SADLER RESIDENCE

CUSTOM SINGLE FAMILY RESIDENCE

9782 CHOCOLATE CREEK ROAD
EL CAJON, CA. 92021

FIRE DEPT. NOTES:

1. A 100 FOOT FUEL MODIFICATION ZONE IS REQUIRED AROUND ALL STRUCTURES. THE FUEL MODIFICATION ZONE IS DIVIDED INTO TWO ZONES AS FOLLOWS:
   A) THE FIRST ZONE INCLUDE THE AREA FROM ANY BUILDINGS TO A POINT 50 FEET AWAY. THIS ZONE MUST BE CLEARED AND PLANTED WITH FIRE-RESISTANT PLANTS.
   B) THE SECOND ZONE IS THE AREA BETWEEN 50 TO 100 FEET FROM THE BUILDINGS. IN THIS ZONE THE NATIVE VEGETATION MAY REMAIN BUT MUST BE THINNED BY 50% AND ALL DEAD AND DYING VEGETATION MUST BE REMOVED. IF YOU DO NOT HAVE A GRADING PERMIT, PRIOR TO ANY CLEARING OF BRUSH. PLEASE CONTACT THE ZONING SECTION AT 858-565-5981 TO DETERMINE IF A BRUSHING AND CLEARING PERMIT IS NECESSARY.
2. ROOFING SHALL HAVE A MINIMUM CLASS "A" ROOF COVERING. FOR ROOF COVERINGS WHERE THE PROFILE ALLOWS A SPACE BETWEEN THE ROOF COVERING AND ROOF DECKING, THE SPACE @ THE EAVE ENDS SHALL BE FIRE STOPPED TO PRECLUDE ENTRY OF FLAMES OR EMBERS.
3. EXTERIOR WALL FINISH SHALL BE NON-COMBUSTIBLE MATERIALS (STUCCO, CEMENT FIBER BOARD, MASONRY, ETC.).
4. COMBUSTIBLE EAVES, SOFFITS, & FASCIAS SHALL BE CONSTRUCTED AS GUIDED IN GUIDANCE DOCUMENTS.
5. UNENCLOSED UNDER-FLOORS SHALL BE ENCLOSED TO THE GROUND W/NON-COMBUSTIBLE CONSTRUCTION OR APPROVED ALTERNATIVE.
6. GLAZING/WINDOWS SHALL HAVE A FIRE RATING NO LESS THAN 20 MIN. OR SHALL BE DUAL-GLAZED UNITS WITH A MINIMUM OF ONE TEMPERED PANE. FRAMES MADE OF VINYL SHALL HAVE WELDED STEEL CORNERS, METAL REINFORCED IN THE INTERLOCK AREA. VINYL WINDOWS BY MILGARD, WINDOWMASTER, CERTAINTEED, OR EQUAL TO BE USED. UNLESS OTHERWISE NOTED OR PER OWNER.
7. APPROVED SPARK ARRESTER REQUIRED ON ALL CHIMNEY, FLUE, AND/OR STOVE PIPES.
8. SKYLIGHTS SHALL BE A TEMPERED GLASS ASSEMBLY.
9. ROOF GUTTERS AND DOWN SPOUTS SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIAL, AND DESIGNED TO REDUCE ACCUMULATION OF LEAF LETTER AND DEBRIS.
10. EXTERIOR DOORS SHALL BE APPROVED IGNITION RESISTANT CONSTRUCTION, SOLID-CORE WOOD NOT LESS THAN 1 3/8" THICK, OR HAVE A FIRE PROTECTION RATING OF NOT LESS THAN 20 MINUTES.
11. PROJECTIONS SUCH AS DECKS, CARPORTS, BALCONIES, PATIO COVERS, ETC. SHALL BE OF NON-COMBUSTIBLE CONSTRUCTION, FIRE RETARDANT TREATED WOOD, HEAVY TIMBER CONST. OR ONE HOUR FIRE-RESISTIVE CONSTRUCTION. HEAVY TIMBER OR F.R.X. FIRE RESISTANT WOOD IS TO BE USED, UNLESS OTHERWISE NOTED. THERE IS NO FIRE RESISTIVE REQUIREMENT OF HANDRAILS AND BALUSTERS
12. ALL VENTS MUST BE LOUVERED AND COVERED WITH 1/8 INCH NON-COMBUSTIBLE, CORROSION-RESISTANT METAL MESH. TURBINE VENTS SHALL TURN IN ONE DIRECTION ONLY.
13. PAPER FACED INSULATION IS NOT PERMITTED IN ATTICS OR OTHER VENTILATED SPACES.
14. ANY PORTION OF A FENCE OR OTHER STRUCTURE WITHIN 5'-0" OF THE BUILDING SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIAL OR APPROVED EXTERIOR FIRE-RETARDANT WOOD OR MATERIAL THAT MEETS THE SAME FIRE RESISTIVE STANDARDS AS THE THE EXTERIOR WALLS OF THE BUILDING.
15. EXPOSED VALLEY FLASHING SHALL BE AT LEAST NO. 26-GAUGE CORROSION-RESISTANT METAL INSTALLED OVER A MINIMUM 36" WIDE UNDER-LAYMENT CONSISTING OF ONE LAYER OF NO. 72 ASTM CAP SHEET RUNNING THE FULL LENGTH OF THE VALLEY.
16. VENTS SHALL NOT BE INSTALLED IN EAVES, EAVE OVERHANGS, SOFFITS, OR CORNICES. GABEL-END VENTS WILL BE ALLOWED IF THE VENTS ARE LOCATED A MINIMUM OF 12" BELOW THE LOWEST EAVE/RAKE PROJECTIONS.
17. IN ROOF COVERINGS WHERE THE PROFILE CREATES SPACE BETWEEN THE ROOF COVERING & COMBUSTIBLE ROOD DECKING, PROVIDE ONE LAYER OF NO. 72 ASTM CAP SHEET INSTALLED OVER COMBUSTIBLE DECKING, U.O.N. ON PLANS.

GENERAL PLAN NOTES:

CONTRACTOR NOTES:

1. THE CONTRACTOR/ OWNER SHALL TAKE THE NECESSARY TIME AND CARE TO BECOME FAMILIAR WITH THE APPROVED SET OF DRAWINGS AND REFER ONLY TO APPROVED SETS OF DRAWINGS DURING THE CONSTRUCTION OF THIS PROJECT.
2. THE CONTRACTOR/ OWNER SHALL VERIFY ALL DIMENSIONS OF THE EXISTING STRUCTURE, ELEVATIONS AND SITE CONDITIONS AFFECTED BY PROPOSED WORK, VERIFY ALL PLAN DIMENSIONS OF "NEW" ADDED OR REMODELED AREA PRIOR TO STARTING WORK. THIS INCLUDES EXISTING WINDOWS & DOORS TO BE REPLACED OR RETRO-FITTED. THE CONTRACTOR SHALL NOTIFY THE DESIGN PROFESSIONAL AND/OR THE ENGINEER IMMEDIATELY OF ALL DISCREPANCIES.
3. ALL VERIFICATIONS OF NEW AND EXISTING DIMENSIONS ARE TO BE DONE PRIOR TO THE START OF WORK AND ORDERING OF WINDOWS, DOORS, LUMBER AND/OR FLOOR OR ROOF TRUSSES.
4. ALL CHANGES ARE TO BE APPROVED BY A DESIGN PROFESSIONAL AND THE BUILDING DEPARTMENT BEFORE CHANGES ARE MADE IN THE FIELD.
5. UNLESS OTHERWISE NOTED OR SHOWN ELSEWHERE ON THE PLANS, TYPICAL DETAILS AND GENERAL NOTES APPLY TO ALL PARTS OF THE JOB.
6. WHERE CONSTRUCTION DETAILS OR NOTES ARE NOT SHOWN FOR ANY PART OF THE WORK, SUCH DETAILS SHALL BE THE SAME AS FOR SIMILAR WORK SHOWN IN THE DRAWING.
7. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES
8. IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS OR DETAILS ON THE CONSTRUCTION DRAWINGS.
9. CONTRACTOR/ OWNER SHALL VERIFY AND DETERMINE LOCATION OF ALL EXISTING UTILITIES AND SHALL NOT PERFORM ANY WORK THAT WILL DAMAGE EXISTING UTILITIES.
10. CONTRACTOR/ OWNER SHALL COMPLY WITH ALL APPLICABLE FEDERAL AND LOCAL SAFETY REQUIREMENTS.
11. ALL MATERIALS AND WORKMANSHIP SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL STANDARDS AND TO THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE C.B.C.
12. METAL CONNECTORS, STRAPS, HANGERS, HOLDOWNS, ETC., CALLED OUT ON PLANS ARE TO BE SIMPSON "STRONG TIE" OR APPROVED EQUAL.
13. THIS PLAN DOES NOT PROVIDE COMPLETE FLASHING AND WATERPROOFING DETAILS THE DESIGNER AND ENGINEER DO NOT REPRESENT THEMSELVES TO BE EXPERTS IN THE FIELD OF WATERPROOFING IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND/OR THE ROOF/DECKING SUBCONTRACTOR TO PROVIDE THE NECESSARY STANDARD OF CARE IN WORKMANSHIP AND MATERIALS TO COMPLETE THE ROOF AND DECKS IN A WATERTIGHT CONDITION ROOF AND/OR DECK DRAINAGE SHALL NOT BE ALLOWED TO RUN BEHIND ANY FASCIA BOARDS OR ONTO THE EXTERIOR FINISH OF THE STRUCTURE.

CODE REQUIREMENT NOTES:

14. THIS PROJECT SHALL COMPLY WITH THE 2016 CALIFORNIA BUILDING CODE, 2016 CALIFORNIA RESIDENTIAL CODE, 2016 CALIFORNIA GREEN BUILDING CODE, THE 2016 CALIFORNIA FIRE CODE, 2016 CALIFORNIA MECHANICAL CODE, 2016 CALIFORNIA PLUMBING CODE, 2016 CALIFORNIA ELECTRICAL CODE, AND THE 2016 CALIFORNIA TITLE 24 CODES.
15. THESE PLANS AND ALL WORK SHALL COMPLY WITH CALIFORNIA BUILDING STANDARDS CODE FOUND IN THE STATE OF CALIFORNIA TITLE 24 CCR AS AMENDED AND ADOPTED BY THE CITIES, COUNTY & LOCAL JURISDICTIONS.
16. ALL NEW WINDOWS AND SLIDING GLASS DOORS SHALL BE DUAL GLAZED UNLESS OTHERWISE SPECIFIED BY AN ACCREDITED ENERGY DESIGNER.
17. SLOPE GRADE TO DRAIN SURFACE WATER AWAY FROM STRUCTURE ON ALL SIDES OF GROUND LEVEL ADDITION.
18. EACH NEW SLEEPING ROOM SHALL HAVE A PERMANENTLY WIRED SMOKE DETECTOR EACH EXISTING SLEEPING ROOM SHALL HAVE A SMOKE DETECTOR, WHICH MAY BE BATTERY OPERATED INSTALLATION OF SMOKE DETECTORS SHALL COMPLY WITH C.B.C. (SEC310.9)
19. EACH SLEEPING ROOM MUST HAVE AT LEAST ONE WINDOW REQUIRES THAT THE BOTTOM OF THE CLEAR OPENING SHALL NOT EXCEED 44" ABOVE THE FLOOR PER 2019 CRC, MINIMUM CLEAR OPENING AREA OF 5.7 SQ. FT., MINIMUM HEIGHT OF 24", AND MINIMUM WIDTH OF 20" THE WINDOW MUST BE OPEN-ABLE FROM THE INSIDE WITHOUT THE USE OF ANY SPECIAL TOOLS.
20. PERMANENT VACUUM BREAKERS SHALL BE INCLUDED WITH ALL NEW HOSE BIBBS.
21. WATER CLOSETS INSTALLED ON THIS PROJECT SHALL BE LOW WATER CONSUMPTION TYPE, MAXIMUM 1.28 GAL. PER FLUSH, APPROVED BY CALIFORNIA DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT PER CPC SECTION 403 AND 408.
22. KITCHEN FAUCETS INSTALLED ON THIS PROJECT SHALL HAVE A MAXIMUM FLOW OF 1.8 GPM, LAVATORIES ARE LIMITED 1.5 GPM, AND SHOWERHEADS SHALL BE MAXIMUM 2.0 GPM PER CPC SECTION 403 AND 408.
23. STATE HEALTH AND SAFETY CODE SEC. 17921.9 BANS THE USE OF CHLORINATES POLYVINYL CHLORIDE (CRVC) AND CROSS LINKED POLYETHYLENE (PEX) FOR INTERIOR WATER-SUPPLY PIPING.
24. GUARDRAILS TO BE A MINIMUM OF 42" HIGH. STAIR HANDRAILS TO BE 34" TO 38" ABOVE TREAD NOSING. OPEN RAILS SHALL HAVE BALUSTERS OR INTERMEDIATE RAILS SUCH THAT A 4" SPHERE CANNOT PASS THROUGH.
25. STAIR HANDRAILS SHALL HAVE A MINIMUM 1 1/2" SPACE BETWEEN RAILS AND WALL. HANDGRIP PORTION OF THE HANDRAIL SHALL NOT BE LESS THAN 1 1/2" AND NOT OVER 2" IN DIMENSION. HANDRAIL ON AT LEAST ONE SIDE OF THE STAIR SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE STAIRWAY, AND SHALL HAVE A SMOOTH SURFACE WITH NO SHARP EDGES OR CORNERS. HANDRAILS SHALL EXTEND AT LEAST SIX INCHES BEYOND THE TOP AND BOTTOM TREADS AND RETURN TO WALL OR NEWELL POST.
26. ALL FIRE BLOCKS AND DRAFT STOPS SHALL COMPLY WITH CBC 708.
27. FIREPLACES WITH GAS APPLIANCES ARE REQUIRED TO HAVE THE FLUE DAMPER PERMANENTLY FIXED IN THE OPEN POSITION AND FIREPLACES WITH LPG APPLIANCES ARE TO HAVE NO 'PIT' OR 'SUMP' CONFIGURATIONS. (CMC 304.7)
28. ALL PLUMBING FIXTURES AND FITTINGS WILL BE WATER CONSERVING AND WILL COMPLY WITH THE 2016 CGBSC SEC. 4.303.1.
29. "PER 2016 CGBSC SEC 4.303.2, PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE (CPC) AND TABLE 1401.1 OF THE CPC."
30. ALL ABS AND PVC PIPING AND FITTINGS SHALL BE ENCLOSED WITHIN WALLS AND FLOORS COVERED WITH "TYPE X GYPSUM BOARD" OR SIMILAR ASSEMBLIES THAT PROVIDE THE SAME LEVEL OF FIRE PROTECTION. PROTECTION OF MEMBRANE PENETRATIONS IS NOT REQUIRED.

PLAN ABBREVIATIONS

@	AT	HDR	HEADER
A.B.	ANCHOR BOLT	H.R.	HANDRAIL
A.C.A.P.	AS CLOSE AS POSSIBLE	HTR	HEATER
A/C	AIR CONDITIONER	INT.	INTERIOR
AL.	ALUMINUM	MAX.	MAXIMUM
AWG.	AWNING	M.B.	MACHINE BOLT
BLK	BLOCK	M.C.	MEDICINE CABINET
BLKG	BLOCKING	MIN.	MINIMUM
BM	BEAM	MIR.	MIRROR
B.N.	BOUNDARY NAIL	MFR.	MANUFACTURER
C/O	CASED OPENING	O/	OVER
CLG	CEILING	OBSC.	OBSCURE
CLR	CLEAR	O.C.	ON CENTER
CMU	CONCRETE MASONRY UNIT	O.H.	OVERHANG
COMPO	COMPOSITION	OPNG	OPENING
CONT.	CONTINUOUS	P.C.C.	POURED CONCRETE
CONC.	CONCRETE	PKT.	POCKET
CSMT	CASEMENT	PL.	PLATE
D.	DRYER	P.T.	PRESSURE TREATED
DBL	DOUBLE	RAD.	RADIUS
DET.	DETAIL	REF.	REFRIGERATOR
D.F.	DOUGLAS FIR	RMVD	REMOVED
D/O	DOUBLE OVEN	REQD	REQUIRED
DR	DOOR	R.O.	ROUGH OPENING
DW	DRIVEWAY	SGD	SLIDING GLASS DOOR
D/W	DISHWASHER	SGW	SLIDING GLASS WINDOW
E.N.	EDGE NAIL	SHW	SINGLE HUNG WINDOW
EQ.	EQUAL	SHT	SHEET
E.W.	EACH WAY	SHTG	SHEATHING
(E.)	EXISTING	SHWR	SHOWER
EXSTG	EXISTING	S.M.	SHEET METAL
EXT	EXT	S & P	SHELF & POLE
F.A.U.	FORCED AIR UNIT	T.B.	TOWEL BAR
F.F.	FINISHED FLOOR	T.C.	TRASH COMPACTOR
F.G.	FINISHED GRADE	T & B	TOP & BOTTOM
FGL	FIBERGLASS	T & G	TOUNGE & GROOVE
F.N.	FIELD NAIL	TEMP	TEMPERED
F.O.S.	FACE OF STUD	T.N.	TOE NAIL
F.O.P.	FACE OF POST	TYP.	TYPICAL
F.P.	FIRE PLACE	U.O.N.	UNLESS OTHERWISE NOTED
FTG	FOOTING	V.	VINYL
F.V.	FLAT VALLEY	V.B.	VAPOR BARRIER
G.B.	GYPSUM BOARD	W.	WASHER
G.D.	GARBAGE DISPOSAL	W/	WITH
G.F.C.I.	GROUND FAULT CIRCUIT INTERRUPT	W.C.	WATER CLOSET
GL	GLASS	WDO	WINDOW
GR	GUARDRAIL	W.H.	WATER HEATER
H.B.	HOSE BIBB	W.P.	WATER PROOF

PROJECT INFORMATION

OWNER: GEORGE SADLER
7895 CONVOY CT. STE. 17
SAN DIEGO, CA. 92111
CONTACT TELEPHONE
(619) 609-8978

ENGINEERING INFORMATION

REFERENCES:

CALIFORNIA BUILDING CODE, 2016 EDITION
CALIFORNIA RESIDENTIAL CODE, 2016 EDITION
AMERICAN SOCIETY OF CIVIL ENGINEERS, ASCE/SEI 7-16
TIMBER CONSTRUCTION MANUAL, LATEST EDITION
NATIONAL PLYWOOD ASSOCIATION, LATEST EDITION
NATIONAL DESIGN SPECIFICATIONS, AF & PA, 2015 EDITION
AMERICAN CONCRETE INSTITUTE, ACI 318-14/318R-14
MANUAL OF STEEL CONSTRUCTION, AISC,LATEST EDITION

MATERIALS:

CONCRETE:	Fc= 2500 psi (U.O.N.) @ 28 DAYS, fc=1125 psi
GROUT:	Fc=2000 psi @ 28 DAYS
MASONRY:	Fm= 1500 psi, GRADE "N", ASTM C-90, fm = 500 psi (U.O.N.)
MORTAR:	Fc= 1800 psi, TYPE "M"
REINFORCE:	BARS, ASTM A615, Gr. 40<# 6 & ASTM A706, Gr. 60>#5 WELDED WIRE FABRIC "WWF", ASTM A-185 & A-497
STR'L STEEL:	PIPE COLUMNS: Fy=36 ksi, ASTM - A501
RECT. TUBING:	Fy = 46 KSI, ASTM -A500, GRADE B BEAMS: Fy=36 KSI, ASTM-A36 (U.O.N.) BRACE RODS: Fy=50 KSI, ASTM-A572 COLD FORMED LIGHT GAGE STEEL: Fy=55 KSI, ASTM-A570
LUMBER:	(DOUGLAS FIR LARCH) JOIST & RAFTERS #2 (U.O.N.) STUDS DFL #2 OR BETTER (U.O.N.) SHEAR PLYWOOD (U.S. PRODUCT PS-1-95)

LOADS:

DEAD LOADS:	- PER CALCULATIONS
LIVE LOADS:	- ASC7-16, CHAPTER 4 & TABLE 4-1
WIND:	- ASC7-16, CHAPTER 6 & FIGURE 6-2
SEISMIC:	- ASC7-16, CHAPTER 12 & TABLE 12.2.1, 2016 CBC, SECT. 1613A
SOIL:	- CBC 2016, S.P. = 1500 psf PER SOILS REPORT: ______ DATE: ______

[X] CLASS IV PER TABLE 1806.2

SHEET INDEX

REVISIONS	BY
01-29-2019	OQ
05-18-2021	OQ

CUSTOM HOME FOR SADLER
9782 CHOCOLATE CREEK RD. EL CAJON, CA. 92021

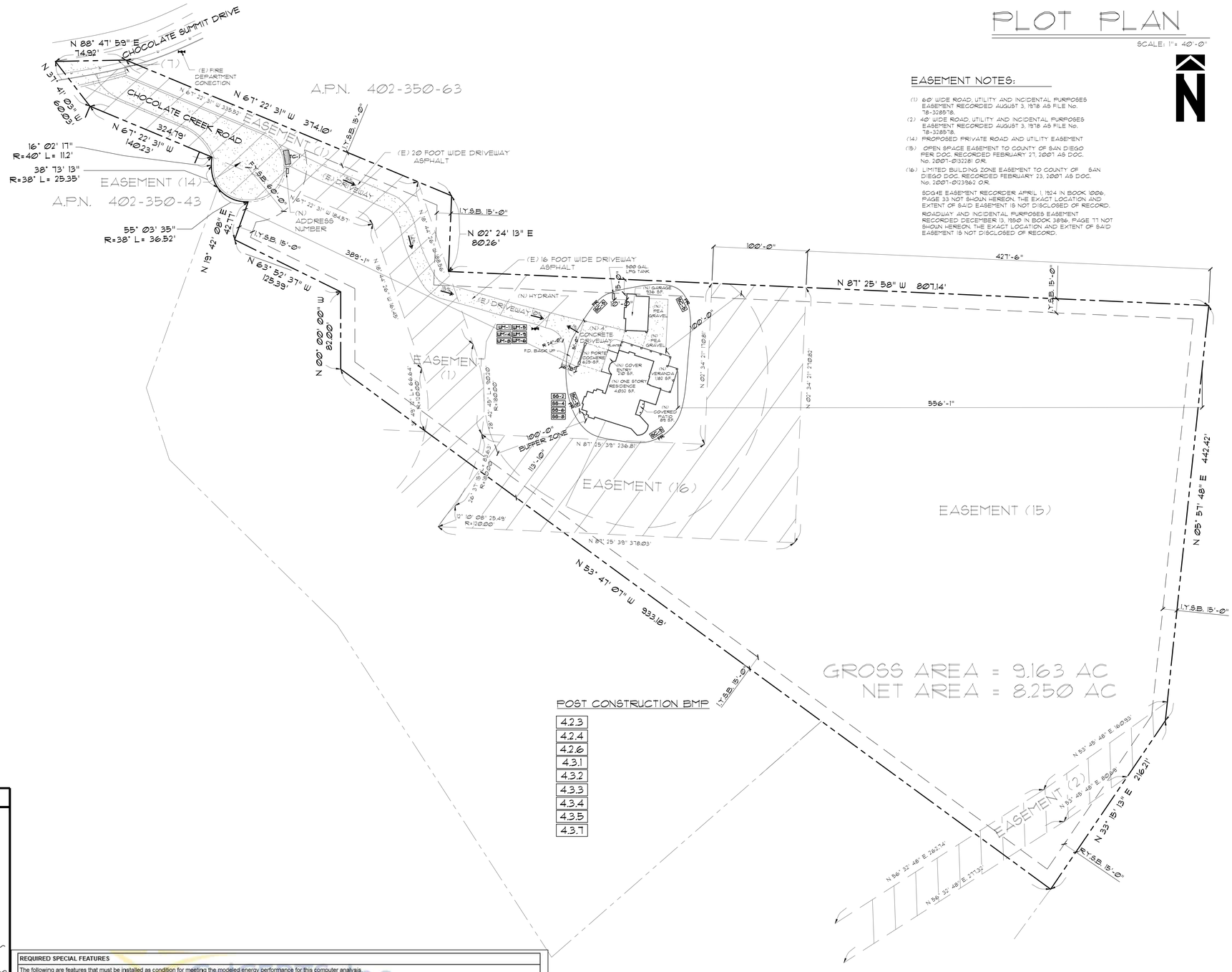
AUSTIN & ASSOCIATES
ALAN LLOYD AUSTIN
1622 PIONEER WAY EL CAJON CA. 92020 Ph. (619)440-3624
RESIDENTIAL & COMMERCIAL PLANNING AND DESIGN
MEMBER: AMERICAN INSTITUTE OF BUILDING DESIGN
AIBD

DRAWN BY: OQ
CHECKED BY: ALA
DATE: -18
SCALE: AS NOTED
JOB NO.

TS

PLOT PLAN

SCALE: 1" = 40'-0"



EASEMENT NOTES:

(1) 60' WIDE ROAD, UTILITY AND INCIDENTAL PURPOSES EASEMENT RECORDED AUGUST 3, 1978 AS FILE No. 78-328578.

(2) 40' WIDE ROAD, UTILITY AND INCIDENTAL PURPOSES EASEMENT RECORDED AUGUST 3, 1978 AS FILE No. 78-328578.

(14) PROPOSED PRIVATE ROAD AND UTILITY EASEMENT

(15) OPEN SPACE EASEMENT TO COUNTY OF SAN DIEGO PER DOC. RECORDED FEBRUARY 27, 2007 AS DOC. No. 2007-0132281 O.R.

(16) LIMITED BUILDING ZONE EASEMENT TO COUNTY OF SAN DIEGO DOC. RECORDED FEBRUARY 23, 2007 AS DOC. No. 2007-0123962 O.R.

EDGE EASEMENT RECORDED APRIL 1, 1924 IN BOOK 1006, PAGE 33 NOT SHOWN HEREON, THE EXACT LOCATION AND EXTENT OF SAID EASEMENT IS NOT DISCLOSED OF RECORD.

ROADWAY AND INCIDENTAL PURPOSES EASEMENT RECORDED DECEMBER 13, 1950 IN BOOK 3826, PAGE 77 NOT SHOWN HEREON, THE EXACT LOCATION AND EXTENT OF SAID EASEMENT IS NOT DISCLOSED OF RECORD.

BMP LEGEND

FDS 659 BROW DITCH
FDS 659 BERM
DIRECTION OF LOT DRAINAGE

MATERIALS & WASTE MANAGEMENT BMPs:

WM-1	MATERIAL DELIVERY & STORAGE
WM-4	SPILL PREVENTION AND CONTROL
WM-8	CONCRETE WASTE MANAGEMENT
WM-5	SOLID WASTE MANAGEMENT
WM-9	SANITARY WASTE MANAGEMENT
WM-6	HAZARDOUS WASTE MANAGEMENT

TEMPORARY RUNOFF CONTROL BMPs:

SS-2	PRESERVATION OF EXISTING VEGETATION
SS-3	BONDED OR STABILIZED FIBER MATRIX (WINTER)
SS-4	HYDROSEEDING (SUMMER)
SS-6 / SS-8	STRAW OR WOOD MULCH
SS-7	PHYSICAL STABILIZATION (WINTER)
SS-10	ENERGY DISSIPATOR
SC-1	SILT FENCE
SC-2	SEDIMENT / DESILTING BASIN
SC-5	FIBER ROLLS
SC-6 / SC-8	GRAVEL OR SAND BAGS
SC-7	STREET SWEEPING AND VACUUMING
SC-10	STORM DRAIN INLET PROTECTION
NS-2	DEWATERING FILTRATION
TC-1	STABILIZED CONSTRUCTION ENTRANCE
TC-2	CONSTRUCTION ROAD STABILIZATION
TC-3	ENTRANCE / EXIT TIRE WASH

POST-CONSTRUCTION SITE DESIGN BMPs

4.3.1	MAINTAIN NATURAL DRAINAGE PATHWAYS AND HYDROLOGIC FEATURES
4.3.2	CONSERVE NATURAL AREAS, SOILS, AND VEGITATION
4.3.3	MINIMIZE IMPERVIOUS AREA
4.3.4	MINIMIZE SOIL COMPACTION
4.3.5	IMPERVIOUS AREA DISPERSION
4.3.6	RUNOFF COLLECTION
4.3.7	LANDSCAPING WITH NATIVE OR DROUGHT TOLERANT SPECIES
4.3.8	HARVESTING AND USING PRECIPITATION

POST CONSTRUCTION SOURCE CONTROL BMPs

4.2.1	PREVENTION OF ILLICIT DISCHARGES INTO THE MS4
4.2.2	STORM DRAIN STENCILING AND POSTING OF SIGNAGE
4.2.3	PROTECTED OUTDOOR MATERIALS STORAGE AREAS
4.2.4	PROTECT MATERIALS STORED IN OUTDOOR WORK AREAS
4.2.5	PROTECT TRASH STORAGE AREAS
4.2.6	ADDNL BMPs BASED ON POTENTIAL RUNOFF POLLUTANTS:

A	ON-SITE STORM DRAIN INLETS
B	INTERIOR FLOOR DRAINS & ELEVATOR SHAFT SUMPS
C	INTERIOR PARKING GARAGES
D	NEED FOR FUTURE INDOOR & STR. PEST CONTROL
E	LANDSCAPE/OUTDOOR PESTICIDE USE
F	POOLS, SPAS, PONDS, FOUNTAINS, & WATER FEATURES
G	FOOD SERVICE
H	TRASH OR REFUSE AREAS
I	INDUSTRIAL PROCESSES
J	OUTDOOR STORAGE OF EQUIP. OR MATERIALS
K	VEHICLE AND EQUIPMENT CLEANING
L	VEHICLE/EQUIPEMENT REPAIR AND MAINTENANCE
M	FUEL DISPENSING AREAS
N	LOADING DOCKS
O	FIRE SPRINKLER TEST WATER
P	MISCELLANEOUS DRAIN OR WASH WATER
Q	PLAZAS, SIDEWALKS, DRIVEWAYS, AND PARKING LOTS

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis

- **Insulation below roof deck**
- **Window overhangs and/or fins**

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:
- **High quality insulation installation (QII)**
- **IAQ mechanical ventilation**

Cooling System Verifications:
- **Minimum Airflow**
- **Verified Refrigerant Charge**
- **Fan Efficacy Watts/CFM**

HVAC Distribution System Verifications:
- **Duct Sealing**

Domestic Hot Water System Verifications:
- **-- None --**

FUEL MODIFICATION:
MAINTAIN AN EFFECTIVE FUEL MODIFICATION ZONE BY REMOVING, CLEARING OR MODIFYING COMBUSTIBLE VEGETATION AND OTHER FLAMMABL MATERIALS FROM AREAS WITHIN 100 FEET FROM BUILDINGS OR STRUCTURES. FUEL MODIFICATION ZONES SHALL NOT EXTEND BEYOND THE PROPERTY LINE (COUNTY FIRE CODE 4 4908.1). THE FUEL MODIFICATION ZONE IS DIVIDED INTO TWO ZONES:

1. THE FIRST ZONE INCLUDES THE AREA FROM THE BUILDING TO A POINT 50 FEET AWAY. THIS ZONE MUST BE MODIFIED AND PLANTED WITH FIRE-RESISTIVE PLANTS.EXISTING VEGETATION OR LESS THAN 18 INCHES IN HEIGHT ABOVE THE GROUND NEED NOT BE REMOVED WHERE NECESSARY TO STABILIZE THE SOIL AND PREVENT EROSION.
2. THE SECOND ZONE IS THE AREA BETWEEN 50 TO 100 FEET FROM BUILDING. IN THIS ZONE THE NATIVE VEGETATION MAY REMAIN BUT IT MUST BE THINNED BY 50% AND ALL DEAD AND DYING VEGETATION MUST BE REMOVED.
FUEL MODIFICATION IS ALSO REQUIRED ALONG FIRE ACCESS ROADWAYS AT DISTANCES PRESCRIBED IN THE COUNTY FIRE CODE. (COUNTY FIRE CODE 4 4907.2.)

