

KEITH NOFIELD, PROFESSIONAL LAND SURVEYIN 5178 MOWRY AVENUE, STE. 2151, FREMONT, CA 94538 (510) 468-2703 EMAIL: KNOF7393@GMAIL.COM

LANDS OF TORRES
13685 SYCAMORE AVENUE
SAN MARTIN, CA 95046
APN: 825-14-044

OPOGRAPHIC SURVEY
PARCEL 3
PARCEL MAP
BOOK 392 MAPS, PAGE 22

FILENAME: 21.175 TS CHECKED BY:

DRAWN BY:

KLN

SCALE:

I" = 20'

DATE 1/29/2022 PROJECT NO. 21-175

SHEET NO.

1 of 1

ALVARADO RESIDENCE

5 BEDROOMS, 5.5 BATHROOM, 3 BED ADU,

- PROPOSED:

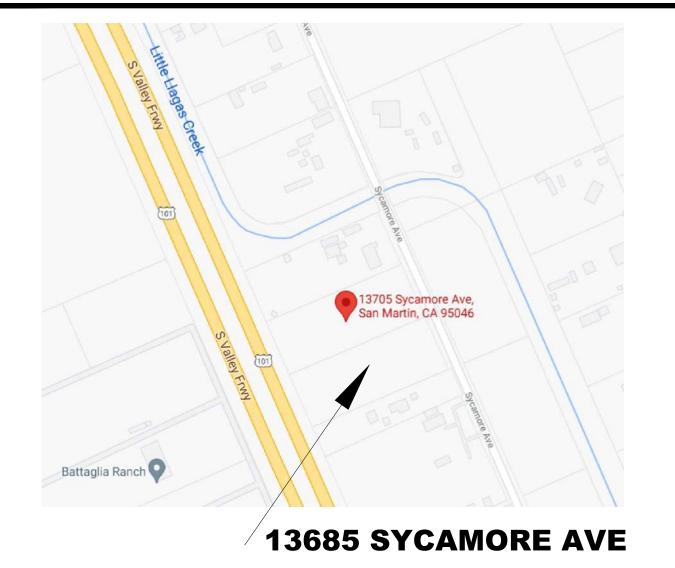
& WAREHOUSE

NOTES

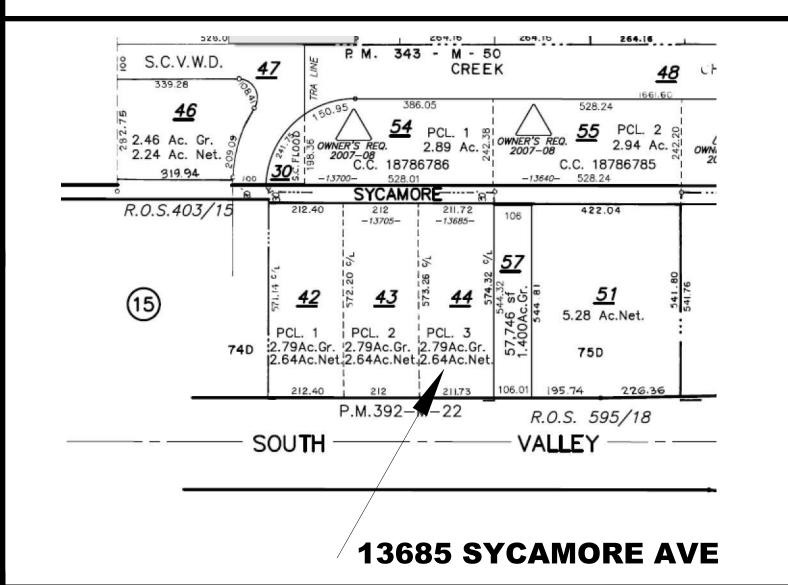
SINGLE FAMILY RESIDENTIAL ADDITION

PROJECT DATA APPLICABLE CODES 2019 CALIFORNIA BUILDING CODE (2018 IBC) 2019 CALIFORNIA RESIDENTIAL CODE (2018 IRC) 2019 CALIFORNIA RESIDENTIAL CODE (2017 NEC) 2019 CALIFORNIA ELECTRICAL CODE (2017 NEC) 2019 CALIFORNIA MECHANICAL CODE (2018 IMC) 2019 CALIFORNIA PLUMBING CODE (2018 IMC) 2019 CALIFORNIA FIRE CODE 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN) 2019 CALIFORNIA ENERGY CODE 2019 CALIFORNIA PROPERTY MAINTENANCE CODE

VICINITY MAP



PARCEL MAP



A.P.N. # 825-14-044 SCOPE

DATA SHEET

LOCATION: 13685 SYCAMORE AVE								
EXISTING USE: EMPTY LOT				A	APPLICANT: ALVARADO CONSTRUCTION			
PROPOSED USE: SINGLE FAMILY RES.			PI	ROPERTY OWNER: ALEJAN	IDRO ALVARADO			
ZON	ING: RR-5AC-SR	R		A	PPLICATION(S): BUILDING	PERMIT		
DEVE	LOPMENT STAN	IDARD	PROPOSED	DEVELOPM	ENT			
LOT	AREA		114,998.0	00 SF				
LOT	WIDTH		211.73	FT	•			
LOT	DEPTH		573.26	FT	•			
FRO	NT SETBACK		30'-0"	FT	•			
REA	R SETBACK		440'-10"	FT	•			
LEF1	Г SETBACK		99'-3"	FT	•			
RIGH	IT SETBACK		30'-0"	FT	•			
LOT	COVERAGE		12,638.00	SF				
			11.0%					
	LIVING AREA		4,237.00	SF				
FLOOR	GARAGE		804.00	SF				
AREA SQ.FT	PORCH		287.00	SF				
TOT	AL FLOOD AREA							
	AL FLOOR AREA	1	5,328.00	SF				
	G. HIEGHT		26' - 10"	FT				
_	DSCAPING		90,818.00	79.0% SF				
PAV			11,542.00	10.0% SF		ACE AT DRIVEWAY		
PAR	KING		3 COVERED S	PACE WAIN	HOUSE, 2 UNCOVERED SP	ACE AT DRIVEWAT		
TREES # OF		EXISTING herita	nge TREES	# OF NON- heritage	# OF NEW TREES			
				0	0	8		
# OF		EXISTING herita	ge TREES	# OF NON- heritage	TOTAL # OF TREES			
		ТО	BE REMOVED		TREES TO BE REMOVED			
			0	0	8			
		1						

SCOPE OF WORK

- NEW 4238 SF SINGLE FAMILY RESIDENCE WITH ATTACHED GARAGE.
- NEW ELECTRICAL AND GAS LINE

DRAWING INDEX

FRONT ELEVATION	SHEET -
SURVEY	SHEET 1
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GRADING PLAN	SHEET C1
PROPOSED ROOF PLAN	SHEET A0.3
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CALGREEN MANDATORY CHECKLIST	SHEET CG2
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ISSUED/REVISED

SHAH DESIGNS
12631 SHEREE CT,
SAN JOSE CA 95127

Y 12631 SHEREE SAN JOSE, CA 9 PHONE 408-838 SHAHDESIGNS

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> ET SYCAMORE AVE SAN MARTIN, CA

NO. STREET

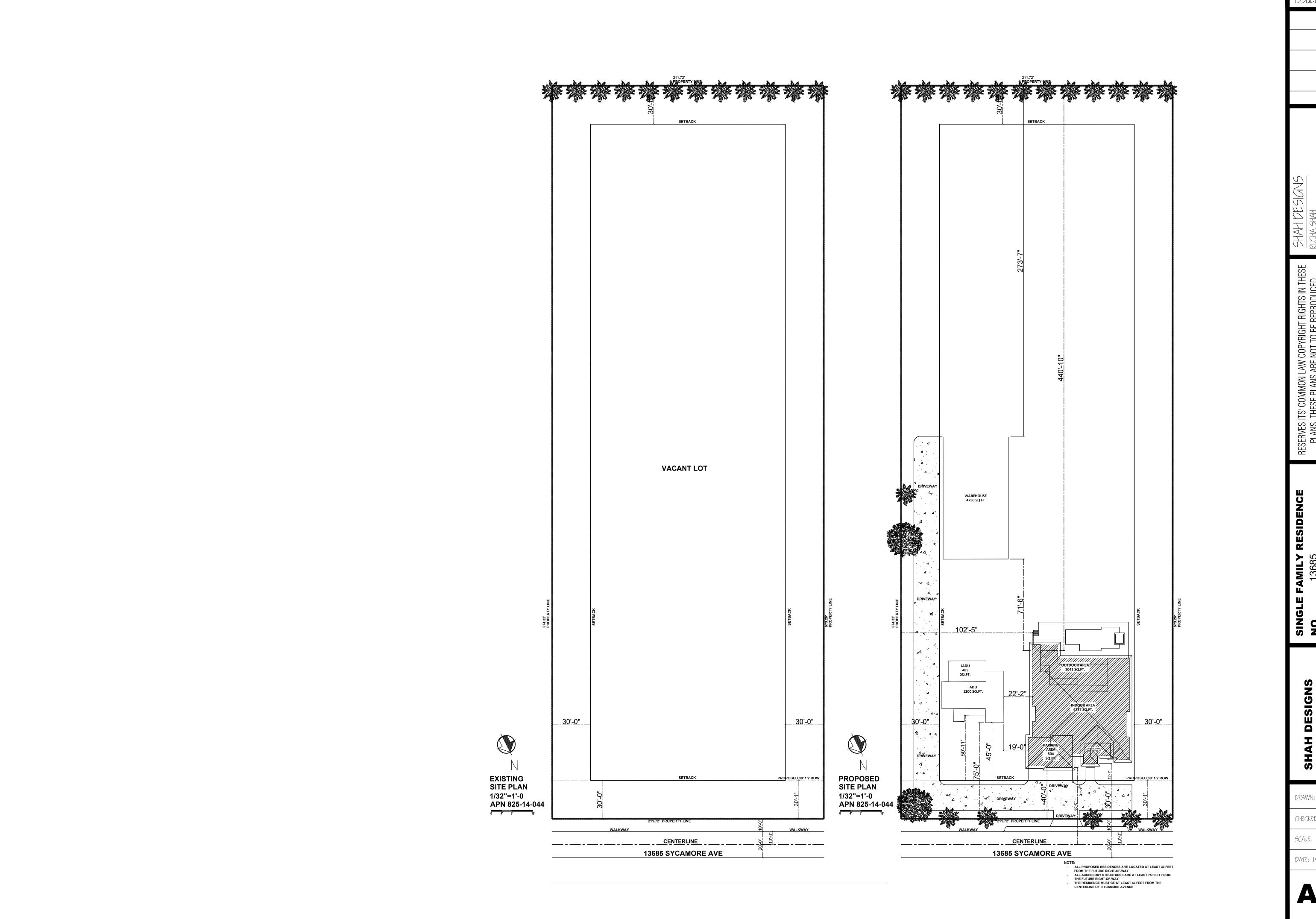
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DRAWN: AJ

CHECKED: R5

SCALE: DATE: 15-06-2022

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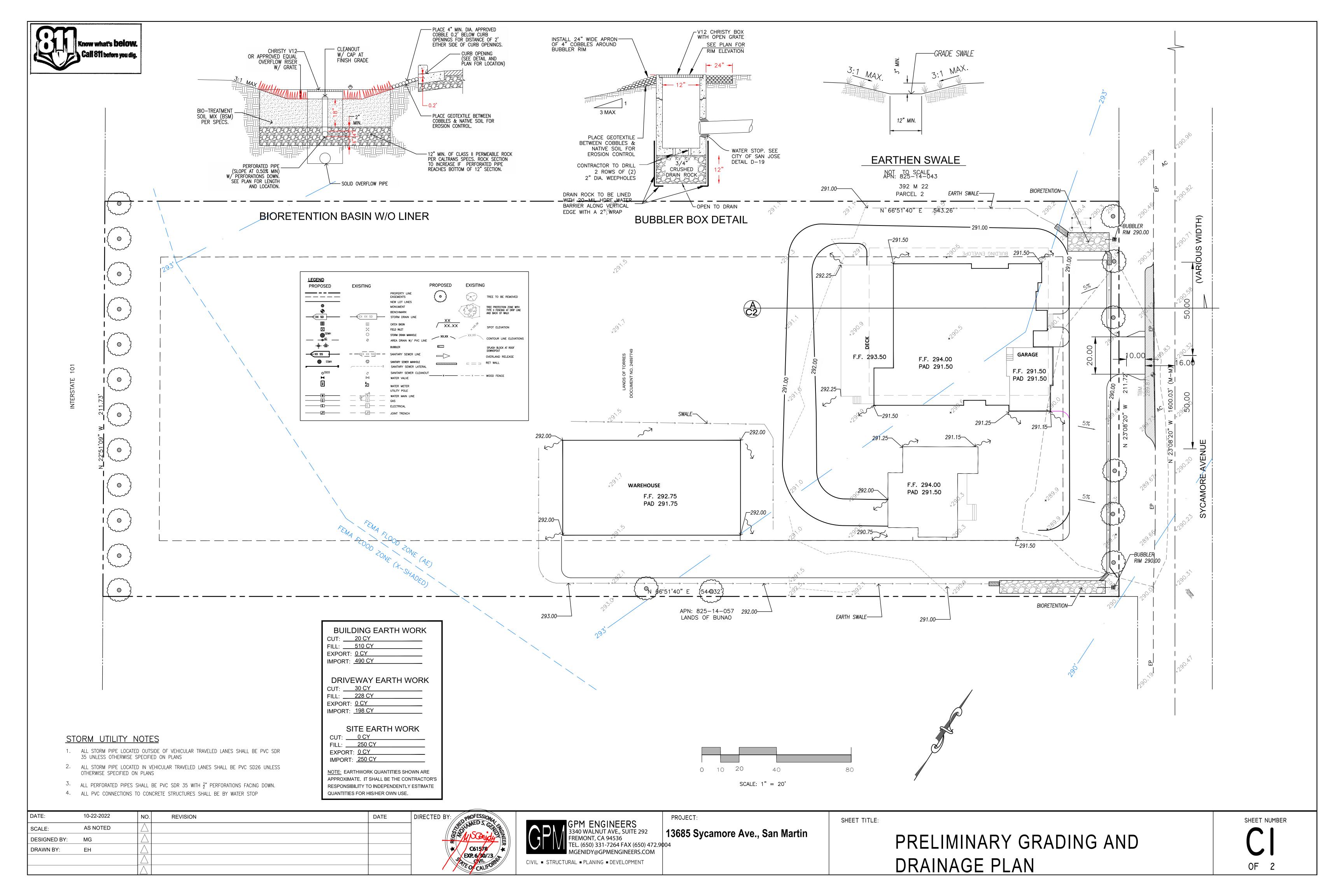


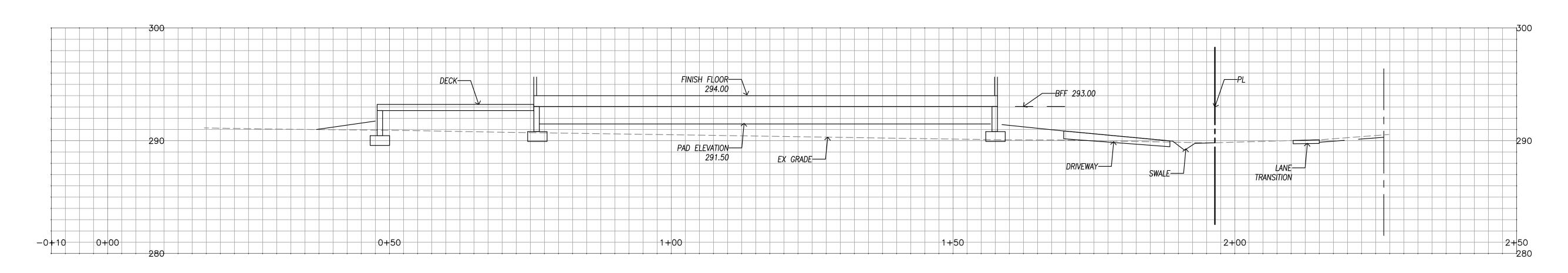
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DRAWN: AJ

CHECKED: RS

DATE: 15-06-2022







DATE:	10-22-2022	NO.	REVISION	DATE	DIF
SCALE:	AS NOTED				
DESIGNED BY:	MG				
DRAWN BY:	EH				



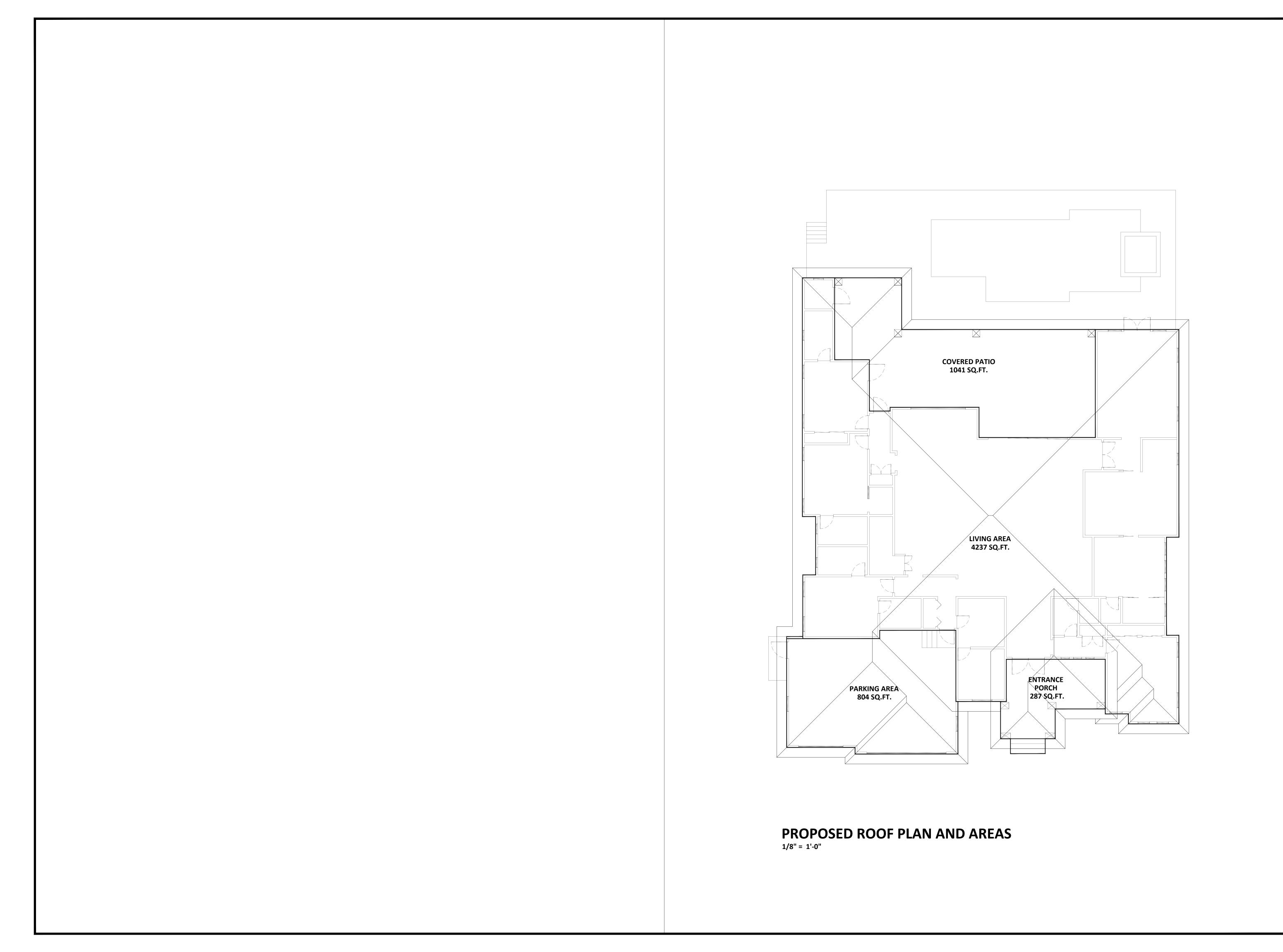


	PROJECT:
l	13685 Sycamore Ave., San Martin

SHEET TITLE:

SITE SECTIONS





ISSUED/REVISED

UCHA SHAH 2631 SHEREE CT, AN JOSE, CA 95127 HONE 408-858-7464

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13685 SYCAMORE AVE, SAN MARTIN, CA

NO. 136 STREET SY

SHAH DESIGNS

DRAWN: AJ

CHECKED: RS

SCALE:

DATE: 15-06-2022

A0.3



COUNTY OF SANTA CLARA

2019 CALGREEN RESIDENTIAL CHECKLIST (MANDATORY)

County Amendments to CALGreen are in Italics.

documentation DURING CONSTRUCTION.

- Designer to cross out items that are not applicable to the project. - Installer or designer shall verify all applicable requirements have been satisfied and sign and date each row. County Inspectors will verify completion signatures and supporting

		documentation boxING CONSTRUC	11014.			
			APPLICANT TO COMPLETE			
			Plan Ched	ck Review Data		Verification
	CALGreen					
	CODE		REFERENCE	Note or Detail		Installer or Designer
ITEM #	SECTION	REQUIREMENT	SHEET	No.	Date	Signature
		PLANNING AND DESIGN: MANE	DATORY REC	UIREMENTS		
		A plan is developed and implemented	CG-2	NOTE 1		
1	4.106.2	to manage storm water drainage				
		during construction.				
		Construction plans indicates how site	CG-2	NOTE 2		
2	4 100 2	grading or a drainage system will				
	4.106.3	manage all surface water flows to keep				
		water from entering buildings.				
		For new dwellings and the rebuild of				
		existing dwellings that include a panel				
	4 100 4 1	upgrade or construction between panel	66.3	NOTEC 2.0.4		
3	4.106.4.1	and parking area, a raceway to a	CG-2	NOTES 3 & 4		
		dedicated 208/240-volt branch circuit				
		meeting the requirements, is installed.				
		ENERGY EFFICIENCY: MANDA	ATORY REQ	UIRMENTS		
		Building meets or exceeds the	T24			
4	4.201.1	requirements of the California Building	SHEETS			
		Energy Efficiency Standards.	SHEETS			
	W	ATER EFFICIENCY & CONSERVATION	N: MANDATO	RY REQUIREME	NTS	
		Plumbing Fixtures (water closets and				
		urinals) and fittings (faucets and				
5	4.303.1	showerheads) installed in residential	CG-2	NOTE 5		
]	4.303.1	buildings comply with CALGreen	CG-2	NOTES		
		Sections 4.303.1.1 through				
		4.303.1.4.4.				
		Plumbing fixtures and fittings required				
		in CALGreen Section 4.303.1 are				
6	4.303.2	installed in accordance with the CPC	CG-2	Note 6		
		and meet the applicable referenced				
		standards.				
		Outdoor potable water use in				
		landscape areas comply with a local				!
7	4.304.1	water efficient landscape or the current	CG-2	Note 7		
		California DWR MWELO, whichever is				
		more stringent.				
		For new dwellings where disinfected				
8	4.305.1	tertiary recycled water is available,	CG-2	Note 8		
	4.303.1	installation of recycled water supply	(G-2	Note 6		
		system is required per CPC chapter 15.				

