CONTRACTOR LEAD SAFETY DURING RENOVATION

RULES FOR CONTRACTORS
- FEDERAL LAW REQUIRES THAT CONTRACTORS PERFORMING RENOVATION, REPAIR OR PAINTING WORK THAT DISTURBS LEAD BASED PAINT IN HOMES, CHILD CARE FACILITIES, AND SCHOOLS BUILT BEFORE 1978 FOLLOW SPECIAL REQUIREMENTS:
- FIRMS MUST BE LEAD-SAFE CERTIFIED.
- EMPLOYEES MUST BE TRAINED (EITHER AS A CERTIFIED RENOVATOR OR ON-THE-JOB BY A CERTIFIED RENOVATOR) IN THE USE OF LEAD-SAFE WORK PRACTICES.
- WORKERS MUST USE LEAD-SAFE WORK PRACTICES THAT MINIMIZE OCCUPANTS ' EXPOSURE TO LEAD HAZARDS.

TALK TO THE RESIDENTS
- WHEN WORKING IN HOMES, CHILD CARE FACILITIES AND SCHOOLS BUILT BEFORE 1978, YOU MUST:
- PROVIDE EPA 'S PAMPHLET, "RENOVATE RIGHT: IMPORTANT LEAD HAZARD INFORMATION FOR FAMILIES, CHILD CARE PROVIDERS AND SCHOOLS " TO RESIDENTS OR THE FACILITY OPERATOR BEFORE THE JOB BEGINS. (DOWNLOAD AT EPA.GOV/LEAD).
- YOU MUST ALSO PROVIDE INFORMATION TO FAMILIES WHOSE CHILDREN ATTEND THE CHILD CARE FACILITY OR SCHOOL.
- POST SIGNS CLEARLY DEFINING THE WORK AREA AND WARNING OCCUPANTS AND OTHERS NOT INVOLVED IN THE RENOVATION TO STAY OUTSIDE OF THE WORK AREA.THE WORK AREA MUST BE CONTAINED SO THAT NO DUST OR DEBRIS LEAVES THE WORK AREA.

WHAT TO DO WHEN WORKING ON INTERIOR JOBS
- REMOVE FURNITURE AND BELONGINGS, OR COVER THEM SECURELY WITH HEAVY PLASTIC SHEETING WITH ALL SEAMS SEALED.
- CLOSE AND COVER ALL DUCTS IN THE WORK AREA WITH TAPED DOWN PLASTIC SHEETING.
- CLOSE WINDOWS AND DOORS IN THE WORK AREA.
- COVER DOORS WITH PLASTIC SHEETING UNLESS USED AS A WORK AREA ENTRANCE. IF USED AS AN ENTRANCE THE DOOR MUST BE COVERED WITH PLASTIC SHEETING IN A MANNER THAT ALLOWS WORKERS TO PASS THROUGH WHILE CONFINING DUST AND DEBRIS TO THE WORK AREA.
- USE PLASTIC SHEETING TO COVER FLOORS, INCLUDING INSTALLED CARPET, A MINIMUM OF 6 FEET BEYOND THE PERIMETER OF THE SURFACES BEING RENOVATED OR A SUFFICIENT DISTANCE TO CONTAIN DUST, WHICHEVER IS GREATER.
- USE PRECAUTIONS TO ENSURE THAT ALL PERSONNEL, TOOLS AND OTHER ITEMS ARE FREE OF DUST AND DEBRIS BEFORE LEAVING THE WORK AREA.

WHAT TO DO WHEN WORKING ON EXTERIOR JORS
- PROVIDE APPROVED ADDRESS NUMBERS IN A POSITION THAT IS PLAINLY VISIBLE FROM THE STREET FRONTING THE PROPERTY. NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE A MINIMUM 4 INCHES HIGH AND 1/2 INCH STROKE. IF ILLUMINATED; SIGN SHALL NOT CONSUME MORE THAN 5 WATTS OF POWER
- CLOSE ALL DOORS AND WINDOWS WITHIN 20 FEET OF THE RENOVATION. ON MULTI-STORY BUILDINGS. ALSO CLOSE DOORS AND WINDOWS BELOW THE RENOVATION.
- ENSURE DOORS WITHIN THE WORK AREA THAT ARE TO BE USED ARE COVERED WITH PLASTIC SHEETING IN A MANNER THAT ALLOWS WORKERS TO PASS WHILE CONFINING DUST AND DEBRIS TO THE WORK AREA.
- COVER THE GROUND WITH PLASTIC SHEETING 10 FEET BEYOND THE PERIMETER OF THE RENOVATION OR A SUFFICIENT DISTANCE TO COLLECT FALLING PAINT DEBRIS, WHICHEVER IS GREATER.
- IF THE RENOVATION AFFECTS SURFACES WITHIN 10 FEET OF A PROPERTY LINE, ERECT VERTICAL CONTAINMENT TO ENSURE DUST AND DEBRIS DOESN 'T LEAVE THE WORK AREA. VERTICAL CONTAINMENT MAY ALSO BE NECESSARY IN OTHER SITUATIONS.

DO NOT USE THESE DANGEROUS AND PROHIBITED PRACTICES WHEN WORKING WITH LEAD-BASED PAINT
- OPEN FLAME BURNING OR TORCHING.
- SANDING, GRINDING, PLANNING, NEEDLE GUNNING, OR BLASTING WITH POWER TOOLS UNLESS THEY HAVE A SHROUD OR CONTAINMENT SYSTEM AND ARE EQUIPPED WITH A HEPA VACUUM ATTACHMENT. MACHINES MUST BE OPERATED SO THAT NO DUST IS VISIBLE OUTSIDE THE SHROUD OR CONTAINMENT SYSTEM.
- USING A HEAT GUN AT TEMPERATURES GREATER THAN 1100°F.

WASTE
- WASTE FROM RENOVATION ACTIVITIES MUST BE CONTAINED TO PREVENT RELEASES OF DUST AND DEBRIS BEFORE THE WASTE IS REMOVED FROM THE WORK AREA FOR STORAGE OR DISPOSAL.
- AT THE END OF EACH WORK DAY AND AT THE END OF THE RENOVATION, COLLECTED WASTE MUST BE STORED SO THAT IT PREVENTS RELEASE OF DUST AND DEBRIS.
- WHEN THE FIRM TRANSPORTS WASTE FROM RENOVATION ACTIVITIES, THE FIRM MUST CONTAIN THE WASTE TO PREVENT RELEASE OF DUST AND DEBRIS.

LEAVE THE WORK AREA CLEAN
- WHEN THE JOB IS COMPLETE, YOU MUST:
- COLLECT ALL PAINT CHIPS AND DEBRIS, AND SEAL THIS MATERIAL IN A HEAVY-DUTY BAG. DISPOSE OF THE BAG AS WASTE.
- REMOVE THE PROTECTIVE SHEETING. MIST THE SHEETING BEFORE FOLDING IT, FOLD THE DIRTY SIDE INWARD, AND EITHER TAPE SHUT TO SEAL OR SEAL IN HEAVY-DUTY BAGS. SHEETING USED TO ISOLATE ROOMS MUST REMAIN IN PLACE UNTIL AFTER REMOVAL OF OTHER SHEETING. DISPOSE OF THE SHEETING AS WASTE.

ADDITIONAL CLEANING FOR INTERIOR RENOVATIONS:
- CLEAN ALL OBJECTS AND SURFACES IN THE WORK AREA AND WITHIN 2 FEET OF THE WORK AREA IN THE FOLLOWING MANNER, CLEANING FROM HIGHER TO LOWER:
- CLEAN WALLS EITHER VACUUMING WITH A HEPA VACUUM OR WIPING WITH A DAMP CLOTH.
- THOROUGHLY VACUUM ALL REMAINING SURFACES AND OBJECTS IN THE WORK AREA, WITH A HEPA VACUUM. THE HEPA VACUUM MUST BE EQUIPPED WITH A BEATER BAR WHEN VACUUMING CARPETS AND RUGS.
- WIPE ALL REMAINING SURFACES AND OBJECTS IN THE WORK AREA, EXCEPT FOR CARPETED OR UPHOLSTERED SURFACES, WITH A DAMP CLOTH. MOP UNCARPETED FLOORS THOROUGHLY.
- A CERTIFIED RENOVATOR MUST PERFORM A VISUAL INSPECTION TO DETERMINE WHETHER DUST, DEBRIS OR RESIDUE IS STILL PRESENT. IF DUST, DEBRIS OR RESIDUE IS PRESENT, THESE CONDITIONS MUST BE REMOVED BY RE-CLEANING AND ANOTHER VISUAL INSPECTION MUST BE PERFORMED.
- PERFORM A FINAL CLEAN-UP CHECK. USE DISPOSABLE CLEANING CLOTHS TO WIPE FLOORS, COUNTER TOPS AND WINDOWSILLS IN THE WORK AREA AND COMPARE THEM TO A CLEANING VERIFICATION CARD TO DETERMINE IF THE WORK AREA WAS ADEQUATELY CLEANED.
- WHEN THE WORK AREA PASSES THE POST-RENOVATION CLEANING VERIFICATION, REMOVE THE WARNING SIGNS.
- TO ORDER A CLEANING VERIFICATION CARD AND DETAILED INSTRUCTIONS, VISIT OUR WEBSITE AT WWW.EPA.GOV/LEAD OR CONTACT THE NATIONAL LEAD INFORMATION CENTER AT 1-800-424-LEAD (5323).

VISUAL INSPECTION FOR EXTERIOR RENOVATIONS:
- A CERTIFIED RENOVATOR MUST PERFORM A VISUAL INSPECTION TO DETERMINE WHETHER DUST, DEBRIS OR RESIDUE IS STILL PRESENT ON SURFACES IN AND BELOW THE WORK AREA, INCLUDING WINDOWSILLS AND THE GROUND. IF DUST, DEBRIS OR RESIDUE IS PRESENT, THESE CONDITIONS MUST BE ELIMINATED AND ANOTHER VISUAL INSPECTION MUST BE PERFORMED.
- WHEN THE AREA PASSES THE VISUAL INSPECTION, REMOVE THE WARNING SIGNS. DUST CLEARANCE TESTING (PERFORMED BY CERTIFIED LEAD PROFESSIONAL) IS AN ALTERNATIVE TO CLEANING VERIFICATION TO DETERMINE IF THE WORK AREA IS READY FOR RE-OCCUPANCY.
- THESE SIMPLE PRACTICES ENSURE THAT YOUR JOBS ARE BETTER, CLEANER, AND SAFER. YOUR CUSTOMERS WILL NOTICE THE DIFFERENCE.

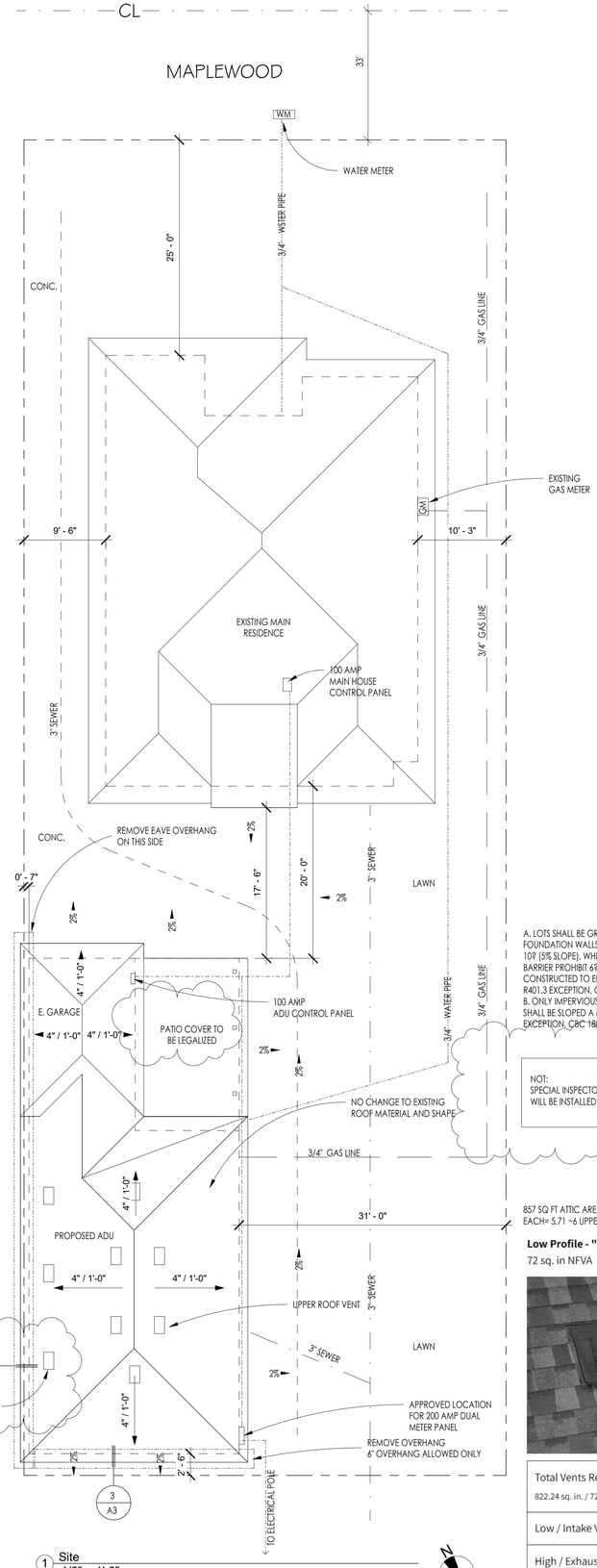
LEAD-SAFETY SHOPPING LIST
- EPA'S PAMPHLET, "RENOVATE RIGHT: IMPORTANT LEAD HAZARD INFORMATION FOR FAMILIES, CHILD CARE PROVIDERS AND SCHOOLS. " (DOWNLOAD IT ON OUR WEBSITE AT EPA.GOV/LEAD.)
- BARRIERS AND SIGNS -TAPE-STAPLER-HEAVY PLASTIC SHEETING-UTILITY KNIFE OR SCISSORS-HEAVY-DUTY PLASTIC BAGS-HEPA VACUUM CLEANER-PAPER TOWELS OR DISPOSABLE WIPES-MOP AND DISPOSABLE MOP HEADS-GENERAL-PURPOSE CLEANER-BUCKETS-SHOVEL AND RAKE

TO LEARN MORE ABOUT WORKING SAFELY WITH LEAD, CONTACT THE NATIONAL LEAD INFORMATION CENTER AT 1-800-424-LEAD (5323) OR VISIT EPA 'S WEB SITE AT EPA.GOV/LEAD

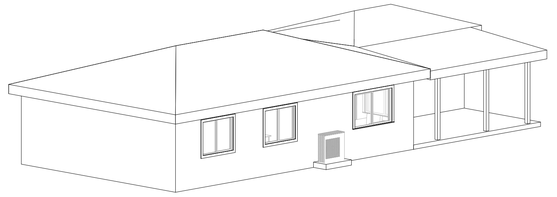
ADDRESSING SHALL BE ILLUMINATED AT NIGHT IN ALL NEW BUILDINGS IN ACCORDANCE WITH RIVERSIDE MUNICIPAL CODE (RMC 16.24.030.) ADDRESS SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED. WHEN THE LUMINANCE OR THE FACE OF A SIGN IS FROM AN EXTERNAL SOURCE, IT SHALL HAVE AN INTENSITY OF NOT LESS THAN FIVE FOOT-CANDLES. INTERNALLY ILLUMINATED SIGNS SHALL PROVIDE EQUIVALENT LUMINANCE. THE MINIMUM SIZE AND DIMENSION OF THE NUMBERS SHALL BE SIX INCHES IN HEIGHT WITH ONE-INCH STROKE WIDTH OR LARGER READILY VISIBLE AND LEGIBLE FROM THE ADJACENT STREET. WHERE A BUILDING IS SET BACK FROM THE STREET OR ROAD FRONTING THE PROPERTY AND WHERE ADDRESSES MAY NOT BE CLEARLY IDENTIFIABLE DUE TO DISTANCE FROM THE STREET OR ROADWAY, LANDSCAPE, VEGETATION AND/OR ARCHITECTURAL APPENDAGES, OR OTHER OBSTRUCTIONS, ADDRESS POSTING SHALL BE REQUIRED BOTH AT THE STREET, ROAD OR DRIVEWAY SERVING SUCH BUILDING AND ON THE BUILDING. STREET OR ROADSIDE ADDRESS POSTING SHALL BE ON A WEATHER RESISTANT SIGN, PERMANENTLY MOUNTED TO A POST, AND HIGHLY VISIBLE FROM ALL DIRECTIONS OF TRAFFIC FLOW. WHERE UNUSUAL CIRCUMSTANCES EXIST A DIRECTION INDICATOR MAY BE REQUIRED TO SHOW SPECIFIC DIRECTION OF BUILDINGS(S).

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) NOTES

1. IN THE CASE OF EMERGENCY, CALL AT OWNER PHONE # 94 9887 8278 OR CONTRACTOR PHONE #
2. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
3. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TACKING, OR WIND.
4. APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.
5. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REDUCE OR REMOVE SEDIMENT AND OTHER POLLUTANTS.
6. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OR THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
7. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
8. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS LL7 AND 302.
9. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPER CHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
10. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
11. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.
12. THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
13. THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
14. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS; THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.
15. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
16. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
17. SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE. AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
18. APPROPRIATE BMPS FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.



1 Site
1/8" = 1'-0"



2 3D VIEW

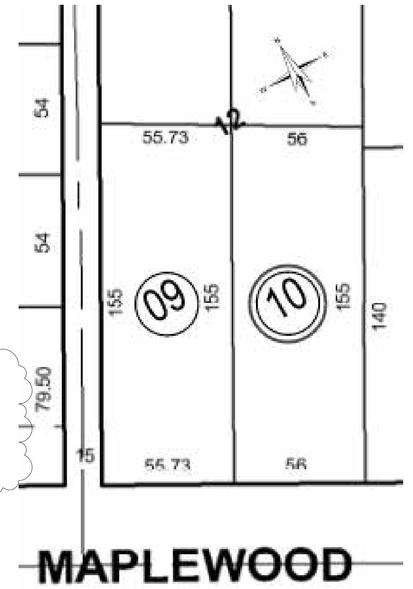
A. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM THE FOUNDATION WALLS. THE GRADE SHALL FALL A MIN OF 6? WITHIN THE FIRST 10? (5% SLOPE). WHERE LOT LINES, WALLS, SLOPES, OR OTHER PHYSICAL BARRIER PROHIBIT 6? OF FALL WITHIN 10?, DRAINS OR SWALES SHALL BE CONSTRUCTED TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE [CRC R401.3 EXCEPTION, CBC 1804.4].
B. ONLY IMPERVIOUS SURFACES WITHIN 10? OF THE BUILDING FOUNDATION SHALL BE SLOPED A MIN OF 2% AWAY FROM THE BUILDING [CRC R401.3 EXCEPTION, CBC 1804.4].

NOT:
SPECIAL INSPECTOR WILL BE REQUIRED FOR ANY EPOXY HARDWARE THAT WILL BE INSTALLED IN THE SLAB.

857 SQ FT ATTIC AREA/ 150 = 5.71 X 144 = 822.72 /2=411.36/ 72 EACH= 5.71 ~6 UPPER AND 6 LOWER VENT

Low Profile - "Tapered"
72 sq. in NFVA

Total Vents Required 822.24 sq. in. / 72 sq. in. NFVA	12
Low / Intake Vents Needed	6
High / Exhaust Vents Needed	6



SQUARE FOOTAGE ANALYSIS IN SQUARE FOOT

AREA	EXISTING	ADDITION	PROPOSED
EXISTING HOME *	1555	0	1555
ADU	0	920	920
PATIO COVER	242	0	242
GARAGE *	221	0	221
CRAFT ROOM*	920	-920	0
EXISTING PORCH	242	0	242
LOT AREA	8,276	0	0
FOOT PRINT **	2889	0	2889
LOT COVERAGE	34.90	0	34.90

** MEASUREMENTS TAKEN FROM OUT SIDE FACE OF EXTERIOR WALLS
* MEASUREMENTS ARE TAKEN FROM INTERIOR FACE OF WALLS

PROJECT DIRECTORY

OWNER		ALLEN REZVANI
		4061 MAPLE WOOD PL
		RIVERSIDE, CA
	PH:	94 9887 8278
	EMAIL:	ALIREZVANI58@GMAIL.COM
DESIGNER		SAM PARSI
		24257 SANTA CLARA AVE, UNIT 9
		DANA POINT CA, 92629
	PH:	949 489-9392
	EMAIL:	DOMUSPLANS@GMAIL.COM
STRUCTURAL ENGINEER		SWAY ENGINEERING
		ARASH FARJADI
		-
	LICENSE:	c - 78579
	PH:	949 742-0148
	EMAIL:	arash@swayengineering.com
CONTRACTOR		OWNER BUILDER
		--
		-
	LICENSE:	--
	PH:	--
	EMAIL:	--
ENERGY CONSULTANT		Precise Green Consulting Inc.
		RAFFI DAR
		140 SMITH Dr. CLARMONT, CA.
	LICENSE:	-
	PH:	818-291-3919
	EMAIL:	raffi@precisegreenconsulting.com

LEGAL DESCRIPTION AND PROJECT DATA

APN	218242010
STORY BUILDING	1
OCCUPANCY GROUP	R-3
CONSTRUCTION TYPE	V-B
FIRE SPRINKLER	NO
YEAR BUILT	1953
DEFERRED SUBMITTAL	NO

SCOPE OF WORK

TRANSFORMING EXISTING 920 SQ.FT. CRAFTROOM INTO DEATTACHED ADU WITH TWO BEDROOMS, TWO BATHROOMS, KITCHEN AND LAUNDRY
ADDING TANKLESS WATER HEATER
LEGALIZING EXISTING PATIO COVER NEXT TO GARAGE AND ADU

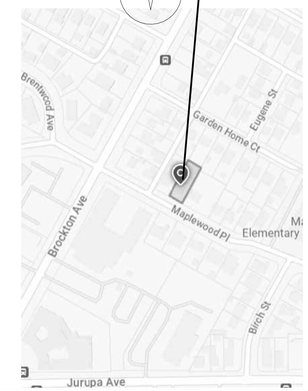
SHEET INDEX

SHEET #	SHEET NAME
_C	SITE PLAN AND COVER SHEET
A.1	EXISTING AND PROPOSED PLAN
A.2	ELEVATIONS
A.3	DETAILS AND ELECTRICAL PLAN
GBC	GREEN BUILDING CODE
GBC.1	GREEN BUILDING CODE
T24	ENERGY CONSUMPTION CALCULATIONS
T24-1	ENERGY CONSUMPTION CALCULATIONS
D1	GENERAL STRUCTURAL NOTES
D2	GENERAL DETAILS
S1	STRUCTURAL FARAMING AND FOUNDATION
S2	STRUCTURAL DETAILS

CURRENT APPLICATION CODES

ALL CONSTRUCTION SHALL COMPLY TO:
2022 CALIFORNIA BUILDING CODE (CBC)
2022 CALIFORNIA MECHANICAL CODE (CMC)
2022 CALIFORNIA RESIDENTIAL CODE (CRC)
2022 CALIFORNIA PLUMBING CODE (CPC)
2022 CALIFORNIA ELECTRIC CODE (CEC)
2022 CALIFORNIA FIRE CODE (CFC)
2022 NATIONAL DESIGN SPECIFICATION (NDS)
2022 CALIFORNIA ENERGY
2022 CALIFORNIA GREEN BUILDING STANDARDS & LOCAL AMENDMENT

VICINITY MAP **JOB SITE**



DOMUS plans
DOMUS PLANS
24257 SANTA CLARA AVE #9
DANA POINT, CA. 92629
PH: 949 489 9392
DOMUSPLANS@GMAIL.COM

MAPLE WOOD PROJECT

4063 MAPLEWOOD PLACE, RIVERSIDE, CA. 92506

N.	REVISION

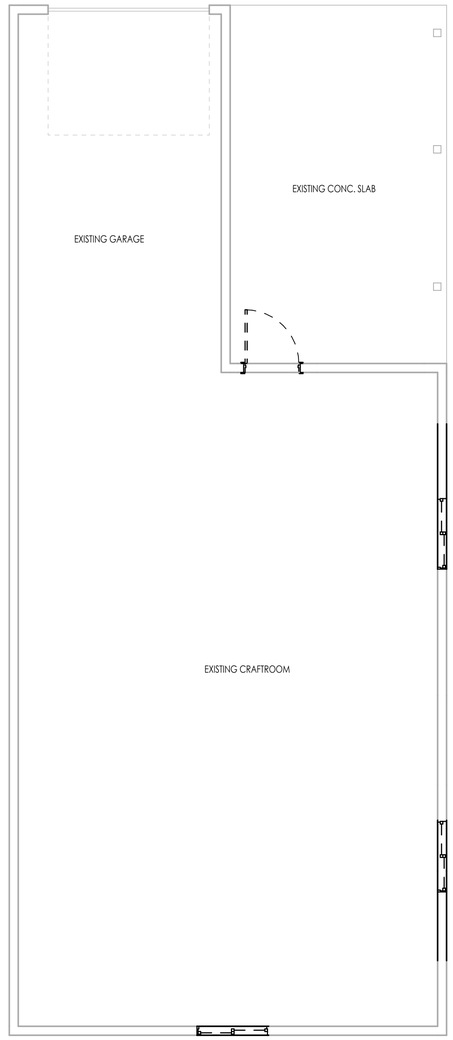
SCALE 1/8" = 1'-0"

