

City of Albuquerque

ADU/ CASITA DRAWING SET



550 SF UNIT

Unit Floorplan Area:

Heated Area: 550 SF
Storage Area: 0 SF
Porch/Patio Area: 0 SF
Total Area: 550 SF

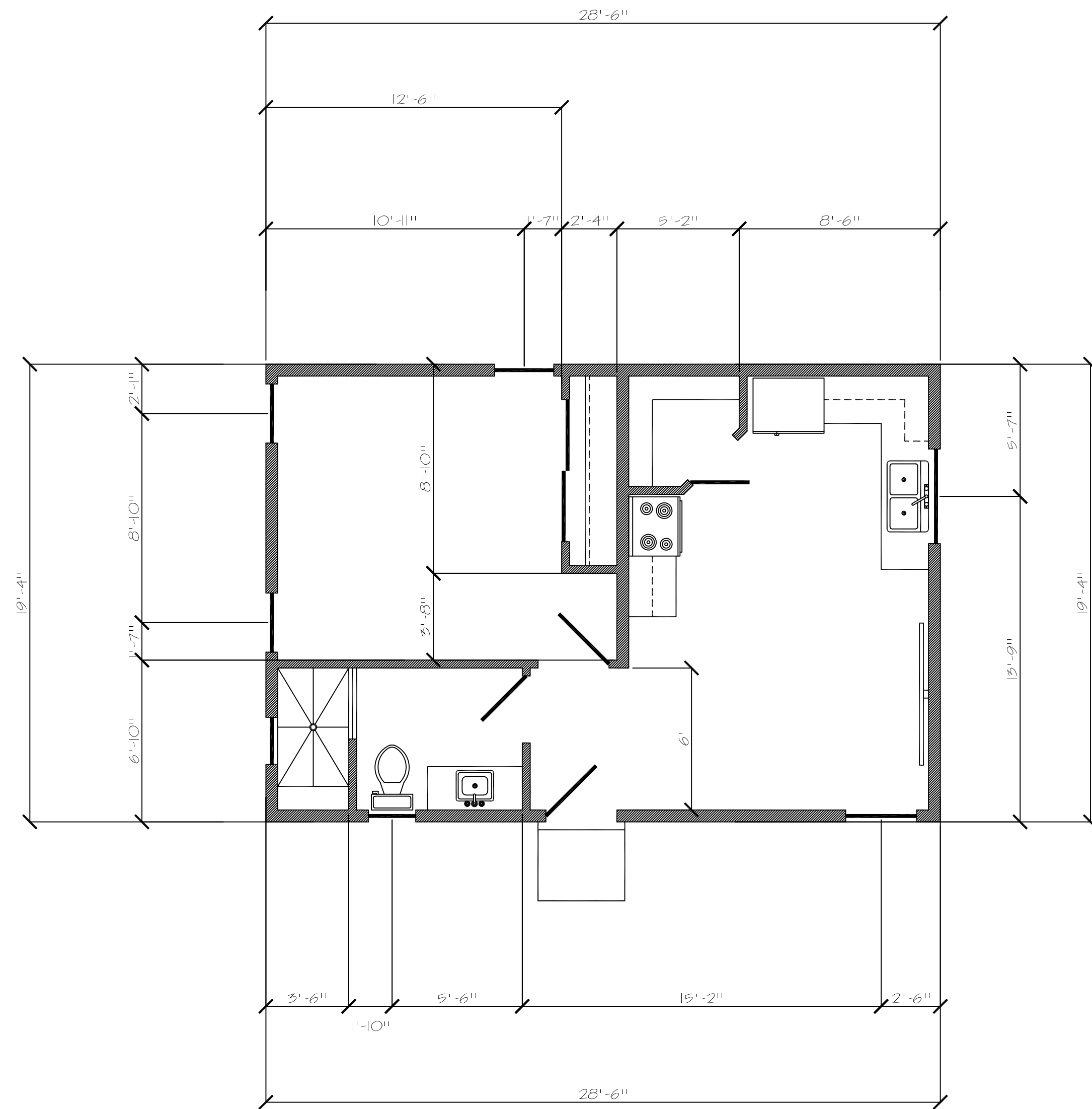
Applicable Code Editions:

2021 NM Residential Building Code
2020 NM Electrical Code
2021 NM Mechanical Code
2021 NM Plumbing Code

IMPORTANT NOTICE: This plan set complies with all applicable technical construction codes in the City of Albuquerque, New Mexico, in effect on December 20, 2023. No warranty or representation of any type is made or intended, implicitly or explicitly, regarding compliance with codes in other jurisdictions.

LAST REVISION DATE: 12/20/2023

SHEET	CITY OF ALBUQUERQUE
1 OF 6	ABQ ADU Model 550 FLAT ROOF



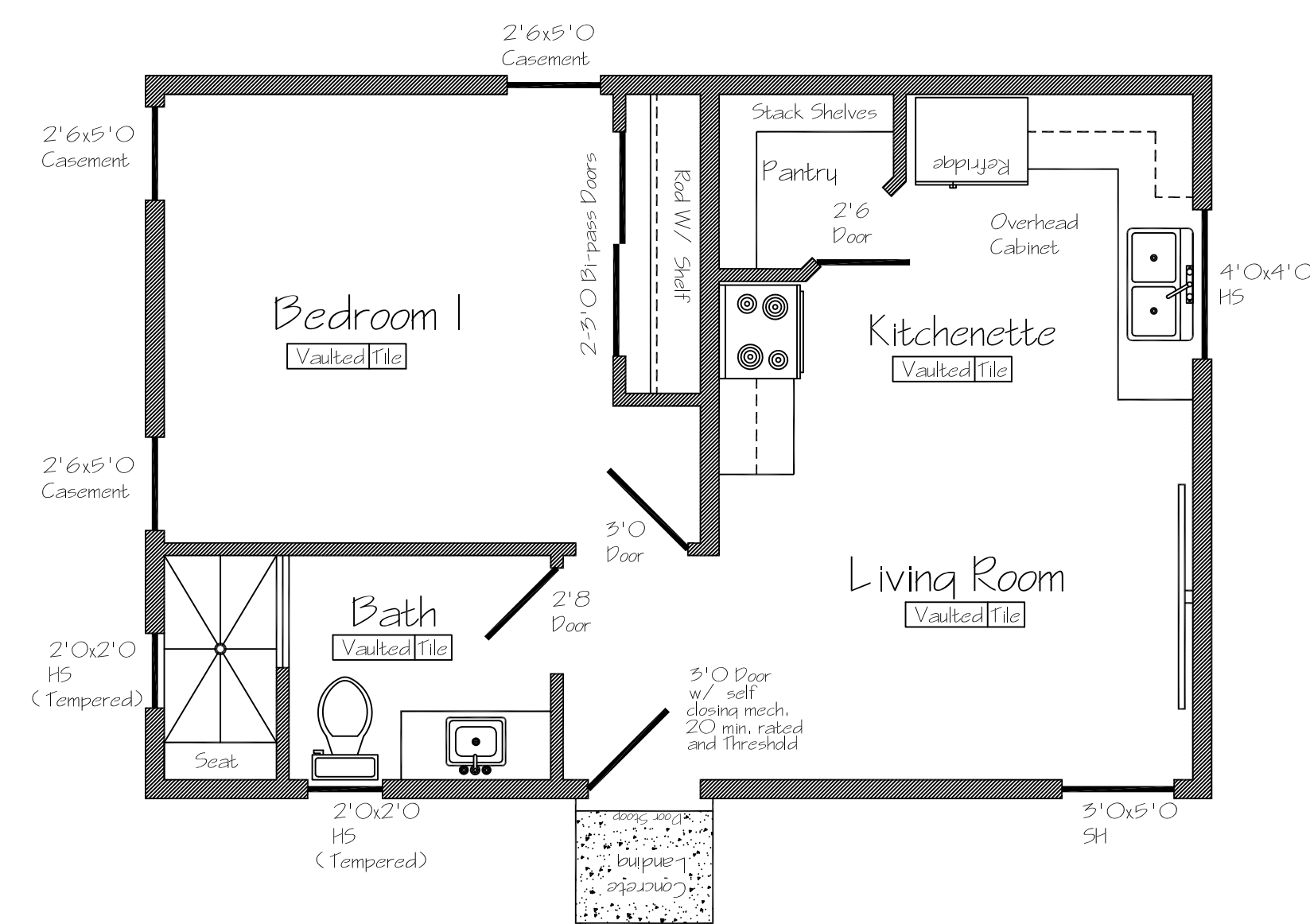
Dimensions

Scale 1/4" = 1'

Building Thermal Envelope Table 402.1.1 501.1 Climate Zone 4 Albuquerque NM	
1. Fenestration U-Factor	0.35
2. Skylight U-Factor	0.60
3. South, East, West Facing Glazed Fenestration	Low E Glass Required
4. Ceiling R-Value	R-49
5. Wood Frame Wall R-Value	R-21 2x6 Walls 2x4 Framed Walls R-15+ R-7 Insulated Sheath.
6. Mass Wall R-Value	R-5
7. Floor R-Value	R-21
8. Basement Wall R-Value	R-10/ R-15
9. Slab R-Value & Depth	R-15 / 2ft. Heated Slabs R-10 / 2ft. Unheated Slabs
10. Crawl Spaces R-Value	R10/ R15

R401.3 Drainage.
Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection so as to not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The Grade shall fall a minimum of 6" within the first 10 Feet.

2021 NM Residential Building Code
Specifications:
Concrete
2500 PSI For Concrete Slab, Footings, and Retaining Walls Unless Noted.
2.5" Concrete Slab Minimum W/ Optional 6x6 IO/ 10 Welded Wire Mesh.
Broom Finish All Exterior Concrete.
2-#4 Re-bar Continuous in Footings and Thickened Slabs Min. 40 Diameters Lap, and Wire Tight. All Stem Walls Fully Grouted.
1/2" x 10" Anchor Bolts A-56 To Protrude 2-1/2" Embedded 8" As stem Wall.
2" Urethane Insulation at Perimeter of Building and at heated, Unheated Transition at Garage.
Walls/ Exterior
All Walls To Be Framed with #2 or Better Grade Lumber SPF, 7/16" OSB at Corners For Shear Strength. All Exterior Sheathing to be solid 7/16" O.S.B. Waferwood. Block all edges of panels. Exterior Walls To Be Covered With 2 Layers Grade D Building paper or Optional 2 Layers Tyvek House Wrap. 1/2" Gypsum Stucco Netting W/ 3 Coat Stucco or Optional 20 Gauge Netting W/ 2 Coat Power Wall or Western 1 Coat Fiberglass Reinforced Stucco System.
All Exterior Windows Double Glass Low-E Units.
All Exterior Doors To Have Threshold and Weather stripping Caulked To Concrete or Subfloor.
Walls Interior
2x4 Studs 16" OC on all Non-loadbearing Walls.
2x4 studs 16" OC at all interior Load bearing walls.
2x6 16" OC at garage ltr. separation wall.
1/2" Gypsum board at walls and ceiling with texture per Owners Preference. Tape and Bond all Joints.
Cement, Fiber-cement and glass mat gypsum backers gypsum backers to be installed in tub and shower behind tile and panels. Green gypsum board not permitted in shower or tub enclosures.
All interior doors to be 6'8" high unless otherwise noted.
Roof
All Membranes to meet or exceed 900 ft. 7/16" OSB with H clips at Roof sheathing Stagger all Joints. 6 mil. Poly vapor Barrier Optional w/ R49 Batt Insulation at Ceilings. R-21 At Floor Between 1st Floor unheated and 2nd floor Heated.
All Sloping Flat Roofs to have Min. 1/4" PLF Slope with 3-ply Built-up Roofing.
All Trusses To Be Installed per Manufacturers Specifications and all Lateral Bracing per Truss Engineering Locations.
Sloping Roof Trusses Min. 5/12 Pitch.
See attached Engineering for Exact truss Construction and Installation Specs.
Mechanical * Plumbing * Electrical
All Mechanical, Electrical, and Plumbing Contractors To Permit all Work on Project and install Per UPC, and all applicable Codes and Code Books. When Renowned Notify Builder Of All Conflicts for Chase Locations and Chase Sizes See Electrical Mechanical Plan For Further Notes.
Heated Area
1st Floor 950 Total Heated 950



