This Are Plans For A New Single Family Residence:

SMART HOME OF THE DESERT, INC.

Owner's Address:
P.O. Box 1313-Desert Hot Springs, CA 92240
Phone No. 1-(760) 999-0999
Email Address: gilberto@smarthomesotd.com

Site Job Address:

Lot No. 271 Cuyamaca Drive-Desert Hot Springs, CA 92240

General Notes

Drawings

1. These plans and especifications are the property of Mike Mendoza Design Principal and shall Not Be Used for any work other than the project shown herein.
2. All work and all construction methods and materials shall comply with all the provisions of the Building Code and other rules, regulations and ordinances governing the place of the building. Building code requirements in all cases take precedence over the drawings. It shall be responsibility of anyone supplying labor or materials or both to bring to the attention of the designer any discrepancies or conflicts between the requirements of the code and the construction documents.
3. Contractor hereby warranties to the owner and the Designer that all materials, fixtures and equipment furnished to the project is new unless noted otherwise. Contractor also warrants that all work will be of good quality and free of any faults and defects.
4. Temporary barriers and or a protective construction fence shall be constructed in accordance with the rules, regulations and ordinances governing the place of the building.
5. All contractors providing work and or materials to the project must verify all dimensions, elevations and site conditions and shall notify Designer of any discrepancies before construction.
6. All omissions or conflicts between the various elements of the working drawings, specifications and the general notes shall be brought to the attention of the Designer prior to submittal of the contractors bid.
7. General notes, notes and typical details apply drawings unless noted otherwise.
8. Framing conditions not specifically shown shall be framed similar to the details shown for the respective materials.
9. Provide opening and supports for mechanical equipment, ducts, piping, vents, etc. as required. Refer to architectural and mechanical drawings for additional openings and equipment not shown on the structural drawings.
10. Written dimensions take precedence. DO NOT SCALE
11. All dimensions are to the face of the stud, concrete or masonry, unless noted otherwise.
12. If existing facilities are related to the work, the contractor shall not disrupt the existing services or utilities without obtaining owners prior to approval and instructions in writing.
13. Verify all plumbing and equipment sizes before beginning construction of cabinets.
14. The construction documents represent the finish structure. Unless otherwise shown, they do not indicate method of construction. Contractor shall supervise and direct the work and shall be solely responsible for all construction means, methods, technics, sequences and procedures. Observation visits required to the site by field representatives of the Designer and or his consultants shall not include inspections of the protective measures required, which is the sole responsibility of the contractor. Any support services perform by the Designer and or his consultants, whether of material or work, and whether performed prior to, during or after completion of construction are performed solely for the purpose of assisting in quality control and in achieving conformance with the contractors performance and shall not be constructed as supervision of construction.
15. Contractor is responsible for all coordination between all subcontractors and trades.
16. Unless otherwise noted, all vestibules, closets columns, projections, recesses, or other adjacent areas within schedule for the respective spaces in which they occur.
17. Anyone supplying labor and or materials to the project shall carefully examine all sub-surfaces to receive work. Any conditions detrimental to the work shall be reported in writing to the contractor prior to the beginning work, commencement of work shall imply acceptance of all subcontractors.
18. Any material stored in the site shall be completely supported free from the ground, covered and otherwise protected to avoid damage from elements.
19. Fixed windows shall be sealed to limit air filtration.
20. General Contractor shall arrange for building permit, plumbing mechanical & electrical, Contractor shall arrange and pay their respective work.
23. Structural engineer and T-24 Energy calculations have been performed by others and shall not considered included under the Designer / Design Principal signature unless noted otherwise noted.
24. Designer / Design Principal shall review all submittal documents, samples etc. required by these plans & shall be prepared by others for compatibility with the design of the building. General Contractor / Owner shall make such submittals available to the Design Principal for his review.
25. All contractors performing work on this project shall submit writing a (1) One year warranty for all materials & workmanship done on this project verify warranties for equipment used.

Building Departament Notes

1) Please Take note the following Code requirements on the Cover Sheet:

A. Approved temporary sanitary facilities (i.e. chemical toilets shall be on the construction site prior to request for first inspection). (Health and Safety Code, Section 5416)

B. Contractor and/or owner shall provide a trash bin to insure proper clean-up of all building materials.

C. Storage of building materials or debris shall be confined to the lot for which the permit is issued. Adjacent vacant properties may not be utilized for this purpose unless written permission of the owner is on file with this office. The public right-of-way shall be maintained in a clear condition at all times.

D. "Address numerals shall comply with City Of Desert Hot Springs, Ordinance

E. CONSTRUCTION HOURS:

"Notify DIG ALERT, a free public service provided by Underground Service Alert of Southern California, @ 811 prior to any excavation"

1. General contractors and/or owner-builders shall submit a completed Sub-Contractor's list to the Building & Safety Department prior to requesting a final inspection. Absolutely no Sub-Contractor's lists will be accepted unless all required information is provided on the appropriate City Of Desert Hot Springs, form.
2. Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents."
3. All underground materials piping is to be sleeved with an approved plastic sleeve material for corrosion protection.
4. See structural notes for concrete strength.
5. Separate review, approval and permit are required for grading, accessory buildings and structures, signs, trash enclosures, block walls, retaining walls not supporting the building and demolition work. Contact the City Of Desert Hot Springs, for procedural information.
6. All glazing shall have temporary label on the product until the field inspector has inspected it.
7. **"All or equal substitutions must be submitted to, and approved by the Building Official prior to installation of the item".**
8. All structural materials will comply with the design calculations and building code requirements.
9. All structure, pools walls, etc. Included under this application provide construction details if a part of this permit. Any portion of the project shown on the site plan that is not included with the building permit application filed should be clearly identified as "NOT INCLUDED".

OBSERVATION ON PLAN SECTION 1704.2.1:
Special inspector qualifications. Prior to the start of the construction, the approved agencies shall provide written documentation to the building official demonstrating the competence and relevant experience or training of the special inspectors who will perform the special inspections and tests during construction. Experience or training shall be considered relevant where the documented experience or training is related in complexity to the same type of special inspection or testing activities for projects of similar complexity and material qualities. These qualifications are in addition to qualifications specified in other sections of this code. The registered design professional in responsible charge and engineers of record involved in the design of the project are permitted to act as the approved agency and their personnel are permitted to act as special inspectors for the work designed by them, provided they qualify as special inspectors.

Revisions

No.	Date	Description
1	00-00-2018	Plan Check Corrections
2	00-00-2018	Plan Check Corrections

Code Analysis

Code Requirements:
This Project Comply with:
DESERT HOT SPRINGS - MUNICIPAL CODE

2016	California Residential Code
2016	California Building Code
2016	California Electrical Code
2016	California Mechanical Code
2016	California Plumbing Code
2016	California Energy Code
2016	California Green Building Standards Code
2016	California Fire Code

All other State and Local Codes that are applicable.
Present California law mandates that all construction comply with the 2016 edition of California Code of Regulations

Required Special Inspections

ITEM	REQ'D ?	REMARKS
DESIGNER-SPECIFIED	N/A	
SPECIAL INSPECTION - EPOXY HOLD DOWNS	Yes	Structural-Engineering
RADIENT BARRIER REQUIRED R-21 Insulation On Walls, R-38 Ceilings + R.B.	Yes	Title 24 Report
HERS TEST REQUIRED - HVAC Cooling Verified SEER HERS TEST REQUIRED - HVAC Cooling Verified EER Building Envelope-HERS Verification Quality Insulation Installation	Yes	Title 24 Report
HERS TEST REQUIRED - HVAC Cooling Component 1 hers-cool HERS TEST REQUIRED - HVAC Distribution Systems Ducts-Attic HERS TEST REQUIRED - HVAC Duct Leakage verification	Yes	Title 24 Report
HERS TEST REQUIRED - Duct Leakage Target (%) 5.0 HERS TEST REQUIRED - HVAC Fan Watt Draw HERS TEST REQUIRED - IAQ Indoor Air Quality FANS	Yes	Title 24 Report
HERS TEST REQUIRED - HVAC Airflow Verification HERS TEST REQUIRED - Insulation R-Value 8 HERS TEST REQUIRED - Verify Refrigerant Charge	Yes	Title 24 Report

Scope Of Work

- Plans for a New Single Family Residence with a (2) Car Garage Attached.

Property Owners

SMART HOME OF THE DESERT, INC.
Phone No. 1-(760) 999-0999
P.O. Box 1313-Desert Hot Springs, CA 92240
gilberto@smarthomesotd.com

Consultants

Mike Mendoza-Design Principal
73-900 Dinah Shore Drive-Suite 202
Palm Desert, CA 92211
Phone No. 1-(760) 275-1816
Fax No. 1-(760) 288-4008
E-mail Address: m23177@aol.com

Santiago Lopez Ocampo
Title 24 Report
Energy Calculations
P.O. Box 1018
La Quinta, CA 92247
Phone No. 1-(760) 485-8927
E-mail Address: santiagolopezocampo@yahoo.com

Fred Sheu-Structural Engineer
14286 California Avenue-Suite No.3
Victorville, CA 92392
Phone No. 1-(760) 955-7522
Fax No. 1-(760) 955-6244
E-mail Address: fredsheuengineer@gmail.com

Imperial Truss & Lumber
Truss Calculations
73-900 Dinah Shore Drive Suite 202
Palm Desert, CA 92211
Phone No. 1-(760) 275-1816
E-mail Address: miketrusses@gmail.com

Sheet Index

Project Data

Applicant: **SMART HOME OF THE DESERT, INC.**
Phone No. 1-(760) 999-0999
P.O. Box 1313-Desert Hot Springs, CA 92240
gilberto@smarthomesotd.com

Legal Description:
Lot 271 POR. S.W. 31 T. 2 S. R., 5 E.
CITY OF DESERT HOT SPRINGS M.B. 27/46-48 DESERT SPRINGS STATES Map Book 641 Page 18 Riverside County Records, Riverside, California.

A.P.N. #: 641-182-018

Area Tabulation

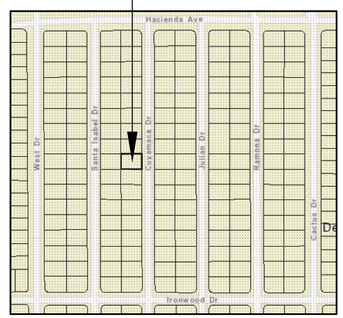
Total Land Area:	7,338.00	SQ.FT.	0.168 Acres
Conditioned Living Area:	1,575.0	SQ.FT.	
2-Car Garage Area:	458.0	SQ.FT.	
Covered Entry Area:	165.0	SQ.FT.	

Number Of Stories:	1
Sprinklers:	**Yes (Deferral Submittal)**
Occupancy:	R-3/U-1
Type " V-B " Construction:	Per Table 601

Vicinity Map

North

Job Site



NOT TO SCALE

Mike Mendoza Design Principal
73-900 Dinah Shore Drive Suite 202
Palm Desert, CA 92211
Cell No. 1-(760) 275-1816
E-Mail Address: m23177@aol.com

Revisions	Date
Plan Check Revisions 1	00-00-2018

SMART HOMES OF THE DESERT INC

Owner Name:
SMART HOME OF THE DESERT, INC.
Phone No. 1-(760) 999-0999
P.O. Box 1313
Desert Hot Springs, CA 92240
gilberto@smarthomesotd.com

Job Address:
Lot No. 271 Cuyamaca Drive
Desert Hot Springs, CA 92240

Sheet Name:
Title Sheet & General Notes

Date: OCTOBER-2018

Drawn By: Mike Mendoza

Sign By:

Sheet Number:
T1.01

Scale: To Plot 1/4" = 1'-0"

Project Name: Smart Home of The Desert, Inc. **Calculation Date/Time:** 16:06, Sat, Sep 22, 2018
Calculation Description: Title 24 Analysis **Input File Name:** Smart Home of The Desert.ribd16x

GENERAL INFORMATION					
01	Project Name	Smart Home of The Desert, Inc.			
02	Calculation Description	Title 24 Analysis			
03	Project Location	132__ Cuyamaca Drive [Lot No. 271] - A.P.N.: 641-182-018			
04	City	Desert Hot Springs	05	Standards Version	Compliance 2017
06	Zip Code	92240	07	Compliance Manager Version	BEMCmpMgr 2016.3.1 (1149)
08	Climate Zone	CZ15	09	Software Version	EnergyPro 7.2
10	Building Type	Single Family	11	Front Orientation (deg/Cardinal)	0
12	Project Scope	Newly Constructed	13	Number of Dwelling Units	1
14	Total Cond. Floor Area (ft^2)	1575	15	Number of Zones	1
16	Slab Area (ft^2)	1575	17	Number of Stories	1
18	Addition Cond. Floor Area(ft^2)	n/a	19	Natural Gas Available	Yes
20	Addition Slab Area (ft^2)	n/a	21	Glazing Percentage (%)	14.3%

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

ENERGY USE SUMMARY

04	05	06	07	08
Energy Use (kTDV/ft^2-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement
Space Heating	0.26	0.57	-0.31	-119.2%
Space Cooling	88.00	87.50	0.50	0.6%
IAQ Ventilation	1.55	1.55	0.00	0.0%
Water Heating	8.67	8.67	0.00	0.0%
Photovoltaic Offset	----	0.00	0.00	----
Compliance Energy Total	**98.48**	**98.29**	**0.19**	**0.2%**

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ENERGY DESIGN RATING

Energy Design Rating (EDR) is an alternate way to express the energy performance of a building using a scoring system where 100 represents the energy performance of the Residential Energy Services (RESNET) reference home characterization of the 2006 International Energy Conservation Code (IECC) with California modeling assumptions. A score of zero represents the energy performance of a building that combines high levels of energy efficiency with renewable generation to"zero out" its TDV energy. Because EDR includes consideration of components not regulated by Title 24, Part 6 (such as domestic appliances and consumer electronics), it is not used to show compliance with Part 6 but may instead be used by local jurisdictions pursuing local ordinances under Title 24, Part 11 (CALGreen).
As a Standard Design building under the 2016 Building Energy Efficiency Standards is significantly more efficient than the baseline EDR building, the EDR of the Standard Design building is provided for Information. Similarly, the EDR score of the Proposed Design is provided separately from the EDR value of installed PV so that the effects of efficiency and renewable energy can both be seen

EDR of Standard Efficiency	EDR of Proposed Efficiency	EDR Value of Proposed PV + Battery	Final Proposed EDR
58.4	58.3	0.0	58.3

☐	Design meets Tier 1 requirement of 15% or greater code compliance margin (CALGreen A4.203.1.2.1) and QII verification prerequisite.
☐	Design meets Tier 2 requirement of 30% or greater code compliance margin (CALGreen A4.203.1.2.2) and QII verification prerequisite.
☐	Design meets Zero Net Energy (ZNE) Design Designation requirement for Single Family in climate zone CZ15 (Palm Springs) (CALGreen A4.203.1.2.3) including on-site photovoltaic (PV) renewable energy generation sufficient to achieve a Final Energy Design Rating (EDR) of zero or less. The PV System must be verified.

Notes:
- **Excess PV Generation EDR Credit: Bypassing PV size limit may violate Net Energy Metering (NEM) rules**

REQUIRED SPECIAL FEATURES

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

- **Cool roof**
- **Window overhangs and/or fins**
- **Exposed slab floor in conditioned zone**

HERS FEATURE SUMMARY

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional detail is provided in the building components tables below.

Building-level Verifications:
- **High quality insulation installation (QII)**
- **IAQ mechanical ventilation**

Cooling System Verifications:
- **Minimum Airflow**
- **Verified EER**
- **Verified SEER**
- **Verified Refrigerant Charge**
- **Fan Efficacy Watts/CFM**

HVAC Distribution System Verifications:
- **Duct Sealing**
- **Low-leakage Air Handling Unit**

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

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BUILDING - FEATURES INFORMATION

01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft^2)	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
Smart Home of The Desert, Inc.	1575	1	4	1	0	1

ZONE INFORMATION

01	02	03	04	05	06	07
Zone Name	Zone Type	HVAC System Name	Zone Floor Area (ft^2)	Avg. Ceiling Height	Water Heating System 1	Water Heating System 2
Whole House	Conditioned	HVAC System1	1575	8	DHW Sys 1	n/a

OPAQUE SURFACES

01	02	03	04	05	06	07	08
Name	Zone	Construction	Azimuth	Orientation	Gross Area (ft^2)	Window & Door Area (ft^2)	Tilt (deg)
Fr/E	Whole House	R-15 + 1 EPS	90	Left	315	60	90
Le/S	Whole House	R-15 + 1 EPS	180	Back	211.5	46	90
Re/W	Whole House	R-15 + 1 EPS	270	Right	405	100	90
Ri/N	Whole House	R-15 + 1 EPS	0	Front	315	40	90
Interior Surface	Whole House	R-15 Wall	n/a	n/a	193.5	18	n/a
Roof	Whole House	R-38 Roof + RB	n/a	n/a	945	n/a	n/a
Roof 2	Whole House	R-38 Roof + RB	n/a	n/a	630	n/a	n/a

ATTIC

01	02	03	04	05	06	07	08
Name	Construction	Type	Roof Rise	Roof Reflectance	Roof Emittance	Radiant Barrier	Cool Roof
Attic Whole House	Attic RoofWhole House	Ventilated	4	0.37	0.92	Yes	Yes

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FENESTRATION / GLAZING

01	02	03	04	05	06	07	08	09	10
Name	Type	Surface (Orientation-Azimuth)	Width (ft)	Height (ft)	Multiplier	Area (ft^2)	U-factor	SHGC	Exterior Shading
5040 @ Living	Window	Fr/E (Left-90)	5.0	4.0	1	20.0	0.30	0.23	Insect Screen (default)
4040 @ Bed4	Window	Fr/E (Left-90)	4.0	4.0	1.25	20.0	0.30	0.23	Insect Screen (default)
4040 @ Bed3	Window	Le/S (Back-180)	----	----	1	20.0	0.30	0.23	Insect Screen (default)
4040 @ Bed2	Window	Le/S (Back-180)	----	----	1	20.0	0.30	0.23	Insect Screen (default)
2030 @ MBath	Window	Le/S (Back-180)	----	----	1	6.0	0.30	0.23	Insect Screen (default)
6068 @ MBed	Window	Re/W (Right-270)	----	----	1	40.0	0.30	0.23	Insect Screen (default)
4040 @ Nook	Window	Re/W (Right-270)	----	----	1	20.0	0.30	0.23	Insect Screen (default)
6068 @ Dining	Window	Re/W (Right-270)	----	----	1	40.0	0.30	0.23	Insect Screen (default)
4040 @ Dining	Window	Ri/N (Front-0)	----	----	1	20.0	0.30	0.23	Insect Screen (default)
4040 @ Dining 2	Window	Ri/N (Front-0)	----	----	1	20.0	0.30	0.23	Insect Screen (default)

OPAQUE DOORS

01	02	03	04
Name	Side of Building	Area (ft^2)	U-factor
3068 Door	Fr/E	20.0	0.50

OVERHANGS AND FINS

01	02	03	04	05	06	07	08	09	10	11	12	13	14
	Overhang					Left Fin				Right Fin			
Window	Depth	Dist Up	Left Extent	Right Extent	Flap Ht.	Depth	Top Up	Dist L	Bot Up	Depth	Top Up	Dist R	Bot Up
5040 @ Living	7	1.33	7	7	0	0	0	0	0	0	0	0	0
4040 @ Bed4	7	1.33	7	7	0	0	0	0	0	0	0	0	0

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OPAQUE SURFACE CONSTRUCTIONS

01	02	03	04	05	06	07
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Winter Design U-factor	Assembly Layers
Attic RoofWhole House	Attic Roofs	Wood Framed Ceiling	2x4 Top Chord of Roof Truss @ 24 in. O.C.	none	0.400	• *Cavity / Frame: no insul. / 2x4 Top Chrd* • *Roof Deck: Wood Siding/sheathing/decking* • *Tile Gap: present* • *Roofing: 10 PSF (RoofTile)*
R-15 + 1 EPS	Exterior Walls	Wood Framed Wall	2x4 @ 16 in. O.C.	R 15	0.063	• *Inside Finish: Gypsum Board* • *Cavity / Frame: R-15 / 2x4* • *Sheathing / Insulation: R4.2 Sheathing* • *Exterior Finish: 3 Coat Stucco*
R-15 Wall	Interior Walls	Wood Framed Wall	2x4 @ 16 in. O.C.	R 15	0.086	• *Inside Finish: Gypsum Board* • *Cavity / Frame: R-15 / 2x4* • *Other Side Finish: Gypsum Board*
R-38 Roof + RB	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O.C.	R 38	0.025	• *Inside Finish: Gypsum Board* • *Cavity / Frame: R-9.1 / 2x4* • *Over Ceiling Joists: R-28.9 insul.*

SLAB FLOORS

01	02	03	04	05	06	07
Name	Zone	Area (ft^2)	Perimeter (ft)	Edge Insul. R-value & Depth	Carpeted Fraction	Heated
Exposed	Whole House	943	90.83	None	0	No
Covered	Whole House	632	60	None	0	No

BUILDING ENVELOPE - HERS VERIFICATION

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

WATER HEATING SYSTEMS

01	02	03	04	05	06
Name	System Type	Distribution Type	Water Heater	Number of Heaters	Solar Fraction (%)
DHW Sys 1	DHW	Standard	DHW Heater 1 (1)	1	.0%

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WATER HEATERS

01	02	03	04	05	06	07	08	09	10	11	12
Name	Heater Element Type	Tank Type	Number of Units	Tank Volume (gal)	Uniform Energy Factor / Energy Factor / Efficiency	Input Rating / Pilot / Thermal Efficiency	Tank Insulation R-value (Int/Ext)	Standby Loss / Recovery Eff	First Hour Rating / Flow Rate	NEEA Heat Pump Brand / Model / Other	Tank Location or Ambient Condition
DHW Heater 1	Gas	Small Instantaneous	1	0	0.82 EF	<= 200 kBtu/hr	R-0/R-0	0	n/a	n/a	n/a

SPACE CONDITIONING SYSTEMS

01	02	03	04	05	06
SC Sys Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name
HVAC System1	Other Heating and Cooling System	Heating Component 1	Cooling Component 1	HVAC Fan 1	Air Distribution System 1

HVAC - HEATING UNIT TYPES

01	02	03	04
Name	System Type	Number of Units	Efficiency
Heating Component 1	CntrlFurnace	1	80 AFUE

HVAC - COOLING UNIT TYPES

01	02	03	04	05	06	07	08
			Efficiency				
Name	System Type	Number of Units	EER	SEER	Zonally Controlled	Compressor Type	HERS Verification
Cooling Component 1	SplitAirCond	1	12.3	14.5	Not Zonal	Single Speed	Cooling Component 1-hers-cool

HVAC COOLING - HERS VERIFICATION

01	02	03	04	05	06
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge
Cooling Component 1-hers-cool	Required	350	Required	Required	Required

HVAC - DISTRIBUTION SYSTEMS

01	02	03	04	05	06	07
Name	Type	Duct Leakage	Insulation R-value	Duct Location	Bypass Duct	HERS Verification
Air Distribution System 1	DuctsAttic	Specified Lower Leakage Target	8	Attic	None	Air Distribution System 1-hers-dist

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HVAC DISTRIBUTION - HERS VERIFICATION

01	02	03	04	05	06	07	08
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler
Air Distribution System 1-hers-dist	Required	5.0	Not Required	Not Required	Not Required	Not Required	Required

HVAC - FAN SYSTEMS

01	02	03	04
Name	Type	Fan Power (Watts/CFM)	HERS Verification
HVAC Fan 1	Single Speed PSC Furnace Fan	0.58	HVAC Fan 1-hers-fan

HVAC FAN SYSTEMS - HERS VERIFICATION

01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficiency (Watts/CFM)
HVAC Fan 1-hers-fan	Required	0.58

IAQ (Indoor Air Quality) FANS

01	02	03	04	05	06
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness(%)	HERS Verification
SFam IAQVentRpt	53	0.25	Default	0	Required

Project Name: Smart Home of The Desert, Inc. **Calculation Date/Time:** 16:06, Sat, Sep 22, 2018
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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name: Santiago Lopez-Ocampo	Documentation Author Signature: SantiagolopezO
Company: Santiago Lopez-Ocampo	Signature Date: 2018-09-23 06:04:55
Address: P.O. Box 1018	CEA/HERS Certification Identification (If applicable): NA
City/State/Zip: La Quinta, CA 92247	Phone: 760-485-8927

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design identified on this Certificate of Compliance.
2. I certify that the energy features and performance specifications identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
3. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

Responsible Designer Name: Mike Mendoza	Responsible Designer Signature: Mike Mendoza
Company: Mike Mendoza	Date Signed: 2018-09-23 07:56:45
Address: P.O. Box 692	License: NA
City/State/Zip: Desert Hot Springs, CA 92240	Phone: 760-275-1816

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Revisions	Date
Plan Check Revisions △1	00-00-2018

SMART HOMES OF THE DESERT INC

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Job Address:
Lot No. 271 Cuyamaca Drive
Desert Hot Springs, CA 92240

Sheet Name:
Title 24 Report
Energy Calculations

Date: OCTOBER-2018
Drawn By: Mike Mendoza
Sign By:

Sheet Number:
T1.02

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

2016 Low-Rise Residential Mandatory Measures Summary

§ 150.0(k)2J:	**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 a vacancy sensor.
§ 150.0(k)2K:	**Interior Switches and Controls.** Dimmers or vacancy sensors must control all luminaires required to have light sources compliant with Reference Joint Appendix JA8, except luminaires in closets less than 70 square feet and luminaires in hallways.*
§ 150.0(k)2L:	**Interior Switches and Controls.** Undercabinet lighting must be switched separately from other lighting systems.
§ 150.0(k)3A:	**Residential Outdoor Lighting.** For single-family residential buildings, outdoor lighting permanently mounted to a residential building, or to other buildings on the same lot, must meet the requirement in item § 150.0(k)3Ai (ON and OFF switch) and the requirements in either item § 150.0(k)3Aii (photocell and motion sensor) or item § 150.0(k)3Aiii (photo control and automatic time switch control, astronomical time clock, or EMCS).
§ 150.0(k)3B:	**Residential Outdoor Lighting.** For low-rise multifamily residential buildings, outdoor lighting for private patios, entrances, balconies, and porches; and outdoor lighting for residential parking lots and residential carports with less than eight vehicles per site must comply with either § 150.0(k)3A or with the applicable requirements in §§ 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)3C:	**Residential Outdoor Lighting.** For low-rise residential buildings with four or more dwelling units, outdoor lighting not regulated by § 150.0(k)3B or § 150.0(k)3D must comply with the applicable requirements in §§ 110.9, 130.0, 130.2, 130.4, 140.7 and 141.0.
§ 150.0(k)3D:	**Residential Outdoor Lighting.** Outdoor lighting for residential parking lots and residential carports with a total of eight or more vehicles per site must comply with the applicable requirements in §§ 110.9, 130.0, 130.2, 130.4, 140.7, and 141.0.
§ 150.0(k)4:	**Internally illuminated address signs.** Internally illuminated address signs must comply with § 140.8; or must consume no more than 5 watts of power as determined according to § 130.0(c).
§ 150.0(k)5:	**Residential Garages for Eight or More Vehicles.** Lighting for residential parking garages for eight or more vehicles must comply with the applicable requirements for nonresidential garages in §§ 110.9, 130.0, 130.1, 130.4, 140.6, and 141.0.
§ 150.0(k)6A:	**Interior Common Areas of Low-rise Multi-Family Residential Buildings.** In a low-rise multifamily residential building where the total interior common area in a single building equals 20 percent or less of the floor area, permanently installed lighting for the interior common areas in that building must be high efficacy luminaires and controlled by an occupant sensor.
§ 150.0(k)6B:	**Interior Common Areas of Low-rise Multi-Family 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 in that building must: i. Comply with the applicable requirements in §§ 110.9, 130.0, 130.1, 140.6 and 141.0; and ii. Lighting installed in corridors and stairwells must be controlled by occupant sensors that reduce the lighting power in each space by at least 50 percent. The occupant sensors must be capable of turning the light fully on and off from all designed paths of ingress and egress.
Solar Ready Buildings:	
§ 110.10(a)1:	**Single Family Residences.** Single family residences located in subdivisions with ten or more single family residences and where the application for a tentative subdivision map for the residences has been deemed complete by the enforcement agency must comply with the requirements of § 110.10(b) through § 110.10(e).
§ 110.10(a)2:	**Low-rise Multi-family Buildings.** Low-rise multi-family buildings must comply with the requirements of § 110.10(b) through § 110.10(d).
§ 110.10(b)1:	**Minimum Area.** The solar zone must have a minimum total area as described below. The solar zone must comply with access, pathway, smoke ventilation, and spacing requirements as specified in Title 24, Part 9 or other Parts of Title 24 or in any requirements adopted by a local jurisdiction. The solar zone total area must be comprised of areas that have no dimension less than 5 feet and are no less than 80 square feet each for buildings with roof areas less than or equal to 10,000 square feet or no less than 160 square feet each for buildings with roof areas greater than 10,000 square feet. For single family residences the solar zone must be located on the roof or overhang of the building and have a total area no less than 250 square feet. For low-rise multi-family buildings the solar zone must be located on the roof or overhang of the building, or on the roof or overhang of another structure located within 250 feet of the building, or on covered parking installed with the building project, and have a total area no less than 15 percent of the total roof area of the building excluding any skylight area.*
§ 110.10(b)2:	**Orientation.** All sections of the solar zone located on steep-sloped roofs must be oriented between 110 degrees and 270 degrees of true north.
§ 110.10(b)3A:	**Shading.** The solar zone must not contain any obstructions, including but not limited to: vents, chimneys, architectural features, and roof mounted equipment.*
§ 110.10(b)3B:	**Shading.** Any obstruction located on the roof or any other part of the building that projects above a solar zone must be located at least twice the distance, measured in the horizontal plane, of the height difference between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone, measured in the vertical plane.*
§ 110.10(b)4:	**Structural Design Loads on Construction Documents.** For areas of the roof designated as solar zone, the structural design loads for roof dead load and roof live load must be clearly indicated on the construction documents.
§ 110.10(c):	**Interconnection Pathways.** The construction documents must indicate: a location for inverters and metering equipment and a pathway for routing of conduit from the solar zone to the point of interconnection with the electrical service (for single family residences the point of interconnection will be the main service panel); and a pathway for routing of plumbing from the solar zone to the water-heating system.
§ 110.10(d):	**Documentation.** A copy of the construction documents or a comparable document indicating the information from § 110.10(b) through § 110.10(c) must be provided to the occupant.
§ 110.10(e)1:	**Main Electrical Service Panel.** The main electrical service panel must have a minimum busbar rating of 200 amps.
§ 110.10(e)2:	**Main Electrical Service Panel.** The main electrical service panel must have a reserved space to allow for the installation of a double pole circuit breaker for a future solar electric installation. The reserved space must be: positioned at the opposite (load) end from the input feeder location or main circuit location; and permanently marked as "For Future Solar Electric".

2016 Low-Rise Residential Mandatory Measures Summary

§ 150.0(h)3A:	**Clearances.** Installed air conditioner and heat pump outdoor condensing units must have a clearance of at least 5 feet from the outlet of any dryer vent.
§ 150.0(h)3B:	**Liquid Line Drier.** Installed air conditioner and heat pump systems must be equipped with liquid line filter driers if required, as specified by 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 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 and cooling system line insulation.** For domestic hot water system piping, whether buried or unburied, all of the following must be insulated according to the requirements of TABLE 120.3-A: the first 5 feet of hot and cold water pipes from the storage tank; all piping with a nominal diameter of 3/4 inch or larger; all piping associated with a domestic hot water recirculation system regardless of the pipe diameter; piping from the heating source to storage tank or between tanks; piping buried below grade; and all hot water pipes from the heating source to kitchen fixtures.*
§ 150.0(j)2B:	**Water piping and cooling system line insulation.** All domestic hot water pipes that are buried below grade must be installed in a water proof and non-crushable casing or sleeve.*
§ 150.0(j)2C:	**Water piping and cooling system line insulation.** Pipe for cooling system lines must be insulated as specified in § 150.0(j)2A. Distribution piping for steam and hydronic heating systems or hot water systems must meet the requirements in TABLE 120.3-A.*
§ 150.0(j)3:	**Insulation Protection.** Insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind.
§ 150.0(j)3A:	**Insulation Protection.** Insulation exposed to weather must be installed with a cover suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or plastic cover. The cover must be water retardant and provide shielding from solar radiation that can cause degradation of the material.
§ 150.0(j)3B:	**Insulation Protection.** Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space must have a Class I or Class II vapor retarder.
§ 150.0(n)1:	**Gas or Propane Systems.** Systems using gas or propane water heaters to serve individual dwelling units must include all of the following: a 120V electrical receptacle within 3 feet of the water heater; a Category III or IV vent, or a Type B vent with straight pipe between the outside termination and the space where the water heater is installed; a condensate drain that is no more than 2 inches higher than the base of the water heater, and allows natural draining without pump assistance; and a gas supply line with a capacity of at least 200,000 Btu/hr.
§ 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) 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 be installed, sealed, and insulated to meet the requirements of CMC §§ 601.0, 602.0, 603.0, 604.0, 605.0 and ANSI/SMACNA-006-2006 HVAC Duct Construction Standards Metal and Flexible 3rd Edition. Portions of supply-air and return-air ducts and plenums must be insulated to a minimum installed level of R-6.0 (or higher if required by CMC § 605.0) or a minimum installed level of R-4.2 when entirely in conditioned space as confirmed through field verification and diagnostic testing (RA3.1.4.3.8). Connections of metal ducts and inner core of flexible ducts must be mechanically fastened. Openings must be sealed with mastic, tape, or other duct-closure system that meets the applicable requirements of UL 181, UL 181A, or UL 181B or aerosol sealant that meets the requirements of UL 723. If mastic or tape is used to seal openings greater than ¼ inch, the combination of mastic and either mesh or tape must be used. Building cavities, support platforms for air handlers, and plenums designed or constructed with materials other than sealed sheet metal, duct board or flexible duct must not be used for conveying conditioned air. Building cavities and support platforms may contain ducts. Ducts installed in cavities and support platforms must not be compressed to cause reductions in the cross-sectional area of the ducts.*
§ 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 Dampers.** All fan systems that exchange air between the conditioned space and the outside of the building must have backdraft or automatic dampers.
§ 150.0(m)8:	**Gravity Ventilation Dampers.** Gravity ventilating systems serving conditioned space must have either automatic or readily accessible, manually operated dampers in all openings to the outside, except combustion inlet and outlet air openings and elevator shaft vents.
§ 150.0(m)9:	**Protection of Insulation.** Insulation must be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather must be suitable for outdoor service. For example, protected by aluminum, sheet metal, painted canvas, or 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 duct 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)11and Reference Residential Appendix RA3.
§ 150.0(m)12:	**Air Filtration.** Mechanical systems that supply air to an occupiable space through ductwork exceeding 10 feet in length and through a thermal conditioning component, except evaporative coolers, must be provided with air filter devices that meet the design, installation, efficiency, pressure drop, and labeling requirements of § 150.0(m)12.

RESIDENTIAL MEASURES SUMMARY — RMS-1

Project Name	Building Type	Date
SMART HOME OF THE DESERT, INC.	☑ Single Family ☐ Addition Alone ☐ Multi Family ☐ Existing+ Addition/Alteration	9/23/2018

Project Address	California Energy Climate Zone	Total Cond. Floor Area	Addition	# of Units
132__ Cuyamaca Drive [Lot No. 271] - A.F	CA Climate Zone 15	1,575	n/a	1

INSULATION

Construction	Type	Cavity	Area (ft^2)	Special Features	Status
Slab	Unheated Slab-on-Grade	- no insulation	1,575	Perim = 151'	New
Wall	Wood Framed	R 15	1,001	Add=R-4.2	New
Door	Opaque Door	- no insulation	20		New
Demising	Wood Framed	R 15	176		New
Roof	Wood Framed Attic	R 38	1,575	Cool Roof	New

FENESTRATION Total Area: 226 Glazing Percentage: 14.3 % New/Altered Average U-Factor: 0.30

Orientation	Area(ft^2)	U-Fac	SHGC	Overhang	Sidefins	Exterior Shades	Status
Left (E)	40.0	0.300	0.23	7.0	none	Bug Screen	New
Rear (S)	46.0	0.300	0.23	none	none	Bug Screen	New
Right (W)	100.0	0.300	0.23	none	none	Bug Screen	New
Front (N)	40.0	0.300	0.23	none	none	Bug Screen	New

HVAC SYSTEMS

Qty.	Heating	Min. Eff	Cooling	Min. Eff	Thermostat	Status
1	Central Furnace	80% AFUE	Split Air Conditioner	14.5 SEER	Setback	New

HVAC DISTRIBUTION

Location	Heating	Cooling	Duct Location	Duct R-Value	Status
HVAC System	Ducted	Ducted	Attic	8.0	New

WATER HEATING

Qty.	Type	Gallons	Min. Eff	Distribution	Status
1	Small Instantaneous Gas	0	0.82	Standard	New

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
SMART HOME OF THE DESERT, INC.	9/23/2018
System Name	**Floor Area**
HVAC System	1,575

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	80,000
Total Output (Btuh)	80,000
Output (Btuh/sqft)	50.8
Cooling System	
Output per System	48,000
Total Output (Btuh)	48,000
Total Output (Tons)	4.0
Total Output (Btuh/sqft)	30.5
Total Output (sqft/Ton)	393.8
Air System	
CFM per System	1,600
Airflow (cfm)	1,600
Airflow (cfm/sqft)	1.02
Airflow (cfm/Ton)	400.0
Outside Air (%)	0.0 %
Outside Air (cfm/sqft)	0.00

Note: values above given at ARI conditions

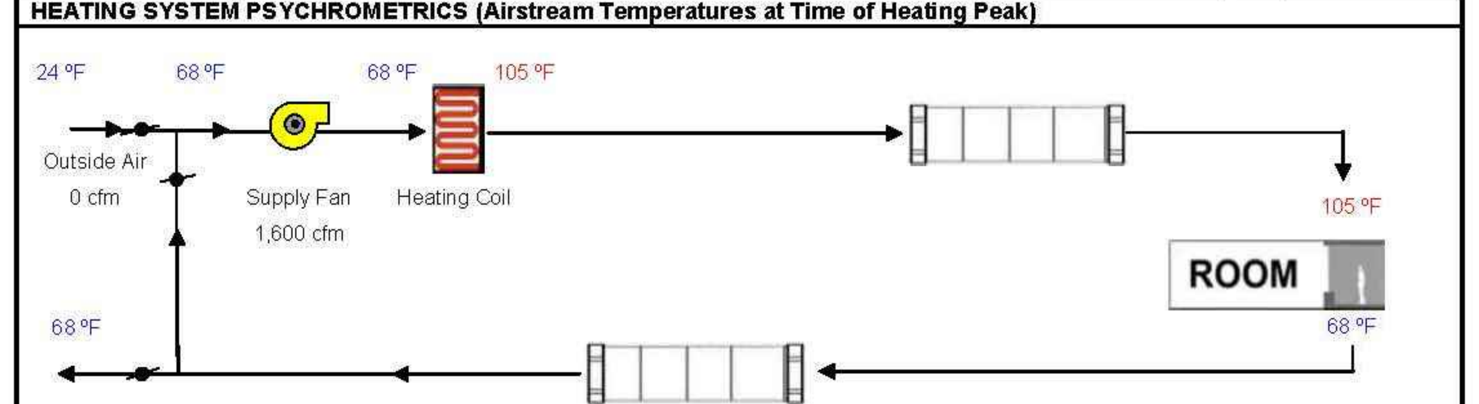
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	Sensible	Latent	CFM	Sensible
Total Room Loads	743	15,029	485	412	15,650
Return Vented Lighting		0			
Return Air Ducts		868			769
Return Fan		0			0
Ventilation	0	0	0	0	0
Supply Fan		0			0
Supply Air Ducts		868			769
TOTAL SYSTEM LOAD		16,764	485		17,189

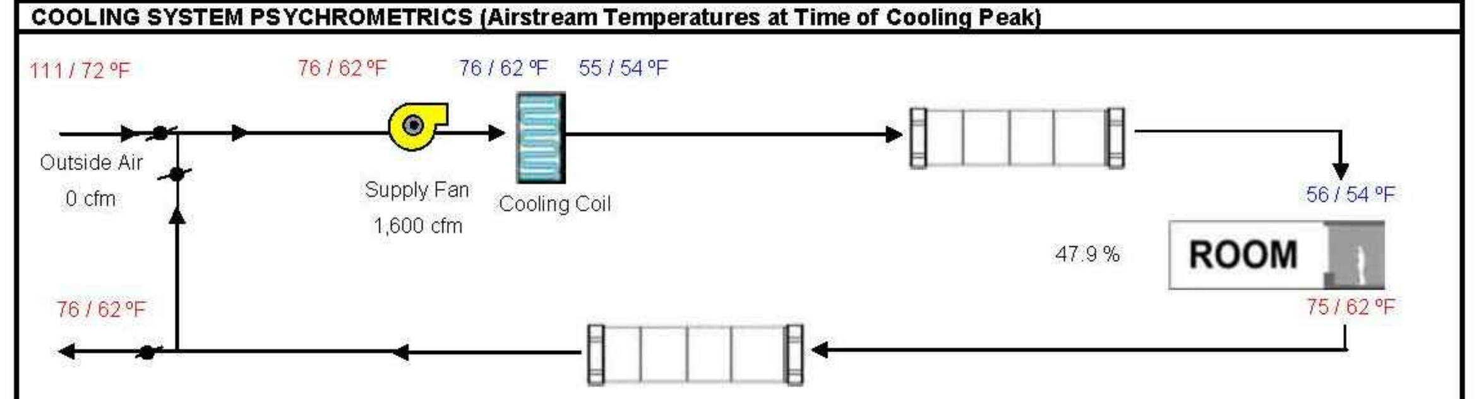
HVAC EQUIPMENT SELECTION

		Sensible	Latent		Sensible
Carrier 24APA548A30		32,594	8,565		80,000
Total Adjusted System Output (Adjusted for Peak Design conditions)		32,594	8,565		80,000
TIME OF SYSTEM PEAK			Aug 3 PM		Jan 1 AM

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



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



2016 Low-Rise Residential Mandatory Measures Summary

§ 150.0(m)13:	**Duct System Sizing and Air Filter Grille Sizing.** Space conditioning systems that use forced air ducts to supply cooling to an occupiable space must have a hole for the placement of a static pressure probe (HSPP), or a permanently installed static pressure probe (PSPP) in the supply plenum. The space conditioning system must also demonstrate airflow ≥ 350 CFM per ton of nominal cooling capacity through the return grilles, and an air-handling unit fan efficacy ≤ 0.58 W/CFM as confirmed by field verification and diagnostic testing, in accordance with Reference Residential Appendix RA3.3. This applies to both single zone central forced air systems and every zone for zonally controlled central forced air systems.*
§150.0(o):	**Ventilation for Indoor Air Quality.** All dwelling units must meet the requirements of ASHRAE Standard 62.2. Neither window operation nor continuous operation of central forced air system air handlers used in central fan integrated ventilation systems are permissible methods of providing whole-building ventilation.
§ 150.0(o)1A:	**Field Verification and Diagnostic Testing.** Whole-building ventilation airflow must be confirmed through field verification and diagnostic testing, in accordance with Reference Residential Appendix RA3.7.
Pool and Spa Systems and Equipment Measures:	
§ 110.4(a):	**Certification by Manufacturers.** Any pool or spa heating system or equipment must be certified to have all of the following: a thermal efficiency that complies with the Appliance Efficiency Regulations; an on-off switch mounted outside of the heater that allows shutting off the heater without adjusting the thermostat setting; a permanent weatherproof plate or card with operating instructions; and must not use electric resistance heating.*
§ 110.4(b)1:	**Piping.** Any pool or spa heating equipment must be installed with at least 36 inches of pipe between the filter and the heater, or dedicated suction and return lines, or built-in or built-up connections to allow for future solar heating.
§ 110.4(b)2:	**Covers.** Outdoor pools or spas that have a heat pump or gas heater must have a cover.
§ 110.4(b)3:	**Directional inlets and time switches for pools.** Pools must have directional inlets that adequately mix the pool water, and a time switch that will allow all pumps to be set or programmed to run only during off-peak electric demand periods.
§ 110.5:	**Pilot Light.** Natural gas pool and spa heaters must not have a continuously burning pilot light.
§ 150.0(p):	**Pool Systems and Equipment Installation.** Residential pool systems or equipment must meet the specified requirements for pump sizing, flow rate, piping, filters, and valves.*
Lighting Measures:	
§ 110.9:	**Lighting Controls and Components.** All lighting control devices and systems, ballasts, and luminaires must meet the applicable requirements of § 110.9.*
§ 110.9(e):	**JA8 High Efficacy Light Sources.** To qualify as a JA8 high efficacy light source for compliance with § 150.0(k), a residential light source must be certified to the Energy Commission according to Reference Joint Appendix JA8.
§ 150.0(k)1A:	**Luminaire Efficacy.** All installed luminaires must be high efficacy in accordance with TABLE 150.0-A.
§ 150.0(k)1B:	**Blank Electrical Boxes.** The number of electrical boxes that are more than 5 feet above the finished floor and do not contain a luminaire or other device must be no greater than the number of bedrooms. These electrical boxes must be served by a dimmer, vacancy sensor control, 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. A JA8-2016-E light source rated for elevated temperature must be installed by final inspection in all recessed downlight luminaires in ceilings.
§ 150.0(k)1D:	**Electronic Ballasts.** 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.** Permanently installed night lights and night lights integral to installed luminaires or exhaust fans must be rated to consume no more than 5 watts of power per luminaire or exhaust fan as determined in accordance with § 130.0(c). Night lights do not need to be controlled by vacancy sensors.
§ 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 not be recessed downlight luminaires in ceilings and must contain lamps that comply with Reference Joint Appendix JA8. Installed lamps must be marked with "JA8-2016" or "JA8-2016-E" as specified in Reference Joint Appendix JA8.*
§ 150.0(k)1H:	**Enclosed Luminaires.** Light sources installed in enclosed luminaires must be JA8 compliant and must be marked with "JA8-2016-E."
§ 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 switched separately from lighting systems.*
§ 150.0(k)2C:	**Interior Switches and Controls.** Luminaires must be switched with readily accessible controls that permit the luminaires to be manually switched 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.** No control must bypass a dimmer or vacancy sensor function if the control is installed to comply with § 150.0(k).
§ 150.0(k)2F:	**Interior Switches and Controls.** Lighting controls must comply with the applicable requirements of § 110.9.
§ 150.0(k)2G:	**Interior Switches and Controls.** An energy management control system (EMCS) may be used to comply with dimmer requirements if it: functions as a dimmer according to § 110.9; meets the Installation Certificate requirements of § 130.4; meets the EMCS requirements of § 130.5(f); and meets all other requirements in § 150.0(k)2.
§ 150.0(k)2H:	**Interior Switches and Controls.** An EMCS may be used to comply with vacancy sensor requirements in § 150.0(k) if it meets all of the following: it functions as a vacancy sensor according to § 110.9; the Installation Certificate requirements of § 130.4; the EMCS requirements of § 130.5(f); and all other requirements in § 150.0(k)2.
§ 150.0(k)2I:	**Interior Switches and Controls.** A multiscene programmable controller may be used to comply with dimmer requirements in § 150.0(k) if it provides the functionality of a dimmer according to § 110.9, and complies with all other applicable requirements in § 150.0(k)2.

2016 Low-Rise Residential Mandatory Measures Summary

*NOTE: Low-rise residential buildings subject to the Energy Standards must comply with all applicable mandatory measures, regardless of the compliance approach used. Review the respective section for more information. *Exceptions may apply.*
(Revised 04/2017)

Building Envelope Measures:	
§ 110.6(a)1:	**Air Leakage.** Manufactured fenestration, exterior doors, and exterior pet doors must limit air leakage to 0.3 cfm/ft² or less when tested per NFRC-400 or ASTM E283 or AAMA/WDMA/CSA 101/I.S.2/A440-2011.*
§ 110.6(a)5:	**Labeling.** Fenestration products must have a label meeting the requirements of § 10-111(a).
§ 110.6(b):	**Field fabricated exterior doors and fenestration** products must use U-factors and solar heat gain coefficient (SHGC) values from TABLES 110.6-A and 110.6-B for compliance and must be caulked and/or weatherstripped.*
§ 110.7:	**Air Leakage.** All joints, penetrations, and other openings in the building envelope that are potential sources of air leakage must be caulked, gasketed, or weather stripped.
§ 110.8(a):	**Insulation Certification by Manufacturers.** Insulation specified or installed must meet Standards for Insulating Material.
§ 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) when the installation of a cool roof is specified on the CF1R.
§ 110.8(j):	**Radiant Barrier.** A radiant barrier must have an emittance of 0.05 or less and be certified to the Department of Consumer Affairs.
§ 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):	**Above Grade Wall Insulation.** Minimum R-13 insulation in 2x4 inch wood framing wall or have a U-factor of 0.102 or less (R-19 in 2x6 or U-factor of 0.074 or less). Opaque non-framed assemblies must have an overall assembly U-factor not exceeding 0.102, equivalent to an installed value of R-13 in a wood framed assembly.*
§ 150.0(d):	**Raised-floor Insulation.** Minimum R-19 insulation in raised wood framed floor or 0.037 maximum U-factor.*
§ 150.0(f):	**Slab Edge Insulation.** Slab edge insulation must meet all of the following: have a water absorption rate, for the insulation material alone without facings, no greater than 0.3%; have a water vapor permeance no greater than 2.0 perm/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 1-16, 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, Decorative Gas Appliances, and Gas Log Measures:	
§ 150.0(e)1A:	**Closable Doors.** Masonry or factory-built fireplaces must have a closable metal or glass door covering the entire opening of the firebox.
§ 150.0(e)1B:	**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)1C:	**Flue Damper.** Masonry or factory-built fireplaces must have a flue damper with a readily accessible control.*
§ 150.0(e)2:	**Pilot Light.** Continuous burning pilot lights and the use of indoor air for cooling a firebox jacket, when that indoor air is vented to the outside of the building, are prohibited.
Space Conditioning, Water Heating, and Plumbing System Measures:	
§ 110.0-§ 110.3:	**Certification.** Heating, ventilation and air conditioning (HVAC) equipment, water heaters, showerheads, faucets, and all other regulated appliances must be certified by the manufacturer to the 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 unitary heating or cooling systems not controlled by a central energy management control system (EMCS) must have a setback thermostat.*
§ 110.3(c)5:	**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)5.
§ 110.3(c)7:	**Isolation Valves.** Instantaneous water heaters with an input rating greater than 6.8 kBTU/hr (2 kW) must have isolation valves with hose bibbs or other fittings on both cold water and hot water lines of water heating systems to allow for water tank flushing when the valves are closed.
§ 110.5:	**Pilot Lights.** Continuously burning pilot lights are prohibited for natural gas: fan-type central furnaces; household cooking appliances (appliances without an electrical supply voltage connection with pilot lights that consume less than 150 Btu/hr are exempt); and pool and spa heaters.*
§ 150.0(h)1:	**Building Cooling and Heating Loads.** Heating and/or cooling loads are calculated in accordance with ASHRAE Handbook, Equipment Volume, Applications Volume, and Fundamentals Volume; SMACNA Residential Comfort System Installation Standards Manual; or ACCA Manual J using design conditions specified in § 150.0(h)2.