TABLE 4.504.1 ADHESIVE VOC LIMIT ^{1, 2}					
Less Water and Less Exempt Compounds in Grams per Liter					
ARCHITECTURAL APPLICATIONS	VOC LIMIT				
* 1					

Indoor carpet adhesives	50	COATING CATEGORY	
Carpet pad adhesives	50	Flat coatings	
Outdoor carpet adhesives	150	Nonflat coatings	
Wood flooring adhesive	100	Nonflat-high gloss coatings	
Rubber floor adhesives	60	SPECIALTY COATINGS	
Subfloor adhesives	50	Aluminum roof coatings	
Ceramic tile adhesives	65	Basement specialty coatings	
VCT and asphalt tile adhesives	50	Bituminous roof coatings	
Drywall and panel adhesives	50	Bituminous roof primers	
Cove base adhesives	50	Bond breakers	
Multipurpose construction adhesives	70	Concrete curing compounds	
Structural glazing adhesives	100	Concrete/masonry sealers	
Single-ply roof membrane adhesives	250	Driveway sealers	
Other adhesives not specifically listed	50	Dry fog coatings	
SPECIALTY APPLICATIONS		Faux finishing coatings	
PVC welding	510	Fire resistive coatings	
CPVC welding	490	Floor coatings	
ABS welding	325	Form-release compounds	
Plastic cement welding	250	Graphic arts coatings (sign paints)	
Adhesive primer for plastic	550	High temperature coatings	
Contact adhesive	80	Industrial maintenance coatings	
Special purpose contact adhesive	250	Low solids coatings ¹	
Structural wood member adhesive	140	Magnesite cement coatings	
Top and trim adhesive	250	Mastic texture coatings	
SUBSTRATE SPECIFIC APPLICATIONS		Metallic pigmented coatings	
Metal to metal	30	Multicolor coatings	
Plastic foams	50	Pretreatment wash primers	
Porous material (except wood)	50	Primers, sealers, and undercoaters	
Wood	30	Reactive penetrating sealers	
Fiberglass	80	Recycled coatings	
1. If an adhesive is used to bond dissimilar substra	tes together, the adhesive	Roof coatings	
with the highest VOC content shall be allowed.	Rust preventative coatings		
For additional information regarding methods to specified in this table, see South Coast Air Quality 1168.		Shellacs Clear Opaque	
TABLE 4.504.2		Specialty primers, sealers and undercoaters	
SEALANT VOC LIMIT		Stains	

SEALANT VOC LIMIT
Less Water and Less Exempt Compounds in Grams per Liter Marine deck Nonmembrane roof Single-ply roof membrane SEALANT PRIMERS Architectural Nonporous Porous Modified bituminous Marine deck

TABLE 4.504.3

VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS^{2, 3}

Grams of VOC per Liter of Coating,

Less Water and Less Exempt Compounds

Wood coatings

Wood preservatives

Zinc-rich primers 1. Grams of VOC per liter of coating, including water and including exempt

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,

February 1, 2008. More information is available from the Air Resources Board.

				k Review Data		Verification
ITEM #	CALGreen CODE SECTION	REQUIREMENT	REFERENCE SHEET	Note or Detail No.	Date	Installer or Designer Signature
	MATERIA	L CONSERVATION & RESOURCE EFFI	CIENCY: MA	NDATORY REQU	JIREME	NTS
9	4.406.1	Annular spaces around pipes, electric cables, conduits or other openings in plates at exterior walls are protected against the passage of rodents by closing such openings with cement mortar, concrete masonry or similar method acceptable to the County of Santa Clara.	CG-2	Note 9		
10	4.408.1	Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste. Submit either a Construction Waste management plan (CALGreen 4.408.2) or Utilize a waste management company (CALGreen 4.408.3).	CG-2	Note 10		
11	4.408.5	Documentation is provided to County of Santa Clara which demonstrates compliance with CALGreen sections 4.408.2 or 4.408.3.	CG-1	Construction Waste Management Forms Note 11		
12	4.410.1	An operation and maintenance manual is placed in the building at the time of final inspection.	CG-2	Note 12		
		ENVIRONMENTAL QUALITY: MAN	IDATORY RE	QUIREMENTS		
13	4.503.1	Any installed gas fireplace is a direct- vent sealed-combustion type. Any installed woodstove or pellet stove comply with US EPA Phase II emission limits where applicable.	CG-2	Note 13		
14	4.504.1	Duct openings and other related air distribution component openings are covered during construction until final startup of the HVAC equipment.	CG-2	Note 14		
15	4.504.2.1	Adhesives, sealants and caulks are compliant with VOC and other toxic compound limits.	CG-1 CG-2	Table 4.504.1 Table 4.504.2 Note 15		
16	4.504.2.2	Architectural paints and coatings are compliant with VOC limits.	CG-1 CG-2	Table 4.504.3 Note 16		
17	4.504.2.3	Aerosol paints and coatings are compliant with product weighted MIR limits for ROC and other toxic compounds.	CG-2	Note 17		
18	4.504.2.4	Documentation are provided to the County of Santa Clara to verify that compliant VOC limit finish materials have been used.	CG-2	Note 18		
19	4.504.3	Carpet and carpet systems meet the applicable testing and product requirements.	CG-1 CG-2	Table 4.504.1 Note 19		
20	4.504.4	80 percent of floor area receiving resilient flooring comply with applicable standards.	CG-2	Note 20		
21	4.504.5	Hardwood plywood, particleboard and medium density fiberboard composite wood meet formaldehyde limits.	CG-1 CG-2	Table 4.504.5 Note 21		

APPLICANT TO COMPLETE Installer or Designer

	<u>^</u>		Plan Check Review Data		Verification	
ITEM #	CALGreen CODE SECTION	REQUIREMENT	REFERENCE SHEET	Note or Detail No.	Date	Installer or Designer Signature
	EI	NVIRONMENTAL QUALITY: MANDATO	RY REQUIRE	MENTS (Contin	ued)	
22	4.504.5.1	Documentation is provided to the County of Santa Clara to verify composite wood meets applicable formaldehyde limits.	CG-2	Note 22		
23	4.505.2	Vapor retarder and capillary break is installed at slab-on-grade foundations.	CG-2	Note 23		
24	4.505.3	Moisture content of building materials used in wall and floor framing do not exceed 19% prior to enclosure and is checked before enclosure. Insulation products are dry prior to enclosure.	CG-2	Note 24		
25	4.506.1	Each bathroom is mechanically ventilated and comply with applicable requirements.	CG-2	Note 25		
26	4.507.2	Heating and air-conditioning systems are sized, designed, and equipment is selected by using one of the methods listed.	CG-2	Note 26		
	INSTALLE	R AND SPECIAL INSPECTOR QUALIFI	CATIONS: M	ANDATORY REC	UIREM	ENTS
27	702.1	HVAC system installers are trained and certified in the proper installation of HVAC systems.	CG-2	Note 27		
28	702.2	If required by County of Santa Clara, owner or owner's agent shall employ special inspector who are qualified and able to demonstrate competence in the discipline they are inspecting.	CG-2	Note 28		
29	703.1	Documentation used to show compliance with this code may include construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to County of Santa Clara which show substantial conformance.	CG-2	Note 29		

APPLICANT TO COMPLETE Installer or Designer

TABLE 4.504.5 FORMALDEHYDE LIMITS¹ Maximum Formaldehyde Emissions in Parts per Million

PRODUCT	CURRENT LIMIT
ardwood plywood veneer core	0.05
ardwood plywood composite core	0.05
articleboard	0.09
ledium density fiberboard	0.11
hin medium density fiberboard ²	0.13
Values in this table are derived from those spe	ecified by the California A

Resources Board, Air Toxics Control Measure for Composite Wood as tested in accordance with ASTM E1333. For additional information, see California Code of Regulations, Title 17, Sections 93120 through 93120.12.

2. Thin medium density fiberboard has a maximum thickness of ⁵/₁₆ inch (8 mm).

Construction Waste Management (CWM) Plan

Fill out the form including diversion rate and facility names and addresses

oject Name: 13685 Sycamore Ave, San Martin, CA 95046	Legend:	
b #:		Hauling Company
oject Manager:		Sorting Facility Name and
aste Hauling Company:	_	Disposal Service Company
ontact Name:		

All Subcontractors shall comply with the project's Construction Waste Management Plan. All Subcontractor foremen shall sign the CWM Plan Acknowledgment Sheet.

Subcontractors who fail to comply with the Waste Management Plan will be subject to backcharges or withholding of payment, as deemed appropriate. For instance, Subcontractors who contaminate debris boxes that have been designated for a single material type will be subject to backcharge or withheld payment, as deemed appropriate.

1. The project's overall rate of waste diversion will be _____ %.

2. This project shall generate the least amount of waste possible by planning and ordering carefully, following all proper storage and handling procedures to reduce broken and damaged materials and reusing materials whenever possible. The majority of the waste that is generated on this jobsite will be diverted from the landfill and recycled for other use. 3. Spreadsheet 1, enclosed, identifies the waste materials that will be generated on this project, the diversion strategy for each waste type

and the anticipated diversion rate. 4. Waste prevention and recycling activities will be discussed at the beginning of weekly subcontractor meetings. As each new subcontractor comes on-site, the WMP Coordinator will present him/her with a copy of the CWM Plan and provide a tour of the jobsite to identify materials to be salvaged and the procedures for handling jobsite debris. All Subcontractor foremen will acknowledge in writing that they have read and will abide by the CWM Plan. Subcontractor Acknowledgment Sheet enclosed. The CWM Plan will be

posted at the jobsite trailer. 5. Salvage: Excess materials that cannot be used in the project, nor returned to the vendor, will be offered to site workers, the owner, or donated to charity if feasible.

will provide a commingled drop box at the jobsite for most of the construction waste. These commingled drop boxes will be taken to ______. The average diversion rate for commingled waste will be ______%.

As site conditions permit, additional drop boxes will be used for particular phases of construction (e.g., concrete and wood waste) to ensure the highest waste diversion rate possible.

7. In the event that the waste diversion rate achievable via the strategy described in (6) above, is projected to be lower than what is required, then a strategy of source-separated waste diversion and/or waste stream reduction will be implemented. Source separated waste refers to jobsite waste that is not commingled but is instead allocated to a debris box designated for a single material type, such as clean wood or metal.

1. Waste stream reduction refers to efforts taken by the builder to reduce the amount of waste generated by the project to below four (4) pounds per square foot of building area. 2. When using waste stream reduction measures, the gross weight of the product is subtracted from a base weight of four (4) pounds per square foot of building area. This reduction is considered additional diversion and can be used in the waste reduc-

tion percentage calculations. will track and calculate the quantity (in tons) of all waste leaving the project and calculate the waste diverwill provide Project Manager with an updated monthly report on gross weight hauled and the waste diversion rate being achieved on the project. gross weights and diversion rates for commingled debris and for each source-separated waste stream leaving the project. In the event does not service any or all of the debris boxes on the project, the with the responsible parties to track the material type and weight (in tons) in such debris boxes in order to determine waste diversion

rates for these materials. 9. In the event that Subcontractors furnish their own debris boxes as part of their scope of work, such Subcontractors shall not be excluded from complying with the CWM Plan and will provide weight and waste diversion data for their

10. In the event that site use constraints (such as limited space) restrict the number of debris boxes that can be used for collection of designated waste the project Superintendent will, as deemed appropriate, allocate specific areas onsite where individual material types are to be consolidated. These collection points are not to be contaminated with non-designated waste types.

11. Debris from jobsite office and meeting rooms will be collected by will, at a minimum, recycle office paper, plastic, metal and cardboard.

Construction Waste Management (CWM) Worksheet

Project Name: 13685 Sycamore Ave, San Martin, CA 95046

Job Number:			
Project Manager:			
Waste Hauling Company:			
Construction Waste Management (C	WM) Plan		
WASTE MATERIAL TYPE	COMMINGLED AND SORTED OFF SITE	SOURCE SEPARATED ON SITE	PROJECTED DIVERSION RATE
Asphalt	GOMMINGEED AND GORRED GIT GITE	OCCINCE CEL ARATED ON CITE	DIVERSION RATE
Concrete			
Shotcrete			
Metals			
Wood			
Rigid insulation			
Fiberglass insulation			
Acoustic ceiling tile			
Gypsum drywall			
Carpet/carpet pad			
Plastic pipe			
Plastic buckets			
Plastic			
Hardiplank siding and boards			
Glass			
Cardboard			
Pallets			
Job office trash, paper, glass & plastic bottles, cans, plastic			
Alkaline and rechargeable batteries, toner cartridges, and electronic devices			
Other:			

Construction Waste Management (CWM) Acknowledgment

Note: This sample form may be used to assist in documenting compliance with the waste management plan.

Project Name: 13685 Sycamore Ave, San Martin, CA 95046	_
Job Number:	_
Project Manager:	_
Waste Hauling Company:	_
CWM Plan Acknowledgment	
The Foreman for each new Subcontractor that comes on site is to receive complete this Acknowledgment Form.	a copy of the Construction Waste Management Plan and
I have read the Waste Management Plan for the project; I understand the goal	of this plan and agree to follow the procedures described in this

DATE	SUBCONTRACTOR COMPANY NAME	FOREMAN NAME	SIGNATURE





AMORE AVE,

CALGREEN 2019 NOTES - MANDATORY REQUIREMENTS:

1. 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. SEE CALGREEN 4.106.2 FOR FURTHER DETAILS.

2. CONSTRUCTION PLANS SHALL INDICATE HOW THE SITE GRADING OR DRAINAGE SYSTEM WILL MANAGE ALL SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS. SWALES, WATER COLLECTION AND DISPOSAL SYSTEMS, FRENCH DRAINS, WATER RETENTION GARDENS, AND OTHER MEASURES CAN BE USED. EXCEPTION: ADDITIONS AND ALTERATIONS NOT ALTERING THE DRAINAGE PATH.

3. NEW CONSTRUCTION SHALL COMPLY WITH CALGREEN SECTION 4.106.4.1 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:

- A. WHERE COUNTY OF SANTA CLARA HAS DETERMINED EV CHARGING AND INFRASTRUCTURE ARE NOT FEASIBLE.
- B. ACCESSORY DWELLING UNITS (ADU) AND JUNIOR ACCESSORY DWELLING UNITS (JADU) WITHOUT ADDITIONAL PARKING FACILITIES.

4. 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. THE RACEWAY TERMINATION LOCATION SHALL BE PERMANENTLY AND VISIBLY MARKED AS "EV CAPABLE".

THE SERVICE PANEL OR SUB-PANEL CIRCUIT DIRECTORY SHALL IDENTIFY THE OVER CURRENT 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".

5. ALL NONCOMPLIANT PLUMBING FIXTURES 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 BUILDING AND INSPECTION DIVISION. 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.

- A. 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.
- B. 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.
- C. WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OF ALL SHOWER-HEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME. A HAND-HELD SHOWER SHALL BE CONSIDERED A SHOWERHEAD.
- D. 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.
- E. THE MAXIMUM FLOW RATE OF KITCHEN FAUCETS SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTE AT 60 PSI.

6. 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.

7. 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.

8. NEWLY CONSTRUCTED RESIDENTIAL DEVELOPMENTS, WHERE DISINFECTED TERTIARY RECYCLED WATER IS AVAILABLE FROM A MUNICIPAL SOURCE TO A CONSTRUCTION SITE, MAY BE REQUIRED TO HAVE RECYCLED WATER SUPPLY SYSTEMS INSTALLED, ALLOWING THE USE OF RECYCLED WATER FOR RESIDENTIAL LANDSCAPE IRRIGATION SYSTEMS. SEE CHAPTER 15 OF THE CALIFORNIA PLUMBING CODE.

9. 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 COUNTY OF SANTA CLARA.

10. RECYCLE AND/OR SALVAGE FOR REUSE A MINIMUM OF 65 PERCENT OF THE NONHAZARDOUS CONSTRUCTION AND DEMOLITION WASTE IN ACCORDANCE WITH CALGREEN SECTION 4.408.2 OR 4.408.3.

- A. A CONSTRUCTION WASTE MANAGEMENT PLAN IS PROVIDED. THE CONSTRUCTION WASTE MANAGEMENT PLAN SHALL BE UPDATED AS NECESSARY AND SHALL BE AVAILABLE DURING CONSTRUCTION FOR EXAMINATION BY THE COUNTY OF SANTA
- 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 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.
- B. A WASTE MANAGEMENT COMPANY CAN BE UTILIZED IF APPROVED BY THE COUNTY OF SANTA CLARA. SEE CALGREEN 4.408.3 FOR FURTHER .DETAILS

11. DOCUMENTATION SHALL BE PROVIDED TO THE COUNTY OF SANTA CLARA WHICH DEMONSTRATES COMPLIANCE WITH NOTE 10.

12. AT THE TIME OF FINAL INSPECTION, A MANUAL, COMPACT DISC, WEB-BASED REFERENCE OR OTHER MEDIA ACCEPTABLE TO THE COUNTY OF SANTA CLARA INCLUDES ALL OF THE REQUIRED INFORMATION, SHALL BE PLACED IN THE BUILDING. SEE CALGREEN 4.410.1 FOR DETAILS OF REQUIRED INFORMATION.

13. 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 SANTA CLARA COUNTY ORDINANCES AND BAY AREA AIR QUALITY MANAGEMENT DISTRICT REGULATION 6, RULE 3.

14. 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 COUNTY OF SANTA CLARA TO REDUCE THE AMOUNT OF WATER, DUST AND DEBRIS, WHICH MAY ENTER THE SYSTEM.

15. ADHESIVES, SEALANTS AND CAULKS USED ON THE PROJECT SHALL MEET THE REQUIREMENTS OF CALGREEN TABLES 4.504.1 OR 4.504.2 AS REPRODUCED ON SHEET CG-1. 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 BELOW.

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 04507

16. ARCHITECTURAL PAINTS AND COATINGS SHALL COMPLY WITH VOC LIMITS AS SHOWN IN TABLE 4.504.3 SHEET CG-1. 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, SHEET CG-1 SHALL APPLY.

17. 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.

18. VERIFICATION OF COMPLIANCE WITH NOTES 15, 16, AND 17 SHALL BE PROVIDED AT THE REQUEST OF THE COUNTY OF SANTA CLARA.

19. ALL CARPET INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT REQUIREMENTS OF ONE OF THE FOLLOWING:

- A. CARPET AND RUG INSTITUTE'S GREEN LABEL PLUS PROGRAM.
- B. 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.)
- C. NSF/ANSI 140 AT THE GOLD LEVEL.
- D. SCIENTIFIC CERTIFICATIONS SYSTEMS INDOOR ADVANTAGE GOLD.

ALL CARPET CUSHION INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE REQUIREMENTS OF THE CARPET AND RUG INSTITUTE'S GREEN LABEL PROGRAM. ALL CARPET ADHESIVE SHALL MEET THE REQUIREMENTS OF TABLE 4.504.1, SHEET CG-1.

20. WHERE RESILIENT FLOORING IS INSTALLED, AT LEAST 80 PERCENT OF FLOOR AREA RECEIVING RESILIENT FLOORING SHALL COMPLY WITH ONE OR MORE OF THE FOLLOWING:

- A. 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.
- B. PRODUCTS CERTIFIED UNDER UL GREENGUARD GOLD (FORMERLY THE GREENGUARD CHILDREN & SCHOOLS PROGRAM).
- C. CERTIFICATION UNDER THE RESILIENT FLOOR COVERING INSTITUTE (RFCI) FLOORSCORE PROGRAM.
- D. MEET THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH, "STANDARD METHOD FOR THE TESTING AND EVALUATION OF VOLATILE ORGANIC CHEMICAL EMISSIONS FROM INDOOR SOURCES USING ENVIRONMENTAL CHAMBERS," VERSION 1.1, FEBRUARY 2010 (ALSO KNOWN AS SPECIFICATION 01350).

21. HARDWOOD PLYWOOD, PARTICLEBOARD AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED ON THE INTERIOR OR EXTERIOR OF THE BUILDING SHALL MEET THE REQUIREMENTS FOR FORMALDEHYDE AS SPECIFIED IN TABLE 4.504.5

22. VERIFICATION OF COMPLIANCE WITH NOTE 21 SHALL BE PROVIDED AT THE REQUEST OF THE COUNTY OF SANTA CLARA.

23. CONCRETE SLAB FOUNDATIONS REQUIRED TO HAVE A VAPOR RETARDER BY CBC, CHAPTER 19 OR CONCRETE SLAB-ON-GROUND FLOORS REQUIRED TO HAVE A VAPOR RETARDER BY CRC CHAPTER 5, SHALL COMPLY WITH FOLLOWING REQUIREMENT:

A CAPILLARY BREAK SHALL BE INSTALLED IN COMPLIANCE WITH AT LEAST ONE OF THE FOLLOWING:

- A. A 4-INCH-THICK BASE OF 1/2 INCH OR LARGER CLEAN AGGREGATE SHALL BE PROVIDED WITH A VAPOR RETARDER IN DIRECT CONTACT WITH CONCRETE AND A CONCRETE MIX DESIGN, WHICH WILL ADDRESS BLEEDING, SHRINKAGE, AND CURLING, SHALL BE USED.
- B. A SLAB DESIGN SPECIFIED BY THE LICENSED DESIGN PROFESSIONAL

24. 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. 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.

25. EACH BATHROOM SHALL BE MECHANICALLY VENTILATED AND SHALL COMPLY WITH THE FOLLOWING:

- A. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING.
- B. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDITY CONTROL.
- 1. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF ≤ 50 PERCENT TO A MAXIMUM OF 80 PERCENT. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT
- 2. A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL.

26. HEATING AND AIR-CONDITIONING SYSTEMS SHALL BE SIZED, DESIGNED AND HAVE THEIR EQUIPMENT SELECTED USING THE FOLLOWING METHODS:

- A. THE HEAT LOSS AND HEAT GAIN IS ESTABLISHED ACCORDING TO ANSI/ACCA 2 MANUAL J—2016 (RESIDENTIAL LOAD CALCULATION), ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.
- B. DUCT SYSTEMS ARE SIZED ACCORDING TO ANSI/ACCA 1 MANUAL D—2016 (RESIDENTIAL DUCT SYSTEMS), ASHRAE HANDBOOKS OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.
- C. SELECT HEATING AND COOLING EQUIPMENT ACCORDING TO ANSI/ACCA 3 MANUAL S—2014 (RESIDENTIAL EQUIPMENT SELECTION) OR OTHER EQUIVALENT DESIGN SOFTWARE OR METHODS.

27. 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.

28. IF REQUIRED BY THE COUNTY OF SANTA CLARA, 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 COUNTY OF SANTA CLARA FOR THE PARTICULAR TYPE OF INSPECTION OR TASK TO BE PERFORMED. SPECIAL INSPECTORS SHALL BE INDEPENDENT ENTITIES WITH NO FINANCIAL INTEREST IN THE MATERIALS OR THE PROJECT THEY ARE INSPECTING FOR COMPLIANCE WITH THIS CODE.

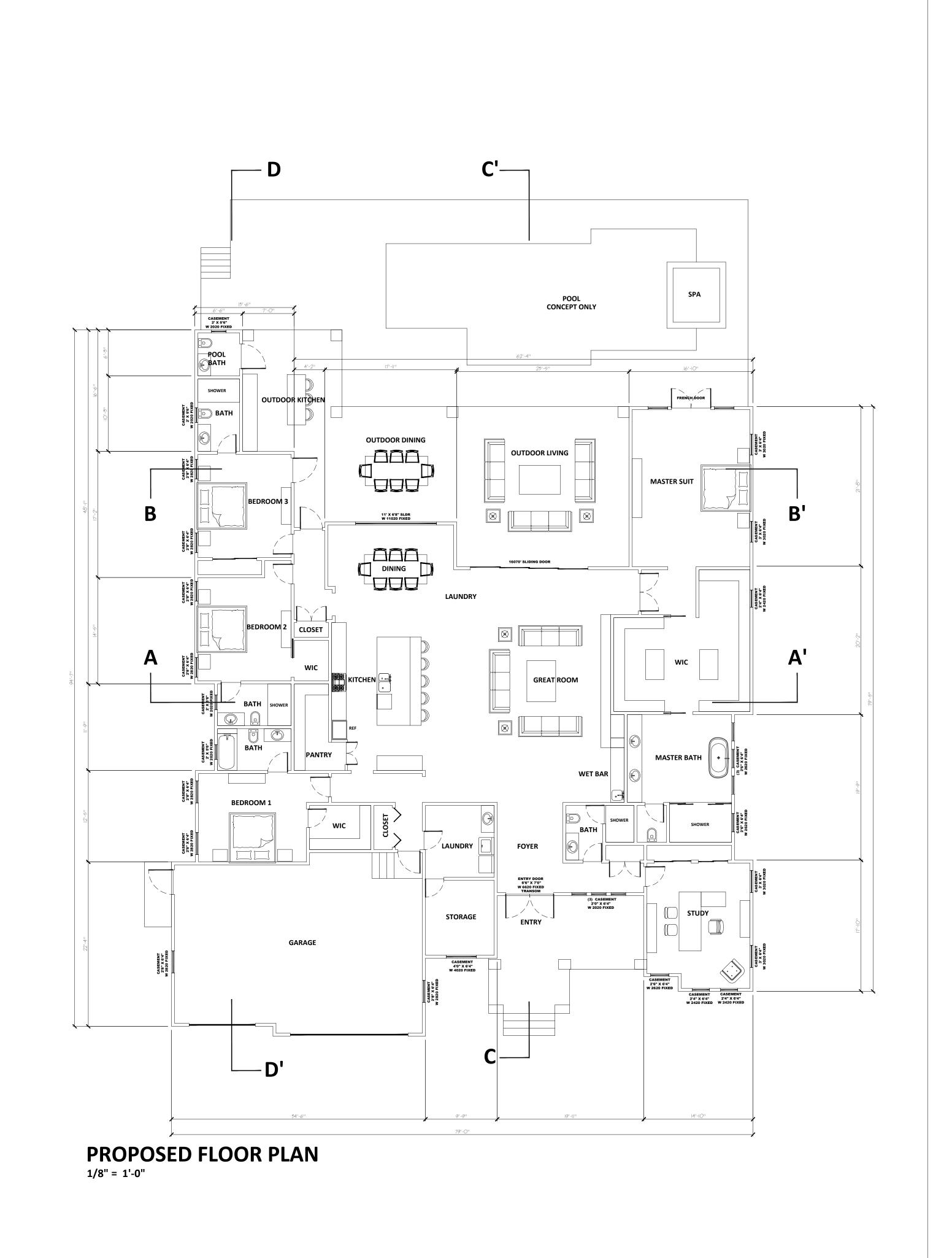
29. DOCUMENTATION USED TO SHOW COMPLIANCE WITH THIS CODE SHALL INCLUDE BUT IS NOT LIMITED TO, CONSTRUCTION DOCUMENTS, PLANS, SPECIFICATIONS, BUILDER OR INSTALLER CERTIFICATION, INSPECTION REPORTS, OR OTHER METHODS ACCEPTABLE TO THE COUNTY OF SANTA CLARA WHICH DEMONSTRATE SUBSTANTIAL CONFORMANCE. WHEN SPECIFIC DOCUMENTATION OR SPECIAL INSPECTION IS NECESSARY TO VERIFY COMPLIANCE, THAT METHOD OF COMPLIANCE WILL BE SPECIFIED IN THE APPROPRIATE SECTION OR IDENTIFIED IN THE APPLICATION CHECKLIST.