Weep Screeds
When an approved acrylic based exterior finish stucco system or acrylic based color coat is applied, a minimum 0.019 inch No. 26 galvanized sheet gage, corrosion resistant weep screed or plastic weep screed, with a minimum vertical attachment flange of 3/8" shall be provided at or below the foundation plate line on exterior stud wall in accordance with ASTM C 926. The weep screed shall be placed a min. of 4" above the earth or 1/2" above the paved areas and shall be of a type that will allow trapped water to drain to the exterior of the building. The Weather resistant barrier shall lap the attachment flange, the exterior lath shall lap the attachment flange of the weep screed. Weep screeds are not required under covered porches, covered patios or when a non acrylic based conventional cement plaster and cement plaster color coat as approved in R-709.6.2 is installed.

2021 NM Residential Building Code
Note: R510.1.1/ R510.1.2/ R510.1.5
All Windows in Bedrooms To Have A Min. 5.7 Sq. Ft. Opening with a Max. 44" Sill Height. Window Min. 20" Height. 20" width Exception: Grade floor openings shall Have a Min. net clear opening of 5 Sq. Ft.
All Exterior Doors including Door From Garage To Heated To have at Least One Deadbolt, with Door Jamb Solid Filled Between Frame And Jamb. Address Numbers Should Be Legible and Easily Read From The Street.

Floor Plan

Scale 1/4" = 1'

SHEET	CITY OF ALBUQUERQUE
2 OF 6	ABQ ADU Model 550
	FLAT ROOF

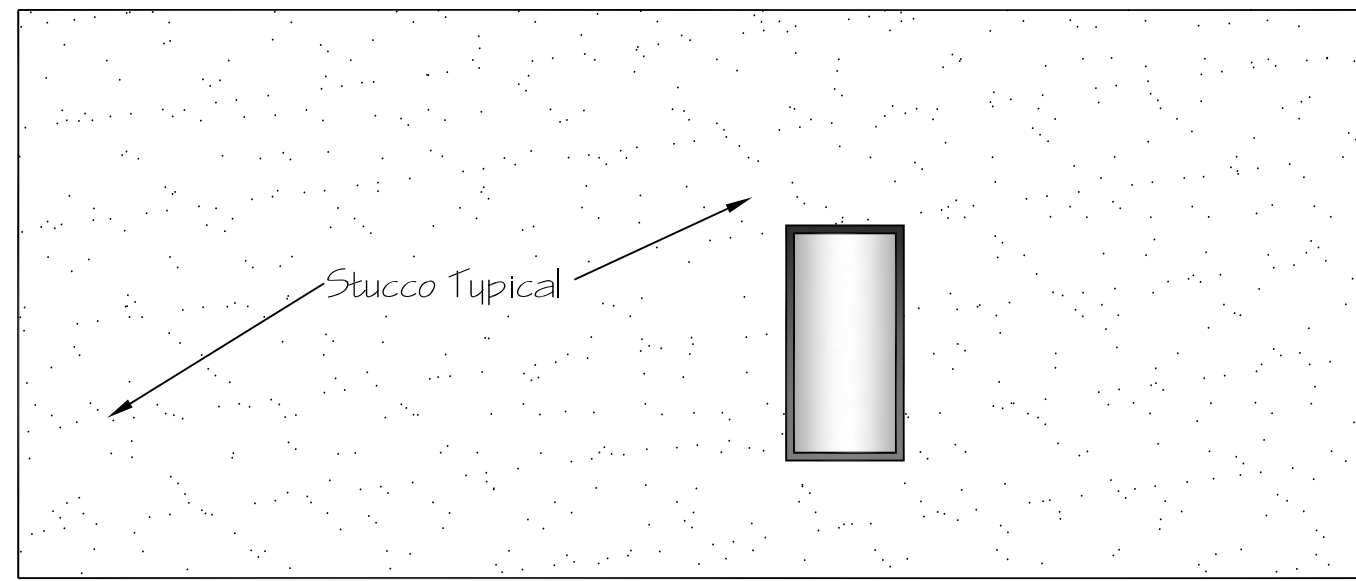
Lighting Legend NM 2015 IRC	
	Mini Recess Light Caulk and seal to ceiling Energy Star Rated, Energy Star Bulb
	Bullseye Recess Caulk and seal to ceiling Energy Star Rated, Energy Star Bulb
	Full Recess Light Caulk and seal to ceiling Energy Star Rated, Energy Star Bulb
	Wall Sconce or Light Bar Energy Star Rated, Energy Star Bulb
	Track Light Caulk and seal to ceiling Energy Star Bulb
	Exhaust Fan Energy Star Rated, to have Occupancy Sensor or automatic-timer switch 20 cfm cont.
	Ceiling Fan w/ Reverse Switch separate light switch, Energy Star rated w/ energy star Rated Bulbs.
	Pendant Lighting Energy star Rated w/ energy star Bulbs
	Motion Light w/ Motion Sensor and Photo light cell Detector

Note:
An Electrode Encased By at Least 2" of Concrete, Located Within and Near The Bottom of a Concrete Foundation or Footing That is in Direct Contact with the Earth, Consisting of at Least 20' of one or more electrically conductive Steel Reinforcing Re-bar of Not less than 1/2" Diam.

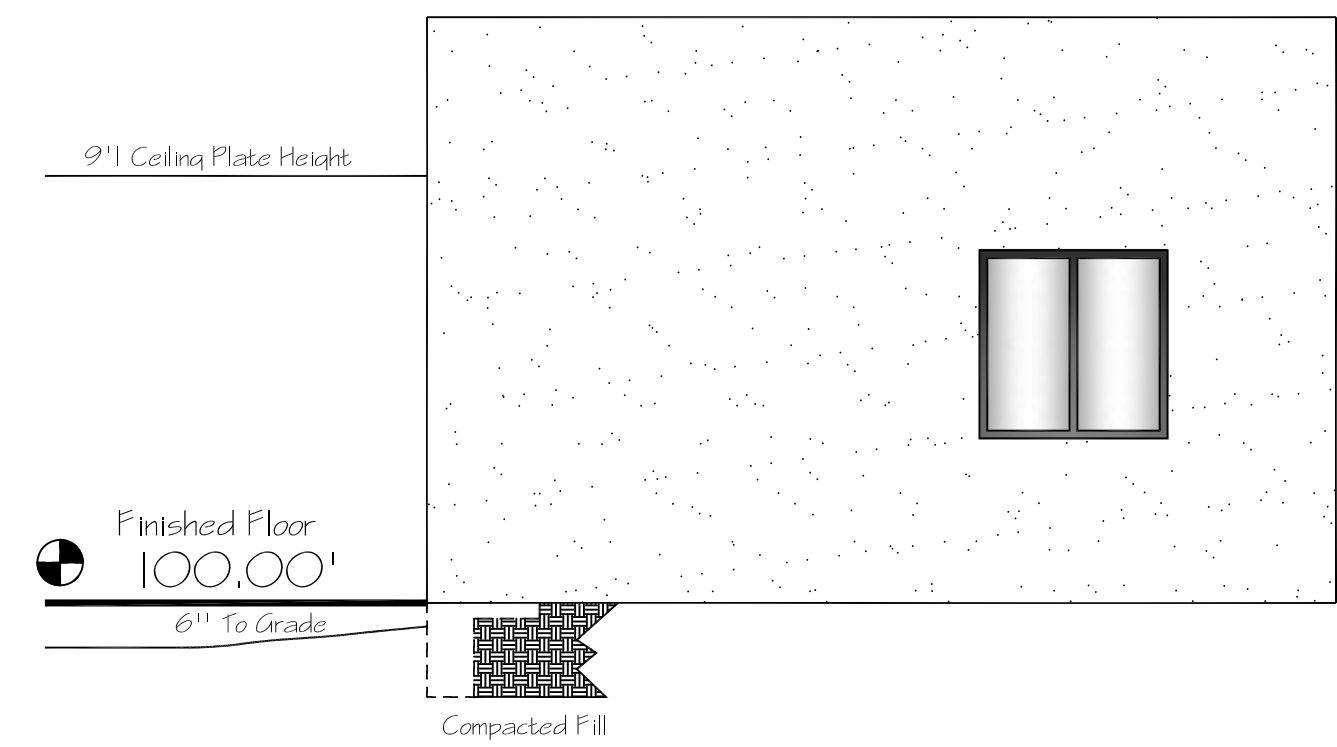
Smoke Detector/Carbon Monoxide Detector
Smoke Detector to have Carbon Monoxide detection as well as smoke Detection. All smoke detectors to be hard wired together.
This symbol on plan is for smoke/ carbon Monoxide Detector.

Electrical Notes:
All Outlets Shall Be 12" From Finish Floor unless Otherwise Noted.
All Outlets in Kitchen, Utility Room, and Garage to Be 44" above Floor and To Be Ground Fault Interrupt Protected.
Copper Wire To Be Used Through-out House and all Exterior light fixtures, outlets, and Switches to be Weatherproof, and Ground Fault Interrupt.
All Bathroom Outlets To Be Ground Fault interrupt device Equipped.
Swamp Coolers To have High-Low Switch Settings and To be Located per Owner, Mech. Contractor Locations.
All Smoke Detectors To Have Battery Back-up and To be Hardwired Together in a loop with an Audible Alarm. Smoke Det. to have Carbon Monoxide Warning as well.