Mike Mendoza
Design Principal
73-900 Dinah Shore Drive
Suite 202
Palm Desert, CA 92211

Revisions	Date
Plan Check Revisions 1	00-00-2018

SMART HOMES OF THE DESERT INC

Owner Name:
SMART HOME OF THE DESERT, INC.
Phone No. 1-(760) 999-0999
P.O. Box 1313
Desert Hot Springs, CA 92240
gilberto@smarthomesotd.com

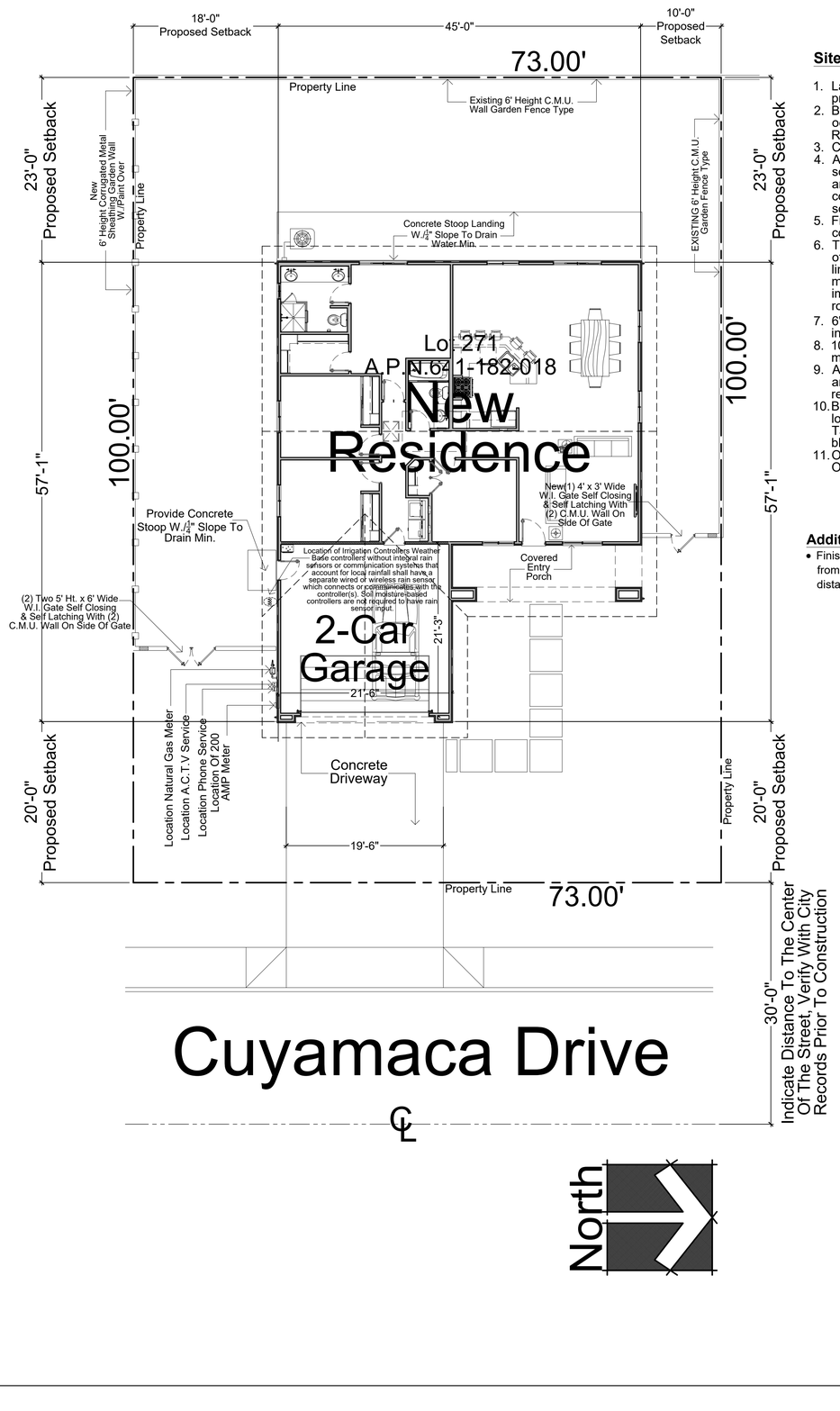
Job Address:
Lot No. 271 Cuyamaca Drive
Desert Hot Springs, CA 92240

Sheet Name:
Title 24 Report
Mandatory Measures

Date: OCTOBER-2018
Drawn By: Mike Mendoza
Sign By:

Sheet Number:
T1.03

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



Site Plan

Site Notes:

1. Landscape and irrigation must be completely installed prior to issuance of certificate of occupancy.
2. Block wall required to issuance of certificate of occupancy, according to City Ordinance, Block Wall Require Separate Permit.
3. Chain Link Fence shall NOT Be Permitted.
4. A/C Condenser Unit must be visually and acoustically screened the method of screening must be functionally and architectually compatible in terms of materials, color shape and size. Chain Link Shall not be used to screen A/C Unit.
5. Front Yard Landscape must have 100% ground coverage (Leg Rock, Gravel and or Plant Material).
6. Trees and shrubs shall can be located on public right of way trees planted near public curbs shall have limited root structure and shall be installed in such manner as to prevent physical damage to any public improvements (Sidewalks, Curbs & Gutters). a deep root system shall be used.
7. 6'-0" Block Wall Fence must be completed prior to final inspection.
8. 100% front ground coverage, landscaping and irrigation must be installed prior to final inspection.
9. All gates shall swing outward, away from the backyard area. This will meet future pool requirements and not require gates to be change.
10. Block walls not to exceed 6'-0" in Height from the lowest side.
    Tan Precision, slump-stone or stucco both sides for block wall permitted, Grey Block Wall Prohibited.
11. Outdoor Lightning to comply with City Nite Sky Ordinance.

Additional Note:

- Finish Grade Around the structure/addition shall slope away from the foundation a minimum of 5 % for a minimum distance of 10' (Feet). R401.3 CRC

Tabulation Area:

Based on Square Feet and Percentage

Site Area:			
7,338.0 Square Feet	=	100.00	%
Building Area: Garage Area: Covered Entry:			
1,575.0 Sq. Ft. 458.0 Sq. Ft. 165.0 Sq. Ft.			
Total Building Area: 2,198.0 Sq. Ft.	=	29.95	%
Driveways and Parking Areas:			
400.0 Sq. Ft.	=	5.45	%
Open Space Area (Landscaping & Recreation)			
4,740.0 Sq. Ft.	=	64.59	%

Unauthorized Changes & Uses:

The designer preparing these plans will not be responsible for, or liable for, unauthorized changes to uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

Residential Mandatory Measures:

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

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

Projections:
Cornices, eave overhangs, exterior balconiesand similar projections extending beyond the floor area shall conform to the requirements of this section and Section 1406 Exterior egress balconies and exterior exit stairways shall also comply with Section 1014.5 and 1023.1 respectively. Projections shall not extend beyond the distance determined by the following two methods, whichever result in the lesser projection:
1. A point one-third the distance to the lot line from an assumed vertical plane located where protected openings are required in accordance with Section 704.8.
2. More than 12 inches (305 mm.) into areas where openings are prohibited. C.B.C. Chapter 7 Section 704.2.

Utility Companies:

Power:	Southern California Edison 73-540 Highway 111 Palm Desert, CA 92260 Telephone 1-(800) 655-4555
Water:	Mission Springs, Water District 66575 Second Street Desert Hot Springs, CA 92240 Telephone: 1-(760) 329-5169 Fax Number; 1-(760) 329-2482
Gas Company	Southern California Gas Company Telephone: 1-(800) 427-2200
Cable T.V.	Warner-Cable Road Runner 81-557 Dr. Carreon Boulevard # C-7 Indio, CA 92201 Telephone: 1-(866) 340-0183 Telephoen: 1-(760) 340-2225
School District	Palm Springs School Unified District 980 East Tahquitz Canyon Way Palm Springs, CA 92276 Telephone: 1-(760) 416-6000
Permit Assistance Center	City Hall Building & Safety Dpto. 65-950 Pierson Boulevard Desert Hot Springs, CA 92240 Phone Number: 1-(760) 329-6411

811 Know what's below. Call 811 before you dig.

Storm Water And Retention:
Projects disturbing less than one acre shall comply with Section 4.106.2 of The California Green Building Standards Code (CGBC).
Compliance:

Use STRAW WATTLES

Straw Wattles or Fiber Rolls are very similar to Straw Bales; however, they come in roles and are design to be placed along the contours of a slope to prevent sediment discharge. Straw Wattles allow water to seep through the material while preventing the transfer of sediment. Proper installation of Straw Wattles requires the Wattles to be entrenched into the ground at least 2" - 3" deep and stacked roughly every six feet (6') Minimum Stakin requirements of Straw Wattles increases on a slope to roughly one stake every Four Feet (4') Additionally, the proper Layout of Straw Wattles requires the ends to be looped up in a 'J' fashion on each end to prevent the water plus suspended sediment from just flowing around the ends, thus defeating their intended purpose.

Name & Address of Owner:

SMART HOMES OF THE DESERT
Mr. GILBERTO FAVELA
15060 TARBUTTON ROAD
DESERT HOT SPRINGS, CA 92240
Phone Number: 1-(760) 999-0999
E-mail Address: gilberto@smarthomesotd.com

Name & Address Of Applicant:

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E-mail Address: gilberto@smarthomesotd.com

A. P. N. Number = 641-182-018

Job Address:
Lot No. 271 CUYAMAMACA DRIVE
DESERT HOT SPRINGS, CA 92240

Legal Description:
Lot 271 POR. S.W. 31 T. 2 S. R., 5 E.
CITY OF DESERT HOT SPRINGS M.B. 27/46-48 DESERT SPRINGS STATES Map Book 641 Page 18 Riverside County Records, Riverside, California.

Title Exhibit:	Single Family Residence	
Conditioning Living Area:	1,575.0 Sq. Ft.	
Two Car Garage Area:	458.0 Sq. Ft.	
Covered Entry Area:	165.0 Sq. Ft.	
Lot Area:	7,338.0 Sq. Ft.	0.168 Acres
Zoning Classification:	R-L	
Sewage:	On City Sewer	
Thomas Bros. Map Page / Grid	Page 696	Grid H5

Code Requirements:

This Project Comply with:

2016	California Building Code
2016	California Electrical Code
2016	California Mechanical Code
2016	California Plumbing Code
2016	California Energy Code
2016	California Fire Code
2016	California Residential Code
2016	**Green Building Code**

All other State and Local Codes that are applicable.

Occupancy:	R-3-U/L
Type of Construction	V-B
Sprinklers Required	YES

If Finish Floor of dwelling is not above upstream manhole provide Backwater Valve per C.P.C. 710. Fixtures above such elevation shall not discharge through the backwater valve

Note:

- Foundation Elevation Must Be 18" (Inches) Above Top Of Curb Or Crown Of Street Unless Engineered Design Provides Equivalent Protection. (1805 CBC Ord. amendment)
- Minimum 50 % Front Yard Landscaping
- Landscape To City Standards
- All Existing Block Walls to be of Sound Construction and 6' high from Proposed Site Side.

Curb and Gutter are Existing Curb Cut For Driveway Approach & City Side Walk Will Be Under A Separate Permit.

Mike Mendoza
Design Principal
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E-Mail Address: m23177@aol.com

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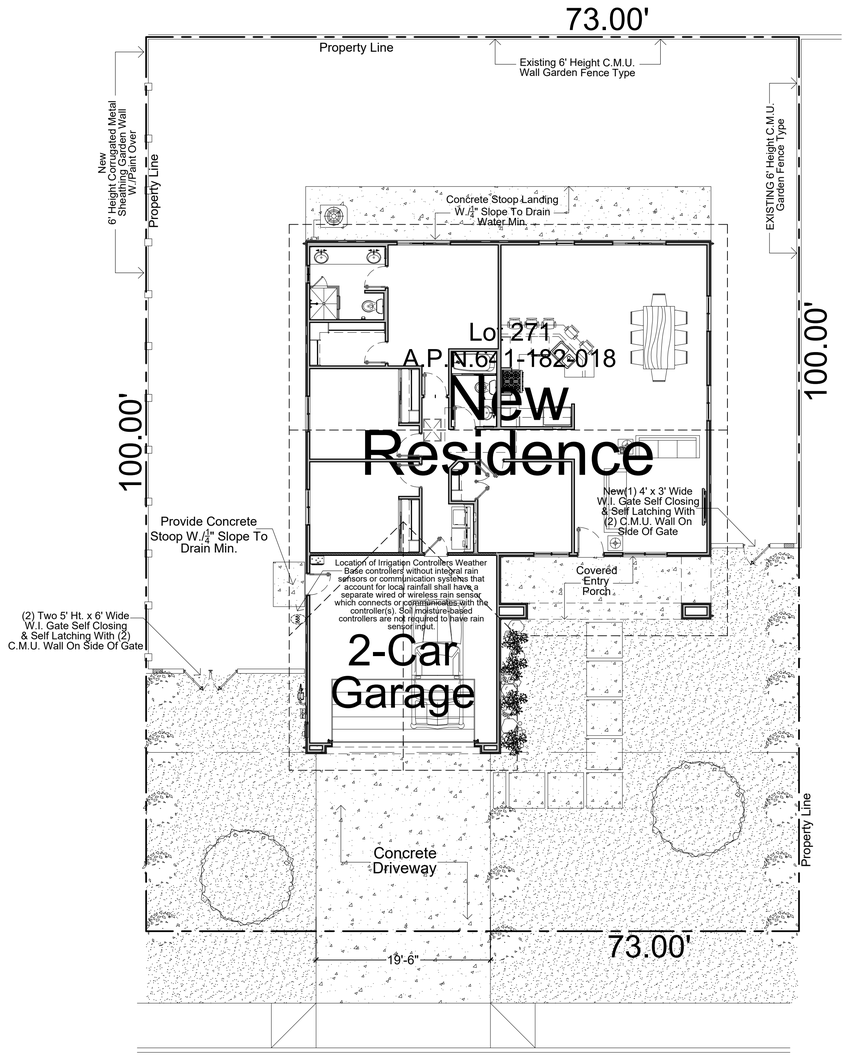
Sheet Name:
Site Plan
& General Notes

Date: OCTOBER-2018
Drawn By: Mike Mendoza
Sign By:

Sheet Number:
SP.01

Scale: 1/8" = 1'-0"

Conceptual Landscape Plan



Cuyamaca Drive

℄

North

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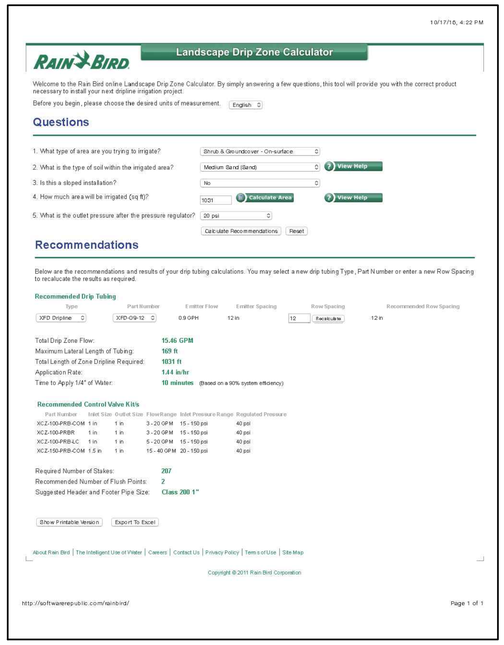
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RAIN BIRD Landscape Drip Zone Calculator

Welcome to the Rain Bird online Landscape Drip Zone Calculator. By simply answering a few questions, this tool will provide you with the correct product necessary to install your next dripline irrigation project.

Before you begin, please choose the desired units of measurement. English

Questions

1. What type of area are you trying to irrigate? Shrub & Groundcover - On-surface
2. What is the type of soil within the irrigated area? Medium Sand (Sand) View Help
3. Is this a sloped installation? No
4. How much area will be irrigated (sq ft)? 1031 Calculate Area View Help
5. What is the outlet pressure after the pressure regulator? 20 psi

Calculate Recommendations Reset

Recommendations

Below are the recommendations and results of your drip tubing calculations. You may select a new drip tubing Type, Part Number or enter a new Row Spacing to recalucate the results as required.

Recommended Drip Tubing

Type	Part Number	Emitter Flow	Emitter Spacing	Row Spacing	Recommended Row Spacing
XFD Dripline	XFD-09-12	0.9 GPH	12 in	12 Recalculate	12 in

Total Drip Zone Flow: 15.46 GPM
Maximum Lateral Length of Tubing: 169 ft
Total Length of Zone Dripline Required: 1031 ft
Application Rate: 1.44 in/hr
Time to Apply 1/4" of Water: 10 minutes (Based on a 90% system efficiency)

Recommended Control Valve Kits

Part Number	Inlet Size	Outlet Size	Flow Range	Inlet Pressure Range	Regulated Pressure
XCZ-100-PRB-COM	1 in	1 in	3 - 20 GPM	15 - 150 psi	40 psi
XCZ-100-PRBR	1 in	1 in	3 - 20 GPM	15 - 150 psi	40 psi
XCZ-100-PRB-LC	1 in	1 in	5 - 20 GPM	15 - 150 psi	40 psi
XCZ-150-PRB-COM	1.5 in	1 in	15 - 40 GPM	20 - 150 psi	40 psi

Required Number of Stakes: 207
Recommended Number of Flush Points: 2
Suggested Header and Footer Pipe Size: Class 200 1"

Show Printable Version Export To Excel

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http://softwarerepublic.com/rainbird/ Page 1 of 1

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Lot Area:	7,338.0 Sq. Ft.	0.168 Acres
Zoning Classification:	R-L	
Sewage:	On City Sewer	
Thomas Bros. Map Page / Grid	Page 696	Grid H5

Plant Legend

Trees

Symbol	Qty.	Name	Water Usage	Size
	2	Olea Europea Olive Tree (Fruitless)	Medium	24" Box

Shurbs

Symbol	Qty.	Name	Water Usage	Size
	15	Xylosma Congestum 'Compacta' Compact Shiny Xilosma	M	5 Gallon
	4	Wheeler's Dwarf Pittosporaceae (Pittosporums)	M	5 Gallon

Ground Covers

Symbol	Qty.	Name	Comments
Gravel		Gold Gravel 3/4" - 1-1/2" To Be Selected	2" Deep In All Planters
	6	Boulders "Cresta" 2' to 3' Dia.	Bury ⅓ beneath finish Grade

Section 4.304 - OUTDOOR WATER USE

Division 4.3 – WATER EFFICIENCY AND CONSERVATION (Outdoor Water Use)
4.304.1 Irrigation Controllers
Automatic irrigation system controllers for landscaping provided by the builder and installed at the time of final inspection shall comply with the following:
1. Controllers shall be weather – or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather changes.
2. Weather-based controllers without integral rain sensors or communication systems that account for rainfall shall have a separate wired or wireless rain
sensor that
Note:
More Information regarding controller function and specifications is available from the Irrigation Association at http:/www.irrigation.org/SWAT/industry/ia-tested.asp.

Solar Panels **(Deferral Submittal)** Under Separate Permit

Any Proposed Fencing Shall Be Under Separate Permit and Review.

Exterior color finishes shall be a neutral pallet & complementary to the surrounding areas.

Mike Mendoza
Design Principal
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E-Mail Address: m23177@aol.com

Revisions	Date
Plan Check Revisions 1	00-00-2018

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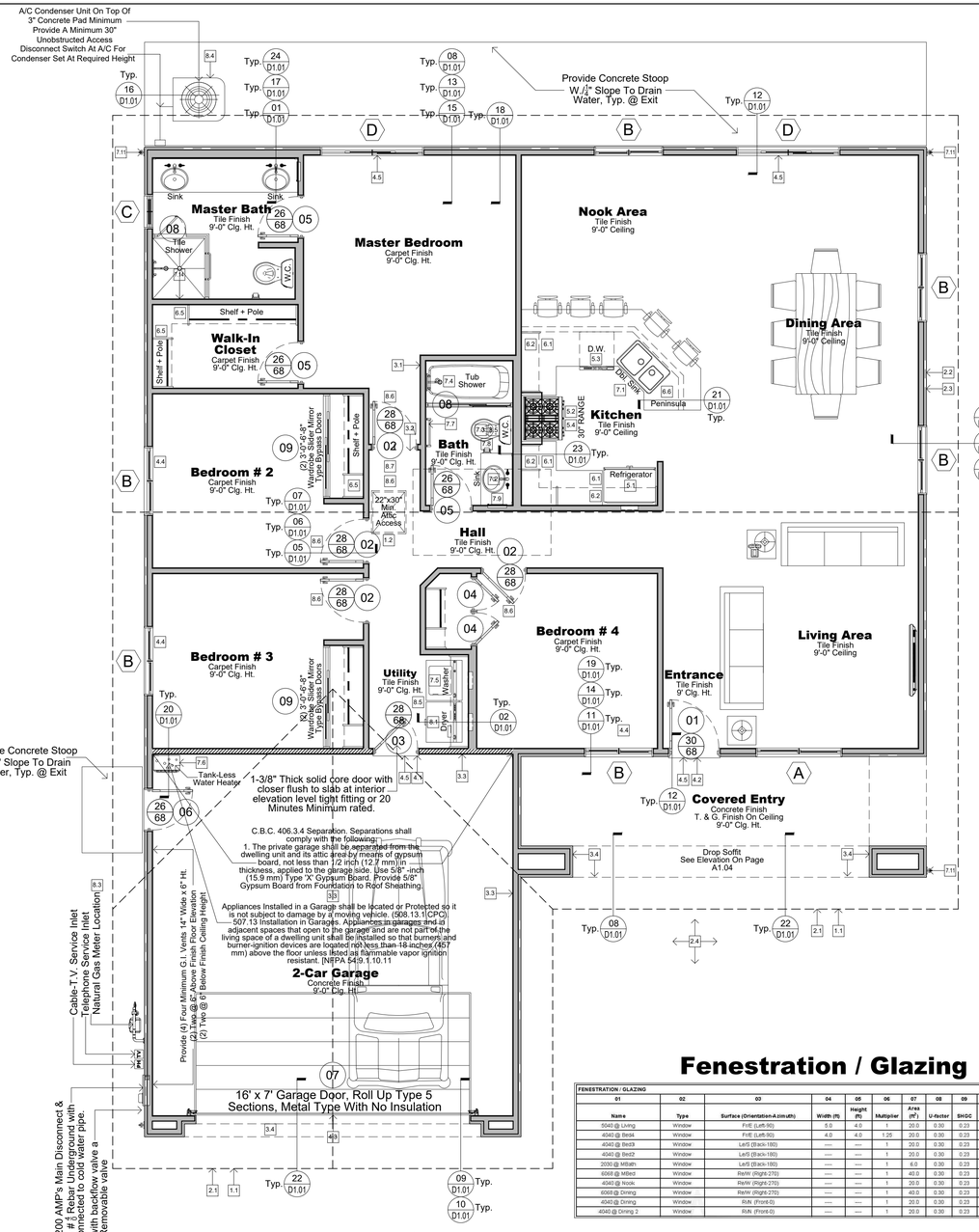
Sheet Name:
Conceptual Landscape Plan & General Notes

Date: OCTOBER-2018
Drawn By: Mike Mendoza
Sign By:

Sheet Number:
SP.02

Scale: 1/8" = 1'-0"



6 - Cabinets and Counters

6.1 Base Cabinets with Countertop - Verify height with Owner prior to Fabrication.

6.2 Upper Cabinets shown dashed - Refer to Interior Elevations.

6.3 Coat Closet Shelves - Refer to Cabinet Company Drawings.

6.4 Island Base Cabinets with Countertop - Verify Height with Owner Prior to Fabrication.

6.5 Shelf and Pole - Material and Finish to be Selected by Owner.

6.6 Pantry With (5) Five 18" Deep Built In Shelves - Material and Finish to be Selected by Owner.

7 - Plumbing

7.1 Double Hole Kitchen Sink with Garbage Disposal. Verify Dimensions, Type and Model.

7.2 Bathroom Sink.

7.3 Toilet with 30" Minimum Clear Space in Width and 24" Minimum Clear Space in Front.

7.4 60" x 32" Minimum Shower Cement, Fiber-Cement or Glass Mat Gypsum Backer in Compliance with ASTM C 1178, C 1288 or C 1325 and Installed in Accordance to the Manufacturer Recommendations to 72" Ht. Finish per Builder Materials other than Structural Elements to be Moisture Resistant (Verify dimensions with manufacturer specifications).
Shatter Resistant enclosure - Fully tempered laminated safety glass or approved

7.5 Washer Space - Provide Recessed Hot and Cold Water Bibbs, Waste Drain, and G.I. Pan with Drain.

7.6 50 Gallon Gas Water Heater with built in - R-16 Insulation & External Blanket on 18" High Wood framed Platform. Provide Non - Rigid Connections, Seismic Strap for Lateral and P. & T. Relief Valve with Drain to Outside; Refer to Title 24 for Additional Requirements.

7.7 Provide Towel Bar.

7.8 Paper Holder

7.9 Recessed, Medicine Cabinet (Medicine Cabinet Top at 72" Ht. F.F.F.) mirror type at Baths (Size and finish per General Contractor).

7.10 Hose Bibb with shut-off valve & anti-siphon valve at entry.

7.11 Additional Hose Bibb with anti-siphon valve.

7.12 Hot Mopped Shower Pan with Mudset Ceramic Tile Floor and Wall Finish to Lid - Provide Shatter Resistant Glass Enclosure - Shower Head at +78" A.F.F.

7.13 14" Square - Recessed Soap Dish, Bottom At 48" F.F.F. (Tile Finish).

8 - Mechanical / Electrical

8.1 **Dryer Space - Provide 4" Diameter Vent with Maximum 14'-0" Run and Maximum (2) 90 Degree Bends - Vents to the Outside Air Per C.M.C. - Shown Dashed.**

8.2 Electrical Panel/Meter - Exact Size and Location to be Determined by Electrical Contractor.

8.3 Gas Meter - Verify Exact Location (I.P.M.R.).

8.4 Forced Air Unit - Exact Location To Be determined by H.V.A.C. Contractor (I.P.M.R.).

8.5 Exhaust fan capable of Minimum 5 Air Changes per Hour. (Verify with Electrical Plan if Light & Fan combination applies).

8.6 Smoke Detectors: Single or multiple station smoke alarms shall be installed and maintained in Groups R-2, R-2.1. R-3, R-3.1 and R-4 regardless of occupant load at all of the following locations:
1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
2. In each room used for sleeping purposes.

8.7 Carbon Monoxide Alarm:
Shall be 120-Volt with Battery Back-Up (CRC - R315.1.1)
In Dwelling units and in sleeping units within which fuel burning appliances are installed and in dwelling units that have attached garages an approved Carbon Monoxide Alarm shall be installed at all of the following locations:
a. On the Ceiling or Wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
b. On every level of a dwelling unit including basements. (CRC - R315).

8.8 Appliances Installed in a Garage shall be located or Protected so it is not subject to damage by a moving vehicle. (508.13.1 CPC).
507.13 Installation in Garages. Appliances in garages and in adjacent spaces that open to the garage and are not part of the living space of a dwelling unit shall be installed so that burners and burner-ignition devices are located not less than 18 inches (457 mm) above the floor unless listed as flammable vapor ignition resistant. [NFPA 54:9.1.10.11

Floor Plan

Building Data:

Conditioning Floor Area:	1,575.0 Sq. Ft.
2-Car Garage Area:	458.0 Sq. Ft.
Covered Entry Area:	165.0 Sq. Ft.
Rear Concrete Slab Area:	270.0 Sq. Ft.

Wall Type

2x Stud Wall

2x4 Stud Perimeter & 2x4 Stud Interior Wall Wood studs @ 16" O.C. with Sound Batt Insulation with (1) One layer of 1/2" Gypsum Board inside & 3-Coats Stucco on the Outside. **R-19 Insulation On Perimeter Walls**

2x Stud Wall

5/8" type "X" gypsum board applied to the garage side to separate the garage from the dwelling unit and the dwelling attic area. Separation to be from the foundation to roof sheathing.

Fenestration / Glazing

FENESTRATION / GLAZING									
01	02	03	04	05	06	07	08	09	10
Name	Type	Surface (Orientation-Azimuth)	Width (ft)	Height (ft)	Multiplier	Area (ft²)	U-factor	SHGC	Exterior Shading
5040 @ Living	Window	FrE (Left-90)	5.0	4.0	1	20.0	0.30	0.23	Insect Screen (default)
4040 @ Bed4	Window	FrE (Left-90)	4.0	4.0	1.25	20.0	0.30	0.23	Insect Screen (default)
4040 @ Bed3	Window	LeS (Back-180)	----	----	1	20.0	0.30	0.23	Insect Screen (default)
4040 @ Bed2	Window	LeS (Back-180)	----	----	1	20.0	0.30	0.23	Insect Screen (default)
2030 @ MBath	Window	LeS (Back-180)	----	----	1	6.0	0.30	0.23	Insect Screen (default)
6068 @ MBed	Window	ReW (Right-270)	----	----	1	40.0	0.30	0.23	Insect Screen (default)
4040 @ Nook	Window	ReW (Right-270)	----	----	1	20.0	0.30	0.23	Insect Screen (default)
6068 @ Dining	Window	ReW (Right-270)	----	----	1	40.0	0.30	0.23	Insect Screen (default)
4040 @ Dining	Window	ReN (Front-0)	----	----	1	20.0	0.30	0.23	Insect Screen (default)
4040 @ Dining 2	Window	ReN (Front-0)	----	----	1	20.0	0.30	0.23	Insect Screen (default)

Exterior & Interior Door Schedule

DOOR MARK	Type Door	WIDTH	HEIGHT	THICK	AREA S.F.	DOOR MAT'L.	GLAZE MAT'L.	GLAZE S.F.	Quantity	REMARKS
01	Exterior	3'-0"	6'-8"	1 3/4"	20.00	SCW	-	-	01	Canyon Custom CC - 14 Traditional Series-Solid Core Door Type-W./Angle Viwer
02	Interior	2'-8"	6'-8"	1 3/4"	17.77	SCW	-	-	04	Canyon Custom CC - 14 Traditional Series
03	Interior	2'-8"	6'-8"	1 3/4"	17.77	SCW	-	-	01	Custom canyon CC-Self Closing, Flush To Slab, Tight Fitting, 20 Min. Fire Rated
04	Interior	2'-0"	6'-8"	1 3/4"	13.33	SCW	-	-	02	Canyon Custom CC - 14 Traditional Series
05	Interior	2'-6"	6'-8"	1 3/4"	17.77	SCW	-	-	03	Canyon Custom CC - 14 Traditional Series
06	Exterior	2'-6"	6'-8"	1 3/4"	15.55	ACW	-	-	01	Aluminum Clad Wood Door Exterior Rated Tight Fitting
07	Exterior	16'-0"	7'-0"	1"	112.0	ALU	-	-	01	Aluminum (5) Five SectionRoll Up Garage Door (Verify Model, Type & Selection)
08	Interior	2'-0"	6'-0"	1/2"	12.00	SGL	-	-	02	Safety Glass Shower Door Eclosure-Tempered Glass Location Required-Min. 22" Wide
09	Interior	(2) 3'-0"	6'-8"	1"	40.00	ALU	Yes	40.0	01	Aluminum By-Pass Mirror Type Wardrobe Doors Powder White Clad Finish On Frame
10	-	-	-	-	-	-	-	-	-	-
11										

DOOR SCHEDULE - MATERIAL ABBREVIATIONS

SCW = SOLID CORE WOOD	IHM = INSULATED HOLLOW METAL
ACW = ALUMINUM CLAD WOOD	SGL = SAFETY GLASS DOOR-SHOWER ENCLOSURE-BY MANUFACUTRER
ALU = ALUMINUM	OWI = ORNAMENTAL WROUGHT IRON
DOOR SCHEDULE - GENERAL NOTES	HCW = HOLLOW CORE WOOD DOOR

1) COORDINATE DOOR SWING WITH FLOOR PLAN-NOTED
2) COORDINATE ACTIVE DOOR OF MULTIPLE DOOR UNITS w/ A2.2 FLOOR PLAN-NOTED

Harware: M-TEK or Approved Equal Brush Nickel Finish Typical.

A — Window Schedule

Mark	Qty.	Window Size	Type	Material	Frame	Finish	Glazing	Screen	Remarks
A	1	5'-0" x 4'-0"	Slider	Vinyl	Vinyl	White	Dual Glass	YES	Slider Glass Window 'X-O' Type Glass Location
B	6	4'-0" x 4'-0"	Slider	Vinyl	Vinyl	White	Dual Glass	Yes	Slider Glass Window 'X-O' Type Glass Location
C	1	2'-0" x 3'-0"	Single Hung	Vinyl	Vinyl	White	Dual Glass	YES	Single Hung Glass Window 'X-O' Type Tempered Glass Location
D	2	6'-0" x 6'-8"	Slider	Vinyl	Vinyl	White	Dual Glass	YES	Slider Glass Door 'X-O' Type Tempered Glass Location

Window Need To Be **JELD-WEN** Builders Vinyl (V-2500) To Meet CRC310.1 Code Criteria Or Approved Equal Per Title 24 Report The Load Resistance of Glass Under Uniform Load Shall Be Determined In Accordance With ASTM E 1300.

Additional Notes:

1. Elements of Appliances which create a glow, spark or flame shall be located a minimum of 18" -Inches above grade floor [CRC 305.1]
2. **Exterior Wall Construction Assembly. A Minimum Of One Layer Of No.15 Asphalt Felt, Free From Holes And Breaks, Complying With ASTM D 226 For Type 1 Felt Shall Be Applied Over Stud Walls. Specify That (2) Two Layers Of Grade 'D' Or 60 Minute Grade 'D' Paper Shall Be Applied Over All Wood Base Sheathing. [CRC R703.2]**
3. All New Windows and Doors shall have a Label Indicating the U-Factor and SHGC. Comply with Energy Documentation Requirements.
4. Egress Doors shall be openable from inside the dwelling without the use of a key or special knowledge of effort. R311.2 CRC.
5. Landings with doors that do not swing over the landing may have a difference in elevation of 7-3/4" Maximum below the trop of the treshold. R311.3.1 CRC.
6. **R310.2.2 Window sill height.** Where a window is provided as the emergency escape and rescue opening, it shall have the bottom of the clear opening not greater than 44 inches (1118 mm) measured from the floor; where the sill height is below grade, it shall be provided with a window well in accordance with Section R310.2.3.

1 - Spatial

1.1 Dashed Line of floor, wall and/or roof avobe.

1.2 **22" x 30" Minimum** Attic Access - Per R807.1 CRC.

2 - Exteriors

2.1 Concrete Roof Tile shall be Eagle Class 'A' Concrete Roofs I.C.C. Report # ESR-1900 (Install per manufactured specifications over (1) One Layer of Pound Felt. For Installation see manufacturer specifications.
Per Title 24 Report 3118 TERRACOTTA GOLD Profile Capistrano
Description: Hues of Terracotta Gold Flashes
Category: Standard Select
Ref = 0.37 EMI = 0.92 SRI = 42.00 A-SRI = 35.00 CRRC = 0918-0002

2.2 (1) One Coat Stucco System, must include one layer of water resistive barrier, having a flame-spread index of 25 or less and smoke-developed index of 450 or less. The water resistive barrier must be installed over the sheathing in accordance with IBC Section 1404.2 EPS insulation board with a nominal 1.5 pcf (24 kg/m) density must be installed at a 1-inch (25 mm) thickness horizontally in running bond to the sheathing.
The lath insulation board and water resistive barrier must be positively fastened to the studs framing. The Stucco System must be applied at a ½ inch (9.5 mm) minimum thickness. ICC-ES Evaluation Report ESR-1194.

2.3 2x Stud Wall Framing. Typical U.N.O.

2.4 Hardscape - refer to Site Plan Page SP.01.

3 - Interiors

3.1 2 x Stud Framing, Typical U.N.O.

3.2 Line of Floor Material Change.

3.3 **406.3.4 Separation.** For other than private garages adjacent to dwelling units, the separation of private garages from other occupancies shall comply with Section 508. Separation of private garages from dwelling units shall comply with Sections 406.3.4.1 through 406.3.4.3.
406.3.4.1 Dwelling unit separation. The private garage shall be separated from the dwelling unit and its attic area by means of gypsum board, not less than 1/2 inch (12.7 mm) in thickness, applied to the garage side.Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than a 5/8-inch (15.9 mm) Type X gypsum board or equivalent and 1/2-inch (12.7 mm) gypsum board applied to structures supporting the separation from habitable rooms above the garage. Door openings between a private garage and the dwelling unit shall be equipped with either solid wood doors or solid or honeycomb core steel doors not less than 13/8 inches (34.9 mm) in thickness, or doors in compliance with Section 716.5.3 with a fire protection rating of not less than 20 minutes. Doors shall be self-closing and self-latching.

3.4 Soffit or Line of Ceiling Change - Refer to Reflected Ceiling Plan.

4 - Openings

4.1 R302.5.1 Openings protection.Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3⁄8 inches (35 mm) in thickness, solid or honey comb core steel doors not less than 1 3⁄8 inches (35 mm) thick, or 20-minute fire-rated doors. Doors shall be self-closing and self -latching.Device.
Provide 5/8" Type 'X' Gypsum Board. See Garage For Location
Per C.R.C. (R302.5.1 Thru R302.5.3 & Table R302.6)
Ducts in a private garage and ducts penetrating the walls or ceilings separating the dwelling unit, including its attic area, from the garage shall be constructed of sheet steel of not less than 0.019 inches (0.48 mm), in thickness, and shall have no openings into the garage.

4.2 Custom Entry Door 1-3/4" Thick, Solid Core Door with an Angle Viewer, deadbolt and Weather Strip.- Refer to exterior Elevations.

4.3 Sectional Overhead Garage Door - Refer to Exterior Elevations.

4.4 All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.530 m2). R310.1.1 Minimum opening area.
Maximum Finished Opening Height of 44 Inches From The Floor.

4.5 All swinging doors and window openings to the exterior or to unconditioned areas such such as garages shall be fully weather stripped gasketed or otherwise treated to limit infiltration.

5 - Appliances

5.1 Built - In Refrigerator - Provide Recessed Cold Water Bibb for Ice Maker - Verify Dimensions with Manufacturere's Specifications.

5.2 Gas Range with Exhaust Vent Vent to Outside Air - Verify Dimensions with Manufacturer's Specifications.

5.3 Built - In - Dish Washer - Verify Dimensions with Manufacturer's Specifications.

5.4 Built - In - Microwave Oven - Hood Combination Verify Dimensions with Manufacture's Specifications.

ARCHITECTURAL NOTES:

1. R309.1 Floor surface. Garage floor surfaces shall be of approved noncombustible material. The area of floor used for parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway.
2. R309.4 Automatic garage door openers. Automatic garage door openers, if provided, shall be listed in accordance with UL 325. See Health and Safety Code Sections 19890 and 19891 for additional provisions for residential garage door openers.
3. R806.3 Vent and insulation clearance. Where eave or cornice vents are installed, insulation shall not block the free flow of air. A minimum of a 1-inch (25 mm) space shall be provided between the insulation and the roof sheathing and at the location of the vent.
4. R903.2.1 Locations. Flashing(s) shall be installed at wall and roof intersections, wherever there is a change in roof slope or direction and around roof openings. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019 inch (0.5 mm) (No.26 galvanized sheet).
5. R807.1 Attic access. Buildings with combustible ceiling or roof construction shall have an attic access opening to attic areas that exceed 30 square feet (2.8 m2) and have a vertical height of 30 inches (762 mm) or greater. The vertical height shall be measured from the top of the ceiling framing members to the underside of the roof framing members. The rough-framed opening shall not be less than 22 inches by 30 inches (559 mm by 762 mm) and shall be located in a hallway or other readily accessible location. When located in a wall, the opening shall be minimum of 22 inches wide by 30 inches high. When the access is located in a ceiling, minimum unobstructed headroom in the attic space shall be 30 inches (762 mm) at some point above the access measured vertically from the bottom of ceiling framing members. See the California Mechanical Code for access requirements where mechanical equipment is located in attics.
6. R307.2 Bathtub and shower spaces. Bathtub and shower floors and walls above bathtubs with installed shower heads and in shower compartments shall be finished with a nonabsorbent surface. Such wall surfaces shall extend to a height of not less than 6 feet (1829 mm) above the floor
7. R702.3.7.1 Limitations. Water resistant gypsum backing board shall not be used where there will be direct exposure to water, or in areas subject to continuous high humidity.
8. R703.7.2.1 Weep screeds. A minimum 0.019-inch (0.5 mm) (No. 26 galvanized sheet gage), corrosion-resistant weep screed or plastic weep screed, with a minimum vertical attachment flange of 3½ inches (89 mm) shall be provided at or below the foundation plate line on exterior stud walls in accordance with ASTM C 926. The weep screed shall be placed a minimum of 4 inches (102 mm) above the earth or 2 inches (51 mm) above paved areas and shall be of a type that will allow trapped water to drain to the exterior of the building. The weathe-resistant barrier shall lap the attachment flange. The exterior lath shall cover and terminate on the attachment flange of the weep screed.
9. 2406.4.5 Glazing and wet surfaces. Glazing in walls, enclosures or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers and indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) measured vertically above any standing or walking surface shall be considered a hazardous location. This shall apply to single glazing and all panes in multiple glazing.
10. Tempered Glass Required on Glazing that is more than 60 inches (1524 mm), measured horizontally and in a straight line, from the water's edge of a bathtub, hot tub, spa, whirlpool, or swimming pool.
11. Upon completion of the installation of the insulation a card certifying that the insulation has been installed in conformance with the requirements of this regulations shall be completed by the insulation applicator and by the builder. This Insulation compliance card shall be posted at conspicuous location within the dwelling. Provide radiant barrier @ vertical walls of attic space.
12. Owens Corning R-21 - 5-1/2" (Inches) thickness R-38 -12" un-faced ASTM C 665, Type 1. ASTM E-136 (Noncombustible), ASTM E-84 (Flame Spread 25 or Less)
13. All exterior dimensions given to the face of concrete stem see structural drawings for shear materials to determine out to out walls dimensions.
14. R302.5.1 Openings protection.Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage and residence shall be equipped with solid wood doors not less than 1 3⁄6 inches (35 mm) in thickness, solid or honey comb core steel doors not less than 1-3/8; inches (35 mm) thick, or 20-minute fire-rated doors. Doors shall be self-closing and self -latching.
Exception: Where the residence and the private garage are protected by an automatic residential fire sprinkler system in accordance with Sections R309.6 and R313, other door openings between the private garage and the residence need only be self-closing and self-latching. This exception shall not apply to rooms used for sleeping purposes.
15. **R302.5.2 Duct penetration. Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material and shall have no openings into the garage.**

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Revisions	Date
Plan Check Revisions 1	00-00-2018

SMART HOMES OF THE DESERT INC

Owner Name:
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gilberto@smarthomesotd.com

Job Address:
Lot No. 271 Cuyamaca Drive
Desert Hot Springs, CA 92240

Sheet Name:
Floor Plan & General Notes

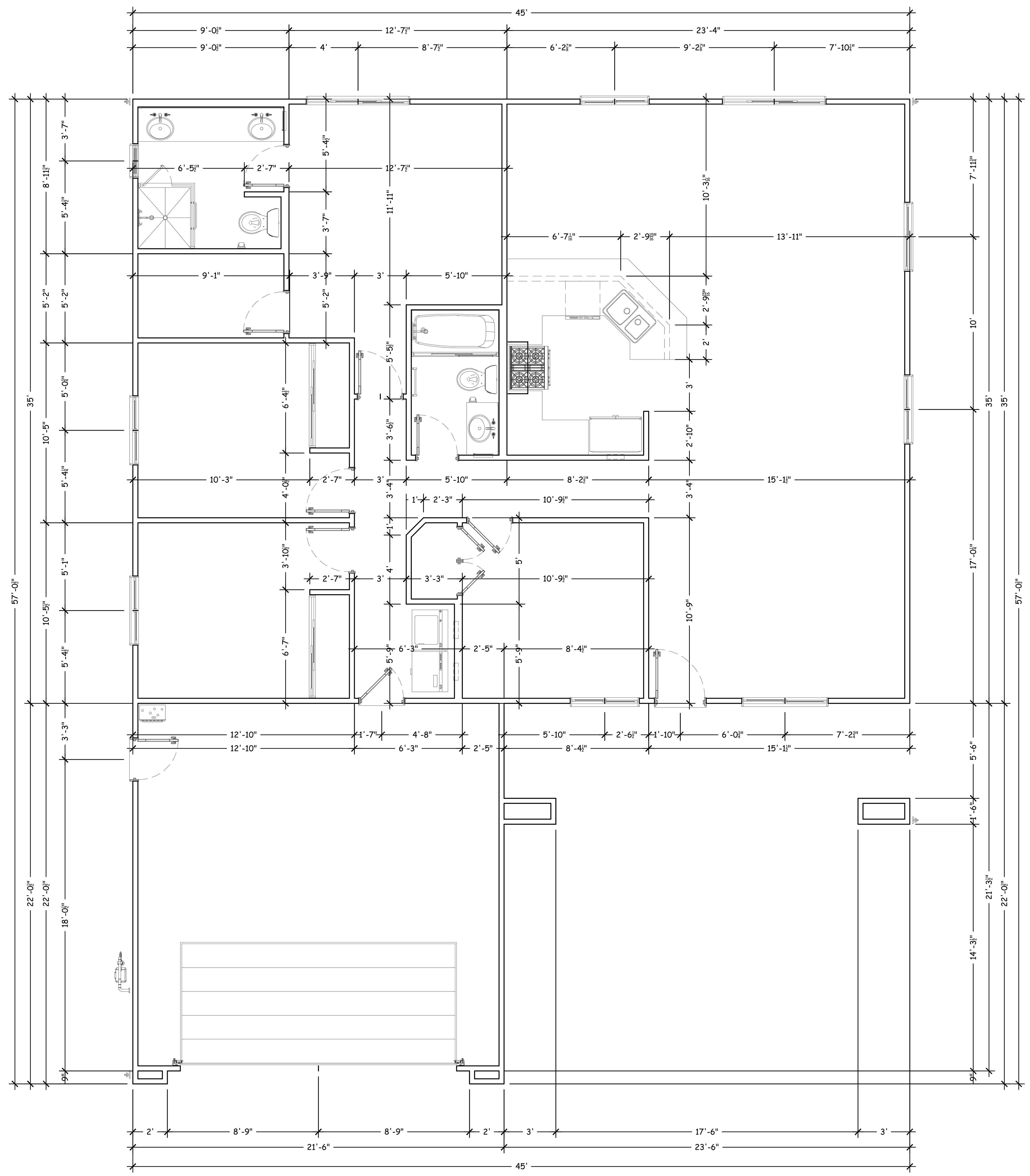
Date: OCTOBER-2018

Drawn By: Mike Mendoza

Sign By:

Sheet Number:
A1.01

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



Dimension Floor Plan

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

Mike Mendoza
Design Principal
Ro-eH·Sharol
73-900 Dinah Shore Drive
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Revisions	Date
Plan Check Revisions 1	00-00-2018

SMART HOMES OF THE DESERT INC

Owner Name:

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Desert Hot Springs, CA 92240
gilberto@smarthomesotd.com

Job Address:

Lot No. 271 Cuyamaca Drive
Desert Hot Springs, CA 92240

Sheet Name:

Dimension Floor Plan

Date: OCTOBER-2018

Drawn By: Mike Mendoza

Sign By:

Sheet Number:

