City of San Juan Bautista

The "City of History"

www.san-juan-bautista.ca.us

AGENDA

HISTORIC RESOURCES BOARD

TUESDAY ~ SEPTEMBER 6, 2022 ~ 6:00 P.M.

~ HYBRID MEETING ~
PUBLIC PARTICIPATION BY ZOOM AND IN PERSON

THIS MEETING WILL BE CONDUCTED PURSUANT TO GOVT. CODE §54953(e)(1)(A).
In order to minimize the spread of the COVID 19 virus the Historic Resources Board is conducting this meeting by Zoom webinar and will be offering alternative options for public participation. You are encouraged to watch the meeting live on Zoom or Facebook.

THIS MEETING WILL BE OPEN TO THE PUBLIC UNDER THE FOLLOWING CONDITIONS:
All Attendees must comply and wear a face covering if not fully vaccinated and show proof. If providing proof attendees will not need to wear a face covering. If you are exempt from the state face covering guidance or not fully vaccinated, you will be required to wear a mask to attend the meeting; All attendees must comply with any other rules of procedures/instructions announced by the Chair and/or City Staff. Any violations of the above may result in the Chair closing the meeting, effective immediately, or clearing the room, as well as other enforcement actions. The meeting will be available through Zoom for those who wish to join or require accommodations with the instructions below:

The meeting can also be accessed by the public in the following methods: Through Zoom (https://zoom.us/join) per the instruction stated below, and on Facebook.

Join Zoom Webinar https://zoom.us/j/82970485248
or call 1 (669) 900-6833
Webinar ID: 829 7048 5248

PUBLIC COMMENTS WILL BE TAKEN ON AGENDA ITEMS BEFORE ACTION IS TAKEN BY THE HISTORIC RESOURCES BOARD. DURING THE MEETING: TO PROVIDE VERBAL PUBLIC COMMENTS ON AN AGENDA ITEM DURING THIS MEETING CALL THE PHONE NUMBER LISTED ABOVE OR LOG INTO ZOOM AND ENTER THE MEETING ID NUMBER AS LISTED ABOVE.

When the Chair announces public comment is open for the item which you wish to speak, press *9 on your telephone keypad or if joining by Zoom, use the raise your hand icon. When called to speak, please limit your comments to three (3) minutes, or such other time as the Chair may decide, consistent with the time limit for all other speakers for the particular agenda item. Comments from other platforms will not be considered during the meeting. If you would like to participate during the meeting you MUST use Zoom.

If you are unable to join the meeting, written comments may be mailed to the Community Development Director at City Hall (P.O. Box 1420, San Juan Bautista, CA 95045), or emailed to ACM-CDDirector@San-Juan-Bautista.ca.us not later than 5:00 p.m. on September 6, 2022 and will be read into the record during public comment on the item.

Historic Resources Board Meeting
September 6, 2022

In compliance with the Americans with Disabilities Act, the City will make reasonable arrangements to ensure accessibility to this meeting. If you need special assistance to participate in this meeting, please contact the Deputy City Clerk a minimum of 48 hours prior to the meeting at (831) 623-4661.

If you challenge any planning or land use decision made at this meeting in court, you may be limited to raising only those issues you or someone else raised at the public hearing held at this meeting, or in written correspondence delivered to the Historic Resources Board at, or prior to, the public hearing. Please take notice that the time within which to seek judicial review of any final administrative determination reached at this meeting is governed by Section 1094.6 of the California Code of Civil Procedure.

Materials related to all items on this agenda are available in the agenda packet on the City website www.san-juan-bautista.ca.us subject to Staff's ability to post the documents before the meeting, or by emailing deputycityclerk@san-juan-bautista.ca.us or calling the Deputy Clerk (831) 623-4661 during normal business hours.

1. **Call to Order**
   Roll Call
   Pledge of Allegiance

2. **Introduction of New Historic Resources Board Member and Planning Commissioner Tony Correia**

3. **Public Comment on Items Not on the Agenda but Within the Subject Matter Jurisdiction of the Historic Resources Board**
   This portion of the meeting is reserved for persons desiring to address the Board on matters not on this agenda. The law does not permit Board action or extended discussion of any item not on the agenda except under special circumstances. If Board action is requested, the Board may place the matter on a future agenda.

4. **Informal Project Review**
   Any potential and/or future project applicant may present their project to the Board during Informal Project Review for the purpose of gaining information as preliminary feedback only. No formal application is required and no action will be taken by the Board on any item at this time.
   A. No projects to present.

5. **Action Items**
   A. Approve Affidavit of Posting the Agenda
   B. Consider Major Site and Design Review for an Historic Resource (stucco bungalow) located at 903 Third Street (APN 002-290-048) and Make a Recommendation to the Planning Commission. Approval of the Site and Design Review is exempt from CEQA pursuant to Sections 15303 and 15305. Applicant: Rich Holdaway Representing Rakish Agarwal.

6. **Comments**

   A. Planning Commissioners
   B. Community Development Director Report

7. **Adjournment**

AFFIDAVIT OF POSTING

I, VERONICA MUNOZ NORIEGA, DO NOW DECLARE, UNDER THE PENALTIES OF PERJURY THAT I AM THE OFFICE ASSISTANT IN THE CITY OF SAN JUAN BAUTISTA AND THAT I POSTED THREE (3) TRUE COPIES OF THE ATTACHED HISTORIC RESOURCES BOARD AGENDA. I FURTHER DECLARE THAT I POSTED SAID AGENDA ON THE 1st DAY OF SEPTEMBER 2022, AND I POSTED THEM IN THE FOLLOWING LOCATIONS IN SAID CITY OF SAN JUAN BAUTISTA, COUNTY OF SAN BENITO, CALIFORNIA.

1. ON THE BULLETIN BOARD AT CITY HALL, 311 SECOND STREET.
2. ON THE BULLETIN BOARD AT THE CITY LIBRARY, 801 SECOND STREET.
3. ON THE BULLETIN BOARD AT THE ENTRANCE TO THE UNITED STATES POST OFFICE, 301 THE ALAMEDA

SIGNED AT SAN JUAN BAUTISTA, COUNTY OF SAN BENITO, CALIFORNIA, ON THE 1St DAY OF SEPTEMBER 2022.

VERONICA MUNOZ NORIEGA
OFFICE ASSISTANT

CITY OF SAN JUAN BAUTISTA HISTORIC RESOURCES BOARD STAFF REPORT

AGENDA TITLE: Major Site and Design Review Permit: Renovation of stucco bungalow; 903 Third Street; APN 002-290-041 (Rich Holdaway for Rakesh Argawal)

CEQA DETERMINATION: Exempt per CEQA Guideline Section 15301; Section SJB MC Section 11-06-120(5) (c)

Iworq Permit No. 199

MEETING DATE: September 6, 2022

SUBMITTED BY: Brian Foucht, Community Development Director

RECOMMENDED ACTION(S): Staff recommends the following:

Staff recommends that the Historic Resources Board recommend that the Planning Commission Approve a Site Plan and Design Review Permit subject to conditions and based on findings contained in the Staff Report dated September 6, 2022.

NOTE: Planning Commission review is scheduled for October 4, 2022

BACKGROUND INFORMATION:

The subject project is a renovation of a stucco bungalow at the subject address referenced in both the 1981 Historic Resources Inventory (attached), and the 2005-2006 Inventory and Context Statement as characteristic of the Craftsman Bungalow which proliferated in San Juan Bautista between 1915 and 1925 immediately prior to the Spanish Colonial Revival.

The 2005-2006 Certified Local Government Historical Resources Inventory and Context Statement (pp-16-18) refers to Concrete Craftsman Bungalows as constituents of a geographically dispersed, yet distinct, Historic District with the following character defining features: low pitched gabled roofs, wide overhanging eaves, exposed rafter tails, and wood brackets, partial front porches. Other features are specific to San Juan Bautista include poured concrete foundations, sprayed concrete or stucco cladding.

While 903 Third Street is not listed among the 18 properties that make up the Concrete Stucco Historic District referenced in the Context Statement, it is nearly identical to the bungalow at 509 Second Street which is listed (see attached photographs) among those that comprise this District. The attached DPR inventory form for this site (the photograph (incorrectly depicts a different building) indicates that the Status Code for this building is 7R, requiring an evaluation to determine historical significance. It is notable that the CA Historical Resource Status Code for a similar building located at 509 Second Street is "5D3: Properties Recognized as Historically Significant by Local Government: Appears to be individually eligible for local listing or designation through survey evaluation."

Reference to the subject building in the 1981 Inventory indicates that the subject building was constructed in 1920 and incorporates all of the character defining features of this class of building referenced in the referenced Context Statement. Therefore, an evaluation was conducted in accordance with the following SJB MC procedures to determine the appropriate status of this building on the San Juan Bautista Registry and to evaluate plans for renovation accordingly (underlined sections are applicable to this determination):

11-06-120 Site plan and design review permit procedure for historic resources. SHARE

(A) Submit Application to City. When a property owner wishes to make an alteration to a property that is more than forty-five (45) years old, the owner shall submit an application to the City Planning Department for a site plan and design review permit....

...(B) Review Application. The City Planner staff shall review the permit application and determine the following:

(1) If the structure is more than forty-five (45) years old;

(2) If the property has been previously inventoried as part of a Citywide comprehensive survey and what the current status code for the property is (see SJBMC 11-06-090 for the various possible status codes);

(3) If the property is listed on the City Register of Historic Resources;

(4) If the property is located within the boundaries of a designated historic district regardless of individual significance;

(5) If the property will require additional evaluation as part of the application process; and

(6) If the proposed alteration is a minor or major alteration.

(C) Determination of Appropriate Review Application Procedure. The City Planner shall review the application and determine the proper review procedure according to the following schedule:...

...(6) Applications for major and minor alterations to properties that are more than forty-five (45) years old that have been previously inventoried as part of a Citywide comprehensive survey but have not been evaluated against the City criteria for listing in the Register, including those properties with a status code rating of 7J, 7K, 7L, 7M, 7N, 7N1, 7R, and 7W; or properties that have turned forty-five (45) years old since the previous survey and inventory were conducted and have yet to be identified, will require the following:

(a) A historic resource evaluation report shall be prepared to evaluate the property against the criteria for inclusion in the local Register of Historic Resources and the California Register of Historical Resources using the criteria established in SJBMC 11-06-080 and the California Public Resources Code Section 5024.1, Title 14 CCR, Section 4852. The report will include, at a minimum, a summary of findings, an introduction, description of the proposed project, identification and description of the proposed property, a State inventory form (DPR 523 A-L, as appropriate), map indicating the property's location, a description of the building's character defining features, an assessment of the property's integrity, an overview of the property's historic context, an evaluation of the property against the criteria for inclusion in the local Register and the California Register of Historical Resources, and a conclusion. The individual evaluating the property must meet the Secretary of the Interior's Professional Qualifications Standards for architectural history....

(c) Applications for major alterations to properties that are determined to meet the criteria for inclusion in one of these registers shall be presumed to be historically significant and treated in accordance with subsection (C)(5) of this Section for major alterations....

Subsection C(5) requires the following;

(5) Applications for major alterations or demolition to properties that are included in the City of San Juan Bautista Register of Historic Resources, including those properties that contribute to a designated historic district with status codes of 1 through 5 or to noncontributing buildings within designated historic districts, shall require the following:

(a) A historic resource evaluation and impact report shall be prepared by a qualified architectural historian that includes a discussion of the property's historic significance, the determination of project impacts and the application of how the project does or does not meet the Secretary of the Interior's Standards for the Treatment of Historic Properties and the City of San Juan Bautista Design Guidelines. The report will also include a discussion on how the proposed changes may cause a substantial adverse change in the significance of the historic resource in accordance with CEQA Guidelines and a discussion as to how the proposed project may impact the significance of a surrounding historic district, as applicable. The report may also include proposed measures to minimize or mitigate significant impacts, if such impacts exist.

(b) The historic resource evaluation and impacts report will be attached to the site plan and design review application for review by the Historic Resources Board. The HRB will review the recommended impacts and treatments and make recommendations to the Planning Commission and applicant on ways to conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties and the City of San Juan Bautista's Design Guidelines. The Planning Commission will have discretionary authority over the approval of the application. Appeals on the determination made to the Planning Commission shall be directed to the City Council for approval.

(c) Proposed major alterations that comply with the Secretary of the Interior's Standards for the Treatment of Historic Properties shall be considered a Class 31 categorical exemption under CEQA and no further review is required.

PROJECT DESCRIPTION

The proposed project consists of two parts: 1) a 628 sq. ft. addition to the rear of the existing, circa 1920 residence to add a bedroom and bath; and 2) renovation of the existing 1,053 structure (includes porch) to resolve deterioration caused by extensive dry rot discovered over most of the foundation, siding and roof framing frames and foundation piers.

Colors and materials are as stated on the attached color board:

Cheyenne Green Siding

Lennox Tan Trim

Earth Brown Door

White Dove Sash

ANALYSIS

A. General Plan Policies and Zoning Standards

1. General Plan: The following are relevant General Plan policies,

   Policy HPCD 1.1.2 Review projects in the Historical District in accordance with established guidelines of the San Juan Bautista Municipal Code.

   Goal HPCD 2 A city with a historic sense of place.

   Objective HPCD 2.1 Retain the architectural heritage of San Juan Bautista

2. Zoning Ordinance: The following are the standards of the R-2 Zoning District:

Proposed	Required
Lot Area Minimum: 6991 sq.ft existing	8000 sq.ft. minimum
Height: 13' 10"	2 Stories, 35' maximum
Setbacks: Front: N/A (existing) Side: 13' and 22'10" Rear: 28'	 5' minimum 10' minimum
Coverage: .45 maximum; 3,145 sq.ft.	.24; 1608 sq. ft.

The proposed project is consistent with zoning standards.

B. Historic Preservation Ordinance (SJB MC Chapter 11-06)

The proposed project consists of two parts: 1) a 628 sq. ft. addition to the rear of the existing residence to add a bedroom and bath; and 2) renovation of the existing 1,053 structure (includes porch) to resolve deterioration caused by extensive dry rot discovered over most of the foundation, siding and roof framing frames and foundation piers.

The bedroom and bath addition were initially proposed as a direct extension to the rear of the existing residence, with the intention to match the existing structure in colors and materials. Construction to link the existing structure to the new addition involved removal of stucco cladding from the rear of the existing structure in small, successive sections.

Dry rot was eventually exposed over most of the existing structure including foundation supports, wall framing, roof framing, porch and porch canopy supports. As stucco was removed, the building shifted on its foundation, threatening collapse of the building. The building was saved via installation of grade beams. At that point, the Building Official issued a "Stop Work Order", pending the required Site and Design Review Permit for Historic Resources.

Subsequently, the applicant applied for this permit and selected Margaret E. (Meg) Clovis, M.A. to review the site plan, floor plan and elevations, colors, materials, window treatment, and lighting (August 6, 2022, and August 31, 2022). This review was conducted in accordance with SJB MC section 11-06-120 (C0 (5) regarding consistency with Secretary of the Interior Standards for the Treatment of Historic Properties. Kent Seavey was requested by the City to conduct a Peer Review of the principal report (August 16, 2022), resulting in a supplementary report by Ms. Clovis regarding options for window treatment (August 27, 2022). Referenced reports are contained as Exhibits to the attached draft resolution.

Staff Recommendation Findings and Evidence:

SJBMC Section 11-18-040 details the Findings the Planning Commission is required to make for all proposed Site Plan and Design Review Permit applications.

(A) The project is consistent with the standards and requirements of the San Juan Bautista Municipal Code. In particular, the project is consistent with maximum yard, coverage and setback requirements referenced in the staff report

The project is also consistent with relevant provisions of SJB MC Section 11-06 regarding the evaluation of projects by a qualified Architectural Historian as referenced in the staff report dated September 6, 2022.

Evidence: the staff report dated September 6, 2022; Plans Date September 24, 2021; Historic Resource Evaluation, Supplemental Report, Email Communication (Margaret E. (Meg) Clovis August 6, 27, August 31, 2022); Peer Review (Kent Seavey, August 16,2022)

(B) The project is consistent with the goals and policies of the General Plan and any applicable specific or community plans. In particular the project is consistent with Goals, Policies and Objectives that require review of project plans and development to ensure retention of the historic character of San Juan Bautista.

Evidence: the staff report dated September 6, 2022; Plans dated September 24, 2021; Historic Resource Evaluation, Supplemental Report, Email Communication (Margaret E. (Meg) Clovis August 6, 27, August 31, 2022); Peer Review (Kent Seavey, August 16,2022)

(C) The project contributes to safeguarding the City's heritage and cultural and historic resources.

Evidence: the project has been evaluated and will be renovated in accordance with relevant provisions of Chapter 6 referencing exterior plaster, the front porch, windows, window trim and doors.

(D) The project is compatible with the surrounding character of the environment because the architectural design, materials and colors harmonize with the character of surrounding development, or other improvements on the site and specific design elements (e.g., balconies, fencing, screening of equipment and utility installations, signs, and lighting) are incorporated into the project.

Evidence: Plans and elevations illustrate that the Stucco Bungalow historic design character referenced in the City's Historical Resources Inventory and Context Statement will be maintained.

(E) The location and configuration of the project harmonizes with the site and with surrounding sites or structures. Structures do not dominate their surroundings to an extent inappropriate to their use and do not unnecessarily block significant views or solar access to adjacent properties.

Evidence: Project Plans illustrate that the overall scale of the structure will be consistent with the Concrete Bungalow Historic District referenced in the Historic Inventory and Context statement. Characteristic buildings are one story structures of modest scale and simple designs.

(F) The project effectively uses architectural details to break up mass. Roof planes are varied without being overly complex. Otherwise monotonous long or two-story walls are well-articulated with details such as building off-sets and window features that are compatible with the design and not overly ornate.

Evidence: Building elevations dated September 254, 2021 demonstrate consistency of design with typical Stucco Bungalow building design.

(G) The landscape design, if any, including the location, type, size, color, texture, and coverage of plant materials, provisions for irrigation, and protection of landscape elements have been considered to create visual relief and complement the structures to provide an attractive and water-conserving environment.

Evidence: Site plan dated September 24, 2021 provide sufficient areas for installation of appropriate landscape improvements and conditions of project approval require submittal of a landscape and irrigation plan.

(H) The design and layout of the proposed project does not interfere with the use and enjoyment of neighboring existing or future development, does not result in vehicular and/or pedestrian hazards, and promotes public health, safety, and welfare.

Evidence: The proposed project complies with setbacks, site coverage and building height requirements

(I) The existing or proposed public facilities necessary to accommodate the proposed project (e.g., fire protection devices, public utilities, sewers, sidewalks, storm drains, street lights, traffic control devices, width and pavement of adjoining streets, etc.) are available to serve the subject site.

Evidence: Utilities and services are existing and proposed to be used to serve the project consistent with the standards and requirements of the San Juan Bautista Municipal Code.

Recommended Condition of Approval

1. Prior to issuance of a Building Permit, applicant shall submit a detailed monitoring plan prepared by the project Architectural Historian for the application of materials, colors and lighting. The monitoring plan shall specify methods of application and finishes for all exterior elements including application of stucco and stucco color sufficient to match the original texture as closely as possible. Materials and colors for the new addition shall match those of the existing structure.

2. Prior to the issuance of a Building Permit, applicant shall submit detailed plans for repair and renovation of the front porch, the porch canopy and support columns, and roof framing consistent with Chapter 6 of City of San Juan Bautista Design Guidelines sufficient to maintain the original porch design and appearance. Plans shall illustrate the character defining features of buildings within the Stucco Bungalow Historic District referenced in the City of San Juan Inventory and Bautista Context Statement (2005-2006)

3. Prior to Issuance of a Building Permit, applicant shall submit a landscape plan for front and side yard areas to include reference to drought tolerant plants and irrigation. Landscaping and irrigation shall be installed and operational prior to final occupancy approval.

4. Prior to issuance of a certificate of occupancy, applicant shall provide an updated Historical Inventory DPR form prepared by the project Archirtectural Historian indicating a status code of 5D3: "Properties Recognized as Historically Significant by Local Government: Appears to be individually eligible for local listing or designation through survey evaluation."

ATTACHMENTS:

1) Proposed Plans (Site and Design Review/Development Plans)
2) Exterior colors, materials, lighting
3) Historic Resources Inventory, 1981; Historical Resources Inventory and Context Statement, 2005-2006 (relevant portions)
4) Historical Resource Evaluation (Margaret E. (Meg) Clovis, M.A. (August 6, 2022, August 27, 2022 and August 31, 2022);
5) Peer Review (Kent Seavey August 16, 2022);
6) Comparison photographs 509 Second Street and 903 Third Street

APPLICABLE CODES

CBC CALIFORNIA BUILDING CODE 2019

CRC CALIFORNIA RESIDENTIAL CODE 2019

CEC CALIFORNIA ELECTRICAL CODE 2019

CPC CALIFORNIA PLUMBING CODE 2019

CMC CALIFORNIA MECHANICAL CODE 2019

CENC CALIFORNIA ENERGY CODE 2019

CALGREEN CALIFORNIA GREEN BUILDING STANDARDS CODE 2019

ASCE 7 MINIMUM DESIGN LOADS FOR BUILDINGS AND 2015

SDPWS SPECIAL DESIGN PROVISIONS FOR WIND & SEISMIC 2015

GENERAL PROJECT NOTES

1. PROJECT TO BE SUPERVISED BY A LICENSED GENERAL CONTRACTOR.

2. IN CASE OF CONFLICT OR DISCREPANCIES IN THE DRAWINGS. CONTRACTOR SHALL NOTIFY THE DESIGNER PRIOR TO PROCEEDING

3. PRIOR TO START OF WORK CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ENSURE ALL WORK IS BUILDABLE AS SHOWN.

4. REDUCE FORMALDEHYDE IN INTERIOR FINISH TO MEET CURRENT CARB AIRBORNE TOXIC CONTROL MEASURE (ATCM) FOR COMPOSITE WOOD.

5. FOR PLACEMENT OF SMOKE ALARMS AND CARBON MONOXIDE ALARMS IN ROOMS WITH VARIATIONS IN CEILING HEIGHT (SLOPED, PITCHED, ETC.) REFER TO THE MANUFACTURERS' GUIDELINES FOR PROPER PLACEMENT.

6. EXISTING HOUSE CONTAINS FIRE SPRINKLERS 1

7. An automatic fire sprinkler system shall be required where additions or alterations are made to the existing building that already has a fire sprinkler system installed. sprinklers shall be installed to protect all areas of a dwelling unit. [r313.3.1.2.]
exceptions:
1. Attics, crawl spaces and normally unoccupied concealed spaces that do not contain fuel-fired appliances do not require sprinklers. In attics, crawl spaces and normally unoccupied concealed spaces that contain fuel-fired equipment, a sprinkler shall be installed above the equipment; however, sprinklers shall not be required in the remainder of the space.
2. Clothes closets, linen closets and pantries not exceeding 24 square feet in area, with the smallest dimension not greater than 3 feet and having wall and ceiling surfaces of gypsum board.
3. Bathrooms not more than 55 square feet in area.
4. Detached garages; carports with no habitable space above; open attached porches; unheated entry areas, such as mud rooms, that are adjacent to an exterior door; and similar areas.

DEF. SUBMITTALS/SPECIAL INSPECTIONS

- TRUSSES SHALL BE A DEFERRED SUBMITTAL

1

PROJECT CONST. NOTES

*IF APPLICABLE, ALL FILL MUST REACH 90% COMPACTION MINIMUM
*VERIFY LAYOUT OF BUILDING PAD W/OWNER OR DESIGNER PRIOR TO TRENCHING/DRILLING
*CONTRACTOR/OWNER ASSUMES RESPONSIBILITY OF LOCATING EXISTING UTILITIES PRIOR TO CONSTRUCTION
*VERIFY LAYOUT OF SIDEWALKS, PATIOS, & STEPS W/OWNER/CONTRACTOR PRIOR TO SETTING UP & POURING
*ADDRESS NUMBERS SHALL BE ARABIC NUMBERS OR ALPHABETICAL LETTERS
ADDRESS SHALL BE PLAINLY VISIBLE & LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.
ADDRESS NUMBERS SHALL BE MINIMUM FUROF 4", 1/2 INCH MIN STROKE WIDTH, AND MOUNTED ON A
CONTRASTING BACKGROUND CLEARLY VISIBLE FROM THE STREET. WHERE ADDRESS CANNOT BE VIEWED FROM
A PUBLIC WAY, A MONUMENT OR POLE SHALL BE USED
* CHECK WITH PG&E FOR GAS SERVICE LOCATION
* ON AND AFTER JANUARY 1, 2014, RESIDENTIAL BUILDINGS UNDERGOING PERMITTED ALTERATIONS, ADDITIONS, OR IMPROVEMENTS SHALL REPLACE NON-COMPLIANT PLUMBING FIXTURES WITH WATER CONSERVING PLUMBING FIXTURES. PLUMBING FIXTURE REPLACEMENT IS REQUIRED PRIOR TO ISSUANCE OF A CERTIFICATE OF FINALCOMPLETION, CERTIFICATE OF OCCUPANCY OR FINAL PERMIT APPROVAL BY THE LOCAL BUILDING DEPARTMENT, SEE CIVIL CODE SECTION 1101.1 ET SEQ. FOR THE DEFINITON OF NON COMPLIANT PLUMBING FIXTURE, TYPESOF OTHER RESIDENTIAL BUILDINGS AFFECTED AND OTHER IMPORTANT ENACTMENT DATES SEE 2019 CALIFORNIA GREEN BUILDING CODE 301.1.1 & CIVIL CODE SECTION 1101.3 IN THE SUPPLEMENTAL BOOK

PROJECT INFO

PROJECT DATA:

APN:	002-290-048-000
ADDRESS:	903 3RD ST. SAN JUAN BAUTISTA, CA 95045
FLOOD ZONE:	NO
BUILDING OCCUPANCY :	R3/
CONSTRUCTION TYPE:	VB
STORIES:	1
HISTORIC:	NO

FLOOR AREA SUMMARY:

LOT AREA: 6,991 S.F.
EX. LIVING: 980 S.F.
EX. FRONT PORCH: 73 S.F.

LIVING ADDITION: 628 S.F
TOTAL LIVING: 1,608 S.F.