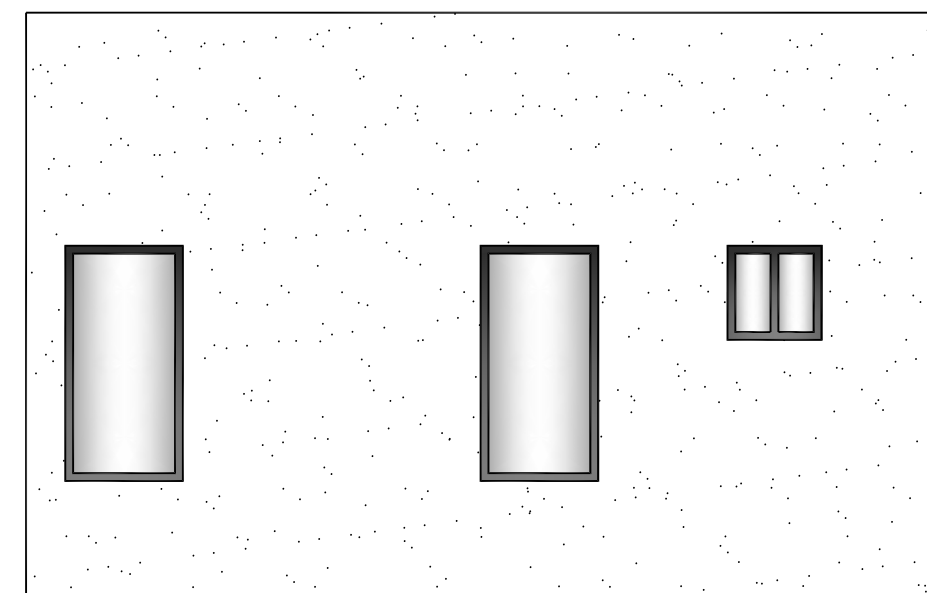
If Required Whirlpool Switch to be located not less than 5' from tub or to have an air activated Switch.
All Ceiling Fans to have variable speed control.
Plumbing Notes:
1" Lead-in pipe from well or public water supply. Minimum 100' from well to septic system.
Hose Bib to be Located at front, Back, sides per Owners Locations.
All Plumbing to be permitted and Executed as per Uniform Plumbing Code. Ice Maker Rough-in to be located behind Refrigerator.
Electrical to be Grounded to Copper water Lines as Well as with a grounding rod. See Attached note For Grounding specs to Foundation Re-bar.



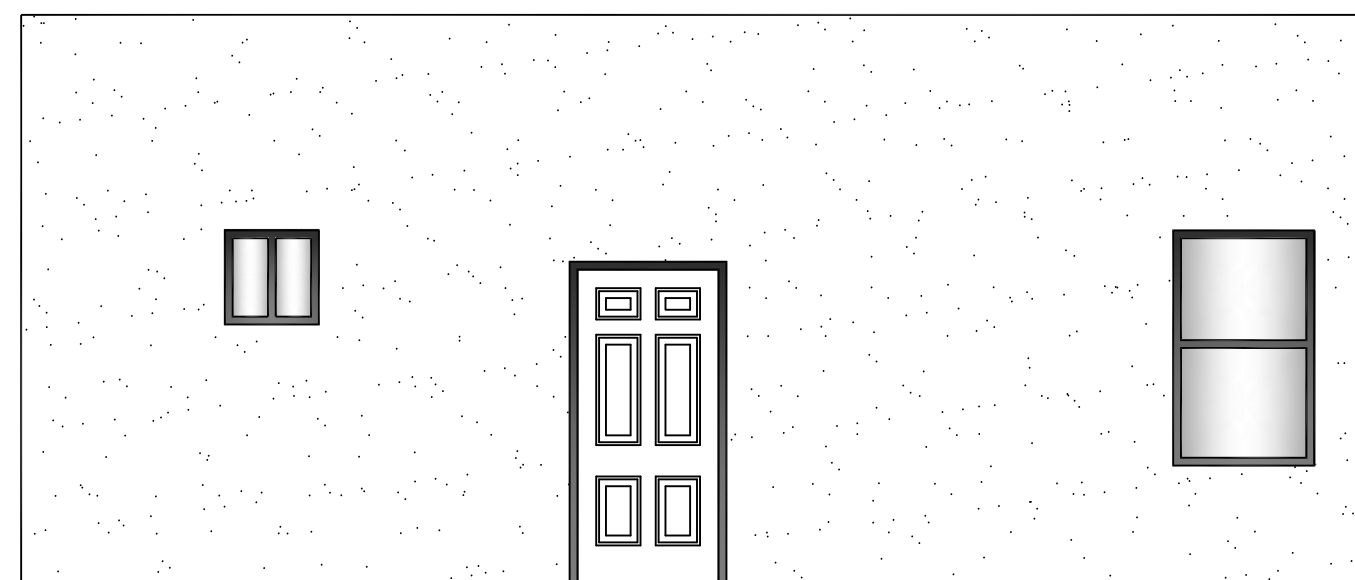
Back Elevation



Right Elevation



Left Elevation



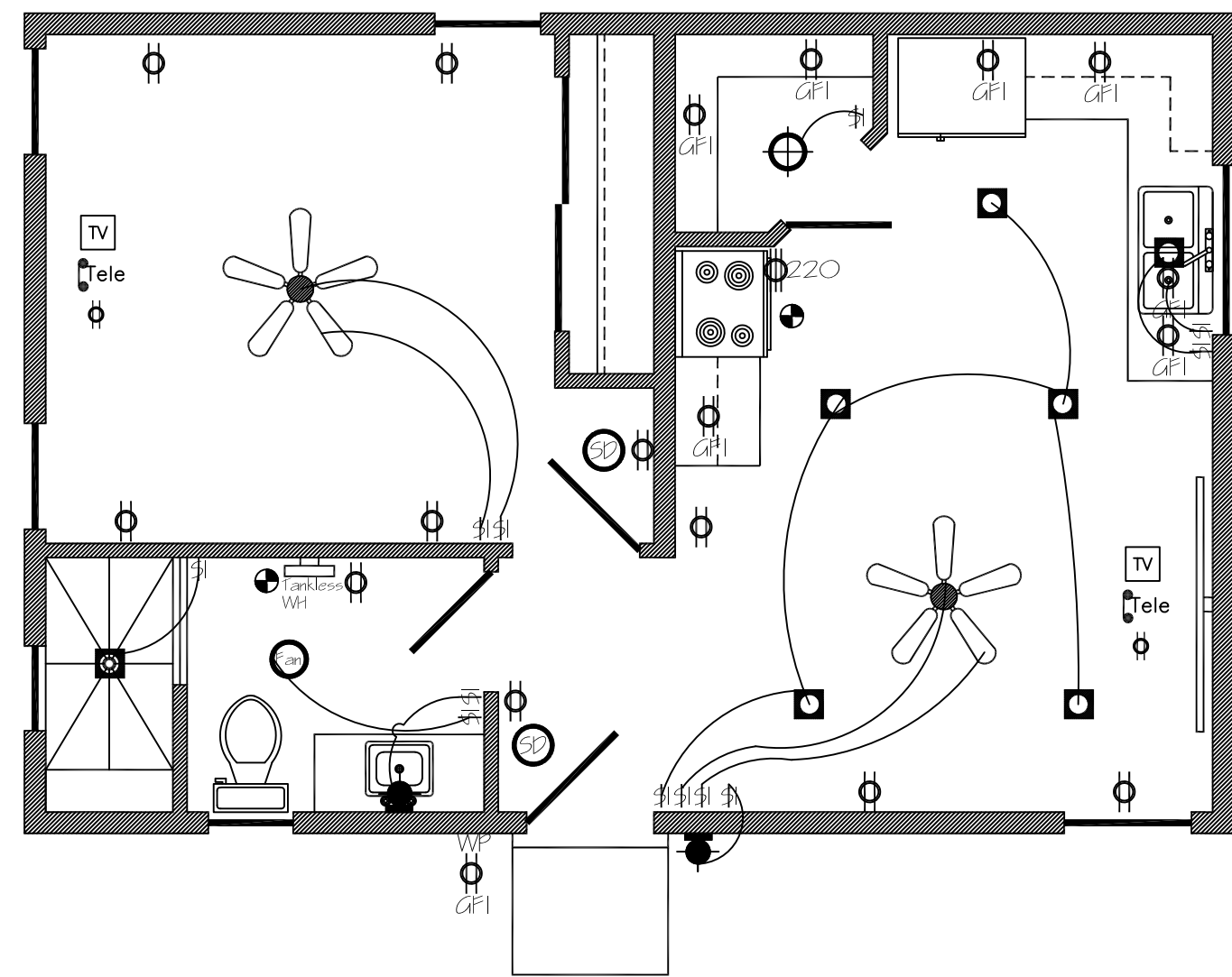
Front Elevation

Elevations

Scale 1/4" = 1'

SHEET	CITY OF ALBUQUERQUE
4 OF 6	ABQ ADU Model 550
	FLAT ROOF

Critical Notes:
Provide Electrical for Refrigerated Air Units Locations per Owner HVAC Contractor.
Units to have Back up Heat as well as Cooling Size per UMC/ LPC for Altitude and Square Footage of House.
Plumber To Be Responsible For Condensation Line From Condenser.



Plug Switch Legend NM 2015 IRC	
	Wall Plug
	Ground Fault Interrupt Counter Plug
	Waterproof Ground Fault Interrupt Exterior Plug
	220 Volt 30 amp plug
	Natural Gas or Propane
	Telephone Connection plug
	Cable TV or Satellite Outlet
	Programmable Thermostat one for Each Heating Unit
	One Way Operated Switch
	Two Way Operated Switch
	Three Way Operated Switch
	Timer Operated Switch
	Motion Sensor Switch
	Floor Plug

Note: 2
Arc-Fault Circuit-Interrupter Protection Shall Be Provided in All Rooms, 15 and 20 Amp Receptacles and all Branch Circuits to be Protected by Arc-Fault Circuit Interrupter's. All Receptacles to be tamper resistant.

Water Heater Specs.
1. Storage Type Stored
2. Capacity
3. Manufacturer
4. Model #
5. Efficiency Rating
6. Energy Star Rated?
7. WH w/ vertical pipe risers to have a heat trap on both inlet & outlet of the Water Heater or is equipped 2/ an integral heat trap

Electrical Panel Note:
At Electrical Panel, Place (2) Full Height Slats on Either side of Blockout. Wall Top plates to be continuous over box (Blockout and support studs). Max. Blockout opening width is 16". Actual R.O. Width is 14.5".

