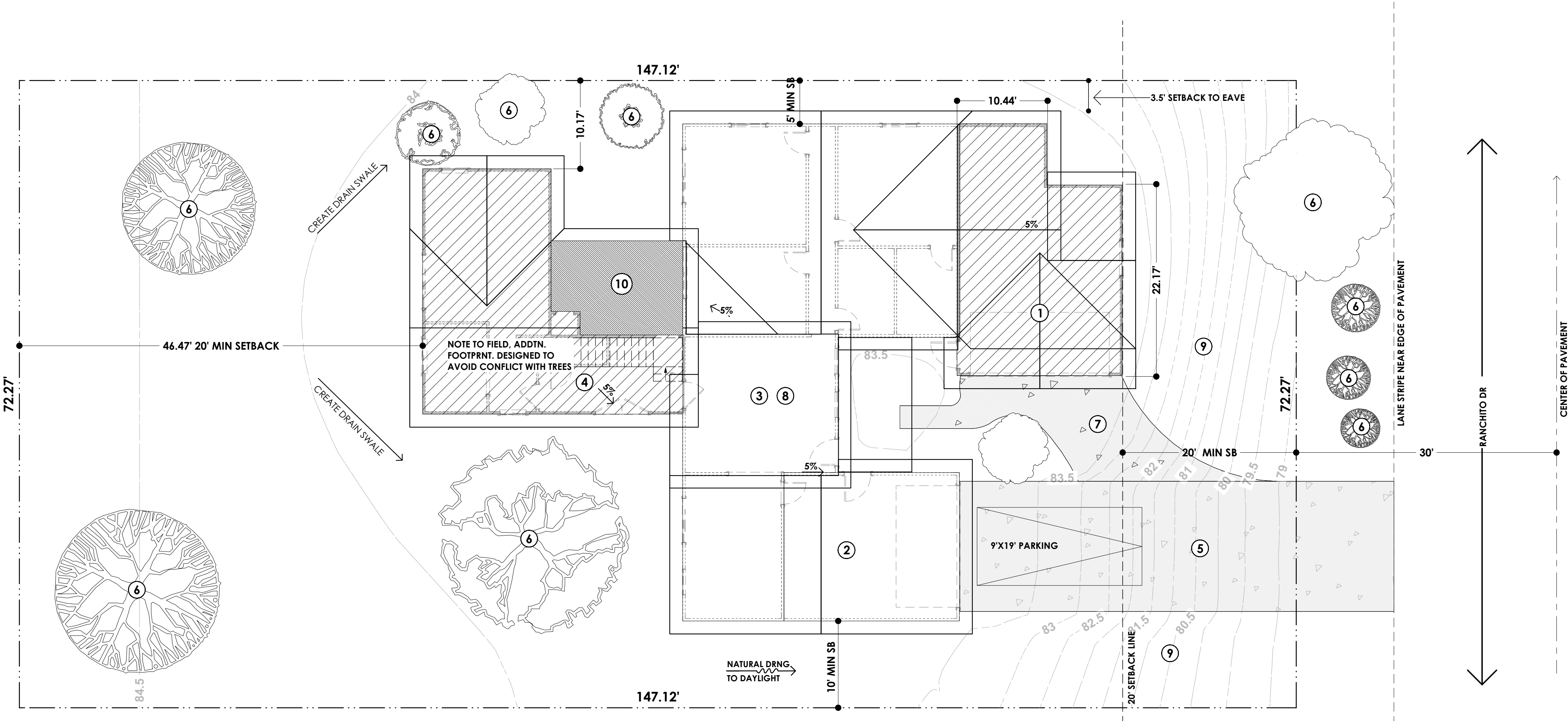


BARNETT ADDITION

LABEL	TITLE	COMMENTS
A-1	SITE PLAN	
A-2	NORTH, SOUTH, WEST AND EAST ELEVATIONS	
A-3	1ST FLOOR PLAN, 2ND FLOOR PLAN, EXISTING PLAN	
A-4	FOUNDATION PLAN, CROSS SECTIONS, DETAILS	
A-5	BRACED WALL PLANS, PORTAL FRAME DETAIL	
A-6	FRAMING PLANS, NAILING SCHEDULE	
E-1	ELECTRICAL PLAN	
T24-1	TITLE 24 PAGE 1-2	
CG-1	CAL-GREEN	
CG-2	CAL-GREEN	

SITE PLAN
SCALE:
1/8 IN = 1 FT



SITE PLAN NOTES:

CALLOUT SYMBOL: ⑧

PROPERTY LINES SHOWN ARE BASED ON ASSESSORS RECORD AND FENCE-LINE OBSERVATION. NO LAND SURVEY IS MADE OR REPRESENTED HEREIN

- 1- PROPOSED NEW 2 CAR GARAGE
- 2- EXISTING 2 CAR GARAGE - 345 SQ. FT.
- 3- EXISTING 2 STORY HOME
- 4- NEW 2 STORY ADDITION; 667 SQ. FT. COVERAGE/2ND STORY
- 5- EXISTING PAVED DRIVEWAY
- 6- TREE
- 7- NEW PAVED DRIVEWAY
- 8- (E) LIVING ROOM FOR REFERENCE
- 9- UNPAVED LAWN AREA
- 10- LIVING SPACE ABOVE, PATIO BELOW

SUMMARY OF WORK

THE SCOPE OF THIS APPLICATION IS LIMITED TO THE CONSTRUCTION OF A NEW 2-STORY ADDITION AND 2-CAR GARAGE.

EXISTING PROPERTY IS 4 BEDS AND 2 BATH WHICH WILL BECOME A 6 BED 4 BATH SINGLE FAMILY UNIT

ALL PROPOSED WORK TO CONFORM WITH CURRENT APPLICABLE CODES AND BUILDING STANDARDS.

CAL-GREEN MANDATORY MEASURES NOT A REQUIREMENT FOR THIS PROJECT

PROJECT DATA:

APN:	110.410.029.000
SITE ADDRESS:	2470 RANCHITO DR.
SITE CITY STATE ZIP:	CONCORD CA
ZONING:	RS 7.5
CONSTRUCTION TYPE:	VB
CLIMATE ZONE:	12
OCCUPANCY GROUP:	R-3/U

THE EXISTING PROPERTY IS NOT EQUIPPED WITH FIRE SPRINKLERS

AREA SUMMARY:

(E) 1 STORY FLR AREA:	1265
(E) 2 STORY FLR AREA:	289
(E) GARAGE FLR AREA:	345
(N) 1 STORY ADDITION:	566
(N) 2 STORY ADDITION:	712
(N) GARAGE:	486
TOTAL CONDITIONED FLOOR AREA:	2832
TOTAL LOT COVERAGE:	3403
LOT AREA:	10632
PERCENT COVERAGE:	32%
YEAR BUILT:	1969
BATHROOMS:	2(E)+2-1/2(N)
NUMBER OF STORIES:	2

CODES APPLICABLE:

ALL CONSTRUCTION TO COMPLY WITH LOCAL CODES AND ORDINANCES AND THE FOLLOWING:
2016 CALIFORNIA RESIDENTIAL CODE
2016 CALIFORNIA GREEN BUILDING STANDARD CODE (CGBSC)
2016 CALIFORNIA MECHANICAL CODE (CMC)
2016 CALIFORNIA PLUMBING CODE (CPC)
2016 CALIFORNIA ELECTRICAL CODE (CEC), BASED ON THE 2014 NEC
2016 CALIFORNIA ENERGY CODE (CEC PART 6)
2016 CALIFORNIA FIRE CODE (CFC)
2016 CALIFORNIA BUILDING CODE

NOTE:

SPECIAL INSPECTIONS NOT REQUIRED FOR THIS SCOPE OF WORK

DEFERRED APPROVALS:

ENGINEERED TRUSSES

CONTACT:
CERLETTI AND KENNEDY DESIGN BUILD
2950 BUSKIRK AVE STE 300
WALNUT CREEK
LIC. NO. 942024
(707) 561 6487

REVISION HISTORY

REVISION CALLOUT: A

A REMODEL FOR:
HUGH BARNETT
2470 RANCHITO DR
CONCORD CA

12/11/2018

SITE PLAN

A-1

PLAN NORTH



CONTACT:
CERLETTI AND KENNEDY DESIGN BUILD
 2950 BUSKIRK AVE STE 300
 WALNUT CREEK
 LIC. NO. 942024
 (707) 561 6487

REVISION CALLOUT: REVISION HISTORY

**A REMODEL FOR:
HUGH BARNETT
2470 RANCHITO DR
CONCORD CA**

12/11/2018

**NORTH, SOUTH,
WEST AND EAST
ELEVATIONS**

A-2

WALL COLOR AND TRIM OF THE ADDITION TO
MATCH EXISTING HOUSE

**ELEVATION 1
PLAN EAST
SCALE:
3/16 IN = 1 FT**

(N) 2-CAR GARAGE

W#13-4030LS

(E) WALLS AND ROOFS SHOWN W/ NO TEXTURE

W#13-4030LS

ADDITION

(N) COMP SHINGLE ROOF SIMILAR TO EXISTING

FASCIA SIMILAR TO (E)

5 12

W#16-2030LS

WALL COLOR AND TRIM OF THE ADDITION TO MATCH EXISTING HOUSE

D01

SEE WINDOW SCHEDULE

W#06-3040LS

(N) STUCCO T.M.E.

HIGHEST RIDGE + 21.92'

RIDGE HEIGHT AT MASTER BEDRM. + 20.86'

2ND FLOOR CEILING HEIGHT + 15.92'

TOP OF 2ND FLOOR SUBFLOOR + 8.83'

TOP OF SLAB 0' (84.0' ABOVE SEA LEVEL)

GRADE 8" MIN. CLEARANCE TO TOP OF SLAB

ELEVATION 2
PLAN SOUTH
SCALE:
3/16 IN = 1 FT

12
15

ADDITION

4036LS

2030LS

W#12-4016LS

(N) 2-CAR GARAGE

(N) COMP SHINGLE ROOF
SIMILAR TO EXISTING

14070

3068

W#14-3040SH

SHUTTERS AT (N)
GARAGE WINDOW TO
CLOSELY MATCH
EXISTING SECOND
STORY WINDOW AS
SHOWN

W#13-4030LS

(N) STUCCO
T.M.E.

Architectural elevation drawing of the front of a two-story house. The drawing includes the following details:

- Address:** 6068 (located on the left side of the house).
- Roof:** (N) COMP SHINGLE ROOF SIMILAR TO EXISTING (located above the central gable).
- Windows:**
 - W#15-3050SH (large window on the left side of the upper floor).
 - W#15-3050SH (medium window in the center of the upper floor).
 - W#04-3040LS (small window on the right side of the upper floor).
 - W#10-4040LS (large window on the right side of the lower floor).
- Doors:**
 - D12 (double door entrance in the center of the lower floor).
 - 5068 (double door entrance on the right side of the lower floor).
- Chimney:** A brick chimney is located to the right of the central entrance.
- ADDITION:** A dashed line indicates an addition on the right side of the house.
- Scale:** 1 FT (indicated by a scale bar at the top left).
- North Arrow:** Located in the top right corner.