SCOPE OF WORK

EXISTING 980 S.F. HOUSE -- 628 S.F. LIVING ADDITION

PROJECT INFO

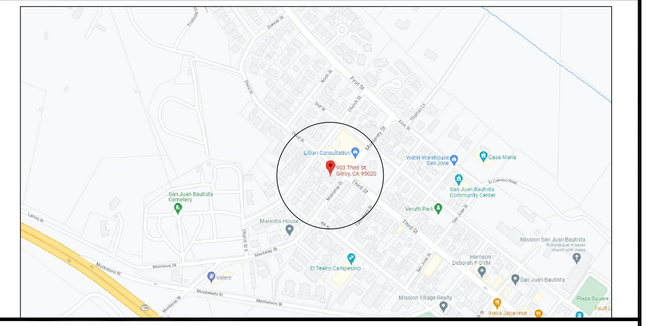
SHEET INDEX

PROJECT DIRECTORY

OWNER:
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045
650-799-5959

DESIGNER:
ALEX VALLES
SOUTH BAY DESIGN
831-207-9677
P.O. BOX 27
HOLLISTER, CA 95024

VICINITY MAP



PROPOSED PROJECT:
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

REVISIONS	
1	1-7-21
2	
3	
4	
5	
6	
7	
8	

SOUTH BAY DESIGN
DBA
ALEX VALLES
PRINCIPAL/OWNER
P.O. BOX 339
SAN JUAN BAUTISTA, CA 95045
831.207.9677
sbdesign27@yahoo.com

ADDITION/REMODEL
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

E. FLOOR PLAN / ELEVATIONS

DRAWN BY	A.V.
CHECKED	
DATE	5.14.21
SCALE	1/4" = 1'-0"
JOB NO.	
SHEET	A0

ARCHITECTURAL GENERAL NOTES

VENTILATION

1. LOCATION AND SIZE OF FOUNDATION VENTS TO CONFORM TO CRC R408.
2. PROVIDE UNDER ROOF CROSS VENTILATION AT THE RATE OF 1/150 OF THE ATTIC AREA. CRC R806.2.
3. BATHROOMS AND LAUNDRY ROOMS SHALL BE MECHANICALLY VENTILATED (50 CUBIC FT/MIN). THE POINT OF DISCHARGE MUST BE 3' MIN. ABOVE ANY BUILDING OPENINGS WITHIN 10'. HABITABLE ROOMS SHALL BE NATURALLY VENTILATED WITH CLEAR OPEN AREA NOT LESS THAN 4% OF THE FLOOR AREA OF THE ROOM.CRC.

ACCESS

4. PROVIDE UNOBSTRUCTED 18" MIN. BY 24" MIN. ACCESS TO ALL UNDERFLOOR SPACES WHERE JOISTS OR SUBFLOOR IS UNTREATED. CRC R408.4.
5. PROVIDE 22" MIN. BY 30" MIN. ACCESS TO ALL ATTIC SPACES WITH 30" CLEAR HEIGHT OR MORE. CRC R807. FIRE PROTECTION
6. ALL GARAGE WALLS COMMON WITH LIVING AREA TO BE 1/ 2" GYPSUM BOARD MINIMUM FROM FOUNDATION TOROOF SHEATHING ON THE GARAGE SIDE AT SEPARATION WALL BETWEEN GARAGE AND RESIDENCE. GARAGE SUPPORTING HABITABLE ROOMS ABOVE TO BE OF 1 HOUR CONSTRUCTION WITH 5/8" TYPE 'X' GYPSUM BOARD MINIMUM. DOORS FROM GARAGE TO LIVING AREA TO BE 1-3/8" MIN. SOLID WOOD DOOR OR 20-MINUTE FIRE-RATED WITH SELF-CLOSING AND SELF-LATCHING DEVICE AND WEATHER STRIPPING. PROVIDE 1/2" GYPSUM BOARD ON ALL WALLS & STRUCTURES (BEAMS, POSTS, ETC.) AT GARAGE SIDE OF THE WALL SUPPORTING 5/8" TYPE 'X' GYPSUM BOARD.
7. USABLE SPACE UNDER STAIRS AT R2 AND R3 TO BE 1/2" GYPSUM BOARD MIN. AT ALL WALLS AND CEILING PER CRC.
8. PROVIDE 6" MINIMUM CLEARANCE AT BACK OF FURNACE AND 12" TOTAL CLEARANCE ON SIDES OF FURNACE.
9. INSTALL ZERO CLEARANCE PRE-FAB FIREPLACES AS DIRECTED BY THE MANUFACTURERS INSTALLATION RECOMMENDATIONS AND ITS LISTING PER CRC. VERIFY HEARTH EXTENSION MATERIAL AND THICKNESS MEET MANUFACTURERS SPECIFICATIONS. FIRE STOPS WITH NON-COMBUSTIBLE MATERIALS SHALL BE PROVIDED AROUND THE CHIMNEY IN OPENINGS AT THE CEILING PER CRC.
10. TOP OF FIREPLACE CHIMNEYS TO EXTEND 2 FEET MIN. ABOVE ANY ROOFING MATERIAL WITHIN 10 FEET (MEASURED HORIZONTALLY) OF CHIMNEY AND 3 FEET MIN. ABOVE ANY ADJACENT ROOFING MATERIAL. CRC R1003.

GLAZING

11. ALL GLASS AND GLAZING SHALL COMPLY WITH THE U.S. SAFETY STANDARDS FOR ARCHITECTURAL GLAZING MATERIALS, AND WITH FEDERAL SPECIFICATIONS.
12. VERIFY WINDOWS MEET EGRESS REQUIREMENTS (CRC R310). AT LEAST ONE ESCAPE ROUTE FROM EACH SLEEPING ROOM, 20" CLEAR WIDTH, 24" CLEAR HEIGHT, AND 5.7 SQ. FT. CLEAR OPENING, THE BOTTOM OF THE CLEAR OPENING NOT GREATER THAN 44" ABOVE THE FLOOR (CRC).
13. SKYLIGHT DESIGN TO CARRY ALL TRIBUTARY ROOF LOADS AS SPECIFIED IN CRC R301.
14. CONSTRUCTION OF SKYLIGHT GLAZING SYSTEM TO MEET REQUIREMENTS OF CRC R308.6.
15. GLASS SHOWER AND TUB ENCLOSURES, AND WINDOWS OVER SHOWERS AND TUBS TO BE SAFETY GLASS. CRC R308.4.5.
16. GLAZING IN ANY DOOR, OR GLAZING WITHIN 24" OF ANY DOOR AND WITHIN 60" OF FLOORS TO BE TEMPERED GLASS CRC R308.4.1 AND R308.4.2. GLAZING WITHIN 18" OF THE FLOOR AS PER CRC R308.4.3 OR AT ENCLOSED WALLS AT STAIRWAYS AS PER CRC R308.4.6 AND R308.4.7 TO BE TEMPERED GLASS.

STAIRS

17. RISERS ON STAIRWAYS SHALL NOT BE LESS THAN 4", NOR GREATER THAN 7-3/4". THE GREATEST RISER HEIGHT SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8". THE RUN SHALL NOT BE LESS THAN 10". THE LARGEST RUN SHALL NOT EXCEED THE SMALLEST BY MORE THAN 3/8". CRC R311.7.5. HEADROOM AT STAIRWAYS TO BE 6'-8" MIN., MEASURED VERTICALLY AT ALL POINTS FORMED BY A PLANE TANGENT TO ALL TREAD NOSINGS. CRC R311.7.2. NOSING DIMENSION AND PROFILE PER CRC R311.7.5.3. 18.
18. GUARDRAILSSHALL HAVE MINIMUM OF 42" IN HEIGHT. CRC R312.1.2. OPEN GUARDS SHALL HAVE BALUSTERS SUCH THAT 4" DIAMETER SHPERE CANNOT PASS THROUGH, CRC R312.1.3. FOR R2 AND R3 OCCUPANCY, OPENINGS FOR REQUIRED GUARDS ON THE SIDES OF STAIR TREADS SHALL NOT ALLOW PASSAGE OF A SPHERE OF 4-3/8" OR MORE IN DIAMETER. CRC R312.1.3 EX. 2.
19. HANDRAILS TO BE 34" TO 38" ABOVE TREAD NOSING, CIRCULAR HANDGRIP TO BE MIN. 1-1/4" TO MAX. 2" IN CROSS SECTION. HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF THREADS OF FLIGHT WITH FOUR RISERS OR MORE. CRC R311.7.8.

BATHROOMS

20. TOILETS TO HAVE A MINIMUM CLEAR STALL SPACE OF 30" AND A MINIMUM CLEAR SPACE OF 24" IN FRONT. INSTALL MAX. 1.28 GALLON PER FLUSH TOILETS.
21. SHOWERS TO HAVE A MINIMUM AREA OF 1024 SQ. IN. AND A MINIMUM CLEAR HORIZONTAL DIMENSION OF 30", MEASURED AT THE TOP OF THE CURB. WALLS SHALL BE CEMENT-BASED BACKER BOARDS TO A MIN. HEIGHT OF 72" ABOVE THE DRAIN INLET. CRC R307.2. PROVIDE INDIVIDUAL PRESSURE BALANCE OR TEMPERATURE CONTROL AT EACH SHOWER OR TUB/SHOWER.
22. INSTALL TUB WITH FULL MORTAR SET TILE SURROUND. WALLS SHALL BE CEMENT-BASED BACKER BOARDS TO THE CEILING AT SHOWERS AND TUB/SHOWERS.

GENERAL

23. VAULTED CEILINGS SHALL BE PROVIDED WITH A VAPOR BARRIER BENEATH THE INSULATION AND A 1" MIN. AIR SPACE ABOVE THE INSULATION. THE AIR SPACE SHALL BE VENTILATED AS PER CRC R806.
24. FURNACES AND WATER HEATERS IN GARAGES SHALL BE MOUNTED UPON PLATFORMS NOT LESS THAN 18" ABOVE THE GARAGE FLOOR.
25. WATER HEATER SHALL BE STRAPPED FOR SEISMIC LOAD AT POINTS BETWEEN THE UPPER ONE THIRD AND LOWER ONE THIRD OF ITS HEIGHT. THE LOWERS STRAP SHALL BE A MINIMUM OF 4 INCHES ABOVE THE WATER HEATER CONTROLS. SEE CPC.
26. PROVIDE ROOF DRAINS AND OVERFLOW DRAINS AT FLAT ROOFS AS PER CRC R903.4 AND CPC.

PERFORMANCE

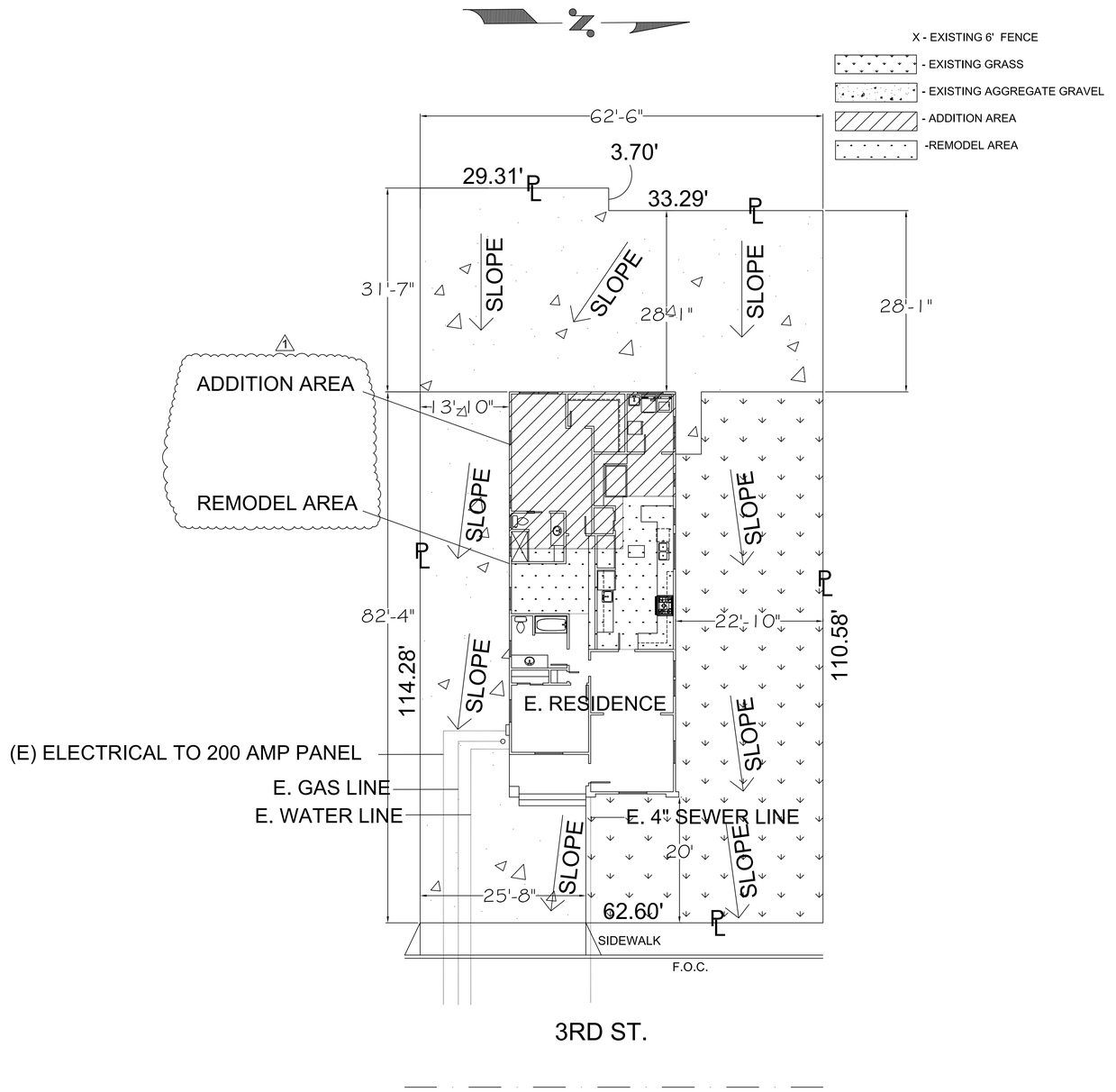
27. PROVIDE FABRICATOR'S CERTIFICATE FOR GLU-LAM BEAMS TO BUILDING DEPARTMENT FOR REVIEW AND APPROVAL AT TIME OF DELIVERY AND PRIOR TO INSTALLATION AS PER CBC.
28. ALL HARDWOOD FLOORING TO BE INSTALLED IN ACCORDANCE WITH THE LATEST NOFMA SPECIFICATIONS AND RECOMMENDATIONS.
29. ALL TILE WORK TO BE INSTALLED IN ACCORDANCE WITH THE LATEST TILE COUNCIL OF AMERICA SPECIFICATIONS AND RECOMMENDATIONS.
30. ALL PLUMBING WORK SHALL COMPLY WITH THE CALIFORNIA PLUMBING CODE, SAFETY ORDERS OF THE STATE OF CALIFORNIA AND ALL LOCAL CODES AND ORDINANCES.
31. ALL H.V.A.C. WORK SHALL BE IN CONFORMANCE WITH APPLICABLE CODES, THE CALIFORNIA MECHANICAL CODE, AND THE RECOMMENDED PRACTICES OF ASHRAE AND SMACNA.
32. ALL ELECTRICAL WORK SHALL CONFORM TO THE CALIFORNIAL ELECTRICAL CODE AND ALL OTHER APPLICABLE CODES AND REQUIREMENTS. TOXIC MATERIALS REMOVAL

TOXIC MATERIALS REMOVAL

33. ALL HANDLING AND REMOVAL OF TOXIC MATERIALS TO BE DONE BY A CERTIFIED TOXIC WASTE CONTRACTOR. CERTIFICATION TO BE DONE BY THE STATE OF CALIFORNIA AND REGISTERED WITH THE LOCAL BUILDING OFFICIAL.
34. FOR ALL NEW CONSTRUCTION, ALL DWELLINGS SHALL COMPLY WITH THE 2013 CALIFORNIA GREEN BUILDING STANDARDS CODE. BUILDINGS SHALL BE DESIGNER TO INCLUDE THE GREEN BUILDING MEASURED SPECIFIED AS MANDATORY IN THIS CODE. FOR SITE DEVELOPMENT PER CGBSC SECTION 4.106, FOR WATER EFFICIENCY AND CONSERVATION PER CGBSC SECTION 4.301, FOR INDOOR AIR QUALITY PER CGBSC SECTION 5.506

CORRECTION NOTES:
** LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE SHALL FALL A MINIMUM OF 6 INCHES WITHIN THE FIRST 10 FEET. [R401.3] IMPERVIOUS SURFACES WITHIN 10 FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED NOT LESS THAN 2 PERCENT AWAY FROM THE BUILDING. [R401.3, EXCEPTION]

** ALL LANDSCAPING IS EXISTING AND TO REMAIN UNAFFECTED



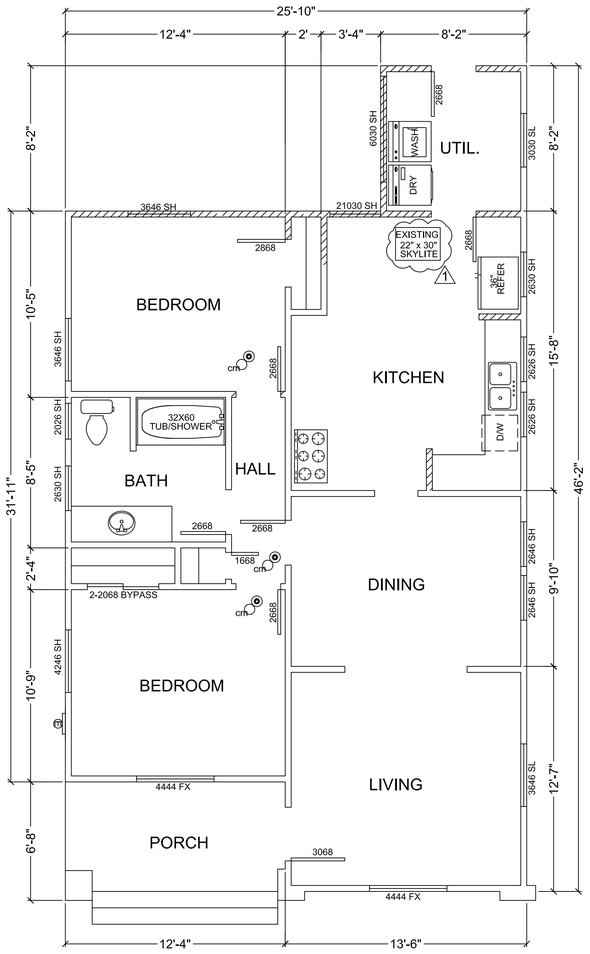
REVISIONS	
1	1-7-21
2	
3	
4	
5	
6	
7	
8	

SOUTH BAY DESIGN
DBA
ALEX VALLES
PRINCIPAL/OWNER
P.O. BOX 339
SAN JUAN BAUTISTA, CA 95045
831.207.9677
sbdesign27@yahoo.com

ADDITION/REMODEL
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

SITE PLAN

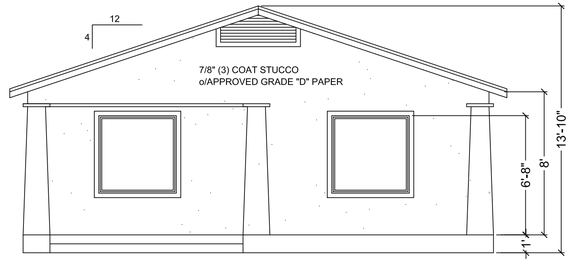
DRAWN BY A.V.
CHECKED
DATE 5.14.21
SCALE 1" = 10'-0"
JOB NO.
SHEET A1



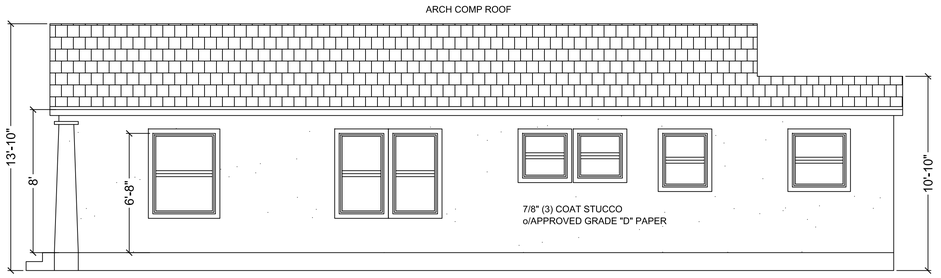
EX. FLOOR PLAN

EX. LIVING: 980 S.F.
EX. FRONT PORCH: 73 S.F.

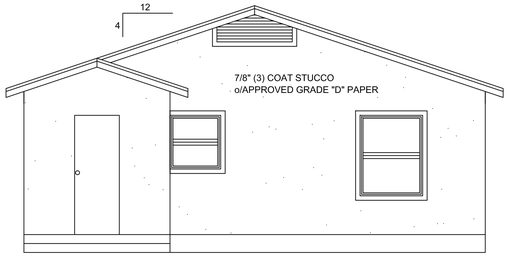
WALL LEGEND	
(E) EXISTING WALL TO REMAIN -	
(E) NON LOAD-BEARING WALL TO BE DEMO'D -	



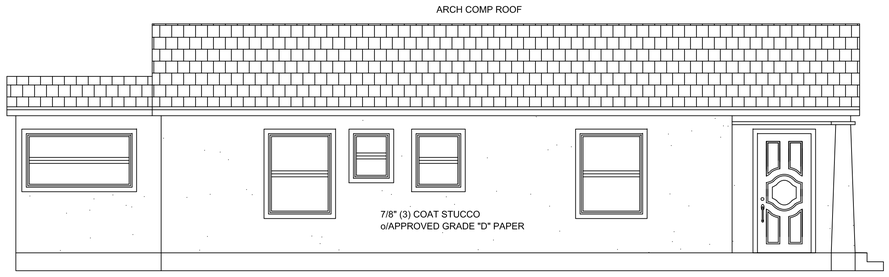
FRONT ELEVATION



RIGHT ELEVATION



REAR ELEVATION



LEFT ELEVATION

ELECTRICAL	
	SMOKE DETECTOR
CM	CARBON MONOXIDE DETECTOR
E	E. 200 AMP ELECTRICAL PANEL

REVISIONS	
1	1-7-21
2	
3	
4	
5	
6	
7	
8	

SOUTH BAY DESIGN
DBA
ALEX VALLES
PRINCIPAL/OWNER
P.O. BOX 339
SAN JUAN BAUTISTA, CA 95045
831.207.9677
sbdesign27@yahoo.com

ADDITION/REMODEL
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

E. FLOOR PLAN / ELEVATIONS

DRAWN BY
A.V.
CHECKED

DATE
5.14.21

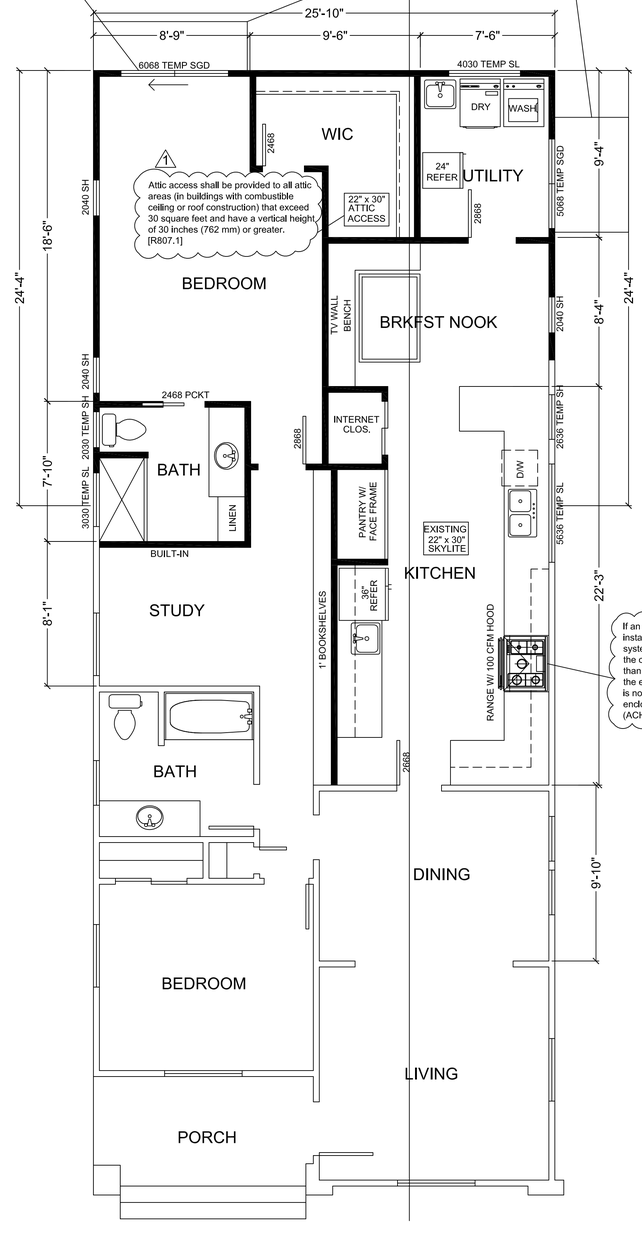
1 SCALE
1/4" = 1'-0"

JOB NO.

SHEET
A2

EMERGENCY ESCAPE AND RESCUE OPENING FOR THE NEW BEDROOM. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAD A MINIMUM NET CLEAR OPENING OF NOT LESS THAN 5. 7 SQUARE FEET. THE NET CLEAR OPENING HEIGHT SHALL NOT BE LESS THAN 24 INCHES. THE MINIMUM NET CLEAR OPENING WIDTH SHALL NOT BE LESS THAN 20 INCHES. [R310,2,1]

36" CONCRETE LANDING w/ 4" MIN. 7.75" MAX.
STEP DOWN w/ 3/4" MAX THRESHOLD AT SLIDERS & 1/2" MAX THRESHOLD WITH BEVELED EDGE @ DOORS TYP



P. FLOOR PLAN

EX. LIVING: 980 S.F.
EX. FRONT PORCH: 73 S.F.

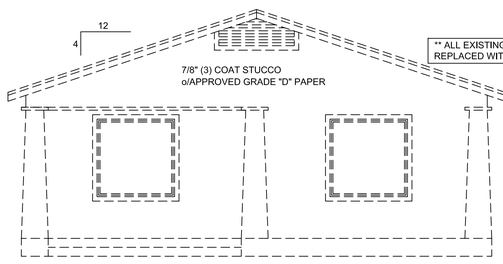
LIVING ADDITION: 628 S.F.
TOTAL LIVING: 1,608 S.F.