DATE 9/12/2025 9:26:55 AM

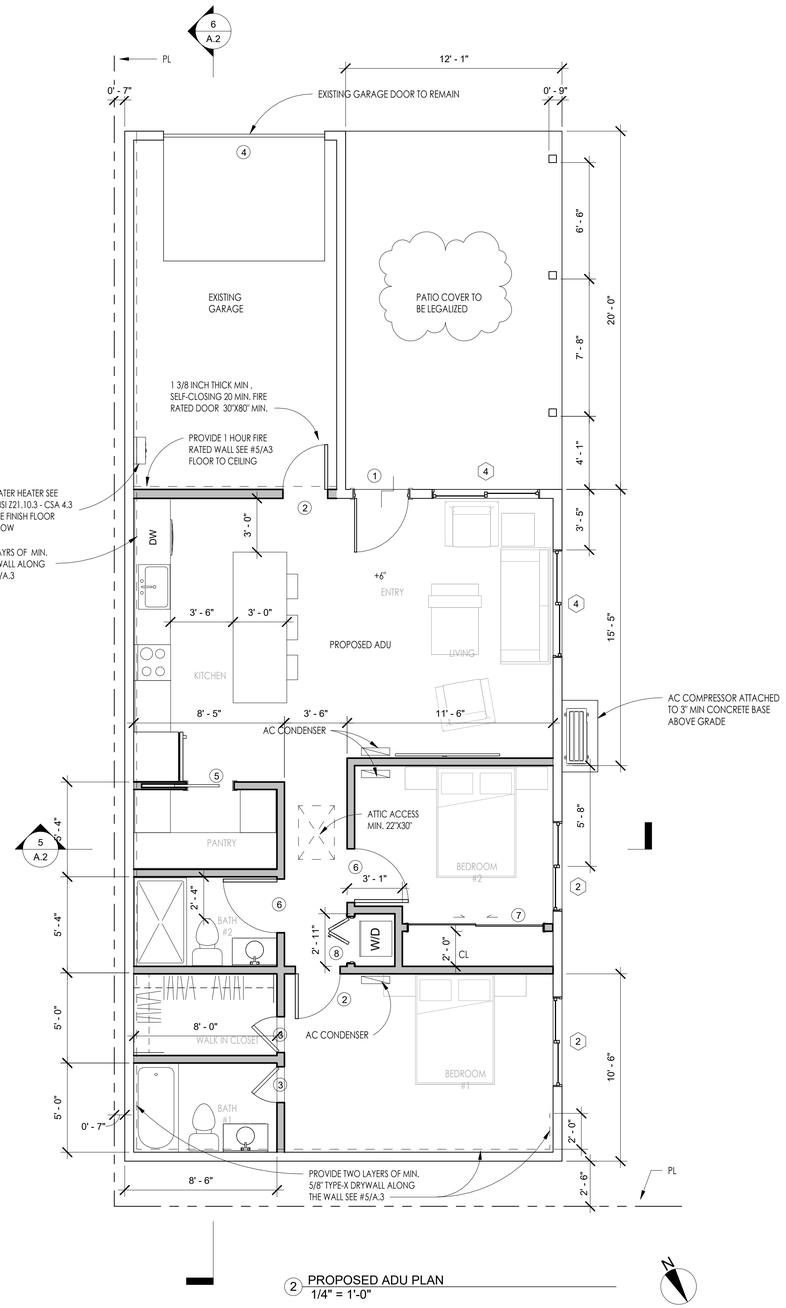
PROJECT Project Number

SHEET

_C



1 EXISTING CRAFT ROOM PLAN
1/4" = 1'-0"



2 PROPOSED ADU PLAN
1/4" = 1'-0"

WINDOW SCHEDULE

#	STATUS	Q	WIDTH	HEIGHT	TYPE	TEMPERED	EGRESS	U-FACTOR	SHGC	COMMENTS
2	New Construction	2	5' - 0"	4' - 0"	SLIDING		Yes	0.30	<varies>	<varies>
4	New Construction	2	6' - 0"	4' - 0"	SLIDING	Yes		0.30	<varies>	

DOOR SCHEDULE

Type Mark	Q.	W.	H.	TYPE	Comments
1	1	3' - 0"	6' - 8"	FRENCH	ENTRY DOOR
2	2	2' - 6"	6' - 8"	HOLLW CORE	
3	2	2' - 0"	6' - 8"	HOLLW CORE	
4	1	9' - 0"	7' - 0"	ROLLUP	GARAGE DOOR
5	1	2' - 6"	6' - 8"	POCKET DOOR	
6	2	3' - 0"	6' - 8"	SWING	AGING IN PLACE
7	1	7' - 6"	6' - 8"	SLIDING	
8	1	2' - 6"	6' - 8"	BI FOLDING	

AGE IN PLACE -
AT LEAST ONE BATHROOM ON THE ENTRY LEVEL SHALL BE PROVIDED WITH REINFORCEMENT INSTALLED IN ACCORDANCE WITH THIS SECTION. WHERE THERE IS NO BATHROOM ON THE ENTRY LEVEL AT LEAST ONE BATHROOM ON THE SECOND OR THIRD FLOOR OF THE DWELLING SHALL COMPLY WITH THIS SECTION. REINFORCEMENT SHALL BE SOLID LUMBER OR OTHER CONSTRUCTION MATERIALS APPROVED BY THE ENFORCING AGENCY. REINFORCEMENT SHALL NOT BE LESS THAN 2 BY 8-INCH NOMINAL LUMBER. [1IN INCH BY 7IN INCH ACTUAL DIMENSION] OR OTHER CONSTRUCTION MATERIAL PROVIDING EQUAL HEIGHT AND LOAD CAPACITY. REINFORCEMENT SHALL BE LOCATED BETWEEN 32 INCHES AND 39 INCHES ABOVE THE FINISHED FLOOR FLUSH WITH THE WALL FRAMING. WATER CLOSET REINFORCEMENT SHALL BE INSTALLED ON BOTH SIDE WALLS OF THE FIXTURE, OR ONE SIDE WALL AND THE BACK WALL. SHOWER REINFORCEMENT SHALL BE CONTINUOUS WHERE WALL FRAMING IS PROVIDED. BATHTUB AND COMBINATION BATHTUB/SHOWER REINFORCEMENT SHALL BE CONTINUOUS ON EACH END OF THE BATHTUB AND THE BACK WALL. ADDITIONALLY, BACK WALL REINFORCEMENT FOR A LOWER GRAB BAR SHALL BE PROVIDED WITH THE BOTTOM EDGE LOCATED NO MORE THAN 6 INCHES ABOVE THE BATHTUB RIM. R327.1.1

TANKLESS WATER HEATER NOTES

1-NEW TANKLESS WATER HEATER BY NORITZ MODEL NRC98 ANSI Z2.1.103/CSA 4.3 CERTFIED WALL MOUNTED INDOORS-OUTDOORS OR SIMILAR CONTRACTOR TO FURNISH THE ICC APPROVAL TO THE FIELD INSPECTOR PRIOR TO INSTALLATION OF THE PRODUCT.

a. A 120V ELECTRICAL RECEPTACLE THAT IS WITHIN 3 FEET FROM THE WATER HEATER.
b. A CATEGORY III OR IV VENT, OR A TYPE B VENT WITH STRAIGHT PIPE.
c. CONDENSATE DRAIN THAT IS NO MORE THAN 2 INCHES HIGHER THAN THE FINISH SURFACE BELOW.
d. A GAS SUPPLY LINE WITH AVAILABLE CAPACITY FOR NOT LESS THAN A 200,000 BTU/HR SYSTEM.
e. TANKLESS W.H. TO BE 48" ABOVE FINISH FLOOR AND LOCATED IN FIRST 48" OF GARAGE.
f. PROVIDE ADEQUATE HOT WATER CIRCULATION SYSTEM

ARCHITECTURAL LEGEND

- WALL OR ELEMENT TO BE REMOVED
- EXISTING WALL OR ELEMNT TO REMAIN
- NEW STUD WALL
- ONE HOUR RATED NEW FIRE WALL STUD WALL
- ONE HOUR RATED EXISTING FIRE WALL WALL

ALL EXISTING AND PROPOSED WALL ARE 2X4 - 16" O.C.

DOMUS PLANS
24257 SANTA CLARA AVE #9
DANA POINT, CA. 92629
PH: 949 489 9392
DOMUSPLANS@GMAIL.COM

MAPLE WOOD PROJECT

4063 MAPLEWOOD PLACE, RIVERSIDE, CA. 92506

N.	REVISION

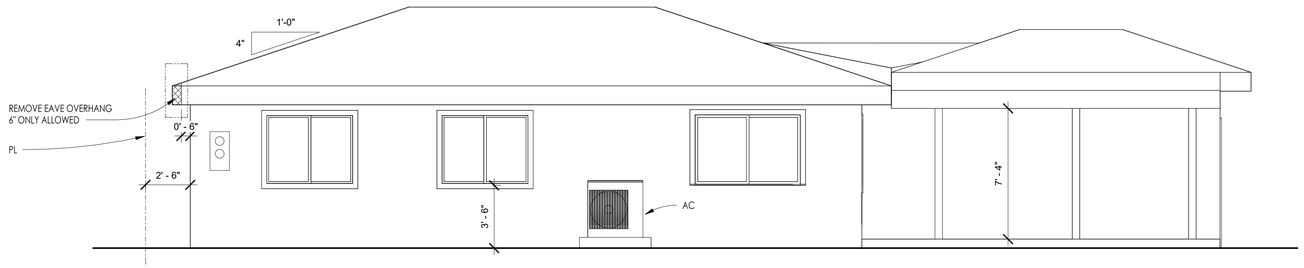
SCALE 1/4" = 1'-0"

DATE 9/12/2025 9:26:55 AM

PROJECT Project Number

SHEET

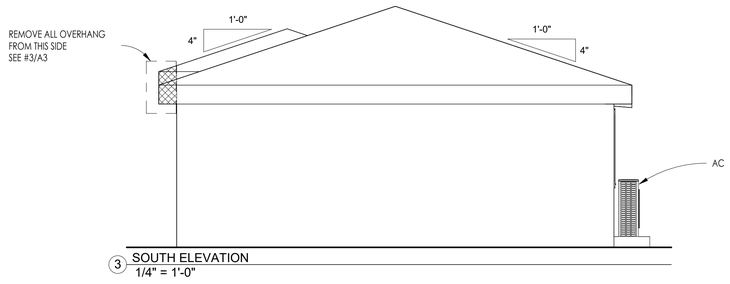
A.1



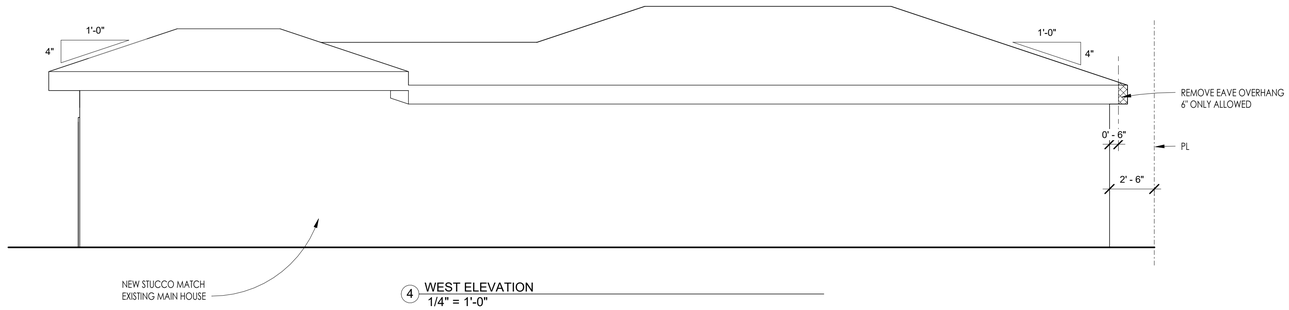
1 EAST ELEVATION
1/4" = 1'-0"

NEW STUCCO MATCH EXISTING HOUSE

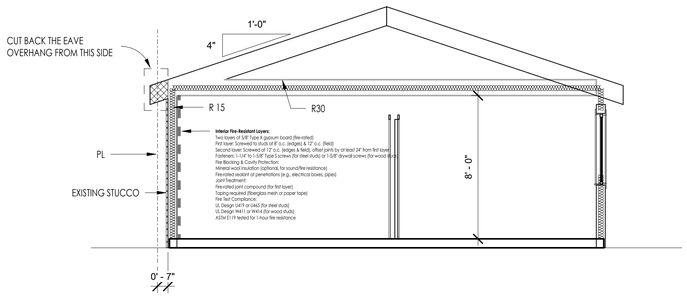
2 NORTH ELEVATION
1/4" = 1'-0"



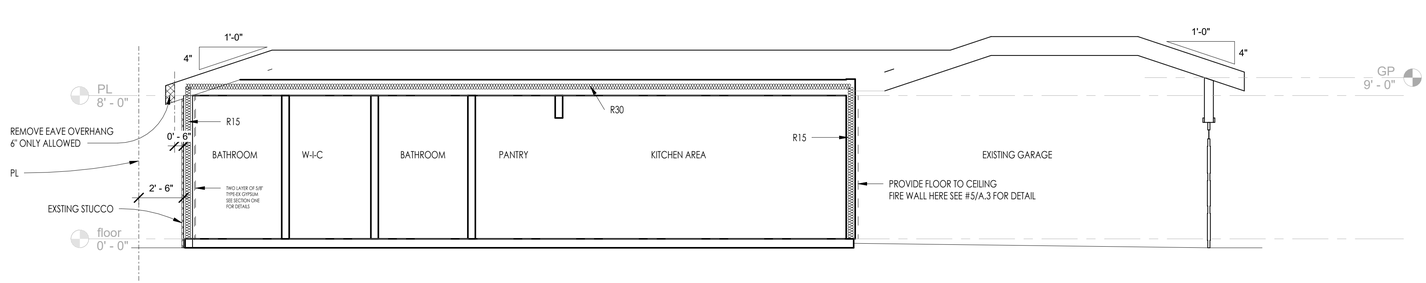
3 SOUTH ELEVATION
1/4" = 1'-0"



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



5 Section 1
1/4" = 1'-0"



6 Section 2
1/4" = 1'-0"

DOMUS PLANS
24257 SANTA CLARA AVE #9
DANA POINT, CA. 92629
PH: 949 489 9392
DOMUSPLANS@GMAIL.COM

MAPLE WOOD PROJECT

4063 MAPLEWOOD PLACE, RIVERSIDE, CA. 92506

N.	REVISION

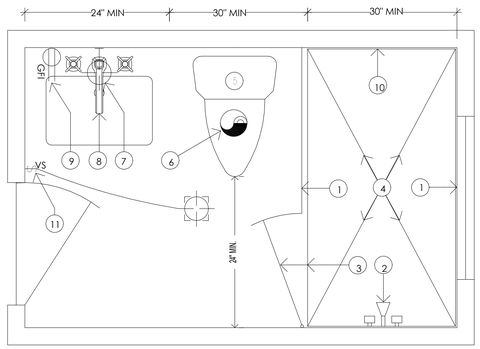
SCALE 1/4" = 1'-0"

DATE 9/12/2025 9:26:56 AM

PROJECT Project Number

SHEET

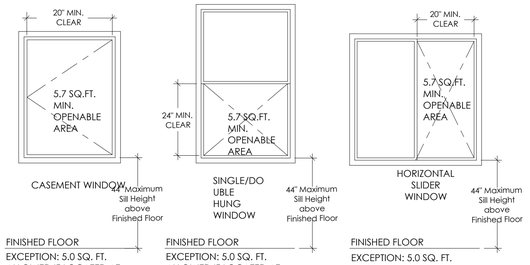
A.2



1. TEMPERED GLASS
2. SHOWERHEADS 1.8 GMP @ 80 PSI CONTROL VALVES AND SHOWERHEADS SHALL BE LOCATED ON THE SIDEWALL OF SHOWER COMPARTMENTS OR OTHERWISE ARRANGED SO THAT THE SHOVELHEAD DOES NOT DISCHARGE DIRECTLY AT THE ENTRANCE TO THE COMPARTMENT SO THAT THE BATHER CAN ADJUST THE VALVES PRIOR TO STEPPING INTO THE SHOWER SPRAY . CPC 408.9. SHOW LOCATIONS OF VALVES. SHOVELHEAD AND TYPE OF ENTRANCES ON PLANS. SHOWER SHALL BE PROVIDED WITH MIXING VALVE THAT WILL PROVIDE SCALD AND THERMAL SHOCK PROTECTION IN ACCORDANCE WITH ASSE 1016 OR ASME A 112.18.1/CSA B 125.1.(CPC 408.3) CONTROL OF THE SHOWERHEAD SHALL BE LOCATED ON THE SIDEWALL OF THE SHOWER COMPARTMENT SO THAT THE SHOWERHEAD DOES NOT DISCHARGE DIRECTLY AT ENTRANCE TO THE COMPARTMENT.
3. SHOWER THRESHOLD SHALL BE NO LESS THAN 2 INCHES ABOVE THE SHOWER DRAIN. THE FINISHED FLOOR OF THE RECEPTOR SHALL SLOPE UNIFORMLY FROM THE SIDES TOWARDS THE DRAIN NOT LESS THAN 1/4" PER FOOT AND NOT MORE THAN 1/2" PER FOOT. SHOWER DOOR TO BE MINIMUM 22" WIDTH. SHOWER DOOR SHALL OPEN SO AS TO MAINTAIN A MIN. 22" UNOBSTRUCTED OPENING FOR EGRESS
4. SHOWER COMPARTMENTS SHALL BE NOT LESS THAN 1,024 SQ. IN., SHALL HAVE A MINIMUM CEILING HEIGHT OF 6'-8" AND ALSO BE CAPABLE OF ENCOMPASSING A 30" DIAMETER CIRCLE.
5. WATER CLOSET 1.28 GAL/FLUSH SHALL HAVE 15" TO ANY WALL OR OBSTRUCTION ON EACH SIDE OF ITS CENTERLINE AND 24" CLEAR SPACE IN FRONT
6. EXHAUST FAN, ENERGY STAR COMPLIANT, 50 R.M.P. MIN., ON SEPARATE SWITCH. EQUIPPED WITH HUMIDISTAT, MAX. SOUND RATING OF 3 SONES
7. LIGHT +60 ABOVE FINISH FLOOR
8. BATHROOM FACETS REQUIERD MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
9. GROUND FAULT DUPLEX OUTLET AT 42" FROM FINISH FLOOR
10. TILE WALLS TO CELG. @ SHOWER TO 72" ABOVE DRAIN INLET. CEMENT, FIBER-CEMENT, FIBER-MAT REINFORCED CEMENT, GLASS MAT GYPSUM OR FIBER-REINFORCED GYPSUM BACKERS SHALL BE USED AS A BASE FOR WALL TILE. MATERIALS OTHER THAN STRUCTURAL ELEMENTS TO BE MOISTURE RESISTANT.
11. CEILING LIGHT MUST PROVIDE AUTOMATIC-OFF BY VACANCY SENSOR OR OCCUPANT SENSOR SET TO BE CONFIGURED TO MANUAL-ON OPERATION

- TYPICAL BATHROOM DETAIL

SCALE: 3" = 1'-0"



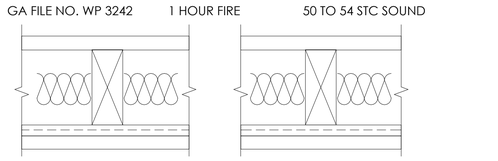
EXCEPTION: 5.0 SQ. FT. ALLOWED IF LOCATED AT GRADE FLOOR OR BELOW GRADE.

EXCEPTION: 5.0 SQ. FT. ALLOWED IF LOCATED AT GRADE FLOOR OR BELOW GRADE.

EXCEPTION: 5.0 SQ. FT. ALLOWED IF LOCATED AT GRADE FLOOR OR BELOW GRADE.

10 EGRESS WINDOWS

SCALE:



THICKNESS: 5 3/8"
APPROX. WEIGHT 7 PSF
FIRE TEST: BASED ON UL R14196, 05NK05371, 2-15-05, UL DESIGN IJ305

SOUND TEST: NRCC TL93-103, 3-98
NRCC TL93-118, 3-98

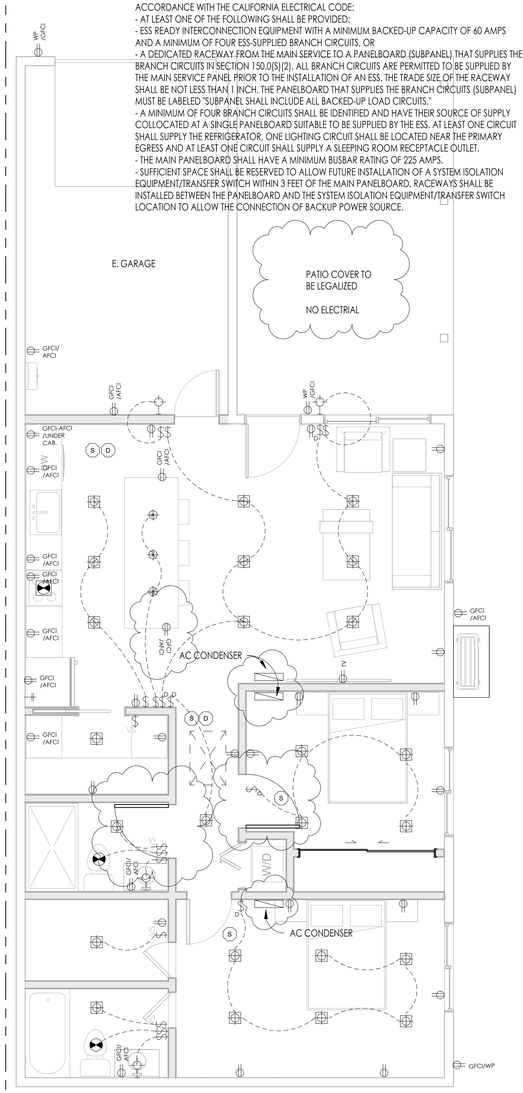
- RESILIENT CHANNELS 16" O.C. ATTACHED AT RIGHT ANGLES TO ONE SIDE OF 2 X 4 WOOD STUDS 16" OR 24" O.C. WITH 1-1/4" TYPE S DRYWALL SCREWS. ONE LAYER 5/8" TYPE X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT RIGHT ANGLES TO CHANNELS WITH 1" TYPE S DRYWALL SCREWS 8" O.C. WITH VERTICAL JOINTS LOCATED MIDWAY BETWEEN STUDS END JOINTS BACK-BLOCKED WITH RESILIENT CHANNELS. 3" MINERAL OR GLASS FIBER INSULATION IN STUD SPACE.
- OPPOSITE SIDE: ONE LAYER X GYPSUM WALLBOARD OR GYPSUM VENEER BASE APPLIED AT PARALLEL OR AT RIGHT ANGLES TO STUDS WITH 6D CEMENT COATED NAILS, 17/8" LONG, 0.0915" SHANK, 15/16" HEADS, 7" O.C.
- VERTICAL JOINTS STAGGERED 24" ON OPPOSITE SIDES. SOUND TESTED WITH STUDS SPACED 24" O.C. (STC=50). ALSO SOUND TESTED WITH STUDS SPACED 16" O.C. AND WITH TWO LAYERS OF 5/8" TYPE X GYPSUM BOARD ON THE RESILIENT CHANNEL SIDE (STC=50). (LOAD-BEARING)

GENERIC

5 ONE HOUR RATING WALL

SCALE: N.T.S.