A1.02

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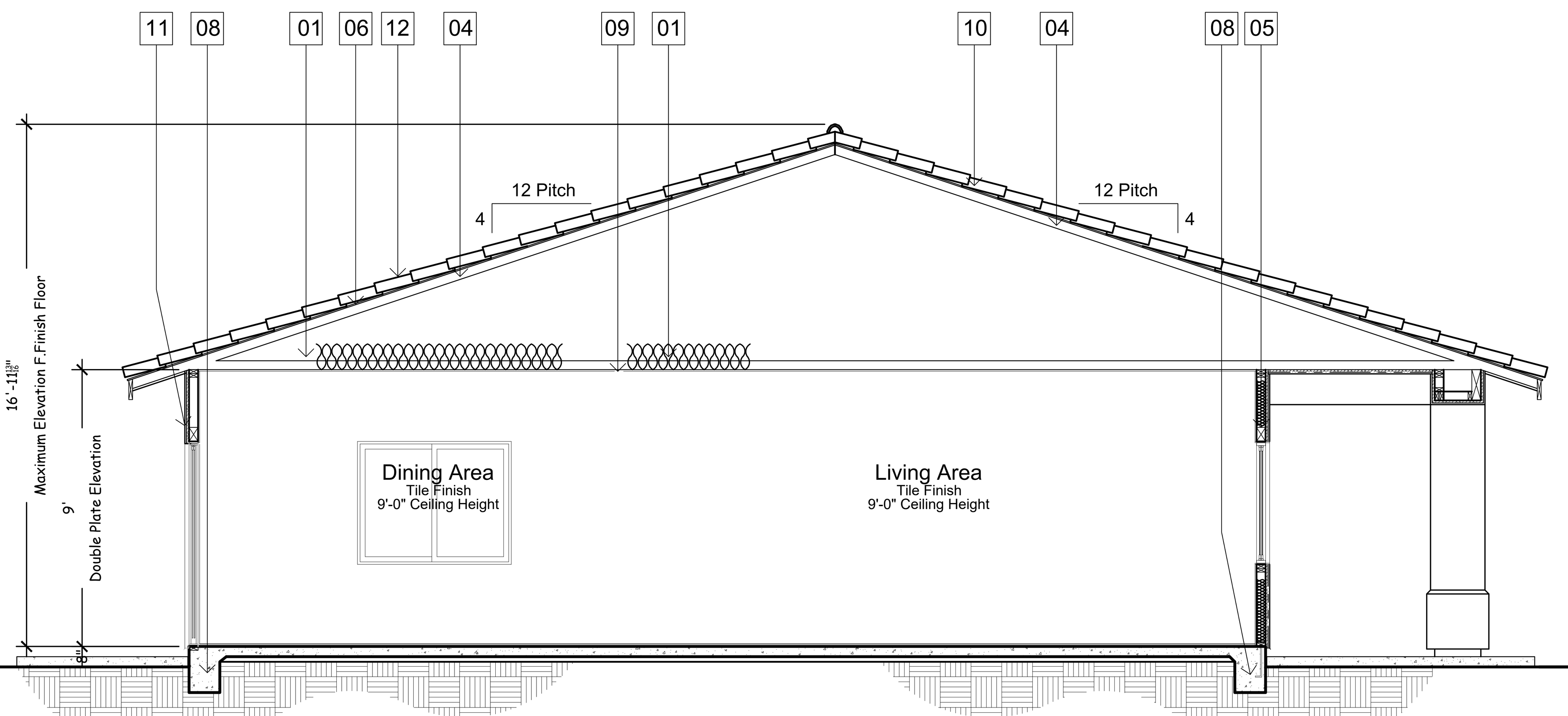
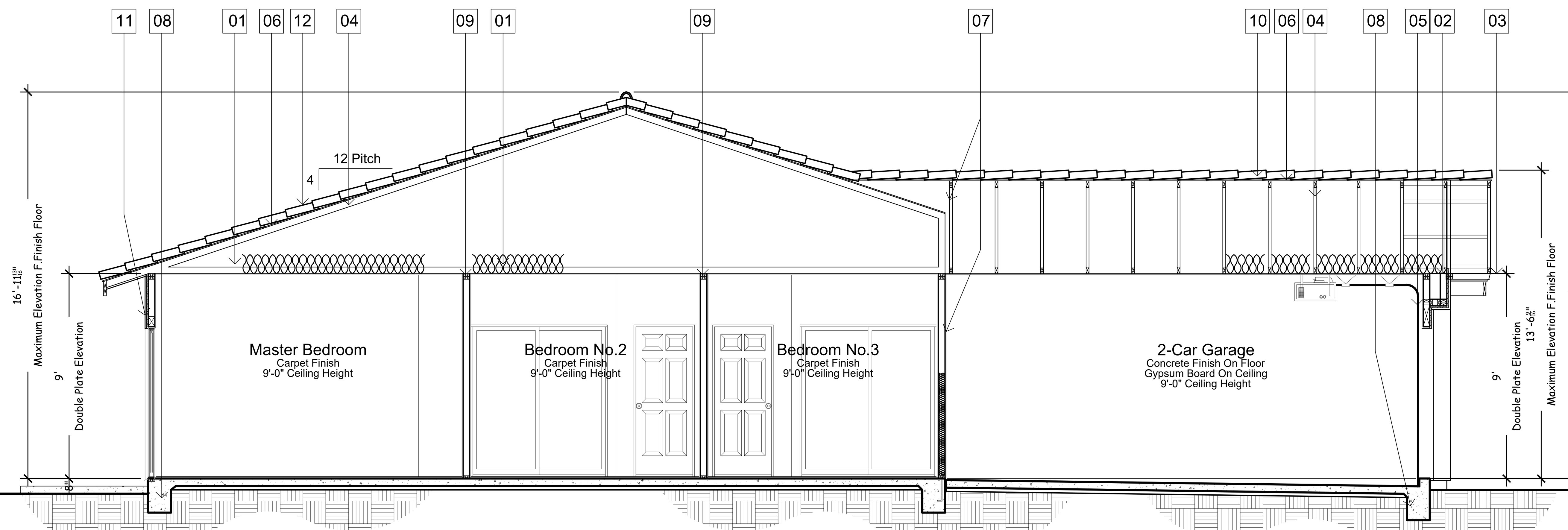


Cross Section B-B'

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



Cross Section A-A'

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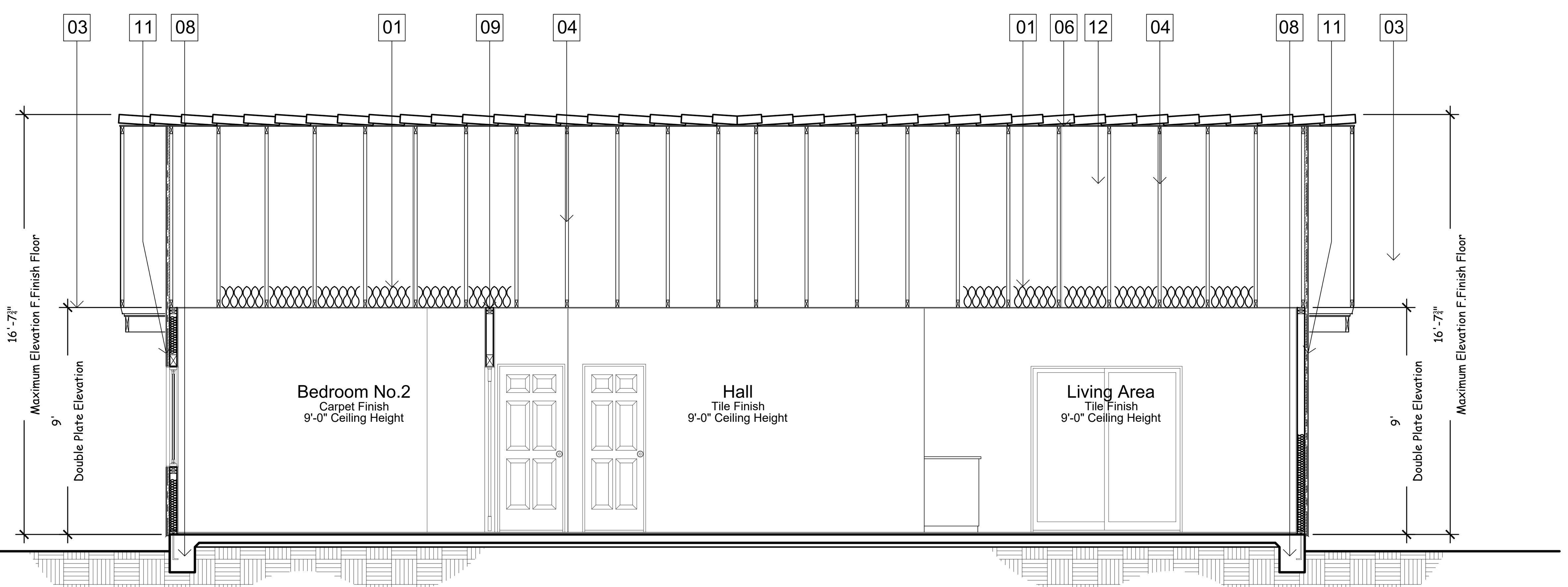


Cross Section C-C'

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

ATTIC VENTILATION REQUIREMENTS - HOUSE & GARAGE

New Attic Area To Be Ventilated = 2,198.0 Sq. Feet
Free Ventilating Area Required With A Vapor Barrier
Installed: 1/150th. of 2,198.0 Sq. Ft. ÷ 150 = 14.65 x 144 = 2,110.08 Sq. Inches Required.

1/2 Of Vents Are Located 3'-0" Above Eaves
1/2 Of The Vents Are Located At Eaves

Total Area Required Above Eaves =	1,055.04 Sq. Inches
Total Area Required At Eaves=	1,055.04 Sq. Inches

Use (11) Eleven Count 18" x 24" L1824 Model O'Hagings Louver Vent (4 Mesh) 100.0 Sq. Inches Each.= 1,100.0 Sq. Inch.
Provide (14 Count) 24" x 6" VT-146 Simpson Louver Vents Two Way Vent (4 mesh) 80.0 Sq. Inches Typ. = 1,120.0 Sq. Inches
Use (5) Six Count 14" x 24" L1424 Model Simpson G.I. Louver Vents (4 Mesh) 168.0 Sq. Inches Each. = 840.0 Sq. Inches.

Total Area Required =	2,110.08 Sq. Inches
Total Area Provided =	3,060.00 Sq. Inches

Sections Legend:
Section General Notes

A. Refer to floor plan for dimension not shown.
B. Refer Foundation plan for more information.
C. Refer to framing plans for member sizes and layouts.
D. Typical Insulation, see Energy Calculations more information.

a. Wall Insulation	R-15 + 1" EPS
b. Ceiling Insulation	R-38 RB
c. Acoustical Walls	R-21

E. Provide 26 Ga. Weep Screed.
a. Weep Screed shall be placed a minimum 4" Inches above the earth or 2" Inches above paved areas.
F. Provide 1" Inch Clear space from Insulation to Roof Sheathing for air flow.
G. Provide Radiant Barrier at Gable Ends Typical.

Section Reference Notes

09 Interior Non Bearing Wall See Framing For Anchorage Details

10 Concrete Roof Tile shall be Eagle Class 'A' Concrete Roofs **I.C.C. Report # ESR-1900** (Install per manufactured specifications over (1) One Layer of Pound Felt. For Installation see manufacturer specifications.

11 (1) One Coat Stucco System, must include one layer of water resistive barrier, having a flame-spread index of 25 or less and smoke-developed index of 450 or less. The water resistive barrier must be installed over the sheathing in accordance with IBC Section 1404.2 EPS insulation board with a nominal 1.5 pcf (24 kg/m) density must be installed at a 1-inch (25 mm) thickness horizontally in running bond to the sheathing. The lath insulation board and water resistive barrier must be positively fastened to the studs framing. The Stucco System must be applied at a $\frac{3}{8}$ Inch (9.5 mm) minimum thickness. ICC-ES Evaluation Report ESR-1194

01 Insulation: **R-15 + 1" EPS On Exterior Walls & R-38 + RB On Ceiling Per T-24** See Energy and Acoustical Requirements.

02 Framing Members, See Framing Plans.

03 2x Nail Plate Trusses

04 Manufactured Wood Trusses See Truss Calculations From manufacturer For Detail & Intallation

05 4 x Member See Framing Plan per size

06 Plywood Sheathing See Structural Plans.

07 Provide $\frac{1}{2}$ Gypsum Board On Ceiling & Walls Typical.

08 Typical Foundation See Foundation Page For Dimensions

Symbols

Indicate - VT-146 Simpsom Vent Louvers @ 80.0 Sq. Inches

Indicate Slope Direction

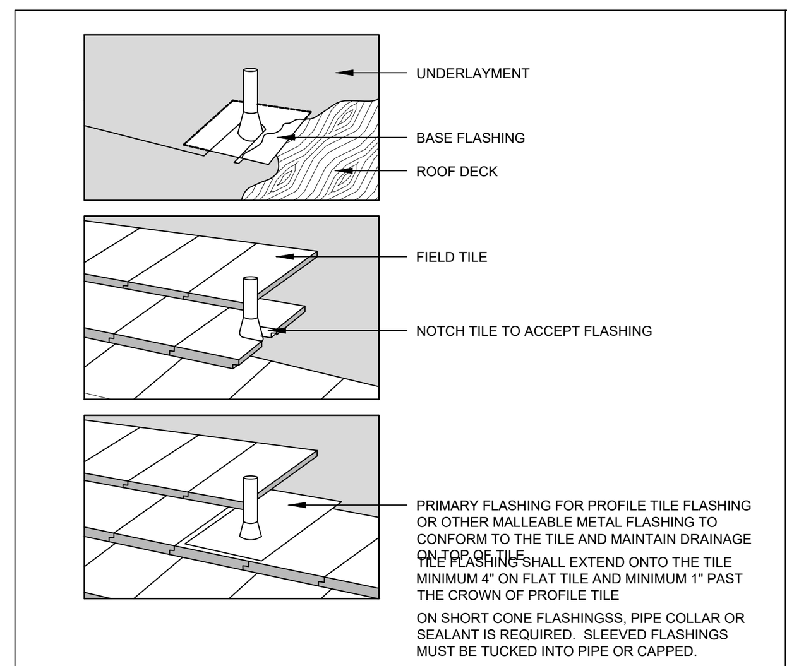
4" 12 PITCH — Indicate Pitch Roof On Manufactured Wood Trusses

* Indicate - 14" x 24" Simpsom Vent Louvers @ 168.0 Sq. Inches

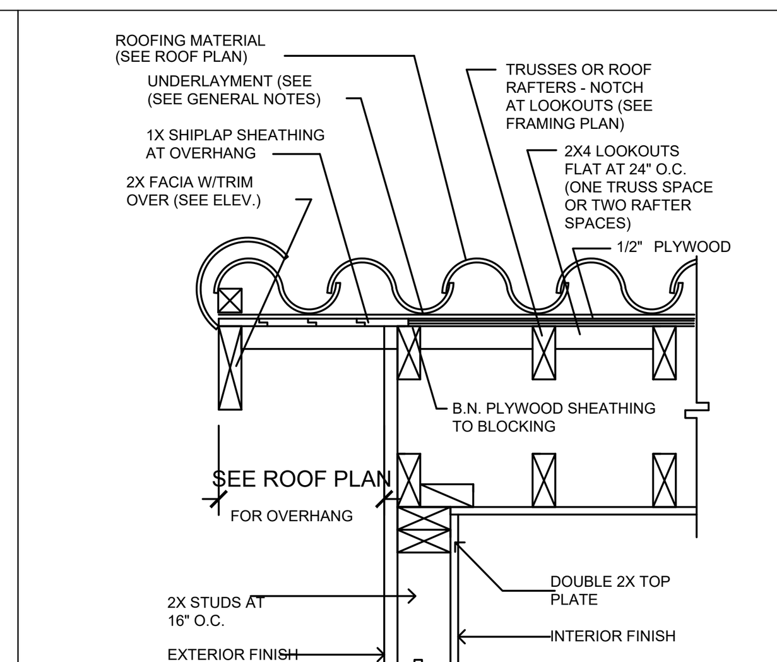
Indicate - The O'HAGIN Ventilation System 100.0 Sq. Inches EA. Vents for Concrete Roof Tile I.C.C. Report 9650A

"Attic Ventilation openings shall be covered with corrosion-resintant metal mesh $\frac{1}{16}$" minimum to $\frac{1}{4}$" maximum openings. Section R806.1

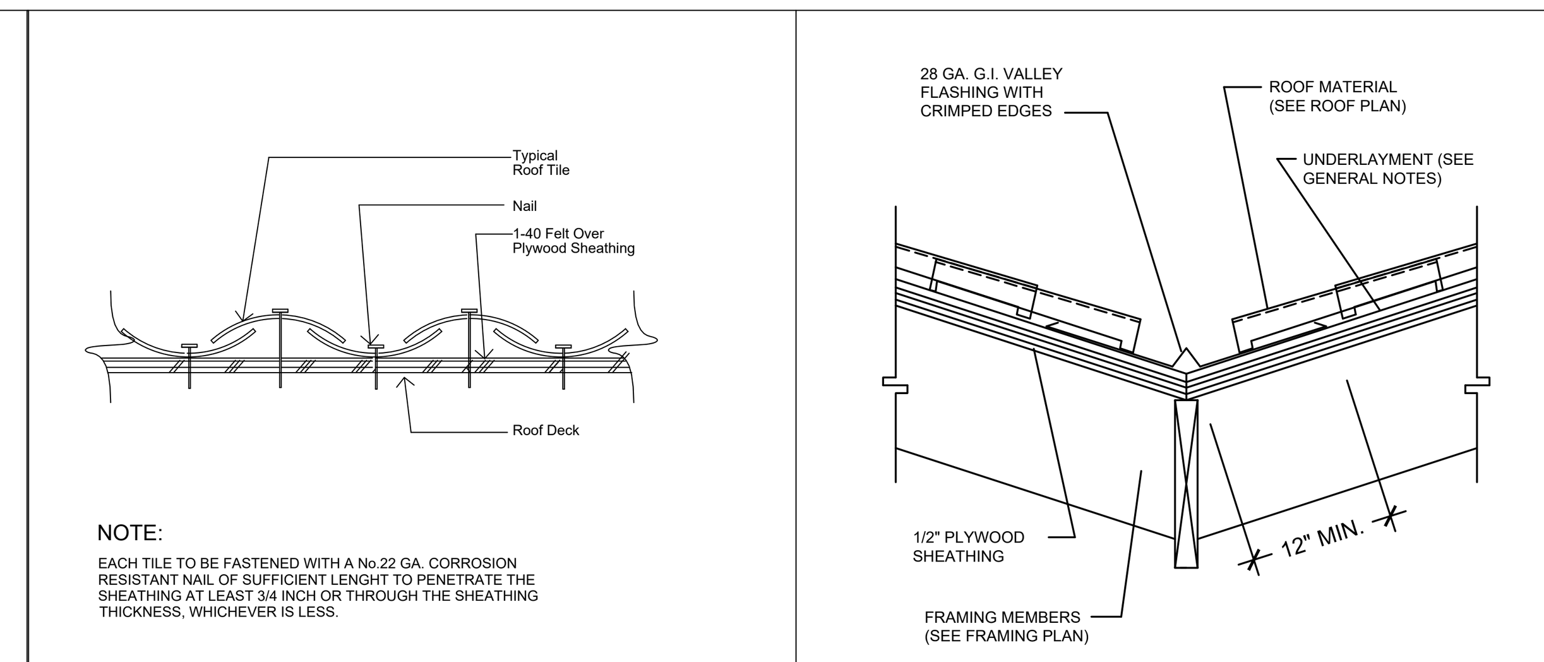
Pitch Profile Roof Material — Concrete Roof Tile shall be Eagle Class 'A' Concrete Roofs **I.C.C.-ESR Report # ESR1900** (Install per manufactured specifications over (1) One Layer of 40 Pound Felt.



Pipe & Vent Flashing Detail 01

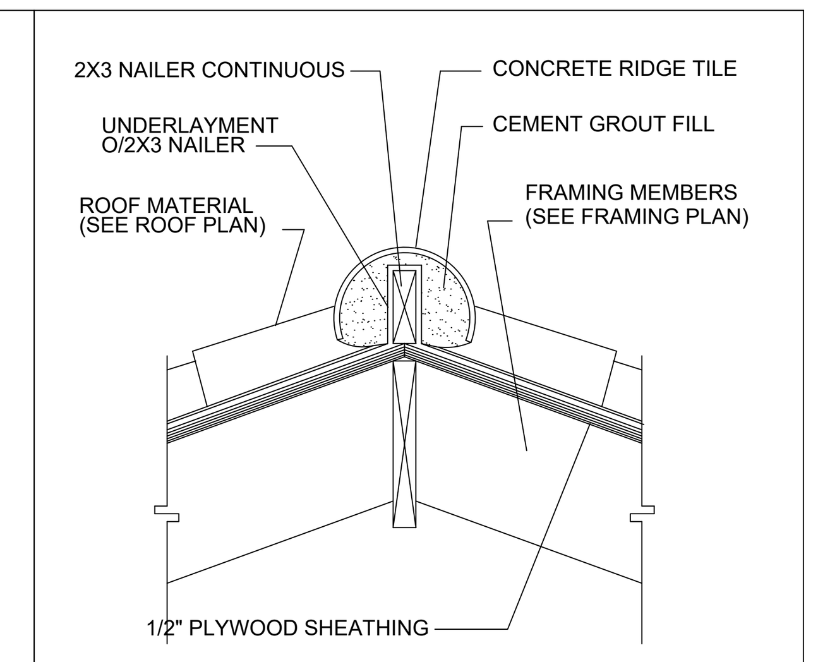


Rake Detail @ Gable End 02

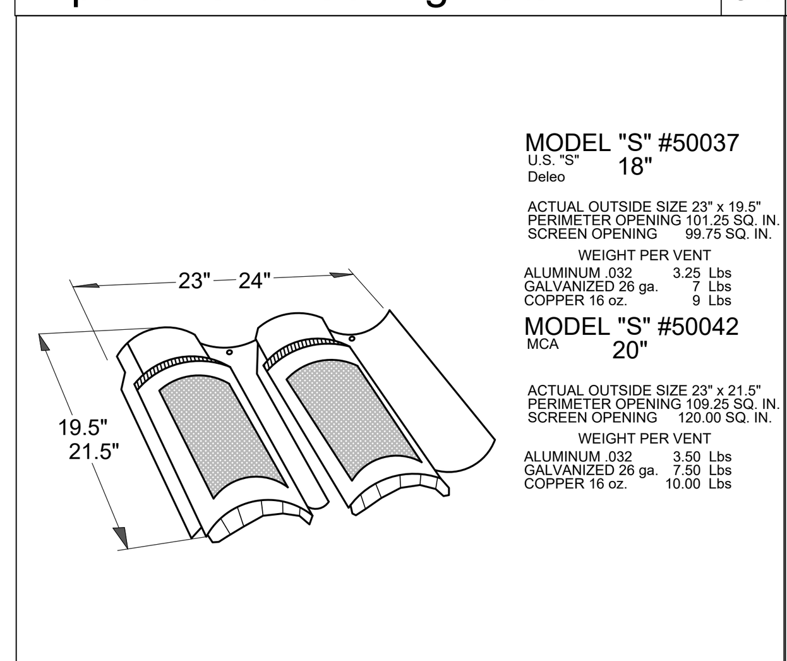


Typical Concrete Roof Tile 03

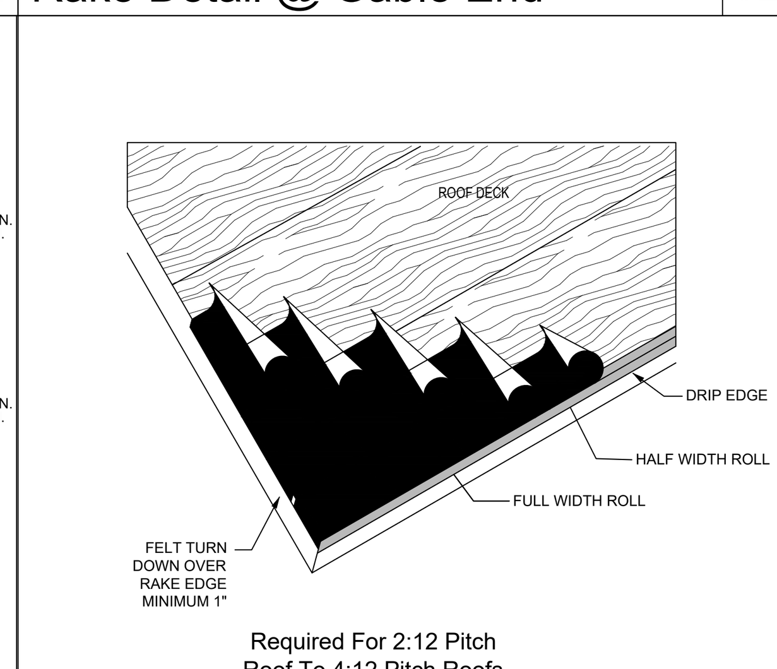
Typical Valley Detail 04



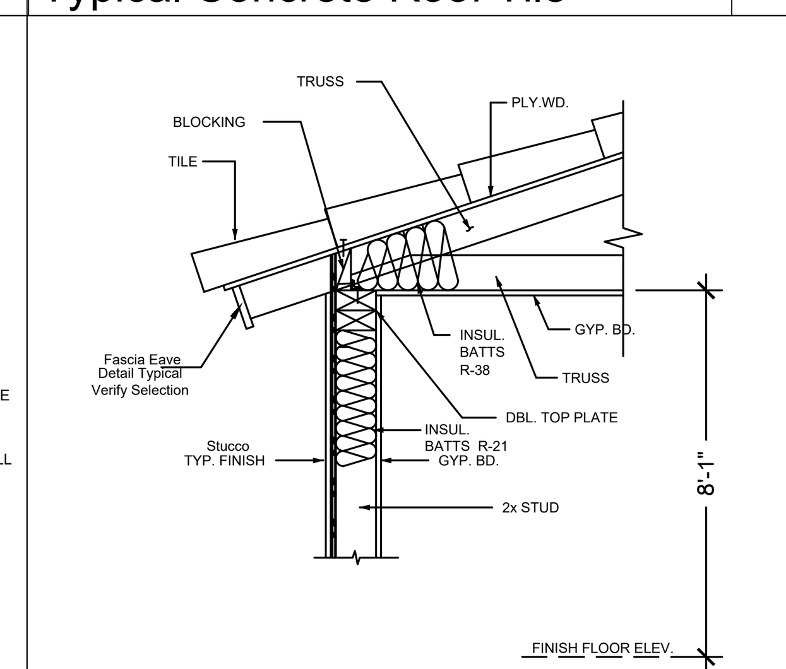
Ridge Cap 05



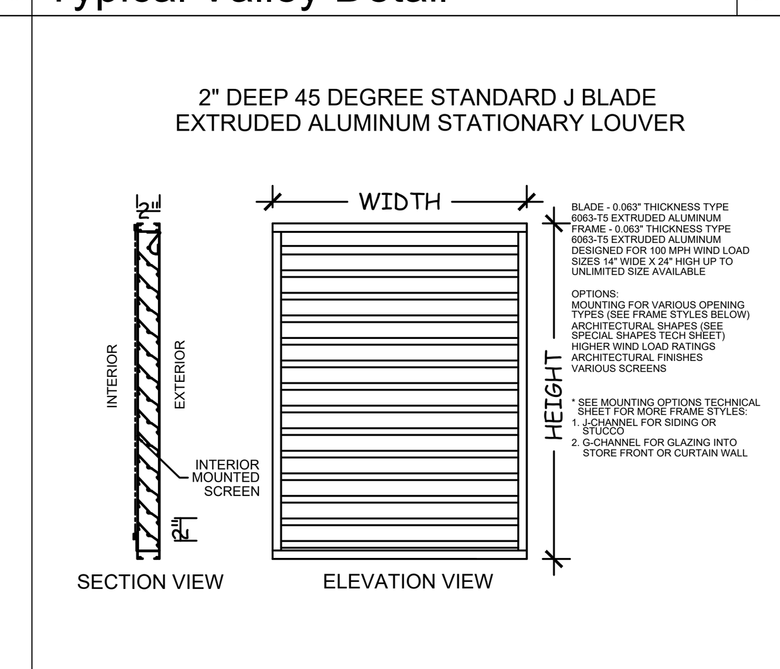
Attic Vent Detail Typical 06



Double Layer Underlayment 07



Typical Eave Detail 08

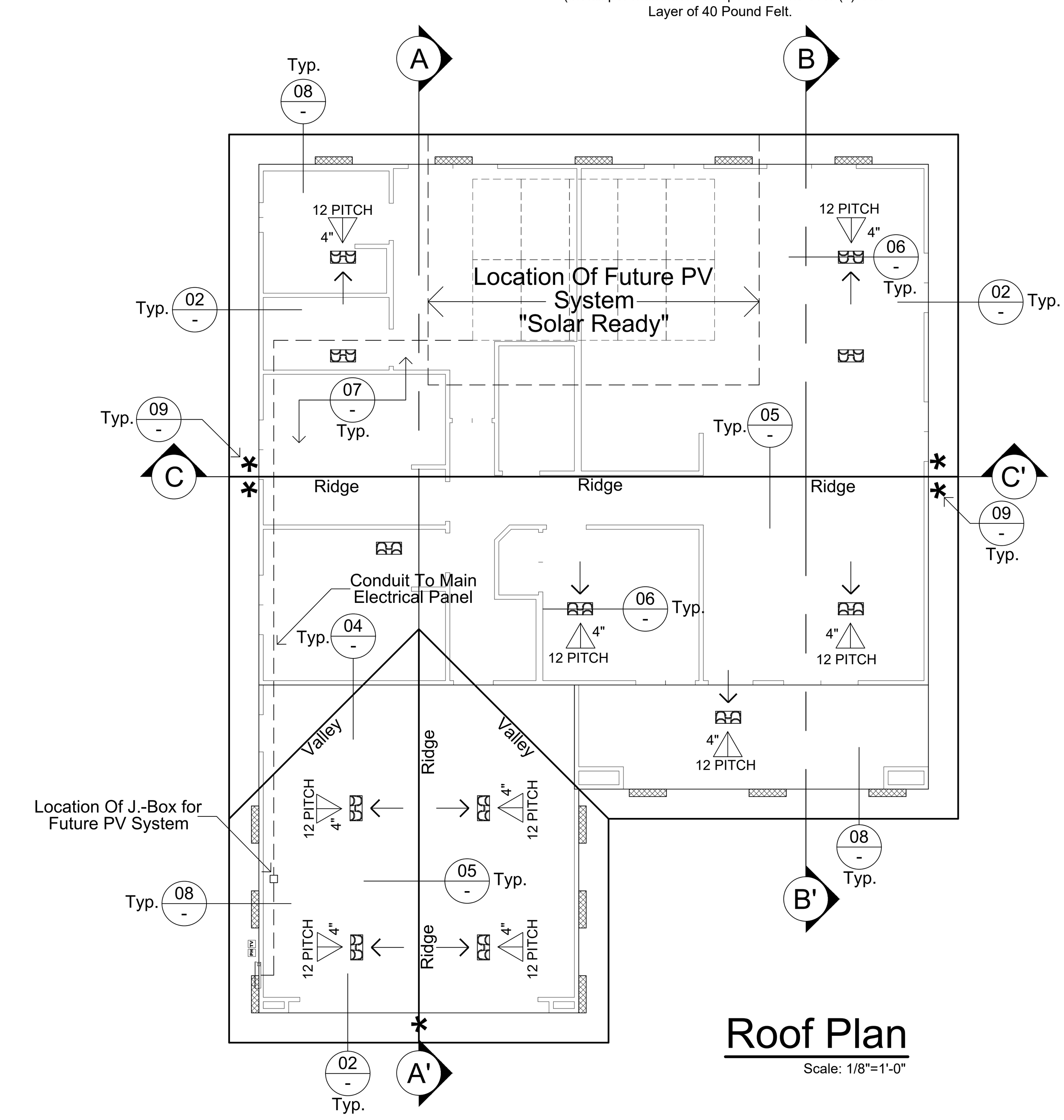


Gable Vent Detail 09

"Solar Ready" Future Photo Voltaic Solar System

"No Solar System is considered with this submittal, but "Solar Ready" Energy Mandatory Requirement are Necessary

1. "Solar Ready requires a Solar Zone (Area and location see Roof Plan Page A1.04)
2. A one-inch diameter electrical conduit shall be provided for installation of future Solar PV Energy System on Single Family Dwellings. The one Inch diameter electrical conduit shall extend from the exterior wall location adjacent to the main electrical service panel and terminate into the attic space. At each location, the conduit shall terminate at two-gang, electric junction box. Three open spaces shall be provided at the bottom of the buss to accommodate future Solar PV Systems.



Roof Plan

Scale: 1/8"=1'-0"

Mike Mendoza
Design Principal

Revisions	Date
Plan Check Revisions 1	00-00-2018

Owner Name:
SMART HOME OF THE DESERT, INC.
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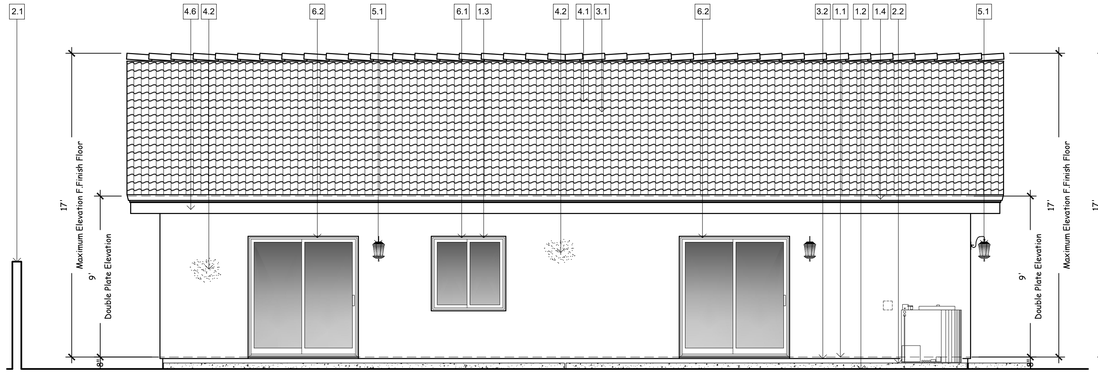
Job Address:
Lot No. 271 Cuyamaca Drive
Desert Hot Springs, CA 92240

Sheet Name:
Interior Elevations & General Notes

Date: OCTOBER-2018
Drawn By: Mike Mendoza
Sign By:

Sheet Number:
A1.03

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



Rear Side Elevation

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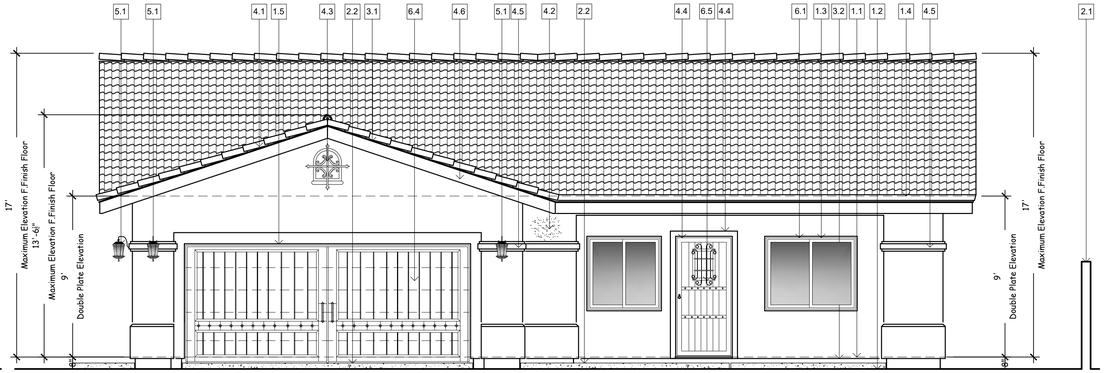

Front Side Elevation

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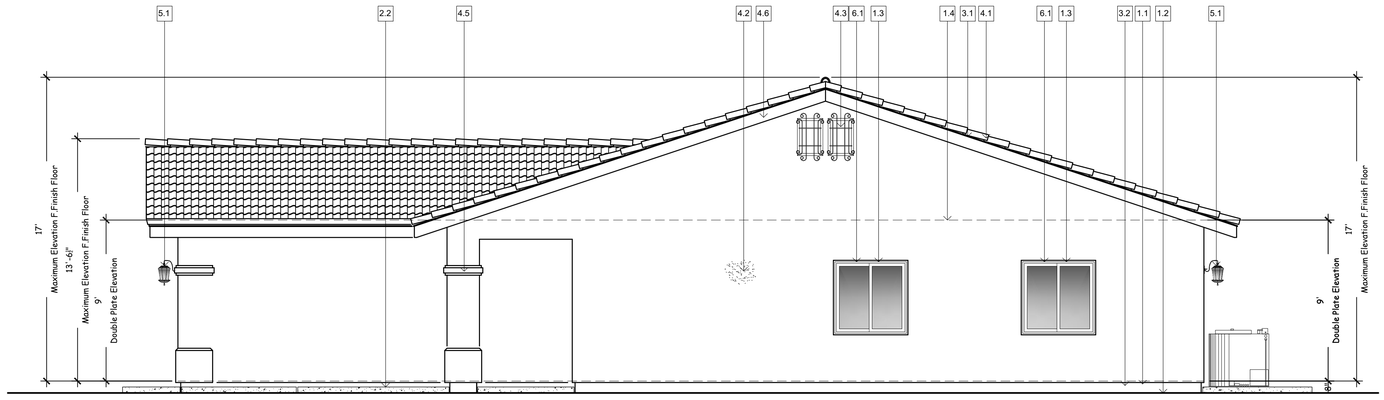

Left Side Elevation

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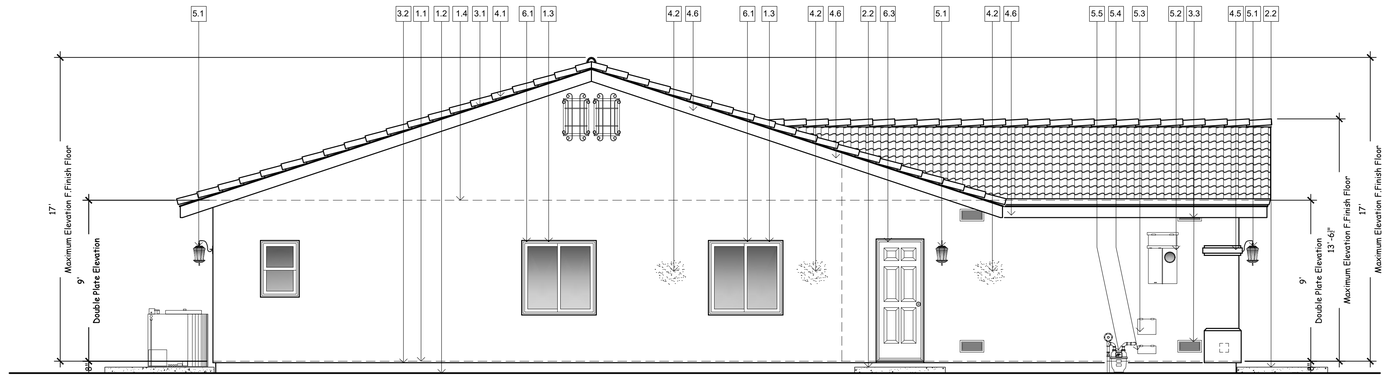

Right Side Elevation

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

Exterior Material Legend

Tile Roof Material

Concrete Roof Tile shall be Eagle Class 'A' Concrete Roofs I.C.C. Report # ESR-1900
Over (2) Layers Type 30 Underlayment, Install Per Manufacturer's specifications
Weight = 10 PSF
Roof Pitch: See Plan
Tile Roof Assembly shall be Class 'A' Minimum, C.B.C. 1506 & 1507
Note:
Minimum Tile nailing shall comply with the following:

1. 11 GA. Corrosion-Resistant 3/4" onto roof sheathing
2. The heads of all tiles shall be nailed
3. the noses of all course tiles shall be fastened with approved clips
4. All rake tiles shall be nailed with (2) nails
5. The nose of all Ridge, Hip, and Rake tiles shall be set in a bead of approved roofer's mastic.

Garage Doors

Metal Type (5) Five Break Rool Type W./ No Insulation

Window & Doors

Vinyl Type
Provide Tempered Glass In Areas Of Human Impact
Frame Color: Black / Matte Black

Bronze Tone Finish

Bronze Tone Finish Verify Selection Type and Model Pryor To Construction.

5 - Utilities

- 5.1 Light Fixture - As Selected by Owner.
- 5.2 200 AMP's Panel
- 5.3 Telephone Service Box
- 5.4 C.A.T.V. Service Box
- 5.5 Gas Meter Location Verify W./Utility Company

6 - Doors and Windows

- 6.1 Windows - Refer To Window Schedule.
- 6.2 Slider Glass Door Type Tempered Glass Required, Verify Selection - Refer To Door Schedule.
- 6.3 Doors - Refer to Door Schedule.
- 6.4 Metal Type Sectional Overhead Garage Door - Refer To Door Schedule.
- 6.5 Custom Entry Door - Refer To Door Schedule.

1 - Spatial

- 1.1 Top Of Slab Line / Top Of Garage Curb
- 1.2 Finish Grade Line
- 1.3 Align Top of The Window with Top Of Door
- 1.4 Top of Plate
- 1.5 Soffit / Ceiling Line

2 - Site

- 2.1 Site Walls or Steps - Refer To Civil and Landscape Drawings
- 2.2 Site Steps - Refer to Landscape Drawings

3 - Metals

- 3.1 Galvanized Sheet Metal Flashing
- 3.2 Continuous Weep Screed.
- 3.3 Provide (2) minimum G.I. Screen Vents 14" wide x 6" Ht.
  (2) Two @ 6" Above Finish Floor Elevation
  (2) Two @ 12" Below Ceiling Ht. Elevation.

4 - Exterior Finsh

- 4.1 Concrete Roof Tile - See Roof Plan for Material and Colors.
- 4.2 (1) One Coat Stucco System, must include one layer of water resistive barrier, having a flame-spread index of 25 or less and smoke-developed index of 450 or less. The water resistive barrier must be installed over the sheathing in accordance with IBC Section 1404.2 EPS insulation board with a nominal 1.5 pcf (24 kg/m) density must be installed at a 1-inch (25 mm) thickness horizontally in running bond to the sheathing. The lath insulation board and water resistive barrier must be positively fastened to the studs framing. The Stucco System must be applied at a $\frac{3}{8}$ Inch (9.5 mm) minimum thickness. ICC-ES Evaluation Report ESR-1194
- 4.3 G.I. Vents 14" x 18" Verify Profile.
- 4.4 Provide (1) One 2x on top Trim Band With Stucco Over Typ.
- 4.5 Provide (2) Two 2x on top Trim Band With Stucco Over Typ.
- 4.6 Indicate Location Of Eave Detail With Stain & Paint Over Typical. Verify Color Selection.

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Revisions	Date
Plan Check Revisions 1	00-00-2018

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Sheet Name:

Exterior Elevations & General Notes

Date: OCTOBER-2018

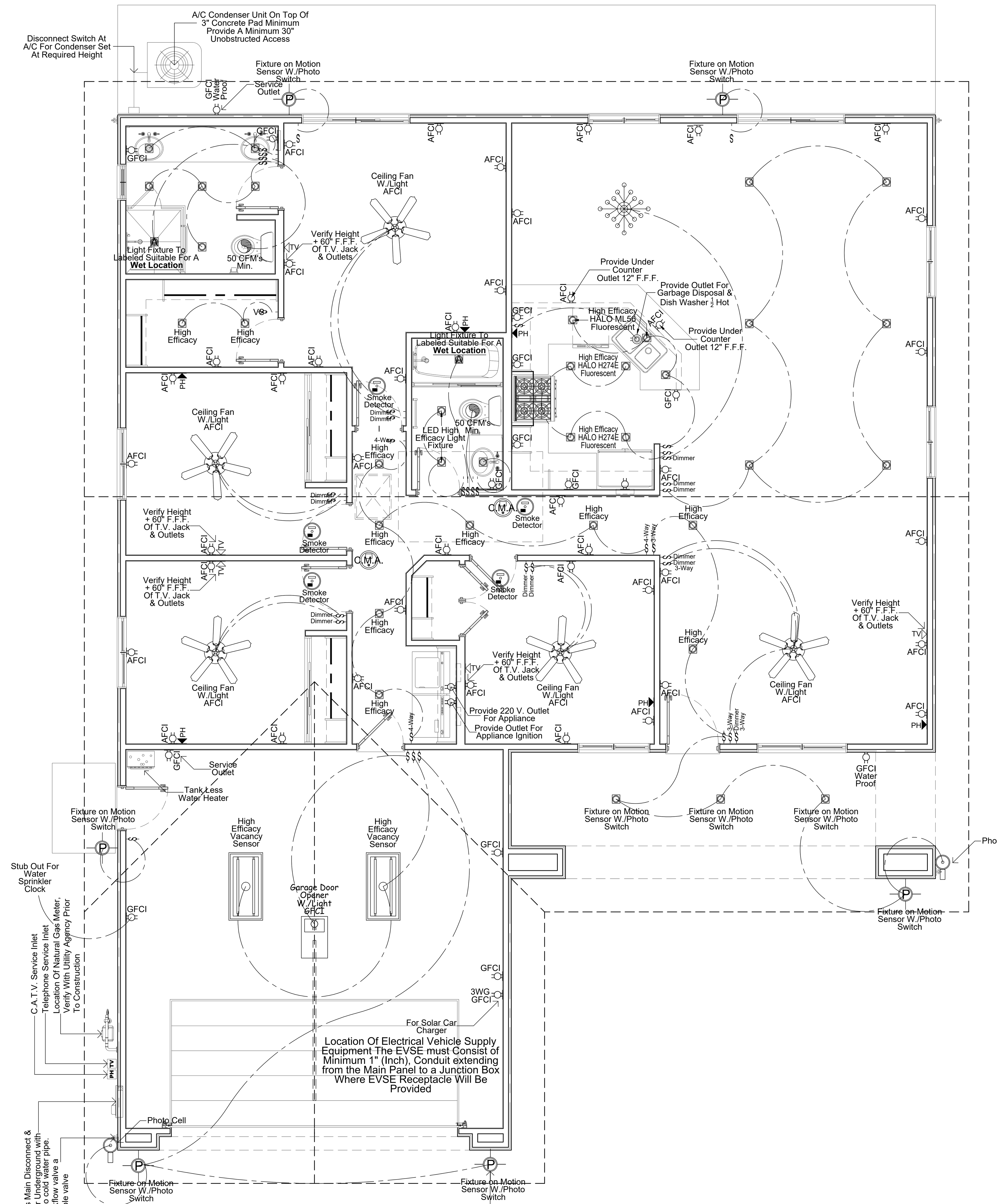
Drawn By: Mike Mendoza

Sign By:

Sheet Number:

A1.04

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



Provide Sensor Address Light (NO SWITCH) Illuminated Building Address Numbers To Be Minimum Of 4" (Inch) On Height U.N.O. **Address shall be plainly visible and legible from the street or road fronting the property. Address numbers shall be 4" (Inches) in height, ½" minimum stroke with and of contrasting color to their background. Where address can not be viewed from public way, a monument or pole shall be used. (R319).**

Carbon Monoxide Alarms:

To be UL 2034/2075 Rated Carbon Monoxide Alarms

a) In alterations, repairs and additions of existing dwellings exceeding $ 1000 carbon monoxide alarms are required in the specific permitted dwellings or sleeping units that have attached garages of fuel burning appliances. The carbon monoxide alarms may be battery operated and not interconnected. [CRC R 314.3.1]
b) Carbon monoxide alarms shall be provided in all new construction located in each sleeping room containing a fule burning appliance and in dwelling units that have an attached garage. [CRC R315]
c) In new builidngs, carbon monoxide alarms shall be interconnected and hardwire. [CRC R315.1.1 & R315.2]

Smoke Alarms:

To be UL 217 Rated Smoke Alarms

a) In alterations, repairs and additions smoke alarms are required in each sleeping room, outside each separate area in the immediate vicinity of the bedrooms, and at each additional floor or basement level. Smoke alarms may be battery operated and not interconnected. [CRC R314.3.1]
b) Smoke alarms shall be provided in all new construction located in each sleeping room, outside each separate sleeping area in the immediate vicinity of the bedrooms, and at each additional floor or basement level. [CRC R314.3]
c) In new buildings, smoke alarms shall be interconnected and hardwire. [CRC R314.4 & R314.5]
d) Smoke Alarm systems and components shall be California State Fire Marshall Listed and approved. R314.1 CRC.

Permanently Installed Luminaries:

a) Kitchens shall be at least 50% of High Efficacy Luminaries with separate circuits.
b) Bathrooms, Garages, Laundry Rooms, and Utility Rooms shall be high efficacy luminaries, OR controlled by a Dimmer Switch, OR controlled by an Occupant Sensor.
c) Other than in Kitchens, Bathrooms, Garages, Laundry Rooms, and Utility Rooms shall be High Efficacy Luminaries, OR Controlled by a Dimmer Switch OR Controlled by a Photo Control/Motion Sensor.
d) Outdoor Lightning mounted to the building shall be High Efficacy OR Controlled By an Occupant Sensor.
e) Common areas of multifamily buildings shall be either High Efficacy OR Controlled by an Occupant Sensor.

Kitchen Wattage Calculation

Quantity Of Fixtures	Watts	Lumens Per Watt	Total of Lumens	Efficacy
04-HALO 274E	13	50	2,600.0	200.00 IpW
03-HALO ML56	10.2	78	2,387.0	234.00 IpW

Pin Based fluorescent system. Virtually all pin-based fluorescent systems will qualify as HIGH-Efficacy for the residential standards.