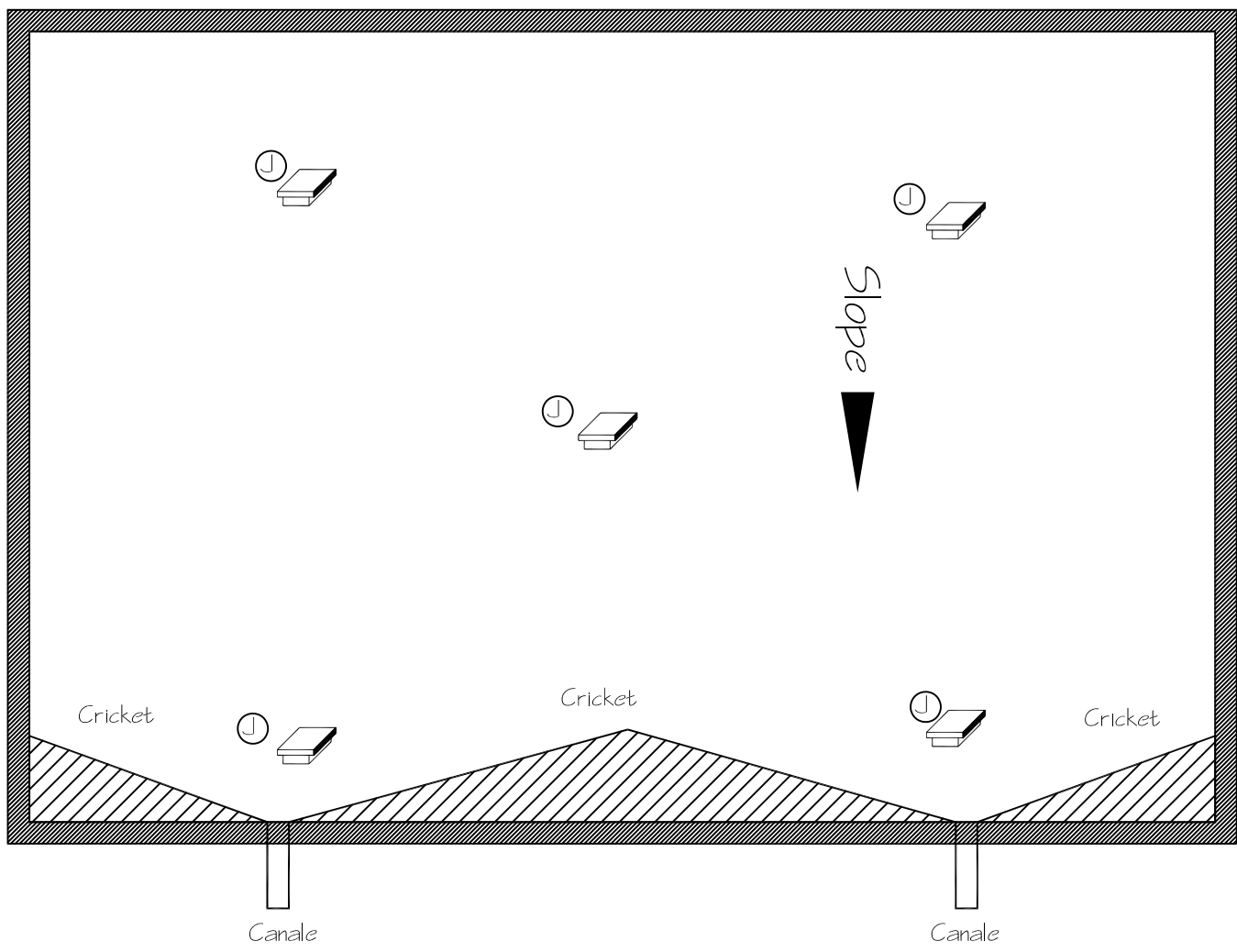
All electrical work must be accordance with the 2020 NM Electrical Code

Electrical

Scale 1/4" = 1'

R 905.5.8 Flashing
 At the juncture of roof vertical surface, flashing and counterflashing shall be provided in accordance with this chapter and the manufacturer's installation instructions and, where of metal, shall be not less than 0.019 inch (.05 mm) (No.26 galvanized sheet steel) corrosion-resistant metal. The valley flashing shall extend not less than 11 inches (279mm) from the centerline each way and have a splash diverter rib not less than 1 inch (25mm) in height at the flow line formed as part of the flashing. Sections of flashing shall have an end lap of not less than 4 inch (102 mm). For roof slopes of three units vertical in 12 units horizontal (25-percent slope) and greater, valley flashing shall have a 3/8 inch-wide (9.14 mm) underlayment running the full length of the valley, in addition to other required underlayment shall be solid-cemented to the roofing underlayment. For slopes less than seven units vertical in 12 units horizontal (58-percent slope), or be of self-adhering polymer modified bitumen sheet.

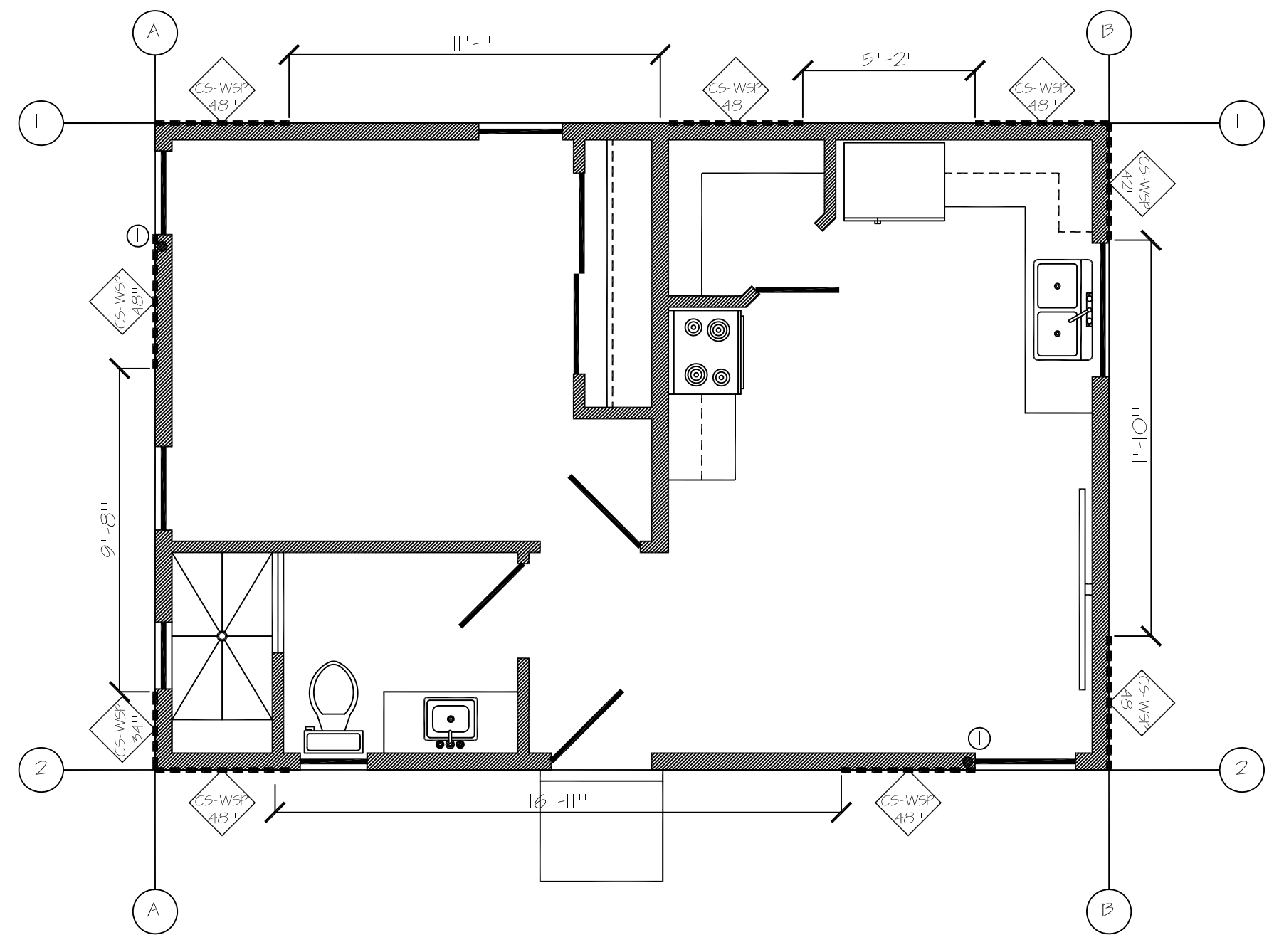
R 703.4 Flashing.
 Approved corrosion-resistant flashing shall be applied shingle-fashion in such a manner to prevent entry of water into the wall cavity or penetration of the building structural framing components. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at all of the following locations:
 1. Exterior window and door openings. Flashing at exterior window and door openings shall extend to the surface of the exterior wall finish or to the water-resistant barrier for subsequent drainage.
 2. At the intersection of chimneys or other masonry construction with frame or stucco wall, with projecting lips on both sides under stucco copings.
 3. Under and at the ends of masonry, wood or metal copings and sills.
 4. Continuously above all projecting wood trim.
 5. Where exterior porches, decks or stairs attach to a wall or floor assembly of wood-frame construction.
 6. At wall and roof intersections.
 7. At built-in gutters.



Mass # 1			
Vent.	Quantity	Net Free Area	Total Square Inches
1	5	144	720
Grand Total		720 / 144 = 5.0	

Attic, Roof Ventilation
 2021 NIMBPC IRC R506
 1. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross-ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilating openings shall be provided with corrosion-resistant wire mesh, with 1/16" min. to 1/4" max. openings.
 R506.2 The minimum net free ventilating area shall not be less than 1/150 of the area of the space ventilated except that reduction of the total area to 1/500 is permitted, provided that at least 40 % and not more than 50 % of the required ventilating area is provided by ventilators located in the upper portion of the space to be ventilated at least 3 feet above the eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents. As an alternative, the net free cross-ventilating area may be reduced to 1/500 when a vapor barrier having a transmission rate not exceeding 1 perm is installed on the warm in winter side of the ceiling.
 R506.3 Where eave or cornice vents are installed insulation shall not block the free flow of air. A min. of a 1-inch space shall be provided between the insulation and the roof sheathing and at the location of the vent.

Attic Access 2021 Shall Be Provided in Accordance With Sec. R507.1 of IRC to Have a Minimum 22" x 30" Opening, and 50" Min. Unobstructed Head Room. Attic to Have Light and Switch



Hold downs Schedule

1	● D1122	1825 lbs
2	● D1122-5052.5	2149 lbs
3	● H312-5052.5	2075 lbs
4	● H5157	1729 lbs

Venting Required/Provided

Mass # 1	Total Area	Pitched or Flat		Venting Required	Venting Provided
		Flat			
	650	650 / 150 = 4.3	4.3	5.0	

Attic Venting Chart

Key	Vent Type	Brand	Net Free Area
1	8" x 16" Soffit Vent	Lomanco	65 Square Inches
2	Soffit vent strip	Family	12 Square Inches per foot
3	18" x 24" Gable vent	Lomanco	180 Square Inches
4	18" Round Gable vent	Mel America Inc.	26 Square Inches
5	22" Round Gable vent	Mel America Inc.	54 Square Inches
6	14" x 22" Arched Gable vent	Mel America Inc.	50 Square Inches
7	8" x 16" Stucco Vent	CM Inc.	51 Square Inches
8	14" x 18" Gable vent	Lomanco	56 Square Inches
9	12" x 12" Gable Vent	Lomanco	106 Square Inches
10	195 20" x 29" x 7.75" W/ Bird Screen	Lomanco	144 Square Inches
11	VN 5050 21" x 21"	C.J. Metal Products	420 Square Inches
12	Tile Ridge Vent TRV-4	Lomanco	15 Square Inches Per Linear Ft.
13	Soffit vent strip	Family	12 Square Inches per foot
14	O'Hagan	O'Hagan's, Inc.	72 Square Inches
15	Shingle and Metal Ridge Lo-Omnifit	Lomanco	11 Square Inches Per Linear Ft.
16	TV-9 Tile Vent	Lomanco	56 Square Inches
17	DA-4 Edge Vent	Lomanco	56 Square Inches
18	140 Continuous Soffit Vent	Lomanco	88 Square Inches

Table R602.10.4 Bracing Methods

Bracing Method	Method Description	Connection Criteria	
		Foamers	Spikes
WSP	Wood structural panel Min. thickness 5/8"	For exterior sheathing see table R602.5.5 For interior sheathing see Table R602.5.1 or 2)	6" edges 12" field
GB	Gypsum board - Stoile sided with finish material Min. thickness 5/8" or 7/8" depending on Gypsum board - Double sided Min. thickness 5/8" or 7/8" depending on	For more details on exterior braced wall sheathing see Table R602.5.11 IRC 2015 For interior gypsum board nail or screw size, see Table R702.5.5 IRC 2015	7" spacing at panel edges including top and bottom plates 7" field
ABW	Alternate braced wall SDC A, B & C Alternate braced wall SDC D	See section R602.10.6.1	See section R602.10.6.1
PFH	Intermittent portal frame with hold-downs Min. thickness 2"	See section R602.10.6.2	See section R602.10.6.2
PFA	Intermittent portal frame at average door openings Min. thickness 2"	See section R602.10.6.3	See section R602.10.6.3
CS-WSP	Continuous wood structural panel sheathing Min. thickness 5/8"	Exterior sheathing per Table R602.5.5 Interior sheathing per Table R602.5.1 or 2)	6" edges 12" field Varies by fastener
CS-PF	Continuous portal frame Min. thickness 2"	See Section R602.10.6.4	See Section R602.10.6.4
CS-A	Continuous sheathing - wood structural panel adjacent to average door openings and supporting roof loads only	See Method CS-WSP	See Method CS-WSP