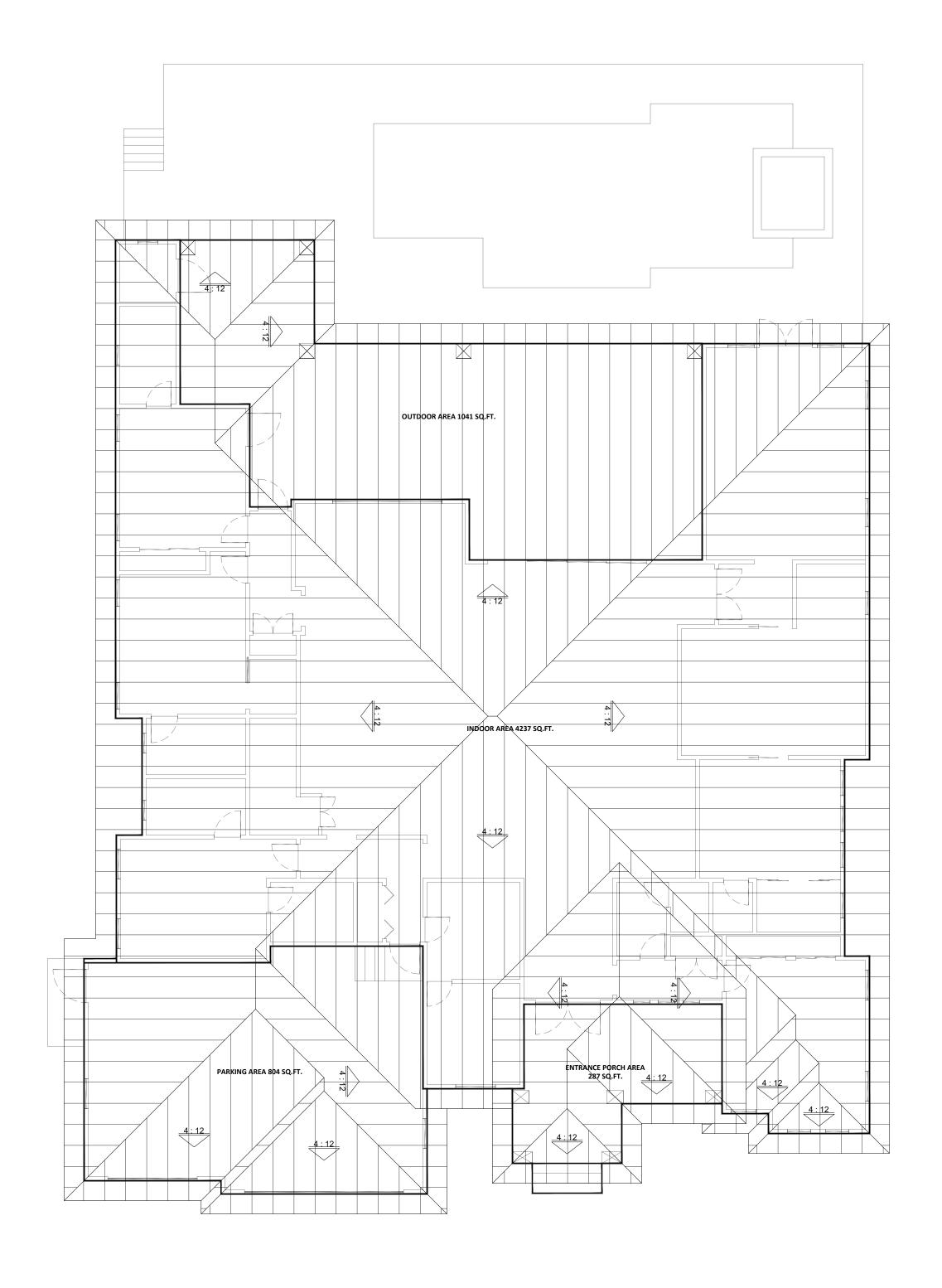
roject Information

> 3

COUNT IN 1850 TA CL

CG-2





PROPOSED ROOF PLAN

1/8" = 1'-0"

ISSUED/REVISED

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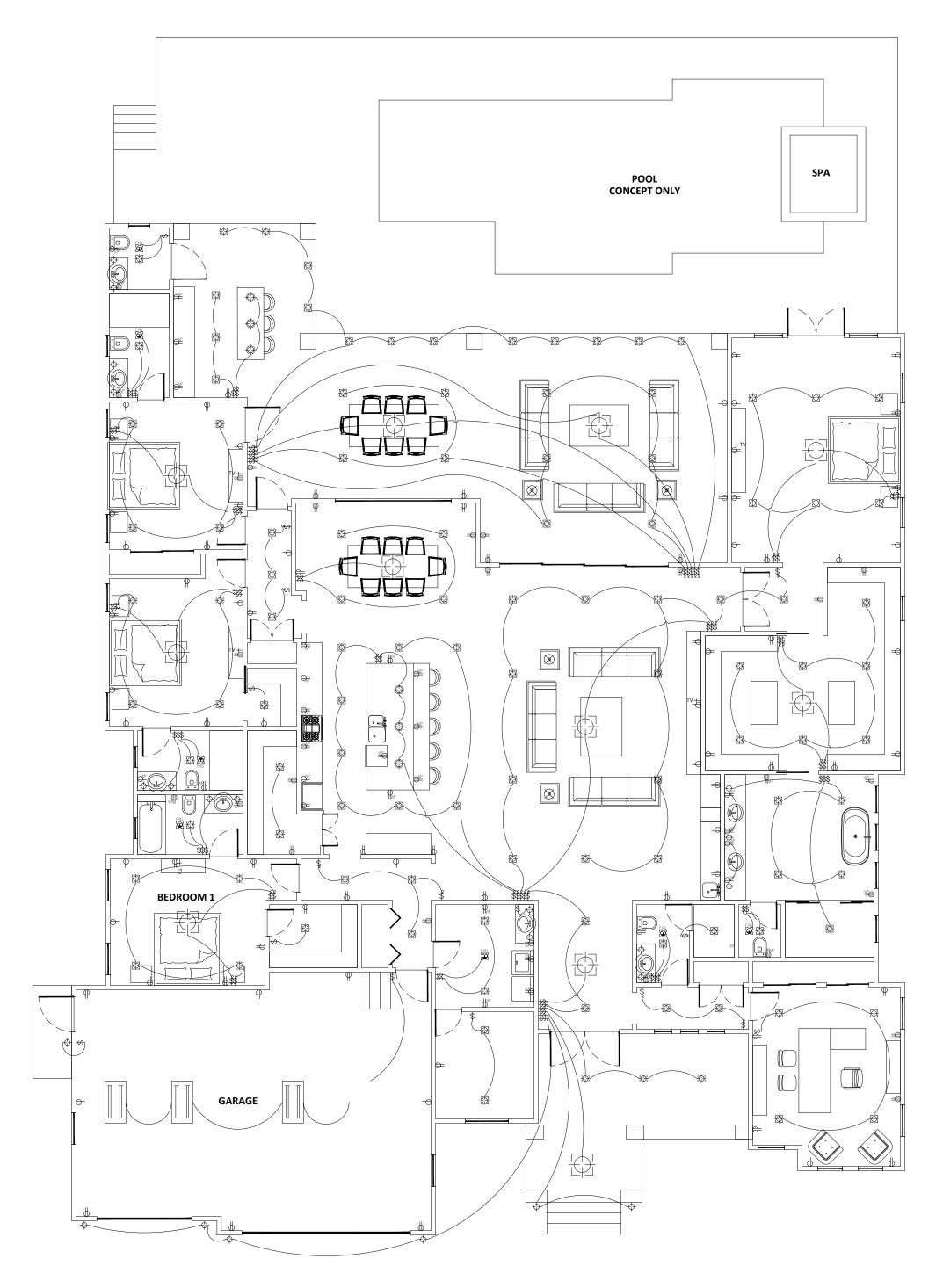
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DATE: 15-06-2022

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PROPOSED ELECTRICAL PLAN
1/8" = 1'-0"

NOTE:

-TEMPER RESISTANT RECEPTACLES ARE REQUIRED AT ALL NEW CIRCUITS PER CEC 406.12.

-PROVIDE TEMPER RESISTANT OUTLETS IN EVERY KITCHEN, FAMILY ROOM, DINING ROOM, LIVING ROOM, PARLOR, LIBRARY, DEN, SUNROOM, BEDROOM, RECREATION ROOM, BATHROOM, GARAGE, BASEMENT, LAUNDRY AND OUTDOOR AREA. (CEC 406.11, 210.52)

-SMOKE & CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING, BE EQUIPPED WITH BATTERY BACK-UP AND BE INTER CONNECTED IN SUCH MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS.

-SMOKE ALARMS INSTALLED WITHIN 20FT OF A KITCHEN, BATHROOM OR ROOM CONTAINING A FIREPLACE OR WOOD BURNING STOVE SHALL BE OF THE PHOTOELECTRIC TYPE.

NOTE:

-THE EXHAUST FANS SHOULD BE 50 CUBIC FEET PER MINUTE FOR INTERMITTENT VENTILATION OR 20 CUBIC FEET PER MINUTE FOR CONTINUOUS VENTILATION. EXHAUST AIR FROM THE SPACE SHALL BE EXHAUSTED DIRECTLY TO THE OUTDOORS.

THE REQUIRED FLOW RATES ARE DEFINED IN EQUATION 4.1A:

QFAN = 0.01(AFLOOR) + 7.5(NBR + 1)

QFAN = 0.01(2111) + 7.5(4 + 1)

= 21.1 + 7.5(5)

= 21.1 + 37.5

QFAN = 58.6 CFM

WHERE:

QFAN = MINIMUM FAN AIRFLOW RATING, CFM
AFLOOR = CONDITIONED FLOOR AREA, SQUARE FEET
NBR = NUMBER OF BEDROOMS

ELECTRICAL LEGEND

\$ SWITCH

\$ DIMMER SWITCH

3 AND 4 WAY SWITCH

\$ MANUAL ON OCCUPANT SENSOR SWITCH

DUPLEX RECEPTICAL OUTLET W/ ARC FAULT INTERRUPTER

FOUR PLEX RECEPTICAL OUTLET W/ ARC FAULT INTERRUPTER

220 OUTLET

WATERPROOF DUPLEX RECEPTICAL OUTLET W/ARC FAULT INTERRUPTER

GROUND FAULT INTERUPTOR RECEPTICAL OUTLET

SURFACE MOUNTED LIGHT FIXTURE

PENDANT LIGHT

MOTION SENSOR WITH INTEGRATED PHOTO CELL

RECESSED LIGHT FIXTURE

JUNCTION BOX

EXHAUST FAN SWITCHED OR CONTINUOUS

EXHAUST FAN/FLOURESCENT LIGHT

NEW SMOKE DETECTOR INTERCONNECTED 110V W/ 10 YR. BATTERY LIFE BACK-UP

NEW CARBON MONOXIDE DETECTOR INTERCONNECTED 110V
W/ 10 YR. BATTERY LIFE BACK-UP

WALL REGISTER

WALL SCONE

FLUORESCENT LIGHT

ISSUED/REVISED

Ct, 95127 358-7464

261 SHEREE CT, SAN JOSE, CA 95127

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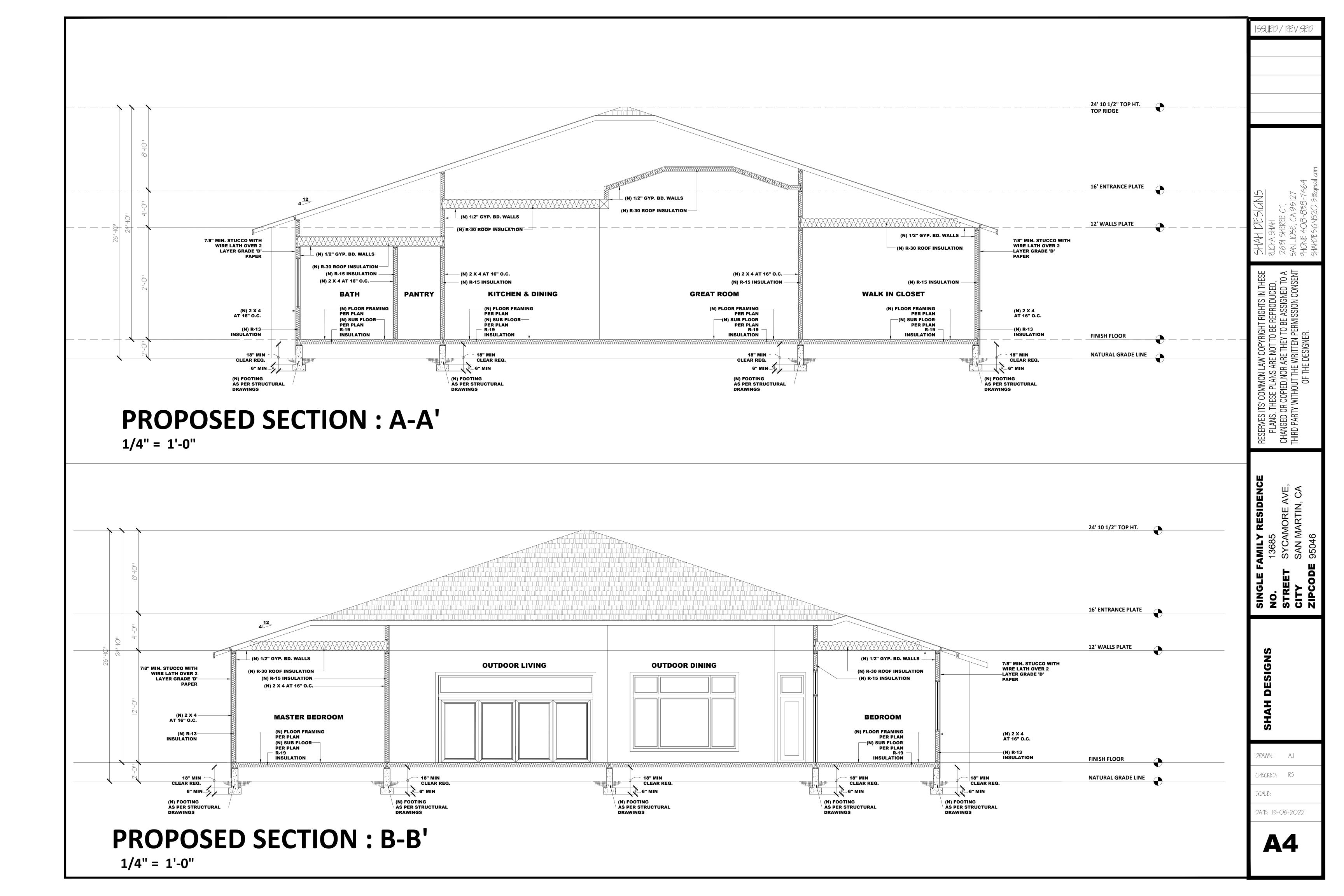
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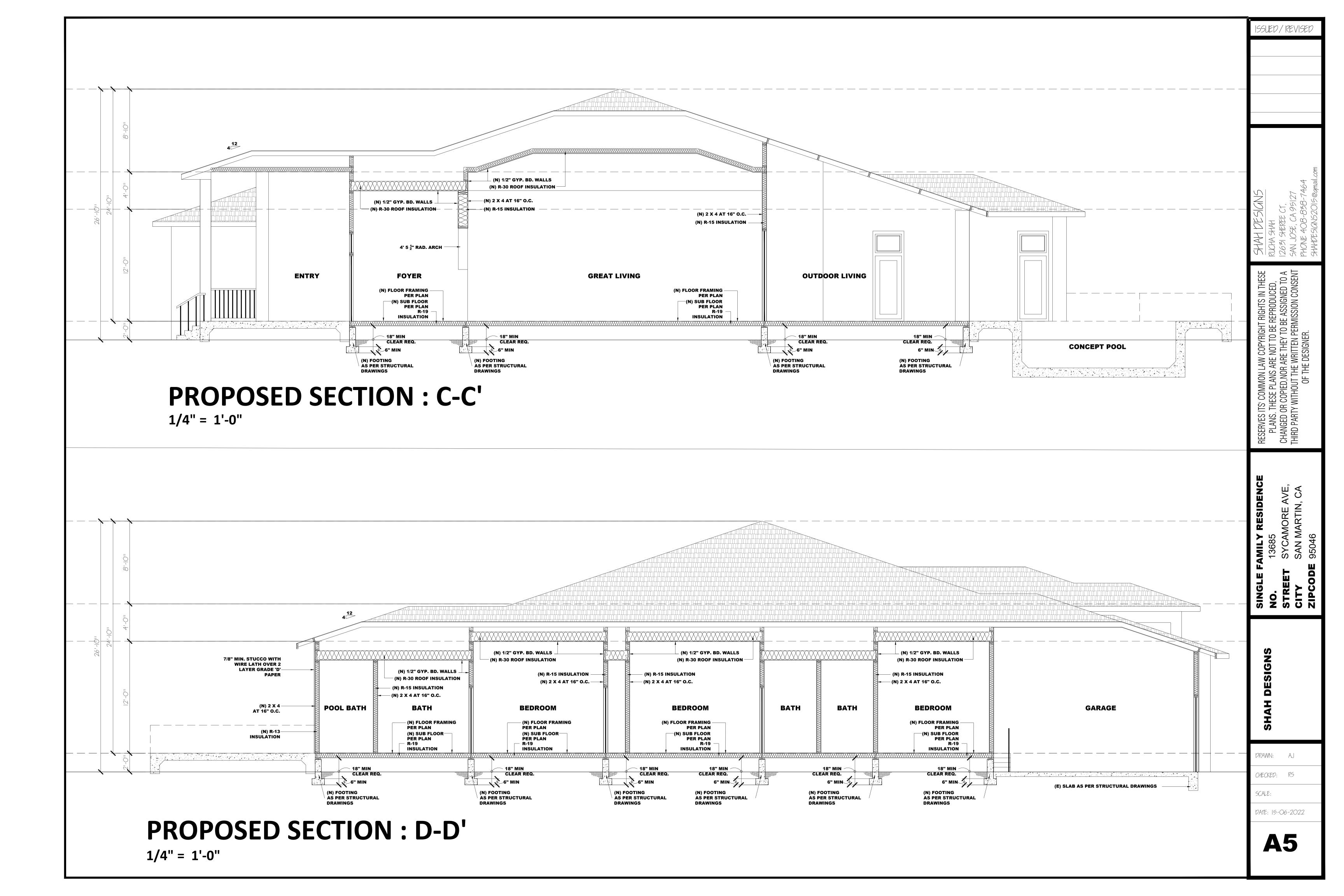
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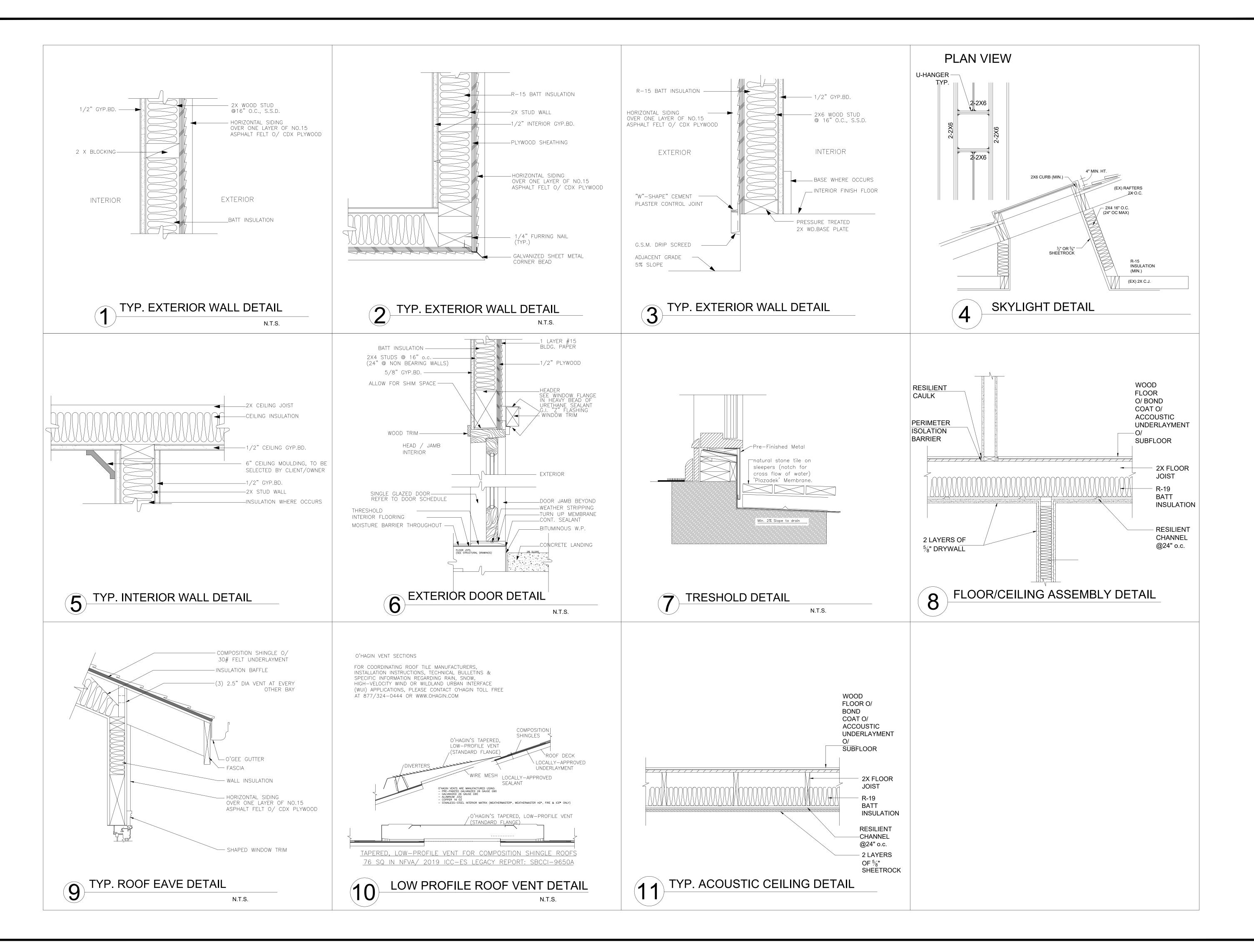
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ISSUED/REVISED

RUCHA SHAH 12631 SHEREE CT, SAN JOSE, CA 95127 PHONE 408-858-7464

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SAN MARTIN. CA

NO. 1368 STREET SYC

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DATE: 15-06-2022

A6

FEATURE OR MEASURE

(FOR FULL DETAILS OF THE CODE REQUIREMENTS SEE THE 2019 CAL GREEN CODE) YES/NO AND PLAN REFERENCE

SITE DEVELOPMENT (5.106)

A PLAN HAS BEEN DEVELOPED AND WILL BE IMPLEMENTED TO MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION PER CGC 4.106.2 & 4.106.3

WATER EFFICIENCY AND CONSERVATION INDOOR WATER USE (CGC 5.303) PLUMBING FIXTURES (WATER CLOSETS AND URINALS) SHALL COMPLY WITH THE

- **FOLLOWING:** 1. THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GAL/FLUSH (CGC 403.1.1)
- 2. THE EFFECTIVE FLUSH VOLUME OF URINALS SHALL NOT EXCEED 0.5 GAL/FLUSH (CGC 403.1.2)

FITTINGS (FAUCETS AND SHOWERHEADS) HAVE ALL REQUIRED STANDARDS LISTED ON PLANS AND ARE IN ACCORDANCE TO CGC 4.303.1.3 AND CGC 403.1.4 AUTOMATIC IRRIGATION SYSTEM CONTROLLER FOR LANDSCAPING PROVIDED BY THE BUILDER AND INSTALLED AT THE TIME OF FINAL INSPECTION SHALL COMPLY WITH CGC 4.304

ENHANCED DURABILITY AND REDUCED MAINTENANCE

ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENINGS IN SOLE/BOTTOM PLATES AT EXTERIOR WALLS SHALL BE RODENT PROOFED BY CLOSING SUCH OPENINGS WITH CEMENT MORTAR, CONCRETE MASONRY, OR SIMILAR METHOD ACCEPTABLE TO THE ENFORCING AGENCY PER CGC 4.406.1

CONSTRUCTION WASTE REDUCTION, DISPOSAL, AND RECYCLING (CGC 5.408) A MINIMUM OF 50% OF THE NON-HAZARDOUS CONSTRUCTION AND DEMOLITION WASTE GENERATED AT THE SITE SHALL BE DIVERTED TO AN OFFSITE RECYCLE, DIVERSION, OR SALVAGE FACILITY PER CGC 4.408

BUILDING MAINTENANCE AND OPERATION (CGC 5.410) AN OPERATION AND MAINTENANCE MANUAL WILL BE PROVIDED TO THE BUILDING OCCUPANT OR OWNER PER CGC 4.410.1

ENVIRONMENTAL QUALITY

ANY GAS FIREPLACES SHALL BE A DIRECT-VENT SEALED-COMBUSTIBLE TYPE. ANY WOOD STOVE OR PELLET STOVE SHALL COMPLY WITH US EPA PHASE II EMISSION LIMITS PER CGC 4.503.1

POLUTANT CONTROL (CGC 5.504)

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 COMPONENTS OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METALS, OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF WATER, DUST OR DEBRIS, WHICH MAY ENTER THE SYSTEM PER CGC 4.504.1. PAINTS AND COATINGS SHALL COMPLY WITH VOC LIMITS PER CGC 4.504.2.2. AEROSOL PAINTS AND COATINGS SHALL MEET THE PRODUCT-WEIGHTED MIR LIMITS FOR ROC AND OTHER REQUIREMENTS PER CGC 4.504.2.3. DOCUMENTATION WILL BE PROVIDED, AT THE REQUEST OF THE BUILDING DIVISION, TO VERIFY COMPLIANCE WITH VOC FINISH MATERIALS PER CGC 4.504.2.4. CARPET SYSTEM INSTALLED IN THE BUILDING INTERIOR SHALL MEET THE TESTING AND PRODUCT REQUIREMENT PER CGC 4.504.3. WHERE RESILIENT FLOORING IS INSTALLED, AT LEAST 80% OF THE FLOOR AREA RECEIVING RESILIENT FLOORING WILL COMPLY WITH THE REQUIREMENTS PER CGC 4.504.4. HARDWOOD PLYWOOD, PARTICLEBOARD AND MEDIUM DENSITY FIBERBOARD COMPOSITE WOOD PRODUCTS USED ON THE INTERIOR AND EXTERIOR OF THE BUILDING SHALL COMPLY WITH THE LOW FORMALDEHYDE EMISSION STANDARDS PER CGC 4.504.5

INTERIOR MOISTURE CONTROL

A CAPILLARY BREAK SHALL BE INSTALLED IF A SLAB ON GRADE FOUNDATION SYSTEM IS USED. THE USE OF A 4" THICK BASE OF ½" OR LARGER CLEAN AGGREGATE UNDER A 6 MIL VAPOR RETARDER WITH JOINT LAPPED NOT LESS THAN 6" WILL BE PROVIDED PER CGC 4.505.2 AND CRC R506.2.3. BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALL. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN THE FRAMING MEMBERS EXCEED 19% MOISTURE CONTENT. MOISTURE CONTENT SHALL BE CHECKED PRIOR TO FINISH MATERIAL BEING APPLIED PER CGC 4.505.3.