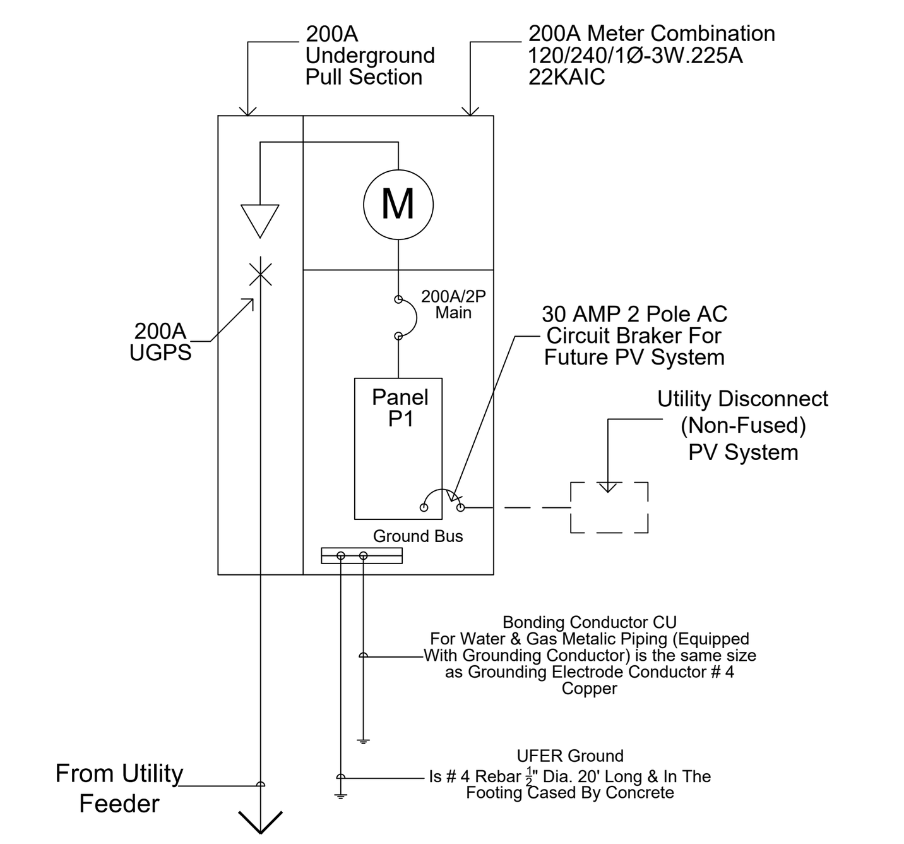
ELECTRICAL SYMBOLS

- Ligth Fixture Outlet Fixture Furnished By Owner, Installed by Contractor.High Efficacy or Manual-on Occupancy Sensor or Dimmer
- Recessed Ceiling Downlight, Halo H7 Series or App. Equal. Verify trim Selection High Efficacy or Manual-on Occupancy Sensor or Dimmer
- Wall Bracket Fluorescent Light Fixture Verify-Selection and Height Above Floor. Fixture to be High Efficacy or Manual-on Occupancy Sensor
- Approved Hardwire Electric Smoke Detector W./Battery Backup & Interconnected
- Surface Mounted (2) Tube Fluorescent Light Fixture W./Lens High Efficacy or Manual-on Occupancy Sensor
- Recessed Ceiling Exaust Fan Capable of Min. 5 Air Changes per Hour.
- Duplex Convinience Outlet Mounted @ 12" Abv. F.F. U.O.N.
- GFI — Duplex Conv. Outlet W./Ground Fault Circuit Interruptor.
- 220V — 220 Volt Outlet or Junction Box
- PH — Telephone Jack, Verify Exact Location W. /Contractor
- TV — Television Cable Outlet, Verify Exact Location W./Contractor
- Single Pole Switch
- 3 Way — 3-Way Switch
- Fan Outlet Location W./50 # Load Capacity, Verify Selection Light Fixture to be High Efficacy or Dimmer or Manual-on Occupancy Sensor
- Type FI Pendant Chandelier, verify Slection W./Contractor Selection Light Fixture to be High Efficacy or Dimmer or Manual-on Occupancy Sensor
- Photo Cell for Light Fixture with Switch Operated Also
- Indicate Garbage Disposal Power Outlet Under Cabinet Mounted, Verify Height F./Finish Floor
- W.P. GFI — Duplex Conv. Outlet W./Ground Fault Circuit Interruptor. W.P./GFCI = Outlet Mounted in Wheatherproof Box

A = Flourecent

At Kitchen Only

- High Efficacy (Fluorescent) or Up to 50 % of the Total Wattage can be Low Efficacy, All High Efficacy & Low-Efficacy Lighting must be Controlled Separately
- High Efficacy (Fluorescent) or Vacancy Sensor Typical
- Recessed Light Fixture High Efficacy or Controlled by Motion Sensor + Photocontrol
- Exterior Wall Mounted Light Fixture High Efficacy or Controlled by Motion Sensor + Photocontrol
- Directional Exterior Light Fixture Wall Mounted High Efficacy or Controlled by Motion Sensor + Photocontrol
- C.M.A. — Approved Carbon Monoxide Alarm Detector W./Battery Backup & Interconnected



Single Line Diagram

Backfeed Type Breaker Reserved For Future Solar Panel

Service Load Calculations

Dwelling Information:

Floor Area:	1,575.0 Sq. Ft.
Water Heater Type:	Gas
Heater Type:	Gas
Dryer:	Gas
Oven:	Electricity
Range:	Gas

General Load:

General Lightning (Floor Area 1,575.0 x 3VA/SFT.):	4725 VA
Small Appliances (2-20ACK)	3000 VA
Laundry (1-20ACKT By CEC 201.11)	1500 VA
Bathroom (1-20ACKT By CEC 210.11)	0 VA
Dishwasher	1200 VA
Microwave	1500 VA
Garbage Disposal	1587 VA
Bathroom Fans	1000 VA
Garage Door Opener	1200 VA
Dryer	0 VA
Oven	8000 VA
Refrigerator	2000 VA
Total general Load:	25712 VA

Total General Load:

First 10 KVA at 100 %	10000 VA
Remainder at 40 % (15712 VA x 0.40)	6285 VA
Subtotal General Load:	16285 VA

Air Conditioning Calculation:

Outdoor Condensing Unit	5405 VA
Indoor Fan Coil Unit	984 VA
Car Charger	7680 VA
Total AC load:	14069 VA

Calculated Load For Service:

(16285 VA + 14069 VA = 30354 - 240V = 126.47 A
(Service rating)

Provide Service Rating 200AMP 120/240 Volts Minimum Wire Size # 14 Copper THNN For Outlets & Light Fixtures, # 12 Copper or Larger for Others.

Water Heater Note:

System using gas or propane water heaters to serve individual dwelling units shall include the following components (150(N)):

A. A 120 V. Electrical receptacle that is with in 3 feet from the water heater and accessible to the water heater with no obstructions.
B. A condensate drain that is no more than 2 inches higher than the base of the installed water heater, and allows natural draining without pump assistance.

Electrical Floor Plan

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

ELECTRICAL:

2016 California Electrical Code and 2016 California Residential Code

1. 250.64 (D)(1), (D)(2), or (D)(3).
   (1) Common Grounding Electrode Conductor and Taps.
   A common grounding electrode conductor and grounding electrode conductor taps shall be installed. The common grounding electrode conductor shall be sized in accordance with 250.66, based on the sum of the circular mil area of the largest ungrounded conductor(s) of each set of conductors that supplies the disconnecting means. If the service-entrance conductors connect directly to the overhead service conductors, service drop, underground service conductors, or service lateral, the common grounding electrode conductor
2. "**Tamper-Resistant Receptacles** in Dwelling Units. In all areas specified in C.E.C. 406.12(A) , Dwelling Units, In all areas specified in C.E.C. 210.52, all nonlocking-type 125 volt, 15- and 20 ampere shall be listed tamper-re4sistant receptacles.
3. **(C) Dwelling Units.**
   (1) Small-Appliance Branch Circuits. In addition to the number of branch circuits required by other parts of this section, two or more 20-ampere small-appliance branch circuits shall be provided for all receptacle outlets specified by 210.52(B).
4. **(2) Laundry Branch Circuits.** In addition to the number of branch circuits required by other parts of this section, at least one additional 20-ampere branch circuit shall be provided to supply the laundry receptacle outlet(s) required by 210.52(F). This circuit shall have no other outlets.
5. **(3) Bathroom Branch Circuits.** In addition to the number of branch circuits required by other parts of this section, at least one 120-volt, 20-ampere branch circuit shall be provided to supply a bathroom receptacle outlet(s). Such circuits shall have no other outlets.
   Exception: Where the 20-ampere circuit supplies a single bathroom, outlets for other equipment within the same bathroom shall be permitted to be supplied in accordance with 210.23(A)(1) and (A)(2).
6. **210.12 Arc-Fault Circuit-Interrupter Protection.** Arc-fault circuit-interrupter protection shall be provided as required in 210.12(A) (B), and (C). The arc-fault circuit interrupter shall be installed in a readily accessible location.
7. **(A) Dwelling Units.** All 120-volt, single-phase, 15- and 20-ampere branch circuits supplying outlets or devices installed in dwelling unit kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, laundry areas, or similar rooms or areas shall be protected by any of
   the means described in 210.12(A)(1) through (6):
8. The minimum clearance between luminaries installed in clothes closets and the nearest point of closet space shall be as follows: (CEC §410.16(C))
   (1. 300 mm (12 in.) for surface mounted incandescent or LED luminaries with completely enclosed light source installed on the wall above the door or on the ceiling.
   (2. 150 mm (6 in.) for surface-mounted fluorescent luminaries installed on the wall above the door or on the ceiling
   (3. 1050 mm (6 in.) for recessed incandescent or LED luminaries with completely enclosed light source installed on the wall or the ceiling.
   (4. 150 mm (6 in.) for recessed fluorescent luminaries installed in the wall or the ceiling.
   (5. Surface-Mounted fluorescent or LED luminaries shall be permitted to be installed with in the closet storage space where identified for this use.
9. **410.16 Luminaries in Clothes Closets.**
   (A) Luminaries Types Permitted. Only luminaries of the following types shall be permitted in a closet:
   (1) Surface-mounted or recessed incandescent or LED luminaries with completely enclosed light sources
   (2) Surface-mounted or recessed fluorescent luminaries
   (3) Surface-mounted fluorescent or LED luminaries identified as suitable for installation within the closet storage space
   (B) Luminaries Types Not Permitted. Incandescent luminaries with open or partially enclosed lamps and pendant luminaries or lamp holders shall not be permitted.
10. **410.10 Luminaries in Specific Locations.**
    (A) Wet and Damp Locations. Luminaries installed in wet or damp locations shall be installed such that water cannot enter or accumulate in wiring compartments, lampholders, or other electrical parts. All luminaries installed in wet locations shall be marked, .Suitable for Wet Locations.. All luminaries installed in damp locations shall be marked .Suitable for Wet Locations. or .Suitable for Damp Locations..
11. **C.E.C. 680.74 Bonding.** Both metal piping systems and grounded metal parts in contact with the circulating water shall be bonded together using a solid copper bonding jumper, insulated, covered, or bare, not smaller than 8
12. **C.R.C. R314.3 Location.** Smoke alarms shall be installed in the following locations:
    1. In each sleeping room.
    2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
    3. On each additional story of the dwelling, including easements and habitable attics and not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.
    4. Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section R314.3.
13. **C,R.C. R314.6 Power source.** Smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for over current protection.
14. **C.R.C. R314.4 Interconnection.** Where more than one smoke alarm is required to be installed within an individual dwelling or sleeping unit, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.
15. **CARBON MONOXIDE ALARMS**
    C.R.C. R315.1 General. Carbon monoxide alarms shall comply with Section R315.
16. **R315.3 Location.** Carbon monoxide alarms in dwelling units shall be installed and maintained in accordance with the manufacturer's published instructions in the following locations:
    1. Outside of each separate sleeping area in the immediate vicinity of the bedrooms.
    2. On every occupable level of a dwelling unit, including basements.
    3. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.
17. **C.R.C. R315.5 Power source.** Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcorrect protection.
18. **C.R.C. R315.6.4 Combination detectors.** Combination carbon monoxide and smoke detectors shall be permitted to be installed in carbon monoxide detection systems in lieu of **carbon monoxide detectors, provided that they are listed in accordance with UL 2034 and UL 2075.**
19. **C.R.C. R315.7 Interconnection.** Where more than one carbon monoxide alarm is required to be installed within a dwelling unit or within a sleeping unit in Group R occupancies, the alarms shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit.

"Solar Ready" Future Photo Voltaic Solar System

"No Solar System is considered with this submittal, but "Solar Ready" Energy Mandatory Requirement are Necessary

1. "Solar Ready requires a Solar Zone (Area and location see Roof Plan Page A1.04)
2. A one-inch diameter electrical conduit shall be provided for installation of future Solar PV Energy System on Single Family Dwellings. The one Inch diameter electrical conduit shall extend from the exterior wall location adjacent to the main electrical service panel and terminate into the attic space. At each location, the conduit shall terminate at two-gang, electric junction box. Three open spaces shall be provided at the bottom of the buss to accommodate future Solar PV Systems.
3. Solar System Contractor must Provide Plans And Design meeting 2016 Code Criteria and submit for Permit and approval to Building & Safety Department prior to commence any work.

Location Of Electrical Vehicle Supply Equipment The EVSE must Consist of Minimum 1" (Inch), Conduit extending from the Main Panel to a Junction Box WhereEVSE Receptacle Will Be Provided Per
Newly constructed one and two family dwellings and townhouses with attachedgarage shall comply with EV charging infrastructure requirements.
[CEC 210.12 and CRC R309.8]
The Electrical Panel Shall Provide Capacity To Install 40 AMP Minimum Dedicated Branch Circuit And Space To Permit Installation of A Branch Circuit Overcurrent Protection Device.

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Revisions	Date
Plan Check Revisions 1	00-00-2018

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Job Address:

Lot No. 271 Cuyamaca Drive
Desert Hot Springs, CA 92240

Sheet Name:

Electrical Floor Plan & General Notes

Date: OCTOBER-2018

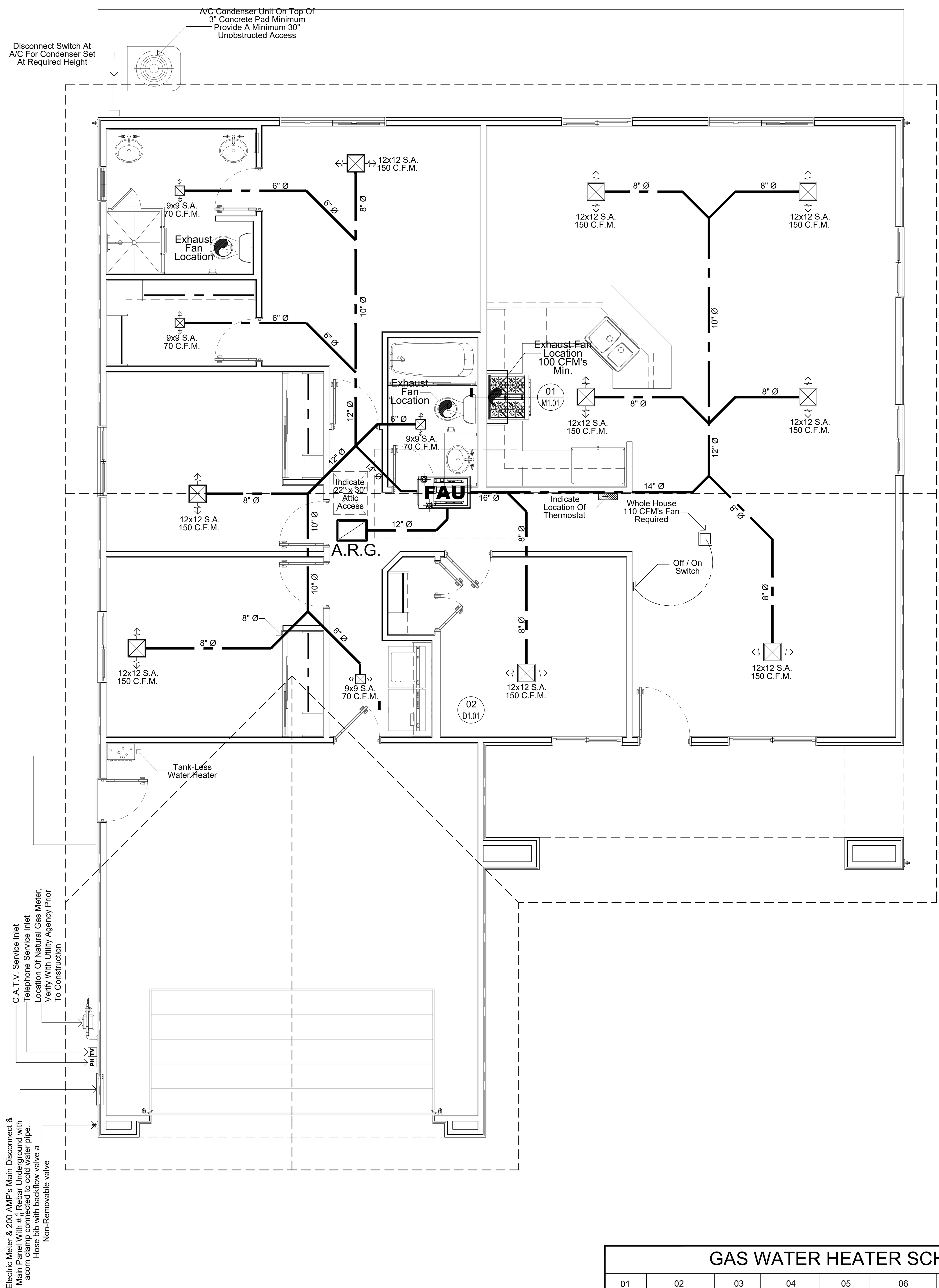
Drawn By: Mike Mendoza

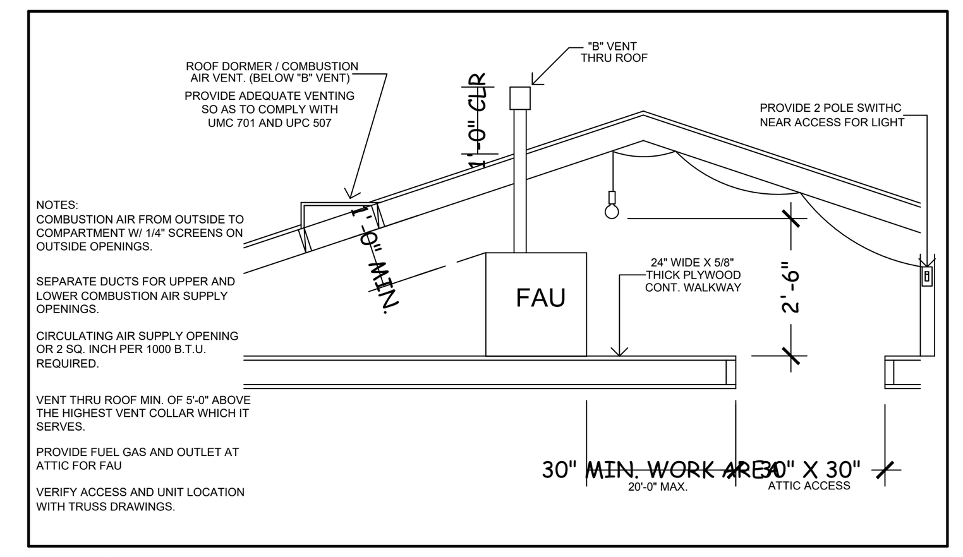
Sign By:

Sheet Number:

E1.01

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





No. 02 — FAU @ Attic Location Detail

Attic Furnace Notes:

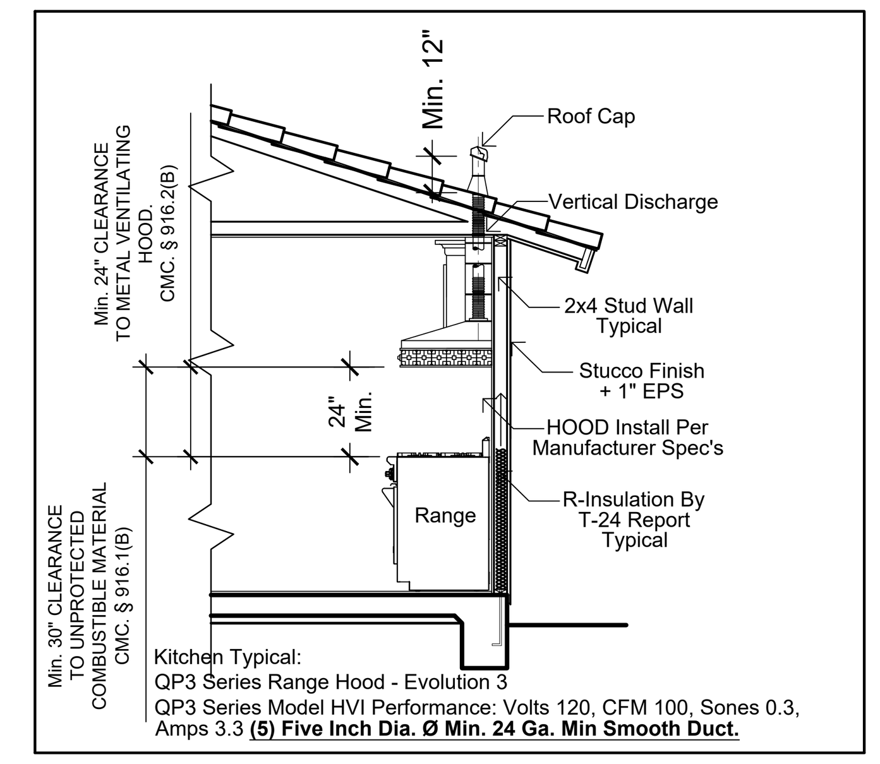
1. 1105.4 Illumination and Service Receptacles. In addition to the requirements of Section 301. 4, permanent lighting fixtures shall be installed for equipment required by this code to be accessible or readily accessible. Such fixtures shall provide illumination to perform the required tasks for which access is provided. Control of the illumination source shall
2. 1105.3 Access. An un obstructed readily accessible opening and passageway not less than 36 inches (914 mm) in width and 80 inches (2032 mm) in height shall be provided and maintained to the compressor, valves required by this chapter, or other portions of the system requiring routine maintenance.
   Exceptions:
   (1) Refrigerant evaporators, suspended overhead, shall be permitted to use portable means of access.
   (2) Air filters, brine control or stop valves, fan motors or drives, and remotely de-energized electrical connections shall be permitted to be provided access by an unobstructed space not less than 30 inches (762 mm) in depth, width, and height. Where an access opening is immediately adjacent to these items and the equipment is capable of being serviced, repaired, and replaced from this opening, the dimensions shall be permitted to be reduced to 22 inches (559 mm) by 30 inches (762 mm) provided the largest piece of equipment is removed through the opening.
   (3) Cooling equipment, using Group A 1 refrigerants or brine, located in an attic or furred space shall be pern1itted to be provided an access by a minimum opening and passageway thereto of not less than 22 inches (559 mm) by 30 inches (762 mm).

Note:

Mechanical Unit Filters Must Be **MERV-6** Or Better

Ducts R-Value (Per Title 24 Report)
R-8.0

- A Certified HERS rater must field verify the installation of the correct condenser.
- The HVAC System HVAC System Incorporates HERS Verified Refrigerant Charge or a Charge Indicator Display.
- A Certified HERS rater must diagnostically measure airflow of the HVAC System.
- HERS field verification of the AHU model number is required. Duct Leakage cannot exceed 6%



No. 01 — Kitchen Hood Detail

1. Ducts used for kitchen range ventilation shall be of metal and shall have smooth interior surfaces.

H.V.A.C. SYMBOLS

Symbol	Description
	RECESSED CEILING EXHAUST FAN
THERMOSTAT	INDICATE LOCATION OF THERMOSTAT
12 x 12 SA 200 CFM	INDICATE LOCATION OF A/C/ GRILLE AND SIZE
8" Ø	INDICATE LOCATION OF DUCT AND DIAMETER
ATTIC ACCESS 22"x30" MIN.	INDICATED LOCATION OF ATTIC ACCESS
	A/C CONDENSER UNIT (VERIFY SIZE AND MODEL)
	DISCONNECT SWITCH FOR A/C FOR CONDENSOR SET AT REQUIRED HEIGHT
FAU	FAU UNITS
A.R.G.	AIR RETURN GRILL

Section 4.504 - POLLUTANT CONTROL

4.504.1
Covering of duct openings and protection of mechanical equipment during construction At the time of rough installation, or during storage on the construction site and until final startup of the heating and cooling equipment, all duct and other related air distribution component openings shall be covered.

4.504.2 Finish Material Pollutant Control. Finish Materials Shall Comply With This Section.

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

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

Note: Title 17 may found at http:/ccr.aol.ca.gov/

4.504.2.2 Paints and Coatings
Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measures as shown in Table 4.504.3 unless the more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as 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 4.504.3 shall apply.

4.504.2.3 Aerosol Paints and Coatings Aerosol paints and coatings shall meet the Product-Weighted MIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Section 94522(c) and (d)(2) of the 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.

1. **Note: Title 17 may found at http:/ccr.aol.ca.gov/**

4.504.3 Carpet Systems All carpet installed in the building interior shall meet the testing and product requirements of one of the following:
1. Carpet and Rug Institute's Green Label Plus Program
2. California Department of Public Health Standard Practice for testing of VOC's (Specification 01350)
3. Department of General Services, California Gold Sustainable Carpet Standard
4. Scientific Certifications Systems Indoor Advantage Gold

Notes:
For Green Label Plus, see hhttp://www.carpet-rug.com/
For NSF/ANSI 140, see http:/www.carpet-rug.org/carpet-and-rug-industry/sustainability/sustainable-carpetlist.cfm.
For Indoor Advantage™ Gold, see http://www.scscertified.com/iaq/indooradvantage.htm.
Scientific Certifications Systems Indoor Advantage http://www.scscertified.com/iaq/indooradvantage.htm.

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

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

4.504.4 Resilient Flooring Systems
Where resilient flooring is installed at least 80% of the floor area receiving resilient flooring shall comply with one or more of the requirements listed in Section 4.504.4

4.504.5 Composite Wood
Products Hardwood plywood, particle board 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 ARB's Air Toxic Control Measure for Composite Wood (17 CCR 93120 etseq.), by or before the dates specified in those section as shown in Table 4.504.5.

GAS WATER HEATER SCHEDULE

01	02	03	04	05	06	07	08	09	10	11
NAME	Heater Element Type	Tank Type	Number Of Units	Tank Volume (Gal)	Energy Factor Or Efficiency	Imput Rating	Tank Exterior Insulation R-Value	Standby Loss/ Recovery Eff	NEEA Heat Pump Type	Tank Location or Ambient Condition
DHW Heater 1	Natural Gas	Small Storage	1	0	0.82 EF	200,000-Btu/hr	0	0	0	n/a

HVAC COOLING Unit Types

01	02	03	04	05	06	07	08
			Efficiency				
Name	System Type	Number Of Units	EER	SEER	Zonally Controlled	Multi-speed Compressor	HERS Verification
Cooling Components 1	Split Air Cond.	1	12.3	14.5	Not Zonal	Single Speed	Cooling Component 1-hers-cool

MECHANICAL

1) Installation Practices. Mechanical systems shall be installed in a manner in accordance with this code, applicable standards, and the manufacturer's installation instructions. C.M.C. 303.1
2) Anchorage of Appliances. Appliances designed to be fixed in position shall be securely fastened in place in accordance with the manufacturer's installation instructions. Support for appliances shall be designed and constructed to sustain vertical and horizontal loads with in the stress limitations specified in the building code. C.M.C. 303.4
3) C.M.C. 504.4.2 Domestic Clothes Dryer. Where a compartment or space for a domestic clothes dryer is provided, not less than a 4 inch diameter (102 mm) moisture exhaust duct of approved material shall be installed in accordance with this section and in Section 504.0 Where a closet is designed for the installation of a clothes dryer, an opening of not less than 100 square inches (0.065 m²) for makeup air shall be provided in the door or by other approved means.
4) Vertical Clearance.
   Above Cooking Top. Household cooking appliances shall have a vertical clearance above the cooking top of not less than 30 inches (762 mm) to combustible material or metal cabinets. A minimum clearance of 24 inches (610 mm) is permitted where one of the following is installed C.M.C. 921.4.2:
   (1) The underside of the combustible material or metal cabinet above the cooking top is protected with not less than1/4 of an inch (6.4 mm) insulating millboard covered with sheet metal not less than 0.0122 of an inch mm) thick.
   (2) A metal ventilating hood of sheet metal not less than 0.0122 of an inch (0.3099 mm) thick is installed above the cooking top with a clearance of not less than 1/4 of an inch (6.4 111m) between the hood and the underside of the combustible material or metal cabinet, and the hood is as wide as the appliance andis centered over the appliance.
   (3) A listed cooking appliance or microwave oven installed over a listed appliance shall be in accordance with the terms of the upper appliance listing and the manufacturer's installation instruc-tions.
5) Specify the required clearances to combustible construction as required by the listing of the furnace. (C.M.C. 904.2)
6) If combustion air is taken from outside, combustion air openings shall be covered with corrosion-resistant screen. Screens shall not be smaller than ¼-inch mesh. (C.M.C. 701.10.1)
7) Termination. A chimney for a residential-type or low-heat appliance shall extend not less than 3 feet (914 mm) above the highest point where it passes through a roof of a building and not less than 2 feet (610 mm) higher than a portion of a building within a horizontal distance of 10 feet (3048 mm). (See Figure 802.5.4) [NFPA 54: Figure 12.6.2.1]
8) Unlisted Units. Unlisted outdoor cooking appliances shall be installed outdoors with clearances to combustible material of not less than 36 inches (914 mm) at the sides and back and not less than 48 inches (1219 mm) at the front. In no case shall the appliance be located under overhead combustible construction. [N.F.P.A. 54: 10.20.2] C.M.C. 924.2
9) R303.3.1 Bathroom exhaust fans. Each bathroom containing a bathtub, shower or tub/shower combination shal be mechanically ventilated for purposes of humidity control in accordance with the California Mechanical Code, Chapter 4; and the California Green Building Standards Code, Chapter 4, Division 4.5.
   Note: Window operation is not a permissible method of providing bathroom exhaust for humidity control.
10) Mechanical Exhaust Fans which exhaust directly from bathrooms shall comply with ASHRAE 62.2, Section 5 Exhaust fans shall be ENERGY compliant; exhaust fans shall terminate outside the building.

Whole Building Ventilation Requirements [ASHRAE 62.2, Section 4.1(a)]

Whole building ventilation provides outdoor air ventilation for the entire building as contrasted with local ventilation Exhaust for kitchens and bathrooms.
Provide:

Bathrooms Typical:

QTXE Series Fans
QTXE080
HVI Performance: Static Pressure (Ps) 0.10, CFM 80, Sones 0.3, Watts 23.3

Kitchen Typical:

QP3 Series Range Hood - Evolution 3
QP3 Series Model HVI Performance: Volts 120, CFM 100, Sones 0.3, Amps 3.3

Whole Building Ventilation System Typical:

SSQTXE110 Broan SmartSence
SSQTXE110 Intelligent Ventilation System
HVI Performance:
Static Pressure (Ps) 0.10, CFM 110, Sones 0.3, Watts 480, 13A Resistive
Meets ASHARE 62.2-2010 - Related Ventilation Requirements

Recommended Continuous Ventilation Rate (In CFM [Cubic Feet Per Minute]).

Home Square Footage	Number Of Bedrooms 4-5
1,760.0 Sq. Ft.	75

Note:
The Whole House Ventilation Will Be Continuously Operating. "Ventilation Control" "Operate when the House is in Use" or "Keep on except when gone over (7) Seven Days" "Fan is to be left On to ensure indoor air quality"

ASHRAE Standard 62.2 Table 7.1

Table 7.1 Prescriptive Duct Sizing Requirements

Duct Type	Flex Duct				Smooth Duct			
Fan Rating cfm @ 0.25 in. w.g.	50	80	100	125	50	80	100	125
Maximum Allowable Duct Length (ft)								
Diameter, (in)	Flex Duct				Smooth Duct			
3	X	X	X	X	5	X	X	X
4	70	3	X	X	105	35	5	X
5	NL	70	35	20	NL	135	85	55
6	NL	NL	125	95	NL	NL	NL	145
7 and above	NL	NL	NL	NL	NL	NL	NL	NL
This table assumes no elbows. Deduct 15 ft of allowable duct length for each turn, elbow, or fitting.								
NL = no limit on duct length of this size								

X = not allowed, any length of duct of this size with assumed turns, elbows, fittings will exceed the rated pressure drop

Equipment:

Approval Equipment or Appliance shall be approved by the Authority Having Jurisdiction for safe use or comply with applicable nationally recognized standards as evidence by the Listing and Label of an approved agency. A list of acceptable standards is included in Chapter 17. (2016 CMC 301.2)

Bathroom Exhaust Fans:

Each bathroom containing a bathtub, shower or tub/shower combination shall be mechanically ventilated for the purpose of humidity control in accordance with California Green Code - Chapter 4; and the California Green Building Code - Chapter 4.5; Section 4.506 (CRC R303.3.1)

1. Fans shall be Energy Star Compliant and ducted to terminate to the outside of the building.
2. Unless functioning as a component of the whole-house ventilation system, fans must be controlled by a humidity control.

Additional Notes:

Newly Construction Homes (Cal Energy 150.0(n)(1)):
- A. A 120v. Electrical Receptacle that is with in 3 feet from the water heater and accessible to the water heater with no obstructions; and
- B. A Category III or IV or Type B vent with straight pipe between the outside termination and the space where the water heater is installed; and
- C. A condensate drain that is no more than 2 inches higher than the base of the water heater and allows for natural draining without the assistance of a pump; and
- D. a gas supply line with the capacity of at least 200K Btu/hr.

250.94 Bonding for Other Systems:
An intersystem bonding termination for connecting intersystem bonding conductors required for other systems shall be provided external to enclosures at the service equipment or metering equipment enclosure and at the disconnecting means for additional buildings or structures. The intersystem bonding termination shall comply with the following:
(1) Be accessible for connection and inspection.
(2) Consist of a set of terminals with the capacity for connection of not less than three intersystem bonding conductors.
(3) Not interfere with opening the enclosure for a service, building or structure disconnecting means, or metering equipment.
(4) At the service equipment, be securely mounted and electrically connected sure for the service equipment, to the meter enclosure, or to an exposed non fixable metallic service raceway or be mounted at one of this enclosures and be connected to the enclosure or to the grounding electrode conductor with a minimum 6 AWG cooper conductor.
(5) At the disconnecting means for a building or structure, be securely mounted and electrically connected to the metallic enclosure for the building or structure disconnecting means, or be mounted at the disconnecting means and be connected to the metallic enclosure or to the grounding electrode conductor with a minimum 6 AWG cooper conductor.
(6) The terminals shall be listed as grounding and bonding equipment.

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Revisions	Date
Plan Check Revisions (1)	00-00-2018

SMART HOMES OF THE DESERT INC

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Sheet Name:
Mechanical Floor Plan & General Notes

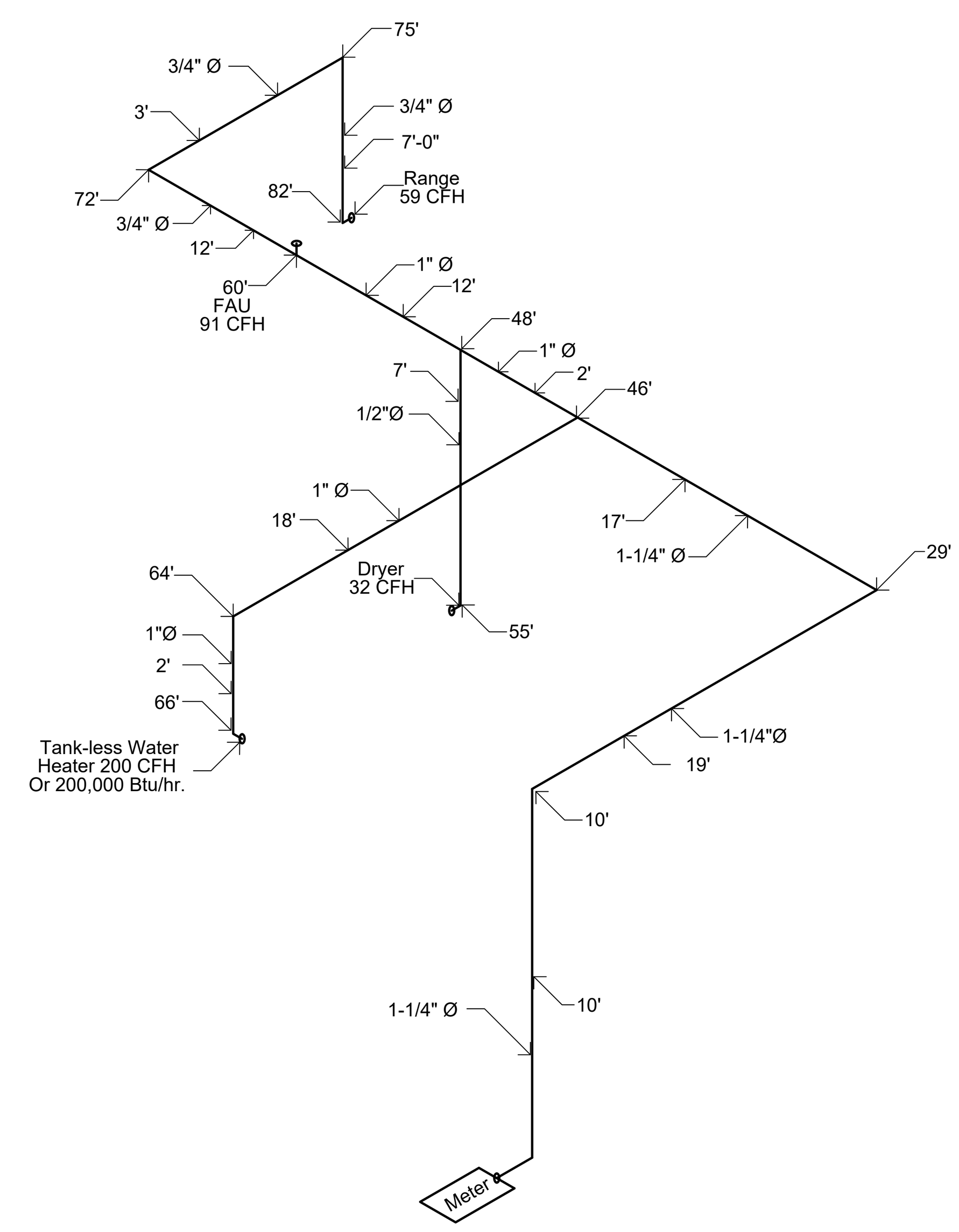
Date: OCTOBER-2018

Drawn By: Mike Mendoza

Sign By:

Sheet Number:
M1.01

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



Gas Isometric

Not To Scale

House Gas

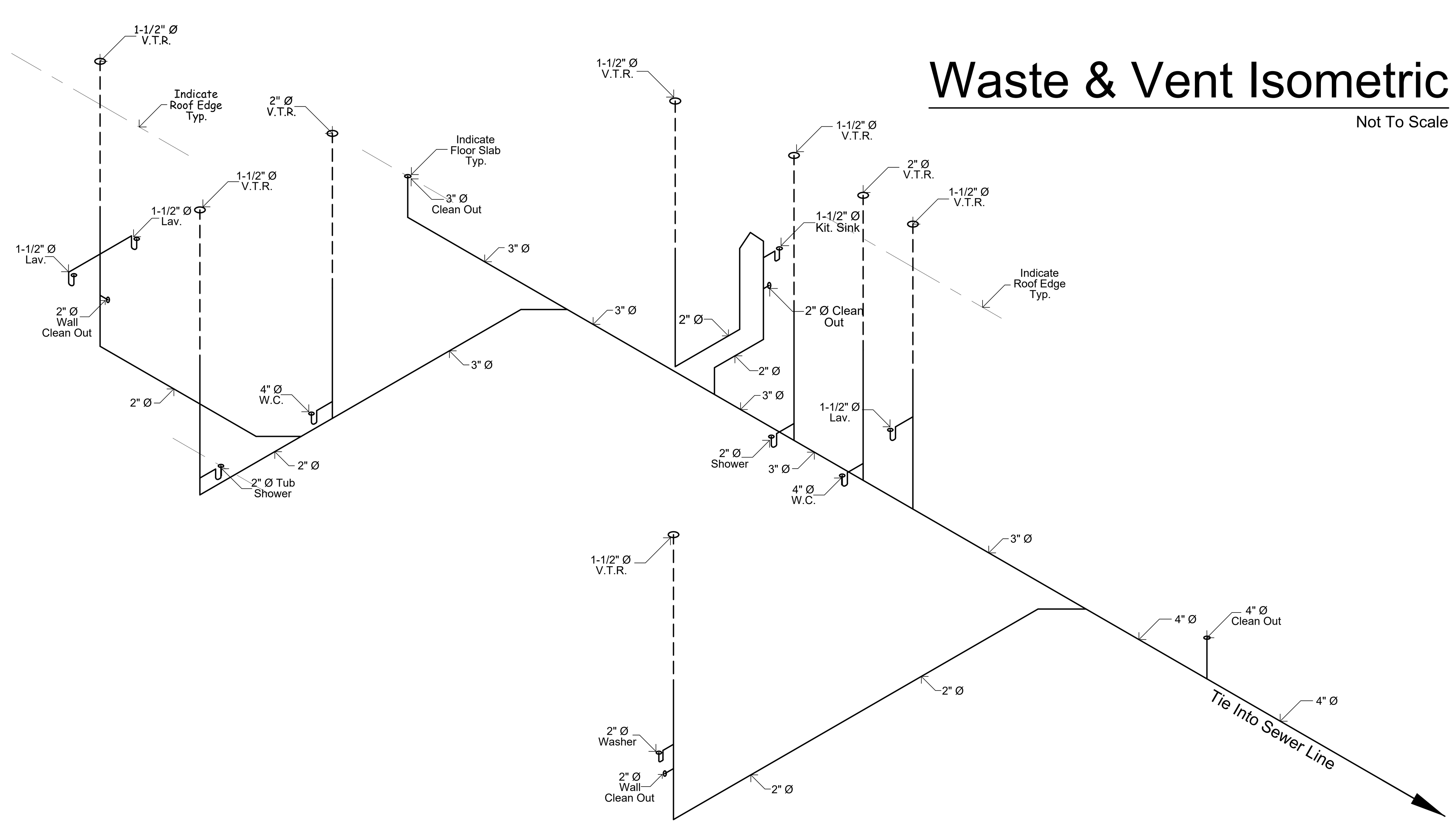
Total Development Length	82'-0"
Total CFH	382 CFH

Total Fixture Units

2 - Toilets	12
3 - Sinks	3
2 - Showers	4
1 - Kitchen Sink	2
1 - Washer Mashine	3
9 Units Total	24 Fixture Units

Waste & Vent Isometric

Not To Scale



PLUMBING

1.0 GENERAL

1.01 SCOPE

Provide Labor, Material, Equipment and Service as neccessary for the installation of a complete Plumbing System where shown on the drawings and as noted herein.

B. Plumbing system is to operate according to the best practices of the trade and including but not limite to. fixtures, hot and cold water piping, soil and vent piping, water heaters, pipe insulation, permits, fees, meters, deck drains, etc. (Verify all drains and overflow systems tie in with underground drainage system.

1.02 QUALITY ASSURANCE

A. CODES AND STANDARDS

1. California Building Code (Or current applicalbe code).
2. California Plumbing Code (Or current applicable Code).
3. Refer to plans by subcontractor or licenced Engineer for actual layout and general notes. (Under separte Permit).

2.0 PRODUCTS

2.01 PLUMBING FIXTURES

A. As selected by Client/Developer.

3.0 EXECUTION

3.01 GENERAL

A. Previus work by others Contractors shall inspect details, framing and surfaces for appropriateness to install Gypsum Board, deficiencies are to be reported inmmediately, in waiting to the General Contractor, failure to notify prior to commencement of work will constitute acceptance by the Contractor of suitability of previus work by others.

3.02 INSTALLATION

A. Rough shall be completed, tested and approved before closing in with other work.
B. opening in pipes, drain and fittings shall be kept covered during construction.
C. Provide solid backing for securing fixtures.
D. Provide clean cuts at ends of all lines and where required by codes.
E. Verify all pipe assembly requirements with plans prior to intallation.
F. Verify all clearances for water closets, lavs, etc.
with appropiated handicapped requirements.

3.03 COMBUSTION AIR

A. Combustion air taken from outside, provide 'L' Square Inch from each 1,000 B. T. U.'s 50 % at ceiling and 50 % at floor, provide duct work as required.

Additional Plumbing Notes:

Newly Construction Homes (Cal Energy 150.0(n)(1)):

1. A 120v. Electrical Receptacle that is with in 3 feet from the water heater and accessible to the water heater with no obstructions; and
2. A Category III or IV or Type B vent with straight pipe between the outside termination and the space where the water heater is installed; and
3. **A condensate drain that is no more than 2 inches higher than the base of the water heater and allows for natural draining without the assistance of a pump;** and a gas supply line with the capacity of at least 200,000 Btu/hr.
250.94 Bonding for Other Systems:
An intersystem bonding termination for connecting intersystem bonding conductors required for other systems shall be provided external to enclosures at the service equipment or metering equipment enclosure and at the disconnecting means for additional buildings or structures. The intersystem bonding termination shall comply with the following:

a. Be accessible for connection and inspection.
b. Consist of a set of terminals with the capacity for connection of not less than three intersystem bonding conductors.
c. Not interfere with opening the enclosure for a service, building or structure disconnecting means, or metering equipment.
d. At the service equipment, be securely mounted and electrically connected sure for the service equipment, to the meter enclosure, or to an exposed non fixable metallic service raceway or be mounted at one of this enclosures and be connected to the enclosure or to the grounding electrode conductor with a minimum 6 AWG cooper conductor.
e. At the disconnecting means for a building or structure, be securely mounted and electrically connected to the metallic enclosure for the building or structure disconnecting means, or be mounted at the disconnecting means and be connected to the metallic enclosure or to the grounding electrode conductor with a minimum 6 AWG cooper conductor.
f. The terminals shall be listed as grounding and bonding equipment.
All Plumbing Fixtures Shall Meet The Flow Requirements Specified In The 2016 California Green Building Code.
g. When a Shower is provided with **Multiple Shower Heads**, the sum of flow to all the heads shall not exceed 2.0 gpm @ 80 psi, or the shower shall be designed so that only one head is on at a time. C.G.C. 4.303.1.3.2.

4. **Water Heaters:**

Effective July 1, 2014 new installation gas water heater shall have all the following as per 2016 Energy Standards 150.0(n):

1) A 120 V. Electrical Receptacle is within 3 feet from the Water Heater and accessible with No Obstructions.
2) A Category III or IV Vent, or a Type B Vent with straight pipe between outside and Water Heater.
3) A Condensate Drain no more than 2" (Inches) higher than the base on Water Heater for Natural draining.
4) A Gas Supply line with a capacity of at least 200,000 Btu/hr.

7. Provide a sediment trap at the location of Water Heater and FAU. A sediment trap must be installed as close as possible to the gas inlet of the appliance. Sediment traps are NOT required at ranges, cloth dryers, decorative vented appliances or gas fireplaces.
8. When a Shower is provided with **Multiple Shower Heads**, the sum of flow to all the heads shall not exceed 2.0 gpm @ 80 psi, or the shower shall be designed so that only one head is on at a time. C.G.C. 4.303.1.3.2.
9. C.P.C. 408.7 Lining for Showers and Receptors. Shower receptors built on-site shall be watertight and shall be constructed from approved-type dense, nonabsorbent, and non corrosive materials. Each such receptor shall be adequately reinforced, shall be provided with an approved flanged floor drain designed to make a watertight joint in the floor, and shall have smooth, impervious, and durable surfaces.
10. 608.5 Discharge Piping. The discharge piping serving a temperature relief valve, pressure relief valve, or combination of both shall have no valves, obstructions, or means of isolation and be provided with the following:
(1) Equal to the size of the valve outlet and shall discharge full size to the flood level of the area receiving the discharge and pointing down.
(2) Materials shall be rated at not less than the operating temperature of the system and approved for such use.
(3) Discharge pipe shall discharge independently by gravity through an air gap into the drainage system or outside of the building with the end of the pipe not exceeding 2 feet (610 mm) and not less than 6 inches (152 mm) above the ground and pointing downwards.
(4) Discharge in such a manner that does not cause personal injury or structural damage.
(5) No part of such discharge pipe shall be trapped or subject to freezing.
(6) The terminal end of the pipe shall not be threaded.
(7) Discharge from a relief valve into a water heater pan shall be prohibited.
11. 608.6 Water-Heating Devices. A water-heating device connected to a separate storage tank and having valves between said heater and tank shall be provided with an approved water pressure relief valve.

Plumbing Material List:

• Sewer	ABS Schedule 40
• DWV Below Slab	ABS Schedule 40
• Waste Above Slab	ABS Schedule 40
• Water Service	PVC 40
• Water Below Slab	Cooper Type L
• Water Above Slab	Cooper Type L
• Gas Below Grade	Polyethylene
• Gas Above Grade	Steel Pipe Black Schedule 40
• Roof Drain Piping	ABS Schedule 40
• Valves	Approved Manufacturer
• Insulation Required	Hot Water
• Insulation	Polyethylene Closet Cell
• Indirect Waste	PVC Schedule 40

ABS is the Material Type of Choice, Schedule 40 Must Be Specified.