Wind Factor

IRC Table R602.10.3 (2)
 IRC 2015

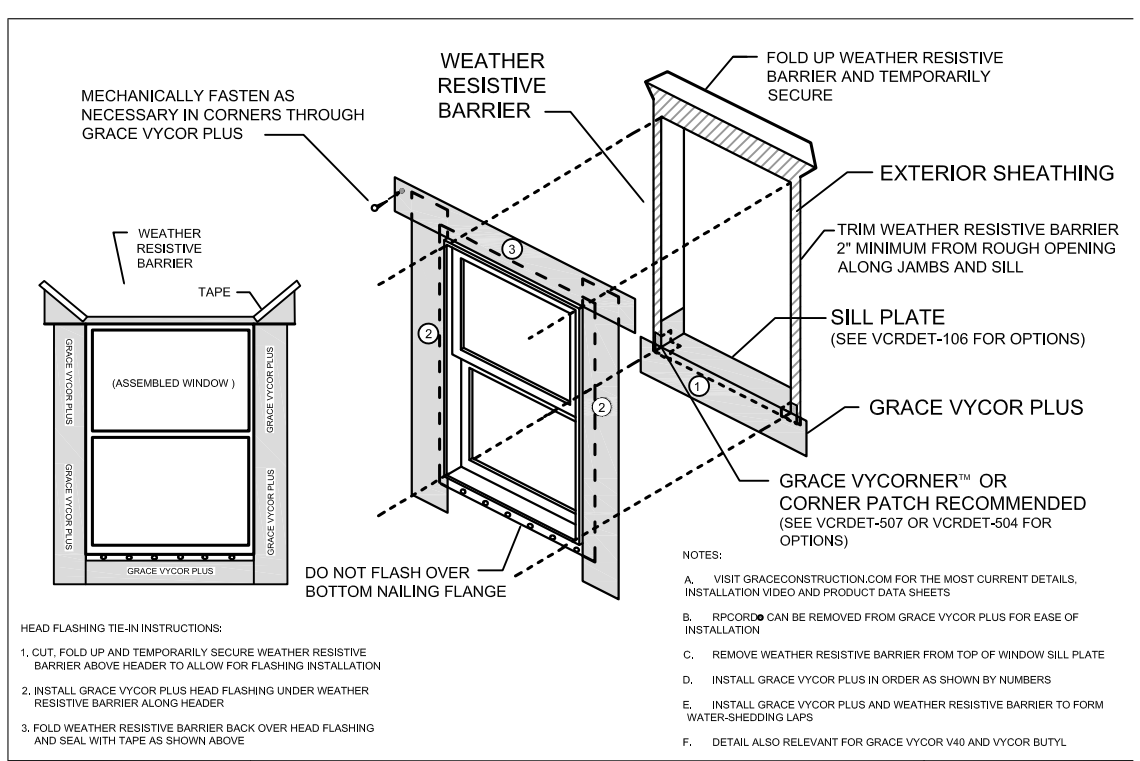
Numbered Wall Lines	Lettered Wall Lines
(1) Exposure Category	1.2
(2) Roof Eave to Ridge Height	1.0
(3) Wall Height	.95
(4) Number of Braced Wall Lines	.00
Wind Factor Total	(Multiply All) .00

Wall Brace

Scale 1/4" = 1'

Ventilation

Scale 1/4" = 1'



Air Leakage
Building Thermal Envelope

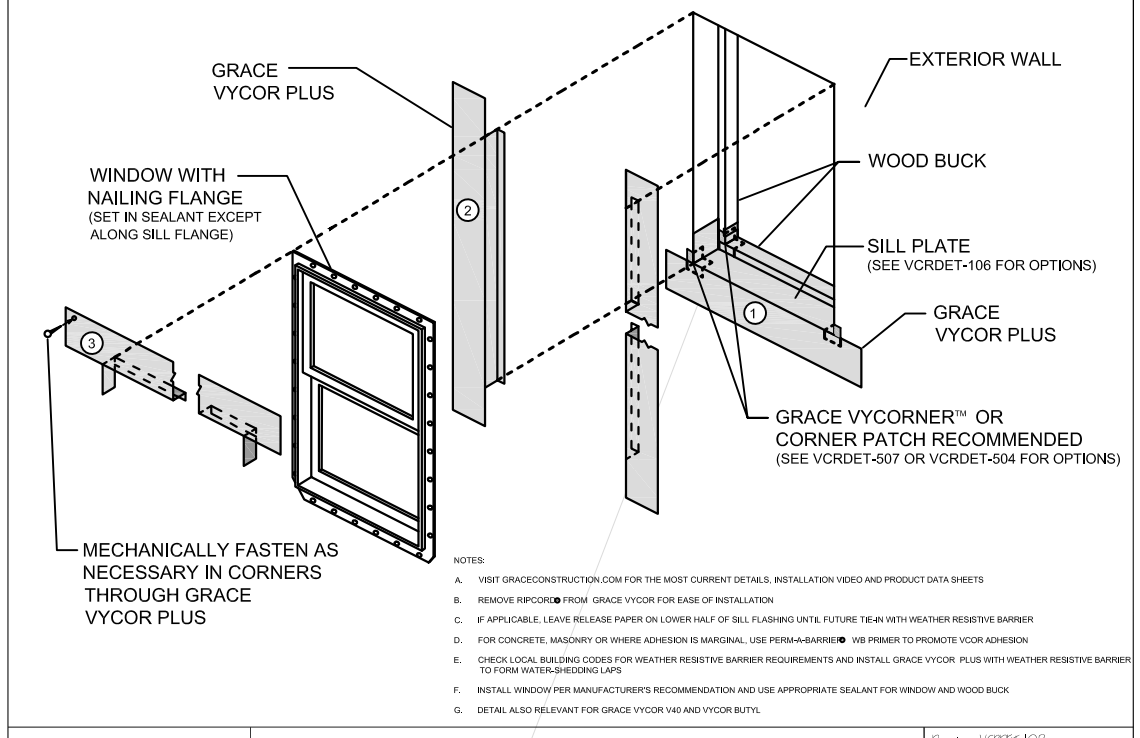
The Building Thermal Envelope shall be durably sealed to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. The Following shall be caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material.

Flashing R702.4

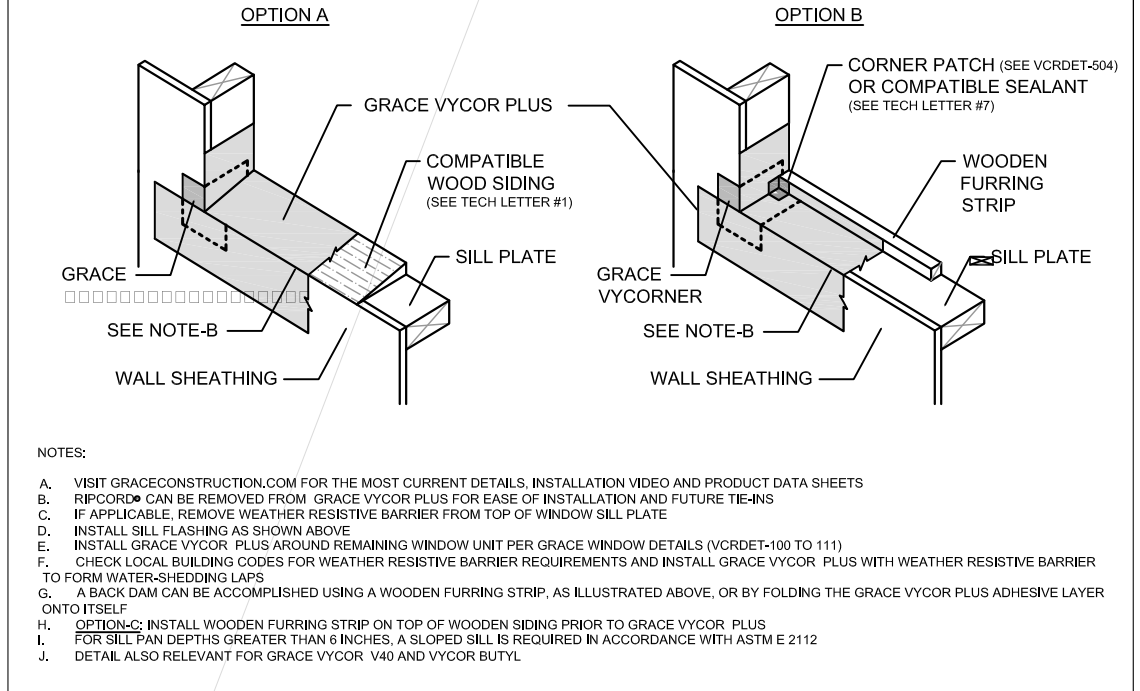
Approved corrosion-resistant flashing shall be applied shingle-fashion in such a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashing shall be installed at all of the following locations:

1. Exterior window and door openings. Flashing at exterior window and door openings shall extend to the surface of the exterior wall finish or to the water-resistive barrier for subsequent drainage.
2. At the intersection of chimney or other masonry construction with frame or stucco wall, with projecting lips on both sides under stucco copings.
3. Under and at the ends of masonry, wood or metal copings and sills.
4. Continuously above all projecting wood trim.
5. Where exterior porches, decks or stairs attach to a wall or floor assembly of wood-frame construction.
6. At wall and roof intersections.
7. At built-in gutters.