THIS FIRE CODE SECTION DOES NOT AUTHORIZE CLEARING BEYOND PROPERTY LINES.
FUEL MODIFICATION MUST BE COMPLETE PRIOR TO BRINGING COMBUSTIBLE CONSTRUCTION MATERIALS ON-SITE.

DIMENSIONS, FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED IMPROVED WIDTH OF NOT LESS THAN 24 FEET. EXCEPTION SINGLE FAMILY RESIDENTIAL DRIVEWAYS SERVING NO MORE THAN TWO SINGLE-FAMILY DWELLINGS SHALL HAVE A MINIMUM OF 16 FEET OF UNOBSTRUCTED IMPROVED WIDHT. ALL FIRE APPARATUS ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13 FEET 6 INCHES (COUNTY FIRE CODE 4 5903.2.)

ADDRESS NUMBERS, REVISE THE PLOT PLAN TO INDICATEINSTALLATION OF ADDRESS NUMBERS AT THE DRIVEWAY ENTRANCE AND FRONT ELEVATION OF THE STRUCTURE.AS TO BE PLAINLY VISIBLE FROM THE STREET OR ROADWAY FRONTING THE PROPERTY FROM EITHER DIRECTION OF APPROACH. THE ADDRESS NUMBERS SHALL BE A MINIMUM OF 4 INCHES IN HEIGHT WITH A 1/2" STROKE, AND SHALL CONTRAST WITH THE BACKGROUND. (COUNTY FIRE CODE 4 505.)

PREMISES IDENTIFICATION. APPROVED SIGNS OR OTHER APPROVED NOTICES SHALL BE PROVIDED AND MAINTAINED FOR FIRE APPARATUS ACCESS ROADS TO IDENTIFY SUCH ROADS AND PROHIBIT THE OBSTRUCTION THEREOF OR BOTH. ALL NEW PUBLIC ROADS, ALL PRIVATE ROADS WITHIN MAJOR SUBDIVISIONS, AND ALL PRIVATE ROAD EASEMENTS SERVING FOUR OR MORE PARCELS SHALL BE NAMED. ROAD NAME SIGNS SHALL COMPLY WITH COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS DESIGNS STANDARDS R-15-3. THE FIRE CODE OFFICIAL MAY REQUIRE THE POSTING OF A FIRE ACCESS ROADWAY WHERE PARKING HAS OBSTRUCT THE REQUIRED WIDTH. (COUNTY FIRE CODE 4 5203.)

NOTE:
"CONSTRUCTED PERVIOUS SURFACES SHALL NOT BE SEALED."

NOTE:
EXTERIOR GARAGE DOORS SHALL INCLUDE WEATHER STRIPPING AS NECESSARY TO REDUCE ANY GAPS AT THE BOTTOM, SIDES, AND TOP OF THE DOOR TO ⅛ INCH OR LESS. (CBC1084.4)

NOTE:
STRUCTURES SHALL HAVE AN AUTOMATIC FIRE SPRINKLER SYSTEM INSTALLED PER NFPA 13-D STANDAR AND THE COUNTY FIRE CODE. FIRE SPRINKLER SYSTEM PLANS SHALL BE SUBMITTED AND APPROVED BY THE COUNTY FIRE AUTHORITY , AND THE SYSTEM SHALL BE READY FOR HYDROSTATIC TESTING PRIOR TO FRAMING INSPECTION.

NOTE:

THIS PROJECT AND ALL WORK SHALL COMPLY WITH THE FOLLOWING:
2016 CALIFORNIA BUILDING CODE (CBC)
CALIFORNIA RESIDENTIAL CODE (CRC)
CALIFORNIA MECHANICAL CODE (CMC)
CALIFORNIA PLUMBING CODE (CPC)
CALIFORNIA FIRE CODE (CFC)
2016 CALIFORNIA ELECTRICAL CODE (CEC)
2016 CALIFORNIA ENERGY CODE
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN)
AND ALL APPLICABLE COUNTY/CITIES OF SAN DIEGO CODES AND ORDINANCES.

PROPERLY COMPLETED AND SIGNED CERTIFICATES OF INSTALLATION (CF3R FORMS) SHALL BE PROVIDED TO THE INSPECTOR IN THE FIELD, FOR PROJECTS REQUIRING HERS VERIFICATION, THE CF3R FORMS SHALL BE REGISTERED WITH A CALIFORNIA-APPROVED HERS PROVIDER DATA REGISTRY.

PROPERLY COMPLETED CERTIFICATES OF VERIFICATION (CF3R FORMS) SHALL BE PROVIDED TO THE INSPECTOR IN THE FIELD FOR ITEMS REQUIRING HERS VERIFICATION. CF3R FORMS SHALL BE REGISTERED WITH A CALIFORNIA-APPROVED HERS PROVIDER DATA REGISTRY.

"HERS VERIFICATION AND/OR DIAGNOSTIC TESTING REQUIRED. PROPERLY COMPLETED (FORMS MAY NOT BE FILLED OUT BY HAND.) REGISTERED, AND SIGNED FIELD VERIFICATION AND/OR DIAGNOSTIC TESTING DOCUMENTATION (CF-4R FORMS) SHALL BE PROVIDED TO THE INSPECTOR IN THE FIELD."

THE INSPECTOR WILL RECHECK FOR EXPANSIVE SOILS AND/OR GRADING REQUIREMENTS AT FIRST FOUNDATION INSPECTION.

THIS PROPERTY IS SERVICED BY PROPANE (LPG).

THIS PROJECT WILL COMPLY WITH THE COUNTY OF SAN DIEGO, CA. LIGHTING ORDINANCE

VICINITY MAP:

NO SCALE — T.B. # , GRID

SITE DATA:

MAP: • PARCEL MAP No. 20255
ZONE: • A70
LOTE SIZE: • 399,005.60 SQFT. • 9.16 AC.
SETBACK: F.Y.S.B. 60'-0"
I.Y.S.B. 15'-0"
E.Y.S.B. 35'-0"
R.Y.S.B. 15'-0"

IMPERVIOUS AREA:

EXISTING D/W • 5,620 SQ. FT.

PROPOSED NEW IMPERVIOUS AREA:

ONE STORY RESIDENCE	•	4,032 SQ. FT.
GARAGE	•	532 SQ. FT.
PORTE-COCHERE & COVERED ENTRY	•	835 SQ. FT.
VERANDA	•	182 SQ. FT.
COVER PATIO	•	89 SQ. FT.
DRIVEWAY	•	2,201 SQ. FT.
TOTAL	•	9,186 SQ. FT.

DISTURBED AREA:

10,000 S.F.

NO LANDSCAPING OVER 500 S.F.

SCOPE OF WORK:

BUILD NEW CUSTOM HOME,GARAGE,VERANDA,DRIVEWAY COVER COVER ENTRY, 4 PORTE COHERE, TRELLIS & PATIO, D/W SIDEWALK.

FLOOR AREA	•	4,032 S.F.
GARAGE •		936 S.F.
VERANDA •		182 S.F.
DRIVEWAY COVER COVER ENTRY	•	338 S.F.
4 PORTE COHERE	•	843 S.F.
TRELLIS & PATIO	•	89 S.F.
D/W & SIDEWALK	•	3,482 S.F.

SHEET INDEX:

LEGAL:

A.P.N. : 402-351-16-00
PARCEL 3 PM 20255
SITE ADDRESS: 9782 CHOCOLATE CREEK RD.
EL CAJON, CA. 92021

OWNER:

GEORGE SADLER
3920 DENVER DR.
LA MESA, CA. 91941
(619) 609-8378

REVISIONS	BY
01-29-2019	OQ
05-18-2021	OQ

CUSTOM HOME FOR SADLER

9782 CHOCOLATE CREEK RD. EL CAJON, CA. 92021

AUSTIN & ASSOCIATES
ALAN LLOYD AUSTIN
Ph. (619)440-3624
1622 PIONEER WAY EL CAJON CA. 92020
RESIDENTIAL & COMMERCIAL PLANNING AND DESIGN
MEMBER: AMERICAN INSTITUTE OF BUILDING DESIGN

DRAWN BY: OQ
CHECKED BY: ALA
DATE: -18
SCALE: AS NOTED
JOB NO.

P

A. General

Applicable codes. All projects shall comply with the *2016 California Building Code* (CBC) *and/or California Residential Code* (CRC)*, 2016 California Green Building Standards Code* (CalGreen), *2016 California Electrical Code* (CEC), 2016 *California Mechanical Code* (CMC), 2016 *California Plumbing Code* (CPC), 2016 *California Fire Code* (CFC), 2016 *California Building Energy Efficiency Standards* (CBEES), and all County of San Diego amendments.

A. Electrical, Plumbing, and Mechanical

1. **Exterior lighting.** All projects shall comply with the County of San Diego lighting ordinance.
2. **GFCI outlets.** Ground Fault Circuit Interrupter (GFCI) outlets are required in bathrooms, at kitchen countertops, at laundry and wet bar sinks, in garages, in crawlspaces, in unfinished basements, and outdoors. (CEC 210.8)
3. **AFCI outlets.** Electrical circuits in bedrooms, living rooms, dining rooms, dens, closets, hallways, or similar rooms must be protected by Arc Fault Circuit Interrupters (AFCI). (CEC 210.12)
4. **Luminaire requirements.** Installed luminaires shall meet the efficacy and fixture requirements of CBEES 150.0(k).
5. **Smoke detectors in building remodels**. Smoke detectors are required in each existing sleeping room, outside each separate sleeping area in the immediate vicinity of sleeping rooms, and on each story of a dwelling including basements. Battery-operated detectors are acceptable in existing areas with no construction taking place and in alterations not resulting in removal of interior wall or ceiling finishes and without access via an attic, crawl space, or basement. (CRC R314.3)
6. **Carbon monoxide detectors in building remodels**. Carbon monoxide detectors are required outside each separate sleeping area in the immediate vicinity of sleeping rooms and on each story of a dwelling including basements. Battery-operated detectors are acceptable in existing areas with no construction taking place and in alterations not resulting in removal of interior wall or ceiling finishes and without access via an attic, crawl space, or basement. (CRC R315.3)
7. **Water heater seismic strapping.** Minimum two 3/4-inch-by-24-gauge straps required around water heaters, with 1/4-inch-by-3-inch lag bolts attached directly to framing. Straps shall be at points within upper third and lower third of water heater vertical dimension. Lower connection shall occur minimum 4 inches above controls. (CPC 507.2)
8. **Gas appliances in garages.** Water heaters and heating/cooling equipment capable of igniting flammable vapors shall be placed on minimum 18-inch-high platform unless listing report number provided showing ignition-resistant appliance. (CPC 507.13 and CMC 305.1)
9. **Impact protection of appliances.** Water heaters and heating/cooling equipment subject to vehicular impact shall be protected by bollards or an equivalent measure. (CPC 507.13.1 and CMC 305.11)
10. **Water closet clearance.** Minimum 30-inch-wide by 24-inch-deep clearance required at front of water closets. (CPC 402.5)
11. **Shower size.** Shower compartments shall have minimum area of 1024 square inches and be able to encompass a 30-inch-diameter circle. Shower doors shall have a minimum 22-inch unobstructed width. (CPC 408.5 and CPC 408.6)
12. **Fireplace appliances.** Fireplaces with gas appliances are required to have the flue damper permanently fixed in the open position and fireplaces with LPG appliances are to have no 'pit' or 'sump' configurations. (CMC 303.7.1)
13. **Chimney clearance.** Minimum 2-foot chimney clearance required above building within 10-foot horizontally of chimney. The chimney shall extend minimum 3 feet above highest point where chimney passes through roof. (CRC R1003.9)

C. Mechanical Ventilation and Indoor Air Quality (ASHRAE 62.2-2010)

1. **Transfer air.** Ventilation air shall be provided directly from the outdoors and not as transfer air from adjacent dwelling units or other spaces, such as garages, unconditioned crawlspaces, or unconditioned attics. (CBEES 150.0(o))
2. **Instructions and labeling.** Ventilation system controls shall be labeled and the home owner shall be provided with instructions on how to operate the system. (CBEES 150.0(o))
3. **Combustion and solid-fuel burning appliances.** Combustion appliances shall be properly vented and air systems shall be designed to prevent back drafting. (CBEES 150.0(o))
4. **Garages.** The wall and openings between occupiable spaces and the garage shall be sealed. HVAC systems that include air handlers or return ducts located in garages shall have total air leakage of no more than 6% of total fan flow when measured at 0.1 in. w.c. using California Title 24 or equivalents. (CBEES 150.0(o))
5. **Minimum filtration.** Mechanical systems supplying air to occupiable space through ductwork shall be provided with a filter having a minimum efficiency of MERV 6 or better. (CBEES 150.0(o))
6. **Air inlets.** Air inlets (not exhaust) shall be located away from known contaminants. (CBEES 150.0(o))
7. **Air moving equipment.** Air moving equipment used to meet either the whole-building ventilation requirement or the local ventilation exhaust requirement shall be rated in terms of airflow and sound. (CBEES 150.0(o))
   - **a.** All continuously operating fans shall be rated at a maximum of 1.0 sone.
   - **b.** Intermittently operated whole-building ventilation fans shall be rated at a maximum of 1.0 sone.
   - **c.** Intermittently operated local exhaust fans shall be rated at maximum of 3.0 sone.
   - **d.** Remotely located air-moving equipment (mounted outside of habitable spaces) need not meet sound requirements if at least 4 feet of ductwork between fan and intake grill.

D. Foundation and Underfloor

1. **Foundation reinforcement.** Continuous footings and stem walls shall be provided with a minimum two longitudinal No. 4 bars, one at the top and one at the bottom of the footing. (CRC R403.1.3.3)
2. **Shear wall foundation support.** Shear walls shall be supported by continuous foundations. (CRC 403.1.2)
3. **Concrete slabs-on-grade.** Slabs-on-grade shall be minimum 3-1/2-inches thick. (CRC R506.1)
4. **Vapor retarder.** A 6-mil polyethylene or approved vapor retarder with joints lapped minimum 6 inches shall be placed between a concrete slab-on-grade and the base course or subgrade. (CRC 506.2.3)
5. **Anchor bolts and sills.** Foundation plates or sills shall be bolted or anchored to the foundation or foundation wall per the following (CRC R403.1.6 and CRC R602.11.1):
   - **a.** Minimum 1/2-inch-diameter steel bolts
   - **b.** Bolts embedded at least 7 inches into concrete or masonry
   - **c.** Bolts spaced maximum 6 feet on center
   - **d.** Minimum two bolts per plate/sill piece with one bolt located maximum 12 inches and minimum 7 bolt diameters from each end of each sill plate/piece
   - **e.** Minimum 3-inch by 3-inch by 0.299-inch steel plate washer between sill and nut on each bolt
6. **Hold-downs.** All hold-downs must be tied in place prior to foundation inspection.
7. **Protection of wood against decay**. Naturally durable or preservative-treated wood shall be provided in the following locations (CRC R317.1):
   - **a.** All wood in contact with ground, embedded in concrete in direct contact with ground, or embedded in concrete exposed to weather
   - **b.** 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
   - **c.** 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
   - **d.** 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
   - **e.** Sills and sleepers on concrete or masonry slab in direct contact with ground unless separated from such slab by impervious moisture barrier

D. Foundation and Underfloor (Continued)

   - **f.** Ends of wood girders entering masonry or concrete walls with clearances less than 1/2 inch on tops, sides, and ends
   - **g.** 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
   - **h.** 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
8. **Underfloor ventilation.** Underfloor areas shall have ventilation openings through foundation walls or exterior walls, with minimum net area of ventilation openings of 1 square foot for each 150 square feet of underfloor area. On such ventilating opening shall be within 3 feet of each corner of the building. (CRC R408.1)
9. **Underfloor access.** Underfloor areas shall be provided with a minimum 18-inch by 24-inch access opening. (CRC R408.4)

E. Wood Framing

1. **Fastener requirements.** The number, size, and spacing of fasteners connecting wood members/elements shall not be less than that set forth in CRC Table R602.3(1). (CRC R502.9, CRC R602.3, and CRC R802.2)
2. **Stud size, height, and spacing.** The size, height, and spacing of studs shall be in accordance with CRC Table R602.3(5). (CRC R602.3.1)
3. **Sill plate.** Studs shall have full bearing on nominal 2-inch thick or larger sill plate with width at least equal to stud width. (CRC R602.3.4)
4. **Bearing studs.** Where joists, trusses, or rafters are spaced more than 16 inches on center and the bearing studs below are spaced 24 inches on center, such members shall bear within 5 inches of the studs beneath. (CRC R602.3.3)
5. **Drilling and notching of studs.** Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25% of its width. Studs in nonbearing partitions may be notched to a depth not to exceed 40% of a single stud width. Any stud may be bored or drilled, provided the diameter of the resulting hole is no more than 60% of the stud width, the edge of the hole is no more than 5/8 inch to the edge of the stud, and the hole is not located in the same section as a cut or notch. Studs located in exterior wall or bearing partitions drilled over 40% and up to 60% shall also be doubled with no more than two successive studs bored. (CRC R602.6)
6. **Top plate.** Wood stud walls shall be capped with a double top plate installed to provide overlapping at corners and at intersections with other partitions. End joints in double top plates shall be offset at least 24 inches. Joints in plates need not occur over studs. Plates shall be minimum nominal 2 inches thick and have width at least equal to width of studs. (CRC R602.3.2)
7. **Top plate splices.** Top plate lap splices shall be face-nailed with minimum 8 16d nails on each side of splice. (CRC R602.10.8.1)
8. **Drilling and notching of top plate.** When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling, or notching of the top plate by more than 50% of its width, a galvanized metal tie not less than 0.054-inch thick and 1-1/2-inches wide shall be fastened across and to the plate at each side of the opening with not less than 8 10d nails having a minimum length of 1-1/2 inches at each side or equivalent. The metal tie must extend minimum 6 inches past the opening. (CRC R602.6.1)
9. **Cripple walls.** Foundation cripple walls shall be framed of studs not less in size than the studding above. Cripple walls more than 4 feet in height shall have studs sized as required for an additional story. Cripple walls with stud height less than 14 inches shall be sheathed on at least one side with a wood structural panel fastened to both the top and bottom plates in accordance with Table R602.3(1), or the cripple walls shall be constructed of solid blocking. Cripple walls shall be supported on continuous foundations. (CRC R602.9)
10. **Wall bracing.** Buildings shall be braced in accordance with the methods allowed per CRC R602.10.2, CRC R602.10.4, and/or CRC R602.10.5.
11. **Braced wall line spacing.** Spacing between braced wall lines shall not exceed 20 feet or alternate provisions of CRC R602.10.1.3.
12. **Shear wall cumulative length.** The cumulative length of shear walls within each braced wall line shall meet the provisions of CRC Table R602.10.3(1) for wind loads and CRC Table R602.10.3(2) for seismic loads. (CRC R602.10.1.1)
13. **Shear wall spacing.** Shear walls shall be located not more than 25 feet on center. (CRC R602.10.2.2)
14. **Shear wall offset.** Shear walls may be offset out-of-plan not more than 4 feet from the designated braced wall line and not more than 8 feet from any other offset wall considered part of the same braced wall line. (CRC R602.10.1.2)
15. **Shear wall location.** Shear walls shall be located at the ends of each braced wall line or meet the alternate provisions of CRC R602.10.2.2.
16. **Individual shear wall length.** Shear walls shall meet minimum length requirements of CRC R602.10.6.5.1.
17. **Cripple wall bracing.** Cripple walls shall be braced per CRC R602.10.11.
18. **Shear wall and diaphragm nailing.** All shear walls, roof diaphragms, and floor diaphragms shall be nailed to supporting construction per CRC Table R602.3(1). (CRC R604.3)
19. **Shear wall joints.** All vertical joints in shear wall sheathing shall occur over, and be fastened to, common studs. Horizontal joints in shear walls shall occur over, and be fastened to, minimum 1-1/2-inch-thick blocking. (CRC R602.10.10)
20. **Framing over openings.** Headers, double joists, or trusses of adequate size to transfer loads to vertical members shall be provided over window and door openings in load-bearing walls and partitions. (CBC 2304.3.2)
21. **Joists under bearing partitions.** Joists under parallel bearing partitions shall be of adequate size to support the load. Double joists, sized to adequately support the load, that are separated to permit the installation of piping or vents shall be full-depth solid-blocked with minimum 2-inch nominal lumber spaced at maximum 4 feet on center. Bearing partitions perpendicular to joists shall not be offset from supporting girders, walls, or partitions more than the joist depth unless such joists are of sufficient size to carry the additional load. (CRC R502.4)
22. **Joists above or below shear walls.** Where joists are perpendicular to a shear wall above or below, a rim joist, band joist, or blocking shall be provided along the entire length of the shear wall. Where joists are parallel to a shear wall above or below, a rim joist, end joist, or other parallel framing shall be provided directly above and/or below the shear wall. Where a parallel framing member cannot be located directly above and/or below the shear wall, full-depth blocking at 16-inch spacing shall be provided between the parallel framing members to each side of the shear wall. (CRC R602.10.8)
23. **Floor member bearing.** The ends of each floor joist, beam, or girder shall have minimum 1-1/2 inches of bearing on wood or metal and minimum 3 inches of bearing on masonry or concrete except where supported on a 1-inch-by-4-inch ribbon strip and nailed to the adjoining stud or by the use of approved joist hangers. (CRC R502.6)
24. **Floor joist lap.** Floor joists framing opposite sides over a bearing support shall lap minimum 3 inches and shall be nailed together within minimum 3 10d face nails. A wood or metal splice with strength equal to or greater than that provided by the lap is permitted. (CRC R502.6.1)
25. **Floor joist-to-girder support.** Floor joists framing into the side of a wood girder shall be supported by approved framing anchors or on ledger strips minimum nominal 2 inches by 2 inches. (CRC R502.6.2)
26. **Floor joist lateral restraint.** Floor joists shall be supported laterally at ends and each intermediate support by minimum 2-inch full-depth blocking, by attachment to full-depth header, band joist, or rim joist, to an adjoining stud, or shall be otherwise provided with lateral support to prevent rotation. (CRC R502.7)
27. **Floor joist bridging.** Floor joists exceeding nominal 2 inches by 12 inches shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch strip nailed across the bottom of joists perpendicular to joists at maximum 8-foot intervals. (CRC R502.7.1)
28. **Framing of floor openings.** Openings in floor framing shall be framed with a header and trimmer joists. When the header joist span does not exceed 4 feet, the header joist may be a single member the same size as the floor joist. Single trimmer joists may be used to carry a single header joist located within 3 feet of the trimmer joist bearing. When the header joist span exceeds 4 feet, the trimmer joists and header joist shall be doubled and of sufficient cross section to support the floor joists framing into the header. Approved hangers shall be used for the header-joist-to-trimmer-joist connections when the header joist span exceeds 6 feet. Tail joists over 12 feet long shall be supported at the header by framing anchors or on ledger strips minimum 2 inches by 2 inches. (CRC R502.10)

E. Wood Framing (Continued)

29. **Girders.** Girders for single-story construction or girders supporting loads from a single floor shall not be less than 4 inches by 6 inches for spans 6 feet or less, provided that girders are spaced not more than 8 feet on center. Other girders shall be designed to support the loads specified in the CBC. Girder end joints shall occur over supports. When a girder is spliced over a support, an adequate tie shall be provided. The ends of beams or girders supported on masonry or concrete shall not have less than 3 inches of bearing. (CBC 2308.7)
30. **Ridges, hips, and valleys**. Rafters shall be framed to a ridge board or to each other with a gusset plate as a tie. Ridge boards shall be minimum 1-inch nominal thickness and not less in depth than the cut end of the rafter. At all valley and hips, there shall be a valley or hip rafter not less than 2-inch nominal thickness and not less in depth than the cut end of the rafter. Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point. Where the roof pitch is less than 3:12 slope (25% gradient), structural members that support rafters and ceilings joists, such as ridges, hips, and valleys, shall be designed as beams. (CRC R802.3)
31. **Ceiling joist and rafter connections.** Ceiling joists and rafters shall be nailed to each other per CRC Table R802.5.1(9), and the rafter shall be nailed to the wall top plate per CRC Table R602.3(1). Ceiling joists shall be continuous or securely joined per CRC Table R802.5.1(9) where they meet over interior partitions and are nailed to adjacent rafters to provide a continuous tie across the building when such joists are parallel to rafters. Where ceiling joists are not connected to the rafters at the wall top plate, joists connected higher in the attic shall be installed as rafter ties, or rafter ties shall be installed to provide a continuous tie. Where ceiling joists are not parallel to rafters, rafter ties shall be installed. Rafter ties shall be minimum 2 inches by 4 inches nominal, installed per CRC Table R802.5.1(9), or connections of equivalent capacities shall be provided. Where ceilings joists or rafter ties are not provided, the ridge formed by these rafters shall be supported by a wall or engineer-designed girder. (CRC R802.3.1)
32. **Ceiling joists lapped.** Ends of ceiling joists shall be lapped minimum 3 inches or butted over bearing partitions or beams and toenailed to the bearing element. Where ceiling joists provide resistance to rafter thrust, lapped joists shall be nailed together per CRC Table R602.3(1) and butted joists shall be tied together in a manner to resist such thrust. (CRC R802.3.2)
33. **Collar ties.** Collar ties or ridge straps to resist wind uplift shall be connected in the upper third of the attic space. Collar ties shall be a minimum 1 inch by 4 inches nominal and spaced at maximum 4 feet on center. (CRC R802.3.1)
34. **Purlins.** Purlins installed to reduce the span of rafters shall be sized not less than the required size of the rafters they support. Purlins shall be continuous and shall be supported by 2-inch-by-4-inch nominal braces installed to bearing walls at a minimum 45-degree slope from horizontal. The braces shall be spaced maximum 4 feet on center with a maximum 8-foot unbraced length. (CRC R802.5.1)
35. **Roof/ceiling member bearing.** The ends of each rafter or ceiling joist shall have not less than 1-1/2 inches of bearing on wood or metal and not less than 3 inches of bearing on masonry or concrete. (CRC R802.6)
36. **Roof/ceiling member lateral support.** Roof framing members and ceiling joists with a nominal depth-to-thickness ratio exceeding 5:1 shall be provided with lateral support at points of bearing to prevent rotation. (CRC R802.8)
37. **Roof/ceiling bridging.** Rafters and ceiling joists with a nominal depth-to-thickness ratio exceeding 6:1 shall be supported laterally by solid blocking, diagonal bridging (wood or metal), or a continuous 1-inch-by-3-inch wood strip nailed across the rafters or ceiling joists at maximum 8-foot intervals. (CRC R802.8.1)
38. **Framing of roof/ceiling openings.** Openings in roof and ceiling framing shall be framed with a header and trimmer joists. When the header joist span does not exceed 4 feet, the header joist may be a single member the same size as the ceiling joist or rafter. Single trimmer joists may be used to carry a single header joist located within 3 feet of the trimmer joist bearing. When the header joist span exceeds 4 feet, the trimmer joists and header joist shall be doubled and of sufficient cross section to support the ceiling joists or rafters framing into the header. Approved hangers shall be used for the header-joist-to-trimmer-joist connections when the header joist span exceeds 6 feet. Tail joists over 12 feet long shall be supported at the header by framing anchors or on ledger strips minimum 2 inches by 2 inches. (CRC R502.10)
39. **Roof framing above shear walls.** Rafters or roof trusses shall be connected to top plates of shear walls with blocking between the rafters or trusses. (CRC R602.10.8)
40. **Roof diaphragm under fill framing.** Roof plywood shall be continuous under California fill framing.
41. **Roof diaphragm at ridges.** Minimum 2-inch nominal blocking required for roof diaphragm nailing at ridges.
42. **Blocking of roof trusses.** Minimum 2-inch nominal blocking required between trusses at ridge lines and at points of bearing at exterior walls.
43. **Truss clearance**. Minimum 1/2-inch clearance required between top plates of interior non-bearing partitions and bottom chords of trusses.
44. **Drilling, cutting, and notching of roof/floor framing.** Notches in solid lumber joists, rafters, blocking, and beams shall not exceed one-sixth the member depth, shall be not longer than one-third the member depth, and shall not be located in the middle one-third of the span. Notches at member ends shall not exceed one-fourth the member depth. The tension side of members 4 inches or greater in nominal thickness shall not be notched except at member ends. The diameter of holes bored or cut into members shall not exceed one-third the member depth. Holes shall not be closer than 2 inches to the top or bottom of the member or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than 2 inches to the notch. (CRC R502.8.1)
45. **Exterior landings, decks, balconies, and stairs.** Such elements shall be positively anchored to the primary structure to resist both vertical and lateral forces or shall be designed to be self-supporting. Attachment shall not be accomplished by use of toenails or nails subject to withdrawal. (CRC R311.3)
46. **Fireblocking.** Fireblocking shall be provided in the following locations (CRC R302.11 and CRC R1003.19):
   - **a.** In concealed spaces of stud walls and partitions, including furred spaces, and parallel rows of studs or staggered studs, as follows:
     - **i.** Vertically at the ceiling and floor levels
     - **ii.** Horizontally at intervals not exceeding 10 feet
   - **b.** At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings, and cove ceilings
   - **c.** In concealed spaces between stair stringers at the top and bottom of the run
   - **d.** At openings around vents, pipes, ducts, cables and wires at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion
   - **e.** At chimneys and fireplaces per item E.49
   - **f.** Cornices of a two-family dwelling at the line of dwelling-unit separation
47. **Fireblocking materials.** Except as otherwise specified in items E.48 and E.49, fireblocking shall consist of the following materials with the integrity maintained (CRC R302.11.1):
   - **a.** Two-inch nominal lumber
   - **b.** Two thicknesses of one-inch nominal lumber with broken lap joints
   - **c.** One thickness of 23/32-inch wood structural panel with joints backed by 23/32-inch wood structural panel
   - **d.** One thickness of 3/4-inch particleboard with joints backed by 3/4-inch particleboard
   - **e.** 1/2-inch gypsum board
   - **f.** 1/4-inch cement-based millboard
   - **g.** Batts or blankets of mineral or glass fiber of other approved materials installed in such a manner as to be securely retained in place. Batts or blankets of mineral or glass fiber or other approved non-rigid materials shall be permitted for compliance with the 10-foot horizontal fireblocking in walls constructed using parallel rows of studs or staggered studs. Unfaced fiberglass batt insulation used as fireblocking shall fill the entire cross-section of the wall cavity to a minimum height of 16 inches measured vertically. When piping, conduit, or similar obstructions are encountered, the insulation shall be packed tightly around the obstruction. Loose-fill insulation material shall not be used as a fireblock unless specifically tested in the form and manner intended for use to demonstrate its ability to remain in place and to retard the spread of fire and hot gases.
48. **Fireblocking at openings around vents, pipes, ducts, cables, and wires at ceiling and floor level.** Such openings shall be fireblocked with an approved material to resist the free passage of flame and products of combustion. (CRC R302.11)

E. Wood Framing (Continued)

49. **Fireblocking of chimneys and fireplaces.** All spaces between chimneys and floors and ceilings through which chimneys pass shall be fireblocked with noncombustible material securely fastened in place. The fireblocking of spaces between chimneys and wood joists, beams, or headers shall be self-supporting or be placed on strips of metal or metal lath laid across the spaces between combustible material and the chimney. (CRC R1003.19)
50. **Draftstopping.** In combustible construction where there is usable space both above and below the concealed space of a floor/ceiling assembly, draftstops shall be installed so that the area of the concealed space does not exceed 1000 square feet. Draftstopping shall divide the concealed space into approximately equal areas. Where the assembly is enclosed by a floor membrane above and a ceiling membrane below, draftstopping shall be provided in floor/ceiling assemblies under the following circumstances (CRC R302.12):
   - **a.** Ceiling is suspended under the floor framing
   - **b.** Floor framing is constructed of truss-type open-web or perforated members
51. **Draftstopping materials.** Draftstopping shall not be less than 1/2-inch gypsum board, 3/8-inch wood structural panels, or other approved materials adequately supported. Draftstopping shall be installed parallel to the floor framing members unless otherwise approved by the building official. The integrity of draftstops shall be maintained. (CRC R302.12.1)
52. **Combustible insulation clearance.** Combustible insulation shall be separated minimum 3 inches from recessed luminaires, fan motors, and other heat-producing devices. (CRC R302.14)