Non Slip-Joint Trap will be used on Bathtubs/Shower Combination

Plumbing Notes:

1. The legend drawing is generic compilation of general notes and symbols that are standardly required on plumbing drawings. Information shown on this drawings may not necessarily be applicable to this specific project. General Contractor/Plumbing Contractor shall be responsible for coordinating information on the plans with pertinent data on this drawings.
2. Plumbing drawings show only pertinent information for location, size and class of piping, equipment and fixtures to be installed, specifications which form part of the drawings, specify material to be used for various sizes and classes of piping, equipment and fixtures.
3. Plumbing systems shall be installed in accordance with the California Plumbing Code (C.P.C.) and all applicable local, State Codes and Regulations with amendments (Latest Edition).
4. Potable water system must be disinfected prior to use as required and outlined in California Plumbing Code.
5. Elevation bellow ground level are noted in feet and decimals of feet and shall denote invert elevation of pipe. Elevations above ground level are noted in feet & inches and shall denote work point elevation of pipe, unless noted otherwise. Bottom of pipe elevations refer to bottom of pipe on uninsulated lines and to bottom of saddle of insulated lines.
6. Piping shown on drawings without dimensional location shall be field routed by Contractor. Contractor shall verify proposed pipe routings prior to installation, including interference with buildings structures, equipment and work of other trades whether new or existing. Proposed routings shall be reviewed with the Construction Manager.
7. Exact location of plumbing equipment, devices and fixtures shall be confirmed by Contractor prior to installation. Contractor shall refer to Architectural drawings for fixture locations and mounting heights.
8. Contractor shall check locations of other trades work prior to installation of pipe hangers to prevent interferences.
9. Reducers, reducing inserts, unions & Appurtenances not shown on drawings but required for proper installation shall be provided by Contractor.
10. Plumbing line size reductions not shown with reducers shall be made with reducing fittings.
11. Pipe sleeves for plumbing lines shall be furnished and installed by Contractor coordinate with with slab and wall Contractors for proper location and sizes.
12. Valve handle orientation shall be by Contractor unless specifically shown on drawings or directed by Construction Manager. Valve handle shall clear vehicle and/or personnel traffic and shall be easily accessible.
13. Floor drain and hub drain P-traps shall be deep seal type unless noted otherwise floor drain and hub drain P-traps with trap primer shall be standard seal type unless noted otherwise.
14. Top of floor clean outs shall be flush with finish floor unless noted otherwise.
15. Vent pipe extensions thru roof shall terminate 1'-0" (Minimum) above finished roof.
16. Elevations shown on plumbing drawings are referenced from nominal finished floor elevation.
17. Underground trap primer piping shall be installed in accordance with specifications.
18. Contractor shall seal penetrations through fire walls and floors with approved fire sealant, refer to specification. Install per manufacturers instructions for applicable pipe material and size.
19. Pipe penetration through Non-Rated walls and floors shall be sealed air tight.
20. Bathtub, shower, and tub-shower combinations require individual control valves of the pressure balance or thermostatic mixing valve type. Handle position stops should be provided on the valves and should be adjusted per manufacturer's instructions to deliver a Maximum 120F.
21. All gas piping downstream of pressure regulator to be sized per 2016 C.P.C. Table 1208.4.1 Gas Meters to be accessible. Install automatic earthquake Shut-Off Valve & Regulator as required. Gas Shut-Off valves & pressure regulators to be easily accessible.
22. Pipe insulation required on all hot water pipes 3/4 inch or larger and on all piping from the water heater to the kitchen.
23. The Builder shall provide the Building Owner, Manager or Original Occupants the Following:
a. A list of heating, cooling, water heating, and light systems & features, materials, components, and mechanical devices, conservation or solar devices installed in the building, and instructions on how to use them efficiently.
24. Domestic Water Heater shall be certified and listed by the California Energy Commission, and shall be certified by the manufacturer to comply to all requirements of the Energy Efficiency Standards.
25. unfired Hot Water Storage Tanks shall be installed with a minimum R-16 Insulation Jacket.
26. All natural gas fired equipments or systems shall have not continuously burning pilot light.
27. All hot water piping shall be installed and insulated in accordance with the C.E.C. requirements.
28. If a Circulating Hot Water system is installed, it shall have a control capable of automatically turning of the circulating pump(s) when hot water is not being used.
29. The piping for all space conditioning and service water heating systems shall be insulated in accordance with the pipe insulation.
30. Water heating systems shall be equipped with automatic temperature controls capable of adjustments from the lowest to the highest acceptable temperature settings for the intended use listed in Table 3, Chapter 48 of 2005 ASHARE Handbook, H.V.A.C. Application Volume.
31. All plumbing fixtures shall be certified by the California Energy Commission. Plumbing Fixture Water consumption rates shall be as follows:

TABLE 4.303 FIXTURE FLOW RATES

Fixture Type	Maximum Allowable Flow Rate
Showerheads	2.0 gpm @ 80 psi
Lavatory Faucets Residential	1.2 gpm @ 60 psi [1,3]
Kitchen Faucets	1.8 gpm @ 60 psi [1,4]
Metering Faucets	0.25 gallons/Cycle
Gravity Tank-typewater closets	1.28 gallons/flush [5]
Flushometer-tank water closets	1.28 gallons/flush [5]
Flushometer-Valve water closets	1.28 gallons/flush [5]
Urinals	0.125 gallons/flush
Clothes Washers	ENERGY-STAR certified
Urinals	ENERGY-STAR certified

1 Lavatory Faucets shall not have a flow rate less than 0.8 gpm at 20 psi.
2 Kitchen Faucets may temporarily increase flow above the maximum rate, but not above 2.2 gpm @ 60 psi and must default to a maximum flow rate of 1.8 gpm @ 60 psi.
3 Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.
4 Kitchen faucets with a maximum 1.8 gallon/flush installed throughout.
5 Includes single and dual flush water closets with an effective flush of 1.28 gallons or less.
Single Flush Toilets - The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is the average flush volume when tested in accordance with ASME A112.19.233.2.
Dual Flush Toilets - The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is defined as the composite, average flush volume of two reduced flushes and one full flush. Flush volumes will be tested in accordance with ASME A112.19.2 and ASME

SECTION 4.303
INDOOR WATER USE

4.303.1 Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

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

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

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

4.303.1.3 Showerheads.

4.303.1.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

4.303.1.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 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.

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

4.303.1.4 Faucets.

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

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

4.303.1.4.3 Metering faucets. Metering faucets when installed in residential buildings shall not deliver more than 0.25 gallons per cycle.

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

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

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

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Revisions	Date
Plan Check Revisions △1	00-00-2018

SMART HOMES OF THE DESERT INC

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Job Address:
Lot No. 271 Cuyamaca Drive
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Sheet Name:
Plumbing Isometrics Plan & General Notes

Date: OCTOBER-2018

Drawn By: Mike Mendoza

Sign By:

Sheet Number:
P1.01

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

GENERAL REQUIREMENTS

1. Before starting work the Designer shall be notified.
2. The General Contractor shall verify all dimensions and site conditions and or any kind of discrepancies from the construction documents.
3. Verify existing and finished grade elevations as per precise grading plan or approved surveying.
4. Work reformed shall comply with these general notes, Uniform Building Code, Applicable local and State Codes, Ordinances and Regulations.
5. Provide Temporary Toilet Facilities
6. Written dimensions take precedence, DO NOT Scale the drawings.
7. The design, adequacy and safety of erection, bracing shoring temporary supports, etc. is the sole responsibility of The General Contractor and has not been considered by the Engineer Of Record. The General Contractor is responsible for the stability of the structure prior to the application of all shear walls, roof and floor diaphragms and finish materials. He shall provide the necessary bracing to stability prior to the application of the before mentioned materials. Observation visits to the site shall not include any inspections of the above items.
8. Vibrational effects of mechanical equipment has not been considered by Engineer Of Record.
9. It shall be the responsibility of the General Contractor to locate and to protect from damage, all existing utilities whether shown hereon or not.
10. The General Contractor shall bear all expenses of repair or replacement in conjunction with the prosecution of this work.
11. General Contractor Shall verify required footing depth shown on Structural Drawings and Structural Detail Sheets. General Contractor shall comply with all Local Codes and Ordinances pertaining to the construction of the footings and slab.

SITEWORK

1. For Grading requirements and Grading notes see Grading Plans and Soils Engineering Report.

MOISTURE PROTECTION

1. All sheet metal to be 26 Gauge Galvanized iron unless otherwise noted.
2. Flash and counter flashing at roof to wall conditions. Not specifically shown.
3. G.I. Flash and caulk wood beams and outlookers projecting through exterior wall or roof surfaces.
4. Provide caulking and flashing not specifically shown to ensure a water tight job. See Construction Document for Mandatory Measures list.
5. Provide a Minimum of R-38 Fiberglass Blanket Insulation @ attic / ceilings & provide, verification W./Title 24 Report required.
6. All exterior windows and sliding doors shall be weather stripped and labeled as complying with ANSI A134.1,A134.2, A134.3, and A134.4 showing U-Value.
7. All wood windows and wood french doors shall be labeled certifying compliance with NWMA 1S-2. Shown U-Value.
8. All exterior doors shall comply with Section T-20-1495 (d) of the Energy Standards.
9. Door heads sill and jambs shall have seals, astragals or baffles. exterior doors & Garage doors to living space.
10. Flashing exterior openings with approved waterproof fabric flashing to extend 3" under building paper.
11. Built Up Roofing for Roofs with a Pitch of less than 1:12 and steeper than 1/8 : 12 use (3) Three layers of 15 Felt & Asphalt Hot Mop between sheets and a 90 Lbs. Flood Coat of Hot Asphalt with 300 Lbs. Roofing slag or 400 Lbs. Roofing Rock Embedded in Flood Coat.

WALL FRAMING

1. (Size) Studs in exterior walls and interior bearing walls of the building shall not be less than 2 inch. in size. unless otherwise noted.
2. Unless supported laterally by adequate framing, the Maximum allowable height fro studs shall be 14 Feet for 2 x 4 and (3) Three studs.
3. Studs supporting floors and ceiling or rafters shall be spaced not more than 16 Inches.
4. (Cripple Walls) Cripple walls shall be framed with studs not less in size than the studding above with a minimum length of 24 inches or shall be framed of solid blocking. When exceeding (4) Four Feet in height, such walls shall be framed of studs having the size required for an additional story.
5. Pipes in Walls:

   Stud partitions containing plumbing, heating, or other piped shall be so framed and the joists underneath so spaced as to give proper clearance for piping.Where a partition containing such piping runs parallel to the floor joists underneath such partitions shall be doubled and spaced to permit the passage of such pipes and shall be bridged. Where plumbing, heating, or other pipes are placed in or partly in a partition, necessitating the cutting of the soles or plates, a metal tie not less than $\frac{1}{8}$ Inch thick and 1-1/2 Inches wide shall be fastened to the plate across and to each side of the opening with not less than (4) Four 16d. Nails.

6. Bridging:
   All stud partitions or walls with studs having a height to least thickness ratio exceeding 50 shall have bridging not less than (2) Two inches in thickness and of the same width as the studs fitted snuggly and nailed there to provide adequate lateral support, unless covered by interior or exterior wall covering or sheathing meeting the minimum requirements of the Uniform Building Code applicable edition.

7. Cutting and Notching:
   In exterior walls and bearing partitions any wood studs may be cut or notched to a depth not exceeding 25 % percent of its width. Cutting and notching of studs to depth not greater than 40 % percent of the width of the stud is permitted in non bearing partitions supporting no loads other than the weight of the partition.

8. Bored Holes:
   A hole not grater in diameter than 40 % percent of the stud may be bored in any wood studs. Bored holes not greater than 60 % percent of the width of the stud is doubled provide not more than tow such successive doubled stud are so bored. In no case shall the edge of the bored hole be nearer than 5/8 of an inch to the edge of the stud. Bored holes shall not be located at the same section of stud as a cut or notch.

SHEET METAL

1. Sheet Metal Work shall be fabricated and installed in accordance with The "Architectural Sheet Metal Manual" A.I.A. File No. 12-L of Sheet Metal Air Conditioning Contractors National Association, Inc. (SMACCNA). Unless detailed otherwise on the drawiwngs. Materials shall be in accordance with the specifications and standards of American Society for Testing and Materials (A.S.T.M.) Latest Edition.
2. Approved Spark Arrestors shall be installed in all Chimneys and per manufacturer specifications.
3. Provide No. 26 Gauge (0.48) Galvanized Iron Flashing and Counter Flashing at juncture of Roof and Vertical Surfaces.
4. Provide Minimum 26 Gauge (0.48 mm) Galvanized Weep Screed at or below the Foundation Plate Line 4" (102 mm) Minimum Above Earth or 2" (51 mm) Above Paved Areas.
5. Specify Minimum No. 28 Gauge (0.41 mm) Galvanized Iron Valley Flashing.

METALS

1. Structural steel shapes, plates and tubes shall be per A.S.T.M. A-36
2. Welding shall be in accordance with A.W.S. DI.O Code for Welding in Building Construction Electrodes shall conform to A.S.T.M. A 233, E 60 Series.
3. All shop welding shall be done by qualified welders in approved fabricator shops and painted with one coat of red lead primer.
4. Guardrails and support connections shall resist a horizontal force of 20 Lbs. per linear foot at the top rail. Intermediate rail members of open type railing shall not allow 4" (Inch) Diameter object to pass through handrail / guardrail per C.B.C. or any applicable Codes.

CARPENTRY

1. ALL FRAMING SHALL BE GRADE MARKED IN ACCORDANCE WITH GRADING RUKES 16. UNLESS OTHERWISE SPECIFIED. ALL FRAMING LUMBER SHALL BEAR THE FOLLOWING MINIMUM GRADES : JOISTS AND RAFTERS = S.F. NO. 2 OR BETTER; 4" x HEADERS AND BEAMS = D.F. NO. 2 OR BETTER; 6" x LARGER BEAMS = D.F. NO. 1; STUDS AND LIGHT FRAMING D.F. CONSTRUCTION GRADE; 4" x POSTS = D.F. NO. 2 OR BETTER; 6" AND LARGER POSTS = D.F. NO. 1.
2. MUDSILLS SHALL BE PRESSURE TREATED DOUGLAS FIR OR FOUNDATION GRADE REDWOOD.
3. PLYWOOD EXPOSED TO WEATHER WILL BE EXTERIOR GRADE.
4. FRAMING SHALL BE DONE IN A WORKLIKE MANNER BY SKILLED MECHANICS. CODES.
5. 2 x SOLID BLOCK ALL FLOOR JOISTS AND RAFTERS AT ALL BEARING POINTS AND PER STRUCTURAL SECTIONS AND DETAILS.
6. ROOF AND FLOOR NAILING INSPECTION REQUIRED BEFORE COVERING.
7. PROVIDE BLOCKING FOR ALL HANDRAILS. PROVIDE BLOCKING FOR GRAB BARS AT BATHROOMS.
8. WALL FRAMING SHALL BE 2 x STUDS AT 16" 0.C. PROVIDE DOUBLE 2x TOP PLATE WITH MINIMUM 48" LAP SPLICE, UNLESS OTHERWISE NOTED. 2x6 STUDS @ WALL CONTAINING HORIZONTAL PLUMBING LINES.
9. PROVIDE DOUBLE TRIMMERS EACH SIDE OF OPENINGS 6' - 0 " WIDE OR GREATER.
10. PROVIDE FIRESTOPPING IN STUD SPACES AT ALL FLOOR AND CEILING LEVELS AND STUD SPACES OVER 8' - 0" WIDE OR GREATER.
11. ALL POST TO BEAM CONNECTIONS SHALL BE " SIMPSON " PC OR CC. OR APPROVED EQUAL UNLESS OTHERWISE DETAILED. ALL POSTS SHALL BE SIMPSON CC" , " CB " OF " BC HALF BASE " UNLESS SPECIFICALL DETAILED OTHERWISE.
12. ALL EXTERIOR FINISH MATERIAL SHALL BE APPLIED OVER ONE LAYER 15# ASPHALT SATURATED FELT.
13. PROVIDE CROSS VENTALATION AT ATTIC AND ENCLOSED RAFTER JOIST SPACES EQUAL TO 1 / 150 OF AREA T BE VENTALATED 1 / 300 PROVIDED THAT 50 % OF REQUIRED VENTALATION AREA IS PROVIDED BY VENTALATORS WITHIN THE UPPER 1 / 3 OF ROOF WITH THE BALANCE OF REQUIRED VENTALATION PROVIDED AT THE EAVES. PROVIDE MIN. 8 MESH PER INCH SCREENING AT ALL ROOF VENTS OR AS NOTED.
14. PROVIDE 2 x BLOCKING FOR CABINETS, GRAB RAILS, TOWELS BARS, PAPER AND DISPENSERS AND SOAP DISPENSERS AS REQUIRED.
15. 3 OR MORE MULTIPLE JOISTS SHALL BE BOLTED TOGETHER WITH 1/ 2" DIAMETER BOLTS @ 24" O.C. STAGGERED RE - TIGHTEN BOLTS PRIOR TO APPLYING FINISH MATERIALS.
16. STUD WALLS SUPPORTING TWO FLOORS AND A ROOF SHALL BE FRAMED WITH 2 x 6 OR 3 x 4 STUDS @ 16" O.C.
17. PROVIDE DOUBLE FLOOR JOISTS UNDER ALL PARALLEL NON BEARING PARTITIONS.
18. USE " SIMPSON " " U " HANGERS ON ALL JOISTS / BEAM CONNECTIONS. " TF " HANGERS AT BEAM / BEAM CONNECTIONS (UNLESS NOTED ON PLANS).
19. STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, ETC. UNLESS SPECIFICALLY NOTED OR DETAILED.
20. HOLES OR BOLTS SHALL BE BORED 1 / 32" TO 1 / 16" LARGER THAN NOMINAL BOLT DIAMETER.
21. ALL BOLTS BEARING ON WOOD SHALL HAVE WASHERSUNDER HEAD AND / OR NUT. ALL BOLTS SHALL BE RETIGHTENED PRIOR TO APPLICATION OF PLASTER, PLYWOOD, ETC.
22. CROSS BRIDGING SHALL BE PROVIDED @ 8' - 0 0.C. MAX. FOR ALL JOISTS AND RAFTERS MORE THAN 8" IN DEPTH, USE 2 x 3 OR AN APPROVED METAL TYPE OF BRIDGING.
23. ATTACH 2x NAILERS TO STRUCTURAL STEEL W/ 1 / 2" DIAMETER ANCHOR BOLTS @ 4' - 0" O.C. ATTACHMENT OF FINISH NOTED AND SHOWN ON ARCHITECTURAL DRAWING.
24. GLUED - LAMINATED WOOD BEAMS SHALL BE DOUGLAS FIR COMB. 24F (Fb=2400 PSI,Fv = 165 PSI, E = 1800000 PSI) INDUSTRIAL APPEARANCE WITH EXTERIOR GLUE UNLESS OTHERWISE NOTED.
25. CERTIFICATE OF INSPECTION FOR EACH GLU - LAM BEAM FROM AN APPROVED TESTING AGENCY TO BE SUBMITTED TO THE BUILDING DEPT. PRIOR TO ERECTION.
26. ATTIC ACCES SHALL BE LOCATED MAX 20' FROM EQUIP. AND PROVIDE UNOBSTRUCTED ACCESS 24" WIDE FOR SOLID FLOOR.
27. ALL NEW GLAZING FENESTRATION WILL BE INSTALLED WITH A CERTIFY LABELED ATTACHED, SHOWING THE U - VALUE.
28. ALL EXTERIOR DOOR AND DOORS TO THE GARAGE SHALL BE FULLY WEATHER STRIPPED WITH THRESHOLD.
29. PROVIDE 22 " X30 " MINIMUM ATTIC ACCESS.
30. ALL ROUGHSAWN AND RESWAN SURFACES TO RECEIVE STAIN U.N.O.

ELECTRICAL NOTES

1. ALL WORK SHALL BE IN FULL ACCORDANCE WITH ALL CODES, RULES, REGULATIONS OF GOVERNING AGENCIES AND SHALL COMPLY WITH THE REQUIREMENTS OF THE SERVING POWER AND TELEPHONE COMPANIES.
2. THE CONTRACTER SHALL VERIFY AVAILABILITY OF SERVICES AND DETERMINE ACTUAL DETAILS PERTAINING TO EXACT LOCATIONS AND REQUIREMENTS BEFORE SUBMITTING HIS BID, UPON RECEIPT OF NOTICE THAT ELECTRICAL CONTRACT AWARD HAS BEEN MADE. SUCCESFUL BIDDER SHALL NOTIFY POWER AND TELEPHONE. SERVING UTILITY COMPANIES OF THE ESTIMATED DATE WHEN SERVICE SHALL BE DESIRED.
3. ALL MATERIALS AND EQUIPMENT FURNISHED AND INSTALLED UNDER THIS SECTION SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK BY THE OWNER.
4. ALL EQUIPMENT INSTALLED OUTDOORS AND EXPOSED TO WEATHER SHALL BE WEATHERPROOF, AND G.F.I. PROTECTED. RECEPTACLES IN BATHROOMS SHALL BE INSTALLED ABOVE COUNTER TOP. RECEPTACLES IN BATHROOMS / KITCHENS SHALL BE G.F.I. PROTECTED.
5. RECEPTACLES SHALL BE INSTALLED VERTICALLY AT 12" + ABOVE FLOOR UNLESS OTHERWISE NOTED.
6. WALL SWITCHES TO BE 36" ABOVE FLOOR UNLESS OTHERWISE NOTED.
7. ALL ELECTRICALLY OPERATED FIXTURES, OUTLETS, EQUIPMENTS OR DEVICES WHETHER INSTALLED BY THIS CONTRACTOR OR OTHERS, SHALL BE FULLY CONNECTED TO PROPER ELECTRICAL SOURCE AND LEFT IN OPERATING CONDITION.
8. ALUMINIUM WIRE SHALL NOT BE USED IN ELECTRICAL WIRING.
9. ALL OUTLETS SHALL BE GROUNDED TYPE.
10. PROVIDE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION ON ALL OUTDOOR RECEPTACLES.
11. RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET HORIZONTALLY FROM AN OUTLET.
12. REQUIRED BATHROOM FANS MUST PROVIDE 5 AIR CHANGES PER HOUR AND CONNECTED DIRECTLY TO THE OUTSIDE.
13. PROVIDE A SMOKE DETECTOR AS REQUIRED BY C.B.C. BUILDING DEPT., OWNER / DEVELOPER. DETECTOR SHALL BE LOCATED WITHIN 12" OF THE CEILING. SMOKE DETECTORS TO BE 110V. POWERED WITH A BATTERY BACK - UP.
14. ALL APPLIANCES SHALL BE SECURELY FASTED IN PLACE.
15. CONDENSING UNIT ON SITE SHALL BE PLACED ON CONCRETE PADS AT NO LESS THAN 3" ABOVE GRADE.
16. PROVIDE SECURITY SYSTEM FOR THE ENTIRE HOUSE INCLUDING ALARMING EXT. DOORS AND WINDOWS VERIFY OTHER REQ. OPTIONAL, VERIFY WITH GENERAL CONTRACTOR.
17. SET BACK THERMOSTAT ON ALL H.V.A.C. EQUIPMENT.
18. INSULATION TO MEET C.E.C. STANDARDS.
19. LIGHT FIXTURES ONE TUB OR SHOWER SHALL BE LABELED SUITABLE, PER DAMP LOCATION.
20. LIGHT FOR CLOSETS OR WALK IN CLOSETS SHALL BE PER CODE C.E.C.
21. COUNTERTOP RECEPTACLES OUTLET COMPLY WITH C.E.C. IN

    KITCHENS AND DINING AREAS OF DWELLING UNITS A RECEPTACLE OUTLET SHALL BE INSTALLED SO THAT NO POINT ALONG THE WALL LINE IS MORE THAN 24" MEASURED HORIZONTALLY FROM A RECEPTACLE OUTLET IN THAT SPACE.
22. SHOW RECEPTACLE OUTLETS IN HALLWAYS OF 10' - 0" OR MORE IN LENGTH C.E.C.
23. PROVIDE FLORESCENT GENERAL LIGHTING (40 LUMENS PER WATT MINIMUM) IN KITCHEN AND BATHROOMS.
24. VERIFY LOCATIONS OF OUTLETS, SWITCHES & FIXTURES PRIOR TO PULLING OF WIRE. VERIFY SELECTIONS OF LIGHT FIXTURES. PROVIDE INSTALLATION OF ALL OWNER SUPPLIED EQUIPMENT.
25. SHOW PERMANENT ELECTRICAL OUTLET AND LIGHTING FIXTURES CONTROLLES BY A SWITCH FOR FURNACE LOCATED ON ATTIC OR UNDER FLOOR SPACE.

FINISHES

1. One Coat Stucco System, must include one layer of water resistive barrier, having a flame-spread index of 25 or less and smoke-developed index of 450 or less. The water resistive barrier must be installed over the sheathing in accordance with IBC Section 1404.2 EPS insulation board with a nominal 1.5 pcf (24 kg/m) density must be installed at a 1-inch (25 mm) thickness horizontally in running bond to the sheathing.
   The lath insulation board and water resistive barrier must be positively fastened to the studs framing. The Stucco System must be applied at a $\frac{3}{8}$ Inch (9.5 mm) minimum thickness. ICC-ES Evaluation Report ESR-1194
2. Weep Screed shall be provided at the foundation plate line of all exterior stud walls. Bottom to be 2" (Inches) Down from the top of the slab. Inspection shall be provided between each progressive step of construction.
3. All Gypsum Board shall be installed in accordance with the provisions of the C.B.C Applicable edition, State and Local Codes. Typical nailing: 5d, cooler nails @ 6" (Inches) Edges and Boundaries. Use 6" (Inches) Cooler Nails when installing $\frac{5}{8}$" (Inch) Drywall.
4. Gypsum Wall Board shall not be installed until weather protection for the installation is provided. Provide $\frac{5}{8}$" (Inch) Type 'X' Fire Code G.W.B. on garage Side of One Hour Wall.
5. All edges and ends of Gypsum Wall Boards shall occur on the framing members, except those edges and ends which are perpendicular to the framing members. All edges and ends of Gypsum Wall Board shall be in moderate contact except in concealed spaces where Fire - Resistant Construction or Diaphragm action is not required.

FIRESTOPPING

H. FIRE AND DRAFT STOPS

In combustible construction fireblocking and draft-stopping shall be installed to cut off all concealed draft openings(both) vertical and horizontal and shall form an effective barrier between floors, between a top story and roof or attic space and shall subdivide attic space concealed roof spaces and floor ceiling assemblies. The integrity of all fire and draft stops shall be maintained.
Fireblocks, where required shall be provided in the following locations:
1. In concealed spaces of studs walls and partitions, including furred spaces at the ceiling and floor levels and at 10'-0" intervals both vertical and horizontal.
Exception: Fire block may be omitted at floor and ceiling levels when approved smoke-actuated fire dampers are installed at these levels.
2. At all interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cover ceilings.
3. In concealed spaces between stairs stringers at the top and bottom of the run and between studs along and in line with the run of stairs if the wall under the stairs are unfinished.
4. In openings around vents, pipes, ducts, chimneys, fireplaces and similar openings which afford a passage for fire at ceiling and floor levels, with noncombustible materials.

I. FIRE BLOCK CONSTRUCTION

Except as provided in item 4 above fire-stopping shall consist of 2" (Inches) nominal lumber or two (2) thickness of 1" (Inch) nominal lumber with broken lap joints backed by 23/32-Inch Plywood.
Fireblock may also be of Gypsum board, glass fiber, mineral fiber or other approved materials security fastened in place. Loose fill insulation can not be used.
Walls having parallel or staggered studs for sound transmission control shall have fire blocks of mineral fiber or glass fiber or other approved non-rigided material.

J. DRAFT STOP WHERE REQUIRED SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS.

FLOOR CEILING ASSEMBLIES

1. Single family dwelling when there is usable space above and below the concealed space of a floor ceiling assembly in a single family dwelling, draft stops shall be installed so that the area of the concealed space does not exceed 1,000 square feet. Drafstopping shall divide the concealed space in to approximately equal areas.
2. Two or more dwelling units, draft stops shall be installed in floor ceiling assemblies or building having more than one dwelling unit, such draft stop shall be in line with walls separating tenants from each other and separating tenants from other areas.

K. DRAFT STOP CONSTRUCTION

Drafstopping materials shall be not less than 1/2 " (Inch) Gypsum board, 3/8" (Inch) Plywood or other approved materials adequately supported.

L. STAIRS DRAFT STOP

Fireblocking shall be provided in concealed spaces between stair stringers at the top and bottom of the run. Enclosed spaces under stairs shall also comply.

3.02 INSTALLATION
A. WALL FRAMING:

1. SIZE: Studs in interior walls and interior bearing walls of buildings not more than two (2) stories in height shall be not less than 2x4's in size for three story buildings such studs shall not be less than 3x4's or 2x6's to the bottom of the second floor joist and 2x4's for the two upper stories. Interior non bearing partitions may be framed with 2x4 studs.
2. HEIGHT: Unless supported lateral by adequate framing the maximum allowable height for non bearing studs shall be 14'-0" for 2x4's studs and 20'-0" for 2x6's refer to Engineer's calculation for any "Balloon Framed" bearing walls more than 10'-0" in height.
3. Spacing studs supporting floors and ceilings or rafters shall be spaced no more than 16" (Inches).
4. Cripple walls shall be framed of studs not less in size than the studding above or shall be framed of solid blocking, when exceeding 4'-0" in height such walls shall be framed of studs having the size required for an additional story.

B. BEAMS AND GIRDERS

1. The ends of beams or girders supported on masonry or concrete shall have no less than 3" (Inches) of bearing.
2. All beams or girders supported on wood shall have full bearing and bearing shall be comprehend of in an approved manner unless otherwise selected on plans.
3. Provide 2x4 temporary bracing to all beams projecting 3'-0" beyond building line to prevent warpage.

C. FLOOR JOIST (TRUSSES)

1. Bearing, except where joist are support on a 1x4 ribbon strip and nailed to the adjoining stud the end of each joist shall have not less than 1-1/2" (Inch) of bearing in wood or metal, not less than 3' (Inches) on masonry, provide pull bearing transition for transfer of point loads see manufacturer details and/or Structural Engineer of record recommendations.
2. Blocking joist shall be supported laterally at the ends and at each support by solid blocking except where the ends of joist are nailed to header, band or rim joist or to an adjoining stud or by other approved means. Solid blocking shall be not less than 2' (Inches) nominal in thickness and the full depth of joist provide full bearing transistion for transfer of point loads. See manufacturer's details and/or Structural Engineer of records recomendations.
3. Notches and Holes: Notches on the end of the joist shall not exceed 1/4" (Inch) of the joist depth. Holes bored in joist shall not be with in 2" (Inches) of the top or bottom of the joist and the diameter of any such hole shall not exceed 1/3 the depth of the joist. Notches in the top or bottom of joist shall not exceed 1/6 the depth and shall not be located in the middle third of the span.
4. Laps: Joist framing from opposite sides of a beam girder or partition shall be lapped at least 4" (Inches) the opposing joist shall be tied together in an approved manner.

RESIDENTIAL MANDATORY MEASURES

4.504.2.1 Adhesive Sealants And Caulks:

Adhesives, sealants and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply:
1. Adhesives, adhesives bonding primers, adhesive primers, sealants, sealant primers, and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables
4.504.1 or 4.504.2 as applicable. Such products shall also comply with Rule 1168 prohibition on the use of certain toxic components (chloroform, ethylene, dichloride, methylene chloride, perchloroethylene, and trichloroethylene), except for aerosol products as specified in subsection 2 below.
1. 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 one pound and do not consist of more than 16 fluid ounces) shall comply statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commencing with Section 94507.

4.504.2.2 Paints and Coatings:

Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Suggested Control Measures as shown in Table
4.504.3 unless the more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 4.504.3 shall be determined by classifying the coating as 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 4.504.3 shall comply.

4.504.2.3 Aerosol Paints and Coatings:

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

4.504.3 Carpet System:

Carpet installed in the building interior shall meet the testing and product requirements of 1 of the following: 1. Carpet and Rug Institute'fs Green Label Plus Program 2. California Department of Public Health, "gStandard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,"h Version 1.1, February 2010 (also known as Specification 01350) 3. NSF/ANSI 140 at the Gold level 4. Scientific Certifications Systems Indoor Advantage ™ Gold.

4.504.3.1 Carpet Cushion:

All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label Program.

TABLE 4.504.2.1 ADHESIVE VOC LIMIT[1,2]

Less Water and Less Exempt Compounds In Grams per Liter

ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
Indoor Carpet Adhesives	50
Carpet Pad Adhesives	50
Outdoor Carpet Adhesives	150
Wood Flooring Adhesives	100
Rubber Floor Adhesives	60
Subfloor Adhesives	50
Ceramic Tile Adhesives	65
VCT and Asphalt Adhesives	50
Drywall and Panel Adhesives	50
Cove Base Adhesives	50
Multipurpose Construction Adhesives	70
Structural Glazing Adhesives	100
Single Ply Roof Membrane Adhesive	250
Other Adhesive Not Specifically Listed	50
SPECIALTY APPLICATIONS	
PVC Welding	510
CPVC Welding	490
ABS Welding	325
Plastic Cement Welding	250
Adhesive Primer For Plastic	550
Contact Adhesive	80
Special Purpose Contact Adhesive	250
Structural Wood Member Adhesive	140
Top and Trim Adhesive	250
SUBSTRATE SPECIFIC APPLICATIONS	
Metal to Metal	30
Plastic Foams	50
Porous Material (Except Wood)	50
Wood	30
Fiberglass	80

1 If any adhesive is used to bond dissimilar substrates together, the adhesive with the highest VOC content should be allowed.
2 For additional information regarding methods to measure the VOC content specified in this table, see South Coast Air Quality Management District Rule 1168, http://www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF.

4.504.4 Resilient Flooring Systems:

Where resilient flooring is installed, at least 80% of floor area receiving resilient flooring shall comply with one or more of the following:
1. Products compliant with the California Department of Public Health, "gStandard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers,"h Version 1.1, February 2010 (also known as Specification 01350), certified as a CHPS Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database.
2. Products certified under UL GREENGUARD Gold (formerly the Greenguard Children & Schools Program)
3. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program 4. Meet the California Department of Public Health, "gStandard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350)

4.504.5 Composite Wood Products:

Hardwood plywood, particle board 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 the Air Resources Board'fs Air Toxic's Control Measure for Composite Wood (17 CCR 93120 et. seq.), as shown in Table 4.504.5. Documentation is required per Section 4.504.5.1.
Definition of Composite Wood Products: Composite wood products include hardwood plywood, particle board, and medium density iberboard. "gComposite wood products"h do not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood-joists, or finger-joined lumber, all as specified in CCR, Title 17, Section 93120.1(a).

4.504.5.1 Documentation:

Verification of compliance shall be provided as requested by the enforcing agency, and as required in Section 4.504.5.1.

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Revisions		Date
Plan Check Revisions	1	00-00-2018

Owner Name:
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Job Address:
Lot No. 271 Cuyamaca Drive
Desert Hot Springs, CA 92240

Sheet Name:
General Notes

Date: OCTOBER-2018

Drawn By: Mike Mendoza

Sign By:

Sheet Number:
G1.01

Scale: To Plot Scale: 1/4" = 1'-0"

Grading & Paving

4.106.3. GRADING AND PAVING. CONSTRUCTION PLANS SHALL INDICATE HOW THE SITE GRADING OR DRAINAGE SYSTEM WILL MANAGE ALL SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS.
EXAMPLES OF METHODS TO MANAGE SURFACE WATER INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1. SWALES
2. WATER COLLECTION AND DISPOSAL SYSTEMS
3. FRENCH DRAINS
4. WATER RETENTION GARDENS, 5. OTHER WATER MEASURES WHICH KEEP SURFACE WATER AWAY FROM BUILDINGS SND SID IN GROUNDWATER RECHARGE.

EXCEPTIONS: ADDITIONS AND ALTERATIONS NOT ALTERING THE DRAINAGE PATH.CGC

Indor Water Use

WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. PLUMING FIXTURES (WATER CLOSETS AND URINALS AND
FITTINGS (FAUCETS AND SHOWERHEADS) SHALL COMPLY WITH THE FOLLOWING, PER CGC 4.303.1.

TABLE 4.303 FIXTURE FLOW RATES

Fixture Type	Maximum Allowable Flow Rate
Showerheads	2.0 gpm @ 80 psi
Lavatory Faucets Residential	1.2 gpm @ 60 psi [1,3]
Kitchen Faucets	1.8 gpm @ 60 psi [1,4]
Metering Faucets	0.25 gallons/Cycle
Gravity Tank-typewater closets	1.28 gallons/flush [5]
Flushometer-tank water closets	1.28 gallons/flush [5]
Flushometer-Valve water closets	1.28 gallons/flush [5]
Urinals	0.125 gallons/flush
Clothes Washers	ENERGY-STAR certified
Urinals	ENERGY-STAR certified

1 Lavatory Faucets shall not have a flow rate less than 0.8 gpm at 20 psi.
2 Kitchen Faucets may temporarily increase flow above the maximum rate, but not above 2.2 gpm @ 60 psi and must default to a maximum flow rate of 1.8 gpm @ 60 psi.
3 Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.
4 Kitchen faucets with a maximum 1.8 gallon/flush installed throughout.
5 Includes single and dual flush water closets with an effective flush of 1.28 gallons or less. Single Flush Toilets - The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is the average flush volume when tested in accordance with ASME A112.19.233.2.
Dual Flush Toilets - The effective flush volume shall not exceed 1.28 gallons (4.8 liters). The effective flush volume is defined as the composite, average flush volume of two reduced flushes and one full flush. Flush volumes will be tested in accordance with ASME A112.19.2 and ASME

NOTE:
4.303.1.1 WATER CLOSETS.: THE EFFECTIVE FLUSH VOLUME OF DUAL FLUSH TOILETS IS DEFINED AS THE EQUIVALENT DESIGN SOFTWARE OR METHODS. COMPOSITE, AVERAGE FLUSH OF TWO REDUCED FLUSHES AND ONE FULL FLUSH

4.303.1.3.2 MULTIPLE SHOWERHEADS SERVING ONE SHOWER.: A HAND-HELD SHOWER SHALL BE CONSIDERED A SHOWERHEAD.

4.303.1.4.4 KITCHEN FAUCETS.: WHERE COMPLYING FAUCETS ARE UNAVAILABLE, AERATORS OR OTHER MEANS MAY BE USED TO ACHIEVE REDUCTION.

Outdoor Water Use

4.304.1 IRRIGATION CONTROLLERS. AUTOMATIC IRRIGATION SYSTEM CONTROLLERS FOR LANDSCAPING PROVIDED BY THE BUILDER AND INSTALLED AT THE TIME OF FINAL INSPECTION SHALL COMPLY

WITH THE FOLLOWING:

1. CONTROLLERS SHALL BE WEATHER-OR SOIL MOISTURE-BASED CONTROLLERS THAT AUTOMATICALLY ADJUST IRRIGATION IN RESPONSE TO CHANGE IN PLANTS' NEEDS AS WEATHER CONDITIONS CHANGE.
2. WEATHER-BASED CONTROLLERS WITHOUT INTEGRAL RAIN SENSORS OR COMMUNICATION SYSTEM THAT ACCOUNT FOR LOCAL RAINFALL SHALL HAVE SEPARATE WIRED OR WIRELESS RAIN SENSORS WHICH CONNECT OR COMMUNICATES WITH THE CONTROLLERS ARE NOT REQUIRED TO HAVE RAIN SENSOR INPUT.

NOTE:

MORE INFORMATION REGARDING IRRIGATION CONTROLLER FUNCTION AND SPECIFICATIONS IS AVAILABLE FROM THE IRRIGATION ASSOCIATION.

Indoor Air Quality And Exhaust

4.506.1 BATHROOM EXHAUST FANS. EACH BATHROOM SHALL BE MECHANICALLY VENTILATED AND SHALL COMPLY WITH THE FOLLOWING:

1. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE OUTSIDE THE BUILDING.
2. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FAN MUST BE CONTROLLED BY HUMIDITY CONTROL.

A. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF < 50PERCENT TO A MAXIMUM OF 80 PERCENT. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT.
B. A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL (I.E., BUILT-IN).

NOTES:

1. FOR THE PURPOSES OF THIS SECTION, A BATHROOM IS A ROOM WHICH CONTAINS A BATHTUB, SHOWER, OR TUB/SHOWER COMBINATION.
2. LIGHTING INTEGRAL TO BATHROOM EXHAUST FANS SHALL COMPLY WITH THE
3. CALIFORNIA ENERGY CODE.

Building Maintenance And Operation

4.410.1 OPERATION AND MAINTENANCE MANUAL. AT THE TIME OF FINAL INSPECTION, A MANUAL, COMPACT DISC, WEB-BASED REFERENCE OR OTHER MEDIA ACCEPTABLE TO THE ENFORCING AGENCY WHICH INCLUDES ALL OF THE FOLLOWING SHALL BE PLACED IN THE BUILDING:

1. DIRECTIONS TO THE OWNERS OR OCCUPANTS THAT THE MANUAL SHALL REMAIN WITH THE BUILDING THROUGHOUT THE LIFE CYCLE OF THE STRUCTURE.
2.
3. OPERATION AND MAINTENANCE INSTRUCTIONS FOR THE FOLLOWING:

A. EQUIPMENT AND APPLIANCES, INCLUDING WATER-SAVING DEVICES AND SYSTEMS, HVAC SYSTEMS, WATER-HEATING SYSTEMS AND OTHER MAJOR APPLIANCE AND EQUIPMENT.
B. ROOF AND YARD DRAINAGE, INCLUDING GUTTERS AND DOWNSPOUTS.
C. SPACE CONDITIONING SYSTEM, INCLUDING CONDENSERS AND AIR FILTERS.
D. LANDSCAPE IRRIGATION SYSTEMS.
E. WATER REUSE SYSTEMS.

3. INFORMATION FROM LOCAL UTILITY, WATER AND WASTE RECOVERY PROVIDERS ON METHODS TO FURTHER REDUCE RESOURCE CONSUMPTION, INCLUDING RECYCLE PROGRAMS AND LOCATIONS.
4. PUBLIC TRANSPORTATION AND/OR CARPOOL OPTIONS AVAILABLE IN THE AREA.
5. EDUCATIONAL MATERIAL ON THE POSITIVE IMPACTS OF AS INTERIOR RELATIVE HUMIDITY BETWEEN 30-60 PERCENT AND WHAT METHODS AN OCCUPANT MAY USE TO MAINTAIN THE RELATIVE HUMIDITY LEVEL IN THAT RANGE.
6. INFORMATION ABOUT WATER-CONSERVATION LANDSCAPE AND IRRIGATION DESIGN AND CONTROLLERS WHICH CONSERVE WATER.
7. INSTRUCTIONS FOR MAINTAINING GUTTERS AND DOWNSPOUTS AND THE IMPORTANCE OF DIVERTING WATER AT LEAST 5 FEET AWAY FROM THE FOUNDATION.
8. INFORMATION ON REQUIRED ROUTINE MAINTENANCE MEASURES, INCLUDING, BUT NOT LIMITED TO, CAULKING, PAINTING, GRADING AROUND THE BUILDING, ETC.
9. INFORMATION ABOUT STATE SOLAR ENERGY AND INCENTIVES PROGRAMS AVAILABLE.
10. A COPY OF SPECIAL INSPECTION VERIFICATIONS REQUIRED BY THE ENFORCING AGENCY OR THIS CODE.

Storm Water Drainage Retention During Construction

4.106.1 GENERAL. PRESERVATION AND USE OF AVAILABLE NATURAL RESOURCES SHALL BE ACCOMPLISHED THROUGH EVALUATION AND CAREFUL PLANNING TO MINIMIZE NEGATIVE EFFECTS ON THE SITE AND ADJACENT AREA. PRESERVATION OF SLOPES, MANAGEMENT OF THE STORM WATER DRAINAGE AND EROSION CONTROLS SHALL COMPLY WITH THIS SECTION.

4.106.2 STORM WATER DRAINAGE AND RETENTION DURING CONSTRUCTION. PROJECTS WHICH DISTURB LESS THE ONE ACRE OF SOIL AND ARE NOT OF A LARGER COMMON DEVELOPMENT WHICH IN TOTAL DISTURBS ONE ACRE OR MORE, SHALL MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION. IN ORDER TO MANAGE STORM WATER DRAINAGE DURING CONSTRUCTION, ONE OR MORE OF THE FOLLOWING MEASURES SHALL BE IMPLEMENTED TO PREVENT FLOODING OF ADJACENT PROPERTY, PREVENT EROSION AND RETAIN SOIL RUNOFF ON THE SITE

1. RETENTION BASINS OF SUFFICIENT SIZE SHALL BE UTILIZED TO RETAIN STORM WATER ON THE SITE
2. WHERE STORM WATER IS CONVEYED TO A PUBLIC DRAINAGE SYSTEM, COLLECTION POINT, GUTTER OR SIMILAR DISPOSAL METHOD, WATER SHALL BE FILTERED BY US OF A BARRIER SYSTEM, WATTLE OR OTHER APPROVED METHOD APPROVED BY THE ENFORCING AGENCY.
3. COMPLIANCE WITH A LAWFULLY ENACTED STORM WATER MANAGEMENT ORDINANCE.

Fireplaces

4.503.1 GENERAL. ANY INSTALLED GAS FIREPLACE SHALL BE A DIRECT-VENT SEALED-COMBUSTION TYPE. ANY INSTALLED WOODSTOVE OR PELLET STOVE SHALL COMPLY WITH U.S. EPA PHASE 2 EMISSIONS LIMITS

1. WHERE APPLICABLE LOCAL ORDINANCE

Joints & Penetrations

1. All Joints and Penetrations and other openings in the building envelope that are potential sources of air leakage, shall be caulked, gasket, weather-stripped or otherwise sealed to limit infiltration and exfiltration. Section 1107.

Interior Moisture Control

4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS. BUILDING MATERIALS BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHOULD NOT BE INSTALLED. WALL AND FLOOR FRAMING MEMBERS NOT TO BE ENCLOSED WHEN THE FRAMING MEMBERS
EXCEED 19-PERCENT MOISTURE CONTENT. MOISTURE CONTENT SHALL BE VERIFIED IN COMPLIANCE WITH THE FOLLOWING:

1. MOISTURE CONTENT SHALL BE DETERMINED WITH EITHER A PROBE-TYPE OR CONTACT-TYPE MOISTURE METER. EQUIVALENT MOISTURE VERIFICATION METHOD MAY BE APPROVED BY THE ENFORCING AGENCY AND SHALL SATISFY REQUIREMENTS FOUND IN SECTION 101.8 OF THIS CODE
2. MOISTURE READING SHALL BE TAKEN AT A POINT 2 FEET (610mm) FROM THE GRADE
STAMPED END OF EACH PIECE TO BE VERIFIED.
3. AT LEAST THREE RANDOM MOISTURE READINGS SHALL BE PERFORMED ON THE WALL AND FLOOR FRAMING WITH DOCUMENTATION ACCEPTABLE TO THE ENFORCING AGENCY PROVIDED AT THE TIME OF APPROVED TO ENCLOSE THE WALL AND FLOOR FRAMING. INSULATION PRODUCTS WHICH ARE VISIBLY WET OR HAVE 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 MANUFACTURES' DRYING RECOMMENDATIONS PRIOR TO ENCLOSURE.

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

1. A 4-INCH-THICK (101.6mm) BASE OF 1/2 INCH (12.7mm) OR LARGER CLEAN AGGREGATE SHALL BE PROVIDED WITH A VAPOR RETARDER IN DIRECT CONTACT WITH CONCRETE AND A CONCRETE MIX DESIGN DESIGN, WHICH WILL ADDRESS BLEEDING, SHRINKAGE, AND CURLING, SHALL BE USED, FOR ADDITIONAL INFORMATION, SEE AMERICAN CONCRETE INSTITUTE, ACI 302.2R-06.
2. OTHER EQUIVALENT METHODS APPROVED BY THE ENFORCING AGENCY.
3. A SLAB DESIGN SPECIFIED BY A LICENSED DESIGN PROFESSIONAL.

Enhanced Durability And Reduced Maintenance

4.406.1 RODENT PROOFING. ANNULAR SPACES AROUND PIPES, ELECTRIC CABLES, CONDUITS OR OTHER OPENING 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 METAL PLATES. PIPING PRONE CORROSION SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 313.0 OF (CBC)

Enviromental Confort

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

1. THE HEAT LOSS AND HEAT GAIN IS ESTABLISHED ACCORDING TO ANSI/ACCA 2 MANUAL
J-2004 (RESIDENTIAL LOAD CALCULATION), ASHRAE HANDBOOKS OR OTHER
2. NOTE: 4.303.1.1 WATER CLOSETS.: THE EFFECTIVE FLUSH VOLUME OF DUAL FLUSH TOILETS IS DEFINED AS THE EQUIVALENT DESIGN SOFTWARE OR METHODS.

Written Verification

PRIOR TO FINAL INSPECTION THE LICENSED CONTRACTOR, ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE OF THE OVERALL CONSTRUCTION MUST PROVIDE TO THE BUILDING DEPARTMENT OFFICIAL WRITTEN VERIFICATION THAT ALL APPLICATIONS PROVISIONS FROM THE GREEN BUILDING STANDARDS CODES HAVE BEEN IMPLEMENTED AS PART OF THE
1. CONSTRUCTION. CGC 102.3.

Pollution Control

4.504.1 COVERING OF DUCT OPENINGS ARE PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. AT THE TIME OF ROUGH INSTALLATION, DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATION EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL OR OTHER METHODS ACCEPTABLE ENFORCING AGENCY TO REDUCE THE AMOUNT OF WATER, DUST AND DEBRIS, WHICH MAY
ENTER THE SYSTEM.

VOC'S MUST COMPLY WITH THE LIMITATIONS LISTED IN SECTION: 4.504.3 AND TABLE 4.504.1, 4.504.2, 4.504.3 AND 4.504.5 FOR: ADHESIVES, PAINTS AND COATINGS, CARPETS AND COMPOSITION WOOD PRODUCTS. CGC 4.505.3.

Construction Waste Reduction Disposal And Recycling

4.408.1 CONSTRUCTION WASTE MANAGEMENT. RECYCLE AND/OR SALVAGE FOR REUSE A MINIMUM OF 65 PERCENT OF THE NON-HAZARDOUS CONSTRUCTION AND DEMOLITION WASTE IN ACCORDANCE WITH EITHER SECTION 4.408.2, 4.408.3 OR 4.408.4, OR MEET A MORE STRINGENT LOCAL CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT ORDINANCE.

