

HISTORIC AND DESIGN REVIEW COMMISSION

September 15, 2021

HDRC CASE NO: 2021-385
ADDRESS: 233 FLORIDA ST
LEGAL DESCRIPTION: NCB 3006 BLK 4 LOT 18
ZONING: RM-4,H
CITY COUNCIL DIST.: 1
DISTRICT: Lavaca Historic District
APPLICANT: GROSS CHRISTIAN & LAURA
OWNER: GROSS CHRISTIAN & LAURA
TYPE OF WORK: Construction of a 2-story rear accessory structure, site modifications
APPLICATION RECEIVED: August 25, 2021
60-DAY REVIEW: Not applicable due to City Council Emergency Orders
CASE MANAGER: Stephanie Phillips
REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to construct a new 2-story rear accessory structure. The first floor will house a garage with a footprint of approximately 924 square feet with a second story measuring approximately 617 square feet.

APPLICABLE CITATIONS:

Historic Design Guidelines, Chapter 4, Guidelines for New Construction

1. Building and Entrance Orientation

A. FAÇADE ORIENTATION

- i. *Setbacks*—Align front facades of new buildings with front facades of adjacent buildings where a consistent setback has been established along the street frontage. Use the median setback of buildings along the street frontage where a variety of setbacks exist. Refer to UDC Article 3, Division 2. Base Zoning Districts for applicable setback requirements.
- ii. *Orientation*—Orient the front façade of new buildings to be consistent with the predominant orientation of historic buildings along the street frontage.

B. ENTRANCES

- i. *Orientation*—Orient primary building entrances, porches, and landings to be consistent with those historically found along the street frontage. Typically, historic building entrances are oriented towards the primary street.

2. Building Massing and Form

A. SCALE AND MASS

- i. *Similar height and scale*—Design new construction so that its height and overall scale are consistent with nearby historic buildings. In residential districts, the height and scale of new construction should not exceed that of the majority of historic buildings by more than one-story. In commercial districts, building height shall conform to the established pattern. If there is no more than a 50% variation in the scale of buildings on the adjacent block faces, then the height of the new building shall not exceed the tallest building on the adjacent block face by more than 10%.
- ii. *Transitions*—Utilize step-downs in building height, wall-plane offsets, and other variations in building massing to provide a visual transition when the height of new construction exceeds that of adjacent historic buildings by more than one-half story.
- iii. *Foundation and floor heights*—Align foundation and floor-to-floor heights (including porches and balconies) within one foot of floor-to-floor heights on adjacent historic structures.

B. ROOF FORM

- i. *Similar roof forms*—Incorporate roof forms—pitch, overhangs, and orientation—that are consistent with those predominantly found on the block. Roof forms on residential building types are typically sloped, while roof forms on non-residential building types are more typically flat and screened by an ornamental parapet wall.

C. RELATIONSHIP OF SOLIDS TO VOIDS

- i. *Window and door openings*—Incorporate window and door openings with a similar proportion of wall to window space as typical with nearby historic facades. Windows, doors, porches, entryways, dormers, bays, and pediments shall

be considered similar if they are no larger than 25% in size and vary no more than 10% in height to width ratio from adjacent historic facades.

ii. *Facade configuration*—The primary façade of new commercial buildings should be in keeping with established patterns. Maintaining horizontal elements within adjacent cap, middle, and base precedents will establish a consistent street wall through the alignment of horizontal parts. Avoid blank walls, particularly on elevations visible from the street. No new façade should exceed 40 linear feet without being penetrated by windows, entryways, or other defined bays.

D. LOT COVERAGE

i. *Building to lot ratio*—New construction should be consistent with adjacent historic buildings in terms of the building to lot ratio. Limit the building footprint for new construction to no more than 50 percent of the total lot area, unless adjacent historic buildings establish a precedent with a greater building to lot ratio.

3. Materials and Textures

A. NEW MATERIALS

i. *Complementary materials*—Use materials that complement the type, color, and texture of materials traditionally found in the district. Materials should not be so dissimilar as to distract from the historic interpretation of the district. For example, corrugated metal siding would not be appropriate for a new structure in a district comprised of homes with wood siding.

ii. *Alternative use of traditional materials*—Consider using traditional materials, such as wood siding, in a new way to provide visual interest in new construction while still ensuring compatibility.

iii. *Roof materials*—Select roof materials that are similar in terms of form, color, and texture to traditionally used in the district.

iv. *Metal roofs*—Construct new metal roofs in a similar fashion as historic metal roofs. Refer to the Guidelines for Alterations and Maintenance section for additional specifications regarding metal roofs.

v. *Imitation or synthetic materials*—Do not use vinyl siding, plastic, or corrugated metal sheeting. Contemporary materials not traditionally used in the district, such as brick or simulated stone veneer and Hardie Board or other fiberboard siding, may be appropriate for new construction in some locations as long as new materials are visually similar to the traditional material in dimension, finish, and texture. EIFS is not recommended as a substitute for actual stucco.

