

LOCATION MAP



NOTES:

- There are no Town of Los Gatos Community Development Department Conditions of Approval for this project.

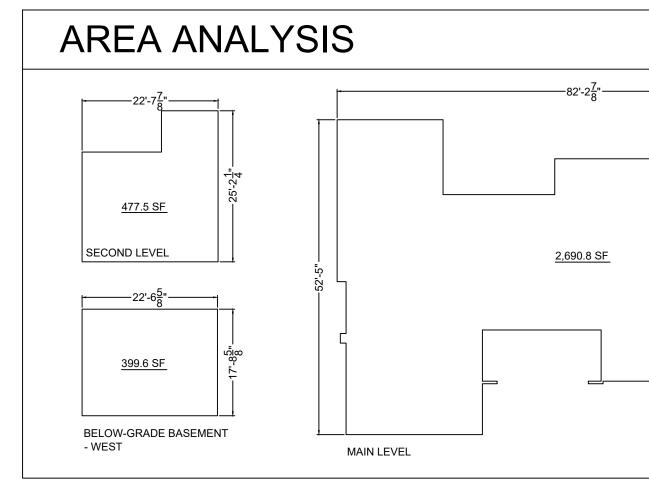
- This project includes plumbing. Verify a backwater valve is installed. Town Code Section 6.40.020 requires an approved backwater valve on drainage piping serving fixtures that have flood level rims less than 12" above the elevation of the next upstream manhole. (CPC 710.0)

- Prior to final inspection, completed CF2R-LTG-01-E form must be provided to the Town Building Inspector.

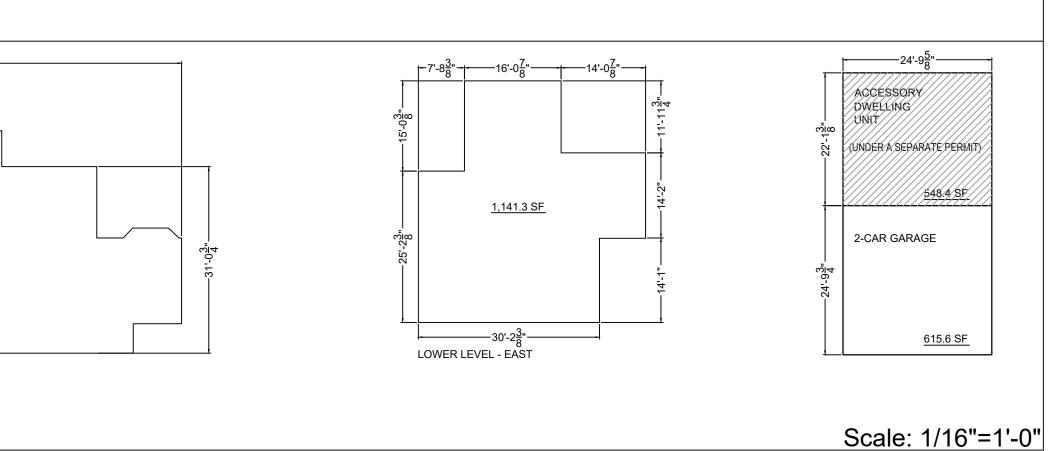
- Documentation shall be provided, prior to first inspection, confirming compliance to the waste management plan provided to the jurisdiction. (CGBSC Section 4.408.2.1)

- All adhesives, sealants, caulk, paints, coatings, and aerosol paint containers must remain on the site for field verification by the Building Inspector. (CGBSC Section 4.50 4.2.4)

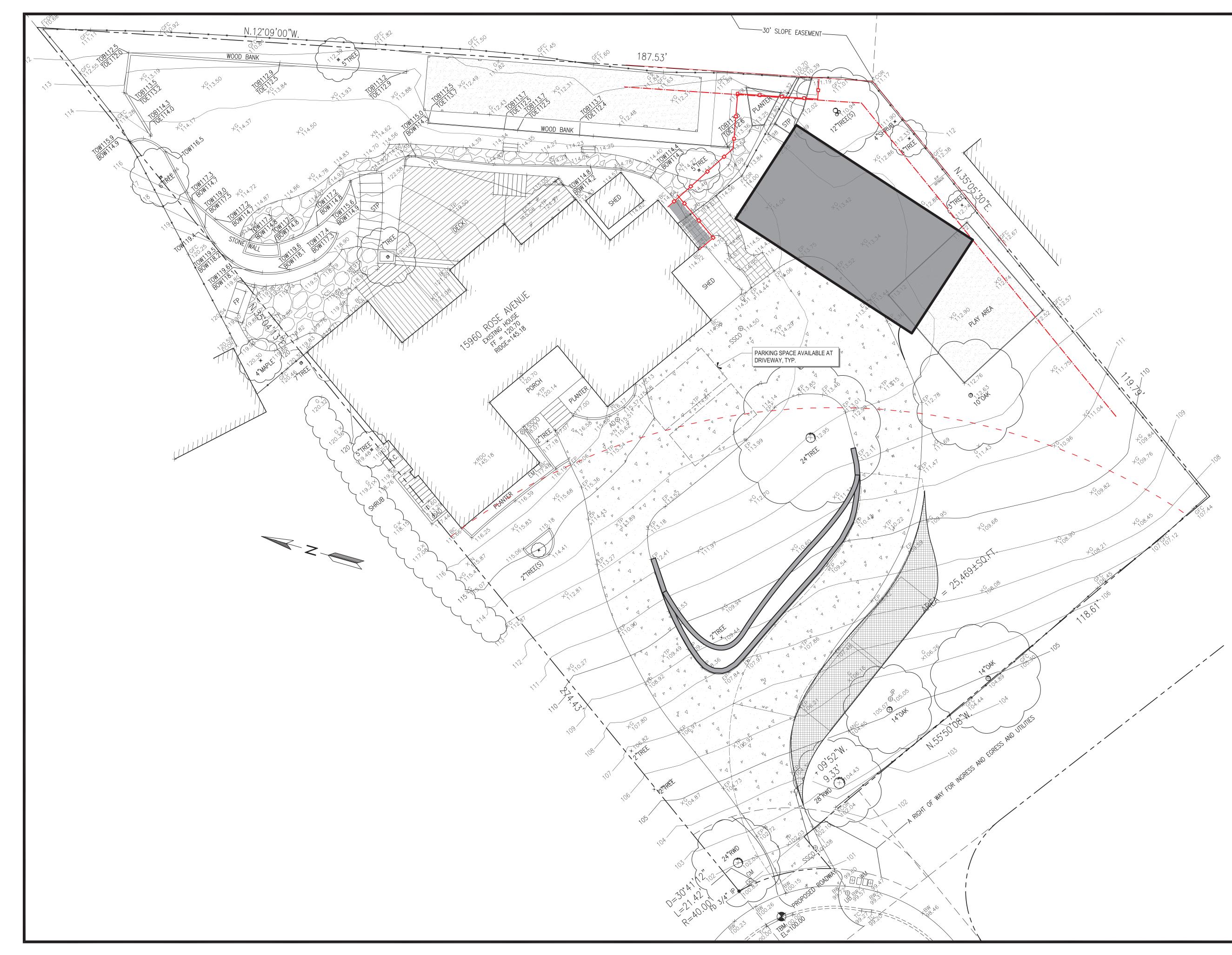
- Prior to final inspection, a letter signed by the general contractor or the owner/builder (for any owner builder projects) must be provided to the Town of Los Gatos building official certifying that all adhesives, ceilings, caulks, paints, coatings, aerosol paint, aerosol coatings, carpet systems (including carpeting, cushion and adhesive), resilient flooring systems, and composite wood products installed on this project are within the emission limits specified in CGBSC section 4.504.



DOCTOROW



RESIDE	ENCE	DISCLAIMER: THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION THAT IS INTENDED FOR THE USE OF "De Mattei Construction Inc." DRAWINGS SHOULD NOT BE DRAWINGS SHOULD NOT BE REPRODUCED OR DIVULGED, IN WHOLE OR IN PART, WITHOUT WRITTEN AUTHORIZATION FROM "De Mattei CONSTUCTION FROM "De Mattei CONSTUCTION FROM "DE MATTEI CONSTUCTION FROM "DE MATTEI DIVULGED WITHOUT WRITTEN AUTHORIZATION.
SCOPE OF WORK NEW DETACHED 2-CAR GARAGE.	•	Y DATE
PROJECT DATA ZONING OCCUPANCY TYPE BUILDING TYPE APN GROSS LOT SIZE AVG. SITE SLOPE NET LOT SIZE FLOOR AREA (MAIN HOUSE): (E) SECOND LEVEL (E) MAIN LEVEL (E) LOWER LEVEL (E) FAR (E) BASEMENT (BELOW-GRADE) (E) GARAGE (N) GARAGE	R-1 R-3 V-B NON-SPRINKLERED 410-19-018 25,469 SF 11.4 % 22,209 SF 477.5 SF 2,690.8 SF 1,141.3 SF 4,309.6 SF < MAX. 4,716 SF 399.6 SF 0 SF < MAX. 1,151 SF 615.6 SF < MAX. 1,151 SF	NO. DESCRIPTION
PROPOSED LOT COVERAGE: (N) GARAGE ** (N) TOTAL STORIES	615.6 SF < MAX. 2,414 SF 3,306.6 SF 12.98 % < MAX. 40 % 2 (MAIN HOUSE) 1 (GARAGE)	SHEET
** DO NOT OCCUPY MORE THAN 15 PERCENT OF THI CALCULATED EXCLUSIVE OF THE REQUIRED BUILDIN	NG SETBACKS.	SHEET TITLE COVER
PROPERTY OWNER: DAVID & SARAH DOCTOROW 15960 ROSE AVE LOS GATOS, CA 95030 (917)415-4522 DESIGNER/CONTRACTOR: DE MATTEI CONSTRUCTION, INC. 1794 THE ALAMEDA SAN JOSE, CA. 95126 (408) 295-7516 CIVIL ENGINEER ED Y. R. WU WEC AND ASSOCIATES, INC. 2625 MIDDLEFIELD RD #658	STRUCTURAL ENGINEER: GEORGE WONG 33 MULRYAN CT. SAN MATEO, CA 94403 (650)678-8483 ENERGY CONSULTING: IGOR PLACHINKO ENERGY CONSULT LLC. 411 N. HAARBOR BLVD. STE. #205 SAN PEDRO, CA 90731	DESCRIPTION: CTOROW RESIDENCE 15960 Rose Avenue, Los Gatos, CA 95030
PALO ALTO, CA 94301 (650)823-6466 SHEET INDEX CS COVERSHEET C.0 TOPOGRAPHIC SURVEY A0.0 GENERAL NOTES A0.1a TITLE 24 A0.1b TITLE 24 A0.2 GREEN BUILDING MANDATO A0.3 BLUE PRINT FOR A CLEAN BA A1.0 ARCHITECTURAL SITE PLAN A2.1 PROPOSED FLOOR PLANS A3.1 PROPOSED ELEVATIONS A8.1 DETAILS	AY	DRAWINGS PROVIDED BY: DeMattei Construction, Inc. 1794 The Alameda, San Jose, CA. 95126 P: (408) 295-7516 F: (408) 286-6589 LIC.# B-478455
CONSTRUCTION SHALL CONFORM 2016 California Building Code 2016 California Residential Code 2016 California Plumbing Code 2016 California Mechanical Code 2016 California Electrical Code 2016 Energy Code 2016 Green Building Code 2016 California Fire Code 2016 California Reference Standards		DATE: 7/29/2019 SCALE: As Shown DRAWN BY: LL SHEET: CS
PERM	MIT PROGRESS SET 7/29/2019	



LEGEND:	
AC	ASPHALT CONCRETE
BC	BUILDING CORNER
	BACK OF WALK
BW CB	CATCH BASIN
СМР	CORRUGATED METAL PIPE
CMP	CURRUGATED METAL PIPE
CRN	CROWN
DW	DRIVEWAY
EC	EDGE OF CONCRETE
EM	ELECTRIC METER
EP	EDGE OF PAVEMENT
	FENCE CORNER
FD	FOUND
	FINISHED FLOOR
FL	FLOW LINE
FH	FIRE HYDRANT
FW	FRONT OF WALK
G	GROUND
GC	GARAGE CORNER
GF	GARAGE FACE/FRONT
GFC	GROUND AT FENCE
GM	GAS METER
HCR	HANDICAP RAMP
INV	INVERT
IP	IRON PIPE
JP LG	JOINT POLE LIP OF GUTTER
O/H	OVERHEAD
PC	PROPERTY CORNER
RW	RETAINING WALL
SL	STREET LIGHT
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
SDMH	STORM DRAIN MANHOLE
TBC	TOP BACK ROLLED CURB
TC	TOP OF CURB
ТОВ	TOP OF BANK
TOE	TOE OF BANK
TP	TOP OF PAVEMENT
TRC	TOP OF ROLLED CURB
TW	TOP OF WALL
U/G VCP	UNDERGROUND VITRIFIED CLAY PIPE
WV	WATER VALVE
WM	WATER METER BOX
-CTV-	CABLE TELEVISION LINE
-E-	ELECTRICAL LINE
-G-	GAS LINE
-SS-	SANITARY SEWER LINE
-SD-	STORM DRAIN LINE
-T-	TELEPHONE LINE
-W-	WATER LINE

BASIS OF BEARINGS:

THE BEARING, N35°02'35"E, OF THE MONUMENT LINE OF ROSE AVENUE, AS SHOWN ON THAT CERTAIN MAP FILED IN OFFICE OF THE RECORDER OF SANTA CLARA COUNTY, STATE OF CALIFORNIA, IN BOOK 383 OF MAPS AT PAGE 43, WAS USED AS THE BASIS OF BEARINGS SHOWN ON THIS MAP.

BASIS OF ELEVATION: 🗘

TBM ELEV=100.00 (ASSUMED)

UTILITY NOTE:

UNDERGROUND UTILITIES. SHOWN PER SURFACE EVIDENCE AND RECORD MAPS. MAY BE DIFFERENT THAN AS SHOWN. BEFORE EXCAVATION, CALL UNDERGROUND SERVICE ALERT (USA) 1-800-642-2444.

NOTE:

1. MEASUREMENT OF BUILDING LINE IS TO THE FACE OF STUCCO OR SIDING

2. SINCE A COPY OF TITLE REPORT WAS NOT PROVIDED, ONSITE EASEMENT WAS NOT EVALUATED.

AVERAGE SLOPE:

CONTOUR	L (FT)	CONTOUR	L(FT)	
101	19.7	116	180.1	
102	21.8	117	161.6	
103	46.3	118	137.0	
104	63.0	119	96.1	
105	80.8			
106	103.1			
107	126.2			
108	145.9			
109	147.5			
110	148.5			
111	152.4			
112	345.1			
113	362.7			
114	284.6			
115	270.0			
TOTAL CON	ITOUR LI	NE LENGTH (F	T)	2892.4
CONTOURI	NTERVA	L (FT)		1
LOT AREA (SF)			25,469
LOT AREA (ACRE)			0.585
AVERAGE S	LOPE =			11.4%

MUNSON RESIDENCE

15960 ROSE AVENUE LOS GATOS, CA APN: 410-19-018



LICENSE STAMPS AND SIGNATURE



ISSUE	CD	
No.	Description	Date
DATE	2.	
	OCT 1, 2015	
SCAL	.E: 1"=10'	
DRAV	WN: BG	
JOB:	10078	

SHEET TITLE:



SHEET NO.

GENERAL NOTES

ARCHITECTURAL

WALL AND FLOOR FLASHING: ALL FLASHING AT WALLS, FLOORS, AND ROOF JUNCTURES TO VERTICAL SURFACES SHALL BE 26 GA. G.I. UNLESS NOTED OTHERWISE ON PLANS. FORM FABRICATE AND INSTALL FLASHING AS SHOWN ON DETAILS. SET ALL FLASHING IN PLASTIC CEMENT AND SET JOINTS IN BUTYL MASTIC. FLASHING SECTIONS SHALL HAVE AN END LAP OF 4" MIN.

DOORS: ALL EXTERIOR DOORS ARE TO BE FULLY WEATHER-STRIPPED, CERTIFIED AND LABELED FOR COMPLIANCE TO ENERGY CONSERVATION REGULATIONS. ALL FRENCH DOORS SHALL BE PAINT GRADE WOOD WITH TEMPERED, DOUBLE GLASS PANELS ARRANGED AS SHOWN ON PLANS AND DOOR SCHEDULE.

WINDOWS: ALL WINDOWS SHALL BE FULLY WEATHER-STRIPPED, CERTIFIED AND LABELED FOR COMPLIANCE TO ENERGY CONSERVATION REGULATIONS. ALL WINDOWS ARE TO BE WOOD OR VINYL FRAMED. DOUBLE GLAZED WITH PANES AS SHOWN ON PLANS AND WINDOW SCHEDULE AND A MAXIMUM U-VALUE AS SET FORTH IN THE T-24 ENERGY CALCULATIONS.

BATH COUNTER TOPS: ALL BATH COUNTERTOPS AND SPLASHES SHALL BE CERAMIC TILE AS SELECTED BY OWNER UNLESS NOTED OTHERWISE ON THE PLANS. USE GRANITE OR MARBLE TILES OR SLAB WHERE NOTED ON PLANS AND INTERIOR ELEVATIONS.

WEATHER BARRIER: ALL WEATHER EXPOSED WALL SURFACES SHALL BE PROTECTED WITH AN UNDERLAYMENT OF (2) LAYERS GRADE "D" BUILDING PAPER OVER PLYWOOD WALL SHEATHING. UNDERLAYMENT SHALL BE APPLIED SHINGLE FASHION WITH MIN. 2" LAP AT HORIZONTAL JOINTS AND MIN. 6" LAP AT VERTICAL JOINTS. UNDERLAYMENT SHALL BE FREE OF HOLES AND BREAKS OTHER THAN THOSE FROM NAILING TO PLYWOOD SHEATHING OR WALL STUDS.

INSULATION: FIBERGLASS BATT INSULATION SHALL BE INSTALLED ACCORDING TO THE T-24 REPORT. SEE T-24 REPORT FOR INSULATION VALUES.

CAULKING: ALL JOINTS AND PENETRATIONS AT EXTERIOR WALLS, CEILINGS AND FLOOR ASSEMBLIES SHALL BE FULLY CAULKED AND SEALED.

TUBS & SHOWERS: SHOWERS SHALL BE A MIN. SIZE OF 1024 SQ.IN AND ACCOMMODATE AT 30" CIRCLE. BACKER FOR SHOWER AND TUB SHOWER WALLS TO BE FIBER-CEMENT, FIBER REINFORCED CEMENTITIOUS BACKER UNITS, GLASS MAT GYPSUM BACKERS OR FIBER-REINFORCED GYPSUM BACKERS TO A MIN. HEIGHT OF 72" ABOVE THE FLOOR. SHOWER WALLS SHALL BE FINISHED WITH CERAMIC TILE OF OTHER SMOOTH, HARD NON-ABSORBENT COVERING. ALL TUB AND SHOWER GLAZING SHALL BE MADE OF SHATTER-RESISTANT TEMPERED GLASS. SWING DOORS SHALL OPEN OUTWARD WITH A MIN. OPENING CLEARANCE OF 22".

PRE-FABRICATED FIREPLACES: PRE-FABRICATED METAL FIREPLACES SHALL BE INSTALLED WITH INSULATED CHIMNEY FLUE, SPARK ARRESTOR AND ACCESSORIES ACCORDING TO MANUFACTURERS SPECIFICATIONS. FIREPLACE OPENING SHALL BE EQUIPPED WITH A TIGHT FITTING, CLOSEABLE METAL OR GLASS DOOR. FIREPLACE SHALL HAVE A FLUE DAMPER AND AN OUTSIDE AIR INTAKE WITH DAMPER. ONLY GAS APPLIANCE FIREPLACES ARE TO BE USED.