EXCEPTIONS:

1. EXCAVATED SOIL AND LAND-CLEARING DEBRIS.
2. ALTERNATE WASTE REDUCTION METHODS DEVELOPED BY WORKING WITH LOCAL AGENCIES IF DIVERSION OR RECYCLE FACILITIES CAPABLE OF COMPLIANCE WITH THIS ITEM DO NOT EXISTS OR ARE NOT LOCATED REASONABLY CLOSE TO THE JOBSITE.
3. THE ENFORCING AGENCY MAY MAKE EXCEPTIONS TO THE REQUIREMENTS OF THIS SECTION WHEN ISOLATED JOBSITE ARE LOCATED IN AREAS BEYOND THE HAUL
4. BOUNDARIES OF THE DIVERSION FACILITY.

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Revisions	Date
Plan Check Revisions 1	00-00-2018

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Sheet Name:

Energy Green Code Requirements

Date: OCTOBER-2018

Drawn By: Mike Mendoza

Sign By:

Sheet Number:

G1.02

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

SECTION	REQUIREMENTS
702.2	**Special inspection** Special inspectors must be qualified and able to demonstrate competence to the enforcing agency in the discipline in which they are inspecting.
703.1	**Documentation** Documentation of compliance shall include, but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the local enforcing agency. Other specific documentation or special inspections necessary to verify compliance are specified in appropriate sections of CALGreen.

SECTION	REQUIREMENTS
4.504.2.3	**Aerosol paints and coatings** Aerosol paints and coatings shall meet the Product-Weighted MIR Limits for ROC in Section 94522(a)(2) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Section 94522(e)(1) and (f)(1) of the CCR, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District shall additionally comply with the percent VOC by weight of product limits of Regulation 8, Rule 49.
4.504.3	**Carpet systems** Carpet installed in the building interior shall meet the testing and product requirements of 1 of the following: 1. Carpet and Rug Institute's Green Label Plus Program 2. California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350) 3. NSF/ANSI 140 at the Gold level 4. Scientific Certifications Systems Indoor Advantage™ Gold
4.504.3.1	**Carpet cushion** Carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label Plus Program.
4.504.3.2	**Carpet adhesive** Carpet adhesives shall meet the requirements of Table 4.504.1.
4.504.4	**Resilient flooring systems** Where resilient flooring is installed, at least 80% of floor area receiving resilient flooring shall comply with one or more of the following: 1. Products compliant with the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350), certified as a CHPS Low-Emitting Material in the Collaborative for High Performance Schools (CHPS) High Performance Products Database 2. Products certified under UL GREENGUARD Gold (formerly the Greenguard Children & Schools Program) 3. Certification under the Resilient Floor Covering Institute (RFCI) FloorScore program 4. Meet the California Department of Public Health, "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers," Version 1.1, February 2010 (also known as Specification 01350)
4.504.5	**Composite wood products** • Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the requirements

SECTION	REQUIREMENTS
Division 4.3 – WATER EFFICIENCY AND CONSERVATION (INDOOR WATER USE)	
4.303.1	**Water conserving plumbing fixtures and fittings** Plumbing fixtures and fittings shall comply with the following: 4.303.1.1 Water Closets: ≤ 1.28 gal/flush 4.303.1.2 Wall Mounted Urinals: ≤ 0.125 gal/flush; all other urinals ≤ 0.5 gal/flush 4.303.1.3.1 Single Showerheads: ≤ 2.0 gpm @ 80 psi 4.303.1.3.2 Multiple Showerheads: combined flow rate of all showerheads controlled by a single valve shall not exceed 2.0 gpm @ 80 psi, or only one shower outlet is to be in operation at a time 4.303.1.4.1 Residential Lavatory Faucets: Maximum Flow Rate ≤ 1.2 gpm @ 60 psi; Minimum Flow Rate ≥ 0.8 gpm @ 20 psi 4.303.1.4.2 Lavatory Faucets in Common and Public Use Areas of Residential Buildings: ≤ 0.5 gpm @ 60 psi 4.303.1.4.3 Metering Faucets: ≤ 0.25 gallons per cycle 4.303.1.4.4 Kitchen Faucets: ≤ 1.8 gpm @ 60 psi; temporary increase to 2.2 gpm allowed but shall default to 1.8 gpm
4.303.2	**Standards for plumbing fixtures and fittings** Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet applicable standards referenced in Table 1701.1 of the California Plumbing Code.
Division 4.3 – WATER EFFICIENCY AND CONSERVATION (OUTDOOR WATER USE)	
4.304.1	**Outdoor potable water use in landscape areas** After December 1, 2015, new residential developments with an aggregate landscape area equal to or greater than 500 square feet shall comply with one of the following: 1. A local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent, or 2. Projects with aggregate landscape areas less than 2500 square feet may comply with the MWELO's Appendix D Prescriptive Compliance Option.
Division 4.4 – MATERIAL CONSERVATION & RESOURCE EFFICIENCY (ENHANCED DURABILITY & REDUCED MAINTENANCE)	
4.406.1	**Rodent proofing** Annular spaces around pipes, electric cables, conduits or other openings in sole/bottom plates at exterior walls shall be closed with cement mortar, concrete masonry or a similar method acceptable to the enforcing agency to prevent passage of rodents.
Division 4.4 – MATERIAL CONSERVATION & RESOURCE EFFICIENCY (CONSTRUCTION WASTE REDUCTION, DISPOSAL & RECYCLING)	
4.408.1	**Construction waste reduction of at least 65%** • Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with either Section 4.408.2, 4.408.3 or 4.408.4; OR meet a more stringent local construction and demolition waste management ordinance.

SECTION	REQUIREMENTS
Chapter 1 - ADMINISTRATION	
101.3.1	**Scope** Applies to ALL newly constructed residential buildings: low-rise, high-rise, and hotels/motels.
Chapter 3 - GREEN BUILDING	
301.1.1	**Additions and alterations** • Applies to additions or alterations of residential buildings where the addition or alteration increases the building's conditioned area, volume, or size. • Requirements only apply within the specific area of the addition or alteration. • Note directs code users to Civil Code Section 1101.1 et seq., regarding replacement of non-compliant plumbing fixtures.
301.2	**Low-rise and high-rise buildings** Banners identify provisions applying to low-rise only [LR] or high-rise only [HR].
Division 4.1 - PLANNING AND DESIGN (SITE DEVELOPMENT)	
4.106.2	**Storm water drainage and retention during construction** Projects which disturb less than 1 acre of soil and are not part of a larger common plan of development shall manage storm water drainage during construction.
4.106.3	**Grading and paving** Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings. Exception for additions and alterations which do not alter the existing drainage path.
4.106.4	**Electric vehicle (EV) charging for new construction** • Comply with Section 4.106.4.1 and 4.106.4.2 for 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 on a case-by-case basis as determined by the Local Enforcing Agency: 1. Where there is no commercial power supply. 2. Verification that meeting requirements will alter the local utility infrastructure design requirements on the utility side of the meter increasing costs to the homeowner/developer by more than $400.00 per dwelling unit.
4.106.4.1 & 4.106.4.1.1	**EV charging: 1- & 2-family dwellings/townhouses with attached private garages** • Install a listed raceway to accommodate a dedicated 208/240-volt branch circuit for each dwelling unit. • Raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). • Raceway shall originate at the main service or subpanel and 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. • 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. Service panel or subpanel circuit

SECTION	REQUIREMENTS
4.504.5 continued	for formaldehyde as specified in the Air Resources Board's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et. seq.), as shown in Table 4.504.5. Documentation is required per Section 4.504.5.1. • Definition of Composite Wood Products: Composite wood products include hardwood plywood, particleboard, and medium density fiberboard. "Composite wood products" do not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, prefabricated wood I-joists, or finger-joined lumber, all as specified in CCR, Title 17, Section 93120.1(a).
4.504.5.1	**Documentation** Verification of compliance shall be provided as requested by the enforcing agency, and as required in Section 4.504.5.1.
Division 4.5 – ENVIRONMENTAL QUALITY (INTERIOR MOISTURE CONTROL)	
4.505.2	**Concrete slab foundations** Concrete slab foundations or concrete slab-on-ground floors required to have a vapor retarder by the California Building Code, Chapter 19, or the California Residential Code, Chapter 5, respectively, shall also comply with this section.
4.505.2.1	**Capillary break** A capillary break shall be installed in compliance with at least 1 of the following: 1. A 4-inch thick base of 1/2-inch or larger clean aggregate shall be provided with a vapor retarder in direct contact with concreate and a concrete mix design which will address bleeding, shrinkage and curling shall be used. For additional information, see American Concrete Institute, ACI 302.2R-06. 2. Other equivalent methods approved by the enforcing agency. 3. A slab design specified by a licensed design professional.
4.505.3	**Moisture content of building materials** Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed when the framing members exceed 19% moisture content. Moisture content shall be verified in compliance with the following: 1. Moisture content shall be determined with either a probe-type or a contact-type moisture meter. Equivalent moisture verification methods may be approved by the enforcing agency and shall satisfy requirements in Section 101.8. 2. Moisture readings shall be taken at a point 2 feet to 4 feet from the grade-stamped end of each piece to be verified. 3. At least 3 random moisture readings shall be performed on wall and floor framing with documentation acceptable to the enforcing agency provided at the time of approval to enclose the wall and floor framing. Insulation products which are visibly wet or have a high moisture content shall be replaced or allowed to dry prior to enclosure in wall or floor cavities. Manufacturers' drying recommendations shall be followed for wet-applied insulation products prior to enclosure.

SECTION	REQUIREMENTS
4.408.1 continued	• Documentation is required per Section 4.408.5. **Exceptions:** 1. Excavated soil and land-clearing debris. 2. Alternative waste reduction methods developed by working with local enforcing agencies if diversion or recycle facilities capable of compliance with this item do not exist or are not located reasonably close to the jobsite. 3. The enforcing agency may make exceptions to the requirements of this section when isolated jobsites are located in areas beyond the haul boundaries of the diversion facility.
4.408.2	**Construction waste management plan** Submit a construction waste management plan meeting Items 1 through 5 in Section 4.408.2. Plans shall be updated as necessary and shall be available for examination during construction.
4.408.3	**Waste management company** Utilize a waste management company, approved by the enforcing agency, which can provide verifiable documentation that diverted construction and demolition waste materials meet the requirements in Section 4.408.1.
4.408.4 4.408.4.1	**Waste stream reduction alternative** • (LR) Projects that generate a total combined weight of construction and demolition waste disposed in landfills, which do not exceed 3.4 pounds per square foot of the building area shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1. • Projects that generate a total combined weight of construction and demolition waste disposed in landfills, which do not exceed 2 pounds per square foot of the building area, shall meet the minimum 65% construction waste reduction requirement in Section 4.408.1.
Division 4.4 – MATERIAL CONSERVATION & RESOURCE EFFICIENCY (BUILDING MAINTENANCE & OPERATION)	
4.410.1	**Operation and maintenance manual** At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which covers 10 specific subject areas shall be placed in the building.
4.410.2	**Recycling by occupants** Where 5 or more multifamily dwelling units are constructed on a building site, provide readily accessible area(s) that serves all buildings on the site and is identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive. **Exception:** Rural jurisdictions that meet and apply for the exemption in Public Resources Code Section 42649.82 (a)(2)(A) et. seq. are not required to comply with the organic waste portion of this section.

SECTION	REQUIREMENTS
4.106.4.1 & 4.106.4.1.1 continued	directory shall identify the overcurrent protective device space(s) reserved for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".
4.106.4.2	**EV charging for multifamily dwellings** • Applies to building sites with 17 or more multifamily dwelling units constructed on the site. • 3% of the total number of parking spaces provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the number of EV spaces shall be rounded up to the nearest whole number. **Note:** Construction documents are intended to demonstrate the project's capability and capacity for facilitating future EV charging. There is no requirement for EV spaces to be constructed or available until EV chargers are installed for use.
4.106.4.2.1	**EV charging space (EV space) locations** • Construction documents shall indicate the location of proposed EV spaces. At least 1 EV space shall be located in common use areas and available for use by all residents. • When EV chargers are installed, EV spaces required by Section 4.106.4.2.2, Item 3, shall comply with at least 1 of the following options: 1. The EV space shall be located adjacent to an accessible parking space meeting the requirements of the California Building Code, Chapter 11A, to allow use of the EV charger from the accessible parking space. 2. The EV space shall be located on an accessible route to the building, as defined in the California Building Code, Chapter 2.
4.106.4.2.2	**EV charging space (EV space) dimensions** EV spaces shall be designed to comply with the following: 1. The minimum length of each EV space shall be 18 feet. 2. The minimum width of each EV space shall be 9 feet. 3. One in every 25 EV spaces, but not less than 1, shall also have an 8-foot wide minimum aisle. A 5-foot wide minimum aisle shall be permitted provided the minimum width of the EV space is 12 feet. a) Surface slope for this EV space and aisle shall not exceed 1 unit vertical in 48 units horizontal (2.083% slope) in any direction.
4.106.4.2.3	**Single EV space required** • Install listed raceway capable of accommodating a 208/240-volt dedicated branch circuit. ▪ The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). ▪ The raceway shall originate at the main service or subpanel and shall terminate into a listed cabinet, box or enclosure in close proximity to the proposed location of the EV space.

SECTION	REQUIREMENTS
Division 4.5 – ENVIRONMENTAL QUALITY (INDOOR AIR QUALITY & EXHAUST)	
4.506.1	**Bathroom exhaust fans** Each bathroom shall be mechanically ventilated and shall comply with the following: 1. Fans shall be ENERGY STAR compliant and be ducted to terminate outside the building. 2. Unless functioning as a component of a whole house ventilation system, fans must be controlled by a humidity control. a) Humidity controls shall be capable of manual or automatic adjustment between a relative humidity range of less than 50% to a maximum of 80%. b) A humidity control may be a separate component to the exhaust fan and is not required to be integral or built-in. Note: For CALGreen a "bathroom" is a room which contains a bathtub, shower, or tub/shower combination. Fans or mechanical ventilation is required in each bathroom.
Division 4.5 – ENVIRONMENTAL QUALITY (ENVIRONMENTAL COMFORT)	
4.507.2	**Heating and air conditioning system design** Heating and air conditioning systems shall be sized, designed, and equipment selected using the following methods: 1. The heat loss and heat gain is established according to ANSI/ACCA 2 Manual J – 2011 (Residential Load Calculation), ASHRAE handbooks or other equivalent design software or methods. 2. Duct systems are sized according to ANSI/ACCA 1 Manual D – 2014 (Residential Duct Systems), ASHRAE handbooks or other equivalent design software or methods. 3. Select heating and cooling equipment according to ANSI/ACCA 3 Manual S – 2014 (Residential Equipment Selection) or other equivalent design software or methods. Exception: Use of alternate design temperatures necessary to ensure the systems functions are acceptable.
CHAPTER 7 – INSTALLER & SPECIAL INSPECTOR QUALIFICATION (QUALIFICATIONS, VERIFICATIONS)	
702.1	**Installer training** HVAC system installers shall be trained and certified in the proper installation of HVAC systems and equipment by a recognized training or certification program. Examples of acceptable HVAC training and certification programs include but are not limited to the following: 1. State certified apprenticeship programs. 2. Public utility training programs. 3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations. 4. Programs sponsored by manufacturing organizations. 5. Other programs acceptable to the enforcing agency.

SECTION	REQUIREMENTS
Division 4.5 – ENVIRONMENTAL QUALITY (FIREPLACES)	
4.503.1	**General** Any installed gas fireplace shall be a direct-vent sealed-combustion type. Any installed woodstove or pellet stove shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits. Woodstoves, pellet stoves and fireplaces shall also comply with all applicable local ordinances.
Division 4.5 – ENVIRONMENTAL QUALITY (POLLUTANT CONTROL)	
4.504.1	**Protection during construction** At the time of rough installation, during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air intake and distribution component openings shall be covered. Tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of water, dust and debris entering the system may be used.
4.504.2.1	**Adhesives, sealants and caulks** Adhesives, sealants and caulks used on the project shall meet the requirements of the following standards unless more stringent local or regional air pollution or air quality management district rules apply: 1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 4.504.1 or 4.504.2, as applicable. Such products shall also comply with Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroentylene), except for aerosol products as specified in Subsection 2 below. 2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than 1 pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of the California Code of Regulations (CCR), Title 17, commencing with Section 94507.
4.504.2.2	**Paints and coatings** Architectural paints and coatings shall comply with VOC limits in Table 1 of the Air Resources Board Architectural Suggested Control Measure, as shown in Table 4.504.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings catergories listed in Table 4.504.3 shall be determined by classifying the coating as Flat, Nonflat, or Nonflat-High Gloss coating, based on its gloss, as defined in subsections 4.21, 4.36, and 4.37, of the 2007 California Air Resources Board, Suggested Control Measure, and the corresponding Flat, Nonflat, or Nonflat-High Gloss VOC limit in Table 4.504.3 shall apply.

SECTION	REQUIREMENTS
4.106.4.2.3 continued	• Construction documents shall identify the raceway termination point. • The service panel and/or subpanel shall provide capacity to install a 40-ampere minimum dedicated branch circuit and space(s) reserved to permit installation of a branch circuit overcurrent protective device.
4.106.4.2.4	**Multiple EV spaces required** • Construction documents shall indicate raceway termination point and proposed location of future EV spaces and EV chargers. Construction documents shall also provide information on amperage of future EVSE, raceway method(s), wiring schematics and electrical load calculations to verify electrical panel service capacity and electrical system, including any on-site distribution transformer(s), have sufficient capacity to simultaneously charge all EVs at all required EV spaces at full rated amperage of the EVSE. • Plan design shall be based upon a 40-ampere minimum branch circuit. • Raceways and related components planned to be installed underground, enclosed, inaccessible or in concealed areas and spaces shall be installed at the time of original construction.
4.106.4.2.5	**Identification** The service panel or subpanel circuit directory shall identify the overcurrent protective device space(s) reserved for future EV charging purposes as "EV CAPABLE" in accordance with the California Electrical Code. **Notes:** 1. The California Department of Transportation adopts and publishes the "California Manual on Uniform Traffic Control Devices (California MUTCD)" to provide uniform standards and specifications for all official traffic control devices in California. Zero Emission Vehicle Signs and Pavement Markings can be found in the New Policies & Directives Number 12-01. Website: http://www.dot.ca.gov/hq/traffops/policy/13-01.pdf 2. See Vehicle Code Section 22511 for EV charging space signage in off-parking facilities and for use of EV charging spaces. 3. The Governor's Office of Planning and Research (OPR) published a "Zero-Emission Vehicle Community Readiness Guidebook" which provides helpful information for local governments, residents and businesses. Website: http://opr.ca.gov/docs/ZEV_Guidebook.pdf
Division 4.2- ENERGY EFFICIENCY	
4.201.1 & 5.201.1	**Scope** • Energy efficiency requirements for low-rise residential (Section 4.201.1) and high-rise residential/hotels/motels (Section 5.201.1) are now in both residential and nonresidential chapters of CALGreen. • Standards for residential buildings do not require compliance with levels of minimum energy efficiency beyond those required by the 2016 California Energy Code.

Mike Mendoza
Design Principal

Revisions	Date
Plan Check Revisions ⚠	00-00-2018

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Sheet Name:
Mandatory Measures Plan Cal-Green

Date: OCTOBER-2018

Drawn By: Mike Mendoza

Sign By:

Sheet Number:
G1.03

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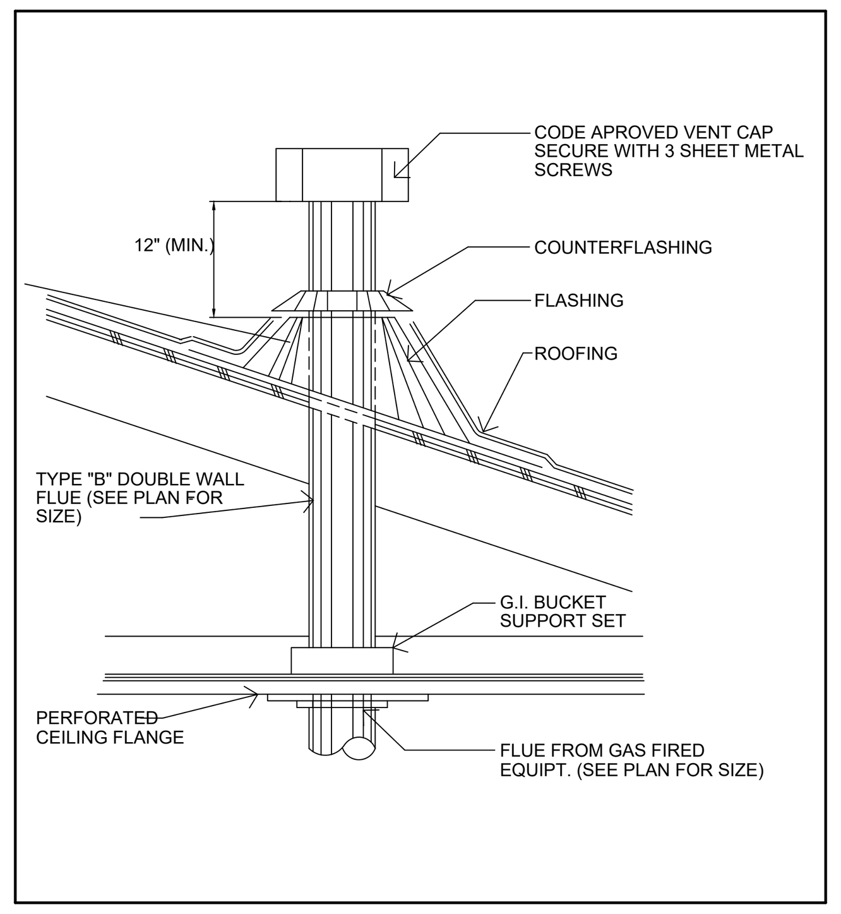
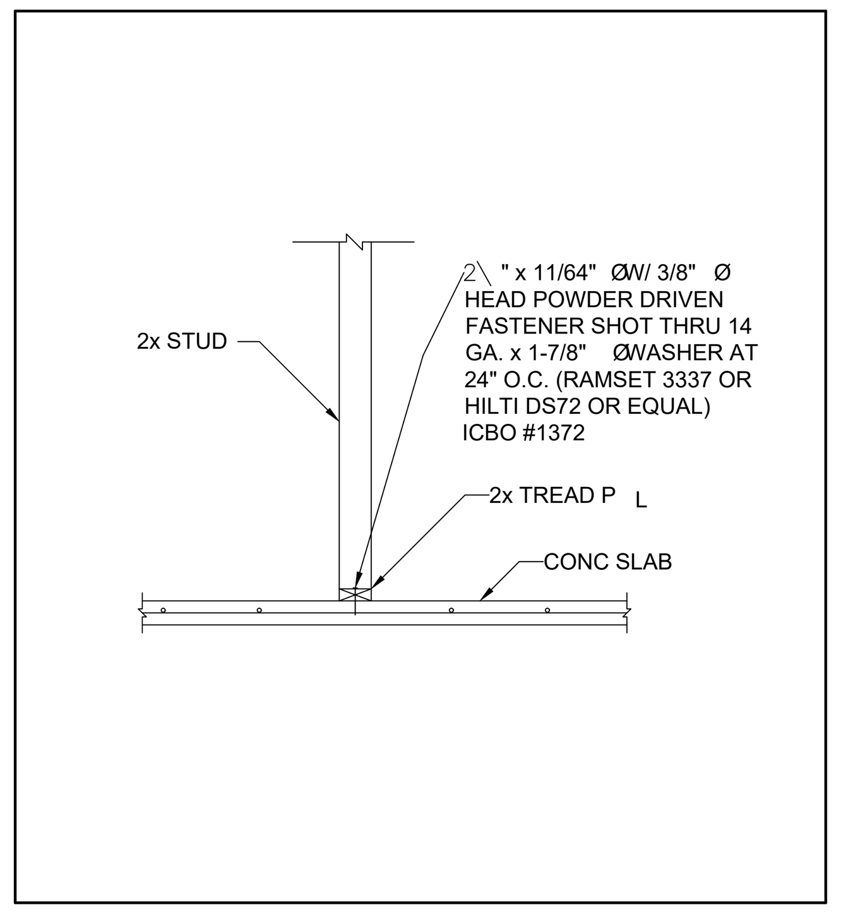
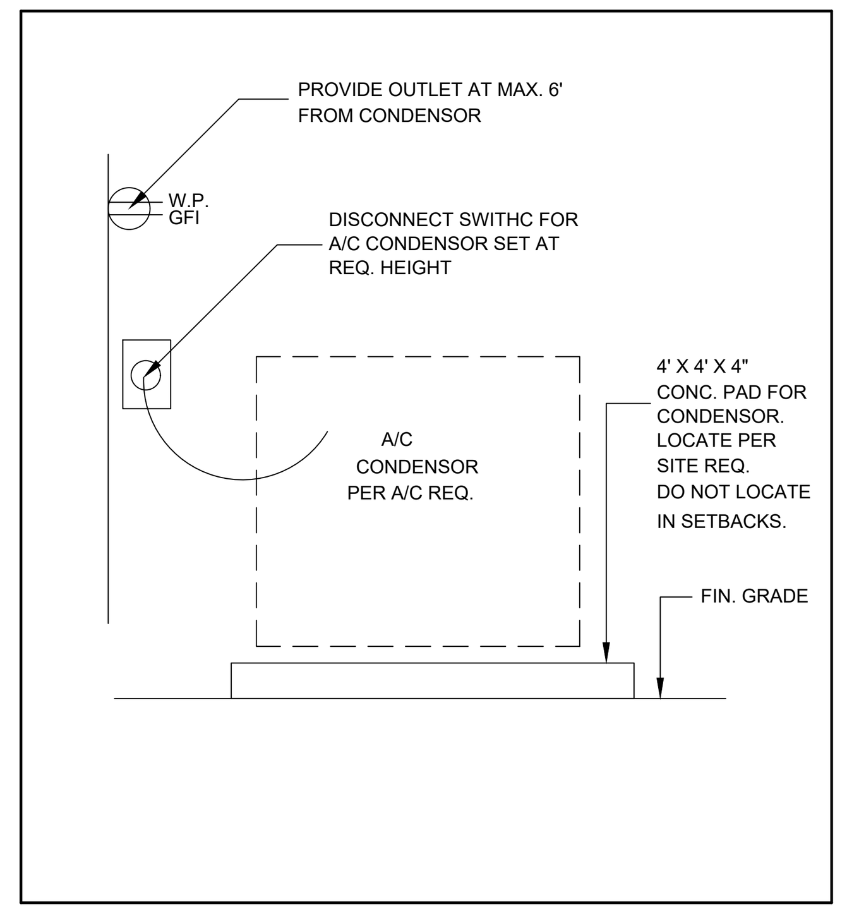


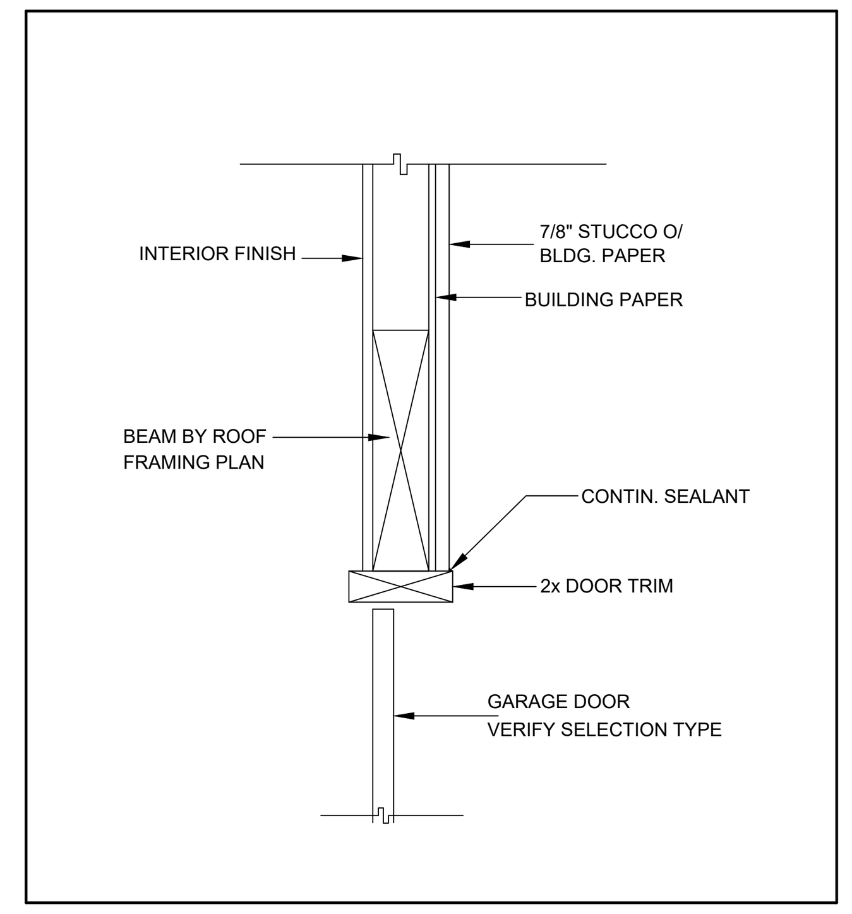
No. 24 Vent Thru Roof Detail



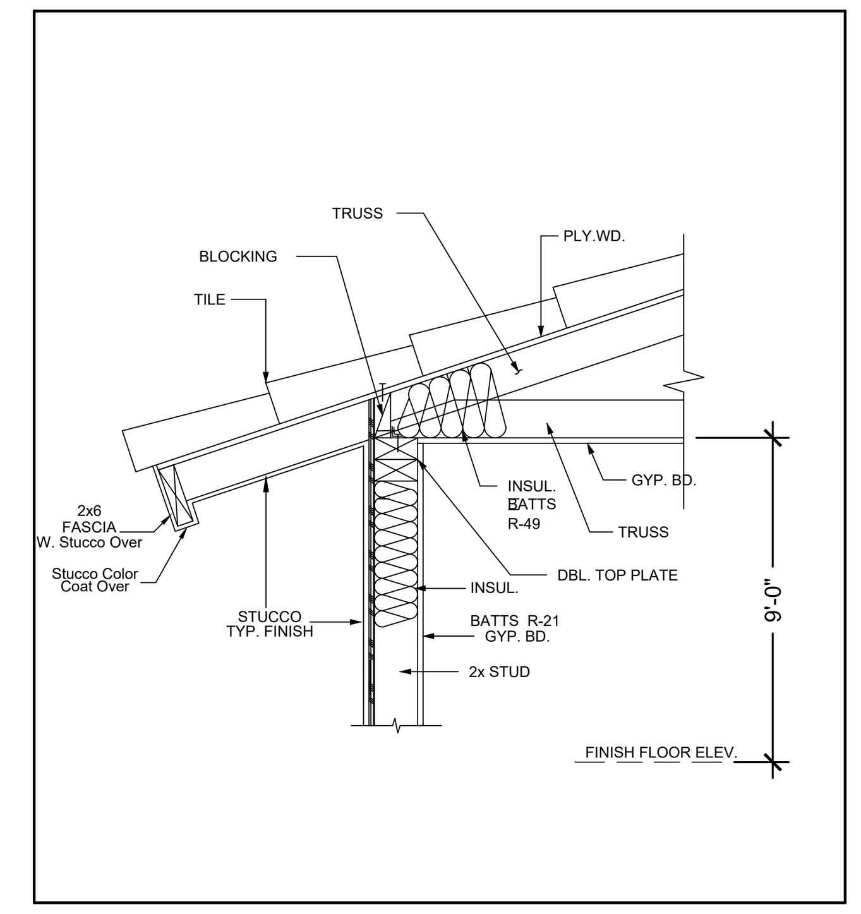
No. 17 Non Bearing interior Stud Wall Detail