ELEVATION 4
PLAN WEST
SCALE:
3/16 IN = 1 FT

ADDITION

(N) COMP SHINGLE ROOF
SIMILAR TO EXISTING

W#05-3040LS

W#11-3040LS

W#11-3040LS

W#03-3040LS

D11

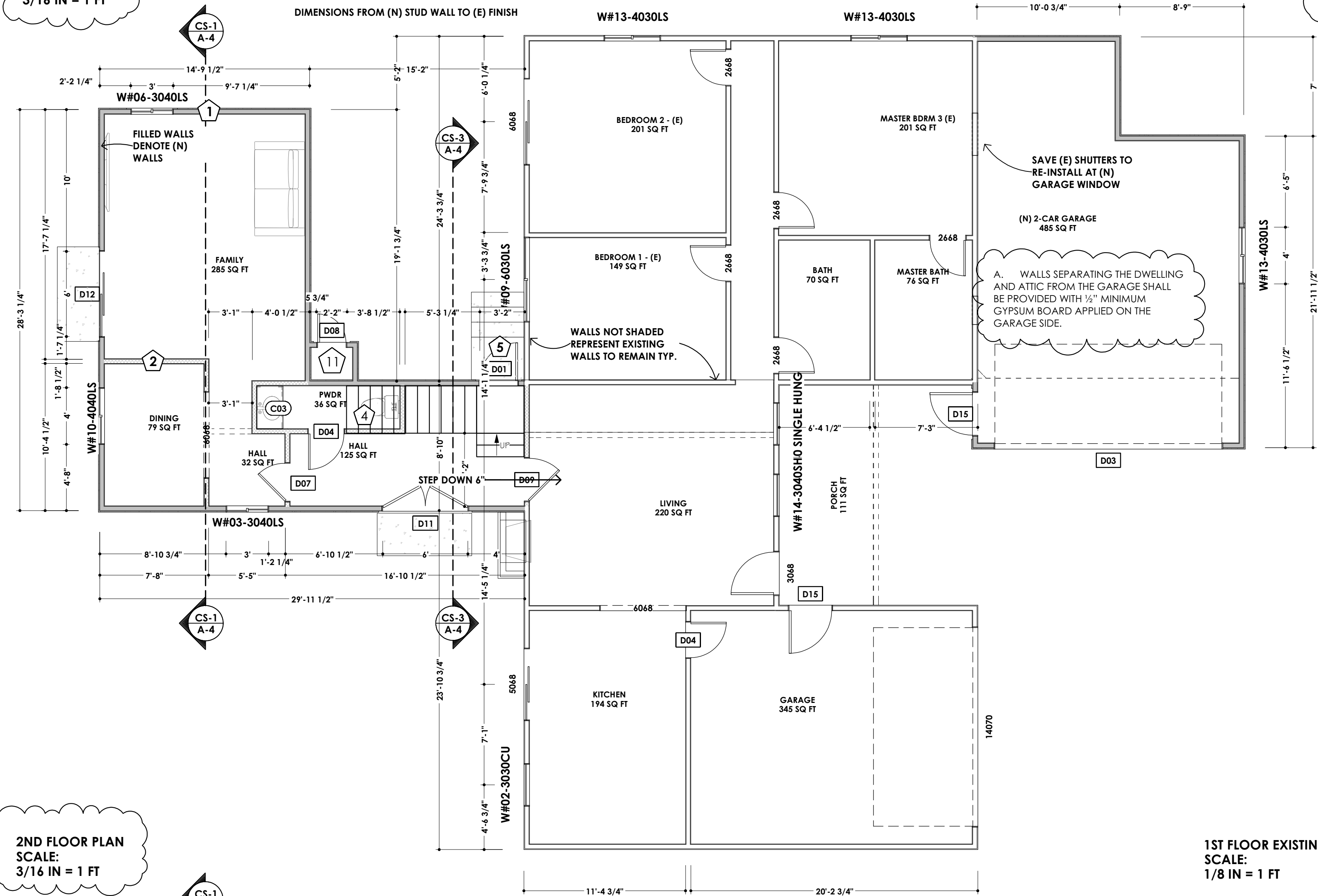
B

(N) COMP SHINGLE ROOF
SIMILAR TO EXISTING

(N) 2-CAR GARAGE

D03

1ST FLOOR PLAN
SCALE:
3/16 IN = 1 FT



WINDOW SCHEDULE

SCHEDULE SYMBOL: W#06-3040LS

NUMBER	QTY	FLOOR	DESCRIPTION	R/O	FRAME TYPE	ORIENT AION	AREA	EGRESS	TEMPERED	U-FACT OR	SHGC	COMMENTS
W#02	1	1	GARDEN	36"X36"	VINYL FRAME	NORTH	9.0			0.35	0.25	
W#03	1	1	LEFT SLIDING	36"X48"	VINYL FRAME	WEST	12.0		YES	0.35	0.25	
W#04	1	2	LEFT SLIDING	36"X48"	VINYL FRAME	NORTH	12.0			0.35	0.25	
W#05	1	2	LEFT SLIDING	36"X48"	VINYL FRAME	WEST	12.0		YES	0.35	0.25	
W#06	1	1	LEFT SLIDING	36"X48"	VINYL FRAME	NORTH	12.0			0.35	0.25	
W#09	1	1	LEFT SLIDING	72"X36"	VINYL FRAME	NORTH	18.0			0.35	0.25	
W#10	1	1	LEFT SLIDING	48"X48"	VINYL FRAME	NORTH	16.0			0.35	0.25	
W#11	2	2	LEFT SLIDING	36"X48"	VINYL FRAME	WEST	12.0			0.35	0.25	
W#12	1	2	LEFT SLIDING	48"X18"	VINYL FRAME	SOUTH	6.0		YES	0.35	0.25	
W#13	3	1	LEFT SLIDING	48"X36"	VINYL FRAME	NORTH	12.0			0.35	0.25	
W#14	2	1	SINGLE HUNG	36"X48"	VINYL FRAME	NORTH	12.0			0.35	0.25	
W#15	2	2	SINGLE HUNG	36"X60"	VINYL FRAME	NORTH	15.0			0.35	0.25	
W#16	1	2	LEFT SLIDING	24"X36"	VINYL FRAME	SOUTH	6.0		YES	0.35	0.25	
TOTALS:							217.0					

DOOR SCHEDULE

SCHEDULE SYMBOL: D#

NUMBER	QTY	FLOOR	DESCRIPTION	R/O	AREA	TEMPERED	U-FACT OR	SHGC	THICKNESS	COMMENTS
D01	1	1	EXT. HINGED-DOOR E25	34"X77"	16.44		0.3	0.3	1 3/4"	
D02	5	2	HINGED-SLAB	32"X82 1/2"	16.67		0.3	0.3	1 3/8"	
D03	1	1	GARAGE-SLAB	194"X87"	112.0		0.3	0.3	1 3/4"	
D04	2	1	HINGED-SLAB	32"X82 1/2"	16.67		0.3	0.3	1 3/8"	
D07	1	1	HINGED-SLAB	34"X82 1/2"	17.78		0.3	0.3	1 3/8"	
D08	1	1	EXT. HINGED-PANEL	26"X83"	13.33		0.3	0.3	1 3/4"	
D09	1	1	HINGED-SLAB	38"X82 1/2"	20.0		0.3	0.3	1 3/8"	
D10	1	2	SLIDER-SLAB	74"X82 1/2"	40.0		0.3	0.3	1 3/8"	
D11	1	1	EXT. DOUBLE HINGED-GLASS PANEL	74"X83"	40.0	YES	0.3	0.3	1 3/4"	
D12	1	1	EXT. SLIDER-GLASS PANEL	74"X83"	40.0	YES	0.3	0.3	1 3/4"	
D13	1	2	TRIPLE SLIDER-SLAB	99 1/2"X82 1/2"	54.17		0.3	0.3	1 3/8"	
D14	2	2	SLIDER-SLAB	62"X82 1/2"	33.33		0.3	0.3	1 3/8"	
D15	2	1	EXT. HINGED-DOOR E25	38"X83"	20.0		0.3	0.3	1 3/4"	
TOTALS:					577.07					

CABINET SCHEDULE

SCHEDULE SYMBOL: C#

NUMBER	QTY	FLR	WIDTH	DEPTH	HEIGHT	DESCRIPTION	COMMENTS
C03	1	1	36"	21"	36"	BASE CABINET	
C04	2	2	40 9/16"	21"	36"	BASE CABINET	

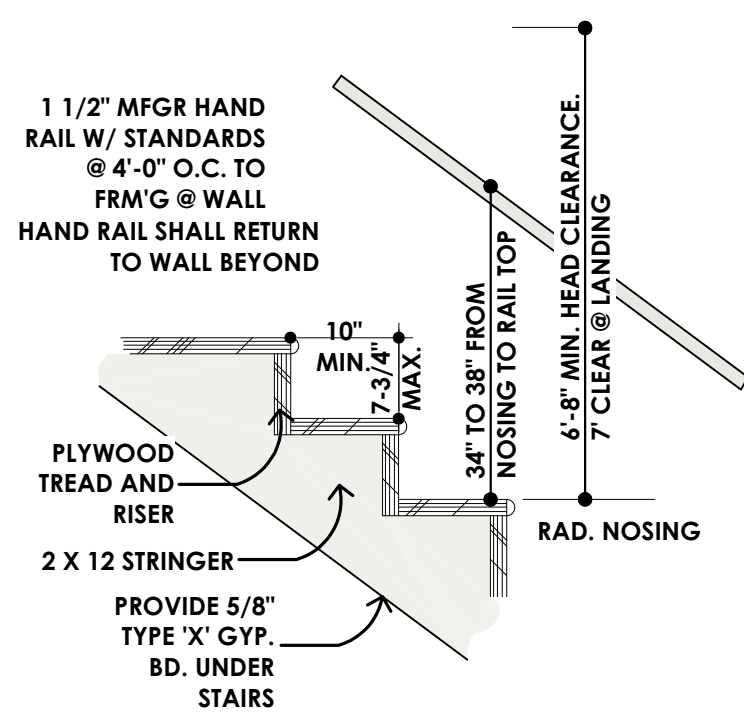
FLOOR PLAN KEY NOTES

CALLOUT SYMBOL: 1

- 1 - FILLED WALL REPRESENTS EXTERIOR WALL TYP.
- 2 - CROSS-HATCHED WALL REPRESENTS INTERIOR WALL TYP.
- 3 - RESERVED
- 4 - 1/2 GYPSUM BOARD ON THE WALLS AND CEILING OF THIS ROOM
- 5 - NEW 36" LANDING W/STAIRS
- 6 - NEW DOOR AT EXISTING WINDOW REMOVED
- 7 - FILL @ EXISTING DOOR REMOVED
- 8 - CONFORM EXISTING STAIRWELL TO A LIGHT WELL
- 9 - 42" HIGH PONY WALL AT STAIRWELL
- 10 - NEW ATTIC ACCESS MINIMUM 22" X 30"
- 11 (N) MECHANICAL CLOSET

