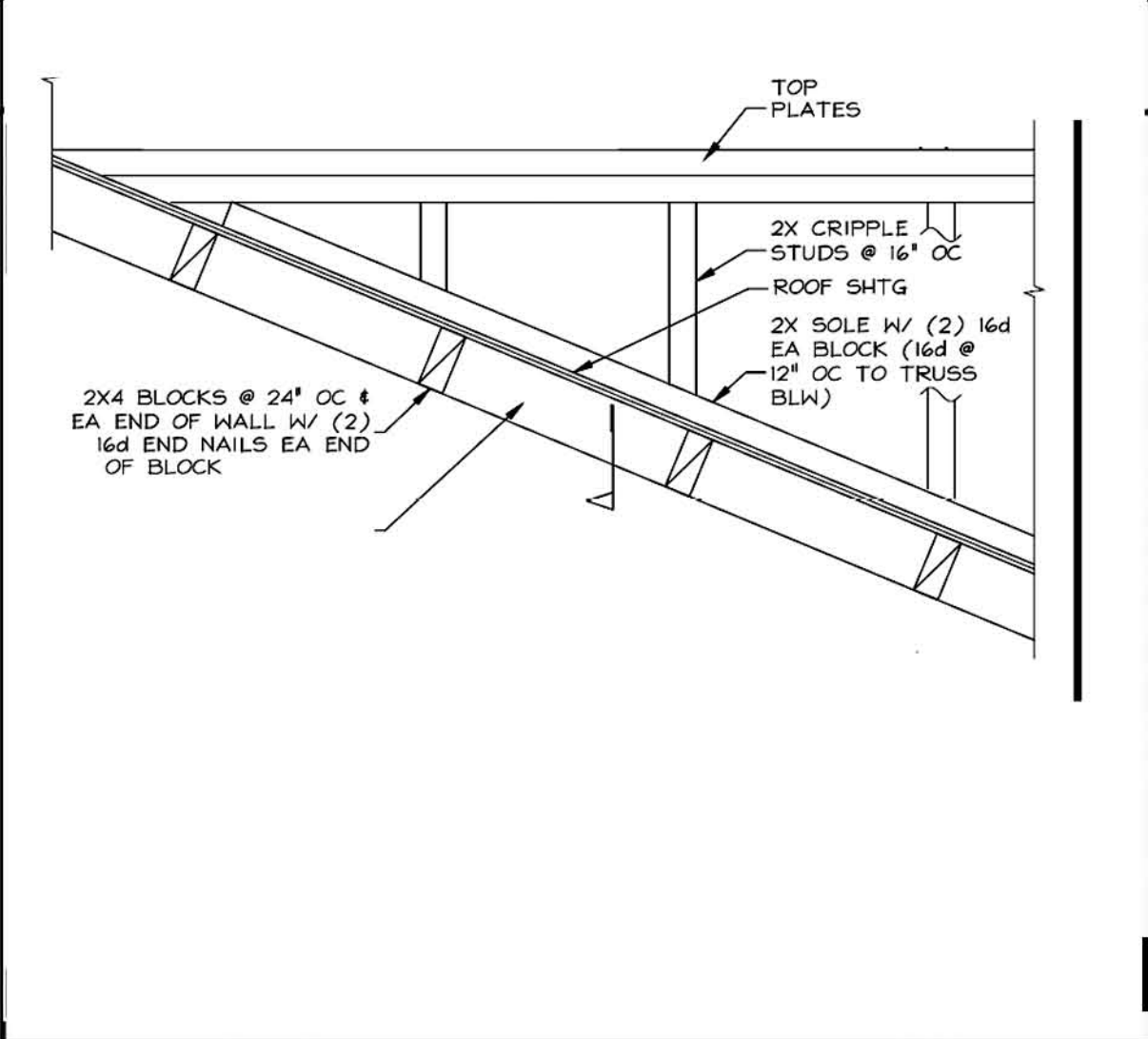
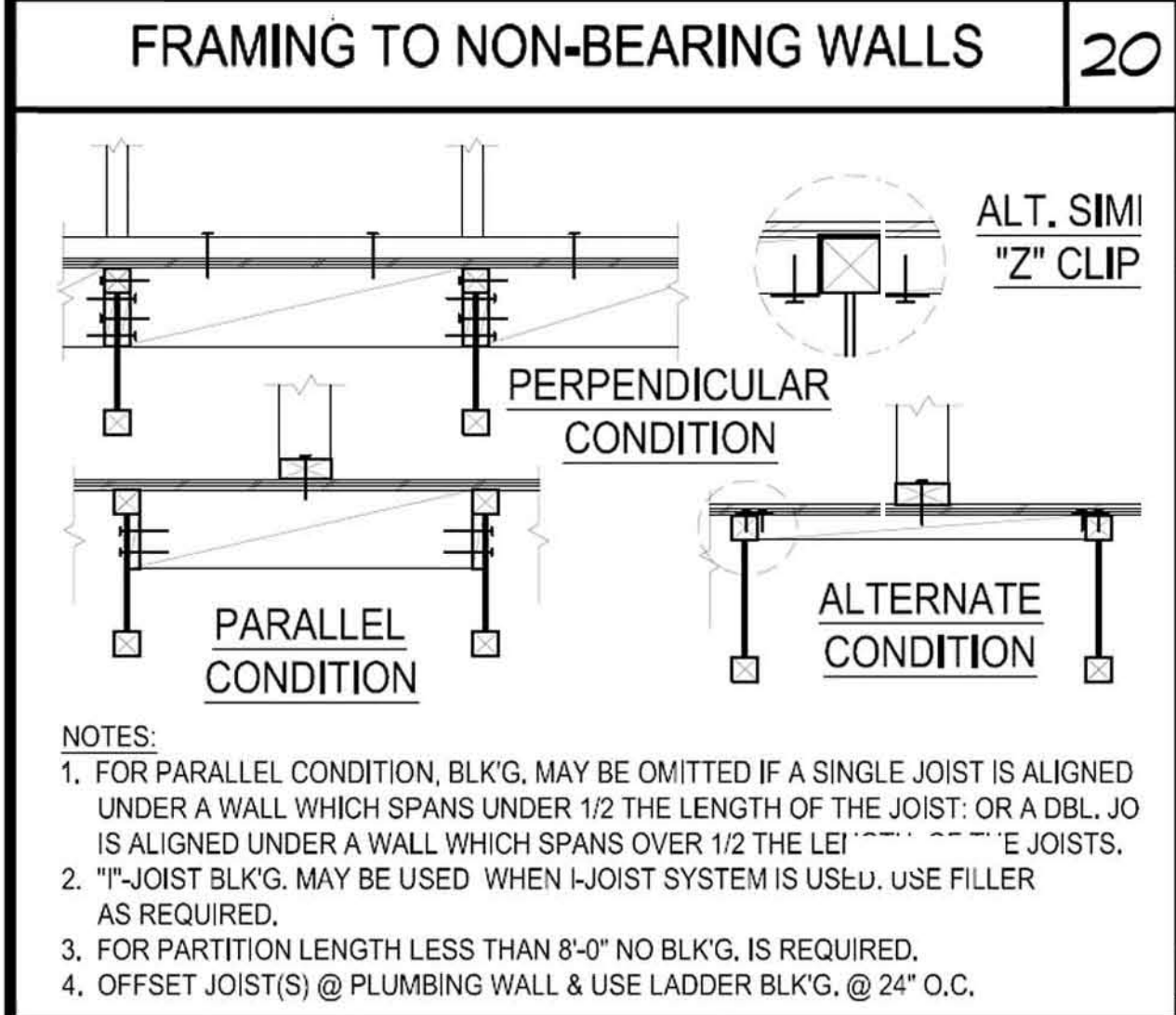
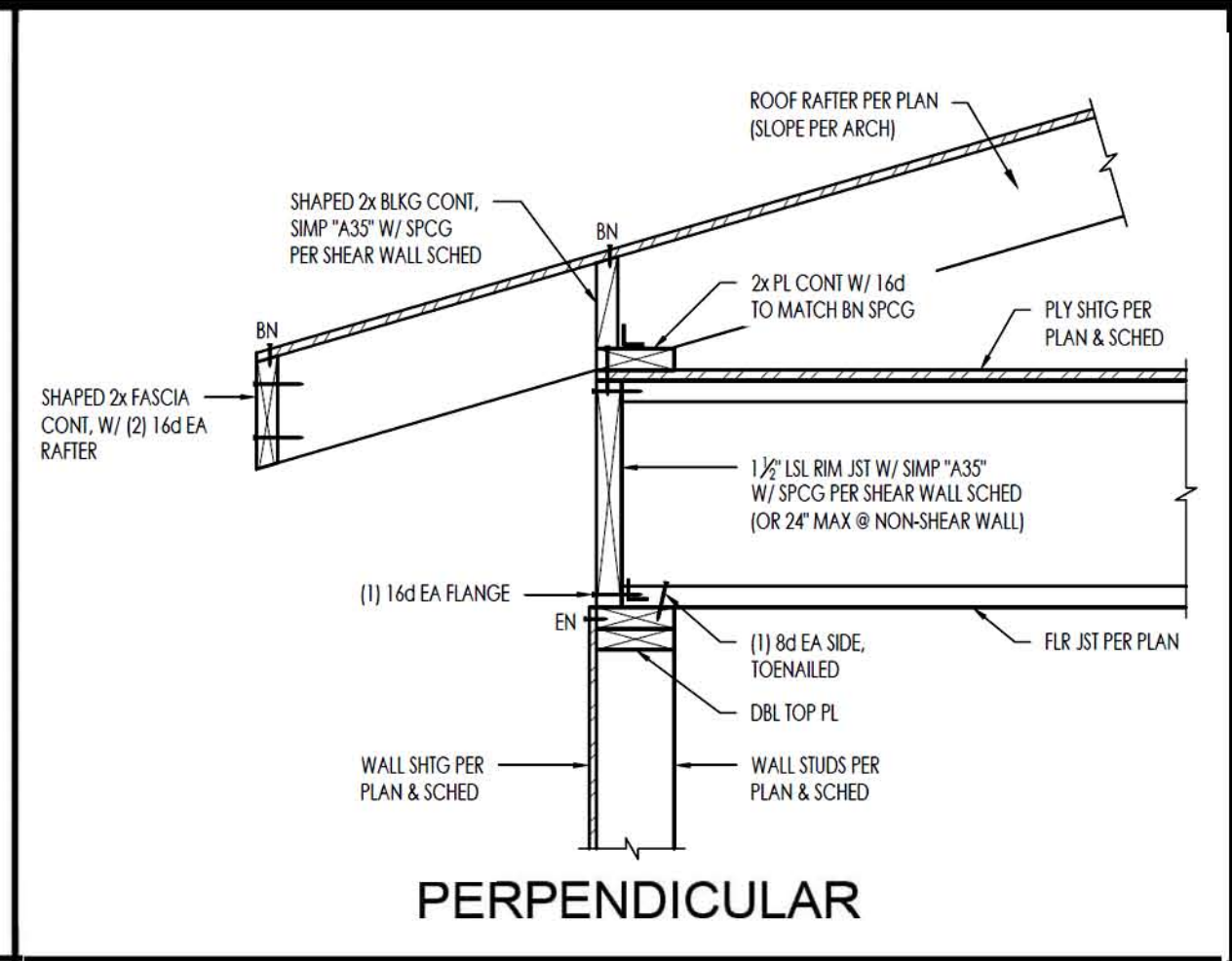
