

Esenada Garage ADU

SCOPE OF WORK

DEFERRED SUBMITTALS

THE SCOPE OF WORK INCLUDES CONVERSION OF EXISTING

GARAGE SPACE INTO AN ADU STUDIO /1 BATH UNIT.

PROJECT SUMMARY

PROJECT ADDRESS

2169 Ensenada St, Lemon Grove, CA 91945

ASSESSOR'S PARCEL NUMBER

577-021-10-00

ZONING

RESIDENTIAL LOW MEDIUM -RLM

LEGAL DESCRIPTION

TR 1966 BLK 3*LOT 5*

EXISTING RESIDENCE CONSTRUCTED

JURISDICTIONAL AUTHORITIES

CITY OF LEMON GROVE

SETBACKS

FRONT: 5' 20' REAR:

GOVERNING CODES

2019 CALIFORNIA RESIDENTIAL CODE 2019 CALIFORNIA BUILDING CODE 2019 CALIFORNIA GREEN BUILDING CODE 2019 CALIFORNIA ELECTRICAL CODE

2019 CALIFORNIA PLUMBING CODE 2019 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS

OVERLAY ZONES

CONSTRUCTION TYPE

TYPE V-B

FIRE SPRINKLERS

HEIGHT LIMIT

LOT COVERAGE

1500 SF MINIMUM USABLE OPEN SPACE

PARKING

REQUIRED SPACES: 0 PROPOSED SPACES: 0

LOT SIZE

7,100 SF

NUMBER OF STORIES

EXISTING RESIDENCE: PROPOSED: 1

EXISTING ADU: PROPOSED ADU: 1

GROSS FLOOR AREA

2,128 SF 2,128 SF **EXISTING**: PROPOSED:

EXISTING ADU: 400 SF GARAGE TO BE CONVERTED PROPOSED ADU:

FLOOR AREA RATIO (FAR)

FLOOR AREA RATIO: ALLOWED:

DRAWING INDEX

ARCHITECTURAL DRAWINGS

A0.1 COVER

A0.2 GENERAL NOTES + LEGENDS

A1.0 SITE PLAN

A1.1 UPPER FLOOR PLAN - DEMO + PROPOSED

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A2.1 ELEVATIONS - EAST

A2.2 ELEVATIONS - WEST A3.0 BUILDING SECTIONS

E1.0 ELECTRICAL PLAN

PROJECT DIRECTORY

OWNER:

SUNRAY PROPERTY INVESTMENTS L L C 5721 MEADOWS DEL MAR SAN DIEGO, CA 92130

DESIGNER:

JSP DESIGN STUDIO 2039 O AVE NATIONAL CITY, CA 559-970-5773

CONTRACTOR:

TITLE 24 CONSULTANT:

LRG ENERGY DESIGN 1207 W. 112TH STREET LOS ANGELES, CA 90044

VICINITY MAP

Date Description

> 1907L Project Number 07/30/2019 Scale 12" = 1'-0"

> > COVER



2039 O AVE.

NATIONAL CITY, CA JSPDESIGNSTUDIO.COM

GENERAL NOTES

1 The specifications, included herewith are an integral part of these

2 These plans and all new work shall comply with the California

CCR as amended and adopted by the City of Lemon Grove.

3 Requirements of codes and regulations shall be considered as

and conditions of walls, doors, plumbing and mechanical.

5 Buildings undergoing construction, alteration, or demolition shall

executed as though specifically mentioned in both.

where codes conflict, the more stringent shall apply.

shall be in conformance with CFC Chapter 35.

similarly protected or separated. CFC 304.3

CFC Section 3315.1.

Lemon Grove.

contract documents and all conditions mentioned in either shall be

Building Standards Code found in the State of California - Title 24

minimum. Where contract documents exceed w/o violating code and

regulation requirements, contract documents shall take precedence

4 Contractors/subcontractors shall field verify all locations dimensions

conform to CFC Chapter 33. Welding, cutting, and other hot work

Open flames, fire, and burning on all premises is prohibited except

as specifically permitted by the City of Lemon Grove and CFC 308

be stored in buildings or placed within 5 feet of combustible walls,

openings or combustible roof eave lines unless protected by an

approved sprinkler system or located in a Type I or IIA structure

cubic yard shall be of non- or limited-combustible materials or

each floor level at each stairway, in all storage and construction

sheds, in locations where flammable or combustible liquids are

stored or used, and where other special hazards are present per

9 Locations and classifications of extinguishers shall be in accordance

10 Wall, floor and ceiling finishes and materials shall not exceed the

with CFC 906 and California Code of Regulations (CCR), Title 19.

interior finish classifications in CBC Table 803.9 and shall meet the

properly treated by a product or process approved by the State Fire

flame propagation performance criteria of the California Code of

Regulations, Title 19, Division 1. Decorative materials shall be

Marshal with appropriate documentation provided to the City of

buildings in a location that is plainly visible and legible from the

street or road fronting the property. Where access is by way of a

private road and the building address cannot be viewed from the

structure. Premises identification shall conform to CBC Section

public way, an approved sign or means shall be used to identify the

11 Address identification shall be provided for all new and existing

separated by 10 feet from other structures. Containers larger than 1

Dumpsters and trash containers exceeding 1.5 cubic yards shall not

ABBREVIATIONS

ADJ AFF ALUM ALT ARCH AVG	ADJACENT ABOVE FINISH FLOOR ALUMINUM ALTERNATE ARCHITECTURAL AVERAGE
BDLG BLKG BTWN	BUILDING BLOCKING BETWEEN
CBC CIP C.J. CLG CLR CMU COL CONC CONT CTR	CALIFORNIA BUILDING CODE CAST-IN-PLACE CONCRETE CONTROL JOINT CEILING CLEAR CONCRETE MASONRY UNIT COLUMN CONCRETE CONTINUOUS CENTER
DEMO DF DIA DIM DL DN DWG	DEMOLITION DOUGLAS FIR DIAMETER DIMENSION DEAD LOAD DOWN DRAWING
E (E) EA EB EJ ELE ELEV EOS EQ EQUIP EXH EXT	EAST EXISTING EACH EXPANSION BOLT EXPANSION JOINT ELECTRICAL ELEVATION EDGE OF SLAB EQUAL EQUIPMENT EXHAUST EXTERIOR

- FORCED AIR UNIT **FAN COIL UNIT** FLOOR DRAIN **FOUNDATION** FIRE EXTINGUISHER FINISH FLOOR FINISH FLOOR ELEVATION FINISH FLOOR LINE FLR **FLOOR FLUOR FLUORESCENT FACE OF CONCRETE** FACE OF STUD FIREPLACE FRMG FRAMING FEET FOOTING FUT **FUTURE** GAUGE **GALLON** GALVANIZED GENERAL CONTRACTOR
- GEN **GENERAL** GFI GROUND FAULT INTERRUPTER TOB GALLON PER MINUTE GYP BD GYPSUM BOARD HDR HGR HANGER HORIZ HORIZONTAL HIGH PRESSURE **HEIGHT** HEATING HEATING/VENTILATION/AIR HVAC CONDITIONING HOT WATER HYD **HYDRANT INSIDE DIAMETER**
- INCLUDED/INCLUDING INSUL INSULATION INT INTERIOR LAVATORY LINEAR FOOT LIVE LOAD LIGHTWEIGHT

DRAWING SYMBOL

- DETAIL NUMBER

SIM

A101/A101/

ROOM NAME

FLOOR FINISH

(101)

A101 ← SHEET NUMBER

LEGEND SECTION NUMBER

BUILDING SECTION 🕻 A101,

(ELEVATION)

ELEVATIONS

WALL SECTION

DETAIL CALLOUT

DETAIL CUT

ABOVE

⊃ (PLAN/SECTION)

RELATED DETAIL

CUT BELOW OR

ROOM NAME WITH

FLOOR FINISH

WINDOW TAG

DOOR TAG

ADI ADIACENT MAXIMUM MECH MFR

MECHANICAL MANUFACTURER MICRO MICROWAVE MINIMUM MISCELLANEOUS MTL METAL MULL MULLION NORTH

PCF

PNL

PSF

RAD

REF

REV

RM

SS

THR

TOC

TOS TOW

UBC

UON

VCT

VNR

WC

W/O

WT

NOT APPLICABLE NO NUMBER NOM NOMINAL NTS NOT TO SCALE OC

ON CENTER **OUTSIDE DIAMETER** OD OPNG OPENING OPP OPPOSITE ОН OVERHEAD OVERFLOW ROOF DRAIN ORD

POUNDS PER CUBIC FOOT PERFORATED PLAS PLASTER POUNDS PER LINEAR FEET PLYWOOD PANEL POUNDS PER SQUARE

POUNDS PER SQUARE PRESSURE TREATED POLYVINYL CHLORIDE **PVMT** PAVEMENT 8 During construction, at least one extinguisher shall be provided on RISER

RETURN AIR ROOF DRAIN RADIUS REFERENCE REFR REFRIGERATOR REQ'D REQUIRED REVISION ROOM

RO **ROUGH OPENING** SOUTH SC SOLID CORE SCHED SCHEDULE SECT SECTION SQUARE FOOT SHWR SHOWER SHT SHEET SIM SIMILAR

SPECS SPECIFICATIONS STAINLESS STEEL STD STANDARD STL STEEL STOR STORAGE STRUCT STRUCTURAL

TELEVISION

UNIVERSAL BUILDING

UNLESS OTHERWISE

VERIFY IN FIELD

WATER CLOSET

WASHER/DRYER

WATERPROOF

VINYL COMPOSITION TILE

NAME ____

NAME ELEVATION

DRAWING NAME

TYPICAL

NOTED

VENEER

WEST

WOOD

WITHOUT

WEIGHT

LEVEL TAGS ELEVATION

DRAWING TITLE

NORTH ARROWS

ACTUAL WORKING

REVISION TAG

EXISTING WALL

DEMOLISHED WALL

PROPOSED WALL

PROPERTY LINE — — — —

SETBACK LINE — —

ARROW INDICATED SITE

DRAINAGE PATTERN

PROPOSED ADDITION

GRID LINE (

TREAD 501.2. **TELEPHONE** 12 A plumbing fixture certification must be completed and signed by THRESHOLD TOP OF CONCRETE either a licensed general contractor, or a plumbing subcontractor, or THICKNESS the building owner certifying the flow rate of the fixtures installed. A TOP OF BEAM copy of the certification can be obtained from the development TOP OF WALL

services department. 13 Joints and openings, Annular spaces around pipes, electric cables, conduits, or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method acceptable

to the enforcing agency. (Section4.406.1) 14 Building materials with visible signs of water damage shall not be installed. Walls and floors framing shall not be enclosed when framing members exceed 19% moisture content.

15 The moisture content of building materials used in wall and floor framing is checked before enclosure. Moisture content shall be verified by either a probe type or contact type moisture meter.

16 Before final inspection, a complete operation and maintenance manual shall be provided to the building occupant or owner. Contractor or owner shall submit an affidavit that confirms the delivery of such. (Section 4.410.1)

17 A copy of a complete operation and maintenance manual will be delivered to the building owner prior to final inspection.

18 An owner manual certificate should be completed and signed by either a licensed General Contractor or a home owner certifying that a copy of the manual has been delivered/received to the building owner. A copy of the certification form can be obtained from the development services department.

19 All ABS and PVC piping and fittings shall be enclosed within walls and floors covered with Type X Gypsum Board or similar assemblies that provide the same level of fire protection. Protection of membrane penetrations is not required.

20 All electronically signed and registered certificate(s) (CF2R) posted by the installing contractor shall be submitted to the field inspector during construction at the building site. A registered CF2R will have a unique 21-digit registration number followed by four zeros located at the bottom of each page. The first 12 digits of the number will match the registration number of the associated CF1R. Certificate of occupancy will not be issued until forms CF2R is reviewed and approved.

An electronically signed and registered certificate(s) of field verification and diagnostic testing (CF3R) shall be posted at the building signed and registered certificate(s) of field verification and diagnostic testing (CF3R) shall be posted at the building site by a certified HERS rater. A registered CF3R will have a unique 25-digit registration number located at the bottom of each page. The first 20 digits of the number will match the registration number of the associated CF2R. Certificate of occupancy will not be issued until CF3R is reviews and approved.

22 The structure will be located entirely on native/undisturbed soil. 23 Prior to final inspection the licensed Contractor, Architect or Engineer in responsible charge of the overall construction must provide to the Building Department Official written verification that all applicable provisions from the Green Building Standards Code have been implemented as part of the construction. CGC 102.3.

GREEN BUILDING CODE NOTES

Carpet and carpet systems shall be compliant with VOC limits. (Section 4.504.3) A letter from the contractor subcontractor and or the building owner certifying what material used complies with the California Green Building

2 80% of the floor area receiving resilient flooring shall comply with one or more of the following: 1. VOC-emission limits defined in the Collaborative for High Performance

Schools (CHPS) High Performance Products Database. 2. Products compliant with CHPS criteria certified under the Greenquard Children & School program. 3. Certification under the Resilient Floor Covering Institute (RFCI)

FloorScore program. 4. Meet the California Department of public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from indoor

Sources Using Environmental Chambers, "Version 1.1, February 2010 (also

known as Specification 01350) Hardwood plywood, particleboard, medium density fiberboard (MDF) composite wood product used on the interior or exterior of the building shall meet the requirements for formaldehyde as specified in ARB's Air Toxic Control Measure for Composite wood as specified in section 4.504.5 and

table 4.504.5 of CALGREEN. A certification completed and signed by the general contractor, subcontractor or building owner certifying that the resilient flooring, composite wood product, plywood, particle board etc comply with the VOC limits and formaldehyde limits specified in the notes above and the California Green Building Code.

5 Duct openings and other related air distribution component openings shall be covered during construction. (Section 4.504.1)

6 Adhesives, sealants and caulks shall be compliant with VOC and other toxic compound limits. (Section 4.504.2.1)

Paints, stains and other coatings shall be compliant with VOC limits set in section Section 4.504.2.2 and Table 4.504.3 of CalGreen.

8 Before final inspection, a complete operation and maintenance manual shall be provided to the building occupant or owner. Contractor or owner shall submit an affidavit that confirms the delivery of such. (Section 4.410.1)"

9 A copy of a complete operation and maintenance manual will be delivered to the building owner prior to final inspection.

10 An owner manual certificate should be completed and signed by either a licensed General Contractor or a home owner certifying that a copy of the manual has been delivered/received to the building owner. A copy of the certification form can be obtained from the development services department.

Automatic irrigation system controllers for landscaping provided by the builder and installed at the time of final inspection shall comply with the following:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.

2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless

12 All plumbing fixtures and fittings will be water conserving and will comply with the 2019 CGBSC Sec. 4.303.1. Provide lavatory faucets with a maximum flow of 1.2 gallons per minute (GPM). Provide kitchen faucets with a

maximum flow of 1.8 gallons per minute (GPM). Provide water closet with a maximum flow of 1.28 gallons per flush (GPF).

13 Per 2019 CGBSC Sec 4.303.1.3.2, when a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 PSI, or the shower shall be designed to allow one shower outlet to be in operation at a time. Handheld showers are considered showerheads.

14 Per 2019 CGBSC Sec. 4.303.2, plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall be installed in accordance with the California Plumbing Code (CPC) and Table 1401.1 of the CPC.

15 Permanent vacuum breakers shall be included with all new hose bibs.

16 Per 2019 Green Code Sec. 4.503.1 any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with US EPA Phase II emission limits where applicable. Woodstoves, pellet stoves and fireplaces shall also comply with applicable

17 Outdoor shower drains and sinks are not permitted to connect to the public sewer system unless equipped with an approved cover. Cold water connection only.