ENERGY STORAGE SYSTEMS (ESS) READY. ALL SINGLE-FAMILY RESIDENCES THAT INCLUDE ONE OR TWO DWELLING UNITS SHALL MEET THE FOLLOWING. ALL ELECTRICAL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE:
- AT LEAST ONE OF THE FOLLOWING SHALL BE PROVIDED:
- ESS READY INTERCONNECTION EQUIPMENT WITH A MINIMUM BACKED-UP CAPACITY OF 60 AMPS AND A MINIMUM OF FOUR ESS-SUPPLIED BRANCH CIRCUITS, OR
- A DEDICATED RACEWAY FROM THE MAIN SERVICE TO A PANELBOARD (SUBPANEL) THAT SUPPLIES THE BRANCH CIRCUITS IN SECTION 150.0(S)(2). ALL BRANCH CIRCUITS ARE PERMITTED TO BE SUPPLIED BY THE MAIN SERVICE PANEL PRIOR TO THE INSTALLATION OF AN ESS. THE TRADE SIZE OF THE RACEWAY SHALL BE NOT LESS THAN 1 INCH. THE PANELBOARD THAT SUPPLIES THE BRANCH CIRCUITS (SUBPANEL) MUST BE LABELED "SUBPANEL SHALL INCLUDE ALL BACKED-UP LOAD CIRCUITS."
- A MINIMUM OF FOUR BRANCH CIRCUITS SHALL BE IDENTIFIED AND HAVE THEIR SOURCE OF SUPPLY COLLOCATED AT A SINGLE PANELBOARD SUITABLE TO BE SUPPLIED BY THE ESS. AT LEAST ONE CIRCUIT SHALL SUPPLY THE REFRIGERATOR, ONE LIGHTING CIRCUIT SHALL BE LOCATED NEAR THE PRIMARY EGRESS AND AT LEAST ONE CIRCUIT SHALL SUPPLY A SLEEPING ROOM RECEPTACLE OUTLET.
- THE MAIN PANELBOARD SHALL HAVE A MINIMUM BUSBAR RATING OF 225 AMPS.
- SUFFICIENT SPACE SHALL BE RESERVED TO ALLOW FUTURE INSTALLATION OF A SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH WITHIN 3 FEET OF THE MAIN PANELBOARD. RACEWAYS SHALL BE INSTALLED BETWEEN THE PANELBOARD AND THE SYSTEM ISOLATION EQUIPMENT/TRANSFER SWITCH LOCATION TO ALLOW THE CONNECTION OF BACKUP POWER SOURCE.



1 ELECTRICAL ADU PLAN

1/4" = 1'-0"

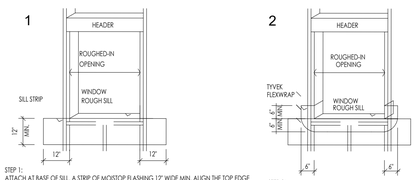
DRYER NOTES

PROVIDE DRYER EXHAUST TO OUT SIDE "MIN. 4 INCH DIAMETER AND EQUIPPED WITH A BACK DRAFT DAMPER. DUCT LENGTH IS LIMITED TO 14' WITH 2 ELBOWS" OTHER LENGTHS OR SIZES AS PERMITTED OR REQUIRED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND APPROVED BY THE BUILDING OFFICIAL. (SUBMIT A REQUEST FOR MODIFICATIONS) CMC 504.4.2
DOOR SHALL HAVE 100 SQ.IN. MINIMUM OPENING FOR DRYER MAKEUP AIR- CMC SEC. 504.4

- DUPLEX OUTLET (ARC FAULT CIRCUIT INTERRUPTER)
- DUPLEX OUTLET GROUND FAULT
- DUPLEX OUTLET WATER PROOF/ GROUND FAULT
- ELECTRICAL SWITCH SINGLE OR THREE WAY
- ELECTRICAL SWITCH, D=DIMER
- VACANCY SENSOR SWITCH
- PENDANT LIGHT OR CHANDELIER
- CEILING MOUNTED LIGHT FIXTURE
- WALL MOUNTED LIGHT +60 IN BATHROOM +80 OUTSIDE
- ADJUSTABLE DOWN LIGHT
- (S) SMOKE DETECTOR
- (C) CO DETECTOR
- EXHAUST FAN ON SEPARATE SWITCH BY PANASONIC WHISPER CHOICE DC PICK-A-FLOW 80/110 CFM CEILING BATHROOM EXHAUST FAN WITH FLEX-Z FAST BRACKET (SEE NOTES BELOW)
- EXHAUST KITCHEN HOOD FAN (SEE NOTES BELOW)
- HOSE BIBB COLD WATER RECESSED

ELECTRICAL NOTE:

1. PROVIDE CARBON MONOXIDE & SMOKE DETECTORS AT THE FOLLOWING LOCATIONS;
   a.ON CEILING OR WALL OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOMS.
   b.IN EACH STORY, INCLUDING BASEMENT.
   c.SMOKE DETECTOR IN EACH ROOM USED FOR SLEEPING PURPOSE. WITHIN 36" HORIZONTAL PATH FROM THE SUPPLY REGISTER OF A FORCED AIR HEATING OR COOLING SYSTEM AND SHALL BE INSTALLED OUTSIDE OF DIRECT AIRFLOW FROM THOSE REGISTERS.
   d.SMOKE ALARM OR SMOKE DETECTORS SHALL BE INSTALLED A MINIMUM OF 20 FEET HORIZONTAL DISTANCE FROM A PERMANENTLY INSTALLED COOKING APPLIANCE OR MEET EXECUTION.
   e.DETECTORS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRE AND SHALL BE EQUIPPED WITH BATTERY BACKUP AND SHALL BE INTERCONNECTED TO SOUND AT THE SAME TIME.
2. EVERY LEVEL MUST COMPLY WITH CRC SECTION R314. E-016,l4;
3. LED LUMINARIES MUST BE CERTIFIED AND QUALIFIED AS HIGH EFFICACY
4. OUTSIDE WATER RESISTANT RECEPTACLE OUTLET SHALL NOT BE HIGHER THAN 6'-6" FEET ABOVE GRADE CEC 210-52 (E)(1)
5. ALL 15 AND 20 AMPERE RECEPTACLES SHALL BE TAMER-RESISTANT IN DWELLING UNIT FAMILY, DINING, LIVING PARLORS, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSET, HALLWAY, OR SIMILAR ROOMS AND AREAS. (CEC 406.12)
6. PROVIDE A MINIMUM OF (1) 20- AMP CIRCUIT FOR BATHROOM(S) OULET. (CEC 210-11 (C)3)
7. PROVIDE A MINIMUM OF 2-20 AMP SMALL APPLIANCE CIRCUITS FOR THE KITCHEN COUNTER TOPS. LOAD SHALL BE BALANCED (CEC 210-52(B)(2))
8. PROVIDE A MINIMUM OF 1-20 AMP LAUNDRY BRANCH CIRCUIT. SUCH A CIRCUIT SHALL NOT HAVE NO OTHER OUTLETS. (CEC 210-23(A))
9. EXHAUST FANS SHALL BE ENERGY STAR COMPLIANT, DUCTED TO TERMINATE OUTSIDE THE BUILDING, AND CONTROLLED BY A HUMIDISTAT CAPABLE OF BEING ADJUSTED BETWEEN THE RELATIVE HUMIDITY RANGE OF 50 TO 80 PERCENT.
   *50 CFM MIN. FOR BATHROOM. MAX. SOUND RATING OF 3 SONES
   **280 CFM MIN. FOR THE KITCHEN. MAX. SOUND RATING OF 3 SONES
10. EXTERIOR LIGHTING SHALL BE ENERGY-EFFICIENT AND SHIELDED OR RECESSED SO DIRECT GLARE AND REFLECTIONS ARE CONTAINED WITHIN THE BOUNDARIES OF THE PARCEL, AND SHALL BE DIRECTED DOWNWARD AND AWAY FROM ADJOINING PROSPERITIES AND PUBLIC RIGHTS-OF-WAY. NO LIGHTS SHALL BLINK, FLASH, OR BE OF UNUSUALLY HIGH INTENSITY R BRIGHTNESS. ALL LIGHTING FIXTURES SHALL BE APPROPRIATE IN SCALE, INTENSITY AND HEIGHT TO THE USE, SECURITY LIGHTING SHALL BE PROVIDED AT ALL ENTRANCES/EXITS. (ORD. 1172&3 (PART) 1996).
11. PROVIDE INDIVIDUAL BRANCH CIRCUIT FOR HVAC EQUIPMENT
12. PROVIDE MIN. 100 AMP CONTROL PANEL BEHIND ENTRY DOOR
13. ALL INSTALLED LUMINARIES TO BE HIGH-EFFICACY IN ACCORDANCE WITH C-ENERGY TABLE 150.0-A C-ENERGY C 150 (K)(1)(A)
14. FAN AND LIGHT COMBINATION FIXTURE TO BE SEPARATELY SWITCHED PER CEC150.0 (K)(2)(B).
15. AT BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS AT LEAST ONE LUMINAIRE IN EACH OF THESE SPACES TO BE CONTROLLED BY A VACANCY SENSOR PER CENERGYC TABLE 150(K)(2)(1)
16. LUMINAIRES AT BEDROOMS, DINING ROOMS, LIVNG ROOMS AND SIMILAR SPACES TO BE CONTROLLED BY EITHER DIMMERS OR VACANCY SENSOR
17. EXTERIOR LUMINAIRES TO BE HIGH EFFICACY AND SHALL MEET THE FOLLOWING REQUIREMENTS, AS APPLICABLE PER CEC. 150.0 (K)(3)
    A.CONTROLLED BY A MANUAL ON AND OFF SWITCH THAT DOES NOT OVERRIDE TO ON THE AUTOMATIC ACTIONS OT ITEMS B) OR C) BELLOW; AND
    B.CONTROLLED BY PHOTOCELL AND MOTION SENSOR. CONTROLS THAT OVERRIDE TO ON SHALL NOT ALLOWED UNLESS THE OVERRIDE AUTOMATICALLY REACTIVATES THE MOTION SENSOR WITHIN 6 HOURS: OR
    C.CONTROLLED BY ONE OF THE FOLLOWING METHODS:
    i) PHOTOCONTROL AND AUTOMATIC TIME SWITCH CONTROL
    ii) ASTROMICAL TIME CLOCK,
    iii) ENERGY MANAGEMENT CONTROL SYSTEM.



STEP 1:
ATTACH AT BASE OF SILL. A STRIP OF MOISTOP FLASHING 12" WIDE MIN. ALIGN THE TOP EDGE WITH THE TOP EDGE OF THE ROUGH SILL. EXTEND THE SILL STRIP 14" MIN. BEYOND THE EDGE OF THE ROUGH OPENING FOR THE WINDOW. ATTACH THE MOISTOP WITH GALVANIZED ROOFING NAILS OR RUST RESISTANT STAPLES. REMOVE BACKING AFTER BUILDING PAPER IS COMPLETED SO THAT PAPER LAPS UNDER MOISTOP.

STEP 2:
ATTACH A SILL STRIP OF TYVEK FLEXWRAP FLASHING OVER MOISTOP. EXTEND FLEXWRAP 6" UP JAMBS BOTH SIDES AND TURN DOWN FACE OF FRAMING 6" MIN. ON TOP OF MOISTOP.

GRACE 'ICE & WATER SHIELD' CAN BE USED AS ALTERNATE TO MOISTOP.

STEP 3:
AFTER SILL STRIP IS IN PLACE ATTACH JAMB STRIPS (SIDE OF OPENING) AT LEAST 12" WIDE WITH INSIDE EDGE OF FLASHING FLUSH WITH EDGE OF WINDOW OPENING. START JAMB STRIPS 1" BELOW THE SILL STRIP AND EXTEND JAMB STRIPS 12" ABOVE THE LOWER EDGE OF THE HEADER (TOP OF WINDOW OPENING).

STEP 4:
APPLY A CONTINUOUS BEAD OF BUTYL RUBBER SEALANT TO THE BACK SURFACES OF THE WINDOW FLANGE. THEN PLACE THE WINDOW INTO THE ROUGH OPENING WITH FLANGES OVER THE INSTALLED FLASHING STRIPS. NO NAILING IN TOP FLANGE TURN NAILS DOWN. AFTER WINDOW IS PLACED, INSTALL THE HEAD FLASHING OVER THE WINDOW FLANGE. THIS IS ANOTHER STRIP OF FLASHING AT LEAST 12" WIDE.

STEP 5:
APPLY SECOND LAYER OF FLASHING. USE "MOISTOP E-Z SEAL" MIN. 9" WIDE FOLLOW PREVIOUS SEQUENCE OF SILL, JAMBS, AND FINALLY HEAD.

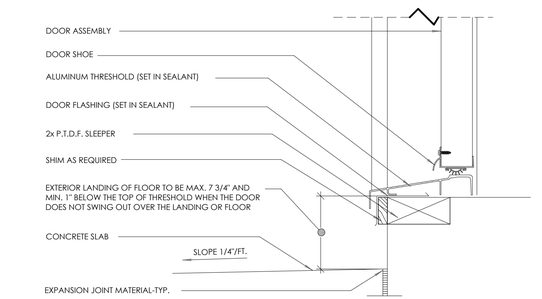
STEP 6:
STARTING AT THE BOTTOM OF THE WALL (SOLE PLATE). LAY WATER- RESISTANT PAPER UNDER THE BITUTHENE AND ALL THE SILL STRIPS. CUT ANY EXCESS WATER-RESISTANT PAPER THAT MAY EXTEND ABOVE THE SILL FLANGE ON EACH SIDE OF THE OPENING. (SHOWN IN THE DIAGRAM AS SHORT DASHED LINES). INSTALL SUCCEEDING COURSES OF WATER-RESISTANT PAPER (B, C, ETC.) OVER JAMB AND HEAD FLANGES IN SHINGLE-BOARD FASHION. PAPER SHOULD RUN CONTINUOUSLY OVER HEAD WITH NO SPLICES ABOVE WINDOW.

NOTES :
1. THIS DETAIL APPLIES TO ALL EXT. PENETRATIONS INCLUDING WINDOWS AND DOORS. C.B.C. SECTION 1402.2, CALLS FOR FLASHING OF ALL EXTERIOR OPENINGS EXPOSED TO WEATHER TO MAKE THEM WEATHER PROOF. SINCE C.B.C. DOES NOT OUTLINE PROCEDURES FOR WINDOW FLASHING, TECHNIQUES SHOWN HERE ARE RECOMMENDED. USE "MOISTOP" FLASHING BY FORTIFIBER CORP., OR APPROVED EQUAL FOR FLASHING MATERIAL. CAULK BACK OF WINDOW FRAMES BEFORE SETTING. USE WINDOWS THAT ARE WATERTIGHT.
2. 26 GA. GALV. FLASHING REQUIRED AS SHOWN IN OTHER WINDOW DETAILS TO BE INSTALLED BY SHEET METAL CONTRACTOR.
3. LINE WIRE, WHEN USED AS BACKING TO SUPPORT WATERRESISTANT BUILDING PAPER OR FELT BENEATH LATH FOR CEMENT PLASTER SHOULD BE INSTALLED ACCORDING TO INDUSTRY STANDARDS AND PRACTICE. NO ATTACHMENT DEVICE NOR THE WIRE BACKING SHOULD COVER OR PENETRATE FLASHING MATERIAL. PERIPHERAL FLASHING AT ALL EDGES OF OPENING MUST COVER WIRE BACKING.

12 MOISTURE FLASHING INSTALATION

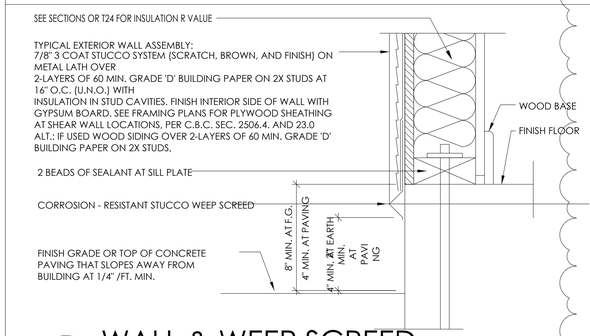
XXXSF

SCALE: N.T.S.



- THRESHOLD (SWING IN)

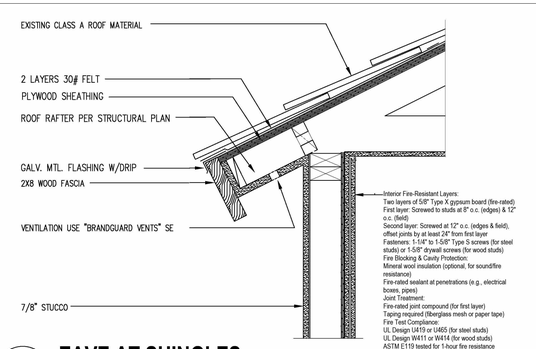
SCALE: 3" = 1'-0"



8 WALL & WEEP SCREED

SCALE: 3" = 1'-0"

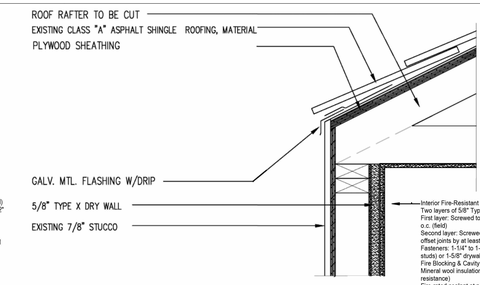
0042SF



3 EAVE AT SHINGLES

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

5F0050



DOMUS plans
DOMUS PLANS
24257 SANTA CLARA AVE #9
DANA POINT, CA. 92629
PH: 949 489 9392
DOMUSPLANS@GMAIL.COM

MAPLE WOOD PROJECT

4063 MAPLEWOOD PLACE, RIVERSIDE, CA. 92506

N.	REVISION

SCALE 1/4" = 1'-0"

DATE 9/12/2025 9:26:57 AM

PROJECT Project Number

SHEET

A.3

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 1 (July 2024 Supplement)

Y. = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.1.1 Additions and alterations. [HCD] The mandatory provisions of Chapter 4 shall be applied to additions or alterations of existing residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. The requirements shall apply only to and/or within the specific area of the addition or alteration.

The mandatory provision of Section 4.106.4.2 may apply to additions or alterations of existing parking facilities or the addition of new parking facilities serving existing multifamily buildings. See Section 4.106.4.3 for application.

Note: Repairs including, but not limited to, resurfacing, restriping and repairing or maintaining existing lighting fixtures are not considered alterations for the purpose of this section.

Note: On and after January 1, 2014, residential buildings undergoing permitted alterations, additions, or improvements shall replace noncompliant plumbing fixtures with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

301.2 LOW-RISE AND HIGH-RISE RESIDENTIAL BUILDINGS. [HCD] The provisions of individual sections of CALGreen may apply to either low-rise residential buildings high-rise residential buildings, or both. Individual sections will be designated by banners to indicate where the section applies specifically to low-rise only (LR) or high-rise only (HR). When the section applies to both low-rise and high-rise buildings, no banner will be used.

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

Exceptions:
1. [HCD] Accessory structures and accessory occupancies serving residential buildings shall comply with Chapter 4 and Appendix A4, as applicable.
2. [HCD] For purposes of *CALGreen*, live/work units, complying with Section 419 of the *California Building Code*, shall not be considered mixed occupancies. Live/Work units shall comply with Chapter 4 and Appendix A4, as applicable.

DIVISION 4.1 PLANNING AND DESIGN

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES

SECTION 4.102 DEFINITIONS

4.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

FRENCH DRAIN. A trench, hole or other depressed area loosely filled with rock, gravel, fragments of brick or similar pervious material used to collect or channel drainage or runoff water.

WATTLES. Wattles are used to reduce sediment in runoff. Wattles are often constructed of natural plant materials such as hay, straw or similar material shaped in the form of tubes and placed on a downflow slope. Wattles are also used for perimeter and inlet controls.

4.106 SITE DEVELOPMENT

4.106.1 GENERAL. Preservation and use of available natural resources shall be accomplished through evaluation and careful planning to minimize negative effects on the site and adjacent areas. Preservation of slopes, management of storm water drainage and erosion controls shall comply with this section.

4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. Projects which disturb less than one acre of soil and are not part of a larger common plan of development which in total disturbs one acre or more, shall manage storm water drainage during construction. In order to manage storm water drainage during construction, one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site.

1. Retention basins of sufficient size shall be utilized to retain storm water on the site.
2. Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.
3. Compliance with a lawfully enacted storm water management ordinance.

Note: Refer to the State Water Resources Control Board for projects which disturb one acre or more of soil, or are part of a larger common plan of development which in total disturbs one acre or more of soil.

(Website: https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

4.106.3 GRADING AND PAVING. Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales
2. Water collection and disposal systems
3. French drains
4. Water retention gardens
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Section 4.106.4.1 or 4.106.4.2. Electric vehicle supply equipment (EVSE) shall comply with the *California Electrical Code*.

Exceptions:
1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
   1.1 Where there is no local utility power supply or the local utility is unable to supply adequate power.
   1.2 Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 4.106.4, may adversely impact the construction cost of the project.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

4.106.4.1 New one- and two-family dwellings and townhouses with attached private garages. For each dwelling unit, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or other enclosure in close proximity to the proposed location of an EV charger. Raceways are required to be continuous at enclosed, inaccessible or concealed areas and spaces. The service panel and/or subpanel shall provide capacity to install a 40-ampere 208/240-volt minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

Exemption: A raceway is not required if a minimum 40-ampere 208/240-volt dedicated EV branch circuit is installed in close proximity to the proposed location of an EV charger at the time of original construction in accordance with the *California Electrical Code*.

4.106.4.1.1 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

4.106.4.2 New multifamily dwellings, hotels and motels and new residential parking facilities.
When parking is provided, parking spaces for new multifamily dwellings, hotels and motels shall meet the requirements of Section 4.106.4.2.2. Calculations for spaces shall be rounded up to the nearest whole number. A parking space served by electric vehicle supply equipment or designed as an EV charging space shall count as at least one standard automobile parking space only for the purpose of complying with any applicable minimum parking space requirements established by a local jurisdiction. See Vehicle Code Section 22511.2 for further details.

4.106.4.2.1 Reserved.

4.106.4.2.2 Multifamily dwellings, hotels and motels

1. EV ready parking spaces with receptacles.

a. Hotels and motels. Forty (40) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles.

b. Multifamily parking facilities. Forty (40) percent of the total number of parking spaces shall be equipped with low power Level 2 EV charging receptacles. EV charging receptacles required by this section shall be located in at least one assigned parking space per dwelling unit where assigned parking is provided but need not exceed forty (40) percent of the total number of assigned parking spaces provided on the site.

Exception: Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the *California Building Code*; or parking facilities otherwise incapable of supporting electric vehicle charging.

c. Receptacle power source. EV charging receptacles in multifamily parking facilities shall be provided with a dedicated branch circuit connected to the dwelling unit's electrical panel, unless determined as infeasible by the project builder or designer and subject to concurrence of the local enforcing agency.

Exception: Areas of parking facilities served by parking lifts, including but not limited to automated mechanical-access open parking garages as defined in the *California Building Code*; or parking facilities otherwise incapable of supporting electric vehicle charging.

d. Receptacle configurations. 208/240V EV charging receptacles shall comply with one of the following configurations:

1. For 20-ampere receptacles, NEMA 6-20R
2. For 30-ampere receptacles, NEMA 14-30R
3. For 50-ampere receptacles, NEMA 14-50R

2. EV ready parking spaces with EV chargers.

a. Hotels and motels. Ten (10) percent of the total number of parking spaces shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors.

b. Multifamily parking facilities. Ten (10) percent of the total number of parking spaces shall be equipped with Level 2 EV chargers. At least fifty (50) percent of the required EV chargers shall be equipped with J1772 connectors. Where common use parking or unassigned parking is provided, EV chargers shall be located in common use or unassigned parking areas and shall be available for use by all residents or guests.

Where low power Level 2 EV charging receptacles or Level 2 EV chargers are installed beyond the minimum required, an automatic load management system (ALMS) may be used to reduce the maximum required electrical capacity to each space served by the ALMS. The electrical system and any on-site distribution transformers shall have sufficient capacity to deliver at least 3.3 kW simultaneously to each EV charging station (EVCS) served by the ALMS. The branch circuit shall have a minimum capacity of 40 amperes, and installed EV chargers shall have a capacity of not less than 30 amperes.

4.106.4.2.2.1 Electric vehicle charging stations (EVCS).
Electric vehicle charging stations required by Section 4.106.4.2.2, Item 2, with EV chargers installed shall comply with Section 4.106.4.2.2.1.1.

Exception: Electric vehicle charging stations serving public accommodations, public housing, motels and hotels shall not be required to comply with this section. See *California Building Code*, Chapter 11B, for applicable requirements.

4.106.4.2.2.1.1 Electric vehicle charging stations (EVCS) spaces with EV chargers installed; dimensions and location.

EVCS spaces shall be designed to comply with the following:

1. The minimum length of each EVCS space shall be 18 feet (5486 mm).
2. The minimum width of each EVCS space shall be 9 feet (2743 mm).
3. One in every 25 EVCS spaces, but not less than one, shall also have an 8-foot (2438 mm) wide minimum aisle. A 5-foot (1524 mm) wide minimum aisle shall be permitted provided the minimum width of the EVCS space is 12 feet (3658 mm). Surface slope for this EVCS space and the aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083 percent slope) in any direction. These EVCS spaces shall also comply with at least one of the following:

   a. The EVCS space shall be located adjacent to an accessible parking space meeting the requirements of the *California Building Code*, Chapter 11A, to allow use of the EV charger from the accessible parking space.
   b. The EVCS space shall be located on an accessible route, as defined in the *California Building Code*, Chapter 2, to the building.
   Exception: Electric vehicle charging stations designed and constructed in compliance with the *California Building Code*, Chapter 11B, are not required to comply with Section 4.106.4.2.2.1.1.

4.106.4.2.2.1.2 Accessible electric vehicle charging station spaces.
In addition to the requirements in Section 4.106.4.2.2.1.1, all EV chargers, where installed, shall comply with the accessibility provisions for EV chargers in the *California Building Code*, Chapter 11B. EV ready spaces and EVCS in multifamily developments shall comply with *California Building Code*, Chapter 11A, Section 1109A.