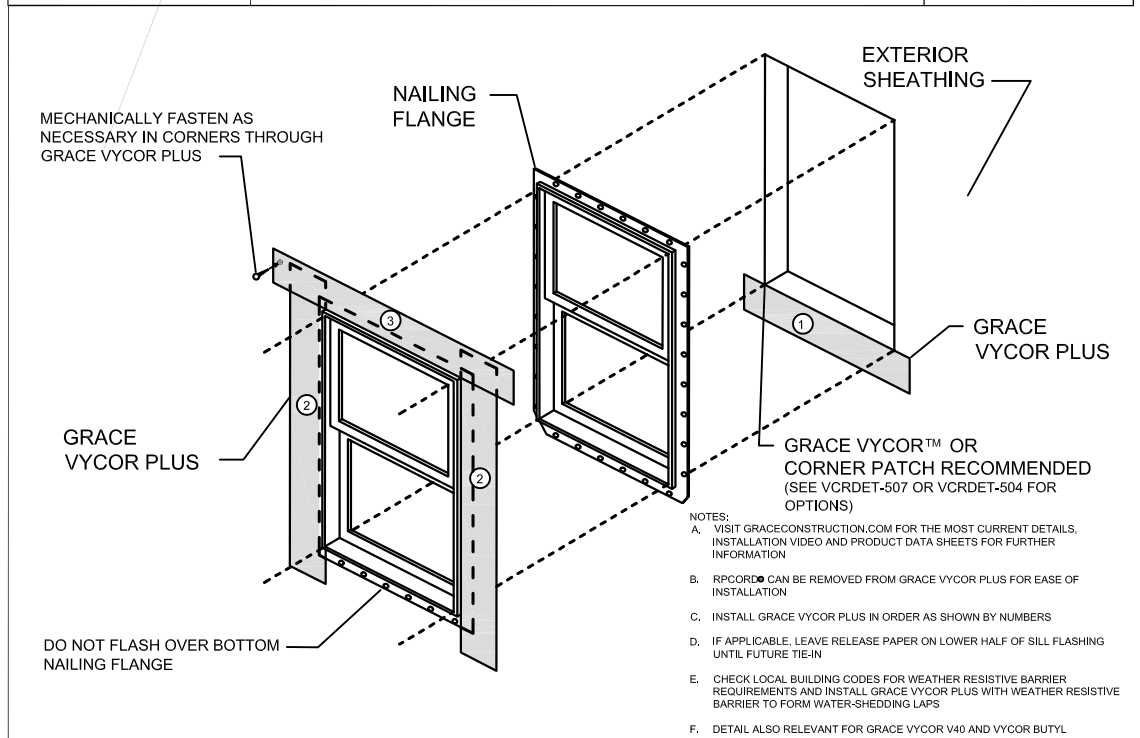
FLANGED WINDOW - OPTION 2
FLASHING INSTALLATION AFTER WEATHER RESISTIVE BARRIER
GRACE VYCOR PLUS SELF-ADHERED FLASHING



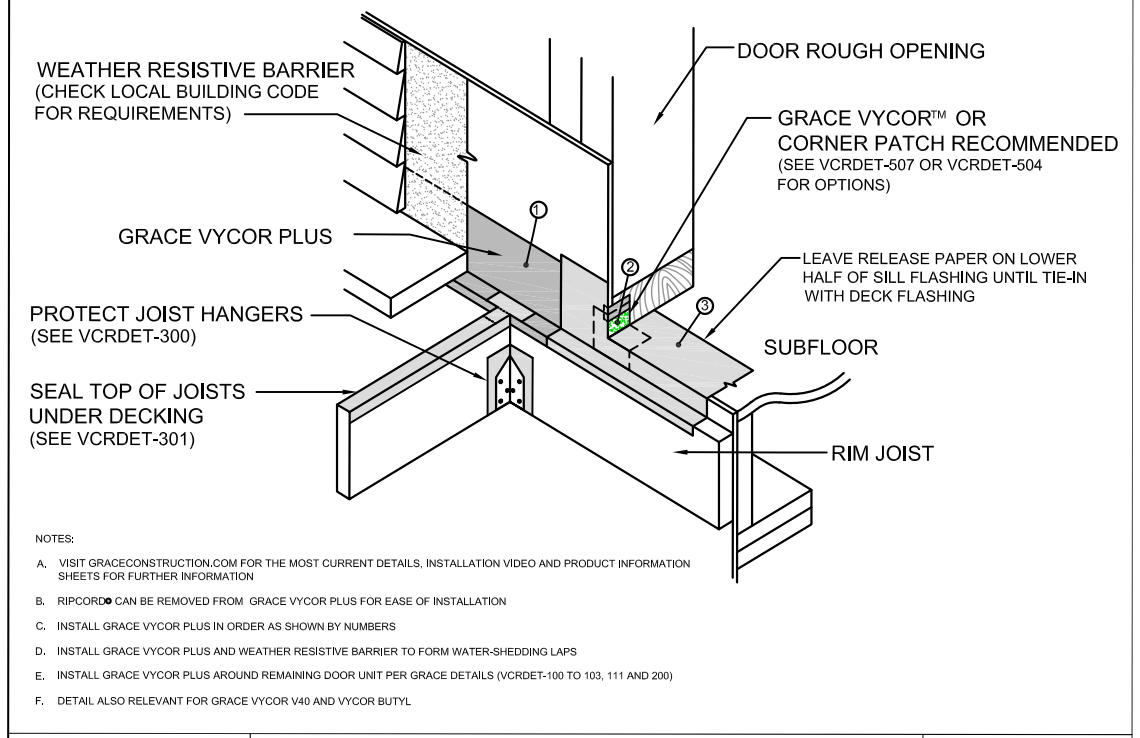
RECESSED WINDOW
GRACE VYCOR PLUS SELF-ADHERED FLASHING



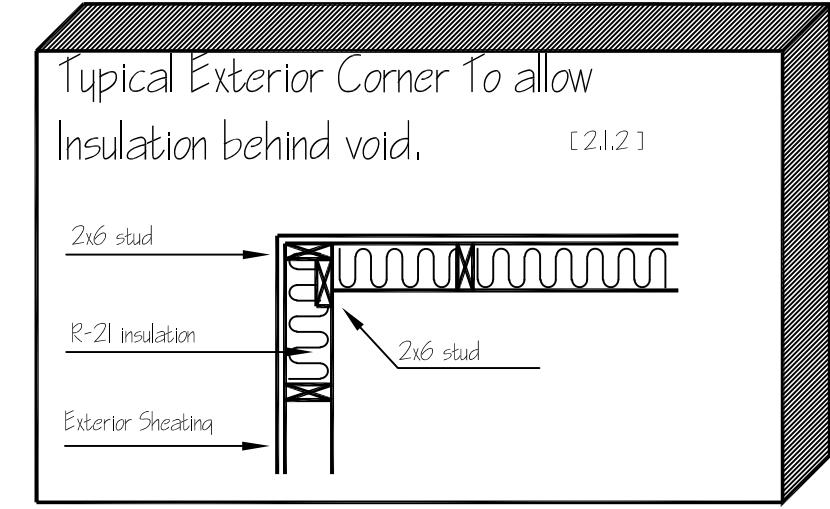
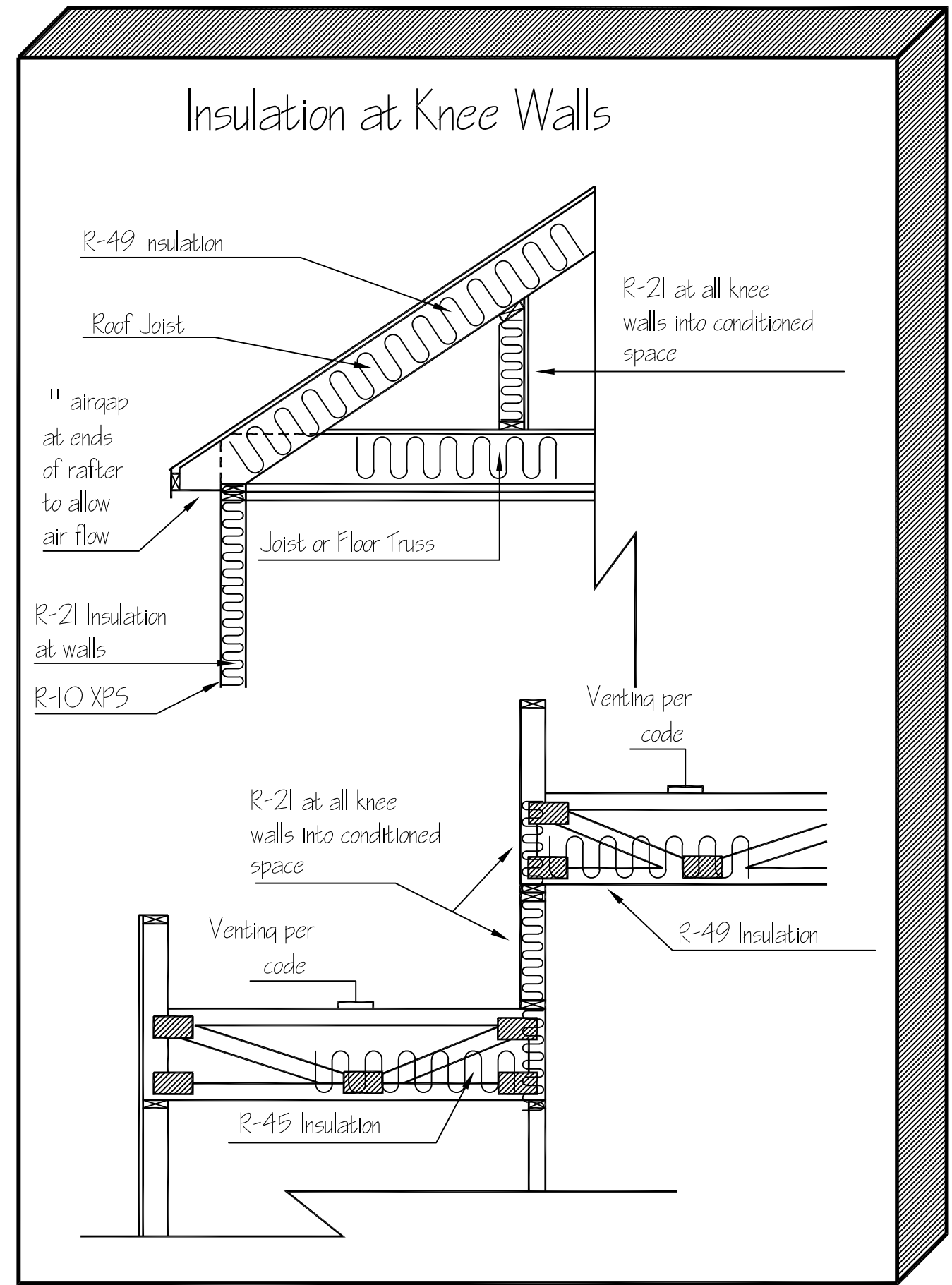
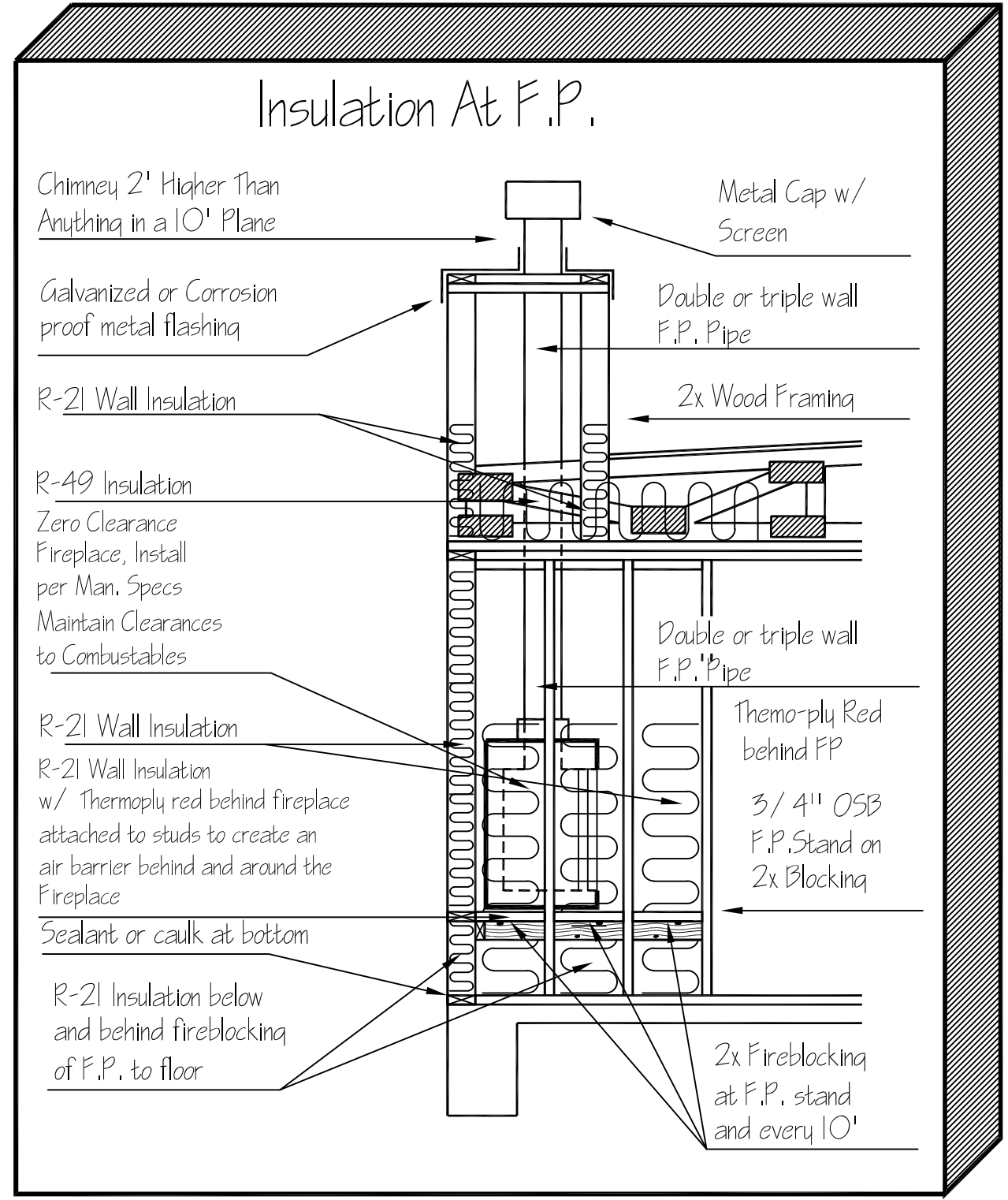
WINDOW SILL PAN OPTIONS
GRACE VYCOR PLUS SELF-ADHERED FLASHING