GLAZING: ALL GLAZING SHALL CONFORM TO FEDERAL GLAZING REGULATIONS AND THE CALIFORNIA RESIDENTIAL CODE. GLAZING IN HAZARDOUS LOCATIONS SHALL BE FULLY TEMPERED GLASS OR APPROVED PLASTIC AND IS PERMANENTLY IDENTIFIED BY THE MANUFACTURER OR INSTALLER.

MECHANICAL ROOM DOORS: ACCESS DOORS OF THE MECHANICAL ROOM SHALL BE SOLID CORE WITH MINIMUM 100 SQ. IN. LOUVERED VENT AT TOP OF DOORS AND MINIMUM 100 SQ. IN. LOUVERED VENT AT BOTTOM OF DOORS.

GYPSUM WALLBOARD: ALL INTERIOR WALL AND CEILING FACES ARE TO BE SHEATHED WITH 1/2" GYPSUM WALLBOARD EXCEPT WHERE NOTED TO USE 5/8" TYPE "X" WALLBOARD. TAPE, TEXTURE AND PAINT GYP. BOARD ACCORDING TO FINISH SCHEDULE. ALL GAPS AND PENETRATIONS AT 5/8" TYPE "X" WALLBOARD SHALL BE FILLED WITH TAPING CEMENT. NAIL ALL GYP. BOARD TO WALL STUDS, PLATES, BLOCKING, ETC., AS FOLLOWS:

1/2" WALLBOARD 4d CEMENT COATED BOX NAIL OR 1-3/8" x 14 GA. ACID-ETCHED, PHOSPHATE COATED

NAIL OR 4d "DRYVITE" NAIL AT 7" O.C.

5/8" TYPE "X" WALLBOARD 6D "COOLER" NAILS AT 7" O.C.

ROOF VENTILATION: THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE OR 1/300 OF THE VENTED SPACE PROVIDED ONE OR MORE OF THE FOLLOWING CONDITIONS ARE MET

IN CLIMATE ZONES 14 AND 16, A CLASS I OR II VAPOR RETARDER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING. AT LEAST 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NO MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

ALL VENT OPENINGS SHALL BE COVERED WITH CORROSION RESISTANT, NON-COMBUSTIBLE METAL MESH WITH MESH OPENINGS OF AT LEAST 1/16" AND A MAXIMUM OF 1/8" DIMENSION. VENTS SHALL BE LOCATED SO AS TO PROVIDE CROSS VENTILATION OF EACH SEPARATE ATTIC SPACE AND SHALL PROTECT AGAINST THE ENTRANCE OF RAIN AND SNOW.

STAIR HANDRAILS: EVERY STAIRWAY OF 4 OR MORE RISERS SHALL HAVE AT LEAST ONE HANDRAIL AND EVERY OPEN SIDE OF A STAIRWAY SHALL HAVE A GUARDRAIL. HANDRAILS MOUNTED ON A WALL SHALL HAVE A MIN. 1-1/2" SPACE BETWEEN THE WALL AND THE HANDRAIL. THE HANDGRIP PORTION OF HANDRAILS SHALL BE BETWEEN 1-1/4' AND 2" CROSS SECTION DIMENSION AND SHALL HAVE A SMOOTH SURFACE WITH NO SHARP CORNERS. ALL HANDRAILS ARE TO BE PLACED 34" AND 38" ABOVE TREAD NOSING AND SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS.

GUARDRAILS: GUARDRAILS SHALL BE NOT LESS THAN 42 INCHES HIGH MEASURED VERTICALLY ABOVE THE LEADING EDGE OF THE TREAD, ADJACENT WALKING SURFACE OR ADJACENT SEATBOARD. GUARDRAILS SHALL BE ABLE TO RESIST A SINGLE CONCENTRATED LOAD OF 200 POUNDS, APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP AND HAVE ATTACHMENT DEVICES AND SUPPORTING STRUCTURE TO TRANSFER THIS LOADING TO THE APPROPRIATE STRUCTURAL ELEMENTS OF THE BUILDING. INTERMEDIATE RAILS (ALL THOSE EXCEPT THE HANDRAIL), BALUSTERS AND PANEL FILL ERS SHALL BE DESIGNED TO WITHSTAND A HORIZONTALLY APPLIED NORMAL LOAD OF 50 POUNDS ON AN AREA EQUAL TO ONE SQUARE FOOT, INCLUDING OPENING AND SPACE BETWEEN RAILS. OPEN GUARDRAIL AND STAIR RAILINGS SHALL HAVE INTERMEDIATE RAILS, BALUSTERS, PICKETS, ETC., ARRANGED SUCH THAT A 4" SPHERE CANNOT PASS THROUGH THE OPENINGS.

ARCHITECTURAL (CONT.)

SKYLIGHTS: ALL SKYLIGHTS ARE TO BE PRE-MANUFACTURED PLASTIC DOME TYPES WITH ANODIZED ALUMINUM FRAMES MOUNTED ON WOOD CURBS OR DIRECTLY TO ROOF DECK. FRAME COLOR IS TO MATCH OR BE SIMILAR TO THE ROOF COLOR. CURB HEIGHT ABOVE THE ADJACENT ROOF SURFACE IS TO BE 4" MINIMUM. THE DOME HEIGHT IS TO BE MINIMUM 5" OR 10% OF THE MAXIMUM SPAN OF THE DOME. SKYLIGHT UNITS SHALL MEET TITLE 24 REQUIREMENTS. SKYLIGHTS WITH INSTALLED GLAZING 12' ABOVE THE WALKING SURFACE SHALL BE CONSTRUCTED OF LAMINATED GLASS WITH A POLYVINYL BUTYRAL INTERLAYER AND A MINIMUM THICKNESS OF 0.030 INCHES (.76 mm)

EXTERIOR PLASTER LATH: EXTERIOR PLASTER LATH SHALL BE OF AN APPROVED, PAPER-BACKED, CORROSION RESISTANT METAL OR WIRE FABRIC AND SHALL BE SELF FURRING. (1/4" MIN.) APPLY LATH OVER WALL UNDERLAYMENT WITH THE LONG DIMENSION HORIZONTAL AND LAP A MIN. 1/2" AT THE SIDES AND MIN. 1" AT THE ENDS. WHERE END LAPS OF SHEETS DO NOT OCCUR OVER SUPPORTS, THEY SHALL BE SECURELY TIED TOGETHER WITH A MIN. 18 GA. WIRE. REINFORCEMENT SHALL BE USED AT ALL CORNERS OR THE LATH SHALL BE CARRIED AROUND CORNERS AT LEAST ONE SUPPORT. A WEEP SCREED SHALL BE PROVIDED AT OR BELOW THE FOUNDATION LINE ON ALL EXTERIOR STUD WALLS A MIN. OF 4" ABOVE HIGHEST ADJACENT GRADE. THE SCREED SHALL ALLOW TRAPPED WATER TO DRAIN TO THE OUTSIDE. BOTH THE METAL LATH AND PAPER UNDERLAYMENT SHALL TERMINATE ON THE ATTACHMENT FLANGE OF THE SCREED. NAILING OF METAL LATH SHALL BE AT A MAX. OF 6 O.C. EACH WAY USING EITHER 11 GA. X 1-1/2" LONG X 7/16" HEAD NAILS OR 16 GA. STAPLES WITH 7/8" LEGS.

EXTERIOR PLASTER: EXTERIOR PLASTER SHALL BE PORTLAND CEMENT APPLIED IN THREE COATS TO A MIN. THICKNESS OF 7/8". SEE EXTERIOR ELEVATIONS FOR TEXTURE VARIATIONS.

APPLIANCES: THE CONTRACTOR SHALL PROVIDE RESIDENTIAL EQUIPMENT WHICH IS U.L. LABELED. PROVIDE, TO THE OWNER, ALL MANUFACTURER'S STANDARD WRITTEN WARRANTIES, OWNER'S MANUALS, AND STANDARD ACCESSORIES. CONTRACTOR SHALL INSTALL THE APPLIANCES WHERE INDICATED ON DRAWINGS AND AS REQUIRED BY ALL CODES AND LISTINGS. APPLIANCE TYPES, STYLES, COLORS, ETC., SHALL BE SELECTED BY OWNER.

EMERGENCY EGRESS ESCAPE AND RESCUE WINDOWS: BASEMENTS OF DWELLING UNITS AND EVERY BEDROOM BELOW THE 4TH STORY SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR DOOR APPROVED FOR EMERGENCY ESCAPE AND RESCUE DIRECTLY TO EXTERIOR. THE UNITS SHALL BE OPERABLE TO PROVIDE FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS AND HAVE A NET CLEAR OPENING OF NO LESS THAN 5.7 SQUARE FEET. THE NET CLEAR OPENING HEIGHT SHALL BE A MINIMUM OF 24" AND THE WIDTH SHALL BE A MINIMUM OF 20" WITH THE BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44" MEASURED FROM THE FLOOR IN DWELLING UNITS, WHERE THE OPENING OF AN OPERABLE WINDOW IS LOCATED MORE THAN 72" ABOVE THE FINISHED GRADE OR SURFACE BELOW, THE LOWEST PART OF THE CLEAR OPENING OF THE WINDOW SHALL BE A MINIMUM 24" ABOVE THE FINISHED FLOOR OF THE ROOM IN WHICH THE WINDOW IS LOCATED. OPERABLE SECTIONS OF WINDOWS SHALL NOT PERMIT OPENINGS THAT ALLOW PASSAGE OF A 4 INCH DIAMETER WHERE SUCH OPENING ARE LOCATED WITHIN 24" OF THE FINISHED FLOOR. WHERE SUCH WINDOW OPENINGS DO NOT COMPLY, WINDOW FALL PREVENTION DEVICES AND WINDOW GUARDS THAT COMPLY WITH

ASTM F 2090, SHALL BE PROVIDED. STREET ADDRESS: NEW AND EXISTING BUILDINGS SHALL BE PROVIDED WITH APPROVED ADDRESS IDENTIFICATION. THE ADDRESS IDENTIFICATION SHALL BE LEGIBLE AND PLACED IN A POSITION THAT IS VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. ADDRESS IDENTIFICATION CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND. ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS, NUMBERS SHALL NOT BE SPELLED OUT, EACH CHARACTER SHALL BE NOT LESS THAN 4 INCHES HIGH WITH A MINIMUM STROKE WIDTH OF 1 /2 INCH.

SPARK ARRESTORS: SPARK ARRESTORS SHALL BE INSTALLED ON ALL CHIMNEYS INCLUDING OUTSIDE FIREPLACES.

GARAGE: 1-HR SEPARATION BETWEEN DWELLING AND GARAGE PER CRC SECTION R302.6. 20 MINUTE, 1-3/4" SOLID WOOD FIRE RATED DOOR WITH SELF CLOSING AND SELF LATCHING DEVICES PER CRC SECTION R302.5

DIMENSIONS: ALL EXTERIOR DIMENSIONS ARE TO FACE OF SHEATHING. ALL INTERIOR DIMENSIONS ARE TO FACE OF STUD UNLESS OTHERWISE NOTED.

ELECTRICAL

LISTINGS: ALL ELECTRICAL EQUIPMENT AND ACCESSORIES SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LAB. INSTALLATION INSTRUCTIONS FOR ALL LISTED EQUIPMENT SHALL BE PROVIDED TO THE FIELD INSPECTOR AT TIME OF INSPECTION.

RECESSED FIXTURES: PROVIDE RECESSED FIXTURE CLEARANCE PER CODE. RECESSED FIXTURES IN INSULATED CEILINGS SHALL BE "IC" APPROVED FIXTURES.

LOAD OF 5000 WATTS PER APPLIANCE OR BY NAMEPLATE RATING. ELECTRICAL BOXES: ELECTRIC SWITCH AND OUTLET BOXES ON EXTERIOR WALLS SHALL HAVE RUBBER GASKETS FOR MEDIUM INFILTRATION CONTROL.

KITCHEN AND BATH FIXTURES: ALL GENERAL LIGHTING FIXTURES AND BULBS IN KITCHEN AND BATH AREAS SHALL HAVE AN EFFICACY RATING OF 40 LUMENS PER WATT OR GREATER. FLUORESCENT FIXTURES WITH PLUG-IN (NOT SCREW-IN) FLUORESCENT LAMPS SHALL BE USED.

CLOSET LIGHTS: LIGHT FIXTURES IN CLOSETS/WARDROBES SHALL HAVE A MIN. 18" HORIZONTAL CLEARANCE TO SHELVES.

DRYER/COOKING UNIT OUTLETS: CLOTHES DRYERS AND COOKING UNITS SHALL HAVE CONDUCTOR WIRES WITH AN INSULATED NEUTRAL AND FOUR-PRONG OUTLET.

OUTDOOR OUTLETS: PROVIDE OUTSIDE RECEPTACLES AT THE FRONT AND REAR OF THE HOME WITHIN 6'-6" OF GRADE WHICH ARE WATERPROOF AND GFCI PROTECTED. SEE PLAN FOR LOCATIONS.

KITCHEN BRANCH CIRCUITS: SHALL BE PROTECTED BY ARC-FAULT CIRCUIT INTERRUPTERS. PROVIDE (2) SMALL APPLIANCE BRANCH CIRCUITS IN THE KITCHEN WHICH ARE LIMITED TO SUPPLYING WALL AND COUNTER SPACE OUTLETS. THESE OUTLETS CANNOT SERVE DINING ROOM, OUTSIDE PLUGS, RANGE HOOD, DISPOSALS, DISHWASHERS OR MICROWAVES. ONLY THE REQUIRED COUNTERTOP/WALL OUTLETS (INCLUDING REFRIGERATOR)

ARC-FAULT AND GROUND FAULT OUTLETS: ARC-FAULT (AFCI) REQUIRED IN FAMILY ROOMS . DINING ROOMS. PARLORS. LIBRARIES. DENS, BEDROOMS, SUN ROOMS, REC ROOMS, CLOSETS, AND HALLWAYS AND LIGHTING. GROUND FAULT (GFCI) IS REQUIRED IN BATHROOMS, GARAGES, ACCESSORY AREAS, EXTERIOR, CRAWLSPACES, BASEMENTS, DISHWASHERS, AND DISPOSALS. COMBINATION AFCI/GFCI IS REQUIRED IN KITCHENS, AND LAUNDRY AREAS.

CODES: ALL ELECTRICAL EQUIPMENT, WIRING AND INSTALLATIONS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE NATIONAL ELECTRICAL CODE, CALIFORNIA TITLE 24 STANDARDS AND THE MANUFACTURER'S SPECIFICATIONS.

DRYER LOADS: CLOTHES DRYER LOADS SHALL BE DETERMINED ON A

TUB/SHOWER LIGHTS: LIGHT FIXTURES MOUNTED WITHIN 5' OF A SPA/TUB SHALL BE MOUNTED AT LEAST 7'6" ABOVE THE MAXIMUM WATER LEVEL OF THE SPA/TUB AND SHALL BE GFCI PROTECTED.

BATHROOM OUTLET CIRCUITS: REQUIRED BATHROOM OUTLETS SHALL BE ON A DEDICATED 20 AMP CIRCUIT WHICH CANNOT SERVE ANY OTHER RECEPTACLES, LIGHTS, FANS, ETC.

TAMPER-RESISTANT RECEPTACLES IN DWELLING UNITS: ALL NEW NON-LOCKING TYPE 125-VOLT, 15- AND 20-AMPERE RECEPTACLES THAT ARE WITHIN 5 1/2' ABOVE FINISH FLOOR SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.

MECHANICAL

CODES: ALL HVAC EQUIPMENT, DUCT WORK AND INSTALLATIONS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE CURRENT MECHANICAL CODE, CALIFORNIA TITLE 24 STANDARDS AND MANUFACTURER'S SPECIFICATIONS. ALL PLUMBING WORK SHALL CONFORM WITH THE CURRENT CALIFORNIA PLUMBING CODE.

LISTINGS: ALL HVAC EQUIPMENT AND ACCESSORIES SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LAB. INSTALLATION INSTRUCTIONS FOR ALL LISTED EQUIPMENT SHALL BE PROVIDED TO THE FIELD INSPECTOR AT TIME OF INSPECTION.

EXHAUST FANS: ALL INTERIOR EXHAUST FANS SHALL PROVIDE 5 AIR CHANGES PER HOUR OR MORE. EXHAUST FANS AND FAN SYSTEMS SHALL HAVE BACK-DRAFT DAMPER CONTROLS.

1 HOUR WALLS: HVAC DUCTS PENETRATING ONE HOUR WALLS (GARAGE/HOUSE WALL) SHALL BE MINIMUM 26 GAUGE GALVANIZED STEEL. 1 HOUR SEPARATION BETWEEN DWELLING AND GARAGE PER CRC SECTION R302.6.

GAS PIPING: GAS PIPING SHALL NOT BE IMBEDDED IN OR BELOW CONCRETE SLABS

SEWER PIPING: PLASTIC OR PVC SEWER LINE SHALL BE PLACED WITH MIN. 6" OF SAND BASE AND COVER.

FORCED AIR UNIT: FORCED AIR UNIT(S) SHALL BE INSTALLED PER THE MANUFACTURERS RECOMMENDATIONS AND THOSE OF THE STRUCTURAL ENGINEER WHEN INSTALLED IN AN ATTIC SPACE.

GAS APPLIANCES: ALL GAS APPLIANCES AND EQUIPMENT SHALL HAVE INTERMITTENT IGNITION DEVICES WITH NO CONTINUOUS BURNING PILOTS. ALL APPLIANCES SHALL COMPLY WITH THE CURRENT CALIFORNIA MECHANICAL CODE.

WATER HEATERS: WATER HEATERS SHALL BE INSULATED WITH EXTERNAL BLANKETS OF R-12 OF GREATER. INSULATE HOT WATER INLET AND OUTLET PIPES (FIRST FIVE FEET IN UNCONDITIONED SPACES) WITH EXTERNAL WRAPPING OF R-4 OR GREATER. WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER 1/3 AND THE LOWER 1/3 OF ITS VERTICAL DIMENSIONS. AT THE LOWER POINT, A MINIMUM DISTANCE OF FOUR INCHES SHALL BE MAINTAINED ABOVE THE CONTROLS WITH THE STRAPPING. WATER HEATERS LOCATED IN NON-LIVING SPACES SHALL BE INSTALLED ON A PLATFORM SUCH THAT BURNERS AND BURNER-IGNITION DEVICES ARE LOCATED NOT LESS THAN EIGHTEEN INCHES ABOVE THE FINISHED FLOOR.

TANKLESS WATER HEATERS: TANKLESS WATER HEATER SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATION.

DRYER VENT: CLOTHES DRYERS SHALL VEaNT TO THE OUTSIDE OF THE BUILDING AND SHALL BE A MAXIMUM 14' IN LENGTH WITH TWO FEET REDUCTION FOR EACH 90 DEGREE ELBOW OVER TWO. PLUMBING VENTS: ALL PLUMBING VENTS SHALL BE MINIMUM 10 FEET

FROM OPERABLE SKYLIGHTS.

THERMOSTATS: ONLY "SETBACK" THERMOSTATS CERTIFIED BY THE CALIFORNIA ENERGY COMMISSION SHALL BE USED.

HOSE BIBS: HOSE BIBS AND WATER OUTLETSa WITH HOSE ATTACHMENTS SHALL HAVE APPROVED NON-REMOVABLE BACKFLOW PREVENTION DEVICES.