18 Per 2019 Green Code Sec 4.506.1 mechanical exhaust fans which exhaust directly from bathrooms shall comply with the following: 1. Fans shall be Energy Star compliant and be ducted to terminate outside the building. 2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidistat which shall be readily accessible.

humidity range of 50 to 80 percent. 19 Provide water conserving fixtures, shower heads may not exceed 1.8 gallons per minute of flow. CPC Sections 407, 408, 411, 412.

Humidistat controls shall be capable of adjustment between a relative

20 All new residential buildings (Single Family, Duplexes or Townhomes) shall be constructed to include waste piping to discharge grey water from clothes washers to a place where it may be used for outdoor irrigation, in compliance with Section 1602 of the California Plumbing Code.

21 For additions or improvements to a residence built before 1994, existing "non-compliant" fixtures shall be replaced. Certification of Compliance shall be given to the Building Inspector prior to final permit approval per California

22 Landscape irrigation water use shall have weather or soil-based controllers. CGC Section 4.304.1

23 The Contractor shall submit a Construction Waste Management Plan, per Section 4.408.2.

24 Moisture content of wood shall not exceed 19% before it is enclosed in construction. The moisture content is to be certified by one of three methods specified. Building materials with visible signs of water damage shall not be used. The moisture content must be determined by the contractor by one of the methods listed in CGC Section 4.505.3.

STORM WATER REQUIREMENTS

THIS PROJECT SHALL COMPLY WITH ALL REQUIREMENTS OF THE STATE PERMIT; CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD (SDRWQCB), LEMON GROVE MUNICIPAL STORM WATER PERMIT, THE CITY OF LEMON GROVE LAND DEVELOPMENT CODE, AND THE STORM WATER STANDARDS MANUAL.

PRIOR TO ANY SOIL DISTURBANCE, TEMPORARY SEDIMENT CONTROLS SHALL BE INSTALLED BY THE CONTRACTOR OR QUALIFIED PERSON(S) AS INDICATED BELOW:

ALL REQUIREMENTS OF THE CITY OF LEMON GROVE "STORM WATER STANDARDS MANUAL" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND/OR WATER POLLUTION CONTROL PLAN (WPCP) FOR CONSTRUCTION LEVEL BMPS AND, IF APPLICABLE, THE STORM WATER QUALITY MANAGEMENT PLAN (SWQMP) FOR POST-CONSTRUCTION BMPS.

THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL STORM DRAIN INLET PROTECTION. INLET PROTECTION IN THE PUBLIC RIGHT-OF-WAY MUST BE TEMPORARILY REMOVED PRIOR TO A RAIN EVENT TO ENSURE NO FLOODING OCCURS AND REINSTALLED AFTER RAIN IS OVER.

ALL CONSTRUCTION BMPS SHALL BE INSTALLED AND PROPERLY MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.

THE CONTRACTOR SHALL ONLY GRADE, INCLUDING CLEARING AND GRUBBING, AREAS FOR WHICH THE CONTRACTOR OR QUALIFIED CONTACT PERSON CAN PROVIDE EROSION AND SEDIMENT CONTROL MEASURES.

THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL SUB-CONTRACTORS AND SUPPLIERS ARE AWARE OF ALL STORM WATER BMPS AND IMPLEMENT SUCH MEASURES. FAILURE TO COMPLY WITH THE APPROVED SWPPP/WPCP WILL RESULT IN THE ISSUANCE OF CORRECTION NOTICES, CITATIONS, CIVIL PENALTIES, AND/OR STOP WORK NOTICES.

THE CONTRACTOR OR QUALIFIED CONTACT PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF ALL SILT DEBRIS, AND MUD ON AFFECTED AND ADJACENT STREET(S) AND WITHIN STORM DRAIN SYSTEM DUE TO CONSTRUCTION VEHICLES/EQUIPMENT AND CONSTRUCTION-RELATED DEBRIS AND DISCHARGES WITH THE APPROPRIATE BMPS THAT ARE ACCEPTABLE TO THE CITY RESIDENT ENGINEER AND AS INDICATED IN THE SWPPP/WPCP.

THE CONTRACTOR SHALL PROTECT NEW AND EXISTING STORM WATER CONVEYANCE SYSTEMS FROM SEDIMENTATION. CONCRETE RINSE, OR OTHER CONSTRUCTION-RELATED DEBRIS AND DISCHARGES WITH THE APPROPRIATE BMPS THAT ARE ACCEPTABLE TO THE CITY RESIDENT ENGINEER AND AS INDICATED IN THE SWPPP/WPCP

THE CONTRACTOR OR QUALIFIED CONTACT PERSON SHALL CLEAR DEBRIS, SILT, AND MUD FROM ALL DITCHES AND SWALES PRIOR TO AND WITHIN 3 BUSINESS DAYS AFTER EACH RAIN EVENT OR PRIOR TO THE NEXT RAIN EVENT, WHICHEVER IS SOONER.

IF A NON-STORM WATER DISCHARGE LEAVES THE SITE, THE CONTRACTOR SHALL IMMEDIATELY STOP THE ACTIVITY AND REPAIR THE DAMAGES. THE CONTRACTOR SHALL NOTIFY THE CITY RESIDENT ENGINEER OF THE DISCHARGE, PRIOR TO RESUMING CONSTRUCTION ACTIVITY, ANY AND ALL WASTE MATERIAL, SEDIMENT, AND DEBRIS FROM EACH NON-STORM WATER DISCHARGE SHALL BE REMOVED FROM THE STORM DRAIN CONVEYANCE SYSTEM AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES, ALL NECESSARY MATERIALS SHALL BE STOCKPILED ONSITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID DEPLOYMENT IF CONSTRUCTION BMPS WHEN RAIN IS IMMINENT

THE CONTRACTOR SHALL RESTORE AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL BMPS TO WORKING ORDER YEAR-

THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES DUE TO UNFORESEEN CIRCUMSTANCES TO PREVENT NON-STORM WATER AND SEDIMENT-LADEN DISCHARGES

13. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.

ALL EROSION AND SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED SWPPP/WPCP SHALL BE INSTALLED AND MAINTAINED. ALL EROSION AND SEDIMENT CONTROLS FOR INTERIM CONDITIONS SHALL BE PROPERLY DOCUMENTED AND INSTALLED TO THE SATISFACTION OF THE CITY RESIDENT ENGINEER.

AS NECESSARY, THE CITY RESIDENT ENGINEER SHALL SCHEDULE MEETINGS FOR THE PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED CONTACT PERSON, EROSION CONTROL SUBCONTRACTOR, IF ANY, ENGINEER OF WORK, OWNER/DEVELOPER, AND THE CITY RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION AND SEDIMENT CONTROL MEASURES AND OTHER BMPS RELATIVE TO ANTICIPATED CONSTRUCTION ACTIVITIES.

THE CONTRACTOR OR QUALIFIED CONTACT PERSON SHALL CONDUCT VISUAL INSPECTIONS AND MAINTAIN ALL BMPS DAILY AND AS NEEDED. VISUAL INSPECTIONS AND MAINTENANCE OF ALL BMPS SHALL BE CONDUCTED BEFORE. DURING, AND AFTER EVERY RAIN EVENT AND EVERY 24 HOURS DURING ANY PROLONGED RAIN EVENT. THE CONTRACTOR SHALL MAINTAIN AND REPAIR ALL BMPS AS SOON AS POSSIBLE AS SAFETY ALLOWS.

CONSTRUCTION ENTRANCE AND EXIT AREA: TEMPORARY CONSTRICTION ENTRANCE AND EXITS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CASQA FACT SHEET TC-1 OR CALTRANS FACT SHEET TC-01 TO PREVENT TRACKING OF SEDIMENT AND OTHER POTENTIAL POLLUTANTS ONTO PAVED SURFACES AND TRAVELED WAYS, WIDTH SHALL BE 10' OR THE MINIMUM NECESSARY TO ACCOMMODATE VEHICLES AND EQUIPMENT WITHOUT BY-PASSING THE ENTRANCE. (a) NON-STORM WATER DISCHARGES SHALL BE EFFECTIVELY MANAGED PER THE LEMON GROVE MUNICIPAL CODE CHAPTER 4, ARTICLE 3, DIVISION 3 "STORM WATER MANAGEMENT AND DISCHARGE CONTROL".

DESIGN STUDIO

2039 O AVE NATIONAL CITY, CA 91950 JPONCE@JSPDESIGNSTUDIO.COM

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NOTICE OF DESIGN INTENT: ALL DRAWINGS AND DETAILS SHOWN ON THIS SHEET ARE FOR THE PURPOSES OF DESIGN INTENT ONLY AND ARE NOT TO BE USED FOR PURPOSES OF CONSTRUCTION OR FABRICATION. THIS INFORMATION IS INTENDED FOR DESIGN REFERENCE INFORMATION ONLY TO ASSIST CONSULTANTS, CONTRACTORS, FABRICATORS AND VENDORS IN THE PREPARATION OF THEIR CONSTRUCTION AND FABRICATION DOCUMENTS. JSP DESIGN STUDIO ASSUMES NO LIABILITY FOR THE USE OF THIS INFORMATION FOR ANY OTHER PURPOSES THAN WHAT ARE STATED IN THIS NOTICE.

PROJECT

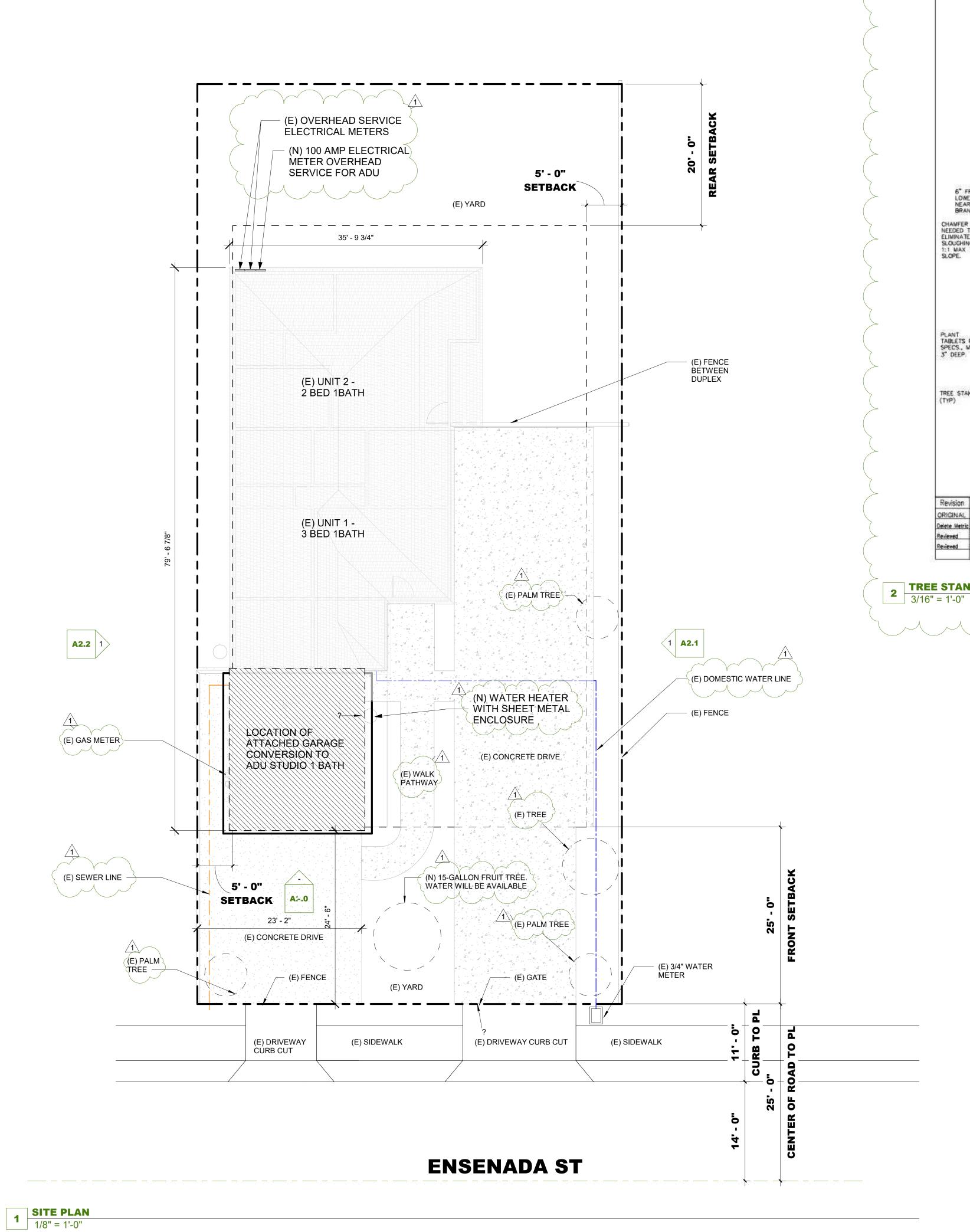
Esenada Garage

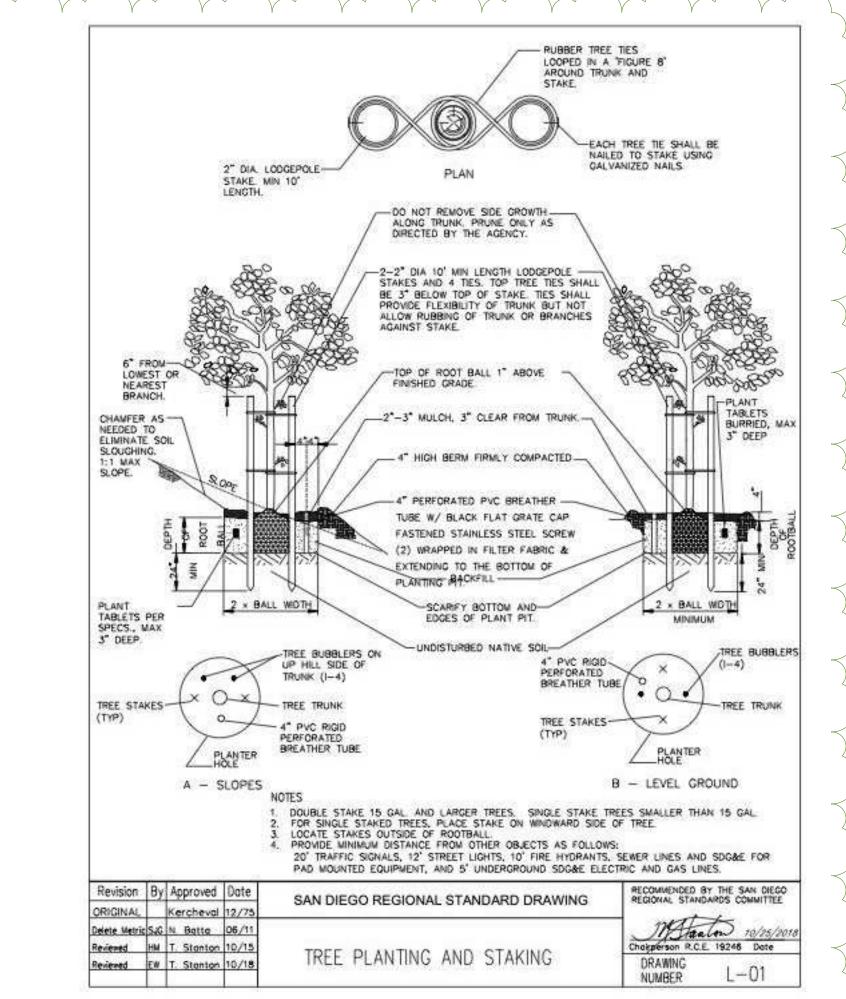
2169 Ensenada St, Lemon Grove, CA 91945

JSP Project Number	1907L
AHJ Project Number	000000
Date	07/30/2019
Scale	1/2" = 1'-0"

Description 06/29/2022 City Comment Revisions

GENERAL NOTES + LEGENDS





TREE STANDARD PLANTING DETAIL

ENERGY EFFICIENCY HERS VERIFICATION

SPECIFY AS INDICATED IN CF1R FORM (TITLE 24) DUCT SEALING - YES

REFRIGERANT CHARGE - NO COOLING SYSTEM AIRFLOW - YES COOLING SYSTEM UNIT FAN EFFICACY - YES

COOLING SYSTEM SEER AND/OR EER ABOVE MIN. - NO WHOLE-BUILDING VENTILATION AIRFLOW - YES BUILDING ENVELOPE AIR LEAKAGE - NO

QUALITY INSULATION INSTALLATION - YES PIPE INSULATION - NO

PROPERLY COMPLETED AND SIGNED CERTIFICATES OF INSTALLATION (CF2R FORMS) SHALL BE PROVIDED TO THE INSPECTOR IN THE FIELD. FOR PROJECTS REQUIRING HERS VERIFICATION, THE CF2R FORMS SHALL BE REGISTERED WITH A CALIFORNIA APPROVED HERS PROVIDER DATA REGISTRY. CF2R FORMS ARE AVAILABLE AT HTTP://WWW.SDCOUNTY.CA.GOV/PDS/BLDG/ENERGY-STDS.HTML. (CBEES 10-103)

PROPERLY COMPLETED CERTIFICATES OF VERIFICATION (CF3R FORMS) SHALL BE PROVIDED TO THE INSPECTOR IN THE FIELD FOR ITEMS REQUIRING HERS VERIFICATION. CF3R FORMS SHALL BE REGISTERED WITH A CALIFORNIA APPROVED HERS PROVIDER DATA REGISTRY. CF3R FORMS ARE AVAILABLE AT HTTP://WWW.SDCOUNTY.CA.GOV/PDS/BLDG/ENERGY-STDS.HTML. (CBEES 10-103)

ENERGY EFFICIENCY REQUIRED SPECIAL FEATURES

THE FOLLOWING ARE FEATURES THAT MUST BE INSTALLED AS CONDITION FOR MEETING ENERGY PERFORMANCE FOR THIS COMPUTER ANALYSIS.