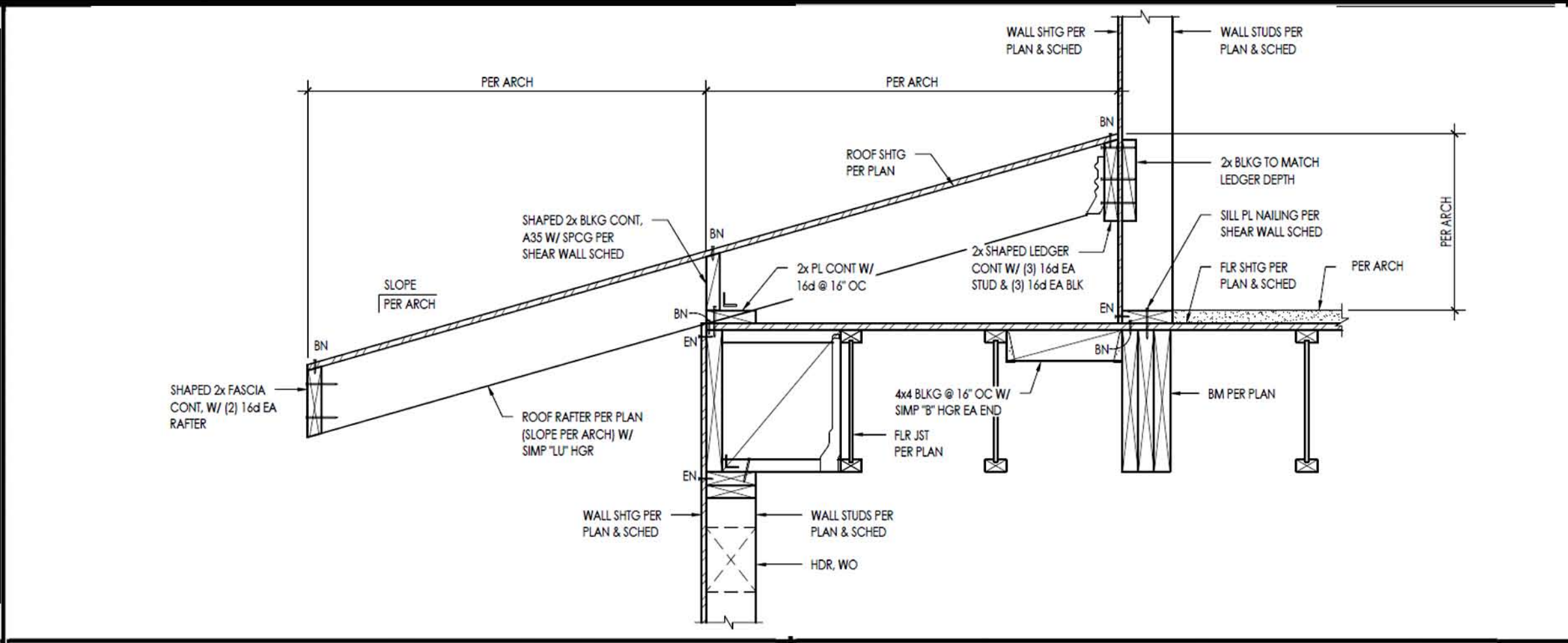
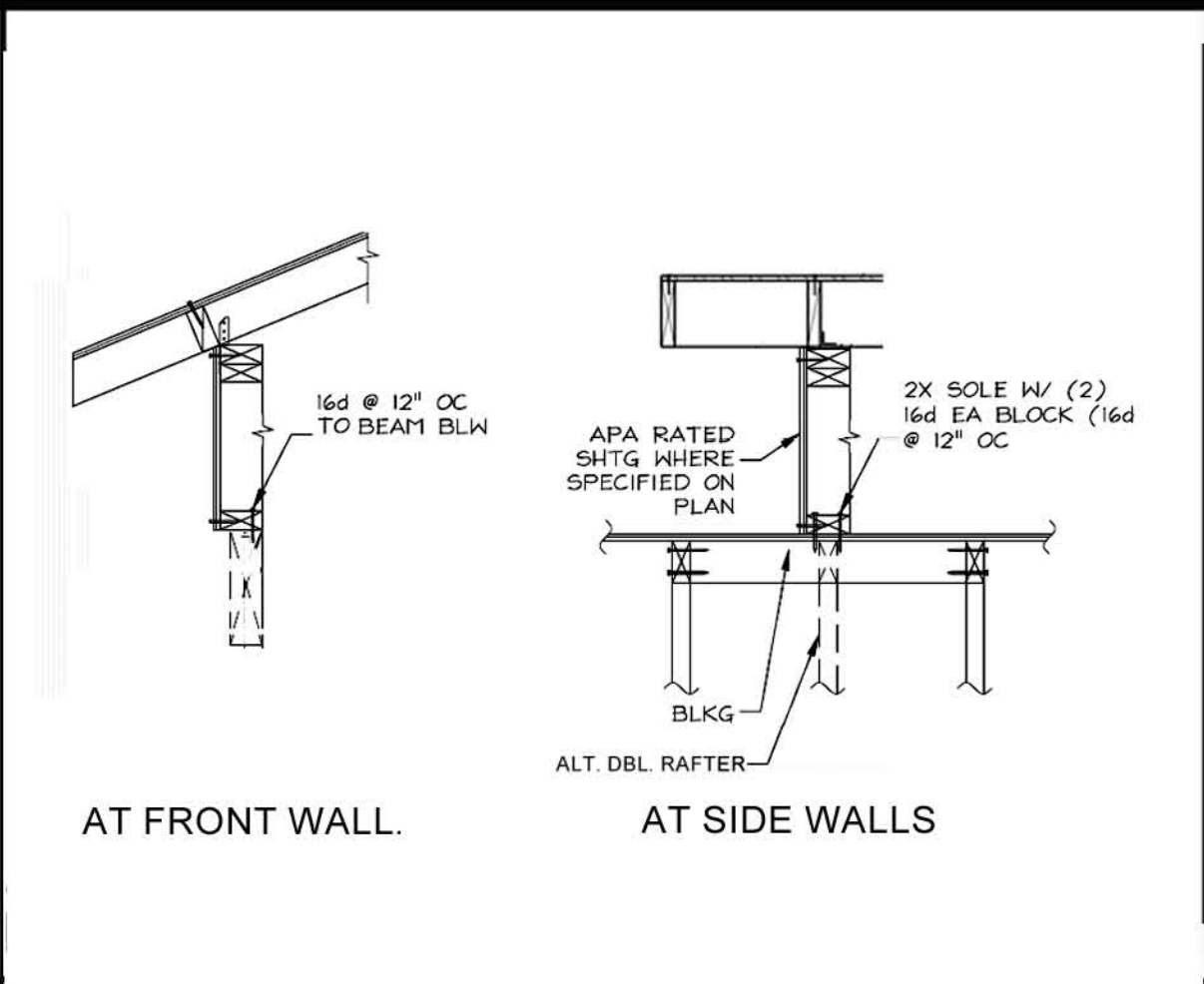
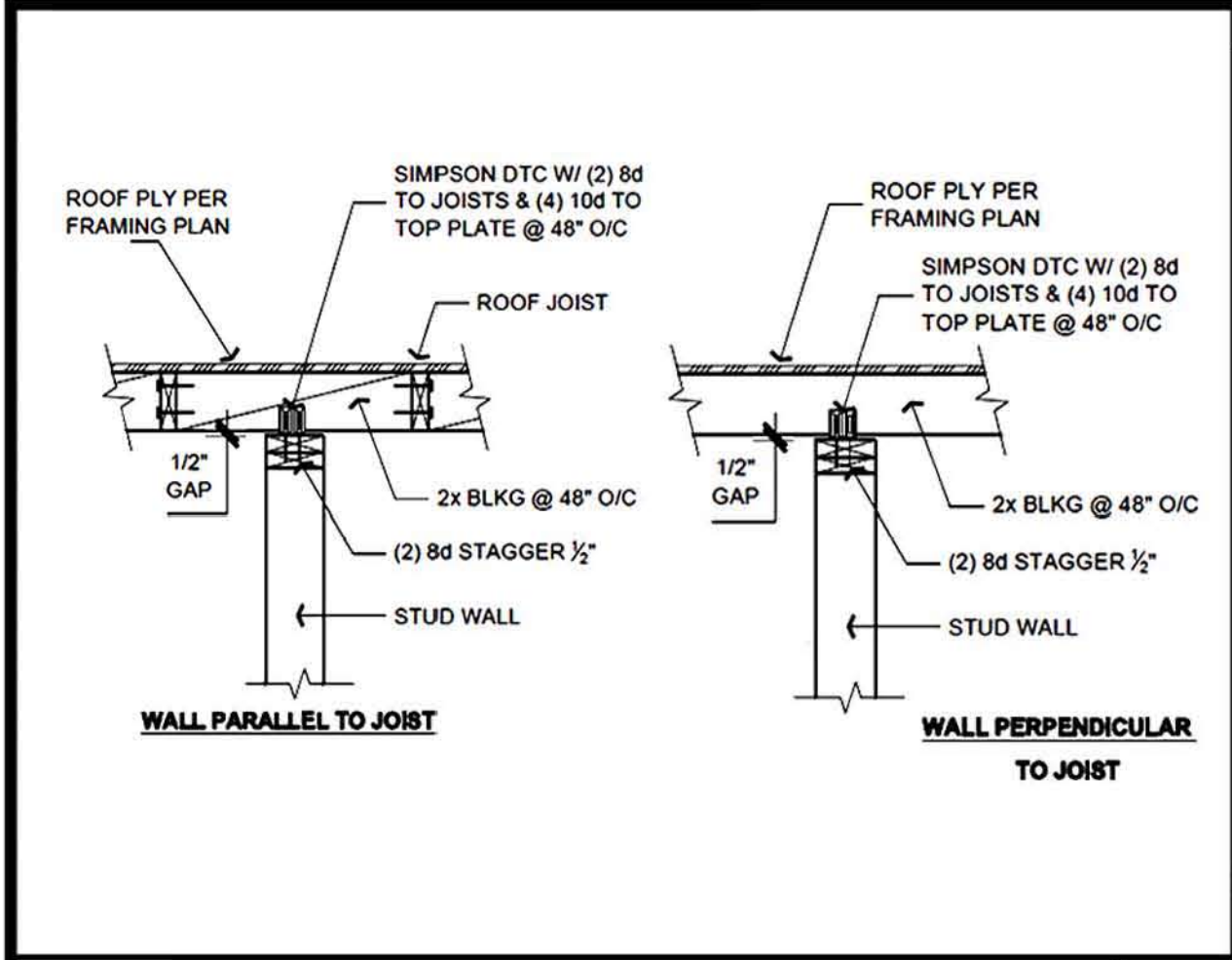
DATE: 08.27.2024