F. General Material Specifications

1. **Lumber.** All joists, rafters, beams, and posts 2-inches to 4-inches thick shall be No. 2 grade Douglas Fir-Larch or better. All posts and beams 5 inches and thicker shall be No. 1 grade Douglas Fir-Larch or better. Studs not more than 8 feet long shall be stud-grade Douglas Fir-Larch or better when supporting not more than one floor, roof, and ceiling. Studs longer than 8 feet shall be No. 2 grade Douglas Fir-Larch or better.
2. **Concrete.** Concrete shall have a minimum compressive strength of 2,500 psi at 28 days and shall consist of 1 part cement, 3 parts sand, 4 parts 1-inch maximum size rock, and not more than 7-1/2 gallons of water per sack of cement. (CRC R402.2)
3. **Mortar.** Mortar used in construction of masonry walls, foundation walls, and retaining walls shall conform to ASTM C 270 and shall consist of 1 part portland cement, 2-1/4 to 3 parts sand, and 1/4 to 1/2 part hydrated lime. (CBC 2103.2)
4. **Grout.** Grout shall conform to ASTM C 476 and shall consist of 1 part portland cement, 1/10 part hydrated lime, 2-1/4 to 3 parts sand, and 1 to 2 parts gravel. Grout shall attain a minimum compressive strength of 2,000 psi at 28 days. (CBC 2103.3)
5. **Masonry.** Masonry units shall comply with ASTM C 90 for load-bearing concrete masonry units. (CBC 2103.1)
6. **Reinforcing steel.** Reinforcing steel used in construction of reinforced masonry or concrete structures shall be deformed and comply with ASTM A 615. (CBC 2103.4)
7. **Structural steel.** Steel used as structural shapes such as wide-flange sections, channels, plates, and angles shall comply with ASTM A36. Pipe columns shall comply with ASTM A53. Structural tubes shall comply with ASTM A500, Grade B.
8. **Fasteners for preservative-treated wood.** Fasteners for preservative-treated and fire-retardant-treated wood - including nuts and washers -- shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze, or copper. (CRC R317.3.1)

   Exception: 1/2-inch diameter or greater steel bolts

   Exception: Fasteners other than nails and timber rivets may be of mechanically deposited zinc-coated steel with coating weights in accordance with ASTM B 695, Class 55 minimum

   Exception: Plain carbon steel fasteners acceptable in SBX/DOT and zinc borate preservative-treated wood in an interior, dry environment
9. **Fasteners for fire-retardant-treated wood.** Fasteners for fire-retardant-treated wood used in exterior applications or wet or damp locations shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze, or copper. (CRC R317.3.3)

G. Roofing and Weatherproofing

1. **Roof covering.** All roof covering shall be installed per applicable requirements of CBC 1507. Roof coverings shall be at least Class A rated in accordance with ASTM E 108 or UL 790, which shall include coverings of slate, clay or concrete roof tile, exposed concrete roof deck, ferrous or copper shingles or sheets. (County Building Code 92.1.1505.1)
2. **Roof flashing.** Flashing shall be installed at wall and roof intersections, at gutters, wherever there is a change in roof slope or direction, and around roof openings. Where flashing is of metal, the metal shall be corrosion-resistant with a thickness of not less than 0.019 inch (No. 26 galvanized sheet). (CRC R903.2.1)
3. **Crickets and saddles.** A cricket or saddle shall be installed on the ridge side of any chimney or penetration more than 30 inches wide as measured perpendicular to the slope. Cricket or saddle covering shall be sheet metal or the same material as the roof covering. (CRC R903.2.2)
4. **Water-resistive barrier.** A minimum of one layer of No. 15 asphalt felt shall be attached to studs or sheathing of all exterior walls. Such felt or material shall be applied horizontally, with the upper layer lapped over the lower layer minimum 2 inches. Where joints occur, felt shall be lapped minimum 6 inches. The felt shall be continuous to the top of walls and terminated at penetrations and building appendages in a manner to maintain a weather-resistant exterior wall envelope. (CRC R703.2)
5. **Wall flashing.** Approved corrosion-resistant flashing shall be applied shingle fashion at the following locations to prevent entry of water into the wall cavity or penetration of water to the building structural framing components (CRC R703.8):
   - **a.** Exterior door and window openings, extending to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage
   - **b.** At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings
   - **c.** Under and at the ends of masonry, wood, or metal copings and sills
   - **d.** Continuously above all projecting wood trim
   - **e.** Where exterior porches, decks, or stairs attach to a wall or floor assembly of wood-frame construction
   - **f.** At wall and roof intersections
   - **g.** At built-in gutters
6. **Dampproofing.** Dampproofing materials for foundation walls enclosing usable space below grade shall be installed on the exterior surface of the wall, and shall extend from the top of the footing to finished grade. (CRC R406.1)
7. **Weep screed.** A minimum 0.019-inch (No. 26 galvanized sheet gage), corrosion-resistant weep screed or plastic weep screed with a minimum vertical attachment flange of 3-1/2 inches shall be provided at or below the foundation plate line on exterior stud walls in accordance with ASTM C 92. The weep screed shall be placed a minimum 4 inches above the earth or 2 inches above paved areas and shall be of a type allowing trapped water to drain to the exterior of the building. (CRC R703.7.2.1)

H. Grading and soils

1. **Grading permit**. Grading permit required if volume of earth moved exceeds 200 cubic yards or if any cuts or fills exceed 8 feet in height/depth. (County Grading Ordinance 202)
2. **Compaction report.** Compaction report required for fill material 12 inches or more in depth. (CBC 1803.5.8)

I. Green Building Standards Code (CALGreen) Requirements

1. **Applicability**. CalGreen residential mandatory measures shall apply to every newly constructed building or structure and within any addition or alteration increasing a building's conditioned area, volume, or size. (CalGreen 101.3, CalGreen 301.1.1)

   Exception: All residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures per CalGreen 301.1.1 and CalGreen 4.303.1

I. (CALGreen) Requirements (Continued)

2. **Water conserving plumbing fixtures and fittings.** Plumbing fixtures and fittings shall comply with the following per CalGreen 4.303.1:
   - **a.** Water closets: Maximum 1.28 gallons per flush
   - **b.** Urinals: Maximum 0.5 gallons per flush
   - **c.** Single showerheads: Maximum flow rate of 2.0 gallons per minute at 80 psi
   - **d.** Multiple showerheads serving one shower: Maximum combined flow rate of 2.0 gallons per minute at 80 psi
   - **e.** Lavatory faucets: Maximum flow rate of 1.2 gallons per minute at 60 psi, minimum flow rate of 0.8 gallons per minute at 20 psi
   - **f.** Kitchen faucets: Maximum flow rate of 1.8 gallons per minute at 60 psi

   Exception: Temporary increase allowed to maximum 2.2 gallons per minute at 60 psi if faucet defaults back to maximum 1.8 gallons per minute at 60 psi
3. **Irrigation controllers.** Automatic irrigation system controllers for landscaping shall comply with the following (CalGreen 4.304.1):
   - **a.** Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
   - **b.** Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.
4. **Joints and openings.** Openings in the building envelope separating conditioned space from unconditioned space needed to accommodate utility and other penetrations must be sealed in compliance with the *California Energy Code*. (CALGreen 4.406.1)

   Exception: 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 opening with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.
5. **Construction waste reduction, disposal, and recycling.** Reduce and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition debris. (CALGreen 4.408.1)

   Exception: Excavated soil and land-clearing debris.

   Exception: Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite

   The County of San Diego, Department of Public Works, Construction & Demolition (C&D) Facilities Guide is online at:
   http://www.sdcounty.ca.gov/dpw/recycling/Files/Construction_Guide_SJ8_Pgs_1-27.pdf.
6. **Construction waste management plan.** A construction waste management plan shall be prepared and available on site during construction. Documentation demonstrating compliance with the plan shall be accessible during construction for the enforcing agency. (CALGreen 4.408.2) The plan:
   - a. Identify the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project or salvage for future use or sale
   - b. Specify if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream)
   - c. Identify diversion facilities where the construction and demolition waste materials will be taken
   - d. Identify construction methods employed to reduce the amount of construction and demolition waste generated
   - e. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both
7. **Operation and maintenance manual.** Prior to final inspection, a manual, compact disc, web-based reference, or other acceptable media which includes all of the following shall be placed in the building (CALGreen 4.410.1):
   - **a.** Directions to owner or occupant that manual shall remain with the building throughout the life cycle of the structure.
   - **b.** Operation and maintenance instructions for the following:
     - **i.** Equipment and appliances, including water-saving devices and systems, HVAC system, photovoltaic systems, water-heating systems and other major appliances and equipment.
     - **ii.** Roof and yard drainage, including gutters and downspouts.
     - **iii.** Space conditioning systems, including condensers and air filters.
     - **iv.** Landscape irrigation systems.
     - **v.** Water reuse systems.
   - **c.** Information from local utility, water, and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
   - **d.** Public transportation and/or carpool options available in the area.
   - **e.** Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
   - **f.** Information about water-conserving landscape and irrigation design and controllers which conserve water.
   - **g.** Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
   - **h.** Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
   - **i.** Information about state solar energy and incentive programs available.
   - **j.** A copy of all special inspection verifications required by the enforcing agency or code.
8. **Covering of duct openings and protection of mechanical equipment during construction.** At the time of rough installation or during storage on the construction site and until final startup of the heating and cooling equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust or debris which may collect in the system. (CALGreen 4.504.1)
9. **Adhesives, sealants, caulks, paints, and coatings pollutant control.** Adhesives (including carpet adhesives), sealants, caulks, paints, and coatings shall comply with VOC limits per CALGreen 4.504.2. Verification of compliance shall be provided at the request of the enforcing agency. (CALGreen 4.504.2.1)
10. **Carpet systems.** All carpet installed in the building interior shall meet the testing and product requirements of one of the following (CALGreen 4.504.3):
    - **a.** Carpet and Rug Institute's Green Label Plus Program (all carpet cushion must meet the requirements of this program).
    - **b.** California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350).
    - **c.** NSF/ANSI 140 at the Gold level.
    - **d.** Scientific Certifications Systems Indoor Advantage™ Gold.
11. **Resilient flooring systems.** At least 80 percent of the floor area receiving resilient flooring shall comply with one of or more of the following (CALGreen 4.504.4):
    - a. VOC emission limits defined in the Collaborative for High Performance Schools (CHPS) High Performance Products Database
    - b. Products compliant with CHPS criteria certified under the Greenguard Children & Schools program
    - c. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program
    - d. Meet the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350)
12. **Composite wood products.** Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.) by or before the dates specified in those sections, as shown in CalGreen Table 4.504.5. The following limits are in parts per million (CALGreen 4.504.5):

a.	Hardwood plywood veneer core	0.05
b.	Hardwood plywood composite core	0.05
c.	Particle board	0.09
d.	Medium-density fiberboard (MDF)	0.11
e.	Thin MDF (5/16 inch or less)	0.13

I. (CALGreen) Requirements (Continued)

13. **Moisture content of building materials.** Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following (CALGreen 4.505.3):
    - **a.** Moisture content shall be determined with either a probe-type or contact-type moisture meter.
    - **b.** Moisture readings shall be taken at a point 2 feet to 4 feet from the grade stamped end of each piece to be verified.
    - **c.** At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

    Insulation products which are visibly wet or have high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities.
    Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.
14. **B**athrooms with a bathtub and/or shower shall be mechanically ventilated per the following (CalGreen 4.506.1):
    - **a.** Fans shall be ENERGY STAR compliant and ducted to terminate outside building
    - **b.** Unless functioning as a component of a whole-house ventilation system, fans shall have humidity controls capable of adjustment - manually or automatically -- between a relative humidity range of 50% to 80%.
15. **Heating and air-conditioning system design.** Heating and air-conditioning systems shall be sized, designed, and have their equipment selected using the following methods (CALGreen 4.507.2):
    - **a.** The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J, ASHRAE handbooks, or other equivalent design software or methods.
    - **b.** Duct systems are sized according to ANSI/ACCA 1 Manual D 2009, ASHRAE handbooks, or other equivalent design software or methods.
    - **c.** Select heating and cooling equipment according to ACCA 36-S Manual S or other equivalent design software or methods

TABLE R602.3(1)
FASTENER SCHEDULE FOR STRUCTURAL MEMBERS

TABLE R602.3(1)
FASTENING SCHEDULE

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER[a,b,c]	SPACING AND LOCATION	
	Roof			
1	Blocking between ceiling joists or rafters to top plate	4-8d box (2 1/2" × 0.113"); or 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail	
2	Ceiling joists to top plate	4-8d box (2 1/2" × 0.113"); or 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Per joist, toe nail	
3	Ceiling joist not attached to parallel rafter, laps over partitions [see Sections R802.3.1, R802.3.2 and Table R802.5.1(9)]	4-10d box (3" × 0.128"); or 3-16d common (3 1/2" × 0.162"); or 4-3" × 0.131" nails	Face nail	
4	Ceiling joist attached to parallel rafter (heel joint) [see Sections R802.3.1 and R802.3.2 and Table R802.5.1(9)]	Table R802.5.1(9)	Face nail	
5	Collar tie to rafter, face nail or 1 1/4" × 20 ga. ridge strap to rafter	4-10d box (3" × 0.128"); or 3-10d common (3" × 0.148"); or 4-3" × 0.131" nails	Face nail each rafter	
6	Rafter or roof truss to plate	3-16d box nails (3 1/2" × 0.135"); or 3-10d common nails (3" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss[i]	
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	4-16d (3 1/2" × 0.135"); or 3-10d common (3 1/2" × 0.148"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail	
		3-16d box 3 1/2" × 0.135"); or 2-16d common (3 1/2" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail	
	Wall			
8	Stud to stud (not at braced wall panels)	16d common (3 1/2" × 0.162")	24" o.c. face nail	
		10d box (3" × 0.128"); or 3" × 0.131" nails	16" o.c. face nail	
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3 1/2" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail	
		16d common (3 1/2" × 0.162")	16" o.c. face nail	
10	Built-up header (2" to 2" header with 1/2" spacer)	16d common (3 1/2" × 0.162")	16" o.c. each edge face nail	
		16d box (3 1/2" × 0.135")	12" o.c. each edge face nail	
11	Continuous header to stud	5-8d box (2 1/2" × 0.113"); or 4-8d common (2 1/2" × 0.131"); or 4-10d box (3" × 0.128")	Toe nail	
12	Top plate to top plate	16d common (3 1/2" × 0.162")	16" o.c. face nail	
		10d box (3" × 0.128"); or 3" × 0.131" nails	12" o.c. face nail	
13	Double top plate splice for SDCs A-D2 with seismic braced wall line spacing < 25'	8-16d common (3 1/2" × 0.162"); or 12-16d box (3 1/2" × 0.135"); or 12-10d box (3" × 0.128"); or 12-3" × 0.131" nails	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)	
	Double top plate splice SDCs D0, D1, or D2; and braced wall line spacing ≥ 25'	12-16d (3 1/2" × 0.135")		
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3 1/2" × 0.162")	16" o.c. face nail	
		16d box (3 1/2" × 0.135"); or 3" × 0.131" nails	12" o.c. face nail	
15	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box (3 1/2" × 0.135"); or 2-16d common (3 1/2" × 0.162"); or 4-3" × 0.131" nails	3 each 16" o.c. face nail 2 each 16" o.c. face nail 4 each 16" o.c. face nail	
16	Top or bottom plate to stud	4-8d box (2 1/2" × 0.113"); or 3-16d box (3 1/2" × 0.135"); or 4-8d common (2 1/2" × 0.131"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	Toe nail	
		3-16d box (3 1/2" × 0.135"); or 2-16d common (3 1/2" × 0.162"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	End nail	
17	Top plates, laps at corners and intersections	3-10d box (3" × 0.128"); or 2-16d common (3 1/2" × 0.162"); or 3-3" × 0.131" nails	Face nail	
18	1" brace to each stud and plate	3-8d box (2 1/2" × 0.113"); or 2-8d common (2 1/2" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples 1 3/4"	Face nail	
19	1" × 6" sheathing to each bearing	3-8d box (2 1/2" × 0.113"); or 2-8d common (2 1/2" × 0.131"); or 2-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1 3/4" long	Face nail	
20	1" × 8" and wider sheathing to each bearing	3-8d box (2 1/2" × 0.113"); or 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3 staples, 1" crown, 16 ga., 1 3/4" long	Face nail	
		Wider than 1" × 8" 4-8d box (2 1/2" × 0.113"); or 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 4 staples, 1" crown, 16 ga., 1 3/4" long		
	Floor			
21	Joist to sill, top plate or girder	4-8d box (2 1/2" × 0.113"); or 3-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Toe nail	
22	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d box (2 1/2" × 0.113")	4" o.c. toe nail	
		8d common (2 1/2" × 0.131"); or 10d box (3" × 0.128"); or 3" × 0.131" nails	6" o.c. toe nail	
23	1" × 6" subfloor or less to each joist	3-8d box (2 1/2" × 0.113"); or 2-8d common (2 1/2" × 0.131"); or 3-10d box (3" × 0.128"); or 2 staples, 1" crown, 16 ga., 1 3/4" long	Face nail	
ITEM	**DESCRIPTION OF BUILDING ELEMENTS**	**NUMBER AND TYPE OF FASTENER[a,b,c]**	**SPACING AND LOCATION**	
	Floor			
24	2" subfloor to joist or girder	3-16d box (3 1/2" × 0.135"); or 2-16d common (3 1/2" × 0.162")	Blind and face nail	
25	2" planks (plank & beam—floor & roof)	3-16d box (3 1/2" × 0.135"); or 2-16d common (3 1/2" × 0.162")	At each bearing, face nail	
26	Band or rim joist to joist	3-16d common (3 1/2" × 0.162") 4-10 box (3" × 0.128"), or 4-3" × 0.131" nails; or 4-3" × 14 ga. staples, 7/16" crown	End nail	
27	Built-up girders and beams, 2-inch lumber layers	20d common (4" × 0.192"); or	Nail each layer as follows: 32" o.c. at top and bottom and staggered.	
		10d box (3" × 0.128"); or 3" × 0.131" nails	24" o.c. face nail at top and bottom staggered on opposite sides	
		And: 2-20d common (4" × 0.192"); or 3-10d box (3" × 0.128"); or 3-3" × 0.131" nails	Face nail at ends and at each splice	
28	Ledger strip supporting joists or rafters	4-16d box (3 1/2" × 0.135"); or 3-16d common (3 1/2" × 0.162"); or 4-10d box (3" × 0.128"); or 4-3" × 0.131" nails	At each joist or rafter, face nail	
29	Bridging to joist	2-10d (3" × 0.128")	Each end, toe nail	
ITEM	**DESCRIPTION OF BUILDING ELEMENTS**	**NUMBER AND TYPE OF FASTENER[a,b,c]**	**SPACING OF FASTENERS: Edges (inches)[h]**	**SPACING OF FASTENERS: Intermediate supports[c,e] (inches)**
	Wood structural panels, subfloor, roof and interior wall sheathing to framing and particleboard wall sheathing to framing [see Table R602.3(3) for wood structural panel *exterior* wall sheathing to wall framing]			
30	3/8" – 1/2"	6d common (2" × 0.113") nail (subfloor, wall)[i] 8d common (2 1/2" × 0.131") nail (roof)	6	12[f]
31	19/32" – 1"	8d common nail (2 1/2" × 0.131")	6	12[f]
32	1 1/8" – 1 1/4"	10d common (3" × 0.148") nail; or 8d (2 1/2" × 0.131") deformed nail	6	12
	Other wall sheathing[g]			
33	1/2" structural cellulosic fiberboard sheathing	1 1/2" galvanized roofing nail, 7/16" head diameter, or 1" crown staple 16 ga., 1 1/4" long	3	6
34	25/32" structural cellulosic fiberboard sheathing	1 3/4" galvanized roofing nail, 7/16" head diameter, or 1" crown staple 16 ga., 1 1/4" long	3	6
35	1/2" gypsum sheathing[d]	1 1/2" galvanized roofing nail; staple galvanized, 1 1/2" long; 1 1/4" screws, Type W or S	7	7
36	5/8" gypsum sheathing[d]	1 3/4" galvanized roofing nail; staple galvanized, 1 5/8" long; 1 5/8" screws, Type W or S	7	7
	Wood structural panels, combination subfloor underlayment to framing			
37	3/4" and less	6d deformed (2" × 0.120") nail; or 8d common (2 1/2" × 0.131") nail	6	12
38	7/8" – 1"	8d common (2 1/2" × 0.131") nail; or 8d deformed (2 1/2" × 0.120") nail	6	12
39	1 1/8" – 1 1/4"	10d common (3" × 0.148") nail; or 8d deformed (2 1/2" × 0.120") nail	6	12

TABLE R602.3(1)—continued
FASTENING SCHEDULE

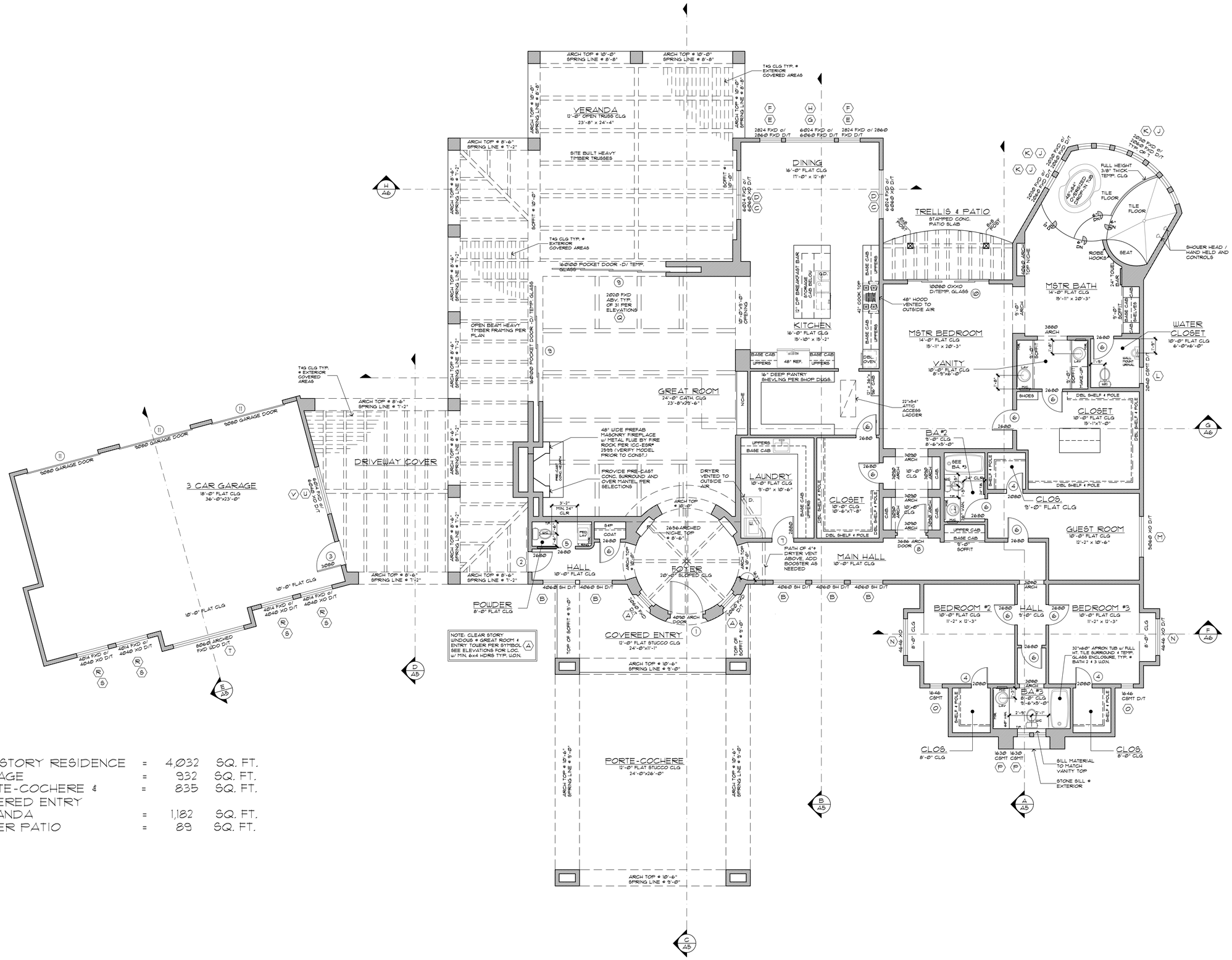
a. Nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 80 ksi for shank diameter of 0.192 inch (20d common nail), 90 ksi for shank diameters larger than 0.142 inch but not larger than 0.177 inch, and 100 ksi for shank diameters of 0.142 inch or less.
b. Staples are 16 gage wire and have a minimum 7/16-inch on diameter crown width.
c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater.
d. Four-foot by 8-foot or 4-foot by 9-foot panels shall be applied vertically.
e. Spacing of fasteners not included in this table shall be based on Table R602.3(2).
f. Where the ultimate design wind speed is 130 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. Where the ultimate design wind speed is greater than 130 mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6 inches on center for minimum 48-inch distance from ridges, eaves and gable end walls; and 4 inches on center to gable end wall framing.
g. Gypsum sheathing shall conform to ASTM C1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C208.
h. Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and required blocking and at floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.
i. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.

THESE ARE MINIMUM REQUIREMENTS AND SHALL NOT SUPERSEDE MORE RESTRICTIVE SPECIFICATIONS ON THE PLANS OR AS REQUIRED BY APPLICABLE CODE.

BUILDING RECORD ID:

OWNER OR CONTRACTOR SIGNATURE:

County of San Diego, Planning & Development Services
MINIMUM CONSTRUCTION SPECIFICATIONS
BUILDING DIVISION



ONE STORY RESIDENCE	=	4,Ø32	SQ. FT.
GARAGE	=	932	SQ. FT.
PORTE-COCHERE & COVERED ENTRY	=	835	SQ. FT.
VERANDA	=	1,182	SQ. FT.
COVER PATIO	=	89	SQ. FT.

NOTES ONLY FLOOR PLAN

SCALE: 1/4"=1'-Ø"

REVISIONS	BY
Ø1-29-2Ø19	OQ
Ø5-18-2Ø21	OQ

CUSTOM HOME FOR SADLER

9782 CHOCOLATE CREEK RD. EL CAJON, CA. 92021

AUSTIN & ASSOCIATES
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1622 PIONEER WAY EL CAJON CA. 92020 Ph. (619)440-3624
RESIDENTIAL & COMMERCIAL PLANNING AND DESIGN
MEMBER: AMERICAN INSTITUTE OF BUILDING DESIGN

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SCALE:	AS NOTED
JOB NO.	

A-1

REVISIONS	BY
01-19-2018	CG
05-16-2021	CG

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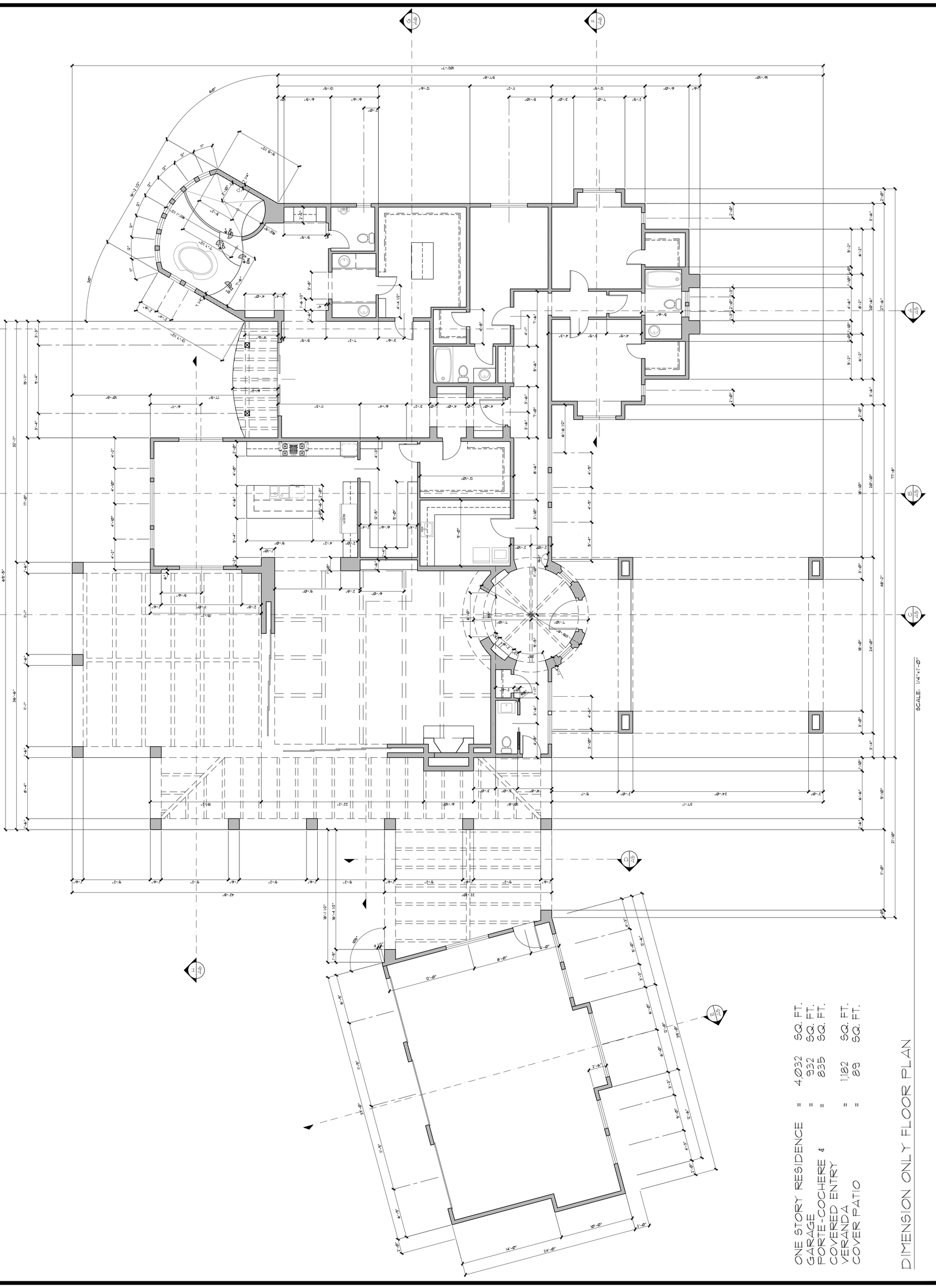
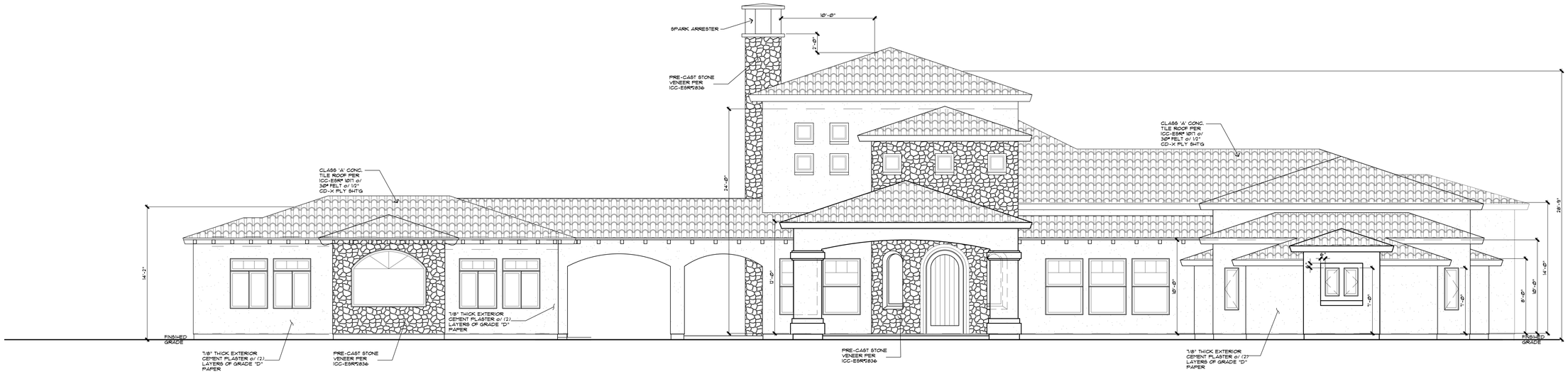
A-2



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

DIMENSION ONLY FLOOR PLAN

ONE STORY RESIDENCE	= 4,032	SQ. FT.
GARAGE	= 932	SQ. FT.
PORTE-COCHERE & COVERED ENTRY	= 835	SQ. FT.
VERANDA	= 1,182	SQ. FT.
COVER PATIO	= 89	SQ. FT.