INDOOR AIR QUALITY AND EXHAUST

EXHAUST FANS, WHICH ARE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING, SHALL BE PROVIDED IN EVERY BATHROOM PER CGC 4.506.1.

ENVIRONMENTAL COMFORT (CGC 5.507)

HEATING AND AIR-CONDITIONING SYSTEM SHALL BE SIZED, DESIGNED AND HAVE THEIR EQUIPMENT SELECTED USING THE FOLLOWING METHODS:

- 1. HEAT LOSS/HEAT GAIN VALUES IN ACCORDANCE WITH ANSI/ACCA 2 MANUAL J-2004 OR EQUIVALENT;
- 2. DUCT SYSTEMS ARE SIZED ACCORDING TO ANSI/ACCA 1, MANUAL D-2009 OR **EQUIVALENT**;
- 3. SELECT HEATING AND COOLING EQUIPMENT IN ACCORDANCE WITH ANSI/ACCA 3 MANUAL S-2004 OR EQUIVALENT.

INSTALLER SPECIAL INSPECTOR QUALIFICATION

HVAC SYSTEM INSTALLERS SHALL BE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS AND EQUIPMENT BY A RECOGNIZE TRAINING OR CERTIFICATION PROGRAM PER CGC 702.1.

RESIDENTIAL BATHROOM (2019 CRC,CPC)

- * MIXING VALVE IN A SHOWER SHALL BE PRESSURE BALANCING SET A MAX. 120 °F.
- WATER-FILLER VALVE IN BATHTUBS SHALL HAVE A TEMP. LIMITING DEVICE SET AT 120 °F MAX.
- * SHOWER STALLS SHALL BE A MIN. FINISHED INTERIOR OF 1,024 SQ. INCHES.
- **CLEAR CEENTER DIMENSION OF A 30", & DOORS SHALL SWING OUT WITH**
- **OPENINGS 22" MIN.**
- * THE WATER CLOSET SHALL HAVE MIN. CLEARANCES OF 30" **WIDTH (15" ON**
- CENTER) AND 24" IN THE FRONT.
- * ALL RECEPTACLES SHALL BE GFCI AND TAMPER-RESISTANT (TR). NEW OUTLETS
- SHALL HAVE A DEDICATED 20-AMP CIRCUIT.
- * HYDRO-MASSAGE TUBS SHALL HAVE MOTOR ACCESS, A **DEDICATED CIRCUIT, AND**
- BE UL LISTED. ALL METAL, CABLES, FITTINGS, PIPING, ETC. WITHIN 5' OF THE
- INSIDE WALL OF THE TUB SHALL BE PROPERLY BONDED WITH **AN ACCESS PANEL**
- * LIGHTING FIXTURES LOCATED WITHIN 3' HORIZONTALLY AND 8' **VERTICALLY OF**
- THE TUB/SHOWER SHALL BE LISTED FOR A DAMP LOCATION, **OR WET LOCATIONS**
- IF THE SUBJECT TO SHOWER SPRAY.
- * AN EXHAUST FAN SHALL BE INSTALLED AND BE ON A **SEPARATE SWITCH FROM THE**
- LIGHTING. * GLAZING IN TUB SHOWER ENCLOSURES SHALL BE SAFETY **GLAZING WHEN > 60"**
- ABOVE THE STANDING SURFACE.
- * GLAZING WITHIN 60" OF A TUB/SHOWER AND LESS THAN 60" **ABOVE THE**
- FINISHED FLOOR SHALL BE SAFETY GLAZING.
- * LIGHTING SHALL BE HIGH EFFICACY FIXTURES (E.G.
- FLOURESCENT) OR BE
- **CONTROLLED BY A SWITCH WHICH REQUIRES MANUAL ACTIVATION AND AUTOMATICALLY TURNS OFF WITHIN 30 MINS. AFTER THE**
- **ROOM IS VACATED.** * THE CALIFORNIA CIVIL CODE REQUIRES THAT ALL EXISTING
- PLUMBING FIXTURES THROUGHOUT THE HOUSE BE
- **UPGRADED. HOUSES CONSTRUCTED AFTER JANUARY 1, 1994 ARE EXEMPT.**
 - TOILETS: >1.6 GALLONS, SHALL BE REPLACED WITH 1.2 GALLONS/FLUSH
- SHOWERHEADS: > 2.5 GALLONS/MINUTE SHALL BE **REPLACED WITH MAX.**
 - 2.0 GALLONS/MINUTE - BATH SINK FAUCETS: > 1.5 GALLONS/MINUTE SHALL BE
- REPLACED WITH
 - MAX. 1.2 GALLONS/MINUTE
- KITCHEN SINK FAUCET: >2.2 GALLONS/MINUTE SHALL BE REPLACED WITH
 - MAX. 1.8 GALLONS/MINUTE
- * SMOKE ALARMS SHALL BE PROVIDED IN ALL SLEEPING ROOMS AND ADJACENT
- HALLWAYS, MULTI-LEVELS, AND BASEMENTS. EXISTING SMOKE ALARMS SHALL BE
- REPLACED IF OLDER THAN 10 YEARS. NEWLY INSTALLED **SMOKE ALARMS SHALL**
- **HAVE A 10-YEAR BATTERY.**
- * CARBON MONOXIDE ALARM SHALL BE INSTALLED IN HALLWAYS ADJACENT TO
- BEDROOMS AND EACH LEVEL.
- * ATLEAST 1 LIGHT IN ALL BATHROOMS SHALL BE HIGH EFFICACY.
- * ALL OTHER BATHROOM LIGHTS ARE HIGH EFFICACY **LUMANIRIES OR CONTROLLED BY A VACANCY SENSOR THAT** COMPLIES WITH CEC SECTION 110.9(b) AND SHALL NOT HAVE A CONTROL THAT ALLOWS THE LUMINARIES TO BE TURNED ON **AUTOMATICALLY OR THAT HAS AN OVERRIDE ALLOWING THE LUMINARIES TO BE ALWAYS ON.**

RESIDENTIAL FOUNDATION INSPECTION

PROVIDE CONCRETE-ENCASED GROUNDING ELECTRODE (UFER). MINIMUM 20' OF ½" UNCOATED REBAR OR #4 COPPER WIRE TO BE ENCASED IN 2" OF CONCRETE IN THE BOTTOM OF THE FOOTING ALLOWED BY THIS SECTION AND SHALL BE OPERATIONAL

ALL ANCHOR BOLTS, HOLDDOWNS, AND UFER GORUND SHALL BE IN PLACE AT THE FOUNDATION INSPECTION.

LIGHTING NOTES (2019 CALIFORNIA TITLE 24 SECTION 150)

- * NEWLY INSTALLED LIGHTING IN BATHROOMS, GARAGES. LAUNDRY ROOMS SHALL BE HIGH EFFICACY FIXTURES (E.G. FLUORESCENT) OR BE CONTROLLED BY AN VACANCY SENSOR.
- * NEW INSTALLED LIGHTING IN BEDROOMS, FAMILY ROOM. LIVING ROOMS, HALLWAYS, DINING ROOMS, ETC. SHALL BE HIGH EFFICACY FIXTURES (E.G. FLUORESCENT), OR ALL SWITCHES SHALL BE DIMMER SWITCHES, OR BE CONTROLLED BY AN VACANCY SENSOR.
- * ALL NEW LUMINARIES SHALL BE HIGH EFFICIENCY AND BE CONTROLLED BE A VACANCY SENSOR OF DIMMER EXCEPT THAT BATHROOM, LAUNDRY ROOMS, UTILITY ROOMS, AND GARAGE SHALL BE CONTROLLED BY VACANCY SENSOR.
- * RECESSED LIGHTING FIXTURES SHALL BE RATED AS AIR-TIGHT (AT) AND, WHEN INSTALLED IN AN INSULATED CEILING SHALL HAVE AN APPROVED ZERO CLEARANCE INSULATION COVER (IC).
- * OUTDOOR LIGHTING PERMANENTLY MOUNTED TO THE BUILDING SHALL BE HIGH EFFICACY FIXTURES (E.G. FLUORESCENT) OR CONTROLLED BY A MOTION SENSOR WITH INTEGRAL PHOTO CONTROL
- * CLOSET LIGHTS SHALL BE FLUORESCENT OR HAVE A SEALED LENS. (2016 CEC 410.16)
- * ATLEAST 1 LIGHT IN ALL BATHROOMS SHALL BE HIGH EFFICACY.
- * ALL OTHER BATHROOM LIGHTS ARE HIGH EFFICACY LUMINARIES OR CONTROLLED BY A VACANCY SENSOR THAT COMPLIES WITH CEC SECTION 110.9(b) AND SHALL NOT HAVE A CONTROL THAT ALLOWS THE LUMINARIES TO BE TURNED ON AUTOMATICALLY OR THAT HAS AN OVERRIDE ALLOWING THE LUMINARIES TO BE ALWAYS ON.

PLUMBING FIXTURE REQUIREMENTS FOR FLOW RATES IN ACCORDANCE WITH CGBSC SECTION 4.303

- * WATER CLOSETS 1.28 PER FLUSH. CGBSC SECTION 4.303.1.1
- * URINALS 0.5 GALLONS PER FLUSH
- CGBSC SECTION 4.303.1.2
- * SINGLE SHOWERHEAD 2.0 gpm AT 80 psi.
- **CGBSC SECTION 4.303.1.3.1** * MULTIPLE SHOWERHEADS SERVING ONE SHOWER -COMBINED FLOW RATE OF ALL SHOWERHEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE - 2.0 gpm AT 80 psi. CGBSC SECTION 4.303.1.3.2
- * LAVATORY FAUCETS 1.2 gpm AT 60 psi (MINIMUM SHALL NOT BE LESS THAN 0.8 gpm AT 60 psi). CGBSC 4.303.1.4.1 * KITCHEN FAUCETS - 1.8 gpm AT 60 psi. CGBSC SECTION
- 4.303.1.4.4

EGRESS NOTE (2019 CRC)

WHERE EMERGENCY AND RESCUE OPENINGS ARE PROVIDED THEY * CLOSET LIGHTS SHALL BE FLOURESCENT, HAVE SEALED LENS, OR LED LISTED SHALL HAVE THE BOTTOM OF THE CLEAR OPENING NOT GREATER FOR THAN 44" (1118 MM) MEASURED FROM THE FLOOR.(R310.1)

ALL EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL HAVE A MINIMUM OPENING OF 5.7 SQ.F. (0.503 SQ.M.)

GRADE FLOOR OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5 SQ.F. (0.465 SQ.M.) R310.1.1

THE MINIMUM NET CLEAR OPENING HEIGHT SHALL BE 24" (610MM) R310.1.2 THE MINIMUM NET CLEAR OPENING WIDTH SHALL BE 20" (508MM)

EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE MAINTAINED FREE OF ANY OBSTRUCTION OTHER THAN THOSE FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS. TOOLS OR SPECIAL KNOWLEDGE, R310.1.4

R310.1.3

ELEVATION DETAILS (2019 CRC)

* STUCCO SHALL BE $\frac{7}{8}$ " THICK AND THREE COAT APPLIED OVER APPROVED WIRE LATH AND TWO LAYERS OF GRADE 'D' BUILDING PAPER. PROVIDE WEEP SCREED.

(CBC 2510.6 /CRC R703.6)

- * SIDING SHALL BE APPLIED OVER ONE LAYER OF GRADE 'D' BUILDING PAPER. (CBC 1404.2/CRC R703.2)
- * PROVIDE A SPARK ARRESTOR FOR ANY NEW OR EXISTING CHIMNEY. (CBC 2113.9.1/CRC 1003.9.1)
- * ROOF SLOPES >2:12 AND <4:12 WITH ASPHALT SHINGLES SHALL HAVE TWO LAYERS OF 15 LB FELT APPLIED SHINGLE STYLE. (CBC 1507.2.2/CRC 905.2.2)
- * PROVIDE ALL UNDER-FLOOR AREAS WITH CROSS VENTILLATION AT $\frac{1}{150}$ FOR THE ENTIRE AREA WITH 50% OF THE REQUIRED VENT AREA BE VENTILLATORS LOCATED A MINIMUM OF 3' ABOVE EAVE OR CORNICE VENTS. SCREENS OVER THE OPENINGS SHALL HAVE $\frac{1}{8}$ " TO $\frac{1}{4}$ " OPENINGS. (CBC 1203/CRC R806)
- * PROVIDE ATTIC ACCESS (22" X 30") AND UNDER-FLOOR ACCESS (18" X 24") FOR NEW AREAS. (CBC 1209/R408.4)
- * PROVIDE UNDER-FLOOR CLEARANCE OF 18" FOR JOISTS TO EARTH AND 12" CLEARANCE FROM GIRDERS TO EARTH (CBC 2304.11.2.1/CRC R317.1)
- * THE CALIFORNIA CIVIL CODE REQUIRES THAT ALL EXISTING NON-WATER **EFFICIENT**
- PLUMBING FIXTURES THROUGHOUT THE HOUSE BE UPGRADED. HOUSES
- CONSTRUCTED AFTER JANUARY 1, 1994 ARE EXEMPT
- TOILETS: >1.6 GALLONS, SHALL BE REPLACED WITH 1.28 GALLONS/FLUSH
- SHOWERHEADS: > 2.5 GALLONS/MINUTE SHALL BE REPLACED WITH
- 2.0 GALLONS/MINUTE
- BATH SINK FAUCETS: > 2.2 GALLONS/MINUTE SHALL BE REPLACED
- KITCHEN SINK FAUCET: >2.2 GALLONS/MINUTE SHALL BE

REPLACED WITH MAX. 1.8 GALLONS/MINUTE

MAX. 1.5 GALLONS/MINUTE

- * SMOKE ALARMS SHALL BE PROVIDED IN ALL SLEEPING ROOMS AND **ADJACENT**
- HALLWAYS, MULTI-LEVELS, AND BASEMENTS. EXISTING SMOKE ALARMS
- REPLACED IF OLDER THAN 10 YEARS. NEWLY INSTALLED SMOKE **ALARMS SHALL**
- HAVE A 10-YEAR BATTERY.
- * CARBON MONOXIDE ALARM SHALL BE INSTALLED IN HALLWAYS ADJACENT TO
- BEDROOMS AND EACH LEVEL.

ELECTRICAL NOTES (2019 CEC)

- * PROVIDE GENERAL USE ELECTRICAL RECEPTACLES SO THAT NO POINT ALONG THE
- FLOOR LINE IS MORE THAT 6' FROM A RECEPTACLE AND ANY WALL SPACE >2' HAS A RECEPTACLE (EXCEPT IN BATHROOMS AND KITCHEN COUNTERTOPS).
- * NEW RECEPTACLES HSALL BE TAMPER-RESISTANT (TR). (406.11)
- * ALL NEW OUTLETS (RECEPTACLES, SWITCHES, LIGHTING, ETC.) IN FAMILY, DINING.
- LIVING, BEDROOMS, HALLWAYS, ETC. SHALL BE ON CIRCUITS PROTECTED WITH A
- COMBINATION ARC-FAULT CIRCUIT INTERRUPTER., (210.12)
- * SMOKE (WITH A 10-YEAR BATTERY) AND CARBON MONOXIDE ALARMS IN NEW CONSTRUCTION AND ADDITIONS SHALL HARDWIRED WITH A BATTERY **BACK-UP AND**
- INTERCONNECTED. (CBC 907.2.11, CRC R314, CRC R315.)
- THE STORAGE AREA. (410.16)
- * KITCHEN LIGHTING; MIN. OF 50% OF THE TOTAL RATED LIGHTING WATTAGE(BASED ON THE MAXIMUM ALLOWED FOR EACH FIXTURE) SHALL BE FLOURESCENT. THE "RESIDENTIAL KITCHEN LIGHTING WORKSHEET" SHALL

* PROVIDE A DEDICATED 20 AMP CIRCUIT FOR THE FURNACE AND PROVIDE A

- COMPLETED AND PROVIDED TO THE BUILDING INSPECTOR AT THE ROUGH ELECTRICAL INSPECTION. (2016 CA TITLE 24 SECTION 150)
- * BATHROOM LIGHTING: HIGH EFFICACY FIXTURES (E.G. FLOURESCENT) OR BE CONTROLLED BY AN OCCUPANT SENSOR WITH CONTROLS REQUIRING A
- MANUAL ON AND AUTO OFF. * ATLEAST 1 LIGHT IN ALL BATHROOMS SHALL BE

RECEPTACLE WITHIN 25'. (210.63)

HIGH EFFICACY.

ALLOWING THE LUMINARIES TO BE ALWAYS ON.

* ALL OTHER BATHROOM LIGHTS ARE HIGH EFFICACY LUMANIRIES OR CONTROLLED BY A VACANCY SENSOR THAT COMPLIES WITH CEC SECTION 110.9(b) AND SHALL NOT HAVE A CONTROL THAT ALLOWS THE LUMINARIES TO BE TURNED ON AUTOMATICALLY OR THAT HAS AN OVERRIDE

ISSUED/REVISED

RPI TO WRII

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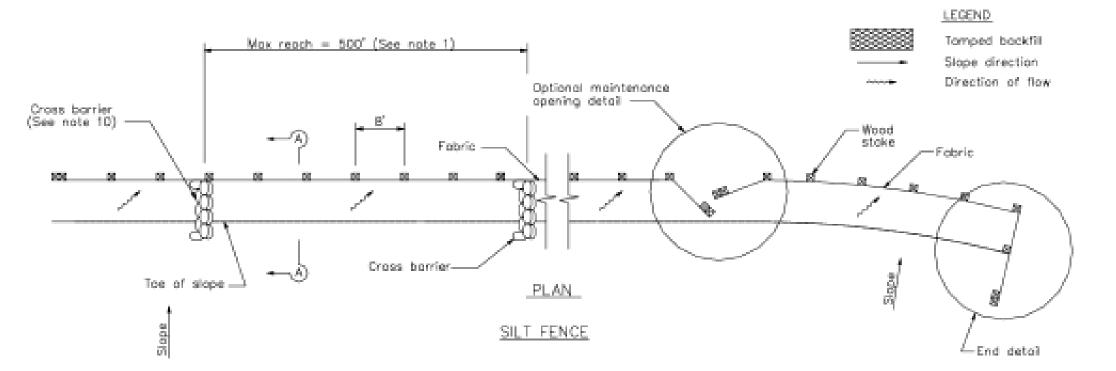
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required to anticipated

Silt Fence

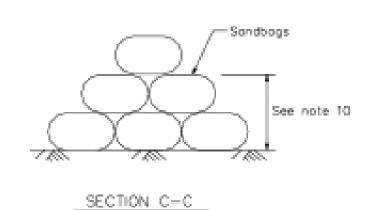


CASQA Detail SE-1

NOTES

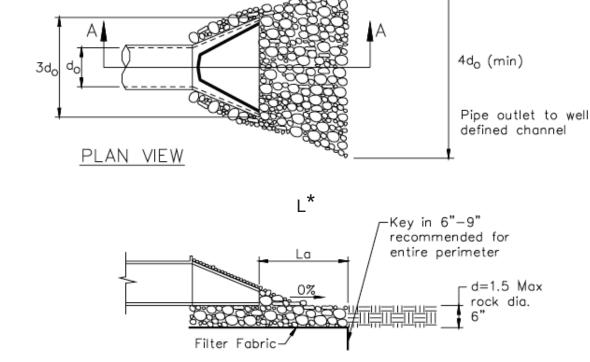
- 1. Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/3 the height of the linear borrier, in no case shall the reach length exceed 500
- The last 8'-0" of fence shall be turned up slope.
- Stake dimensions are naminal.
- 4. Dimension may very to fit field condition.
- 5. Stakes shall be spaced at 8'-0" maximum and shall be positioned on downstream side of fence.
- 6. Stakes to overlap and fence fabric to fold around each stake one full turn. Secure fabric to stake with 4 staples.
- 7. Stokes shall be driven tightly together to prevent potential flow-through of sediment at joint. The tops of the stakes
- 8. For end stake, fence fabria shall be folded around two stakes one full turn and secured with 4 staples.
- Minimum 4 staples per stake. Dimensions shown are typical.
- 10. Cross barriers shall be a minimum of 1/3 and a maximum of 1/2 the
- 11. Maintenance openings shall be constructed in a manner to ensure sediment remains behind silt fence.
- 12. Joining sections shall not be placed at sump locations.
- 13. Sandbag rows and layers shall be offset to eliminate gaps.