FORCED AIR UNIT CLEARANCES: LISTED FURNACES SHALL BE INSTALLED IN CONFORMANCE WITH THE CONDITIONS OF THEIR LISTING. THE FURNACE INSTALLER SHALL LEAVE THE MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS ATTACHED TO THE APPLIANCE, CLEARANCES OF LISTED FURNACES FROM COMBUSTIBLES SHALL BE AS SPECIFIED IN THE LISTING OR ON THE FURNACE RATING PLATE. UNLISTED FURNACES SHALL HAVE THE FOLLOWING CLEARANCES FROM COMBUSTIBLES: ABOVE TOP OF CASING OR FURNACE

FROM TOP AND SIDES OF WARM-AIR BONNET OR PLENUM 6" FROM FRONT (UNLESS ACCESS REQUIREMENTS GREATER 18" FROM BACK OF FURNACE FROM SIDES OF FURNACE

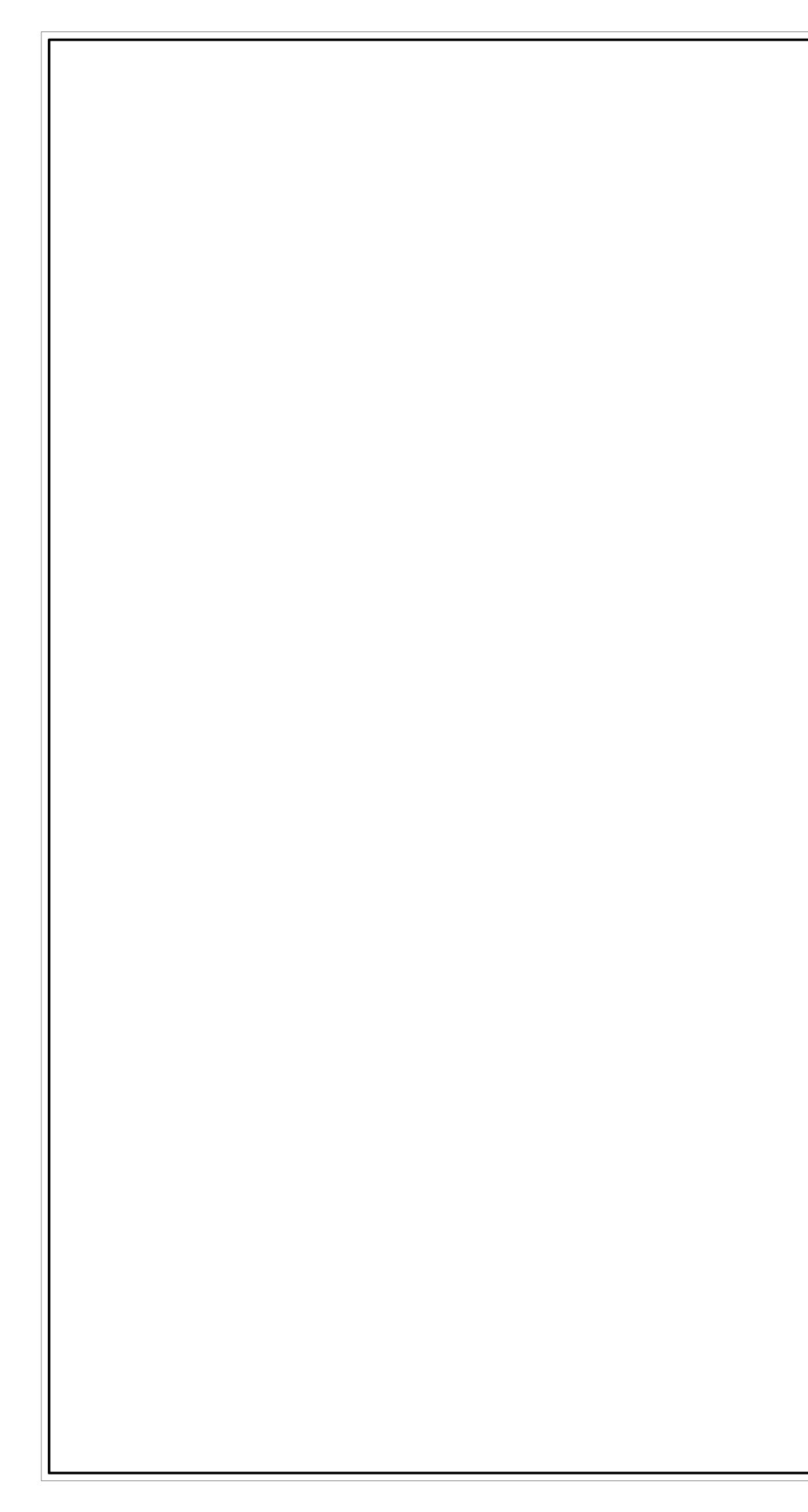
DISHWASHERS: DISHWASHING MACHINES CONNECTED DIRECTLY TO A DRAINAGE SYSTEM OR FOOD WASTE DISPOSAL SHALL HAVE AN APPROVED DISHWASHER AIR GAP FITTING ON THE DISCHARGE SIDE OF THE DISHWASHING MACHINE. LISTED AIR GAPS SHALL BE INSTALLED WITH THE FLOOD LEVEL (FL) MARKING AT OR ABOVE THE FLOOD LEVEL OF THE SINK/DRAIN BOARD, WHICH EVER IS HIGHER.

TUB AND SHOWER VALVES: TUB AND SHOWER VALVES SHALL HAVE INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE

QUICK ACTING VALVES: ALL BUILDING WATER SUPPLY SYSTEMS IN WHICH QUICK ACTING VALVES ARE INSTALLED (SUCH AS DISHWASHERS, CLOTHES WASHERS, ETC.) SHALL BE APPROVED WITH DEVICES AS CLOSE TO QUICK ACTING VALVES AS POSSIBLE TO ABSORB HIGH PRESSURES RESULTING FROM THE QUICK CLOSING OF THESE VALVES.

DUCT TERMINATIONS: ALL ENVIRONMENTAL AIR DUCT TERMINATIONS SHALL BE A MINIMUM OF (3) FEET FROM PROPERTY LINES AND/OR ANY OPENINGS INTO THE BUILDING.

LIS CLAIMER THIS DOCUMENT CONTAINS CONFIDENTIAL AND PROPRIETARY	INFORMATION THAT IS INTENDED FOR THE USE OF "De Mattei Construction Inc."	DRAWINGS SHOULD NOT BE REPRODUCED OR DIVULGED, IN WHOLE	OR IN PART, WITHOUT WRITTEN AUTHORIZATION FROM "De Mattei	Construction Inc." "De Mattei Construction Inc."	CANNOT BE HELD LIABLE IN THE EVENT	THE DRAWINGS ARE REPRODUCED OR	AU I HURIZATI UN.
BY DATE							
NO. DESCRIPTION							
SHEET TITLE:	GENERAL NOTES						
PROJECT DESCRIPTION:	DOCTOROW RESIDENCE		15400 KOSE AVENUE,				
	Mattel Construction, Inc. DOCTOROW R	1794 The Alameda, San Jose,CA. 95126					
L D DRAWINGS PROVIDED BY:	B D D D D D D D D D D	C H H 1794 The Alameda, San Jose, CA. 95126	P: (408) 295-7516 JOU KOSE		L: (408) 280-0389		
S S S S S S S S S S S S S S S S S S S		「「「」」「「」」 1794 The Alameda, San Jose, CA. 95126 1794 The Alameda, San Jose, CA. 95126					
TIDES STATION:		5 5 5 1 2 1 1794 The Alameda, San Jose,CA. 95126 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Z 2 2 11 0 7 295-7516 7 295-7516 7 295-7516				





2016 Low-Rise Residential Mandatory Measures Summary

<u>NOTE:</u> Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. *Exceptions may apply. (Original 08/2016)

(Original 08/2016) Building Envelop		1	
§ 110.6(a)1:	Air Leakage. Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 cfm/ft ² or less when tested per NFRC-400 or ASTM E283 or AAMA/WDMA/CSA 101/I.S.2/A440-2011.*	1,	§ 150.0(m)13:
§ 110.6(a)5:	Labeling. Fenestration products must have a label meeting the requirements of § 10-111(a).		; 100.0(iii)10.
§ 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 and 110.6-B for compliance and must be caulked and/or weatherstripped.*	1	
§ 110.7:	Air Leakage. All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked,	Į	§150.0(o):
§ 110.8(a):	gasketed, or weather stripped. Insulation Certification by Manufacturers. Insulation specified or installed must meet Standards for Insulating Material.	•	§ 150.0(o)1A:
§ 110.8(g):	Insulation Requirements for Heated Slab Floors. Heated slab floors must be insulated per the requirements of § 110.8(g).	11	Pool and Spa S
§ 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) when the installation of a cool roof is specified on the CF1R.	١F	
§ 110.8(j):	Radiant Barrier. A radiant barrier must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.] [§	§ 110.4(a):
	Ceiling and Rafter Roof Insulation. Minimum R-22 insulation in wood-frame ceiling; or the weighted average U-factor must not exceed 0.043. Minimum R-19 or weighted average U-factor of 0.054 or less in a rafter roof alteration. Attic access doors must have permanently attached		
§ 150.0(a):	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 continuous roof or ceiling which is sealed to limit infiltration and exfiltration as specified in § 110.7, including but not limited		§ 110.4(b)1: § 110.4(b)2:
§ 150.0(b):	to placing insulation either above or below the roof deck or on top of a drywall ceiling.* Loose-fill Insulation. Loose fill insulation must meet the manufacturer's required density for the labeled R-value.	ł۴	§ 110.4(b)2. § 110.4(b)3:
	Wall Insulation. Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less (R-19 in 2x6 or U-factor of 0.074 or	11	§ 110.4(0)5. § 110.5:
§ 150.0(c):	less). Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102, equivalent to an installed value of R-13 in a wood framed assembly.*	ΗĒ	§ 150.0(p):
§ 150.0(d):	Raised-floor Insulation. Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*		_ighting Measu
§ 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%; have a water vapor permeance no greater than 2.0 perm/inch; be protected from physical damage and UV light		§ 110.9:
A 488 84 34	deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g). Vapor Retarder. In Climate Zones 1-16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This	┨┝╴	§ 110.9(e):
§ 150.0(g)1:	requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d). 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	ΙĽ	§ 110.9(e). § 150.0(k)1A:
§ 150.0(g)2:	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 0.58; or the weighted average U-factor of all fenestration must not exceed 0.58.*	- §	§ 150.0(k)1B:
	rative Gas Appliances, and Gas Log Measures:	- [8	§ 150.0(k)1C:
§ 150.0(e)1A:	Closable Doors. Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox. Combustion Intake. Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area	┨┝╴	
§ 150.0(e)1B:	and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.*	- L	§ 150.0(k)1D:
§ 150.0(e)1C:	Flue Damper. Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.* Pilot Light. Continuous burning pilot lights and the use of indoor air for cooling a firebox jacket, when that indoor air is vented to the outside of	1	§ 150.0(k)1E:
§ 150.0(e)2:	the building, are prohibited.	╢┝╷	150 0/4/15-
§ 110.0-§ 110.3:	Certification. Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated	┫┝	§ 150.0(k)1F:
§ 110.0-§ 110.3. § 110.2(a):	appliances must be certified by the manufacturer to the Energy Commission.* HVAC Efficiency. Equipment must meet the applicable efficiency requirements in TABLE 110.2-A through TABLE 110.2-K.*	- §	§ 150.0(k)1G:
3 110.2(d).	Controls for Heat Pumps with Supplementary Electric Resistance Heaters. Heat pumps with supplementary electric resistance heaters	Ę	§ 150.0(k)1H:
§ 110.2(b):	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		§ 150.0(k)2A:
	compression heating is higher than the cut-off temperature for supplementary heating.* Thermostats. All unitary heating or cooling systems not controlled by a central energy management control system (EMCS) must have a	1 -	§ 150.0(k)2B:
§ 110.2(c):	setback thermostat.* Water Heating Recirculation Loops Serving Multiple Dwelling Units. Water heating recirculation loops serving multiple dwelling units must	┫┝╴	§ 150.0(k)2C:
§ 110.3(c)5:	meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of §		§ 150.0(k)2D:
§ 110.3(c)7:	110.3(c)5. Isolation Valves. Instantaneous water heaters with an input rating greater than 6.8 kBTU/hr (2 kW) must have isolation valves with hose bibbs	11	§ 150.0(k)2E:
	or other fittings on both cold water and hot water lines of water heating systems to allow for water tank flushing when the valves are closed. Pilot Lights. Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (appli-		§ 150.0(k)2F:
§ 110.5:	ances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu/hr are exempt); and pool and spa heaters.* Building Cooling and Heating Loads. Heating and/or cooling loads are calculated in accordance with ASHRAE Handbook, Equipment	§	§ 150.0(k)2G:
§ 150.0(h)1:	Volume, Applications Volume, and Fundamentals Volume; SMACNA Residential Comfort System Installation Standards Manual; or ACCA	5	§ 150.0(k)2H:
§ 150.0(h)3A:	Manual J using design conditions specified in § 150.0(h)2. Clearances. Installed air conditioner and heat pump outdoor condensing units must have a clearance of at least 5 feet from the outlet of any	۲Ľ	; 100.0(k)211.
§ 150.0(h)3B:	dryer vent. Liquid Line Drier. Installed air conditioner and heat pump systems must be equipped with liquid line filter driers if required, as specified by	§	§ 150.0(k)2l:
	manufacturer's instructions. Storage Tank Insulation. Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must have	- Ę	§ 150.0(k)2J:
§ 150.0(j)1:	R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank. Water piping and cooling system line insulation. For domestic hot water system piping, whether buried or unburied, all of the following must	Ę	§ 150.0(k)2K:
6 4E0 0/3\0A-	be insulated according to the requirements of TABLE 120.3-A: the first 5 feet of hot and cold water pipes from the storage tank; all piping with a	Ę	§ 150.0(k)2L:
§ 150.0(j)2A:	nominal diameter of 3/4 inch or larger; all piping associated with a domestic hot water recirculation system regardless of the pipe diameter; piping from the heating source to storage tank or between tanks; piping buried below grade; and all hot water pipes from the heating source to		AED 0/1-204-
S 450 0/02D	kitchen fixtures.* Water piping and cooling system line insulation. All domestic hot water pipes that are buried below grade must be installed in a water proof	-	§ 150.0(k)3A:
§ 150.0(j)2B:	and non-crushable casing or sleeve.* Water piping and cooling system line insulation. Pipe for cooling system lines must be insulated as specified in § 150.0(j)2A. Distribution		150.0/1/200-
§ 150.0(j)2C:	piping for steam and hydronic heating systems or hot water systems must meet the requirements in TABLE 120.3-A.*		§ 150.0(k)3B:
§ 150.0(j)3:	Insulation Protection. Insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation Protection. Insulation exposed to weather must be installed with a cover suitable for outdoor service. For example, protected by	۶	§ 150.0(k)3C:
§ 150.0(j)3A:	aluminum, sheet metal, painted canvas, or plastic cover. The cover must be water retardant and provide shielding from solar radiation that can cause degradation of the material.	Ę	§ 150.0(k)3D:
§ 150.0(j)3B:	Insulation Protection. Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must have a	٤	§ 150.0(k)4:
Ser 17	Class I or Class II vapor retarder. Gas or Propane Systems. Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: a		§ 150.0(k)5:
§ 150.0(n)1:	120V electrical receptacle within 3 feet of the water heater; a Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; a condensate drain that is no more than 2 inches higher than the base of the	\mathbb{H}	
§ 150.0(n)2:	water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu/hr. Recirculating Loops. Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.	- §	§ 150.0(k)6A:
§ 150.0(n)2:	Solar Water-heating Systems. Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification	1	
Ducts and Fans I	Corporation (SRCC) or by a listing agency that is approved by the Executive Director. Measures:	ş ا	§ 150.0(k)6B:
§ 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	11	
· ···/-/-·	contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement. CMC Compliance. All air-distribution system ducts and plenums must be installed, sealed, and insulated to meet the requirements of CMC	╎┝	Solar Ready Bui
	§§ 601.0, 602.0, 603.0, 604.0, 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 a minimum installed level of R-6.0 (or higher if required by CMC § 605.0) or	ĮĮ	§ 110.10(a)1:
	a minimum installed level of R-4.2 when entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with		§ 110.10(a)2:
§ 150.0(m)1:	mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that		
	meets the requirements of UL 723. If mastic or tape is used to seal openings greater than ¼ inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed		
	sheet metal, duct board or flexible duct must not be used for conveying conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area of the ducts.*	Ę	§ 110.10(b)1:
§ 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.	Į	§ 110.10(b)2:
§ 150.0(m)7:	Backdraft Dampers. All fan systems that exchange air between the conditioned space and the outside of the building must have backdraft or automatic dampers.	<u> </u>	§ 110.10(b)3A:
§ 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.		140 40/000
	Protection of Insulation. Insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or		§ 110.10(b)3B:
§ 150.0(m)9:	plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from	[§	§ 110.10(b)4:
§ 150.0(m)10:	solar radiation. Porous Inner Core Flex Duct. Porous inner core flex duct must have a non-porous layer between the inner core and outer vapor barrier.	1	§ 110.10(c):
	Duct System Sealing and Leakage Test. When space conditioning systems use forced air duct systems to supply conditioned air to an	1	
§ 150.0(m)11:	occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11and Reference Residential Appendix RA3.	$+ \parallel$	§ 110.10(d):
§ 150.0(m)12:	Air Filtration. Mechanical systems that supply air to an occupiable space through ductwork exceeding 10 feet in length and through a thermal conditioning component, except evaporative coolers, must be provided with air filter devices that meet the design, installation, efficiency,	<u> </u>	§ 110.10(e)1:
-	pressure drop, and labeling requirements of § 150.0(m)12.] [§	§ 110.10(e)2:

	R: MENT CONTAINS MENT CONTAINS TIAL AND PROPRIETARY TIAL AND PROPRIETARY TO THAT IS INTENDED FOR F "De Matei Construction Inc." SHOULD NOT BE ZED OR DIVULGED, IN WHOLE T, WITHOUT WRITTEN ATION. E HELD LIABLE IN THE EVENT E HELD LIABLE IN THE EVENT TICS ARE REPRODUCED OR WITHOUT WRITTEN ATION.
uct System Sizing and Air Filter Grille Sizing. Space conditioning systems that use forced air ducts to supply cooling to an occupiable bace must have a hole for the placement of a static pressure probe (HSPP), or a permanently installed static pressure probe (PSPP) in the upply plenum. The space conditioning system must also demonstrate airflow \geq 350 CFM per ton of nominal cooling capacity through the return filles, and an air-handling unit fan efficacy \leq 0.58 W/CFM as confirmed by field verification and diagnostic testing, in accordance with efference Residential Appendix RA3.3. This applies to both single zone central forced air systems and every zone for zonally controlled central	DISCLAIMER: THIS DOCUMENT CONFIDENTIAL AI NFORMATION TH THE USE OF "De A DRAWINGS SHOU REPRODUCED OF REPRODUCED OF REPRODUCED OF REPRODUCED OF REPRODUCED OF REPRODUCED OF AUTHORIZATION.
rced air systems." entilation for Indoor Air Quality. All dwelling units must meet the requirements of ASHRAE Standard 62.2. Neither window operation nor ontinuous operation of central forced air system air handlers used in central fan integrated ventilation systems are permissible methods of roviding whole-building ventilation. ield Verification and Diagnostic Testing. Whole-building ventilation airflow must be confirmed through field verification and diagnostic sting, in accordance with Reference Residential Appendix RA3.7.	BY DATE
ns and Equipment Measures: ertification by Manufacturers. Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency at complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater ithout adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric isistance heating.*	
iping. Any pool or spa heating equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated action and return lines, or built-in or built-up connections to allow for future solar heating. overs. Outdoor pools or spas that have a heat pump or gas heater must have a cover. irectional inlets and time switches for pools. Pools must have directional inlets that adequately mix the pool water, and a time switch that ill allow all pumps to be set or programmed to run only during off-peak electric demand periods. ilot Light. Natural gas pool and spa heaters must not have a continuously burning pilot light.	
bool Systems and Equipment Installation. Residential pool systems or equipment must meet the specified requirements for pump sizing, flow ite, piping, filters, and valves.*	ESCRIPTION
a certified to the Energy Commission according to Reference Joint Appendix JA8. uminaire Efficacy. All installed luminaires must be high efficacy in accordance with TABLE 150.0-A. lank Electrical Boxes. The number of electrical boxes that are more than 5 feet above the finished floor and do not contain a luminaire or her device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or n speed control.	
ecessed Downlight Luminaires in Ceilings. Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) beling; air leakage; sealing; maintenance; and socket and light source as described in § 150.0(k)1C. A JA8-2016-E light source rated for evated temperature must be installed by final inspection in all recessed downlight luminaires in ceilings. lectronic Ballasts. Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an output frequency no less than 0 kHz. ight Lights. Permanently installed night lights and night lights integral to installed luminaires or exhaust fans must be rated to consume no	
Ight Lights. Permanently installed hight lights and hight lights integral to installed luminaires or exhaust fans must be rated to consume no ore than 5 watts of power per luminaire or exhaust fan as determined in accordance with § 130.0(c). Night lights do not need to be controlled / vacancy sensors. ighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) ust meet the applicable requirements of § 150.0(k).* crew based luminaires. Screw based luminaires must not be recessed downlight luminaires in ceilings and must contain lamps that comply ith Reference Joint Appendix JA8. Installed lamps must be marked with "JA8-2016" or "JA8-2016-E" as specified in Reference Joint Appendix	
A8.* Inclosed Luminaires. Light sources installed in enclosed luminaires must be JA8 compliant and must be marked with "JA8-2016-E." Iterior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A. Iterior Switches and Controls. Exhaust fans must be switched separately from lighting systems.* Iterior Switches and Controls. Luminaires must be switched with readily accessible controls that permit the luminaires to be manually	SHEET TITLE TITLE 24
vitched ON and OFF. terior Switches and Controls. Controls and equipment must be installed in accordance with manufacturer's instructions. terior Switches and Controls. No control must bypass a dimmer or vacancy sensor function if the control is installed to comply with 150.0(k). terior Switches and Controls. Lighting controls must comply with the applicable requirements of § 110.9.	
terior Switches and Controls. An energy management control system (EMCS) may be used to comply with dimmer requirements if it: nctions as a dimmer according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the EMCS requirements of § 30.5(f); and meets all other requirements in § 150.0(k)2. terior Switches and Controls. An EMCS may be used to comply with vacancy sensor requirements in § 150.0(k) if it meets all of the llowing: it functions as a vacancy sensor according to § 110.9; the Installation Certificate requirements of § 130.4; the EMCS requirements of § 30.5(f); and all other requirements in § 150.0(k)2. terior Switches and Controls. A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(k) if it rovides the functionality of a dimmer according to § 110.9, and complies with_all other applicable requirements in § 150.0(k)2. terior Switches and Controls. In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces must	W RESIDENC ose Avenue, os, CA 95030
e controlled by a vacancy sensor. terior Switches and Controls. Dimmers or vacancy sensors must control all luminaires required to have light sources compliant with eference Joint Appendix JA8, except luminaires in closets less than 70 square feet and luminaires in hallways. [*] terior Switches and Controls. Undercabinet lighting must be switched separately from other lighting systems. esidential Outdoor Lighting. For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other uildings on the same lot, must meet the requirement in item § 150.0(k)3Ai (ON and OFF switch) and the requirements in either item 150.0(k)3Aii (photocell and motion sensor) or item § 150.0(k)3Aiii (photo control and automatic time switch control, astronomical time clock, or	TORO 5960 R 58 Gatc
MCS). esidential Outdoor Lighting. For low-rise multifamily residential buildings, outdoor lighting for private patios, entrances, balconies, nd porches; and outdoor lighting for residential parking lots and residential carports with less than eight vehicles per site must comply with ther § 150.0(k)3A or with the applicable requirements in §§ 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0. esidential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, outdoor lighting not regulated by 150.0(k)3B or § 150.0(k)3D must comply with the applicable requirements in §§ 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0. esidential Outdoor Lighting. Outdoor lighting for residential parking lots and residential carports with a total of eight or more	
chicles per site must comply with the applicable requirements in §§ 110.9, 130.0, 130.2, 130.4, 140.7, and 141.0. ternally illuminated address signs. Internally illuminated address signs must comply with § 140.8; or must consume no more than 5 watts of power as determined according to § 130.0(c). esidential Garages for Eight or More Vehicles. Lighting for residential parking garages for eight or more vehicles must comply with the oplicable requirements for nonresidential garages in §§ 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0. terior Common Areas of Low-rise Multi-Family Residential Buildings. In a low-rise multifamily residential building where the total interior formmon area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that	on, Inc. A. 95126
uilding must be high efficacy luminaires and controlled by an occupant sensor. terior Common Areas of Low-rise Multi-Family Residential Buildings. In a low-rise multifamily residential building where the total interior formmon area in a single building equals more than 20 percent of the floor area, permanently installed lighting in that building must: Comply with the applicable requirements in §§ 110.9, 130.0, 130.1, 140.6 and 141.0; and Lighting installed in corridors and stairwells must be controlled by occupant sensors that reduce the lighting power in each space by at least D percent. The occupant sensors must be capable of turning the light fully on and off from all designed paths of ingress and egress.	structi San Jose, C/ 295-7516 286-6589 478455
ingle Family Residences. Single family residences located in subdivisions with ten or more single family residences and where the oplication for a tentative subdivision map for the residences has been deemed complete by the enforcement agency must comply with the quirements of § 110.10(b) through § 110.10(e). ow-rise Multi-family Buildings. Low-rise multi-family buildings must comply with the requirements of § 110.10(b) through § 110.10(d).	PROVIDED Itei Co P: (40 F: (40 LIC:∄
inimum Area. The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke antilation, and spacing requirements as specified in Title 24, Part 9 or other Parts of Title 24 or in any requirements adopted by a local risdiction. 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 ach 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 reater than 10,000 square feet. or 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	DRAWINGS DeMat 1794 ⁻
uare feet. For low-rise multi-family buildings the solar zone must be located on the roof or overhang of the building, or on the roof or overhang another structure located within 250 feet of the building, or on covered parking installed with the building project, and have a total area no less an 15 percent of the total roof area of the building excluding any skylight area." rientation. All sections of the solar zone located on steep-sloped roofs must be oriented between 110 degrees and 270 degrees of true north. hading. The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof ounted equipment."	DATE: 7/29/2019
hading. 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 stance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of e nearest point of the solar zone, measured in the vertical plane.* tructural Design Loads on Construction Documents. For areas of the roof designated as solar zone, the structural design loads for roof e ad load and roof live load must be clearly indicated on the construction documents.	SCALE: As Shown
terconnection Pathways. The construction documents must indicate: a location for inverters and metering equipment and a pathway for uting of conduit from the solar zone to the point of interconnection with the electrical service (for single family residences the point of terconnection will be the main service panel); and a pathway for routing of plumbing from the solar zone to the water-heating system. ocumentation. A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through 110.10(c) must be provided to the occupant. ain Electrical Service Panel. The main electrical service panel must have a minimum busbar rating of 200 amps.	DRAWN BY: LL SHEET:
ain Electrical Service Panel. The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit eaker for a future solar electric installation. The reserved space must be: positioned at the opposite (load) end from the input feeder location or ain circuit location; and permanently marked as "For Future Solar Electric".	A0.1a
PERMIT PROGRESS SET 7	/29/2019

CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01 Project Name: 15960 Rose ADU Calculation Date/Time: 15:17, Tue, Apr 09, 2019 Page 1 of 7	CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01 Project Name: 15960 Rose ADU Calculation Date/Time: 15:17, Tue, Apr 09, 2019 Page 4 of 7	CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD Project Name: 15960 Rose ADU CElculation Date/Time: 15:17, Tue, Apr 09, 2019 Page 7 of 7
Calculation Description: Title 24 Analysis Input File Name: 15960_Rose_ADU_v3.ribd16	Calculation Description: Title 24 Analysis Input File Name: 15960_Rose_ADU_v3.ribd16	Calculation Description: Title 24 Analysis Input File Name: 15960_Rose_ADU_v3.ribd16
GENERAL INFORMATION	OPAQUE SURFACE CONSTRUCTIONS	
01 Project Name 15960 Rose ADU 02 Calculation Description Title 24 Analysis	01 02 03 04 05 06 07 Image: Comparison of the system of the syste	1. I certify that this Certificate of Compliance documentation is accurate and complete. Documentation Author Name: Documentation Author Signature:
03 Project Location 15960 Rose Ave	Construction Name Surface Type Construction Type Framing R-value U-factor Assembly Layers	Igor Pichko Company: Signature Date:
04 City Los Gatos, CA 05 Standards Version Compliance 2017 06 Zip Code 95030 07 Compliance Manager Version BEMCmpMgr 2016.3.1 (1149)	Asphalt Shingle Roof RB Attic Roofs Wood Framed Ceiling 2x4 Top Chord of Roof Truss @ 24 in. O.C. none • Roof Deck: Wood Siding/sheathing/decking • Roofing: Light Roof (Asphalt Shingle)	Energy Consult LLC 2019-04-09 16:22:22 CA/HERS Certification (If applicable CABEC
08 Climate Zone CZ4 09 Software Version CBECC-Res 2016.3.1 (1019) 10 Building Type Single Family 11 Front Orientation (deg/Cardinal) 285	Ceilings (below Ceilings (below Ceilings (below Ceilings (below Ceilings (below Ceilings (below Ceilings Ceilin	Address: 1252 w 22nd st #2 CEA/HERS Certification Identification (If applicable R16-14-20025 CERTIFIED ENERGY ANALYST
12 Project Scope Newly Constructed 13 Number of Dwelling Units 1	Ceiling attic new attic) Wood Framed Ceiling 2x4 @ 24 in. O.C. R 30 0.032 • Over Ceiling Joists: R-20.9 insul. Ceilings (below Ceilings (below • Inside Finish: Gypsum Board	City/State/Zip: Phone: San Pedro, CA 90731 424-247-7658
14 Total Cond. Floor Area (ft ²) 548 15 Number of Zones 1 16 Slab Area (ft ²) 548 17 Number of Stories 1	Ceiling attic Gar attic) Wood Framed Ceiling 2x4 @ 16 in. O.C. none 0.472 • Cavity / Frame: no insul. / 2x4 Image: Comparison of the state of the sta	RESPONSIBLE PERSON'S DECLARATION STATEMENT
18 Addition Cond. Floor Area(ft ²) n/a 19 Natural Gas Available No	Cavity / Frame: R-21 / 2x6 Sheathing / Insulation: Wood Siding/sheathing/decking	 certify the following under penalty of perjury, under the laws of the State of California: 1 am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
20 Addition Slab Area (ft ²) n/a 21 Glazing Percentage (%) 21.3%	Wall new Exterior Walls Wood Framed Wall 2x6 @ 16 in. O.C. R 21 0.062 Siding/sheathing/decking	 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. 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,
COMPLIANCE RESULTS 01 Building Complies with Computer Performance	Wall Gar Exterior Walls Wood Framed Wall 2x4 @ 16 in. O.C. none 0.387 • Inside Finish: Gypsum Board • Cavity / Frame: no insul. / 2x4	worksheets calculations plans and specifications submitted to the enforcement agency for approval with this building permit application
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.	Inside Finish: Gypsum Board Cavity / Frame: R-21 / 2x6	Responsible Designer Name: Randolph B Popp
HERS PROVIDER	Wall Int new Interior Walls Wood Framed Wall 2x6 @ 16 in. O.C. R 21 0.064 • Other Side Finish: Gypsum Board	Company: Date Signed: Randolph Popp, Architect 2019-04-09 16:28:39
ENERGY USE SUMMARY 04 05 06 07 08	SLAB FLOORS 01 02 03 04 05 06 07	Address: License: Z
Energy Use (kTDV/ft ² -yr) Standard Design Proposed Design Compliance Margin Percent Improvement	Name Zone Area (ft ²) Perimeter (ft) Edge Insul. R-value & Depth Carpeted Fraction Heated Slab On Grade-n House 548 69 None 0.8 No	212 High Street na City/State/Zip: Phone:
Space Heating 14.58 17.53 -2.95 -20.2% Space Cooling 10.52 16.66 -6.14 -58.4%	Slab On Grade-nHouse54869None0.8NoGSlab On Grade-nGarage61675None0No	Palo Alto, CA 94301
IAQ Ventilation 1.79 1.79 0.00 0.0%	BUILDING ENVELOPE - HERS VERIFICATION	
Water Heating 45.35 35.08 10.27 22.6% Photovoltaic Offset 0.00 0.00	01 02 03 04 Quality Insulation Installation (QII) Quality Installation of Spray Foam Insulation Building Envelope Air Leakage CFM50	
Compliance Energy Total 72.24 71.06 1.18 1.6%	Not Required Not Required Not Required n/a	
REQUIRED SPECIAL FEATURES The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.	WATER HEATING SYSTEMS 01 02 03 04 05 06	Digitally signed by CalCERTS. This digital signature is provided in order to secure the content of this registered document, and in no way implies Registration Provider responsibility for the accuracy of the information.
NO SPECIAL FEATURES REQUIRED	Name System Type Distribution Type Water Heater Number of Heaters Solar Fraction (%)	Easy to Verify
	DHW System 1 DHW Standard WH HP (1) 1 n/a	at CalCERTS.com
Registration Number:219-P010081445A-000-000-0000000-0000Registration Date/Time:2019-04-09 16:28:39HERS Provider:CalCERTS inc.CA Building Energy Efficiency Standards - 2016 Residential ComplianceReport Version - CF1R-01162019-1149Report Generated at: 2019-04-09 15:18:12	Registration Number: 219-P010081445A-000-000-0000000-0000 Registration Date/Time: 2019-04-09 16:28:39 HERS Provider: CalCERTS inc. CA Building Energy Efficiency Standards - 2016 Residential Compliance Report Version - CF1R-01162019-1149 Report Generated at: 2019-04-09 15:18:12	Registration Number: 219-P010081445A-000-000-000000-0000 Registration Date/Time: 2019-04-09 16:28:39 HERS Provider: CalCERTS inc. CA Building Energy Efficiency Standards - 2016 Residential Compliance Report Version - CF1R-01162019-1149 Report Generated at: 2019-04-09 15:18:12
CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01	CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01	
Project Name: 15960 Rose ADU Calculation Date/Time: 15:17, Tue, Apr 09, 2019 Page 2 of 7	Project Name: 15960 Rose ADU Calculation Date/Time: 15:17, Tue, Apr 09, 2019 Page 5 of 7	
Calculation Description: Title 24 Analysis Input File Name: 15960_Rose_ADU_v3.ribd16	Calculation Description: Title 24 Analysis Input File Name: 15960_Rose_ADU_v3.ribd16	
HERS FEATURE SUMMARY	WATER HEATERS	
The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building components tables below.	01 02 03 04 05 06 07 08 09 10 11 12 Imput Rating / Tank Standby Standby Imput Rating / Tank Standby Imput Rating / Imput Rating / Standby Imput Rating / Imput Ratin	Ъ Е
Building-level Verifications: IAQ mechanical ventilation 	Heater Tank Uniform Energy Pilot / Insulation Loss / First Hour NEEA Heat Pump Tank Location Element Number Volume Factor / Energy Thermal R-value Recovery Rating / Brand / Model / or Ambient	
Cooling System Verifications: • Minimum Airflow	Name Type Tank Type of Units (gal) Factor / Efficiency Efficiency Int/Ext) Eff Flow Rate Other Condition WH HP Heat Pump n/a 1 50 3 EF <= 12 kW	
Verified Refrigerant Charge Fan Efficacy Watts/CFM HVAC Distribution System Verifications:	SPACE CONDITIONING SYSTEMS	
Duct Sealing Domestic Hot Water System Verifications:	01 02 03 04 05 06 SC Sys Name System Type Heating Unit Name Cooling Unit Name Fan Name Distribution Name	
	Heat Pump Heating and Heat Pump System 1 For new	SIDE venue
BUILDING - FEATURES INFORMATION 01 02 03 04 05 06 07	HVAC System 1 Cooling System 1 Cooling System 1 Heat Pump System 1 Pain New Duct new Duct new	
Project Name Conditioned Floor Area (ft ²) Number of Dwelling Units Number of Bedrooms Number of Zones Number of Ventilation Cooling Systems Number of Water Heating Systems	01 02 03 04 05 06 07 08 09 10 11	CA A E C A E
15960 Rose ADU 548 1 1 1 1 0 1	System Number of Heating Cooling Zonally Compressor HERS Name Type Units HSPF/COP Cap 47 Cap 17 SEER EER Controlled Type Verification	
ZONE INFORMATION 01 02 03 04 05 06 07	Heat Pump System 1 SplitHeatPump 1 8.2 24000 19200 14 11.7 Not Zonal Single Speed Heat Pump System	CRIPTION: OROW 960 Ros 6 Gatos
Zone Floor Area Avg. Ceiling	HVAC COOLING - HERS VERIFICATION	
Zone Name Zone Type HVAC System Name (ft²) Height Water Heating System 1 Water Heating System 2 House Conditioned HVAC System 1 548 8 DHW System 1 n/a	01 02 03 04 05 06	
OPAQUE SURFACES	Name Verified Airflow Airflow Target Verified EER Verified SEER Verified Refrigerant Charge	
01 02 03 04 05 06 07 08 Name Zone Construction Azimuth Orientation Gross Area (ft ²) Window & Door Area (ft ²) Tilt (deg)	Heat Pump System 1-hers-cool Required 350 Not Required Required HVAC - DISTRIBUTION SYSTEMS Image: Constraint of the system state of the	
Wall-n-F House Wall new 285 Front 178 49.32 90	01 02 03 04 05 06 07	
Wall-n-L House Wall new 15 Left 200 20 90 Wall-n-B House Wall new 105 Back 178 47.32 90	Name Type Duct Leakage Insulation R-value Duct Location Bypass Duct HERS Verification Duct new DuctsAttic Sealed and tested 8 Attic None Duct new-hers-dist	
Interior Wall-n to Garage House>>Garage Wall Int new n/a n/a 200 0 n/a Ceiling-n House Ceiling attic new n/a n/a 548 n/a n/a	HVAC DISTRIBUTION - HERS VERIFICATION	່ ເ
GWall-n-F Garage Wall Gar 285 Front 200 144.6 90	01 02 03 04 05 06 07 08 Duct Leakage Duct Leakage Verified Duct Verified Duct Buried Deeply Buried Low-leakage	
GWall-n-B Garage Wall Gar 105 Back 200 0 90 GWall-n-R Garage Wall Gar 195 Right 200 0 90	Name Verification Target (%) Location Design Ducts Ducts Air Handler	
GenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGenerationGeneration<	Duct new-hers-dist Required 5.0 Not Required Not Required Not Required Not Required Not Required n/a	CA. 9512
Registration Number: 219-P010081445A-000-000-00000000-0000 Registration Date/Time: 2019-04-09 16:28:39 HERS Provider: CalCERTS inc.	Registration Number: 219-P010081445A-000-000-0000000-0000 Registration Date/Time: 2019-04-09 16:28:39 HERS Provider: CalCERTS inc.	
CA Building Energy Efficiency Standards - 2016 Residential Compliance Report Version - CF1R-01162019-1149 Report Generated at: 2019-04-09 15:18:12	CA Building Energy Efficiency Standards - 2016 Residential Compliance Report Version - CF1R-01162019-1149 Report Generated at: 2019-04-09 15:18:12	
CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01	CERTIFICATE OF COMPLIANCE - RESIDENTIAL PERFORMANCE COMPLIANCE METHOD CF1R-PRF-01	DED BY: Construct ameda, San Jose,(3: (408) 295-7516 5: (408) 286-6589 5: (408) 286-6589
Project Name: 15960 Rose ADUCalculation Date/Time: 15:17, Tue, Apr 09, 2019Page 3 of 7Calculation Description: Title 24 AnalysisInput File Name: 15960_Rose_ADU_v3.ribd16	Project Name: 15960 Rose ADU Calculation Date/Time: 15:17, Tue, Apr 09, 2019 Page 6 of 7 Calculation Description: Title 24 Analysis Input File Name: 15960_Rose_ADU_v3.ribd16 Page 6 of 7	
ATTIC 01 02 03 04 05 06 07 08	HVAC - FAN SYSTEMS 01 02 03 04	
Name Construction Type Roof Rise Roof Reflectance Roof Emittance Radiant Barrier Cool Roof Attic Asphalt Shingle Roof RB Ventilated 5 0.1 0.85 Yes No	Name Type Fan Power (Watts/CFM) HERS Verification Fan pow Single Speed RSC Europee Fan 0.58 Fan pow hers fan	
Attic Asphalt Shingle Roof RB Ventilated 5 0.1 0.85 Yes No	Fan new Single Speed PSC Furnace Fan 0.58 Fan new-hers-fan HVAC FAN SYSTEMS - HERS VERIFICATION	Demands Prov Dematte
FENESTRATION / GLAZING 01 02 03 04 05 06 07 08 09 10	01 02 03	
Height Area	Name Verified Fan Watt Draw Required Fan Efficiency (Watts/CFM) Fan new-hers-fan Required 0.58	DATE:
Name Type Surface (Orientation-Azimuth) Width (ft) (ft) Multiplier (ft ²) U-factor SHGC Exterior Shading Wind-n-W3 Window Wall-n-F (Front-285) 9.3 4.0 1 37.3 0.32 0.25 Insect Screen (default)	IAQ (Indoor Air Quality) FANS	7/29/2019
Wind-n-W1 Window Wall-n-F (Front-285) 3.0 4.0 1 12.0 0.32 0.25 Insect Screen (default)	01 02 03 04 05 06	SCALE:
GIDoor-n-D1 Window Wall-n-L (Left-15) 1 20.0 0.32 0.25 Insect Screen (default) Wind-n-W2 Window Wall-n-B (Back-105) 2.5 4.0 1 10.0 0.32 0.25 Insect Screen (default)	Dwelling Unit IAQ CFM IAQ Watts/CFM IAQ Fan Type IAQ Recovery Effectiveness(%) HERS Verification	
Wind-n-W4 Window Wall-n-B (Back-105) 9.3 4.0 1 37.3 0.32 0.25 Insect Screen (default)	SFam IAQVentRpt 20 0.25 Default 0 Required	As Shown
OPAQUE DOORS 01 02 03 04	ColCEDTS Inc	DRAWN BY
Name Side of Building Area (ft ²) U-factor	CalCERIS, Inc.	
GarDoor-n-D7 GWall-n-F 72.3 1.00 GarDoor-n-D8 GWall-n-F 72.3 1.00	HERS PROVIDER	