FRONT ELEVATION @ GARAGE

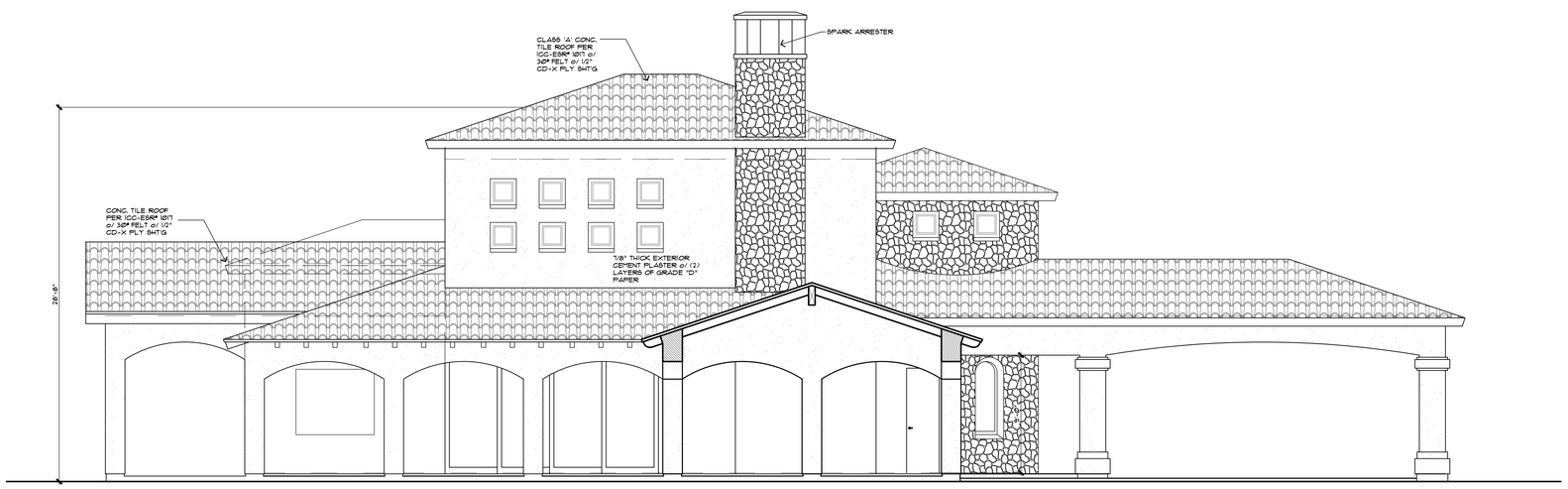
SCALE: 1/4"=1'-0"

FRONT ELEVATION

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

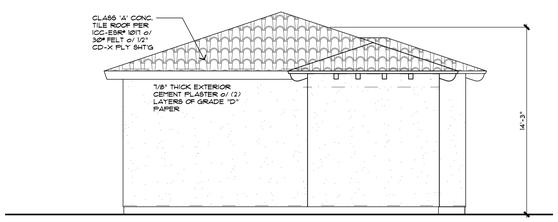
FIRE DEPT. NOTES:

1. A 100 FOOT FUEL MODIFICATION ZONE IS REQUIRED AROUND ALL STRUCTURES. THE FUEL MODIFICATION ZONE IS DIVIDED INTO TWO ZONES AS FOLLOUS.
   A) THE FIRST ZONE INCLUDE THE AREA FROM ANY BUILDINGS TO A POINT 50 FEET AWAY. THIS ZONE MUST BE CLEARED AND PLANTED WITH FIRE- RESISTANT PLANTS.
   B) THE SECOND ZONE IS THE AREA BETWEEN 50 TO 100 FEET FROM THE BUILDINGS. IN THIS ZONE THE NATIVE VEGETATION MAY REMAIN BUT MUST BE THINNED BY 50% AND ALL DEAD AND DYING VEGETATION MUST BE REMOVED. IF YOU DO NOT HAVE A GRADING PERMIT, PRIOR TO ANY CLEARING OF BRUSH, PLEASE CONTACT THE ZONING SECTION AT 858-565-5981 TO DETERMINE IF A BRUSHING AND CLEARING PERMIT IS NECESSARY.
2. ROOFING SHALL HAVE A MINIMUM CLASS "A" ROOF COVERING. FOR ROOF COVERINGS WHERE THE PROFILE ALLOUS A SPACE BETUEEN THE ROOF COVERING AND ROOF DECKING, THE SPACE @ THE EAVE ENDS SHALL BE FIRE STOPPED TO PRECLUDE ENTRY OF FLAMES OR EMBERS.
3. EXTERIOR WALL FINISH SHALL BE NON-COMBUSTIBLE MATERIALS (STUCCO, CEMENT FIBER BOARD, MASONRY, ETC.)
4. COMBUSTIBLE EAVES, SOFFITS, & FASCIAS SHALL BE CONSTRUCTED AS GUIDED IN GUIDANCE DOCUMENTS.
5. UNENCLOSED UNDER-FLOORS SHALL BE ENCLOSED TO THE GROUND W/ NON-COMBUSTIBLE CONSTRUCTION OR APPROVED ALTERNATIVE.
6. GLAZING/ UNDOUS SHALL HAVE A FIRE RATING NO LESS THAN 20 MIN. OR SHALL BE DUAL-GLAZED UNITS UITH A MINIMUM OF ONE TEMPERED PANE. FRAMES MADE OF VINYL SHALL HAVE UELDED STEEL CORNERS. METAL REINFORCED IN THE INTERLOCK AREA. VINYL UNDOUS BY MILGARD, UNDOUMASTER, CERTAINTEED, OR EQUAL TO BE USED, UNLESS OTHERUISE NOTED OR PER OUNER.
7. APPROVED SPARK ARRESTER REQUIRED ON ALL CHIMNEY, FLUE, & OR STOVE PIPES.
8. SKYLIGHTS SHALL BE A TEMPERED GLASS ASSEMBLY.
9. ROOF GUTTERS AND DOUN SPOUTS SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIAL AND DESIGNED TO REDUCE ACCUMULATION OF LEAF LETTER AND DEBRIS
10. EXTERIOR DOORS SHALL BE APPROVED IGNITION RESISTANT CONSTRUCTION, SOLID-CORE UOOD NOT LESS THAN 1 3/8" THICK, OR HAVE A FIRE PROTECTION RATING OF NOT LESS THAN 20 MINUTES.
11. PROJECTIONS SUCH AS DECKS, CARPORTS, BALCONIES, PATIO COVERS, ETC. SHALL BE OF NON-COMBUSTIBLE CONSTRUCTION, FIRE RETARDANT TREATED UOOD, HEAVY TIMBER CONST. OR ONE HOUR FIRE-RESISTIVE CONSTRUCTION. HEAVY TIMBER OR F.R.T. FIRE RESISTANT UOOD IS TO BE USED, UNLESS OTHERUISE NOTED. THERE IS NO FIRE RESISTIVE REQUIREMENT OF HANDRAILS AND BALLISTERS
12. ALL VENTS MUST BE LOUVERED AND COVERED UITH 1/8 INCH NONCOMBUSTIBLE, CORROSION-RESISTANT METAL MESH. TURBINE VENTS SHALL TURN IN ONE DIRECTION ONLY.
13. PAPER FACED INSULATION IS NOT PERMITTED IN ATTICS OR OTHER VENTILATED SPACES.
14. ANY PORTION OF A FENCE OR OTHER STRUCTURE UITHIN 5'-0" OF THE BUILDING SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIAL OR APPROVED EXTERIOR FIRE-RETARDENT UOOD OR MATERIAL THAT MEETS THE SAME FIRE RESISTIVE STANDARDS AS THE THE EXTERIOR UALLS OF THE BUILDING.
15. EXPOSED VALLEY FLASHING SHALL BE AT LEAST NO.26-GAUGE CORROSION-RESISTANT METAL INSTALLED OVER A MINIMUM 36" UIDE UNDERLAYMENT CONSISTING OF ONE LAYER OF NO. 72 ASTM CAP SHEET RUNNING THE FULL LENGHT OF THE VALLEY.
16. VENTS SHALL NOT BE INSTALLED IN EAVES, EAVE OVERHANGS, SOFFITS, OR CORNICES. GABEL-END VENTS WILL BE ALLOUED IF THE VENTS ARE LOCATED A MINIMUM OF 12' BELOU THE LOUEST EAVE/RAKE PROJECTIONS.
17. IN ROOF COVERINGS UHERE THE PROFILE CREATES SPACE BETUEEN THE ROOF COVERING & COMBUSTIBLE ROOD DECKING, PROVIDE ONE LAYER OF NO. 72 ASTM CAP SHEET INSTALLED OVER COMBUSTIBLE DECKING, U.O.N. ON PLANS



LEFT ELEVATION

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



LEFT ELEVATION @ GARAGE

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

NOTES:

A. THE MAXIMUM ALLOUABLE BUILDING HEIGHT IS 35 FT. PER PLANING / ZONING REGULATIONS. REVISE AS NECESSARY.

REVISIONS	BY
01-29-2019	OQ
05-18-2021	OQ

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DATE: -18
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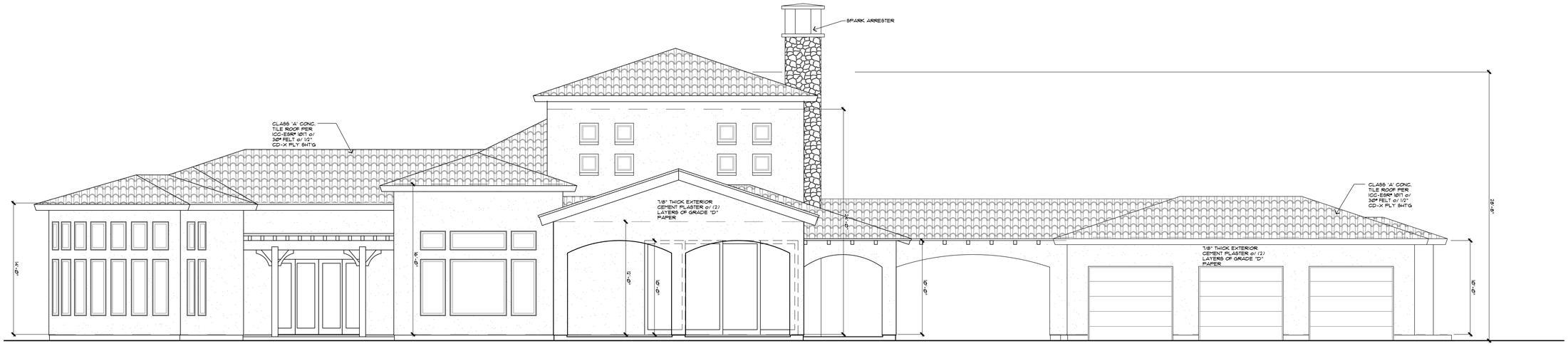
A-3

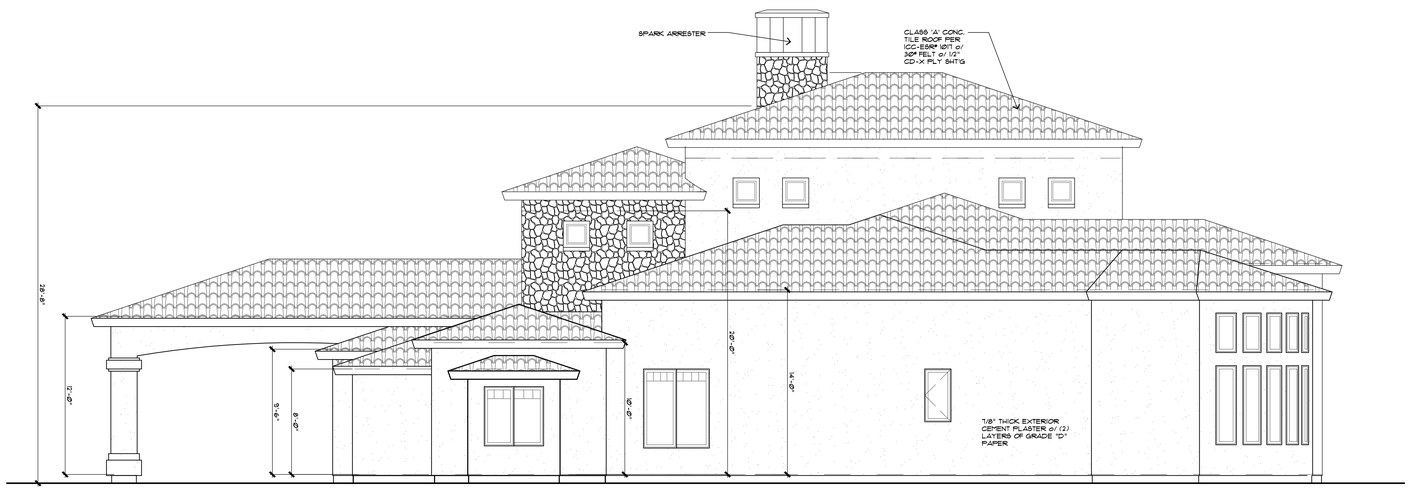


REAR ELEVATION

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

REAR ELEVATION @ GARAGE

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



RIGHT ELEVATION

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

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1. A 100 FOOT FUEL MODIFICATION ZONE IS REQUIRED AROUND ALL STRUCTURES. THE FUEL MODIFICATION ZONE IS DIVIDED INTO TWO ZONES AS FOLLOWS:
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   - B.) THE SECOND ZONE IS THE AREA BETWEEN 50 TO 100 FEET FROM THE BUILDINGS. IN THIS ZONE THE NATIVE VEGETATION MAY REMAIN BUT MUST BE THINNED BY 50% AND ALL DEAD AND DYING VEGETATION MUST BE REMOVED. IF YOU DO NOT HAVE A GRADING PERMIT, PRIOR TO ANY CLEARING OF BRUSH, PLEASE CONTACT THE ZONING SECTION AT 858-565-5981 TO DETERMINE IF A BRUSHING AND CLEARING PERMIT IS NECESSARY.
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3. EXTERIOR WALL FINISH SHALL BE NON-COMBUSTIBLE MATERIALS (STUCCO, CEMENT FIBER BOARD, MASONRY, ETC.)
4. COMBUSTIBLE EAVES, SOFFITS, & FASCIAS SHALL BE CONSTRUCTED AS GUIDED IN GUIDANCE DOCUMENTS.
5. UNENCLOSED UNDER-FLOORS SHALL BE ENCLOSED TO THE GROUND W/ NON-COMBUSTIBLE CONSTRUCTION OR APPROVED ALTERNATIVE.
6. GLAZING: WINDOWS SHALL HAVE A FIRE RATING NO LESS THAN 20 MIN, OR SHALL BE DUAL-GLAZED UNITS WITH A MINIMUM OF ONE TEMPERED PANE FRAMES MADE OF VINYL SHALL HAVE WELDED STEEL CORNERS, METAL REINFORCED IN THE INTERLOCK AREA. VINYL WINDOWS BY MILGARD, WINDOWMASTER, CERTAINTEED, OR EQUAL TO BE USED, UNLESS OTHERWISE NOTED OR PER OWNER.
7. APPROVED SPARK ARRESTER REQUIRED ON ALL CHIMNEY, FLUE, & OR STOVE PIPES.
8. SKYLIGHTS SHALL BE A TEMPERED GLASS ASSEMBLY.
9. ROOF GUTTERS AND DOWN SPOUTS SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIAL, AND DESIGNED TO REDUCE ACCUMULATION OF LEAF LITTER AND DEBRIS
10. EXTERIOR DOORS SHALL BE APPROVED IGNITION RESISTANT CONSTRUCTION, SOLID-CORE WOOD NOT LESS THAN 1 3/8" THICK, OR HAVE A FIRE PROTECTION RATING OF NOT LESS THAN 20 MINUTES.
11. PROJECTIONS SUCH AS DECKS, CARPORTS, BALCONIES, PATIO COVERS, ETC. SHALL BE OF NON-COMBUSTIBLE CONSTRUCTION, FIRE RETARDANT TREATED WOOD, HEAVY TIMBER CONST. OR ONE HOUR FIRE-RESISTIVE CONSTRUCTION. HEAVY TIMBER OR FRX- FIRE RESISTANT WOOD IS TO BE USED, UNLESS OTHERWISE NOTED. THERE IS NO FIRE RESISTIVE REQUIREMENT OF HANDRAILS AND BALUSTERS
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17. IN ROOF COVERINGS WHERE THE PROFILE CREATES SPACE BETWEEN THE ROOF COVERING & COMBUSTIBLE ROOD DECKING, PROVIDE ONE LAYER OF NO. 72 ASTM CAP SHEET INSTALLED OVER COMBUSTIBLE DECKING, U.O.N. ON PLANS

REVISIONS	BY
01-29-2019	OQ
05-18-2021	OQ

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DRAWN BY:	OQ
CHECKED BY:	ALA
DATE:	-18
SCALE:	AS NOTED
JOB NO.	

A-4

ELECTRICAL SYMBOLS

- DUPLEX 110V OUTLET
- 220V OUTLET
- G.F.C.I. OUTLET
- WATERPROOF G.F.C.I.
- SWITCHED OUTLET
- CEILING/ FLOOR OUTLET
- DISHWASHER OUTLET
- SINGLE POLE SWITCH
- S$_{DP}$ SING. POLE DIMMER SWITCH
- S$_{3}$ 3 WAY SWITCH
- S$_{3D}$ 3 WAY SWITCH, DIMMER
- S$_{4}$ 4 WAY SWITCH
- S$_{OS}$ OCCUPANT SENSOR SWITCH
- OUTDOOR LIGHT, PHOTO CONTROL/ MOTION SENSOR COMBO, LED.
- WALL MOUNTED LIGHT FIXTURE, LED.
- SURFACE MOUNTED LIGHT FIXTURE, LED.
- PENDANT LIGHT FIXTURE w/ J-BOX, LED.
- WALL SCONCE LIGHT FIXTURE, HIGH EFFICACY, LED.
- WALL SCONCE LIGHT FIXTURE, HIGH EFFICACY, LED, TYPE
- BATHROOM VENT FAN
- HIGH EFFICACY LIGHT + FAN UNIT
- HIGH EFFICACY LIGHT FIXTURE, LED, (LIGHT EMITTING DIODE) "JA8-2016" OR "JA8-2016-E" MARKINGS
- RECESSED CAN/ SPOT LIGHT FIXTURE, LED-JA8-2016-E
- JUNCTION BOX
- 4" PUCK LIGHT INSIDE WALL CABINET, LED ENCLOSED
- MOUNTED FLUORESCENT FIXTURE, HIGH EFFICACY (BALLASTED TYPE) (40 LUMENS/ WATT MIN.)
- L.E.D. LIGHT BAR OR STRIP
- INTERCONNECTED PER CRC R314.4 SMOKE + CARBON MONOXIDE DETECTOR AND HARD-WIRED W/ BATTERY BACK-UP PER CRC 314.6-IN THE FOLLOWING LOCATION ON FLOOR PLANS OR UTILITY PLANS (CRC R314.7)
- BATTERY OPERATED SMOKE + CARBON MONOXIDE DETECTOR
- T.V. CABLE HOOK-UP
- TELEPHONE JACK
- THERMOSTAT
- CEILING FAN
- SECURITY LIGHTS, MOTION SENSOR
- SPEAKER WIRE JACK
- CMA CARBON MONOXIDE ALARM INTERCONNECTED PER CRC R339.1.7 AND HARD-WIRED WITH BATTERY BACK-UP PER CRC R339.5

MECHANICAL (C.M.C.)

1. A MINIMUM 30" DEEP UNOBSTRUCTED WORKING SPACE IN FRONT OF FURNACE. SECTION 305.2, C.M.C.
2. A ACCESS TO THE ATTIC CONTAINING EQUIPMENT TO BE MINIMUM 30" BY 30 INCHES. THE OPENING MAY BE 22 INCHES BY 30 INCHES IF THE EQUIPMENT CAN BE REMOVED THROUGH SUCH OPENING. SECTION 3193.3, C.M.C.
3. THE PASSAGEWAY TO THE ATTIC FURNACE SHALL B UNOBSTRUCTED AND HAVE CONTINUOUS SOLID FLOORING NOT LESS THAN 24 INCHES WIDE, NOT MORE THAT 20 FEET IN LENGTH THOUGH THE ATTIC SECTION 3/19.4, C.M.C.
4. A PERMANENT ELECTRICAL OUTLET AND LIGHT FIXTURE CONTROLLED BY A SWITCH FOR FURNACE LOCATED IN ATTIC OR UNDER FLOOR SPACE. SECTIONS 3/19.6 AND 3/20.1, C.M.C.
5. DUCT TAPE AS A MINIMUM MEETING THE REQUIREMENTS OF UL 181, 181A, OR 181B, SHALL BE USED OR ADDITION DUCT ATTACHMENT DEVICES SUCH AS TIE WRAPS OR MASTIC WILL BE REQUIRED FOR INSTALLING MECHANICAL DUCTING.
6. THE RETURN AIR PLENUM SERVING THE MECHANICAL EQUIPMENT MUST BE FULL DUCTED FOR THE EQUIPMENT TO THE CONDITIONED SPACE. DROP CEILING, WALL CAVITIES AND EQUIPMENT PLATFORMS MAY NOT BE USES AS PLENUMS.
7. PROVIDE MECHANICAL VENTILATION CAPABLE OF PROVIDING 5 AIR CHANGES PER HOUR IN BATHROOMS, WATER CLOSET COMPARTMENTS, AND SIMILAR IF REQUIRED OPEN ABLE WINDOWS ARE NOT PROVIDED. LAUNDRY ROOMS EXCEPTED.
8. A MECHANICAL EXHAUST SYSTEM, SUPPLY SYSTEM, OR COMBINATION THEREOF SHALL BE INSTALLED FOR EACH NEWLY CONSTRUCTED RESIDENTIAL BUILDING TO PROVIDED WHOLE-BUILDING VENTILATION WITH OUTDOOR AIR COMPLYING WITH ASHRAE STANDARD 62.2-2007, 4 THE CALGREEN 4.507.1 CODE AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION.
9. AN INTERMITTENTLY OR CONTINUOUSLY OPERATING LOCAL MECHANICAL EXHAUST SYSTEM (WITH OUTDOOR AIR) SHALL BE INSTALLED IN EACH IN THE BATHROOM COMPLYING WITH ASHRAE STANDARD 62.2-2007 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION. INTERMITTENT LOCAL VENTILATION EXHAUST AIRFLOW RATES SHALL BE 50 CFM IN BATHROOMS, CONTINUOUS LOCAL VENTILATION EXHAUST AIRFLOW RATES SHALL BE 20 CFM IN BATHROOMS.
10. PER 2013 GREEN CODE SEC. 4.506.1 MECHANICAL EXHAUST FANS WHICH EXHAUST DIRECTLY FROM BATHROOMS SHALL COMPLY WITH THE FOLLOWING:
    1. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING.
    2. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDISTAT WHICH SHALL BE READILY ACCESSIBLE. HUMIDISTAT CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF 50 TO 80 PERCENT."
11. MAXIMUM 14-FOOT COMBINED HORIZONTAL AND VERTICAL LENGTH WITH TWO 90-DEGREE ELBOWS.
12. TWO FEET DEDUCTED FROM MAXIMUM LENGTH FOR EACH ELBOW IN EXCESS OF TWO.
13. "A MECHANICAL EXHAUST VENTILATION SYSTEM, SUPPLY VENTILATION SYSTEM, OR COMBINATION THEREOF SHALL BE INSTALLED FOR EACH DUELLING UNIT TO PROVIDE WHOLE-BUILDING VENTILATION WITH OUTDOOR AIR IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION."
14. "AN INTERMITTENTLY OR CONTINUOUSLY OPERATING LOCAL MECHANICAL EXHAUST VENTILATION SYSTEM SHALL BE INSTALLED IN EACH BATHROOM WITH A BATHTUB, SHOWER, OR SIMILAR MOISTURE SOURCE AND IN EACH KITCHEN IN COMPLIANCE WITH ASHRAE STANDARD 62.2 AS ADOPTED BY THE CALIFORNIA ENERGY COMMISSION. INTERMITTENT LOCAL EXHAUST VENTILATION AIRFLOU RATES SHALL BE 50 CFM IN BATHROOMS AND 100 CFM IN KITCHENS. CONTINUOUS LOCAL EXHAUST VENTILATION AIRFLOU RATES SHALL BE 20 CFM IN BATHROOM AND 5 AIR CHANGES PER HOUR IN KITCHENS BASED ON KITCHEN VOLUME."
15. DRYER VENT COMPLYING WITH ALL OF THE FOLLOING (CMC 504.4.2.1):
    A.) MINIMUM 4 INCH DIAMETER.
    B.) MAXIMUM 14 FT. COMBINED HORIZONTAL AND VERTICAL LENGTH WITH TWO 90 DEGREE ELBOWS.
    C.) TWO FEET DEDUCTED FROM MAXIMUM LENGHT FOR EACH ELBOW IN EXCESS OF TWO.

ELECTRICAL NOTES

1. ELECTRICAL OUTLETS SHALL BE INSTALLED IN ACCORDANCE WITH CEC ARTICLE 210-52
2. LIGHTING OUTLETS CONTROLLED BY AN AUTO AND SHALL BE PROVIDED IN ACCORDANCE WITH NEC ARTICLE 210-52
3. LIGHT FIXTURES INSTALLED IN CLOTHES CLOSETS SHALL BE INSTALLED IN ACCORDANCE WITH CEC ARTICLE 410-8
4. LIGHT FIXTURE ABOVE TUB/SHOWER SHALL BE WATERPROOF RATED AND COMPLY WITH NEC ARTICLE 410.4a, 4b.
5. CONVENIENCE OUTLETS IN BATHROOMS, AT KITCHEN COUNTER TOPS, LAUNDRY AREAS, KITCHEN DISHWASHERS, KITCHENS (ALL KITCHEN OUTLETS), GARAGES, BATHROOMS, OUTDOORS WITHIN A FEET OF A SINK, ETC. SHALL BE G.F.C.I. PROTECTED ALL OTHER OUTLETS EXPOSED TO THE ELEMENTS SHALL BE G.F.C.I. WEATHER PROOF OUTLETS PER NEC ARTICLE 210-8.
6. ELECTRICAL PANELS ARE NOT PERMITTED IN CLOTHES PER NEC ARTICLE 240.
7. ALL SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL 217 AND INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE GOVERNING CRC AND THE HOUSEHOLD FIRE WARNING SYSTEM EQUIPMENT PROVISIONS OF NFPA 72. SYSTEMS AND COMPONENTS SHALL BE CALIFORNIA STATE FIRE MARSHAL LISTED AND APPROVED IN ACCORDANCE WITH CCR, TITLE 19, DIVISION 1 FOR THE PURPOSE FOR WHICH THEY ARE INSTALLED. (SEC. R314.1)
8. SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POUER FROM THE BUILDING WIRING PROVIDED THAT SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE, AND SHALL BE EQUIPPED WITH A BATTERY BACK-UP SMOKE ALARMS WITH INTEGRAL STROBES THAT ARE NOT EQUIPPED WITH BATTERY BACK-UP SHALL BE CONNECTED TO AN EMERGENCY ELECTRICAL SYSTEM. SMOKE ALARMS SHALL EMIT A SIGNAL WHEN BATTERIES ARE LOU. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN AS REQUIRED FOR OVERCURRENT PROTECTION SEC. R314.4.
9. WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DUELLING UNIT THE ALARM DEVICE SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM UILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT. SEC. R314.3.
10. SINGLE AND MULTIPLE STATION 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 SEC. 915.5.
11. CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POUER FROM THE BUILDING WIRING WHERE SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND SHALL BE EQUIPPED WITH A BATTERY BACK-UP. ALARM WIRING SHALL BE DIRECTLY CONNECTED TO THE PERMANENT BUILDING WIRING WITHOUT A DISCONNECTING SWITCH OTHER THAN AS REQUIRED FOR OVERCURRENT PROTECTION SEC. 915.1.
12. PER NEC ART. 210-1 (C) 5, BATHROOM CIRCUITING SHALL BE EITHER:
    a. A 20 AMPERE CIRCUIT DEDICATED TO EACH BATHROOM
    b. AT LEAST ONE 20 AMPERE CIRCUIT SUPPLYING ONLY BATHROOM RECEPTACLE OUTLETS
13. ARC-FAULT PROTECTION FOR ALL NEW OUTLETS LOCATED IN ROOMS DESCRIBED IN NEC 210.12. (B.), KITCHEN , FAMILY, LIVING, BEDROOM, DINING, HALLS, ETC.
14. PROVIDE "UFER" GROUND PER NEC ARTICLE 250.81.
15. INTERCONNECTION NOTE: WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN THE DUELLING UNIT OR SLEEPING UNIT THE ALARM SHALL BE INTERCONNECTED IN A MANNER THAT ACTIVATION OF ONE ALARM SHALL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT. (SEC. R315.2.2.)
16. RECEPTACLES SHALL BE TAMPER-RESISTANT FOR ALL RECEPTACLES IN DUELLING UNIT FAMILY, DINING, LIVING, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS OR SIMILAR ROOMS AND AREAS PER CEC SEC. 210.12, NEW SECTION 406.11.
17. LIGHTING IN BEDROOMS, GARAGES, LAUNDRY ROOMS AND UTILITY ROOMS, ALL LUMINAIRES SHALL BE HIGH EFFICACY AND SHALL BE CONTROLLED BY A VACANCY SENSOR.
18. OTHER ROOMS, ALL LUMINAIRES SHALL BE HIGH EFFICACY AND SHALL HAVE A MANUAL ON/OFF IN ADDITION TO VACANCY SENSOR OR DIMMER.
19. OUTDOOR LIGHTING ALL LUMINAIRES MOUNTED TO THE BUILDING OR OTHER BUILDING IN THE SAME LOT SHALL BE HIGH EFFICACY LUMINAIRES OR MUST BE CONTROLLED BY A MOTION SENSOR AND CONTROLLED BY ONE OF THESE PHOTOCONTROL OR ASTRONOMICAL TIME CLOCK OR ENERGY MANAGEMENT CONTROL SYSTEM (EMCS).
20. KITCHENS ALL THE INSTALLED WATTAGE OF LUMINARIES IN KITCHENS SHALL BE HIGH EFFICACY AND SHALL HAVE A MANUAL ON/OFF IN ADDITION TO A VACANCY SENSOR OR DIMMER UNDER CABINET LIGHTING SHALL BE SWITCHED SEPARATELY.
21. PER 2016 GREEN CODE SEC. 4.507.2, A SIGNED AFFIDAVIT FROM INSTALLER STATING METHOD USED FOR SELECTION OF HEATING AND AIR CONDITIONING EQUIPMENT AND THAT SUCH EQUIPMENT WAS INSTALLED IN ACCORDANCE TO THAT METHOD. NO REQUIRED THIS AFFIDAVIT SHALL BE PRESENTED TO THE BUILDING INSPECTOR BEFORE FINAL INSPECTION "NOTE TO PRS TO ADD TIER 3
22. SMOKE ALARMS SHALL BE TESTED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION.