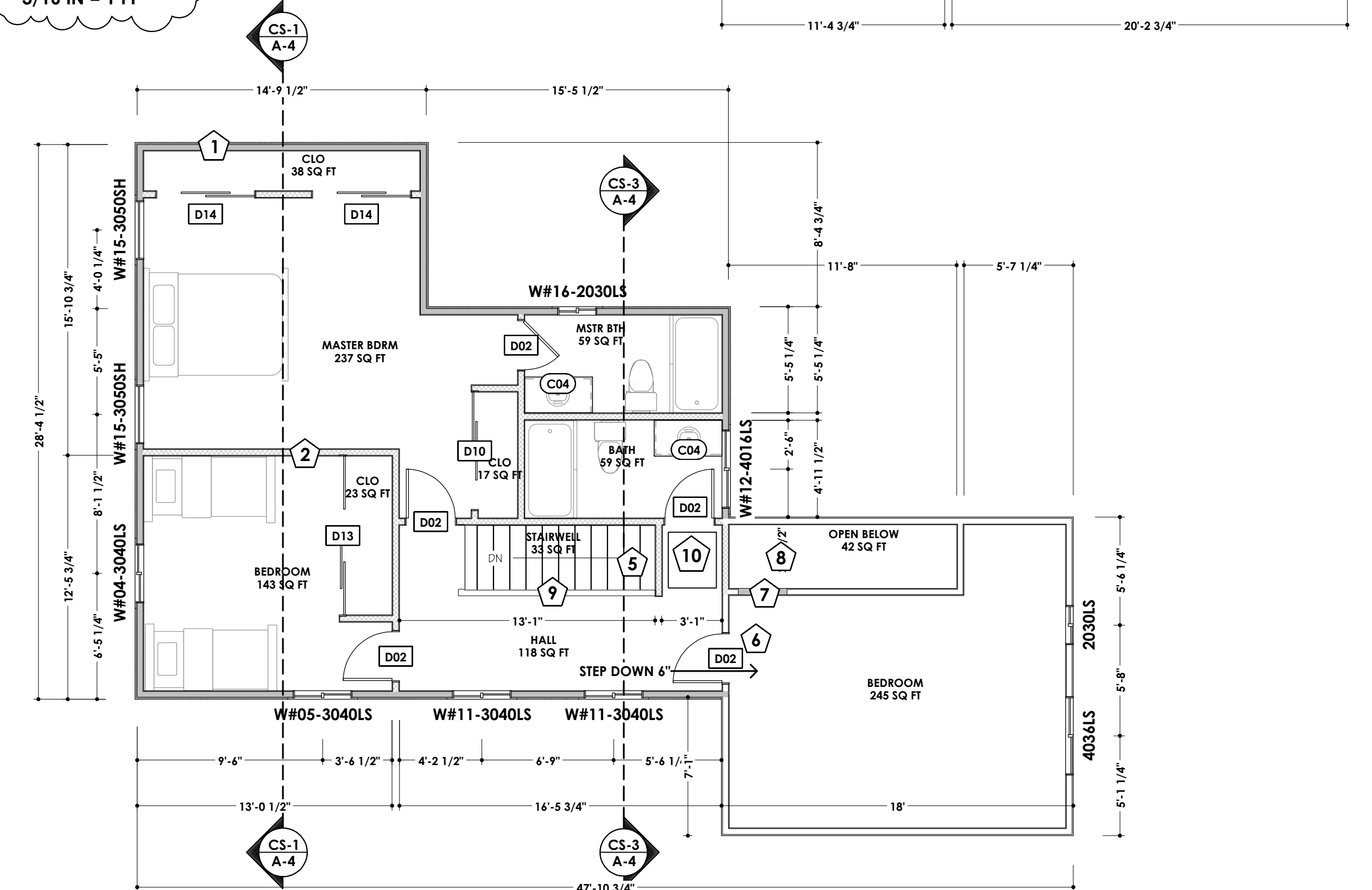
FLOOR PLAN NOTES:

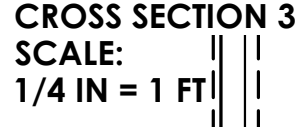
- IN-SWINGING DOORS TO BE NO MORE THAN 7.75" MAXIMUM ABOVE THE DOOR LANDING PER CRC R311.3.1
- BATHTUB AND SHOWER FLOORS AND WALLS ABOVE BATHTUBS WITH INSTALLED SHOWER HEADS AND IN SHOWER COMPARTMENTS SHALL BE FINISHED WITH A NONABSORBENT SURFACE. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.
- GYPSUM BOARD SHALL NOT BE USED WHERE THERE WILL BE DIRECT EXPOSURE TO WATER, OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY.



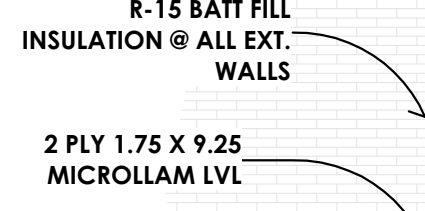
D-1 A-3 DETAIL 3: TYP STAIRCASE NO SCALE

2ND FLOOR PLAN
SCALE:
3/16 IN = 1 FT





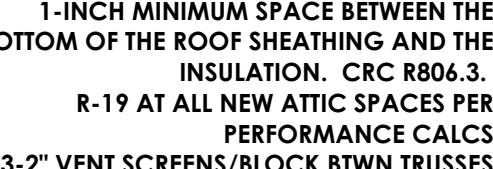
**CALIFORNIA FRAME. SEE DETAIL 1
THIS SHEET**



CALLOUT SYMBOL:

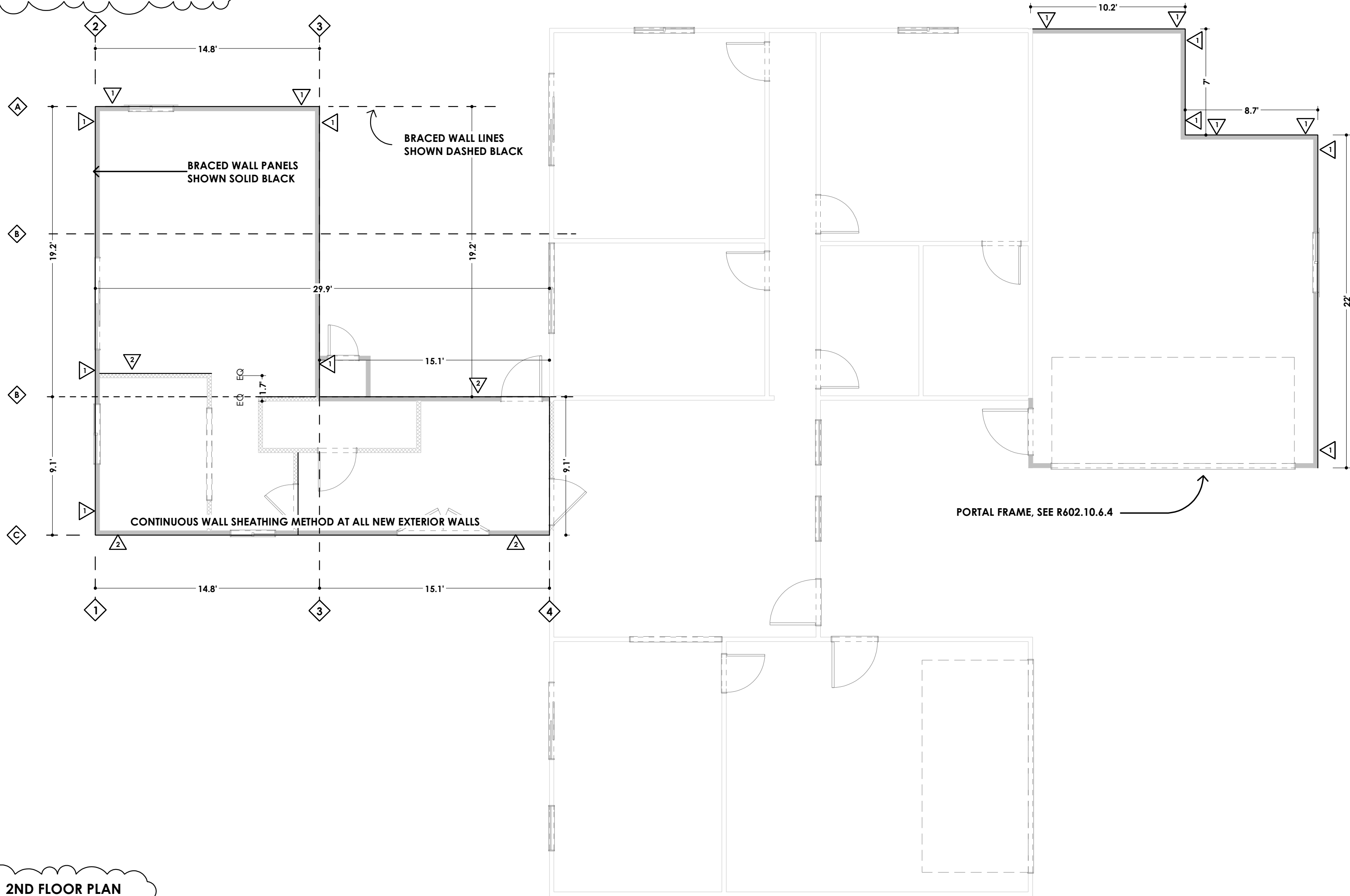
FOUNDATION NOTES(CONCRETE)
- FOOTING DEPTH AND WIDTH DIMENSIONS:
SINGLE STORY: A=12" B=12"
TWO STORY: A=18" B=15"

- FORMS SHALL BE TIGHT AND CLEAN BEFORE PLACING CONCRETE.
- REINFORCING STEEL SHALL BE CLEAN AND FREE OF RUST.