SHEET: A0.1b



DIVISION A4.6 – TIER 1 AND TIER 2— SECTION A4.602 RESIDENTIAL OCCUPANCIES APPLICATION CHECKLIST

	APPLICANT	LEVELS TO SELECT ELEC		VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD				
FEATURE OR MEASURE	Mandator	Prerequisi	tes and elective Tier 2		n Installer	or Third		
PLANNING AND DESIGN								
Site Selection A4.103.1 A site which complies with at least one of the								
following characteristics is selected:								
 An infill site is selected. A greyfield site is selected. 								
3. An EPA-recognized Brownfield site is selected.								
A4.103.2 Facilitate community connectivity by one of the following methods:								
 Locate project within a ¹/₄-mile true walking distan of at least 4 basic services; 	ce							
 Locate project within ¹/₂-mile true walking distance of at least 7 basic services; 	3							
Other methods increasing access to additional resources.								
Site Preservation								
A4.104.1 An individual with oversight responsibility for he project has participated in an educational program								
promoting environmentally friendly design or developme	nt							
and has provided training or instruction to appropriate entities.								
Deconstruction and Reuse of Existing Materials								
A4.105.2 Existing buildings are disassembled for reuse o ecycling of building materials. The proposed structure								
utilizes at least one of the following materials which can easily reused:	De							
1. Light fixtures 2. Plumbing fixtures								
3. Doors and trim 4. Masonry								
5. Electrical devices 6. Appliances								
6. Appliances 7. Foundations or portions of foundations	-							
ite Development 106.2 A plan is developed and implemented to manage								
torm water drainage during construction.	X							
.106.3 Construction plans shall indicate how site grading r a drainage system will manage all surface water flows								
b keep water from entering buildings. .106.4 Provide capability for electric vehicle charging in								
ne- and two-family dwellings and in townhouses with	X							
tached private garages; and 3 percent of total parking baces, as specified, for multifamily dwellings.								
4.106.1 Reserved.								
4.106.2.1 Soil analysis is performed by a licensed design of the huilding utilized in the structural grips of the huilding.	n							
esign of the building.					VERIFICATIO			
	APPLICANT TO S	LEVELS SELECT ELECTIV	E MEASURES		ING AGENCY	TO SPECIFY		
FEATURE OR MEASURE		Prerequisites a	nd electives ¹	Enforcin	Installer or	Third		
				g Agency	Designer	party		
				g Agency				
10622 Sail disturbance and gracion are minimized	Mandatory	Tier 1	Tier 2		Designer	party		
y at least one of the following:	Mandatory			AII	Designer	party		
y at least one of the following: 1. Natural drainage patterns are evaluated and erosion controls are implemented to minimize	Mandatory	Tier 1	Tier 2		Designer	party		
 by at least one of the following: 1. Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. 2. Site access is accomplished by minimizing the 	Mandatory			AII	Designer	party		
 by at least one of the following: 1. Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. 2. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. 	Mandatory				Designer	party		
 y at least one of the following: 1. Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. 2. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. 3. Underground construction activities are coordinated to utilize the same trench, minimize the 	Mandatory			AII	Designer	party		
 vy at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are 	Mandatory				Designer	party		
 erosion controls are implemented to minimize erosion during construction and after occupancy. 2. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. 3. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A4.106.2.3 Topsoil shall be protected or saved for reuse 	Mandatory				Designer	party		
 by at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A4.106.2.3 Topsoil shall be protected or saved for reuse as specified in this section. Tier 1. Displaced topsoil shall be stockpiled for 	Mandatory				Designer	party		
 vy at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A4.106.2.3 Topsoil shall be protected or saved for reuse is specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. 	Mandatory				Designer	party		
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A4.106.2.3 Topsoil shall be protected or saved for reuse s specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected 	Mandatory				Designer	party		
 by at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A4.106.2.3 Topsoil shall be protected or saved for reuse as specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. 	Mandatory				Designer	party		
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A4.106.2.3 Topsoil shall be protected or saved for reuse is specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. A4.106.3 Postconstruction landscape designs to more of the following: 	Mandatory		□ □ □ ☑ 2 ☑ 2		Designer	party		
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. 4.106.2.3 Topsoil shall be protected or saved for reuse is a designated area and covered or protected from erosion. Tier 1. Displaced topsoil shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. 4.106.3 Postconstruction landscape designs ccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and 	Mandatory				Designer	party		
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. 44.106.2.3 Topsoil shall be protected or saved for reuse s specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. 44.106.3 Postconstruction landscape designs ccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. 	Mandatory		□ □ □ ☑ 2 ☑ 2		Designer	party		
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. 44.106.2.3 Topsoil shall be protected or saved for reuse s specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. 44.106.3 Postconstruction landscape designs ccomplish one or more of the following; Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. 	Mandatory				Designer	party		
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. 4.106.2.3 Topsoil shall be protected or saved for reuse is specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. 4.106.3 Postconstruction landscape designs ccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 25 percent for Tier 2. 	Mandatory				Designer	party		
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A:106.2.3 Topsoil shall be protected or saved for reuse specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by frencing or flagging to limit construction activity to the construction area. A:106.3 Postconstruction landscape designs complish one or more of the following: A:reas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 25 percent for Tier 2. Utilize at least 75 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. 	Mandatory				Designer	party		
 rat least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A106.2.3 Topsoil shall be protected or saved for reuse specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. A106.3 Postconstruction landscape designs complish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 25 percent for Tier 1. Not more than 25 percent native California or drought tolerant plant and tree species appropriate 	Mandatory				Designer	party		
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. 4.106.2.3 Topsoil shall be protected or saved for reuses specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. 4.106.3 Postconstruction landscape designs ccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 50 percent for Tier 2. Utilize at least 75 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. Hydrozoning irrigation techniques are incorporated into the landscape design. 	Mandatory				Designer	party		
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. 4.106.2.3 Topsoil shall be protected or saved for reuse s specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. 4.106.3 Postconstruction landscape designs ccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 25 percent for Tier 2. Utilize at least 75 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. Hydrozoning irrigation techniques are incorporated into the landscape design. 	Mandatory				Designer	party		
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. 44.106.2.3 Topsoil shall be protected or saved for reuse is specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. 44.106.3 Postconstruction landscape designs ccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 25 percent for Tier 2. Utilize at least 75 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. 4.106.4 Permeable paving is utilized for the parking, valking or patio surfaces in compliance with the oblowing: Not less than 20 percent of the total parking, walking or patio surfaces shall be permeable. 	Mandatory							
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. 14.106.2.3 Topsoil shall be protected or saved for reuse is specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. 14.106.3 Postconstruction landscape designs cccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 25 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. Hydrozoning irrigation techniques are incorporated into the landscape design. 4.106.4 Permeable paving is utilized for the parking, valking or patio surfaces in compliance with the ollowing: Not less than 20 percent of the total parking, 	Mandatory				Designer	party		
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. 44.106.2.3 Topsoil shall be protected or saved for reuse s specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. 44.106.3 Postconstruction landscape designs ccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit utraf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 25 percent for Tier 2. Utilize at least 75 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. 4.106.4 Permeable paving is utilized for the parking, valking or patio surfaces in compliance with the ollowing: Not less than 20 percent of the total parking, walking or patio surfaces shall be permeable. 	Mandatory							
 yat least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A4.106.2.3 Topsoil shall be protected or saved for reuse is specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. A4.106.3 Postconstruction landscape designs to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 52 percent for Tier 2. Utilize at least 75 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. Hydrozoning irrigation techniques are incorporated into the landscape design. A4.106.4 Permeable paving is utilized for the parking, walking or patio surfaces shall be permeable. Tier 1. Not less than 20 percent of the total parking, walking or patio surfaces shall be permeable. Tier 2. Not less than 30 percent of the total parking, walking or patio surfaces shall be permeable. A4.106.5 Roofing materials shall have a minimum	Mandatory							
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. 44.106.2.3 Topsoil shall be protected or saved for reuse s specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. 44.106.3 Postconstruction landscape designs ccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 50 percent for Tier 2. Utilize at least 75 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. Hydrozoning irrigation techniques are incorporated into the landscape design. 44.106.4 Permeable paving is utilized for the parking, walking or patio surfaces shall be permeable. Tier 1. Not less than 20 percent of the total parking, walking or patio surfaces shall be permeable. Tier 2. Not less than 30 percent of the total parking, walking or patio surfaces shall be permeable. 44.106.5 Roofing materials shall have a minimum -year aged solar reflectance and thermal emittance or a ninimum Solar Reflectance and thermal emittance or a ninimu	Mandatory							
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. M.106.2.3 Topsoil shall be protected or saved for reuse is specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. M.106.3 Postconstruction landscape designs (ccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 25 percent for Tier 2. Utilize at least 75 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. M.106.4 Permeable paving is utilized for the parking, walking or patio surfaces shall be permeable. Tier 1. Not less than 20 percent of the total parking, walking or patio surfaces shall be permeable. Tier 2. Not less than 30 percent of the total parking, walking or patio surfaces shall be permeable. M.106.5 Roofing materials shall have a minimum i-year aged solar reflectance and thermal emittance or a ninimum Solar Reflectance and thermal emittance or a ninimum Solar Reflectance and thermal emittance or a ninimum Solar Reflectance and thermal emittance or a	Mandatory							
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A4.106.2.3 Topsoil shall be protected or saved for reuse is specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. A4.106.3 Postconstruction landscape designs (ccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 25 percent for Tier 2. Utilize at least 75 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. A106.4 Permeable paving is utilized for the parking, walking or patio surfaces shall be permeable. Tier 1. Not less than 20 percent of the total parking, walking or patio surfaces shall be permeable. Tier 2. Not less than 30 percent of the total parking, walking or patio surfaces shall be permeable. A106.5.1(1) and A4.106.5.1(2) for low-rise esidential buildings and Tables A4.106.5.1(3) and A4.106.5.1(4) for high rise residential buildings.	Mandatory							
 at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A4.106.2.3 Topsoil shall be protected or saved for reuse is specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. A4.106.3 Postconstruction landscape designs tecomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 25 percent for Tier 1. Not more than 25 percent for Tier 2. Utilize at least 75 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. A1.06.4 Permeable paving is utilized for the parking, valking or patio surfaces shall be permeable. Tier 1. Not less than 20 percent of the total parking, walking or patio surfaces shall be permeable. Tier 2. Not less than 30 percent of the total parking, walking or patio surfaces shall be permeable. A4.106.5 Roofing materials shall have a minimum 44.106.5.1(1) and A4.106.5.1(2) for low-rise esidential buildings and Tables A4.106.5.1(3) and A4.106.5.1(4) for high rise residential buildings. Low-rise Residential	Mandatory							
 y at least one of the following: Natural drainage patterns are evaluated and erosion controls are implemented to minimize erosion during construction and after occupancy. Site access is accomplished by minimizing the amount of cut and fill needed to install access roads and driveways. Underground construction activities are coordinated to utilize the same trench, minimize the amount of time the disturbed soil is exposed and the soil is replaced using accepted compaction methods. A4.106.2.3 Topsoil shall be protected or saved for reuse is specified in this section. Tier 1. Displaced topsoil shall be stockpiled for reuse in a designated area and covered or protected from erosion. Tier 2. The construction area shall be identified and delineated by fencing or flagging to limit construction activity to the construction area. A4.106.3 Postconstruction landscape designs (ccomplish one or more of the following: Areas disrupted during construction are restored to be consistent with native vegetation species and patterns. Limit turf areas to the greatest extent possible. Not more than 50 percent for Tier 1. Not more than 25 percent native California or drought tolerant plant and tree species appropriate for the climate zone region. A106.4 Permeable paving is utilized for the parking, walking or patio surfaces in compliance with the following: Tier 1. Not less than 20 percent of the total parking, walking or patio surfaces shall be permeable. Tier 2. Not less than 30 percent of the total parking, walking or patio surfaces shall be permeable. A106.5.1(1) and A4.106.5.1(2) for low-rise esidential buildings. Low-rise Residential Tier 1 roof covering shall meet or exceed the values	Mandatory							

contained in Table A4.106.5.1(3). Tier 2 roof covering shall meet or exceed the values contained in Table A4.106.5.1(4).			\mathbb{X}^2	X^2						
	APP	LEVELS APPLICANT TO SELECT ELECTIVE MEASURES					VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD			
FEATURE OR MEASURE			Prerequisites and elec		ves ¹	Enforcin Agency		Installer Design		Third party
	Ma	ndatory	Tier 1	Tier	2					
A4.106.6 Install a vegetated roof for at least 50 percent roof area. Vegetated roofs shall comply with requiremen roof gardens and landscaped roofs in the <i>California Buil</i> <i>Code</i> , Chapters 15 and 16.	ts for									
A4.106.7 Reduce nonroof heat islands for 50 percent of sidewalks, patios, driveways or other paved areas by usin or more of the methods listed.	ngone									
A4.106.8.1 Tier 1 and Tier 2 for one- and two-family dwellings and townhouses with attached private garages Install a dedicated 208/240-volt branch circuit, including overcurrent protective device rated at 40 amperes minim per dwelling unit.	g an		X ²	X ²						
A4.106.8.2 Tier 1 and Tier 2 for multifamily dwellings. Provide capability for future electric vehicle charging in percent of total parking spaces, as specified.	5		X2	×2						
A4.106.9 Provide bicycle parking facilities as noted belomeet a local ordinance, whichever is more stringent. Nu bicycle parking spaces may be reduced, as approved by enforcing agency, due to building site characteristics, ind but not limited to, isolation from other development. 1. Provide short-term bicycle parking, per Section	mber of the									
A4.106.9.1. 2. Provide long-term bicycle parking for multifamly										
buildings, per Section A4.106.9.2.3. Provide long-term bicycle parking for hotel and m	otel				1					
buildings, per Section A4.106.9.3.										
 A4.106.10 [HR] Outdoor lighting systems shall be desig and installed to comply with: 1. The minimum requirements in the <i>California Ener</i> <i>Code</i> for Lighting Zones 1-4; and 2. Backlight, Uplight and Glare (BUG) ratings as def IES TM-15-11; and 3. Allowable BUG ratings not exceeding those show Table A4.106.10: or 	gy ined in									
Comply with a lawfully enacted local ordinance, which more stringent.	everis									

X2

High-rise Residential, Hotels and Motels Tier 1 roof covering shall meet or exceed the values contained in Table A4.106.5.1(3).