1 If an exhaust system other than a range hood is installed for local kitchen exhaust compliance, the system must exhaust a minimum of 300 cfm to the outdoors and have a sound rating of no more than 3 sones. If the minimum airflow setting for the exhaust system is greater than 400 cfm, there is no sound requirement. If the kitchen is enclosed, provide five air changes per hour (ACH)

1 ** FLASHINGS SHALL BE INSTALLED AT WALL AND ROOF INTERSECTIONS, WHEREVER THERE IS A CHANGE IN ROOF SLOPE OR DIRECTION AND AROUND ROOF OPENINGS, A FLASHING SHALL BE INSTALLED TO DIVERT THE WATER AWAY FROM WHERE THE EAVE OF A SLOPED ROOF INTERSECTS A VERTICAL SIDEWALL. [R903,2,1]
** FENESTRATIONS, INCLUDING SKYLIGHT PRODUCTS, MUST HAVE A MAXIMUM U-FACTOR OF 0.58. [CENC 150.0(0)1]
** IN BATHROOMS, CONTROL VALVES AND SHOWERHEADS SHALL BE LOCATED ON THE SIDEWALL OF SHOWER COMPARTMENTS OR OTHERWISE ARRANGED SO THAT THE SHOWERHEADS DOES NOT DISCHARGE DIRECTLY AT THE ENTRANCE TO THE COMPARTMENT SO THAT THE BATHER CAN ADJUST THE VALVES PRIOR TO STEPPING INTO THE SPRAY, 408,9 (2019 CPC)

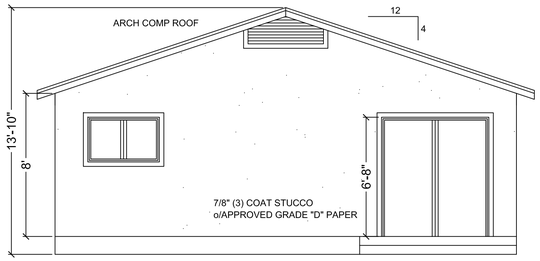
1

ADDITION FLOOR VENT CALCS	ADDITION ATTIC VENT CALCS
628 S.F. ÷ 150 = 4.18	628 SQ. FT. ÷ 150 = 4.18
4.18 ÷ (6X14 / 144) = 7.16 ROUNDED UP TO 8	4.18 x 144 = 603 SQ INCHES OF NET FREE VENTILATION AREA



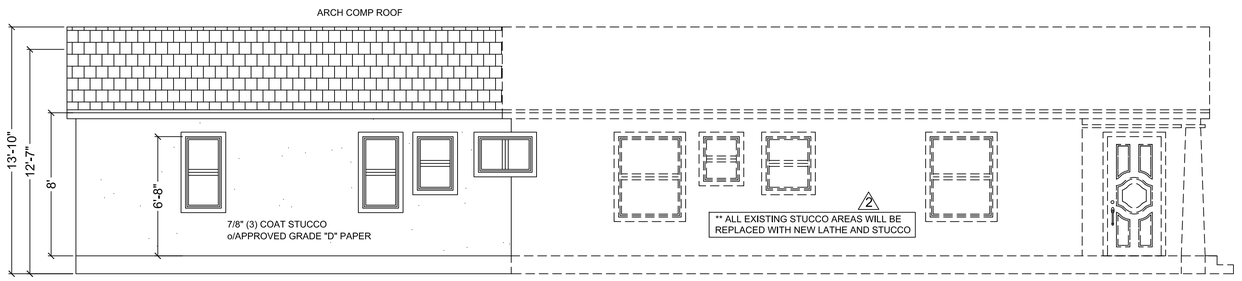
2 ** ALL EXISTING STUCCO AREAS WILL BE REPLACED WITH NEW LATHE AND STUCCO

FRONT ELEVATION

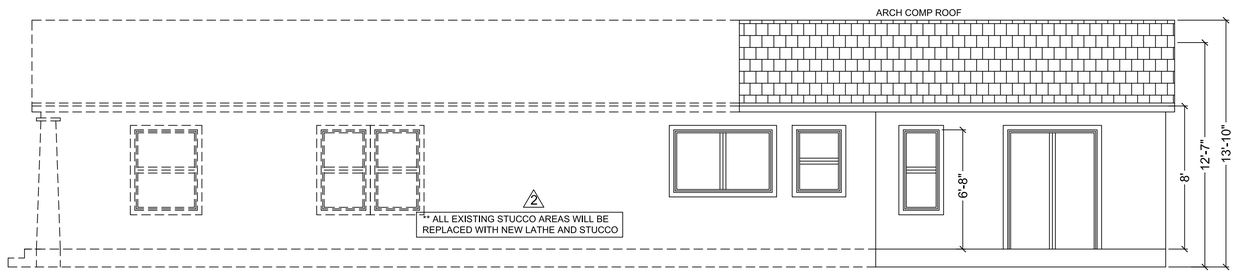


REAR ELEVATION

WALL LEGEND	
(E) WALL/ELEMENT -	
(P) WALL/ELEMENT -	



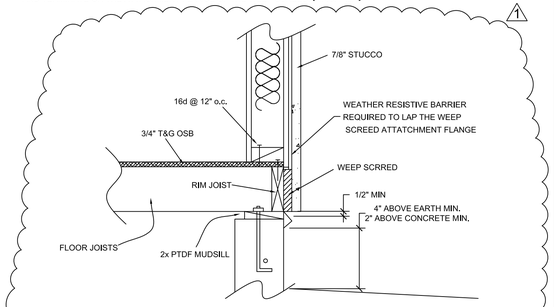
LEFT ELEVATION



RIGHT ELEVATION

** A MINIMUM 0.019-INCH (NO. 26 GALVANIZED SHEET GAGE), CORROSION-RESISTANT WEEP SCREED OR PLASTIC WEEP SCREED, WITH A MINIMUM VERTICAL ATTACHMENT FLANGE OF 3½" SHALL BE PROVIDED AT OR BELOW THE FOUNDATION PLATE LINE ON EXTERIOR STUD WALLS. THE WEEP SCREED SHALL BE PLACED A MINIMUM OF 4 INCHES ABOVE THE EARTH OR 2 INCHES ABOVE PAVED AREAS AND SHALL BE OF A TYPE THAT WILL ALLOW TRAPPED WATER TO DRAIN TO THE EXTERIOR OF THE BUILDING. THE WEATHER-RESISTANT BARRIER SHALL LAP THE ATTACHMENT FLANGE. THE EXTERIOR LATH SHALL COVER AND TERMINATE ON THE ATTACHMENT FLANGE OF THE WEEP SCREED. [R703. 7 .2.1]

1



WEEP SCREED

RAISED FOUNDATION
NOT TO SCALE

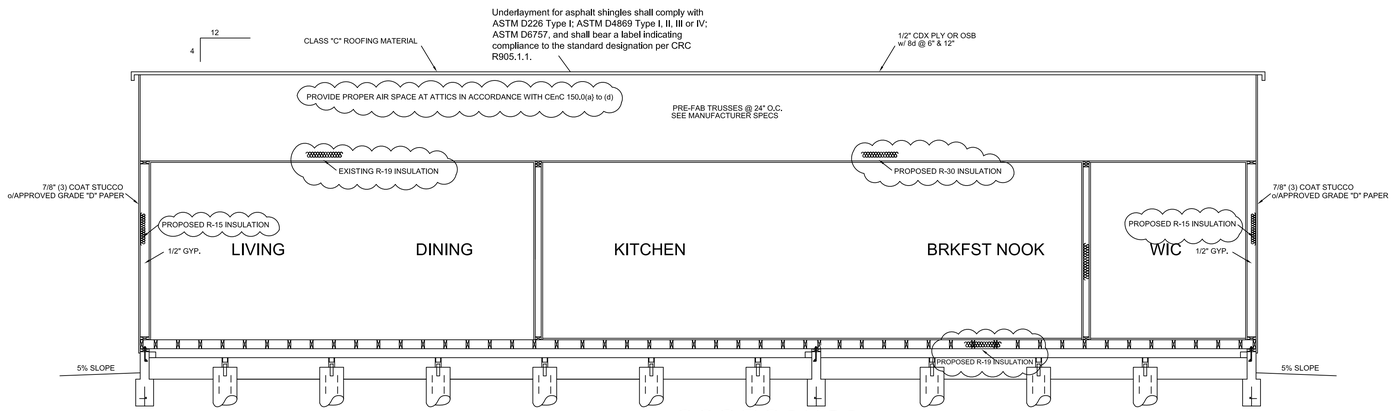
REVISIONS	
1	1-7-21
2	8-15-22
3	
4	
5	
6	
7	
8	

SOUTH BAY DESIGN
DBA
ALEX VALLES
PRINCIPAL/OWNER
P.O. BOX 339
SAN JUAN BAUTISTA, CA 95045
831.207.9677
sbdesign27@yahoo.com

ADDITION/REMODEL
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

P. FLOOR PLAN / ELEVATIONS

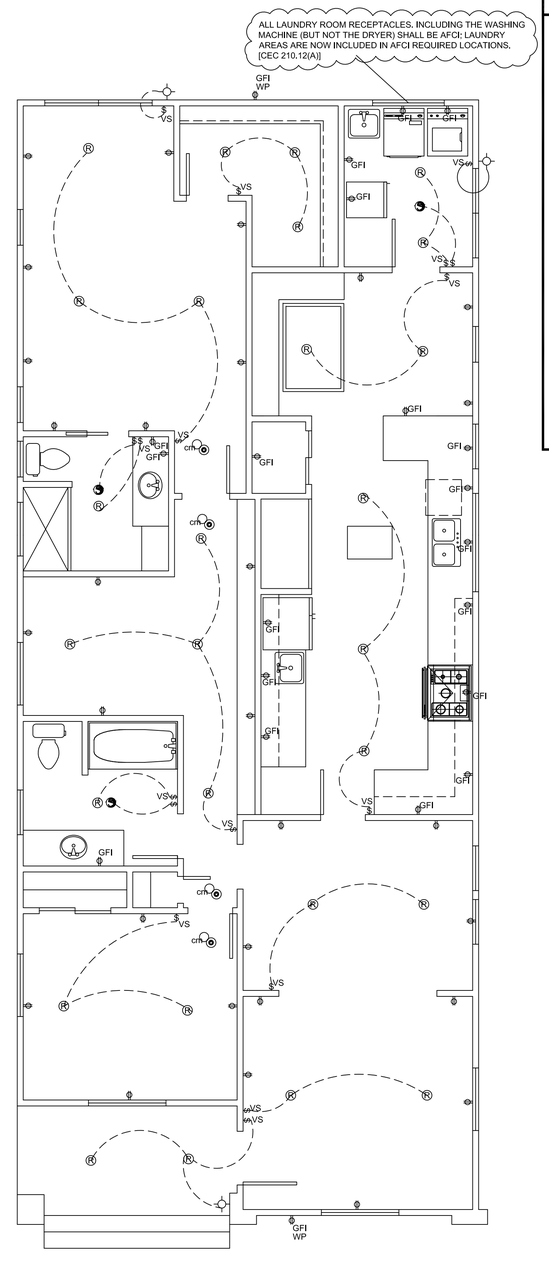
DRAWN BY
A.V.
CHECKED
DATE
5.14.21
SCALE
1/4" = 1'-0"
JOB NO.
SHEET
A3



SECTION A 1

1

** ALL 125-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE RECEPTACLES INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(A)(1) THROUGH (8) SHALL HAVE GROUND-FAULT CIRCUIT INTERRUPTER (GFCI) PROTECTION FOR PERSONNEL. [CEC 210.8(A)]
(1) BATHROOMS
(2) GARAGES AND ACCESSORY BUILDINGS THAT HAVE A FLOOR LOCATED AT OR BELOW GRADE LEVEL NOT INTENDED AS HABITABLE ROOMS AND LIMITED TO STORAGE AREAS, WORK AREAS, AND AREAS OF SIMILAR USE
(3) OUTDOORS
(4) CRAWL SPACES - AT OR BELOW GRADE LEVEL
(5) UNFINISHED BASEMENTS -FOR PURPOSES OF THIS SECTION, UNFINISHED BASEMENTS ARE DEFINED AS PORTIONS OR AREAS OF THE BASEMENT NOT INTENDED AS HABITABLE ROOMS AND LIMITED TO STORAGE AREAS, WORK AREAS, AND THE LIKE.
(6) KITCHENS- WHERE THE RECEPTACLES ARE INSTALLED TO SERVE THE COUNTERTOP SURFACES
(7) SINKS - WHERE RECEPTACLES ARE INSTALLED WITHIN 6-FT OF THE TOP INSIDE EDGE OF THE BOWL OF THE SINK.
(8) BATHTUBS OR SHOWER STALLS - WHERE RECEPTACLES ARE INSTALLED WITHIN 6-FT OF THE OUTSIDE EDGE OF THE BATHTUB OR SHOWER STALL.
(9) LAUNDRY AREAS.
** GFCI PROTECTION SHALL BE PROVIDED FOR OUTLETS THAT SUPPLY DISHWASHERS LOCATED IN DWELLING UNITS. [CEC 210.8(D)]
** ALL LIGHTS THROUGHOUT THE RESIDENCE, INCLUDING THE GARAGE AND EXTERIOR, SHALL BE HIGH EFFICACY. [CENC 150.0(K)1A]
** AT LEAST ONE LIGHT FIXTURE IN BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS SHALL BE CONTROLLED BY A VACANCY SENSOR. [CENC 150.0(K)21]
** OUTDOOR LIGHTS MUST BE HIGH EFFICACY AND CONTROLLED BY AN ASTRONOMICAL TIME CLOCK OR BY BOTH A MOTION SENSOR AND PHOTOCELL. [CENC 150.0(K)3)]
** ALL RECESSED LIGHTS MUST BE ON A DIMMER OR VACANCY SENSOR AND COMPLY WITH JAS-2016-E OR JAB-2019-E. [CENC TABLE 150.0-A #7]



ELECTRICAL/PLUMBING

	DUPLEX RECEPTACLE (all outlets AFCI unless noted as GFCI)
	CEILING FIXTURE (HIGH EFFICACY)
R	RECESSED FIXTURE (HIGH EFFICACY)
CM	CARBON MONOXIDE DETECTOR
	SMOKE DETECTOR
$	SWITCH 1
$VS	VACANCY SENSOR SWITCH
$3	"THREE" WAY SWITCH (TWO LOCATIONS) 1
	EXHAUST FAN 75 CFM W/ HUMIDISTAT ENERGY STAR RATED
E	ELECTRICAL PANEL
GFI	GROUND FAULT INTERRUPTOR
WP	WATER PROOF; BUBBLE COVER FOR OUTDOOR RECEPTACLES

REVISIONS	
1	1-7-21
2	
3	
4	
5	
6	
7	
8	

SOUTH BAY DESIGN
DBA
ALEX VALLES
PRINCIPAL/OWNER
P.O. BOX 339
SAN JUAN BAUTISTA, CA 95045
831.207.9677
sbdesign27@yahoo.com

ADDITION/REMODEL
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

SECTIONS/ELECTRICAL

DRAWN BY	A.V.
CHECKED	
DATE	5.14.21
SCALE	1/4" = 1'-0" 1
JOB NO.	
SHEET	A4

FASTENING SCHEDULE CBC 2019 TABLE 2304.10.1

CONNECTION	FASTENING	LOCATION
1. JOIST TO SILL OR GIRDER	3 - 8d COMMON (2 ½" x 0.131") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	TOENAIL
2. BRIDGING TO JOIST	2 - 8d COMMON (2 ½" x 0.131") 2 - 3" x 0.131" NAILS 2 - 3" 14 GAGE STAPLES	TOENAIL EACH END
3. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST	2 - 8d COMMON (2 ½" x 0.131")	FACE NAIL
4. WIDER THAN 1"x6" SUBFLOOR TO EACH JOIST	3 - 8d COMMON (2 ½" x 0.131")	FACE NAIL
5. 2" SUBFLOOR TO JOIST OR GIRDER	2 - 16d COMMON (3 ½" x 0.162")	BLIND AND FACE NAIL
6. SOLE PLATE TO JOIST OR BLOCKING	16d (3 ½" x 0.135") AT 16" O.C. 3" x 0.131" NAILS AT 8" O.C. 3" 14 GAGE STAPLES AT 12" O.C.	TYPICAL FACE NAIL
SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANEL	3 - 16d (3½" x 0.135") AT 16" O.C. 4 - 3" x 0.131" NAILS AT 16" O.C. 4 - 3" x 14 GAGE STAPLES AT 16" O.C.	BRACED WALL PANELS
7. TOP PLATE TO STUD	2 - 16d COMMON (3 ½" x 0.162") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	END NAIL
8. STUD TO SOLE PLATE	4 - 8d COMMON (2½" x 0.131") 4 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	TOENAIL
	2 - 16d COMMON (3½" x 0.162") 3 - 3" x 0.131" NAILS 3 - 3" x 14 GAGE STAPLES	END NAIL
9. DOUBLE STUDS	16d (3½" x 0.135") AT 24" O.C. 3" x 0.131" NAILS AT 8" O.C. 3" 14 GAGE STAPLES AT 8" O.C.	FACE NAIL
10. DOUBLE TOP PLATES	16d (3½" x 0.135") AT 16" O.C. 3" x 0.131" NAILS AT 12" O.C. 3" 14 GAGE STAPLES AT 12" O.C.	TYPICAL FACE NAIL
DOUBLE TOP PLATES	8 - 16d COMMON (3½" x 0.162") 12 - 3" x 0.131" NAILS 12 - 3" x 14 GAGE STAPLES	LAP SPLICE
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3 - 8d COMMON (2½" x 0.131") 3 - 3" x 0.131" NAILS AT 6" O.C. 3" 14 GAGE STAPLES AT 6" O.C.	TOENAIL
12. RIM JOIST TO TOP PLATE	8d (2½" x 0.131") AT 6" O.C. 3" x 0.131" NAILS AT 6" O.C. 3" 14 GAGE STAPLES AT 6" O.C.	TOENAIL
13. TOP PLATES, LAPS, AND INTERSECTIONS	2 - 16d COMMON (3½" x 0.162") 3 - 3" x 0.131" NAILS 3" 14 GAGE STAPLES	FACE NAIL
14. CONTINUOUS HEADER, TWO PIECES	16d COMMON (3½" x 0.162")	16" O.C. ALONG EDGE
15. CEILING JOISTS TO PLATE	3 - 8d COMMON (2½" x 0.131") 5 - 3" x 0.131" NAILS 5 - 3" 14 GAGE STAPLES	FACE NAIL
16. CONTINUOUS HEADER TO STUD	4 - 8d COMMON (2½" x 0.131")	TOENAIL
17. CEILING JOISTS, LAPS OVER PARTITIONS (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3 - 16d COMMON (3½" x 0.162") MINIMUM, TABLE 2308.10.4.1 4 - 3" x 0.131" NAILS 4 - 3" 14 GAGE STAPLES	FACE NAIL
18. CEILING JOISTS TO PARALLEL RAFTERS (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3 - 16d COMMON (3½" x 0.162") MINIMUM, TABLE 2308.10.4.1 4 - 3" x 0.131" NAILS 4 - 3" x 14 GAGE STAPLES	FACE NAIL
19. RAFTER TO PLATE (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3 - 8d COMMON (3½" x 0.131") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	TOENAIL
20. 1" DIAGONAL BRACE TO EACH STUD AND PLATE	2 - 8d COMMON (2½" x 0.131") 2 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	FACE NAIL
21. 1" x 8" SHEATHING TO EACH BEARING	3 - 8d COMMON (2½" x 0.131")	FACE NAIL
22. WIDER THAN 1" x 8" SHEATHING TO EACH BEARING	3 - 8d COMMON (2½" x 0.131")	FACE NAIL
23. BUILT-UP CORNER STUDS	16d COMMON (3½" x 0.162") 3" x 0.131" NAILS 3" 14 GAGE STAPLES	24" O.C. 16" O.C. 16" O.C.
24. BUILT-UP GIRDER AND BEAMS	20d COMMON (4" x 0.192") AT 32" O.C. 3" x 0.131" NAILS AT 24" O.C. 3" 14 GAGE STAPLES AT 24" O.C.	FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	2 - 20d COMMON (4" x 0.192") 3 - 3" x 0.131" NAILS 3 - 3" x 14 GAGE STAPLES	FACE NAIL AT ENDS AND AT EACH SPLICE
25. 2" PLANKS	16d COMMON (3½" x 0.162")	AT EACH BEARING
26. COLLAR TIE TO RAFTER	3 - 10d COMMON (3" x 0.148") 4 - 3" x 0.131" NAILS 4 - 3" 14 GAGE STAPLES	FACE NAIL

FASTENING SCHEDULE CBC 2019 TABLE 2304.10.1 (CONT.)

CONNECTION	FASTENING	LOCATION
27. JACK RAFTER TO HIP	3 - 10d COMMON (3" x 0.148") 4 - 3" x 0.131" NAILS 4 - 3" 14 GAGE STAPLES	TOENAIL
	3 - 10d COMMON (3" x 0.148") 4 - 3" x 0.131" NAILS 4 - 3" x 14 GAGE STAPLES	FACE NAIL
28. ROOF RAFTER TO 2-BY RIDGE BEAM	2 - 16d COMMON (3½" x 0.162") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	TOENAIL
	2 - 16d COMMON (3½" x 0.162") 3 - 3" x 0.131" NAILS 3 - 3" x 14 GAGE STAPLES	FACE NAIL
29. JOIST TO BAND JOIST	3 - 16d COMMON (3½" x 0.162") 4 - 3" x 0.131" NAILS 4 - 3" 14 GAGE STAPLES	FACE NAIL
30. LEDGER STRIP	3 - 16d COMMON (3½" x 0.162") 4 - 3" x 0.131" NAILS 4 - 3" 14 GAGE STAPLES	FACE NAIL AT EACH JOIST
31. WOOD STRUCTURAL PANELS AND PARTICLEBOARD[a] SUBFLOOR, ROOF, AND WALL SHEATHING (TO FRAMING)	½" AND LESS: 6d[c,i]; 2⅜" x 0.113" NAIL[c]; 1¼" 16 GAGE[c] 19/32" TO ¾": 8d OR 6d[c]; 2⅜" x 0.113" NAIL[c]; 2" 16 GAGE[c] ⅞" TO 1": 8d[c] 1⅛" TO 1¼": 10d[c] OR 8d[c]	
SINGLE FLOOR (COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING)	¾" AND LESS: 6d[c] ⅞" TO 1": 8d[c] 1⅛" TO 1¼": 10d[c] OR 8d[c]	
32. PANEL SIDING (TO FRAMING)	½" OR LESS: 6d[f] ⅝": 8d[f]	
33. FIBERBOARD SHEATHING[g]	½": NO. 11 GAGE ROOFING NAIL[h]; 6d COMMON NAIL (2" x 0.113"); NO. 16 GAGE STAPLE[k] 25/32": NO. 11 GAGE ROOFING NAIL[h]; 8d COMMON NAIL (2½" x 0.113"); NO. 16 GAGE STAPLE[k]	
34. INTERIOR PANELING	¼": 4d[l] ⅜": 6d[k]	

FOR SI: 1 INCH = 25.4MM.

a. COMMON BOX NAILS A RE PERMITTED TO BE USED EXCEPT WHERE OTHERWISE STATED.
b. NAILS SPACED AT 6 INCHES ON CENTER AT EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS EXCEPT 6 INCHES AT SUPPORTS WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2305. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.
c. COMMON OR DEFORMED SHANK (6d -2" x 0.113"; 8d - 2 ½" x 0.131": 10d - 3" x 0.148")
d. COMMON (6d - 2" x 0.113"; 8d - 2½" x 0.131": 10d - 3" x 0.148").
e. DEFORMED SHANK (6d - 2" x 0.113"; 8d - 2½" x 0.131": 10d - 3" x 0.148").
f. CORROSION-RESISTANT SIDING (6d - 1⅞" x 0.106"; 8d - 2⅜" x 0.128") OR CASING (6d - 2" x 0.099"; 8d - 2½" x 0.113") NAIL.
g. FASTENERS SPACED 3 INCHES ON CENTER AT EXTERIOR EDGES AND 6 INCHES ON CENTER AT INTERMEDIATE SUPPORTS, WHEN USED AS STRUCTURAL SHEATHING. SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS.
h. CORROSION-RESISTANT ROOFING NAILS WITH 7/16-INCH-DIAMETER HEAD AND 1½-INCH LENGTH FOR ½-INCH SHEATHING AND 1¾-INCH LENGTH FOR 25/32-INCH SHEATHING.
i. CORROSION-RESISTANT STAPLES WITH NOMINAL 7/16-INCH CROWN OR 1-INCH CROWN AND 1¼ -INCH LENGTH FOR ½ -INCH SHEATHING AND 1 ½ -INCH LENGTH FOR 25/32 -INCH SHEATHING. PANEL SUPPORTS AT 16 INCHES (20 INCHES IF STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED).
j. CASING (1½" x 0.080") OR FINISH (1½" x 0.072") NAILS SPACED 6 INCHES ON PANEL EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS.
k. PANEL SUPPORTS AT 24 INCHES. CASING OR FINISH NAILS SPACED 6 INCHES ON PANEL EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS.
l. FOR ROOF SHEATHING APPLICATIONS, 8d NAILS (2½" x 0.113") ARE THE MINIMUM REQUIRED FOR WOOD STRUCTURAL PANELS.
m. STAPLES SHALL HAVE A MINIMUM CROWN WIDTH OF 7/16 INCH.
n. FOR ROOF SHEATHING APPLICATIONS, FASTENERS SPACED 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS.
o. FASTENERS SPACED 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS FOR SUBFLOOR AND WALL SHEATHING AND 3 INCHES ON CENTER AT EDGES, 6 INCHES AT INTERMEDIATE SUPPORTS FOR ROOFING SHEATHING.
p. FASTENERS SPACED 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS.