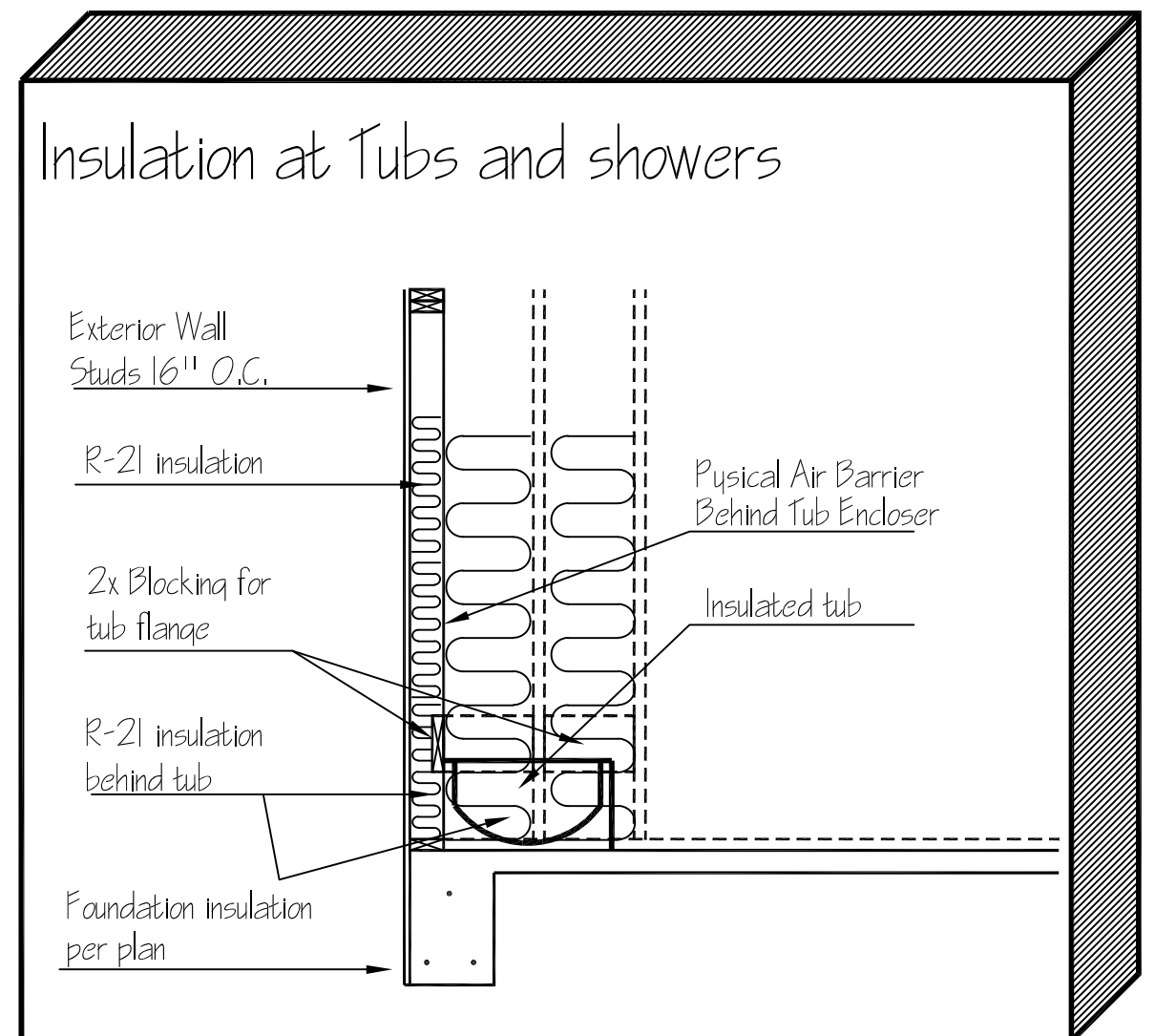
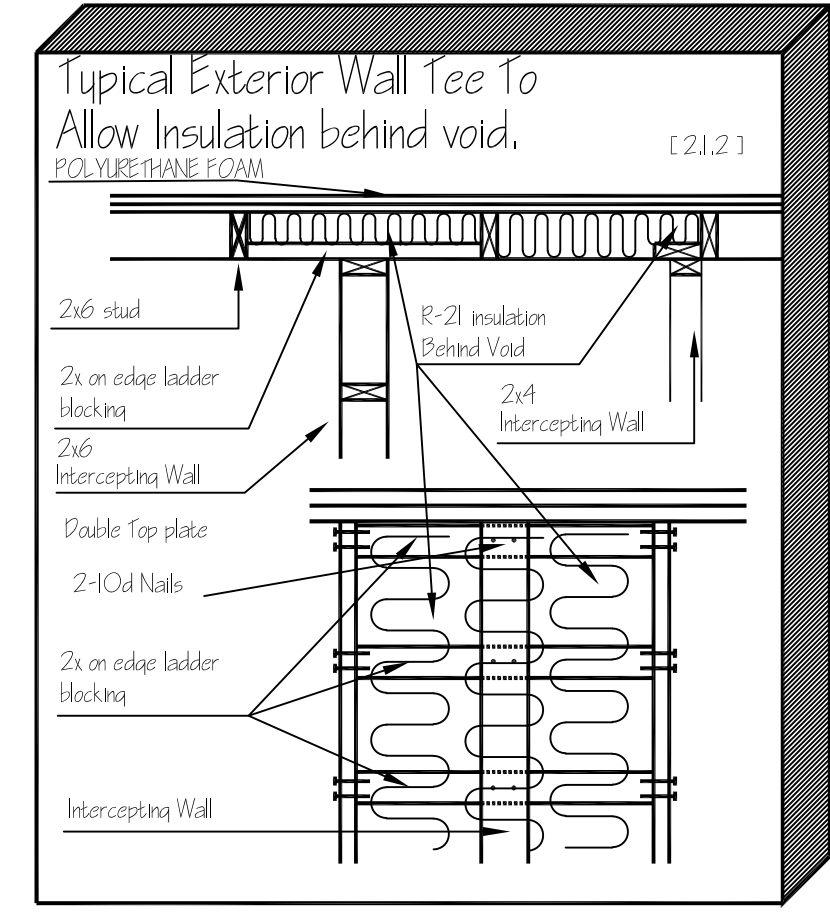
FLANGED WINDOW - OPTION 2
AAMA RECOMMENDATION
GRACE VYCOR PLUS SELF-ADHERED FLASHING