> NORTHWEST ENERGY EFFICIENCY ALLIANCE (NEEA) RATED HEAT PUMP WATER HEATER; SPECIFIC BRAND/MODEL, OR EQUIVALENT, MUST BE INSTALLED.

BMP NOTES

THE PROJECT PROPOSES TO EXPORT 0 CUBIC YARDS OF MATERIAL FROM THIS SITE. ALL EXPORT MATERIAL SHALL BE DISCHARGED TO A LEGAL DISPOSAL SITE. THE APPROVAL OF THIS PROJECT DOES NOT ALLOW PROCESSING AND SALE OF THE MATERIAL, ALL SUCH ACTIVITIES REQUIRE A SEPARATE CONDITIONAL USE PERMIT.

TOTAL DISTURBANCE AREA: **0** SF EXISTING AMOUNT OF IMPERVIOUS AREA:

PROPOSED AMOUNT OF IMPERVIOUS AREA: **0** SF

TOTAL IMPERVIOUS AREA: 4,628 SF IMPERVIOUS % INCREASE: 0% NOTE: IMPERVIOUS AREA SHALL INCLUDE: ROOF, SIDEWALK, PARKING AREA, WALKWAYS, POOLS, POOL DECKS, ETC.

EARTHWORK QUANTITIES: CUT QUANTITIES:

0 CYD 0 CYD FILL QUANTITIES: IMPORT/EXPORT: MAX CUT DEPTH: 0 FT MAX FILL DEPTH:

NOTES

SETBACK LOCATIONS BASED ON SITE PLAN OPTAINED BY AUTHORITY HAVING JURISDICTION. IF ANY WORK IS TO BE DONE NEAR SETBACKS OR PROPERTY LINE, OWNER TO PROVIDE SURVEY TO CONFIRM PROPERTY LINE LOCATIONS, SETBACKS, EASEMENTS,

CONTRACTOR TO VERIFY DIMENSIONS AND LOCATION OF PROPERTY LINE, EASEMENTS, AND SITE RESTRICTIONS. IF ANY DISCREPENCY IS FOUND, CONTRACTOR IS REQUIRED TO NOTIFY THE DESIGNER IMMEDIATELY.

SETBACKS: FRONT: 25' SIDE: 5'

REAR: 20'

4. LOT 5 BLOCK 3 MAP NO. 1966 5. A MINIMUM OF 65% OF CONSTRUCTION WASTE IS TO BE RECYCLED PER CGC SECTION 4.408.1.

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DESIGN STUDIO

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PROJECT

Esenada Garage

2169 Ensenada St, Lemon Grove, CA 91945

JSP Project Number	1907L
AHJ Project Number	000000
Date	07/30/2019
Scale	As indicated

06/29/2022 City Comment Revisions

SITE PLAN



MATERIAL AFTER DEMOLITION OR REPLACEMENT OF WALLS WINDOWS OR DOORS.

2. THE CONTRACTOR IS TO REFERENCE THE NEW FLOOR PLANS AND SITE PLANS FOR PRECISE LIMITS OF DEMOLITION. CONSULT DESIGNER OR OWNER IN AREA OF UNCERTAINTY OR DISCPRENANCY.

3.THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS

ALL TEMPORARY BRACING, SHORINC AND SUPPORT NECESSARY TO ACHIEVE THE FINISHED STRUCTURE.

4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE STARTING THE DESIGNER AND ENGINEER SHALL BE IN WRITING, IMMEDIATELY OF ANY IN NO CASE SHALL DIMENSIONS BE SCALED FROM PLANS, ELEVATIONS, SECTIONS OR DETAILS OF THESE DRAWINGS

Door Schedule2											
Door	Dime	nsions									
Tag	Width	Height	Function	Comments							
101	3' - 0"	6' - 8"	Exterior								
102	2' - 10"	6' - 8"	Interior								

EXTERIOR DOORS SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)

A. EXTERIOR SURFACE OR CLADDING OF NON-COMBUSTIBLE OR **IGNITION-RESISTANT MATERIAL**

B. SOLID CORE WOOD COMPLYING WITH THE FOLLOWING: - STILES AND RAILS MINIMUM 1-3/8 INCHES THICK - RAISED PANELS MINIMUM 1-1/4 INCHES THICK EXCEPTION: EXTERIOR PERIMETER OF RAISED PANEL MAY TAPER TO A TONGUE MINIMUM 3/8 INCHES THICK C. MINIMUM 20-MIN FIRE RATED WHEN TESTED PER NFPA 252 D.

MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-1

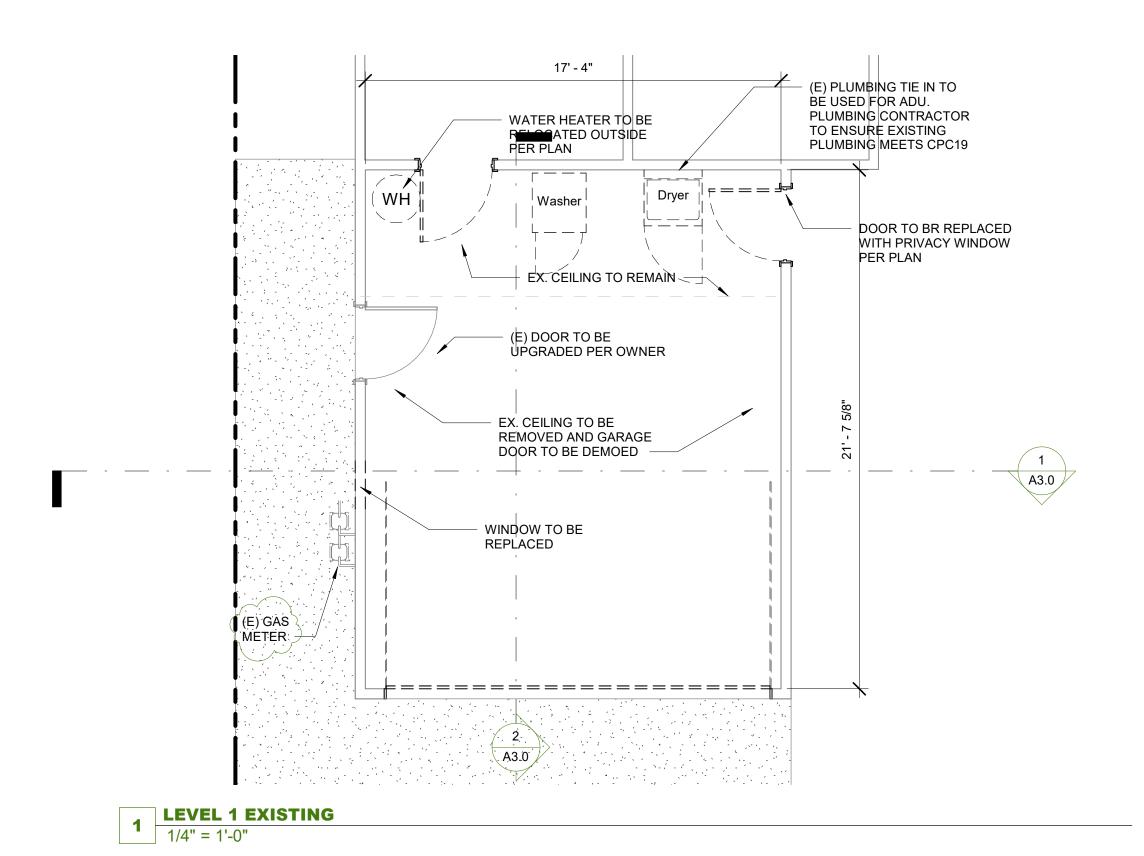
Window Schedule2											
		Dimension	ıs								
Window Tag	Width	Width Height Height		Operation	Tempered	Comments					
1	2' - 0"	4' - 0"	3' - 0"								
2	5' - 0"	5' - 0"	2' - 6"								
3	3' - 0"	1' - 0"	6' - 0"								

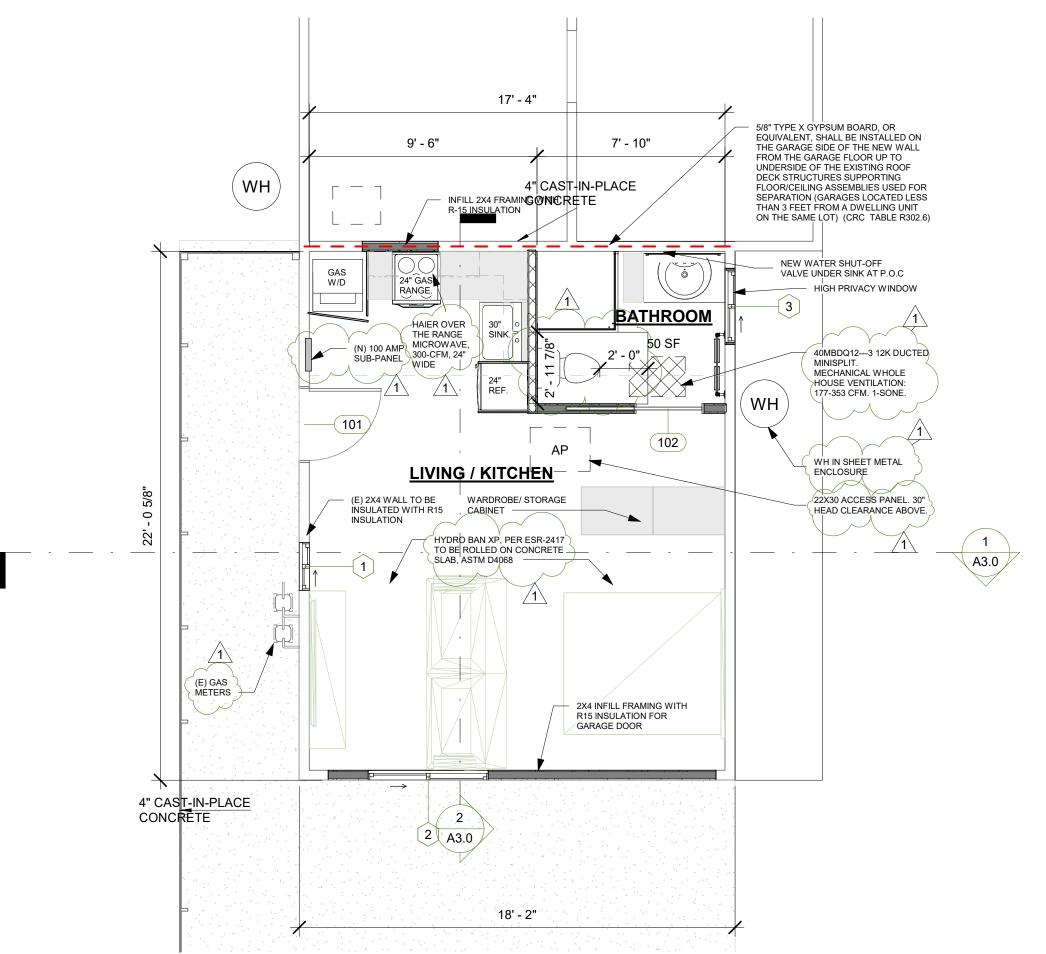
EXTERIOR WINDOWS, EXTERIOR GLAZED DOORS, GLAZED OPENINGS WITHIN EXTERIOR DOORS, GLAZED OPENINGS WITHIN EXTERIOR GARAGE DOORS, AND EXTERIOR STRUCTURAL GLASS VENEER SHALL COMPLY WITH ONE OF THE FOLLOWING: (SELECT ONE)

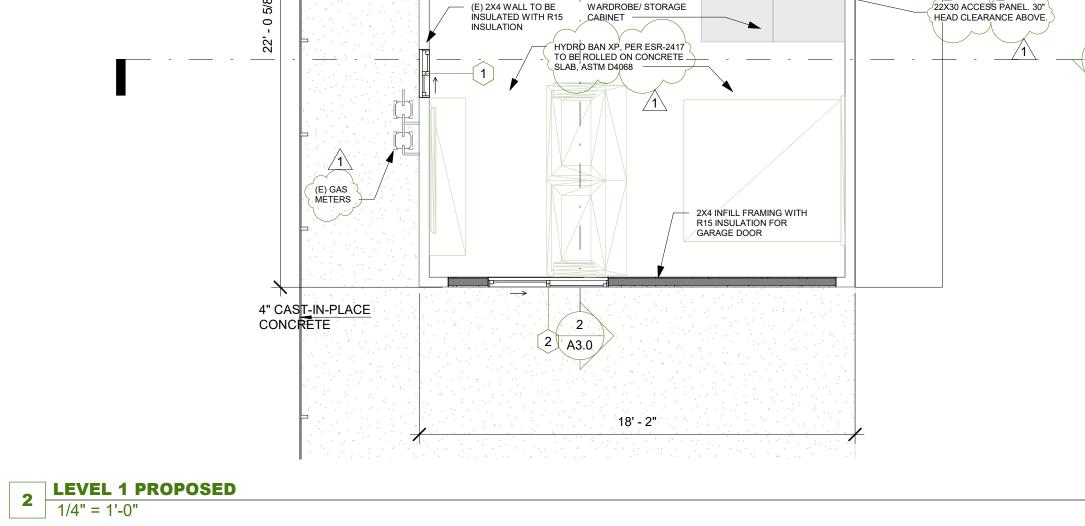
A. MULTI-PANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING. AND WHERE ANY GLAZING FRAMES MADE OF VINYL MATERIALS SHALL HAVE WELDED CORNERS, METAL REINFORCEMENT IN INTERLOCK AREA, AND BE CERTIFIED TO AAMA/WDMA/CSA

101/I.S.2/A40 B. MINIMUM 20-MIN FIRE-RESISTANCE-RATED.