CROSS BARRIER DETAIL



Velocity Dissipation Devices

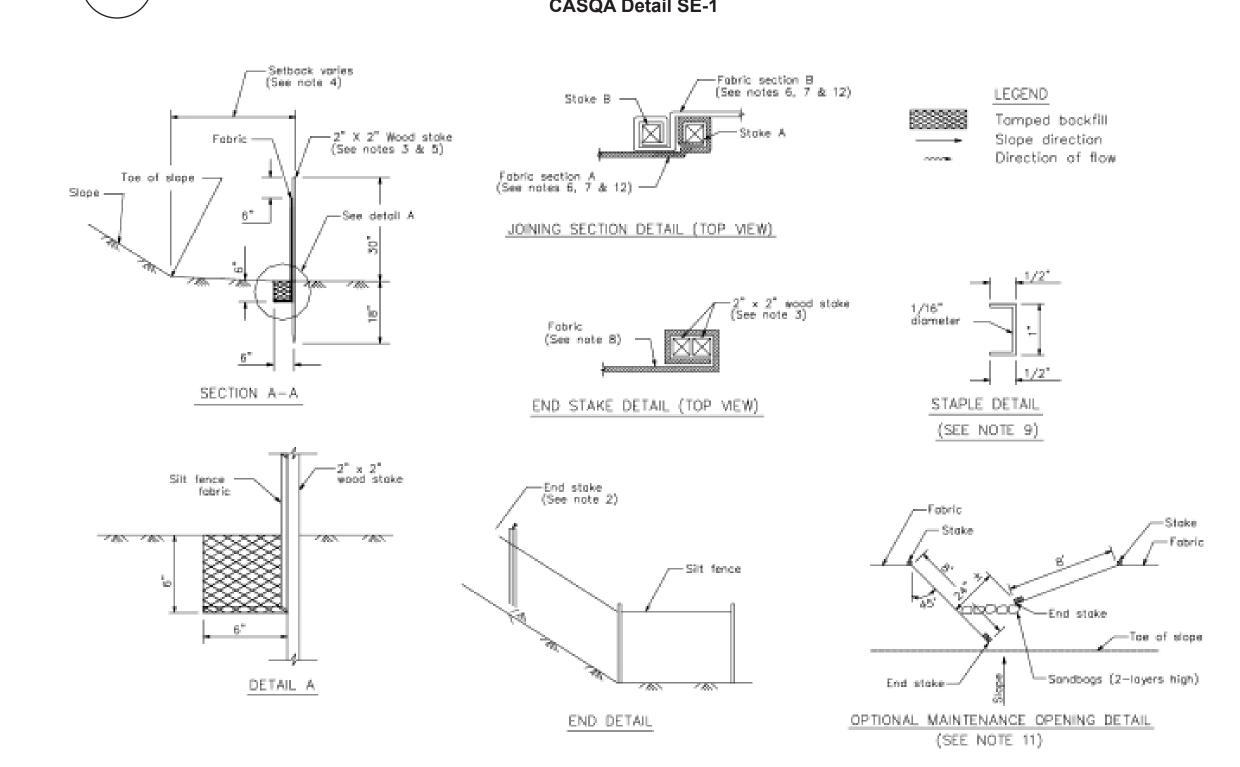
Grade



CASQA Detail EC-10

SECTION A-A * Length per ABAG Design Standards

Silt Fence



STANDARD BEST MANAGEMENT PRACTICE NOTES

- 1. Solid and Demolition Waste Management: Provide designated waste collection areas and containers on site away from streets, gutters, storm drains, and waterways, and arrange for regular disposal. Waste containers must be watertight and covered at all times except when waste is deposited. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C3) or
- 2. <u>Hazardous Waste Management</u>: Provide proper handling and disposal of hazardous wastes by a licensed hazardous waste material hauler. Hazardous wastes shall be stored and properly labeled in sealed containers constructed of suitable materials. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-5 to C-6) or latest.
- 3. Spill Prevention and Control: Provide proper storage areas for liquid and solid materials, including chemicals and hazardous substances, away from streets, gutters, storm drains, and waterways. Spill control materials must be kept on site where readily accessible. Spills must be cleaned up immediately and contaminated soil disposed properly. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-7 to C-8, C-13 to C-14) or latest.
- 4. <u>Vehicle and Construction Equipment Service and Storage</u>: An area shall be designated for the maintenance, where onsite maintenance is required, and storage of equipment that is protected from stormwater run-on and runoff. Measures shall be provided to capture any waste oils, lubricants, or other potential pollutants and these wastes shall be properly disposed of off site. Fueling and major maintenance/repair, and washing shall be conducted off-site whenever feasible. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C9) or latest.
- 5. <u>Material Delivery, Handling and Storage</u>: In general, materials should not be stockpiled on site. Where temporary stockpiles are necessary and approved by the County, they shall be covered with secured plastic sheeting or tarp and located in designated areas near construction entrances and away from drainage paths and waterways. Barriers shall be provided around storage areas where materials are potentially in contact with runoff. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-11 to C-12) or latest.
- 6. <u>Handling and Disposal of Concrete and Cement</u>: When concrete trucks and equipment are washed on-site, concrete wastewater shall be contained in designated containers or in a temporary lined and watertight pit where wasted concrete can harden for later removal. If possible have concrete contractor remove concrete wash water from site. In no case shall fresh concrete be washed into the road right-of-way. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-15 to C-16) or latest.
- . <u>Pavement Construction Management</u>: Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent run-on and runoff pollution and properly disposing of wastes. Avoid paving in the wet season and reschedule paving when rain is in the forecast. Residue from saw-cutting shall be vacuumed for proper disposal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-17 to C-18) or latest.
- 3. Contaminated Soil and Water Management: Inspections to identify contaminated soils should occur prior to construction and at regular intervals during construction. Remediating contaminated soil should occur promptly after identification and be specific to the contaminant identified, which may include hazardous waste removal. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages C-19 to C-20) or
- . <u>Sanitary/Septic Water Management</u>: Temporary sanitary facilities should be located away from drainage paths, waterways, and traffic areas. Only licensed sanitary and septic waste haulers should be used. Secondary containment should be provided for all sanitary facilities. Refer to Erosion & Sediment Control Field Manual, 4th Edition (page C-21) or
- 10. <u>Inspection & Maintenance</u>: Areas of material and equipment storage sites and temporary sanitary facilities must be inspected weekly. Problem areas shall be identified and appropriate additional and/or alternative control measures implemented immediately, within 24 hours of the problem being identified.

STANDARD EROSION CONTROL NOTES

1. Sediment Control Management

<u>Tracking Prevention & Clean Up</u>: Activities shall be organized and measures taken as needed to prevent or minimize tracking of soil onto the public street system. A gravel or proprietary device construction entrance/exit is required for all sites. Clean up of tracked material shall be provided by means of a street sweeper prior to an approaching rain event, or at least once at the end of each workday that material is tracked, or, more frequently as determined by the County Inspector. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-31 to B-33) or latest.

Storm Drain Inlet and Catch Basin Inlet Protection: All inlets within the vicinity of the project and within the project limits shall be protected with gravel bags placed around inlets or other inlet protection. At locations where exposed soils are present, staked fiber roles or staked silt fences can be used. Inlet filters are not allowed due to clogging and subsequent flooding. Refer to Erosion & Sediment Control Field Manual, 4th Edition (pages B-49 to B-51) or latest.

Storm Water Runoff: No storm water runoff shall be allowed to drain in to the existing and/or proposed underground storm drain system or other above ground watercourses until appropriate erosion control measures are fully installed.

<u>Dust Control</u>: The contractor shall provide dust control in graded areas as required by providing wet suppression or chemical stabilization of exposed soils, providing for rapid clean up of sediments deposited on paved roads, furnishing construction road entrances and vehicle wash down areas, and limiting the amount of areas disturbed by clearing and earth moving operations by scheduling these activities in phases.

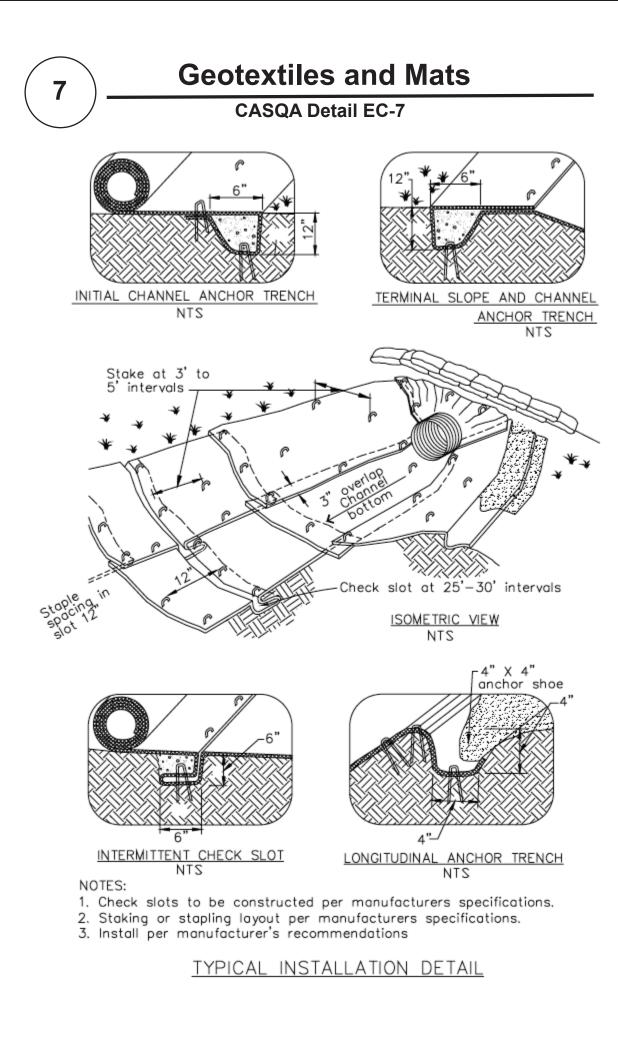
Stockpiling: Excavated soils shall not be placed in streets or on paved areas. Borrow and temporary stockpiles shall be protected with appropriate erosion control measures(tarps, straw bales, silt fences, ect.) to ensure silt does not leave the site or enter the storm drain system or neighboring watercourse.

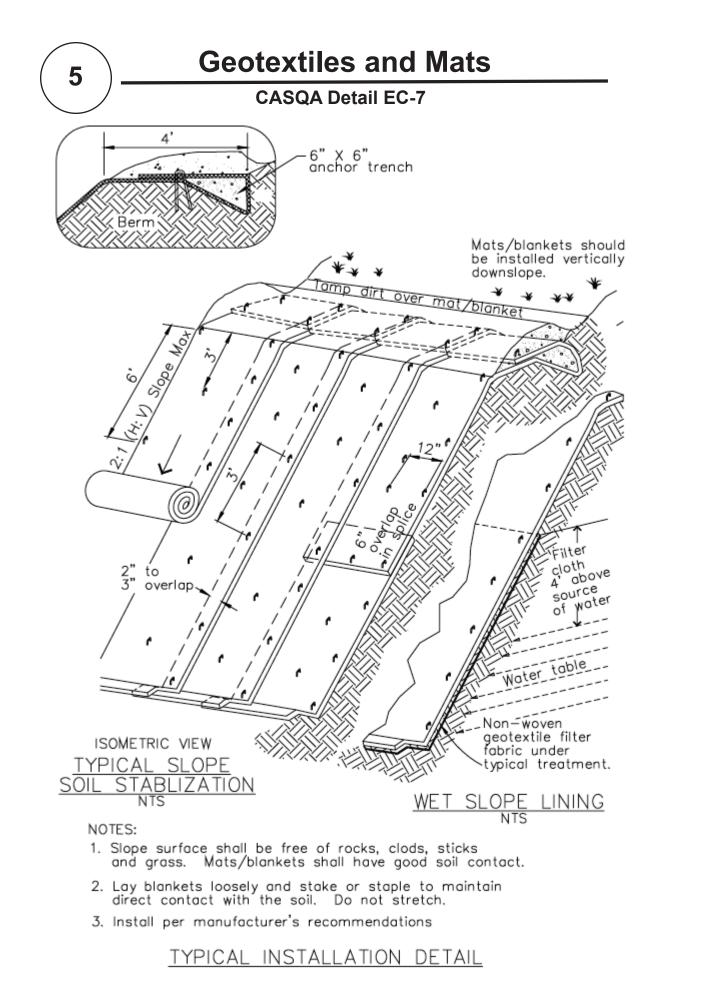
- 2. <u>Erosion Control</u>: During the rainy season, all disturbed areas must include an effective combination of erosion and sediment control. It is required that temporary erosion control measures are applied to all disturbed soil areas prior to a rain event. During the non-rainy season, erosion control measures must be applied sufficient to control wind erosion at the site.
- 3. <u>Inspection & Maintenance</u>: Disturbed areas of the Project's site, locations where vehicles enter or exit the site, and all erosion and sediment controls that are identified as part of the Erosion Control Plans must be inspected by the Contractor before, during, and after storm events, and at least weekly during seasonal wet periods. Problem areas shall be identified and appropriate additional and/ or alternative control measures implemented immediately, within 24 hours of the problem being identified.
- 4. Project Completion: Prior to project completion and signoff by the County Inspector, all disturbed areas shall be reseeded, planted, or landscaped to minimize the potential for erosion on the subject site.
- 5. It shall be the Owner's/Contractor's responsibility to maintain control of the entire construction operation and to keep the entire site in compliance with the erosion control plan.
- 6. Erosion and sediment control best management practices shall be operable year round or until vegetation is fully established on landscaped surfaces.

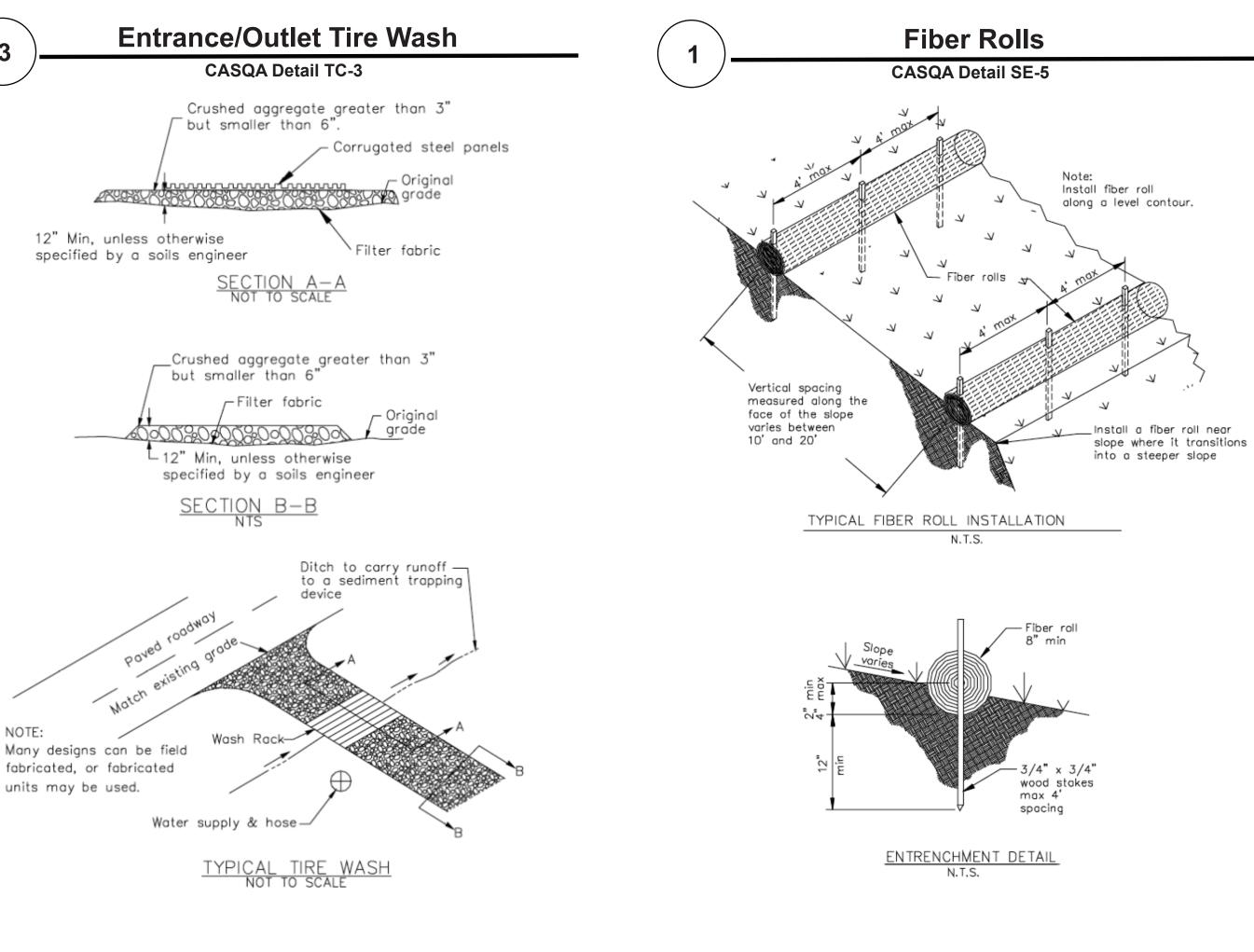
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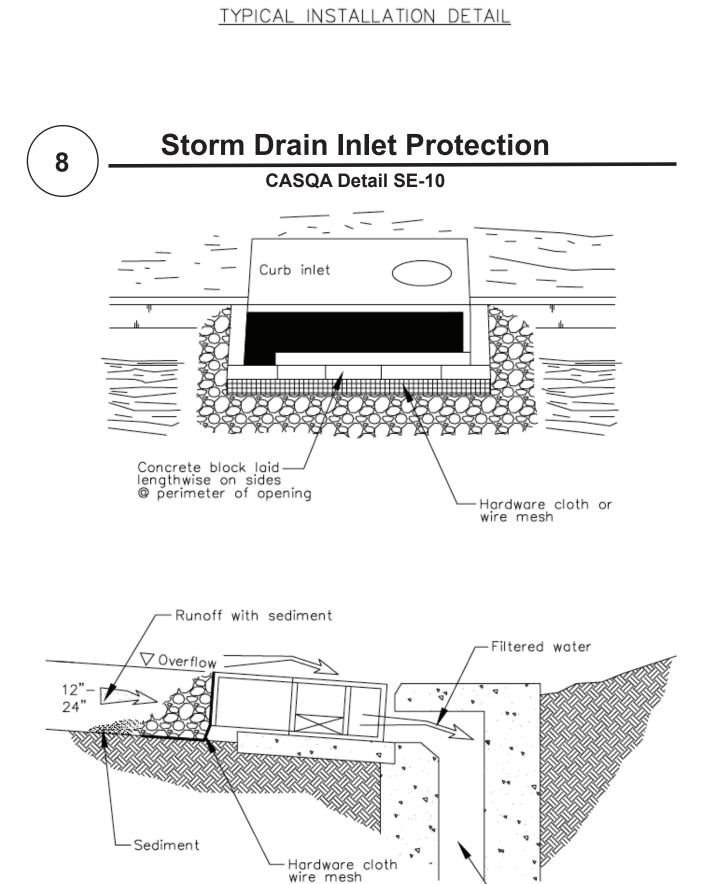
Source for Graphics: California Stormwater BMP Handbook, California Stormwater Quality Association, January 2003. Available from www.cabmphandbooks.com.







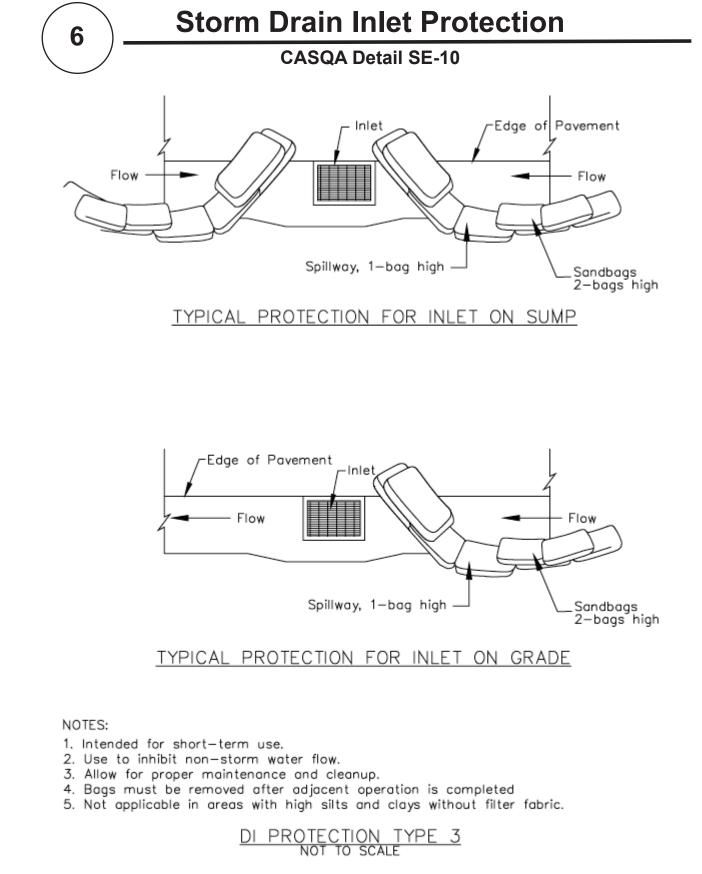


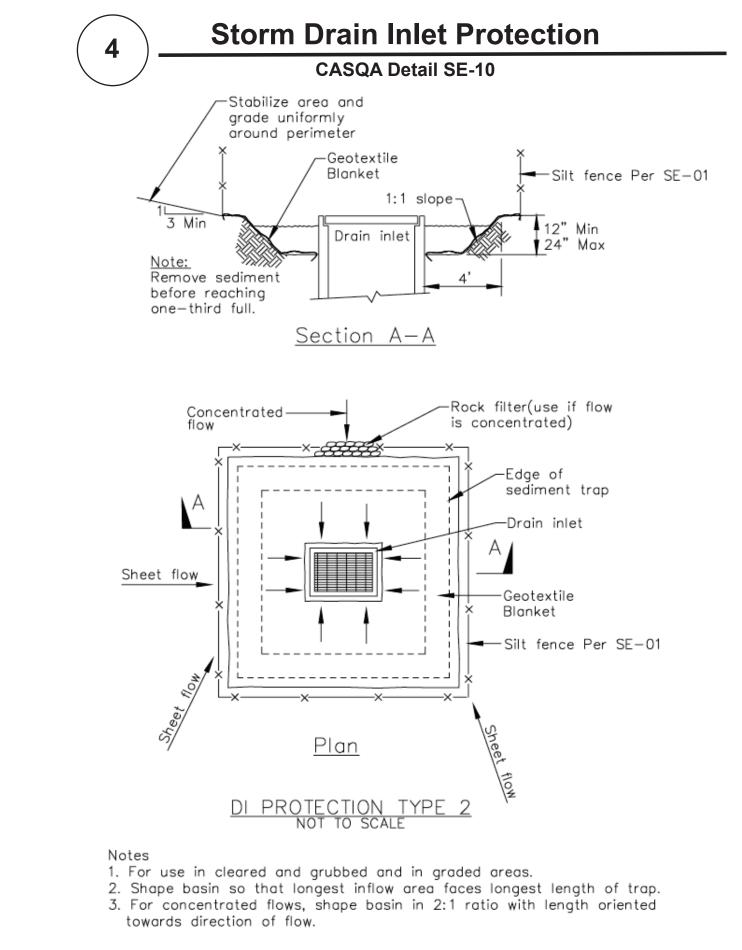


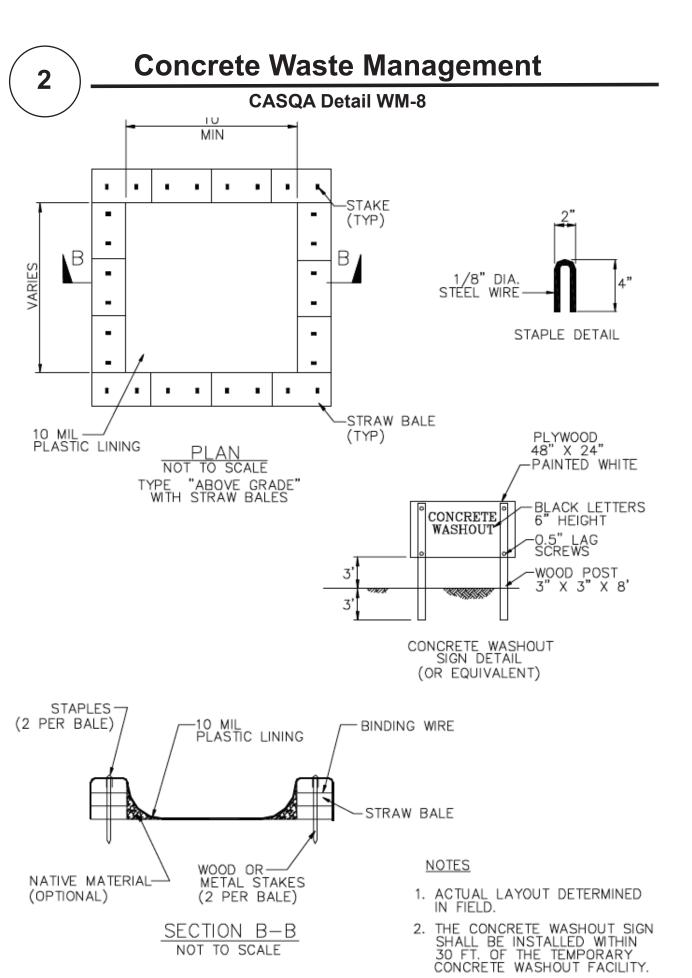
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Source for Graphics: California Stormwater BMP Handbook, California

Stormwater Quality Association, January 2003. Available from www.cabmphandbooks.com.