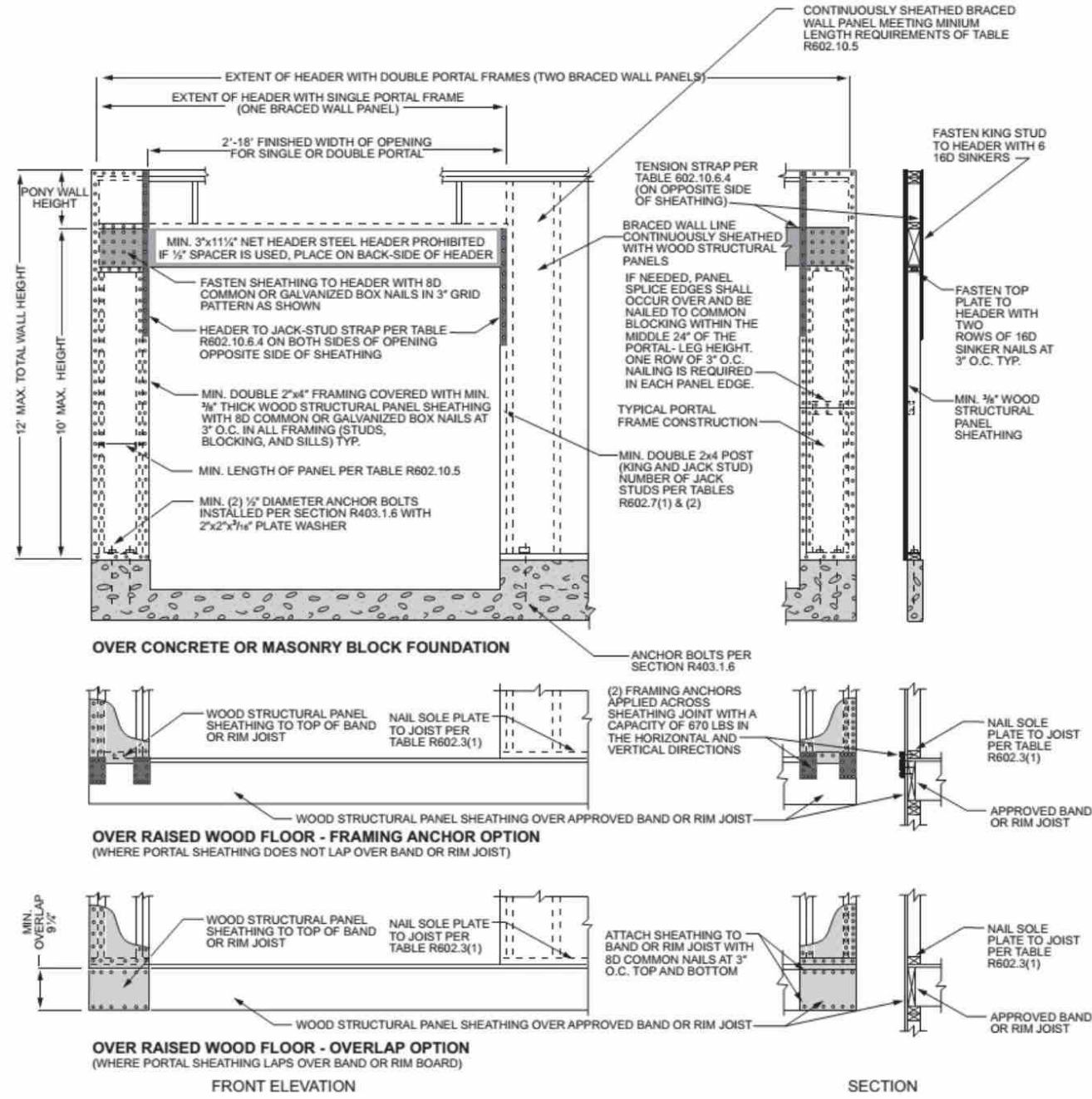
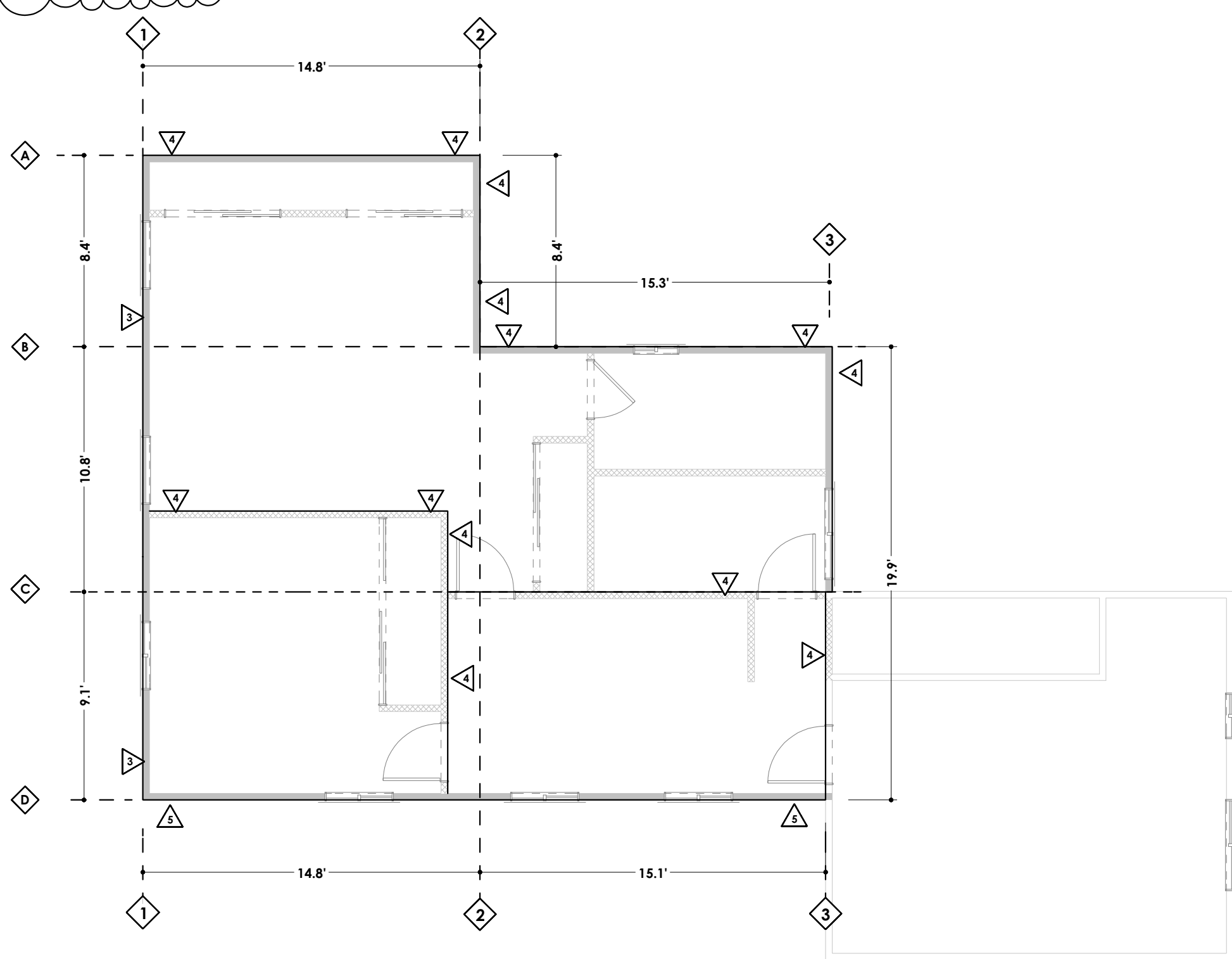


(A-4) SCALE: 1 IN = 1 FT

1ST FLOOR BRACED WALL PLAN
SCALE:
3/16 IN = 1 FT



2ND FLOOR PLAN
SCALE:
3/16 IN = 1 FT



For St: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

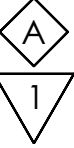
FIGURE R602.10.6.4
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION
R602.10.6.5 Wall bracing for dwellings with stone and masonry veneer in Seismic Design Categories D₀, D₁ and D₂.

BRACED WALL PLAN NOTES
EXISTING BRACED WALLS TO REMAIN, CS-
WSP METHOD USED FOR COMPLIANCE
CONTRACTOR TO V.I.F.

STUD TO STUD AND ABUTING STUDS AT
INTERSECTING WALL CORNERS- USE 16D
BOX(3-1/2" X 0.135")OR 3" X 0.131" NAILS @ 6"
EDGES, 12" FIELD

BRACED WALL PANEL LEGEND

BRACED WALL LINE SYMBOL:



BRACED WALL LENGTH REFERENCE SYMBOL:



1

2

3

4

5

602.10.3(3) SEISMIC					ADJUSTMENTS				
WALL LINE	STORY	TOTAL STORIES	CS-WSP/CS-PF	LENGTH	MIN REQ.	STORY HEIGHT ADJUSTMT. FCTR.	DEAD LOAD	ADJUSTMT FCTR	BWL LENGTH ADJUSTMT. FCTR
1	1	2	3.8' per 10'	9.70	3.80	8	>15	1.1	1
2	1	2	3.8' per 10'	18.60	3.80	8	>15	1.1	1
3	1	2	7.7' per 20'	19.20	3.80	8	>15	1.1	1
4	1	2	3.8' per 10'	9.10	3.80	8	>15	1.1	1
A	1	2	3.8' per 10'	14.80	3.80	8	>15	1.1	1
B	1	2	7.7' per 20'	29.90	7.70	8	>15	1.1	1.2
C	1	2	7.7' per 20'	29.90	7.70	8	>15	1.1	1.2

602.10.3(3) SEISMIC					ADJUSTMENTS				
WALL LINE	STORY	TOTAL STORIES	CS-WSP/CS-PF	LENGTH	MIN REQ.	STORY HEIGHT ADJUSTMT. FCTR.	DEAD LOAD	ADJUSTMT FCTR	BWL LENGTH ADJUSTMT. FCTR
1	2	2	7.7' per 20'	28.30	3.40	8	>15	1.1	1
2	2	2	3.8' per 10'	8.40	1.70	8	>15	1.1	1
3	2	2	3.8' per 10'	19.90	1.70	8	>15	1.1	1
A	2	2	3.8' per 10'	14.80	1.70	8	>15	1.1	1
B	2	2	3.8' per 10'	15.30	1.70	8	>15	1.1	1
C	2	2	7.7' per 20'	29.90	3.40	8	>15	1.1	1.2