C. MEET PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-2









SPECIAL PLAN NOTES:

- 1. THE HIGHEST POINT OF THE ROOF, EQUIPMENT, OR ANY VENT, PIPE, ANTENNA, OR OTHER PROJECTION SHALL NOT EXCEED 20'-O ABOVE GRADE PER LMMC SEC24.05.030
- 2. THRESHOLDS AT DOORWAYS SHALL NOT EXCEED 0.75-INCH IN HEIGHT FOR SLIDING DOORS SERVING DWELLING UNITS OR 0.5-INCH FOR OTHER DOORS.
- 3. ENVIRONMENTAL AIR DUCTS 4 EXHAUST TERMINATIONS SHALL TERMINATE NOT LESS THAN 3-FEET FROM A PROPERTY LINE 4 3-FEET FROM **BUILDING OPENINGS.**
- 4. THE ARCHITECT IS NOT RESPONSIBLE IN ANY WAY, SHAPE OR FORM FOR THE SIZING, ROUTING LAYOUT OR FINAL CONFIGURATION OF THE MECHANICAL SYSTEM. THE GENERAL CONTRACTOR IS TO ASSUME ALL LIABILITY AND WARRANTY FOR PROVIDING SAID LAYOUT AND FUNCTION INCLUDING REQUIRED DROPS 4 SOFFITS AS REQUIRED.
- 6. AN ELECTRONICALLY SIGNED 4 REGISTERED INSTALLATION CERTIFICATE'S/ /CF2R/ POSTED BY THE INSTALLING CONTRACTOR SHALL BE SUBMITTED TO THE FIELD INSPECTOR DURING CONSTRUCTION AT THE BUILDING SITE. A REGISTERED CF2R WILL HAVE A UNIQUE 21-DIGIT REGISTRATION NUMBER FOLLOWED BY FOUR ZEROS LOCATED AT THE BOTTOM OF EACH PAGE. THE FIRST 12 DIGITS OF THE NUMBER WILL MATCH THE REGISTRATION

NUMBER OF THE ASSOCIATED CFIR. CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL FORM CF2R IS REVIEWED 4 APPROVED.

7. AN ELECTRONICALLY SIGNED AND REGISTERED CERTIFICATE OF FIELD VERIFICATION AND DIAGNOSTIC TESTING (CF3R) SHALL BE POSTED AT THE BUILDING SITE. SIGNED AND REGISTERED CERTIFICATE(S) OF FIELD VERIFICATION AND DIAGNOSTIC TESTING (CF3R) SHALL BE POSTED AT THE BUILDING SITE BY A CERTIFIED HERS RATER. REGISTERED CF3R WILL HAVE A UNIQUE 25-DIGIT REGISTRATION NUMBER LOCATED AT THE BOTTOM OF EACH PAGE. THE FIRST 20 DIGITS OF THE NUMBER WILL MATCH THE REGISTRATION NUMBER OF THE ASSOCIATED CF2R. CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL CF3R IS REVIEWED 4 APPROVED.

8. A SHOWER COMPARTMENTS AND BATHTUBS WITH INSTALLED SHOWER HEADS SHALL BE FINISHED WITH A NONABSORBENT SURFACE THAT EXTENDS TO A HEIGHT OF NOT LESS THAN 6-FEET ABOVE THE FLOOR (CRC R307.2).

9. A PLUMBING FIXTURE CERTIFICATION MUST BE COMPLETED AND SIGNED BY EITHER A LICENSED GENERAL CONTRACTOR, A PLUMBING SUBCONTRACTOR, OR THE BUILDING OWNER CERTIFYING THE LOW RATE OF FIXTURES INSTALLED. A COPY OF THE CERTIFICATION CAN BE OBTAIN FROM THE DEVELOPMENT SERVICES DEPARTMENT

10. EIGHTY PERCENT OF THE FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH ONE OR MORE OF THE FOLLOWING:

1. - VOC EMISSION LIMITS DEFINED IN THE CHPS HIGH PERFORMANCE PRODUCTS DATABASE 2. -CERTIFIED UL GREENGUARD GOLD 3. -CERTIFICATION UNDER THE RESILIENT FLOOR COVERING INSTITUTE /RFCI: FLOOR SCORE PROGRAM 4. - MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH SPECIFICATION 01350

11. NEW HARDWOOD PLYWOOD, PARTICLE BOARD AND MEDIUM DENSITY FIBER BOARD /MDF/ COMPOSITE WOOD PRODUCT USED IN THE BUILDING SHALL MEET THE FORMALDEHYDE LIMITS LISTED IN 2019 CAL GREEN TABLE 4.504.5.

12. THE FORMALDEHYDE EMISSION VERIFICATION SHALL BE MADE AVAILABLE TO CITY STAFF UPON REQUEST

13. THE VOC CONTENT VERIFICATION SHALL BE MADE AVAILABLE TO CITY STAFF UPON REQUEST

14. ALL STRUCTURAL EXPOSED MEMBERS SUPPORTING DECK AND ROOF SHALL BE - NON-COMBUSTIBLE MATERIAL - IGNITION-RESISTANT MATERIAL

GENERAL FIRE-RATING NOTES:

1. THE FLOOR/CEILING ASSEMBLY ABOVE SEPARATING THE TWO DWELLING UNITS SHALL BE CONSTRUCTED OF ONE-HOUR FIRE-RESISTANCE RATED CONSTRUCTION IN ACCORDANCE WITH SECTION R302.3.

2. THE SUPPORTING WALLS, BEAMS, AND POSTS FOR THE ONE-HOUR FIRE-RESISTANCE RATED FLOOR/CEILING ASSEMBLY SHALL HAVE AN EQUAL OR GREATER

FIRE-RESISTANCE RATING IN ACCORDANCE WITH R302.3.1.

3. PENETRATIONS ON THE ONE-HOUR FIRE-RESISTANCE RATED CONSTRUCTION (FLOOR/CEILING AND WALL ASSEMBLIES) SHALL COMPLY WITH SECTION R302.4.

PLAN NOTES

1. PER 2019 GREEN CODE, MECH EXHAUST FANS WHICH EXHAUST DIRECTLY FROM BATHROOMS SHALL COMPLY WITH THE FOLLOWING;

A - FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE BUILDING.

B.-UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM FANS MUST BE CONTROLLED BY A HUMIDISTADT WHICH SHALL BE READILY ACCESSIBLE.

ADJUSMENT BETWEEN A RELATIVE HUMIDITY RANGE OF

CONTROLS SHALL BE CAPABLE OF

TO 80 PERCENT

2. EXHAUST DUCTS AND DRYER VENTS **EQUIPPED WITH BACKDRAFT TAMPERS**

3. ENVIRONMENTAL AIR DUCTS AND EXHAUST TERMINATIONS SHALL TERMINATE NO LESS THAN 3' FROM A PROPERTY LINE AND 3' FROM OPENINGS INTO THE BUILDING.

4. ALL PLUMBING FIXTURES AND FITTINGS WILL BE WATER CONSERVING AND WILL COMPLY WITH THE 2016 CGBSC

5. PROVIDE LAVATORY FAUCETS WITH A MAXIMUM FLOW OF 1.2 GALLONS PER MINUTE (GPM)

6. PROVIDE KITCHEN FAUCETS WITH A MAXIMUM FLOW OF 1.6 GALLONS PER MINUTE (GPM)

7. PROVIDE SHOWER HEADS WITH A MAXIMUM FLOW OF 1.8 GALLONS PER MINUTE (GPM) AT 80 P.S.I. OR SHOWER SHALL BE DESIGNED TO ONLY ALLOW ONE OUTLET IN OPERATION AT A TIME, HANDHELD SHOWERS AREA CONSIDERED SHOWERHEADS

8. PROVIDE WATER CLOSETS WITH A MAXIMUM FLOW OF 1.28 GALLONS PER MINUTE (GPM)

9. EXISTING UNIT NOT SPRINKLERED SO COMPANION /JUNIOR UNIT, NOT REQUIRED TO BE SPRINKLERED

10. INTERIOR SPACES INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH A SPACE HEATING SYSTEM CAPABLE OF MAINTAINING A MINIMUM INDOOR TEMPERATURE OF 66 DEGREES F.

11. THE MATERIALS 4 METHODS OF CONSTRUCTION USED FOR THE WHOLE STRUCTURE, INCLUDING ATTACHED A.D.U'S, AND STRUCTURES /PATIO COVERS/ SHALL BE IN ACCORDANCE WITH CRC R337.

12. ROOF GUTTERS SHALL BE PROVIDED WITH THE MEANS TO PREVENT THE ACCUMULATION OF LEAVES AND DEBRIS IN THE GUTTER. ALL ROOF GUTTERS AND DOWNSPOUTS SHALL BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS.

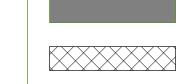
13. DRIP EDGE FLASHING USED THAT THE FREE EDGES OF ROOFING MATERIALS SHALL BE NON-COMBUSTIBLE.

14. PROVIDE VAPOR RETARDER FOR ENTIRE AREA OF EX. CONCRETE SLAB (OLD GARAGE SLAB/- NOW CONVERTED TO HABITABLE SPACE PER SEC. R506.2.3

15. CONTROL VALVES IN SHOWERS AND BATHTUBS MUST BE PRESSURE BALANCED OR THERMOSTATIC MIXING VALVES PER CPC SECTIONS 408, 409, 410.



WALL LEGEND



2X4 PROPOSEDWALL

2X6 PLUMBING WALL

2X4 EXISTING WALL

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VARIATIONS FROM THE DIMENSIONS AND

CONDITIONS SHOWN BY THOSE

CA 91945

Esenada Garage

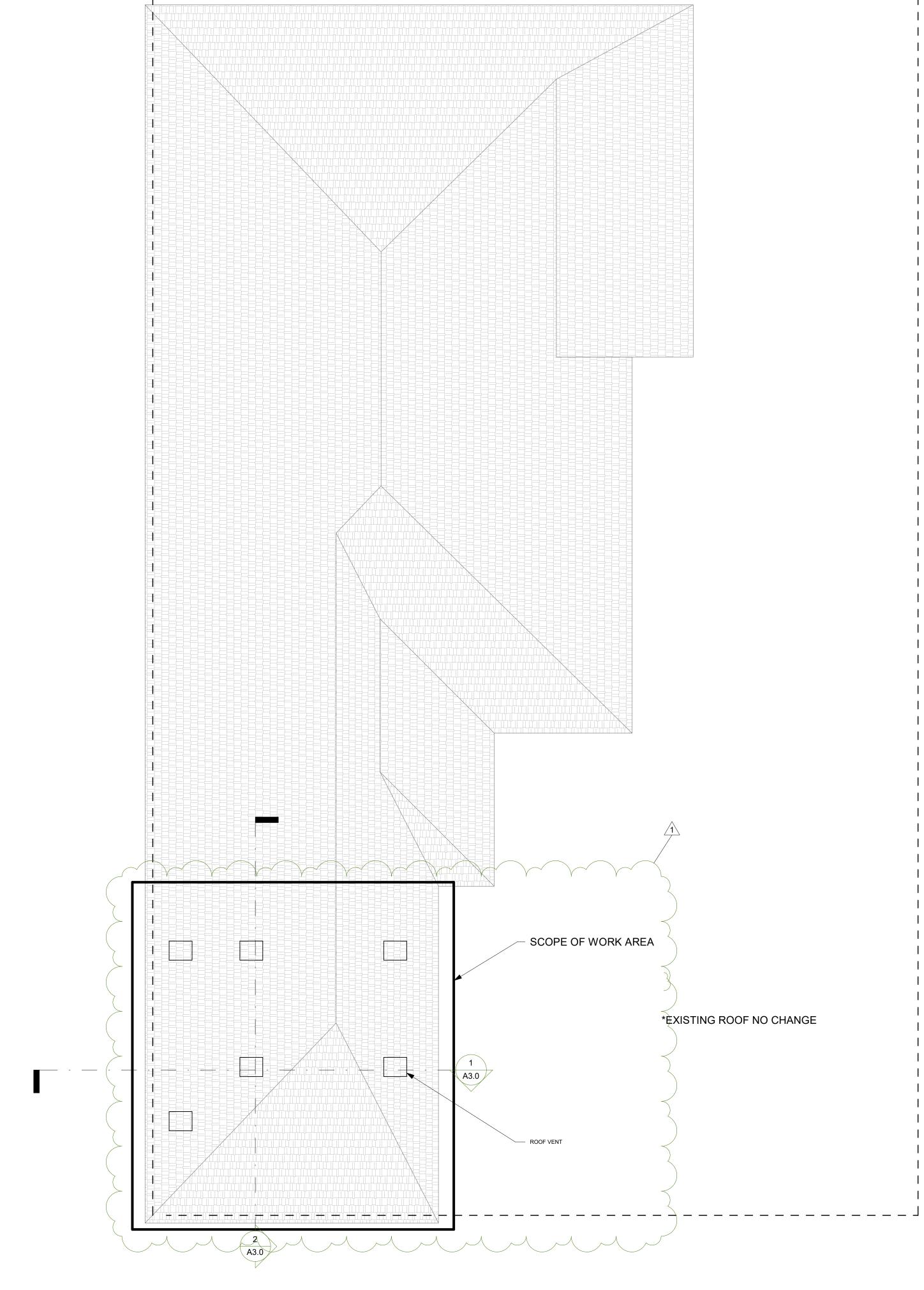
2169 Ensenada St, Lemon Grove,

JSP Project Number	1907L
AHJ Project Number	000000
Date	07/30/2019
Scale	As indicated

Description 06/29/2022 City Comment Revisions

UPPER FLOOR PLAN -DEMO + PROPOSED

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





2169 Ensenada St, Lemon Grove, CA 91945

1. TOTAL SQUARE FEET OF ATTIC SPACE TO BE VENTILATED

Total Square Feet Of Attic Space To Be Ventilated:

Required Method:

1/150

Calculation:

400 ÷ 150 = 2.67 Sq. Ft. Of Code Required Ventilation

2. CONVERT SQUARE FEET OF CODE-REQUIRED **VENTILATION TO SQUARE INCHES**

Square Feet Of Code Required Ventilation

Calculation:

Material:

PLACEMENT

2.67 X 144 = 384.48 Sq. In Of Code Required Ventilation

3. SELECT MATERIAL AND DETERMINE VENTS REQUIRED

Composition Shingle

Square Inches Provided: $(6 \times 72) = 432 \text{ Sq. In}$

Square Inches Needed: 2.67 X 144 = 384.48 Sq. In

High / Exhaust Vents Needed: 3

Low / Intake Vents Needed: 3

Total Vents Needed: 6

REQUIRED VENTILATION FOR ATTICS

1. TOTAL SQUARE FEET OF ATTIC SPACE TO BE **VENTILATED**

Total Square Feet Of Attic Space To Be Ventilated:

Required Method:

Calculation: 400 ÷ 150 = 2.67 Sq. Ft. Of Code Required Ventilation

2. CONVERT SQUARE FEET OF CODE-REQUIRED VENTILATION TO SQUARE INCHES

Square Feet Of Code Required Ventilation

Calculation: 2.67 X 144 = 384.48 Sq. In Of Code Required Ventilation

3. SELECT MATERIAL AND DETERMINE VENTS REQUIRED

Material: Composition Shingle

PLACEMENT

Square Inches Provided: (6 X 72) = 432 Sq. In **Square Inches Needed:** 2.67 X 144 = 384.48 Sq. In High / Exhaust Vents Needed: 3 Low / Intake Vents Needed: 3 Total Vents Needed: 6

NOTES

COMPOSITION SHINGLE

If you live in a Wildland Urban Interface area (WUI), upgrade to our

FIRE&ICE® product line. Scan theQR Codes above with your smart

LOW PROFILE - "TAPERED"

MADE IN THE U.S.A.

WITH U.S. STEEL

PRODUCT:

ROOF MATERIAL: GAF LIBERTY™SBS SELF-ADHERING CAP SHEET: WHITE; ESR-1274 - CLASS "A" UL FIRE RATING, 20 YR 3-TAB ASPHALT SHINGLES, COLOR TO MATCH MAIN HOUSE.