SHEAR WALL SCHEDULE PER CBC 2019

SHEAR WALL SPECIFICATIONS						FRAMING REQUIREMENTS				
SHEAR PANEL SYMBOL	UNIT SHEAR (PLF)	SHEATHING GRADE AND THICKNESS	NAIL SIZE	TYPICAL EDGE NAILING	TYPICAL FIELD NAILING	MIN STUD SIZE AT EDGES	SILL PLATE[s]		TOP PLATE[t]	
							SILL BOLTS	MIN SILL PLATE	A35	LTP4
6	**260 E 392 W**	½" CDX	**8d**	**6"**	**12"**	**2x**	⅝" Ø AT 42" O.C.	**2x**	**24" O.C.**	**24" O.C.**
4	**350 E 602 W**	½" CDX	**8d**	**4"**	**12"**	**2x**	⅝" Ø AT 27" O.C.	**2x**	**18" O.C.**	**18" O.C.**
3	**490 E 770 W**	½" CDX	**8d**	**3"**	**12"**	**3x**	⅝" Ø AT 21" O.C.	**3x**	**12" O.C.**	**12" O.C.**
2	**640 E 1022 W**	½" CDX	**8d**	**2"**	**12"**	**3x**	⅝" Ø AT 16" O.C.	**3x**	**8" O.C.**	**8" O.C.**

SHEAR WALL NOTES:

1) ALL SHEAR WALL EDGES SHALL BE SUPPORTED BY AND FASTENED TO FRAMING MEMBERS OR BLOCKING PER 2015 NDS 4.3.7.1. REFER TO TABLE 4.3A OF 2015 NDS FOR OTHER REQUIREMENTS.
2) NAILING SHALL BE LOCATED A MINIMUM OF ⅜" FROM THE PANEL EDGES. MAXIMUM NAIL SPACING AT PANEL EDGES SHALL BE 6" O.C.
3) CONTRACTOR MAY CHOOSE ONE OF THE TWO TOP PLATE CONNECTOR OPTIONS.
4) AT WALLS WHICH BEAR TRUSSES; SIMPSON'S H1 CLIP MAY BE USED IN PLACE OF ONE A35 OR LTP4 TOP PLATE CONNECTOR FOR SHEAR TRANSFER.
5) ANCHOR BOLTS ARE TO BE SPACED PER SHEAR WALL SCHEDULE U.N.O.
6) ALL SILL BOLTS ARE TO HAVE SIMPSON BP ⅝-3 BEARING PLATE WASHERS. PLATE WASHERS SHALL EXTEND TO WITHIN ½" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING OR OTHER MATERIAL WITH NOMINAL UNIT SHEAR CAPACITY GREATER THAN 400 PLF PER 2015 NDS 4.3.6.4.3.
7) STAGGER NAILING AT ALL PANEL EDGES PER 2015 NDS 4.3.7.4.
8) THE ELECTRICAL PANEL MAY NOT BE LOCATED WITHIN A SHEARWALL. IF THE ELECTRICAL PANEL IS TO BE POSITIONED WITHIN A SHEARWALL, ENGINEERING CALCULATIONS AND DETAILING MUST BE PROVIDED

ABBREVIATIONS

A.B.	= ANCHOR BOLT	HORIZ	= HORIZONTAL
A/C	= AIR CONDITIONER	HT	= HEIGHT
A/E	= ARCHITECT/ENGINEER	IF	= INSIDE FACE
ACST	= ACOUSTIC	INFO	= INFORMATION
AD	= AREA DRAIN	INSTL	= INSTALL
B.A.	= BURGLAR ALARM	INSUL	= INSULATION
BD	= BOARD	K	= KIPS
BOT	= BOTTOM	KIP	= THOUSAND POUNDS
CLR	= CLEARANCE	KSF	= KIPS PER SQUARE FOOT
CONC	= CONCRETE	LAM	= LAMINATE
COND	= CONDENSER	LIN	= LINEAR
CONST.	= CONSTRUCTION	MCJ	= MASONRY CONTROL JOINT
DBL	= DOUBLE	MIL	= MILLIMETER
DEG	= DEGREE	MIN	= MINIMUM
DEMO	= DEMOLITION	OC	= ON CENTER
DIA	= DIAMETER	OH	= OVER HANG
DIST	= DISTANCE	O	= OPEN
DJ	= DOUBLE JOIST	OSB	= ORIENTED STRAND BOARD
DW	= DISH WASHER	PCF	= POUNDS PER CUBIC FOOT
DWL	= DOWELS	PT	= PRESSURE TREATED
E	= ENAMEL	PL	= PLATE
EN	= EDGE NAIL	PSF	= POUNDS PER SQUARE FOOT
EW	= EACH WAY	RR	= ROOF RAFTER
EXIST	= EXISTING	REF	= REFRIGERATOR
EXT	= EXTERIOR	S AND P	= SHELF AND POLE
FAU	= FORCED AIR UNIT	SA	= SUPPLY AIR
FF	= FINISHED FLOOR	SD	= SMOKE DETECTOR
FIB	= FIBER	SIM	= SIMILAR
FIN	= FINISH	STL	= STEEL
FLUOR	= FLUORESCENT	SUB	= SUBSTITUTE
GA	= GAGE	TEMP	= TEMPERED
GI	= GALVANIZED METAL	TOC	= TOP OF CONCRETE
GFI	= GROUND FAULT INTERRUPTER	TOF	= TOP OF FOOTING
		TYP	= TYPICAL
GLZ	= GLAZING	UNO	= UNLESS NOTED OTHERWISE
GYP BD.	= GYPSUM BOARD	W/H	= WATER HEATER
HE	= HIGH EFFICIENCY	WP	= WEATHER PROOF
HB	= HOSE BIB	WWM	= WELDED WIREMESH

SYMBOLS

CONTINUOUS MEMBER
BLOCKING
1 / D1.0 — DETAIL NUMBER / SHEET NUMBER
4 / 10' — SHEARWALL SYMBOL (SEE SCHEDULE); SHEARWALL TYPE; SHEARWALL LENGTH
N — NORTH ARROW
2 — FOOTING SYMBOL

MATERIAL PROPERTIES

CONCRETE:

1) ALL CONCRETE SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL CONCRETE, ACI 301-10.
2) CONCRETE STRENGTH SHALL BE 2500 PSI AT 28 DAYS.
3) CONCRETE SHALL HAVE A MAXIMUM AGGREGATE SIZE = ¾". CONCRETE SHALL BE MIXED, PLACED, AND CURED IN ACCORDANCE TO CURRENT EDITION OF THE ACI 318.
4) CONCRETE MIX DESIGNS (INCLUDING AIR CONTENT, WATER TO CEMENT RATIOS, AND OTHER CRITERIA) SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN ACI 318 TABLE 19.3.2.1, BASED ON EXPOSURE CATEGORIES AND CLASSES DEFINED IN ACI 318 TABLE 19.3.1.1. USE AIR ENTRAINING ADMIXTURE IN ALL EXTERIOR CONCRETE.
5) HOT WEATHER CONCRETING: WHEN HOT WEATHER CONDITIONS EXIST THAT WOULD IMPAIR THE QUALITY AND STRENGTH OF THE CONCRETE, REDUCE DELIVERY TIME OF READY MIX CONCRETE, LOWER THE TEMPERATURE OF MATERIALS, OR ADD RETARDER TO ENSURE THAT THE CONCRETE IS PLASTIC. RETEMPERING WITH WATER IS NOT ALLOWED. COMPLY WITH ACI 305R.

REINFORCING STEEL:

6) STEEL REINFORCEMENT SHALL CONFORM WITH ASTM A615:
   GRADE 40: #4 BARS AND SMALLER
   GRADE 60: #5 BARS AND LARGER
7) REINFORCEMENT LAP SPLICE SHALL BE IN ACCORDANCE WITH ACI, CHAPTER 12, UNLESS NOTED OTHERWISE.
8) REINFORCING SHALL NOT BE TACK WELDED OR WELDED IN ANY MANNER UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL PLANS.
9) ALL WELDED WIRE FABRIC SHALL BE DEFORMED AND SHALL CONFORM TO ASTM A479. PROVIDE IN FLAT SHEETS ONLY.
10) ALL HORIZONTAL REINFORCING IN FOOTINGS, WALLS, AND BEAMS SHALL BE CONTINUOUS AROUND CORNERS OR HAVE BENT (CORNER) BARS OF THE SAME SIZE AND SPACING AS THE HORIZONTAL BARS AND LAP 30 BAR DIAMETERS (24" MINIMUM).
11) ANCHOR BOLTS SHALL BE ASTM A307.
12) ALL ADHESIVE (EPOXY) FOR POST-INSTALLED ANCHORS AND/OR REBAR INTO CONCRETE SHALL BE SIMPSON SET-XP EPOXY-TIE ANCHOR SYSTEM.

WOOD:

13) ALL LUMBER SHALL BE IDENTIFIED WITH THE GRADE MARK AND STAMP OF THE GRADING ASSOCIATION INDICATING THE SPECIES.
14) ALL SAWN LUMBER (2"-4" THICK, 2" & WIDER) EXCEPT STUDS SHALL BE DOUGLAS FIR-LARCH NO. 2 OR BETTER.
15) ALL SAWN LUMBER (5"x5" OR LARGER BEAMS AND STRINGERS) SHALL BE DOUGLAS FIR-LARCH NO. 1 OR BETTER.
16) ALL SAWN LUMBER (5"x5" OR LARGER POSTS AND TIMBERS) SHALL BE DOUGLAS FIR-LARCH NO. 1 OR BETTER.
17) ALL STRUCTURAL GLU-LAMINATED BEAMS AND GIRDERS SHALL BE OF DOUGLAS FIR-LARCH W/ ALLOWABLE STRESSES CORRESPONDING TO 24F-V8 AS LISTED IN THE LATEST EDITION OF THE NDS CODE.
18) COORDINATE W/ ARCHITECTURAL DRAWINGS FOR FINISH OF THE SURFACE OF ALL GLU-LAMINATED BEAMS.
19) LAMINATED VENEER LUMBER (MICROLLAM, GANGLAM): ALL BEAMS SHALL HAVE A FLEXURAL STRESS OF FB = 2600 PSI AND MODULUS OF ELASTICITY OF E = 1,900,000 PSI.
20) PARALLEL STRAND LUMBER (PARALLAM): ALL BEAMS SHALL HAVE A FLEXURAL STRESS OF FB = 2900 PSI AND MODULUS OF ELASTICITY OF E = 2,000,000 PSI.
21) JOIST HANGERS SHALL BE SIMPSON STRONG-TIE OR EQUAL W/ CONNECTIONS INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
22) STEEL SIDE PLATES SHALL BE ASTM A36.
23) ALL NEW LUMBER SHALL NOT BE ENCLOSED WHEN THE FRAMING MEMBER EXCEEDS 19% MOISTURE CONTENT PER CALGREEN 4.505.3.

GENERAL STRUCTURAL NOTES

CODES AND MANUALS:

IBC-18 INTERNATIONAL BUILDING CODE 2018
CBC-19 CALIFORNIA BUILDING CODE 2019
ASCE/SEI 7-16 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
NDS 2015 NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION 2015
ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
AISC MANUAL OF STEEL CONSTRUCTION 15TH EDITION
AWS D1.1-04 STRUCTURAL WELDING CODE - STEEL
AWS D1.4-11 STRUCTURAL WELDING CODE - REINFORCING STEEL

GENERAL:

WILLIAMSON CHAVEZ DESIGN ASSUMES NO RESPONSIBILITY FOR ITEMS NOT A PART OF THE APPROVED AND SIGNED PLANS.

CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSON AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN THE CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

CONTRACTOR SHALL COORDINATE DIMENSIONS OF ALL OPENINGS, DEPRESSIONS, BLOCKOUTS, ETC WITH ARCHITECTURAL DRAWINGS, DRAWINGS FROM OTHER DISCIPLINES, PROJECT SHOP DRAWINGS, AND EXISTING FIELD CONDITIONS PRIOR TO CONSTRUCTION.'

CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR ERRORS DETECTED IN THE APPROVED SET OF PLANS.

WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN. DETAILS ON DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ELSEWHERE ON THE PROJECT.

PROTECTION: PROPER PRECAUTIONS SHALL BE TAKEN AT ALL TIMES TO PROTECT VEHICULAR AND PEDESTRIAN TRAFFIC FROM ANY DAMAGE OR INJURY WHICH MAY BE CAUSED, EITHER DIRECTLY OR INDIRECTLY. BY THE WORK INCLUDED ON THESE DRAWINGS SUCH PRECAUTIONS SHALL INCLUDE THE ERECTION AND MAINTENANCE OF FENCES, BARRICADES, RAILINGS, GUARDS, SIGNS, COVERINGS, LIGHTS, AND OTHER PRECAUTIONS AS MAY BE REQUIRED.

SITE CONDITIONS: THE CONTRACTOR SHALL EXAMINE AND CHECK ALL EXISTING CONDITIONS, DIMENSIONS, LEVELS AND MATERIALS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

STRUCTURAL FLOOR MEMBERS SHALL NOT BE CUT, BORED OR NOTCHED IN EXCESS OF THE LIMITATIONS SPECIFIED IN SECTION R502.8.

DRILLING AND NOTCHING OF STUDS SHALL BE IN ACCORDANCE WITH R602.6.

STRUCTURAL ROOF MEMBERS SHALL NOT BE CUT, BORED, OR NOTCHED IN EXCESS OF THE LIMITATIONS SPECIFIED IN SECTION R802.7.

STRUCTURAL

DESIGN PARAMETERS

OCCUPANCY GROUP:	SEE ARCH
CONSTRUCTION TYPE:	SEE ARCH
DESIGNED TO THE ASCE 7-16 STANDARDS	
RISK CATEGORY =	II
ROOF DEAD LOAD =	15 PSF
ROOF LIVE LOAD =	20 PSF
FLOOR LIVE LOAD / BALCONY LIVE LOAD	40 / 60 PSF
BASIC WIND SPEED =	92 MPH
WIND EXPOSURE =	C
GROUND SNOW LOAD =	0 PSF
SEISMIC IMPORTANCE FACTOR =	1.0
LATERAL FORCE RESISTING SYSTEM = LIGHT-FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE	
RESPONSE MODIFICATIONS FACTOR, R =	6.5
ORDINARY MOMENT FRAME, R =	4.5
OVER-STRENGTH FACTOR, OMEGA =	2.5
DEFLECTION AMPLIFICATION FACTOR, CD =	4.0
CsWOOD =	0.274

SEISMIC PARAMETERS	VALUE
SITE CLASS	D
Seismic Design Category, SDC	E
Short period spectral response acceleration, Ss	2.23
1-Second spectral response acceleration, S1	0.927
Short period site coefficient, Fa	1.2
1-Second site coefficient, Fv	2.5
Adjusted short period spectral response acceleration, Sms	2.676
Adjusted 1-Second period spectral response acceleration Sm1	2.316
Short period design spectral acceleration, SDS	1.784
1-Second design spectral acceleration,SD1	1.545

SHEET INDEX

SPECIAL INSPECTION AND TESTING

THE FOLLOWING ITEMS SHALL BE INSPECTED. "SPECIAL INSPECTION" SHALL CONFORM TO SECTION 1704 OF THE 2019 CALIFORNIA BUILDING CODE. SPECIAL INSPECTION AGENCIES AND/OR INDIVIDUALS SHALL BE RETAINED BY THE OWNNER AND APPROVED BY THE BUILDING OFFICIAL PRIOR TO ANY WORK FOR MATERIAL TESTING REQUIREMENTS. SEE SPECIFICATIONS AND/OR GENERAL NOTES. TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECT TO THE BUILDING OFFICIAL AND ENGINEER OF RECORD.

ITEM	REQUIRED	REMARKS

WILLIAMSON CHAVEZ DESIGN
PO BOX 53054
ALBUQUERQUE, NM 87153
PHONE NO: 661.586.1205
CONTACT: DAVID LARA, PE

LICENSED PROFESSIONAL ENGINEER — David Antonio Lara — C 87205 — Civil Engineer — STATE OF CALIFORNIA
09/22/2021
EXP: 09/30/2023

GENERAL NOTES

NEW ADDITION / REMODEL:
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

NO.	DATE
1	
2	
3	
4	

JOB NO:	092021-03
DATE:	9/24/2021
DRAWN BY:	DAL
SCALE:	N.T.S.
SHEET NO:	S0.0

DIAPHRAGM SCHEDULE

SHEAR PANEL SYMBOL	UNIT SHEAR (PLF)	UNIT SHEAR (PLF)	SHEATHING GRADE AND THICKNESS	NAIL SIZE	TYPICAL EDGE NAILING	TYPICAL FIELD NAILING
	CASE 1	CASE 2 - 6				
R	240	180	½" CDX OR OSB	8d	6"	12"
F	285	215	1" CDX OR OSB	10d	6"	12"

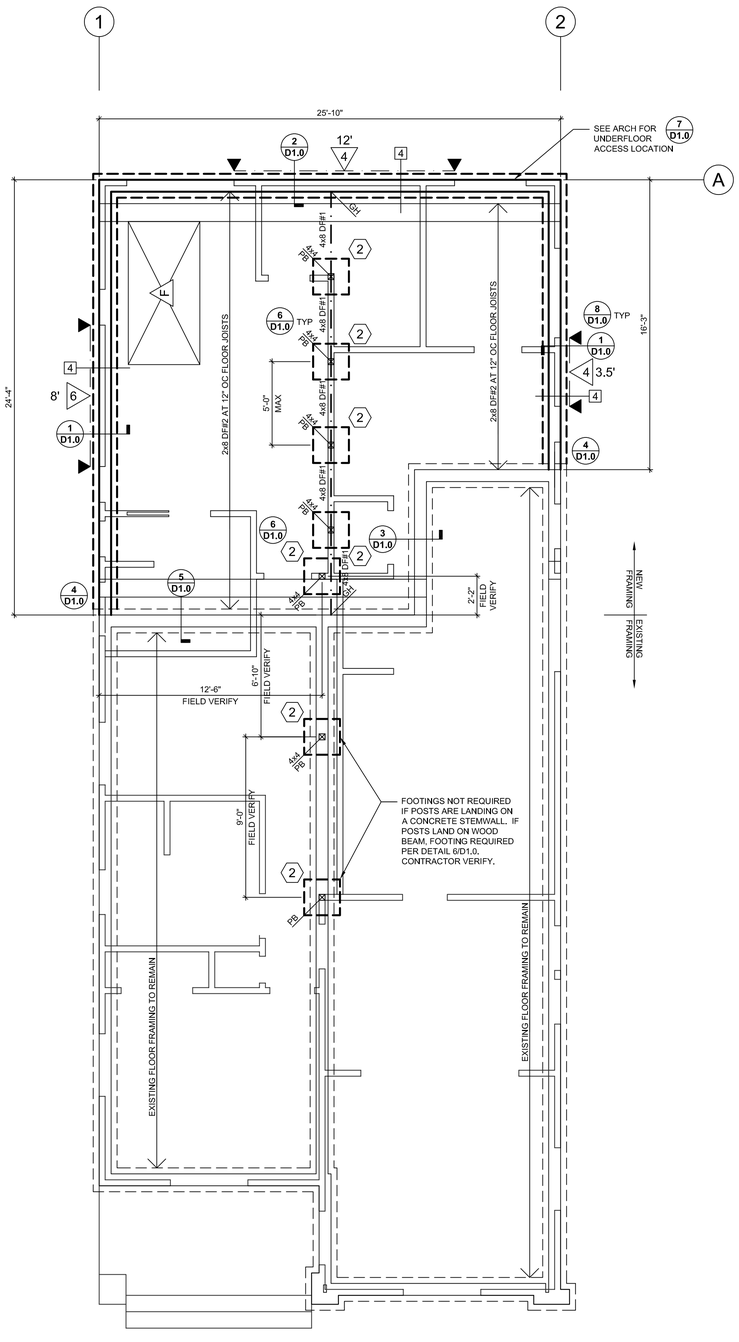
DIAPHRAGM NOTES:

1) ALL DIAPHRAGM EDGES SHALL BE SUPPORTED BY AND FASTENED TO 2x MIN FRAMING MEMBERS OR BLOCKING PER 2018 NDS. REFER TO 4.2 OF 2018 NDS FOR OTHER REQUIREMENTS
2) NAILING SHALL BE LOCATED A MINIMUM OF ⅜" FROM THE PANEL EDGES. MAXIMUM NAIL SPACING AT PANEL EDGES SHALL BE 6" O.C.
3) ALL SHEATHING SHALL HAVE A MINIMUM 48/24 SPAN RATING.

CONTRACTOR SHALL NOTIFY WILLIAMSON CHAVEZ DESIGN IMMEDIATELY OF ANY DISCREPANCIES OR ERRORS DETECTED IN THE APPROVED SET OF PLANS.

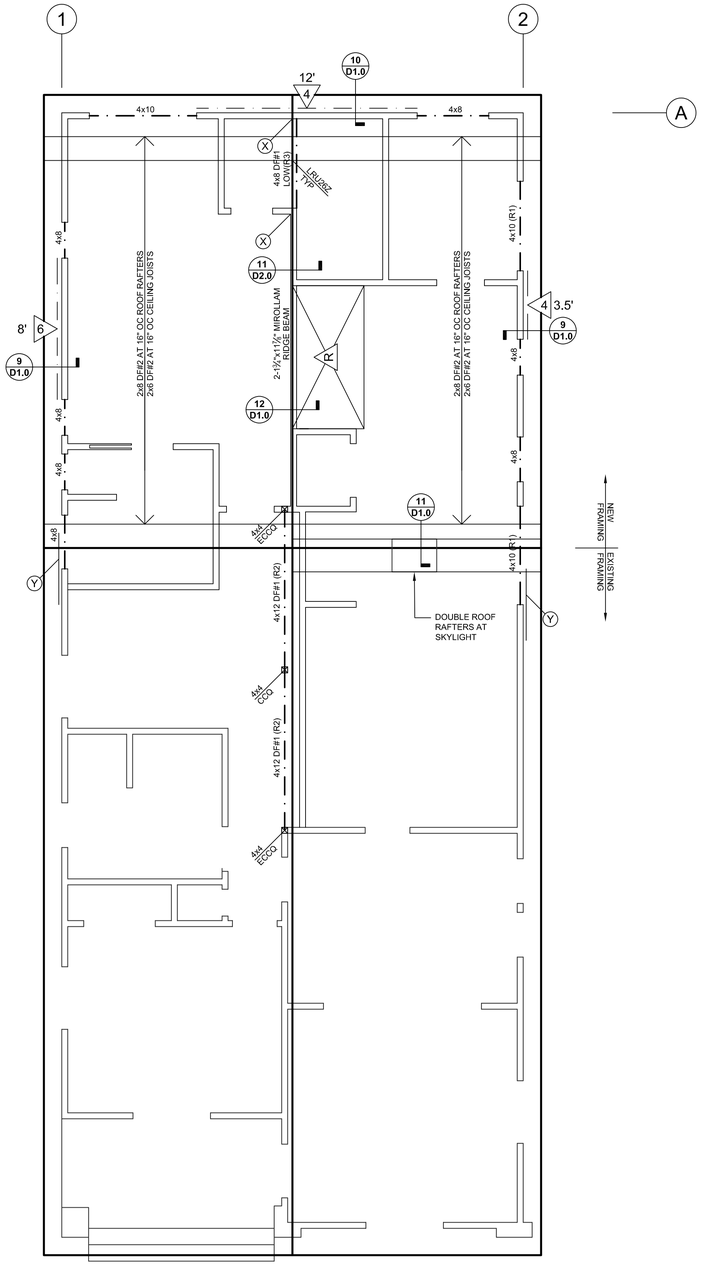
WILLIAMSON CHAVEZ DESIGN ASSUMES NO RESPONSIBILITY FOR ITEMS NOT A PART OF THE APPROVED AND SIGNED PLANS

CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. DO NOT SCALE PLANS.



FOUNDATION PLAN

1/4" = 1'-0"



ROOF FRAMING PLAN

1/4" = 1'-0"

FOUNDATION NOTES

1) SEE SHEET S0.0 FOR SHEAR WALL SCHEDULE.
2) CONCRETE STRENGTH SHALL BE 2500 PSI AT 28 DAYS, EXPOSURE CLASS SO.
3) CONTRACTOR SHALL VERIFY ALL DIMENSIONS.
4) CONCRETE SAWED CONTROL JOINTS SHALL HAVE A MINIMUM DEPTH OF 1" W/ A SPACING OF 15'-0" O.C. EA. WAY.
5) ALL HOLDOWNS MUST BE TIED IN PLACE PRIOR TO FOUNDATION INSPECTION.
6) PRE-MOISTEN SOIL UNDER SLAB AND FOOTINGS.
7) LAP REINFORCEMENT BARS AS SHOWN PER DETAIL.
8) PRESSURE TREATED WOOD MUST BE USED FOR ALL SILL PLATES OR WOOD IN CONTACT WITH CONCRETE OR MASONRY.
9) ATTACH INTERIOR WOOD POSTS TO BOTTOM P.T.D.F. SILL PLATE W/ 'SIMPSON' A34 AT EA. SIDE.
10) 4" CONCRETE PAD AT ALL EXTERIOR DOORS OVER 4" CLEAN COMPACTED FILL SAND, THICKEN AT PERIMETER.
11) PROVIDE 5/8" x 10" ANCHOR BOLTS AT 4'-0" OC MAX AT EXTERIOR WALLS (MIN 2 PER PLATE, BOLTS LOCATED AT END OF PLATE SHALL BE WITHIN 12'-0" OF END). PROVIDE ANCHOR BOLTS AT SHEAR PANELS PER SHEARWALL SCHEDULE. USE 3"x3"x0.229 PLATE WASHERS.
12) ALL ANCHOR BOLTS AND HOLDDOWNS ARE TO BE INSTALLED AND SECURELY HELD IN PLACE PRIOR TO INSPECTIONS.
13) ELEVATION OF SLAB SHALL BE 12" PLUS 2% ABOVE LINE OF DRAINAGE AT STREET GUTTER. CBC 2019.
14) FINISH FLOOR SHALL BE A MINIMUM OF 8" ABOVE ADJACENT FINISH GRADE. FINISH GRADE SHALL SLOPE 5% FOR A DISTANCE OF 10'-0" TO AN APPROVED WATER DISPOSAL AREA.
15) PLATE ATTACHMENT FOR ALL NON-BEARING PARTITIONS SHALL BE HILTI DNT22.145x2 7/8" LONG, SPACED AT 16" OC (ICBO 1288).
16) SPREAD FOOTINGS SHALL BEAR ONLY ON CONTROLLED COMPACTED ENGINEERED FILL OR UNDISTURBED NATIVE SOIL. ALL FOOTINGS SHALL BEAR A MINIMUM OF 12 INCHES BELOW FINISH GRADE. FINISH GRADE IS THE LOWEST ADJACENT GRADE WITHIN 5'-0" FOR PERIMETER FOOTINGS AND FLOOR LEVEL FOR INTERIOR FOOTINGS. INSTALL NO. 4 VERT. REINFORCEMENT WITH 6" HOOK AT ALL HOLDOWNS UNLESS NOTED OTHERWISE.
17) VAPOR BARRIER TO BE 0.010 MIL POLYETHYLENE UNO.
18) ALL EXPOSED POSTS AT DECK THAT ARE AT GROUND LEVEL TO BE PRESSURE TREATED WOOD.