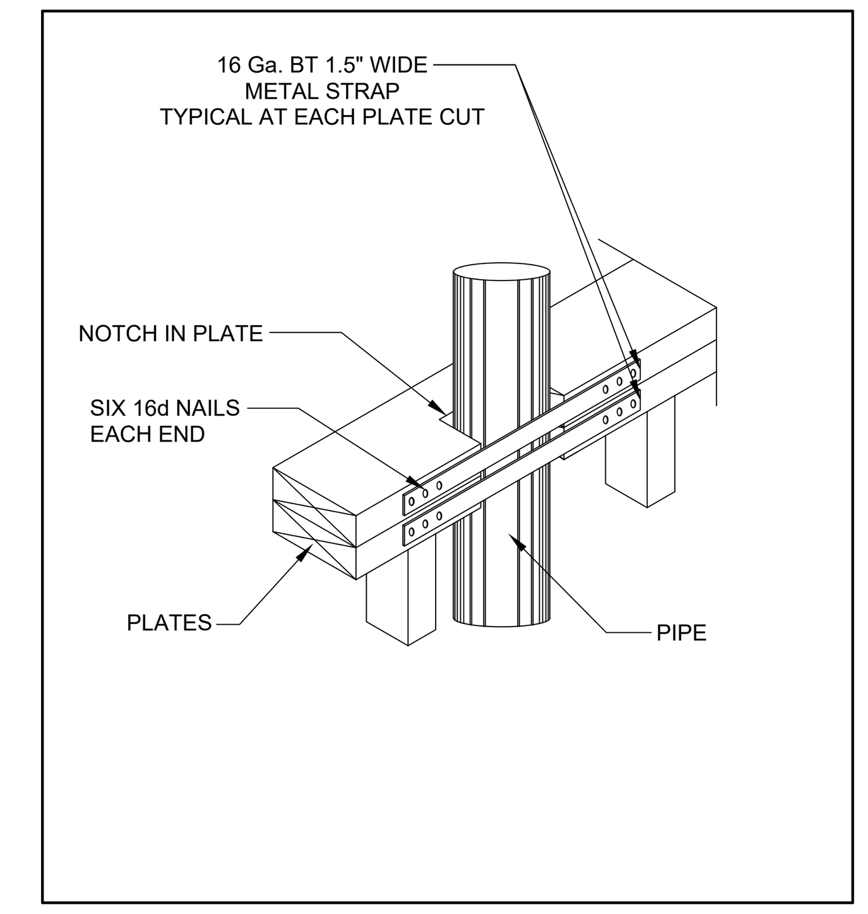
No. 16 A/C Condeser Layout Detail



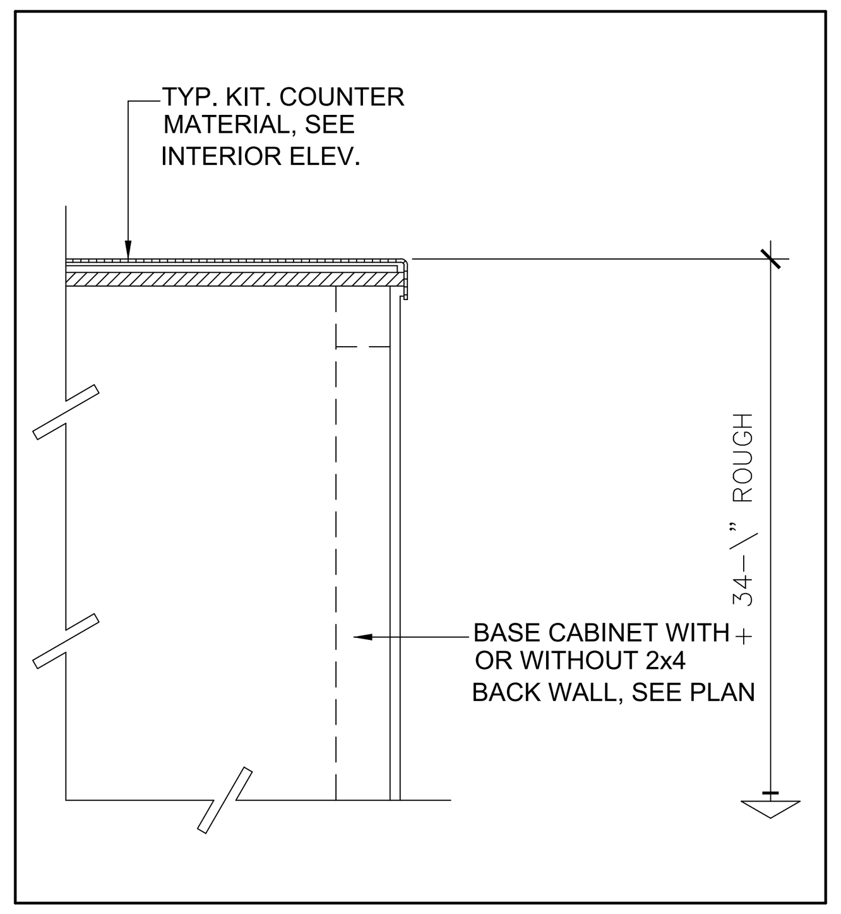
No. 9 Garage Head Detail



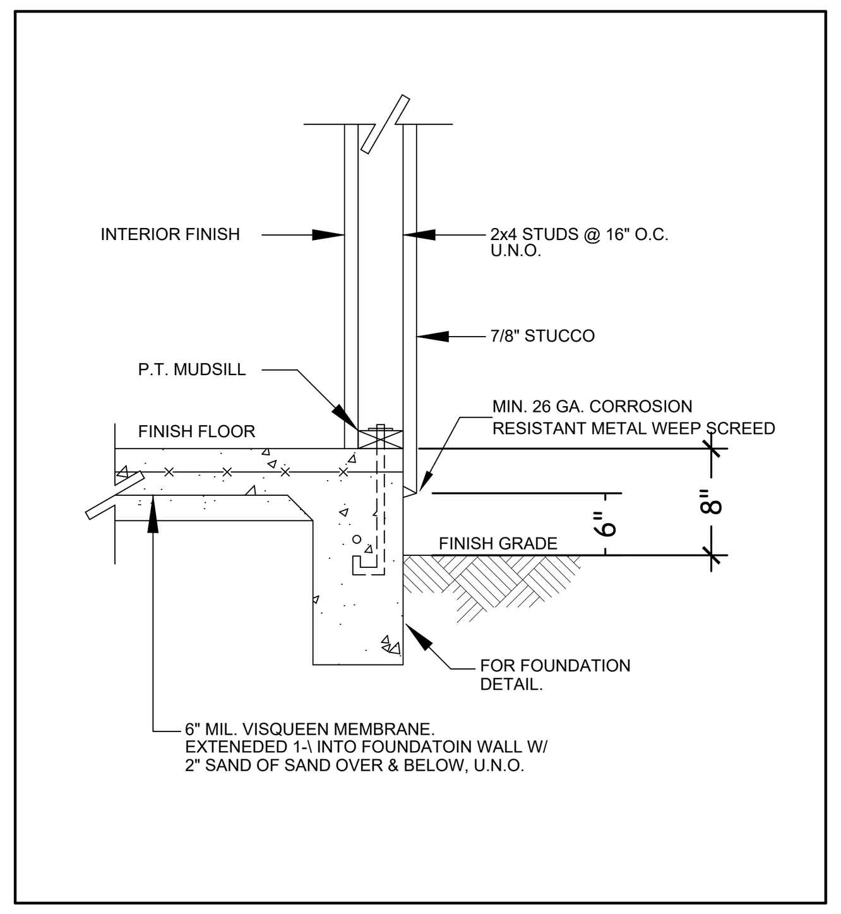
No. 8 Typical Eave Detail



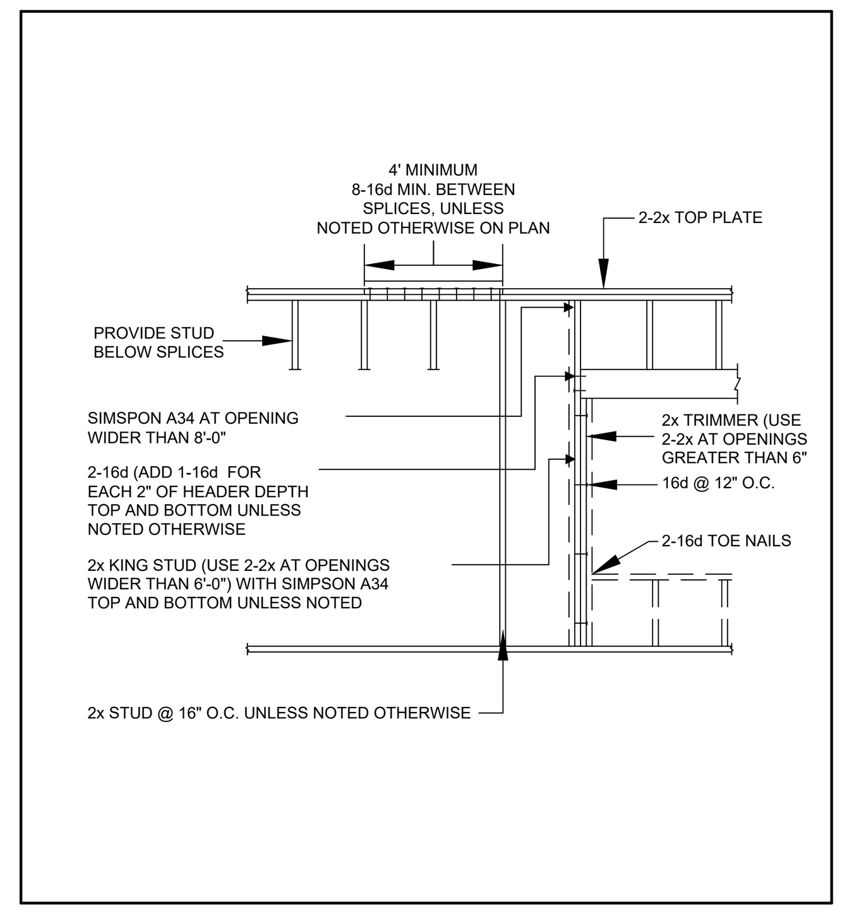
No. 1 Plate Framing At Piping Detail



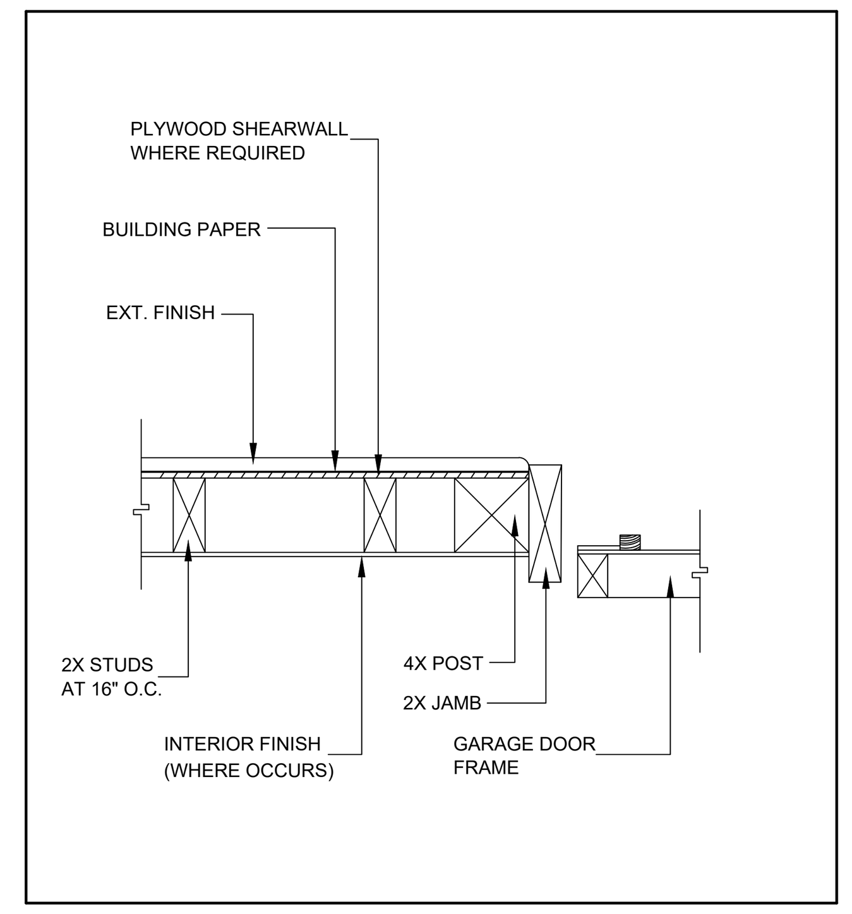
No. 23 Cabinet Counter Detail



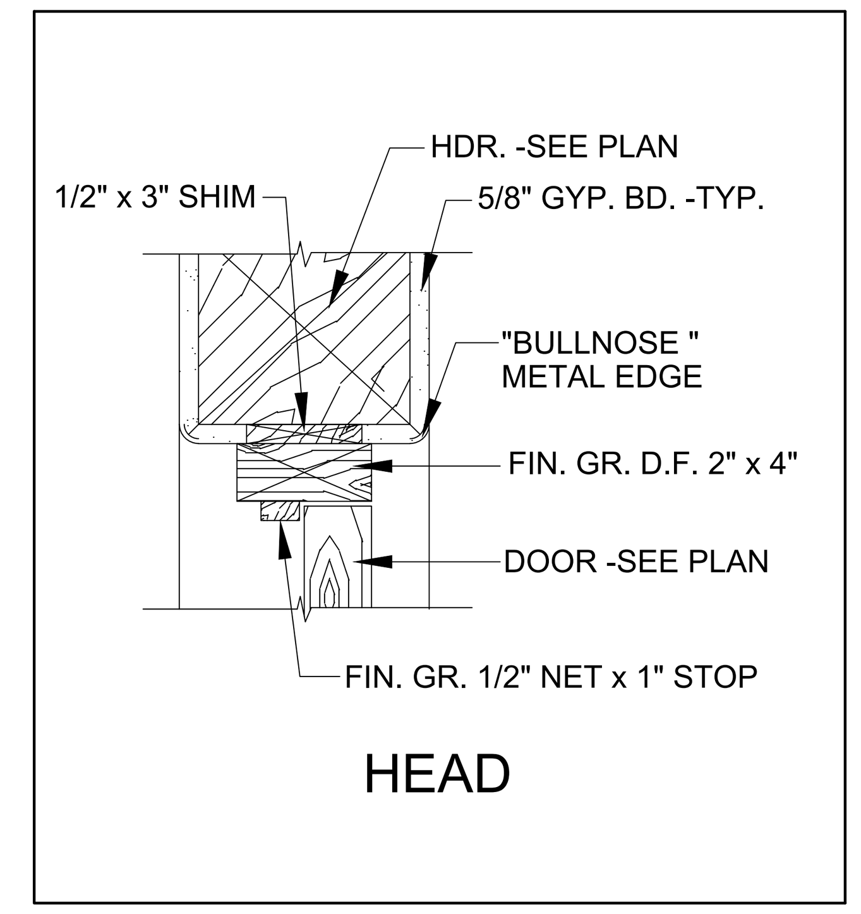
No. 18 Weep Screed Detail



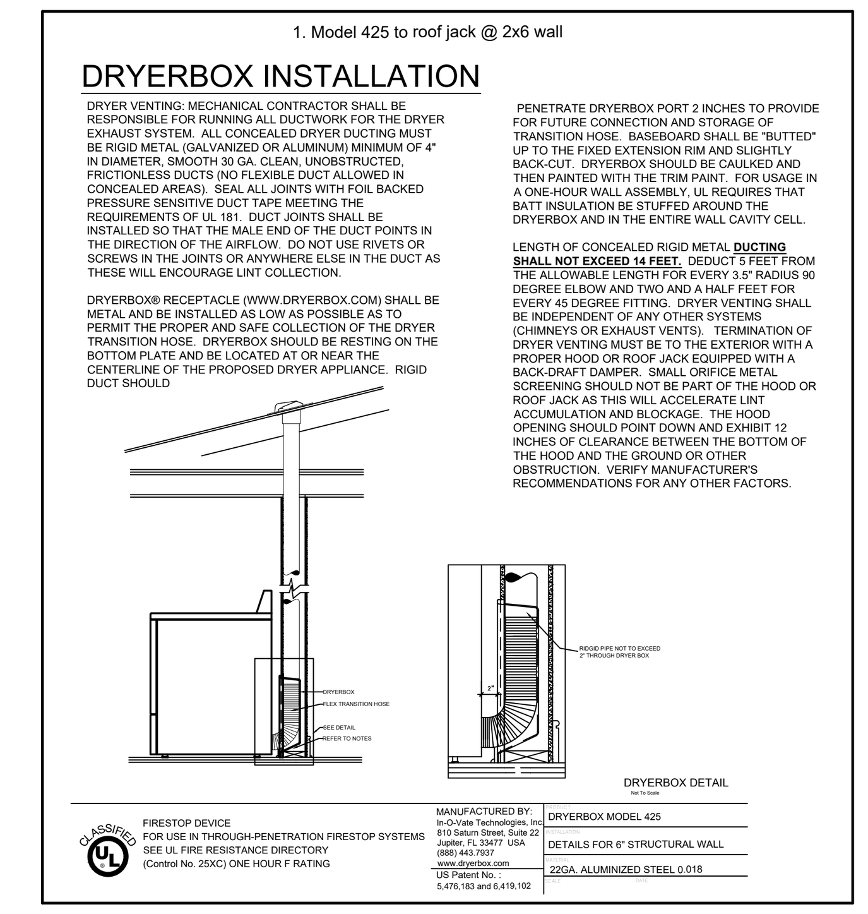
No. 15 Typical Wall Framing Detail



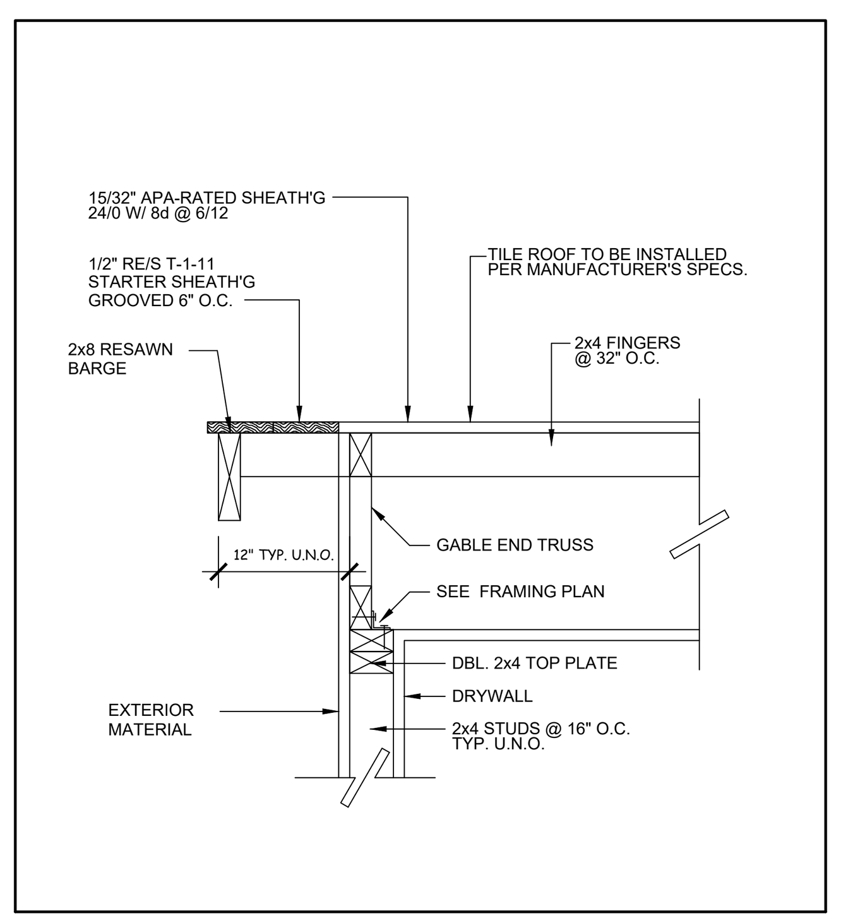
No. 10 Garage Door Jamb Detail



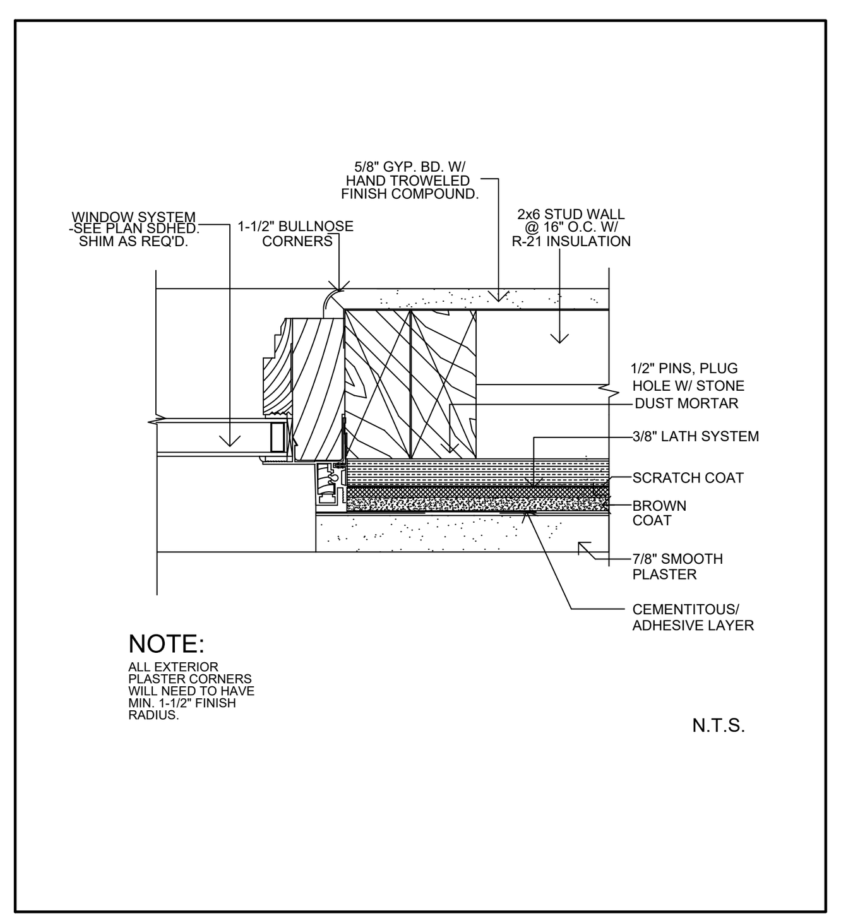
No. 7 Interior Door Head Detail



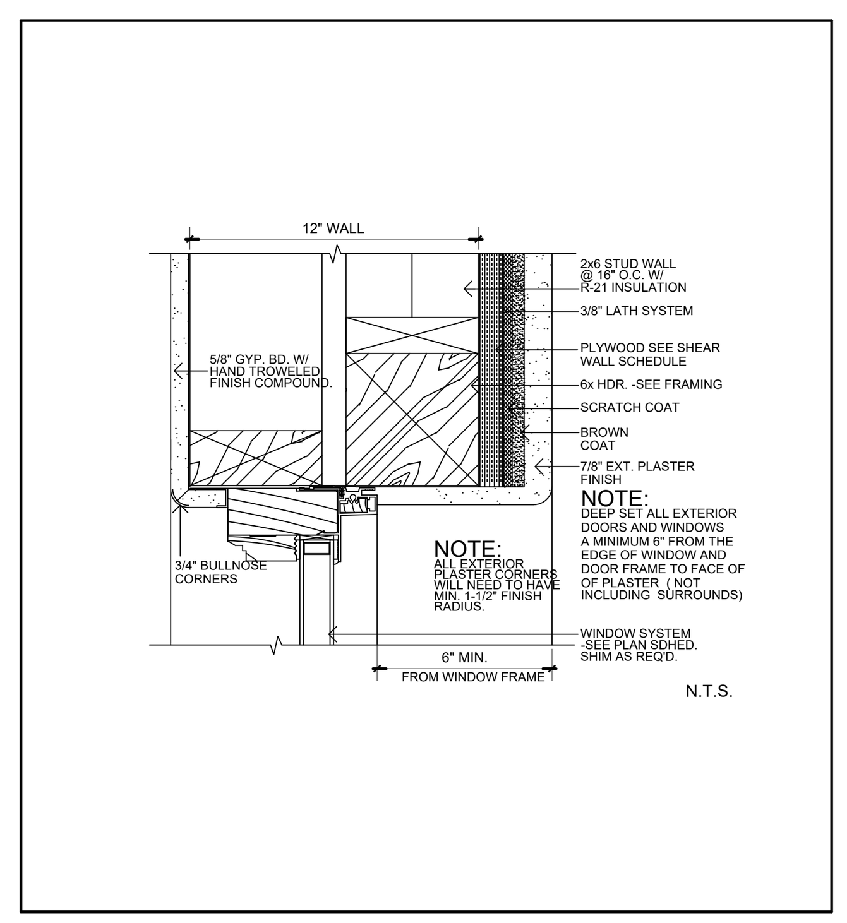
No. 2 Dryer Ventilation Detail



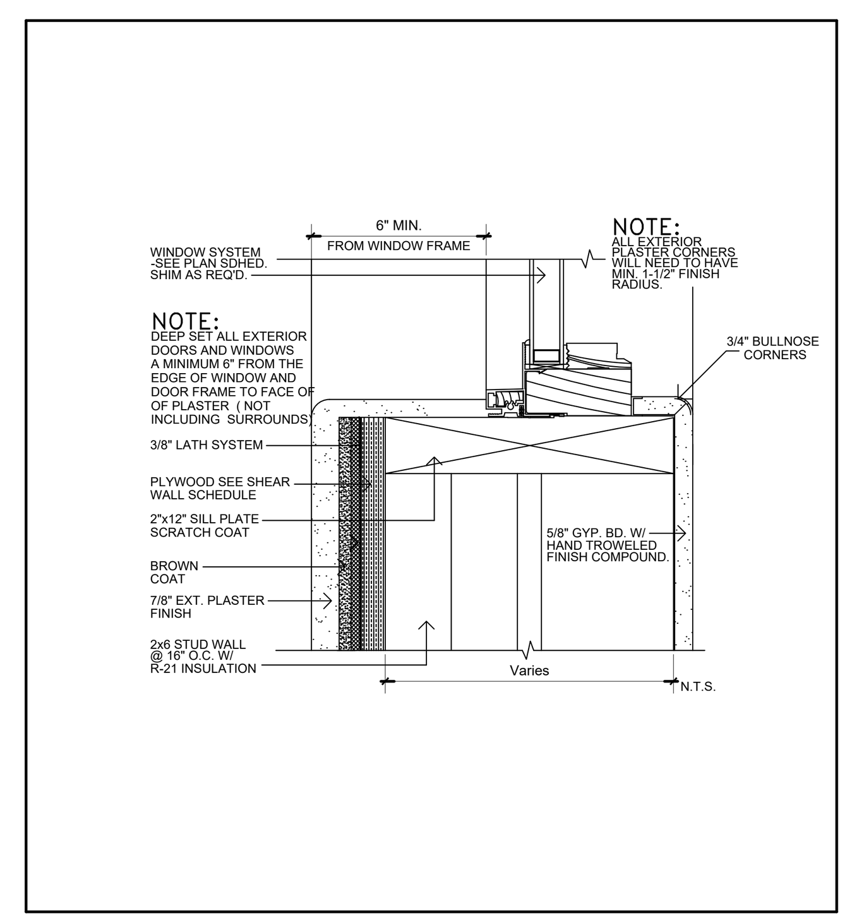
No. 22 Rake @ End Truss Detail



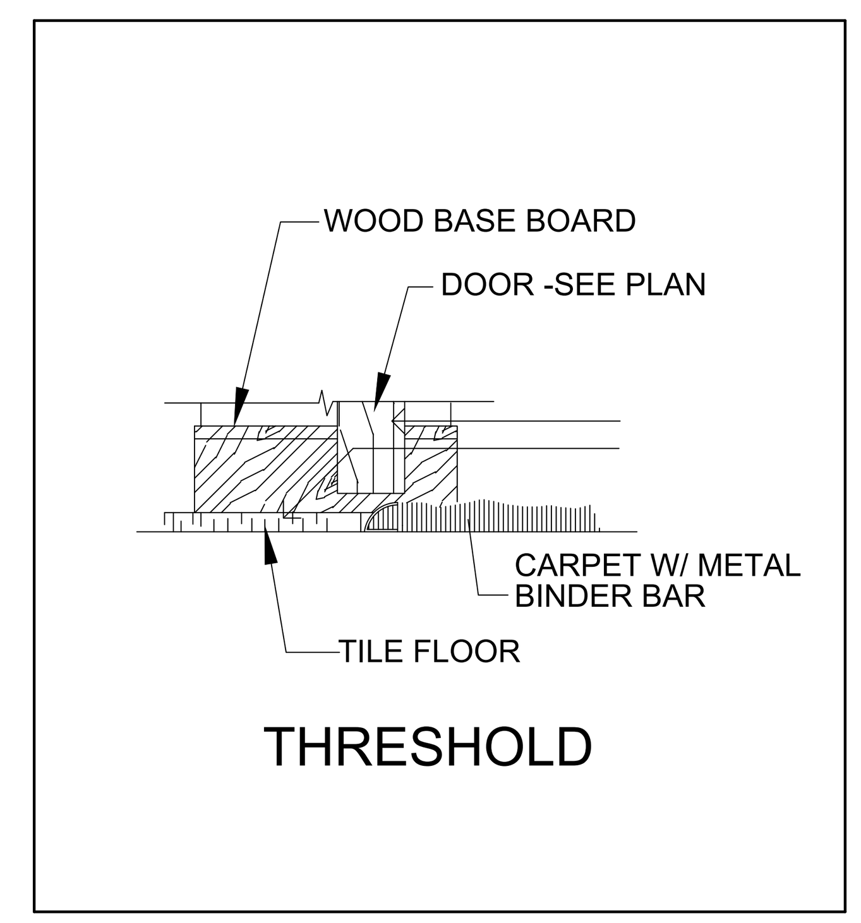
No. 19 Window Jam Detail



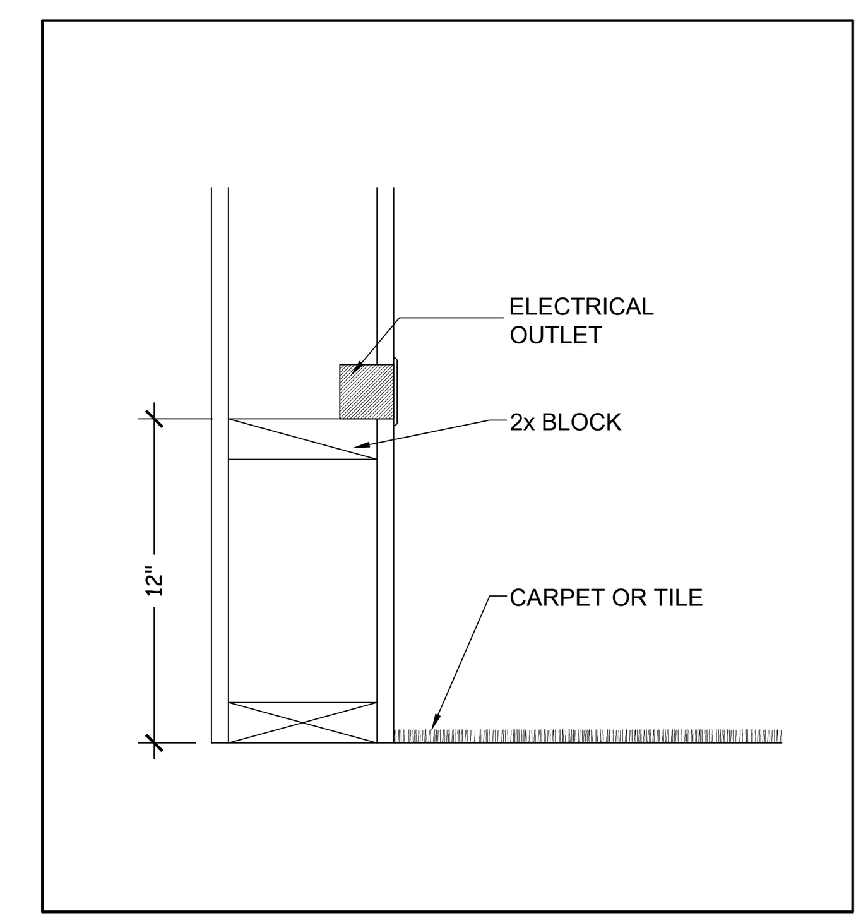
No. 14 Window Head Detail



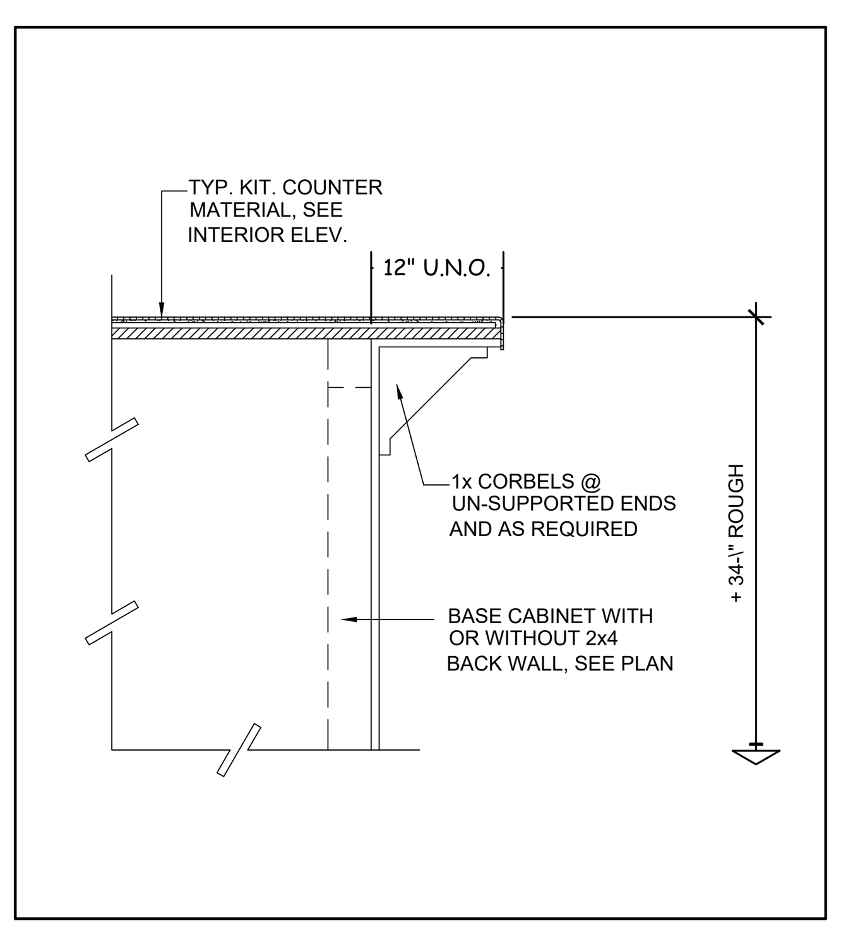
No. 11 Typical Window Sill Detail



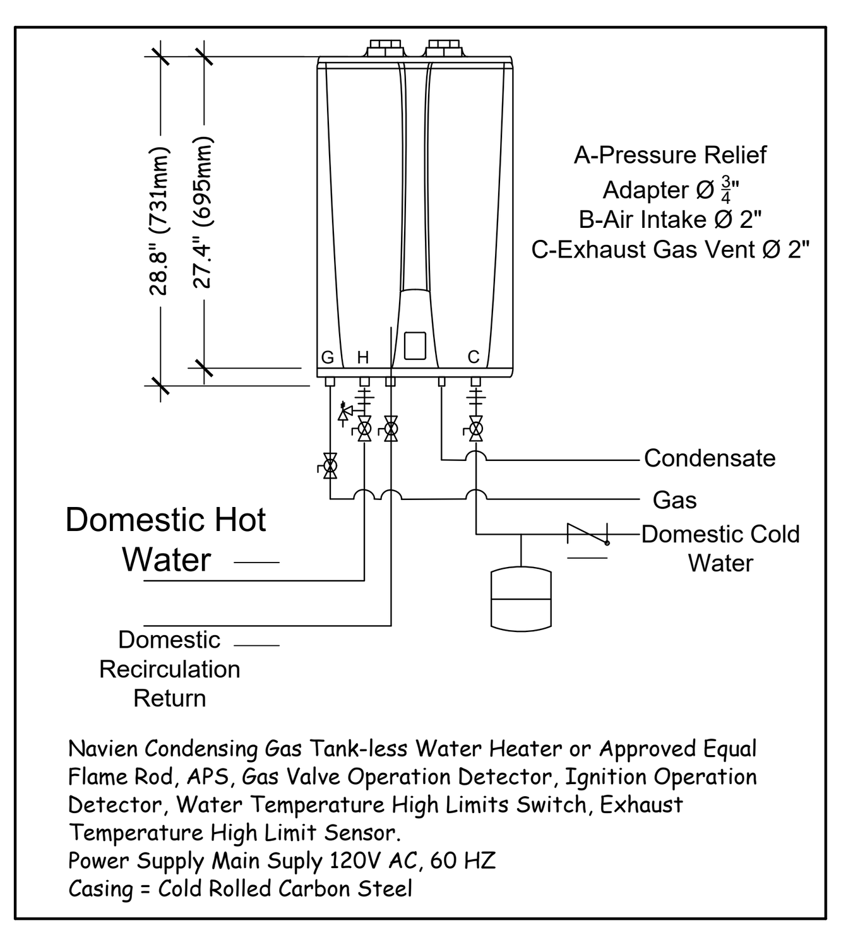
No. 6 Interior Door Threshold Detail



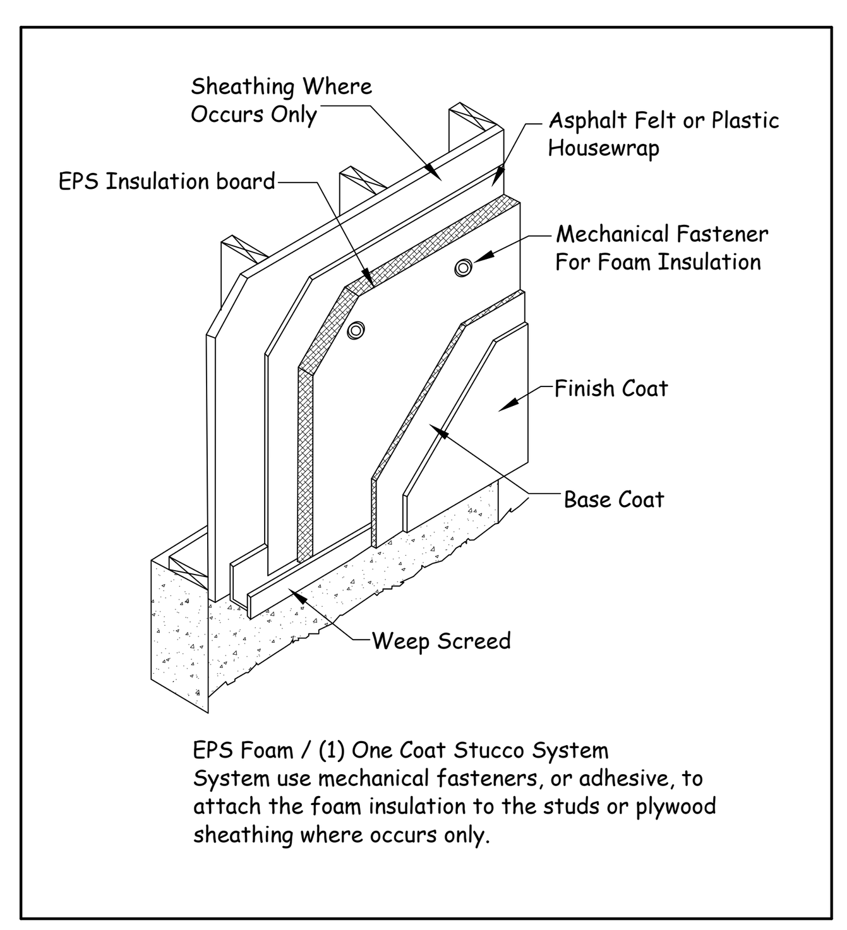
No. 3 Electric Outlet Installation Detail



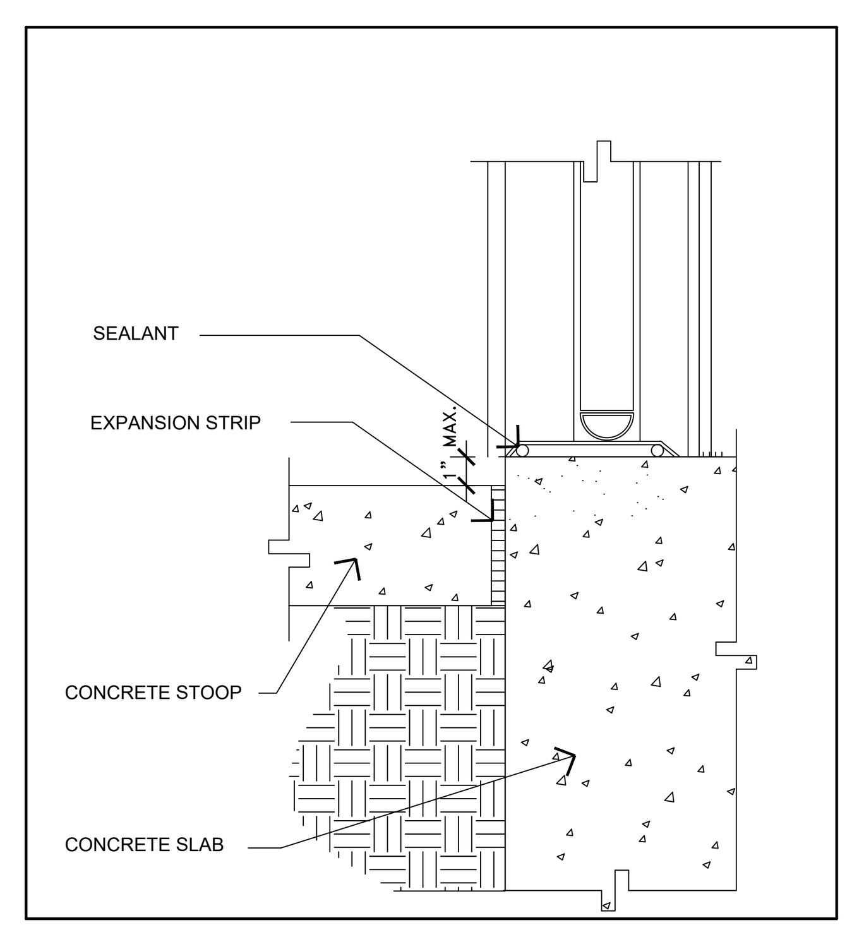
No. 21 Granite Counter Kitchen



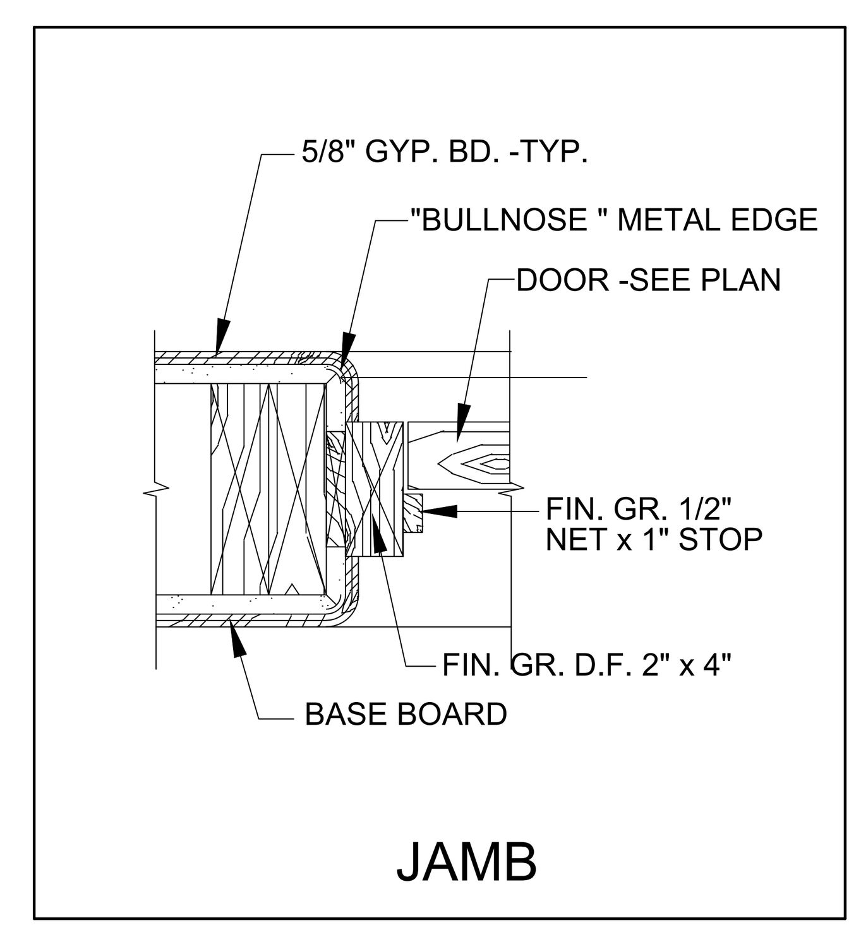
No. 20 Tank-Less Water Heater



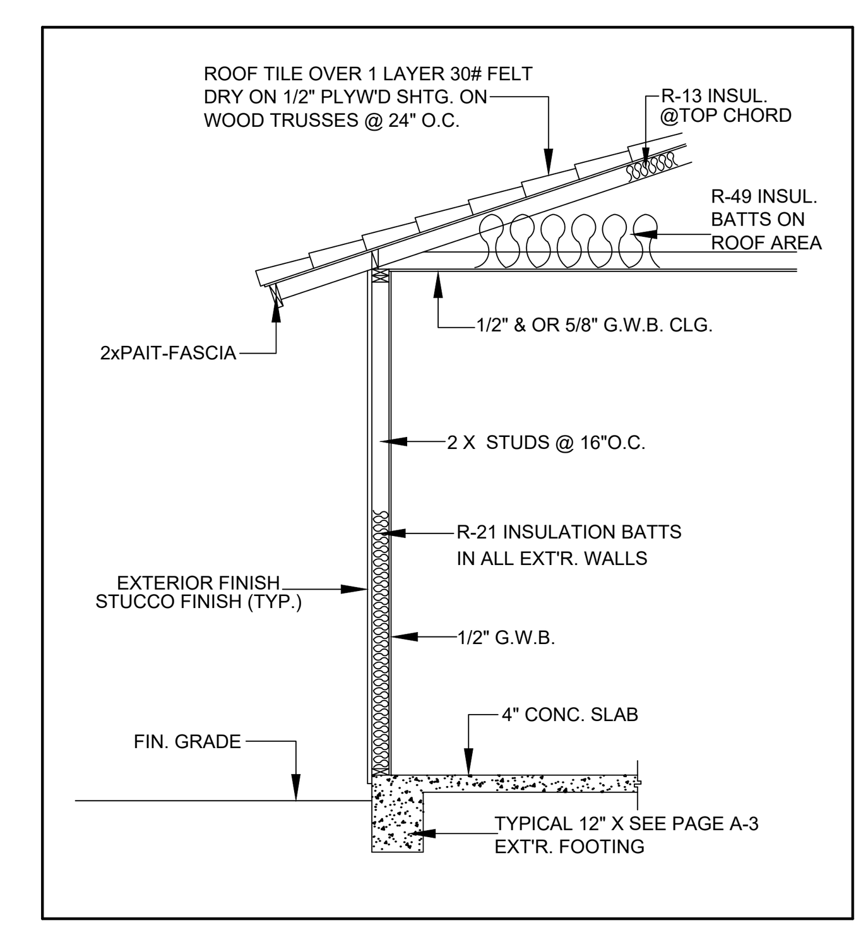
No. 13 Stucco + 1" EPS Typical Detail



No. 12 EXTERIOR DOOR THRESHOLD



No. 5 Interior Door Jam Detail



No. 4 Wall - Roof Section Detail

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Revisions	Date
Plan Check Revisions 1	00-00-2018

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Sheet Name:
Typical Details

Date: OCTOBER-2018
Drawn By: Mike Mendoza
Sign By:

Sheet Number:
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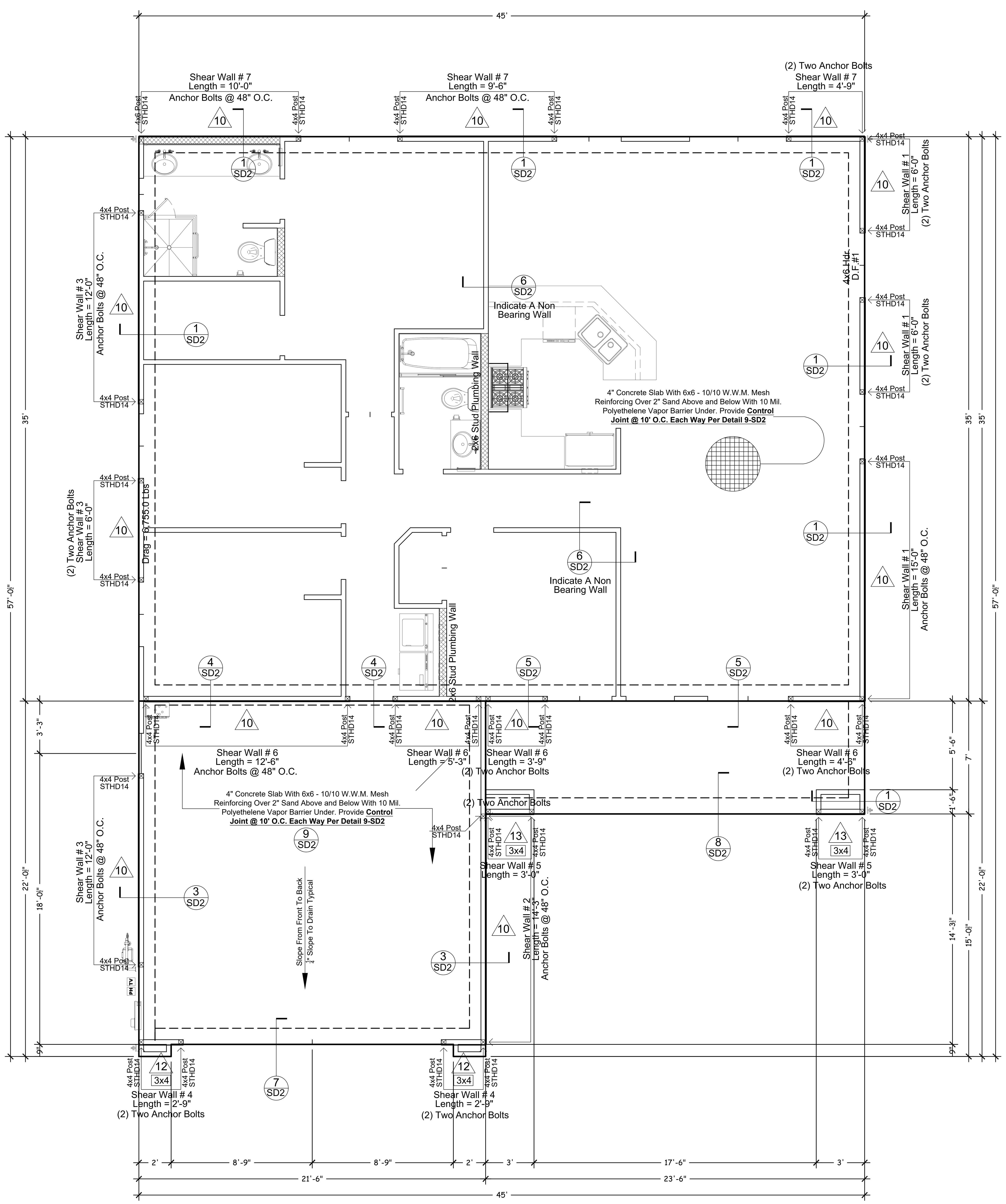
Scale: To Plot 1/4" = 1'-0"



CONTINUOUS FOOTING

ONE STORY
12" WIDE x 12" DEEP CONTINUOUS FOOTING WITH 1 # 4 AT TOP AND BOTTOM U.N.O.

SYMBOL & LEGENDS

B1 — **Shear Wall Panel** NUMBER AND MINIMUM LENGTH NOTED, REFER TO GENERAL NOTE SHEET FOR PANEL TYPE.

WOOD POST OR 2-2x STUDS TYPICAL.

1 — DETAIL NUMBER
SD1 — DETAIL SHEET NUMBER

3x4 SILL PLATE — USE 3x6 OR 3x4 SILL PLATE AND 3x6 OR 3x4 MEMBER AT ADJOINING PANELS EDGE (WHERE TWO PANELS JOINED)

INDICATE LOCATION OF PAD FOOTING, VERIFY DIMENSION ON PLAN

Note:
ANCHOR BOLT LOCATION AT 2X4 STUD SHEAR WALLS:

- Anchor Bolts shall be installed at sill plate closer to the shear panel side in order to maintain 0.5" Maximum distance between plate washer and shear panel per Detail 8/SD1
- **Reinforcing Steel or structural framework of any part of any building or structure shall not be covered or concealed without first obtaining the approval of the enforcing agency. R109.1.**
- **Any Retrofit-Epoxy Anchor or Rod Requires Special Inspection On Installation**
- **Hold Down Hardware must be secured in place prior to Foundation Inspection.**
- Lots shall be graded to drain surface water away from the foundation walls. The grade shall fall a minimum of 6" within the first 10 Ft. (5% Slope). Where Lot Lines, Walls, Slopes or other physical barriers prohibit 6" of wall with in 10 Ft. Drains or Swales shall be constructed to ensure drainage away from the structure. (C.R.C R401.3), For Impervious surfaces with in 10 Ft. of the building foundation shall sloped a minimum of 2% away from the building.
- Fasteners for Preservative Wood Use Nut & Washers of Anchor Bolts shall be Hot Dipped ZINC-COATED Galvanized Steel or Stainless Steel.

ADDITIONAL NOTES FOUNDATION

01. PROVIDE TERMITE TREATMENT OF SOILS PRIOR TO POURING CONCRETE.

02. ALL STEM WALLS TO BE 6-INCHES WIDE (U.N.O.) AND SHALL HAVE THE SAME FINISH FLOOR ELEVATION AS MAIN FLOOR.

03. VERIFY FOUNDATION TO BE INSTALLED AT EXISTING FINISH FLOOR ELEVATION.

04. ALL COLUMN BASES, SOLUMN BOLTING, HOLDOWN, STRAPS AND ANCHOR BOLTS, CRITICAL TO THE STRUCTUREL INTEGRITY OF THE BUILDING, SHALL BE HELD IN PLACE BY MEANS OF TEMPLATES PRIOR TO FOUNDATION INSPECTION.

05. PROVIDE TREATED SILL PLATE OR VAPOR BARRIER UNDER ALL COLUMNS (PER BUILDING DEPARTMENT).

06. ALL SHEAR WALL PANELS SHALL EXTEND FROM FOOTING TO BOTTOM OF ROOF DIAPHRAGM (INTERIOR AND EXTERIOR SHEAR WALLS).

07. SURFACE WATER SHALL DRAIN AWAY FROM THE BUILDING. SEE RELATED DRAINAGE PATTERN AND KEY ELEVATIONS ON GRADING PLAN, IF APPLICABLE.

08. VERIFY FOUNDATION TO BE MINIMUM 12" ABOVE THE STREET GUTTER OR POINT OF INLET OR APPROVED DRINAGE DIVICE. IF GRADING PLAN ENFORCED FOLLOW HIS CRITERIA OF DESIGN.

09. PROVIDE SURVEY STAKES IN ALL (4) CORNERS OF THE LOT PRIOR TO FOUNDATION INSPECTION TO VERIFY PROPERTY LOT LINE.

A. THE MINIMUM NOMINAL A.B. DIAMETER SHALL BE 5/8" DIA. THIS WILL REQUIRE A MINIMUM DISTANCE FROM THE ENDS OF SILL PLATES AND ENDS OF SHEAR PANELS TO BE 4-3/8" AND A MAXIMUM OF 12".

B. STEEL PLATE WASHERS (MINIMUM SIZE 3"x3"x0.229") MUST BE USED IN ALL A.B.

C. USE 5/8"x12' LONG A.B. AT 6'-0" O.C. UNLESS AT BRACED WALL PANEL AREA WHERE A.B. SIZE AND SPACING SHALL BE BASED ON THE SCHEDULE TABLE ON PLANS.

D. USE 5/8'x18" LONG ANCHOR BOLTS FOR 2-POUR CONCRETE, IN ORDER TO PROVIDE A 7-INCHES EMBEDMENT BELOW COLD JOINT.

E. ALL SHEAR PANELS TO HAVE A MINIMUM OF THREE (2) ANCHOR BOLTS.

F. ALL HOLDOWN DEVICES SHOULD BE IN PLACE PRIOR TO FOUNDATION INSPECTION.

SHEAR WALL PANEL SCHEDULE (PER 2015 NDS SDPWS TABLE 4.3A)

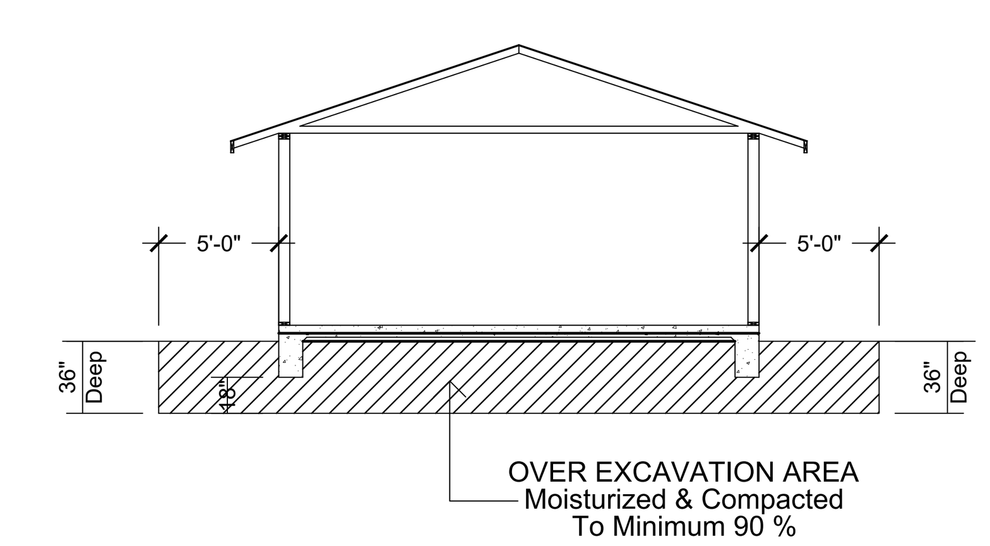
MARK	WALL TYPE & NAIL SPACING (common or galv. box) (USE 20% MORE NAILS IF SINKER NAILS ARE USED)	ALLOWABLE SHEAR, PLF	ANCHOR BOLTS (12" LONG OR 18" FOR 2-POUR)	UPPER FLOOR SILL NAILING
10	3/8" CDX plywood or OSB w/8d nails @ 6" o.c. at edges and @ 12" o.c. in field see note #5 below	260	5/8" @ 4'	16d @ 6"
11	3/8" CDX plwwood or OSB w/8d nails @ 4" o.c. at edges and @ 12" o.c. in field USE 3X FOUNDATION SILL PLATE & 3X STUDS AND BLOCKS AT ADJACENT PANELS	380 (*760)	5/8" @ 3' (*5/8" @ 1.5') <---IF DBL SIDED	16d @ 6" (*16d @ 3")
12	3/8" CDX plywood or OSB w/8d nails @ 3" o.c. at edges and @ 12" o.c. in field USE 3X FOUNDATION SILL PLATE & 3X STUDS AND BLOCKS AT ADJACENT PANELS	490 (*980)	5/8" @ 2.5' (*5/8" @ 1.25') <---IF DBL SIDED	16d @ 4" (*16d @ 2")
13	3/8" CDX plywood or OSB w/8d nails @ 2" o.c. at edges and @ 12" o.c. in field USE 3X FOUNDATION SILL PLATE & 3X STUDS AND BLOCKS AT ADJACENT PANELS	640 (*1280)	5/8" @ 1.5' (*5/8" @ 0.75') <---IF DBL SIDED	16d @ 3.5" (*2-16d @ 3.5")
14	1/2" Str. I plywood w/10d nails @ 2" o.c. at edges and @ 12" o.c. in field USE 3X FOUNDATION SILL PLATE & 3X STUDS AND BLOCKS AT ADJACENT PANELS	870 (*1740)	5/8" @ 1.25' (*5/8" @ 0.6') <---IF DBL SIDED	16d @ 2.5" (*2-16d @ 2.5")

Foundation Floor Plan

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

Grading Over Excavating Notes:

1. In order to provide uniform foundation bearing conditions underneath the footing and to mitigate potential settlements, over-excavation should be performed throughout the building areas and 5 Feet Beyond.
2. The Over-Excavation shall be done to a depth of at least 3' Feet Below Existing Grade or 18" Below Bottom of Footing, which ever is deeper.
3. A compaction report at Pad itself only can not replace the Over-Excavation.
4. If a Soils Report is provided, the over excavation shall follow the recommendations from the Soils Engineer Report.



REGISTERED PROFESSIONAL ENGINEER
FRED SHEU
No. S4111
Exp. 6-30-20
STRUCTURAL
STATE OF CALIFORNIA

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Revisions	Date
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& General Notes

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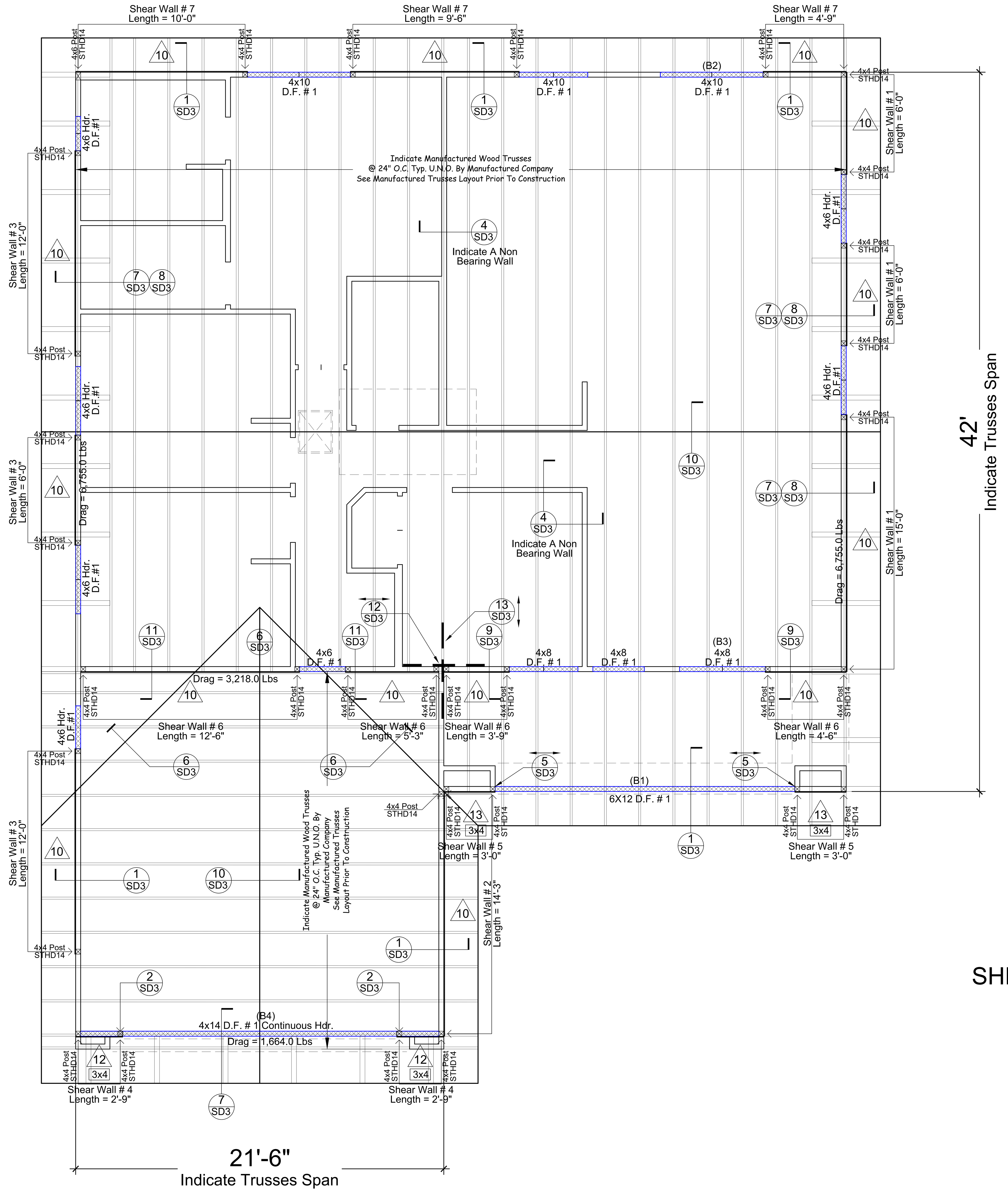

ROOF MATERIAL

Concrete Roof Tile shall be Eagle Class 'A' Concrete Roofs I.C.C. Report # ESR-1900
Over (2) Layers Type 30 Underlayment, Install Per Manufacturer's specifications
Weight = 10 PSF
Roof Pitch: See Plan
Tile Roof Assembly shall be Class 'A' Minimum, C.B.C. 1506 & 1507
Note:
Minimum Tile nailing shall comply with the following:

1. 11 GA. Corrosion-Resistant 3/4" onto roof sheathing
2. The heads of all tiles shall be nailed
3. the noses of all course tiles shall be fastened with approved clips
4. All rake tiles shall be nailed with (2) nails
5. The nose of all Ridge, Hip, and Rake tiles shall be set in a bead of approved roofer's mastic.

1. TRUSSES LOADING-ROOF:

Live Load		20.00 PSF
Dead Load	Roof Cover	10.00 PSF
	1/2" Roof Sht'g.	1.50 PSF
	Roof Framing	3.50 PSF
	1/2" Drywall Clg.	2.00 PSF
	Miscellaneous	2.00 PSF
	Dead Load Total:	19.00 PSF
	Total Load:	39.00 PSF

2. ROOF TRUSSES ON CENTER SPACING: 24" O.C.
3. OVERHANG TYPICAL 24" O.C.

Note:

Alterations to trusses. Truss members and com-ponents shall not be cut, notched, drilled, spliced or other-wise altered in any way without written concurrence and approval of a registered design professional Alterations resulting in the addition of loads to any member (e.g.,HV AC equipment, piping, additional roofing or insulation, etc.) shall not be permitted without verification that the truss is capable of supporting such additional loading. C.B.C. 2303.4.5

Gravity Load:

Roof Live Load	= 20 PSF
Roof Dead Load	= 19 PSF
Pitch	= 4 : 12

Seismic Design Value:

Equivalent Lateral Force Procedure	ASCE 7-10
Seismic Design Category	= E
Site Class	= D
Occupancy Category	= II
Importance Factor	= 1.0
Response Modification Factor	= 6.50
System Over strength Factor	= 3.0
Site Coefficient	Fa = 1.0
	Fv = 1.5
Mapped Spectral Acceleration	Ss = 2.588 g
	S1 = 0.954 g
Adjusted Spectral Acceleration	Sms = 2.588 g
	Sm1 = 1.431 g
Design Spectral Response	S_{DS} = 1.725 g
Acceleration	S_{D1} = 0.954 g
Seismic Base Shear (ASD)	= 0.246 W

Wind Design Value:

Simplified Method ASCE 7 - 10	
Wind Speed	= 130 MPH
Exposure	= C
Wind Load (ASD)	= 26.1 PSF

ADDITIONAL NOTES FRAMING

01. SHEAR PANEL SHEATHING AT GABLE ENDS WILL EXTEND TO ROOF DIAPHRAGM.

02. PROVIDE (2) LAYERS OF GRADE 'D' PAPER OVER ALL WOOD BASED SHEATHING.

03. ALL SHEAR WALL PANELS SHALL BE SHEATHED FROM FOOTING TO BOTTOM PART OF THE ROOF DIAPHRAGM.

04. SPECIFY 1/2" CLEARANCE FROM BOTTOM OF TRUSS AT NON-BEARING WALL.

05. ALL SIDES OF COVERED PATIO COLUMN TO BE SHEATED FROM FOOTING TO BOTTOM OF ROOF DIAPHRAGM.

06. A SHEAR WALL PANEL INSPECTION IS REQUIRED PRIOR TO CONCEALMENT. CALL FOR INSPECTION WHEN ALL BRACES, NAILING, HOLDOWNS, TIES, ANCHORS AND CLIPS ARE INSTALLED PER APPROVED CONSTRUCTION PLANS.