CONTACT:
CERLETTI AND KENNEDY DESIGN BUILD
2950 BUSKIRK AVE STE 300
WALNUT CREEK
LIC. NO. 942024
(707) 561 6487

REVISION HISTORY

REV	DATE	BY	DESCRIPTION
001	11/13/18	HA	CONSTRUCTION

A REMODEL FOR:
HUGH BARNETT
2470 RANCHO DR
CONCORD CA

12/11/2018

BRACED WALL
PLANS, PORTAL
FRAME DETAIL

A-5

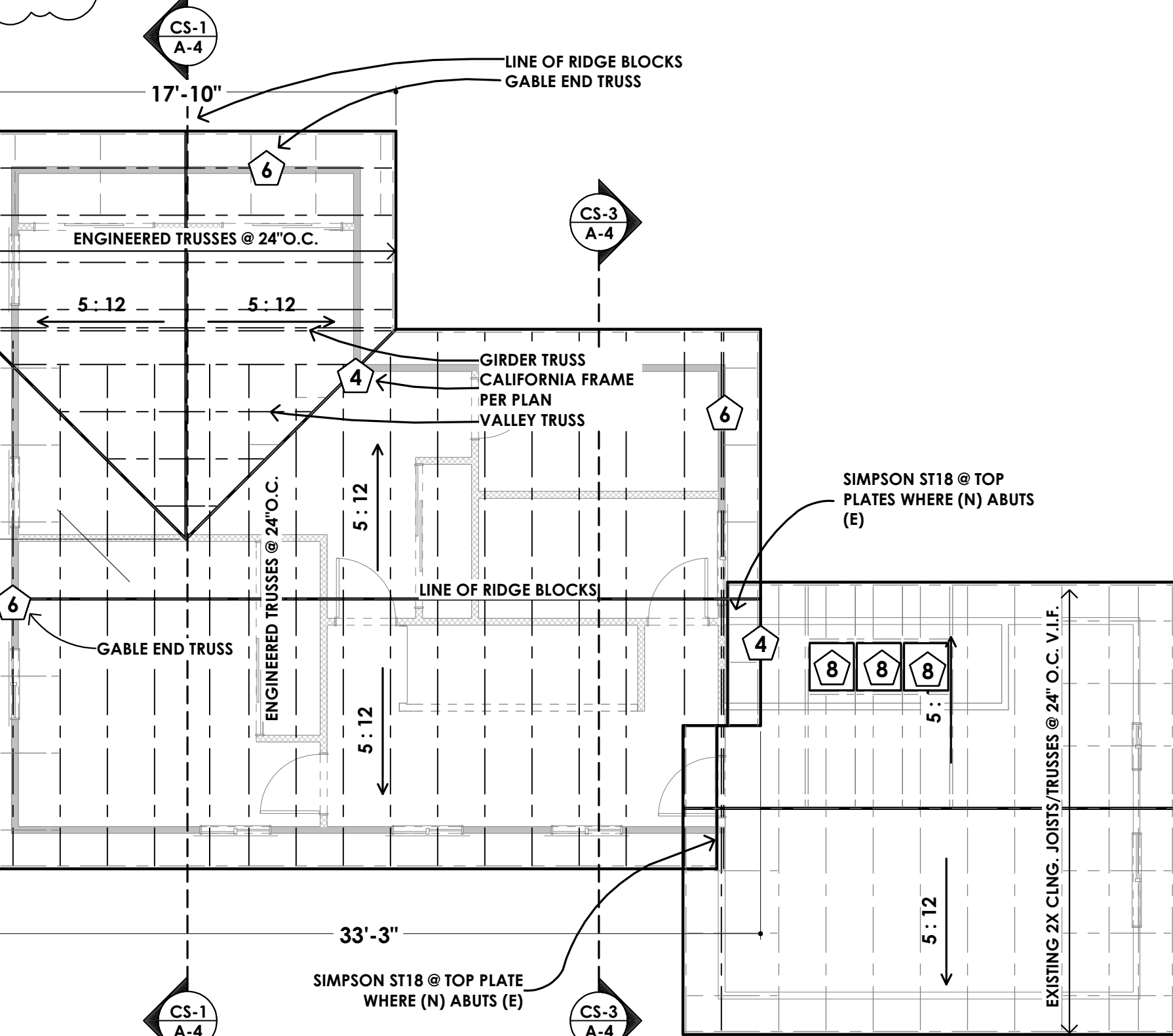


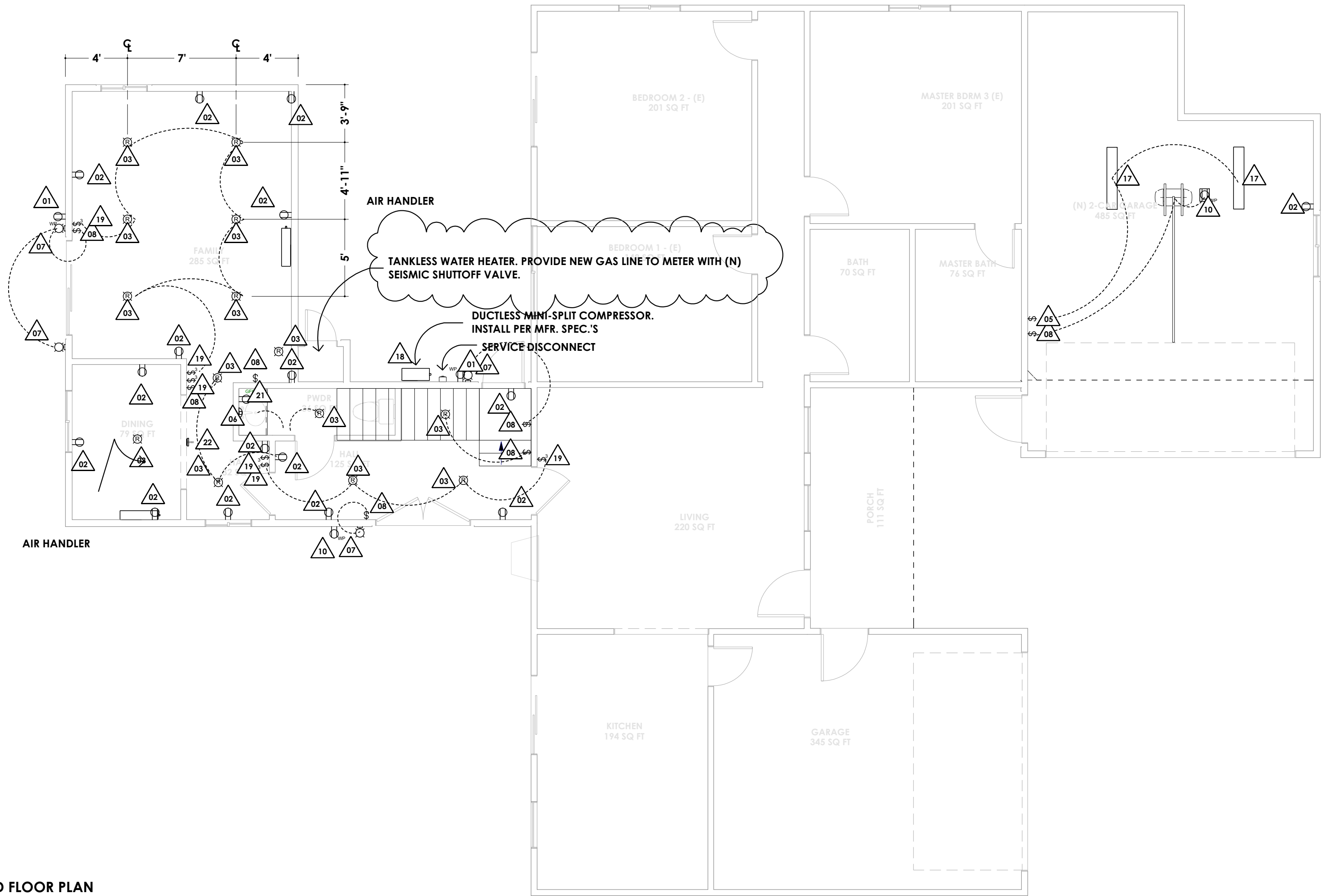
TABLE R602.3(1) – continued – FASTENER SCHEDULE FOR STRUCTURAL MEMBERS			SPACING OF FASTENERS	
ITEM	DESCRIPTION OF BUILDING MATERIAL	DESCRIPTION OF FASTENER ^{c, e}	Edges (inches)	Intermediate supports ^{c, e}
Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing				
32	³ / ₈ "- ¹ / ₂ "	8d common (2" × 0.131") nail (subfloor wall) 8d common (2 ¹ / ₂ " × 0.131") nail (roof)	6	12 ^d
	¹ / ₈ "-1"	8d common nail (2 ¹ / ₂ " × 0.131")	6	12 ^d
34	¹ / ₈ "- ¹ / ₄ "	10d common (3" × 0.148") nail or 8d (2 ¹ / ₂ " × 0.131") deformed nail	6	12
Other wall sheathing ^d				
35	¹ / ₂ " structural cellulosic fiberboard sheathing	¹ / ₂ " galvanized roofing nail, ¹ / ₄ " crown or 1" crown staple 16 ga., ¹ / ₄ " long	3	6
36	⁵ / ₈ " structural cellulosic fiberboard sheathing	³ / ₄ " galvanized roofing nail, ¹ / ₄ " crown or 1" crown staple 16 ga., ¹ / ₂ " long	3	6
37	¹ / ₂ " gypsum sheathing ^f	¹ / ₂ " galvanized roofing nail; staple galvanized, ¹ / ₂ " long; ¹ / ₄ " screws, Type W or S	7	7
38	⁵ / ₈ " gypsum sheathing ^f	³ / ₄ " galvanized roofing nail; staple galvanized, ³ / ₈ " long; ¹ / ₂ " screws, Type W or S	7	7
Wood structural panels, combination subfloor underlayment to framing				
39	³ / ₈ " and less	8d deformed (2" × 0.120") nail or 8d common (2 ¹ / ₂ " × 0.131") nail	6	12
40	¹ / ₈ "-1"	8d common (2 ¹ / ₂ " × 0.131") nail or 8d deformed (2 ¹ / ₂ " × 0.120") nail	6	12
41	¹ / ₈ "- ¹ / ₄ "	10d common (3" × 0.148") nail or 8d deformed (2 ¹ / ₂ " × 0.120") nail	6	12