DRAWN BY: MJH

SCALE: AS SHOWN

SHEET #:

A6.0



WOOD BEAM- MULTIPLE PLIES

BEAM DEPTH	NO. OF PLIES	FASTENER	ROWS	SPACING
9 1/2" - 11 7/8"	2 - 3	10d (3")	3	12" O.C.
	2 - 3	12d (3-1/4")	2	12" O.C.
14" - 18"	2 - 3	10d (3")	4	12" O.C.
	2 - 3	12d (3-1/4")	3	12" O.C.
9 1/2" - 18"	4	SDW22634	2	12" O.C.

WOOD BEAM- MULTIPLE PLIES

BEAM DEPTH	NO. OF PLIES	FASTENER	ROWS	SPACING
9 1/2" - 11 7/8"	2 - 3	10d (3")	3	12" O.C.
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REGISTERED PROFESSIONAL ENGINEER
 IMAD ABU-MARKHIEH
 No. C41673
 Exp. 3-31-26
 CIVIL
 STATE OF CALIFORNIA

DRAFTING/DESIGNER:
MJH

CONTRACTOR:
Redwood ADU
Built in California

PROJECT/ADDRESS:
NEW ADU
4850 Gastman Way
Fair Oaks, CA 95628

REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT NUMBER:
 N/A

SHEET NAME:
STRUCTURE DETAILS

SHEET NUMBER:
SD1

GENERAL REQUIREMENTS

- Work performed shall comply with the following:
- These General Requirements unless otherwise noted on plans or specifications.
- Building Code - CBC 2022
- All applicable local, State and Federal Codes, Ordinances, Laws, regulations and Protective Covenants governing the site of work.
- Standard Specifications of ASTM as noted herein and as required by the Building Code.
- All work needs to be performed by qualified and experienced contractors familiar with this type of project.
- In case of conflict, the more stringent requirement shall govern.
- On site verification of all dimensions and conditions shall be the responsibility of the contractor and sub-contractors. Noted dimensions take precedence over scale of drawings.
- Engineer or architect of record is to be notified immediately by the contractor should any question arise or any discrepancy be found pertaining to the working drawings and/or specifications.
- No deviations from these requirements and structural details shall be made without the written approval of E.O.R.. Approval by the inspector does not constitute authority to deviate from plans or specifications.
- The design, adequacy, and safety of erection bracing, shoring, temporary supports, etc., is the sole responsibility of the contractor, and has not been considered by the architect or engineer. The contractor is responsible for the stability of the structure prior to the application of all shear walls, roof and floor diaphragms, and finish materials. The contractor shall provide the necessary bracing to provide stability prior to the application of the aforementioned materials. Observation visits to the site by the architect or structural engineer shall not imply the assumption of any responsibility in this regard.
- Upon completion of above by the engineer & prior to start of construction, contractor is responsible to check all dimensions, coordinate with the work of other consultants & other trades to ensure compliance with his/her requirements.
- E.O.R. shall have no liability for waterproofing or moisture transmission issues, whether related to concrete slabs, footings, foundations, or otherwise. The General Contractor/ Owner shall be responsible for the proper installation of the waterproofing and moisture protection specified by other.
- Special inspection per Building Code Sec.1704 is required & applies to the types of work indicated the plans

THIS STRUCTURE DOESN'T REQUIRE SPECIAL INSPECTION

FOUNDATION

- All continuous footings to have 1/2" dia. x min. 12" anchor bolts, min. 7" embedment into concrete footing at 72" o.c. unless noted otherwise on plans. One anchor bolt shall be located max. 12" away and min. 9 1/2" from the end of the sill plates. min. (2) A.Bs. per sill plate/shear panel. Sill plate under shear walls of up to 4'-0" in length must be continuous.
- For interior non-shear walls use Simpson PHNW series 0.145@ pins with a penetration of 1 1/4" into slab at 16" O.C. to be installed in accordance with ICC ESR-2138. Actual slab thickness to be minimum 4". All interior shear walls to have A.Bs. per foundation plan.
- All holdowns and post anchors to be installed according to most current Simpson Strong Tie specifications and requirements of ICC-ER reports & shall be tied in place prior to foundation inspection. Dimensions are not furnished to Simpson holdowns. It is the responsibility of the contractor's superintendent, the framing contractor and the concrete contractor to locate these anchors in the exact location. Refer to details for proper installation.
- Provide min. (1) #4 reinforcing for electrical ground, location to be verified with the electrical contractor.
- Concrete shall be to the strength and slump as specified per structural design, and consist of Portland cement ASTM C-150 Type V per soils engineer's recommendations and Building Code section 1904.3 (ACI 318 section 4.3) when exposed to sulfate containing solutions. Aggregates shall be per ASTM C-33. Water to be clean and potable.
- Placement shall be in one continuous operation unless otherwise specified. Slab surface shall be cured with 'Hunts' compound or equal or cured with other methods in accordance with good construction practice at contractor's option.
- Contractor shall dampen slab underlayment of sand/membrane just prior to concrete placement to assist uniform concrete curing. Slabs must not be poured during or immediately after rainstorms. The specified sand over visqueen should not be saturated at the time of the concrete pour. Any free water trapped in the sand layer must be removed prior to the concrete pour.
- The bottoms of footing excavations shall be level, clean and free of loose material or water when concrete is placed. Over excavation shall be filled with concrete or properly compacted fill that has been tested and approved by the soils engineer. Backfill shall not be placed until supporting foundations, walls and slab have attained sufficient strength to support lateral soil pressure.
- Concrete placement shall be monolithic in one continuous operation uniformly placed and must be vibrated and well consolidated unless shown otherwise on plans. Dual pour is defined by ACI as to when 1st. & 2nd. pour can not be vibrated together.
- Floor slab shall be poured level to 1/8" in 10'.

REINFORCED CONCRETE

GENERAL

- All reinforced concrete materials and construction shall conform to Building Code, chapter 19.
- MATERIALS**
- Cement shall conform to Section 1903 of Building Code and shall correspond to that on which the selection of concrete proportions were based.
- Concrete aggregates shall conform to Building Code Section 1903.
- Portland cement shall be Type I or II conforming to ASTM C150. For concrete in contact with soil containing sulfate $So_4 \geq 0.1\%$ by weight use Type II cement, containing sulfate $So_4 \geq 0.2\%$ by weight use Type V cement. Weight percentage of So_4 shall be per soils report. Refer to Section 1904 of the Building Code for special exposure conditions as required by soils engineer & see corrosion engineer's recommendations for concrete exposed to corrosive elements.
- Reinforcing steel shall conform to ASTM A615, Grade 60 for all sizes.
- Dowels shall be equal in size and spacing.
- STRENGTH**
- The (28 days) concrete compressive strength, f'_c , shall be min 2500 psi U.N.O.
- Special inspection is required for concrete with $f'_c > 2500$ psi
- All reinforcing, dowels, holdowns, and other inserts shall be secured in position and approved by the local building official prior to the pouring of any concrete.
- Min. concrete cover for reinforcing:
 - a- Concrete, placed against earth not formed -3"
 - b- Concrete formed or troweled -2"
 - c- Walls and curbs -1 1/2"
 - d- Slab on grade -at center

STRUCTURAL WOOD

MINIMUM QUALITY

- All structural wood shall be of Douglas Fir Larch species, (19% maximum moisture content at the time of construction U.N.O.).
- All machine bolts shall conform to ASTM A307. Holes for bolts should be drilled 1/16" larger than bolt diameter.
- For non-shear wall applications, round washers shall be used on all bolts and should conform with ANSI/ASME B 18.22.1. Use min. 1 3/8" ϕ x 7/64" thick washer for 1/2" ϕ bolt, 1 3/4" ϕ x 9/64" thick washer for 5/8" ϕ bolt and 2 1/2" ϕ x 11/64" thick washer for 1" ϕ bolt. U.N.O.
- All nails shall be sinker nails and staggered U.N.O., except as shown in Nailing Schedule.
- Adhesive used to attach floor sheathing to framing elements shall conform with APA specification AFG-01.
- Manufactured hardware specified on the drawings are to be Simpson Strong Tie (Unless specifically authorized in writing by E.O.R.. Follow all manufacturer's requirements & recommendations for installation & handling of the product.