    SMOKE ALARMS THAT NO LONGER FUNCTION SHALL BE REPLACED.

    SMOKE ALARMS INSTALLED IN ONE-AND TWO-FAMILY DUELLINGS SHALL BE REPLACED AFTER 10 YEARS FROM THE DATE OF MANUFACTURE MARKED ON THE UNIT, OR IF THE DATE OF MANUFACTURE CANNOT BE DETERMINED.

    DATE OF MANUFACTURER MARKED ON EXISTING SMOKE ALARM UNITS 2008, NOV. 11
23. PROVIDE A PERMANENT ELECTRICAL RECEPTACLE OUTLET AND LIGHTING FIXTURE CONTROLLED BY A SWITCH LOCATED AT THE ENTRANCE FOR FURNACES LOCATED IN AN ATTIC CMC SECTION 304.10.
24. INCLUDE ON THE PLANS THE FOLLOUNG SPECIFICATIONS FOR ELECTRICAL DEVICES INSTALLED IN DUELLINGS CEC ARTICLE 210.4 406
    A) GFCI PROTECTED OUTLETS FOR LOCATIONS DESCRIBED IN NEC, 210.8. GARAGE* + OUTDOORS
25. PROVIDE A WALL RECEPTACLE WITHIN 36" OF EACH LAVATORY IN THE BATHROOMS CEC 210.52 (D)

    RESIDENTIAL ENERGY LIGHTING REQUIREMENTS :

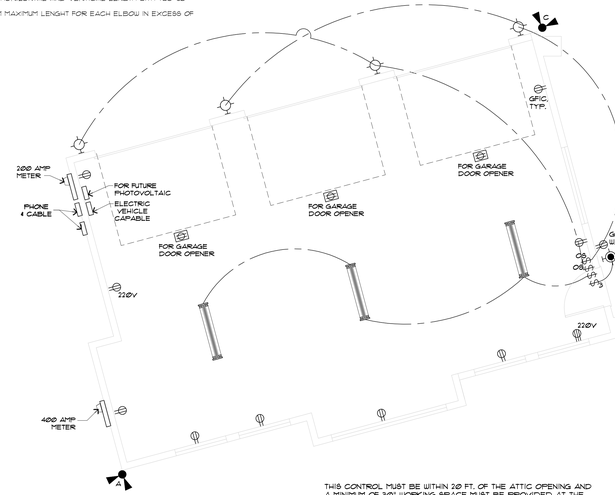
    ALL INSTALLED LUMINAIRES SHALL BE HIGH EFFICACY IN ACCORDANCE WITH CB TABLE 150.0-A
    LIGHT SOURCES THAT ARE NOT MARKED "JA8-2016-E" SHALL NOT BE INSTALLED IN ENCLOSED LUMINARIES PER 150.0 (k).

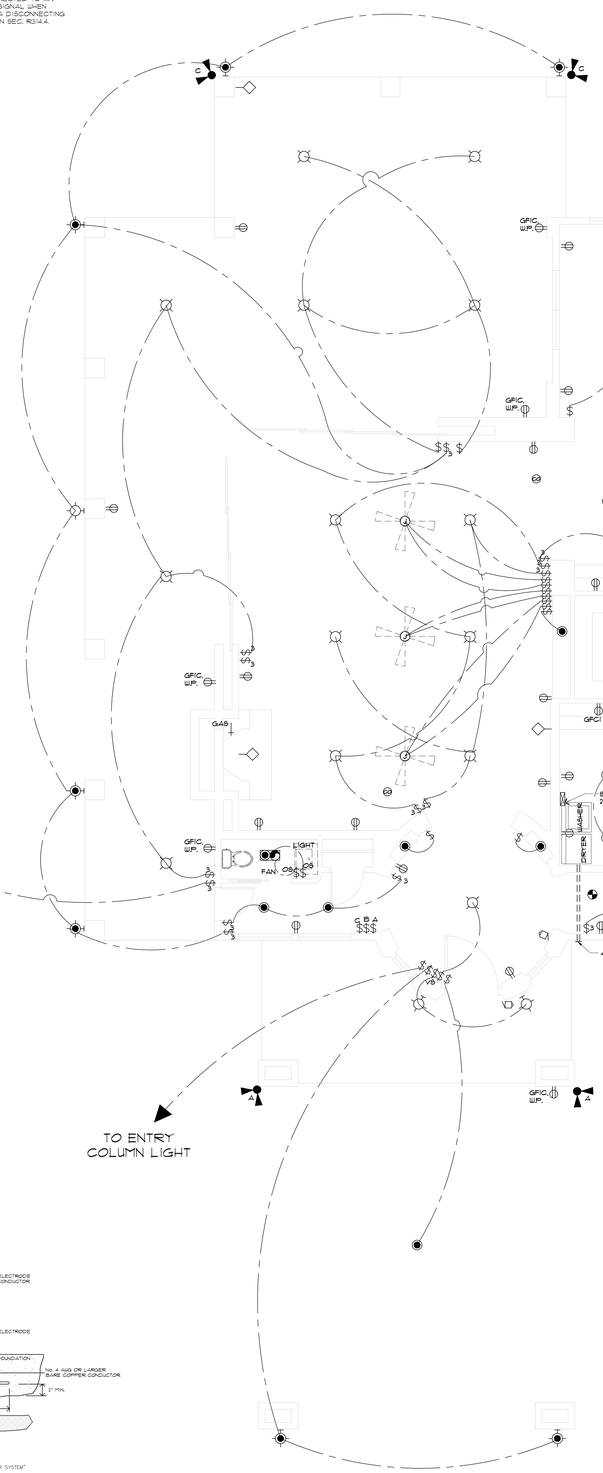
    RECESSED CAN LIGHT FIXTURES SHALL BE IC LISTED, AIR-TIGHT, LABELED, AND NOT BE EQUIPPED WITH A STANDARD MEDIUM BASE SCREW SHELL LAMP HOLDER PER 150.0 (k).

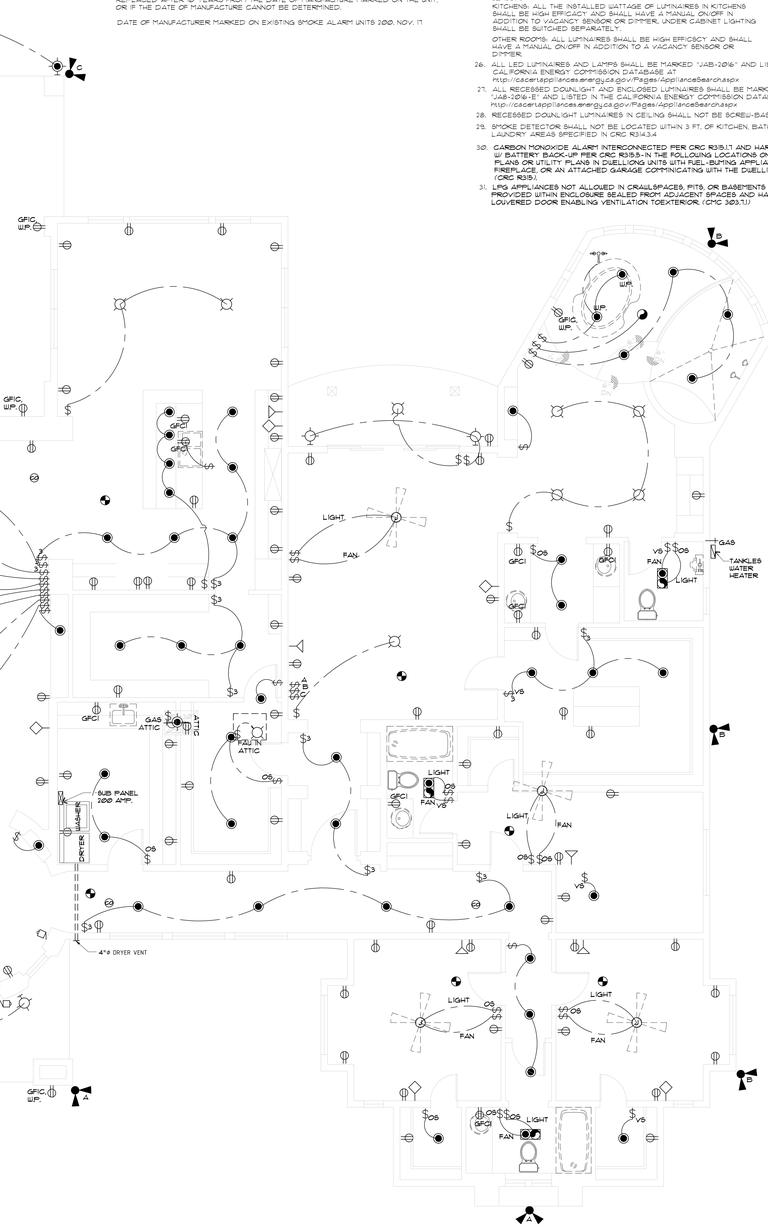
    SPD OUTDOOR LIGHTING FIXTURES THAT ARE ATTACHED TO A BUILDING ARE REQUIRED TO BE HIGH-EFFICACY, BE MANUALLY, ON/OFF SWITCH CONTROLLED, AND HAVE BOTH MOTION SENSOR AND PHOTOCELL CONTROL, SEE EIS 150.0 (K) 3 FOR ADDITIONAL CONTROL OPTIONS.
    LIGHTING IN BATHROOMS SHALL HAVE ALL HIGH EFFICACY LUMINAIRE AND AT LEAST ONE LUMINAIRE MUST BE CONTROLLED BY A VACANCY SENSOR.
    LIGHTING IN BATHROOMS SHALL HAVE ALL HIGH EFFICACY LUMINAIRE AND AT LEAST ONE LUMINAIRE MUST BE CONTROLLED BY A VACANCY SENSOR.
    KITCHENS: ALL THE INSTALLED WATTAGE OF LUMINAIRES IN KITCHENS SHALL BE HIGH EFFICACY AND SHALL HAVE A MANUAL ON/OFF IN ADDITION TO VACANCY SENSOR OR DIMMER, UNDER CABINET LIGHTING SHALL BE SWITCHED SEPARATELY.
    OTHER ROOMS: ALL LUMINAIRES SHALL BE HIGH EFFICACY AND SHALL HAVE A MANUAL ON/OFF IN ADDITION TO A VACANCY SENSOR OR DIMMER.
26. ALL LED LUMINAIRES AND LAMPS SHALL BE MARKED "JA8-2016" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABASE AT http://cacertappliances.energy.ca.gov/Pages/ApplianceSearch.aspx
27. ALL RECESSED DOUNLIGHT AND ENCLOSED LUMINAIRES SHALL BE MARKED "JA8-2016-E" AND LISTED IN THE CALIFORNIA ENERGY COMMISSION DATABASE AT http://cacertappliances.energy.ca.gov/Pages/ApplianceSearch.aspx
28. RECESSED DOUNLIGHT LUMINAIRES IN CEILING SHALL NOT BE SCREU-BASED
29. SMOKE DETECTOR SHALL NOT BE LOCATED WITHIN 3 FT. OF KITCHEN, BATH, OR LAUNDRY AREAS SPECIFIED IN CRC R314.3.4
30. CARBON MONOXIDE ALARM INTERCONNECTED PER CRC R339.1.7 AND HARD-WIRED W/ BATTERY BACK-UP PER CRC R315.5-IN THE FOLLOUING LOCATIONS ON FLOOR PLANS OR UTILITY PLANS IN DUELLINGS UNITS WITH FUEL-BURNING APPLIANCES, FIREPLACE, OR AN ATTACHED GARAGE COMMUNICATING WITH THE DUELLING UNIT (CRC R315).
31. LPG APPLIANCES NOT ALLOUED IN CRAULSPACES, PITS, OR BASEMENTS UNLESS PROVIDED WITHIN ENCLOSURE SEALED FROM ADJACENT SPACES AND HAVING LOUVERED DOOR ENABLING VENTILATION TOEXTERIOR. (CMC 303.7.1)

ELECTRICAL VEHICLE CHARGING

16. " A LIST RACEWAY TO FACILITATE FUTURE INSTALLATION OF ELECTRIC VEHICLE CHARGER."
17. " RACEWAY SHALL BE NOT LESS THAN TRADE SIZE 1 NOMINAL 1-IN. DIAMETER) TO ACCOMMODATE A DEDICATED 208/240 - VOLT BRANCH CIRCUIT."
18. " RACEWAY SHALL ORIGINATE AT THE MAIN SERVICE OR SUBPANEL AND TERMINATE INTO A LIST CABINET,BOX OR OTHER ENCLOSURE IN CLOSE PROXIMITY TO THE PROPOSED LOCATION OF THE EV CHARGER."
19. RACEWAY SHALL BE CONTINUOUS AT ENCLOSED, INACCESSIBLE OR CONCEALED AREAS AND SPACES."
20. " THE SERVICE PANEL OR SUBPANEL SHALL PROVIDE CAPACITY TO INSTALL A 40-AMPERE MINIMUM DEDICATED BRANCH CIRCUIT AND SPACE (S) RESERVED TO PERMIT INSTALLATION OF A BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE."
21. " THE SERVICE PANEL OR SUBPANEL CIRCUIT DIRECTORY SHALL IDENTIFY:
    A) THE OVERCURRENT PROTECTIVE DEVICE SPACE(S) FOR FUTURE EV CHARGING AS "EV CAPABLE." AND,
    B) THE RACEWAY TERMINATION LOCATION AS "EV CAPABLE".





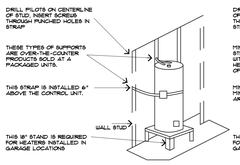


WATER HEATER STRAPPING REQUIREMENTS

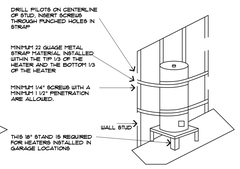
THE STATE OF CALIFORNIA REQUIRES THAT ALL WATER HEATERS ARE TO BE SUPPORTED AND STRAPPED TO PREVENT MOVEMENT DURING AN EARTHQUAKE

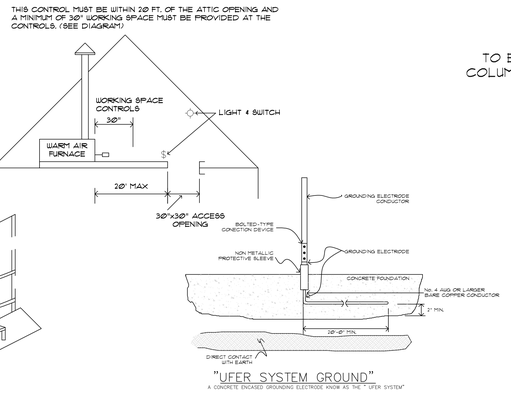
A METAL STRAP NOT LESS THAT 22 GUAGE, NOT LESS THAT 3/4" WIDE WILL BE USED. THE MEAS OF CONNECTIO TO THE STRUCTE SHALL BE MADE TH THE USE OF SCREU NOT LESS THAT 1/4" IN SIZE WITH A MINIMM PENETRATION OF 1 1/2" INTO A FRAMING MEMBER OF THE WALL. A CUT WASHER SHALLS BE USED BETWEEN THE HEAD OF THE SCREU AND THE STRAP TO INSURE A POSITIVE SUPPORT.

SAMPLE #1



SAMPLE #2





"UFER SYSTEM GROUND"
A CONCRETE ENCASED GROUNDING ELECTRODE KNOW AS THE " UFER SYSTEM"

PROVIDE ELECT. / GAS LINE TO FUTURE POOL / GAZEBO / LANAI

ELECTRICAL LOWER FLOOR PLAN

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

REVISIONS	BY
01-29-2019	OQ
05-18-2021	OQ

CUSTOM HOME FOR SADLER

9782 CHOCOLATE CREEK RD. EL CAJON, CA. 92021

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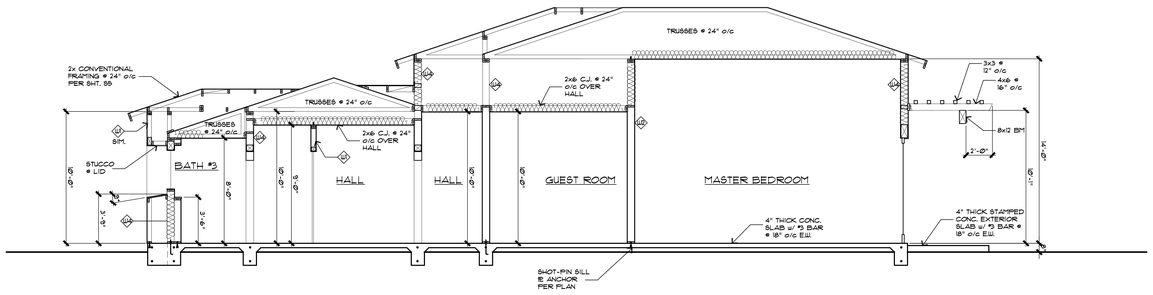
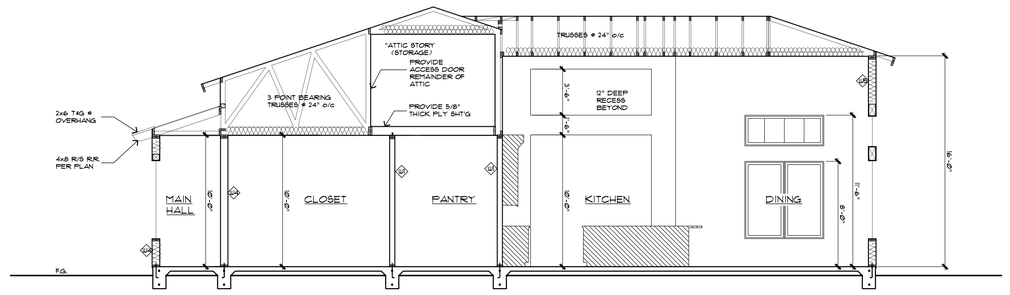
A-5



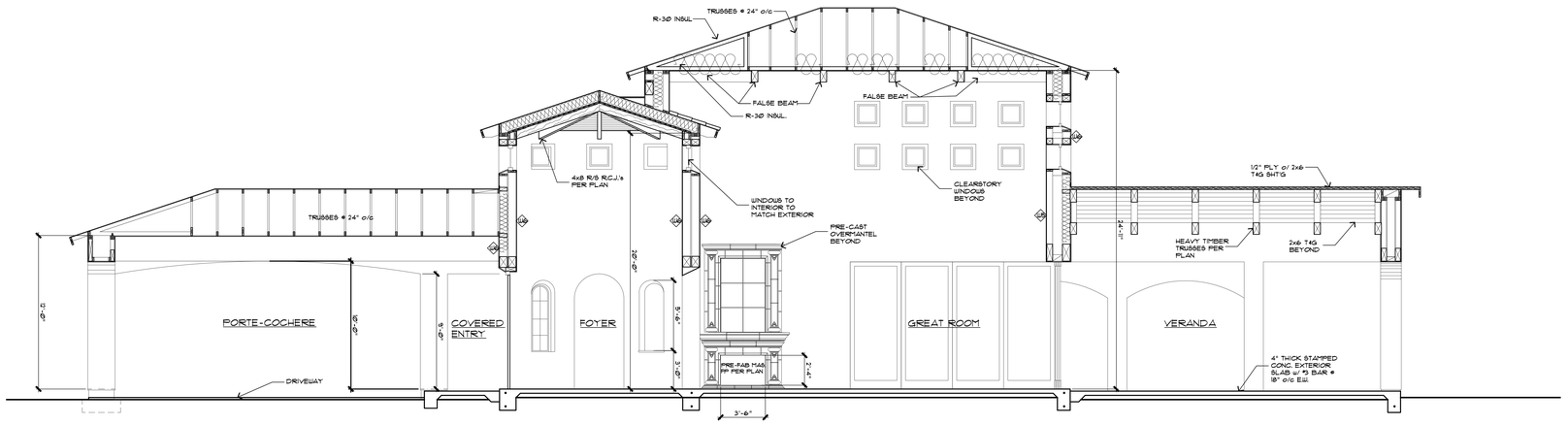
SECTION A

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



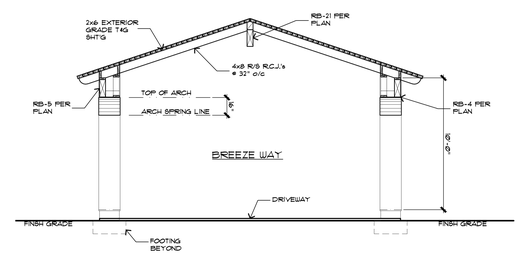
SECTION B

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



SECTION C

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



SECTION D

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

WALL LEGEND

- INTERIOR WALLS UP TO 10'-0" IN HEIGHT TO BE 2x4 STUDS @ 16" o/c
- INTERIOR NON-BEARING WALLS OVER 10'-0" IN HEIGHT UP TO 14'-0" TO BE 2x6 STUDS @ 16" o/c
- INTERIOR NON-BEARING WALLS OVER 14'-0" IN HEIGHT TO BE 1½"x 5½"- 1.7E VERSA STUDS @ 16" o/c PER PLAN
- INTERIOR / EXTERIOR BEARING WALLS UP TO 14'-0" IN HEIGHT TO BE 2x6 STUDS @ 16" o/c
- INTERIOR / EXTERIOR BEARING WALLS OVER 14'-0" IN HEIGHT TO BE 1½"x 5½"- 1.7E VERSA STUDS @ 16" o/c
- INTERIOR / EXTERIOR BEARING WALLS OVER 14'-0" IN HEIGHT TO BE 1½"x 7¼"-1.7E VERSA STUDS @ 16" o/c

REVISIONS	BY
01-29-2019	CQ
05-18-2021	CQ

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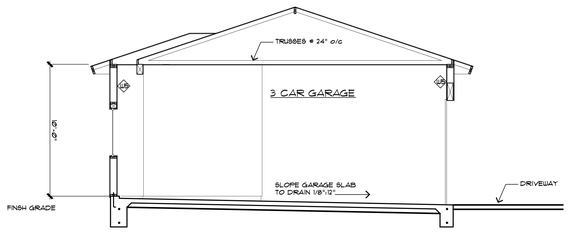
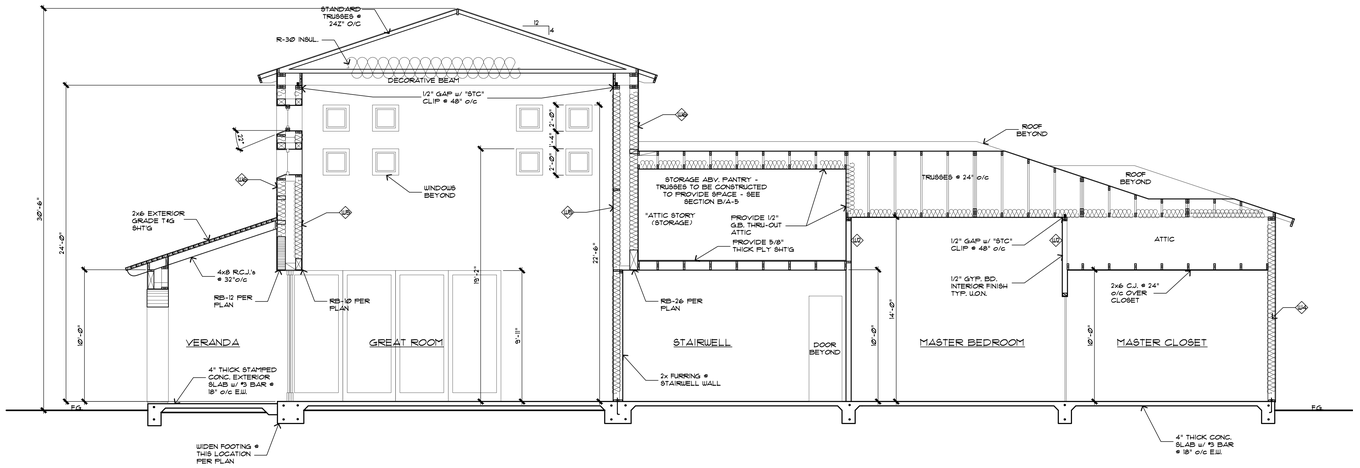
A-6



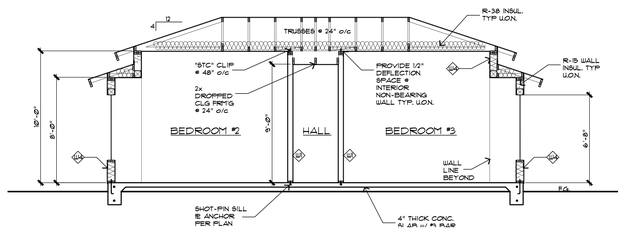
SECTION E

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



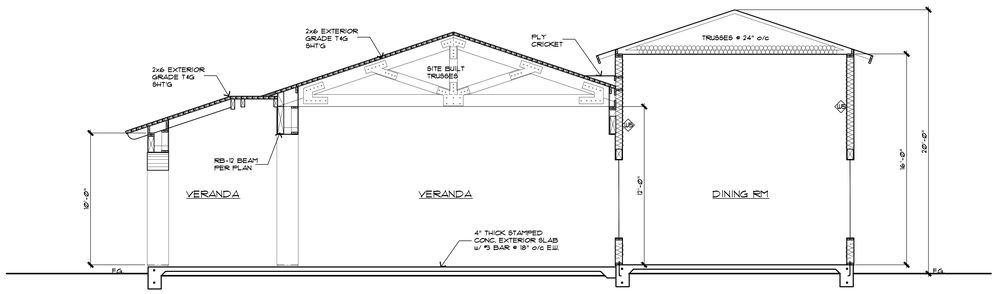
SECTION G

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



SECTION F

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



SECTION H

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

WALL LEGEND

- INTERIOR WALLS UP TO 10'-0" IN HEIGHT TO BE 2x4 STUDS @ 16" o/c
- INTERIOR NON-BEARING WALLS OVER 10'-0" IN HEIGHT UP TO 14'-0" TO BE 2x6 STUDS @ 16" o/c
- INTERIOR NON-BEARING WALLS OVER 14'-0" IN HEIGHT TO BE 1½"x 5½"- 1.7E VERSA STUDS @ 16" o/c PER PLAN
- INTERIOR / EXTERIOR BEARING WALLS UP TO 14'-0" IN HEIGHT TO BE 2x6 STUDS @ 16" o/c
- INTERIOR / EXTERIOR BEARING WALLS OVER 14'-0" IN HEIGHT TO BE 1½"x 5½"- 1.7E VERSA STUDS @ 16" o/c
- INTERIOR / EXTERIOR BEARING WALLS OVER 14'-0" IN HEIGHT TO BE 1½"x 7¼"-1.7E VERSA STUDS @ 16" o/c

REVISIONS	BY
01-29-2019	OQ
05-18-2021	OQ

CUSTOM HOME FOR SADLER

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DRAWN BY:	OQ
CHECKED BY:	ALA
DATE:	-18
SCALE:	AS NOTED
JOB NO.	

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GENERAL INFORMATION					
01	Project Name	Sadler Residence			
02	Calculation Description	Title 24 Analysis			
03	Project Location	APN 402-351-14,15,16 Chocolate Summit Dr.			
04	City	El Cajon	05	Standards Version	Compliance 2017
06	Zip Code	92021	07	Compliance Manager Version	BEMCmpMgr 2016.3.1 (1149)
08	Climate Zone	CZ10	09	Software Version	EnergyPro 7.2
10	Building Type	Single Family	11	Front Orientation (deg/Cardinal)	270
12	Project Scope	Newly Constructed	13	Number of Dwelling Units	1
14	Total Cond. Floor Area (ft^2)	4316	15	Number of Zones	2
16	Slab Area (ft^2)	3748	17	Number of Stories	2
18	Addition Cond. Floor Area(ft^2)	n/a	19	Natural Gas Available	No
20	Addition Slab Area (ft^2)	n/a	21	Glazing Percentage (%)	26.1%

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider.
03	This building incorporates one or more Special Features shown below

ENERGY USE SUMMARY				
04	05	06	07	08
Energy Use (kTDV/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	29.79	35.57	-5.78	-19.4%
Space Cooling	16.18	11.23	4.95	30.6%
IAQ Ventilation	0.86	0.86	0.00	0.0%
Water Heating	8.50	7.26	1.24	14.6%
Photovoltaic Offset	----	0.00	0.00	----
Compliance Energy Total	55.33	54.92	0.41	0.7%

ENERGY DESIGN RATING

Energy Design Rating (EDR) is an alternate way to express the energy performance of a building using a scoring system where 100 represents the energy performance of the Residential Energy Services (RESNET) reference home characterization of the 2006 International Energy Conservation Code (IECC) with California modeling assumptions. A score of zero represents the energy performance of a building that combines high levels of energy efficiency with renewable generation to"zero out" its TDV energy. Because EDR includes consideration of components not regulated by Title 24, Part 6 (such as domestic appliances and consumer electronics), it is not used to show compliance with Part 6 but may instead be used by local jurisdictions pursuing local ordinances under Title 24, Part 11 (CALGreen).
As a Standard Design building under the 2016 Building Energy Efficiency Standards is significantly more efficient than the baseline EDR building, the EDR of the Standard Design building is provided for information. Similarly, the EDR score of the Proposed Design is provided separately from the EDR value of installed PV so that the effects of efficiency and renewable energy can both be seen

EDR of Standard Efficiency	EDR of Proposed Efficiency	EDR Value of Proposed PV + Battery	Final Proposed EDR
41.3	41.1	0.0	41.1

- ☐ Design meets Tier 1 requirement of 15% or greater code compliance margin (CALGreen A4.203.1.2.1) and QII verification prerequisite.
- ☐ Design meets Tier 2 requirement of 30% or greater code compliance margin (CALGreen A4.203.1.2.2) and QII verification prerequisite.
- ☐ Design meets Zero Net Energy (ZNE) Design Designation requirement for Single Family in climate zone CZ10 (Riverside) (CALGreen A4.203.1.2.3) including on-site photovoltaic (PV) renewable energy generation sufficient to achieve a Final Energy Design Rating (EDR) of zero or less. The PV System must be verified.