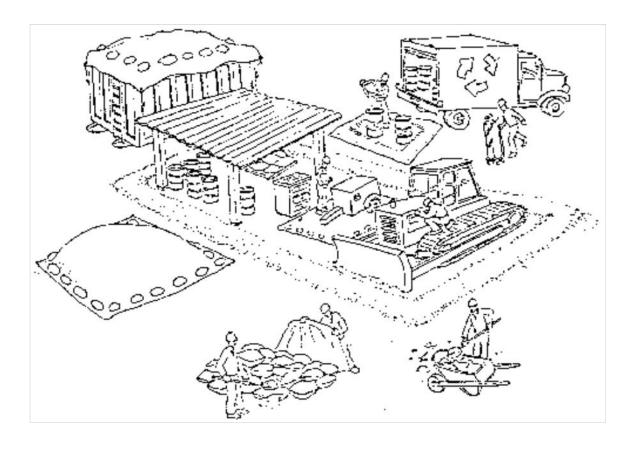
			LEVELS APPLICANT TO SELECT ELECTIVE MEASURES			VERIFICATIONS ENFORCING AGENCY TO SPECIFY VERIFICATION METHOD				
FEATURE OR MEASURE				es and electives		Installer or Designer	Third party			
Innovative Concepts and Local		Mandatory	Tier 1	Tier 2	All	All	All			
Environmental Conditions										
A4.108.1 Items in this section are necessary to address innovative concepts or local environmental conditions.										
Item 1 Item 2										
Item 3										
ENERGY EFFICIENCY General	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~									
4.201.1 Building meets or exceeds the requirements of the California Building Energy Efficiency Standards ³ .	the		X ²	X ²						
Performance Approach for Newly Constructed	1									
Buildings A4.203.1.1.1 An Energy Design Rating for the Proposed Building is included in the Certificate of Compliance	d Design		X ²	X ²						
documentation. A4.203.1.1.2 QII procedures specified in the Building E Efficiency Standards Reference Residential Appendix R	Inergy RA3.5 are		X ²	X ¹²						
completed. A4.203.1.1.3 All permanently installed lighting is high of	efficiency		x ²	X ²						
and has required controls. A4.203.1.2.1 The Energy Budget is no greater than 85 p the Title 24, Part 6, Energy Budget for the Proposed Des	percent of		X²							
Building. A4.203.1.2.2 The Energy Budget is no greater than 70 p the Title 24, Part 6, Energy Budget for the Proposed Des	percent of			X ²						
Building. Performance Approach for Additions and Alter	rations									
A4.204.1.1.1 All newly installed, permanently installed is high efficacy and has required controls.			X ²	X ²						
A4.204.1.2.1 When one and only one mechanical system added or modified, the Energy Budget is no greater than percent of the Title 24, Part 6, Energy Budget for the Pro Design Building. When two or more mechanical system added or modified, the Energy Budget is no greater than percent of the Title 24, Part 6, Energy Budget for the Pro Design Building.	n 95 roposed 18 are n 90		X		•					
A4.204.1.2.2 When one and only one mechanical system added or modified, the Energy Budget is no greater than percent of the Title 24, Part 6, Energy Budget for the Pro Design Building. When two or more mechanical system added or modified, the Energy Budget is no greater than percent of the Title 24, Part 6, Energy Budget for the Pro Design Building.	n 90 oposed 1s are 1 85			⊠²						
			LEVELS			RIFICATIONS	PECIFY			
	APPLIC	CANT TO SE	LECT ELECTIV			CATION METHO				
FEATURE OR MEASURE					Agency	Designer	party			
	Mano	datory	Tier 1	Tier 2	All	All	Ali			
WATER EFFICIENCY AND CONSERVATION	-									
Indoor Water Use		_								
4.303.1 Plumbing fixtures (water closets and urinals) ar fittings (faucets and showerheads) installed in residenti buildings shall comply with the prescriptive requiremen of Sections 4.303.1.1 through 4.303.1.4.4.	ial									
4.303.2 Plumbing fixtures and fittings required in Section 4.303.1 shall be installed in accordance with the <i>California Plumbing Code</i> , and shall meet the applicable referenced standards.		X								
A4.303.1 Kitchen faucets. The maximum flow rate of kitchen faucets shall not exceed 1.5 gallons per minute a flow rate of the flow of the										
60 psi. Kitchen faucets may temporarily increase the flo above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flo rate of 1.5 gallons per minute at 60 psi. Note: Where complying faucets are available, aerato or other means may be used to achieve reduction.										
above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flo rate of 1.5 gallons per minute at 60 psi.	ors ed									
above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flor rate of 1.5 gallons per minute at 60 psi. Note: Where complying faucets are available, aerato or other means may be used to achieve reduction. A4.303.2 Alternate water source for nonpotable applications. Alternate nonpotable water sources are use for indoor potable water reduction. Alternate nonpotable water sources shall be installed in accordance with the	ed e s în e.									
 above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flor rate of 1.5 gallons per minute at 60 psi. Note: Where complying faucets are available, aerate or other means may be used to achieve reduction. A4.303.2 Alternate water source for nonpotable applications. Alternate nonpotable water rources are use for indoor potable water reduction. Alternate nonpotable water sources shall be installed in accordance with the <i>California Plumbing Code</i>. A4.303.3 Appliances. Dishwashers and clothes washers residential buildings shall comply with the following: Install at least one qualified ENERGY STAR appliance with maximum water use as follows: Standard Dishwashers - 4.25 gallons per cycle. Clothes Washers - water factor of 6 gallons per cubic feet of drum capacity. 	ed e 3 in e. er									
 above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flor rate of 1.5 gallons per minute at 60 psi. Note: Where complying faucets are available, aerate or other means may be used to achieve reduction. A4.303.2 Alternate water source for nonpotable applications. Alternate nonpotable water sources are use for indoor potable water reduction. Alternate nonpotable water sources shall be installed in accordance with the <i>California Plumbing Code</i>. A4.303.3 Appliances. Dishwashers and clothes washers residential buildings shall comply with the following: Install at least one qualified ENERGY STAR appliance with maximum water use as follows: Standard Dishwashers - 3.5 gallons per cycle. Clothes Washers - water factor of 6 gallons per cubic feet of drum capacity. 	ed e 3 in e. er									
 above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flor rate of 1.5 gallons per minute at 60 psi. Note: Where complying faucets are available, aerate or other means may be used to achieve reduction. A4.303.2 Alternate water source for nonpotable applications. Alternate nonpotable water sources are use for indoor potable water reduction. Alternate nonpotable in accordance with the <i>California Plumbing Code</i>. A4.303.3 Appliances. Dishwashers and clothes washers residential buildings shall comply with the following: Install at least one qualified ENERGY STAR appliance with maximum water use as follows: Standard Dishwashers - 4.25 gallons per cycle Compact Dishwashers - 3.5 gallons per cycle. Clothes Washers - water factor of 6 gallons per cubic feet of drum capacity. A4.303.4 Nonwater supplied urinals or waterless toilets are installed. Outdoor Water Use 4.304.1 Automatic irrigation systems controllers installe at the time of final inspection shall be weather or soil 	ed e s in e.									
 above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flor rate of 1.5 gallons per minute at 60 psi. Note: Where complying faucets are available, aerate or other means may be used to achieve reduction. A4.303.2 Alternate water source for nonpotable applications. Alternate nonpotable water sources are use for indoor potable water reduction. Alternate nonpotable water sources shall be installed in accordance with the <i>California Plumbing Code</i>. A4.303.3 Appliances. Dishwashers and clothes washers residential buildings shall comply with the following: Install at least one qualified ENERGY STAR appliance with maximum water use as follows: Standard Dishwashers - 4.25 gallons per cycle Compact Dishwashers - 3.5 gallons per cycle. Clothes Washers - water factor of 6 gallons per cubic feet of drum capacity. A4.303.4 Nonwater supplied urinals or waterless toilets are installed. Outdoor Water Use 4.304.1 Automatic irrigation systems controllers installe at the time of final inspection shall be weather or soil moisture-based. 	ed e s in e.									
 above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flor rate of 1.5 gallons per minute at 60 psi. Note: Where complying faucets are available, aerate or other means may be used to achieve reduction. A4.303.2 Alternate water source for nonpotable applications. Alternate nonpotable water sources are use for indoor potable water reduction. Alternate nonpotable water sources shall be installed in accordance with the <i>California Plumbing Code</i>. A4.303.3 Appliances. Dishwashers and clothes washers residential buildings shall comply with the following: Install at least one qualified ENERGY STAR appliance with maximum water use as follows: Standard Dishwashers - 4.25 gallons per cycle. Clothes Washers - water factor of 6 gallons per cubic feet of drum capacity. A4.303.4 Nonwater supplied urinals or waterless toilets are installed. Outdoor Water Use 4.304.1 Install a low-water consumption irrigation system which minimizes the use of spray type heads. 	ed e e e e e e e e e e e e e e e e e e									
 above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flor rate of 1.5 gallons per minute at 60 psi. Note: Where complying faucets are available, aerate or other means may be used to achieve reduction. A4.303.2 Alternate water source for nonpotable applications. Alternate nonpotable water sources are use for indoor potable water reduction. Alternate nonpotable water sources shall be installed in accordance with the <i>California Plumbing Code</i>. A4.303.3 Appliances. Dishwashers and clothes washers residential buildings shall comply with the following: Install at least one qualified ENERGY STAR appliance with maximum water use as follows: Standard Dishwashers - 4.25 gallons per cycle. Clothes Washers - water factor of 6 gallons per cubic feet of drum capacity. A4.303.4 Nonwater supplied urinals or waterless toilets are installed. Outdoor Water Use 4.304.1 Automatic irrigation systems controllers installe at the time of final inspection shall be weather or soil moisture-based. A4.304.2 A rainwater capture, storage and re-use system is designed and installed. 	ed e e e e e e e e e e e e e e e e e e									
 above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flor rate of 1.5 gallons per minute at 60 psi. Note: Where complying faucets are available, aerate or other means may be used to achieve reduction. A4.303.2 Alternate water source for nonpotable applications. Alternate nonpotable water sources are use for indoor potable water reduction. Alternate nonpotable water sources shall be installed in accordance with the <i>California Phumbing Code</i>. A4.303.3 Appliances. Dishwashers and clothes washers residential buildings shall comply with the following: Install at least one qualified ENERGY STAR appliance with maximum water use as follows: Standard Dishwashers - 4.25 gallons per cycle Compact Dishwashers - 3.5 gallons per cycle. Clothes Washers - water factor of 6 gallons per cycle. A4.303.4 Nonwater supplied urinals or waterless toilets are installed. Outdoor Water Use 4.304.1 Automatic irrigation systems controllers installe at the time of final inspection shall be weather or soil moisture-based. A4.304.2 A rainwater capture, storage and re-use system 	ors ed e in ed in									

Image: problemImage: problemImage		APPLICANT TO		/E MEASURES		CING AGENCY 1	TO SPECIFY		APPLICANTTO		TIVE MEASURES	ENFORCING AGENCY TO		OSPECIFY
And and any other into the second	FEATURE OR MEASURE				Enforcin	Installer or	Third	FEATURE OR MEASURE				Enforcin	Installer or	Third
		Mandatory	Tier 1	Tier 2					Mandatory	Tier 1	Tier 2			
Image: Internet int	design that reduces the use of potable water.		X ²					Recycling						
	Tier 2. Does not exceed 60 percent of ETo times the		U	X ²				percent of the nonhazardous construction and demolition waste in accordance with one of the following:	X					
								demolition waste management ordinance; or						
	irrigated areas more than 2,500 square feet shall be							3. A waste management company, per Section 4.408.3; or						
	for outdoor potable water use. WATER REUSE SYSTEMS							4.408.4. A4.408.1 Construction waste generated at the site is			-			
	graywater irrigation system served by the clothes							the following: 1. Tier 1 at least a 65 percent reduction.		X ²	100			
	A4.305.2 Recycled water piping is installed.							Exception: Equivalent waste reduction methods			X ²			
	irrigation.													
	Conditions A4.306.1 Items in this section are necessary to address							provided to the building occupant or owner. Innovative Concepts and Local Environmental	×					
	Item 1				-			A4.411.1 Items in this section are necessary to address						
	· · · · · · · · · · · · · · · · · · ·			3 <u>22 76</u> 1				Item 1					-	
	RESOURCE EFFICIENCY							Item 3		1. 				
	A4.403.1 A Frost-protected Shallow Foundation							Fireplaces					1	
	A4.403.2 Cement use in foundation mix design is							sealed-combustion type. Any installed woodstove or pellet stove shall comply with US EPA Phase II emission limits	X					
	Tier 1. Not less than a 20 percent reduction in cement use.		×2	¥2				where applicable. Woodstoves, pellet stoves and fireplaces shall also comply with applicable local ordinances.						
	cement use.							4.504.1 Duct openings and other related air distribution	X					
	A4.404.1 Beams and headers and trimmers are the minimum size to adequately support the load.							4.504.2.1 Adhesives, sealants and caulks shall be						
	to minimize waste.							compliant with VOC limits.	X					
	eliminate solid sawn lumber whenever possible.							with product weighted MIR limits for ROC and other toxic	X					
<form>Mathematical Difference of the second seco</form>	specify material quantity and provide direction for							4.504.2.4 Documentation shall be provided to verify that compliant VOC limit finish materials have been used.	X					
Index totalIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndexIndex </td <td></td> <td>APPLICANT</td> <td></td> <td>TIVE MEASURE</td> <td></td> <td>CING AGENCY</td> <td>TO SPECIFY</td> <td>_</td> <td>PPLICANT TO S</td> <td></td> <td>VE MEASURES</td> <td>ENFORC</td> <td>ING AGENCY TO</td> <td>SPECIFY</td>		APPLICANT		TIVE MEASURE		CING AGENCY	TO SPECIFY	_	PPLICANT TO S		VE MEASURES	ENFORC	ING AGENCY TO	SPECIFY
	FEATURE OR MEASURE		Prerequisite	s and electives	g Agency	Designer	party	FEATURE OR MEASURE	-	Prerequisites	and electives ¹			
		Mandatory	Tier 1	Tier 2					Mandatory	Tier 1	Tier 2			
	A4.405.1 One or more of the following building material	ls,						with VOC limits.						
	used: 1. Exterior trim not requiring paint or stain							flooring shall comply with specified VOC criteria. 4.504.5 Particleboard, medium density fiberboard	X					
	3. Siding or exterior wall coverings which do not							systems shall comply with low formaldehyde emission	X					
	are used including but not limited to stained, natural or							either California Air Resources Board approved						
	A4.405.3 Postconsumer or preconsumer recycled content value (RCV) materials are used on the project.	t						emitting formaldehyde (ULEF) resins.						
	value.		⊠²	X ¹²				systems. Tier 1. At least 90 percent of the resilient flooring		X ²				
								Tier 2. At least 100 percent of the resilient flooring installed shall comply.			X ²			
	4.406.1 Annular spaces around pipes, electric cables,	X						shall meet the following requirements: Tier 1. Install thermal insulation in compliance with		X ²				
	be protected against the passage of rodents by closing su openings with cement mortar, concrete masonry or similar	ch						Tier 2. Install insulation which contains No-Added			X ²			
	Water Resistance and Moisture Management													
	A4.407.2 Install gutter and downspout systems to route							slab-on-grade foundations.	X					
AM97.3 for the function prime in a local control of the integrate of the inte	to landscape drains which discharge to a dry well, sump, bioswale, rainwater capture system or other approved							wall and floor framing is checked before enclosure.	X					
	A4.407.3 Provide flashing details on the building plans							A4.506.1 Return air filters with a value greater than MERV 6 shall be installed on HVAC systems. Pressure						
	A4.407.4 Protect building materials delivered to the							column.						
<form> interaction Image: Description of the definition of the</form>	A4.407.5 In Climate Zone 16 an ice/water barrier is							rated MERV 6 or higher during construction when it is necessary to use HVAC equipment.						
	intersections. A4.407.6 Exterior doors to the dwelling are protected to							equipment is located in conditioned space; or the						
Feature on MEASURE Price Price </td <td>A4.407.7 A permanent overhang or awning at least 2 feet</td> <td>t</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>room.</td> <td></td> <td></td> <td></td> <td>ENEODO</td> <td></td> <td></td>	A4.407.7 A permanent overhang or awning at least 2 feet	t						room.				ENEODO		
Image: Control in the second secon			L					FEATURE OR MEASURE	APPLICANT TO	SELECTELEC		VEI	RIFICATION MET	HOD Third
Existense											T . 0			
4.97.2. is velocid using the following methods: Image: Second transport of control transp									manuatory	Tier 1	ner 2		All	All
ANSI/ACCA 2 Manual J-2009 or equivalent. and and J-2009 or equivalent. and and J-2009 or equivalent. and and J-2009 or equivalent. 3. Solice Intering and Cooling equipment according to ANSI/ACCA 3 Manual S-2009 or equivalent. and J-2009 or equivalent. and J-2009 or equivalent. and J-2009 or equivalent. 3. Solice Intering and Cooling equipment according to ANSI/ACCA 3 Manual S-2009 or equivalent. and J-2009 or equivalent. and J-20								4.507.2. is selected using the following methods:	X					
3. Solet heating and cooling equipment according to MSACCA 3 Manual 5 2064 or equivalent. Imovative Concepts and Local Environmental Concepts and Local Envited Concepts and Concepts and								ANSI/ACCA 2 Manual J-2004 or equivalent. 2. Size duct systems according to ANSI/ACCA 1						
Reserved Intovative Concepts and Local Environmental Conditions As509.1 Terms in this section are necessary to address innovative concepts or cheal environmental conditions Important Conditions Item 1 Important Conditions Important Conditions Item 1 Important Conditions Important Conditions Item 3 Important Conditions Important Conditions Qualifications Important Conditions Important Conditions Qualification of Condition of MACopstennis helps are								3. Select heating and cooling equipment according to						
Innovative Concepts and Local Environmental ConditionsInnovative Concepts and Local Environmental ConditionsInnovative Concepts and Local Environmental conditions.A.50, 11ems in this section are necessary to address innovative concepts or local environmental conditions.Image: Image: Im												I	1	<u> </u>
A4.509.1 Items in this section are necessary to address innovative concepts or local environmental conditions. Image: Construction of Construction Construction of Comparison of of Compari								Innovative Concepts and Local Environmental						
Item 1 I I I I I I Item 2 I I I I I I I Item 3 I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I I								A4.509.1 Items in this section are necessary to address						
Item 3Image: Construction of Construc								Item 1		3 or co				
Qualifications702.1 HVAC system installers are trained and certified in the proper installation of HVAC systems.Image: Image: Imag								Item 3						
the proper installation of HVAC systems. IM IM IM IM IM 702.2 Special inspectors employed by the enforcing agency must be qualified and able to demonstrate come the discipline they are inspecting. IM IM IM IM IM IM Verifications Verification of compliance with this code may include construction documents, plans, specifications builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance. IM IM IM IM IM IM								Qualifications						
agency must be qualified and able to demonstrate competence in the discipline they are inspecting. Image: Competence in the discipline they are inspecting. Verifications 703.1 Verification of compliance with this code may include construction documents, plans, specifications builder or installer certification, inspection reports, or on installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance. Image: Competence in the discipline they are inspecting agency which show substantial conformance.								the proper installation of HVAC systems. 702.2 Special inspectors employed by the enforcing						
703.1 Verification of compliance with this code may include construction documents, plans, specifications builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance. Image: Complex Compl								agency must be qualified and able to demonstrate competence in the discipline they are inspecting.	X					
builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which show substantial conformance.								703.1 Verification of compliance with this code may include construction documents, plans, specifications						
1. Green building measu								builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which	\boxtimes					
2 Remined prerequisite (Green building measur 101.7. 	1			1	4	



Required prerequisite 1
 These measures are cu

Pollution Prevention — It's Part of the Plan



Materials storage & spill cleanup

Non-hazardous materials management

- ✓ Sand, dirt, and similar materials must be stored at least 10 feet from catch basins, and covered with a tarp during wet weather or when rain is forecast.
- ✓ Use (but don't overuse) reclaimed water for dust control as needed.
- ✓ Sweep streets and other paved areas daily. Do not wash down streets or work areas with water!
- ✓ Recycle all asphalt, concrete, and aggregate base material from demolition activities.
- ✓ Check dumpsters regularly for leaks and to make sure they don't overflow. Repair or replace leaking dumpsters promptly.

Hazardous materials management

- ✓ Label all hazardous materials and hazardous wastes (such as pesticides, paints, thinners, solvents, fuel, oil, and antifreeze) in accordance with city, state, and federal regulations.
- ✓ Store hazardous materials and wastes in secondary containment and cover them during wet weather.
- ✓ Follow manufacturer's application instructions for hazardous materials and be careful not to use more than necessary. Do not apply chemicals outdoors when rain is forecast within 24 hours.
- ✓ Be sure to arrange for appropriate disposal of all hazardous wastes.

Spill prevention and control

- ✓ Keep a stockpile of spill cleanup materials (rags, absorbents, etc.) available at the construction site at all times.
- ✓ When spills or leaks occur, contain them immediately and be particularly careful to prevent leaks and spills from reaching the gutter, street, or storm drain. Never wash spilled material into a gutter, street, storm drain, or creek!
- ✓ Report any hazardous materials spills immediately! Dial 911 or your local emergency response number.