7. LUMBER GRADES (U.N.O.)

- 6x & 8x posts / beams / headers: DFL #1
4x posts / beams / headers: DFL #2
2x joists / rafters: DFL #2
Studs: D.F.L. Stud Grade (up to 9'-0"), DFL #2 (taller than 9'-0")
Top plates & Mud sills: DFL construction grade or better
See structural wood note #11 for additional mud sill requirements
The following beams/headers/rafts can be from any manufacturer with current approved ICC evaluation report with the following mechanical properties:
a. GLUED LAMINATED MEMBERS COMBINATION 24F-V4 DF/DF 3500' RADIUS.
b. LSL: BEAMS DOUGLAS FIR 1.8E, SG=50, E=1950000 PSI, Fb=2528 PSI, Fv=910 PSI
c. LVL: BEAMS DOUGLAS FIR 2.0E, SG=50, E=2000000 PSI, Fb=2600 PSI, Fv=985 PSI
d. PSL: BEAMS DOUGLAS FIR 2.2E, SG=50, E=2200000 PSI, Fb=2900 PSI, Fv=290 PSI
e. PSL: BEAMS DOUGLAS FIR 2.2E, SG=50, E=2200000 PSI, Fb=2900 PSI, Fv=290 PSI
8. TYPICAL FLOOR SHEATHING
23/32" APA rated Sturd-I-Floor T&G Exp I with min. span rating of 24"
o.c. Refer to NER 108 for installation and conditions of use
B.N.:10d common nails at 6" o.c.
E.N.:10d common nails at 6" o.c.
F.N.:10d common nails at 12" o.c.

Use ring or screw shank nails and glue sheathing to framing using adhesives meeting APA specification AFG-01 or ASTM D3498. Apply glue in accordance with manufacturer's recommendations.

TYPICAL ROOF SHEATHING
15/32" APA rated sheathing Exp I with a min. panel rating of 32/16.
Refer to NER 108 for installation and conditions of use.

B.N.:8d common nail at 6" o.c.
E.N.:8d common nail at 6" o.c.
F.N.:8d common nail at 12" o.c.
*Note: All structural rated panels must be stamped by one of the following approved agencies, APA, PFS/TECO or Pittsburgh.

FRAMING

- All framing, bracing, nailing, notching, drilling or boring shall be in accordance with Building Code unless more stringent requirements are specified or required by the local jurisdiction.
- Fabrication and handling of Glue-lam beams shall be per ANSI/AITC A 190.1. Standard beams to bear legible APA-ENS or AITC grade stamp. An APA- EWS CRAM AITC Certificate of conformance for glued-laminated members should be submitted to the field inspector prior to installation and Glue-lam members shall be 24F-V4, DF/DF with standard camber on roof beams except cantilever end (U.N.O.). All cantilever ends and floor beams shall have zero camber u.n.o. All beams shall be fabricated using waterproof glue.
- Fasteners in contact with preservative treated lumber and fire retardant treated wood shall be hot-dipped zinc-coated galvanized steel, stainless steel, silicon bronze or copper. Exception: Plain carbon steel fasteners in sbx/dot and zinc borate preservative-treated wood in an interior, dry environment shall be permitted.
- All wood exposed to weather conditions must be pressure treated with hot dipped galvanized connectors as specified in note 11.
- Provide post/multiple studs at lower floor under post/multiple studs above. Provide full width and depth compression block between floors at such locations.
- All joist hangers shall be Simpson U hanger, all beam hangers shall be Simpson HU hangers U.N.O. on plan or detail. Follow manufacturer's recommendations for installation.
- Use this span table for stud spacing (U.N.O. on plans):

STUD SIZE		BEARING WALLS				NON-BEARING WALLS	
		STUD HEIGHT	MAXIMUM SPACING WHEN SUPPORTING	MAXIMUM SPACING	STUD HEIGHT	STUD HEIGHT	MAXIMUM SPACING
(inches)	(inches)	(inches)	ROOF & ONE FLOOR, TWO FLOORS, ONE FLOOR ONLY	(inches)	(inches)	(feet)	(inches)
2X4	10	24	16	NOT ALLOWED	24	14	24
2X6	10	24	16	24	24	20	24

*REFER TO PLANS FOR STUD HEIGHTS EXCEEDING THIS TABLE.

TRUSSES

- Wood truss manufacturer shall supply to the engineer and the building department calculations and shop drawings for approval of design loads, configuration (2 or 3 point bearing), and shear transfer, prior to fabrication. It shall be the responsibility of the manufacturer to obtain building department approval of calculations and shop drawings prior to fabrication.
- Trusses shall be designed in accordance with the latest local Building Code for all loads imposed, including lateral loads and mechanical equipment loads.
- All connections involving trusses shall be ICC approved and of adequate strength to resist stresses due to the loadings involved and shall be designed and specified by the truss manufacturer.
- Truss members and engineered wood products (i.e. prefabricated wood I-joist, structural glued-laminated timber and structural composite lumber) cannot be cut, notched, drilled, spliced or otherwise altered in any way without the approval of a registered design professional (CRC)
- Cross bridging and/or bracing shall be provided and detailed by the truss manufacturer as required to adequately brace all trusses.
- Truss manufacturer to provide details which allow for normal deflection without imposing lateral loads on their supports (i.e., scissors trusses).
- Truss manufacturer is responsible for:
 - a. providing additional shear and drag trusses as shown on the framing plans.
 - b. reviewing framing plans and details prior to fabrication of trusses and specifying hangers.
 - c. meet the profile as indicated in the architectural and structural drawings.
 - d. design trusses for deflection compatibility of the system to avoid hump and sag in roof or ceiling.
- All trusses designed by truss manufacturer shall be designed to sustain all vertical, lateral and other pertinent loads, including bracing of top and bottom chords, in addition to any connections related to trusses. Contractor to coordinate with truss manufacturer.

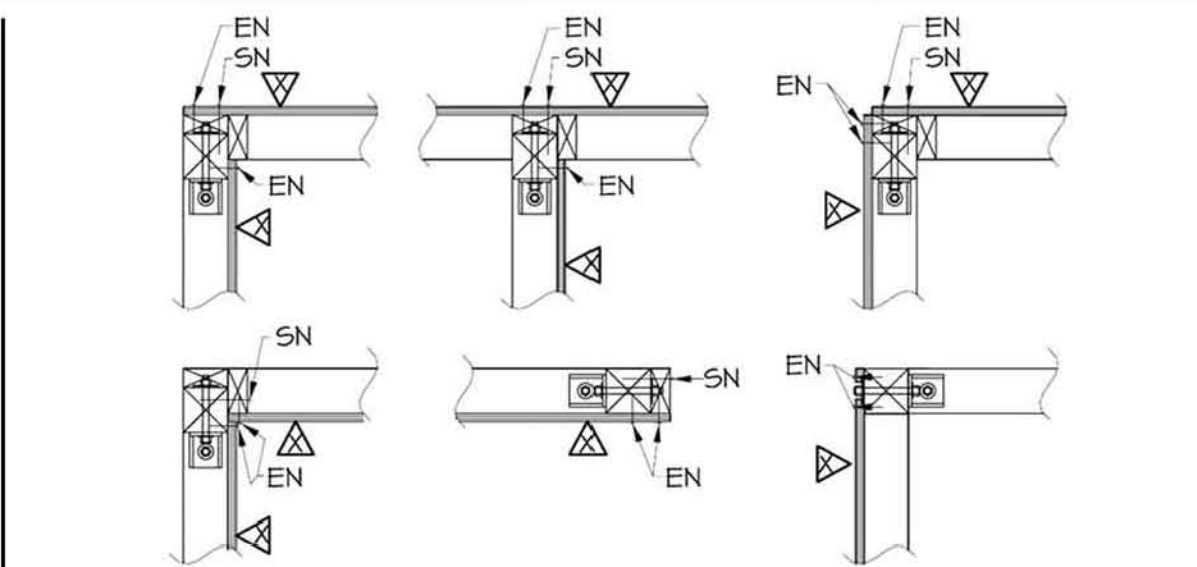
Protection of wood against decay.

- Naturally durable or preservative-treated wood shall be provided in the following locations:
- All wood in contact with ground, embedded in concrete in direct contact with ground, or embedded in concrete exposed to weather.
 - Wood joists within 18 inches and wood girders within 12 inches of the exposed ground in crawl spaces shall be of naturally durable or preservative-treated wood.
 - Wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches from exposed earth shall be of naturally durable or preservative-treated wood.
 - Wood framing, sheathing, and siding on the exterior of the building and having clearance less than 6 inches from the exposed ground or less than 2 inches vertically from concrete steps, porch slabs, patio slabs, and similar horizontal surface exposed to weather.
 - Sills and sleepers on concrete or masonry slab in direct contact with ground unless separated from such slab by impervious moisture barrier.
 - Ends of wood girders entering masonry or concrete walls with clearances less than 1/2 inch on tops, sides, and ends.
 - Wood structural members supporting moisture-permeable floors or roofs exposed to weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier.
 - Wood furring strips or other wood framing members attached directly to interior of exterior concrete or masonry walls below grade except where vapor retarder applied between wall and furring strips or framing members.