KEYNOTES:

4 = ⅝"Ø ANCHOR BOLTS x 12" DEEP. ALL ANCHOR BOLTS SHALL HAVE 3"x3"x0.229" STEEL BEARING PLATE W/ MIN. 7" ANCHOR BOLT EMBEDMENT. SPACING PER SHEAR WALL SCHEDULE.

HOLDOWN SCHEDULE

HOLDOWN SPECIFICATIONS[1, 2, 3]					FRAMING REQUIRED
HOLDOWN SYMBOL	SIMPSON HOLDOWN	HOLDOWN ANCHOR[4]	SIMPSON STRAP	MINIMUM FOOTING DEPTH	POST SIZE AT HOLDOWN
▲	HDU4	**SSTB16**	-	**12" BELOW GRADE**	**4x POST**

HOLDOWN NOTES:

1) INSTALL ALL HOLDOWNS PER MANUFACTURERS SPECIFICATIONS.
2) HOLDOWN ANCHOR BOLTS ARE TO HAVE A MINIMUM OF 1¾" EDGE DISTANCE FROM CONCRETE.
3) HOLDOWN ANCHOR BOLTS ARE TO HAVE A MINIMUM OF 5" CLEARANCE FROM END WALLS.
4) PLACE HOLDOWN ANCHORS AT A DIAGONAL IN A CORNER APPLICATION PER SIMPSON CATALOG C-2018.
5) USE SSTBL MODELS AT 3x P.T. DF SILL PLATES FOR LONGER THREAD LENGTH OF 5½"

FOOTING SCHEDULE

FOOTING SYMBOL	FOOTING SIZE	STEEL REINFORCEMENT	
		LONGITUDINAL BARS	TRANSVERSE BARS
2	**2'-0" x 2'-0" x1'-0" DEEP**	3 - #5 AT BOT	3 - #5 AT BOT

ROOF FRAMING NOTES

1) ALL NAILING SHALL COMPLY WITH 2019 CBC TABLE 2304.9.1.
2) THE MANUFACTURERS A.I.T.C. CERTIFICATION OF COMPLIANCE FOR GLU-LAM BEAMS OR MICRO-LAM BEAMS IS TO BE PROVIDED AT THE TIME OF FRAMING INSPECTION AND PROPERLY INDICATE THE FIBER BENDING AND GRADE SPECIFICATION.
3) ALL HEADERS ABOVE OPENINGS SHALL BE A MINIMUM OF 6x10 DF #1 U.N.O. ON PLANS AT 2x6 WALL LOCATIONS
4) ALL HEADERS ABOVE OPENINGS SHALL BE A MINIMUM 4x10 DF #2 U.N.O. ON PLANS AT 2x4 WALL LOCATIONS.
5) CEILING JOISTS TO BE 2x6 AT 16" OC U.N.O.
6) ALL TOP PLATES TO HAVE 48" MIN. LAP AT SPLICES WITH (24) 16d NAILS STAGGERED PER CONNECTION (U.N.O.).
7) ALL EAVE BLOCKS TO HAVE A35'S.
8) USE SIMPSON H-1 CLIPS AT EACH RAFTER TO TOP PLATE CONNECTION.
9) PLACE SHEAR PANEL ON SHEAR WALLS PRIOR TO THE CONSTRUCTION OF INTERSECTING WALLS
10) PROVIDE FIRE STOPS IN CONCEALED SPACES OF STUD WALLS INCLUDING SPACES AT CEILING AND FLOORS AND IN OPENINGS AROUND DUCTS, PIPES, CHIMNEYS, AND SIMILAR OPENINGS WHICH ALLOW PASSAGE OF FIRE. 10 FT MAX INTERVALS.
11) SOLID BLOCK BETWEEN EACH ROOF RAFTER WITH 8d AT 6" O.C. AND PROVIDE VENTED BLOCKS AT EVERY THIRD BAY IF APPLIES.
12) PROVIDE FLASHING AND COUNTER FLASHING AT ROOF TO WALL CONNECTIONS AND BASE OF CHIMNEY TO DIVERT RUNOFF.
13) MINIMUM TYPE 30 FELT UNDERLAYMENT PER CBC 2019 FOR CONCRETE TILE AND ARCH. COMP.
14) ALL CEILING JOISTS TO FOLLOW CBC 2019.

KEYNOTES:

= 2x6 BRACES AT 48" O.C. MAX SPAN = 10'-0"
= 2x8 BRACES AT 48" O.C. MAX SPAN = 12'-0"
= 2x18 BRACES AT 48" O.C. MAX SPAN = 16'-0"

= 2 - 2x6 BRACES NAILED W/ 16d AT 6" O.C. BRACES SPACED 48" O.C.

Y = MSTC48 STRAP AT NEW TO EXISTING DBL TOP PL (9 / D2.0)

WILLIAMSON CHAVEZ DESIGN
PO BOX 53054
ALBUQUERQUE, NM 87153
PHONE NO: 661.586.1205
CONTACT: DAVID LARA, PE

LICENSED PROFESSIONAL ENGINEER
David Antonio Lara
C 87203
Civil Engineer
STATE OF CALIFORNIA
09/22/2021
EXP: 09/30/2023

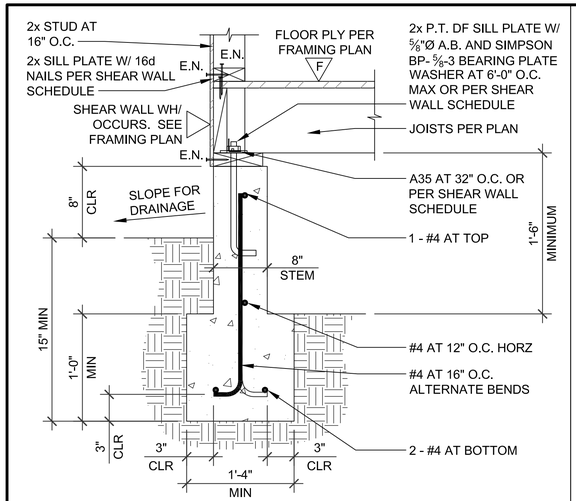
FOUNDATION PLAN
ROOF FRAMING PLAN

NEW ADDITION / REMODEL:
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

NO.	DATE
1	
2	
3	
4	

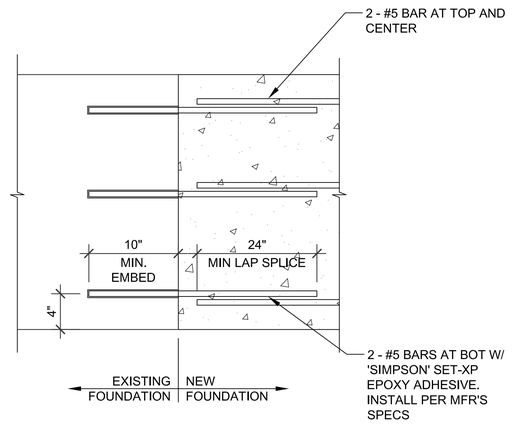
JOB NO:	092021-03
DATE:	9/24/2021
DRAWN BY:	DAL
SCALE:	N.T.S.

SHEET NO:
S1.0



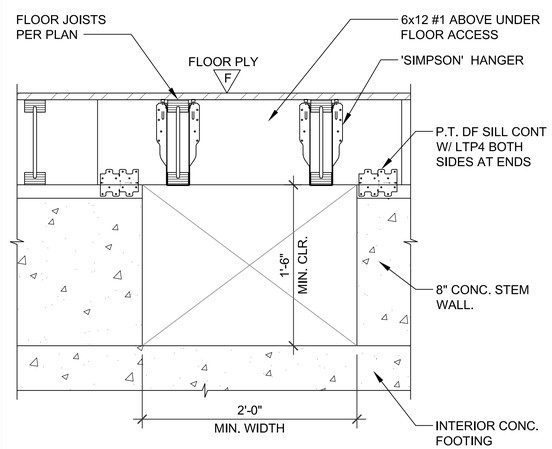
FLOOR JOISTS PERPENDICULAR TO FOOTING 01-10-01

1 EXTERIOR CONTINUOUS FOOTING 1 1/2" = 1'-0"



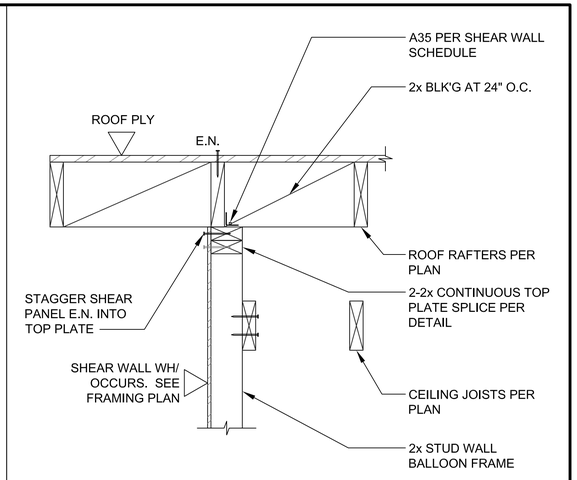
NEW TO EXISTING FOOTING 01-10-10

4 EXTERIOR CONTINUOUS FOOTING 1 1/2" = 1'-0"



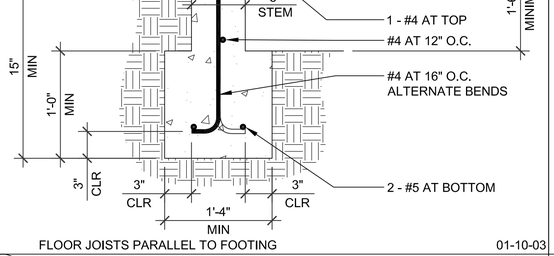
HEADER AT FLOOR ACCESS 01-10-10

7 UNDER FLOOR ACCESS 1 1/2" = 1'-0"



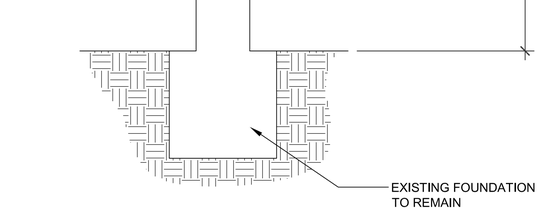
03-05-02

10 SHEARWALL AT GABLE END 1 1/2" = 1'-0"



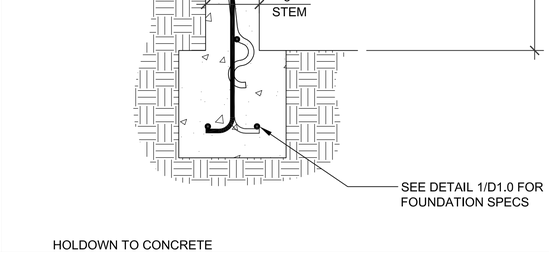
FLOOR JOISTS PARALLEL TO FOOTING 01-10-03

2 EXTERIOR CONTINUOUS FOOTING 1 1/2" = 1'-0"



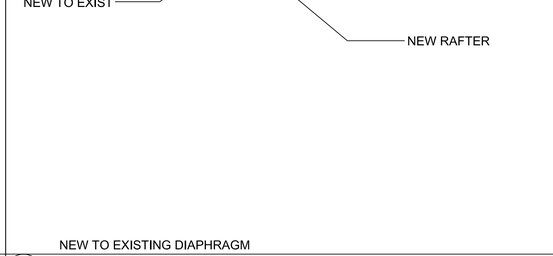
FLOOR JOISTS PARALLEL TO FOOTING 01-10-03

5 EXTERIOR CONTINUOUS FOOTING 1 1/2" = 1'-0"



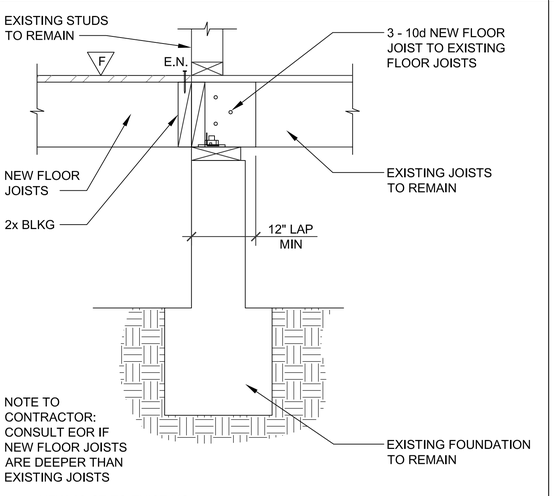
HOLDOWN TO CONCRETE

8 FOUNDATION DETAIL 1 1/2" = 1'-0"



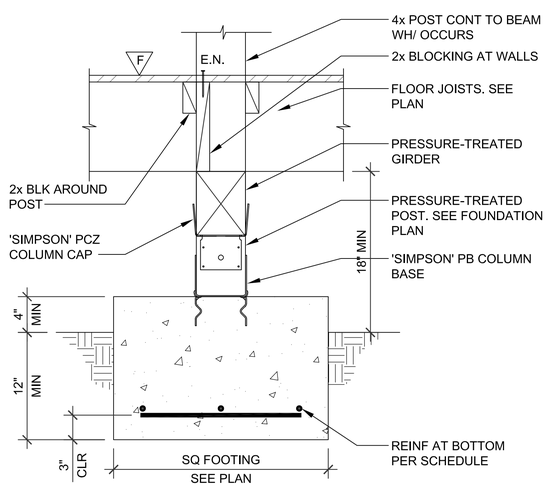
NEW TO EXISTING DIAPHRAGM

11 ROOF DETAIL 1 1/2" = 1'-0"



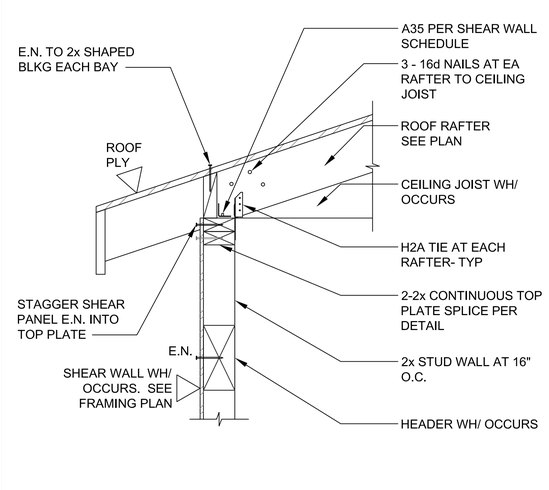
NEW JOIST TO EXISTING

3 CONTINUOUS FOOTING DETAIL 1 1/2" = 1'-0"



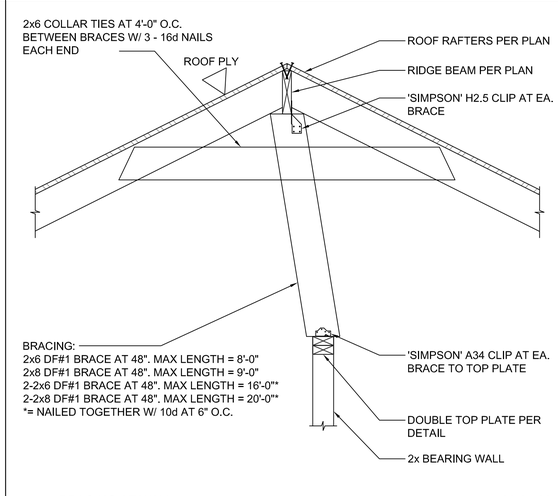
FOOTING DETAIL 01-02-02

6 INTERIOR PAD FOOTING 1 1/2" = 1'-0"



RAFTER PERPENDICULAR WITH WALL 03-01-01

9 SHEAR WALL AT EAVE 1 1/2" = 1'-0"



BRACING AT WALL 03-05-03

12 ROOF BRACING 1" = 1'-0"

WILLIAMSON CHAVEZ DESIGN
PO BOX 53054
ALBUQUERQUE, NM 87153
PHONE NO: 661.566.1205
CONTACT: DAVID LARA, PE

LICENSED PROFESSIONAL ENGINEER
David Antonio Lara
C 87305
Civil Engineer
STATE OF CALIFORNIA
09/22/2021
EXP: 09/30/2023

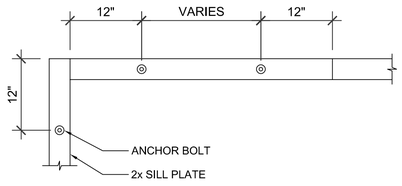
DETAILS

NEW ADDITION / REMODEL:
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

NO.	DATE
1	
2	
3	
4	

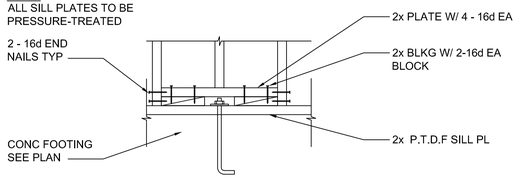
JOB NO:	092021-03
DATE:	9/24/2021
DRAWN BY:	DAL
SCALE:	N.T.S.

SHEET NO:
D1.0



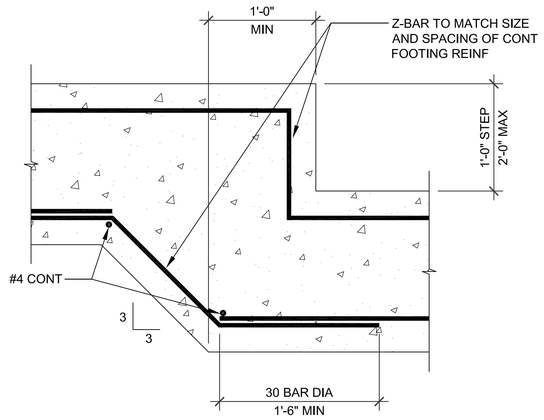
ANCHOR BOLT LAYOUT

NOTE:
ALL SILL PLATES TO BE PRESSURE-TREATED



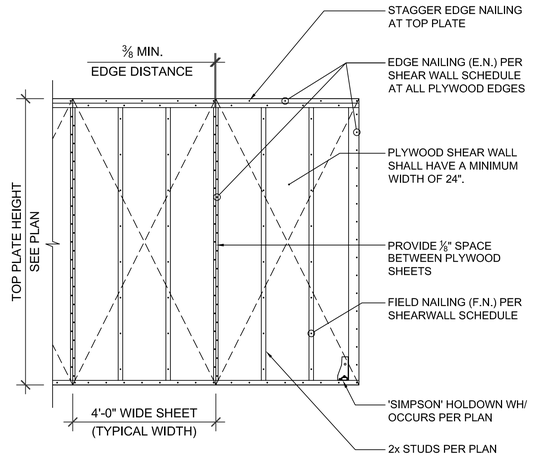
ANCHOR BOLT INTERFERENCE

1 TYPICAL ANCHOR BOLT LAYOUT — N.T.S.



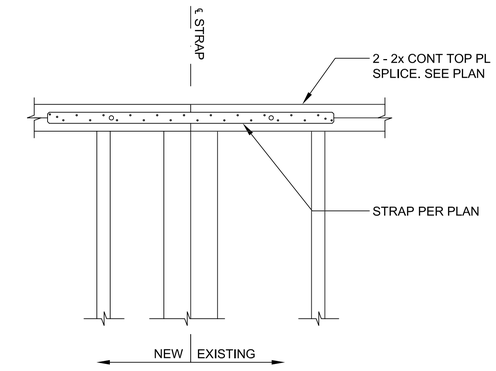
STEP IN CONC FOOTING

3 EXTERIOR CONTINUOUS FOOTING — 1 1/2" = 1'-0"



NAILING LAYOUT — 10-01-01

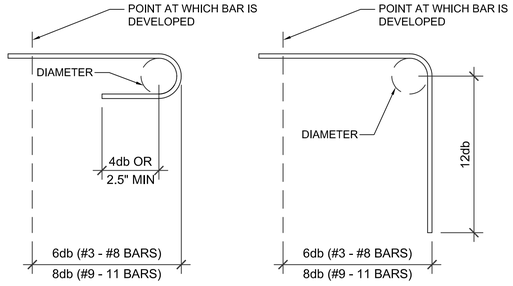
6 SHEARWALL LAYOUT — 1/2" = 1'-0"



NEW WALL TO EXISTING WALL

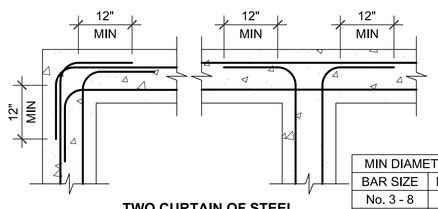
9 DETAIL — 1 1/2" = 1'-0"

DEVELOPMENT LENGTH SCHEDULE									
CONCRETE F'C (PSI)	DEVELOPMENT LENGTH (INCHES)								
	REBAR SIZE								
	#3	#4	#5	#6	#7	#8	#9	#10	#11
2500	10	13	16	20	52	60	68	75	83
3000	9	12	28	33	48	55	62	69	76
3500	9	11	28	31	45	51	58	64	70



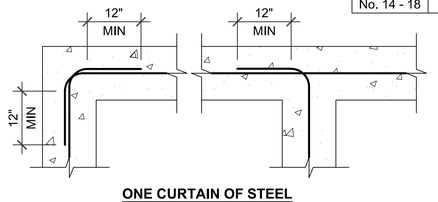
180 DEGREE HOOK FOR BARS

90 DEGREE HOOK FOR BARS



TWO CURTAIN OF STEEL

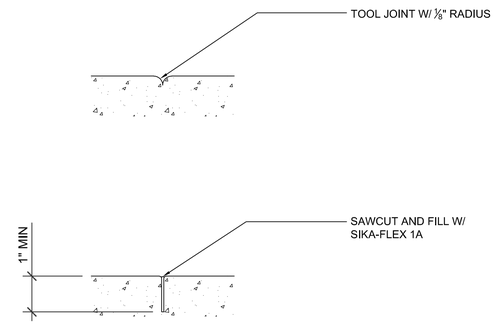
MIN DIAMETERS OF BEND	
BAR SIZE	MIN DIAMETER
No. 3 - 8	$6d_b$
No. 9 - 11	$8d_b$
No. 14 - 18	$10d_b$



ONE CURTAIN OF STEEL

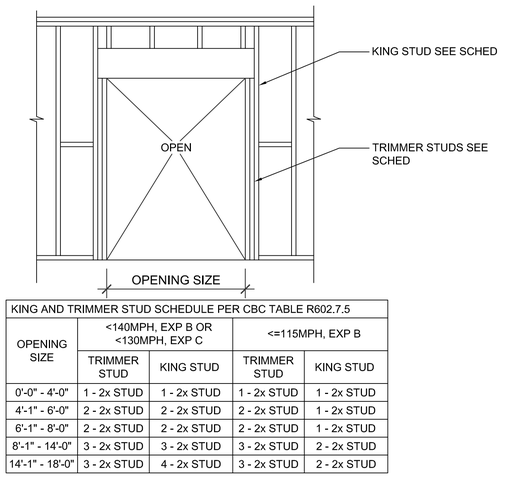
01-03-01

2 HORIZONTAL SPLICE REINFORCING — 3/4" = 1'-0"



01-03-02

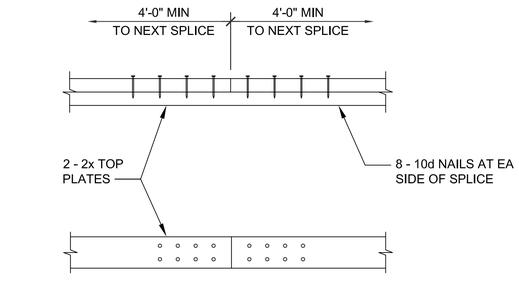
4 CONSTRUCTION JOINT — FULL



KING AND TRIMMER STUD SCHEDULE PER CBC TABLE R602.7.5				
OPENING SIZE	<140MPH, EXP B OR <130MPH, EXP C		<=115MPH, EXP B	
	TRIMMER STUD	KING STUD	TRIMMER STUD	KING STUD
0'-0" - 4'-0"	1 - 2x STUD	1 - 2x STUD	1 - 2x STUD	1 - 2x STUD
4'-1" - 6'-0"	2 - 2x STUD	2 - 2x STUD	2 - 2x STUD	1 - 2x STUD
6'-1" - 8'-0"	2 - 2x STUD	2 - 2x STUD	2 - 2x STUD	1 - 2x STUD
8'-1" - 14'-0"	3 - 2x STUD	3 - 2x STUD	3 - 2x STUD	2 - 2x STUD
14'-1" - 18'-0"	3 - 2x STUD	4 - 2x STUD	3 - 2x STUD	2 - 2x STUD

STUD SCHEDULE

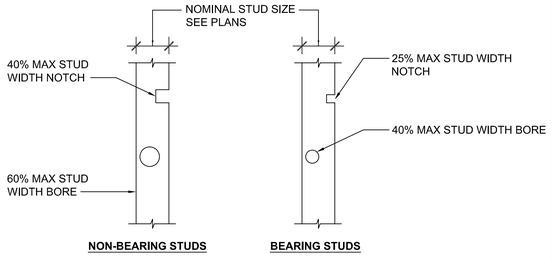
7 TYPICAL OPENING DETAIL — 1/2" = 1'-0"



PLAN VIEW

03-04-01

10 TOP PLATE SPLICE — 1 1/2" = 1'-0"



NON-BEARING STUDS **BEARING STUDS**

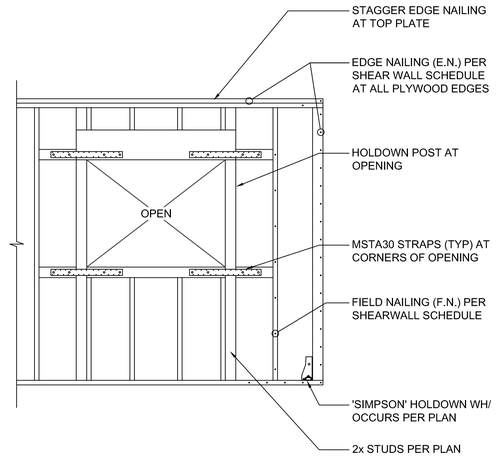
NOTES:
1. NOTCH AND BORING NOT TO OCCUR IN SAME STUD SECTION. DO NOT OVERCUT STUD AT NOTCHES.
2. NO MORE THAN 2 SUCCESSIVE DOUBLE STUDS MAY HAVE 60% MAX BORED HOLES