PDS 081 REV: 1/01/2017 PAGE 10 of 10

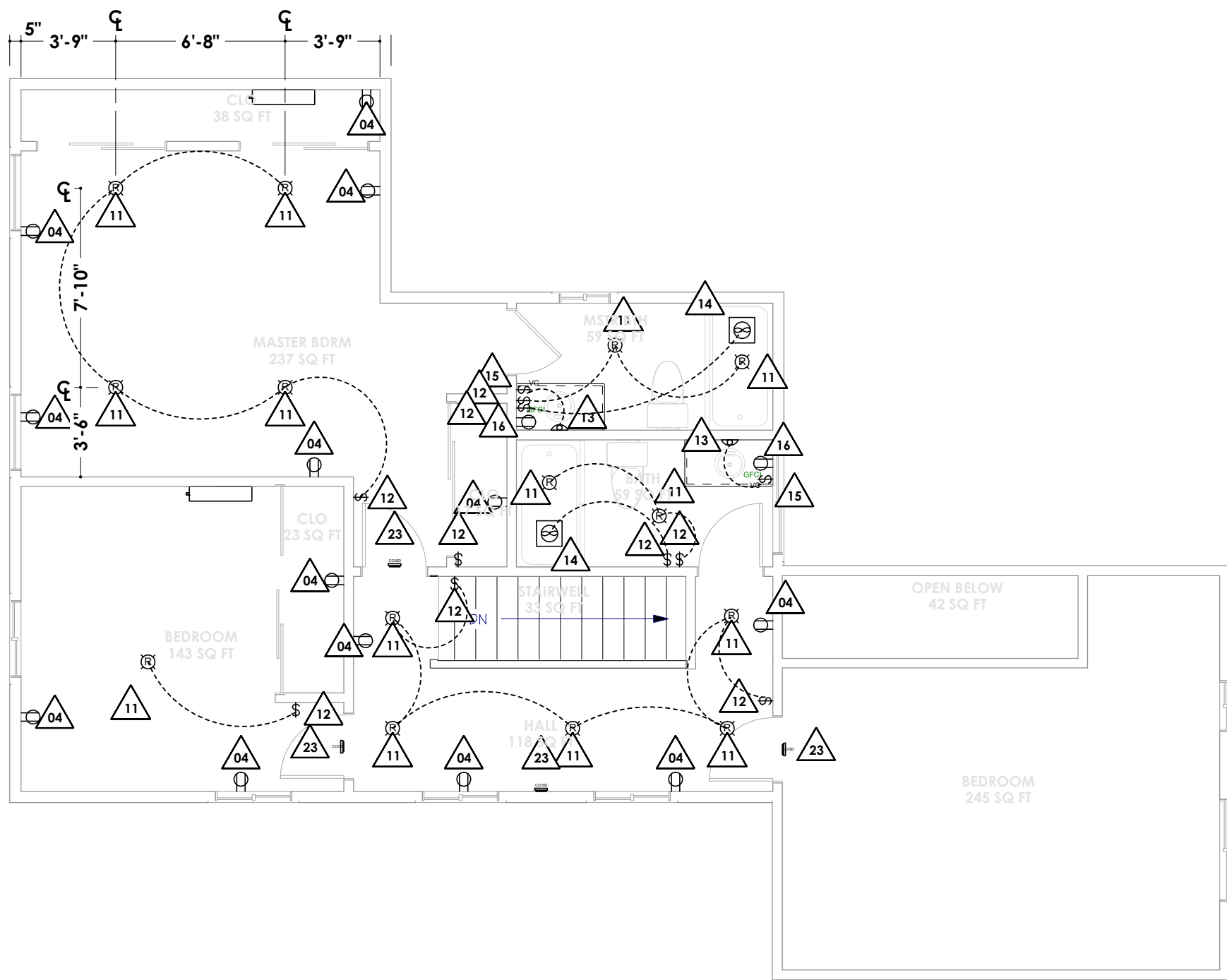
Depth	T/J [®]	40 PSF Live Load / 10 PSF Dead Load				40 PSF Live Load / 20 PSF Dead Load			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
9½"	110	18'-2"	16'-7"	15'-3"	13'-8"	17'-8"	15'-3"	13'-11"	12'-5"
	210	19'-1"	17'-5"	16'-6"	15'-0"	19'-1"	16'-9"	15'-4"	13'-8"
	230	19'-7"	17'-11"	16'-11"	15'-9"	19'-7"	17'-8"	16'-5"	14'-5"

ATTIC AREA SERVED = 732 SF /150 = 4.88 SQ. FT.
VENTING REQUIRED=702 SQ. IN.
RIDGE VENT PROVIDES 15 SQ. IN. VENTING PER
LF
33' RIDGE VENT = 495 SQ. IN.
PROVIDE 40 EAVE BLOCKS WITH 3 -2" DIA.
SCREEN VENTS @ 1.86 SQ. IN. NFA/VENT
495+223=718 SQ. IN.

1ST FLOOR ELECTRICAL PLAN
SCALE:
3/16 IN = 1 FT



2ND FLOOR PLAN
SCALE:
3/16 IN = 1 FT



ELECTRICAL
SCHEDULE

SCHEDULE SYMBOL:



NO	QTY	FLR	DESCRIPTION	COMMENTS
01	2	1	DUPLEX (WEATHERPROOF)	GFCI
02	16	1	DUPLEX	
03	14	1	RECESSED DOWN LIGHT 6	
04	13	2	DUPLEX	
05	1	1	SINGLE POLE	GARAGE DOOR OPENER
06	1	1	VANITY LIGHT T.B.D.	
07	4	1	EXT. WALL SCONCE	
08	7	1	SINGLE POLE	
10	2	1	DUPLEX CEILING MOUNT	
11	14	2	RECESSED DOWN LIGHT 6	
12	9	2	SINGLE POLE	
13	2	2	VANITY LIGHT T.B.D.	
14	2	2	EXHAUST	W/HUMIDISTAT
15	2	2	VACANCY SENSOR	
16	2	2	GFCI	
17	2	1	TUBE LIGHT	
18	1	1	MINI-SPLIT CONDENSER	
19	6	1	DECORATOR SWITCH 3-WAY	
20	1	3	DUPLEX	
21	1	1	GFCI	
22	1	1	CO/SMOKE DETECTOR	
23	4	2	CO/SMOKE DETECTOR	

CAL-GREEN NOTES:

BATH FAN(S) SHALL BE:

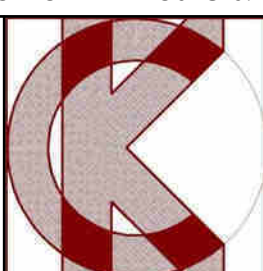
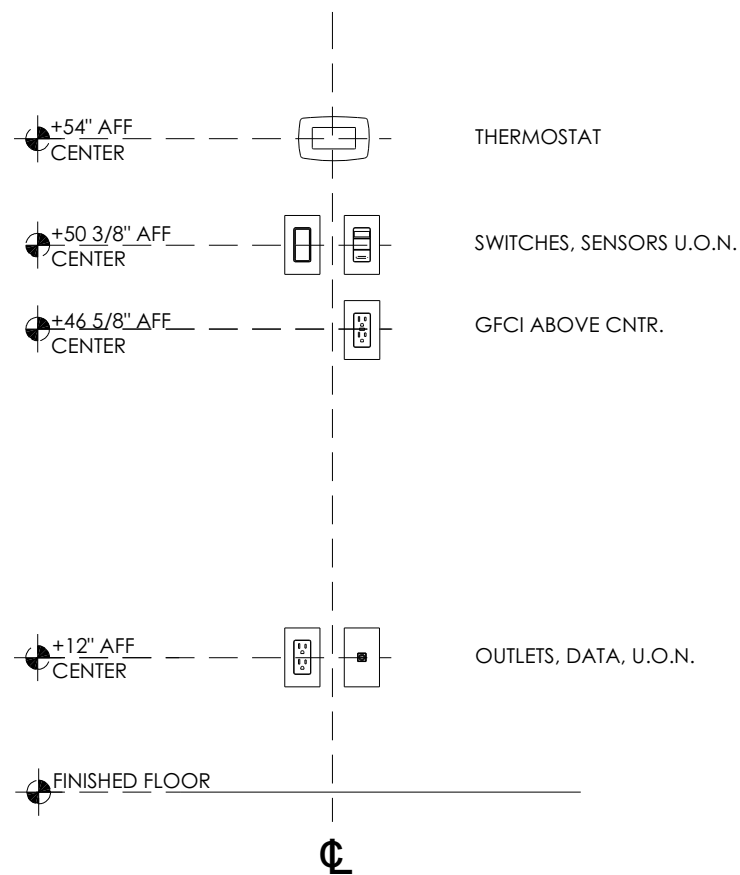
- A) DIRECT VENTED TO THE EXTERIOR
- B) CONTROLLED BY A HUMIDISTAT AND
- C) SHALL BE AN "ENERGY STAR" RATED APPLIANCE.
- D) SHALL PROVIDE 50 CFM INTERMITTENT OR 25 CFM CONTINUOUS.
- E) CONTINUOUS FANS TO HAVE A SOUND RATING NOT TO EXCEED 1 SONE, INTERMITTENT NOT TO EXCEED 3 SONE.
- F) SHALL BE PROVIDED A BACK DRAFT DAMPER.

PLUMBING FIXTURE FLOW RATES:

- A) SHOWERHEADS 2 GPM @ 80 PSI
- B) LAVATORY FAUCETS, RESIDENTIAL 1.5 GPM @ 60 PSI2
- C) KITCHEN FAUCETS 1.8 GPM @ 60 PSI
- D) GRAVITY TANK-TYPE WATER CLOSETS 1.28 GALLONS PER FLUSH

ELECTRICAL NOTES:

- PROVIDE (N) BRANCH CIRCUIT TO ADDITION.
- PROVIDE 20 AMP CIRCUIT FOR BATHROOM RECEPTACLES.
- PROVIDE 20 AMP CIRCUIT FOR LAUNDRY RECEPTACLES
- PROVIDE GFI PROTECTION AT BATHROOM, GARAGE AND OUTDOOR RECEPTACLES.
- ALL COUNTER TOP RECEPTACLES WITHIN 6' OF SINK/LAUNDRY TUB TO BE GFCI PROTECTED.
- PROVIDE SPLIT SWITCHING OF BATH FAN AND LIGHT.
- PROVIDE INTERMATIC WEATHERPROOF OUTLET BOX AT GFCI PROTECTED RECEPT AT EXTERIOR.
- PROVIDE IC RATING AT ALL CANS, AIRTIGHT & CAULK.
- PROVIDE 1 NON-GFCI RECEPTACLE AT GARAGE.
- PROVIDE HARDWIRED SMOKE DETECTOR AT NEW BEDROOM.
- VERIFY/PROVIDE BATTERY TYPE SMOKE DETECTORS IN EACH (E) BEDROOM AND BEDROOM CORRIDOR, ON EACH STORY AND AT HALLWAY NEXT TO BEDROOMS.
- VERIFY PROVIDE BATTERY TYPE CO DETECTOR AT HALLWAY ADJACENT TO BEDROOMS.
- WHERE NEW CONSTRUCTION OR ELECTRICAL WORK OCCURS, THE SMOKE ALARMS AND CARBON MONOXIDE ALARMS SHALL BE INTERCONNECTED AND HARDWIRED PER CRC R314.4, R314.5, R315.2.4 AND R315.2.5
- PROVIDE ARC FAULT PROTECTION AT ALL (N) (NON GFI) RECEPTACLES.
- PROVIDE LIGHT SUITABLE FOR DAMP LOCATION AT (N) ENTRY DOORS.
- PROVIDE A SWITCHED LIGHT AT ALL HABITABLE ROOMS, KITCHENS, BATHROOMS, STAIRS, HALLS, GARAGES AND STORE ROOMS.