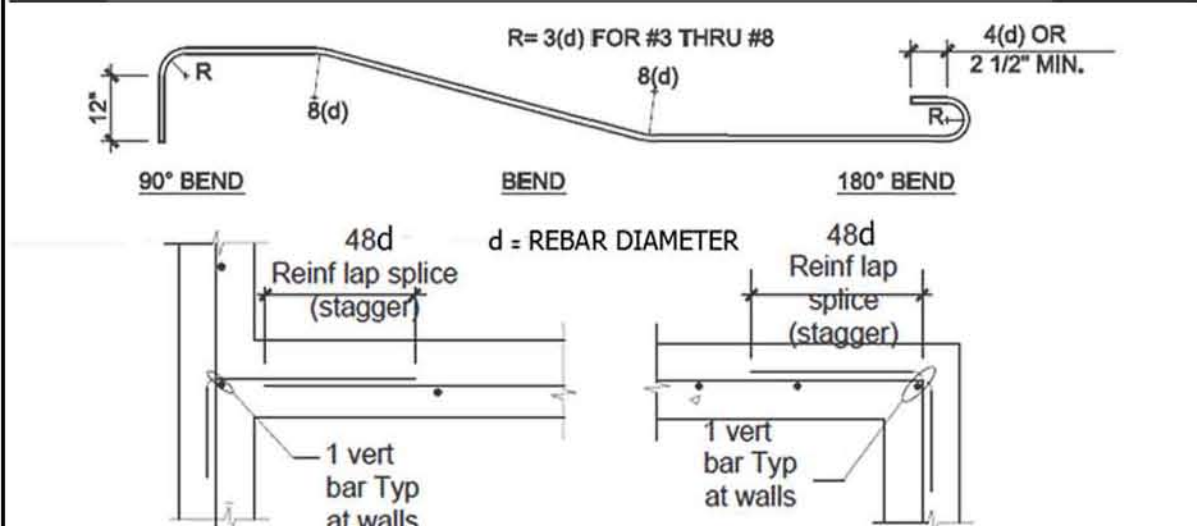
NAILING SCHEDULE

- | CONNECTION | NAILING |
|--|------------------------|
| 1. JOIST TO SILL OR GIRDER, TOENAIL..... | 3-8d |
| 2. BRIDGING TO JOIST, TOENAIL EACH END..... | 2-8d |
| 3. 1" X 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL..... | 2-8d |
| 4. WIDER THAN 1" X 6" SUBFLOOR TO EACH JOIST, FACE NAIL..... | 3-8d |
| 5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL..... | 2-16d |
| 6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL..... | 1-6d (BOX) AT 16" O.C. |
| 7. SOLE PLATE TO JOIST, AT BRACED WALL PANEL..... | 3-16d (BOX) PER 16" |
| 7. TOP PLATE TO STUD, END NAIL..... | 2-16d |
| 8. STUD TO SOLE PLATE..... | 4-8d, TOENAIL |
| 9. DOUBLE STUDS, FACE NAIL..... | 1-6d (BOX) AT 24" O.C. |
| 10. BRIDGING BETWEEN JOIST OR RAFTERS TO TOP PLATE, TOENAIL..... | 3-8d |
| 11. RIM JOIST TO TOP PLATE, TOE NAIL..... | 8d AT 6" O.C. |
| 12. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL..... | 2-16d |
| 13. CEILING JOISTS TO PLATE, TOENAIL..... | 3-8d |
| 14. CONTINUOUS HEADER TO STUD, TOENAIL..... | 4-8d |
| 15. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL..... | 3-16d |
| 16. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL..... | 3-16d |
| 17. RAFTER TO PLATE, TOENAIL..... | 3-8d |
| 18. BUILT-UP CORNER STUDS..... | 1-6d AT 24" O.C. |
| 19. 2" PLANKS..... | 2-16d AT EACH BEARING |

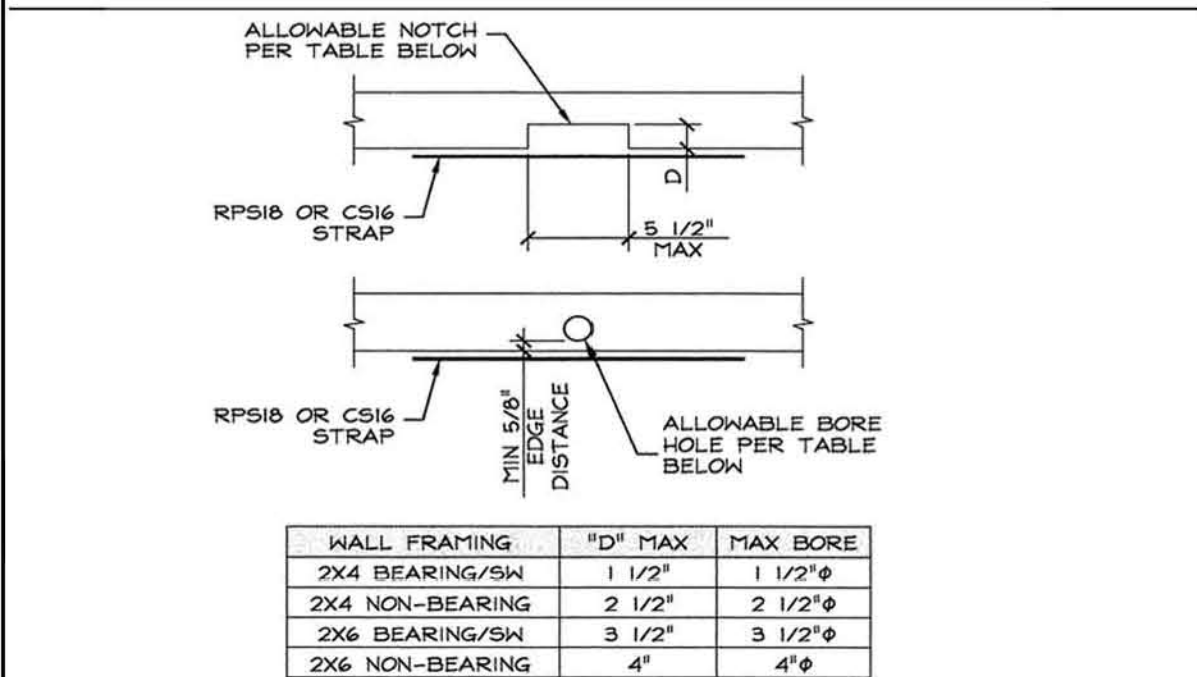
NOTES: 1. COMMON NAILS SHALL BE USED (U.N.O.)
2. JOIST CAN EITHER SAWN LUMBER OR I-JOIST PER PLAN