Best Management Practices and Erosion Control Details Sheet 2 County of Santa Clara



SHEAR WALL SCHEDULE

LAAD!	CLIEATING	NO OF ODEO	EDGE	FIELD		SHEAR	MUDSILI	_ ANCHORS	ALLOWABLE	REMARKS
MARK	SHEATING	NO. OF SIDES	NAIL	NAIL	PLATE NAIL (6" LONG)	CLIP	2X MUDSILL	3X MUDSILL	SHEAR (plf)	SEE SHEAR WALL NOTES
A	1/2" OSB OR PLY'D	Single	8d @ 6"	8d @ 12"	1/4" Screws @ 0'-8"	A35 @ 2'-0"	5/8" x 10 @ 4'-0"	5/8" × 12 @ 4'-0"	260	1
B	1/2" OSB OR PLY'D	Single	8d @ 4"	8d @ 12"	1/4" Screws @ 0'-6"	A35 @ 1'-4"	5/8" x 10 @ 4'-0"	5/8" x 12 @ 4'-0"	350	1
C	1/2" OSB OR PLY'D	Single	8d © 3"	8d @ 12"	1/4" Screws @ 0'-4"	A35 @ 1'-4"	5/8" x 10 @ 2'-8"	5/8" × 12 @ 2'-8"	490	1,2
D	1/2" OSB OR PLY'D	Single	8d © 2"	8d @ 12"	1/4" Screws @ 0'-4"	A35 @ 1'-0"	5/8" x 10 @ 1'-4"	5/8" × 12 @ 1'-4"	640	1,2
E	1/2" STRUCT I	Single	10d @ 2"	10d @ 12"	1/4" Screws @ 0'-8"	A35 @ 0'-8"	5/8" x 10 @ 1'-4"	5/8" x 12 @ 1'-4"	870	1,2
2C	1/2" OSB OR PLY'D EACH SIDE	Double	8d © 3"	8d @ 12"	3/8" Screws @ 0'-3"	A35 @ 0'-8" (OR TWO SIDES @ 16")	5/8" x 10 @ 1'-4"	5/8" × 12 © 1'-4"	980	1,2
2D	1/2" OSB OR PLY'D EACH SIDE	Double	8d @ 2"	8d @ 12"	3/8" Screws © 0'-3"	A35 @ 0'-5" (OR TWO SIDES @ 10")	5/8" x 10 @ 1'-0"	5/8" x 12 @ 1'-0"	1280	1,2
2E	1/2" STRUCT I EACH SIDE	Double	10d @ 2"	10d @ 12"	1/4"SDS SCREWS@0'-3"	A35 @ 0'-4" (OR TWO SIDES @ 8")	5/8" x 10 @ 0'-10'	'5/8" × 12 © 1'-0"	1740	1,2

HOLD-DOWN SCHEDULE

MARK	FASTENRES	MINIMUM WOOD MEMBER THICKNESS	ANCHOR BOLT	EPOXY INSTALLED ANCHORS	CAPACITY (lbs)
HDU2	(6)- SDS1/4x2 1/2"	2-2X4 / 4X4	5/8" (SB5/8X24)	5/8" X 12" EMBED	3075
HDU4	(10)- SDS1/4×2 1/2"	4X4	5/8" (SB5/8X24)	5/8" X 12" EMBED	4565
HDU5	(14)- SDS1/4×2 1/2"	4X4	5/8" (SB5/8X24)	5/8" X 12" EMBED	5645
HDU8-L	(20)- SDS1/4×2 1/2"	4X4	7/8" (SB7/8X24)	7/8" X 14" EMBED	5980
HDU8-H	(20)- SDS1/4×2 1/2"	4X6 OR LARGER	7/8" (SB7/8X24)	7/8" X 14" EMBED	7870
HDU11-L	(30)- SDS1/4x2 1/2"	4X6 OR LARGER	1" (SB1X30)	1" X 18" EMBED	9535
HDU11-H	(30)- SDS1/4x2 1/2"	4X8 OR LARGER	1" (SB1X30)	1" X 18" EMBED	11175
HDU14	(36)- SDS1/4x2 1/2"	4X8 OR LARGER	1" (SB1X30)	1-1/8" X 18" EMBED	14445

SHEAR WALL NOTES

@ __ _ _ At

A.B. _ _ Anchor bolt

C.O.__ _ Clean out

F.O.C._ _ Face of concrete

F.P. _ _ Full penetration weld

H.S.B._ _ _ High strength bolt

F.O.S.___Face of stud

J.H. _ _ Joist hanger

M.B.___ Machine bolt

ø __ _ _ Diameter

Bldg.__ _ Building

Blkg. _ _ _ Blocking

Clg. _ _ Ceiling

Col. __ _ Column.

Bot.___ Bottom

Bet. _ _ Between

Cant. _ _ _ Cantilever

C.C. _ _ Center to center

Approx. _ _ Approximately

(N<u>)</u> _ _ _ New

C.__ _ _ Camber

(E)____Existing

- 1. WALL SHALL BE FRAMED WITH STUDS AT 16" O.C. OR PANELS ARE APPLIED WITH LONG DIMENSION ACROSS STUDS.
- 2. 3-INCH NOMINAL MEMBER OR TWO 2-INCH NOMINAL MEMBERS FASTENED IN ACCORDANCE WITH SECTION 2306.1 TO TRANSFER THE DESIGN SHEAR VALUE BETWEEN FRAMING MEMBERS. WOOD STRUCTURAL PANEL JOINT AND SILL PLATE NAILING SHALL BE STAGGERED IN ALL CASES.
- 3. ALL HARDWARE SHALL BE USP STRUCTURAL CONNECTORS OR SIMPSON STRONG TIE U.O.N.
- 4. ALL EXTERIOR WALLS SHALL BE SHEATHED WITH 3/8" PLYWOOD WITH 8d AT 6" O.C. EDGES AND 12" O.C. THE FIELD UNLESS OTHERWISE NOTED IN THE SHEAR WALL SCHEDULE.
- 5. WHERE 3X ADJOINING STUDS ARE REQUIRED AND THERE ARE EXISTING 2X STUDS, DOUBLE EXISTING STUDS AND STITCH NAIL WITH 16d SPACED AT 2 1/2" o.c.

C.M.U._ _ Concrete masonry unit Conn. _ _ Connection

Conc. _ _ Concrete

Const._ _ _ Construction

Cont. _ _ _ Continuous

G.L.B. _ _ _Glulam beam

ML — — —Micolam beam

Lt.wt. _ _ _ Light weight

Ht. _ _ _ Height

Jst. <u> Joist</u>

Lg. __ _ _ Long

Max.__ _ _Maximum

 $Mezz. _ _ _Mezzanine$

Opng._ _ _Opening

Plyd. _ _ Plywood

Proj. — — Project

Reinf. _ _ Reinforcing

Req'd._ _ _Required

Sec. _ _ _Section

Shtg. _ _ _Sheathing

LOAD TYPE	PARAMETERS	VALUE UNIT
	UNINHABITABLE ATTICS WITHOUT STORAGE	10 PSF
	UNINHABITABLE ATTICS WITH LIMITED STORAGE	20 PSF
LIVE LOADS:	DECKS AND BALCONIES	60 PSF
	ALL OTHER AREAS	40 PSF
	ROOF LIVE LOADS:	20 PSF
	WIND VELOCITY	110_MPH
	WIND EXPOSURE	В
WIND DESIGN:	CATEGORY	
	IMPORTANCE FACTOR	1.00
	<u></u>	1.657
SEISMIC DESIGN:	S1	0.605
SLISIWIO DESIGIV.	SOIL CLASS	D
	RISK CATEGORY	
	IMPORIANCE FACIOR	
	SEISMIC CATEGORY	D
1		1

RESPONSE MODIFICATION FACTOR (LIGHT FRAME)

OVER-STRENGTH COEFFICIENT (OMEGA)

ALLOWABLE STRESS BASE SHEAR

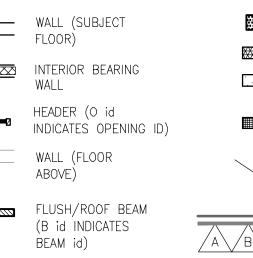
ABBREVIATIONS AND SYMBOLS:

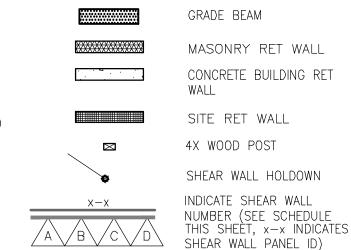
N.T.S. _ _ Not to scale

O.F. _ _ Outside face

DESIGN LOADS

INTERIOR BEARING





A B C DINDICATE DOUBLE SIDED

SHEAR WALL NUMBER (SEE SCHEDULE THIS SHEET)

LEGEND:

FLOOR) DROPPED/CEILING

S.A.D. _ _ _See architectural drawings T.& B_ _ _Top and bottom T.&G._ _ Tongue and groove H.D.__ _ Holdown B.N.___ Boundry nail E.N. __ _ Edge nail

P.N. — — Plate nail U.O.N._ _ _ Unless otherwise noted Symm.__ Symmetrical W.W.F._ _ _ Welded wire fabric W/ __ _ _ With

W/O_ _ _ Without Center line PL_ _ _ Plate Dbl. __ _ Double Det.___ Detail

Dim.___ Dimension Do. __ _ Ditto Dwg.___ _ Drawing Ea._ _ _ Each Elev.___Elevation Ext. _ _ Exterior

Fndn. _ _ _Foundation Frmg._ _ _Framing Ftg. _ _ Footing

 $Sim. _ _ _Similar$ Simp. _ _ Simpson Spec. _ _ Specification Spr. _ _ _Spread Sq._ _ _ Square Stl.__ _ Steel
Struct. _ _ Structural

Thk. _ _ _ Thick
Typ. _ _ _ Typical VL _ _ _ Vertical H.L. _ _ _Horizontal S.W.S._ _ _Shear Wall Schedule

Verify _ _ _Verify & Report to this Engineer prior to construction. _ _ For sim. details not noted or shown, see this detail.

1. ALL WORK SHALL CONFORM TO 2019 CBC AND LOCAL ORDINANCES.

2. THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE AND SHALL NOTIFY THE ARCHITECT OF ANY BEFORE PROCEEDING WITH THE WORK.

3. ANY OMISSIONS OR CONFLICTS BETWEEN THE ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT

4. SHOP DRAWINGS REQUIRED BY THE SPECIFICATIONS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION, AND ALLOW REASONABLE TIME FOR REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE BUILDING DURING THE CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING. BRACING AND GUYS IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL SAFETY ORDINANCES. ANY DEVIATIONS MUST BE APPROVED PRIOR TO ERECTION.

STRUCTURE, UNLESS INDICATED WITHIN STRUCTURAL DRAWINGS, SHALL BE SUBMITTED TO THE ARCHITECT FOR ENGINEER'S APPROVAL PRIOR TO INSTALLATION.

7. ALL CONDITIONS NOT CLEARLY SHOWN OR DETAILED SHALL BE OF THE SAME TYPE AND CHARACTER AS THOSE SHOWN FOR SIMILAR CONDITIONS.

FOUNDATION

FOUNDATION DESIGN BASED ON SOILS REPORT BY CAPEX ENGINEERING

2. CONCRETE SHALL BE REGULAR WEIGHT HARD ROCK TYPE (150#/CF).

4. PLACEMENT OF CONCRETE SHALL BE IN CONFORMANCE WITH ACI 301.

1. ALL REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A615 GRADE 60 FOR # 5 AND LARGER BARS AND GRADE 40 FOR # 3 AND # 4.

2. ALL REINFORCING STEEL SHALL BE LAPPED AS NOTED BELOW. #4: 24" FOR BOTTOM BARS AND 28" FOR TOP BARS #5: 30" FOR BOTTOM BARS AND 35" FOR TOP BARS. #6: 40" FOR BOTTOM BARS AND 46" FOR TOP BARS AT SPLICES UNLESS OTHERWISE NOTED IN PLANS.

3. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A82 AND A185.

4. ANCHOR BOLTS, DOWELS AND OTHER EMBEDDED ITEMS SHALL BE SECURELY TIED

1. GENERAL WOOD FRAMING: WOOD FRAMING THROUGHOUT THE BUILDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH 2019 CALIFORNIA BUILDING CODE AND THE STANDARD PRACTICES RECOMMENDED BY AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND WCLA GRADING. BOLTS IN WOOD FRAMING SHALL BE STANDARD MACHINE BOLTS WITH

4. UNLESS OTHERWISE NOTES ON DRAWINGS OR IN SPECIFICATIONS FRAMING

MEMBERS SHALL HAVE THE FOLLOWING GRADING: A) ALL BEAMS, COLUMNS, POSTS AND CANTILEVER JOISTS AT BALCONIES: DOUGLAS FIR, GRADE MARK - NO. 1.

B) FRAMING: JOISTS, STUDS, PLATES, RAFTERS: DOUGLAS FIR - NO. 2.

SHEAR WALL HOLDOWN

GENERAL NOTES:

GENERAL

DISCREPANCIES BETWEEN ACTUAL CONDITIONS AND WHAT IS SHOWN ON THE DRAWINGS

AND ENGINEER BEFORE ANY RELATED WORK IS STARTED.

6. MECHANICAL EQUIPMENT MUST BE FIRMLY ATTACHED TO THE STRUCTURE. ALL MECHANICAL EQUIPMENT INTENDED TO BE SUPPORTED ON, OR FROM THE

PROJECT NO 13626 DATED 1-25-2022

1. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28

AGGREGATE SHALL CONFORM TO ASTM C33, U.O.N.

3. CEMENT SHALL CONFORM TO ASTM C150, TYPE 1 OR 2.

5. CONCRETE SHALL BE MACHINE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C-94. SUBMIT MIX DESIGN TO THE ENGINEER FOR APPROVAL PRIOR TO PLACING

6. PROVIDE MINIMUM CLEAR COVER OF CONCRETE OVER REINFORCING AS FOLLOWS: A) AGAINST EARTH - 3 INCHES

B) EXPOSED TO EARTH BUT POURED AGAINST FORM #3, #4 AND #5 REBARS 1.5", #6 AND LARGER = 2" C) PROTECTED BY CONFORM FORM AND WATERPROOFING - 1 INCHES

REINFORCING STEEL

SPLICES SHALL BE LOCATED AS DETAILED IN THE PLANS. STAGGER ALL LAPS AND SPLICES.

IN PLACE BEFORE CONCRETE IS PLACED, USE CUT THREAD ANCHOR BOLTS ONLY.

WOOD FRAME CONSTRUCTION

STANDARD MALLEABLE IRON WASHERS.

2. JOIST HANGER AND MISCELLANEOUS CONNECTORS: MEMBERS NOT RESTING ON, OR FRAMED OVER THEIR SUPPORT SHALL BE SUPPORTED BY MEANS OF "SIMPSON STRONG-TIE" JOIST HANGERS. HANGERS SHALL COMPLY WITH AND BE NAILED IN ACCORDANCE WITH MANUFACTURER'S ESR APPROVALS.

3. WOOD IN DIRECT CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED. HOT DIPPED GALVANIZED CONNECTORS AND FASTENERS SHALL BE USED IN ALL PRESSURE TREATED WOOD CONNECTIONS.

5. PLYWOOD SHEATHING: SHALL BE DEPA CDX OR EQUAL UNLESS. OTHERWISE NOTED ON DRAWINGS: SOFTWOOD PLYWOOD USED STRUCTURALLY SHALL CONFORM TO PRODUCT STANDARDS PS 1-83 AND SHALL BEAR THE DFPA GRADE - TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION. ROOF SHEATHING SHALL BE 1/2 INCHES THICK (32/16). FLOOR SHEATHING SHALL BE 3/4 INCHES THICK (48/24), TONGUE AND GROOVED AND SHALL BE GLUED AND NAILED. WALL SHEATHING SHALL BE A MIN OF 3/8 INCHES THICK, U.N.O.

6. LUMBER SHALL HAVE A MOISTURE CONTENT NOT EXCEEDING 19 PERCENT AT TIME OF

CONSTRUCTION OR FABRICATION

7. FRAMING CONTRACTOR SHALL PROTECT HIS WORK FROM ANY DAMAGES DUE TO WEATHER CONDITIONS AT TIME OF CONSTRUCTION.

8. WOOD JOISTS SHALL BEAR ON THE FULL WIDTH OF SUPPORTING MEMBERS PARALLEL STRAND LUMBER (PSL) BEAMS:

ALL PARALLEL STRAND LUMBER BEAMS SHALL BE TRUSS JOIST MACMILLAN PARALLAM (PSL) SHALL COMPLY WITH NES REPORT NO. NER-481

Fb = 2900 PSI Fc = 2900 PSI Fv = 290 PSI E = 2000 KSI

ALL EXPOSED PSL BEAMS SHALL BE WOLMANIZED (OR EQUIVALENT FORM OF PRESSURE TREATMENT)

VERSA LAM:

VERSA LAM 3100 (CAN BE USED TO REPLACE PARALLAM PSL 2.0E) Fb = 3100 PSI Fc = 3100 PSI Fv = 285 PSI E = 2000 KSI

LAMINATED VENEER LUMBER:

LAMINATED VANEER LUMBER (LVL) SHALL BE BOISE CASCADE VERSALAM 3100 (ABOVE) OR APPROVED EQUAL

NAIL SCHEDULE

1. WOOD MEMBERS SHALL BE CONNECTED WITH NAILING INDICATED IN 2019 CBC TABLE 2304.10.1 UNLESS GREATER SIZES AND NUMBER OF NAILS ARE SHOWN OR NOTED ON DRAWINGS; NAILS EXPOSED TO WEATHER SHALL BE GALVANIZED; NAILS SHALL BE COMMON WIRE NAILS; HOLES FOR NAILS SHALL BE PROVIDED WHERE THE WOOD MEMBERS TEND TO SPLIT: SPLIT WOOD MEMBERS SHALL BE REPLACED AND REMOVED FROM JOB PROMPTLY. SHORT PLYWOOD NAILS FOR EQUIVALENT SHEAR VALUE MAY BE USED. SEE PLANS FOR NAIL SPACING. ROOF SHEATHING 8d AT 6 INCHES O.C. AT SUPPORTED EDGES. 8d AT 12 INCHES O.C. INTERMEDIATE SUPPORTS. FLOOR SHEATHING 8d AT 6 INCHES O.C. AT BOUNDARIES AND PANEL EDGES AND 8d AT 10 INCHES O.C. AT INTERMEDIATE SUPPORTS. PLYWOOD WALL SHEATHING SHALL BE NAILED PER SHEAR WALL SCHEDULE AT SHEAR WALLS, AND AT A MINIMUM OF 8d AT 6 INCHES O.C. ALL OTHER EDGES.

2. FOR PRESSURE TREATED LUMBER USE HOT-DIPPED GALVANIZED OR STAINLESS STEEL.



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PROJECT

13685 SYCAMORE AVE.. SAN MARTIN, CA



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Drawn by:

Drawing Number

Checked by:

MG

Project Number 22-225 SHEET <u>1</u> OF <u>10</u>

DEFERRED SUBMITTALS:

ROOF TRUSSES LAYOUT AND PLANS SHALL BE SUBMITTED TO ENGINEER OF RECORD FOR REVIEW AND APPROVAL, REVIEWED TRUSS LAYOUT AND CALCULATIONS SHALL BE SUBMITTED TO AND APPROVED BY CITY PRIOR TO FABRICATION.

STRUCTURAL OBSERVATIONS:

A. FOUNDATION REBAR REINFORCEMENT AND EMBEDDED SHEAR WALL ANCHORS B. SHEAR WALLS TYPES C, D, 2C AND 2D INCLUDING NAILING, MUDSILL ANCHORS

NEW FOUNDATION NOTES:

- SPREAD FOOTINGS SHALL BE 16" WIDE UNLESS OTHERWISE NOTED ON
- FOOTINGS SHALL BE 24" BELOW ADJACENT GRADE (MINIMUM).
- ALL HOLDOWNS ANCHORS SHALL BE TIED IN PLACE PRIOR TO CALLING FOR A FOUNDATION INSPECTION.
- ALL WOOD IN CONTACT W/ CONCRETE OR EXPOSED WOOD SHALL BE P.T. USE ONLY HOT DIPPÉD GALVANIZED CONNECTORS, BOLTS AND
- DBL FLR JOISTS AT PARTITIONS PARALLEL TO JOISTS AND 2X BLKG AT WALLS PERPENDICULAR TO JOISTS
- FLOOR SHEATHING: 3/4" CDX T&G PLYWOOD BOUNDARY = 10d @ 6" O.C. NAILING: FIELD = 10d @ 10" O.C.(STAGGER PANEL JOINTS, GLUE AND NAIL) (USE 16d NAILING IF 1 1/8" PLY'D IS USED)

FOOTING SCHEDULE

500TU10	DIMEN	NSIONS (M	INIMUM)	REBARS
FOOTING	LENGHT	WIDTH	THICKNESS	воттом
			MIN. *	
F1.50	1'-6"	1'-6"	SEE DET.	2-#4 EA WAY
F2.00	2'-0"	2'-0"	SEE DET.	3-#4 EA WAY
F2.50	2'-6"	2'-6"	SEE DET.	3-#4 EA WAY
F3.00	3'-0"	3'-0"	SEE DET.	3-#4 EA WAY
F3.50	3'-6"	3'-6"	SEE DET.	4-#4 EA WAY
F4.00	4'-0"	4'-0"	SEE DET.	4-#4 EA WAY

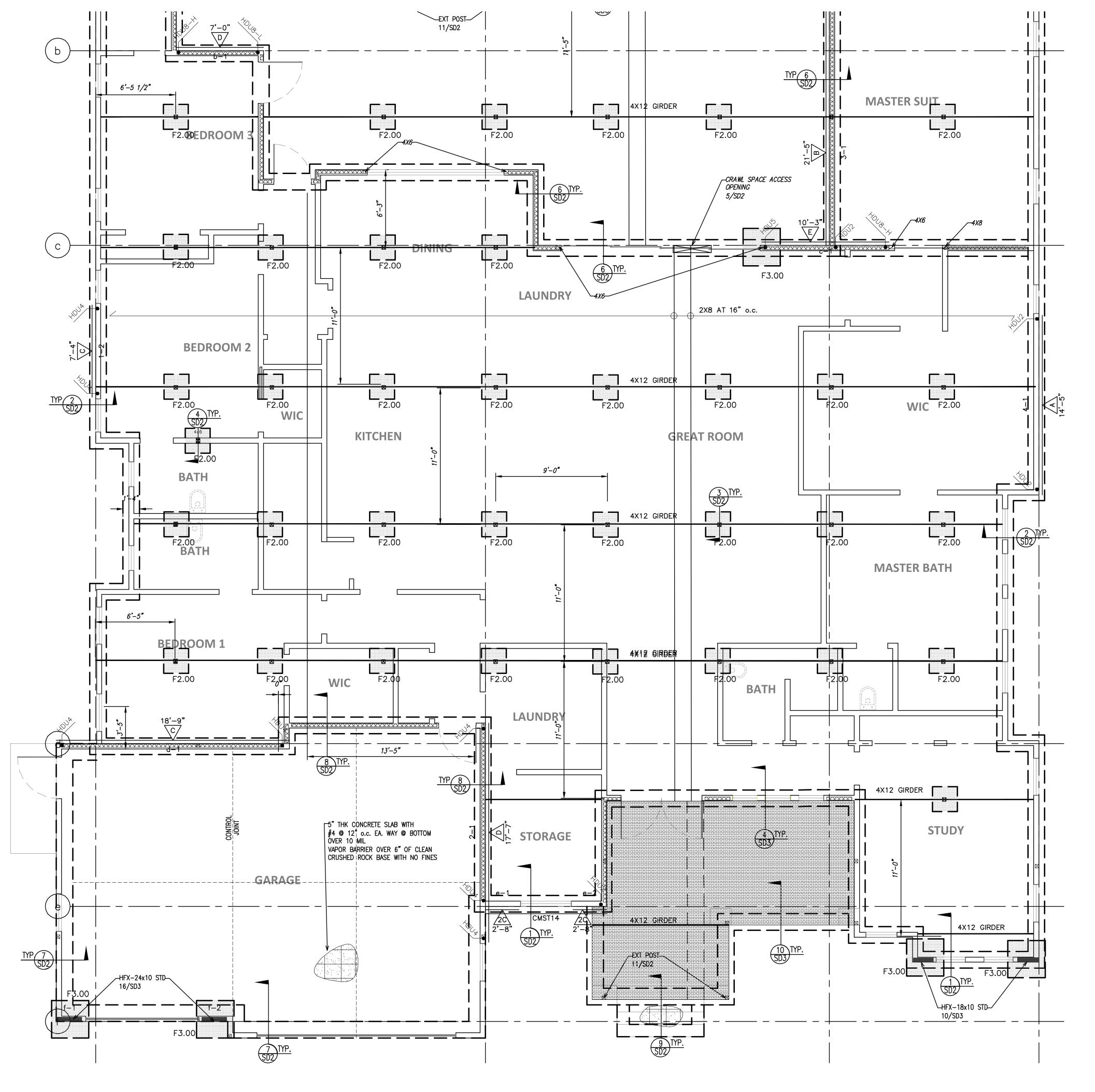
* DEEPEN FOOTING AS REQUIRED AT HOLDOWN BOLTS

WALL FRAMING NOTES

- SEE SCHEDULE ON SHEET S1 FOR STUD SIZES AND SPACING BASED ON WALL HEIGHT AND LOCATION UNLESS OTHERWISE SHOWN ON PLAN
- USE BALLOON FRAMED WALLS AT:
- A- VAULTED CEILINGS B- BESIDE STAIR OPENINGS
- C- BESIDE FLOOR OPENINGS ABUTTING EXTERIOR WALLS
- D- WHEN CALLED ON PLANS
- SPLICE TOP PLATES BETWEEN NEW AND EXISTING TOP PLATES (WHERE OCCURS), AT CUTS FOR PLUMBING PIPES, AND LOCATIONS WHERE TOP PLATES ARE INTERRUPTED BY DROPPED BEAMS OR CONTINUOUS POSTS.