Notes:
- Excess PV Generation EDR Credit: Bypassing PV size limit may violate Net Energy Metering (NEM) rules

REQUIRED SPECIAL FEATURES

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.
- Insulation below roof deck
- Window overhangs and/or fins

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:
- High quality insulation installation (QII)
- IAQ mechanical ventilation

Cooling System Verifications:
- Minimum Airflow
- Verified Refrigerant Charge
- Fan Efficacy Watts/CFM

HVAC Distribution System Verifications:
- Duct Sealing

Domestic Hot Water System Verifications:
- -- None --

BUILDING - FEATURES INFORMATION						
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft^2)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Sadler Residence	4316	1	4	2	0	1

ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
First Floor	Conditioned	FAU/AC1	4032	16	DHW Sys 1	n/a
Basement	Conditioned	FAU/AC1	284	9	DHW Sys 1	n/a

OPAQUE SURFACES							
01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window & Door Area (ft^2)	Tilt (deg)
Front Wall	First Floor	R-21 Wall	270	Front	1925	196.894	90
Rear Wall	First Floor	R-21 Wall	90	Back	1788	402.4	90
Left Wall	First Floor	R-21 Wall	0	Left	1965	289.594	90
Right Wall	First Floor	R-21 Wall	180	Right	1888	168.284	90
NW Wall	First Floor	R-21 Wall	315	- specify -	158	15.6	90
SW Wall	First Floor	R-21 Wall	225	- specify -	395	15.6	90
SE Wall	First Floor	R-21 Wall	135	- specify -	100	54	90
NE Wall	First Floor	R-21 Wall	45	- specify -	341	36	90
Roof	First Floor	R-38+R-21 Roof Attic	n/a	n/a	4032	n/a	n/a
Interior Surface	First Floor>>Basement	R-0 Floor No Crawlspace	n/a	n/a	284	n/a	n/a
Underground Wall	Basement	10 CMU Wall	n/a	n/a	183	n/a	n/a
Underground Wall 2	Basement	10 CMU Wall	n/a	n/a	183	n/a	n/a
Underground Wall 3	Basement	10 CMU Wall	n/a	n/a	155	n/a	n/a
Underground Wall 4	Basement	10 CMU Wall	n/a	n/a	155	n/a	n/a

ATTIC							
01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Rise	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic First Floor	Attic RoofFirst Floor	Ventilated	0	0.1	0.85	Yes	No

FENESTRATION / GLAZING									
01	02	03	04	05	06	07	08	09	10
Name	Type	Surface (Orientation-Azimuth)	Width (ft)	Height (ft)	Multiplier	Area (ft^2)	U-factor	SHGC	Exterior Shading
Window B 4060SH	Window	Front Wall (Front-270)	4.0	6.0	1	24.0	0.30	0.21	Insect Screen (default)
Window B 4060SH 2	Window	Front Wall (Front-270)	4.0	6.0	1	24.0	0.30	0.21	Insect Screen (default)
Window B 4060SH 3	Window	Front Wall (Front-270)	4.0	6.0	1	24.0	0.30	0.21	Insect Screen (default)
Window B 4060SH 4	Window	Front Wall (Front-270)	4.0	6.0	1	24.0	0.30	0.21	Insect Screen (default)
Window B 4060SH 5	Window	Front Wall (Front-270)	4.0	6.0	1	24.0	0.30	0.21	Insect Screen (default)
Window Q 2020FX	Window	Front Wall (Front-270)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 2	Window	Front Wall (Front-270)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 3	Window	Front Wall (Front-270)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 4	Window	Front Wall (Front-270)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 5	Window	Front Wall (Front-270)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window O 1646CSMT	Window	Front Wall (Front-270)	1.5	4.5	1.007	6.8	0.30	0.19	Insect Screen (default)
Window O 1646CSMT 2	Window	Front Wall (Front-270)	1.5	4.5	1.007	6.8	0.30	0.19	Insect Screen (default)
Window P 1630CSMT	Window	Front Wall (Front-270)	1.5	3.0	1	4.5	0.30	0.19	Insect Screen (default)
Window P 1630CSMT 2	Window	Front Wall (Front-270)	1.5	3.0	1	4.5	0.30	0.19	Insect Screen (default)
Door 9 160100Pocket	Window	Rear Wall (Back-90)	16.0	10.0	1	160.0	0.39	0.20	Insect Screen (default)
Door 10 10080SGD	Window	Rear Wall (Back-90)	10.0	8.0	1	80.0	0.30	0.21	Insect Screen (default)
Window E 2860FX	Window	Rear Wall (Back-90)	----	----	1	16.0	0.31	0.19	Insect Screen (default)
Window F 2824FX	Window	Rear Wall (Back-90)	----	----	1	6.2	0.31	0.19	Insect Screen (default)
Window G 6060FX	Window	Rear Wall (Back-90)	----	----	1	36.0	0.31	0.19	Insect Screen (default)
Window H 6024FX	Window	Rear Wall (Back-90)	----	----	1	14.0	0.31	0.19	Insect Screen (default)
Window E 2860FX 2	Window	Rear Wall (Back-90)	----	----	1	16.0	0.31	0.19	Insect Screen (default)
Window F 2824FX 2	Window	Rear Wall (Back-90)	----	----	1	6.2	0.31	0.19	Insect Screen (default)
Window K 2030FX	Window	Rear Wall (Back-90)	2.0	3.0	1	6.0	0.31	0.19	Insect Screen (default)
Window J 2060FX	Window	Rear Wall (Back-90)	2.0	6.0	1	12.0	0.31	0.19	Insect Screen (default)
Window K 2030FX 2	Window	Rear Wall (Back-90)	2.0	3.0	1	6.0	0.31	0.19	Insect Screen (default)
Window J 2060FX 2	Window	Rear Wall (Back-90)	2.0	6.0	1	12.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 6	Window	Rear Wall (Back-90)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 7	Window	Rear Wall (Back-90)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 8	Window	Rear Wall (Back-90)	----	----	1	4.0	0.31	0.19	Insect Screen (default)

Window Q 2020FX 9	Window	Rear Wall (Back-90)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 10	Window	Rear Wall (Back-90)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 11	Window	Rear Wall (Back-90)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 12	Window	Rear Wall (Back-90)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 13	Window	Rear Wall (Back-90)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Door 9 160100Pocket 2	Window	Left Wall (Left-0)	16.0	10.0	1	160.0	0.39	0.20	Insect Screen (default)
Window Q 2020FX 14	Window	Left Wall (Left-0)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 15	Window	Left Wall (Left-0)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 16	Window	Left Wall (Left-0)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 17	Window	Left Wall (Left-0)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 18	Window	Left Wall (Left-0)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 19	Window	Left Wall (Left-0)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 20	Window	Left Wall (Left-0)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 21	Window	Left Wall (Left-0)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 22	Window	Left Wall (Left-0)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 23	Window	Left Wall (Left-0)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window C 6060XO	Window	Left Wall (Left-0)	6.0	6.0	1	36.0	0.30	0.21	Insect Screen (default)
Window D 6024FX	Window	Left Wall (Left-0)	6.0	2.3	1.001	14.0	0.31	0.19	Insect Screen (default)
Window N 4646XO	Window	Left Wall (Left-0)	----	----	1	20.3	0.30	0.21	Insect Screen (default)
Window K 2030FX 3	Window	Right Wall (Right-180)	2.0	3.0	1	6.0	0.31	0.19	Insect Screen (default)
Window J 2060FX 3	Window	Right Wall (Right-180)	2.0	6.0	1	12.0	0.31	0.19	Insect Screen (default)
Window K 2030FX 4	Window	Right Wall (Right-180)	2.0	3.0	1	6.0	0.31	0.19	Insect Screen (default)
Window J 2060FX 4	Window	Right Wall (Right-180)	2.0	6.0	1	12.0	0.31	0.19	Insect Screen (default)
Window C 6060XO 2	Window	Right Wall (Right-180)	6.0	6.0	1	36.0	0.30	0.21	Insect Screen (default)
Window D 6024FX 2	Window	Right Wall (Right-180)	6.0	2.3	1.001	14.0	0.31	0.19	Insect Screen (default)
Window N 4646XO 2	Window	Right Wall (Right-180)	4.5	4.5	1.002	20.3	0.30	0.21	Insect Screen (default)
Window M 5060XO	Window	Right Wall (Right-180)	5.0	6.0	1	30.0	0.30	0.21	Insect Screen (default)
Window L 2040CSMT	Window	Right Wall (Right-180)	2.0	4.0	1	8.0	0.30	0.19	Insect Screen (default)
Window Q 2020FX 24	Window	Right Wall (Right-180)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 25	Window	Right Wall (Right-180)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 26	Window	Right Wall (Right-180)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 27	Window	Right Wall (Right-180)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 28	Window	Right Wall (Right-180)	----	----	1	4.0	0.31	0.19	Insect Screen (default)

Window Q 2020FX 29	Window	Right Wall (Right-180)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window Q 2020FX 30	Window	NW Wall (- specify --315)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window A 2060Arch	Window	NW Wall (- specify --315)	2.0	5.8	1	11.6	0.31	0.19	Insect Screen (default)
Window Q 2020FX 31	Window	SW Wall (- specify --225)	----	----	1	4.0	0.31	0.19	Insect Screen (default)
Window A 2060Arch 2	Window	SW Wall (- specify --225)	2.0	5.8	1	11.6	0.31	0.19	Insect Screen (default)
Window K 2030FX 5	Window	SE Wall (- specify --135)	2.0	3.0	1	6.0	0.31	0.19	Insect Screen (default)
Window J 2060FX 5	Window	SE Wall (- specify --135)	2.0	6.0	1	12.0	0.31	0.19	Insect Screen (default)
Window K 2030FX 6	Window	SE Wall (- specify --135)	2.0	3.0	1	6.0	0.31	0.19	Insect Screen (default)
Window J 2060FX 6	Window	SE Wall (- specify --135)	2.0	6.0	1	12.0	0.31	0.19	Insect Screen (default)
Window K 2030FX 7	Window	SE Wall (- specify --135)	2.0	3.0	1	6.0	0.31	0.19	Insect Screen (default)
Window J 2060FX 7	Window	SE Wall (- specify --135)	2.0	6.0	1	12.0	0.31	0.19	Insect Screen (default)
Window K 2030FX 8	Window	NE Wall (- specify --45)	2.0	3.0	1	6.0	0.31	0.19	Insect Screen (default)
Window J 2060FX 8	Window	NE Wall (- specify --45)	2.0	6.0	1	12.0	0.31	0.19	Insect Screen (default)
Window K 2030FX 9	Window	NE Wall (- specify --45)	2.0	3.0	1	6.0	0.31	0.19	Insect Screen (default)
Window J 2060FX 9	Window	NE Wall (- specify --45)	2.0	6.0	1	12.0	0.31	0.19	Insect Screen (default)

OPAQUE DOORS			
01	02	03	04
Name	Side of Building	Area (ft^2)	U-factor
Door 1 4090Arch	Front Wall	34.3	0.50
Door 2 2680Arch	Left Wall	19.3	0.50

OVERHANGS AND FINS													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
	Overhang					Left Fin				Right Fin			
Window	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
Window B 4060SH	11.1	0.6	2.5	2	0	0	0	0	0	0	0	0	0
Window B 4060SH 2	1.5	0.6	3	4	0	0	0	0	0	0	0	0	0
Window B 4060SH 3	1.5	0.6	3	4	0	0	0	0	0	0	0	0	0
Window B 4060SH 4	1.5	0.6	3	4	0	0	0	0	0	0	0	0	0
Window B 4060SH 5	1.5	0.6	3	4	0	0	0	0	0	0	0	0	0
Window O 1646CSMT	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window O 1646CSMT 2	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window P 1630CSMT	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window P 1630CSMT 2	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Door 9 160100Pocket	15.2	0.6	8	9.8	0	0	0	0	0	0	0	0	0
Door 10 10080SGD	4	0.6	3	3	0	0	0	0	0	0	0	0	0
Window K 2030FX	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window J 2060FX	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window K 2030FX 2	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window J 2060FX 2	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Door 9 160100Pocket 2	9.8	0.6	15.2	5	0	0	0	0	0	0	0	0	0
Window C 6060XO	1.5	0.6	5	5	0	0	0	0	0	0	0	0	0
Window D 6024FX	1.5	0.6	5	5	0	0	0	0	0	0	0	0	0
Window K 2030FX 3	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window J 2060FX 3	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window K 2030FX 4	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window J 2060FX 4	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window C 6060XO 2	1.5	0.6	5	5	0	0	0	0	0	0	0	0	0
Window D 6024FX 2	1.5	0.6	5	5	0	0	0	0	0	0	0	0	0
Window N 4646XO 2	1.5	0.6	2	2	0	0	0	0	0	0	0	0	0
Window M 5060XO	1.5	0.6	6	28	0	0	0	0	0	0	0	0	0
Window L 2040CSMT	1.5	0.6	27	10	0	0	0	0	0	0	0	0	0
Window A 2060Arch	2	0.6	0	0	0	0	0	0	0	0	0	0	0

Window A 2060Arch 2	2	0.6	0	0	0	0	0	0	0	0	0	0	0
Window K 2030FX 5	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window J 2060FX 5	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window K 2030FX 6	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window J 2060FX 6	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window K 2030FX 7	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window J 2060FX 7	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window K 2030FX 8	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window J 2060FX 8	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window K 2030FX 9	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0
Window J 2060FX 9	1.5	0.6	0.5	0.5	0	0	0	0	0	0	0	0	0

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
Attic RoofFirst Floor	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O.C.	R 21	0.051	• *Around Roof Joists: R-8.0 insul.* • *Cavity / Frame: R-13.0 / 2x4 Top Chrd* • *Roof Deck: Wood Siding/sheathing/decking* • *Tile Gap: present* • *Roofing: 10 PSF (RoofTile)*
R-21 Wall	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O.C.	R 21	0.069	• *Inside Finish: Gypsum Board* • *Cavity / Frame: R-21 / 2x6* • *Exterior Finish: 3 Coat Stucco*
R-38+R-21 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O.C.	R 38	0.025	• *Inside Finish: Gypsum Board* • *Cavity / Frame: R-9.1 / 2x4* • *Over Ceiling Joists: R-28.9 insul.*
R-0 Floor No Crawlspace	Interior Floors	Wood Framed Floor	2x12 @ 16 in. O.C.	none	0.196	• *Floor Surface: Carpeted* • *Floor Deck: Wood Siding/sheathing/decking* • *Cavity / Frame: no insul. / 2x12* • *Ceiling Below Finish: Gypsum Board*
10 CMU Wall	Underground Walls	Concrete / ICF / Brick			1.200	• *Mass Layer: 10 in. Concrete*

SLAB FLOORS						
01	02	03	04	05	06	07
Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value & Depth	Carpeted Fraction	Heated
Slab-on-Grade	First Floor	3748	342	None	0.8	No
Underground Floor	Basement	284	n/a	None	0.8	No

BUILDING ENVELOPE - HERS VERIFICATION			
01	02	03	04
Quality Insulation Installation (QII)	Quality Installation of Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Required	Not Required	Not Required	n/a

WATER HEATING SYSTEMS					
01	02	03	04	05	06
Name	System Type	Distribution Type	Water Heater	Number of Heaters	Solar Fraction (%)
DHW Sys 1	DHW	Standard	DHW Heater 1 (2)	2	.0%

WATER HEATERS											
01	02	03	04	05	06	07	08	09	10	11	12
Name	Heater Element Type	Tank Type	Number of Units	Tank Volume (gal)	Uniform Energy Factor / Energy Factor / Efficiency	Input Rating / Pilot / Thermal Efficiency	Tank Insulation R-value (Int/Ext)	Standby Loss / Recovery Eff	First Hour Rating / Flow Rate	NEEA Heat Pump Brand / Model / Other	Tank Location or Ambient Condition
DHW Heater 1	Gas	Consumer Instantaneous (UEF)	2	0	0.93 UEF	<= 200 kBtu/hr	R-0/R-0	0	10 GPM	n/a	n/a

SPACE CONDITIONING SYSTEMS					
01	02	03	04	05	06
SC Sys Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name
FAU/AC1	Other Heating and Cooling System	Heating Component 1	Cooling Component 1	HVAC Fan 1	Air Distribution System 1

HVAC - HEATING UNIT TYPES			
01	02	03	04
Name	System Type	Number of Units	Efficiency
Heating Component 1	CntrlFurnace	1	96 AFUE

HVAC - COOLING UNIT TYPES							
01	02	03	04	05	06	07	08
			Efficiency				
Name	System Type	Number of Units	EER	SEER	Zonally Controlled	Compressor Type	HERS Verification
Cooling Component 1	SplitAirCond	1	11.7	14	Not Zonal	Single Speed	Cooling Component 1-hers-cool

HVAC COOLING - HERS VERIFICATION					
01	02	03	04	05	06
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge
Cooling Component 1-hers-cool	Required	350	Not Required	Not Required	Required

HVAC - DISTRIBUTION SYSTEMS						
01	02	03	04	05	06	07
Name	Type	Duct Leakage	Insulation R-value	Duct Location	Bypass Duct	HERS Verification
Air Distribution System 1	DuctsAttic	Sealed and tested	8	Attic	None	Air Distribution System 1-hers-dist

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
Air Distribution System 1-hers-dist	Required	5.0	Not Required	Not Required	Not Required	Not Required	n/a

HVAC - FAN SYSTEMS			
01	02	03	04
Name	Type	Fan Power (Watts/CFM)	HERS Verification
HVAC Fan 1	Single Speed PSC Furnace Fan	0.58	HVAC Fan 1-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION		
01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficiency (Watts/CFM)
HVAC Fan 1-hers-fan	Required	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 IAQVentRpt	81	0.25	Default	0	Required

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Melissa Daly	Documentation Author Signature: *Melissa Daly*
Company: Kramer Engineering Services, Inc.	Signature Date: 2019-01-14 15:22:44
Address: 4930 Naples Place	CEA/HERS Certification Identification (If applicable): n/a
City/State/Zip: San Diego, CA 92110	Phone: 858-274-9860

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Alan Austin	Responsible Designer Signature: *Alan Austin*
Company: Austin & Associates	Date Signed: 2019-01-14 16:04:56
Address: 1622 Pioneer Way	License: n/a
City/State/Zip: El Cajon, CA 92020	Phone: 619-440-3624

Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.

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DOOR SCHEDULE

SYM.	SIZE	QTY.	DESCRIPTION / MANUFACTURER	TYPE	SILL	HARDWARE	FINISH
1	4090	1	SOLID-CORE WOOD ARCHED ENTRY DOOR - STAIN GRADE (S.G.)	1 3/4" WD.	ALUM.		STAIN / VAR.
2	2680	1	SOLID-CORE WOOD ARCHED DOOR - STAIN GRADE (S.G.)	1 3/8" WD	ALUM.		STAIN / VAR.
3	3080	1	SOLID-CORE DOOR (P.G.) PAINT GRADE 2 PANEL	1 3/8" WD	ALUM.		PAINT/E.
4	2080	3	SOLID CORE DOOR (S.G.) STAIN GRADE 2 PANEL	1 3/8" WD	NONE		STAIN / VAR.
5	2680	1	SOLID CORE DOOR (S.G.) STAIN GRADE 2 PANEL POCKET	1 3/8" WD	NONE		STAIN / VAR.
6	2680	10	SOLID CORE DOOR (S.G.) STAIN GRADE 2 PANEL	1 3/8" WD	NONE		STAIN / VAR.
7	2880	1	SOLID CORE DOOR (S.G.) STAIN GRADE 2 PANEL	1 3/8" WD	NONE		STAIN / VAR.
8	3686	1	SOLID-CORE WOOD ARCHED DOOR - STAIN GRADE (S.G.)	1 3/8" WD	NONE		STAIN / VAR.
9	160100	2	4 PANEL TEMP. GLASS SLIDING POCKET DOORS	GLASS	WOOD		STAIN / VAR.
10	10080	1	4 PANEL TEMP. GLASS SLIDING DOOR OXXO	GLASS	ALUM		STAIN / VAR.
11	9080	3	INSULATED SECTION TRACK OVERHEAD GARAGE DOORS	ALUM	NONE		FACTORY

WINDOW SCHEDULE

SYM.	SIZE	QTY.	DESCRIPTION / MANUFACTURER	HARDWARE	AREA	TYPE	DIRECTION N	E	S	W
A	2060	2	TEMP GLS. ARCHED FIXED WINDOW - WOOD FRAME		12	O= FIXED				
B	4060	5	SINGLE HUNG WOOD WINDOW WITH CUSTOM GRID D/T		120	S.H.				
C	6060	2	SLIDING WOOD WINDOW D/T		72	X-O				
D	6024	2	FIXED WOOD WINDOW WITH CUSTOM GRID D/T		28	O				
E	2860	2	FIXED WOOD WINDOW D/T		32	O				
F	2824	2	FIXED WOOD WINDOW WITH CUSTOM GRID D/T		12.5	O				
G	6060	1	FIXED WOOD PICTURE WINDOW D/T		36	O				
H	6024	1	FIXED WOOD WINDOW WITH CUSTOM GRID D/T		14	O				
I			NOT USED							
J	2060	9	DUAL TEMP. GLS FIXED WOOD WINDOW		108	O				
K	2030	9	FIXED WOOD WINDOW D/T		54	O				
L	2040	1	WOOD CASEMENT D/T		8	CSMT				
M	5060	1	WOOD SLIDING WINDOW WITH CUSTOM GRIDS D/T		30	X-O				
N	4646	2	WOOD SLIDING WINDOW WITH CUSTOM GRIDS D/T		40.5	X-O				
O	1646	2	WOOD CASEMENT D/T		13.5	CSMT				
P	1630	2	WOOD CASEMENT D/T		9	CSMT				
Q	2020	31	WOOD FIXED WINDOW D/T		124	O				
R	4040	4	WOOD SLIDING WINDOW D/T		64	X-O				
S	4014	4	WOOD FIXED TRANSOM WINDOW WITH CUSTOM GRID D/T		21.25	O				
T	8060	1	WOOD ARCHED FIXED WINDOW WITH CUSTOM GRID D/T		44.5	O				
U	6040	1	WOOD SLIDING WINDOW D/T		24	X-O				
V	6014	1	WOOD FIXED TRANSOM WINDOW WITH CUSTOM GRID D/T		8	O				
W	4030	8	WOOD SLIDING WINDOW D/T		96	X-O				

REVISIONS	BY
01-29-2019	OQ

CUSTOM HOME FOR SADLER
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DRAWN BY: OQ
CHECKED BY: ALA
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A-8

STRUCTURAL SPECIFICATIONS

GENERAL :

1. IN CASE OF CONFLICT, SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES AND STANDARD DETAILS.
2. WHERE A DETAIL IS IDENTIFIED AS TYPICAL THE CONTRACTOR SHALL APPLY THIS DETAIL TO EVERY LIKE SITUATION, WHETHER OR NOT THE REFERENCE IS MADE IN EVERY INSTANCE.
3. ALL WORK THAT IS NEITHER SPECIFICALLY NOTED NOR SPECIFICALLY DETAILED, SHALL BE CONSTRUCTED IN ACCORDANCE WITH OTHER SIMILAR WORK SHOWN ON THE DRAWINGS AND/ OR WITH TYPICAL DETAILS.
4. DRAWINGS AND SPECIFICATIONS REPRESENT FINISHED STRUCTURE. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND TEMPORARY BRACING. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES AND BE RESPONSIBLE FOR THE SAFETY OF ALL PERSONS AND STRUCTURES AT THE VICINITY OF THE SITE. VISITS TO THE SITE BY THE ENGINEER SHALL NOT INCLUDE INSPECTION OF SUCH MEASURES.
5. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE 2016 CALIFORNIA BUILDING CODE AS AMENDED AND ADOPTED BY THE LATEST ORDINANCE OF THE CITY OF SAN DIEGO, AND OTHER REGULATING AGENCIES EXERCISING AUTHORITY OVER ANY PORTION OF WORK.
6. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY SITE CONDITIONS NOT REFLECTED ON THE DRAWINGS OR DIFFERENT FROM THE INDICATED MAXIMUM/MINIMUM DIMENSIONS, INCLUDING EARTH HEIGHT, CONFLICT IN GRADES, ADVERSE SOIL CONDITIONS...ETC.
7. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK, AND SHALL IMMEDIATELY NOTIFY THE DESIGNER OF ANY DISCREPANCIES.
8. OPENINGS, POCKETS, DRILLS, NOTCHES, TAPERS, ETC, SHALL NOT BE PLACED IN STRUCTURAL ELEMENTS UNLESS SPECIFICALLY INDICATED OR APPROVED BY THE ENGINEER.
9. ONLY CALIFORNIA LICENSED GENERAL CONTRACTORS ARE TO UTILIZE THESE DRAWINGS/CONTRACT DOCUMENTS FOR THE PURPOSE OF CONSTRUCTION.
10. THE CONTRACTOR MUST NOT SCALE FROM THESE DRAWINGS. MEASUREMENTS ARE TO BE READ AND/OR MATHEMATICALLY DEDUCED FROM THESE DRAWINGS.
11. PLACEMENT OF ALL MEMBERS SHALL BE CONCENTRIC WITH RESPECT TO EACH OTHER.
12. PRIOR TO START OF ANY FABRICATION/CONSTRUCTION, THE CONTRACTOR SHALL READ THE WHOLE DRAWINGS, REVIEW THEM THOROUGHLY, AND RAISE ANY QUESTION / COMMENT ON ANY AREA WHERE THE DRAWINGS MAY BE UNCLEAR.

DESIGN LOADS CRITERIA :

A- FLOOR LIVE LOADS:
- BASIC FLOOR LIVE LOADS = 40 PSF
- PRIVATE DECK LIVE LOADS = 40 PSF
- PUBLIC LIVE LOAD AREA = N/A

LIVE LOADS ABOVE LESS NOT EXCEEDING 100 PAF SHALL BE REDUCES PER IBC SECTION 1607.9.2 BY A REDUCTION FACTOR OF: R = .08 (A-150) WITH THE FOLLOWING MAXIMUM PERCENTAGES:
- 40% FOR HORIZONTAL MEMBERS;
- 60% FOR VERTICAL MEMBERS;
- 23.1 (1 + DEAD LOAD/FLOOR LIVE LOAD)

B- ROOF LIVE LOADS:
- SLOPED ROOF LIVE LOAD = 16 PSF (REDUCIBLE)

C- SNOW LOADS:
- GROUND SNOW LOAD, Pg = 10 PSF

D- WIND LOADS:
1 - BASIC WIND SPEED (3-SECOND GUST) = 85 MPH
2 - WIND IMPORTANCE FACTOR, I = 1.0 ; OCCUPANCY CATEGORY: II
3 - WIND EXPOSURE: "C"

E- EARTHQUAKE LOADS:
1 - SEISMIC IMPORTANCE FACOTR, I = 1.0 ; OCCUPANCY CATEGORY: II
2 - MAPPED SPECTRAL RESPONSE ACCERLATIONS: S_S = 1.432 ; S_1 = 0.542
3 - SITE CLASS: "D"
4 - SPECTRAL RESPONSE COEFFICIENTS: S_{DS} = .955 ; S_{D1} = .542
5 - SEISMIC DESIGN CATEGORY: "D"
6 - BASIC SEISMIC - FORCE - RESISTING SYSTEM: PLYWOOD SHEAR WALL
7 - DESIGN BASE SHEAR:
- NORTH-SOUTH DIRECTION = 14,000#
- EAST-WEST DIRECTION = 14,000#
8 - SEISMIC RESPONSE COEFFICIENTS, Cs = 0.105 @ SERVICE WORKING LEVEL
9 - SEISMIC MODIFICATION FACTOR, R = 6.5
10 - ANALYSIS PROCEDURE USED: STATIC

FOUNDATION :

1. FOOTINGS EXCAVATIONS SHALL BE KEPT FREE FROM LOOSE MATERIAL AND STANDING WATER. PRIOR TO POURING CONCRETE, EXCAVATIONS SHALL BE CHECKED AND APPROVED BY THE BUILDING OFFICIAL AND DESIGNER ON RECORD.
2. SUBMIT COMPACTION TEST REPORTS FOR ALL FILL BY A QUALIFIED TESTING LAB TO DESIGNER AND BUILDING DEPARTMENT PRIOR TO REQUESTING FOUNDATION INSPECTION. ALL LOOSE AND FILL SOILS SHALL BE COMPACTED TO A MINIMUM OF 90% OF THE MAXIMUM SOIL DENSITY.
3. CONTRACTOR SHALL PROVIDE FOR DE-WATERING OF EXCAVATIONS FROM SURFACE OR SEEPAGE WATER.
4. THE MAXIMUM ALLOWABLE SOIL BEARING PRESSURE SHALL BE:
   CONTINUOUS FOOTINGS.............................. 1,000 PSF
   SPREAD FOOTINGS.............................. 1,000 PSF
5. BOTTOM OF FOOTINGS SHALL BE EMBEDDED AT LEAST 18 IONCHES BELOW THE LOWEST ADJACENT GRADE
6. BOTTOM OF FOOTINGS SHALL BE EMBEDDED AT LEAST 18 INCHES BELOW THE LOWEST ADJACENT GRADE.
7. FOOTING ELEVATIONS INDICATED ARE ASSUMED TO BE IN SUITABLE BEARING SOIL. THE ACTUAL ADEQUACY OF THE BEARING SOIL SHALL BE DETERMINED, AND IF NECESSARY LOWERED AS DIRECTED BY THE BUILDING OFFICIAL AND DESIGNER ON RECORD, PRIOR TO PLACING ANY REINFORCEMENT.
8. ALL FOOTINGS SHALL BE POURED AGAINST EXCAVATED SOIL; DO NOT FORM FOOTINGS BELOW GRADE.

REINFORCING STEEL :

1. DETAILING, FABRICATION AND ERECTION OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE A.C.I MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (A.C.I 315).
2. BAR SUPPORTS SHALL BE PROVIDED IN ACCORDANCE WITH THE PROVISIONS OF "BAR SUPPORT SPECIFICATIONS" BY THE CONCRETE REINFORCING STEEL INSTITUTE (C.R.S.I).
3. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
4. REINFORCING BARS SHALL CONFORM ASTM A615-40: GRADE 40
5. NO SPLICING OF BARS IS PERMITTED: ALL BARS SHALL BE FUNISHED IN SINLGE CONTINUOUS PIECES.
6. SUBMIT SHOP DRAWINGS TO THE DESIGNER FOR REVIEW AND APPROVAL PRIOR TO ANY FABRICATION.

EPOXY GROUT FOR DOWELS : (SIMPSON)

1. THE INSTALLATION OF ALL REINFORCING DOWELS OR HOLDOWN DOWELS IN EXISTING CONCRETE SHALL BE PERFORMED BY UTILIZING THE "SIMPSON STRONG-TIE EPOXY TIE ANCHORING SYSTEM" WITH THE FOLLOWING SPECIFICATIONS:
   NAME OF MANUFACTURER : SIMPSON STRONG TIE
   NAME OF PRODUCT : SET ADHESIVE
   I.C.B.O REPORT NUMBER : 1772
2. ALL DOWELS SHALL COMPLY WITH ASTM A307 GRADE "A" AND THEIR ENTIRE LENGTH SHALL BE THREADED.
3. HOLE DIAMETER SHALL BE 1/8" LARGER THAN THE DOWEL DIAMETER. IN NO CASE SHALL THE HOLE DIAMETER BE MORE THAN 1/4" LARGER THAN THE DOWEL DIAMETER.
4. PREPARATION AND INSTALLATION SHALL FULLY ADHERE TO THE MANUFACTURER'S RECOMMENDATION AND TO THE I.C.B.O REPORT WHICH IS CONSIDERED TO BE PART OF THESE DOCUMENTS.
5. PRIOR TO DRILLING, SAW-CUTTING, CORING OR ALTERING ANY EXISTING CONCRETE, THE CONTRACTOR SHALL:
   - FIELD VERIFY EXISTENCE OF ANY POST TENSIONING TENDONS; AND
   - FIELD VERIFY LOCATION OF SUCH TENDONS; AND
   - SHALL SUBMIT RESULTS OF ABOVE FIELD VERIFICATIONS AND PROPOSED WORK TO ENGINEER FOR REVIEW AND APPROVAL.
   - THE CONTRACTOR SHALL NOT DRILL NOR CUT THRU ANY EXSITING POST-TENSIONING TENDONS
6. THE FOLLOWING IS A SUMMARY OF PREPARATION AND INSTALLATION IN SOLID CONCRETE:
   I) DRILL PROPER SIZED HOLE.
   II) REMOVE DUST FROM HOLE WITH OIL-FREE COMPRESSED AIR.
   III) CLEAN WITH NYLON BRUSH AND BLOW OUT REMAINING DUST (DO NOT USE WIRE BRUSH)
   IV) PRIOR TO INJECTION, DISCHARGE APPROXIMATELY ONE FLUID OUNCE OF EPOXY. EPOXY MUST BE UNIFORM IN COLOR.
   V) INSERT THE TOOL NOZZLE INTO THE BOTTOM OF THE HOLE, AND FILL THE HOLE TO 1/2 THE HOLE DEPTH.
   VI) INSERT THE THREADED DOWEL SLOWLY BY HAND INTO THE BOTTOM OF THE HOLE USING A SLOW TWISTING MOTION.
   VII) AFTER A MINIMUM OF 3 HOURS INSTALL AND TIGHTEN FIXTURE USING A MAXIMUM TIGHTENING TORQUE AS SPECIFIED IN THE I.C.B.O. REPORT.
   VIII) DO NOT LOAD THE DOWEL UNTIL A MINIMUM OF 24 HOURS HAS ELAPSED SINCE TIGHTENING THE DOWEL.