ENTIRE ROOF SHALL BE COVERED WITH A FIRE-RETARDANT ROOF COVERING.

PROVIDE CONTINUOUS WATERPROOFING AT ALL ROOF PENETRATIONS. ALL JOINTS IN FLASHING TO BE SOLDERED AND SEALED WITH MASTIC.

ANY VENT, PIPE, ANTENNA OR OTHER PROJECTION SHALL NOT EXCEED 35'-0" ABOVE GRADE (17.24.040). THE NET FREE VENT AREA OF ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES SHALL NOT BE LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED. REDUCTION OF TOTAL AREA TO 1/300 IS PERMITTED PROVIDED THAT AT LEAST 50% AND NOT MORE THAN 80% OF THE REQ VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3' ABOVE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQ VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. AS AN ALT, THE NET FREE CROSS-VENTILATION AREA MAY BE REDUCED TO 1/300 WHEN A CLASS I OR CLASS II VAPOR BARRIER IS INSTALLED ON THE WARM-IN-WINTER SIDE OF THE CEILING. A MIN OF 1" CLEARANCE SHALL BE PROVIDED BETWEEN THE

INSULATION AND ROOF SHEATHING. NO VENTILATION IS REQUIRED IN AREAS WHERE ROOF INSULATION IS INSTALLED BETWEEN RAFTERS WITH NO AIR SPACES BETWEEN INSULATION AND ROOF

UNVENTED ATTICS & UNVENTED ENCLOSED RAFTER ASSEMBLIES (SEC. 145.1203) ARE PERMITTED IF ALL OF THE FOLLOWING CONDITIONS ARE MET: UNVENTED ATTIC SPACE IS COMPLETELY

> AIR-PERMEABLE INSULATION ONLY. IN ADDITION TO THE AIR-PERMEABLE INSULATION INSTALLED DIRECTLY BELOW THE STRUCTURAL SHEATHING, RIGID BOARD OR SHEET INSULATION WA AN R-VALUE OF R-4 SHALL BE INSTALLED DIRECTLY ABOVE THE STRUCTURAL ROOF SHEATHING FOR CONDENSATION CONTROL.

AIR-IMPERMEABLE AND AIR-PERMEABLE INSULATION. THE AIR-IMPERMEABLE INSULATION SHALL BE APPLIED IN DIRECT CONTACT WITH THE UNDERSIDE OF THE STRUCTURAL ROOF SHEATHING FOR CONDENSATION CONTROL. THE AIR-PERMEABLE INSULATION SHALL BE INSTALLED DIRECTLY UNDER THE AIR-

WHERE PERFORMED INSULATION BOARD IS USED AS THE AIR-IMPERMEABLE INSULATION LAYER, IT SHALL BE SEALED AT THE PERIMETER OF EACH INDIVIDUAL SHEET INTERIOR

ATTIC VENTILATION OPENINGS SHALL BE COVERED

THE HIGHEST POINT OF THE ROOF, EQUIPMENT OR

SHEATHING.

CONTAINED WITHIN THE BUILDING THERMAL ENVELOPE. NO INTERIOR CLASS I VAPOR RETARDERS ARE INSTALLED ON THE CEILING SIDE OF THE UNVENTED ATTIC ASSEMBLY OR ON THE CEILING SIDE OF THE UNVENTED ENCLOSED

RAFTER ASSEMBLY. EITHER ITEMS A, B, OR C OF THIS SECTION 145.1203(B)(3) SHALL BE MET, DEPENDING ON THE AIR PERMEABILITY OF THE INSULATION DIRECTLY UNDER THE STRUCTURAL ROOF SHEATHING. NO INSULATION SHALL BE REQ. WHEN ROOF TILES, WOOD SHINGLES, WOOD SHAKES, OR ANY OTHER ROOFING SYSTEM USING BATTEN AND NO CONTINUOUS UNDERLAYMENT IS INSTALLED. A CONTINUOUS LAYER SHALL BE CONSIDERED TO EXIST IF SHEATHING, ROOFING PAPER OR ANY CONTINUOUS LAYER IS USED WHICH HAS A PERM RATE OF NO MORE THAN ONE PERM

UNDER THE DRY CUP METHOD. AIR-IMPERMEABLE INSULATION ONLY. INSULATION SHALL BE APPLIED IN DIRECT CONTACT WITH THE UNDERSIDE OF THE STRUCTURAL ROOF

SHEATHING.

IMPERMEABLE INSULATION.

SURFACE TO FORM A CONTINUOUS

_LAYER. WITH CORROSION-RESISTANT METAL MESH WITH 1/16" MINIMUM TO 1/4" MAXIMUM OPENINGS. SECTION R806.1

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ROOF PLAN

06/29/2022 City Comment Revisions

1907L

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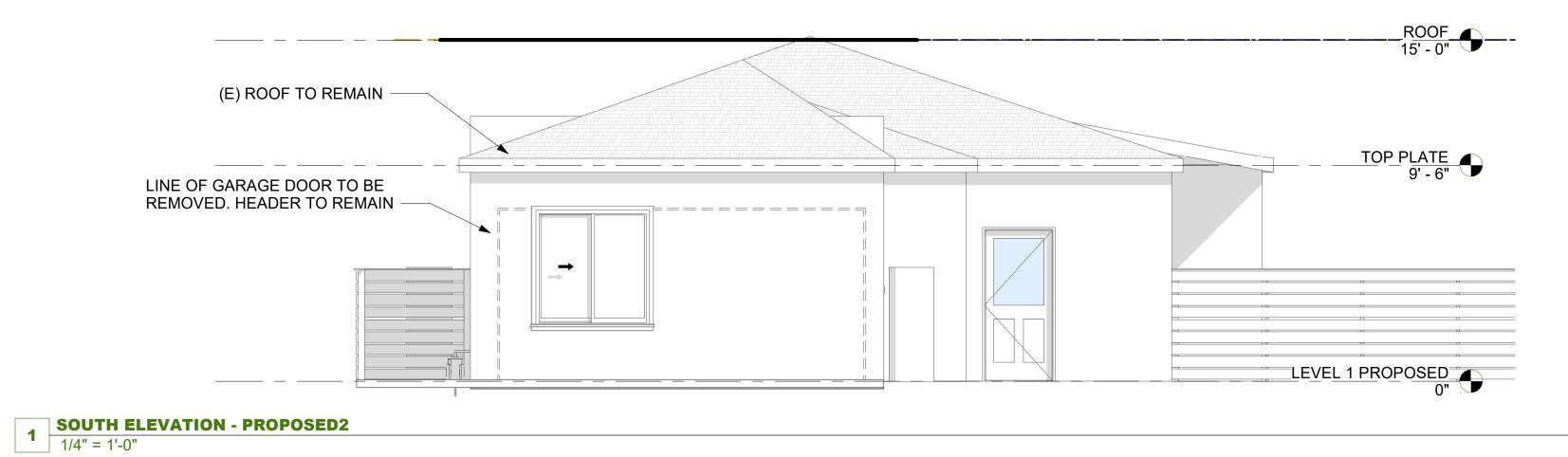
07/30/2019

1/4" = 1'-0"

JSP Project Number

AHJ Project Number

Scale



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Esenada Garage ADU

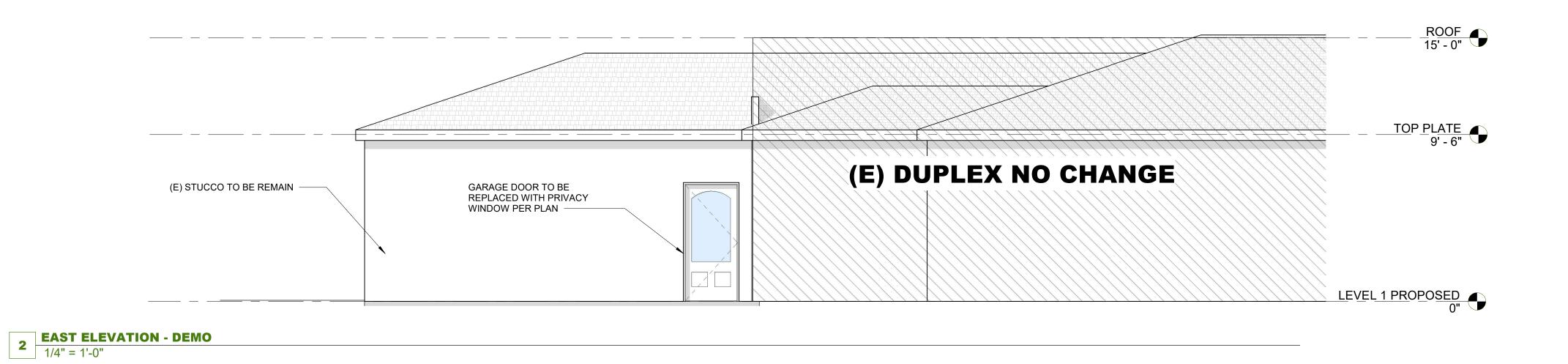
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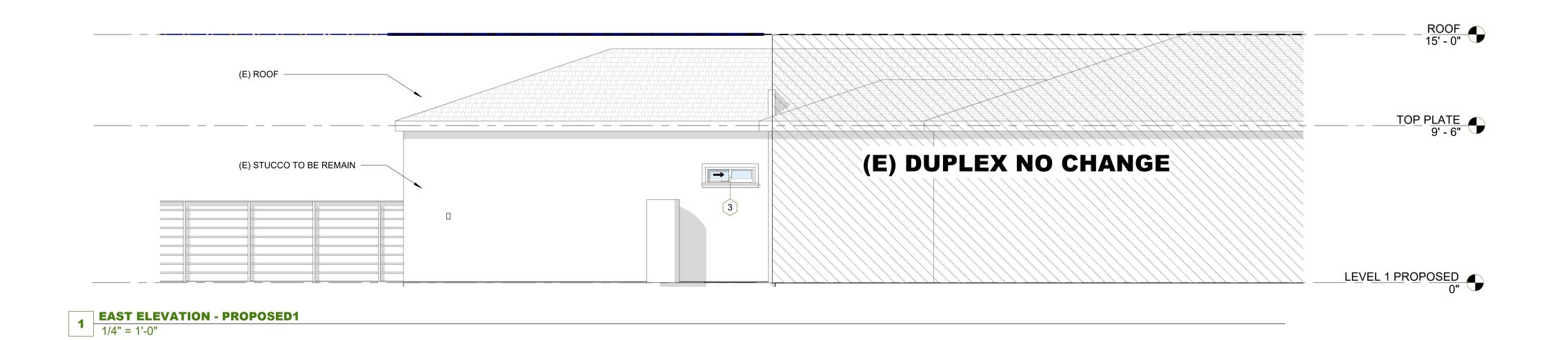
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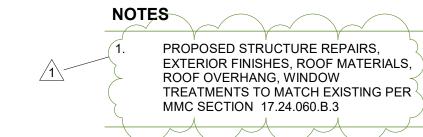
No. Date Description

ELEVATIONS - NORTH AND SOUTH

A2.0







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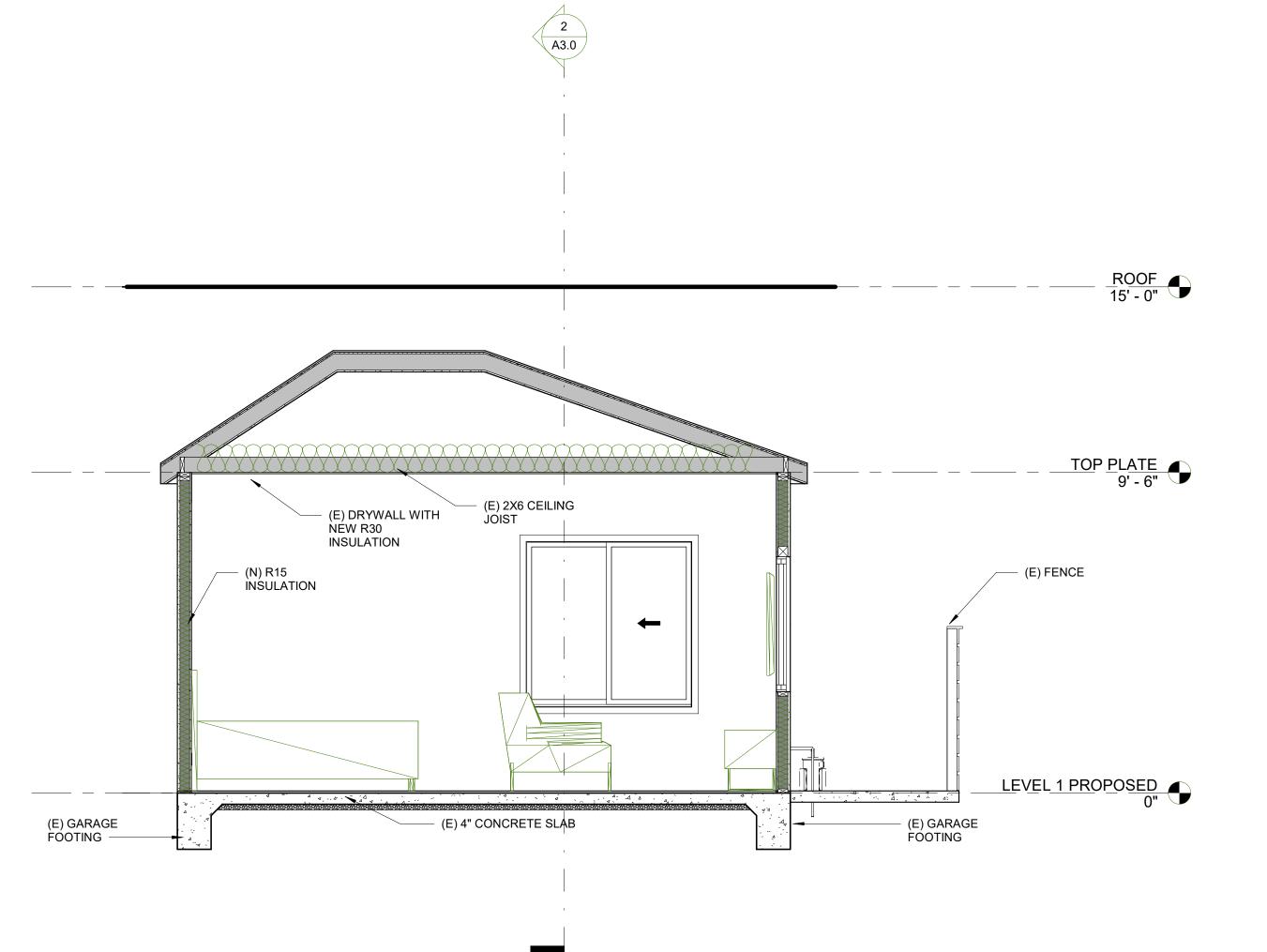
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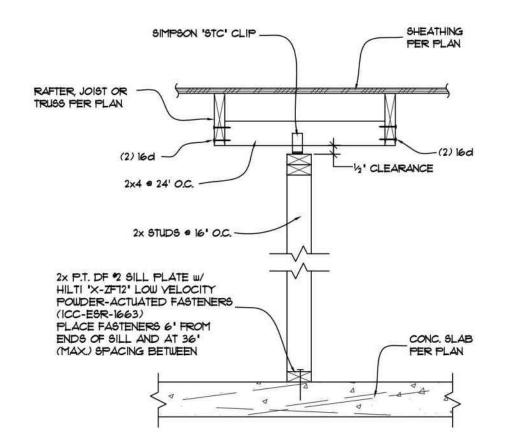