4.106.4.2.3 Reserved.

4.106.4.2.4 Reserved.

4.106.4.2.5 Electric vehicle ready space signage.
Electric vehicle ready spaces shall be identified by signage or pavement markings, in compliance with Caltrans Traffic Operations Policy Directive 13-01 (Zero Emission Vehicle Signs and Pavement Markings) or its successor(s).

4.106.4.3 Electric vehicle charging for additions and alterations of parking facilities serving existing multi-family buildings.
Where new parking facilities are added, or electrical systems or lighting of existing parking facilities are added or altered and the work requires a building permit, ten (10) percent of the total number of parking spaces added or altered shall be EV capable spaces to support future Level 2 electric vehicle supply equipment. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE."

Notes:

1.Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.

2.There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

DIVISION 4.2 ENERGY EFFICIENCY

4.201 GENERAL

4.201.1 SCOPE. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION

4.303 INDOOR WATER USE

4.303.1 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the sections 4.303.1.1, 4.303.1.2, 4.303.1.3, and 4.303.4.4.

Note: All noncompliant plumbing fixtures in any residential real property shall be replaced with water-conserving plumbing fixtures. Plumbing fixture replacement is required prior to issuance of a certificate of final completion, certificate of occupancy, or final permit approval by the local building department. See Civil Code Section 1101.1, et seq., for the definition of a noncompliant plumbing fixture, types of residential buildings affected and other important enactment dates.

4.303.1.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-type Toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

4.303.1.2 Urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of all other urinals shall not exceed 0.5 gallons per flush.

4.303.1.3 Showerheads.

4.303.1.3.1 Single Showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to only allow one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

4.303.1.4 Faucets.

4.303.1.4.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons per minute at 20 psi.

4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings shall not exceed 0.5 gallons per minute at 60 psi.

4.303.1.4.3 Metering Faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.2 gallons per cycle.

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

4.303.1.4.5 Pre-rinse spray valves.
When installed, shall meet the requirements in the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations), Sections 1605.1 (h)(4) Table H-2, Section 1605.3 (h)(4)(A), and Section 1607 (d)(7) and shall be equipped with an integral automatic shutoff.

FOR REFERENCE ONLY: The following table and code section have been reprinted from the *California Code of Regulations*, Title 20 (Appliance Efficiency Regulations),Section 1605.1 (h)(4) and Section 1605.3 (h)(4)(A).

TABLE H-2

STANDARDS FOR COMMERCIAL PRE-RINSE SPRAY VALVES MANUFACTURED ON OR AFTER JANUARY 28, 2019

PRODUCT CLASS [spray force in ounce force (ozf)]	MAXIMUM FLOW RATE (gpm)
Product Class 1 (≤ 5.0 ozf)	1.00
Product Class 2 (> 5.0 ozf and ≤ 8.0 ozf)	1.20
Product Class 3 (> 8.0 ozf)	1.28

Title 20 Section 1605.3 (h)(4)(A): Commercial prerinse spray values manufactured on or after January 1, 2006, shall have a minimum spray force of not less than 4.0 ounces-force (ozf)[113 grams-force(gf)]

4.303.2 Submeters for multifamily buildings and dwelling units in mixed-used residential/commercial buildings.
Submeters shall be installed to measure water usage of individual rental dwelling units in accordance with the *California Plumbing Code*.

4.303.3 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*.

NOTE:
THIS TABLE COMPILES THE DATA IN SECTION 4.303.1, AND IS INCLUDED AS A CONVENIENCE FOR THE USER.

TABLE - MAXIMUM FIXTURE WATER USE

FIXTURE TYPE	FLOW RATE
SHOWER HEADS (RESIDENTIAL)	1.8 GMP @ 80 PSI
LAVATORY FAUCETS (RESIDENTIAL)	MAX. 1.2 GPM @ 60 PSI MIN. 0.8 GPM @ 20 PSI
LAVATORY FAUCETS IN COMMON & PUBLIC USE AREAS	0.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
METERING FAUCETS	0.2 GAL/CYCLE
WATER CLOSET	1.28 GAL/FLUSH
URINALS	0.125 GAL/FLUSH

4.304 OUTDOOR WATER USE

4.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS. Residential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

NOTES:

1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the *California Code Regulations*, Title 23, Chapter 2.7, Division 2. MWELO and supporting documents, including water budget calculator, are available at: https://www.water.ca.gov/

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

4.406.1 RODENT PROOFING. Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency.

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

4.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4, or meet a more stringent local construction and demolition waste management ordinance.

Exceptions:

1. Excavated soil and land-clearing debris.
2. 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.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

4.408.2 CONSTRUCTION WASTE MANAGEMENT PLAN. Submit a construction waste management plan in conformance with Items 1 through 5. The construction waste management plan shall be updated as necessary and shall be available during construction for examination by the enforcing agency.

1. 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.
2. Specify if construction and demolition waste materials will be sorted on-site (source separated) or bulk mixed (single stream).
3. Identify diversion facilities where the construction and demolition waste material collected will be taken.
4. Identify construction methods employed to reduce the amount of construction and demolition waste generated.
5. Specify that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

4.408.3 WASTE MANAGEMENT COMPANY. Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with Section 4.408.1.

Note: The owner or contractor may make the determination if the construction and demolition waste materials will be diverted by a waste management company.

4.408.4 WASTE STREAM REDUCTION ALTERNATIVE [LR]. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 3.4 lbs./sq.ft. of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.4.1 WASTE STREAM REDUCTION ALTERNATIVE. Projects that generate a total combined weight of construction and demolition waste disposed of in landfills, which do not exceed 2 pounds per square foot of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1

4.408.5 DOCUMENTATION. Documentation shall be provided to the enforcing agency which demonstrates compliance with Section 4.408.2, items 1 through 5, Section 4.408.3 or Section 4.408.4..

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Residential)" located at www.hcd.ca.gov/CALGreen.html may be used to assist in documenting compliance with this section.
2. Mixed construction and demolition debris (C & D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

4.410 BUILDING MAINTENANCE AND OPERATION

4.410.1 OPERATION AND MAINTENANCE MANUAL. At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building:

1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
2. Operation and maintenance instructions for the following:
   a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
   b. Roof and yard drainage, including gutters and downspouts.
   c. Space conditioning systems, including condensers and air filters.
   d. Landscape irrigation systems.
   e. Water reuse systems.
3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
4. Public transportation and/or carpool options available in the area.
5. 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.
6. Information about water-conserving landscape and irrigation design and controllers which conserve water.
7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
8. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
9. Information about state solar energy and incentive programs available.
10. A copy of all special inspections verifications required by the enforcing agency or this code.
11. Information from the Department of Forestry and Fire Protection on maintenance of defensible space around residential structures.
12. Information and/or drawings identifying the location of grab bar reinforcements.

4.410.2 RECYCLING BY OCCUPANTS. Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waster, and metals, or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et seq. are note required to comply with the organic waste portion of this section.

DIVISION 4.5 ENVIRONMENTAL QUALITY

SECTION 4.501 GENERAL

4.501.1 Scope
The provisions of this chapter shall outline means of reducing the quality of air contaminants that are odorous, irritating and/or harmful to the comfort and well being of a building's installers, occupants and neighbors.

SECTION 4.502 DEFINITIONS

5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

AGRIFIBER PRODUCTS. Agrifiber products include wheatboard, strawboard, panel substrates and door cores, not including furniture, fixtures and equipment (FF&E) not considered base building elements.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of regulations (CCR), title 17, Section 93120.1.

DIRECT-VENT APPLIANCE. A fuel-burning appliance with a sealed combustion system that draws all air for combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

DOMUS PLANS
24257 SANTA CLARA AVE #9
DANA POINT, CA. 92629
PH: 949 489 9392
DOMUSPLANS@GMAIL.COM

MAPLE WOOD PROJECT
4063 MAPLEWOOD PLACE, RIVERSIDE, CA. 92506

N.	REVISION

SCALE

DATE 9/12/2025 9:26:59 AM

PROJECT Project Number

SHEET

GBC

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 2 (July 2024 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie; ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g O³/g ROC).
Note: MIR values for individual compounds and hydrocarbon solvents are specified in CCR, Title 17, Sections 94700 and 94701.

MOISTURE CONTENT. The weight of the water in wood expressed in percentage of the weight of the oven-dry wood.

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).
Note: PWMIR is calculated according to equations found in CCR, Title 17, Section 94521 (a).

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

VOC. A volatile organic compound (VOC) broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).

4.503 FIREPLACES
4.503.1 GENERAL. Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.

4.504 POLLUTANT CONTROL
4.504.1 COVERING OF DUCT OPENINGS & PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of water, dust or debris which may enter the system.

4.504.2 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with this section.

4.504.2.1 Adhesives, Sealants and Caulks. Adhesives, sealant and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products, as specified in Subsection 2 below.
2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with section 94507.

4.504.2.2 Paints and Coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37 of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.

4.504.2.3 Aerosol Paints and Coatings. Aerosol paints and coatings shall meet the Product-weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(e)(1) and (f)(1) of *California Code of Regulations*, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.

4.504.2.4 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification.
2. Field verification of on-site product containers.

TABLE 4.504.1 - ADHESIVE VOC LIMIT[1,2]

(Less Water and Less Exempt Compounds in Grams per Liter)

ARCHITECTURAL APPLICATIONS	VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVE	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.
2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

TABLE 4.504.2 - SEALANT VOC LIMIT

(Less Water and Less Exempt Compounds in Grams per Liter)

SEALANTS	VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NON-POROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

TABLE 4.504.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	VOC LIMIT
FLAT COATINGS	50
NON-FLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[1]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS
2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.
3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

TABLE 4.504.5 - FORMALDEHYDE LIMITS[1]

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.
2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)
4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.3.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 4.504.1.

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed , at least 80% of floor area receiving resilient flooring shall meet the requirements of 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 1.2, January 2017 (Emission testing method for California Specification 01350)

See California Department of Public Health's website for certification programs and testing labs.

hhttps://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/VOC.aspx.

4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings 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 Table 4.504.5

4.504.5.1 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269, European 636 3S standards, and Canadian CSA 0121, CSA 0151, CSA 0153 and CSA 0325 standards.
5. Other methods acceptable to the enforcing agency.

4.505 INTERIOR MOISTURE CONTROL
4.505.1 General. Buildings shall meet or exceed the provisions of the *California Building Standards Code*.

4.505.2 CONCRETE SLAB FOUNDATIONS. Concrete slab foundations required to have a vapor retarder by California Building Code, Chapter 19, or concrete slab-on-ground floors required to have a vapor retarder by the California Residential Code, Chapter 5, shall also comply with this section.

4.505.2.1 Capillary break. A capillary break shall be installed in compliance with at least one of the following:

1. A 4-inch (101.6 mm) thick base of 1/2 inch (12.7mm) or larger clean aggregate shall be provided with a vapor barrier in direct contact with concrete and a concrete mix design, which will address bleeding, shrinkage, and curling, shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06.
2. Other equivalent methods approved by the enforcing agency.
3. A slab design specified by a licensed design professional.

4.505.3 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:

1. Moisture content shall be determined with either a probe-type or contact-type moisture meter.Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified.
3. 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 a 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.

4.506 INDOOR AIR QUALITY AND EXHAUST
4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and 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 humidity control.
   a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.
   b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

Notes:

1. For the purposes of this section, a bathroom is a room which contains a bathtub, shower or tub/shower combination.
2. Lighting integral to bathroom exhaust fans shall comply with the *California Energy Code*.

4.507 ENVIRONMENTAL COMFORT
4.507.2 HEATING AND AIR-CONDITIONING SYSTEM DESIGN. Heating and air conditioning systems shall be sized, designed and have their equipment selected using the following methods:

1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J - 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods.
2. Duct systems are sized according to ANSI/ACCA 1 Manual D - 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods.
3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S - 2014 (Residential Equipment Selection), or other equivalent design software or methods.

Exception: Use of alternate design temperatures necessary to ensure the system functions are acceptable.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS
702 QUALIFICATIONS
702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:
1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS
703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

DOMUS PLANS
24257 SANTA CLARA AVE #9
DANA POINT, CA. 92629
PH: 949 489 9392
DOMUSPLANS@GMAIL.COM

MAPLE WOOD PROJECT
4063 MAPLEWOOD PLACE, RIVERSIDE, CA. 92506

N.	REVISION

SCALE

DATE 9/12/2025 9:27:01 AM

PROJECT Project Number

SHEET

GBC.1

GENERAL INFORMATION					
01	Project Name	4061 Maplewood Place			
02	Run Title	Title 24 Analysis			
03	Project Location	4061 Maplewood Place			
04	City	Riverside	05	Standards Version	2022
06	Zip code	92506	07	Software Version	EnergyPro 9.4
08	Climate Zone	10	09	Front Orientation (deg/ Cardinal)	0
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	Newly Constructed Addition	13	Number of Bedrooms	5
14	Addition Cond. Floor Area (ft^2)	920	15	Number of Stories	1
16	Existing Cond. Floor Area (ft^2)	1555	17	Fenestration Average U-factor	0.3
18	Total Cond. Floor Area (ft^2)	2475	19	Glazing Percentage (%)	10.22%
20	ADU Bedroom Count	2	21	ADU Conditioned Floor Area	920
22	Fuel Type	Natural gas	23	No Dwelling Unit:	No

ADDITION ALONE - Project Analysis Parameters					
01	02	03	04	05	06
Existing Area (excl. new addition) (ft2)	Addition Area (excl. existing) (ft2)	Total Area (ft2)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms
1555	920	2475	3	2	5

ADDITION ALONE - ACCESSORY DWELLING UNIT (ADU) PROJECT ANALYSIS PARAMETERS							
01	02	03	04	05	06	07	08
Zone Name	Existing Area (excl. new addition) (ft^2)	ADU Area (excl. existing) (ft^2)	Total Area (ft^2)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms	Attached vs. Detached
1st Floor Zone	1555	920	2475	3	2	5	Detached

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						
Energy Use	Standard Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Standard Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Proposed Design Source Energy (EDR1) (kBtu/ft^2 -yr)	Proposed Design TDV Energy (EDR2) (kTDV/ft^2 -yr)	Margin (EDR1)	Margin (EDR2)
Space Heating	0	6.41	0	7.64	0	-1.23
Space Cooling	0	24.59	0	27.08	0	-2.49
IAQ Ventilation	0	4.44	0	4.44	0	0
Water Heating	0	36.81	0	32.59	0	4.22
Self Utilization/Flexibility Credit				0		0
Efficiency Compliance Total	**0**	**72.25**	**0**	**71.75**	**0**	**0.5**
Photovoltaics		0		0		
Battery				0		
Flexibility						
Indoor Lighting	0	6.52	0	6.52		
Appl. & Cooking	0	37.34	0	37.32		
Plug Loads	0	50.48	0	50.48		
Outdoor Lighting	0	4.46	0	4.46		
TOTAL COMPLIANCE	**0**	**171.05**	**0**	**170.53**		

ENERGY USE INTENSITY				
	Standard Design (kBtu/ft^2 - yr)	Proposed Design (kBtu/ft^2 - yr)	Margin (kBtu/ft^2 - yr)	Margin Percentage
Gross EUI[1]	27.78	27.01	0.77	2.77
Net EUI[2]	27.78	27.01	0.77	2.77

Notes
1. Gross EUI is Energy Use Total (not including PV) / Total Building Area.
2. Net EUI is Energy Use Total (including PV) / Total Building Area.

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 • Exposed slab floor in conditioned zone

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 tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry
• Indoor air quality ventilation • Kitchen range hood • Minimum Airflow • Verified SEER/SEER2 • Verified Refrigerant Charge • Fan Efficacy Watts/CFM • Verified HSPF2 • Verified heat pump rated heating capacity • Duct leakage testing

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	Status
1st Floor Zone	Conditioned	New HVAC1	920	8	DHW Sys 1	New

OPAQUE SURFACES									
01	02	03	04	05	06	07	08	09	10
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window and Door Area (ft2)	Tilt (deg)	Wall Exceptions	Status
North Wall (New)	1st Floor Zone	R-15 Wall	0	Front	225	61	90	Ex. w/ Siding	New
East Wall (New)	1st Floor Zone	R-15 Wall	90	Left	342	64	90	Ex. w/ Siding	New
South Wall (New)	1st Floor Zone	R-15 Wall	180	Back	225	6	90	Ex. w/ Siding	New
West Wall (New)	1st Floor Zone	R-15 Wall	270	Right	342	0	90	Ex. w/ Siding	New
Roof	1st Floor Zone	R-30 Ceiling + R-15 Roof	n/a	n/a	920	n/a	n/a		New

ATTIC							
01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic 1st Floor Zone	Attic Roof1st Floor Zone	Ventilated	4	0.1	0.85	No	No

FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
North Window (New)	Window	North Wall (New)	Front	0			1	24	0.3	NFRC	0.23	NFRC	Bug Screen
East Window (New)	Window	East Wall (New)	Left	90			1	24	0.3	NFRC	0.23	NFRC	Bug Screen
East Window (New) 2	Window	East Wall (New)	Left	90			1	20	0.3	NFRC	0.23	NFRC	Bug Screen
East Window (New) 3	Window	East Wall (New)	Left	90			1	20	0.3	NFRC	0.23	NFRC	Bug Screen

FENESTRATION / GLAZING													
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft^2)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading
South Window (New)	Window	South Wall (New)	Back	180			1	6	0.3	NFRC	0.23	NFRC	Bug Screen

OPAQUE DOORS			
01	02	03	04
Name	Side of Building	Area (ft^2)	U-factor
Solid Core Door	North Wall (New)	17	0.2
Solid Core Door 2	North Wall (New)	20	0.2

SLAB FLOORS							
01	02	03	04	05	06	07	08
Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	1st Floor Zone	920	0.1	none	0	0%	No

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco

OPAQUE SURFACE CONSTRUCTIONS							
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
Attic Roof1st Floor Zone	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-15	None / 0	0.07	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: R-13.0 / 2x4 Around Roof Joists: R-2.0 insul.
R-30 Ceiling + R-15 Roof	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-20.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION				
01	02	03	04	05
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50	CFM50
Not Required	Not Required	N/A	n/a	n/a

WATER HEATING SYSTEMS								
01	02	03	04	05	06	07	08	09
Name	System Type	Distribution Type	Water Heater Name	Number of Units	Solar Heating System	Compact Distribution	HERS Verification	Water Heater Name (#)
DHW Sys 1	Domestic Hot Water (DHW)	Standard	DHW Heater 1	1	n/a	None	n/a	DHW Heater 1 (1)

WATER HEATERS												
01	02	03	04	05	06	07	08	09	10	11	12	13
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Heating Efficiency Type	Efficiency	Rated Input Type	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	Tank Location
DHW Heater 1	Gas	Consumer Instantaneous	1	0	UEF	0.95	Btu/Hr	200000	0	n/a	n/a	

WATER HEATING - HERS VERIFICATION						
01	02	03	04	05	06	07
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required

SPACE CONDITIONING SYSTEMS							
01	02	03	04	05	06	07	08
Name	System Type	Heating Unit Name	Heating Equipment Count	Cooling Unit Name	Cooling Equipment Count	Fan Name	Distribution Name
New HVAC1	Heat pump heating cooling	Heat Pump System 1	1	Heat Pump System 1	1	HVAC Fan 1	Air Distribution System 1

HVAC - HEAT PUMPS												
01	02	03	04	05	06	07	08	09	10	11	12	13
			Heating				Cooling					
Name	System Type	Number of Units	Heating Efficiency Type	HSPF/HS PF2/COP	Cap 47	Cap 17	Cooling Efficiency Type	SEER/SEER2	EER/EER 2/CEER	Zonally Controlled	Compressor Type	HERS Verification
Heat Pump System 1	Central split HP	1	HSPF2	9.5	24000	18000	EER2SEER2	16	11.7	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump

HVAC HEAT PUMPS - HERS VERIFICATION								
01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER/EER2	Verified SEER/SEER2	Verified Refrigerant Charge	Verified HSPF/HSPF2	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System 1-hers-htpump	Required	350	Not Required	Required	Yes	Yes	Yes	Yes

HVAC - DISTRIBUTION SYSTEMS											
01	02	03	04	05	06	07	08	09	10	11	12
			Duct Ins. R-value		Duct Location		Surface Area				
Name	Type	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification
Air Distribution System 1	Unconditioned attic	Non-Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct	Sealed and Tested	Air Distribution System 1-hers-dist

DOMUS PLANS
24257 SANTA CLARA AVE #9
DANA POINT, CA. 92629
PH: 949 489 9392
DOMUSPLANS@GMAIL.COM

MAPLE WOOD PROJECT

4063 MAPLEWOOD PLACE, RIVERSIDE, CA. 92506

N.	REVISION

SCALE

DATE 9/12/2025 9:27:03 AM

PROJECT Project Number

SHEET

T24

2022 Single-Family Residential Mandatory Requirements Summary

NOTE: Single-family residential buildings subject to the Energy Codes must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. (04/2022)

Building Envelope:

§ 110.6(a)1:**Air Leakage.** Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 CFM per square foot or less when tested per NFRC-400, ASTM E283, or AAMA/WDMA/CSA 101/I.S.2/A440-2011. *§ 110.6(a)5:**Labeling.** Fenestration products and exterior doors must have a label meeting the requirements of § 10-111(a).§ 110.6(b):**Field fabricated exterior doors and fenestration** products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather-stripped. *§ 110.7:**Air Leakage.** All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.§ 110.8(a):**Insulation Certification by Manufacturers.** Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).§ 110.8(g):**Insulation Requirements for Heated Slab Floors.** Heated slab floors must be insulated per the requirements of § 110.8(g).§ 110.8(i):**Roofing Products Solar Reflectance and Thermal Emittance.** The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.§ 110.8(j):**Radiant Barrier.** When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.

§ 150.0(a):**Roof Deck, Ceiling and Rafter Roof Insulation.** Roof decks in newly constructed attics in climate zones 4 and 8-16 area-weighted average U-factor not exceeding U-0.184. Ceiling and rafter roofs minimum R-22 insulation in wood-frame ceiling; or area-weighted average U-factor must not exceed 0.043. Rafter roof alterations minimum R-19 or area-weighted average U-factor of 0.054 or less. Attic access doors must have permanently attached insulation using adhesive or mechanical fasteners. The attic access must be gasketed to prevent air leakage. Insulation must be installed in direct contact with a roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited to placing insulation either above or below the roof deck or on top of a drywall ceiling. *§ 150.0(b):**Loose-fill Insulation.** Loose fill insulation must meet the manufacturer's required density for the labeled R-value.

§ 150.0(c):**Wall Insulation.** Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B. *§ 150.0(d):**Raised-floor Insulation.** Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor. *

§ 150.0(f):**Slab Edge Insulation.** Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).§ 150.0(g)1:**Vapor Retarder.** In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to §150.0(d).§ 150.0(g)2:**Vapor Retarder.** In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.§ 150.0(q):**Fenestration Products.** Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.45; or area-weighted average U-factor of all fenestration must not exceed 0.45. *

Fireplaces, Decorative Gas Appliances, and Gas Log:

§ 110.5(e)**Pilot Light.** Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.§ 150.0(e)1:**Closable Doors.** Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.§ 150.0(e)2:**Combustion Intake.** Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device. *§ 150.0(e)3:**Flue Damper.** Masonry or factory-built fireplaces must have a flue damper with a readily accessible control. *

Space Conditioning, Water Heating, and Plumbing System Certification. Heating, ventilation, and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other

§ 110.0-§ 110.3: regulated appliances must be certified by the manufacturer to the California Energy Commission. *§ 110.2(a):**HVAC Efficiency.** Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-N. *

§ 110.2(b):**Controls for Heat Pumps with Supplementary Electric Resistance Heaters.** Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating. *§ 110.2(c):**Thermostats.** All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat. *

§ 110.3(c)3:**Insulation.** Unfired service water heater storage tanks and solar water-heating backup tanks must have adequate insulation, or tank surface heat loss rating.§ 110.3(c)6:**Isolation Valves.** Instantaneous water heaters with an input rating greater than 6.8 kBtu per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.

§ 110.5:**Pilot Lights.** Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters. *

§ 150.0(h)1:**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.§ 150.0(h)3A:**Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer.§150.0(h)3B:**Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.

§ 150.0(j)1:**Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation.** All domestic hot water piping must be insulated as specified in § 609.11 of the California Plumbing Code. *

§ 150.0(j)2:**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment` maintenance, and wind as required by §120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.

§ 150.0(n)1:**Gas or Propane Water Heating Systems.** Systems using gas or propane water heaters to serve individual dwelling units must designate a space at least 2.5' x 2.5' x 7' suitable for the future installation of a heat pump water heater, and meet electrical and plumbing requirements, based on the distance between this designated space and the water heater location; and a condensate drain no more than 2' higher than the base of the water heater

§ 150.0(n)3:**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the executive director.**Ducts and Fans:**

§ 110.8(d)3:**Ducts.** Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.