FLOOD NOTES

- BASE FLOOR ELEVATION IS 293.00 (SEE FLOOD CERTIFICATE). FINISH FLOOR SHALL BE MINIMUM 294.00
- ALL CONSTRUCTION BELOW 293.00 SHALL BE PT WOOD WITH HOT DIPPED GALVANIZED HARDWARE AND POSITIVE CONNECTION TO FOUNDATION
- PROVIDE FLOOD VENTS AS NEEDED PER FEMA REQUIREMENTS





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PROJECT MAIN RESIDENCE AT

13685 SYCAMORE AVE., SAN MARTIN, CA



2-18-2022

Checked by:

Project Number 22-225 SHEET <u>2</u> OF <u>10</u>

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

NEW FOUNDATION NOTES:

- SPREAD FOOTINGS SHALL BE 12" WIDE UNLESS OTHERWISE NOTED ON
- FOOTINGS SHALL BE 18" BELOW ADJACENT GRADE (MINIMUM).
- ALL HOLDOWNS ANCHORS SHALL BE TIED IN PLACE PRIOR TO
- CALLING FOR A FOUNDATION INSPECTION.
- ALL WOOD IN CONTACT W/ CONCRETE OR EXPOSED WOOD SHALL BE P.T. USE ONLY HOT DIPPÉD GALVANIZED CONNECTORS, BOLTS AND
- DBL FLR JOISTS AT PARTITIONS PARALLEL TO JOISTS AND 2X BLKG AT WALLS PERPENDICULAR TO JOISTS
- FLOOR SHEATHING: 3/4" CDX T&G PLYWOOD BOUNDARY = 10d @ 6" O.C.FIELD = 10d @ 10" O.C.(STAGGER PANEL JOINTS, GLUE AND NAIL) (USE 16d NAILING IF 1 1/8" PLY'D IS USED)

EOOTING COHEDINE

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	500TU10	DIMENSIONS (MINIMUM)			REBARS
	FOOTING	LENGHT	WIDTH	THICKNESS MIN. *	воттом
	F1.50	1'-6"	1'-6"	SEE DET.	2-#4 EA WAY
	F2.00	2'-0"	2'-0"	SEE DET.	3-#4 EA WAY
	F2.50	2'-6"	2'-6"	SEE DET.	3-#4 EA WAY
	F3.00	3'-0"	3'-0"	SEE DET.	3-#4 EA WAY
	F3.50	3'-6"	3'-6"	SEE DET.	4-#4 EA WAY
	F4.00	4'-0"	4'-0"	SEE DET.	4-#4 EA WAY

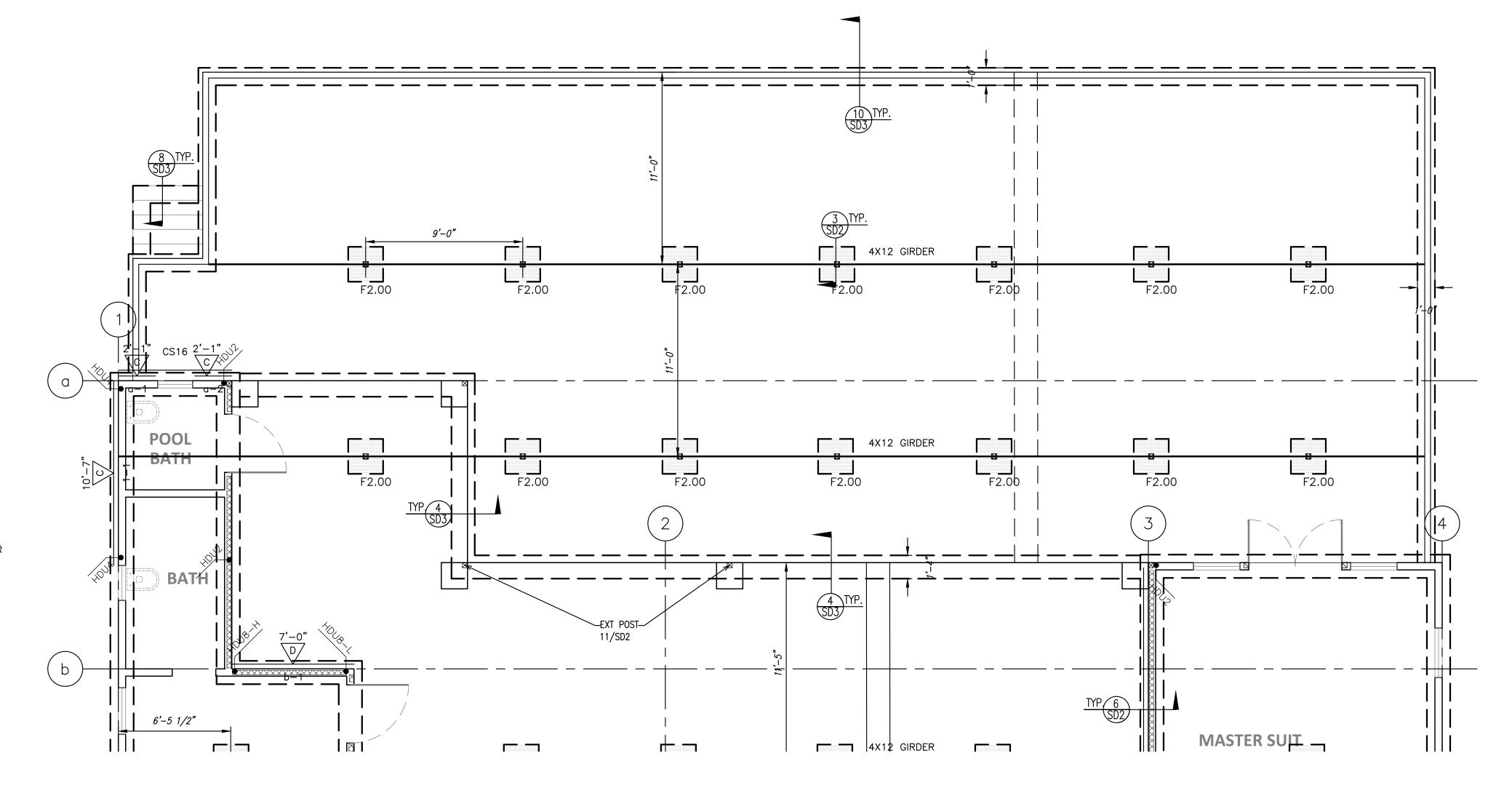
* DEEPEN FOOTING AS REQUIRED AT HOLDOWN BOLTS

WALL FRAMING NOTES

- SEE SCHEDULE ON SHEET S1 FOR STUD SIZES AND SPACING BASED ON WALL HEIGHT AND LOCATION UNLESS OTHERWISE SHOWN ON PLAN
- USE BALLOON FRAMED WALLS AT:
- A- VAULTED CEILINGS B- BESIDE STAIR OPENINGS
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- SPLICE TOP PLATES BETWEEN NEW AND EXISTING TOP PLATES (WHERE OCCURS), AT CUTS FOR CONTINUOUS POSTS.

FLOOD NOTES

- BASE FLOOR ELEVATION IS 293.00 (SEE FLOOD CERTIFICATE). FINISH
- FLOOR SHALL BE MINIMUM 294.00
- ALL CONSTRUCTION BELOW 293.00 SHALL BE PT WOOD WITH HOT DIPPED GALVANIZED HARDWARE AND POSITIVE CONNECTION TO FOUNDATION
- PROVIDE FLOOD VENTS AS NEEDED PER FEMA REQUIREMENTS







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PROJECT MAIN RESIDENCE AT

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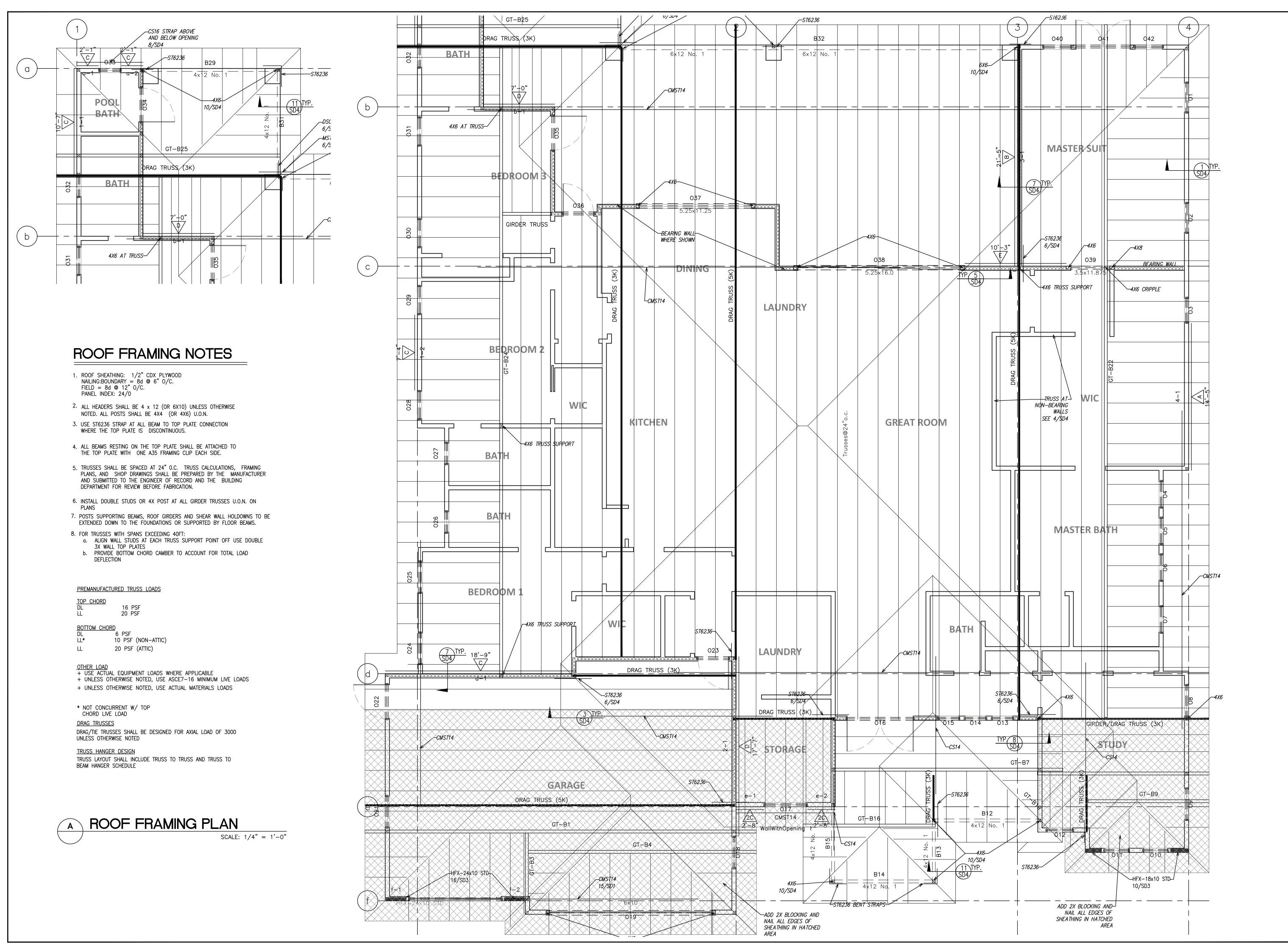


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GPM ENGINEERS
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MGENIDY@GPMENGINEERS.COM

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RAMING PLAN

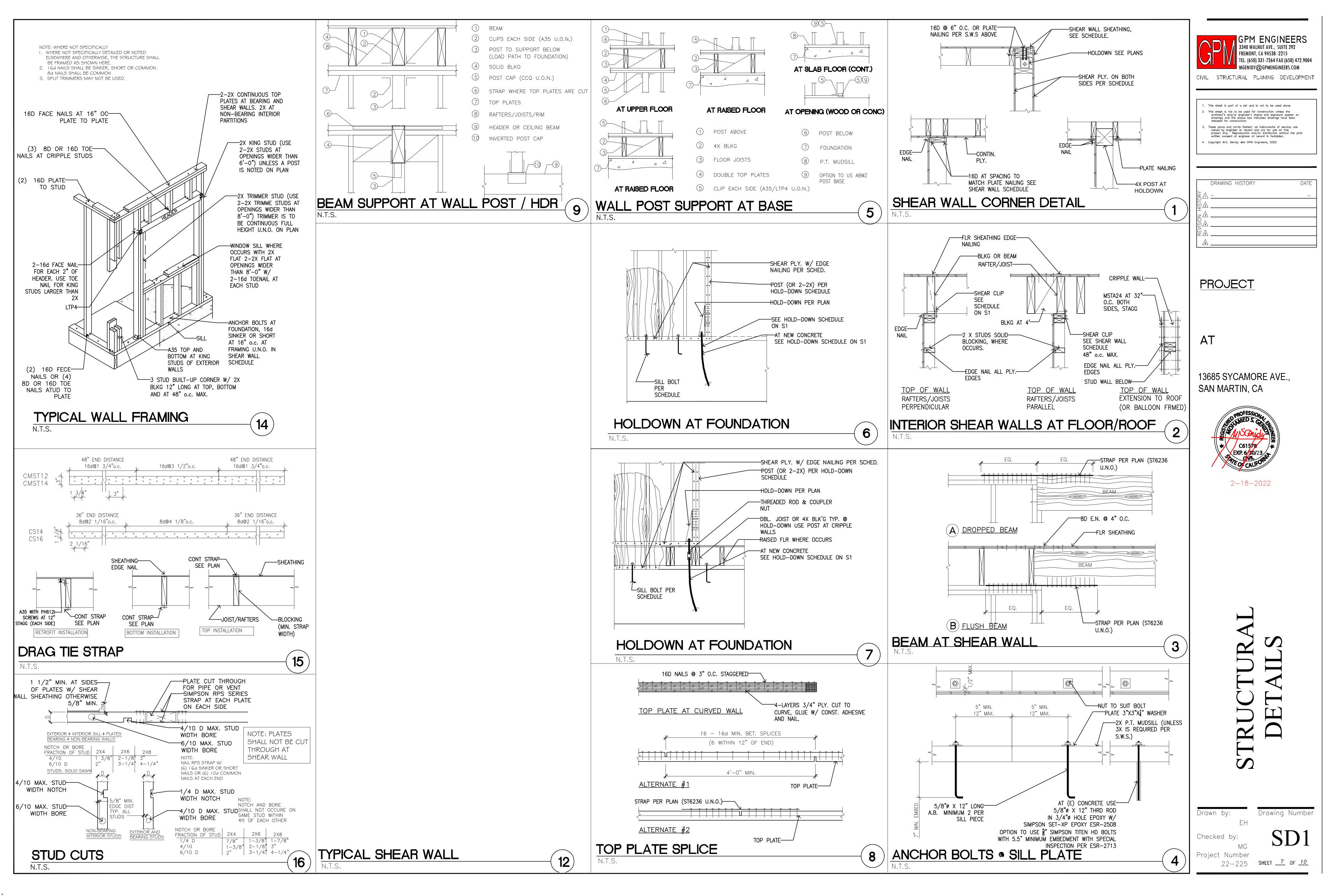
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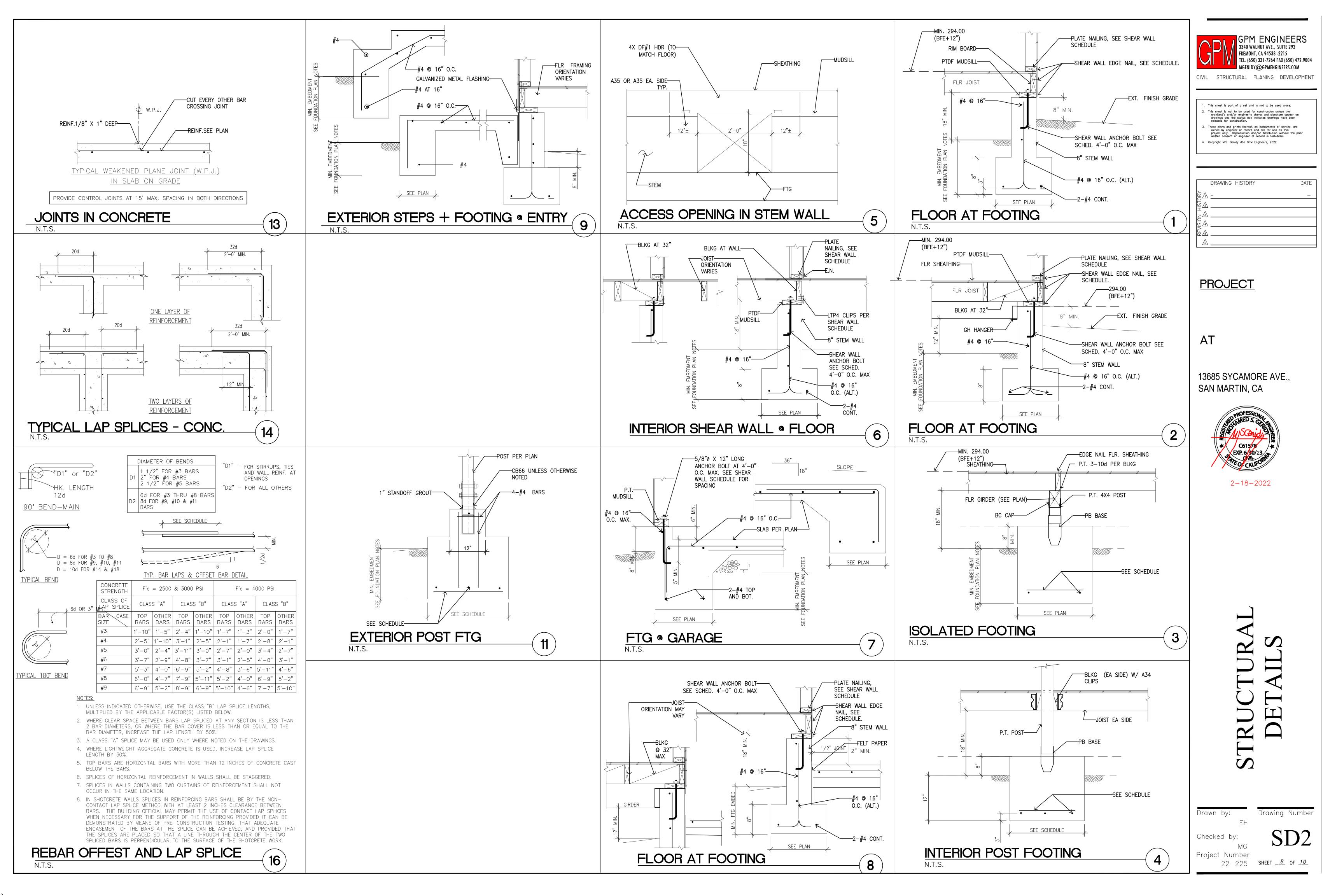
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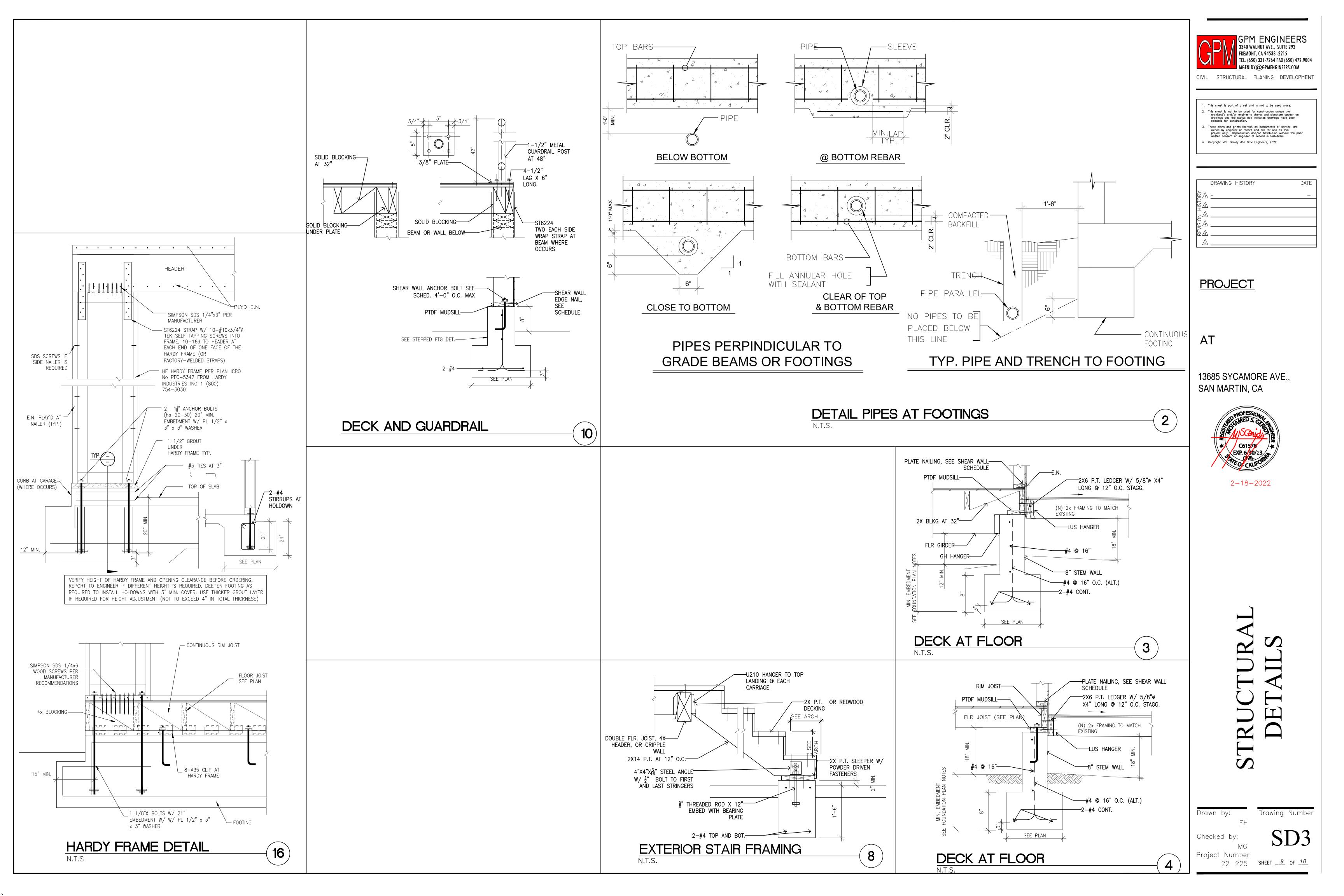
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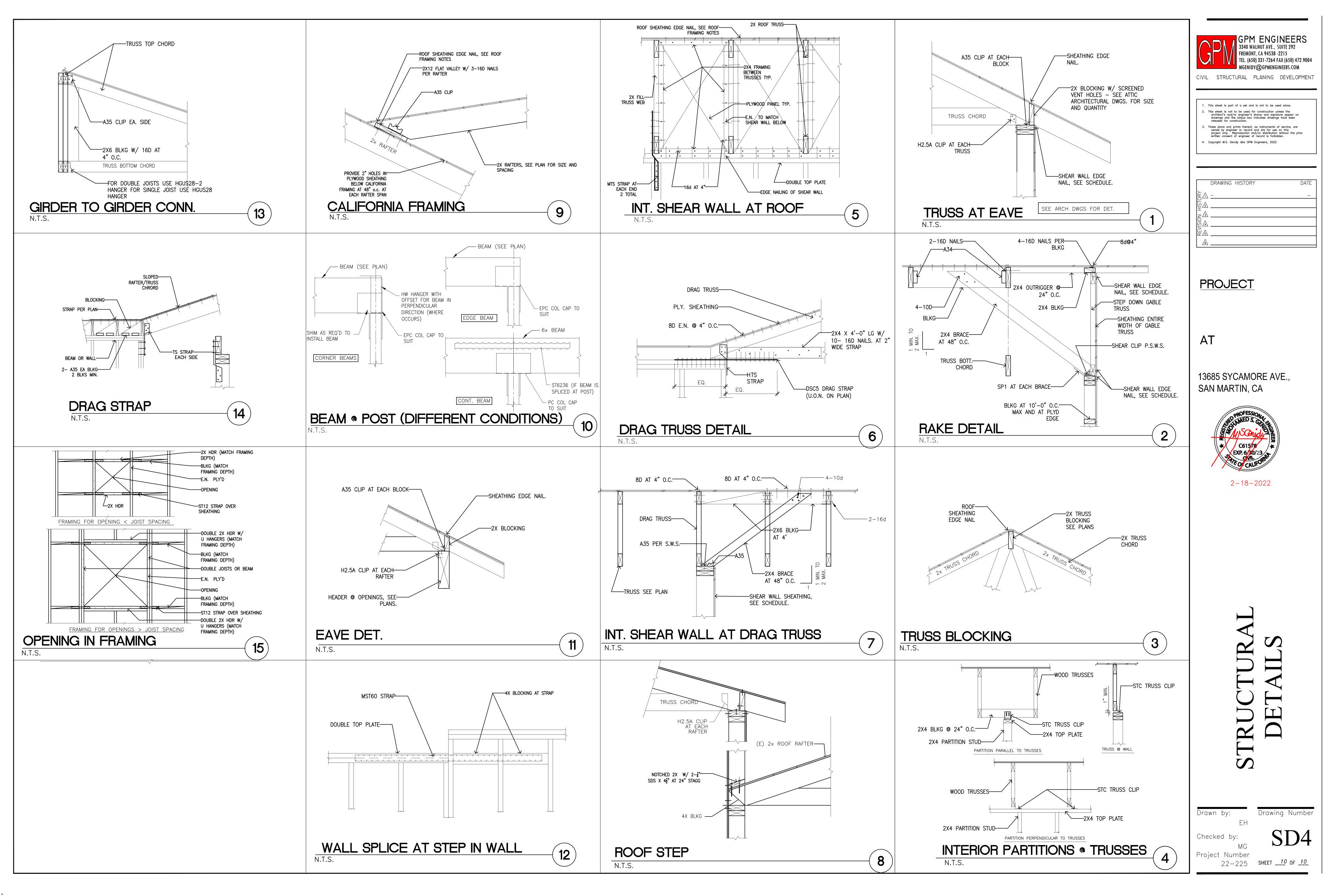
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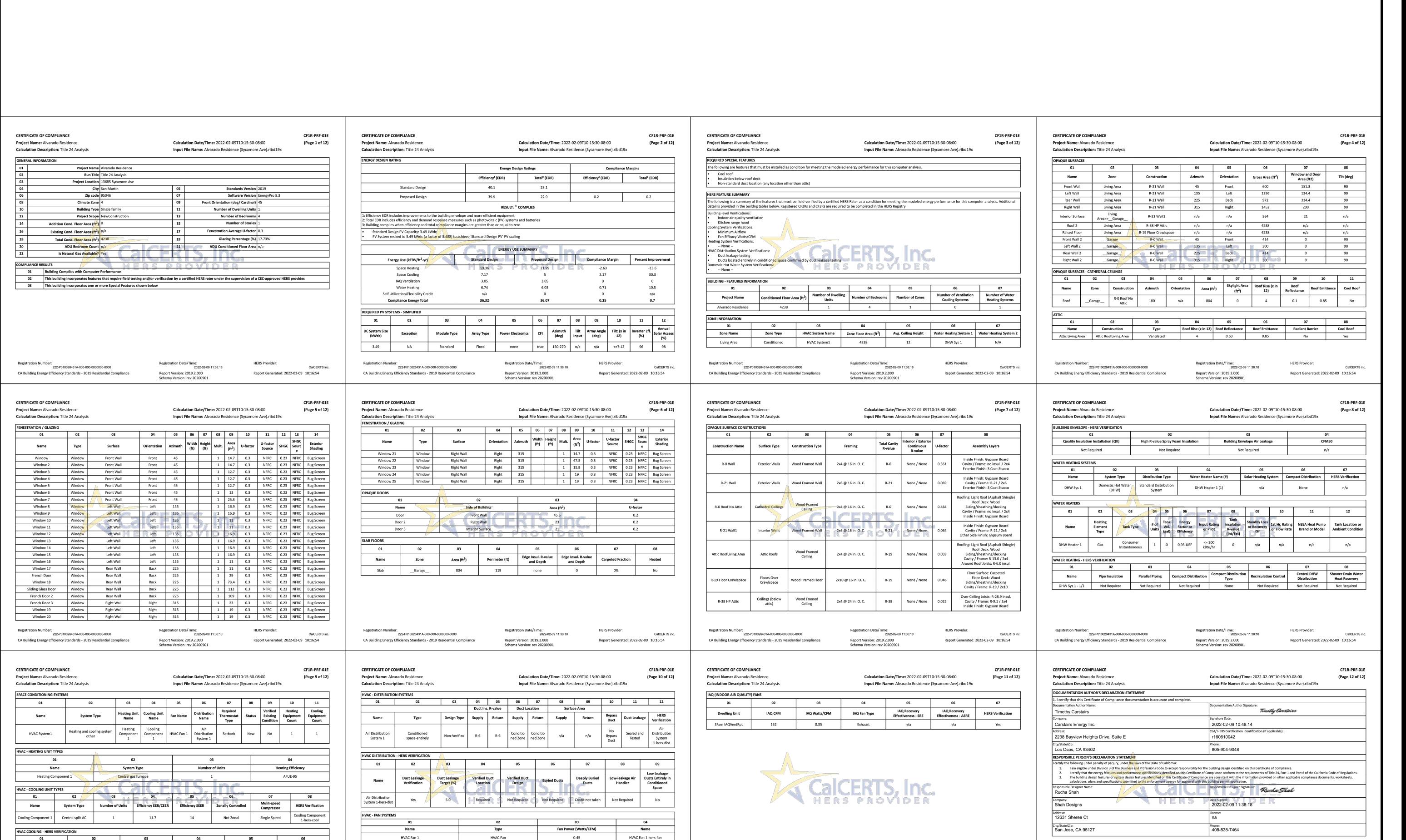
22-225 **SHEET <u>3</u> OF <u>10</u>**