ELEVATIONS - EAST



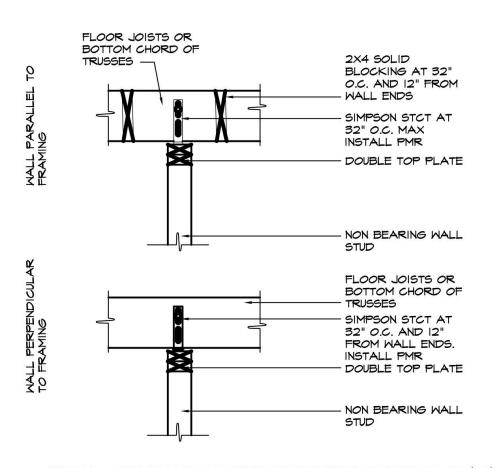
Section 13/8" = 1'-0" A3.0 (E) 2X6 CEILING JOIST 1HR RATED WALL PER PLAN TOP PLATE 9' - 6" (E) 2X12 GARAGE HEADER TO REMAIN (E) DRYWALL WITH NÉW R30 INSULATION (N) R15 INSULATION (E) KITCHEN IN HOUSE (N) R15 INSULATION - (E) FLOOR JOIST (E) CRAWL SPACE (E) GARAGE FOOTING CONCRETE ÀŃD STEM WALL

Section 2 3/8" = 1'-0"



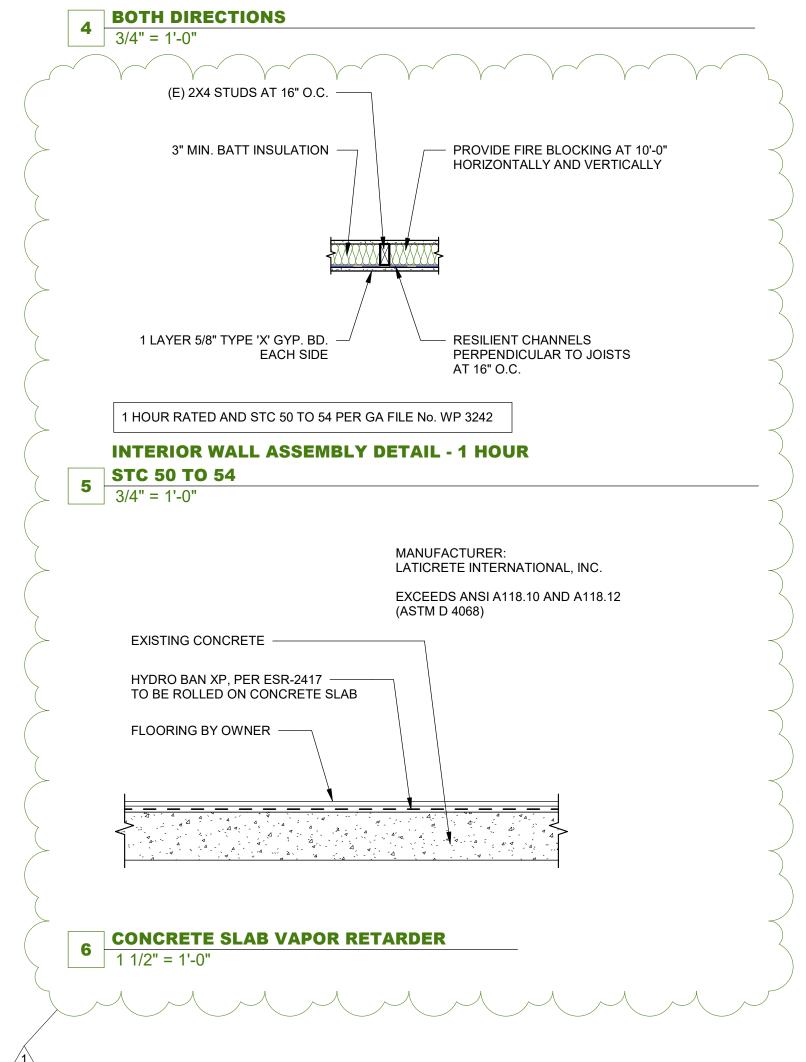
TYPICAL NON-BEARING WALL CONNECTION

3/4" = 1'-0"



INSTALL GYPSUM BOARD AT CEILING WITH SIMPSON DRYWALL STOPS (DS) AT 16" O.C. TO PLATE. MAINTAIN 16" DISTANCE PERPENDICULAR FROM PLATE TO FIRST DRYWALL SCREW TO JOIST OR BOTTOM CHORD





NOTES

1. ALL ANCHORS BOLTS SHALL BE 5 8" DIAMETER AND HAVE A MINIMUM EMBEDMENT OF 7 INCHES INTO CONCRETE (UNO) AND NOT SPACED MORE THAN 6 FEET APART

2. 3"X3"X0.229" PLATE WASHERS SHALL BE USED ON EACH SILL PLATE ANCHOR BOLT

3. FOR STANDARD CUT WASHERS PLACED BETWEEN PLATE WASHER AND NUT, HOLE IN PLATE WASHER MAY BE DIAGONALLY SLOTTED WITH MAXIMUM 316" LARGER WIDTH THAN BOLT DIAMETER AND MAXIMUM 1-3/4" SLOT LENGTH

4. PROVIDE A MINIMUM OF TWO ANCHOR BOLTS PER SILL PLATE WITH ONE BOLT LOCATED MAXIMUM 12" AND MINIMUM 7 BOLT DIAMETERS FROM EACH END OF EACH SECTION.

5. BOLTS LOCATED IN THE MIDDLE THIRD OF THE SILL PLATE WIDTH

6. FASTENERS FOR PRESSURE-PRESERVATIVE TREATED AND FIRE RETARDANT TREATED WOOD SHALL BE HOT-DIPPED ZINC COATED GALVANIZED, STAINLESS STEEL OR COPPER

7. NO LPG PIPING ASSEMBLIES ALLOWED IN OR BENEATH SLABS WITHIN THE STRUCTURE DESIGN STUDIO

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STUDIO. WRITTEN DIMENSIONS ON THESE
DRAWINGS SHALL HAVE PRECEDENCE

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CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THOSE DRAWINGS.

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ROJECT

Esenada Garage ADU

2169 Ensenada St, Lemon Grove, CA 91945

JSP Project Number	1907L
AHJ Project Number	000000
Date	07/30/2019
Scale	As indicated

o. Date Description
06/29/2022 City Comment Revisions

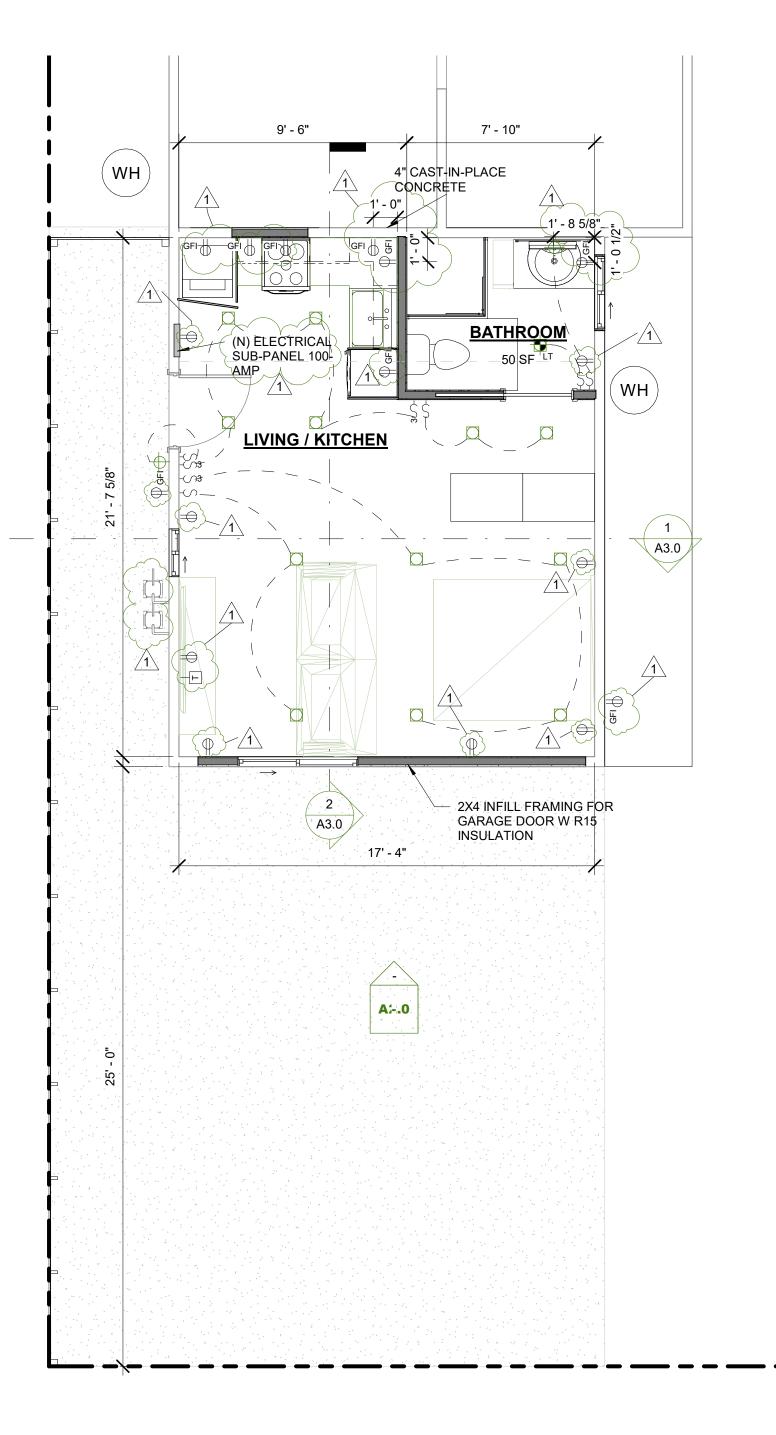
BUILDING SECTIONS

A3.0

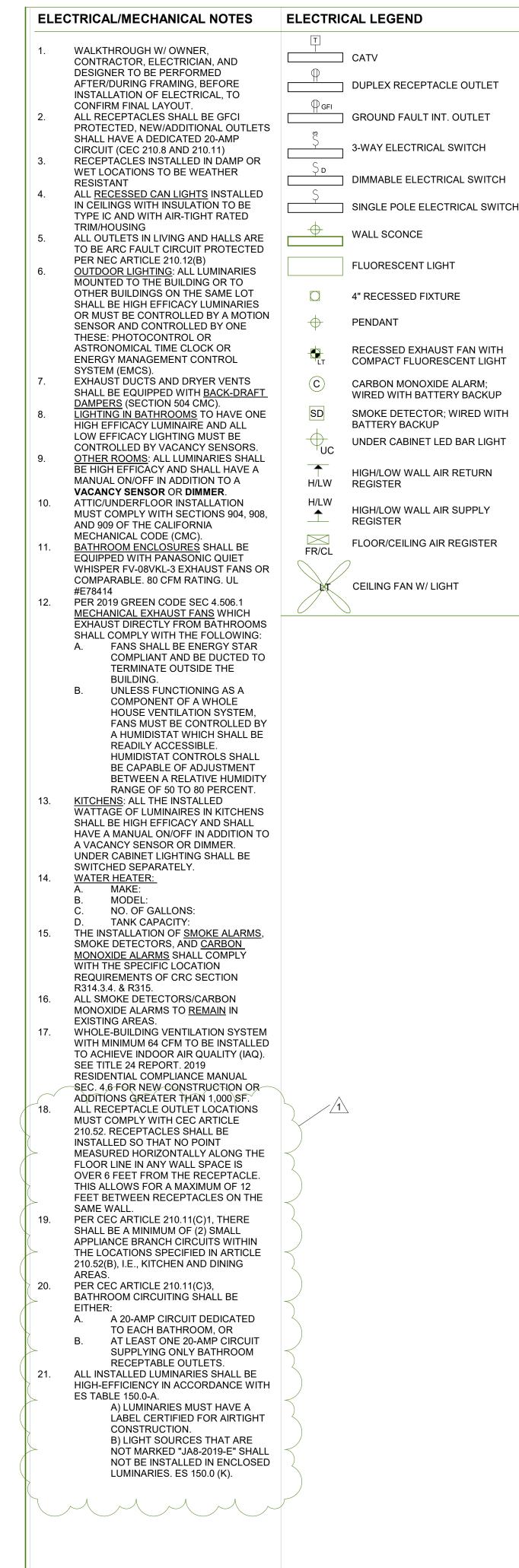
RECEPTACLE TYPE	MODEL/CATALOG NUMBER	MANUFACTURER	COUNT	UL LISTED	COMPLIANCE
TAMPER RESISTANT	TR1107 DECORATOR DUPLEX RECEPTACLE	EATON	7	UL498	 2017 NEC ARTICLE 406.12 CULUS LISTED TO UL498, FILE NO. E15058 UL CERTIFIED TO CSA C22.2, NO. 42 NOM/ANSI CERTIFIED
WEATHER RESISTANT	TWR270	EATON	2	UL498	CULUS LISTED TO UL498, FILE NO. E15058; NOM CERTIFIED
ARC-FAULT (AFCI) PROTECTION	BRL215CAF	EATON	REFER TO NOTE BELOW.	UL1699	FEDERAL SPECIFICATIONS CLASSIFICATION W-C375
GFCI PROTECTED	TWRSGF15FW	EATON	10	UL498	CULUS LISTED TO UL498; NOM CERTIFIED

REFER TO CEC 2019 210.12 (A) 1-6 FOR LOCATION OF AFCI.

SPECIFICATIONS FOR ELECTRICAL DEVICES



1 LEVEL 1 PROPOSED ELECTRICAL PLAN
1/4" = 1'-0"



DESIGN STUDIO

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DRAWINGS.