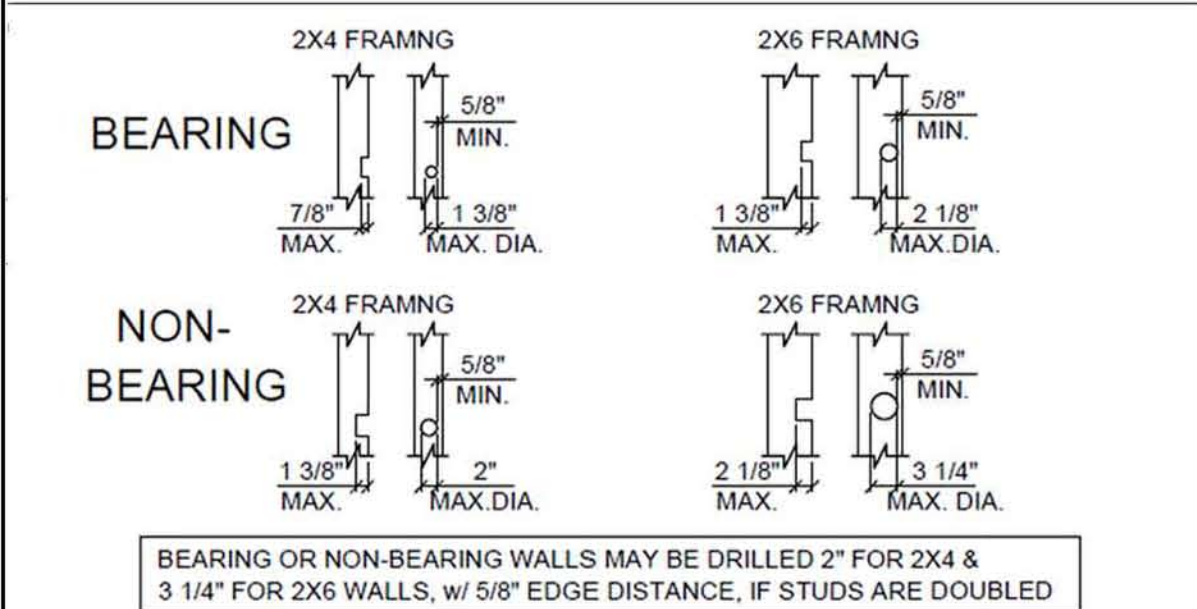
TYPICAL SHEAR WALL INTERSECTION



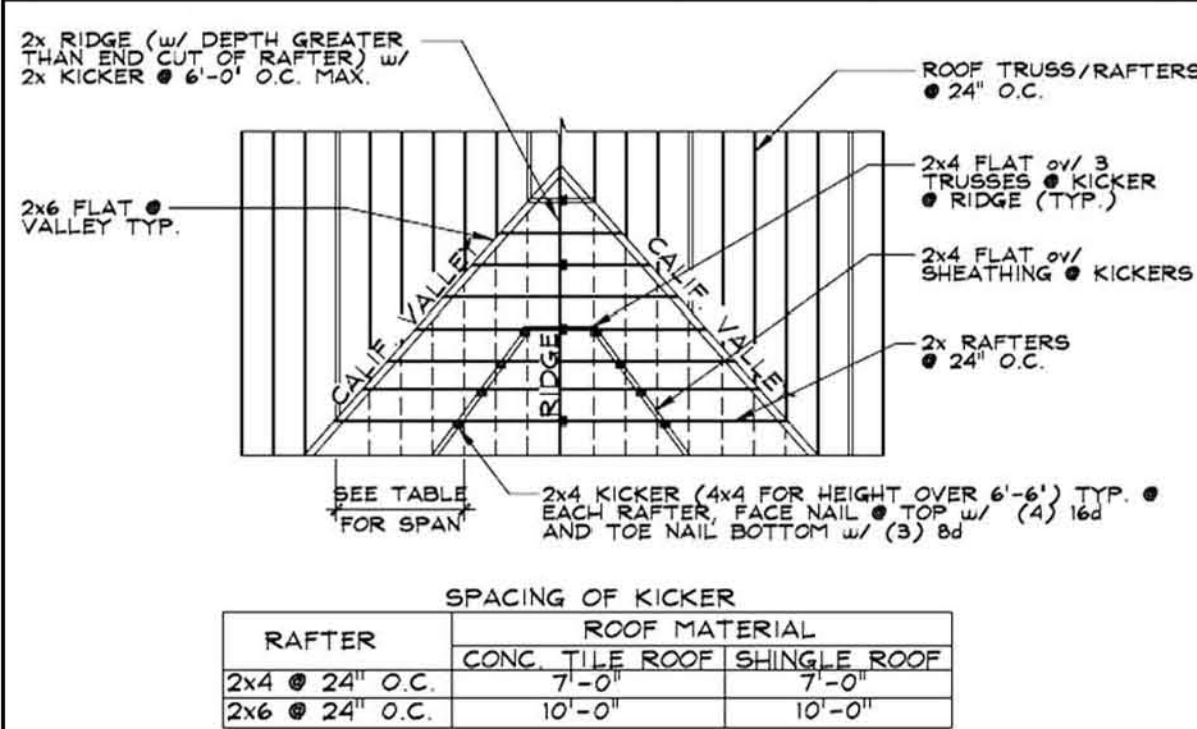
STANDARD HOOKS & LAP SPLICES



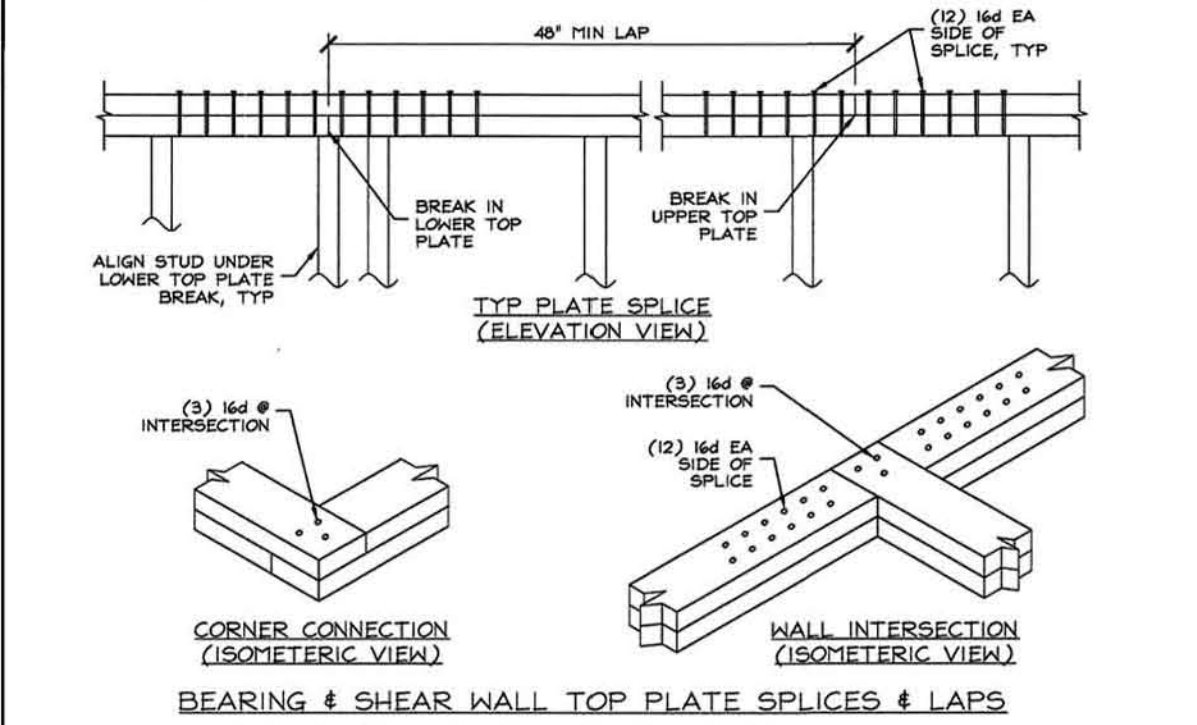
TYPICAL ALLOWABLE TOP PLATE NOTCHING AND BORING



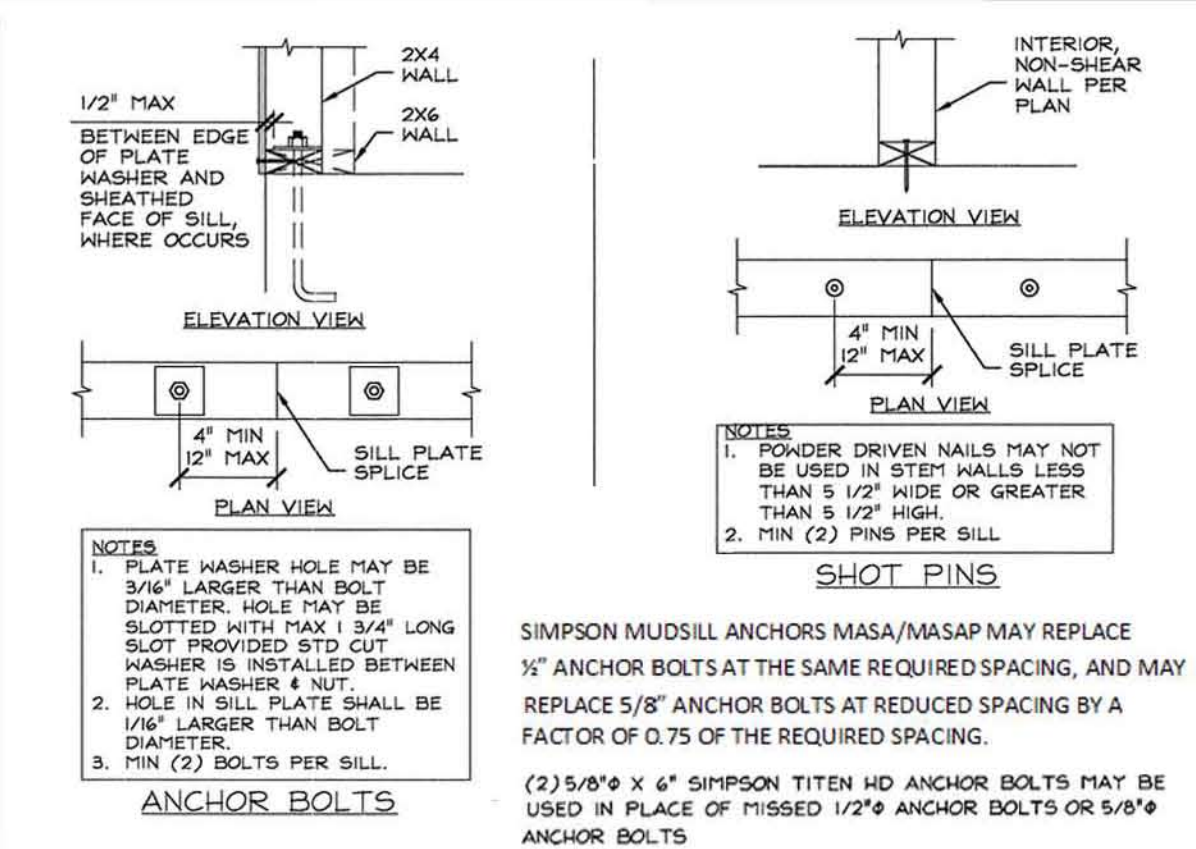
TYPICAL ALLOWABLE STUD NOTCHING AND BORING



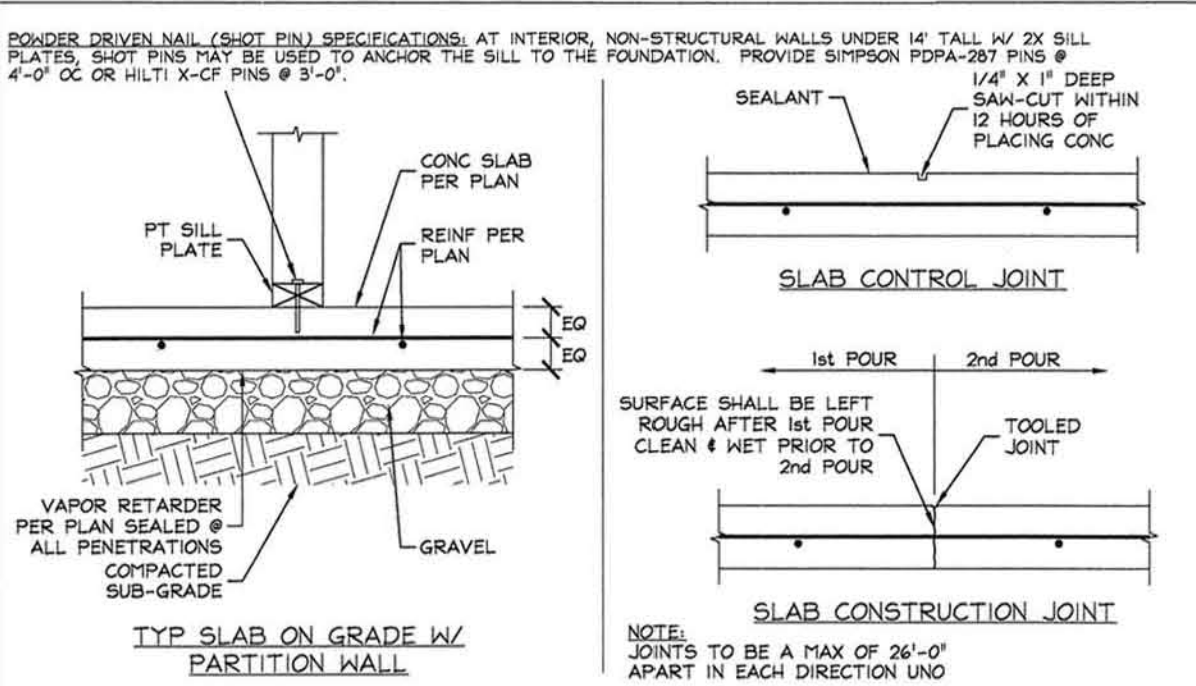
TYPICAL CALIFORNIA FRAMING



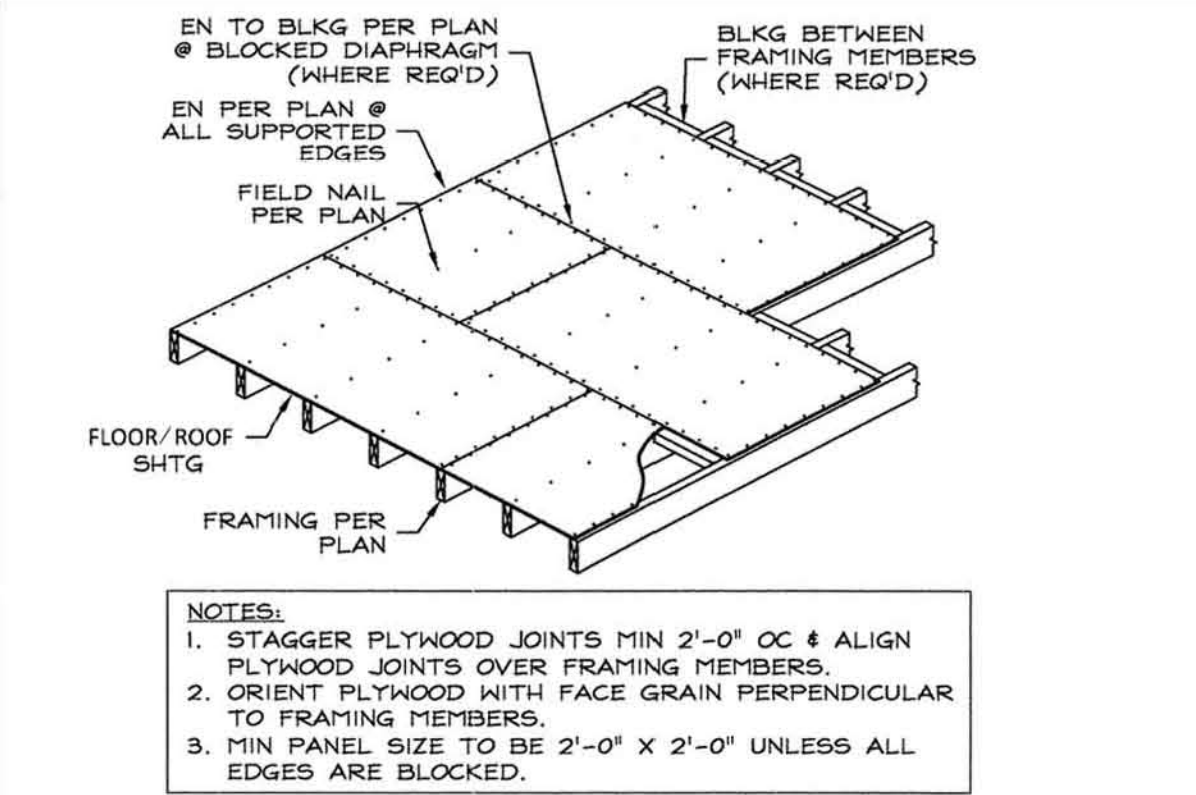
TYPICAL WALL FRAMING



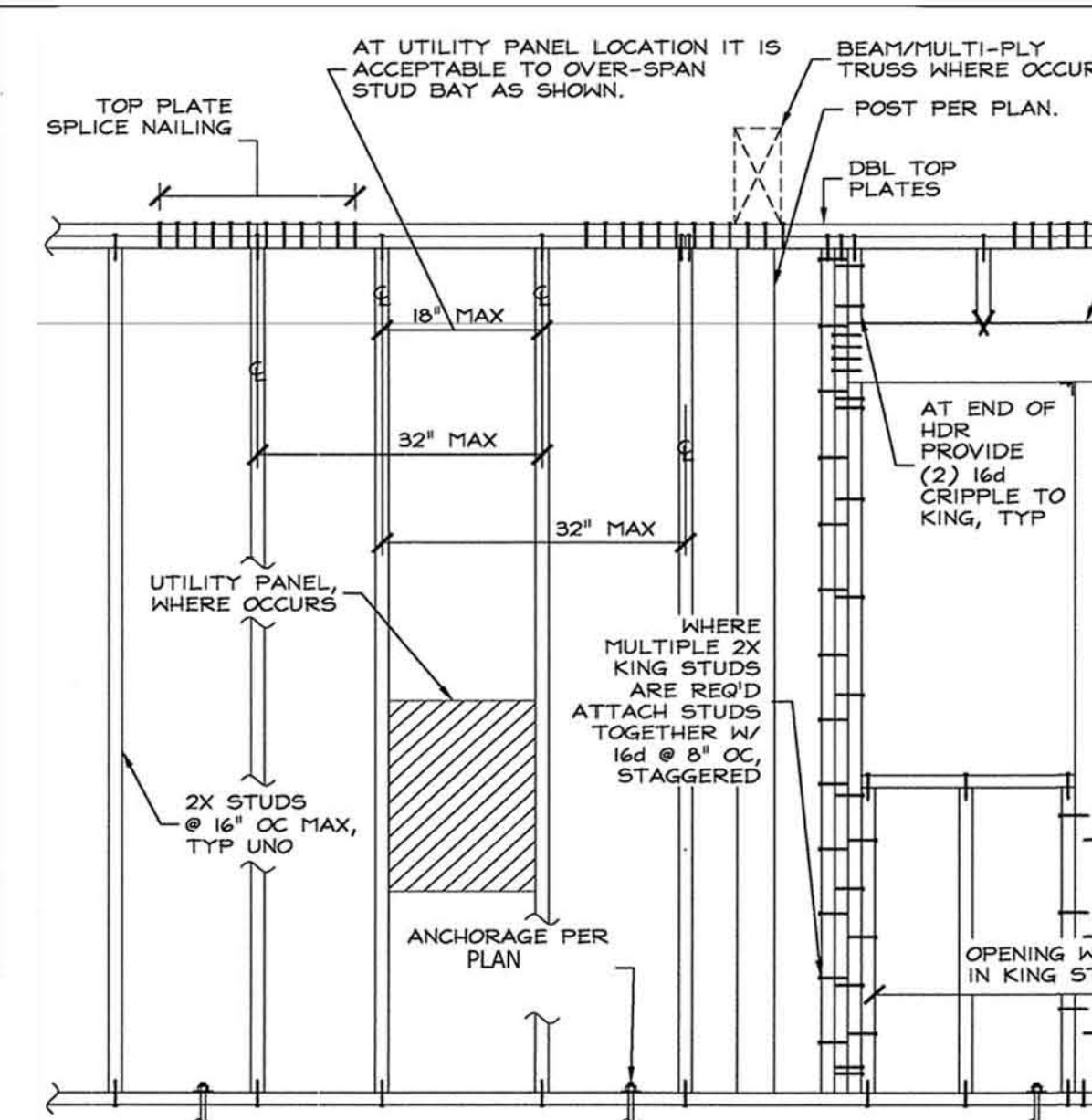
ANCHOR PLACEMENT & REQUIREMENTS



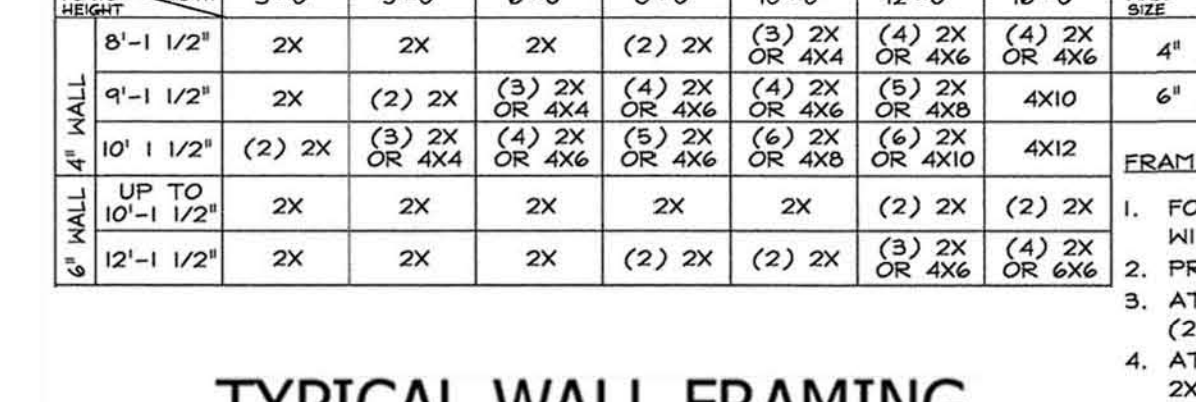
TYPICAL SLAB ON GRADE



TYPICAL DIAPHRAGM NAILING