CONCRETE :

1. CEMENT SHALL CONFORM TO ASTM C150, TYPE II
2. AGGREGATES SHALL CONFORM TO ASTM C33 FOR HARD ROCK CONCRETE, AGGREGATE SIZE SHALL BE 3/4"
3. READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94.
4. APPROXIMATE DRY DENSITY SHALL BE 145 PCF FOR HARD ROCK CONCRETE. CONCRETE SHALL BE HARD ROCK.
5. ADMIXTURES MAY BE USED WITH THE PRIOR APPROVAL OF THE ENGINEER. ADMIXTURES SHALL NOT REDUCE THE SPECIFIED MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE. (CALCIUM CHLORIDE SHALL NOT BE USED).
6. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY AND REVIEWED BY THE ENGINEER. MIX DESIGNS SHALL BE STAMPED AND SIGNED BY A CIVIL ENGINEER CURRENTLY REGISTERED IN CALIFORNIA.

   MEASURES TO MINIMIZE ALKALI-SILICA REACTIVITY ("ASR") SHALL BE CONSIDERED IN THE MIX DESIGN; SUCH AS USE OF LOW-ALKALI CEMENT, USE OF ASTM C-618 CLASS 'F' FLY ASH, USE OF LITHIUM-NITRATE SOLUTION ADMIXTURE AND POSSIBLY USE OF NON-REACTIVE (INNOCUOUS) AGGREGATES.
7. MINIMUM CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS : 2,500 PSI
8. WHERE NO PRE-APPROVED ADMIXTURES ARE USED, SLUMP SHALL NOT EXCEED 3" FOR SLABS ON GRADE AND 4" FOR ALL OTHER CONCRETE WORK.
9. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ALL SLEEVES, INSERTS, MOLDS, GROOVES, ORNAMENTAL CLIPS,.. ETC, TO BE CAST IN CONCRETE AND FOR EXTENT OF DEPRESSIONS, CURBS,... ETC.
10. NO CONDUITS OR PIPES PLACED IN THE SLAB SHALL HAVE AN OUTSIDE DIAMETER GREATER THAN 1/3 OF THE SLAB THICKNESS. NO CONDUITS OR PIPES SHALL BE PLACED IN A SLAB THAT IS LESS THAN 3.5" THICK. PIPES AND CONDUITS SHALL BE PLACED NEAR MID-DEPTH OF THE SLAB. EXCEPT FOR LOCAL OFFSETS, MINIMUM CLEAR DISTANCE BETWEEN CONDUITS AND PIPES, PLACED IN CONCRETE, SHALL BE 6".
11. PROJECTING CORNERS OF SLABS, BEAMS, WALLS, COLUMNS..ETC, SHALL BE FORMED WITH A 3/4" CHAMFER.
12. ALL FORMWORK MUST BE CLEANED, INSPECTED AND APPROVED PRIOR TO PLACING REINFORCEMENT. ALL REINFORCING BARS, ANCHOR BOLTS AND INSERTS TO BE SECURED IN PLACE PRIOR TO POURING CONCRETE.

(CONT'G CONCRETE) :

13. CURING COMPOUNDS USED ON CONCRETE THAT IS TO RECEIVE A RESILIENT TILE FINISH SHALL BE APPROVED BY THE ARCHITECT IN ADVANCE.
14. REINFORCING STEEL SHALL HAVE A CONCRETE COVER AS FOLLOWS:
   A) UNFORMED CONCRETE CAST AGAINST EARTH ..... 3"
   B) FORMED CONCRETE IN CONTACT WITH EARTH AND CONCRETE EXPOSED TO WEATHER :
   BARS #5 AND SMALLER .... 1.5"
   THE ABOVE COVERAGE VALUE SHALL NOT EXCEED BY MORE THAN 25%
15. PRIOR TO DRILLING, SAW-CUTTING, CORING OR ALTERING ANY EXISTING CONCRETE, THE CONTRACTOR SHALL:
   - FIELD VERIFY EXISTENCE OF ANY POST TENSIONING TENDONS; AND
   - FIELD VERIFY LOCATION OF SUCH TENDONS; AND
   - SHALL SUBMIT RESULTS OF ABOVE FIELD VERIFICATIONS AND PROPOSED WORK TO ENGINEER FOR REVIEW AND APPROVAL.
16. ALL CONCRETE SHALL BE POURED MONOLITHICALLY.

   WHERE SPECIFICALLY INDICATED ON THE PLANS, COLD JOINTS SHALL BE TREATED AS FOLLOWS:

   ROUGHEN CONTACT SURFACE TO A MINIMUM OF 3/4" AMPLITUDE;
   SAND BLAST CONTACT SURFACE CLEAN;
   APPLY AN APPROVED BONDING AGENT AFTER ANY DRILLING IS DONE AND JUST PRIOR TO POURING FRESH CONCRETE.

PARALLAM PSL : (PARALLAEL STRAND LUMBER)

1. SHALL BE MANUFACTURED BY "TRUSS JOIST MCMILLAN".
2. SHALL BE PER CODE EVALUATION REPORT #NER-481 (BY "HUD").
3. SHALL HAVE THE FOLLOWING PROPERTIES:
   FB = 2,900 PSI (ALLOWABLE UN-ADJUSTED BENDING STRESS)
   E = 2,000 KSI (ELASTIC MODULUS)
   FV = 290 PSI (ALLOWABLE HORIZONTAL SHEAR)

PREFABRICATED GANG-NAILED TRUSSES:

1. THE CONNECTIONS AND FABRICATIONS SHALL HAVE A CURRENT I.C.B.O. APPROVAL.
2. THE FABRICATOR SHALL BE RESPONSIBLE FOR AND PROVIDE BLOCKING, BRIDGING STIFFENERS..ETC, AS REQUIRED BY THE UNIFORM BUILDING CODE AND THE FABRICATOR'S DESIGN AND CALCULATIONS.
3. PRIOR TO FABRICATION THE FABRICATOR SHALL SUBMIT THE FOLLOWING FOR THE REVIEW AND APPROVAL OF THE ENGINEER:
   A) CALCULATIONS STAMPED AND SIGNED BY A CIVIL ENGINEER CURRENTLY REGISTERED IN THE STATE OF CALIFORNIA.
   B) COMPLETE SHOP DRAWINGS SHOWING LAYOUT, SIZES, DETAILS..ETC.
4. EACH TRUSS SHALL BE LEGIBLY BRANDED, MARKED OR OTHERWISE HAVE PERMANENTLY AFFIXED THERE TO THE FOLLOWING INFORMATION LOCATED WITHIN 2 FEET OF THE CENTER OF THE SPAN ON THE FACE OF THE BOTTOM CHORD (DO NOT NOTCH OR BORE THE BOTTOM CHORD) :
   A) IDENTITY OF THE COMPANY MANUFACTURING THE TRUSS.
   B) THE DESIGN LIVE LOAD AND THE DESIGN DEAD LOAD.
   C) THE SPACING OF THE TRUSSES.
5. PROVIDE A MINIMUM OF 2X4 BLOCKINGS AT ALL RIDGE AND HIP/VALLEY LINES. WHERE BLOCKING INTERFERE WITH GANG-NAILED GUSSET PLATES, PROVIDE 2X4 X 36" LG FLAT SCABS, NAILED DIRECTLY TO THE TRUSS TOP CHORD TO ALLOW CONNECTION OF BLOCKING.
6. ALL "DRAG" TRUSSES SHALL BE DESIGNED FOR AN ADDITIONAL SEISMIC LOAD OF 1500 #/FT APPLIED HORIZONTALLY TO THE TOP CHORD.

PREFABRICATED TRUSS JOIST SYSTEMS:

1. THE CONNECTIONS AND FABRICATIONS SHALL HAVE A CURRENT I.C.C. APPROVAL.
2. THE FABRICATOR SHALL BE RESPONSIBLE FOR AND PROVIDE BLOCKING, BRIDGING STIFFENERS..ETC, AS REQUIRED BY THE 2016 CALIFORNIA BUILDING CODE AND THE FABRICATOR'S DESIGN AND CALCULATIONS.
3. PRIOR TO FABRICATION THE FABRICATOR SHALL SUBMIT THE FOLLOWING FOR THE REVIEW AND APPROVAL OF THE DESIGNER:
   A) CALCULATIONS STAMPED AND SIGNED BY A CIVIL ENGINEER CURRENTLY REGISTERED IN THE STATE OF CALIFORNIA.
   B) COMPLETE SHOP DRAWINGS SHOWING LAYOUT, SIZES, DETAILS..ETC.
4. EACH TRUSS SHALL BE LEGIBLY BRANDED, MARKED OR OTHERWISE HAVE PERMANENTLY AFFIXED TO THE FOLLOWING INFORMATION LOCATED WITHIN 2 FEET OF THE CENTER OF SPAN ON THE FACE OF THE BOTTOM CHORD (DO NOT NOTCH OR BORE THE BOTTOM CHORD) :
   A) IDENTITY OF THE COMPANY MANUFACTURING THE TRUSS.
   B) THE DESIGN LIVE LOAD AND THE DESIGN DEAD LOAD.
   C) THE SPACING OF THE TRUSSES.
5. USE DOUBLE FLOOR JOISTS UNDER ALL PARALLEL PARTITIONS THAT ARE LONGER THAN 15% OF THE JOIST SPAN.
6. ALL TRUSS JOISTS SHALL BE MANUFACTURERED BY "TRUSS JOIST WEYERHAEUSER" AND SHALL BE PER ICC-ESR-1153.
7. PLACE SOLID TRUSS JOIST BLOCKING BETWEEN ALL JOISTS AT SUPPORTS AND UNDER ALL PARTITIONS.
8. PLACE SOLID TRUSS JOIST BLOCKING BETWEEN FLOOR JOISTS OVER 10" DEEP @ 8'-0" MAXIMUM INTERVALS, AND AT ROOF JOISTS AND RAFTERS OVER 10" DEEP @ MID-SPAN.
9. ALL "DRAG" TRUSSES SHALL BE DESIGNED FOR AN ADDITIONAL SEISMIC LOAD OF 1500 #/FT APPLIED HORIZONTALLY TO THE TOP CHORD.

WOOD :

1. ALL FRAMING LUMBER SHALL BE DOUGLAS FIR/LARCH AND SHALL BE OF THE FOLLOWING MINIMUM GRADE:
   STUDS AND LIGHT FRAMING ______ "CONSTRUCTION"
   JOIST AND RAFTERS ______ " #2 "
   4x BEAMS/HEADERS ______ " #1 "
   POST AND 6x BEAMS/HEADERS ______ " #1 "
   2 X STUDS OVER 10' HIGH ______ " #1 "
2. ALL PLYWOOD SHALL BE DOUGLAS FIR CONFORMING TO PS-1-83-WITH EXTERIOR GLUE. ALL SHEATHING SHALL BE APA RATED. WHERE PLYWOOD IS EXPOSED TO WEATHER USE EXTERIOR GRADE.

   DIAPHRAGM SHEATHING (SHEAR WALLS AND HORIZONTAL DIAPHRAGMS) NAILS SHALL BE DRIVEN SO THAT THERE HEAD IS FLUSH WITH THE SURFACE OF THE SHEATHING.

   MAINTAIN 1/8" GAP BETWEEN ALL EDGES OF ADJACENT SHEATHING FOR ROOF AND EXTERIOR WALLS.
3. SILL PLATES ON CONCRETE SHALL BE SAME SIZE AS STUDS, WITH 5/8" DIA ANCHOR BOLTS @ 48" O/C W/7" MINIMUM EMBEDMENT INTO CONCRETE OR MASONRY. PROVIDE AT LEAST 2 ANCHORS FOR ANY LENGTH OF SILL PLATE. WHERE SILL PLATES HAVE TO BE SPLICED OR CORED, PROVIDE A MINIMUM OF 2 ANCHOR BOLTS PER EACH SPLICED SEGMENT.

   ALL ANCHOR BOLTS SHALL COMPLY WITH ASTM A307.
   ALL ANCHOR BOLTS USED WITH PRESSURE TREATED LUMBER SHALL BE HOT-DIPPED ZINC-COATED GALVANIZED.
   ALL ANCHOR BOLTS IN PRE-DRILLED SILL PLATE HOLES SHALL RECEIVE A 3" x 3" x .229" THICK WASHER PLATES. HOLE IN WASHER PLATE IS PERMITTED AND A SLOT LENGTH NOT TO EXCEED 1 3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE AND THE NUT.

   SILL PLATES FOR NON-BEARING, NON-SHEAR PARTITIONS RUNNING PERPENDICULAR TO FLOOR JOISTS SHALL BE NAILED DOWN w/ (2) 16d @ EACH JOIST.
4. TOP PLATES SHALL BE DOUBLED, SAME SIZE AS STUDS. LAP PLATES 4' MINIMUM W/ AT LEAST 16-16d NAILS SPACED @ 6" O/C (+/-). DOUBLE TOP PLATES SHALL BE CONTINUOUS; WHERE THEY HAVE TO BE CUT OR INTERRUPTED, PROVIDE "ST6224" STRAP.
5. PLACE SOLID BLOCKING, SAME SIZE AS STUDS, AT MID-HEIGHT OF WALLS.
6. PLACE 2x SOLID BLOCKING BETWEEN ALL JOISTS AND RAFTERS AT SUPPORTS AND UNDER ALL PARTITIONS.
7. PLACE 2x BLOCKING BETWEEN FLOOR JOISTS OVER 10" DEEP @ 8'-0" MAXIMUM INTERVALS, AND AT ROOF JOISTS AND RAFTERS OVER 10" DEEP @ MID-SPAN.
8. USE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT ARE LONGER THAN 15% OF THE JOIST SPAN.
9. BOLTS SHALL HAVE 7 DIA. MINIMUM END DISTANCE AND 4 DIA. MINIMUM EDGE DISTANCE. ALL BOLTS USED TO CONNECT WOOD MEMBERS SHALL COMPLY WITH ASTM A307, GRADE A.
10. ALL BOLTS SHALL BE FITTED WITH WASHERS. HOLES IN WOOD SHALL BE BORED WITH A BIT 1/16" LARGER THAN THE BOLT, MAXIMUM.
11. ALL WOOD POSTS SHALL BE CONNECTED TO THE TOP DOUBLE PLATES AND TO THE SILL PLATE WITH "A35" CLIPS ON TWO SIDES OF THE POST. PROVIDE ADDITIONAL POSTS TO COINCIDE WITH ANY POST INDICATED ON HIGHER LEVELS. THESE ADDITIONAL POSTS SHALL MATCH THE POST ABOVE IN SIZE. PROVIDE WOOD STUB POST AT FLOOR ENVELOPE TO MATCH THE LOWER POST IN SIZE.
12. ALL BEAMS, JOISTS, RAFTERS..ETC, SHALL BE INSTALLED WITH THE CROWN UP. CONNECT ALL 4x & THICKER BEAMS TO DBL TOP PLATES W/ "A35" EACH SIDE.
13. PROVIDE 2x BLOCKING TO ACT AS FIRE STOPS AND DRAFT STOPS IN WALLS AND FLOORS AS REQUIRED PER THE ARCH'L DWGS AND/OR AS REQUIRED PER SECTION 708 OF THE UBC.
14. STEEL FRAMING CONNECTORS SHALL BE MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY. CONNECTOR SIZE SHALL CORRESPOND TO THE WOOD MEMBER SIZE THAT IT IS USED WITH. USE HOT-DIPPED GALVANIZED CONNECTORS ON:
   - ALL EXTERIOR USES,
   - CASES OF EXCESSIVE MOISTURE,
   - WOOD TREATED WITH PRESERVATIVES AND/OR FIRE RETARDANTS.
15. ALL NAILS USED SHALL BE COMMON STEEL WIRE NAILS.
16. "CALIFORNIA FILL" FRAMING : (WHERE INDICATED ON THE FRAMING PLANS) IN ORDER TO UNIFORMLY DISTRIBUTE THE LOAD OF THIS FILL FRAMING OVER THE MAIN FRAMING, PROVIDE MIN. 2X6 @ 16" O/C RAFTERS NOT TO SPAN MORE THAN 4'-0"; IF NECCESARY PROVIDE INTERMEDIATE CRIPPLE 2X4 @ 16" O/C STUD WALLS TO MANTAIN THESE MAX SPANS; THESE CRIPPLE WALLS SHALL COINCIDE WITH MAIN ROOF FRAMING MEMBERS.

   PROVIDE ROOF SHEATING DIAPHRAGM OVER BOTH THA MAIN FRAMING AND THE FILL FRAMING.

   STRIP OUT THE EXISTING ROOFING (NOT THE SHEATING DIAPHRAGM) PRIOR TO CONSTRUCTING THE CALIFORNIA FILL FRAMING.
17. DECAY AND TERMITE PROTECTION :

   THE FOLLOWING WOOD SHALL BE PRESSURE-TREATED :

   A.- ALL SILL PLATES IN CONTACT WITH FOUNDATION CONCRETE OR FOUNDATION MASONRY.
   B.- ALL DECK, PATIO AND BASEMENT POSTS (POSTS WHICH ARE EXPOSED TO WEATHER OR TO WATER SPLASH), UNLESS THE POSTS SIT ON CONCRETEOR METAL PEDESTALS PROJECTING ABOVE THE FLOOR; THE PEDESTALS SHALL PROJECT AT LEAST 8" ABOVE EXPOSED EARTH AND AT LEAST 1" ABOVE CONCRETE FLOORS.
   C.- STRUCTURAL MEMBERS EXPOSED TO WEATHER AND/OR SUBJECT TO WATER ACCUMULATION ON THE SURFACE AND/OR AT JOINTS BETWEEN THESE MEMBERS, UNLESS SUCH MEMBERS ARE PROTECTED BY A ROOF, EAVE OR OVERHANG OR OTHER COVERING TO PREVENT SUCH ACCUMULATION.
   D.- ALL FRAMING LOCATED NEARER THAN 6" TO GRADE.
   E.- ALL WALL FRAMING NOT COVERED BY A WATER-PROOF MEMBRANE AND AT THE SAME TIME SUBJECT WATER SPLASH.

SPECIAL INSPECTION :

1. WORK INVOLVING THE FOLLOWING MATERIAL/PROCESS SHALL REQUIRE SPECIAL INSPECTION. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH PROVISIONS AND REQUIREMENT OF THE IBC SECTION 1701 AND THE COUNTY OF SAN DIEGO BUILDING INSPECTION DEPARTMENT.

   THE SPECIAL INSPECTIONS IDENTIFIED BELOW ARE IN ADDITION TO THOSE REQUIRED BY SEC 109 OF THE IBC, AS AMENDED.
   SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY THE GOVERNMENT INSPECTOR.
2. A CERTIFICATE OF SATISFACTORY COMPLETION OF WORK REQUIRING SPECIAL INSPECTION MUST BE COMPLETED AND SUBMITTED TO THE INSPECTION SERVICES DIVISION.
3. ABOVE SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:
   A) BOLT/DOWEL INSTALLATION USING GROUT, EPOXY, DRYPACK ETC...:
   COMPLETE INSTALLATION OF EACH DOWEL OR BOLT MUST BE OBSERVED BY A SPECIAL INSPECTOR REGISTERED TO INSPECT REINFORCED CONCRETE OR MASONRY.

WINDOW NOTES:

1. ALL NEW WINDOWS TO BE MILGARD WHITE VINYL, DUAL-GLAZED OR EQUAL VERIFY WITH OWNER.
2. WINDOW AND DOOR FINISH COLORS PER OWNER & GENERAL CONTRACTOR.
3. ALL WINDOWS TO HAVE CLEAR GLASS U.O.N., ANY MUNTINS/GRIDS SHALL BE PER ELEVATIONS-STYLE TO BE VERIFIED WITH OWNER.
4. THE GENERAL CONTRACTOR AND/OR WINDOW/DOOR CONTRACTOR/SUPPLIER SHALL FIELD VERIFY SIZE, STYLE OF ALL EXSITING WINDOWS TO BE REPLACED OR RETRO-FITTED PRIOR TO ORDER.
5. TEMPERED GLASS SHALL BE PERMANENTLY IDENTIFIED AND VISIBLE WHEN THE UNIT IS INSTALLED
6. NEW MANUFACTURED WINDOWS SHALL HAVE A LABEL ATTACHED WHICH INDICATES CERTIFICATION BY THE NATIONAL FENESTRATION RATING COUNCIL (NFRC) AND SHOWING COMPLIANCE WITH THE ENERGY CALCULATIONS.
7. CONTRACTOR SHALL REFER TO TITLE 24 CALCULATIONS AFFIXED TO THESE PLANS FOR WINDOW U-VALUES AND SHADING COEFFICIENTS (SHGC).
8. GLAZING FRAMES MADE OF VINYL MATERIAL SHALL HAVE WELDED CORNERS, METAL REINFORCEMENT IN THE INTERLOCKING AREA AND BE CERTIFIED TO THE MOST CURRENT EDITION OF ANSI/AAMA/NWWDA 101/I.S.2 STRUCTURAL REQUIREMENTS. (SDMC SEC. 145.0705 (a) 1)
9. SILL HEIGHT: EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE THE BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44-INCHES MEASURED FROM THE FINISH FLOOR (SEC. 1026.3).
10. GLAZING MATERIALS USED IN SKYLIGHTS, ROOFS, AND SLOPED WALLS ON BUILDINGS LOCATED WITHIN 300-FT. IN ANY DIRECTION, OF THE BOUNDARY BETWEEN BRUSH MANAGEMENT ZONES ONE AND TWO AS DEFINED IN SECTION 142.0412 OF THE LANDS DEVELOPMENT CODE, SHALL BE TEMPERED GLASS OR MULTI-LAYERED GLASS (SDMC SEC 145.0706 (c)).
11. EXTERIOR WINDOWS, WINDOW WALLS, GLAZED DOORS, AND GLAZED OPENINGS WITHIN EXTERIOR DOORS SHALL BE INSULATED-GLASS UNITS WITH A MINIMUM OF ONE TEMPERED PANE, OR GLASS BLOCK UNITS OR HAVE FIRE-RESISTANCE RATING OF NTO LESS THAN 20 MINUTES, WHEN TESTED ACCORDING TO NFPA 257, OR CONFORM TO THE PERFORMANCE REQUIREMENTS OF SFM 12-7A-2 (CBC SEC 704A.3.2.2)

DOOR NOTES:

1. THE GENERAL CONTRACTOR AND/OR WINDOW SUBCONTRACTOR/SUPPLIER SHALL FIELD VERIFY SIZE,STYLE OF ALL EXISTING DOORS TO BE REPLACED OR RETROFITTED PRIOR TO ORDER.
2. PAINT GRADE OR STAIN GRADE PER OWNER OR CONTRACTOR
3. PAINT / STAIN COLOR AND BRAND PER OWNER
4. DOOR MANUFACTURER PER OWNER OR CONTRACTOR
   ALL GLAZING SHALL BE LOW "E" RATED AND HAVE THE FOLLOWING MINIMUM SPECIFICATIONS:
   U-FACTOR: .38
   SHGC = .36
5. THRESHOLDS: AT DOORWAYS SHALL NOT EXCEED 0.75 INCHES IN HEIGHT FOR SLIDING DOORS SERVING DWELLING UNITS OR 0.5 INCHES FOR OTHER DOORS. (SEC. 1008.1.6)
6. LANDINGS AT EXTERIOR DOORWAY: LANDINGS SHALL NOT BE MORE THAN 7.75 INCHEAS BELOW THE TOP OF THE THRESHOLD, PROVIDED THE DOOR OTHER THAN AN EXTERIOR STORM OR SCREEN DOOR, DOES NOT SWING OVER THE LANDING (SEC 1008.1.4, EXCEPTION 3).
7. DOORS BETWEEN GARAGES AND OCCUPIABLE SPACES (ENCLOSED SPACES INCLUDING HABITABLE SPACES, BATHROOMS, CLOSETS, HALLS, STORAGE AND UTILITY AREAS, ETC) SHALL BE GASKETED OR MADE SUBSTANTIALLY AIRTIGHT WITH WEATHER STRIPPING.
8. EXTERIOR DOOR ASSEMBLIES SHALL CONFORM TO THE PERFORMANCE REQUIREMENTS OF STANDARD SFM 12-7A-1 OR SHALL BE OF APPROVED NONCOMBUSTIBLE CONSTRUCTION, OR SOLID CORE WOOD HAVING STILES AND RAILS NOT LESS THAN 1 3/8" THICK WITH INTERIOR FIELD PANEL THICKNESS OF NO LESS THAN 1 1/4" THICK, OR SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 20 MINUTES WHEN TESTED ACCORDING TO NFPA 257.

MATERIAL AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE

1. ROOF GUTTERS, IF PROVIDED, SHALL BE PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER. ALL ROOF GUTTERS AND DOWNSPOUTS SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS (SDMC SEC. 145.0704 (a))
2. WHEN DRIP EDGE FLASHING IS USED AT THE FREE EDGES OF ROOFING MATERIALS, IT SHALL BE NON-COMBUSTIBLE (SDMC SEC. 145.0704 (b))
3. WHERE THE ROOF PROFILE ALLOWS A SPACE BETWEEN THE ROOF COVERING AND ROOF DECKING, THE SPACES SHALL BE CONSTRUCTED TO PREVENT THE INTRUSION OF FLAMES AND EMBERS, BE FIRESTOPPED WITH APPROVED MATERIALS OR HAVE ONE LAYER OF NO. 72 ASTM CAP SHEET INSTALLED OVER THE COMBUSTIBLE DECKING. (CBC. SEC 704A.1.2)
4. WHEN PROVIDED, VALLEY FLASHING SHALL BE NOT LESS THAN 0.019 INCH (0.48MM) (NO. 26 GALVANIZED SHEET GAGE) CORROSION-RESISTANT METAL INSTALLED OVER A MINIMUM 36-INCH WIDE (914MM) UNDERLAYMENT CONSISTING OF ONE LAYER OF NO. 72 ASTM CAP SHEET RUNNING THE FULL LENGTH OF THE BALLEY (CBC SEC 704A.1.3)
5. EAVES AND SOFFITS SHALL MEET THE REQUIREMENTS OF SFM 12-7A-3 OR SHALL BE PROTECTED BY IGNITION-RESITANT MATERIALS OR NON-COMBUSTIBLE CONSTRUCTION OR THE EXPOSED UNDERSIDE. (CBC SEC. 704A.2.3)
6. ATTIC VENTILATION TO BE PROVIDED WITH THE USE OF ATTIC VENTS THAT WILL PROVIDE A TOTAL VENT CLEAR SPACE OF 1/150 OF AREA TO BE VENTED.
7. INDIVIDUAL VENTILATION OPENINGS SHALL NOT EXCEED 144 SQUARE INCHES. ALL ATTIC VENTILATION OPENINGS SHALL BE LOUVRED & COVERED WITH NON COMBUSTABLE & CORROSION RESISTANT METAL MESH. MESH OPENINGS SHALL NOT BE LARGER THAN 1/8" SQUARE IN DIMENSION.
8. VENTILATION OPENINGS ON STRUCTURES LOCATED IMMEDIATELY ADJACENT TO BRUSH MANAGEMENT ZONE 1 SHALL NOT BE DIRECTED TOWARD HAZARDOUS AREAS OF NATIVE OR NATURALIZED VEGETATION.
9. ROOF VENTS, DORMER VENTS, GABLE VENTS, FOUNDATION VENT OPENINGS, VENT OPENINGS IN VERTICAL WALL, OR OTHER SIMILAR VENT OPENINGS SHALL BE LOUVERED AND COVERED WITH 1/4"NON-COMBUSTIBLE CORROSION-RESISTANT METAL MESH, OR OTHER APPROVED MATERIAL THAT OFERS EQUIVALENT PROTECTION (CBC SEC. 704A.2.1)
10. VENTILATION OPENINGS PROTECTED WITH OPENINGS THAT RESIST THE INTRUSION OF FLAME AND EMBERS AND WHICH ARE LISTED BY THE STATE FIRE MARSHAL ARE EXEMPT FROM COMPLYING WITH SUBSECTIONS 1 AND 3 OF SECTION 145.0706 (B). ALL STRUCTURES HAVING ANY CHIMNEY, FLUE, OR STOVEPIPE SHALL BE EQUIPPED WITH AN APPROVED SPARK ARRESTER IF THE CHIMNEY, FLUE, OR STOVEPIPE IS ATTACHED TO ANY FIREPLACE, STONE, BARBECUE, OR OTHER SOLID OR LIQUID BURNING EQUIPMENT OR DEVICE (SDMC SEC 145.0706 B.)
11. ATTIC VENTILLATION OPENINGS SHALL NOT BE LOCATED IN SOFFITS, IN EAVES, OR IN OTHER OVERHANG AREAS. (SDMC SEC. 145.0504)
12. WHEN REQUIRED BY CHAPTER 15, ROOF AND ATTIC VENTS SHALL RESIST THE INTRUSION OF FLAME AND EMBERS INTO THE ATTIC AREAS OF THE STRUCTURE, OR SHALL BE PROTECTED BY CORROSION RESISTANT, NON-COMBUSTIBLE WIRE MESH WITH 1/4" (6 mm) OPENINGS OR ITS EQUIVALANT.
13. UNLESS OTHERWISE PROHIBITED BY OTHER PROVISIONS OF THIS CODE, VENT OPENINGS IN EXTERIOR WALLS SHALL RESIST THE INTRUSION OF FLAME AND EMBERS INTO THE STRUCTURE OR VENTS SHALL BE SCREENED WITH A CORRSION-RESISTANT, NONCOMBUSTIBLE WIRE MESH WITH 1/4" (6 mm) OPENINGS OR ITS EQUIVALENT. (CBC SEC. 704.3.2.1)
14. DECKING, SURFACES, STAIR TREADS, RISERS, AND LANDINGS OF DECKS, PORCHES, AND BALCONIES WHERE ANY PORTION OF SUCH SURFACE IS WITHIN 10 FEET (3048MM) OF THE PRIMARY STRUCTURE SHALL COMPLY WITH ONE OF THE FOLLOWING METHODS IN SECTION 704A.4.1.1
15. SURFACES REGULATED IN SECTION 704A.4.1.1 SHALL BE CONSTRUCTED OF IGNITION-RESISTANT MATERIALS AND PASS THE PERFORMANCE REQUIREMENTS OF SFM 12-7A-4, PARTS A (UNDER-FLAME TEST) AND B (BURNING BRAND EXPOSURE) OR THE SURFACES SHALL BE CONSTRUCTED OF HEAVY TIMBER DECKING PER SECTION 602.4 OR EXTERIOR FIRE-RETARDANT-TREATED WOOD OR APPROVED NONCOMBUSTIBLE MATERIALS. OR SURFACES SHALL PASS THE PERFORMANCE REQUIRMENTS OF SFM 12-71-4, PART A, 12-7A-4.7.5.1 ONLY WITH A NET PEAK HEAT RELEASE RATE OF 25KW/SF FOR A 40-MIN OBSERVATION PERIOD AND DECKING SURFACE MATERIAL SHALL PASS THE ACCELERATED WEATHER TEST AND BE IDENTIFIED AS EXTERIOR TYPE, IN ACCORDANCE WITH ASTM# D-2898 AND ASTM# D-3201, AND THE EXTERIOR WALL COVERING TO WHICH THE DECK IS ATTACHED AND WITHIN 10 FT (3048MM) OF THE DECK SHALL BE CONSTRUCTED OF APPROVED NONCOMBUSTIBLE OR IGNITION-RESISTANT MATERIAL.
16. THE UNDERSIDE OF CANTILEVERED AND OVERHANGING APPENDAGES AND FLOOR PROJECTIONS SHALL MAINTAIN THE IGNITION-RESTSTANT INTEGRITY OF EXTERIOR WALLS, OR THE PROJECTION SHALL BE ENCLOSED TO THE GRADE.
17. EXTERIOR WALL COVERINGS SHALL BE APPROVED NONCOMBUSTIBLE OR IGNITION-RESISTANT MATERIALS, OR SHALL BE OF HEAVY TIMBER OR LOG WALL CONSTRUCTION, OR SHALL BE CONSTRUCTED TO PROVIDE PROTECTION FROM THE INTRUSION OF FLAMES AND EMBERS IN ACCORDANCE WITH THE STANDARD SFM 12-7A-1.