Name

1-hers-cool

Cooling Component

Registration Number:

Verified Airflow

Required

222-P010026431A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Airflow Target

350

Verified EER

Not Required

Registration Date/Time: 2022-02-09 11:38:18

Report Version: 2019.2.000

Verified SEER

Not Required

Verified Refrigerant Charg

Report Generated: 2022-02-09 10:16:54

Not Required

CalCERTS inc.

HVAC FAN SYSTEMS - HERS VERIFICATION

222-P010026431A-000-000-0000000-0000

CA Building Energy Efficiency Standards - 2019 Residential Compliance

Verified Fan Watt Draw

Registration Date/Time:

Report Version: 2019.2.000

Schema Version: rev 20200903

2022-02-09 11:38:18

HERS Provider:

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CA Building Energy Efficiency Standards - 2019 Residential Compliance

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NO. 13685
STREET SYCAMORE AVE
CITY SAN MARTIN, CA

C

SHAH DESIGNS

DRAWN: AJ

CHECKED: RS

SCALE:

DATE: 16-12-2021

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Schema Version: rev 2020090

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KEDI	IDENT	IAL MEAS	SURES SU	JMMARY				RMS-1
Project N				Building Type	☑ Single Fam □ Multi Famil	ily □ Addition Alone y □ Existing+ Additi	ion/Alteration	Date 2/9/2022
Project A		101100		California Ene	ergy Climate Zone	Total Cond. Floor Area		# of Units
-		re Ave San	n Martin		ate Zone 04	4,238	n/a	1
INSUI	LATION				Area			
Cons	truction	n Туре		Cavity	(ft^2) S	pecial Features	3	Status
Floor	Wood Fi	ramed w/Crawl S	Space	R 19	4,238			New
Wall	Wood Fi	ramed		R 20	4,043			New
Door	Opaque	Door		R-5	69			New
Roof	Wood Fi	ramed Attic		R 38	4,238 Add=F	R-19.0 Cool Roof		New
	STRAT		Total Area:			17.7 % New/Altered Ave		0.30
	tation	Area(ft ²)		HGC Overl			nades	Status
Front (NE	-	105.8	0.300	0.23 none	none	N/A		New
Left (SE)		134.4	0.300	0.23 none	none	N/A		New
Rear (SV Right (NV	<u> </u>	334.4 177.0	0.300	0.23 none 0.23 none	none	N/A N/A		New New
HVAC Qty.	SYSTE Heatin Central Fu	g	Min. Eff	Cooling Split Air Cond		n. Eff The	ermostat ck	Status New
Qty.	Heatin Central Fu	g urnace) SEER Setba		
Qty. 1 HVAC	Heatin Central Fu	g urnace	95% AFUE	Split Air Cond	ditioner 14.0) SEER Setba	Duct	New
Qty. 1 HVAC Locat HVAC Sy	Heatin Central Fu Contral Fu	g urnace SIBUTION He Ducted	95% AFUE	Split Air Cond Cooling Ducted	Duct Loc Conditioned	SEER Setba	Duct R-Value	Status New
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Requirements for	or Ventilation and Indoor Air Quality:
§ 150.0(o)1:	Requirements for Ventilation and Indoor Air Quality. All dwelling units must meet the requirements of ASHRAE Standard 62.2, Ventilation and Acceptable Indoor Air Quality in Residential Buildings subject to the amendments specified in § 150.0(o)1.
§ 150.0(o)1C:	Single Family Detached Dwelling Units. Single family detached dwelling units, and attached dwelling units not sharing ceilings or floors with other dwelling units, occupiable spaces, public garages, or commercial spaces must have mechanical ventilation airflow provided at rates determined by ASHRAE 62.2 Sections 4.1.1 and 4.1.2 and as specified in § 150.0(o)1C.
§ 150.0(o)1E:	Multifamily Attached Dwelling Units. Multifamily attached dwelling units must have mechanical ventilation airflow provided at rates in accordance with Equation 150.0-B and must be either a balanced system or continuous supply or continuous exhaust system. If a balanced system is not used, all units in the building must use the same system type and the dwelling-unit envelope leakage must be ≤ 0.3 CFM at 50 Pa (0.2 inch water) per square foot of dwelling unit envelope surface area and verified in accordance with Reference Residential Appendix RA3.8.
§ 150.0(o)1F:	Multifamily Building Central Ventilation Systems. Central ventilation systems that serve multiple dwelling units must be balanced to provide ventilation airflow for each dwelling unit served at a rate equal to or greater than the rate specified by Equation 150.0-B. All unit airflows must be within 20 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 Section 5 and 7.2 of ASHRAE 62.2.
Pool and Spa Sy	ystems and Equipment Measures:
§ 110.4(a):	Certification by Manufacturers. Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.*
§ 110.4(b)1:	Piping. Any pool or spa heating system or equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	Covers. Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	Directional Inlets and Time Switches for Pools. Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	Pilot Light. Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	Pool Systems and Equipment Installation. Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.*
Lighting Measu	
§ 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 not 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).
	Interior Switches and Controls. Lighting controls must comply with the applicable requirements of § 110.9.



2019 Low-Rise Residential Mandatory Measures Summary

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

Building Envelop	pe 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 § 10-111(a).
• • • • • • • • • • • • • • • • • • • •	Field fabricated exterior doors and fenestration products must use U-factors and solar heat gain coefficient (SHGC) values from Tables
§ 110.6(b):	110.6-A, 110.6-B, or JA4.5 for exterior doors. They must be caulked and/or weather-stripped.* Air Leakage. All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	Insulation Certification by Manufacturers. Insulation must be certified by the Department of Consumer Affairs, Bureau of Household Goods and Services (BHGS).
§ 110.8(g):	Insulation Requirements for Heated Slab Floors. Heated slab floors must be insulated per the requirements of § 110.8(g).
§ 110.8(i):	Roofing Products Solar Reflectance and Thermal Emittance. The thermal emittance and aged solar reflectance values of the roofing material must meet the requirements of § 110.8(i) and be labeled per §10-113 when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	Radiant Barrier. When required, radiant barriers must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs
§ 150.0(a):	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 of have a U-factor of 0.071 or less. Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102. Masonry walls must meet Tables 150.1-A or B.*
§ 150.0(d):	Raised-floor Insulation. Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
§ 150.0(f):	Slab Edge Insulation. Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3 percent; have a water vapor permeance no greater than 2.0 perm per inch; be protected from physical damage and UV light deterioration; and, when installed as part of a heated slab floor, meet the requirements of § 110.8(g).
§ 150.0(g)1:	Vapor Retarder. In climate zones 1 through 16, the earth floor of unvented crawl space must be covered with a Class I or Class II vapor retarder. This requirement also applies to controlled ventilation crawl space for buildings complying with the exception to § 150.0(d).
§ 150.0(g)2:	Vapor Retarder. In climate zones 14 and 16, a Class I or Class II vapor retarder must be installed on the conditioned space side of all insulation in all exterior walls, vented attics, and unvented attics with air-permeable insulation.
§ 150.0(q):	Fenestration Products. Fenestration, including skylights, separating conditioned space from unconditioned space or outdoors must have a maximum U-factor of 0.58; or the weighted average U-factor of all fenestration must not exceed 0.58.*
Fireplaces, Deco	rative Gas Appliances, and Gas Log Measures:
§ 110.5(e)	Pilot Light. Continuously burning pilot lights are not allowed for indoor and outdoor fireplaces.
§ 150.0(e)1:	Closable Doors. Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)2:	Combustion Intake. Masonry or factory-built fireplaces must have a combustion outside air intake, which is at least six square inches in area and is equipped with a readily accessible, operable, and tight-fitting damper or combustion-air control device.*
§ 150.0(e)3:	Flue Damper. Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.*
Space Conditioni	ing, Water Heating, and Plumbing System Measures:
§ 110.0-§ 110.3:	Certification. Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the 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.
	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.
§ 110.3(c)6:	· · · · · · · · · · · · · · · · · · ·
§ 110.3(c)6: § 110.5:	Pilot Lights. Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (except appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu per hour); and pool and spa heaters.



2019 Low-Rise Residential Mandatory Measures Summary

EMGS requirements of \$130.0(e)2. In a most all other requirements in \$150.0(e)2 in thirder Switches and Controlls. A may be used to comply with dimmer requirements in \$150.0(e); if it provides the functionality of a dimmer according to \$110.8, and complies with all other applicable requirements in \$150.0(e); if it provides the functionality of a dimmer according to \$110.8, and complies with all other applicable requirements in \$150.0(e); if it provides the functionality of an accupant sensor is a vacancy sensor providing automatic-off functionality. If an occupant sensor is installed, if must be interest in the complex of the complex of the provides and controls. The third of the complex	TENERS COMMISSION I	
hterior Switches and Controls. A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(9) of it interior Switches and Controls. In bathrooms, garages, burndy proms, and utility moms, at least one turnines in exact of these spaces must considered to controlled by an occupant sensor or a vacancy sensor providing automatic offinitional policy. In consideration of the sensor of the se	§ 150.0(k)2G:	provides functionality of the specified control according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the
interiors Writches and Controls. In bathrooms, garages, laundy rooms, and utility rooms, at least one luminate in each of fleee spaces must be controlled by an occupant sensor or awardency sensors providing automatice of flee interiors of these spaces must be controlled by an occupant sensor in shalled, it must be interior Swritches and Controls. Luminaris that are or controlling by another share Reference cut plant Agreements for dimming, and that are not controlled by occupancy or vasancy sensors, must have dimming controls. **Recidential Outdoor Lighting. For single-family residential buildings, cuidoor lighting permanently mounted to a residential building, or of other has been been been been been been been bee	§ 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
\$ 150,0(q)24. imming, and that are not controlled by occupancy or vacancy sensors, must have dimming controls. 150,0(q)25. Interior Switches and Controls under cabinet lighting uses be controlled separately from celling installatel lighting systems. Residential Cutdoor 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 family \$10,0(p).44 (ON and OFP switch) and the requirements in either \$1,000,000 (ON) and OFP switch) and the requirements in either \$1,000,000 (ON) and OFP switch point from controls or \$1,000,000 (ON) and OFP switch point from controls or \$1,000,000 (ON) and OFP switch point from controls or \$1,000,000 (ON) and OFP switch points and one of the controls of \$1,000,000 (ON) and OFP switch points and one of the controls of \$1,000,000 (ON) and OFP switch points and one of the controls of \$1,000,000 (ON) and OFP switch points and one of the controls of \$1,000,000 (ON) and OFP switch points and one of the controls of \$1,000,000 (ON) and OFP switch points and one of the controls of \$1,000,000 (ON) and OFP switch points and one of the controls of the control of t	§ 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.
Sesion(s) 32. Sesion	§ 150.0(k)2J:	
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 lines 150.0(8),4381 ((v) An an OF Fa switch) and the requirement in lines 150.0(8),4381 ((v) An and OF Fa switch) and the requirement in lines 150.0(8),4381 ((s) testonomical time doubt, or a EMCS. Residential Outdoor Lighting, For low-free redidential buildings with frour or more develling units, autor building for private petition, entertained, with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0. Residential Outdoor Lighting, For low-free residential buildings with frour or more develling units, any outdoor lighting for private petition, entertained and control to the state of spith or more vehicles per site and any outdoor lighting not regulated by \$150.0(8),38 or §150.0(8),30 may 1,300.1,300.1,300.1,300.1,300.1,407.3 and 141.0. Internally Illiaminated address signs, Internally Illiaminated address signs must comply with \$140.8; or must consume no more than 5 wats for jower as determined according to §130.0(6). \$150.0(8)65: Internally Illiaminated address signs, Internally Illiaminated address signs must comply with \$140.8; or must consume no more than 5 wats of jower as determined according to §130.0(6). Internally Illiaminated address signs must comply with \$140.8; or must consume no more than 5 wats of jower as determined according to §130.0(6). Internally Illiaminated address signs must comply with \$140.8; or must consume no more than 5 wats of jower as determined according to §130.0(6). Internally Illiaminated address signs in Internally with the patient of the Internally Illiaminated address signs in I	§ 150.0(k)2K:	Interior Switches and Controls. Under cabinet lighting must be controlled separately from ceiling-installed lighting systems.
\$150.0(x)36: balconies, and porches; and residential parking lots and carports with less than eight vehicles per site must comply with either § 150.0(x)38. § 150.0(x)30: Reaidential Outdoor Lighting. For low-rise residential buildings with four or more dwelling units, any outdoor lighting for residential parking lots or carports with a beal of elight nor more vehicles per site and ny outdoor lighting not required by § 150.0(x)38 or § 150.0(x)30 must comply with the applicable requirements in Sections 110.9, 130.0, 130.2, 130.4, 140.7 and 14.1.0. 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(x). § 150.0(x)64: 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. Interior Common Areas of Low-tries Multifamily Residential Buildings. In a low-tise multifamily residential building where the total interior common area in a single building equals now than 20 percent of the floor area, permanently installed lighting for the interior common areas in that building must be comply with 13the 150.0-4 and be controlled by an occupant sensors. § 150.0(x)68: I. Leghting installed in comditors and stainvells must be controlled by an occupant sensors that reduce the lighting for the interior common areas in that building must be comply with the applicable requirements in Sections 110.9, 130.0, 130.1, 140.8 and 141.0; and it. Lighting installed in comditors and stainvells must be controlled by an occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be controlled by occupant sensors that reduce the lighting power in eac	§ 150.0(k)3A:	buildings on the same lot, must meet the requirement in item § 150.0(k)3Ai (ON and OFF switch) and the requirements in either § 150.0(k)3Aii (photocell and either a motion sensor or automatic time switch control) or § 150.0(k)3Aii (astronomical time clock), or an EMCS.
or capnords with a total of eight or more vehicles per site and any outdoor lighting not regulated by § 150.0(k)38 or § 150.0(k)30 must comply with the applicable requirements in Sections 11.09, 130.0, 130.2, 130.4, 140.7 and 141.0. § 150.0(k)65 § 150.0(k)65 § 150.0(k)68. Residential Garages for Eight or More Vehicles. Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for norresidential garages in Sections 110, 9, 130.0, 130.1, 130.4, 140.6, and 141.0. Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the 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 capable of turning the light fully on and off from all designed paths of ingress and egress. Solar Ready Buildings: Single Family Residences. Single family residences located in subdivisions with 10 or more single family residences and where the application for a tentative subdivision may fo	§ 150.0(k)3B:	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.
power as determined according to § 130.0(c). 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. Interior Common Areas of Low-rise Multifamily Residential Buildings. In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the interior common area in a single building equals more than 20 percent of the floor area, permanently installed lighting for the 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: 1. Comply with the applicable requirements in Sections 110.9, 130.0, 130.1, 140.6 and 141.0; and is Lighting installed in corridors and stalinvells must be controlled by occupant sensors that reduce the lightling 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: 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(b). § 110.10(a)2: Minimum Solar Zone Area. The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smo	§ 150.0(k)3C:	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.
\$ 50.0(k) 65: 3 applicable requirements for norresidental garages in Sections 110.9, 130.0, 130.1, 130.1, 140.6, and 141.0. 5 10.0(k) 6A: 5 Interior Common Areas of Low-rise Multiframity Residential Buildings, in a low-rise multiframity residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common area in a single building equals 20 percent of the floor area, permanently installed lighting for the interior common area in a single building equals smore than 20 percent of the floor area, permanently installed lighting for the interior common area in a single building equals smore 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 confloors and stainwells 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:** **Solar Ready Buildings:** **Solar Ready Buildings:** **Single Family Residences.** **Singl	§ 150.0(k)4:	power as determined according to § 130.0(c).
\$150.0(k)6A: common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building must be comply with Table 150.04 and be controlled by an occupant sensor. 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 controls and stainwells 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: Snolar Ready Buildi	§ 150.0(k)5:	applicable requirements for nonresidential garages in Sections 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.
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 conforts and stainwells 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: 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(b). 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(b) through § 110.10(b). 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 to comprise of areas that have no dimension 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 single family residences, the solar zone must be located on the roof or overhang of the building project, and have a total area no less than 15	§ 150.0(k)6A:	common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that
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(c). \$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). 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 isingle family residences, 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 the roof or overhang of another structure located within 250 feet of the building, or on the roof or overhang of another structure located within 250 feet of the building skrulding any skylight area. The solar zone requirement is applicable to the entire building, including mixed occupancy.' 110.10(b)38: Azimuth. All sections of the solar zone coated on steep-sloped roofs must be oriented between 90 degrees and 300 degrees of true north. 110.10(b)38: 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 he	§ 150.0(k)6B:	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
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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 on 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, or on the roof or overhang of the building, or 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, 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.' Shading. The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment.' Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.' 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. Interconnection Pathways. The construction documents must indicate: a location reserved for inverters and metering equipment and a pat	§ 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
\$ 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.* Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.* 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. Interconnection Pathways. The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system. Documentation. A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through § 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. Main Electrical Service Panel. The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit	§ 110.10(b)1:	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
\$ 110.10(b)3A: mounted equipment.* Shading. Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.* 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. Interconnection Pathways. The construction documents must indicate: a location reserved for inverters and metering equipment and a pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system. Documentation. A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through § 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. Main Electrical Service Panel. The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit	§ 110.10(b)2:	
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\$ 110.10(c): pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family residences and central water-heating systems, a pathway reserved for routing plumbing from the solar zone to the water-heating system. Documentation. A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through § 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. Main Electrical Service Panel. The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit	§ 110.10(b)4:	dead load and roof live load must be clearly indicated on the construction documents.
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. Main Electrical Service Panel. The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit	§ 110.10(c):	pathway reserved for routing of conduit from the solar zone to the point of interconnection with the electrical service; and for single family
Main Electrical Service Panel. The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit	§ 110.10(d):	Documentation. A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through
Main Electrical Service Panel. The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit	§ 110.10(e)1:	Main Electrical Service Panel. The main electrical service panel must have a minimum busbar rating of 200 amps.

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§ 150.0(h)3A:	Clearances. Air conditioner and heat pump outdoor condensing units must have a clearance of at least five feet from the outlet of any dryer
§ 150.0(h)3B:	Liquid Line Drier. Air conditioners and heat pump systems must be equipped with liquid line filter driers if required, as specified by the manufacturer's instructions.
§ 150.0(j)1:	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 howater 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 letthan 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, a 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 Class I or Class II vapor retarder. Pipe insulation buried below grade must be installed in a waterproof and non-crushable casing or sleeve.
§ 150.0(n)1:	Gas or Propane Water Heating Systems. Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: A dedicated 125 volt, 20 amp electrical receptacle 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 break 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 bar 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 heater.
§ 150.0(n)2:	Recirculating Loops. Recirculating loops serving multiple dwelling units must meet the requirements of § 110.3(c)5.
§ 150.0(n)3:	Solar Water-heating Systems. Solar water-heating systems and collectors must be certified and rated by the Solar Rating and Certification Corporation (SRCC), the International Association of Plumbing and Mechanical Officials, Research and Testing (IAPMO R&T), or by a listing agency that is approved by the Executive Director.
Ducts and Fans	Measures:
§ 110.8(d)3:	Ducts. Insulation installed on an existing space-conditioning duct must comply with § 604.0 of the California Mechanical Code (CMC). If a contractor installs the insulation, the contractor must certify to the customer, in writing, that the insulation meets this requirement.
§ 150.0(m)1:	CMC Compliance. All air-distribution system ducts and plenums must meet the requirements of the CMC §§ 601.0, 602.0, 603.0, 604.0, 605 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts 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 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 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 tape is used in combination with mastic and draw bands.
§ 150.0(m)3:	Field-Fabricated Duct Systems. Field-fabricated duct systems must comply with applicable requirements for: pressure-sensitive tapes, mastics, sealants, and other requirements specified for duct construction.
§ 150.0(m)7:	Backdraft Damper. Fan systems that exchange air between the conditioned space and outdoors must have backdraft or automatic damper
§ 150.0(m)8:	Gravity Ventilation Dampers. Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	Protection of Insulation. Insulation must be protected from damage, sunlight, moisture, equipment maintenance, and wind. Insulation export 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 a two inch depth or can be one inch if sized per Equation 150.0-A. Pressi 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 hof for the placement of a static pressure probe, or a permanently installed static pressure probe in the supply plenum. Airflow must be ≥ 350 CI 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 CFM for all others. Small duct high velocity systems must provide an airflow ≥ 250 CFM per ton of nominal cooling capacity, and an air-hand unit fan efficacy ≤ 0.62 watts per CFM. Field verification testing is required in accordance with Reference Residential Appendix RA3.3.*

ROOM LOAD SUMMARY Alvarado Residence

System Name

Living Area

HVAC System

ROOM LOAD SUMMARY

* Total includes ventilation load for zonal systems.

Zone Name

2/9/2022 Floor Area 4,238

ROOM COOLING PEAK | COIL COOLING PEAK | COIL HTG. PEAK
 CFM
 Sensible
 Latent
 CFM
 Sensible
 Latent
 CFM
 Sensible

 1,514
 32,385
 1,865
 1,514
 32,385
 1,865
 971
 38,475
 Room Name Mult. DE SHAH

 1,514
 32,385
 1,865
 971
 38,475

 1,514
 32,385
 1,865
 971
 38,475

DRAWN: AJ

SCALE:

DATE: 16-12-2021

CHECKED: RS

ISSUED/REVISED

SHAH DESIGNS

FAMILY RESIDENCE
13685
T SYCAMORE AVE,
SAN MARTIN, CA
DE 95046