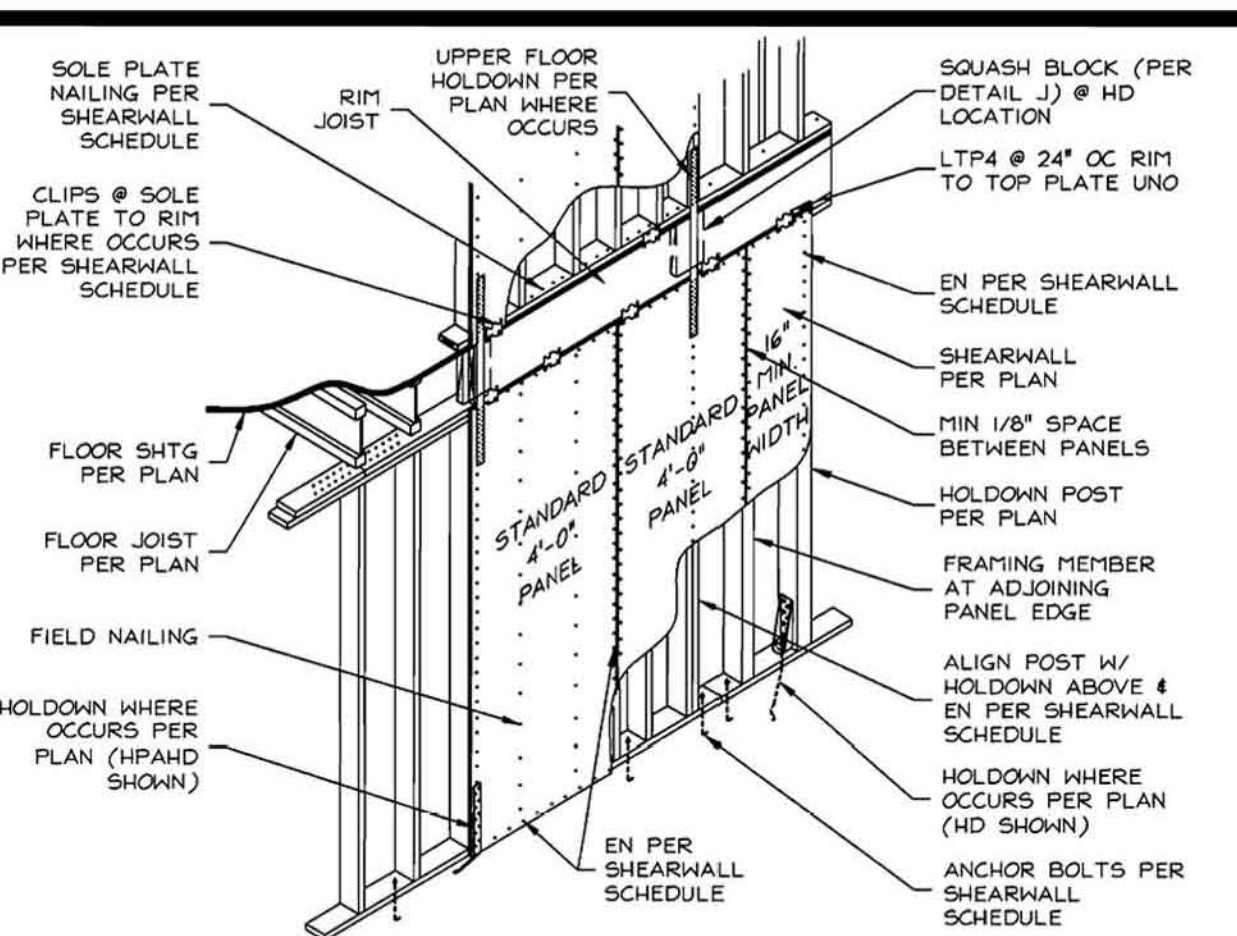
TYPICAL SHEATHING NAILING



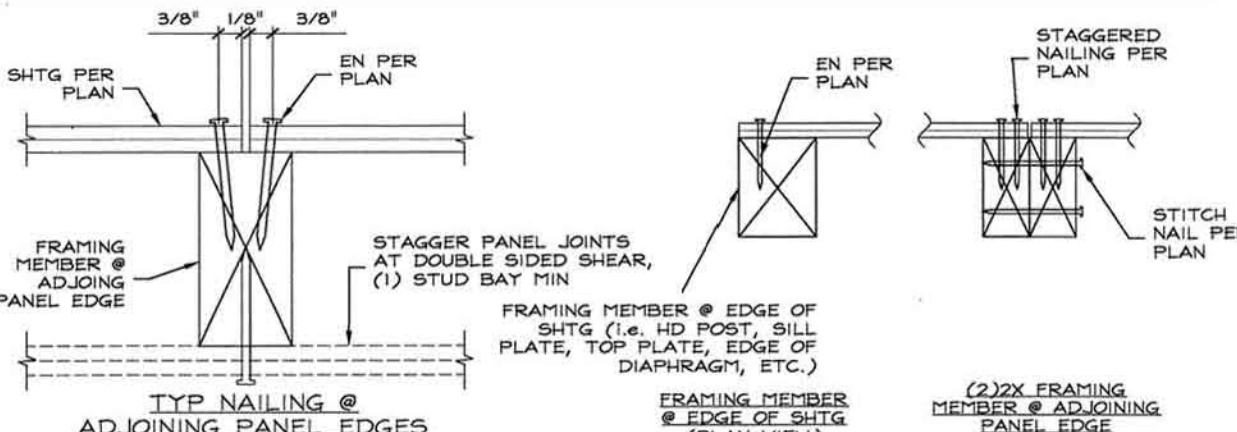
TYPICAL WALL FRAMING

DESIGN CRITERIA

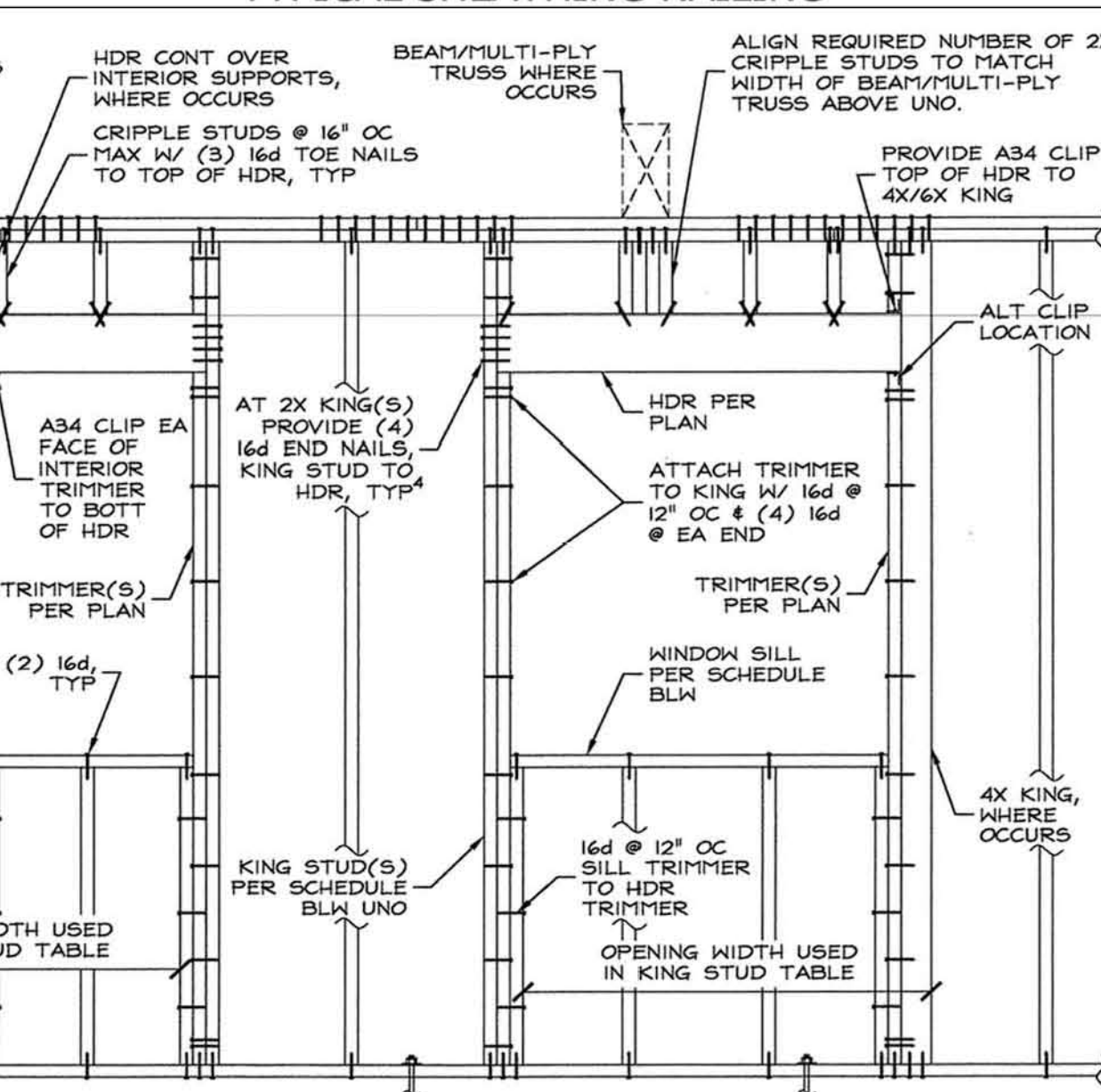
- A. FLOOR AND ROOF LOADS.**
1. ROOF LL 20 PSF
 2. ROOF DL (W/MAX. SOLAR PANEL = 2.5 PSF) 15 PSF
 3. FLOOR LL 40 PSF
 3. FLOOR DL 10 PSF
- B. SNOW LOAD.**
1. THE GROUND SNOW (Pg) 0 PSF
 2. THE FLAT ROOF SNOW (Pf) 0 PSF
- C. WIND LOAD**
1. DESIGN WIND SPEED 95 MPH
 2. WIND EXPOSURE CATEGORY C
 3. RISK CATEGORY CATEGORY II
 4. INTERNAL PRESSURE COEFFICIENT 0.18
- D. SEISMIC LOAD.**
1. SEISMIC DESIGN CATEGORY CATEGORY D
 2. SITE SOIL CLASS CLASS D
 3. IMPORTANCE I
 4. RISK CATEGORY II