EXTERIOR DOOR SILL CORNER
GRACE VYCOR PLUS SELF-ADHERED FLASHING

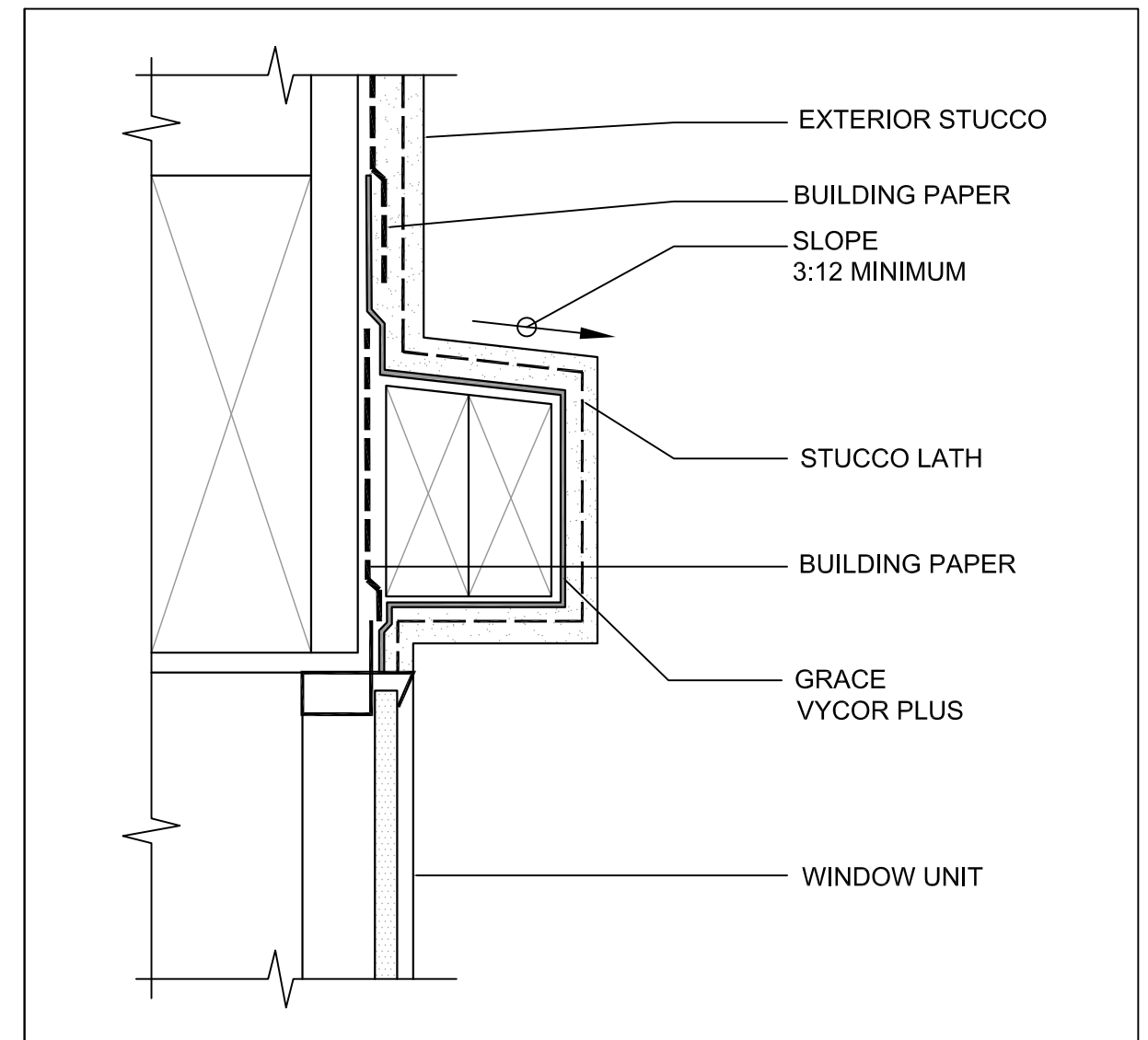
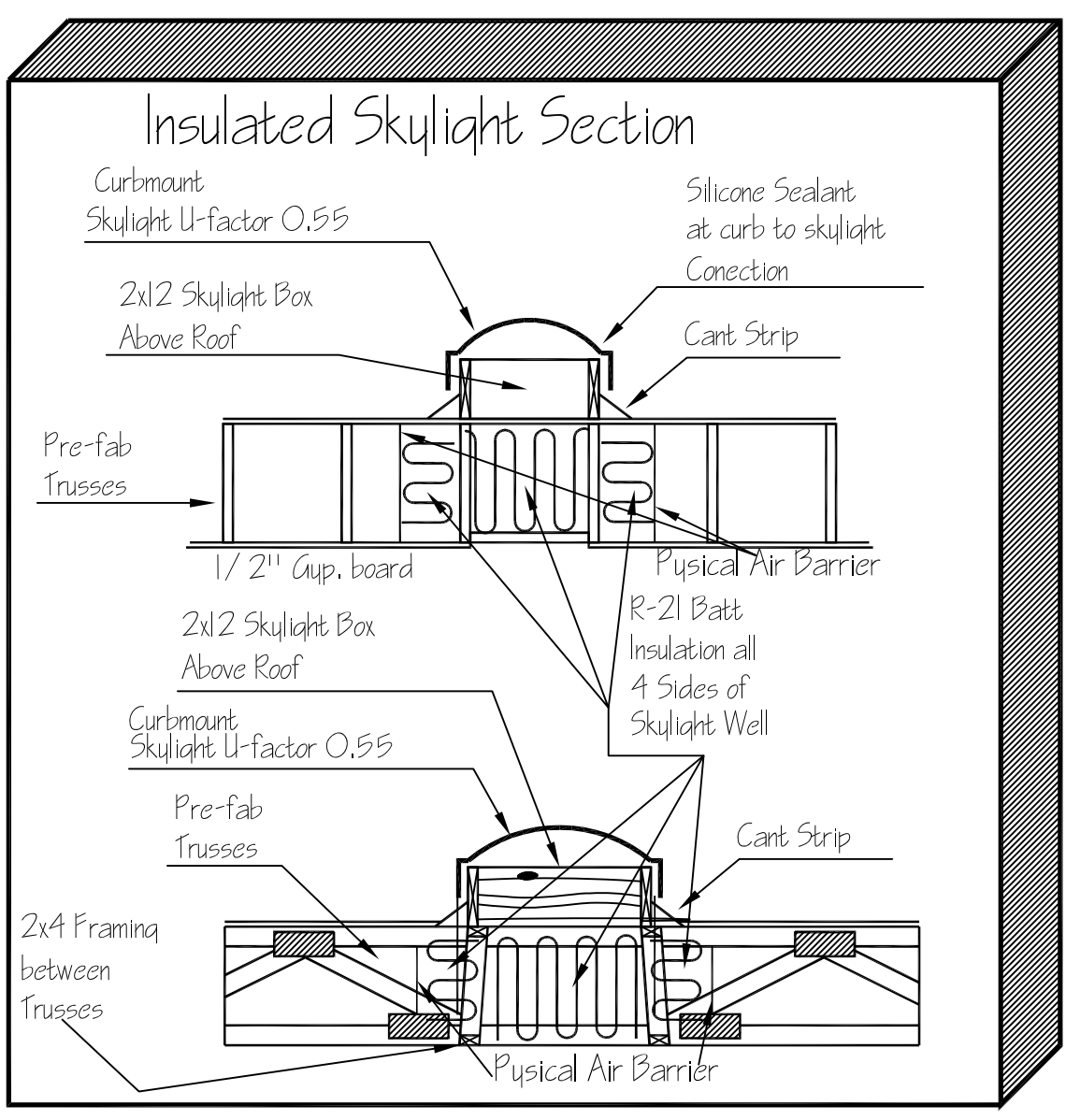


Window Trim (21.9)
Use BullNose Trim On All Interior Doors and Windows



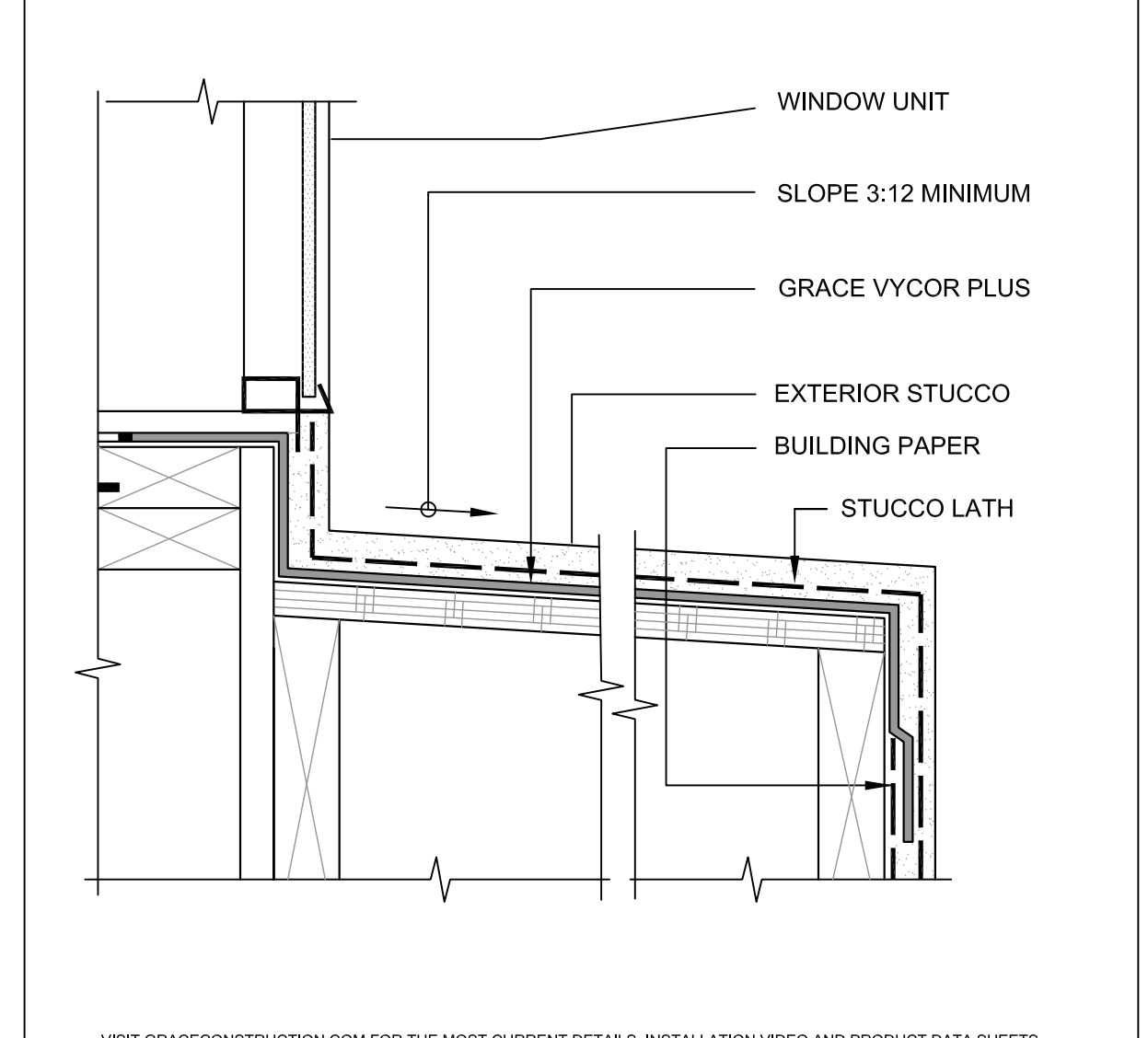
Solar Reflectivity:
All Flat Roof Area's to be coated with "Solar Mastic" TM Ultra premium cool roof coating or Equivalent in White or Desert Tan, per energy code.

Critical Note:
All Windows, doors and skylights to be caulked, gasketed, weatherstripped or otherwise sealed with an air barrier material, suitable film or solid material.



NOTES:
A. RIPCORD™ CAN BE REMOVED FROM GRACE VYCOR PLUS FOR EASE OF INSTALLATION AND FUTURE TIE-INS
B. GRACE VYCOR PLUS CAN BE SUBSTITUTED FOR BUILDING PAPER
C. INSTALL GRACE VYCOR PLUS AND WEATHER RESISTIVE BARRIER TO FORM WATER-SHEDDING LAPS
D. REFER TO LOCAL BUILDING CODES FOR BUILDING PAPER REQUIREMENTS AND SLOPE REQUIREMENTS
E. DETAIL ALSO RELEVANT FOR GRACE VYCOR V40 AND VYCOR BUTYL

STUCCO WINDOW HEAD
GRACE VYCOR PLUS SELF-ADHERED FLASHING



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D. REFER TO LOCAL BUILDING CODES FOR BUILDING PAPER REQUIREMENTS AND SLOPE REQUIREMENTS
E. DETAIL ALSO RELEVANT FOR GRACE VYCOR V40 AND VYCOR BUTYL

STUCCO SILL/ POT SHELF/ CHIMNEY SHOULDER
GRACE VYCOR PLUS SELF-ADHERED FLASHING

Building Thermal Envelope Table 402.1.2
3011 Climate Zone 4 Albuquerque NM

1. Penetration U-Factor	0.32
2. Skylight U-Factor	0.55
3. South, East, West Facing Glazed Penetration	SHGC 0.40 Low E Glass Required
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5. Wood Frame Wall R-Value	R-21 2x6 Walls R-15 + R-5 core's Ins.
6. Mass Wall R-Value	R-8/15
7. Floor R-Value	R-19
8. Basement Wall R-Value	R-15 / R-15
9. Slab R-Value & Depth	R-15 / 2ft. Unheated Slabs
10. Crawl Space R-Value	R0 / R5

Insulation Details

Scale 1/4" = 1'

LAST REVISION DATE: 12/20/2023