CONTACT:
CERLETTI AND KENNEDY DESIGN BUILD
2950 BUSKIRK AVE STE 300
WALNUT CREEK
LIC. NO. 942024
(707) 561 6487

REV	DATE	BY	DESCRIPTION
001	11/17/18	106	CONSTRUCTION

A REMODEL FOR:
HUGH BARNETT
2470 RANCHITO DR
CONCORD CA

12/11/2018

ELECTRICAL
PLAN

E-1

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD
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GENERAL INFORMATION										
01	Project Name		BARNETT ADDITION							
02	Calculation Description		Addition 687 R2							
03	Project Location		5470 RANCHITO DR							
04	City		CONCORD CA			05	Standards Version		Compliance 2017	
06	Zip Code		94520			07	Compliance Manager Version		BEMCmpMgr 2016.3.1 (1149)	
08	Climate Zone		C23			09	Software Version		CBECC-Res 2016.3.1 (1010)	
10	Building Type		Single Family			11	Front Orientation (deg/Cardinal)		180	
12	Project Scope		Addition and/or Alteration			13	Number of Dwelling Units		1	
14	Total Cond. Floor Area (ft²)		2832			15	Number of Zones		2	
16	Slab Area (ft²)		2120			17	Number of Stories		2	
18	Addition Cond. Floor Area (ft²)		1278			19	Natural Gas Available		Yes	
20	Addition Slab Area (ft²)		566			21	Glazing Percentage (%)		8.7%	

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance

ENERGY USE SUMMARY				
04	05	06	07	08
Energy Use (kBtu/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	65.19	64.64	0.55	0.8%
Space Cooling	5.79	5.55	0.24	4.1%
IAQ Ventilation	1.12	1.12	0.00	0.0%
Water Heating	12.93	12.93	0.00	0.0%
Photovoltaic Offset	—	0.00	0.00	—
Compliance Energy Total	85.03	84.24	0.79	0.9%

REQUIRED SPECIAL FEATURES
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
NO SPECIAL FEATURES REQUIRED

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FENESTRATION / GLAZING										
01	02	03	04	05	06	07	08	09	10	11
Name	Surface (Orientation-Azimuth)	Width (ft)	Height (ft)	Multiplier	Area (ft²)	U-factor	SHGC	Exterior Shading	Status	Verified Existing Condition
W14 ALUMINUM	1 (Front-180)	3.0	4.0	1	12.0	1.28	0.80	Insect Screen (default)	Existing	No
W15 ALUMINUM	1 (Front-180)	2.0	1.5	1	3.0	1.28	0.80	Insect Screen (default)	Existing	No
W14 ALUMINUM-2	1 (Front-180)	3.0	4.0	1	12.0	1.28	0.80	Insect Screen (default)	Existing	No
W14 ALUMINUM-3	1 (Front-180)	3.0	4.0	1	12.0	1.28	0.80	Insect Screen (default)	Existing	No
W2 ALUMINUM	3 (Front-180)	3.0	3.0	1	9.0	1.28	0.80	Insect Screen (default)	Existing	No
W9 ALUMINUM	3 (Front-180)	6.0	3.0	1	18.0	1.28	0.80	Insect Screen (default)	Existing	No
W13 ALUMINUM	4 (Left-270)	3.0	4.0	1	12.0	1.28	0.80	Insect Screen (default)	Existing	No
W13 ALUMINUM-2	4 (Left-270)	3.0	4.0	1	12.0	1.28	0.80	Insect Screen (default)	Existing	No
W1 ALUMINUM	7 (Front-180)	2.0	4.0	1	8.0	1.28	0.80	Insect Screen (default)	Existing	No
W8 ALUMINUM	7 (Front-180)	4.0	4.0	1	16.0	1.28	0.80	Insect Screen (default)	Existing	No
W2 ALUMINUM-2	10 (Right-90)	3.0	3.0	1	9.0	1.28	0.80	Insect Screen (default)	Existing	No
W03(N) Milgard Spec	ADD WALL 1 (Left-270)	3.0	4.0	1	12.0	0.30	0.40	Insect Screen (default)	New	n/a
W011(N) Milgard Spec	ADD WALL 1 (Left-270)	3.0	4.0	1	12.0	0.30	0.40	Insect Screen (default)	New	n/a
W011(N) Milgard Spec-2	ADD WALL 1 (Left-270)	3.0	4.0	1	12.0	0.30	0.40	Insect Screen (default)	New	n/a
W09(N) Milgard Spec	ADD WALL 1 (Left-270)	3.0	4.0	1	12.0	0.30	0.40	Insect Screen (default)	New	n/a
W10(N) Milgard Spec	ADD WALL 2 (Back-0)	4.0	4.0	1	16.0	0.30	0.40	Insect Screen (default)	New	n/a
W04(N) Milgard Spec	ADD WALL 2 (Back-0)	3.0	4.0	1	12.0	0.30	0.40	Insect Screen (default)	New	n/a
W07(N) Milgard Spec	ADD WALL 2 (Back-0)	4.0	4.0	1	16.0	0.30	0.40	Insect Screen (default)	New	n/a
W07(N) Milgard Spec-2	ADD WALL 2 (Back-0)	4.0	4.0	1	16.0	0.30	0.40	Insect Screen (default)	New	n/a
W00(N)	ADD WALL 3 (Right-90)	4.0	4.0	1	16.0	0.30	0.40	Insect Screen (default)	New	n/a

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SPACE CONDITIONING SYSTEMS							
01	02	03	04	05	06	07	08
SC Sys Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Status	Verified Existing Condition
HVAC-N	Other Heating and Cooling System	MINI SPLIT	MINI SPLIT COOLING	HVAC Fan System 2	DUCTLESS MINI SPLIT	New	No
HVAC-E	Other Heating and Cooling System	Trane 90	Cooling System 2	HVAC Fan	Ducts	Existing	No

HVAC - HEATING UNIT TYPES			
01	02	03	04
Name	System Type	Number of Units	Efficiency
MINI SPLIT	WallFurnaceFan	1	95 AFUE

HVAC - COOLING UNIT TYPES						
01	02	03	04	05	06	07
Name	System Type	Number of Units	Efficiency EER SEER	Zonally Controlled	Compressor Type	HERS Verification
MINI SPLIT COOLING	DuctlessMiniSplitAirCond	1	13 22	Not Zonal	Single Speed	MINI SPLIT COOLING-her-cool

HVAC COOLING - HERS VERIFICATION					
01	02	03	04	05	06
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge
MINI SPLIT COOLING-her-cool	Not Required	n/a	Not Required	Not Required	Not Required

HVAC - DISTRIBUTION SYSTEMS									
01	02	03	04	05	06	07	08	09	10
Name	Type	Duct Leakage	Insulation R-value	Supply Duct Location	Return Duct Location	Bypass Duct	Status	Verified Existing Condition	HERS Verification
Ducts	Ducts located in attic (Ventilated and Unventilated)	Existing (not specified)	6.0	Attic	Attic	None	Existing	No	n/a
DUCTLESS MINI SPLIT	Distribution systems without ducts	Sealed and tested	0	n/a	n/a	None	New	No	DUCTLESS MINI SPLIT-her-dist

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HERS FEATURE SUMMARY
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building components tables below.
Building-level Verifications:
• IAQ mechanical ventilation
Cooling System Verifications:
• -- None --
HVAC Distribution System Verifications:
• Duct Sealing required if a duct system component, plenum, or air handling unit is altered
Domestic Hot Water System Verifications:
• -- None --

BUILDING - FEATURES INFORMATION						
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
BARNETT ADDITION	2832	1	4	2	0	2

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
House	Conditioned	HVAC-E	1554	8	(E) DHW	n/a
Addition	Conditioned	HVAC-N	1278	8	TANKLESS-N	n/a

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OPAQUE DOORS					
01	02	03	04	05	06
Name	Side of Building	Area (ft²)	U-factor	Status	Verified Existing Condition
D01	1	35.0	0.50	Existing	No
D01-2	1	112.0	0.50	Existing	No
D01-3	3	35.0	0.50	Existing	No
D01-3-2	3	35.0	0.50	Existing	No
D01-3-3	3	35.0	0.50	Existing	No
D01(N)	ADD WALL 1	35.0	0.28	New	No
D01(N)-2	ADD WALL 2	35.0	0.28	New	No

OPAQUE SURFACE CONSTRUCTIONS						
01	02	03	04	05	06	07
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Winter Design U-factor	Assembly Layers
Wall R0	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O.C.	none	0.361	• Inside Finish: Gypsum Board • Cavity / Frame: no insul. / 2x4 • Exterior Finish: 3 Coat Stucco
Interior R0	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O.C.	none	0.277	• Inside Finish: Gypsum Board • Cavity / Frame: no insul. / 2x4 • Other Side Finish: Gypsum Board
R-15 WALLS	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O.C.	R 19 in 5-1/2 in. cavity (R-18)	0.049	• Inside Finish: Gypsum Board • Sheathing / Insulation: R5 Sheathing • Cavity / Frame: R-19 in 5-1/2 in. (R-18) / 2x6 • Sheathing / Insulation: Wood Siding/sheathing/decking • Exterior Finish: 3 Coat Stucco
Asphalt Shingle Roof	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O.C.	none	0.644	• Cavity / Frame: no insul. / 2x4 Top Chrd • Roof Deck: Wood Siding/sheathing/decking • Roofing: Light Roof (Asphalt Shingle)
R-0	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 16 in. O.C.	none	0.472	• Inside Finish: Gypsum Board • Cavity / Frame: no insul. / 2x4
R-19 CEILING	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 16 in. O.C.	R 19	0.049	• Inside Finish: Gypsum Board • Cavity / Frame: R-9 1 / 2x4 • Over Ceiling Joists: R-9.9 insul.

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HVAC DISTRIBUTION - HERS VERIFICATION							
01	02	03	04	05	06	07	08
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler

HVAC - FAN SYSTEMS & HERS VERIFICATION			
01	02	03	04
Name	Type	Fan Power (Watts/CFM)	HERS Verification
HVAC Fan System 2	Single Speed PSC Furnace Fan	0.58	---

IAQ (Indoor Air Quality) FANS					
01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness(%)	HERS Verification
SfAm IAQVentRpl	66	0.25	Default	0	Required

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OPAQUE SURFACES										
01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window & Door Area (ft²)	Tilt (deg)	Wall Exception	Status	Verified Existing Condition
1	House	Wall R0	180	Front	513	186	90	n/a	Existing	No
2	House	Wall R0	270	Left	330	0	90	n/a	Existing	No
3	House	Wall R0	180	Front	513	132	90	n/a	Existing	No
4	House	Wall R0	270	Left	330	24	90	n/a	Existing	No
5	House	Wall R0	270	Left	112	0	90	n/a	Existing	No
6	House	Wall R0	90	Right	112	0	90	n/a	Existing	No
7	House	Wall R0	180	Front	120	24	90	n/a	Existing	No
8	House	Wall R0	270	Left	136	0	90	n/a	Existing	No
9	House	Wall R0	0	Back	96	0	90	n/a	Existing	No
10	House	Wall R0	90	Right	136	9	90	n/a	Existing	No
DIVIDING WALL TO ADDITION	House=>Addition	Interior R0			81	0		n/a	New	n/a
Ceiling (below attic) 2	House	R-0			1554			n/a	Existing	No
ADD WALL 1	Addition	R-15 WALLS	270	Left	520	83	90	none	New	n/a
ADD WALL 2	Addition	R-15 WALLS	0	Back	537	95	90	none	New	n/a
ADD WALL 3	Addition	R-15 WALLS	90	Right	540	16	90	none	New	n/a
ADD WALL 4	Addition	R-15 WALLS	180	Front	234	0	90	none	New	n/a
Ceiling (below attic)	Addition	R-19 CEILING			712			n/a	New	n/a

ATTIC			
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CONTACT:
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2550 BUSKIRK AVE STE 300
WALNUT CREEK
CA 94024
(925) 938-6487