 5. ANALYSIS EQUIVALENT LATERAL ANALYSIS
 6. RESISTING SYSTEM(S) WOOD DIAPHRAM & SHEARWALLS
- E. FOUNDATION.**
1. NO FOUNDATION REPORT
 2. LOAD BEARING CAPACITY = 1,500 PSF



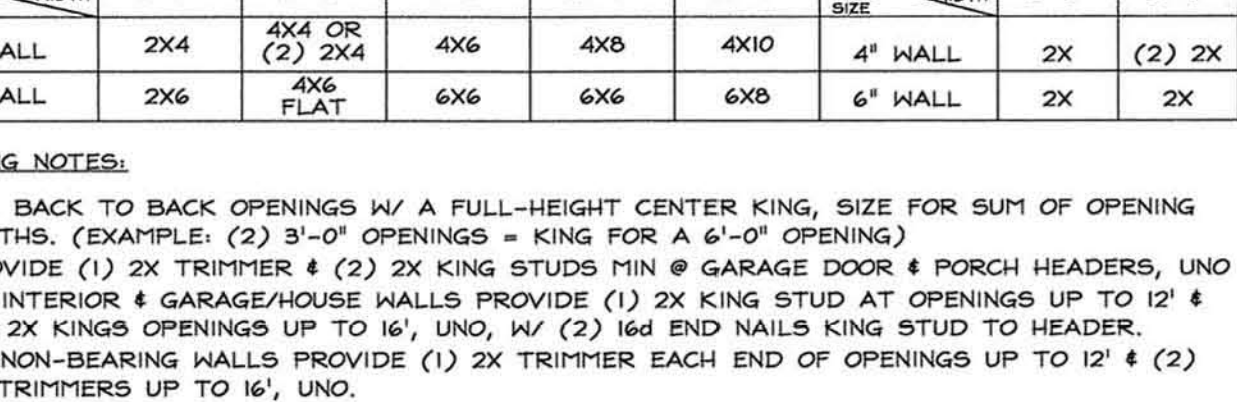
TYPICAL SHEARWALL NAILING



TYPICAL SHEATHING NAILING



TYPICAL WALL FRAMING

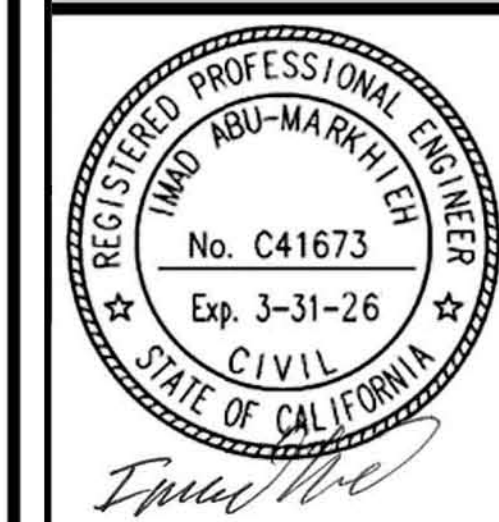


TYPICAL WALL FRAMING

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MJH

CONTRACTOR:

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ADU

Built in California

PROJECT/ADDRESS:

NEW ADU

4850 Gastman Way

Fair Oaks, CA 95628

PROJECT NUMBER:

N/A

SHEET NAME:

STRUCTURE

NOTES

SHEET NUMBER:

SN