Esenada Garage **ADU**

2169 Ensenada St, Lemon Grove, CA 91945

JSP Project Number	1907L
AHJ Project Number	000000
Date	07/30/2019
Scale	As indicated

Description 06/29/2022 City Comment Revisions

ELECTRICAL PLAN



CF1R-PRF-01E Calculation Date/Time: 2022-03-14T14:18:39-07:00 (Page 7 of 9)

Input File Name: 2169 ENSENADA STREET ADU (AA1).ribd19

HVAC - DIST	RIBUTION SYSTEMS														
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
	•		Duct Ins	. R-value	Duct L	ocation	Surfac	e Area					•		•
Name	Туре	Design Type	Supply	Return	Supply	Return	Supply	Return	Bypass Duct	Duct Leakage	HERS Verification	Status	Verified Existing Condition	Existing Distribution system	New Ducts 40 ft
Ducts	Unconditioned attic	Non- Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct	Sealed and Tested	Ducts- hers-dist	New	n/a	n/a	n/a

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

01	02		03	04	
Name	Туре	Fan Power (Watts/CFM) 0.45		Name HVAC Fan-hers-fan	
HVAC Fan	HVAC Fan				
AC FAN SYSTEMS - HERS VERIFICATION					
01	02	02		03	
Name	Verified Fan Watt Dra	ıw	Required Fa	an Efficacy (Watts/CFM)	
HVAC Fan-hers-fan	Required			0.45	

Registration Number:	Registration Date/Time:	HERS Provider:	
222-P010048714A-000-000-0000000-0000	2022-03-14 15:02:14		CalCERT
CA Building Energy Efficiency Standards - 2019 Residential Compliance	Report Version: 2019.2.000 Schema Version: rev 20200901	Report Generated: 2022-03-14	14:20:33

CERTIFICATE OF COMPLIANCE		CF1R-PRF-01E
Project Name: 2169 ENSENADA STREET ADU	Calculation Date/Time: 2022-03-14T14:18:39-07:00	(Page 8 of 9)
Calculation Description: TITLE 24 COMPLIANCE	Input File Name: 2169 ENSENADA STREET ADU (AA1).ribd19	
IAQ (INDOOR AIR QUALITY) FANS		

AQ (INDOOR AIR QUALITY) FA	ANS					
01	02	03	04	05	06	07
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness - SRE	IAQ Recovery Effectiveness - ASRE	HERS Verification
SFam ADU IAQVentRpt	27	0.35	Exhaust	n/a	n/a	Yes



Registration Number: 222-P010048714A-000-000-000000-0000	Registration Date/Time: 2022-03-14 15:02:14	HERS Provider:	CalCERTS inc.
CA Building Energy Efficiency Standards - 2019 Residential Compliance	Report Version: 2019.2.000 Schema Version: rev 20200901	Report Generated: 2022-03-14	14:20:33
CERTIFICATE OF COMPLIANCE			CF1R-PRF-01E
CERTIFICATE OF COMPLIANCE			
Project Name: 2169 ENSENADA STREET ADU	Calculation Date/Time: 2022-03-14T14:18:	39-07:00	(Page 9 of 9)
Calculation Description: TITLE 24 COMPLIANCE	Input File Name: 2169 ENSENADA STREET	ADU (AA1).ribd19	

CERTIFICATE OF COMPLIANCE	CFIR-PRF
Project Name: 2169 ENSENADA STREET ADU	Calculation Date/Time: 2022-03-14T14:18:39-07:00 (Page 9
Calculation Description: TITLE 24 COMPLIANCE	Input File Name: 2169 ENSENADA STREET ADU (AA1).ribd19
DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and comple	ete.
Documentation Author Name: LAWRENCE GORDON	Documentation Author Signature:
Company:	Signature Date:
LRG DESIGNS,LLC	2022-03-14 15:02:14
Address: 1207 W. 112TH STREET	CEA/ HERS Certification Identification (If applicable):
City/State/Zip:	Phone:
LOS ANGELES, CA 90044	323-955-9827
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
	Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations of Compliance are consistent with the information provided on other applicable compliance documents, worksheets,
Responsible Designer Name: LAWRENCE GORDON	Responsible Designer Signature:
Company: LRG DESIGNS,LLC	Date Signed: 2022-03-14 15:02:14
Address: 1207 W. 112TH STREET	License: NA
City/State/Zip: LOS ANGELES, CA 90044	Phone: 323-955-9827

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.

Registration Number: 222-P010048714A-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2019 Residential Compliance

Registration Number:

Registration Date/Time: 2022-03-14 15:02:14 Report Version: 2019.2.000 Schema Version: rev 20200901

CalCERTS inc. Report Generated: 2022-03-14 14:20:33

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CERTIFICATE OF COMPLIANCE CF1R-PRF-01E Project Name: 2169 ENSENADA STREET ADU Calculation Date/Time: 2022-03-14T14:18:39-07:00 (Page 4 of 9) Calculation Description: TITLE 24 COMPLIANCE Input File Name: 2169 ENSENADA STREET ADU (AA1).ribd19 FENESTRATION / GLAZING
 50
 2
 4
 1
 8
 0.3
 NFRC
 0.23
 NFRC
 Bug Screen

 230
 3
 1
 1
 3
 0.3
 NFRC
 0.23
 NFRC
 Bug Screen
 Window (N) FRONT EXTERIOR WALL 1 Front Window 1 Window (N) REAR EXTERIOR WALL 1
 Window
 (N) FRONT EXTERIOR WALL 1
 Front
 50
 3
 6.67
 1
 20.01
 0.3
 NFRC
 0.23
 NFRC
 None
 Door 101

Name	Zone	/one Aron (ft²) Perimeter (ft)		Edge Insul. R-va and Depth	lue Ca	rpeted Fraction	Heated	
Slab On Grade 1	ADU	400	62.269	none	none 0		80%	No
OPAQUE SURFACE CONSTRU	JCTIONS	A C	alCFR	TS	Inc	10.200		-
01	02	03	04	05	06	07		08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assen	nbly Layers
R-15 Wall Stucco	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.087	Cavity / Fr Sheathing / Siding/she	h: Gypsum Board ame: R-15 / 2x4 Insulation: Wood eathing/decking ish: 3 Coat Stucco
R-15 INTERIOR WALL	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.086	Cavity / Fr	h: Gypsum Board ame: R-15 / 2x4 nish: Gypsum Board
R-O Asphalt Shingle Roof	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O. C.	R-0	None / None	0.644	Roof (Siding/she	coof (Asphalt Shingle) Deck: Wood eathing/decking

Registration Number:	Registration Date/Time:	HERS Provider:
222-P010048714A-000-000-000000-0000	2022-03-14 15:02:14	CalC
CA Building Energy Efficiency Standards - 2019 Residential Compliance	Report Version: 2019.2.000 Schema Version: rev 20200901	Report Generated: 2022-03-14 14:20:

CF1R-PRF-01E

CERTIFICATE OF COMPLIANCE

Domestic Hot Water System Verifications:

-- None --

CERTIFICATE OF COMPLIANCE

oject Name: 2169 ENS	ENADA STREET ADU		Calcul	00 (Page 5 of						
alculation Description:	TITLE 24 COMPLIAN	CE	Input	Input File Name: 2169 ENSENADA STREET ADU (AA1).ribd19						
PAQUE SURFACE CONSTR	RUCTIONS									
01	02	03	04	05	06	07	08			
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers			
R-30 Ceiling	Ceilings (below attic)	Wood Framed Ceiling	2x4 Bottom Chord of Truss @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-20.9 insul. Cavity / Frame: R-9.1 / 2x4 Btm Chro Inside Finish: Gypsum Board			

CERTIFICATE OF COMPLIANCE

	01 02 03			04										
Quality Insulation Installation (QII) Required				High R-value Spray Foam Insulation Not Required			tion	Building Envelope Air Leakage Not Required			CFM50			
											2	n/a	ß.	
WATER HEAT	ING SYSTEMS				-	10	-	-	1 1			TV VE		
0	1	02	1	-	03	211	04	7 5		05	06		07	
Name Sy		System Type		Distribution Type Water Heater Name (#) Solar		Solar Heating System		#) Solar Heating System Cor		ompact Distribution	HERS \	/erification		
DHW Sy	rstem 1	Domestic Hot V (DHW)	Vater	Stand	dard Distribut System	ion Hy	brid Water H	eater 1 (1)	n/a		None		n/a	
WATER HEAT	ERS													
01	02	03	04	05	06	07	08	09	10	11	12	13	14	
Name	Heating Element	Tank Type	# of Units	Tank Vol.	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value	Standby Loss or Recovery Eff	1st Hr. Rating or	NEEA Heat Pum Brand or Mode	or Ambient	Status	Verified Existing Conditio	

legistration Number: 222-P010048714A-000-000-0000-0000	Registration Date/Time: 2022-03-14 15:02:14	HERS Provider: CalCERTS inc.
A Building Energy Efficiency Standards - 2019 Residential Compliance	Report Version: 2019.2.000 Schema Version: rev 20200901	Report Generated: 2022-03-14 14:20:33

CERTIFICATE OF COMPLIANCE		CF1R-PRF-0
Project Name: 2169 ENSENADA STREET ADU	Calculation Date/Time: 2022-03-14T14:18:39-07:00	(Page 6 of
Calculation Description: TITLE 24 COMPLIANCE	Input File Name: 2169 ENSENADA STREET ADU (AA1).ribd19	

01	(12	03		04			05		06		07		08	3
Name	Pipe In	sulation	Parallel P	iping	Compact Dist	ribution	1 2	Distribution Type	Recircula	ition Cor	ntrol	Central DHV Distribution		hower Dra Heat Re	
DHW System 1 - 1/1	Not Re	equired	Not Requ	uired	Not Requ	ired	N	lone	Not F	Required		Not Require	d	Not Rec	quired
SPACE CONDITIONING	SYSTEMS														
01		02	2	03	04		05	06	0)7	08	09	10		11
Name		System	Туре	Heating U Name	nit Cooling Name		an Name	Distribution Name	n Thern	uired nostat pe	Status	Verified Existing Condition	Heatii Equipm Coun	ent Ec	Cooling quipment Count
New HVAC System	n 1 He	at pump he	ating cooling	Heat Pum System 1	Service Servic		HVAC Fan	Ducts	Setl	back	New	NA	1		Ĭ
01	02		03	04	05	F	06	07	08	1	09	10	0	11	L
HVAC - HEAT PUMPS	-	- Lo	M	6	$x \in X$		1 / 1	21	111	-	D	- 22			
Name	System	Type Ni	umber of Units	Н	Heatin	в Р	R (Coo	ling	R	Zonally	Compr	essor	HERS Verification	
Nume	System	Type In	amber of office	HSPF/CC	OP Cap 47	' '	Cap 17	SEER	EER/CEE	R	Controlled	Тур	oe		
Heat Pump System 1	Ducte mini-spli		1	8.2	12000		12000	14	11.7		Not Zonal	Sing Spe	5 85	Heat Pum _l 1-hers-h	5 1150
HVAC HEAT PUMPS - H	IERS VERIEICA	TION		its.				. ,	25			1952	.5%		
01	02		03	1	04)5	06	Т	0	17	08		(09
Name	Verified Air	flow	Airflow Target	Veri	fied EER	Verifie	d SEER	Verified Refr	igerant	Verifie	d HSPF	Verified H	leating	Verified	Heating

Registration Number: 222-P010048714A-000-000-0000000-0000 CA Building Energy Efficiency Standards - 2019 Residential Compliance

Heat Pump System 1-hers-htpump

Registration Date/Time: 2022-03-14 15:02:14 CalCERTS inc. Report Generated: 2022-03-14 14:20:33 Report Version: 2019.2.000 Schema Version: rev 20200901

CERTIFICATE OF COMPLIANCE Project Name: 2169 ENSENADA STREET ADU Calculation Date/Time: 2022-03-14T14:18:39-07:00 Input File Name: 2169 ENSENADA STREET ADU (AA1).ribd19 Calculation Description: TITLE 24 COMPLIANCE

Calcul	ation Description: TITLE 24 COMPLIANCE		input	HIE Name: 2109 ENSENADA STREET ADO	(AAI).11bd19				
GENER	AL INFORMATION								
01	Project Name	2169 ENSENADA STREET ADU	99 ENSENADA STREET ADU						
02	Run Title	TITLE 24 COMPLIANCE							
03	Project Location	2169 ENSENADA STREET							
04	City	LEMON GROVE, CA	05	Standards Version	2019				
06	Zip code	91945	07	Software Version	CBECC-Res 2019.2.0				
08	Climate Zone	7	09	Front Orientation (deg/ Cardinal)	50				
10	Building Type	Single family	11	Number of Dwelling Units	1				
12	Project Scope	AdditionOnly	13	Number of Bedrooms	1				
14	Addition Cond. Floor Area (ft ²)	400	15	Number of Stories	1				
16	Existing Cond. Floor Area (ft ²)	0	17	Fenestration Average U-factor	0.3				
18	Total Cond. Floor Area (ft ²)	400	19	Glazing Percentage (%)	14.00%				
20	ADU Bedroom Count		21	ADU Conditioned Floor Area	400				
22	Is Natural Gas Available?	Yes	K	Sinc					
		COICE	1 /	1 2/ 1110.	_				

Addition Alone Project Analysis Parameter	HEI	RS PROV	IDER		
01	02	03	04	05	06
Existing Area (excl. new addition) (ft2)	Addition Area (excl. existing) (ft2)	Total Area (ft2)	Existing Bedrooms	Addition Bedrooms	Total Bedrooms
0	400	400	0	1	1

	0	400	400	0	1	1					
COMPLIANCE I	RESULTS										
01	Building Complies with Computer Performance										
02	This building incorporates	features that require field testing a	and/or verification by a certified HE	RS rater under the supervi	sion of a CEC-approved HE	RS provider.					
03	03 This building incorporates one or more Special Features shown below										

Registration Number: 222-P010048714A-000-000-0000000-0000	Registration Date/Time: 2022-03-14 15:02:14	HERS Provider:	CalCERTS inc.
222-F010048714A-000-000-0000	2022-03-14 13:02:14		Calcento IIIc.
CA Building Energy Efficiency Standards - 2019 Residential Compliance	Report Version: 2019.2.000 Schema Version: rev 20200901	Report Generated: 2022-03-14	14:20:33

Project Name: 2169 ENSENADA STREET ADU Calculation Description: TITLE 24 COMPLIANCE		Calculation Date/Time: 2022-03-14T14:18:39-07:00 (P Input File Name: 2169 ENSENADA STREET ADU (AA1).ribd19					
	ENERGY L	JSE SUMMARY					
Energy Use (kTDV/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement			
Space Heating	0.46	0.92	-0.46	-100			
Space Cooling	23.35	20.78	2.57	11			

Energy Use (kTDV/ft ² -yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	0.46	0.92	-0.46	-100
Space Cooling	23.35	20.78	2.57	11
IAQ Ventilation	5.7	5.7	0	0
Water Heating	50.54	39.74	10.8	21.4
Self Utilization/Flexibility Credit	n/a	0	0	n/a
Compliance Energy Total	80.05	67.14	12.91	16.1

REQUIRED SPECIAL FEATURES	
The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.	
 Northwest Energy Efficiency Alliance (NEEA) rated heat pump water heater; specific brand/model, or equivalent, must be installed 	

HERS FEATURE SUMMARY	10		_121		10.0		
The following is a summary of the features that medetail is provided in the building tables below. Regi						erformance for this co	mputer analysis. Additiona
Building-level Verifications: Quality insulation installation (QII) Indoor air quality ventilation Kitchen range hood Cooling System Verifications: Minimum Airflow Fan Efficacy Watts/CFM Heating System Verifications: Verified heat pump rated heating capacity HVAC Distribution System Verifications: Duct leakage testing	HE	RS	PRO) V I I	DER		

Registration Number:	Registration Date/Time:	HERS Provider:
222-P010048714A-000-000-0000000-0000	2022-03-14 15:02:14	CalCERTS inc.
CA Building Energy Efficiency Standards - 2019 Residential Compliance	Report Version: 2019.2.000	Report Generated: 2022-03-14 14:20:33
	Schema Version: rev 20200901	

Project Name: 2169 ENS	ENADA STREET ADU		Calculation	(Page 3 of 9)		
Calculation Description:	TITLE 24 COMPLIANCE		Input File N			
ZONE INFORMATION						
01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft ²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2

01	02	03	04	05	06	07	08	09	10
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft ²)	Window and Door Area (ft2)	Tilt (deg)	Wall Exceptions	Status
(N) RIGHT EXTERIOR WALL 1	ADU	R-15 Wall Stucco	320	Right	172.577	25	90	Extension	New
(N) FRONT EXTERIOR WALL 1	ADU	R-15 Wall Stucco	50	Front	209.492	28.01	90	Extension	New
(N) REAR EXTERIOR WALL 1	ADU	R-15 Wall Stucco	230	Back	209.492	3	90	Extension	New
LEFT Interior Wall	ADU	R-15 INTERIOR WALL	n/a	n/a	172.577	0	n/a		New
Ceiling (below attic) 1	ADU	R-30 Ceiling	n/a	n/a	400	n/a	n/a		New

01	02	03	04	05	06	07	08
Name	Construction	Туре	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic	R-0 Asphalt Shingle Roof	Ventilated	4	0.1	0.85	No	No

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Туре	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Sourc e	Exterior Shading
Window 2	Window	(N) RIGHT EXTERIOR WALL 1	Right	320	5	5	1	25	0.3	NFRC	0.23	NFRC	Bug Scree

Registration Number: 222-P010048714A-000-000-0000000-0000 Registration Date/Time: 2022-03-14 15:02:14 CalCERTS inc. CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.2.000 Report Generated: 2022-03-14 14:20:33 Schema Version: rev 20200901