§ 150.0(m)1:**CMC Compliance.** All air-distribution system ducts and plenums must meet CMC §§ 601.0-605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to R-6.0 or higher; ducts located entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8) do not require insulation. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable UL requirements, or aerosol sealant that meets UL 723. The combination of mastic and either mesh or tape must be used to seal openings greater than ¼", If mastic or tape is used. Building cavities, air handler support platforms, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used to convey conditioned air. Building cavities and support platforms may contain ducts; ducts installed in these spaces must not be compressed *

§ 150.0(m)2:**Factory-Fabricated Duct Systems.** Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tape is used in combination with mastic and draw bands.§ 150.0(m)3:**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.§ 150.0(m)7:**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.§ 150.0(m)8:**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.

§ 150.0(m)9:**Protection of Insulation.** Insulation must be protected from damage due tosunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service (e.g., protected by aluminum, sheet metal, painted canvas, or plastic cover). Cellular foam insulation must be protected as above or painted with a water retardant and solar radiation-resistant coating.§ 150.0(m)10:**Porous Inner Core Flex Duct.** Porous inner cores of flex ducts must have a non-porous layer or air barrier between the inner core and outer vapor barrier.

§ 150.0(m)11:**Duct System Sealing and Leakage Test.** When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with Reference Residential Appendix RA3.1.

§ 150.0(m)12:**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a two inch depth or can be one inch if sized per Equation 150.0-A. Clean-filter pressure drop and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service. Filter racks or grilles must use gaskets, sealing, or other means to close gaps around the inserted filters to and prevents air from bypassing the filter. *

Space Conditioning System Airflow Rate and Fan Efficacy. Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must

§ 150.0(m)13: be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3. *

Ventilation and Indoor Air Quality:

§ 150.0(o)1:**Requirements for Ventilation and Indoor Air Quality**. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1. *§ 150.0(o)1B:**Central Fan Integrated (CFI) Ventilation Systems.** Continuous operation of CFI air handlers is not allowed to provide the whole- dwelling unit ventilation airflow required per §150.0(o)1C. A motorized damper(s) must be installed on the ventilation duct(s) that prevents all airflow through the space conditioning duct system when the damper(s) is closed andcontrolled per §150.0(o)1Biii&iv. CFI ventilation systems must have controls that track outdoor air ventilation run time, and either open or close the motorized damper(s) for compliance with §150.0(o)1C.

§ 150.0(o)1C:**Whole-Dwelling Unit Mechanical Ventilation for Single-Family Detached and townhouses .** Single-family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow specified in § 150.0(o)1Ci-iii.§ 150.0(o)1G:**Local Mechanical Exhaust.** Kitchens and bathrooms must have local mechanical exhaust; nonenclosed kitchens must have demand-controlled exhaust system meeting requirements of §150.0(o)1Giii,enclosed kitchens and bathrooms can use demand-controlled or continuous exhaust meeting §150.0(o)1Giii-iv. Airflow must be measured by the installer per §150.0(o)1Gv, and rated for sound per §150.0(o)1Gvi. *§ 150.0(o)1H&I: **Airflow Measurement and Sound Ratings of Whole-Dwelling Unit Ventilation Systems.** The airflow required per § 150.0(o)1C must be measured by using a flow hood, flow grid, or other airflow measuring device at the fan's inlet or outlet terminals/grilles per Reference Residential Appendix RA3.7. Whole-Dwelling unit ventilation systems must be rated for sound per ASHRAE 62.2 §7.2 at no less than the minimum airflow rate required by §150.0(o)1C.

§ 150.0(o)2:**Field Verification and Diagnostic Testing.** Whole-Dwelling Unit ventilation airflow, vented range hood airflow and sound rating, and HRV and ERV fan efficacy must be verified in accordance with Reference Residential Appendix RA3.7. Vented range hoods must be verified per Reference Residential Appendix RA3.7.4.3 to confirm if it is rated by HVI or AHAM to comply with the airflow rates and sound requirements per §150.0(o)1G.**Pool and Spa Systems and Equipment:**

§ 110.4(a):**Certification by Manufacturers.** Any pool or spa heating system or equipment must be certified to have all of the following: compliance with the Appliance Efficiency Regulations and listing in MAEDbS; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating. *§ 110.4(b)1:**Piping.** Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.§ 110.4(b)2:**Covers.** Outdoor pools or spas that have a heat pump or gas heater must have a cover.§ 110.4(b)3:**Directional Inlets and Time Switches for Pools.** Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.§ 110.5:**Pilot Light.** Natural gas pool and spa heaters must not have a continuously burning pilot light.§ 150.0(p):**Pool Systems and Equipment Installation.** Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves. ***Lighting:**

§ 110.9:**Lighting Controls and Components.** All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9. *§ 150.0(k)1A:**Luminaire Efficacy.** All installed luminaires must meet the requirements in Table 150.0-A, except lighting integral to exhaust fans, kitchen range hoods, bath vanity mirrors, and garage door openers; navigation lighting less than 5 watts; and lighting internal to drawers, cabinets, and linen closets with an efficacy of at least 45 lumens per watt.§ 150.0(k)1B:**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *§ 150.0(k)1C:**Recessed Downlight Luminaires in Ceilings.** Luminaires recessed into ceilings must not contain screw based sockets, must be airtight, and must be sealed with a gasket or caulk. California Electrical Code § 410.116 must also be met.§ 150.0(k)1D:**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.§ 150.0(k)1E:**Blank Electrical Boxes.** The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device shall be no more than the number of bedrooms. These boxes must be served by a dimmer, vacancy sensor control, low voltage wiring, or fan speed control.§ 150.0(k)1F:**Lighting Integral to Exhaust Fans.** Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods)must meet the applicable requirements of § 150.0(k). *§ 150.0(k)1G:**Screw based luminaires.** Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8. *

§ 150.0(k)1H:**Light Sources in Enclosed or Recessed Luminaires.** Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.

§ 150.0(k)1I:**Light Sources in Drawers, Cabinets, and Linen Closets.** Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.§ 150.0(k)2A:**Interior Switches and Controls.** All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.§ 150.0(k)2B:**Interior Switches and Controls.** Exhaust fans must be controlled separately from lighting systems. *§ 150.0(k)2A:**Accessible Controls.** Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned on and off. *§ 150.0(k)2B:**Multiple Controls.** Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the dimmer or sensor is installed to comply with § 150.0(k).§ 150.0(k)2C:**Mandatory Requirements.** Lighting controls must comply with the applicable requirements of § 110.9.

§ 150.0(k)2D:**Energy Management Control Systems.** An energy management control system (EMCS) may be used to comply with dimming, occupancy, and control requirements if it provides the functionality of the specified control per § 110.9 and the physical controls specified in § 150.0(k)2A.

§ 150.0(k)2E:**Automatic Shutoff Controls.** In bathrooms, garages, laundry rooms, utility rooms and walk-in closets, at least one installed luminaire must be controlled by an occupancy or vacancy sensor providing automatic-off functionality. Lighting inside drawers and cabinets with opaque fronts or doors must have controls that turn the light off when the drawer or door is closed.§ 150.0(k)2F:**Dimmers.** Lighting in habitable spaces (e.g., living rooms, dining rooms, kitchens, and bedrooms) must have readily accessible wall- mounted dimming controls that allow the lighting to be manually adjusted up and down. Forward phase cut dimmers controlling LED light sources in these spaces must comply with NEMA SSL 7A.§ 150.0(k)2K:**Independent controls.** Integrated lighting of exhaust fans shall be controlled independently from the fans. Lighting under cabinets or shelves, lighting in display cabinets, and switched outlets must be controlled separately from ceiling-installed lighting.

§ 150.0(k)3A:**Residential Outdoor Lighting.** For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must have a manual on/off switch and either a photocell and motion sensor or automatic time switch control) or an astronomical time clock. An energy management control system that provides the specified control functionality and meets all applicable requirements may be used to meet these requirements.§ 150.0(k)4:**Internally illuminated address signs.** Internally illuminated address signs must either comply with § 140.8 or consume no more than 5 watts of power.§ 150.0(k)5:**Residential Garages for Eight or More Vehicles.** Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in §§ 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.**Solar Readiness:**

§ 110.10(a)1:**Single-family Residences.** Single-family residences located in subdivisions with 10 or more single-family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b)-(e). §110.10(b)1A:**Minimum Solar Zone Area.** The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single-family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. *§ 110.10(b)2:**Azimuth.** All sections of the solar zone located on steep-sloped roofs must have an azimuth between 90-300° of true north.**Shading.** The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof

§ 110.10(b)3A: mounted equipment. ***Shading.** Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the

§ 110.10(b)3B: horizontal distance of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane. *§ 110.10(b)4:**Structural Design Loads on Construction Documents.** For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.

§ 110.10(c):**Interconnection Pathways.** The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single-family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.§ 110.10(d)**Documentation.** A copy of the construction documents or a comparable document indicating the information from § 110.10(b)-(c) must be provided to the occupant.§ 110.10(e)1:**Main Electrical Service Panel.** The main electrical service panel must have a minimum busbar rating of 200 amps.§ 110.10(e)2:**Main Electrical Service Panel.** The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric."**Electric and Energy Storage Ready:**

§ 150.0(s)**Energy Storage System (ESS) Ready.** All single-family residences must meet all of the following: Either ESS-ready interconnection equipment with backed up capacity of 60 amps or more and four or more ESS supplied branch circuits, or a dedicated raceway from the main service to a subpanel that supplies the branch circuits in § 150.0(s); at least four branch circuits must be identified and have their source collocated at a single panelboard suitable to be supplied by the ESS, with one circuit supplying the refrigerator, one lighting circuit near the primary exit, and one circuit supplying a sleeping room receptacle outlet; main panelboard must have a minimum busbar rating of 225 amps; sufficient space must be reserved to allow future installation of a system isolation equipment/transfer switch within 3' of the main panelboard, with raceways installed between the panelboard and the switch location to allow the connection of backup power source.§ 150.0(t)**Heat Pump Space Heater Ready.** Systems using gas or propane furnaces to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the furnace with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."§ 150.0(u)**Electric Cooktop Ready.** Systems using gas or propane cooktop to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the cooktop with circuit conductors rated at least 50 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."§ 150.0(v)**Electric Clothes Dryer Ready.** Clothes dryer locations with gas or propane plumbing to serve individual dwelling units must include: A dedicated unobstructed 240V branch circuit wiring installed within 3' of the dryer location with circuit conductors rated at least 30 amps with the blank cover identified as "240V ready;" and a reserved main electrical service panel space to allow for the installation of a double pole circuit breaker permanently marked as "For Future 240V use."

RESIDENTIAL MEASURES SUMMARY — RMS-1

Project Name	Building Type	Date
4061 Maplewood Place	☑ Single Family ☑ Addition Alone ☐ Multi Family ☐ Existing+ Addition/Alteration	5/31/2025

Project Address	California Energy Climate Zone	Total Cond. Floor Area	Addition	# of Units
4061 Maplewood Place Riverside	CA Climate Zone 10	920	920	1

INSULATION

Construction	Type	Cavity	Area (ft²)	Special Features	Status
Wall	Wood Framed	R 15	164		New
Door	Opaque Door	R-5	37		New
Wall	Wood Framed	R 15	278		New
Wall	Wood Framed	R 15	219		New
Wall	Wood Framed	R 15	342		New
Slab	Unheated Slab-on-Grade	- no insulation	920	Perim = 0'	New
Roof	Wood Framed Attic	R 30	920	Add=R-15.0	New

FENESTRATION Total Area: 94 Glazing Percentage: 10.2% New/Altered Average U-Factor: 0.30

Orientation	Area(ft²)	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades	Status
Front (N)	24.0	0.300	0.23	none	none	N/A	New
Left (E)	64.0	0.300	0.23	none	none	N/A	New
Rear (S)	6.0	0.300	0.23	none	none	N/A	New

HVAC SYSTEMS

Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
1	Electric Heat Pump	9.50 HSPF2	Split Heat Pump	16.0 SEER2	Setback	New

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status
New HVAC	Ducted	Ducted	Attic	6.0	New

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status
1	Small Instantaneous Gas	1	0.95	Standard	New

EnergyPro 9.4 by EnergySoft User Number: 42008 ID: 250247 Page 14 of 20

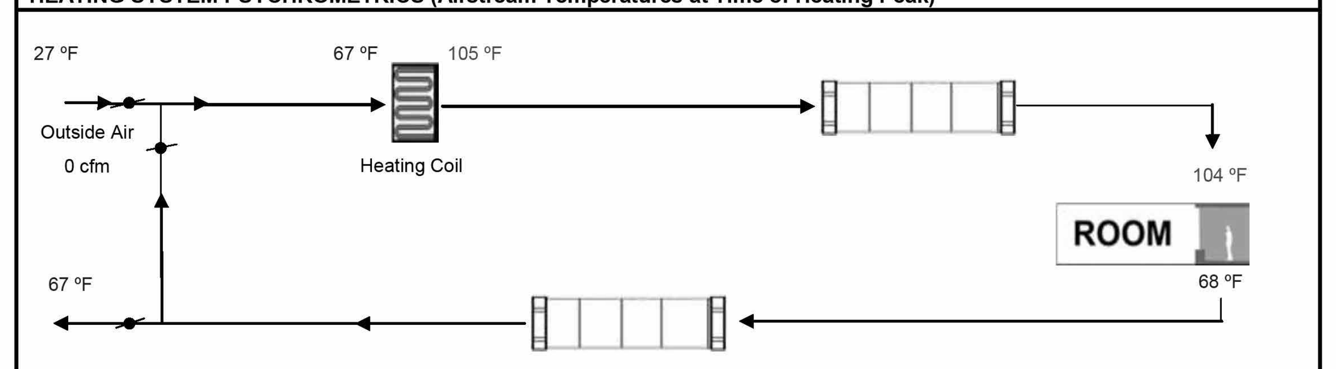
HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
4061 Maplewood Place	5/31/2025
System Name	**Floor Area**
New HVAC	920

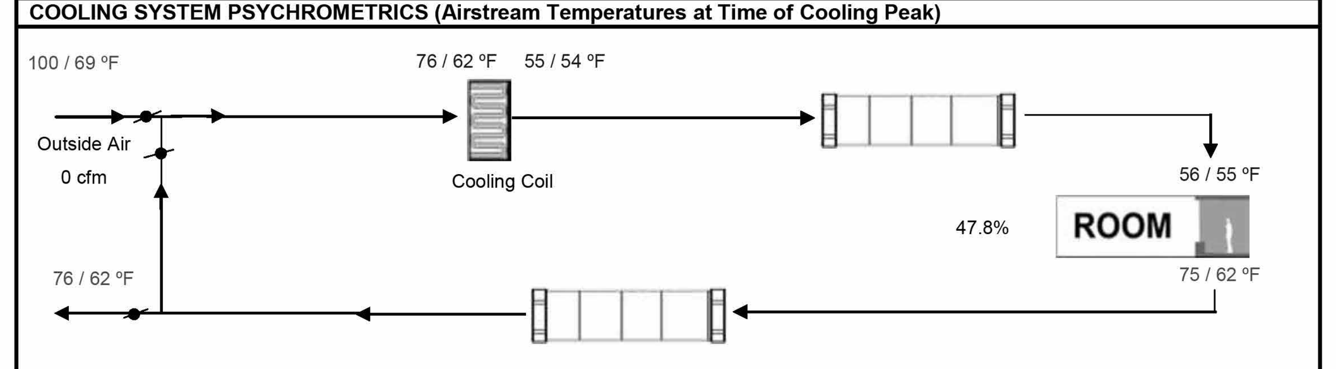
ENGINEERING CHECKS	
Number of Systems	1
Heating System	
Output per System	24,000
Total Output (Btuh)	24,000
Output (Btuh/sqft)	26.1
Cooling System	
Output per System	24,000
Total Output (Btuh)	24,000
Total Output (Tons)	2.0
Total Output (Btuh/sqft)	26.1
Total Output (sqft/Ton)	460.0
Air System	
CFM per System	0
Airflow (cfm)	0
Airflow (cfm/sqft)	0.00
Airflow (cfm/Ton)	0.0
Outside Air (%)	0.0%
Outside Air (cfm/sqft)	0.00
Note: values above given at ARI conditions	

SYSTEM LOAD	COIL COOLING PEAK CFM	Sensible	Latent	COIL HTG. PEAK CFM	Sensible
Total Room Loads	456	9,081	306	229	8,679
Return Vented Lighting		0			
Return Air Ducts		478			372
Return Fan		0			0
Ventilation	0	0	0	0	0
Supply Fan		0			0
Supply Air Ducts		478			372
TOTAL SYSTEM LOAD		10,037	306		9,424
HVAC EQUIPMENT SELECTION					
Heat Pump HVAC		21,543	226		15,402
Total Adjusted System Output (Adjusted for Peak Design conditions)		21,543	226		15,402
TIME OF SYSTEM PEAK		Aug 3 PM			Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)



CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01-E

Project Name: 4061 Maplewood Place **Calculation Date/Time:** 2025-05-31T17:59:40-07:00 (Page 10 of 11)

Calculation Description: Title 24 Analysis **Input File Name:** 250247_RD.ribd22x

HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	5.0	Not Required	Not Required	Not Required	Credit not taken	Not Required	No

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	Name
HVAC Fan 1	HVAC Fan	0.45	HVAC Fan 1-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
HVAC Fan 1-hers-fan	Required	0.45

INDOOR AIR QUALITY (IAQ) FANS

01	02	03	04	05	06	07	08	09
Dwelling Unit	Airflow (CFM)	Fan Efficacy (W/CFM)	IAQ Fan Type	Includes Heat/Energy Recovery?	IAQ Recovery Effectiveness - SRE/ASRE	Includes Fault Indicator Display?	HERS Verification	Status
SFam ADU IAQVentRpt	50	0.35	Exhaust	No	n/a / n/a	No	Yes	

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01-E

Project Name: 4061 Maplewood Place **Calculation Date/Time:** 2025-05-31T17:59:40-07:00 (Page 11 of 11)

Calculation Description: Title 24 Analysis **Input File Name:** 250247_RD.ribd22x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Raffi Dar	Documentation Author Signature: Raffi Dar
Company: Precise Green Consulting Inc.	Signature Date: 05/31/2025
Address: 140 Smith Dr	CEA/ HERS Certification Identification (If applicable):
City/State/Zip: Claremont, CA 91711	Phone: 818-446-6563

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: Raffi Dar	Responsible Designer Signature: Raffi Dar
Company: Precise Green Consulting Inc.	Date Signed: 05/31/2025
Address: 140 Smith Dr	License:
City/State/Zip: Claremont, CA 91711	Phone: 818-446-6563

DOMUS PLANS
24257 SANTA CLARA AVE #9
DANA POINT, CA. 92629
PH: 949 489 9392
DOMUSPLANS@GMAIL.COM

[illegible]

MAPLE WOOD PROJECT

4063 MAPLEWOOD PLACE, RIVERSIDE, CA. 92506

N.	REVISION

SCALE

DATE 9/12/2025 9:27:04 AM

PROJECT Project Number

SHEET

T24-1

GENERAL NOTES

1. CONTRACTOR TO ASSUME FULL RESPONSIBILITY FOR ABIDING TO ALL APPLICABLE CALIFORNIA BUILDING CODES, LOCAL CITY ORDINANCES, ZONING REQUIREMENTS, AND LICENSING/PERMIT REQUIREMENTS. CONTRACTOR IS FULLY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES INCLUDING WITHOUT LIMITATION TO DEMOLITION, EXCAVATION AND ERECTION PROCEDURES.
2. THE CONTRACTOR SHALL EXAMINE THE CONSTRICTION DOCUMENTS AND NOTIFY THE PROJECT ENGINEER & ARCHITECT OF ANY DISCREPANCIES, ERRORS, OR OMISSIONS SHE/HE MAY FIND BEFORE PROCEEDING WITH THE WORK.
3. NOTIFY THE PROJECT ENGINEER OF ANY DESIGN CHANGES PROPOSED BY OWNER OR THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION. SUCH CHANGES AFFECTING ROOM ADDITION DESIGN MAY ALSO AFFECT STRUCTURAL DESIGN.
4. ANY SUBCONTRACTOR WHICH AGREES TO CONSTRUCT THE PROJECT PURSUANT TO THESE PLANS FULLY ASSUMES THE RISK OF ALL ERRORS AND OMISSIONS WHICH SHOULD HAVE BEEN DETECTED BY A CAREFUL REVIEW BY A KNOWLEDGEABLE LICENSED CONTRACTOR, THAT WHICH FOR ANY REASON WERE NOT RESOLVED DURING THE BIDDING OR NEGOTIATION PROCESS. FURTHER, THE CONTRACTOR SHALL CAREFULLY REVIEW THESE PLANS AS THE WORK PROGRESSES IN ORDER TO IDENTIFY ANY SIGNIFICANT ERRORS AND OMISSIONS AND TO ASCERTAIN ALL NECESSARY INFORMATION BEFORE PROCEEDING WITH THE AFFECTED WORK, AND ASSUMES THE RISK OF ANY AND ALL LOSS, INCLUDING DELAY, WHICH MAY BE CAUSED OR CONTRIBUTED TO BY THE FAILURE TO ASCERTAIN CORRECT OR NECESSARY INFORMATION IN A TIMELY MANNER.
5. ALL TRADES SHALL, AT ALL TIMES, KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY THEIR WORK, AND AT THE COMPLETION OF THE WORK SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE JOBSITE AND ALL THEIR TOOLS, SCAFFOLDING AND SURPLUS MATERIALS, AND SHALL LEAVE THE JOB BROOM CLEAN, INCLUDING REMOVING ALL LABELS, STICKERS, PAINT SMEARS, ETC.., FROM LIGHTING FIXTURES, PLUMBING FIXTURES, GLASS SURFACES, FINISH HARDWARE, CABINETS, COUNTER TOPS, ETC.
6. EXCEPT WHERE MORE STRINGENT REQUIREMENTS ARE NOTED OR SHOWN ON THE PLANS, WORKMANSHIP & MATERIALS SHALL CONFORM, TO THE LATEST EDITION OF THE C.B.C. OR LOCAL CODE.
7. THE PLANS SHALL BE REVIEWED FOR DIMENSIONAL & EXISTING SITE CONFORMANCE WITH THE PLANS BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE ARCHITECT & ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES.
8. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS IN THE FIELD; AND ALL QUESTIONS AS TO DIMENSIONS AND FIELD CONDITIONS SHALL BE RESOLVED BEFORE THE AFFECTED WORK PROCEEDS. NO DIMENSIONS SHALL BE OBTAINED BY SCALING THESE PLANS.
9. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR DIMENSIONS AND CONDITIONS OF THE JOB.
10. THE PRECISE DIMENSIONS AND LOCATIONS OF ALL DOOR, WINDOW AND ROOF OPENINGS SHALL BE DETERMINED FROM DRAWINGS AND OTHER FLOOR, WALL OPENING REQUIRED BY MECHANICAL OR ELECTRICAL SHALL BE VERIFIED FROM SHOP DRAWINGS, EQUIPMENT DATA SHEETS, ETC. AS REQUIRED.
11. ITEMS IDENTIFIED BY TRADE NAMES MAY BE SUBSTITUTED BY APPROVED EQUALS.
12. NOTES & DETAILS ON DRAWINGS SHALL PRECEDE THESE GENERAL NOTES.
13. PROVIDE ANY SHORING & OR BRACING PRIOR TO REMOVING EXISTING WALLS, BEAMS, OR SUPPORTS FOR CONSTRUCTION. REMOVE SHORING ONLY WHEN NEW SUPPORTS ARE IN PLACE AND SECURED.
14. PROVIDE RED HEADS INTO EXISTING CONCRETE AT ALL SHEAR WALLS PER MFG. SPECIFICATIONS. SEE SHEAR WALL SCHEDULE FOR SIZE AND SPACING.
15. PROVIDE SIMPSON ST-6224 BETWEEN NEW WALLS AND EXISTING WALLS AT THE DOUBLE TOP PLATE.
16. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON DRAWINGS AND PROTECT THEM FROM DAMAGE
17. DO NOT CUT POST TENSION SLABS. CONTRACTOR TO DETERMINE EXISTING CONDITIONS PRIOR TO START OF CONSTRUCTION.
18. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS FOR FOOTING, BEAMS AND JOISTS, SIZES, LOCATIONS, ETC., AND SHALL NOTIFY THE ARCHITECT & ENGINEER OF ANY DISCREPANCIES.
19. DOWEL NEW INTO EXISTING SLABS W/ #4 REBAR @ 24" O.C. AND FOOTINGS W/ DOWELS TO MATCH NEW REINF. SIZE/ LOCATION.

SOIL NOTES

1. CONCRETE SLABS ON GRADE HAVE NOT BEEN DESIGNED BY THE STRUCTURAL ENGINEER.
2. THE VIBRATIONAL EFFECTS OF MECHANICAL EQUIPMENT HAVE NOT BEEN CONSIDERED BY THE STRUCTURAL ENGINEER.
3. THE DESIGN, ADEQUACY AND SAFETY OF ERECTION, BRACING SHORING, TEMPORARY SUPPORTS ETC., IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND HAS NOT BEEN CONSIDERED BY THE STRUCTURAL ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING THE ENTIRE COURSE OF CONSTRUCTION. THE ENGINEER SHALL NOT BE HELD RESPONSIBLE FOR FIELD INSPECTION/OBSERVATION OF THE ABOVE ITEMS.
4. ALLOWABLE SOILS PRESSURE TO BE A MINIMUM OF 1500 PSF WHEN A SOIL REPORT IS NOT IN HAND. SOILS IN THE BUILDING AREA & 5 FEET BEYOND SHALL BE COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION PER 2022-CBC.