NOTE: NOTCHING IS NOT ALLOWED AT ALL DOUBLE STUDS OR WOOD POSTS

NOTCH / BORE SCHEDULE		
NOTCH/BORE % OF STUD	4" NOMINAL STUD SIZE	6" NOMINAL STUD SIZE
25%	7/8"	1 3/8"
40%	1 3/8"	2 1/8"
60%	2"	3 1/4"

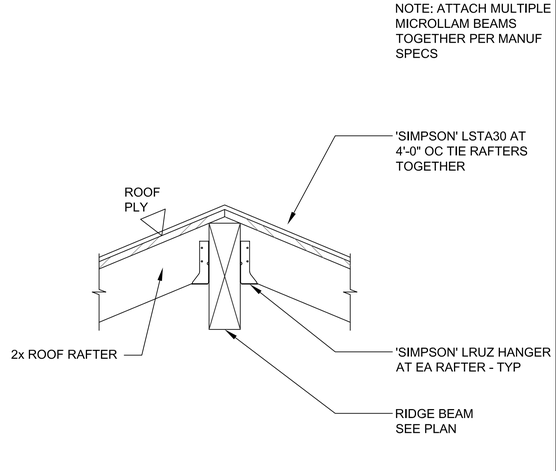
STUD WALL AND BORING

5 TYPICAL NOTCHING DETAIL — N.T.S.



OPENING IN SHEARWALL

8 SHEARWALL DETAIL — 1/2" = 1'-0"



RIDGE BEAM DESIGN — 03-02-03

11 ROOF FRAMING DETAIL — 1 1/2" = 1'-0"

WILLIAMSON CHAVEZ DESIGN
PO BOX 53054
ALBUQUERQUE, NM 87153
PHONE NO: 661.586.1205
CONTACT: DAVID LARA, PE

LICENSED PROFESSIONAL ENGINEER
David Antonio Lara
C 87203
Civil Engineer
STATE OF CALIFORNIA
09/22/2021
EXP: 09/30/2023

TYPICAL DETAILS

NEW ADDITION / REMODEL:
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

NO.	DATE
1	
2	
3	
4	

JOB NO:	092021-03
DATE:	9/24/2021
DRAWN BY:	DAL
SCALE:	N.T.S.
SHEET NO:	D2.0

TABLE 2304.9.1

FASTENING SCHEDULE

CONNECTION	FASTENING	LOCATION
1. JOIST TO SILL OR GIRDER	3 - 8d COMMON (2-1/2" x 0.131") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	TOENAIL
2. BRIDGING TO JOIST	2 - 8d COMMON (2-1/2" x 0.131") 2 - 3" x 0.131" NAILS 2 - 3" 14 GAGE STAPLES	TOENAIL EACH END
3. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST	2 - 8d COMMON (2-1/2" x 0.131")	FACE NAIL
4. WIDER THAN 1" x 6" SUBFLOOR TO EACH JOIST	3 - 8d COMMON (2-1/2" x 0.131")	FACE NAIL
5. 2" SUBFLOOR TO JOIST OR GIRDER	2 - 16d COMMON (3-1/2" x 0.162")	BLIND AND FACE NAIL
6. SOLE PLATE TO JOIST OR BLOCKING	16d (3-1/2" x 0.135") AT 16" o.c. 3" x 0.131" NAILS AT 8" o.c. 3" 14 GAGE STAPLES AT 12" o.c.	TYPICAL FACE NAIL
SOLE PLATE TO JOIST OR BLOCKING AT BRACED WALL PANEL	3" - 16d (3-1/2" x 0.135" AT 16" 4 - 3" x 0.131" NAILS AT 16" 4 - 3" 14 GAGE STAPLES PER 16"	BRACED WALL PANELS
7. TOP PLATE TO STUD	2 - 16d COMMON (3-1/2" x 0.162") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	END NAIL
8. STUD TO SOLE PLATE	4 - 8d COMMON (2-1/2" x 0.131") 4 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	TOENAIL
	2 - 16d COMMON (3-1/2" x 0.162") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	END NAIL
9. DOUBLE STUDS	16d (3-1/2" x 0.135") AT 24" o.c. 3" x 0.131" NAIL AT 8" o.c. 3" 14 GAGE STAPLE AT 8" o.c.	FACE NAIL
10. DOUBLE TOP PLATES	16d (3-1/2" x 0.135") AT 16" o.c. 3" x 0.131" NAIL AT 12" o.c. 3" 14 GAGE STAPLE AT 12" o.c.	TYPICAL FACE NAIL
DOUBLE TOP PLATES	8 - 16d COMMON (3-1/2" x 0.162") 12 - 3" x 0.131" NAILS 12 - 3" 14 GAGE STAPLES	LAP SPLICE
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3 - 8d COMMON (2-1/2" x 0.131") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	TOENAIL
12. RIM JOIST TO TOP PLATE	8d (2-1/2" x 0.131") AT 6" o.c. 3" x 0.131" NAIL AT 6" o.c. 3 - 3" 14 GAGE STAPLE AT 6" o.c.	TOENAIL
13. TOP PLATES, LAPS AND INTERSECTIONS	2 - 16d COMMON (3-1/2" x 0.162") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	FACE NAIL
14. CONTINUOUS HEADER, TWO PIECES	16d COMMON (3-1/2" x 0.162")	16" o.c. ALONG EDGE
15. CEILING JOISTS TO PLATE	3 - 8d COMMON (2-1/2" x 0.131") 5 - 3" x 0.131" NAILS 5 - 3" 14 GAGE STAPLES	TOENAIL
16. CONTINUOUS HEADER TO STUD	4 - 8d COMMON (2-1/2" x 0.131")	TOENAIL
17. CEILING JOISTS, LAPS OVER PARTITIONS (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3 - 16d COMMON (3-1/2" x 0.162") MINIMUM, TABLE 2308.10.4.1 4 - 3" x 0.131" NAILS 4 - 3" 14 GAGE STAPLES	FACE NAIL
18. CEILING JOISTS TO PARALLEL RAFTERS (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3 - 16d COMMON (3-1/2" x 0.162") MINIMUM, TABLE 2308.10.4.1 4 - 3" x 0.131" NAILS 4 - 3" 14 GAGE STAPLES	FACE NAIL
19. RAFTER TO PLATE SEE SECTION 2308.10.1, TABLE 2308.10.1)	3 - 8d COMMON (2-1/2" x 0.131") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	TOENAIL
20. 1" DIAGONAL BRACE TO EACH STUD AND PLATE	2 - 8d COMMON (2-1/2" x 0.131") 2 - 3" x 0.131" NAILS 2 - 3" 14 GAGE STAPLES	FACE NAIL

TABLE 2304.9.1

FASTENING SCHEDULE

CONNECTION	FASTENING	LOCATION
21. 1" x 8" SHEATHING TO EACH BEARING	3 - 8d COMMON (2-1/2" x 0.131")	FACE NAIL
22. WIDER THAN 1" x 8" SHEATHING TO EACH BEARING	3 - 8d COMMON (2-1/2" x 0.131")	FACE NAIL
23. BUILT-UP CORNER STUDS	16d COMMON (3-1/2" x 0.162") 3" x 0.131" NAILS 3" 14 GAGE STAPLE AT 12" o.c.	24" o.c. 16" o.c. 16" o.c.
24. BUILT-UP GIRDER AND BEAMS	20d COMMON (4" x 0.192") 32" o.c. 3" x 0.131" NAIL AT 24" o.c. 3" 14 GAGE STAPLE AT 24" o.c.	FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	2 - 20d COMMON (4" x 0.192") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	FACE NAIL AT ENDS AND AT EACH SPLICE
25. 2" PLANKS	16d COMMON (3-1/2" x 0.162")	AT EACH BEARING
26. COLLAR TIE TO RAFTER	3 - 10d COMMON (3" x 0.148") 4 - 3" x 0.131" NAILS 4 - 3" 14 GAGE STAPLES	FACE NAIL
27. JACK RAFTER TO HIP	3 - 10d COMMON (3" x 0.148") 4 - 3" x 0.131" NAILS 4 - 3" 14 GAGE STAPLES	TOENAIL
	2 - 16d COMMON (3-1/2" x 0.162") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	FACE NAIL
28. ROOF RAFTER TO 2-BY RIDGE BEAM	2 - 16d COMMON (3-1/2" x 0.162") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	TOENAIL
	2 - 16d COMMON (3-1/2" x 0.162") 3 - 3" x 0.131" NAILS 3 - 3" 14 GAGE STAPLES	FACE NAIL
29. JOIST TO BAND JOIST	3 - 16d COMMON (3-1/2" x 0.162") 4 - 3" x 0.131" NAILS 4 - 3" 14 GAGE STAPLES	FACE NAIL
30. LEDGER STRIP	3 - 16d COMMON (3-1/2" x 0.162") 4 - 3" x 0.131" NAILS 4 - 3" 14 GAGE STAPLES	FACE NAIL
31. WOOD STRUCTURAL PANELS AND PARTICLEBOARD[b] SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING)	1/2" AND LESS — 6d[c,l]; 2-3/8" x 0.113" NAIL[n]; 1-3/4" 16 GAGE[o]	
	19/32" TO 3/4" — 8d[d] OR 6d[e]; 2-3/8" x 0.113" NAIL[p]; 2" 16 GAGE[p]	
	7/8" TO 1" — 8d[c]; 1-1/8" TO 1-1/4" — 10d[d] OR 8d[d]	
SINGLE FLOOR (COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING)	3/4" AND LESS — 6d[e] 7/8" TO 1" — 8d[e] 1-1/8" TO 1-1/4" — 10d[d] OR 8d[e]	
32. PANEL SIDING (TO FRAMING)	1/2" AND LESS — 6d[f] 5/8" — 8d[f]	
33. FIBERBOARD SHEATHING[h]	1/2" — NO. 11 GAGE ROOFING NAIL[h]; 6d COMMON NAIL (2" x 0.113"); NO. 16 GAGE STAPLE[i]	
	1/2" — NO. 11 GAGE ROOFING NAIL[h]; 8d COMMON NAIL (2-1/2" x 0.131"); NO. 16 GAGE STAPLE[i]	
34. INTERIOR PANELING	1/4" — 4d[j] 3/8" — 6d[k]	

FOR SI: 1 INCH = 25.4 MM.

a. COMMON OR BOX NAILS ARE PERMITTED TO BE USED WHERE OTHERWISE STATED.
b. NAILS SPACED 6 INCHES ON CENTER AT EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS EXCEPT 6 INCHES AT SUPPORTS WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2305. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.
c. COMMON OR DEFORMED SHANK (6d - 2" x 0.113"; 8d - 2-1/2" x 0.131"; 10d - 3" x 0.148")
d. COMMON (6d - 2" x 0.113"; 8d - 2-1/2" x 0.131"; 10d - 3" x 0.148")
e. DEFORMED SHANK (6d - 2" x 0.113"; 8d - 2-1/2" x 0.131"; 10d - 3" x 0.148")
f. CORROSION-RESISTANT SIDING (6d - 1-7/8" x 0.106"; 8d - 2-3/8" x 0.128") OR CASING (6d - 2" x 0.099"; 8d - 2-1/2" x 0.113") NAIL.
g. FASTENERS SPACED 3 INCHES ON CENTER AT EXTERIOR EDGES AND 6 INCHES ON CENTER AT INTERMEDIATE SUPPORTS, WHEN USED AS STRUCTURAL SHEATHING. SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS.
h. CORROSION-RESISTANT ROOFING NAILS WITH 7/16-INCH-DIAMETER HEAD AND 1-1/2-INCH LENGTH FOR 1/2-INCH SHEATHING AND 1-3/4-INCH LENGTH FOR 25/32-INCH SHEATHING.
i. CORROSION-RESISTANT STAPLES WITH NOMINAL 7/16-INCH CROWN AND 1-1/8-INCH LENGTH FOR 1/2-INCH SHEATHING AND 1-1/2-INCH LENGTH FOR 25/32-INCH SHEATHING. PANEL SUPPORTS AT 16 INCHES (20 INCHES IF STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED).
j. CASING (1-1/2" x 0.080") OR FINISH (1-1/2" x 0.072") NAILS SPACED 6 INCHES ON PANEL EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS.
k. PANEL SUPPORTS AT 24 INCHES. CASING OR FINISH NAILS SPACED 6 INCHES ON PANEL EDGES, 12 INCHES AT INTERMEDIATE SUPPORTS.
l. FOR ROOF SHEATHING APPLICATIONS, 8d NAILS (2-1/2" x 0.113") ARE THE MINIMUM REQUIRED FOR WOOD STRUCTURAL PANELS.
m. STAPLES SHALL HAVE A MINIMUM CROWN WIDTH OF 7/16 INCH.
n. FOR ROOF SHEATHING APPLICATIONS, FASTENERS SPACED 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS.
o. FASTENERS SPACED 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS FOR SUBFLOOR AND WALL SHEATHING AND 3 INCHES ON CENTER AT EDGES, 6 INCHES AT INTERMEDIATE SUPPORTS FOR ROOF SHEATHING.
p. FASTENERS SPACED 4 INCHES ON CENTER AT EDGES, 8 INCHES AT INTERMEDIATE SUPPORTS.

NAILING SCHEDULE

REVISIONS

1	1-7-21
2	
3	
4	
5	
6	
7	
8	

SOUTH BAY DESIGN

DBA

ALEX VALLES
PRINCIPAL/OWNER
P.O. BOX 339
SAN JUAN BAUTISTA, CA 95045
831.207.9677
sbdesign27@yahoo.com

ADDITION/REMODEL
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

NAILING SCHEDULE

DRAWN BY
A.V.
CHECKED

DATE
5.14.21
SCALE

JOB NO.

SHEET
NS

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 3rd Street Addition **Calculation Date/Time:** 2021-10-04T14:33:17-07:00 **(Page 1 of 10)**

Calculation Description: Title 24 Analysis **Input File Name:** 3rd Street Addition (903).ribd19x

GENERAL INFORMATION					
01	Project Name	3rd Street Addition			
02	Run Title	Title 24 Analysis			
03	Project Location	903 3rd Street			
04	City	San Juan Bautista	05	Standards Version	2019
06	Zip code	95045	07	Software Version	EnergyPro 8.2
08	Climate Zone	7	09	Front Orientation (deg/ Cardinal)	180
10	Building Type	Single family	11	Number of Dwelling Units	1
12	Project Scope	AdditionAlteration	13	Number of Bedrooms	2
14	Addition Cond. Floor Area (ft²)	828	15	Number of Stories	1
16	Existing Cond. Floor Area (ft²)	980	17	Fenestration Average U-factor	0.3
18	Total Cond. Floor Area (ft²)	1608	19	Glazing Percentage (%)	17.13%
20	ADU Bedroom Count	n/a	21	ADU Conditioned Floor Area	n/a
22	Is Natural Gas Available?	Yes			

COMPLIANCE RESULTS	
01	Building Complies with Computer Performance
02	Building does not require field testing or HERS verification
03	This building incorporates one or more Special Features shown below

ENERGY USE SUMMARY				
Energy Use (kTDV/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	11.32	11.53	-0.21	-1.9
Space Cooling	11.48	10.7	0.78	6.8
IAQ Ventilation	0	0	0	
Water Heating	17.96	17.96	0	0
Self Utilization/Flexibility Credit	n/a	0	0	n/a
Compliance Energy Total	**40.76**	**40.19**	**0.57**	**1.4**

Registration Number: Registration Date/Time: HERS Provider:

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.300 Schema Version: rev 20200901 Report Generated: 2021-10-04 14:34:14

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 3rd Street Addition **Calculation Date/Time:** 2021-10-04T14:33:17-07:00 **(Page 2 of 10)**

Calculation Description: Title 24 Analysis **Input File Name:** 3rd Street Addition (903).ribd19x

REQUIRED SPECIAL FEATURES

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

- New ductwork added is less than 40 ft. in length

HERS FEATURE SUMMARY

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry

Building-level Verifications:
- -- None --

Cooling System Verifications:
- -- None --

Heating System Verifications:
- -- None --

HVAC Distribution System Verifications:
- -- None --

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

BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft²)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
3rd Street Addition	1608	1	2	2	0	1

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft²)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
Existing Living Area	Conditioned	HVAC System1	980	8	DHW Sys 1	N/A
New Living Area	Conditioned	HVAC System1	628	8	DHW Sys 1	N/A

Registration Number: Registration Date/Time: HERS Provider:

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.300 Schema Version: rev 20200901 Report Generated: 2021-10-04 14:34:14

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 3rd Street Addition **Calculation Date/Time:** 2021-10-04T14:33:17-07:00 **(Page 3 of 10)**

Calculation Description: Title 24 Analysis **Input File Name:** 3rd Street Addition (903).ribd19x

OPAQUE SURFACES

01	02	03	04	05	06	07	08	09	10	11
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft²)	Window and Door Area (ft2)	Tilt (deg)	Wall Exceptions	Status	Verified Existing Condition
Front Wall	Existing Living Area	R-0 Wall	180	Front	304	67.1	90	none	Existing	No
Rear Wall	Existing Living Area	R-0 Wall	0	Back	368	66.5	90	none	Existing	No
Right Wall	Existing Living Area	R-0 Wall	90	Right	208	37.6	90	none	Existing	No
Front Wall 2	New Living Area	R-15 Wall	180	Front	196	31	90	Extension	New	n/a
Left Wall	New Living Area	R-15 Wall	270	Left	208	52	90	Extension	New	n/a
Rear Wall 2	New Living Area	R-15 Wall	0	Back	132	41.3	90	Extension	New	n/a
Interior Surface	Existing Living Area>>New Living Area	R-0 Wall1	n/a	n/a	208	0	n/a		New	n/a
Interior Surface 2	New Living Area>>Existing Living Area	R-0 Wall1	n/a	n/a	208	0	n/a		New	n/a
Roof	Existing Living Area	R-19 Roof Attic	n/a	n/a	980	n/a	n/a		Existing	No
Roof 2	New Living Area	R-30 Roof Attic	n/a	n/a	628	n/a	n/a		New	n/a
Raised Floor	Existing Living Area	R-0 Floor Crawlspace	n/a	n/a	980	n/a	n/a		Existing	No
Raised Floor 2	New Living Area	R-19 Floor Crawlspace	n/a	n/a	628	n/a	n/a		New	n/a

ATTIC

01	02	03	04	05	06	07	08	09	10
Name	Construction	Type	Roof Rise (x in 12)	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof	Status	Verified Existing Condition
Attic Existing Living Area	Attic RoofExisting Living Area	Ventilated	4	0.1	0.85	No	No	Existing	No
Attic New Living Area	Attic RoofNew Living Area	Ventilated	4	0.1	0.85	No	No	New	n/a

Registration Number: Registration Date/Time: HERS Provider:

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.300 Schema Version: rev 20200901 Report Generated: 2021-10-04 14:34:14

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 3rd Street Addition **Calculation Date/Time:** 2021-10-04T14:33:17-07:00 **(Page 4 of 10)**

Calculation Description: Title 24 Analysis **Input File Name:** 3rd Street Addition (903).ribd19x

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
Window	Window	Front Wall	Front	180			1	18.8	1.28	Table 110.6-A	0.8	Table 110.6-B	Bug Screen	Existing	No
Window 2	Window	Front Wall	Front	180			1	7.5	1.28	Table 110.6-A	0.8	Table 110.6-B	Bug Screen	Existing	No
Window 3	Window	Front Wall	Front	180			1	5	1.28	Table 110.6-A	0.8	Table 110.6-B	Bug Screen	Existing	No
Window 4	Window	Front Wall	Front	180			1	15.8	1.28	Table 110.6-A	0.8	Table 110.6-B	Bug Screen	Existing	No
Window 5	Window	Rear Wall	Back	0			1	8.8	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Window 6	Window	Rear Wall	Back	0			1	19.3	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Window 7	Window	Rear Wall	Back	0			1	11.3	1.28	Table 110.6-A	0.8	Table 110.6-B	Bug Screen	Existing	No
Window 8	Window	Rear Wall	Back	0			1	11.3	1.28	Table 110.6-A	0.8	Table 110.6-B	Bug Screen	Existing	No
Window 9	Window	Rear Wall	Back	0			1	15.8	1.28	Table 110.6-A	0.8	Table 110.6-B	Bug Screen	Existing	No
Window 10	Window	Right Wall	Right	90			1	18.8	1.28	Table 110.6-A	0.8	Table 110.6-B	Bug Screen	Existing	No
Window 11	Window	Right Wall	Right	90			1	18.8	1.28	Table 110.6-A	0.8	Table 110.6-B	Bug Screen	Existing	No
Window 12	Window	Front Wall 2	Front	180			1	9	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Window 13	Window	Front Wall 2	Front	180			1	6	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Window 14	Window	Front Wall 2	Front	180			1	8	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Window 15	Window	Front Wall 2	Front	180			1	8	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Sliding Glass Door	Window	Left Wall	Left	270			1	40	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Window 16	Window	Left Wall	Left	270			1	12	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a
Sliding Glass Door 2	Window	Rear Wall 2	Back	0			1	33.3	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a

Registration Number: Registration Date/Time: HERS Provider:

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.300 Schema Version: rev 20200901 Report Generated: 2021-10-04 14:34:14

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 3rd Street Addition **Calculation Date/Time:** 2021-10-04T14:33:17-07:00 **(Page 5 of 10)**

Calculation Description: Title 24 Analysis **Input File Name:** 3rd Street Addition (903).ribd19x

FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
Name	Type	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Source	Exterior Shading	Status	Verified Existing Condition
Window 17	Window	Rear Wall 2	Back	0			1	8	0.3	NFRC	0.23	NFRC	Bug Screen	New	n/a

OPAQUE DOORS

01	02	03	04	05	06
Name	Side of Building	Area (ft²)	U-factor	Status	Verified Existing Condition
Door	Front Wall	20	0.5	Existing	No

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-0 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.361	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Exterior Finish: 3 Coat Stucco
R-15 Wall	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-15	None / None	0.095	Inside Finish: Gypsum Board Cavity / Frame: R-15 / 2x4 Exterior Finish: 3 Coat Stucco
R-0 Wall1	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O. C.	R-0	None / None	0.277	Inside Finish: Gypsum Board Cavity / Frame: no insul. / 2x4 Other Side Finish: Gypsum Board
Attic RoofExisting Living Area	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4

Registration Number: Registration Date/Time: HERS Provider:

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.300 Schema Version: rev 20200901 Report Generated: 2021-10-04 14:34:14

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 3rd Street Addition **Calculation Date/Time:** 2021-10-04T14:33:17-07:00 **(Page 6 of 10)**

Calculation Description: Title 24 Analysis **Input File Name:** 3rd Street Addition (903).ribd19x

OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
Attic RoofNew Living Area	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
R-0 Floor Crawlspace	Floors Over Crawlspace	Wood Framed Floor	2x6 @ 16 in. O. C.	R-0	None / None	0.22	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x6
R-19 Floor Crawlspace	Floors Over Crawlspace	Wood Framed Floor	2x10 @ 16 in. O. C.	R-19	None / None	0.046	Floor Surface: Carpeted Floor Deck: Wood Siding/sheathing/decking Cavity / Frame: R-19 / 2x10
R-19 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-19	None / None	0.049	Over Ceiling Joists: R-9.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board
R-30 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-20.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board

BUILDING ENVELOPE - HERS VERIFICATION

01	02	03	04
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

Registration Number: Registration Date/Time: HERS Provider:

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.300 Schema Version: rev 20200901 Report Generated: 2021-10-04 14:34:14

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 3rd Street Addition **Calculation Date/Time:** 2021-10-04T14:33:17-07:00 **(Page 7 of 10)**

Calculation Description: Title 24 Analysis **Input File Name:** 3rd Street Addition (903).ribd19x

WATER HEATING SYSTEMS

01	02	03	04	05	06	07	08	09	10
Name	System Type	Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verification	Status	Verified Existing Condition	Existing Water Heating System
DHW Sys 1	Domestic Hot Water (DHW)	Standard Distribution System	DHW Heater 1 (1)	n/a	None	n/a	Existing	No	

WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition	Status	Verified Existing Condition
DHW Heater 1	Gas	Small Storage	1	50	0.6-EF	<= 75 kBtu/hr	0	78	n/a	n/a	n/a	Existing	No

WATER HEATING - HERS VERIFICATION

01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DHW Sys 1 - 1/1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

Registration Number: Registration Date/Time: HERS Provider:

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.300 Schema Version: rev 20200901 Report Generated: 2021-10-04 14:34:14

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 3rd Street Addition **Calculation Date/Time:** 2021-10-04T14:33:17-07:00 **(Page 8 of 10)**

Calculation Description: Title 24 Analysis **Input File Name:** 3rd Street Addition (903).ribd19x

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
HVAC System1	Heating and cooling system other	Heating Component 1	Cooling Component 1	HVAC Fan 1	Air Distribution System 1	n/a	Existing	No	1	1

HVAC - HEATING UNIT TYPES

01	02	03	04
Name	System Type	Number of Units	Heating Efficiency
Heating Component 1	Central gas furnace	1	AFUE-80

HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08
Name	System Type	Number of Units	Efficiency EER/CEER	Efficiency SEER	Zonally Controlled	Mulit-speed Compressor	HERS Verification
Cooling Component 1	Central split AC	1	11.7	14	Not Zonal	Single Speed	Cooling Component 1-hers-cool

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
			Duct Ins. R-value		Duct Location		Surface Area								
Name	Type	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
Air Distribution System 1	Unconditioned attic	Non-Verified	R-6	R-6	Attic	Attic	n/a	n/a	No Bypass Duct	Existing (not specified)	Air Distribution System	Existing + New	No	n/a	n/a

Registration Number: Registration Date/Time: HERS Provider:

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.300 Schema Version: rev 20200901 Report Generated: 2021-10-04 14:34:14

CERTIFICATE OF COMPLIANCE **CF1R-PRF-01E**

Project Name: 3rd Street Addition **Calculation Date/Time:** 2021-10-04T14:33:17-07:00 **(Page 9 of 10)**

Calculation Description: Title 24 Analysis **Input File Name:** 3rd Street Addition (903).ribd19x

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16
			Duct Ins. R-value		Duct Location		Surface Area								
Name	Type	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
											1-hers-dist				

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
HVAC Fan 1-hers-fan	Not Required	0

Registration Number: Registration Date/Time: HERS Provider:

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.300 Schema Version: rev 20200901 Report Generated: 2021-10-04 14:34:14

REVISIONS

1	1-7-21
2	
3	
4	
5	
6	
7	
8	

SOUTH BAY DESIGN

DBA

ALEX VALLES
PRINCIPAL/OWNER
P.O. BOX 339
SAN JUAN BAUTISTA, CA 95045
831.207.9677
sbdesign27@yahoo.com

ADDITION/REMODEL
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

TITLE 24'S

DRAWN BY
A.V.
CHECKED

DATE
5.14.21
SCALE

JOB NO.