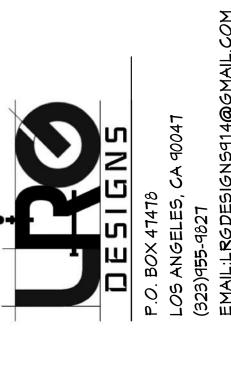
REVISION / DATE

CF1R-PRF-01E

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(Page 1 of 9)



STREET CA 91945 SENA 7

3/14/2022

SCALE

TO ADU

SHEETS



2019 Low-Rise Residential Mandatory Measures Summary

NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach

Building Envelop	e Measures:
§ 110.6(a)1:	Air Leakage. Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 cfm per square foot or less when tested per NFRC-400, ASTM E283 or AAMA/WDMA/CSA 101/I.S.2/A440-2011.*
§ 110.6(a)5:	Labeling. Fenestration products and exterior doors must have a label meeting the requirements of Section 10-111(a).
§ 110.6(b):	Field fabricated exterior doors and fenestration products must use U-factors and solar heat gain coefficient (SHGC) values from Tables 110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather stripped.*
§ 110.7:	Air Leakage. All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	Insulation Certification by Manufacturers. Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	Insulation Requirements for Heated Slab Floors. Heated slab floors must be insulated per the requirements of Section 110.8(g).
§ 110.8(i):	Roofing Products Solar Reflectance and Thermal Emittance. The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	Radiant Barrier. When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs
§ 150.0(a):	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 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 to placing insulation either above or below the roof deck or on top of a drywall ceiling.*
§ 150.0(b):	Loose-fill Insulation. Loose fill insulation must meet the manufacturer's required density for the labeled R-value.
§ 150.0(c):	Wall Insulation. Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less, or R-20 in 2x6 inch wood framing or have a U-factor of 0.071 or less, (R-19 in 2x6 or U-factor of 0.074 or 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. Masonry walls must meet Table 150.1-A or B.*
§ 150.0(d):	Raised-floor Insulation. Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
§ 150.0(f):	Slab Edge Insulation. Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings no greater than 0.3%; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	Vapor Retarder. In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d).
§ 150.0(g)2:	Vapor Retarder. In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	Fenestration Products. Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.58; or the weighted average U-factor of all fenestration must not exceed 0.58.*
Fireplaces, Deco	rative Gas Appliances, and Gas Log Measures:
§ 110.5(e)	Pilot Light. Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	Closable Doors. Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	Combustion Intake. Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.*
§ 150.0(e)3:	Flue Damper. Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.*
Space Condition	ing, Water Heating, and Plumbing System Measures:
§ 110.0-§ 110.3:	Certification. Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the Energy Commission.*
§ 110.2(a):	HVAC Efficiency. Equipment must meet the applicable efficiency requirements in Table 110.2-A through Table 110.2-K.*
§ 110.2(b):	Controls for Heat Pumps with Supplementary Electric Resistance Heaters. Heat pumps with supplementary electric resistance heaters must have controls that prevent supplementary heater operation when the heating load can be met by the heat pump alone; and in which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.*
§ 110.2(c):	Thermostats. All heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.*
§ 110.3(c)4:	Water Heating Recirculation Loops Serving Multiple Dwelling Units. Water heating recirculation loops serving multiple dwelling units must meet the air release valve, backflow prevention, pump priming, pump isolation valve, and recirculation loop connection requirements of § 110.3(c)4.
§ 110.3(c)6:	Isolation Valves. Instantaneous water heaters with an input rating greater than 6.8 kBTU per hour (2 kW) must have isolation valves with hose bibbs or other fittings on both cold and hot water lines to allow for flushing the water heater when the valves are closed.
§ 110.5:	Pilot Lights. Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu/hr are exempt); and pool and spa heaters.
§ 150.0(h)1:	Building Cooling and Heating Loads. Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards



8 150 0/i\3·	Insulation Protection Pining insulation must be protected from damage including that due to sunlight mojeture equipment maintenance a
§ 150.0(j)2A:	Water Piping, Solar Water-heating System Piping, and Space Conditioning System Line Insulation. All domestic hot water piping must be insulated as specified in Section 609.11 of the California Plumbing Code. In addition, the following piping conditions must have a minimum insulation wall thickness of 1 inch or a minimum insulation R-value of 7.7: the first 5 feet of cold water pipes from the storage tank; all hot water piping with a nominal diameter equal to or greater than 3/4 inch and less than 1 inch; all hot water piping with a nominal diameter less than 3/4 inch that is: associated with a domestic hot water recirculation system, from the heating source to storage tank or between tanks, buried below grade, and from the heating source to kitchen fixtures.*
§ 150.0(j)1:	Storage Tank Insulation. Unfired hot water tanks, such as storage tanks and backup storage tanks for solar water-heating systems, must have a minimum of R-12 external insulation or R-16 internal insulation where the internal insulation R-value is indicated on the exterior of the tank.
§ 150.0(h)3B:	Liquid Line Drier. Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
g 150.0(11)5A.	ordanies. An estimation and heat pump states of state pump s

	grade, and from the heating source to kitchen fixtures."
§ 150.0(j)3:	Insulation Protection. Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, an wind as required by Section 120.3(b). Insulation exposed to weather must be water retardant and protected from UV light (no adhesive tapes). Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must include, or be protected by, a Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	Gas or Propane Water Heating Systems. Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 125 volt, 20 amp electrical receptacle that is connected to the electric panel with a 120/240 volt 3 conductor, 10 AWG copper branch circuit, within 3 feet from the water heater without obstruction. Both ends of the unused conductor must be labeled with the word "spare" and be electrically isolated. Have a reserved single pole circuit breaker space in the electrical panel adjacent to the circuit breaker for the branch circuit and labeled with the words "Future 240V Use"; 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 water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu per hour.

	the water fleater, and allows flatural draining without pump assistance, and a gas supply line with a capacity of at least 200,000 Bit per flour.
§ 150.0(n)2:	Recirculating Loops. Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
§ 150.0(n)3:	Solar Water-heating Systems. Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.

octs and Fans	cts and Fans Measures:						
110.8(d)3:	Ducts. Insulation installed on an existing space-conditioning duct must comply with California Mechanical Code (CMC) Section 604.0. If a contractor installs the insulation, the contractor must certify to the customer in writing, that the insulation meets this requirement.						
150.0(m)1:	CMC Compliance. All air-distribution system ducts and plenums must meet the requirements of the CMC Section 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 a minimum installed level of R-4.2 when ducts are entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Portions of the duct system completely exposed and surrounded by directly conditioned space are not required to be insulated. Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable 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 to convey 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.*						

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.
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.
m)7:	Backdraft Damper. Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers.

§ 150.0(m)/:	Dackurate Damper. Fair Systems that exchange an Detween the Conditioned Space and Outdoors must have backurate or automatic dampers.
§ 150.0(m)8:	Gravity Ventilation Dampers. Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	Protection of Insulation. Insulation must be protected from damage, 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 plastic cover. Cellular foam insulation must be protected as above or painted with a coating that is water retardant and provides shielding from solar radiation.
§ 150.0(m)10:	Porous Inner Core Flex Duct. Porous inner core flex ducts must have a non-porous layer between the inner core and outer vapor barrier.
C 450 0/m)44.	Duct System Sealing and Leakage Test. When space conditioning systems use forced air duct systems to supply conditioned air to an

0.0(111) 1 1.	accordance with § 150.0(m)11 and Reference Residential Appendix RA3.
0.0(m)12:	Air Filtration. Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have a 2 inch depth or can be 1 inch if sized per Equation 150.0-A. Pressure dro and labeling must meet the requirements in §150.0(m)12. Filters must be accessible for regular service.*

unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*



2010 Law Dica Posidential Mandatory Massuras Summary

Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.

Requirements for	or Ventilation and Indoor Air Quality:
§ 150.0(o)1:	Requirements for Ventilation and Indoor Air Quality. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1.
§ 150.0(o)1C:	Single Family Detached Dwelling Units. Single family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow provided at rates determined by ASHRAE 62.2 Sections 4.1.1 and 4.1.2 and as specified in § 150.0(o)1C.
§ 150.0(o)1E:	Multifamily Attached Dwelling Units. Multifamily attached dwelling units must have mechanical ventilation airflow provided at rates in accordance with Equation 150.0-B and must be either a balanced system or continuous supply or continuous exhaust system. If a balanced system is not used, all units in the building must use the same system type and the dwelling-unit envelope leakage must be ≤ 0.3 CFM at 50 Pa (0.2 inch water) per square foot of dwelling unit envelope surface area and verified in accordance with Reference Residential Appendix RA3.8.
§ 150.0(o)1F:	Multifamily Building Central Ventilation Systems. Central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specified by Equation 150.0-B. All unit airflows must be within 20% of the unit with the lowest airflow rate as it relates to the individual unit's minimum required airflow rate needed for compliance.
§ 150.0(o)1G:	Kitchen Range Hoods. Kitchen range hoods must be rated for sound in accordance with Section 7.2 of ASHRAE 62.2.
§ 150.0(o)2:	Field Verification and Diagnostic Testing. Dwelling unit ventilation airflow must be verified in accordance with Reference Residential Appendix RA3.7. Kitchen range hoods must be verified in accordance with Reference Residential Appendix RA3.7.4.3 to confirm it is rated by HVI to comply with the airflow rates and sound requirements as specified in Section 5 and 7.2 of ASHRAE 62.2.
Pool and Spa Sy	ystems and Equipment Measures:
§ 110.4(a):	Certification by Manufacturers. Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.*
§ 110.4(b)1:	Piping. Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	Covers. Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	Directional Inlets and Time Switches for Pools. Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	Pilot Light. Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	Pool Systems and Equipment Installation. Residential pool systems or equipment must meet the specified requirements for pump sizing, florate, piping, filters, and valves.*
Lighting Measu	res:
§ 110.9:	Lighting Controls and Components. All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirement of § 110.9.*
§ 150.0(k)1A:	Luminaire Efficacy. All installed luminaires must meet the requirements in Table 150.0-A.
§ 150.0(k)1B:	Blank Electrical Boxes. The number of electrical boxes that are more than 5 feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, of fan speed control.
§ 150.0(k)1C:	Recessed Downlight Luminaires in Ceilings. Luminaires recessed into ceilings must meet all of the requirements for: insulation contact (IC) labeling; air leakage; sealing; maintenance; and socket and light source as described in § 150.0(k)1C.
§ 150.0(k)1D:	Electronic Ballasts for Fluorescent Lamps. Ballasts for fluorescent lamps rated 13 watts or greater must be electronic and must have an output frequency no less than 20 kHz.
§ 150.0(k)1E:	Night Lights, Step Lights, and Path Lights. Night lights, step lights and path lights are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided they are rated to consume no more than 5 watts of power and emit no more than 150 lumens.
§ 150.0(k)1F:	Lighting Integral to Exhaust Fans. Lighting integral to exhaust fans (except when installed by the manufacturer in kitchen exhaust hoods) must meet the applicable requirements of § 150.0(k).*
§ 150.0(k)1G:	Screw based luminaires. Screw based luminaires must contain lamps that comply with Reference Joint Appendix JA8.*
§ 150.0(k)1H:	Light Sources in Enclosed or Recessed Luminaires. Lamps and other separable light sources that are not compliant with the JA8 elevated temperature requirements, including marking requirements, must not be installed in enclosed or recessed luminaires.
§ 150.0(k)1I:	Light Sources in Drawers, Cabinets, and Linen Closets. Light sources internal to drawers, cabinetry or linen closets are not required to comply with Table 150.0-A or be controlled by vacancy sensors provided that they are rated to consume no more than 5 watts of power, emit r more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed
§ 150.0(k)2A:	Interior Switches and Controls. All forward phase cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	Interior Switches and Controls. Exhaust fans must be controlled separately from lighting systems.*
§ 150.0(k)2C:	Interior Switches and Controls. Lighting must have readily accessible wall-mounted controls that allow the lighting to be manually turned ON and OFF.*
§ 150.0(k)2D:	Interior Switches and Controls. Controls and equipment must be installed in accordance with manufacturer's instructions.
§ 150.0(k)2E:	Interior Switches and Controls. Controls must not bypass a dimmer, occupant sensor, or vacancy sensor function if the control is installed to comply with § 150.0(k).
§ 150.0(k)2F:	Interior Switches and Controls. Lighting controls must comply with the applicable requirements of § 110.9.



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ENERGY COMMISSION	
§ 150.0(k)2G:	Interior Switches and Controls. An energy management control system (EMCS) may be used to comply with control requirements if it: provides functionality of the specified control according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the EMCS requirements of § 130.0(e); and meets all other requirements in § 150.0(k)2.
§ 150.0(k)2H:	Interior Switches and Controls. A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(k) if it provides the functionality of a dimmer according to § 110.9, and complies with all other applicable requirements in § 150.0(k)2.
§ 150.0(k)2I:	Interior Switches and Controls. In bathrooms, garages, laundry rooms, and utility rooms, at least one luminaire in each of these spaces must be controlled by an occupant sensor or a vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, it must be initially configured to manual-on operation using the manual control required under Section 150.0(k)2C.
§ 150.0(k)2J:	Interior Switches and Controls. Luminaires that are or contain light sources that meet Reference Joint Appendix JA8 requirements for dimming, and that are not controlled by occupancy or vacancy sensors, must have dimming controls.*
§ 150.0(k)2K:	Interior Switches and Controls. Under cabinet lighting must be controlled separately from ceiling-installed lighting systems.
§ 150.0(k)3A:	Residential Outdoor Lighting. For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must meet the requirement in item § 150.0(k)3Ai (ON and OFF switch) and the requirements in either § 150.0(k)3Aii (photocell and either a motion sensor or automatic time switch control) or § 150.0(k)3Aii (astronomical time clock), or an EMCS.
§ 150.0(k)3B:	Residential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, outdoor lighting for private patios, entrances, balconies, and porches; and residential parking lots and carports with less than eight vehicles per site must comply with either Section 150.0(k)3A or with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)3C:	Residential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, any outdoor lighting for residential parking lots or carports with a total of eight or more vehicles per site and any outdoor lighting not regulated by Section 150.0(k)3B or Section 150.0(k)3D must comply with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)4:	Internally 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).
§ 150.0(k)5:	Residential Garages for Eight or More Vehicles. Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in Sections 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.
§ 150.0(k)6A:	Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building must be comply with Table 150.0-A and be controlled by an occupant sensor.
§ 150.0(k)6B:	Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common areas in that building must: i. Comply with the applicable requirements in Sections 110.9, 130.0, 130.1, 140.6 and 141.0; and ii. Lighting installed in corridors and stairwells must be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be capable of turning the light fully on and off from all designed paths of ingress and egress.
Solar Ready Bui	ldings:
§ 110.10(a)1:	Single Family Residences. Single family residences located in subdivisions with ten or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed, must comply with the requirements of § 110.10(b) through § 110.10(e).
§ 110.10(a)2:	Low-rise Multifamily Buildings. Low-rise multi-family buildings that do not have a photovoltaic system installed must comply with the requirements of § 110.10(b) through § 110.10(d).
§ 110.10(b)1:	Minimum Solar Zone Area. The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other Parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single family residences, the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. 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 of 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 than 15 percent of the total roof area of the building excluding any skylight area. The solar zone requirement is applicable to the entire building, including mixed occupancy.
§ 110.10(b)2:	Azimuth. All sections of the solar zone located on steep-sloped roofs must be oriented between 90 degrees and 300 degrees of true north.
§ 110.10(b)3A:	Shading. The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment.*
§ 110.10(b)3B:	Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.*
§ 110.10(b)4:	Structural Design Loads on Construction Documents. For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
8 110 10(c)·	Interconnection Pathways. The construction documents must indicate: a location reserved for inverters and metering equipment and a

pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.

Documentation. A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through

Main Electrical Service Panel. The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit

Main Electrical Service Panel. The main electrical service panel must have a minimum busbar rating of 200 amps.

breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric".

§ 110.10(c) must be provided to the occupant.

REVISION / DATE

3/14/2022

SCALE