   REFER TO SOIL REPORT BY:
   JOB NUMBER: DATED:

   SOIL BEARING CAPACITY: 1500 PCF
   ACTIVE SOIL PRESSURE: PCF
   PASSIVE SOIL PRESSURE: 100 PCF

DESIGN LOAD:

1. VERTICAL LOADS

	LIVE LOAD (PSF)	DEAD LOAD (PSF)
ROOF	20	14
FLOOR	40	N/A
DECK	N/A	N/A

2. WIND DESIGN DATA:(CBC 1603.1.4) (1)
   1. BASIC WIND SPEED, V=96 MPH.
   2. WIND IMPORTANCE FACTOR, I=1.0
   3. WIND EXPOSURE "C"
   4. INTERNAL PRESSURE, GCpi= ± 0.18
   5. DESIGN WIND PRESSURE, P= 16.83 psf
3. SEISMIC DESIGN DATA:(CBC 1603.1.5)
   IMPORTANCE FACTOR, I=1.0
   RISK CATEGORY, II
   MAPPED SPECTRAL RESPONSE ACCEL, Ss=(1.5), S1=(0.598)
   SITE CLASS, "D"
   SPECTRAL RESPONSE COEFFICIENTS, SDs=(1.2), SD1=(0.678)
   SEISMIC DESIGN CATEGORY, "E"
   BASIC SEISMIC FORCE-RESISTING SYSTEM:
   A. WOOD SHEAR WALL, R=6.5
   SEISMIC RESPONSE COEFFICIENT, Cs=0.18 (STRENGTH LEVEL)
   ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE

DRAINAGE NOTES

1. MINIMUM GRADIENTS ARE AS FOLLOWS: EARTH= 2%, PAVING= .5%
2. POSITIVE DRAINAGE AWAY FROM STRUCTURES SHALL BE AS FOLLOWS: 2%MIN. AND 21%MAX. SWALES TO BE 3 FEET MIN. AWAY FROM STRUCTURES.

FOUNDATION NOTES

1. SOIL BENEATH FOOTINGS AND SLABS SHALL BE COMPACTED PER 2022 C.B.C. (90%) RELATIVE COMPACTION MINIMUM.
2. CONTINUOUS FOOTINGS AND GRADE BEAMS SHALL BE EXCAVATED TO THE DEPTH SHOWN ON THE DRAWINGS BELOW UNDISTURBED SOIL OR COMPACTED EARTH. PROVIDE 2-#4 HORIZONTAL BARS ON TOP AND BOTTOM U.N.O. ON FOUNDATION PLAN.
3. INTERIOR SLAB ON GRADE: 6" NET CONC. SLAB W/ #4 @ 16" O.C. EA. WAY @ CENTER OF SLAB POURED MONOLITHICALLY, OVER 2" SAND, OVER 10 MIL VISQUEEN VAPOR BARRIER, OVER 2" SAND BED, OVER COMPACTED SOIL U.N.O.
4. NO TRENCHES OR EXCAVATIONS 5 FEET IN DEPTH OR GREATER INTO WHICH A PERSON SHALL BE REQUIRED TO DESCEND SHALL BE MADE WITHOUT PROPER PERMIT.
5. PIPES OR DUCTS THAT EXCEED 1/3 THE SLAB OR CONC. WALL THICKNESS SHALL NOT BE PLACED IN STRUCTURAL CONC. UNLESS SPECIFICALLY DETAILED. SEE MECHANICAL AND/OR ELECTRICAL DRAWINGS FOR LOCATION OF SLEEVES, ACCESSORIES, ETC.
6. PIPES MAY PASS THRU STRUCTURAL CONC. IN SLEEVES, BUT SHALL NOT BE EMBEDDED THEREIN.
7. PROVIDE 3/4" CAMBERS AT ALL EXPOSED CORNERS.
8. SEE ARCHITECTURAL PLANS FOR MOLDS, GROOVES, ORNAMENTS, CLIPS OR GROUNDS REQUIRED TO BE CAST IN CONCRETE, AND FOR LOCATION OF FLOOR FINISHES AND SLAB DEPRESSIONS.
9. LOCATION OF POUR JOINTS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.
10. FOR ANCHOR BOLTS SEE DETAIL 1/-. ANCHOR BOLTS IN PRESSURE-TREATED AND FIRE-RETARDANT,TREATED WOOD SHALL BE OF HOT-DIPPED,ZINC-COATED GALVANIZED STEEL,STAINLESS STEEL,SILICON BRONZE OR COPPER.
11. PROVIDE SLAB JOINT AT 12'-0" O.C. MAX. SEE DETAIL 5/D2.
12. HOLDDOWN HARDWARE MUST BE SECURED IN PLACE PRIOR TO FOUNDATION INSPECTION.
13. PRIOR TO REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE SOILS ENGINEER SHALL INSPECT AND APPROVE THE FOUNDATION EXCAVATIONS & SLAB SUBGRADE.
14. THE CONCRETE CONTRACTOR SHALL COORDINATE WITH FRAMING CONTRACTOR ON PLACEMENT OF ANCHOR BOLT AND HARDWARE.
15. SEE SCHEDULE FOR SIZE & REINFORCEMENT OF PAD FOOTINGS, GRADE BEAMS IN FOUNDATION PLAN. (IF ANY)
16. ALSO SEE TYP. DETAILS ON SHEET D-2.

CONCRETE NOTES

1. UNLESS OTHERWISE NOTED ON PLANS, CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI IN 28 DAYS.
2. FINE & COURSE AGGREGATE SHALL CONFORM TO A.S.T.M. C-33.
3. USE 3000 PSI CONCRETE AT GRADE BEAMS.
4. CEMENT SHALL CONFORM TO ASTM C-150 (STANDARD BRAND PORTLAND CEMENT) TYPE I/II (USE TYPE V CEMENT IF NOTED IN SOILS REPORT)
5. CONCRETE SHALL BE MACHINE-MIXED USING A MAXIMUM OF 7 GALLONS OF WATER PER SACK OF CEMENT. READY MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94 MIXED AT A RATE OF 5 SACKS OF CEMENT PER CUBIC YARD. MAXIMUM SLUMP SHALL BE 4 INCH AS MEASURED BY THE ASTM STANDARD METHOD OF TESTING FOR SLUMP OF PORTLAND CEMENT CONCRETE.
6. DRY PACK SHALL CONSIST OF 1 PART CEMENT, 3 PARTS SAND. BASED ON DRY LOOSE VOLUMES AND NOT LESS THAN 1/4 PART, NOR MORE THAN 1/2 PART, LINE PUTTY OR DRY HYDRATED LIME. DRY PACK SHALL OBTAIN A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.
7. ADDING CALCIUM CHLORIDE TO CONCRETE OR GROUT IS NOT PERMITTED.
8. CONC. SHALL BE KEPT MOIST FOR 48 HOURS FOR PROPER CURING.

REQUIREMENT FOR CONCRETE EXPOSED TO SULFATE-CONTAINING SOLUTIONS (ACI 4.3)			
SULFATE EXPOSURE	CEMENT TYPE	WATER/CEMENT RATIO	COMPRESSIVE STRENGTH
NEGLIGIBLE	NOT REGULATED	NOT REGULATED	2500psi
MODERATE	I, II	0.5	4000psi
SEVERE	V	0.45	4500psi
VERY SEVERE	V	0.45	4500psi

REINFORCING STEEL NOTES

1. REINFORCING STEEL, #3 AND #4 GRADE 40, #5 AND LARGER GRADE 60 PER A.S.T.M. A615.
2. ALL BARS SHALL BE DEFORMED AS PER ASTM A305.
3. BARS NOTED AS "CONT" TYPICAL WALL REINFORCING AND VERTICAL COLUMN REINFORCING SHALL HAVE A MINIMUM SPLICE OF 50 BAR DIAMETERS LAP IN MASONRY OR 40 BAR DIAMETERS MINIMUM IN CONCRETE.
4. REINFORCING SHALL BE SPLICED ONLY AS SHOWN OR NOTED. OTHER SPLICES SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.
5. SPLICES IN ADJACENT HORIZONTAL WALL REINFORCING BARS SHALL BE STAGGERED 4 FEET UNLESS OTHERWISE NOTED.
6. PROVIDE DOWELS IN FOOTINGS AND/OR GRADE BEAMS THE SAME SIZE AND NUMBER AS VERTICAL WALL OR COLUMN REINFORCING. DOWELS SHALL HAVE A MINIMUM PROJECTION EQUAL TO STANDARD LAP SPLICE UNLESS OTHERWISE NOTED.
7. ALL REINFORCING, ANCHOR BOLTS, AND OTHER INSERTS SHALL BE SECURED IN PLACE PRIOR TO PLACEMENT OF CONCRETE OR GROUTING OF MASONRY.
8. PROVIDE THE FOLLOWING MINIMUM PROTECTIVE COVERING OF CONCRETE:

BELOW GRADE (UNFORMED)	3" CLEAR
BELOW GRADE (FORMED)	2" CLEAR
WALLS	1" CLEAR
COLUMNS	1.5" CLEAR
BEAMS AND GIRDERS	1.5" CLEAR
STRUCTURAL SLAB (ABOVE GRADE)	3/4" CLEAR

9. #5 OR LARGER REINFORCING BARS SHALL NOT BE RE-BENT WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER.

STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL SHALL CONFORM TO ASTM A36,(Fy=36.KSI) FOR PLATES AND TO ASTM A992,(Fy=50.KSI) FOR W-SHAPE STEEL SECTIONS.
2. CORTEN STEEL SHALL CONFORM TO ASTM A588, Fy=50. KSI.
3. STAINLESS STEEL SHALL CONFORM TO ASTM A276 TYPE 304-HOT ROLLED, Fy=18. KSI.
4. FABRICATION, ERECTION & PAINTING SHALL COMPLY WITH THE AISC SPECS. CHAPTER M. (LATEST EDITION).
5. ALL BOLTS FOR STEEL MEMBERS SHALL CONFORM TO ASTM A325 OR A490, UNLESS OTHERWISE NOTED.
6. HIGH TENSILE BOLTS WHERE INDICATED ON THE PLANS OR DETAILS SHALL BE THE FRICTION TYPE AND THERE SHALL BE NO PAINT, OIL, LAQUER, OR GALVANIZING BETWEEN THE CONTACT SURFACES. HIGH TENSILE BOLTS SHALL CONFORM TO ASTM A325 OR A490.
7. HIGH STRENGTH BOLTS SHALL HAVE LOAD INDICATOR WASHERS TO SERVE AS A DIRECT TENSION INDICATOR INSTALLATION FOR HIGH STRENGTH BOLTS SHALL REQUIRE INSPECTION BY A DEPUTY INSPECTOR.
8. ANCHOR RODS SHALL BE ASTM F-1554 GRD. 36 KSI U.N.O. ALL ANCHOR RODS SHALL BE HEADED RODS. ANCHOR ROD WASHER SHALL BE ASTM F436. NUTS SHALL BE ASTM A563.
9. PIPE COLUMNS SHALL CONFORM TO ASTM A-53 GRADE B.
10. STEEL TUBE SHAPED MEMBERS SHALL CONFORM TO ASTM A-500 GRADE B.
11. WHERE FINISH IS ATTACHED TO STRUCTURAL STEEL, PROVIDE NAILERS W/ 1/2" WELDED STUDS AT 2 FEET O.C. SEE ARCHITECTURAL DRAWINGS FOR FINISHES.
12. OPEN WEB JOISTS SHALL COMPLY WITH THE STANDARDS OR "THE STEEL JOIST INSTITUTE".
13. SHOP DRAWINGS SHALL BE PROVIDED TO ENGINEER OR ARCHITECT OF RECORD FOR REVIEW PRIOR TO FABRICATION.

STEEL WELDING NOTES

1. WELDING SHALL BE DONE BY THE ELECTRIC SHIELDED ARC PROCESS W/E70-XX ELECTRODES AND SHALL COMPLY WITH A.W.S. SPECIFICATIONS FOR WELDING AND FABRICATION.
2. WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS WHO ARE APPROVED BY THE LOCAL AUTHORITY USING ARC PROCESS WITH E70-XX ELECTRODES.
3. ALL BUTT WELDS SHALL BE FULL PENETRATION U.N.O.
4. A CERTIFICATE OF FABRICATION FROM THE SHOP PERFORMING WELDING OR A REPORT FROM THE SPECIAL INSPECTOR MUST BE FURNISHED TO THE JOB INSPECTOR PRIOR TO FRAMING APPROVAL.
5. FIELD WELDING OF REINFORCING STEEL SHALL BE DONE BY WELDERS SPECIFICALLY CERTIFIED FOR REINFORCING STEEL WELDING. BEFORE WELDING,THE "CARBON EQUIVALENT" (CE) OF STEEL SHALL BE DETERMINED. IF THE (CE) OF STEEL IS MORE THAN 0.55% , THEY SHALL NOT BE WELDED. WELDABLE REINFORCING STEEL SHALL CONFORM TO ASTM A706.
6. LOW HYDROGEN WELDING RODS SHALL BE USED IN WELDING OF REINF. BARS & BOLTS.

WOOD FRAMING NOTES

GENERAL

1. FRAMING SHALL COMPLY WITH CHAPTER 23 OF THE 2022 CBC.
2. USE SIMPSON U-HANGERS ON ALL RAFTERS/JOISTS/BEAMS CONNECTIONS UNLESS NOTED ON PLANS.
3. ALL POSTS SHALL HAVE SIMPSON "PC" CONNECTORS AT TOP AND SIMPSON "BC" OR "BCO" CONNECTORS AT BASES UNLESS OTHERWISE NOTED ON PLANS.
4. ALL CONNECTING HARDWARE, JOIST HANGERS, TIE STRAPS, ETC., SHALL BE SIMPSON "STRONG TIE" UNLESS OTHERWISE NOTED OR SHOWN ON PLANS.
5. FRAMING @ CHIMNEY ENCLOSURE SHALL BE 2x6 STUDS BALLOON FRAMED W/ APPROVED STRAPS TO ROOF AND FLOOR DIAPHRAGMS.
6. STUCCO LATH AND DRYWALL SHALL BE NAILED TO ALL STUDS AND TOP AND BOTTOM PLATES. (WHERE APPLICABLE)
7. FOR WOOD SHEAR WALLS PROVIDE:
   a. PERIMETER MEMBERS AT OPENINGS.
   b. PLYWOOD USING EXTERIOR GLUE.
   c. FRAMING MEMBERS OR BLKG AT THE EDGE OF ALL PLYWOOD SHEETS.
8. PROVIDE MSTA36 @ EA. TOP PLATE BREAK WITH FULL LENGTH NAILS U.N.O. (WHERE TOP PLATE SPLICE PER DETAIL 4/D2 IS PROVIDED THE STRAP IS NOT REQUIRED.)
9. PLYWOOD SHEAR WALL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES.
10. ALSO SEE TYP. DETAILS ON SHEET D-2.
11. SEE ARCHITECTURAL FOR OVERHANGS.
12. CONTRACTOR SHALL PATCH & MATCH ALL ADJACENT SURFACES. PROVIDE WATER TIGHT SEAL WHEN PATCHING ROOF OR WALL PENETRATION.

WALL FRAMING

1. SIZE, SPACING & HEIGHT LIMITS FOR WOOD STUDS ARE AS FOLLOWS (U.N.O. ON PLANS):

   2X4 @ 16" OC (BEARING WALL) SUPPORTING A MAX OF ONE FLOOR AND ONE ROOF SHALL HAVE A MAX HEIGHT OF 10 FT.

   2X4 @ 16" OC (NON-BEARING WALL) SHALL HAVE A MAX HEIGHT OF 14 FT.

   2X6 @ 16" OC (BEARING WALL) SUPPORTING A MAX OF TWO FLOORS AND A ROOF SHALL HAVE A MAX HEIGHT OF 10 FT.

   2X6 @ 16" OC (NON-BEARING WALL) MAX HEIGHT IS 20 FT.
2. RAKE WALLS ADJACENT TO SLOPED CEILINGS SHALL BE BALLOON FRAMED. DOUBLE TOP PLATES SHALL ALWAYS BE SUPPORTED BY A ROOF OR CEILING DIAPHRAGM.
3. SHEAR WALL PANELS MUST BE CONTINUOUS TO THE TOP PLATE AT ROOF FRAMING. SHEATHING SHALL HAVE ALL EDGES BLOCKED & THE APPROPRIATE SHEAR TRANSFER THRU CEILING OR SOFFIT FRAMING.
4. BORING AND NOTCHING OF WALL STUDS SHALL BE PER CBC (2308.9). SEE ALSO DETAIL 7/D2:

   NOTCHING MAX: 25% OF WIDTH OF STUDS ON BEARING WALLS
   40% OF WIDTH OF STUDS ON NON-BEARING WALLS

   BORING MAX: 40% OF WIDTH OF STUDS ON BEARING WALLS
   60% OF WIDTH OF STUDS ON NON-BEARING WALLS

   NOTE: A MIN. 5/8" CLEARANCE FROM EDGE OF STUD TO HOLE SHALL BE PROVIDED.
5. DOUBLE 2X TOP PLATE SHALL BE LAPPED 48" AT ALL SPLICES AND SHALL OVERLAP AT CORNERS.
6. WALL BRACING SHALL BE PROVIDED PER CBC (2308.9.3)
7. HARDY FRAMES INSTALLATION PER MFR. SPECIFICATION (ICC ESR-2089)
8. STRONG WALL INSTALLATION PER MFR. SPECIFICATION ICC-ESR-1679 AND LA RR 25625. U.N.O.
9. ALL THE POSTS IN ROOF AND UPPER FLOOR LEVELS SHALL BE SUPPORTED WITH MIN. SAME SIZE POSTS AT LEVELS BELOW. (U.N.O.)

WOOD FRAMING NOTES

FLOOR FRAMING

1. FLOOR SHEATHING (MIN) 5/8" STRUCTURAL I, T & G PLYWOOD PANEL INDEX NO. 32/16 WITH EXTERIOR GLUE. USE 10d COMMON NAILS AT 6" OC AT ALL EDGES, BOUNDARIES, AND 10" O.C. FIELD. NO BLOCKING IS REQUIRED U.O.N. ON PLAN. ALL EDGES SHALL BE BLOCKED AT DECKS.
   (NOTE: WHERE T & G IS NOT PROVIDED ALL THE PLYWOOD PANEL EDGES SHALL BE BLOCKED.)
2. PROVIDE DOUBLE FLOOR JOISTS UNDER ALL PARALLEL NON- BEARING PARTITIONS.
3. PROVIDE 6X WD. BEAM UNDER ALL NON-STACKING BEARING WALLS WHICH ARE PARALLEL TO JOISTS. (U.N.O.)
4. PROVIDE CONTINUOUS 4X BLOCKING BETWEEN FLOOR JOISTS UNDER BEARING WALLS WHICH ARE PERPENDICULAR TO JOISTS.
5. SEE DETAIL 3/- FOR SHEATHING CONFIGURATION AND LIMITATIONS.

ROOF FRAMING

1. ROOF SHEATHING (MIN) 15/32" STRUC. I PLYWOOD SHEATHING PANEL INDEX NO. 32/16 WITH EXTERIOR GLUE. USE 8d COMMON NAILS AT 6" OC AT ALL EDGES, BOUNDARIES, AND 12" OC FIELD. NO BLOCKING IS REQUIRED UNLESS NOTED ON PLAN.
2. FRAMING AROUND OPENINGS: TRIMMER AND HEADER JOISTS SHALL BE DOUBLED AND SUPPORTED BY HANGERS PER CODE
3. SEE DETAIL 3/- FOR SHEATHING CONFIGURATION AND LIMITATIONS.

FRAMING - CEILING (PER TABLE 2308.10.2)

1. CEILING JOISTS SHALL BE 2X6 @ 16" O.C. (MAX SPAN= 17'-8")
2. CEILING JOISTS SHALL BE 2X8 @ 16" O.C. (MAX SPAN= 23'-0")

FRAMING - JOISTS/RAFTERS

1. BORING AND NOTCHING OF JOISTS SHALL BE AS FOLLOWS: (CBC 2308.10) 2022 EDITION

   BORING: MAX DIA. OF HOLE SHALL NOT EXCEED 1/3 OF DRESSED DEPTH OF JOIST WITH A MINIMUM EDGE CLEARANCE OF TWO INCHES.

   NOTCHING: MAX NOTCH AT ENDS SHALL NOT EXCEED 1/4 OF DEPTH. NO NOTCHING IS ALLOWED IN THE CENTER THIRD OF THE JOIST SPAN. MAX NOTCH IN TOP OR BOTTOM OF THE JOIST SHALL NOT EXCEED 1/6 OF THE JOIST DEPTH.
2. WHERE THREE OR MORE (MULTI JOISTS) ARE USED, THE JOISTS SHALL BE BOLTED TOGETHER WITH 1/2" DIA. MACHINE BOLTS W/ WASHERS AT 24" OC STAGGERED. BOLTS SHALL BE RE-TIGHTENED PRIOR TO APPLYING FINISH MATERIALS.
3. JOISTS/RAFTERS SHALL LAP AT SPLICES A MIN. OF 4 INCHES WITH 3-16d NAILS OR USE SIMPSON ST 2115 @ 48 INCHES O.C.
4. CROSS BRIDGING OR 2X BLDG. SHALL BE PROVIDED @ 8'-0" O.C. MAX. FOR ALL JOISTS AND RAFTERS MORE THAN 8" IN DEPTH.
5. 2X SOLID BLOCKING SHALL BE PLACED BETWEEN JOISTS OR RAFTERS AT ALL SUPPORTS.

FRAMING BOLTING

1. ALL BOLTS BEARING ON WOOD SHALL HAVE WASHERS UNDER HEAD OR NUT. SEE S.W. SCHEDULE.
2. ALL BOLTS SHALL BE RETIGHTENED, PRIOR TO APPLICATION OF PLYWOOD, PLASTER, ETC.
3. HOLES FOR BOLTS SHALL BE BORED 1/32" TO 1/16" LARGER THAN NOMINAL BOLT DIAMETER.
4. FASTENERS IN PRESSURE-TREATED AND FIRE-RETARDANT,TREATED WOOD SHALL BE OF HOT-DIPPED,ZINC-COATED GALVANIZED STEEL,STAINLESS STEEL,SILICON BRONZE OR COPPER.

LUMBER

1. ALL LUMBER SHALL BE DOUGLAS FIR-LARCH IN COMPLIANCE WITH DOC PS-20 OR THE FOLLOWING GRADES UNLESS OTHERWISE NOTED (MAX MOISTURE CONTENT SHALL NOT EXCEED 19% & GRADED IN ACCORDANCE WITH THE "WEST COAST LUMBERMAN'S ASSOCIATION".
2. ALL WOOD BEARING ON CONCRETE OR MASONRY SHALL BE PRESSURE TREATED DOUG. FIR.
3. GLUED-LAMINATED WOOD BEAMS SHALL BE DOUGLAS FIR COMB. 24F-V4 (*) DF/DF (Fb=2400 PSI, Fv=165 PSI, E=180,000 PSI) INDUSTRIAL APPEARANCE WITH EXTERIOR GLUE UNLESS OTHERWISE NOTED ON PLANS. A CERTIFICATE OF INSPECTION FOR EACH GLU-LAM BEAM FROM AN APPROVED TESTING AGENCY TO BE SUBMITTED AND APPROVED BY THE BUILDING DEPT. PRIOR TO ERECTION.
   (*) USE V8 FOR CANT. BEAMS AND V4 FOR SIMPLE SPANS BEAMS.
4. SHOP DRAWING SHALL BE PROVIDED TO ENGINEER OR ARCHITECT OF RECORD FOR REVIEW PRIOR TO FABRICATION.
5. PARALLAM PSL 2.0E PER (ICC ESR-1387) (Fb= 2900 PSI, Fv=290 PSI, E= 2,000,000 PSI)
6. LAMINATED VENEER LUMBER (LVL) 2.0E PER (ICC ESR-2993) (Fb= 2900 PSI, Fv=285 PSI, E= 2,000,000 PSI)
7. TJI JOISTS INSTALLATION PER MANUFACTURE SPECIFICATION (ICC ES ESR-1153 AND ICC ES ESR-1387)
8. LUMBER GRADE TO BE AS BELOW:

LUMBER GRADES			
REPETITIVE USE MEMBERS		SINGLE USE MEMBERS	
STUDS & PLATES	NO. 2	BEAMS:	
JOISTS & RAFTERS:		4X	N0. 2
2X4 TO 4X4 INCLUSIVE	N0. 2	6X OR LARGER	N0. 1
2X6 TO 3X16 INCLUSIVE	NO. 2		
BLOCKING, FURRING, ETC.	N0. 2	POSTS & MULLION:	
DECKING & SHEATHING 2X, 3X, 4X	CONST. GRADE	4X	N0. 2

MIN. POST SIZE/TYPE AS FOLLOWS U.N.O.:

BEAM/HEADER SIZE	POST/TRIMMER SIZE
4 X 12 & SMALLER	2-2X4 W/16d NAILS @ 8" O.C.
4 X 14 & LARGER	4X4
6 X 10 & SMALLER	4X6
6 X 12 & LARGER	6X6 SEE HOLDDOWN DETAILS AND TYPICAL WALL

NOTE:

THESE DRAWINGS AND SPECIFICATIONS AS INSTRUMENT OF SERVICE ARE PROVIDED FOR THE OWNER OR THE BUILDER, WHEN COMBINED WITH OTHER PLANS AND SPECIFICATIONS TO OBTAIN BUILDING PERMIT ONLY FOR THIS PROJECT. THEY ARE NOT INTENDED TO, NOR DO THEY, DETAIL ALL CONDITIONS, IDENTIFY ALL MATERIALS REQUIRED TO COMPLETE THE PROJECT. THE BUILDER ASSUMES RESPONSIBILITY TO SELECT ALL MATERIAL AND ALL SUB-CONTRACTORS AND INSTALLERS AND TO PROVIDE ENOUGH INFORMATION ABOVE AND BEYOND THESE DRAWINGS, TO COMPLETE THE PROJECT IN CONFORMANCE WITH ALL GOVERNING AGENCIES.