TYPICAL FRAMING NOTES

1. EXISTING WALLS: MEASUREMENTS AND WALL THICKNESS MAY VARY FROM DRAWINGS. CONTRACTOR SHALL EXPOSE EXISTING FRAMING AND FIELD VERIFY EXACT GEOMETRY AND DIMENSIONS PRIOR TO ORDERING OF MANUFACTURED WOOD PRODUCTS SUCH AS TRUSSES AND BEAMS.
2. THIS PLAN DOES NOT PROVIDE COMPLETE FLASHING AND WATERPROOFING DETAILS. THE DESIGNER AND ENGINEER DO NOT REPRESENT THEMSELVES TO BE EXPERTS IN THE FIELD OF WATERPROOFING. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND/ OR THE ROOF/DECKING SUBCONTRACTOR TO PROVIDE THE NECESSARY STANDARD OF CARE IN WORKMANSHIP AND MATERIALS TO COMPLETE THE ROOF AND DECKS IN A WATERTIGHT CONDITION. ROOF AND/OR DECK DRAINAGE SHALL NOT BE ALLOWED TO RUN BEHIND ANY FASCIA BOARDS OR ONTO THE EXTERIOR FINISH OF THE STRUCTURE.
3. ALL STRAPS, COLUMN CAPS, HANGERS, CLIPS, ETC. SHALL BE "SIMPSON STRONG-TIE" OR ICBO APPROVED EQUAL.
   a. ALL SPECIFIED FASTENERS MUST BE INSTALLED STRICTLY PER MANUFACTURER SPECIFICATIONS AND ICBO REPORT. INCORRECT FASTENER QUANTITY, SIZE, TYPE, MATERIAL OR FINISH MAY CAUSE THE CONNECTION TO FAIL. 16d FASTENERS ARE COMMON NAILS (8 ga. x 3 1/2") AND CANNOT BE REPLACED WITH 16d SINKERS (9 ga. x 3 1/4") UNLESS OTHERWISE NOTED.
   b. BOLT HOLES SHALL BE A MINIMUM OF 1/32" AND A MAXIMUM OF 1/16" LARGER THAN BOLT DIAMETER.
   c. UNLESS OTHERWISE NOTED AND OR ALLOWABLE, BOLTS AND NAILS CANNOT BE COMBINED. 8d, 10d, AND 16d SPECIFY COMMON NAILS.
   d. FILL ALL FASTENED HOLES WITH FASTENER TYPES SPECIFIED BY SIMPSON CATALOG PRODUCT GUIDE FOR THE HIGHEST ALLOWABLE CAPACITY.
4. DO NOT CUT, NOTCH, DRILL, BORE, TAPER OR FOR ANY REASONS MODIFY PRE-ENGINEERED / MANUFACTURED STRUCTURAL ELEMENTS SUCH AS GLUE-LAMINATED MEMBERS, PARALAMS, MICROLAMS, I-JOISTS, LIGHT GAGE METAL MEMBERS AND OTHER SIMILAR TIMBER OR STEEL PRODUCTS UNLESS SUCH MODIFICATIONS ARE WITHIN THE WRITTEN PARAMETERS SET FORTH BY THE MANUFACTURE OF THE THAT PRODUCT OR A LETTER OF CERTIFICATION FROM THE MANUFACTURE'S ENGINEER WITH DETAIL SIGNED AND STAMPED IS ISSUED AND AUTHORIZED BY THE PROJECT ENGINEER OR ENGINEER OF RECORD AND APPROVED BY THE COUNTY OF SAN DIEGO BUILDING OFFICIAL.
5. REFER TO DET. 1/D2 FOR TYPICAL LINTEL DETAIL
6. REFER TO DET. 3/D2 FOR TYPICAL OPENING @ SHEARWALL
7. REFER TO DET. 3/D2 FOR TYPICAL STUD PLACEMENT @ WALL INTERSECTION.
8. REFER TO DET. 4/D2 FOR CUTS IN STUDS & DOUBLE TOP PLATES.
9. REFER TO DET. 5/D2 FOR OVER-CUTS IN DOUBLE TOP PLATES.
10. REFER TO DET. 6/D2 FOR CUTS IN JOISTS & RAFTERS.
11. REFER TO DET. 8/D2 FOR TYPICAL SHEAR PANEL NAILING
12. REFER TO DET. 11/D2 FOR TYPICAL POST TO BEAM CONNECTION U.O.N. ON PLANS

FOUNDATION NOTES

1. CONTRACTOR TO VERIFY LOCATION OF ALL HOLDOWN ANCHORS PRIOR TO CALLING FOR FOUNDATION INSPECTION.
2. CONTRACTOR TO TIE ALL HOLDOWN ANCHORS IN PLACE PRIOR TO CALLING FOR FOUNDATION INSPECTION.
3. ASSUMED BEARING VALUE OF SOIL = 1000 PSF
4. NEW CONTINUOUS FOOTINGS SHALL BE LOCATED ENTIRELY ON NATIVE/UNDISTURBED SOIL AND OR COMPETENT BEDROCK.
5. IF THE BUILDING INSPECTOR SUSPECTS FILL, EXPANSIVE SOILS OR ANY GEOLOGIC INSTABILITY BASED UPON OBSERVATION OF THE FOUNDATION EXCAVATION, A SOILS OR GEOLOGICAL REPORT(PER 2016 UBC - SEC. 1802.2.1-2), AND RESUBMITTAL OF PLANS TO PLAN CHECK TO VERIFY THAT THE REPORT RECOMMENDATIONS HAVE BEEN INCORPORATED, MAY BE REQUIRED"
6. ALL CONCRETE TO BE 2500 PSI @ 28 DAYS (MINIMUM)
7. CONCRETE SLABS TO BE AT LEAST 4" THICK WITH #3 BARS PLACED MID-SLAB @ 18" o/c OVER 2" CLEAN SAND OVER 6 MIL VAPOR BARRIER OVER 2" CLEAN SAND.
8. INTERIOR NON-BEARING WALLS TO BE ANCHORED WITH RAMSET SHOT PINS #3348, ICBO-ESR# 2690 OR ICBO APPROVED EQUAL. USE 7/32" (0.218") DIA. PIN WITH 2" DISC, 9" MIN./ 12" MAX. FROM END OF SILL PIECE, MIN. 1 1/2" FROM EDGE OF SILL, SPACED AT 32" o/c
9. ANCHOR BOLTS:
   a) ALL ANCHOR BOLTS USED WITH PRESSUIRE TREATED LUMBER SHALL BE HOT-DIPPED ZINC-COATED GALVANIZED.
   b) ANCHOR BOLTS TO BE 5/8"ϕ X 10" MIN. @ 48" o/c OR PER SHEAR SCHEDULE.
   c) ANCHOR BOLTS TO HAVE 3" X 3" X .229" STEEL PLATE WASHERS MINIMUM AT EACH SILL PLATE BOLT. PER (CBC SECTION 2308.6 and 2308.12.8)
   d) ANCHOR BOLT MINIMUM EMBEDMENT TO BE 7" INTO CONCRETE OR MASONRY. (UBC SECTION
   e) ANCHOR BOLT SPACING TO BE A MINIMUM OF 7 BOLT DIAMETERS AND A MAXIMUM OF 12" FROM EACH END OF THE SILL PIECE OR WOOD PLATES WITH A MINIMUM 4 BOLT DIAMETER EDGE DISTANCE. ALL BOLTS USED TO CONNECT WOOD MEMBERS SHALL COMPLY WITH ASTM A307, GRADE "A" AND SHALL BE INSTALLED WITH PROPERLY TIGHTENED NUTS AND WASHERS.
   f) PROVIDE A MINIMUM OF TWO ANCHOR BOLTS PER SILL PIECE OR WOOD PLATE
   g) ANCHOR BOLT LAYOUT PER 7/D1
10. ALL SILL PLATES TO BE 2 X P.T.D.F. OR APPROVED FOUNDATION GRADE LUMBER U.O.N. ON SHEAR SCHEDULE.
11. CONTINUOUS FOOTINGS SHALL HAVE A MINIMUM OF (1) #4 BAR TOP AND BOTTOM U.O.N.
12. REFER TO DETAIL 1/D1 INTERSECTIONS FOR TYPICAL REINFORCEMENT @ FOOTINGS @ WALL (SINGLE CURTAIN BARS)
13. REFER TO DETAIL 2/D1 FOR PIPE PERPENDICULAR TO FOOTING.
14. REFER TO DETAIL 3/D1 FOR PIPE PARALLEL TO FOOTING.
15. REFER TO DETAIL 5/D1 FOR CONTROL / CONSTRUCTION JOINT
16. NOT USED
17. ANCHORAGE IN PRESERVATIVE-TREATED OR FIRE-RETARDANT-TREATED WOOD SHALL BE HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL OR, AT A MINIMUM, ASTM #B695 CLASS 55 MECHANICALLY-DEPOSITED ZINC COATED STEEL AND THAT COATING WEIGHTS TO COMPLY WITH ASTM #A153. ANCHORAGE INCLUDES ANCHOR BOLTS, HOLDOWN ANCHORS, EXPANSION ANCHORS, THREADED ANCHORS, THREADED RODS PER CBC SEC. 2304.9.5 EXCEPTION 23.08.6, 2308.12.9.
18. FASTENERS, NAILS, SCREWS AND BOLTS INTO PRESERVATIVE-TREATED OR FIRE-RETARDANT-TREADED WOOD SHALL BE HOT DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL SILICON BRONZE OR COPPER PER CBC SEC. 23.04.9.5.
19. "THE INSPECTOR WILL RECHECK FOR EXPANSIVE SOILS AND/OR GRADING REQUIREMENT AT FIRST FOUNDATION INSPECTION."

ROOF NOTES

1. ROOFING MATERIAL: 10# LIGHT WEGHT CONC. ROOF TILE OVER 1 LAYER 40# FELT.
2. ROOF SHEATHING: 1/2" CDX (32/16) PLYWOOD ROOF SHEATHING. USE 8d NAILS @ 6" o/c E.N. & B.N. , 12" o/c F.N.
3. CONTRACTOR TO VERIFY EXISTING ROOF PITCH AND EXISTING EAVE & OVERHANG TREATMENTS PRIOR TO ORDERING OF LUMBER AND START OF CONSTRUCTION.
4. ROOFS WITH TRUSS FRAMING: EACH TRUSS SHALL BE LEGIBLY BRANDED, MARKED OR OTHERWISE HAVE PERMANENTLY AFFIXED THERETO THE FOLLOWING:
   A) IDENTITY OF THE COMPANY MANUFACTURING THE TRUSS
   B) THE DESIGN LOAD
   C) THE SPACING OF THE TRUSSES
5. GABLE TRUSS: SHALL BE DESIGNED AS A DRAG TRUSS, CAPABLE OF RESISTING ADDITIONAL LATERAL LOADS OF 180 POUNDS MINIMUM PER LINEAL FOOT APPLIED HORIZONTALLY TO TOP CHORD. WEB MEMBERS SHALL BE INVESTIGATED FOR WEAK AXIS BENDING DUE TO WIND LOAD AND SHALL BE STIFFENED AS NEEDED BY TRUSS MANUFACTURER.
6. ATTIC VENTILATION TO BE PROVIDED WITH THE USE OF ATTIC VENTS THAT WILL PROVIDE A TOTAL VENT CLEAR SPACE OF 1/150 OF AREA TO BE VENTED.
7. ATTIC VENTILATION OPENINGS SHALL BE COVERED WITH CORROSION RESISTANT METAL MESH. MESH OPENINGS SHALL NOT BE LARGER THAN 1/4" SQUARE IN DIMENSION.

REGISTERED PROFESSIONAL ENGINEER
G.L. JENNINGS
No. 31137
Exp. 6/30/22
CIVIL
STATE OF CALIFORNIA

REVISIONS	BY
01-29-2019	OQ
05-18-2021	OQ

CUSTOM HOME FOR SADLER
9782 CHOCOLATE CREEK RD. EL CAJON, CA. 92021

AUSTIN & ASSOCIATES
ALAN LLOYD AUSTIN
1622 PIONEER WAY EL CAJON CA. 92020 Ph. (619)440-3624
RESIDENTIAL & COMMERCIAL PLANNING AND DESIGN
MEMBER: AMERICAN INSTITUTE OF BUILDING DESIGN
AIBD

DRAWN BY: OQ
CHECKED BY: ALA
DATE: -18
SCALE: AS NOTED
JOB NO.

S-1

STRONGWALL LEGEND

INDICATES SIMPSON STRONGWALL
SSW = STEEL STRONGWALL PER ESR-1678
WSW = WOOD STRONGWALL PER ESR-2652
18x10 = WIDTH x HEIGHT

REVISIONS	BY
01-29-2019	CG
05-18-2021	CG

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S-2

FOUNDATION PLAN

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

STRONGWALL LEGEND

INDICATES SIMPSON STRONGWALL
SSW = STEEL STRONGWALL
WSW = WOOD STRONGWALL
18x10 = WIDTH x HEIGHT

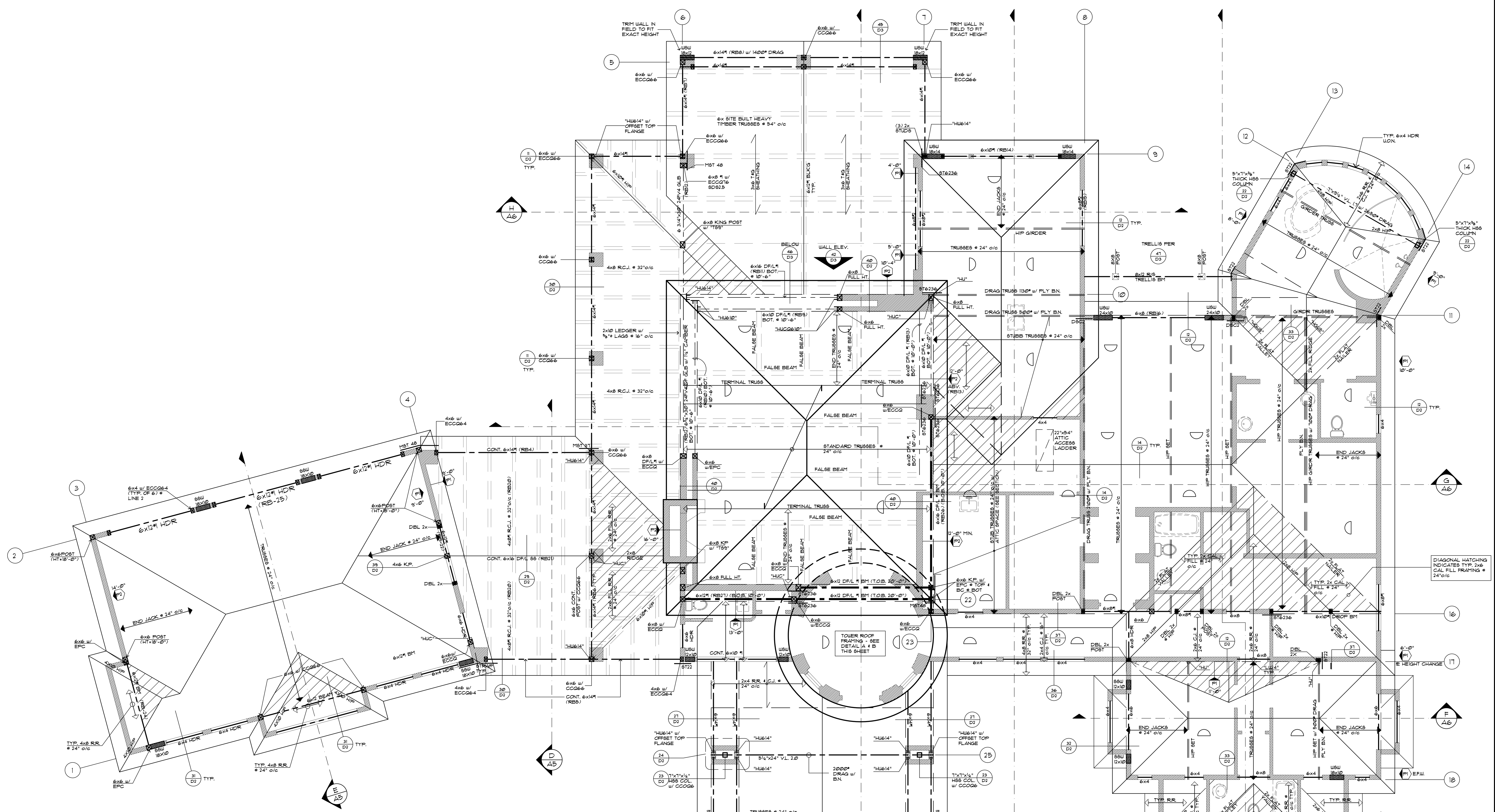
REVISIONS	BY
01-29-2019	OQ
05-18-2021	OQ

ATTIC VENTILATION:

ROOF VENTS. =

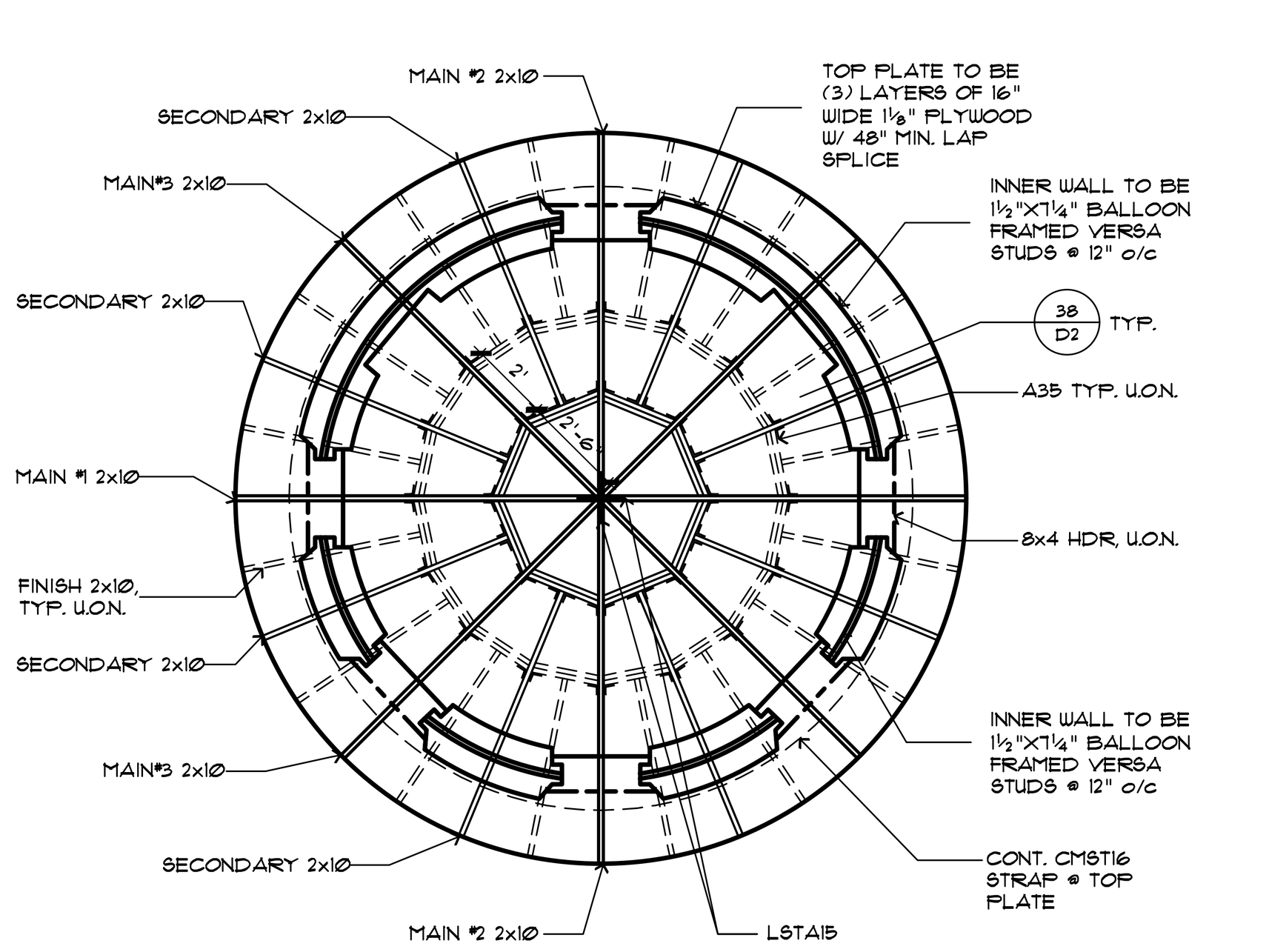
3639 S.F. / HOME

3639 S.F. / 150 = 24.26 SQ. / UNIT
O'HAGIN FIRE & ICE ROOF VENTS (0.88 S.F. / VENT)
24.26 / 0.88 = 27.5 VENTS
28 VENTS PROVIDE / UNIT



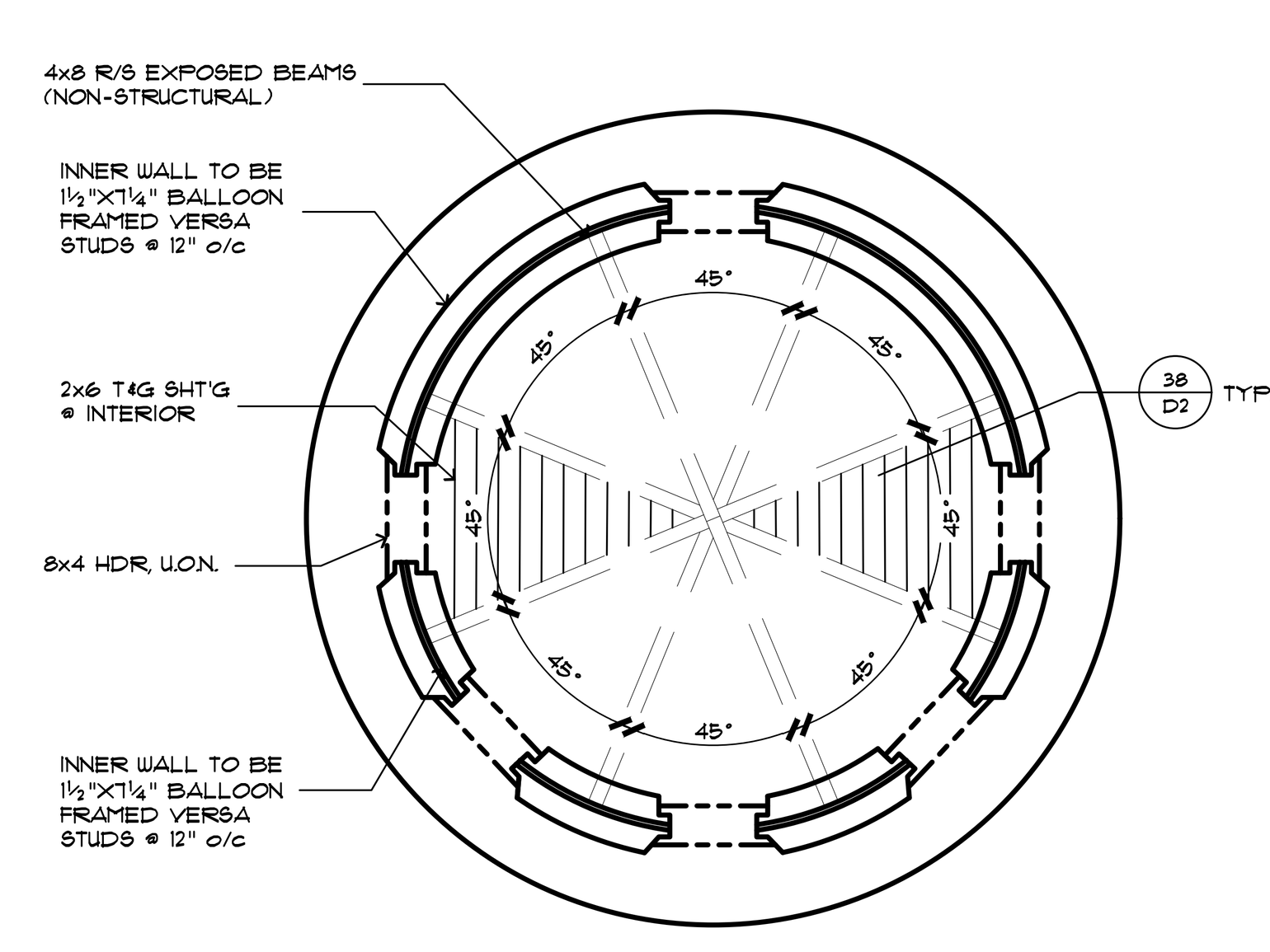
ROOF FRAMING PLAN

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



A
-

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



B
-

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

ROOF FRAMING TOWER PLAN

CUSTOM HOME FOR SADLER

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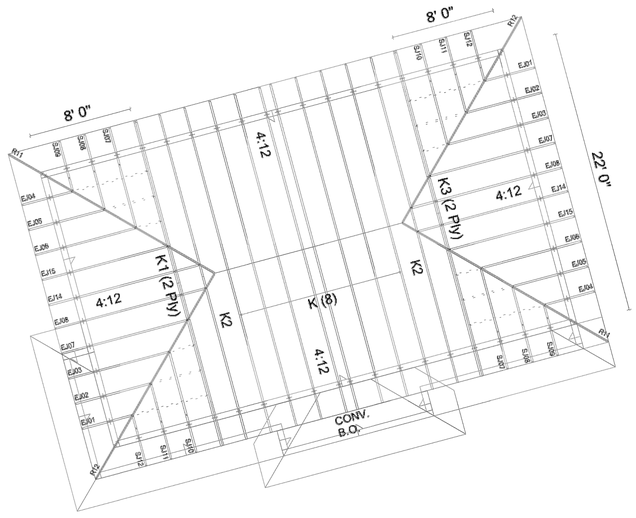
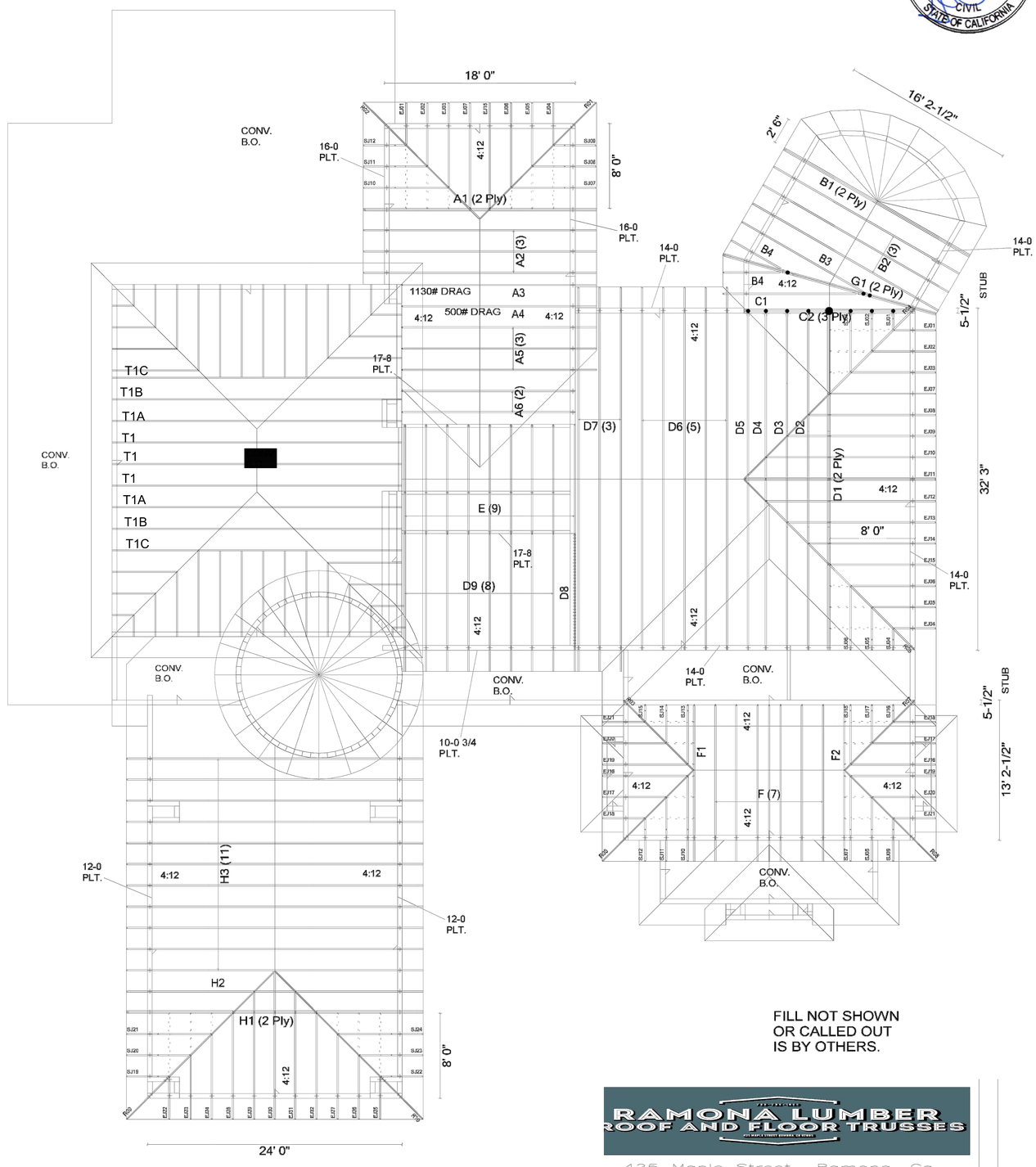
CHECKED BY:	ALA
DATE:	-18
SCALE:	AS NOTED
JOB NO.	

S-3





FILL NOT SHOWN
OR CALLED OUT
IS BY OTHERS.

RAMONA LUMBER
ROOF AND FLOOR TRUSSES
425 Maple Street Ramona, Ca. 92065
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Website: www.ramonalumber.com

Truss Placement PLan

Job Id
20574

DESIGNED BY: Ed Lozano

05/02/2019

LOADING

TCLL: 20 psf
TCDL: 17 psf
BCLL: 0 psf
BCDL: 10 psf

TOTAL LOAD
47 psf

SADLER GEORGE

SADLER
CHOCOLATE SUMMIT RD
EL CAJON , CA 92021

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S-4