Make sure your crews and subs do the job right!

Runoff from streets and other paved areas is a major source of pollution in San Francisco Bay. Construction activities can directly affect the health of the Bay unless contractors and crews plan ahead to keep dirt, debris, and other construction waste away from storm drains and local creeks. Following these guidelines will ensure your compliance with local ordinance requirements.

Vehicle and equipment maintenance & cleaning

- ✓ Inspect vehicles and equipment for leaks frequently. Use drip pans to catch leaks until repairs are made; repair leaks promptly.
- ✓ Fuel and maintain vehicles on site only in a bermed area or over a drip pan that is big enough to prevent runoff.
- ✓ If you must clean vehicles or equipment on site, clean with water only in a bermed area that will not allow rinsewater to run into gutters, streets, storm drains, or creeks.
- ✓ Do not clean vehicles or equipment on-site using soaps, solvents, degreasers, steam cleaning equipment, etc.

Earthwork & contaminated soils

- off the site.





A S M A A Bay Area Stormwater Management Agencies Association (BASMAA) 1-888-BAYWISE

✓ Keep excavated soil on the site where it is least likely to collect in the street. Transfer to dump trucks should take place on the site, not in the street.

✓ Use hay bales, silt fences, or other control measures to minimize the flow of silt

- ✓ Avoid scheduling earth moving activities during the rainy season if possible. If grading activities during wet weather are allowed in your permit, be sure to implement all control measures necessary to prevent erosion.
- Mature vegetation is the best form of erosion control. Minimize disturbance to existing vegetation whenever possible.
- If you disturb a slope during construction, prevent erosion by securing the soil with erosion control fabric, or seed with fastgrowing grasses as soon as possible. Place hay bales down-slope until soil is secure.

✓ If you suspect contamination (from site history, discoloration, odor, texture, abandoned underground tanks or pipes, or buried debris), call your local fire department for help in determining what testing should be done.

✓ Manage disposal of contaminated soil according to Fire Department instructions.

Dewatering operations

✓ Reuse water for dust control, irrigation or another on-site purpose to the greatest extent possible.



- ✓ Be sure to call your city's storm drain inspector before discharging water to a street, gutter, or storm drain. Filtration or diversion through a basin, tank, or sediment trap may be required.
- ✓ In areas of known contamination, testing is required prior to reuse or discharge of groundwater. Consult with the city inspector to determine what testing to do and to interpret results. Contaminated groundwater must be treated or hauled off-site for proper disposal.

Saw cutting

- ✓ Always completely cover or barricade storm drain inlets when saw cutting. Use filter fabric, hay bales, sand bags, or fine gravel dams to keep slurry out of the storm drain system.
- ✓ Shovel, absorb, or vacuum saw-cut slurry and pick up all waste as soon as you are finished in one location or at the end of each work day (whichever is sooner!).
- ✓ If saw cut slurry enters a catch basin, clean it up immediately.

Paving/asphalt work



- ✓ Do not pave during wet weather or when rain is forecast.
- ✓ Always cover storm drain inlets and manholes when paving or applying seal coat, tack coat, slurry seal, or fog seal.
- Place drip pans or absorbent material under paving equipment when not in use.
- ✓ Protect gutters, ditches, and drainage courses with hay bales, sand bags, or earthen berms.

✓ Do not sweep or wash down excess sand from sand sealing into gutters, storm drains, or creeks. Collect sand and return it to the stockpile, or dispose of it as trash

✓ Do not use water to wash down fresh asphalt concrete pavement.

Storm drain polluters may be liable for fines of up to \$10,000 per day!





Concrete, grout, and mortar storage & waste disposal

- ✓ Be sure to store concrete, grout, and mortar under cover and away from drainage areas. These materials must never reach a storm drain.
- ✓ Wash out concrete equipment/trucks off-site or designate an on-site area for washing where water will flow onto dirt or into a temporary pit in a dirt area. Let the water seep into the soil and dispose of hardened concrete with trash.



- ✓ Divert water from washing exposed aggregate concrete to a dirt area where it will not run into a gutter, street, or storm drain.
- ✓ If a suitable dirt area is not available, collect the wash water and remove it for appropriate disposal off site.

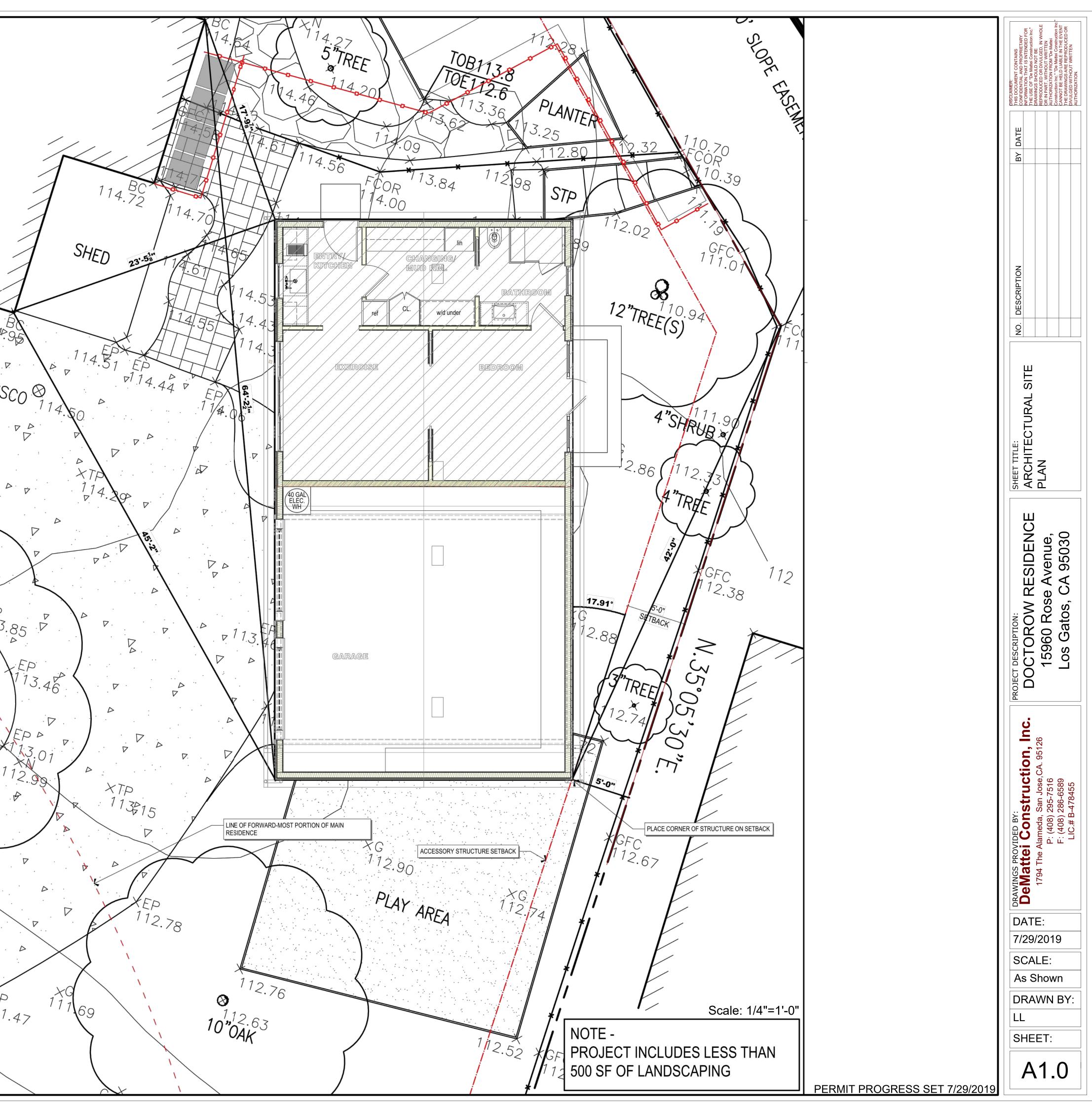
Painting

- ✓ Never rinse paint brushes or materials in a gutter or street!
- ✓ Paint out excess water-based paint before rinsing brushes, rollers, or containers in a sink. If you can't use a sink, direct wash water to a dirt area and spade it in.

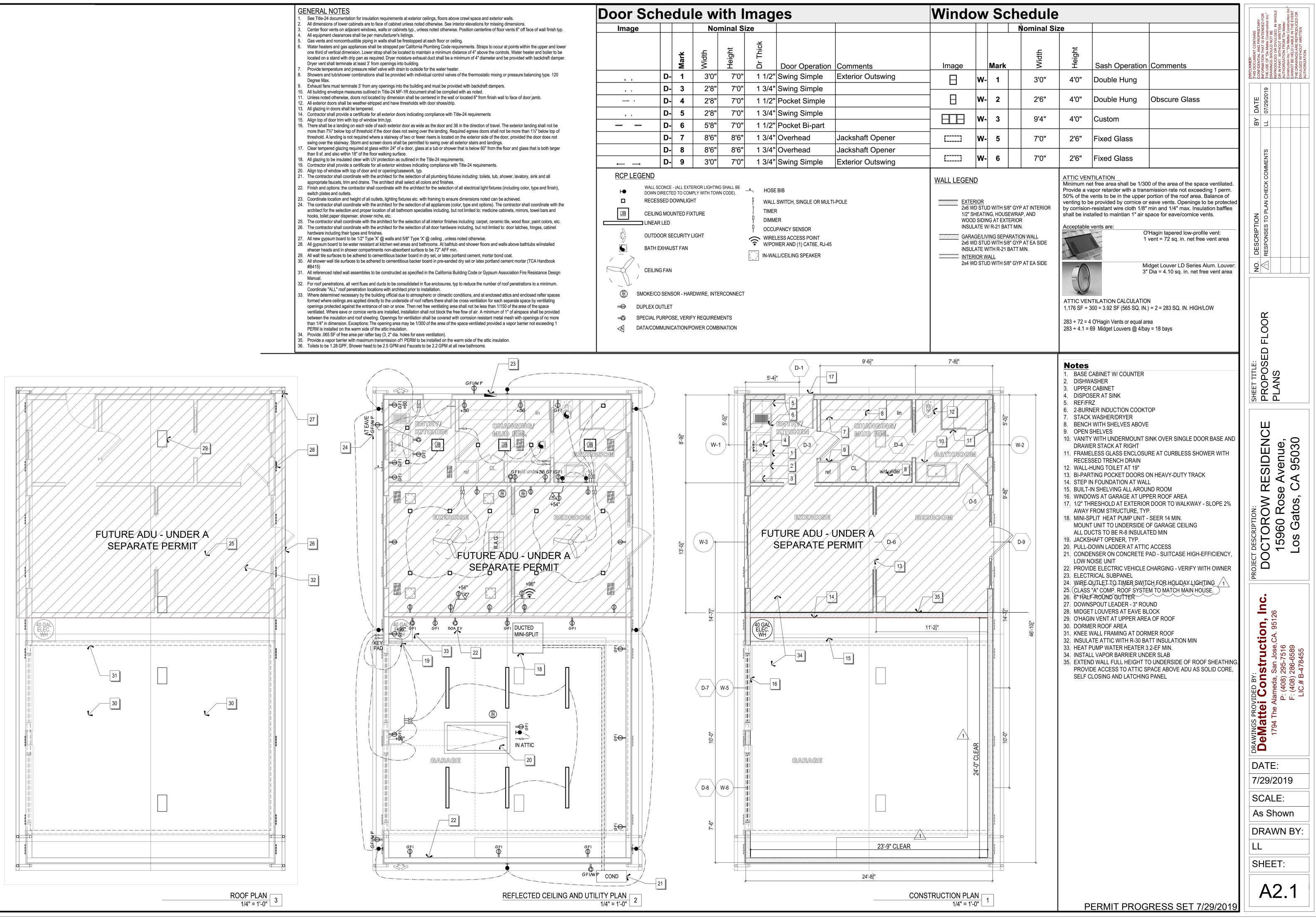


- ✓ Paint out excess oil-based paint before cleaning brushes in thinner.
- ✓ Filter paint thinners and solvents for reuse whenever possible. Dispose of oil-based paint sludge and unusable thinner as hazardous waste.

 \overline{cn} XTP 120.14 ,**<"**TREE / - PLANTER V 2.00 V, ADQ 0.36 114295 ∇ ⊳ SSC∩ ' ·P P Ep ŁΡ 13.18 ∇ PVD D.D 114.14 EPD 14 **∖** / -D 113.99 P 3.85 1.97 \triangleright χ_{G} ¹12. p_{O} × 12.95 24"TREE Ð XG 110.60 -P XG 2.1 Ð EP 110:43 VEP 109.54 \triangleright ∇ ∇ \square \triangleright \triangleright ∇ ∇ ×EP 111.47 \triangleright XTP ∇ \triangleright 110.22 ∇ ∇ \triangleright EP ~Ep



	GE	ENERAL NOTES
	1.	See Title-24 documentation for insulation requirements at exterior ceil
	2.	All dimensions of lower cabinets are to face of cabinet unless noted ot
	3.	Center floor vents on adjacent windows, walls or cabinets typ., unless
	4.	All equipment clearances shall be per manufacturer's listings.
	5.	Gas vents and noncombustible piping in walls shall be firestopped at e
	6.	Water heaters and gas appliances shall be strapped per California Plu
		one third of vertical dimension. Lower strap shall be located to maintai
		located on a stand with drip pan as required. Dryer moisture exhaust of
		Dryer vent shall terminate at least 3' from openings into building.
	7.	Provide temperature and pressure relief valve with drain to outside for
	8.	Showers and tub/shower combinations shall be provided with individu
	0.	Degree Max.
	0	5
	9.	Exhaust fans must terminate 3' from any openings into the building an
		All building envelope measures outlined in Title-24 MF-1R document s
		Unless noted otherwise, doors not located by dimension shall be center
		All exterior doors shall be weather-stripped and have thresholds with o
	13.	All glazing in doors shall be tempered.
	14.	Contractor shall provide a certificate for all exterior doors indicating co
		Align top of door trim with top of window trim, typ.
		There shall be a landing on each side of each exterior door as wide as
		more than 7^{3} " below top of threshold if the door does not swing over i
		threshold. A landing is not required where a stairway of two or fewer ri
	4-	swing over the stairway. Storm and screen doors shall be permitted to
	17.	Clear tempered glazing required at glass within 24" of a door, glass at
		than 9 sf. and also within 18" of the floor walking surface.
	18.	All glazing to be insulated clear with UV protection as outlined in the T
	19.	Contractor shall provide a certificate for all exterior windows indicating
	20.	Align top of window with top of door and or opening/casework, typ.
		The contractor shall coordinate with the architect for the selection of a
		appropriate faucets, trim and drains. The architect shall select all color
	22	Finish and options: the contractor shall coordinate with the architect for
	22.	
	00	switch plates and outlets.
		Coordinate location and height of all outlets, lighting fixtures etc. with f
	24.	The contractor shall coordinate with the architect for the selection of a
		architect for the selection and proper location of all bathroom specialtie
		hooks, toilet paper dispenser, shower niche, etc.
	25.	The contractor shall coordinate with the architect for the selection of a
		The contractor shall coordinate with the architect for the selection of a
	20.	hardware including their types and finishes.
	07	
		All new gypsum board to be 1/2" Type 'X' @ walls and 5/8" Type 'X' @
	28.	All gypsum board to be water resistant at kitchen wet areas and bathr
		shwoer heads and in shower compartments non-absorbent surface to
		All wall tile surfaces to be adhered to cementitious backer board in dry
	30.	All shower wall tile surfaces to be adhered to cementitious backer boa
		#B415)
	31.	All referenced rated wall assemblies to be constructed as specified in
		Manual.
	32	For roof penetrations, all vent flues and ducts to be consolidated in flu
	02.	Coordinate "ALL" roof penetration locations with architect prior to insta
	22	
	33.	Where determined necessary by the building official due to atmospher
		formed where ceilings are applied directly to the underside of roof rafte
		openings protected against the entrance of rain or snow. Then net free
		ventilated. Where eave or cornice vents are installed, installation shall
		between the insulation and roof sheeting. Openings for ventilation sha
		than 1/4" in dimension. Exceptions: The opening area may be 1/300 o
		PERM is installed on the warm side of the attic insulation.
	34	Provide .065 SF of free area per rafter bay (3, 2" dia. holes for eave ve
		Provide a vapor barrier with maximum transmission of 1 PERM to be in
		Toilets to be 1.28 GPF, Shower head to be 2.5 GPM and Faucets to b
	50.	
$/ \chi / / / / / / / / / / / An$		
		ŇĹĨĨĨĬĔĊŔŔŔ
_ / _ / / / / M/ / / / / / / W # A \		
	\backslash	



TYPICAL NOTES:

BATHROOM ELECTRICAL:

PROVIDE 20AMP DEDICATED BRANCH CIRCUIT TO SUPPLY THE BATHROOM OUTLETS. THIS CIRCUIT CANNOT SUPPLY ANY OTHER RECEPTACLES, LIGHTS, FANS, ETC. (EXCEPTION-WHERE THE CIRCUIT SUPPLIES A SINGLE BATHROOM, OUTLETS FOR OTHER EQUIPMENT WITHIN THE SAME BATHROOM SHALL BE PERMITTED TO BE SUPPLIED).

KITCHEN ELECTRICAL:

ALL BRANCH CIRCUITS TO BE PROTECTED BY ARC-FAULT CIRCUIT INTERRUPTER(AFCI). PROVIDE GFCI PROTECTION AT ALL RECEPTACLES SERVING KITCHEN COUNTERTOPS. AT EACH KITCHEN AND DINING AREA COUNTER SPACE WIDER THAN 12", LOCATE A RECEPTACLE SO THAT NO POINT ALONG THE COUNTER WALL IS OVER 24" FROM A RECEPTACLE. COUNTERTOP RECEPTACLES REQUIRED WITHIN 24" EACH SIDE OF A BREAK IN THE CONTINUOUS COUNTERTOP SURFACE (SINKS-STOVES).

REQ'D RECEPTACLES MOUNTED ON THE SIDES OF CABINETS SHALL BE A MAXIMUM OF 12" BELOW THE COUNTERTOP SURFACE WITH A MAXIMUM OF 6" COUNTERTOP OVERHANG.

PROVIDE AT LEAST TWO (2) 20 AMP CIRCUITS FOR COUNTER RECEPTACLES.

LAUNDRY ELECTRICAL:

ALL BRANCH CIRCUITS TO BE PROTECTED BY ARC-FAULT CIRCUIT INTERRUPTER(AFCI). PROVIDE 20AMP DEDICATED BRANCH CIRCUIT TO SUPPLY THE LAUNDRY RECEPTACLE OUTLET.

MINIMUM 30 AMP DEDICATED CIRCUIT FOR DRYER PER CEC 220.54.

LAUNDRY/BATHROOM VENTILATION:

FOR LAUNDRY ROOMS AND BATHROOMS WITHOUT AN OPERABLE WINDOW: PROVIDE MECHANICAL VENTILATION SYSTEM CAPABLE OF 5 AIR CHANGES/HR. TO EXTERIOR.

USE SMOOTH METAL DUCT FOR DRYER EXHAUST WITH A MAX. LENGTH OF 14', TO OUTSIDE WITH BACKDRAFT DAMPER AND TWO 90° ELBOWS AND A MIN. OF 4" DIA. TERMINATION OF ALL ENVIRONMENTAL AIR DUCTS SHALL BE A MINIMUM OF 3 FEET FROM PROPERTY LINES OR ANY OPENINGS INTO THE BUILDING (i.e., DRYERS, BATH AND UTILITY FANS, ETC., MUST BE 3 FEET AWAY FROM DOORS WINDOWS, OPENING SKYLIGHTS OR ATTIC VENTS).