NOTES 06

SHEAR WALL SCHEDULE 2022 C.B.C. 1, 2, 4, 6, 7, 8, 9, 10

S.W. TYPE	CAPACITY	MIN. NOMINAL PANEL THICKNESS (INCH)	PANEL NAILING TO FRAMING	SILL PLATE	SILL BOLTING AT FOUNDATION	SILL NAILING AT UPPER STORIES	SHEAR TRANSFER AT TOP PLATE
NON- SHEAR	NONE	NONE	NONE	2X	5/8" @ 48" O.C.	16d @ 8" O.C.	"A35" OR "LTP4" @ 32" O.C.
1	SEISMIC: 280 PLF WIND: 390 PLF	15/32" APA RATED PLYWOOD SHT'G. STRUCT I ON ONE SIDE	8d COMMON NAILS @ 6" O.C. AT EDGES & 12" O.C. FIELD	2X	5/8" @ 32" O.C.	16d @ 6" O.C.	"A35" OR "LTP4" @ 16" O.C.
2 [3]	SEISMIC: 430 PLF WIND: 600 PLF	15/32" APA RATED PLYWOOD SHT'G. STRUCT I ON ONE SIDE	8d COMMON NAILS @ 4" O.C. AT EDGES & 12" O.C. FIELD	2X	5/8" @ 28" O.C.	16d @ 4" O.C.	"A35" OR "LTP4" @ 12" O.C.
3	SEISMIC: 550 PLF WIND: 770 PLF	15/32" APA RATED PLYWOOD SHT'G. STRUCT I ON ONE SIDE	8d COMMON NAILS @ 3" O.C. AT EDGES & 12" O.C. FIELD	2X	5/8" @ 22" O.C.	16d @ 3" O.C.	"A35" OR "LTP4" @ 9" O.C.
4	SEISMIC: 730 PLF WIND: 1020 PLF	15/32" APA RATED PLYWOOD SHT'G. STRUCT I ON ONE SIDE	8d COMMON NAILS @ 2" O.C. AT EDGES & 12" O.C. FIELD	3X	5/8" @ 16" O.C.	16d @ 2" O.C.	"A35" OR "LTP4" @ 6" O.C.
5	SEISMIC: 870 PLF WIND: 1200 PLF	15/32" APA RATED PLYWOOD SHT'G. STRUCT I ON ONE SIDE	10d COMMON NAILS @ 2" O.C. AT EDGES & 12" O.C. FIELD	3X	5/8" @ 12" O.C.	1/4" Ø SDS X 4 1/2" @ 4" O.C.	"A35" OR "LTP4" @ 10" O.C. AT BOTH SIDES OF TOP PLATE
33 [5]	SEISMIC: 1100 PLF WIND: 1540 PLF	15/32" APA RATED PLYWOOD SHT'G. STRUCT I ON BOTH SIDES	8d COMMON NAILS @ 3" O.C. AT EDGES & 12" O.C. FIELD	3X	5/8" @ 10" O.C.	1/4" Ø SDS X 4 1/2" @ 4" O.C.	"A35" OR "LTP4" @ 10" O.C. AT BOTH SIDES OF TOP PLATE

NOTES:

1. ALL EDGES OF PLYWOOD SHEAR WALLS MUST BE BLOCKED WITH 2X SOLID BLOCKING.
2. TWO LAYERS OF GRADE D PAPER, METAL LATCH, AND PORTLAND CEMENT PLASTER.
3. WHERE SHEAR DESIGN VALUES EXCEED 350 POUNDS PER LINEAR FOOT, ALL FRAMING MEMBERS RECEIVING EDGE NAILING FROM ABUTTING PANELS SHALL NOT BE LESS THAN A SINGLE 3-INCH NOMINAL MEMBER, OR TWO 2-INCH NOMINAL MEMBERS FASTENED TOGETHER IN ACCORDANCE WITH SECTION 2306.1 TO TRANSFER THE DESIGN SHEAR VALUE BETWEEN FRAMING MEMBERS. WOOD STRUCTURAL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL EDGES
4. FOUNDATION ANCHOR BOLTS SHALL HAVE A STEEL PLATE WASHER UNDER EACH NUT NOT LESS THAN 0.229" X 3" X 3" IN SIZE. THE HOLE IN THE PLATE WASHER SHALL BE PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1-3/4", PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING OR OTHER MATERIAL WITH NOMINAL UNIT SHEAR CAPACITY GREATER THAN 400 PLF FOR WIND OR SEISMIC.
5. WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL AND NAILS SPACING IS LESS THAN 6" O.C. ON EITHER SIDE. PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3" NOMINAL OR THICKER & NAILS ON EACH SIDE SHALL BE STAGGERED.
6. ALL CONTINUOUS EXTERIOR AND INTERIOR SHEAR/BEARING WALL FOOTINGS TO HAVE 5/8"∅ A307 ANCHOR BOLTS @ 48" O.C. WITH PLATE WASHERS PER NOTE 5 (U.N.O.). PROVIDE MINIMUM OF TWO BOLTS PER EACH PIECE OF SILL PLATE AT MIN 4" AND MAX 12" CLEARANCE TO THE END AND 7" MINIMUM EMBEDMENT.
7. ALL INTERIOR NON-BEARING WALLS TO HAVE 3/16" ∅ SHOT PINS AT 32" O.C., I.E., HILTI SHOT PINS (ICC ESR-1663) INTO CONCRETE SLAB/FOOTING..
8. USE APA RATED PLYWOOD SHEATHING. OR O.S.B. PANEL. ALL PLYWOOD SHALL BE DOUGLAS FIR. 4-PLY MIN. OTHER SPECIES MAY REQUIRE CHANGES.
9. AT EXISTING FOOTINGS, USE THREADED RODS W/ SIMPSON "SET-3G" EPOXY 7" MIN. EMB. W/ MIN. EDGE DIST. OF 2" (ICC ESR-4057) (SPECIAL INSPECTION REQ'D.)
10. ANCHOR BOLT SPEC.:
   (FOR ANCHOR BOLT IN CURB ADD CURB HEIGHT TO THE SPECIFIED LENGTH IN TABLE)

	BOLT LENGTH	
	SINGLE POUR	DOUBLE POUR
2X SILL	12"	16"
3X SILL	14"	18"

SHEAR WALL SCHEDULE 01

ABBREVIATIONS:

A.B.	ANCHOR BOLT
ABV.	ABOVE
ALT.	ALTERNATIVE
APRX	APPROXIMATE
BAR	REINFORCEMENT BAR
BD.	BOARD
BLKG.	BLOCKING
BLW.	BELOW
BM.	BEAM
B.N.	BOUNDARY NAIL
BOT.	BOTTOM
BRG	BEARING
B.W.	BOTH WAY
CALIF.	CALIFORNIA
C.J.	CEILING JOIST
CLG.	CEILING
COL.	COLUMN
CONC.	CONCRETE
CONST.	CONSTRUCTION
CONT.	CONTINUOUS
DBL.	DOUBLE
D.F.	DOUGLAS FIR
DIA.	DIAMETER
DO.	DITTO
DP.	DEEP
E.W.	EACH WAY
E.J.	EXPANSION JOINT
E.N.	EDGE NAIL (SAME AS B.N.)
EQ	EQUAL
FB	FLOOR BEAM
F.G.	FINISH GRADE
F.J.	F.J.
FL	FLUSH
FMG.	FRAMING
F.N.	FILED NAIL
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
FOUND.	FOUNDATION
F.O.S.	FACE OF STUD
F.P.	FULL PENETRATION
FR.	FRAMING
FS	FAR SIDE
FT'G.	FOOTING
GA.	GAUGE
GALV.	GALVANIZED
GLB	GLUE-LAMINATED BEAM
GRD.	GRADE
GWB	GYPSUM WALLBOARD
H	HIGH
HDR.	HEADER
HGR.	HANGER
HGT.	HEIGHT
HOR	HORIZONTAL
K.P.	KING POST
L	LENGTH
LT. WT.	LIGHT WEIGHT
LVL	LAMINATED VENEER LUMBER
MA.	MASONRY
M.B.	MACHINE BOLT
MLB	MICRO-LAM BEAM
N.G.	NATURAL GRADE
NS	NEAR SIDE
O.C.	ON CENTER
P.A.	POST ABOVE
PLWD	PLYWOOD
PSL	PARALLEL STRAND LUMBER
P.T.	PRESSURE TREATED
R.B.	RIDGE BEAM
REINF.	REINFORCEMENT
REQ'D.	REQUIRED
RF	ROOF
R.R.	ROOF RAFTER
SCH.	SCHEDULE
SIM.	SIMILAR
SOG	SLAB ON GRADE
STL.	STEEL
STAGG.	STAGGERED
S.W.	SHEAR WALL
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING/FLOOR
T.R.	TREADED ROD
TYP.	TYPICAL
WD.	WOOD
U.N.O.	UNLESS NOTED OTHERWISE
(E)	EXISTING
(N)	NEW

ABBREVIATIONS 04

CONNECTION:(TABLE 2304.10.2)

1. JOISTS TO SILL OR GURDER, TOE NAIL — 3 - 8d
2. BRIDGING TO JOISTS, TOE NAIL EA. END — 2 - 8d
3. 1X6 SUBFLR. OR LESS TO EA. JST., FACE NAIL — 2 - 8d
4. WIDER THAN 1X6 SUBFLR. TO EA. JST., FACE NAIL — 3 - 8d
5. 2" SUBFLR. TO JST. OR GURDER, BUND & FACE NAIL — 2 - 16d
6. SILL PLATE TO JST. OR BLK'G., FACE NAIL — 16d @ 16" O.C.
7. TOP PLATE TO STUD, END NAIL — 2 - 16 d
8. RAFT. BLK'G TO TOP PLATE, FACE OR TOE NAIL — 16d @ 8" O.C.
9. STUD TO SILL PLATE, TOE NAIL — 4 - 8d
10. DOUBLE STUDS, FACE NAIL — 16d @ 12" O.C.
11. DOUBLE TOP PLATES, FACE NAIL — 16d @ 16" O.C.
12. TOP PLATES LAPS & INTERSECTIONS, FACE NAIL — 2 - 16d
13. CONTINUOUS HEADER, TWO PIECES — 16d @ 16" O.C. ALONG EA. SIDE
14. CEILING JOISTS TO PLATE, TOE NAIL — 3 - 8d
15. CONTINUOUS HEADER TO STUD, TOE NAIL — 4 - 8d
16. CEILING JOISTS, LAPS O/ PARTITIONS, FACE NAIL — 3 - 16d
17. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL — 3 - 16d
18. RAFTER TO TOP PLATE, TOE NAIL — 3 - 10d
19. 1" BRACE TO EA. STUD & PLATE, FACE NAIL — 2 - 8d
20. 1X8 SHT'G. OR LESS TO EA. BEARING WALL FACE NAIL — 2 - 8d
21. WIDER THAN 1X8 SHT'G. TO EA. BEARING WALL FACE NAIL — 3 - 8d
22. BUILT-UP CORNER STUDS — 16d @ 16" O.C.
23. BUILT-UP GRADERS & BEAMS — 20d @ 32" O.C. @ TOP & BOT. & STAGG. 2 - 20d @ END & @ EA. SPLICE
24. 2" PLANKS — 2 - 16d @ EA. BRG.
25. PARTICLE BD. - WALL SHTG. (TO FRMG.) — 8d
26. PLYWOOD (U.N.O.) -
   SUBFLR. RF. & WALL SHTG. (TO FRMG.):
   1/2" & LESS — 8d
   5/8" - 3/4" — 8d
   7/8" - 1" — 8d
   1 1/8" - 1 1/4" — 10d
   COMBINATION SUBFLR. / UNDERLAYMENT (TO FRMG.):
   3/4" & LESS — 8d
   7/8" - 1" — 8d
   1 1/8" - 1 1/4" — 10d
   FIBERBD. SHTG.:
   1/2" — NO. 11 GA. 6d, NO. 16 GA.
   25/32" — NO. 11 GA. 6d, NO. 18 GA.

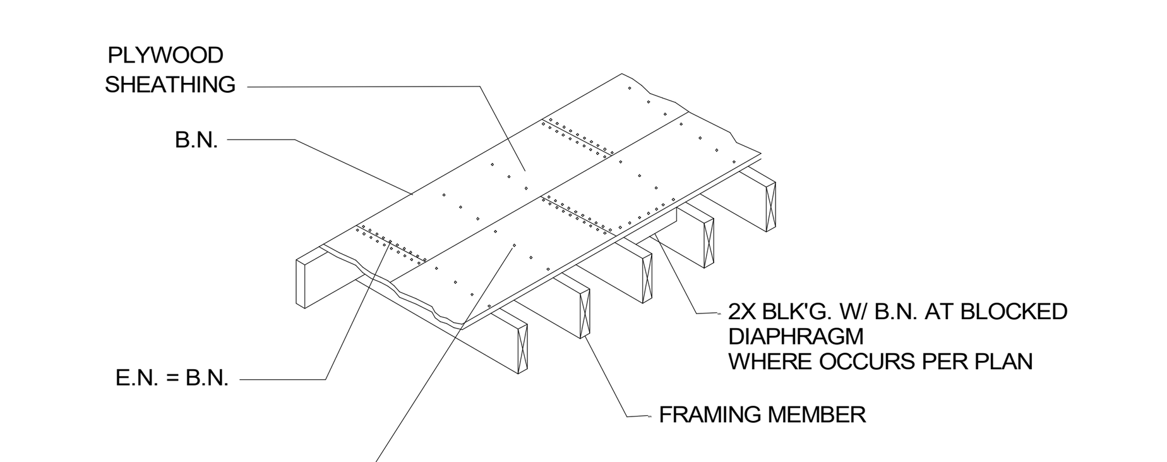
NOTE:

1. ALL NAILS SHALL BE COMMON WIRE NAILS. WHERE DRIVING OF NAILS CAUSES SPLITTING HOLES FOR THE NAILS SHALL BE SUB DRILLED.
2. FASTENERS IN PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER.(CBC 2304.10.5)

NAILING SCHEDULE 02

VERIFICATION & INSPECTION	CONTINIOUS	PRIODIC
1. POST INSTALLED STRUCTURAL EPOXY BOLTING.	●	
2. POST INSTALLED EXPANSION TYPE ANCHOR BOLTS		●
3. FIELD WELDING.		
a. COMPLETE AND PARTIAL JOINT PENETRATION	●	
b. MULTI-PASS FILLET WELD	●	
c. FILLET WELD > 5/16"	●	
d. FILLET WELD <= 5/16"		●
e. ROOF DECK WELDS		●
4. PLACEMENT OF REINFORCING STEEL IN CMU WALL.		●
5. HIGH STRENGTH BOLTING (SNUG-TIGHT JOINT)		●
6. CONCRETE WHERE CONCRETE STRENGTH OF 3000 PSI OR GREATER IS SPECIFIED.		●
7. DIAPHRAGM CONNECTION TO STEEL SUPPORT MEMBERS.		●
8. WOOD SHEAR WALLS AND WOOD DIAPHRAGMS NAILING.		●
9. WOOD STRUCTURAL PANEL SHEATHING.		●
10. NOMINAL SIZE OF FRAMING MEMBERS AT PANEL EDGES.		●
11. NAIL OR STAPLE DIAMETER AND LENGTH.		●
12. COMPACTED FILL		●
13. PLACEMENT OF REINFORCING STEEL IN FOOTINGS.		●
14. PLACEMENT OF ANCHOR BOLTS IN FOOTINGS.	●	

SPECIAL INSPECTION 05



PLYWOOD LAYOUT
(SEE FRAM'G. NOTES)

(EXCEPT WHERE NOTED OTHERWISE)

NAILING:	ROOF NAIL'G	FLOOR NAIL'G
B.N. = BOUNDARY NAILING	8d @ 6" O.C.	10d @ 6" O.C.
F.N. = FIELD NAILING	8d @ 12" O.C.	10d @ 10" O.C.

NOTES:

1. NAILS SHALL BE GALV. COMMON(HOT-DIPPED OR TUMBLED), PLACED NOT LESS THAN 3/8" FROM PANEL EDGES AND SHALL BE FIRMLY DRIVEN.
2. WOOD STRUCTURAL PANELS SHALL COMPLY WITH 2022 CBC STANDARD AND SHALL BE APA RATED EXPOSURE I.
3. WOOD STRUCTURAL PANELS, WHEN USED, SHALL COMPLY WITH THE REQUIREMENTS FOR THEIR TYPE IN DOC PS1 OR PS2.
4. ALL PANELS SHALL BE IDENTIFIED BY TRADE MARK OF AN APPROVED TESTING & GRADING AGENCIES, APA, TECO OR PITTSBURG.
5. MINIMUM WIDTH OF PANELS TO BE 24 IN.

PLYWOOD DIAPHRAGM 03

SWAY ENGINEERING
Structural Engineering Services

ARASH FARJADI, PE, SE
Tel: (949) 742-0148
WWW.SWAYENGINEERING.COM
arash@swayengineering.com

ADDRESS:
25312 TERRENO DR.
MISSION VIEJO, CA 92691

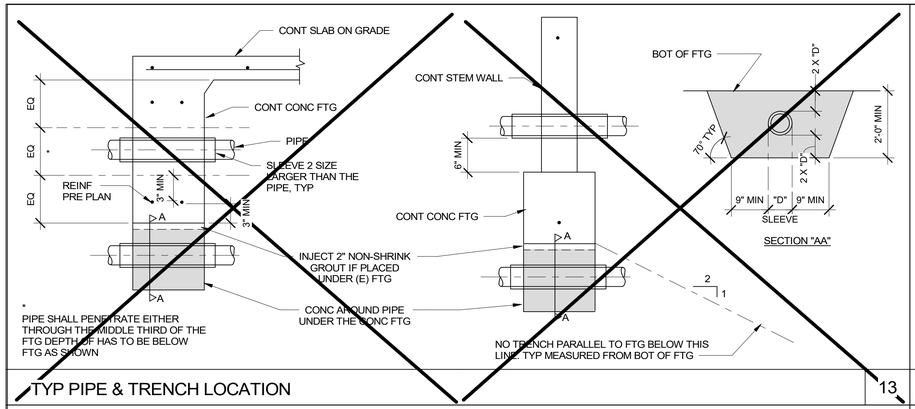
REVISIONS	BY
1 CORRECTIONS	05/20/25

PROPOSED FOR
4063 MAPLEWOOD PL
RIVERSIDE, CA 92506
GENERAL NOTES

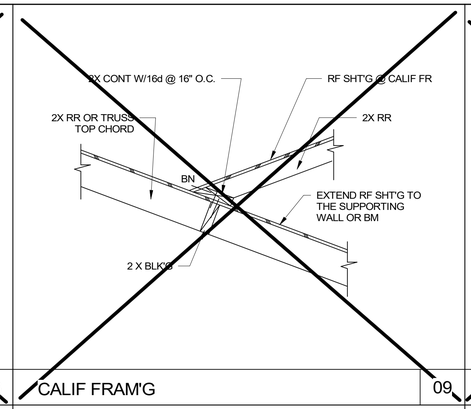
DRAWN BY	DATE
CHECKED BY	DATE
JOB NO. 25035	DATE 03/26/25
REV. DATE.	REV.

REGISTERED PROFESSIONAL ENGINEER ARASH FARJADI C - 78579 EXP 9/30/25 STATE OF CALIFORNIA

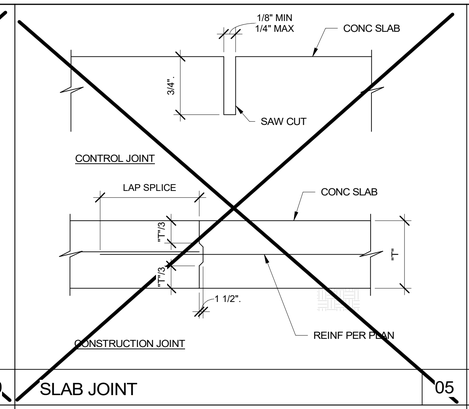
D1



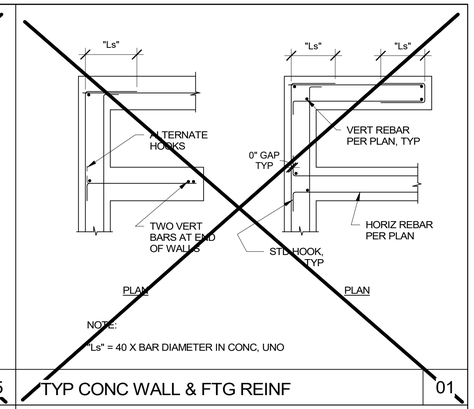
TYP PIPE & TRENCH LOCATION 13



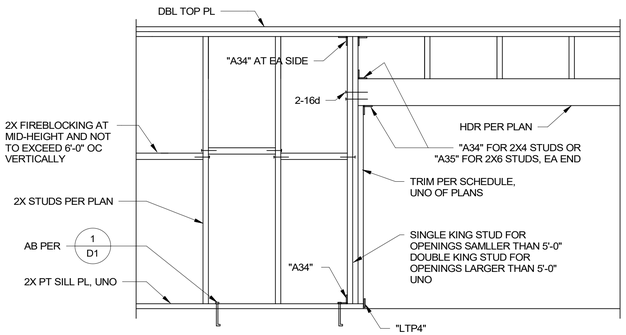
CALIF FRAM'G 09



SLAB JOINT 05



TYP CONC WALL & FTG REINF 01

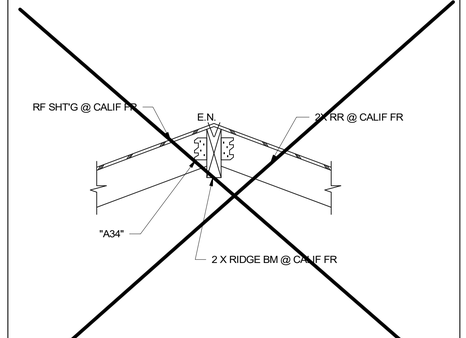


FOR NAILING SEE 2 D1

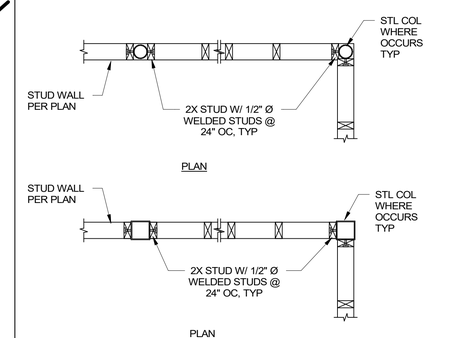
TRIM SIZE SCHEDULE, UNO ON PLANS:

HEADER SIZE	TRIMMER SIZE
4X6 & SMALLER	2X4
4X8 THRU 4X10	2-2X4 W/16d NAILS @ 8"
4 X 14 & LARGER	4X4
6X6 & SMALLER	2X6
6X8 THRU 6X10	2-2X6 W/16d NAILS @ 8"
6 X 12 & LARGER	6X6