07. FRAMING COMPLIANCE WITH CHAPTER 23 C.B.C. SHEAR WALL LINES SHALL CONSIST OF SHEAR WALL PANELS WHICH MEET REQUIREMENTS FOR LOCATION, TYPE AND AMOUNT OF BRACING SPECIFIED IN TABLE 23-IV-B.

08. ALL SHEAR NAILING SHALL BE DONE WITH COMMON NAILS.

09. PENETRATIONS OR OPENINGS IN CONSTRUCTION ASSEMBLING FOR PIPING OF ELECTRICAL DEVICES, RECESSED CABINETS, SOFFITS, OR HEATING, VENTILATING OR EXAHUSTING DUCTS, SHALL BE SEALED, LINED, INSULATED OR OTHERWISE TREATED TO MANTAIN THE REQUIRED RATINGS.

10. PROVIDE RADIENT BARRIER ON GABLE ENDS AT ATTIC PER 2013 ENERGY REGULATIONS.

FRAMING

01. NAILING SHALL BE IN COMPLIANCE WITH C.B.C. CHAPTER 23.
RETIGHTEN ANY BOLTS PRIOR TO APPLICATION OF SHEATING, PLASTER, ETC.

02. EACH SHEET OF PLYWOODSHALL BE IDENTIFIED BY REGISTERED STAMP OR BRAND OF THE DOUGLAS FIR PLYWOOD ASSOCIATION.

03. PLYWOOD SHEATING SHALL COMFORM TO THE REQUIREMENT OF THE LATEST EDITION OF U.S. PRODUCTS STANDARD PS-1 AND SHALL BE GRADE MARKEDIN ACCORDANCE WITH A.P.A. PLYWOOD FOR ROOF SHEATING SHALL BE CDX OR OSB. USE EXTERIOR TYPE, MINIMUM C-C GRADE WHERE PLYWOOD IS EXPOSED TO WHEATHER. ALL PLYWOOD SHALL BE GLUED WITH EXTERIOR TYPE GLUE.

04. ALL WOOD BEARING ON CONCRETE OR MASONRY SHALL BE PREASSURE TREATED DOUGLAS FIR # 1 OR REDWOOD.

05. CROSS BRIDGING SHALL BE PROVIDED AT 8'-0" O.C. MAXIMUM FOR ALL JOIST AND RAFTERS (MORE THAN 8" DEEP). WOOD STUDS MAY BE NOTCHED A DEPTH OF 25 % OF WITH MAXIMUM.

06. PROVIDE FIRE STOPS AT THE FOLLOWING LOCATIONS, PER SECTION 708.2.1:

* A. IN CONCEALED SPACES OF STUD WALL AND PARTITIONS, INCLUDING FURRED SPACES AT THE CEILING AND FLOOR LEVELS AND AT 10'-0" INTERVALS ALONG THE LENGTH OF THE WALL.

* B. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES, SUCH AS OCCUR AT SOFFITS, DROP CEILINGS OR COVE CEILINGS.

* C. IN OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, FIREPLACES AND SIMILAR OPENINGS WHICH CAN AFFORD A PASSAGE FOR FIRE AT CEILING AND FLOOR LEVELS WITH NON-COMBUSTIBLE MATERIAL.

07. STUCCO, LATH AND DRYWALL SHALL BE NAILED TO STUDS AND TOP AND BOTTOM PLATES.

08. PROVIDE SOLID BLOCKING UNDER ALL SECOND FLOOR SHEAR WALL.

09. DOUBLE STUDS OR JOISTS SHALL BE NAILED TOGETHER WITH 16d NAILS AT 12" O.C.

10. REFER TO STRUCTURAL GENERAL NOTES SHEET FOR MORE INFORMATION.

SYMBOL & LEGENDS

B1 — **SHEAR WALL PANEL** NUMBER AND MINIMUM LENGTH NOTED, REFER TO GENERAL NOTE SHEET FOR PANEL TYPE.

WOOD POST OR 2-2x STUDS TYPICAL.

1 — DETAIL NUMBER
SD1 — DETAIL SHEET NUMBER

3x4 SILL PLATE — USE 3x4 OR 3x4 SILL PLATE AND 3x6 OR 3x4 MEMBER AT ADJOINING PANELS EDGE (WHERE TWO PANELS JOINED)

2x6 Stud Plumbing Wall, Wood studs @ 16" O.C. with Sound Batt Insulation with (1) One layer of 1/2" Gypsum Board on EA. inside

ROOF DIAPHRAGM

USE: 15/32" APA Rated Sheathing, or O.S.B. unblocking diaphragm, exterior grade, index 24/0, w./ 8 d. nails @ 6" o.c. at edges and boundaries, @ 12" o.c. in field

SHEAR WALL PANEL SCHEDULE (PER 2015 NDS SDPWS TABLE 4.3A)

MARK	WALL TYPE & NAIL SPACING (common or galv. box) (USE 20% MORE NAILS IF SINKER NAILS ARE USED)	ALLOWABLE SHEAR, PLF	ANCHOR BOLTS (12" LONG OR 18" FOR 2-POUR)	UPPER FLOOR SILL NAILING
10	3/8" CDX plywood or OSB w/8d nails @ 6" o.c. at edges and @ 12" o.c. in field see note #5 below	260	5/8" @ 4'	16d @ 6"
11	3/8" CDX plwwood or OSB w/8d nails @ 4" o.c. at edges and @ 12" o.c. in field USE 3X FOUNDATION SILL PLATE & 3X STUDS AND BLOCKS AT ADJACENT PANELS	380 (*760)	5/8" @ 3' (*5/8" @ 1.5') <---IF DBL SIDED	16d @ 6" (*16d @ 3")
12	3/8" CDX plywood or OSB w/8d nails @ 3" o.c. at edges and @ 12" o.c. in field USE 3X FOUNDATION SILL PLATE & 3X STUDS AND BLOCKS AT ADJACENT PANELS	490 (*980)	5/8" @ 2.5' (*5/8" @ 1.25') <---IF DBL SIDED	16d @ 4" (*16d @ 2")
13	3/8" CDX plywood or OSB w/8d nails @ 2" o.c. at edges and @ 12" o.c. in field USE 3X FOUNDATION SILL PLATE & 3X STUDS AND BLOCKS AT ADJACENT PANELS	640 (*1280)	5/8" @ 1.5' (*5/8" @ 0.75') <---IF DBL SIDED	16d @ 3.5" (*2-16d @ 3.5")
14	1/2" Str. I plywood w/10d nails @ 2" o.c. at edges and @ 12" o.c. in field USE 3X FOUNDATION SILL PLATE & 3X STUDS AND BLOCKS AT ADJACENT PANELS	870 (*1740)	5/8" @ 1.25' (*5/8" @ 0.6') <---IF DBL SIDED	16d @ 2.5" (*2-16d @ 2.5")

Roof Framing Plan

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

REGISTERED PROFESSIONAL ENGINEER
FRED SHEU
No. S4111
Exp. 6-30-20
STRUCTURAL
STATE OF CALIFORNIA

Mike Mendoza
Design Principal

Revisions	Date
Plan Check Revisions 1	00-00-2018

Owner Name:
SMART HOME OF THE DESERT, INC.
Phone No. 1-(760) 999-0999
P.O. Box 1313
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Job Address:
Lot No. 271 Cuyamaca Drive
Desert Hot Springs, CA 92240

Sheet Name:
Roof Framing Plan & General Notes

Date: OCTOBER-2018
Drawn By: Mike Mendoza
Sign By:

Sheet Number:
S1.02

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

GENERAL NOTES

1. All construction workmanship and materials shall conform to the 2016 edition of California Building Code except where more stringent requirements are noted or shown on the plans.
2. The plans shall be reviewed for dimensional & existing site conformance with the plans by the contractor before starting work. The architect & engineer shall be notified of any discrepancies.
3. Working dimensions shall not be scaled from drawings.
4. Notes and details on drawings shall precede these general notes.
5. The design, adequacy and safety of erection, bracing, shoring, temporary supports, etc., is the sole responsibility of the contractor, and has not been considered by the structural engineer. The contractor is responsible for the stability of the structure during the entire course of construction. The engineer shall not be held responsible for field inspection/observation of the above item.
6. Allowable soil bearing pressure to be a minimum of 1,500 psf unless a soil report is provided. Soils in the building area & 5 feet beyond shall be compacted to a minimum of 90% relative compaction per C.B.C.
7. At the begining of each job the contractor shall meet with the local building official to confirm inspection requirement of the local jurisdiction.

FOUNDATION NOTES

1. All subgrade preparation for bearing, fill material, and pavement/slab base shall be inspected by a representative of the soil engineer, and local building inspector, if required, prior to the placing of concrete.
2. The minimum bolting for sill plates to foundation shall be 5/8" diameter anchor bolts with 7" min. embedment in concrete with spacing no greater than 6' o.c. or further than 12" from corners (min. 2 bolts per pier). See foundation plan and shear schedule for further bolting requirements.
3. Plate washers a minimum of 3 inch by 3 inch by 0.229 inch thick shall be used on each anchor bolt.
4. Slab on grade: minimum 4 inch concrete slab with 6x6–10/10 W.W.M. @ center of slab thickness over 4 inch of sand with 10 mil visqueen vapor barrier in the middle of the sand on the compacted native soil.
5. Pipe or ducts that exceed one third the slab or concrete wall thickness shall not be placed in structural concrete unless specifically detailed.
6. For sill bolting at existing footings use Epoxy bolt, the same size & spacing as called for on plans.
7. Dowel new into existing slabs w/ #4 rebar @ 24" o.c. and footings w/ dowels to match new reinforcement size/location.

CONCRETE NOTES

1. Unless otherwise noted on plans concrete shall have a minimum compressive strength of 2500 psi in 28 days.
2. Cement shall conform to ASTM C–150.
3. Aggregate shall conform to ASTM C–33.
4. Corners of slab, beams, walls and columns shall be formed with a 3/4" chamfer unless noted otherwise on plans.
5. For floor slab, provide 1" deep saw cuts or construction joints at a maximum of 10 feet o.c. each way, in squaure pattern, U.N.O.

REINFORCING STEEL NOTES

1. Reinforcing steel shall conform to the ASTM A615, graded as noted:
   All #4 bars – Grade 40
   #5 and larger – Grade 60
2. All reinforcing steel, anchor bolts, and other inserts shall be secured in place prior to placing concrete or grouting of masonry.
3. Reinforcing steel may be lap spliced with 50 bar diameter in masonry or 40 bar diameter in concrete with min. 18" lap.
4. Provide the following minimum concrete cover:
   Surface cast against earth – 3"
   Exposed to earth or weather – 2"
   Not exposed to weather or earth – 1"
   Beam and column – 1.5
   Slab on grade – mid depth
5. Number 5 or larger reinforcing bars shall not be re–bent.
6. Provide dowels in footings and/or grade beams the same size and number as vertical wall or column reinforcing. Dowels shall have a minimum projection equal to standard lap splice unless noted otherwise.

LUMBER NOTES

1. All lumber shall be Douglas Fir–Larch visually graded per WCLIB/WWPA grading rules unless noted otherwise on plans:
   2x joists & rafter – No. 2
   4x 6x & larger beams – No. 1
   plates, blocking & studs – Stud grade
2. Glued–laminated timber shall be Douglas Fir combination 24F–V4 DF/DF, indusdrial appearance with exterior glue. (Fb=2400 psi, Fv=165 psi, E=1800000 psi) An A.I.T.C. Certificate of Compliance for glued laminated wood member shall be given to the building inspector prior to installation. ICC–ES ESR–1940
   (*) Use V8 for cantilever beams and V4 for simple span beam.
3. Parallam beam shall be Truss Joist – MacMillan, 2.0E Parallam PSL.
   Microllam beam shall be Truss Joist – MacMillan, 1.9E Microllam LVL.
   ICC–ES ESR–1387
4. Wood structural panel shall comply with DOC PS1 or PS2. Each panel shall be idenfied for grade and glue type by the trademarks of an approved testing and grading agency.
5. All sills and plates resting on concrete or masonry and within 8" of earth shall be preservative treated lumber. Preservative treated lumber shall conform to the requirements of the applicable AWPA Standard U1 and M4 for the species, product, preservative and end use. Preservative shall be listed in Section 4 of AWPA U1.
6. All nails shall be common nails. Box nails are not acceptable unless noted otherwise on plans.
7. Fastners for preservative–treated or fire–retardant wood shall be of hot dipped zinc–coated galvanized steel or stainless steel.

WOOD FRAMING NOTES

1. Framing shall comply with Chapter 23 of the latest California Building Code.
2. All connecting hardware, joist hangers, tie straps, etc. shall be Simpson Strong–Tie unless noted otherwise on plans.
3. Unless noted otherwise on plans, all posts shall have Simpson PC OR CCQ connectors at top and CB or CBSQ connectors at bases.
4. Use Simpson U– hangers on all joist/beam connections unless noted otherwise on plans.
5. All bolts bearing on wood shall have washers under head or nut. Holes for bolts shall be bored 1/32" to 1/16" larger than nominal bolt diameter.

ROOF FRAMING NOTES

1. Roof sheathing: minimum 15/32" APA rated plywood or OSB panel index 24/0 with exterior glue. Use 8d nails at 6" o.c. at all edges, boundaries and shear walls and 12" o.c. in field. No blocking is required unless noted otherwise on plans.
2. Framing around openings, trimmer and header joists shall be doubled and supported by hangers per code.
3. Ceiling joists per CBC Table 2308.10.2 with L/240 deflection limits:

2x4 @ 16" o.c.	– max span = 11'–3" (without storage)	8'–9" (limited storage)
2x6 @ 16" o.c.	– max span = 17'–8" (without storage)	12'–10" (limited storage)
2x8 @ 16" o.c.	– max span = 23'–0" (without storage)	16'–3" (limited storage)

WALL FRAMING NOTES

1. Unless otherwise noted on plans, wood studs shall follow Table 2308.9.1 for size, height and spacing. Otherwise, wood studs should be designed for wind load plus dead load by engineer.
2. Rake walls adjacent to sloped ceilings shall be ballon framed. Double top plates shall always be supported by a roof or ceiling diaphragm.
3. Shear wall panel must be continuous to the roof diaphragm. Sheathing shall have all edges blocked & and appropriate shear transfer thru ceiling or soffit framing.
4. Double top plate shall be lapped min. 48" at all splices and shall overlap at corners.
5. Boring and notching of wall studs shall be as follows:
   Notching maximum: 25% of width on bearing walls
   40% of width on non–bearing walls
   Boring maximum: 40% of width on bearing walls
   60% of width on non–bearing walls
   Note: A min. of 5/8" clearance from edge of stud to hole shall be provided

JOISTS/RAFTERS FRAMING NOTES

1. Boring and notching of joists:
   Boring – Max. diameter of hole shall not exceed 1/3 of dressed depth of joist with min. edge clearance of 2 inches.
   Notching – Max. depth at ends shall not exceed 1/4 of dressed depth. No notching is allowed in the center third of the joist span. Notching in other locations shall be in the compression side with a max. depth of 1/6 of the joist depth.
2. Where three or more joists are used the joists shall be bolted together with 1/2 " diameter machine bolts w/washers at 24" o.c. staggered. Bolts shall be retightened prior to applying finish materials.
3. Joists/rafters shall lap at splices a min. of 4 inches with 3–16d nails.
4. Cross bridging or 2x blocking shall be provided @ 8'–0" o.c.max. for all joists and rafters more than 8" in depth.
5. 2x solid blocking shall be placed between joists or rafters at all supports.

ROOF/FLOOR TRUSS NOTES

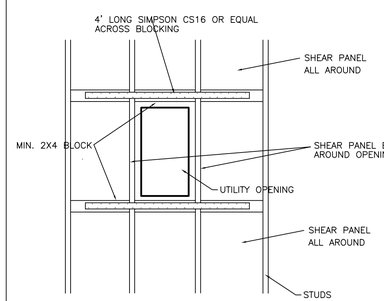
1. A complete set of truss calculations, shop drawings, prepared and signed by a California registered Engineer shall be submitted to the E.O.R. and Building Official for approval prior to fabrication. Each truss shall be legibly branded, marked or otherwise have permanently affixed thereto the following information located within 2 feet of the center of the span on the face of the bottom chord:
   a) Identity of the company manufacturing the truss. b) The design load. c) The spacing of the trusses.
2. Truss manufacturer shall provide and design hangers and web blocking as required.
3. The Architect shall notify truss manufacturer for any modification. The structural engineer is not responsible for the truss design and modification during construction.

WOOD STRUCTURAL PANEL SHEAR WALL SCHEDULE

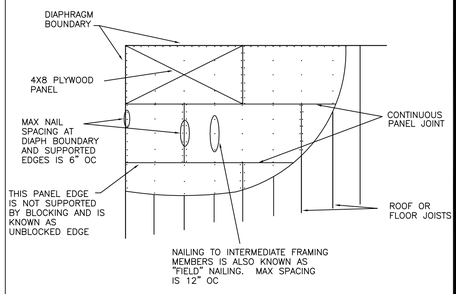
(PER 2015 NDS SDPWS TABLE 4.3A SEISMIC ASD VALUE)

MARK	WALL TYPE & NAIL SPACING (common or galv. box) (USE 20% MORE NAILS IF SINKER NAILS ARE USED)	ALLOWABLE SHEAR, PLF	ANCHOR BOLTS (12" LONG OR 18" FOR 2–POUR)	UPPER FLOOR SILL NAILING
10	3/8" CDX plywood or OSB w/8d nails @ 6" o.c. at edges and @ 12" o.c. in field see note #5 below	260	5/8" @ 4'	16d @ 6"
11	3/8" CDX plwwood or OSB w/8d nails @ 4" o.c. at edges and @ 12" o.c. in field USE 3x FOUNDATION SILL PLATE & 3x STUDS AND BLOCKS AT ADJACENT PANELS	380 (*760)	5/8" @ 3' (*5/8" @ 1.5') <---IF DBL SIDED	16d @ 6" (*16d @ 3")
12	3/8" CDX plywood or OSB w/8d nails @ 3" o.c. at edges and @ 12" o.c. in field USE 3x FOUNDATION SILL PLATE & 3x STUDS AND BLOCKS AT ADJACENT PANELS	490 (*980)	5/8" @ 2.5' (*5/8" @ 1.25') <---IF DBL SIDED	16d @ 4" (*16d @ 2")
13	3/8" CDX plywood or OSB w/8d nails @ 2" o.c. at edges and @ 12" o.c. in field USE 3x FOUNDATION SILL PLATE & 3x STUDS AND BLOCKS AT ADJACENT PANELS	640 (*1280)	5/8" @ 1.5' (*5/8" @ 0.75')<---IF DBL SIDED	16d @ 3.5" (*2–16d @ 3.5")
14	1/2" Str. I plywood w/10d nails @ 2" o.c. at edges and @ 12" o.c. in field USE 3x FOUNDATION SILL PLATE & 3x STUDS AND BLOCKS AT ADJACENT PANELS	870 (*1740)	5/8" @ 1.25' (*5/8" @ 0.6') <---IF DBL SIDED	16d @ 2.5" (*2–16d @ 2.5")

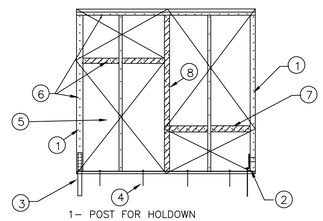
NOTES:
1. (* ---) in the table designates that shear wall sheathing is to be applied on both faces of wall.
2. All panel edges must be blocked with 2x solid blocking. Field nailing shall be 12" o.c for stud spaced at 16" o.c. and 6" o.c. otherwise.
4. Where shear design values exceed 350 plf, foundation sill plates and all framing members receiving edge nailing from abutting panels shall not be less than 3–inch nominal member. Nails shall be staggered.
5. Where panel is applied on both faces of a wall and nail spacing is less than 6 inches on center on either side, panel joints shall be offset to fall on different framing members or framing shall be 3–inch nominal or thicker and nails on each side shall be staggered.
6. All continuous exterior & interior bearing footings shall have 5/8" x 12" A.B. @ 6' o.c. for monolithic pour concrete system and 5/8"x18" A.B. for non–monolithic pour concrete system unless at shear wall panel where anchor bolts shall be installed per shear wall schedule.
7. All interior non–bearing footing shall have 7/32" shot pins @ 32" o.c. & 48" o.c. respectively.
8. All anchor bolt shall have plate wahers a minimum of 3" x 3" x 0.229" thick.
9. Use 20% more nails if sinker nails are used instead of common or galvanized box nails.
10. For design to resist seismic forces, the shear wall aspect ratio (h/b) shall not exceed 2:1 unless the norminal unit shear capacity is multiplied by 2b/h & panel blocked. The maximum (h/b) ratio of reducible shear wall is 3.5:1.



5 *UTILITY OPENING IN SHEAR WALL*

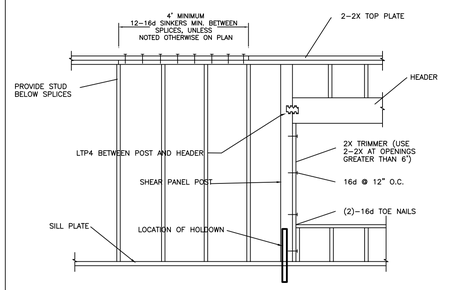


1 *UNBLOCKED HORIZONTAL DIAPHRAGM*

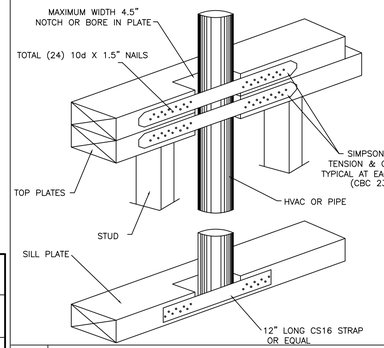


1– POST FOR HOLDOWN
2– HD HOLDOWN PER PLAN
3– STHD HOLDOWN PER PLAN
4– ANCHOR BOLT SIZE AND SPACING PER PLAN
5– SHEAR PANEL
6– PANEL EDGE NAILING PER SCHEDULE
7– BLOCK SHEAR PANEL EDGE AND STAGGER SHEAR PANELS
8– ADJOINING PANEL EDGES (HATCHED AREA)

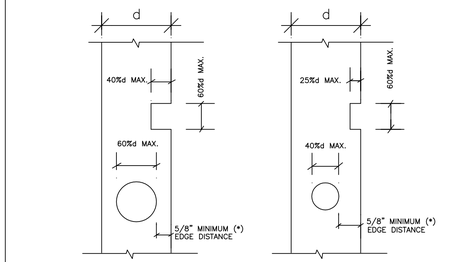
6 *(TYP) SHEAR WALL PANEL*



2 *SHEAR WALL ADJACENT TO OPENING*

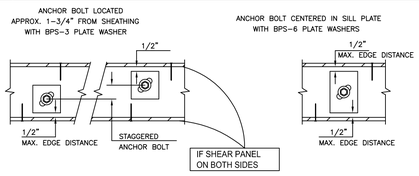


7 *FIX FOR THE PLATE CUT*

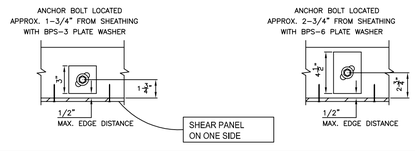


(*) – SIMPSON HSS CAN BE USED TO REINFORCE THE STUD ONLY IF EDGE DISTANCE IS OVER THE LIMIT BUT NOT IF THE PIPE OVERSIZED

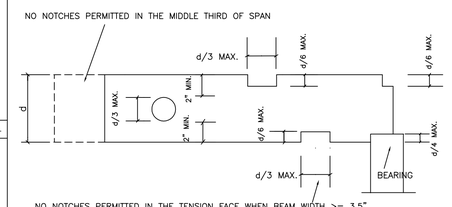
3 *NOTCH & BORE LIMITATION FOR STUD*



ANCHOR BOLT, PLATE WASHER, NUT, NAIL IN CONTACT WITH PRESSURE TREATED WOOD HAVE TO BE GALVALNIZED STEEL



8 *ANCHOR BOLTS AT 2X6 STUD SHEAR WALL*



BORED HOLE AND NOTCH SHALL NOT OCCUR IN SAME SECTION

4 *NOTCH & BORE LIMITATIONS FOR SAWN*

REVISIONS

DESCRIPTION	DATE

REGISTERED PROFESSIONAL ENGINEER
FRED SHEU
No. 54111
Exp. 8-30-20
STRUCTURAL
STATE OF CALIFORNIA

FRED SHEU ENGINEERING
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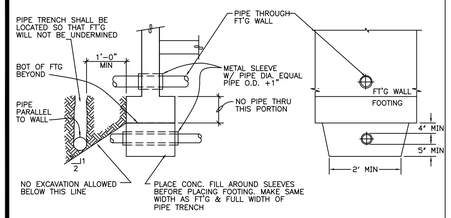
VICTORVILLE, CA 92392
(760) 955–7522
Email: fredsheuengineer@gmail.com

PROJECT NAME:
SMART HOMES OF THE DESERT, INC.
LOT NO. 271 CUYAMACA DRIVE
DESERT HOT SPRINGS, CA 92240

DRAWING TITLE:
GENERAL NOTES & STANDARD DETAILS

DATE 10/2/18
SCALE NONE
DRAWN BY FS
CHECKED BY
JOB NO. S18223
SHEET SD1

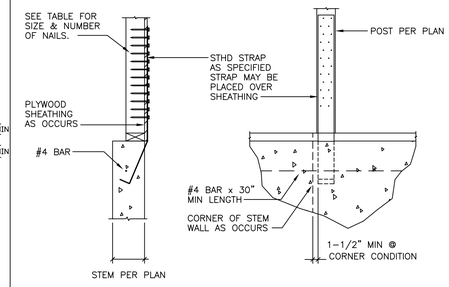


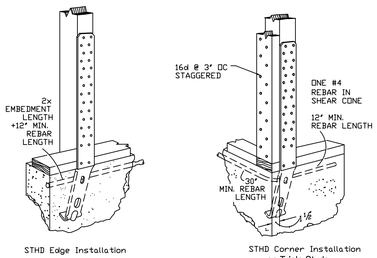
NOTES:
1) THIS DETAIL SHOWS PERMISSIBLE LOCATION OF PIPES OR EXCAVATIONS.
2) FOR PIPES GREATER THAN 3'-0" BELOW FOOTING,BACKFILL TRENCH W/ STRUCTURAL BACKFILL

16 *PIPE THROUGH FOOTINGS*

(MECHANICAL RETROFIT BOLT NOT ALLOWED AT EXTERIOR FOOTING DUE TO NOT ENOUGH SIDE COVER)

17 *RETROFIT AHCHOR BOLTS IN FOOTING*





SIMPSON MODEL NO.	MIN STEM WALL	STRAP LENGTH (L)	NAILS
STHDI4	8	31-5/8"	24-16d SINKER

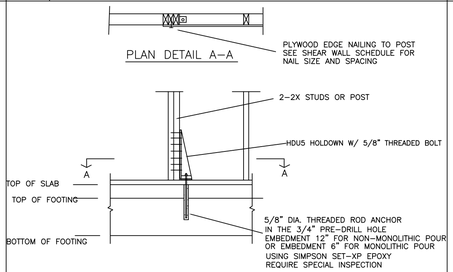
13 *STHDI4 STRAP HOLDOWN*

MINIMUM BAR LAPS FOR REINFORCING STEEL CONCRETE STRENGTH: 2500 PSI OR LESS (STAGGER SPLICES)					
SIZE	LAP LENGTH	SIZE	LAP LENGTH	SIZE	LAP LENGTH
#3	16"	#6	36"	#9	80"
#4	24"	#7	48"	#10	101"
#5	28"	#8	63"	#11	124"

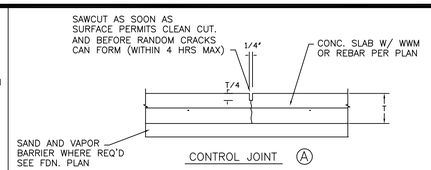
MINIMUM BAR SPACING (INCLUDING LAPS): 1.5" CLR OR 1.5 x BAR DIAMETER
1.5 x LAP EQUALS 150% LAP LENGTH REQUIRED
CONCRETE COVER FOR REINFORCING STEEL ____ 'CLR'
CAST AGAINST EARTH OR GRADE ____ 3"
EXPOSED TO EARTH (FORMED) OR WEATHER
#5 & SMALLER ____ 1.5"
#6 & LARGER ____ 2"
NOT EXPOSED TO EARTH OR WEATHER ____ 1"
SLABS-FROM TOP OF CONC ____ 2"

ALL REINFORCING BARS SHALL EXTEND AS FAR AS POSSIBLE AND END IN A STANDARD 90° or 180° HOOK UNLESS DETAILED OTHERWISE

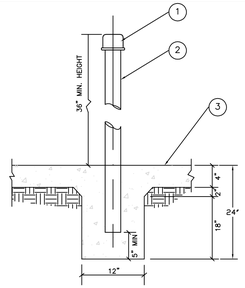
14 *REINFORCING STEEL DATA*



15 *RETROFIT HDU5 HOLDOWN*

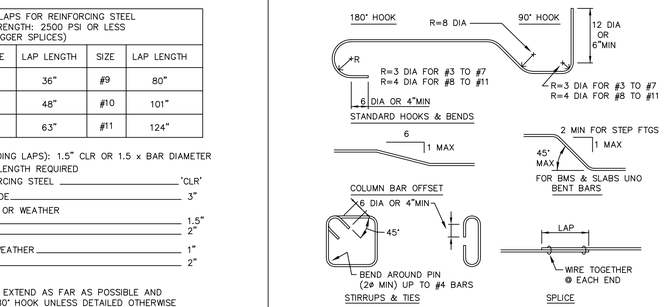


9 *CONTROL/ CONSTRUCTION JOINTS*

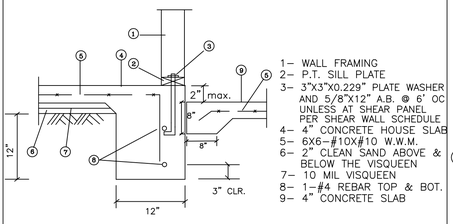


1- CAP
2- 3" DIA. PIPE COLUMN FILLED WITH CONCRETE
3- 4" NOM. THICKNESS CONCRETE GARAGE SLAB WITH 1/4" PER FT. SLOPE TO DRAIN

10 *PIPE COLUMN GARAGE CAR STOP*



11 *STANDARD REBAR HOOK*

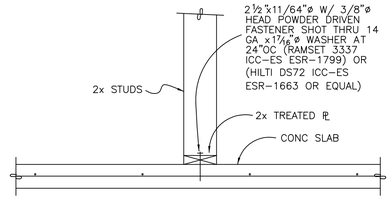


1- WALL FRAMING
2- P.T. SILL PLATE
3- 3"X3"X0.229" PLATE WASHER AND 5/8"X12" A.B. @ 6' OC UNLESS AT SHEAR PANEL PER SHEAR WALL SCHEDULE
4- 4" CONCRETE HOUSE SLAB
5- 6X6-#10X#10 W.W.M.
6- 2" CLEAN SAND ABOVE & BELOW THE VISQUEEN
7- 10 MIL VISQUEEN
8- 1-#4 REBAR TOP & BOT.
9- 4" CONCRETE SLAB

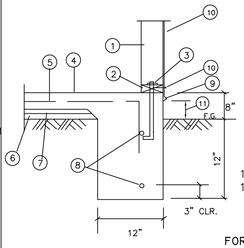
ANCHOR BOLTS, NUTS, WASHER & FASTENERS IN CONTACT WITH PRESERVATIVE -TREATED WOOD SHALL BE OF ZINC COATED GALVANIZED STEEL OR STAINLESS STEEL PER CBC SECTION 2304.10.5

FOR 2-POUR CONCRETE SYSTEM
USE 18" LONG ANCHOR BOLT TO ENSURE 7" MIN. EMBEDMENT.
PROVIDE #4 DOWEL AT 16" OC BENT INTO SLAB AND 1' INTO FOOTING

5 *EXTERIOR WALL FOOTING TO PATIO*



6 *NON-BEARING INTERIOR STUD WALL*

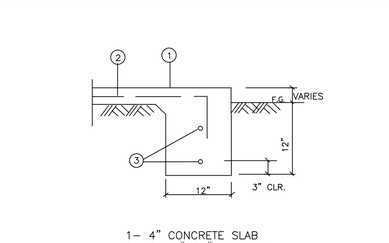


1- WALL FRAME
2- P.T. SILL PLATE
3- 3"X3"X0.229" PLATE WASHER AND 5/8"X12" A.B. @ 6' OC UNLESS AT SHEAR PANEL PER SHEAR WALL SCHEDULE
4- 4" CONCRETE SLAB
5- 6x6-#10x#10 W.W.M.
6- 2" SAND ABOVE AND BELOW VISQUEEN VAPOR BARRIER
7- 10 MIL VISQUEEN
8- 1-#4 REBAR TOP & BOT
9- 26 GAGE WEEP SCREED
10- SHEAR PANEL PER PLAN & E.N.
11- 4" MIN. ABOVE NATURAL GRADE OR 2" ABOVE THE PAVEMENT

ANCHOR BOLTS, NUTS, WASHER & FASTENERS IN CONTACT WITH PRESERVATIVE -TREATED WOOD SHALL BE OF ZINC COATED GALVANIZED STEEL OR STAINLESS STEEL PER CBC SECTION 2304.10.5

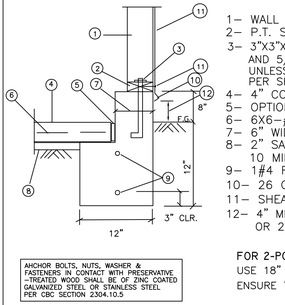
FOR 2-POUR CONCRETE SYSTEM
USE 18" LONG ANCHOR BOLT TO ENSURE 7" MIN. EMBEDMENT.
PROVIDE #4 DOWEL AT 16" OC BENT INTO SLAB AND 1' INTO FOOTING

1 *EXTERIOR WALL FOOTING*



1- 4" CONCRETE SLAB
2- 6"X6"-#10X#10 W.W.M.
3- 2- #4 REBAR AT TOP AND BOTOM
4- EXPANSION JOINT
5- DRIVEWAY APPROACH SLAB
6- SLOPE TO DRAIN 1/4" PER FT.

7 *GARAGE FRONT FOOTING*



1- WALL FRAMING
2- P.T. SILL PLATE
3- 3"X3"X0.229" PLATE WAHSER AND 5/8"X12" A.B. @ 6' OC UNLESS AT SHEAR PANEL PER SHEAR WALL SCHEDULE
4- 4" CONCRETE SLAB
5- OPTIONAL FELT EXPANSION
6- 6X6-#10X#10 W.W.M.
7- 6" WIDE CURB
8- 2" SAND ABOVE AND BELOW 10 MIL VISQUEEN VAPOR BARRIER
9- 1#4 REBAR @ TOP & BOT.
10- 26 GAGE WEEP SCREED
11- SHEAR PANEL PER PLAN & E.N.
12- 4" MIN. ABOVE NATURAL GRADE OR 2" ABOVE THE PAVEMENT

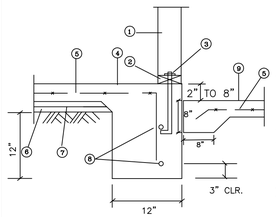
ANCHOR BOLTS, NUTS, WASHER & FASTENERS IN CONTACT WITH PRESERVATIVE -TREATED WOOD SHALL BE OF ZINC COATED GALVANIZED STEEL OR STAINLESS STEEL PER CBC SECTION 2304.10.5

FOR 2-POUR CONCRETE SYSTEM
USE 18" LONG ANCHOR BOLT TO ENSURE 7" MIN. EMBEDMENT.

3 *EXTERIOR GARAGE CURB FOOTING*

18

19



1- WALL FRAMING
2- P.T. SILL PLATE
3- 3"X3"X0.229" PLATE WASHER AND 5/8"X12" A.B. @ 6' OC UNLESS AT SHEAR PANEL PER SHEAR WALL SCHEDULE
4- 4" CONCRETE HOUSE SLAB
5- 6X6-#10X#10 W.W.M.
6- 2" CLEAN SAND ABOVE & BELOW THE VISQUEEN
7- 10 MIL VISQUEEN
8- 1-#4 REBAR TOP & BOT.
9- 4" CONCRETE SLAB

ANCHOR BOLTS, NUTS, WASHER & FASTENERS IN CONTACT WITH PRESERVATIVE -TREATED WOOD SHALL BE OF ZINC COATED GALVANIZED STEEL OR STAINLESS STEEL PER CBC SECTION 2304.10.5

FOR 2-POUR CONCRETE SYSTEM
USE 18" LONG ANCHOR BOLT TO ENSURE 7" MIN. EMBEDMENT.
PROVIDE #4 DOWEL AT 16" OC BENT INTO SLAB AND 1' INTO FOOTING

4 *INTERIOR WALL FOOTING TO GARAGE*

12 *REINFORCEMENT AT JOINT & CORNER*

8 *PATIO FOOTING*

2

REVISIONS

DESCRIPTION	DATE

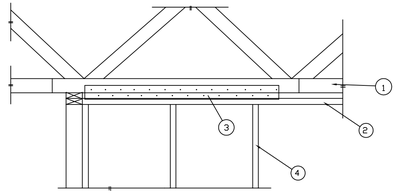
REGISTERED PROFESSIONAL ENGINEER
FRED SHEU
No. S4111
Exp. 6-30-18
STRUCTURAL
STATE OF CALIFORNIA

FRED SHEU ENGINEERING
14286 CALIFORNIA AVE., SUITE 103
VICTORVILLE, CA 92392
(760) 955-7522
email: fredsheuengineer@gmail.com

PROJECT NAME:
SMART HOMES OF THE DESERT, INC.
LOT NO. 271 CUYAMACA DRIVE
DESERT HOT SPRINGS, CA 92240

DRAWING TITLE:
DETAILS

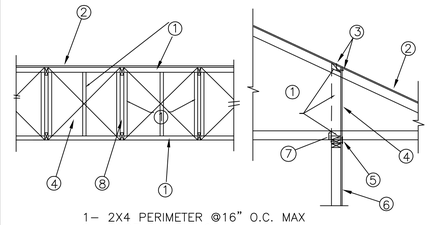
DATE	10/2/18
SCALE	NONE
DRAWN BY	FS
CHECKED BY	
JOB NO.	S18223
SHEET	SD2



1– BOTTOM CHORD OF TRUSS W/ 2X4 NAILER FOR STRAP
2– DOUBLE TOP PLATE
3– SIMPSON MSTC66 STRAP PER PLAN
4– STUD WALL

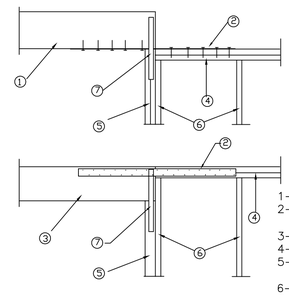
17

13 *DRAG CONNECTION*



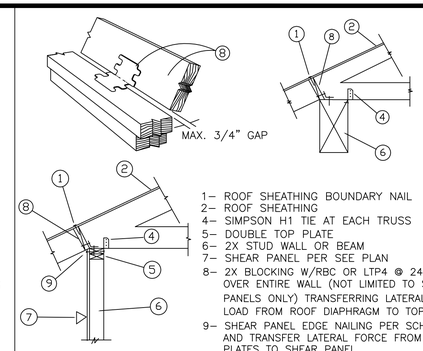
1– 2X4 PERIMETER @16" O.C. MAX
2– ROOF SHEATHING
3– PLYWOOD EDGE NAILING
4– FULL HT SHEAR PANEL PER PLAN
5– LTP4 @ 24" O.C. ENTIRE WALL
6– FULL HEIGHT SHEAR PANEL, SEE PLAN
7– H1 AT EACH TRUSS
8– 2X4 FILLER BETWEEN 2X4 PERIMETER W/ 16d @6" O.C.

9 *SHEAR TRANSFER*



1– FLUSH BEAM
2– ST6236 ON TOP OR ON THE SIDE
3– DROP BEAM
4– DBL TOP PLATE
5– POST OR DBL STUDS PER PLAN
6– 2X STUD
7– EPC OR ST6224

5 *BEAM-WALL POST CONNECTION*



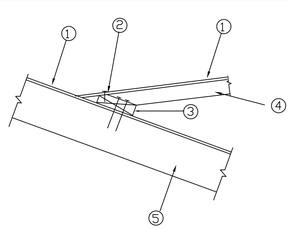
1– ROOF SHEATHING BOUNDARY NAIL
2– ROOF SHEATHING
4– SIMPSON H1 TIE AT EACH TRUSS
5– DOUBLE TOP PLATE
6– 2X STUD WALL OR BEAM
7– SHEAR PANEL PER SEE PLAN
8– 2X BLOCKING W/RBC OR LTP4 @ 24" O.C. OVER ENTIRE WALL (NOT LIMITED TO SHEAR PANELS ONLY) TRANSFERRING LATERAL LOAD FROM ROOF DIAPHRAGM TO TOP PLATES
9– SHEAR PANEL EDGE NAILING PER SCHEDULE AND TRANSFER LATERAL FORCE FROM TOP PLATES TO SHEAR PANEL

1 *SHEAR TRANSFER*

18

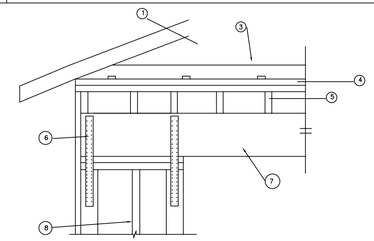
14

10 *TRUSS RIDGE BLOCKING*



1– PLYWOOD ROOF SHEATHING
2– ROOF EDGE NAILING
3– 2X CONT. BOARD NOTCH AS REQUIRED W/(2)–16d NAILS PER ROOF RAFTER FOLLOWING LINE OF CALIF. FRAMING
4– CALIF. FRAMING
W/2X4 @24" O.C. FOR MAX. SPAN OF 7'
W/2X6 @24" O.C. FOR MAX. SPAN OF 10.5'
W/2X8 @24" O.C. FOR MAX. SPAN OF 13.5'
& W/ PLYWOOD SHEATHING CONTINUOUS UNDERNEATH ON MAIN FRAMING & 2X4 RAFTER TIE @ 48" O.C.
5– ROOF RAFTER OR TRUSS

6 *CALIF. FRAMING SHEAR TRANSFER*



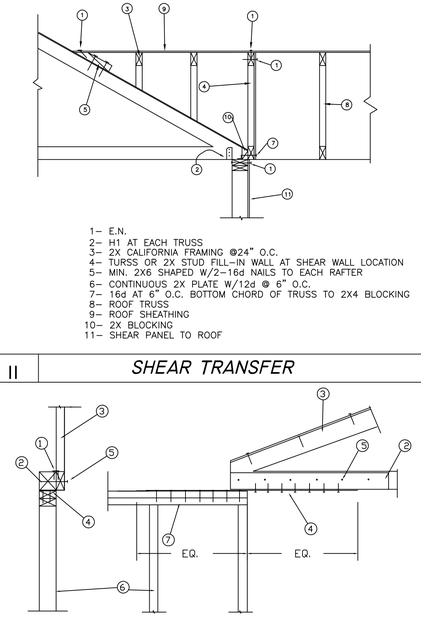
1– SHEAR PANEL OVER ENTIRE WALL TO ROOF
3– BOTTOM CHORD OF TRUSS W/A35 AT 24" OC TO TOP PLATE
4– DBL TOP PLATE
5– 2X CRIPPLE WALL IF OCCURS W/ SHEAR PANEL
6– MSTC52
7– CONTINUOUS HDR
8– SHEAR PANEL

2 *CONTINUOUS HEADER OVER SHEAR PANEL*

19

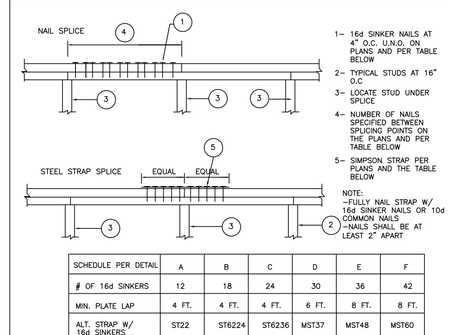
15

11 *SHEAR TRANSFER*



1– LTP4 OR A35 @ 8" O.C. BETWEEN 4X4 MEMBER AND TRUSSES
2– 4" LOGN 4X4 MEMBER AT SIDE OF TRUSS
3– DRAG TRUSS
4– SIMPSON MSTC52 BETWEEN TOP PLATE AND 4X4 MEMBER
5– 16D NAIL @ 3" O.C. STAGGERED BETWEEN TRUSS AND 4X4 MEMBER
6– STUD WALL
7– DBL TOP PLATE

7 *TYPICAL OUTRIGGER DETAIL*



1– 16d SINKER NAILS AT 4" O.C. U.N.O. ON PLANS AND PER TABLE BELOW
2– TYPICAL STUDS AT 16" O.C
3– LOCATE STUD UNDER SPLICE
4– NUMBER OF NAILS SPECIFIED BETWEEN SPLICING POINTS ON THE PLANS AND PER TABLE BELOW
5– SIMPSON STRAP PER PLANS AND THE TABLE BELOW

NOTE:
–FULLY NAIL STRAP W/ 16d SINKER NAILS OR 10d COMMON NAILS
–NAILS SHALL BE AT LEAST 2" APART

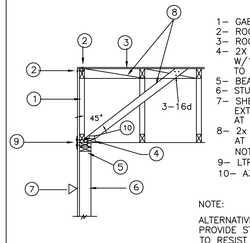
SCHEDULE PER DETAIL	A	B	C	D	E	F
# OF 16d SINKERS	12	18	24	30	36	42
MIN. PLATE LAP	4 FT.	4 FT.	4 FT.	6 FT.	8 FT.	8 FT.
ALT. STRAP W/ 16d SINKERS	ST22	ST6224	ST6236	MST37	MST48	MST60

3 *TYPICAL SPLICE AT TOP PLATE*

20

16

12 *DRAG CONNECTION*

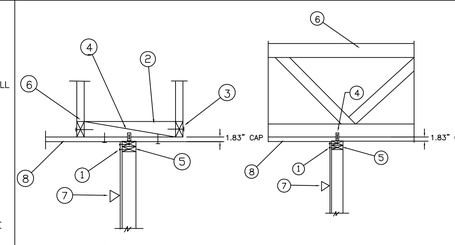


1– GABLE END TRUSS OR BALLOON FRAME WALL
2– ROOF DIAPHRAGM BOUNDARY NAILING
3– ROOF SHEATHING
4– 2X CONTINUOUS BLOCKING W/16d NAILS A 12" O.C. TO TRUSS AND TO DBL TOP PLATE
5– BEAM OR DBL TOP PLATE
6– STUD WALL OR BEAM PER PLAN
7– SHEAR PANEL PER SHEAR WALL SCHEDULE EXTEND PANEL TO ROOF SHEATHING AT SHEAR WALL LOCATIONS ONLY
8– 2x DIAGONAL BRACING AND BLOCKING AT 48" O.C. FOR ENTIRE GABLE END WALL NOT REQUIRED FOR BALLOON FRAME WALL
9– LTP4 @16" O.C. OR A35 @16" O.C. INSIDE
10– A34

NOTE:

ALTERNATIVE TO FULL HT. SHEAR PANEL TO ROOF PROVIDE STRUCTURAL TRUSS TO RESIST LATERAL LOAD PER ENGINEER'S CALCULATED LATERAL LOAD

8 *GABLE END TRUSS SHEAR TRANSFER*



1– E.N.
2– 2X4 BLOCKING @ 24" O.C.
3– 1–16d NAIL AT EACH SIDE OF BLOCKING
4– SIMPSON STCT SIDE OF TRUSS OR BLOCKING
5– DBL TOP PLATE
6– ROOF OR FLOOR TRUSS
7– SHEAR PANEL, SEE PLAN
8– CEILING DRYWALL W/EDGE NAILING

4 *INTERIOR NON-BEARING WALL*

REVISIONS

DESCRIPTION	DATE

REGISTERED PROFESSIONAL ENGINEER
FRED SHEU
No. S4111
Exp. 6-30-20
STRUCTURAL
STATE OF CALIFORNIA

FRED SHEU ENGINEERING
14286 CALIFORNIA AVE. SUITE 103
VICTORVILLE, CA 92392
(760) 955-7522
email: fredsheuengineer@gmail.com

PROJECT NAME:
SMART HOMES OF THE DESERT, INC.
LOT NO. 271 CUYAMACA DRIVE
DESERT HOT SPRINGS, CA 92240

DRAWING TITLE:
DETAILS

DATE 10/1/18
SCALE NONE
DRAWN BY FS
CHECKED BY
JOB NO. S18223
SHEET SD3