SHEET
T

CERTIFICATE OF COMPLIANCE CF1R-PRF-01E

Project Name: 3rd Street Addition **Calculation Date/Time:** 2021-10-04T14:33:17-07:00 **(Page 10 of 10)**

Calculation Description: Title 24 Analysis **Input File Name:** 3rd Street Addition (903).ribd19x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Timothy Carstairs, CEA, HERS, GPR	Documentation Author Signature:
Company: Carstairs Energy Inc.	Signature Date: 10/4/2021
Address: 2238 Bayview Heights Drive, Suite E	CEA/ HERS Certification Identification (If applicable): R16-06-10042
City/State/Zip: Los Osos, CA 93402	Phone: (805) 904-9048
RESPONSIBLE PERSON'S DECLARATION STATEMENT	
I certify the following under penalty of perjury, under the laws of the State of California: 1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance. 2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. 3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	
Responsible Designer Name: Alex Valles	Responsible Designer Signature:
Company: South Bay Design	Date Signed:
Address: PO Box 27	License:
City/State/Zip: Hollister, CA 95024	Phone: 831-207-9677

Registration Number: Registration Date/Time: HERS Provider:

CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.1.300 Report Generated: 2021-10-04 14:34:14

Schema Version: rev 20200901

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 used. Review the respective section for more information. "Exceptions may apply."
(01/2020)

Building Envelope 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 § 1C-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 .9, 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(d):	**Insulation Requirements for Heated Slab Floors.** Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(i):	**Roofing Products Solar Reflectance and Thermal Emittance.** The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	**Radiant Barrier.** When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 150.(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. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B."
§ 150.0(d):	**Raised-floor Insulation.** Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor."
§ 150.0(f):	**Slab Edge Insulation.** Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent, have a water vapor permeance no greater than 2.0 perm per inch, be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g)
§ 150.0(g)1:	**Vapor Retarder.** In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to conditioned 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 within permeable insulation.
§ 150.0(q):	**Fenestration U-factor.** 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, Decorative 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(g)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(g)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(g)3:	**Flue Damper.** Masonry or factory-built fireplaces must have a flue damper with a readily accessible control."
Space Conditioning, Water Heating, and Plumbing System 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 California 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 (except appliances without electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour), and pool and spa heaters".
§ 150.0(j)1:	**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with the ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; the SMACNA Residential Comfort System Installation Standards Manual; or the ACCA Manual J using design conditions specified in § 150.0(h)2.

2019 Low-Rise Residential Mandatory Measures Summary

§ 150.0(j)3A:	**Clearances.** Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer
§ 150.0(j)3B:	**Liquid Line Drier.** Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	**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(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 one inch or a minimum insulation R-value of 7.7: the first five 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 one 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)3:	**Insulation Protection.** Piping insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and 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(j)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 vol, 20 amp electrical receptacle connected to the electric panel with a 120/240 volt 3-conductor, 10 AWG copper branch circuit, within three feet of 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 two 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.
§ 150.0(j)2:	**Recirculating Loops.** Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5
§ 150.0(j)3	**Solar Water-heating Systems.** Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.
Ducts and Fans Measures:	
§ 110.8(j)3	**Ducts.** Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement
§ 150.0(m)1:	**CMC Compliance.** All air-distribution system ducts and plenums must meet the requirements of the CMC:§§ 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.
§ 150.0(m)2:	**Factory-Fabricated Duct Systems.** Factory-fabricated duct systems must comply with applicable requirements for duct construction, connections, and closures; joints and seams of duct systems and their components must not be sealed with cloth back rubber adhesive duct tapes unless such tapes are used in accordance with mastic and drawbands.
§ 150.0(m)3	**Field-Fabricated Duct Systems.** Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	**Backdraft Damper.** Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic dampers
§ 150.0(m)8	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9	**Protection of Insulation.** Insulat on 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.
§ 150.0(m)11:	**Duct System Sealing and Leakage Test.** When space conditioning systems use forced air duct systems to supply conditioned air to an occupiable space, the ducts must be sealed and duct leakage tested, as confirmed through field verification and diagnostic testing, in accordance with § 150.0(m)11 and Reference Residential Appendix RA3
§ 150.0(m)12:	**Air Filtration.** Space conditioning systems with ducts exceeding 10 feet and the supply side of ventilation systems must have MERV 13 or equivalent filters. Filters for space conditioning systems must have area inch depth or can be one inch if sized per Equation 150-0.A. Pressure drops and labeling must meet the requirements in§150.0(m)12. Filters must be accessible for regular service."
§ 150.0(m)13:	**Space Conditioning System Airflow Rate and Fan Efficacy.** Space conditioning systems that use ducts to supply cooling must have a hole for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.45 watts per CFM for gas furnace air handlers and ≤ 0.58 watts per CFM for all others. Small duct high-velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-handling unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3."

2019 Low-Rise Residential Mandatory Measures Summary

Requirements for 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 percent 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. A kitchen range hood 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 Section5 and 7.2 of ASHRAE 62.2
Pool and Spa Systems 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, flow rate, piping, filters, and valves."
Lighting Measures:	
§ 110.9	**Lighting Controls and Components.** All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9."
§ 150.0(k)1A:	**Luminaire Efficacy.** All installed luminaires must meet the requirements in Table 150-0.A.
§ 150.0(k)1B:	**Blank Electrical Boxes.** The number of electrical boxes that are more than five feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, or 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 no more than 150 lumens, and are equipped with controls that automatically turn the lighting off when the drawer, cabinet or linen closet is closed.
§ 150.0(k)2A:	**Interior Switches and Controls.** All forward phase-cut dimmers used with LED light sources must comply with NEMA SSL 7A.
§ 150.0(k)2B:	**Interior Switches and Controls.** Exhaust fans must be controlled separately from lighting systems."
§ 150.0(k)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.

2019 Low-Rise Residential Mandatory Measures Summary

§ 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(c); 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)3A (ON and OFF switch) and the requirements in either § 150.0(k)3Ai (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 § 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 wit 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 § 150.0(k)3B or § 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 more than 20 percent of the floor area, permanently installed lighting for the interior common areas in that building must 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 Buildings:	
§ 110.10(a)1:	**Single Family Residences.** Single family residences located in subdivisions with 10 or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete and approved by the enforcement agency, which do not have a photovoltaic system installed must comply with the requirements of § 110.10(b) 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 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 port of the solar zone, measured in the vertical plane."
§ 110.10(b)4:	**Structural Design Loads on Construction Documents.** For areas of the roof designated as a solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.10(c):	**Interconnection Pathways.** The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the port of interconnection with the electrical service; and 'or single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system.
§ 110.10(d):	**Documentation.** A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through § 110.10(c) must be provided to the occupant.
§ 110.10(e)1:	**Main Electrical Service Panel.** The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(e)2:	**Main Electrical Service Panel.** The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be permanently marked as "For Future Solar Electric".

REVISIONS

1	1-7-21
2	
3	
4	
5	
6	
7	
8	

SOUTH BAY DESIGN
DBA
ALEX VALLES
PRINCIPAL/OWNER
P.O. BOX 339
SAN JUAN BAUTISTA, CA 95045
831.207.9677
sbdesign27@yahoo.com

ADDITION/REMODEL
AGARWAL FAMILY
903 3RD ST.
SAN JUAN BAUTISTA, CA 95045

MANDATORY MEASURES

DRAWN BY
A.V.
CHECKED

DATE
5.14.21
SCALE

JOB NO.

SHEET
MM

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

AIA California

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

Y | N/A | RESPON. PARTY

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

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

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

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

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

SECTION 302 MIXED OCCUPANCY BUILDINGS

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

ABBREVIATION DEFINITIONS:

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

CHAPTER 4
RESIDENTIAL MANDATORY MEASURES
DIVISION 4.1 PLANNING AND DESIGN
SECTION 4.102 DEFINITIONS

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

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

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

4.106 SITE DEVELOPMENT

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

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

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

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

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

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

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

Exception: Additions and alterations not altering the drainage path.

4.106.4 Electric vehicle (EV) charging for new construction. New construction shall comply with Sections 4.106.4.1, 4.106.4.2, or 4.106.4.3 to facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) shall be installed in accordance with the *California Electrical Code*, Article 625.

Exceptions:
1. On a case-by-case basis, where the local enforcing agency has determined EV charging and infrastructure are not feasible based upon one or more of the following conditions:
   1.1 Where there is no commercial power supply.
   1.2 Where there is evidence substantiating that meeting the requirements will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the homeowner or the developer by more than $400.00 per dwelling unit.
2. Accessory Dwelling Units (ADU) and Junior Accessory Dwelling Units (JADU) without additional parking facilities.

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

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

4.106.4.2 New multifamily dwellings. If residential parking is available, ten (10) percent of the total number of parking spaces on a building site, provided for all types of parking facilities, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

Notes:
1. Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging.
2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.2.1 Electric vehicle charging space (EV space) locations. Construction documents shall indicate the location of proposed EV spaces. Where common use parking is provided at least one EV space shall be located in the common use parking area and shall be available for use by all residents.

4.106.4.2.1.1 Electric Vehicle Charging Stations (EVCS) When EV chargers are installed, EV spaces required by Section 4.106.2.2, Item 3, shall comply with at least one of the following options:

1. The EV space shall be located adjacent to an accessible parking space meeting the requirements of the *California Building Code,* Chapter 11A, to allow use of the EV charger from the accessible parking space.
2. The EV space shall be located on an accessible route, as defined in the *California Building Code,* Chapter 2, to the building.

Exception: Electric vehicle charging stations designed and constructed in compliance with the *California Building Code*, Chapter 11B, are not required to comply with Section 4.106.4.2.1.1 and Section 4.106.4.2.2, Item 3.

Note: Electric Vehicle charging stations serving public housing are required to comply with the *California Building Code*, Chapter 11B.

4.106.4.2.2 Electric vehicle charging space (EV space) dimensions. The EV space shall be designed to comply with the following:

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

4.106.4.2.3 Single EV space required. Install a listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the proposed location of the EV space. Construction documents shall identify the raceway termination point. The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.

4.106.4.2.4 Multiple EV spaces required. Construction documents shall indicate the raceway termination point and proposed location of future EV spaces and EV chargers. Construction documents shall also provide information on amperage of future EVSE, raceway method(s), wiring schematics and electrical load calculations to verify that the electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at the full rated amperage of the EVSE. Plan design shall be based upon a 40-ampere minimum branch circuit. Required raceways and related components that are planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.

4.106.4.2.5 Identification. The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the *California Electrical Code.*

4.106.4.3 New hotels and motels. All newly constructed hotels and motels shall provide EV spaces capable of supporting future installation of EVSE. The construction documents shall identify the location of the EV spaces.

Notes:

1. Construction documents are intended to demonstrate the project's capability and capacity or facilitating future EV charging.
2. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.

4.106.4.3.1 Number of required EV spaces. The number of required EV spaces shall be based on the total number of parking spaces provided for all types of parking facilities in accordance with Table 4.106.4.3.1. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number.

TABLE 4.106.4.3.1

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED EV SPACES
0-9	0
10-25	1
26-50	2
51-75	4
76-100	5
101-150	7
151-200	10
201 and over	6 percent of total

4.106.4.3.2 Electric vehicle charging space (EV space) dimensions. The EV spaces shall be designed to comply with the following:

1. The minimum length of each EV space shall be 18 feet (5486mm).
2. The minimum width of each EV space shall be 9 feet (2743mm)

4.106.4.3.3 Single EV space required. When a single EV space is required, the EV space shall be designed in accordance with Section 4.106.4.2.3.

4.106.4.3.4 Multiple EV spaces required. When multiple EV spaces are required, the EV spaces shall be designed in accordance with Section 4.106.4.2.4.

4.106.4.3.5 Identification. The service panels or sub-panels shall be identified in accordance with Section 4.106.4.2.5.

4.106.4.3.6 Accessible EV spaces. In addition to the requirements in Section 4.106.4.3, EV spaces for hotels/motels and all EVSE, when installed, shall comply with the accessibility provisions for the EV charging stations in the *California Building Code*, Chapter 11B.

DIVISION 4.2 ENERGY EFFICIENCY
4.201 GENERAL

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

DIVISION 4.3 WATER EFFICIENCY AND CONSERVATION
4.303 INDOOR WATER USE

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

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

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

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

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

4.303.1.3 Showerheads.

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

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

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

4.303.1.4 Faucets.

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

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

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

4.303.1.4.4 Kitchen Faucets. The maximum flow rate of kitchen faucets shall not exceed 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 80 psi.

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

4.303.2 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code*.

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

TABLE - MAXIMUM FIXTURE WATER USE

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

4.304 OUTDOOR WATER USE

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

NOTES:

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

DIVISION 4.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY
4.406 ENHANCED DURABILITY AND REDUCED MAINTENANCE

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

4.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

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

Exceptions:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite.
3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.

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

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

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

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

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

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

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

Notes:

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

4.410 BUILDING MAINTENANCE AND OPERATION

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

1. Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
2. Operation and maintenance instructions for the following:
   a. Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
   b. Roof and yard drainage, including gutters and downspouts.
   c. Space conditioning systems, including condensers and air filters.
   d. Landscape irrigation systems.
   e. Water reuse systems.
3. Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
4. Public transportation and/or carpool options available in the area.
5. Educational material on the positive impacts of an interior relative humidity between 30-60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
6. Information about water-conserving landscape and irrigation design and controllers which conserve water.
7. Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
8. Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
9. Information about state solar energy and incentive programs available.
10. A copy of all special inspections verifications required by the enforcing agency or this code.

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

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

DIVISION 4.5 ENVIRONMENTAL QUALITY
SECTION 4.501 GENERAL

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

SECTION 4.502 DEFINITIONS

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

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

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

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

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE
RESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

AIA California

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

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

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

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

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

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

4.503 FIREPLACES

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

4.504 POLLUTANT CONTROL

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

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

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

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable or SCAQMD Rule 1168 VOC limits, as shown in Table 4.504.1 or 4.504.2, as applicable. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products, as specified in Subsection 2 below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with section 94507.

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

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

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

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

TABLE 4.504.1 - ADHESIVE VOC LIMIT[1,2]

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

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

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

TABLE 4.504.2 - SEALANT VOC LIMIT

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

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

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

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

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

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

TABLE 4.504.5 - FORMALDEHYDE LIMITS[1]

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

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

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIF. AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIF. CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16" (8 MM).

DIVISION 4.5 ENVIRONMENTAL QUALITY (continued)

4.504.3 CARPET SYSTEMS. All carpet installed in the building interior shall meet the testing and product requirements of at least one of the following:

1. Carpet and Rug Institute's Green Label Plus Program.
2. 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).
3. NSF/ANSI 140 at the Gold level.
4. Scientific Certifications Systems Indoor Advantage™ Gold.

4.504.3.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program.

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

4.504.4 RESILIENT FLOORING SYSTEMS. Where resilient flooring is installed , at least 80% of floor area receiving resilient flooring shall comply with one or more of the following:

1. Products compliant with 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), certified as a CHPS Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database.
2. Products certified under UL GREENGUARD Gold (formerly the Greenguard Children & Schools 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).

4.504.5 COMPOSITE WOOD PRODUCTS. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.), by or before the dates specified in those sections, as shown in Table 4.504.5

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

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

4.505 INTERIOR MOISTURE CONTROL

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

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

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

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

4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19 percent moisture content. Moisture content shall be verified in compliance with the following:

1. Moisture content shall be determined with either a probe-type or contact-type moisture meter.Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements found in Section 101.8 of this code.
2. Moisture readings shall be taken at a point 2 feet (610 mm) to 4 feet (1219 mm) from the grade stamped end of each piece verified.
3. At least three random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing.

Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Wet-applied insulation products shall follow the manufacturers' drying recommendations prior to enclosure.

4.506 INDOOR AIR QUALITY AND EXHAUST

4.506.1 Bathroom exhaust fans. Each bathroom shall be mechanically ventilated and shall comply with the following:

1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building.
2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control.
   a. Humidity controls shall be capable of adjustment between a relative humidity range less than or equal to 50% to a maximum of 80%. A humidity control may utilize manual or automatic means of adjustment.
   b. A humidity control may be a separate component to the exhaust fan and is not required to be integral (i.e., built-in)

Notes:

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

4.507 ENVIRONMENTAL COMFORT

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

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

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

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

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

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

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

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

Notes:

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

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

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

703 VERIFICATIONS

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

AGARWAL
903 3RD STREET, SAN JUAN BAUTISTA
EXTERIOR COLORS & MATERIALS

BODY/SIDING

Benjamin Moore- Cheyenne Green

TRIM

Benjamin Moore- Lenox Tan

FRONT DOOR

Benjamin Moore- Earth Brown

WINDOW SASH

Benjamin Moore- White Dove

ROOF

Tesla Tiles

Exterior Lighting - Evergreen
Arroyo Craftsman

Margaret E. Clovis, M.A.
14024 Reservation Rd.
Salinas, CA. 93908
831-210-9574

August 6, 2022

Mr. Rich Holdaway
Holdaway Construction, Inc.
370 Paul Dr.
Hollister, CA. 95023

RE: Renovation of 903 Third Street, San Juan Bautista, CA.
APN: 002-290-048

Dear Mr. Holdaway:

In response to your recent request, I have completed a review of the renovation in progress of the house located at 903 Third Street in San Juan Bautista based on the Secretary of the Interior's Standards for the Treatment of Historic Properties. I have included a summary of the building's historical status, recommendations for the preservation of character-defining features, and guidance regarding the compatibility of the proposed addition.

My qualifications and experience to perform such a review span the past 42 years. After graduating from Boston University with a M.A. in Historic Preservation in 1979, I joined the firm of Charles Hall Page and Associates in San Francisco as an Architectural Historian. During that time, I consulted on preservation projects throughout California and the western United States. In 1981 I was hired by Monterey County as County Historian and served in that capacity for 36 years. I staffed the Monterey County Historic Resources Review Board and Historical Advisory Commission. I was responsible for the adequacy of historical reports for the purposes of CEQA and am well versed in the criteria for the California and National Registers. More recently, I was employed by the National Trust for Historic Preservation as Historian for the Cooper Molera Adobe in Monterey. I am currently a consulting historian for the City of Carmel and Chair of the Historic Resources Board for the City of Salinas. I am a qualified Historian and Architectural Historian under the Secretary of Interior's Professional Qualifications Standards (36 CFR Part 61).

HISTORICAL BACKGROUND

The residence at 903 Third Street was first surveyed in 1980[1]. At the time it was determined to be "a good example of vernacular housing with bungalow detailing." Harvey Nyland, a three term Sheriff of San Benito County, is listed as the owner however 903 Third Street was not his residence.

[1] Machado, Michael. Survey Record for 903 Third Street, San Juan Bautista. May 1980.

In 2006 the property was again surveyed as part of the *Updated Historic Context and Citywide Inventory of Architectural Resources within the City of San Juan Bautista.*[2] Unfortunately, the DPR523A and L forms filled out for the residence did not record the correct property and in fact described 903 First Street and included a photo of 903 First Street. The property was assigned the Status Code of 7R[3] while the form for 903 First Street was assigned 5D3[4].

The District in question was identified as part of the Galvan study and is known as the Concrete Bungalows Historic District. It has not yet been formally designated as a historic district. This district is thematic and not geographically contiguous. Eighteen bungalows were identified as contributing properties to the District due to their Craftsman style architecture and the use of regional building materials. The residence at 903 Third Street was not included as a contributing property within the District. The character defining features of the contributing bungalows were described in the DPR523D[5] form as follows:

"Craftsman houses are typically one story in height. They are characterized by low-pitched gable roofs with wide overhanging eaves, exposed rafter tails and wood brackets. Other character defining features include an exterior wall cladding of horizontal wood boards or wood shingles, wide wood window casings and surrounds, partial or full-width porches at the façade with heavy wood piers, and fieldstone foundations. The eighteen bungalows that make up the Concrete Bungalows historic district generally retain these character defining features; however, they have additional features that link them directly to San Juan Bautista and the events that were shaping the town during the first few decades of the twentieth century. Rather than fieldstone foundations, these bungalows have foundations of poured concrete; and rather than wood clapboard siding, these bungalows have an original wall cladding of sprayed concrete, or stucco. These features are rarely found in Craftsman bungalows in other locales; the presence of concrete in these buildings is what makes them regional to San Juan Bautista."

PROPERTY DESCRIPTION

The house at 903 Third Street is rectangular in plan with a low-pitched front gabled roof with wide overhanging eaves and exposed rafters. Triangular wood elbow brackets are located at the front and back gables. Vertical wood slatted vents are located at the peaks of the front and back gables. A partial width front porch is framed by one battered pier and one battered engaged pier. A third battered engaged pier is located on the right side of the façade. The front door is inset to the right of the front porch. Two fixed front windows are located on the front elevation. Both retain their original wide window surrounds, but the windows are not original. The original windows were described in 1981 as 4 over 1 fixed windows. Some of the other windows in the house are new as well, but some of the 1 over1 wood sash, described in 1981, are still extant.

---

[2] Galvan Preservation Associates Inc. *Updated Historic Context and Citywide Inventory of Architectural Resources within the City of San Juan Bautista.* September 2006.

[3] Identified in Reconnaissance Level Survey: Not Evaluated.

[4] Appears to be a contributor to a district that appears eligible for local listing or designated through survey evaluation.

[5] Horak, Katie. DPR523D Form for the Concrete Craftsman Bungalows District. August 24, 2006.

In 2022 construction started on a 628 square foot rear addition. During construction it was discovered that sections of the wood structural system which rested on the concrete foundation had deteriorated beyond repair. The original stucco exterior wall cladding started to peel away from the building. In addition, the front porch fell in and the original concrete stairs to the porch were destroyed.

Figure 1: 903 Third Street prior to construction

Figure 2: Current photo of 903 Third Street

Figure 3: Evidence of foundation deterioration

RETENTION AND REPAIR OF CHARACTER DEFINING FEATURES

The character defining features of 903 Third Street are similar to those identified for the eighteen bungalows that are contributors to the Concrete Bungalows Historic District. These include:

- Low-pitched gable roof with overhanging eaves and exposed rafters
- Slated gable vents and knee brackets
- Battered porch piers
- Partial-width porch
- Original double-hung, 1 over 1 wood sash
- Stucco siding (since removed)
- Poured concrete foundation
- Shallow concrete steps to front porch (since removed)

Most of the character defining features have been retained during construction however the front porch steps and stucco siding have been lost. The Secretary of the Interiors Standards and Guidelines for the Rehabilitation historic properties offers the following general advice:

"If the missing feature is important to the historic character of the building, its replacement is always recommended in the Rehabilitation guidelines as the first, or preferred, course of action. If adequate documentary and physical evidence exists, the feature may be accurately reproduced."

The bungalow located at 509 Second Street (which is included as a contributor to the District) is almost identical in design to 903 Third Street. The design of the Second Street steps can be used

as physical evidence to reproduce porch steps for 903 Third Street. Any of the eighteen District contributors can provide the physical evidence for the replacement of the exterior stucco finish for 903 Third Street. Preservation Brief 22[6] advises:

"When stucco no longer exists on a building there is more flexibility in choosing a suitable mix for the replacement. Since compatibility of old and new stucco will not be an issue, the most important factors to consider are durability, color, texture, and finish. Depending on the construction and substrate of the building, in some instances it may be acceptable to use a relatively strong cement-based stucco mortar. This is certainly true for many late-nineteenth and early twentieth century buildings."

With regard to the stucco finish for the addition, it is not necessary to differentiate the old from the new, since the entire exterior will have new stucco. It is recommended however, that these changes be recorded on a new DPR form for the property.

Sincerely,

Margaret E. Clovis

Margaret (Meg) Clovis

[6] Preservation Brief 22. *The Preservation and Repair of Historic Stucco.* National Park Service. October 1990.

Margaret E. Clovis, M.A.
14024 Reservation Rd.
Salinas, CA. 93908
831-210-9574

August 27, 2022

Mr. Rich Holdaway
Holdaway Construction, Inc.
370 Paul Dr.
Hollister, CA. 95023

RE: Renovation of Front Elevation Windows at 903 Third Street, San Juan Bautista, CA.
APN: 002-290-048

Dear Mr. Holdaway:

In response to your recent request, I am providing guidance regarding the retention or replacement of the windows on the front elevation of the house located at 903 Third Street in San Juan Bautista based on the Secretary of the Interior's Standards for the Treatment of Historic Properties. The 1980 survey record[1] for the property described the two windows on the front elevation of the house as four over one fixed windows. As stated in my first report, these windows have since been altered and are now fixed, single pane windows. Per the Standards, the existing windows may be retained, despite their lack of historic character.[2] This would be the most cost-effective solution.