EXHAUST FANS SHALL HAVE A MIN. OF 50 CFM FOR INTERMITTENT VENTILATION OR 20 CFM FOR CONTINUOUS VENTILATION AND BE ENERGYSTAR COMPLIANT AND BE EQUIPPED WITH A HUMIDISTAT AND HUMIDITY CONTROL.

HIGH EFFICACY LIGHTING:

ALL LIGHTING SHALL BE HIGH EFFICACY AS DEFINED BY CEC TABLE 150.0-A ALL PERMANENTLY INSTALLED SCREW-BASED LIGHT FIXTURES SHALL CONTAIN SCREW-BASED JA8 (JOINT APPENDIX 8) COMPLIANT LAMPS AND BE MARKED AS JA8-2016 OR JA8-2016-E. CEC 150.0(k)G

ALL JA8 COMPLIANT LIGHT FIXTURES INSTALLED IN CEILING RECESSED DOWNLIGHTS, LED LUMINARIES WITH INTEGRAL SOURCES, PIN-BASED LED LAMPS, AND GU24 BASED LED LIGHT SOURCES SHALL BE CONTROLLED BY VACANCY SENSORS OR DIMMERS. AT LEAST ONE FIXTURE IN EACH BATRHROOM, GARAGE, LAUNDRY ROOM, AND UTILITY

ROOM SHALL BE CONTROLLED BY A VACANCY SENSOR. ALL LIGHTING SHALL BE SWITCHED SEPARATELY FROM EXHAUST FANS (EXCEPT FOR KITCHEN EXHAUST HOODS).

ALL UNDER CABINET LIGHTING SHALL BE SWITCHED SEPARATELY FROM OTHER LIGHTING SYSTEMS.

GARAGE, LAUNDRY, AND UTILITY ROOMS: LIGHTING INSTALLED IN GARAGES, LAUNDRY AND UTILITY ROOMS SHALL BE HIGH EFFICACY AND CONTROLLED BY VACANCY SENSORS.

HIGH EFFICACY LIGHTING IS NOT REQUIRED IN CLOSETS OF LESS THAN 70 SF.

OUTDOOR LIGHTING PERMANENTLY MOUNTED TO A RESIDENTIAL BUILDING SHALL BE HIGH EFFICACY AND CONTROLLED WITH A MANUAL ON/OFF SWITCH AND BY PHOTO

CONTROL AND A MOTION SENSOR. ALL OTHER ROOMS: LIGHTING INSTALLED IN ALL OTHER ROOMS SHALL BE HIGH EFFICACY OR SHALL BE CONTROLLED BY EITHER DIMMERS OR VACANCY SENSORS.

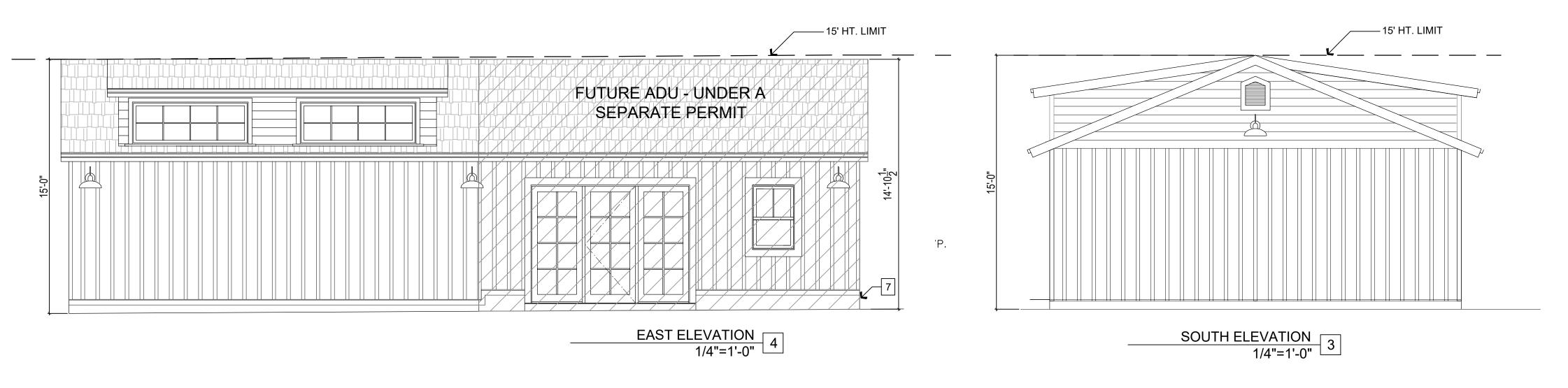
SMOKE DETECTORS:

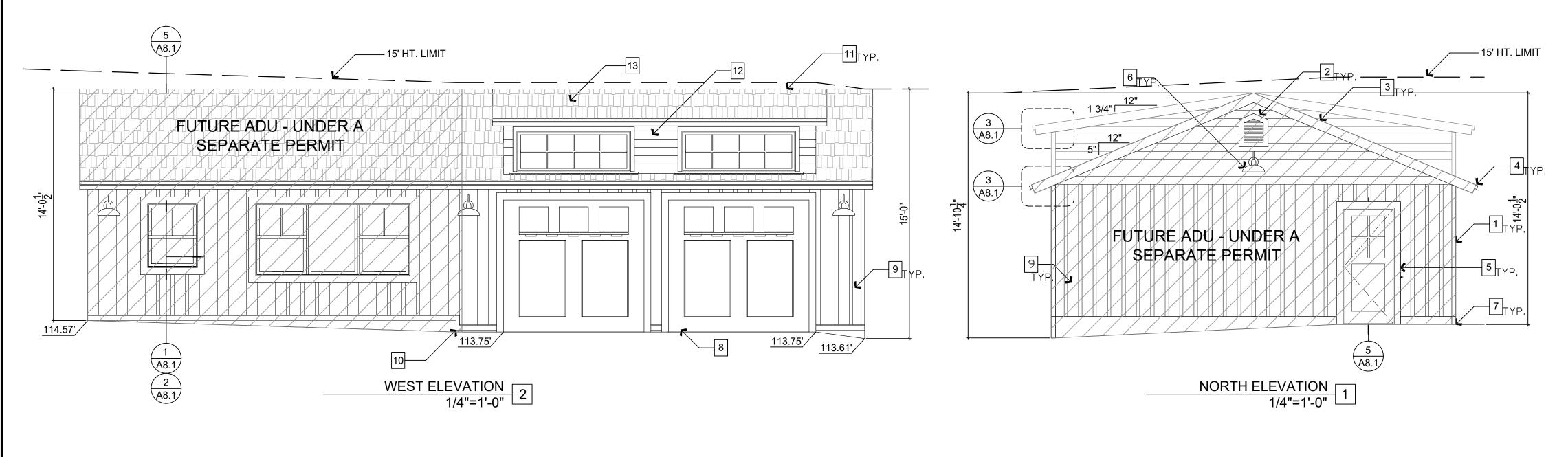
SMOKE DETECTOR SYSTEM SHALL BE HARD WIRED, INTERCONNECTED TO SOUND SIMULTANEOUSLY AND EQUIPPED WITH BATTERY BACKUP.

INSTALL DETECTORS IN EACH BEDROOM, AT EACH CORRIDOR/AREA NEXT TO THE BEDROOM, AT THE TOP OF STAIRS AND EACH STORY AND BASEMENT.

MULTIPLE SMOKE DETECTORS ARE REQUIRED WHEN CEILING LEVELS/ELEVATIONS CHANGE OR ARE INTERRUPTED BY ARCHITECTURAL ELEMENTS (CASED OPENINGS, ARCHWAYS, SKYLIGHT WELLS, ETC.).

SMOKE DETECTORS SHALL BE LISTED AND COMPLY WITH UL 217 AND BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH NFPA 720 AND MANUFACTURERS INSTRUCTIONS.





CARBON MONOXIDE ALARMS:

MAINTAINED IN THE FOLLOWING LOCATIONS: OUTSIDE OF EACH SEPARATE DWELLING UNIT SLEEPING AREA IN THE IMMEDIATE

VICINITY OF THE BEDROOM (S). ON EVERY LEVEL OF A DWELLING UNIT INCLUDING BASEMENTS.

- IN GROUP R-1 OCCUPANCIES; ON THE CEILING OF EVERY SLEEPING UNIT OR OTHER
- LOCATIONS WITHIN THE SLEEPING UNIT IN COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE
- BUILDING WIRING WHERE SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND FOR THE ADDITION OF GRAB BARS. SHALL BE EQUIPPED WITH BATTERY BACK-UP. ALARM WIRING SHALL BE DIRECTLY CONNECTED TO THE PERMANENT BUILDING WIRING WITHOUT A DISCONNECTING SWITCH OTHER THAN AS REQUIRED FOR OVERCURRENT PROTECTION.
- WHERE MORE THAN ONE CARBON MONOXIDE ALARM IS REQUIRED TO BE INSTALLED WITHIN THE DWELLING UNIT OR WITHIN A SLEEPING UNIT, THE ALARM SHALL BE INTERCONNECTED IN A MANNER THAT ACTIVATION OF ONE ALARM SHALL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.
- CARBON MONOXIDE ALARMS SHALL BE LISTED AND COMPLY WITH UL 2034 AND BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH NFPA 720 AND MANUFACTURERS INSTRUCTIONS.

PLUMBING:

ALL NEW TOILETS SHALL HAVE AN EFFECTIVE FLUSH VOLUME NOT TO EXCEED 1.28 GALLONS PER FLUSH.

- ALL NEW LAVATORY FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF 1.2 GALLONS PER MINUTE AT 60 PSI.
- ALL NEW SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF 2.0 GALLONS PER MINUTE AT 80 PSI.
- ALL NEW KITCHEN FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF 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.

BATHROOM:

CARBON MONOXIDE ALARMS REQUIRED BY SECTION 420.6.2 SHALL BE INSTALLED AND WATER CLOSETS SHALL BE LOCATED IN SPACES NOT LESS THAN 30" IN WIDTH AND 24" IN FRONT.

> WATER RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED WHERE THERE WILL BE DIRECT EXPOSURE TO WATER. CRC 702.3.8.1

BACKER FOR SHOWER AND TUB SHOWER WALLS TO BE FIBER-CEMENT, FIBER REINFORCED CEMENTITIOUS BACKER UNITS, GLASS MAT GYPSUM BACKERS OR FIBER-REINFORCED GYPSUM BACKERS TO A MIN HEIGHT OF 72" ABOVE THE FLOOR. USE 2X8 WOODEN BACKING IN ALL BATHROOM WALLS AT WATER CLOSET SHOWER AND BATHTUB, LOCATED AT 34" FROM FLOOR TO CENTER OF THE BACKING SUITABLE

DOORS AND PANELS OF TUB AND SHOWER ENCLOSURES SHALL BE FULLY TEMPERED LAMINATED SAFETY GLASS OR APPROVED PLASTIC. SHOWER COMPARTMENTS SHALL HAVE MIN INTERIOR FLOOR AREA OF 1024 SQ IN AND

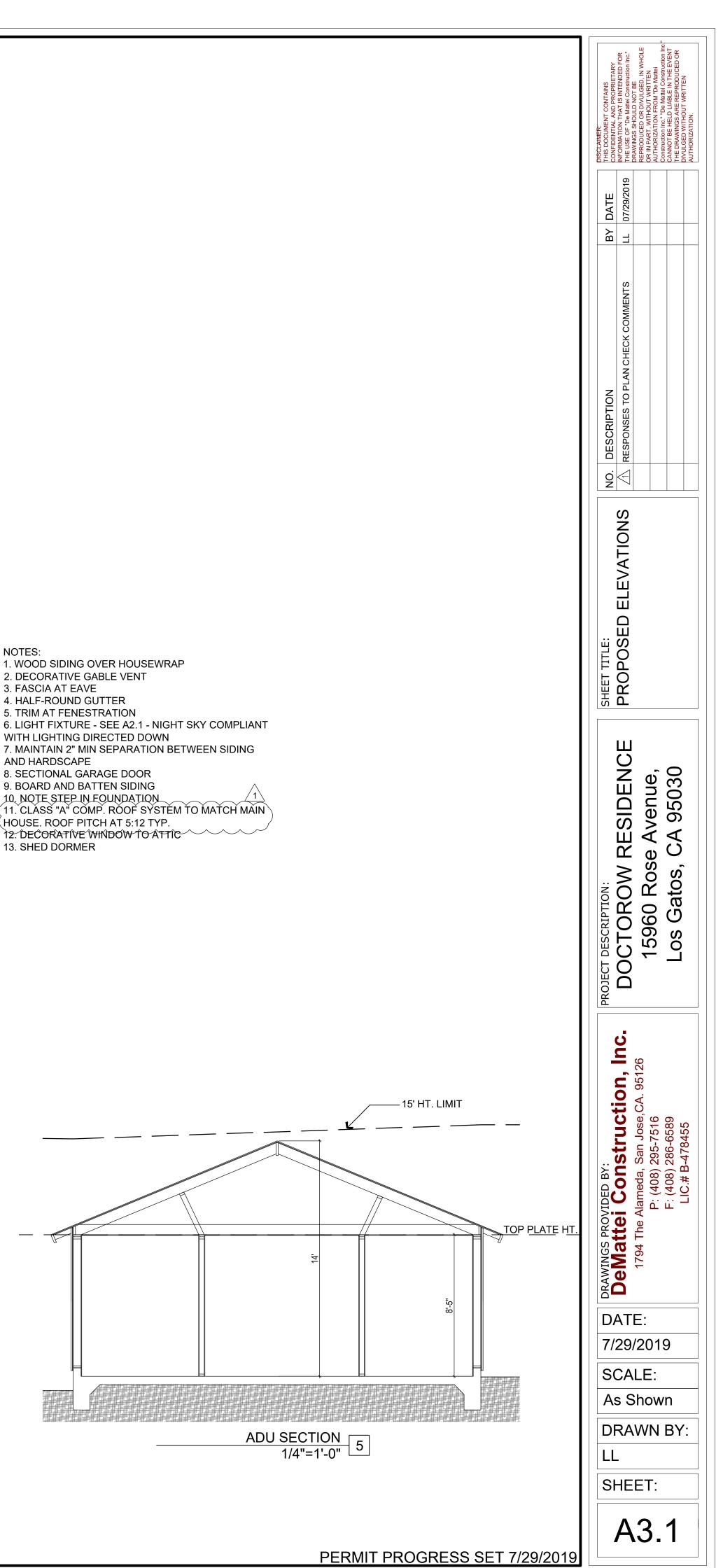
ABLE TO CONTAIN A 30" DIA. CIRCLE. SHOWER AND TUB SHOWER COMBINATION IN ALL BUILDING SHALL BE PROVIDED WITH

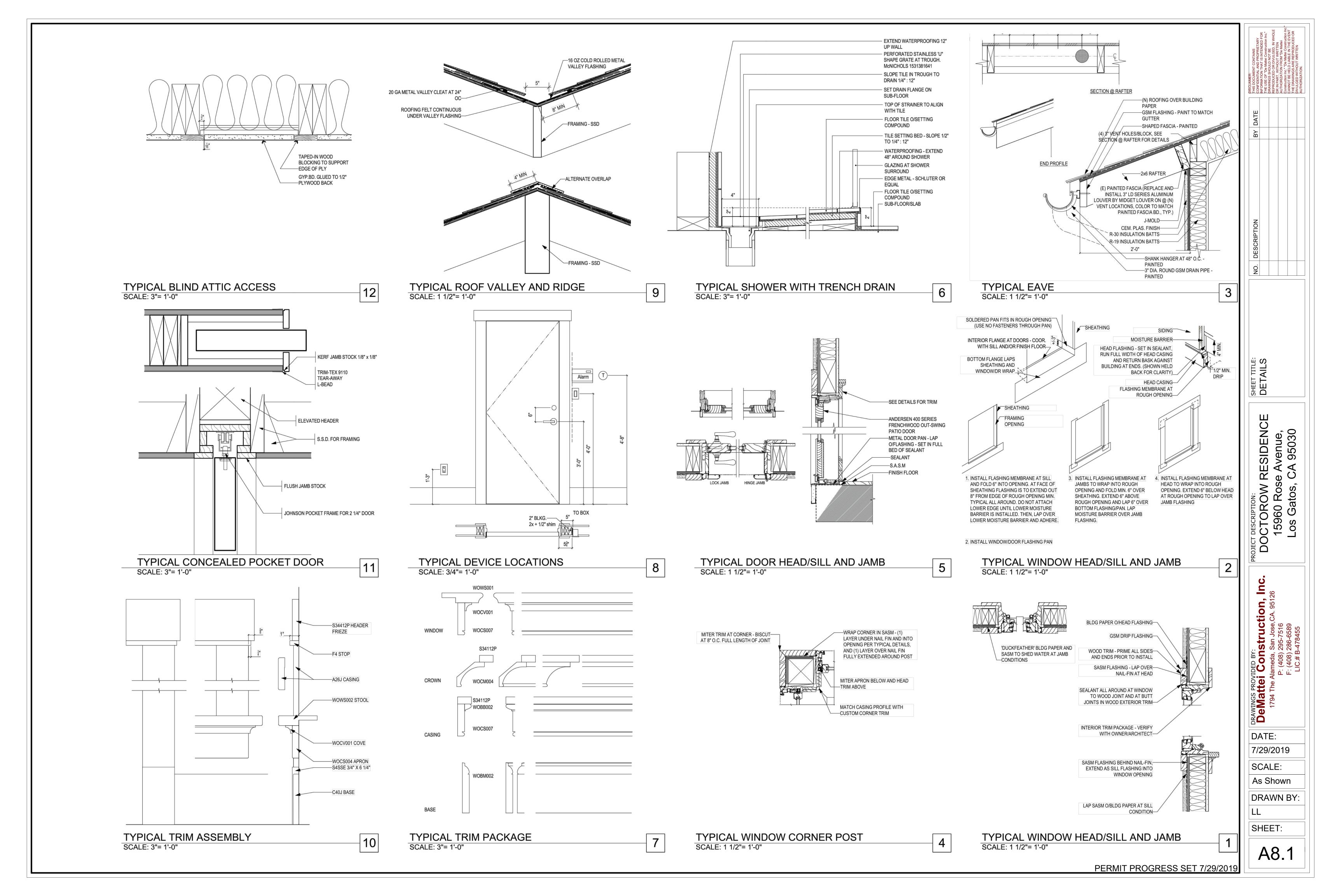
INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE.

ATTIC/UNDERFLOOR INSTALLED FAU:

UNIT SHALL BE ACCESSIBLE THROUGH AN OPENING AND PASSAGEWAY NOT LESS THAN THE LARGEST COMPONENT OF THE UNIT AND NOT LESS THAN 22"x30" THE DISTANCE FROM THE PASSAGEWAY ACCESS TO THE UNIT SHALL NOT EXCEED 20' THE WIDTH OF THE PASSAGEWAY SHALL BE UNOBSTRUCTED AND SHALL HAVE SOLID FLOORING NOT LESS THAN 24" WIDE FROM THE ENTRANCE OPENING TO THE UNIT. A LEVEL WORKING PLATFORM NOT LESS THAN 30" BY 30" SHALL BE PROVIDED IN FRONT OF THE SERVICE SIDE OF THE UNIT.

A PERMANENT 120V RECEPTACLE OUTLET AND A LIGHTING FIXTURE SHALL BE INSTALLED NEAR THE UNIT. THE SWITCH CONTROLLING THE LIGHTING FIXTURE SHALL BE LOCATED AT THE ENTRANCE TO THE PASSAGEWAY.





This Page Intentionally Left Blank