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Prerequisites and electives ¹			Enforcin g Agency	Installer or Designer	Third party
	Mandatory	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
Innovative Concepts and Local Environmental Conditions						
A4.108.1 Items in this section are necessary to address innovative concepts or local environmental conditions.						
Item 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ENERGY EFFICIENCY						
General						
A4.201.1 Building meets or exceeds the requirements of the <i>California Building Energy Efficiency Standards</i> ² .		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performance Approach for Newly Constructed Buildings						
A4.203.1.1.1 An Energy Design Rating for the Proposed Design Building is included in the Certificate of Compliance documentation.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.203.1.1.2 OII procedures specified in the Building Energy Efficiency Standards Reference Residential Appendix RA3.5 are completed.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.203.1.1.3 All permanently installed lighting is high efficiency and has required controls.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.203.1.2.1 The Energy Budget is no greater than 85 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building.		<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.203.1.2.2 The Energy Budget is no greater than 70 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performance Approach for Additions and Alterations						
A4.204.1.1.1 All newly installed, permanently installed lighting is high efficiency and has required controls.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.204.1.1.2 When one and only one mechanical system is added or modified, the Energy Budget is no greater than 95 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building. When two or more mechanical systems are added or modified, the Energy Budget is no greater than 90 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building.		<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.204.1.1.3 When one and only one mechanical system is added or modified, the Energy Budget is no greater than 90 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building. When two or more mechanical systems are added or modified, the Energy Budget is no greater than 85 percent of the Title 24, Part 6, Energy Budget for the Proposed Design Building.			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FEATURE OR MEASURE	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD		
	Prerequisites and electives ¹			Enforcing Agency	Installer or Designer	Third party
	Mandatory	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
WATER EFFICIENCY AND CONSERVATION						
Indoor Water Use						
A4.303.1 Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) installed in residential buildings shall comply with the prescriptive requirements of Sections 4.303.1.1 through 4.303.1.4.4.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.303.2 Plumbing fixtures and fittings required in Section 4.303.1 shall be installed in accordance with the <i>California Plumbing Code</i> , and shall meet the applicable referenced standards.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.303.1 Kitchen faucets. The maximum flow rate of kitchen faucets shall not exceed 1.5 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.5 gallons per minute at 60 psi. Note: Where complying faucets are available, aerators or other means may be used to achieve reduction.				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.303.2 Alternate water source for nonpotable applications. Alternate nonpotable water sources are used for indoor potable water reduction. Alternate nonpotable water sources shall be installed in accordance with the <i>California Plumbing Code</i> .		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.303.3 Appliances. Dishwashers and clothes washers in residential buildings shall comply with the following: Install at least one qualified ENERGY STAR appliance with maximum water use as follows: 1. Standard Dishwashers - 4.25 gallons per cycle. 2. Compact Dishwashers - 3.5 gallons per cycle. 3. Clothes Washers - water factor of 6 gallons per cubic foot of drum capacity.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.303.4 Appliances. Dishwashers and clothes washers in residential buildings shall comply with the following: Install at least one qualified ENERGY STAR appliance with maximum water use as follows: 1. Standard Dishwashers - 4.25 gallons per cycle. 2. Compact Dishwashers - 3.5 gallons per cycle. 3. Clothes Washers - water factor of 6 gallons per cubic foot of drum capacity.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.303.4 Nonwater supplied urinals or waterless toilets are installed.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Water Use						
A4.304.1 Automatic irrigation systems controllers installed at the time of final inspection shall be weather or soil moisture-based.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.304.1 Install a low-water consumption irrigation system which minimizes the use of spray type heads.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.304.2 A rainwater capture, storage and re-use system is designed and installed.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.304.3 A water budget shall be developed for landscape irrigation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.304.6 For new water service connections, landscaped irrigated areas more than 2,500 square feet shall be provided with separate submeters or metering devices for outdoor potable water use.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	Prerequisites and electives ¹			Enforcin g Agency	Installer or Designer	Third party
	Mandatory	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
A4.304.4 Provide water efficient landscape irrigation design that reduces the use of potable water. Tier 1. Does not exceed 65 percent of <i>ETo</i> times the landscape area. Tier 2. Does not exceed 60 percent of <i>ETo</i> times the landscape area.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.304.5 A landscape design is installed which does not utilize potable water.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A304.6 For new water service connections, landscaped irrigated areas more than 2,500 square feet shall be provided with separate submeters or metering devices for outdoor potable water use.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WATER REUSE SYSTEMS						
A4.305.1 Piping is installed to permit future use of a graywater irrigation system served by the clothes washer or other fixtures.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.305.2 Recycled water piping is installed.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.305.3 Recycled water is used for landscape irrigation.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Innovative Concepts and Local Environmental Conditions						
A4.306.1 Items in this section are necessary to address innovative concepts or local environmental conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MATERIAL CONSERVATION AND RESOURCE EFFICIENCY						
Foundation Systems						
A4.403.1 A Frost-protected Shallow Foundation (FPSF) is designed and constructed.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.403.2 Cement use in foundation mix design is reduced. Tier 1. Not less than a 20 percent reduction in cement use. Tier 2. Not less than a 25 percent reduction in cement use.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Efficient Framing Techniques						
A4.404.1 Beams and headers and trimmers are the minimum size to adequately support the load.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.404.2 Building dimensions and layouts are designed to minimize waste.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.404.3 Use premanufactured building systems to eliminate solid sawn lumber whenever possible.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.404.4 Material lists are included in the plans which specify material quantity and provide direction for on-site cuts.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	Mandatory	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
Material Sources						
A4.405.1 One or more of the following building materials, that do not require additional resources for finishing are used: 1. Exterior trim not requiring paint or stain 2. Windows not requiring paint or stain 3. Siding or exterior wall coverings which do not require paint or stain		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.405.2 Floors that do not require additional coverings are used including but not limited to stained, natural or stamped concrete floors.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.405.3 Postconsumer or preconsumer recycled content value (RCV) materials are used on the project. Tier 1. Not less than a 10-percent recycled content value. Tier 2. Not less than a 15-percent recycled content value.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.405.4 Renewable source building products are used.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enhanced Durability and Reduced Maintenance						
4.406.1 Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method acceptable to the enforcing agency.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water Resistance and Moisture Management						
A4.407.1 Install foundation and landscape drains.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.407.2 Install gutter and downspout systems to route water at least 5 feet away from the foundation or connect to landscape drains which discharge to a dry well, sump, bioswale, rainwater capture system or other approved on-site location.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.407.3 Provide flashing details on the building plans and comply with accepted industry standards or manufacturer's instructions.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.407.4 Protect building materials delivered to the construction site from rain and other sources of moisture.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.407.5 In Climate Zone 16 an ice/water barrier is installed at roof valleys, eaves and wall to roof intersections.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.407.6 Exterior doors to the dwelling are protected to prevent water intrusion.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.407.7 A permanent overhang or awning at least 2 feet in depth is provided.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	Mandatory	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
Construction Waste Reduction, Disposal and Recycling						
A4.408.1 Recycle and/or salvage for reuse a minimum of 50 percent of the nonhazardous construction and demolition waste in accordance with one of the following: 1. Comply with a more stringent local construction and demolition waste management ordinance; or 2. A construction waste management plan, per Section 4.408.2; or 3. A waste management company, per Section 4.408.3; or 4. The waste stream reduction alternative, per Section 4.408.4.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.408.1 Construction waste generated at the site is diverted to recycle or salvage in compliance with one of the following: 1. Tier 1 at least a 65 percent reduction. 2. Tier 2 at least a 75 percent reduction. Exception: Equivalent waste reduction methods are developed by working with local agencies.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Building Maintenance and Operation						
4.410.1 An operation and maintenance manual shall be provided to the building occupant or owner.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Innovative Concepts and Local Environmental Conditions						
A4.411.1 Items in this section are necessary to address innovative concepts or local environmental conditions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ENVIRONMENTAL QUALITY						
Fireplaces						
A4.503.1 Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with US EPA Phase II emission limits where applicable. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pollutant Control						
4.504.1 Duct openings and other related air distribution component openings shall be covered during construction.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.504.2.1 Adhesives, sealants and caulks shall be compliant with VOC and other toxic compound limits.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.504.2.2 Paints, stains and other coatings shall be compliant with VOC limits.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.504.2.3 Aerosol paints and coatings shall be compliant with product weighted MIR limits for VOC and other toxic compounds.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.504.2.4 Documentation shall be provided to verify that compliant VOC limit finish materials have been used.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	Mandatory	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
4.504.3 Carpet and carpet systems shall be compliant with VOC limits.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.504.4 80 percent of floor area receiving resilient flooring shall comply with specified VOC criteria.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.504.5 Particleboard, medium density fiberboard (MDF) and hardwood plywood used in interior finish systems shall comply with low formaldehyde emission standards.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.504.1 Use composite wood products made with either California Air Resources Board approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.504.2 Install VOC compliant resilient flooring systems. Tier 1. At least 90 percent of the resilient flooring installed shall comply. Tier 2. At least 100 percent of the resilient flooring installed shall comply.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.504.3 Thermal insulation installed in the building shall meet the following requirements: Tier 1. Install thermal insulation in compliance with VOC limits. Tier 2. Install insulation which contains No-Added Formaldehyde (NAF) and is in compliance with Tier 1.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interior Moisture Control						
4.505.2 Vapor retarder and capillary break is installed at slab-on-grade foundations.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.505.3 Moisture content of building materials used in wall and floor framing is checked before enclosure.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Indoor Air Quality and Exhaust						
A4.506.1 Return air filters with a value greater than MERV 6 shall be installed on HVAC systems. Pressure drop across the filter shall not exceed 0.1 inches water column.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.506.2 [HRI] Provide filters on return air-openings rated MERV 6 or higher during construction when it is necessary to use HVAC equipment.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A4.506.3 Direct-vent appliances shall be used when equipment is located in conditioned space or the equipment must be installed in an isolated mechanical room.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	Mandatory	Tier 1	Tier 2	<input type="checkbox"/> All	<input type="checkbox"/> All	<input type="checkbox"/> All
Environmental Comfort						
4.507.1 Reserved.						
4.507.2 is selected using the following methods: 1. Establish heat loss and heat gain values according to ANSI/ACCA 2 Manual J-2004 or equivalent. 2. Size duct systems according to ANSI/ACCA 1 Manual D-2009 or equivalent. 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S-2004 or equivalent.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Air Quality Reserved						
Innovative Concepts and Local Environmental Conditions						
A4.509.1 Items in this section are necessary to address innovative concepts or local environmental conditions.						
Item 1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Item 3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Installer and Special Inspector Qualifications						
Qualifications						
702.1 HVAC system installers are trained and certified in the proper installation of HVAC systems.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
702.2 Special inspectors employed by the enforcing agency must be qualified and able to demonstrate competence in the discipline they are inspecting.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Verifications						
703.1 Verification of compliance with this code may include construction documents, plans, specifications builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial compliance.	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>