The National Park Service provides information with respect to window replacement when no historic windows are extant in several publications. The most relevant to this project are listed below:

- Interpreting the Standards Bulletin 23, *Selecting New Windows to Replace Non-Historic Windows,* October 2001
- Technical Preservation Services, *Replacement Windows that Meet the Standards*
- Technical Preservation Services, *Replacement Windows Where No Historic Windows Remain,* January 2002

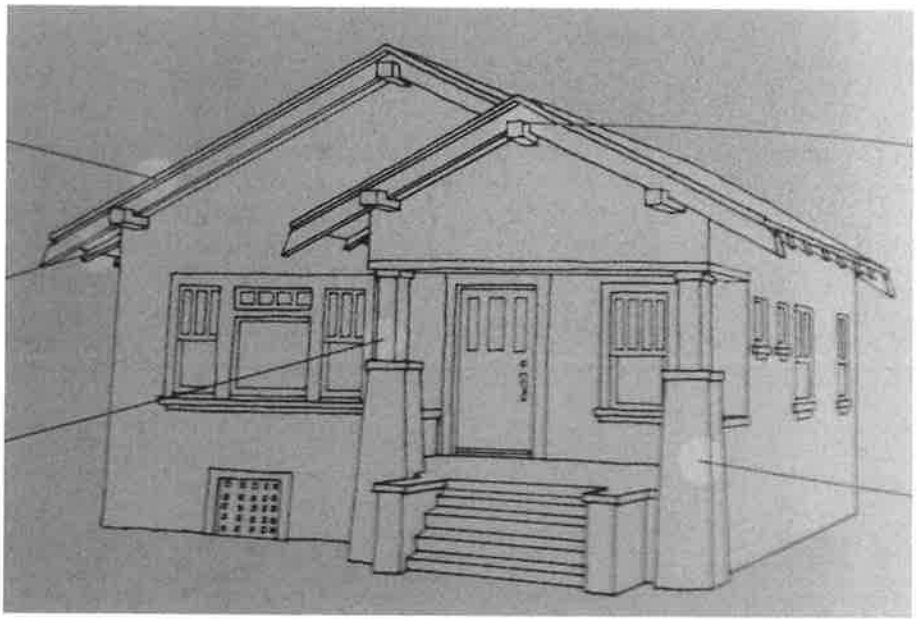
The latter article best summarizes the National Park Service's recommendations:

"Replacement windows for missing or non-historic windows must be compatible with the historic appearance and character of the building. Although replacement windows may be based on physical or pictorial documentation, if available, recreation of the missing windows is not required to meet the Standards. Replacement of missing or non-historic windows must, however, always fill the original window openings and must be compatible with the overall character of the building."

---

[1] Machado, Michael. Survey Record for 903 Third Street, San Juan Bautista. May 1980.
[2] Interpreting the Standards Bulletin 23. *Selecting New Windows to Replace Non-Historic Windows,* October 2001.

The bungalow located at 509 Second Street, which is almost identical to 903 Third Street, does not have the window type described in the survey form for 903 Third Street. Rather, 509 Second Street has a porch window with a single, fixed pane and the living room window has paired, double hung windows. Since replacement windows do not have to replicate missing windows, this treatment could be used for 903 Third Street. Another alternative is to select an original window type from one of the other bungalows within the Historic District. The drawing of a bungalow below, from Virginia McAlester's *Field Guide to American Houses,*[3] illustrates bungalow window types including the central, four over one window.



To summarize, the existing windows on the front elevation of 903 Third Street may be retained and still meet the Standards. This would be the most economical choice. If the windows are replaced, they should fit within the original window openings and be compatible with the Craftsman style of architecture. One of the eighteen contributing bungalows within the Concrete Bungalow Historic District could provide a model.

Please do not hesitate to contact me if you have any questions regarding this recommendation.

Sincerely,

Margaret (Meg) Clovis

[3] McAlester, Virginia. A Field Guide to American Houses. New York, 2019.

KENT L. SEAVEY
310 LIGHTHOUSE AVENUE
PACIFIC GROVE, CALIFORNIA 93950
(831) 375-8739

August 16, 2022

Mr. Brian Fouchet
Asst City Manager/C D Dir.
P.O. Box 1420
San Juan Bautista, CA 95045

Dear Mr. Fouchet:

Thank you for the opportunity to comment on the report prepared by Meg Clovis on the renovation of the residential property at 903 Third Street in San Juan Bautista. I have provided a copy of my qualifications for such work with this letter.

The consultant's initial research, clarifying the early errors in identification of the appropriate street address for the subject property is indicative of her attention to detail in the assessment process. As was her cogent Historical Background, placing the property in its significant historic context, identifying the bungalow form as the first indigenous domestic architecture in California and the principal dwelling house form in San Juan Bautista after c. 1908. She also pointed out that the subject property had not been included as a contributor in the historically important Concrete Bungalows Historic District of San Juan Bautista.

Ms. Clovis also included excellent guidance for the retention & repair of the subject property, identifying an intact example of the projects form and finishes within the Bungalow District, as a possible model for needed repair of some lost detailing on the subject property. She cited National Park sources for referencing the same. In that regard, she did not indicate if the similar bungalow (509 Second St.), might also have had the 4/1 window types she noted as missing on the subject property, which would give the owners of 903 Third models to replace the existing non historic fenestration.

Her work on this project in my professional opinion, is clear, concise and complete as regards the tasks assigned, and thoroughly consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.

Respectfully Submitted,

Kent L. Seavey

Kent L. Seavey
HISTORIC PRESERVATION CONSULTANT

310 LIGHTHOUSE AVENUE PACIFIC GROVE, CA
93950 Telephone: 831 375 873 9
E-mail: klseavey@sbcglobal.net

KENT L. SEAVEY, HISTORIC PRESERVATION CONSULTANT

BIOGRAPHY

Kent L. Seavey has been an independent historic preservation and museum interpretation consultant since 1978. Prior to establishing his own consulting business, Mr. Seavey worked variously as the first Historical Coordinator for the County of Monterey, Director of the Carmel Museum of Art, Registrar for the M.H. DeYoung Museum, and Curator of the California Historical Society. Mr. Seavey is a well-known authority on California Art and Architecture and has lectured on or taught these subjects at the University of California's Berkeley and Santa Cruz campuses, Cal Poly San Luis Obispo, San Jose State University, Stanford University and other institutions of higher learning.

Mr. Seavey has been a part-time instructor at Monterey Peninsula College since 1976, where he teaches art and architectural history and a course on the history of Monterey County. His publications include several monographs on early California artists, including Raymond D. Yelland and Francis McComas. He has also published books on Monterey County historic resources, including *Pacific Grove* (Arcadia Publishing, 2005); and *Carmel, A History in Architecture* (Arcadia Publishing, 2007).

Mr. Seavey has prepared historic resource inventories for numerous California communities, including Carmel-by-the-sea, San Juan Bautista, Salinas, Belmont, San Carlos and Colma. Mr. Seavey has prepared nearly two-thirds of all National Register of Historic Places nominations for Monterey County historic resources.

Mr. Seavey was made an honorary member of the Monterey Bay Chapter of the American Institute of Architects in 2005 and was the recipient of the Robert Stanton Award for contributions to the field of architecture in 2007. Mr. Seavey wrote preservation protocols for the conference of California Historical Society while chair of their preservation committee.

A leading expert in Monterey County architectural history and history, Mr. Seavey was awarded the Distinguished Historian honor by the California Council for the Promotion of History in 2009. Mr. Seavey meets the Secretary of the Interior's Professional Qualifications Standards in Architectural History and History.

Mr. Seavey recently served on the Monterey County Historic Resources Review Board. Previously, he served as Chairman of the Monterey County Historic Advisory Commission, Chairman of the Pacific Grove Historic Preservation Ordinance Drafting Committee, and Director of the California Council for the Promotion of History. Mr. Seavey wrote preservation protocols for the conference of the California Historical Society while chair of their preservation committee. Mr. Seavey was also the 2015 winner of the Alliance of Monterey Area Preservationists award for Preservationist of the Year.

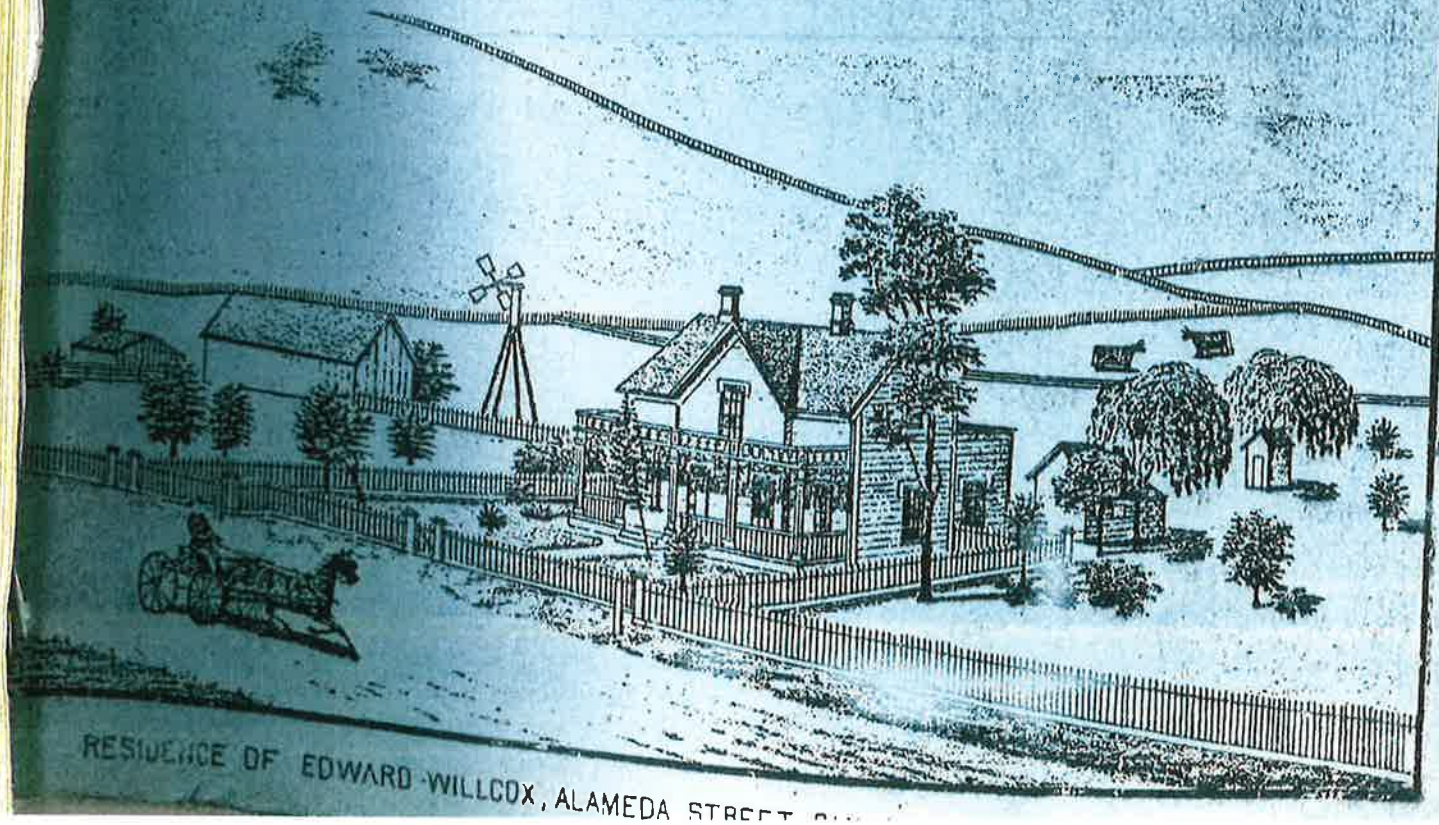
903 3rd Street, SJB, CA

509 2nd Street, SJB, CA

HISTORIC RESOURCES INVENTORY

SAN JUAN BAUTISTA, CALIFORNIA

1981



RESIDENCE OF EDWARD WILLCOX, ALAMEDA STREET

Queen Anne 1895-1906

The two examples of the Queen Anne style of architecture in San Juan Bautista probably derive from pattern books. They display an exuberance and delight in the use of a variety of forms found nowhere else in the community. The style originated in England and found great popularity in the United States as a vehicle for the expression of a widely increased building technology, primarily in the area of woodworking. Their form is highly eclectic with asymmetric lines and multi-gabled roof lines. Shingles in a variety of shapes, horizontal boards, and carved, decorative wood panels appear on a single elevation, creating rich surface textures.

Classic Box 1880's-1910

Sometimes called the square cottage because of their low squat appearance from the street, these small, simple, rectangular rural workingman's houses appear in country towns throughout northern California. They were a proto-type of the bungalow, but their apparent mass and formal expression, usually with a small dormer centered in the hipped-roof of the street elevation, tie them more closely with their Victorian predecessors. Detail is the only decorative expression associated with the mode. Be it classical or colonial it is generally found in window and porch treatment. There are a variety of these forms in San Juan Bautista.

Bungalow 1900-1930

According to professor Harold Kirker in his California's

Architectural Frontier, "the bungalow was an unconscious synthesis of the entire course of domestic architecture in California in the 19th century." It was designed for modern living in a moderate climate where indoors and outdoors were one. Its most attractive feature was its affordability to the average workingman. Bungalows were the product of the pattern book and the proper style for the sunny climate of San Juan Bautista, with the advent of its new industrial base, a cement plant. With their informal plan, open porches and patios, it was a builder's house that offered comfortable living at popular prices. Small and exclusively one story in San Juan Bautista, the style can be easily identified by its broad, gently sloping gabled roof lines with the gables generally turned toward the street. The large gable roof is usually accented with a smaller gable over the front porch supported by heavy piers in a variety of forms. San Juan Bautista's bungalows generally come in groups of two to five, being the first expression of a residential subdivision in the community. Stucco is the predominant surface treatment, although wood treatments in the form of vertical board and batten and horizontal siding can also be found.

Mediterranean Revival 1920-1940

This category for San Juan Bautista must include the Mission Revival, Spanish Revival et al., as there are not examples enough of one style or the other to suggest a fixed pattern. It is ironic that a town whose mission was one of the key sources of the popularization of the Mission Revival movement would lack an extensive collection of these buildings. However, the Mission Revival style was much more

GLOSSARY OF ARCHITECTURAL TERMS

This glossary is a basic guide to the architectural terms descriptive of earlier buildings in San Juan Bautista.

ADOBE - A sun-dried, unburned brick of earth (generally clay) and straw; a structure made with such bricks.

BALLOON FRAME - A timber-frame construction having up-rights (called studs) that extend in one piece from foundation line to the roof with horizontal members (joists) nailed to them.

BALUSTER - A post or upright support for a handrail.

BALUSTRADE - A row of balusters supporting a handrail.

BAY WINDOW - A window which projects from the envelope or mass of a building, permitting more illumination of the interior. A "slanted" bay has angled sides and flattened top and bottom, meeting at the vertical front section, while a "squared" bay has sides at right angles to the building and vertical front section.

BOARD & BATTEN - Vertical siding composed of wide boards that do not overlap and narrow strips, or battens, nailed over the spaces between the boards.

BRACKET - A supporting member for a projecting floor or shelf (often it was used decoratively rather than structurally), based on a 90 degree angle shape.

BUNGALOW - Generally small one-story houses which have broad, gently sloping gabled roofs with gables usually turned toward the street. A common type has a large gable covering the main portion of the house with a smaller gable over the front porch which is typically supported by heavy piers. Structural elements such as rafters and purlins are often expressed, and wood, stucco or brick are used as exterior finishes.

CAPITAL - The carved top of a column.

CLAIMING - In rural or isolated sites, buildings may dominate the natural landscape. These man-made structures seem to have the power to claim as their own a part of the land around them.

CLAPBOARD - Horizontal, overlapping siding (originally of cleft oak in New England), that is thin on one edge and thick on the other, for weatherproof, exterior wall surfaces.

MASTER LIST OF HISTORIC RESOURCES

Serial No.	THIRD STREET --Cont'd	Historic or Common Name and Building Type	Architectural Style	Date	Zo
60-C	609	Dena Burke House	Vernacular	1870	R-
61-C	700	E.A. Reynolds House	Victorian Vernacular	1880	R-
62-C	704	Dwelling	Vernacular Classic Box	1900	R-
63-C	707	Archibald House	Bungalow	1920	R-
64-C	708	Zecher House	Victorian Vernacular	1880	R-
65-C	801	Zangari House	Vernacular Classic Box	1905	R-
66-L	900	Luck Service Station		1919	C-
67-C	903	Dwelling	Bungalow	1920	C-

City of San Juan Bautista
2005-2006
Certified Local Government Grant
Historical Resources Inventory
And Context Statement

historical Inventory

September 2006

exists. This resource should be removed from the list of contributors. It was a single-family residence located at:

501 Third Street

4. Addition of properties to the list of contributors. Upon evaluation of the historic district, GPA recommends that the following properties be added to the list of contributors as having been constructed within the district's period of significance and being congruous with the overall type and style of buildings within the district boundaries:

   104 The Alameda
   322 Third Street

Identification of New Historic Districts

As part of the survey process, GPA identified one new historic district that appears eligible for local designation and confirms one locally significant historic district. The newly identified historic district is the Concrete Craftsman Bungalows Historic District. In addition, GPA recommends that the City of San Juan Bautista adopt the boundaries of the local "downtown historic district" that overlaps both the National Register eligible Third Street Historic District and the National Register Listed San Juan Bautista Plaza Historic District and also includes additional locally significant buildings that contribute to a local downtown historic district that follows the recommended boundaries of the 2004 General Plan Historic Preservation Element map. The recommended boundaries from the 2004 General Plan are shown below.

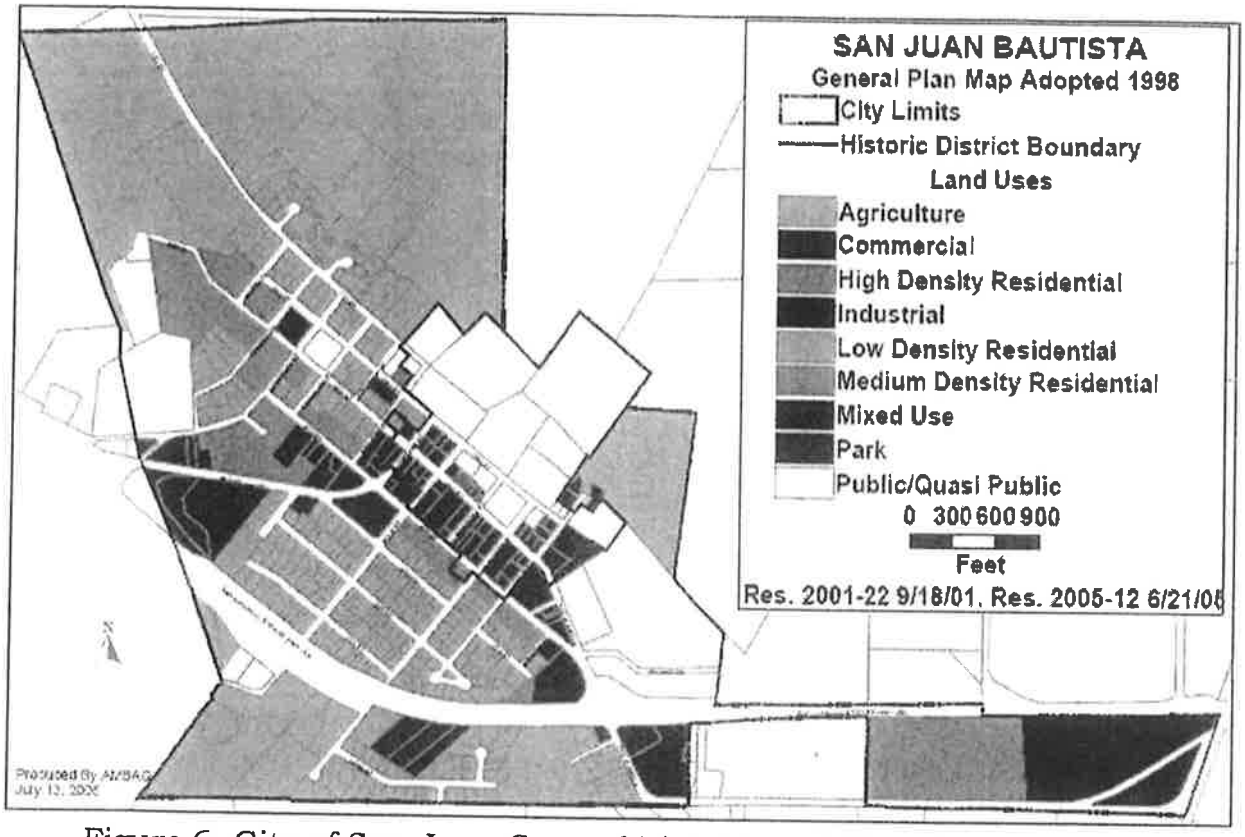


Figure 6: City of San Juan General Plan Map of Historic Boundaries

The Concrete Craftsman Bungalows Historic District is a geographically discontiguous district that is composed of single-family residences that share similar architectural style and method of construction. Each of the contributors to this district is located in various locations within San Juan Bautista city limits. There are eighteen buildings that were constructed in San Juan Bautista between 1915 and 1925 in the Craftsman style that were constructed out of concrete that also share a similar historic context.

In 1906, a cement plant opened just south of town and subsequently a narrow gauge railway was constructed that connected San Juan with the major Southern Pacific Lines a year later. With the cement plant bringing revenue and employment to the town and the railway connecting San Juan with the outside world, the town began to boom after several years of economic depression.

The construction of residential buildings resumed in San Juan Bautista at the turn of the twentieth century as a result of the need to provide housing for employees of the newly established cement plant. Nearly 100 new families moved to the town between 1906 and the early 1920s. This resulted in the rapid subdivision of land, which quickly began to change the appearance and feel of San Juan Bautista. The contractors and carpenters of this development

are unknown, but were likely from the surrounding cities of Gilroy and Hollister. The earliest buildings of this period were constructed in the Classic Box and Transitional styles however there are very few of these buildings present in San Juan because by the time the cement plant was firmly established in town a new architectural style had taken hold in California: the Craftsman bungalow.

Craftsman houses are typically one story in height. They are characterized by low-pitched gabled roofs with wide overhanging eaves, exposed rafter tails and wood brackets. Other character defining features include an exterior wall cladding of horizontal wood boards or wood shingles, wide wood window casings and surrounds, partial or full-width porches at the façade with heavy wood piers, and fieldstone foundations. The eighteen bungalows that make up the Concrete Bungalows historic district generally retain these character defining features; however, they have additional features that link them directly to San Juan Bautista and the events that were shaping the town during the first few decades of the twentieth century. Rather than fieldstone foundations, these bungalows have foundations of poured concrete; and rather than wood clapboard siding, these bungalows have an original wall cladding of sprayed concrete, or stucco. These features are less likely found in Craftsman bungalows in other locales; the presence of concrete in these buildings is what makes them regional to San Juan Bautista.

The eighteen contributing properties to the Concrete Bungalows Historic District are listed below. They were assigned status code 5D3, as appearing eligible for a historic district that appears eligible for local designation.

903 First Street
1122 First Street
87 Fourth Street
89 Fourth Street
91 Fourth Street
303 Fourth Street
35 Monterey Street
46 Monterey Street
505 Second Street
509 Second Street
701 Second Street
35 Tahualami Street
37 Tahualami Street
39 Tahualami Street
411 The Alameda
504 Third Street
506 Third Street
707 Third Street

Figure 21. 37 Mariposa, constructed in the Queen Anne style in 1895. View looking west. Photograph taken by Katie Horak, 2005.

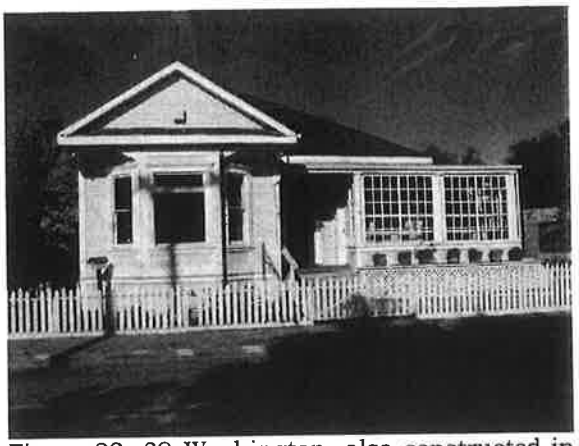


Figure 22. 39 Washington, also constructed in the Queen Anne style in 1906. View looking west. Photograph taken by Katie Horak, 2005.

The Boom of New Industry-- the Cement Plant (1906-1932)

San Juan Bautista might have become a ghost town altogether had a cement plant not opened just south of town. The first plant opened shortly after 1906; this plant failed and the successful Old Mission Portland Cement Company assumed operation of the facility in 1913. In 1907 a narrow gauge railway was constructed that would connect San Juan with the major Southern Pacific Lines. With the cement plant bringing revenue and employment to the town and the railway connecting San Juan with the outside world, optimism returned and the town was once again booming.

Associated Property Types

The construction of residential buildings resumed in San Juan Bautista at the turn of the twentieth century as there was a need to provide housing for employees of the newly established cement plant. Nearly 100 new families moved to San Juan between 1906 and the early 1920s. This resulted in the rapid subdivision of land, which quickly began to change the appearance and feel of San Juan. The contractors and carpenters of this development are unknown, and were likely from the surrounding cities of Gilroy and Hollister. The earliest buildings of this period were constructed in the Classic Box and Transitional styles. There are very few of these buildings present in San Juan, for by the time the Cement Plant was totally established in town a new architectural style had taken hold in California: the Craftsman bungalow. This style was followed by the Spanish Colonial Revival style in the 1930s.

Figure 23. A concrete Craftsman bungalow (1915) located at 35 Tahualami Street It is one of three identical bungalows in a row. View looking west. Photograph taken by Katie Horak, 2005.

Figure 24. This concrete bungalow (1930) is located on The Alameda near the Cement Plant. The rounded detail above the porch entrance is reminiscent of the Mission Revival style. Photograph taken by Katie Horak, 2005.

Craftsman bungalows were exceedingly popular from about 1910 to 1925 in California and plans for such homes were available in widely published pattern books. These buildings were typically clad with horizontal wood siding; however, in a cement industry town the more appropriate material for new residences was, of course, concrete. Many Craftsman bungalows in San Juan Bautista had poured concrete foundations, wood frames and sprayed concrete (or stucco) exterior wall cladding. There was a proliferation of these "concrete bungalows" in San Juan from about 1915 to 1925. Nearly all have low-pitched cross-gabled roofs, partial-width porches at the façade, and large wood sash windows with wood surrounds. These buildings were located near the center of town as well as on The Alameda, near the Cement Plant (see figures 23 and 24). Many of these buildings are nearly identical and clustered close together, indicative of the fact that they were members of small subdivisions and likely pulled out of pattern books.

The Craftsman style maintained its popularity until about 1925, at which point the Spanish Colonial Revival style took over as the predominant California building style. Character defining features of this style include a smooth stucco wall cladding, arched door and window openings, and flat or low-pitched roofs clad with Spanish clay tile (see figures 25 and 26). Several buildings of this style began to appear in San Juan Bautista in the late 1920s, such as 605 Third Street (figure 25) and 607 Third Street (figure 26).