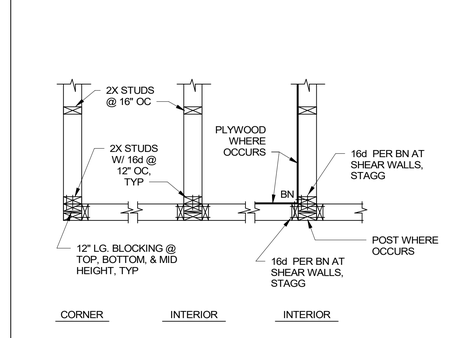
TYP WOOD STUD WALL FRAMING 14



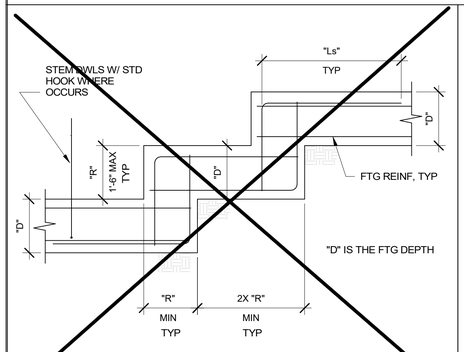
CALIF FRAM'G 10



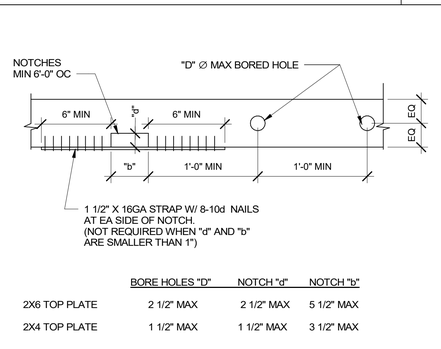
TYP STL COL IN WALL 06



TYP STUD WALL INTERSECTION 02

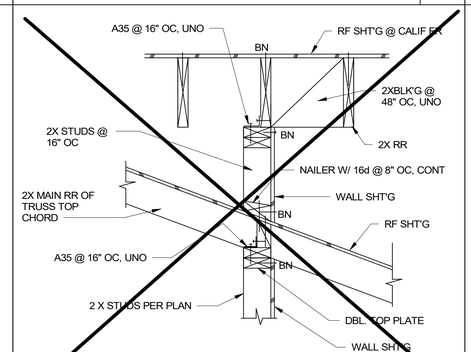


TYP STEPPED FOOTING 17

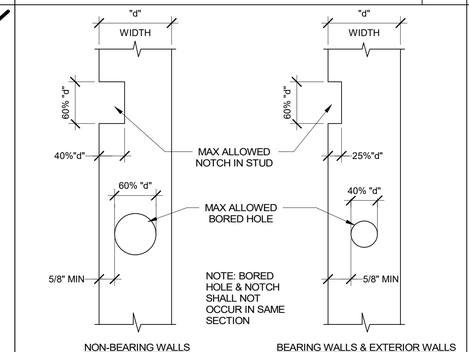


	BORE HOLES "D"	NOTCH "d"	NOTCH "b"
2X6 TOP PLATE	2 1/2" MAX	2 1/2" MAX	5 1/2" MAX
2X4 TOP PLATE	1 1/2" MAX	1 1/2" MAX	3 1/2" MAX

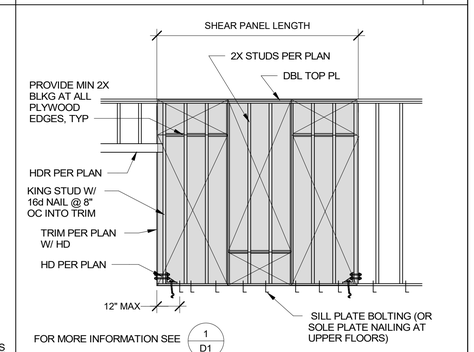
DBL TOP PLATE OR SILL PLATE 15



CALIF FRAM'G 11

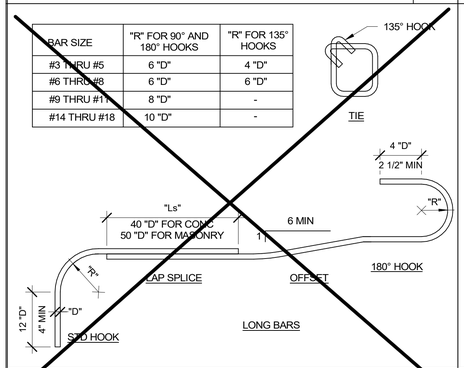


TYP NOTCHING @ STUD WALL 07

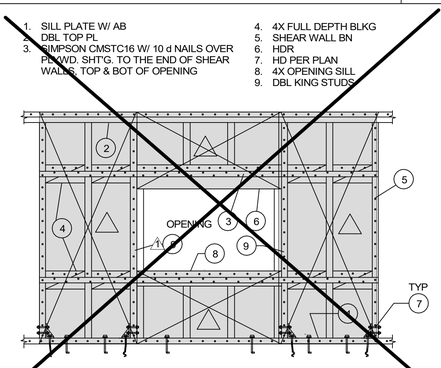


TYP SHEAR WALL LAYOUT 03

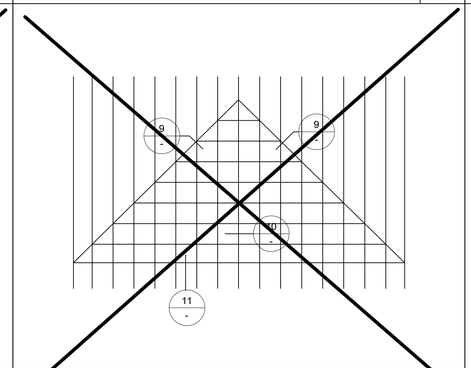
BAR SIZE	"R" FOR 90° AND 180° HOOKS	"R" FOR 135° HOOKS
#3 THRU #5	6 "D"	4 "D"
#6 THRU #8	6 "D"	6 "D"
#9 THRU #11	8 "D"	-
#14 THRU #18	10 "D"	-



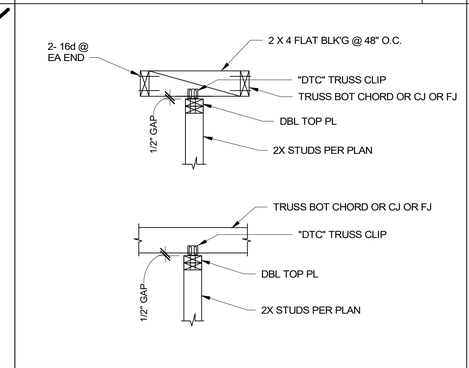
TYP REBAR LAYOUT 18



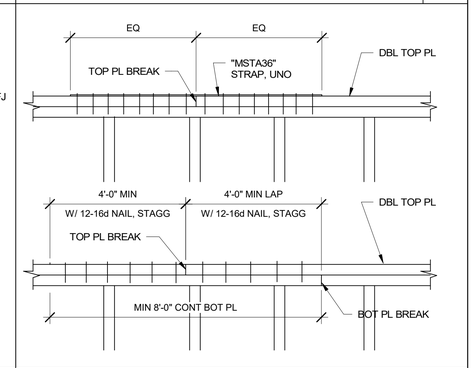
PERFORATED SHEAR WALL DETAIL 16



CALIF FRAM'G 12



TYP DET @ NON BEARING WALLS 08



TYP TOP PLATE SPLICE DET 04

SWAY ENGINEERING

Structural Engineering Services

ARASH FARJADI, PE, SE
Tel: (949) 742-0148
WWW.SWAYENGINEERING.COM
arash@swayengineering.com

ADDRESS:
25312 TERRENO DR.
MISSION VIEJO, CA 92691

REVISIONS	BY

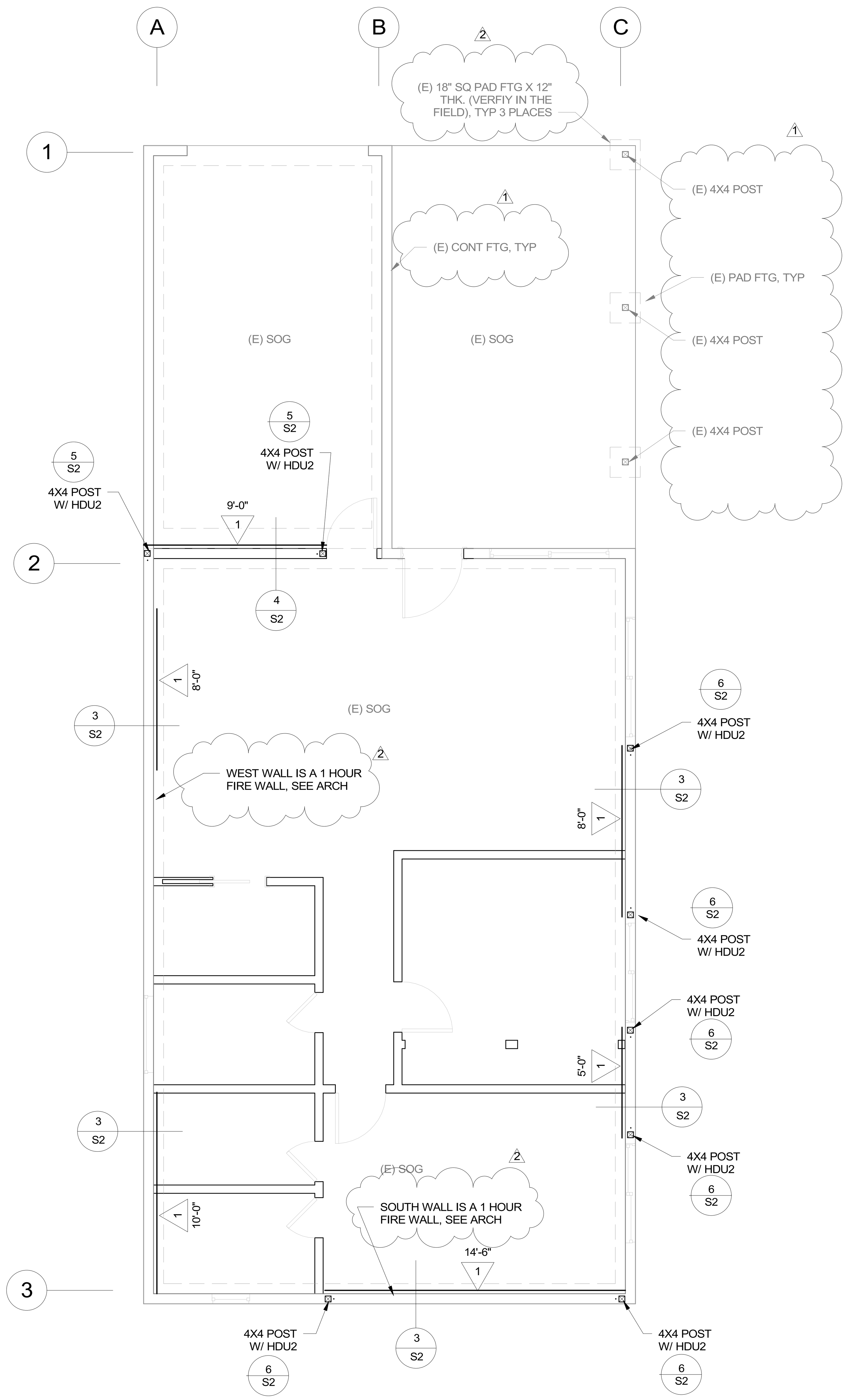
PROPOSED FOR
4063 MAPLEWOOD PL
RIVERSIDE, CA 92506

GENERAL DETAILS

DRAWN BY	DATE
CHECKED BY	DATE
JOB NO. 25035	DATE 03/26/25
REV. DATE.	REV.

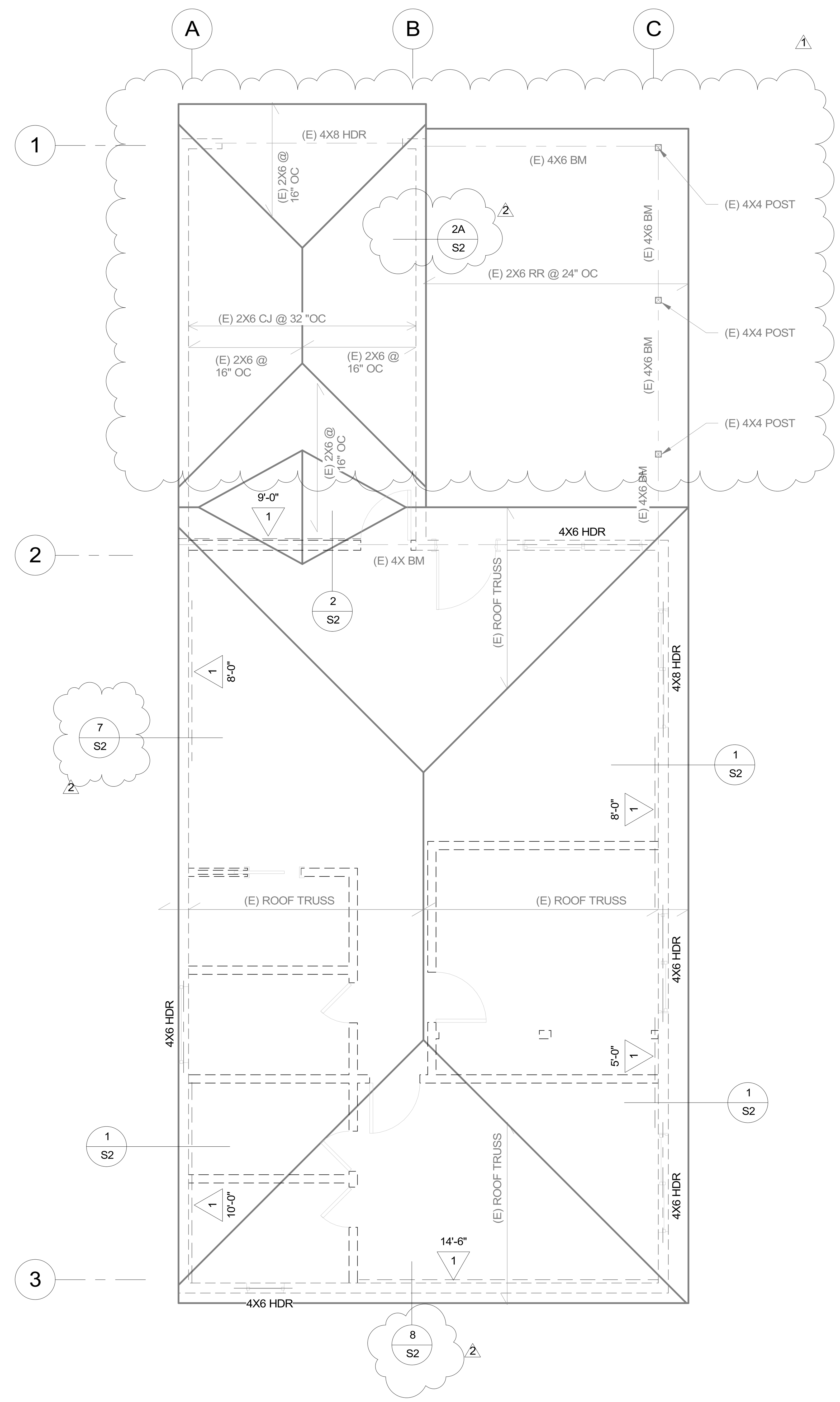
ARASH FARJADI
C - 78579
EXP 9/30/25
STRUCTURAL
CAL

D2



FOUNDATION PLAN

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



ROOF FRAMING PLAN

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

STRUCTURAL SYMBOLS

SCH LENGTH — INDICATES SHEAR WALL. SEE FOUNDATION, FRAMING PLAN AND SHEAR WALL SCHEDULE FOR TYPE, SILL BOLTING, SHTG., ETC. SHEAR WALL SCHEDULE IS PROVIDED ON SHEET D1, DETAIL 1

INDICATES (N) 6X6 POST/TRIMMER/KING POST IN 2X6 WALLS (U.N.O.). INDICATES (N) 4X4 POST/TRIMMER/KING POST IN 2X4 WALLS (U.N.O.)

INDICATES HOLD DOWN

INDICATES (N) WALL

INDICATES (E) WALL

INDICATES FLOOR/DECK/CEILING JOISTS

INDICATES ROOF RAFTERS

INDICATES BEAM/HEADER

INDICATES "HU" OR "HUC" HANGER, UNO

NOTES:

1. SEE SHEET D1 FOR NOTES AND REQUIREMENTS.
2. SEE SHEET D2 FOR GENERAL DETAILS.
3. FOR SHEAR WALL SCHEDULE SEE DETAIL 1 ON SHEET D1.
4. FOR SPECIAL INSPECTION REQUIREMENT SEE DETAIL 5 ON SHEET S1.
5. THE PORTION OF THE BUILDING BETWEEN GRID LINES 1 AND 2 IS NOT PART OF THE SCOPE HERE AND THEREFORE IS NOT EVALUATED. SWAY ENGINEERING HOLDS NO LIABILITY FOR THAT PORTION OF THE BUILDING.
6. ALL (E) FRAMINGS AND FOOTINGS SHOWN HERE SHALL BE VERIFIED IN THE FILED BY THE CONTRACTOR.

1

WALLS:

1. ALL EXTERIOR WALLS ARE 2X4 @ 16" OC, UNO
2. ALL INTERIOR WALLS ARE 2X4 @ 16" OC, UNO

SWAY ENGINEERING
Structural Engineering Services

ARASH FARJADI, PE, SE
Tel: (949) 742-0148
WWW.SWAYENGINEERING.COM
arash@swayengineering.com

ADDRESS:
25312 TERRENO DR
MISSION VIEJO, CA 92691

REVISIONS	BY
1 CORRECTIONS	05/20/25
2 CORRECTIONS	07/02/25

PROPOSED FOR

4063 MAPLEWOOD PL
RIVERSIDE, CA 92506

FOUNDATION AND ROOF FRAMING PLAN

DRAWN BY	DATE
CHECKED BY	DATE
JOB NO. 25035	DATE 03/26/25
REV. DATE.	REV.

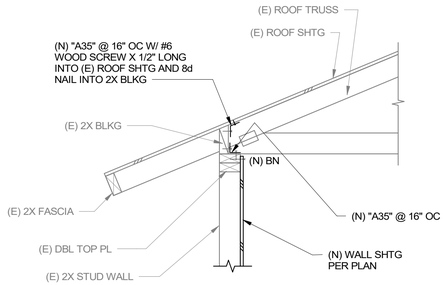
REGISTERED PROFESSIONAL ENGINEER
ARASH FARJADI
C - 78579
EXP 9/30/25
STATE OF CALIFORNIA

[illegible]

S1

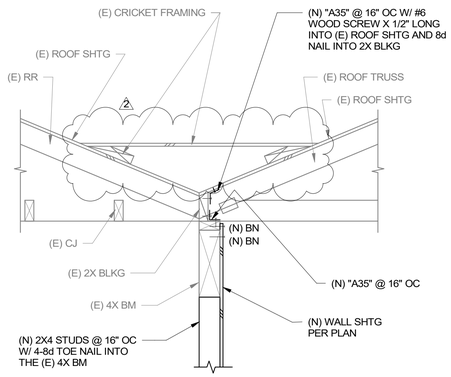
NOTES:

1. SEE SHEET S1 FOR NOTES.



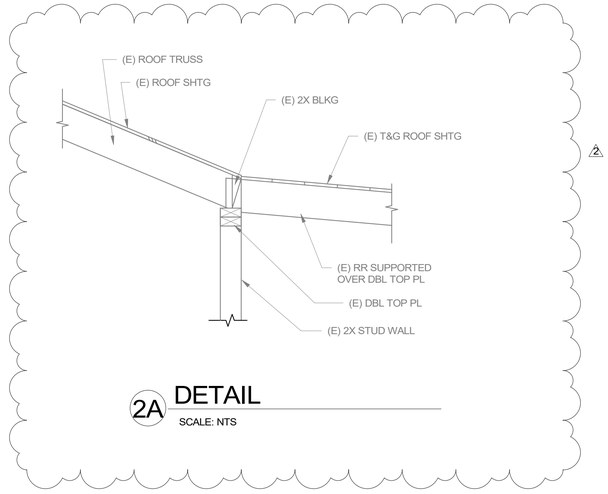
1 DETAIL

SCALE: NTS



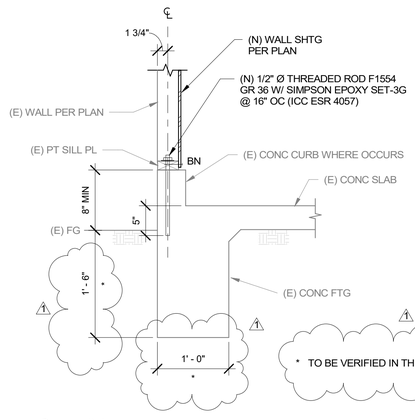
2 DETAIL

SCALE: NTS



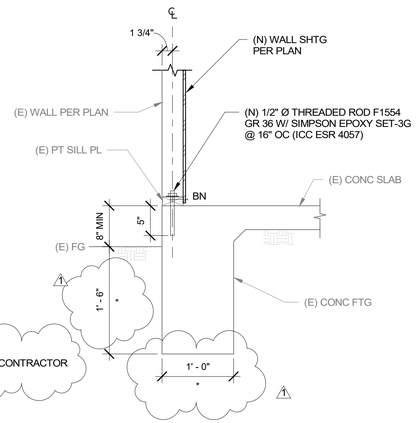
2A DETAIL

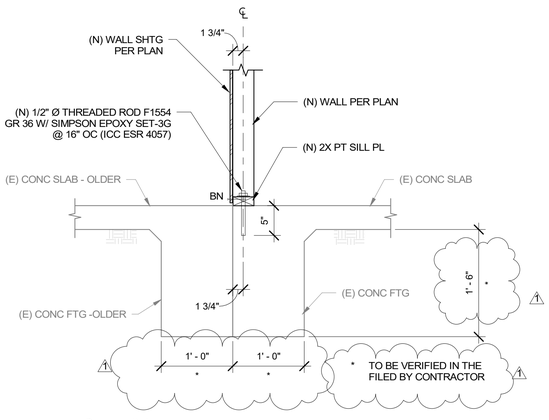
SCALE: NTS



3 DETAIL

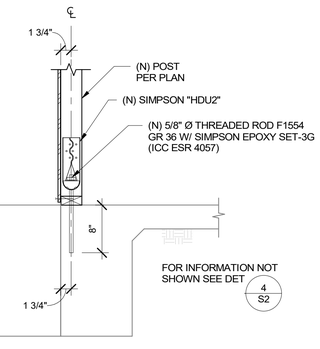
SCALE: NTS





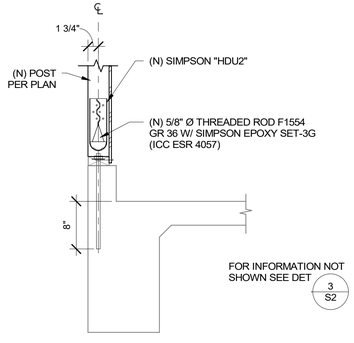
4 DETAIL

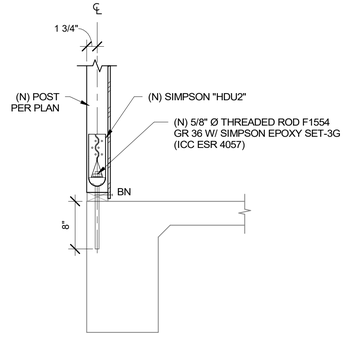
SCALE: NTS



5 DETAIL

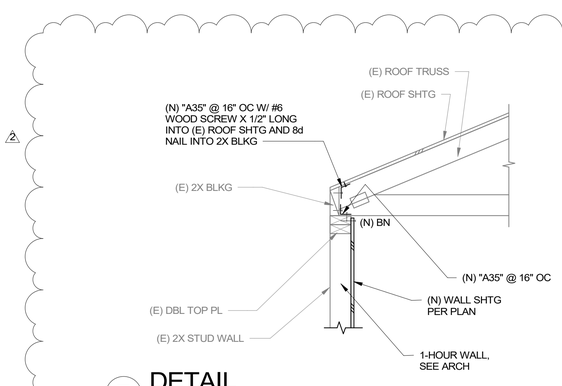
SCALE: NTS





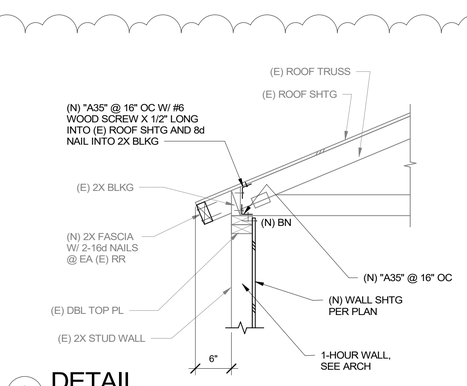
6 DETAIL

SCALE: NTS



7 DETAIL

SCALE: NTS



8 DETAIL

SCALE: NTS

SWAY ENGINEERING

Structural Engineering Services

ARASH FARJADI, PE, SE
Tel: (949) 742-0148
WWW.SWAYENGINEERING.COM
arash@swayengineering.com

ADDRESS:
25312 TERRENO DR.
MISSION VIEJO, CA 92691

REVISIONS	BY
1 CORRECTIONS	05/20/25
2 CORRECTIONS	07/02/25

PROPOSED FOR

4063 MAPLEWOOD PL
RIVERSIDE, CA 92506

DETAILS

DRAWN BY	DATE
CHECKED BY	DATE
JOB NO. 25035	DATE 03/26/25
REV. DATE.	REV.

ARASH FARJADI
C - 78579
EXP. 9/30/25
REGISTERED PROFESSIONAL ENGINEER
CIVIL
STATE OF CALIFORNIA

S2