B. REUSE OF HISTORIC MATERIALS

Salvaged materials—Incorporate salvaged historic materials where possible within the context of the overall design of the new structure.

4. Architectural Details

A. GENERAL

i. *Historic context*—Design new buildings to reflect their time while respecting the historic context. While new construction should not attempt to mirror or replicate historic features, new structures should not be so dissimilar as to distract from or diminish the historic interpretation of the district.

ii. *Architectural details*—Incorporate architectural details that are in keeping with the predominant architectural style along the block face or within the district when one exists. Details should be simple in design and should complement, but not visually compete with, the character of the adjacent historic structures or other historic structures within the district. Architectural details that are more ornate or elaborate than those found within the district are inappropriate.

iii. *Contemporary interpretations*—Consider integrating contemporary interpretations of traditional designs and details for new construction. Use of contemporary window moldings and door surroundings, for example, can provide visual interest while helping to convey the fact that the structure is new. Modern materials should be implemented in a way that does not distract from the historic structure.

5. Garages and Outbuildings

A. DESIGN AND CHARACTER

i. *Massing and form*—Design new garages and outbuildings to be visually subordinate to the principal historic structure in terms of their height, massing, and form.

ii. *Building size*—New outbuildings should be no larger in plan than 40 percent of the principal historic structure footprint.

iii. *Character*—Relate new garages and outbuildings to the period of construction of the principal building on the lot through the use of complementary materials and simplified architectural details.

- iv. *Windows and doors*—Design window and door openings to be similar to those found on historic garages or outbuildings in the district or on the principle historic structure in terms of their spacing and proportions.
- v. *Garage doors*—Incorporate garage doors with similar proportions and materials as those traditionally found in the district.

B. SETBACKS AND ORIENTATION

- i. *Orientation*—Match the predominant garage orientation found along the block. Do not introduce front-loaded garages or garages attached to the primary structure on blocks where rear or alley-loaded garages were historically used.
- ii. *Setbacks*—Follow historic setback pattern of similar structures along the streetscape or district for new garages and outbuildings. Historic garages and outbuildings are most typically located at the rear of the lot, behind the principal building. In some instances, historic setbacks are not consistent with UDC requirements and a variance may be required.

6. Mechanical Equipment and Roof Appurtenances

A. LOCATION AND SITING

- i. *Visibility*—Do not locate utility boxes, air conditioners, rooftop mechanical equipment, skylights, satellite dishes, and other roof appurtenances on primary facades, front-facing roof slopes, in front yards, or in other locations that are clearly visible from the public right-of-way.
- ii. *Service Areas*—Locate service areas towards the rear of the site to minimize visibility from the public right-of-way.

B. SCREENING

- i. *Building-mounted equipment*—Paint devices mounted on secondary facades and other exposed hardware, frames, and piping to match the color scheme of the primary structure or screen them with landscaping.
- ii. *Freestanding equipment*—Screen service areas, air conditioning units, and other mechanical equipment from public view using a fence, hedge, or other enclosure.
- iii. *Roof-mounted equipment*—Screen and set back devices mounted on the roof to avoid view from public right-of-way.

7. Designing for Energy Efficiency

A. BUILDING DESIGN

- i. *Energy efficiency*—Design additions and new construction to maximize energy efficiency.
- ii. *Materials*—Utilize green building materials, such as recycled, locally-sourced, and low maintenance materials whenever possible.
- iii. *Building elements*—Incorporate building features that allow for natural environmental control – such as operable windows for cross ventilation.
- iv. *Roof slopes*—Orient roof slopes to maximize solar access for the installation of future solar collectors where compatible with typical roof slopes and orientations found in the surrounding historic district.

B. SITE DESIGN

- i. *Building orientation*—Orient new buildings and additions with consideration for solar and wind exposure in all seasons to the extent possible within the context of the surrounding district.
- ii. *Solar access*—Avoid or minimize the impact of new construction on solar access for adjoining properties.

C. SOLAR COLLECTORS

- i. *Location*—Locate solar collectors on side or rear roof pitch of the primary historic structure to the maximum extent feasible to minimize visibility from the public right-of-way while maximizing solar access. Alternatively, locate solar collectors on a garage or outbuilding or consider a ground-mount system where solar access to the primary structure is limited.
- ii. *Mounting (sloped roof surfaces)*—Mount solar collectors flush with the surface of a sloped roof. Select collectors that are similar in color to the roof surface to reduce visibility.
- iii. *Mounting (flat roof surfaces)*—Mount solar collectors flush with the surface of a flat roof to the maximum extent feasible. Where solar access limitations preclude a flush mount, locate panels towards the rear of the roof where visibility from the public right-of-way will be minimized.

Standard Specifications for Windows in Additions and New Construction

- **GENERAL:** New windows on additions should relate to the windows of the primary historic structure in terms of materiality and overall appearance. Windows used in new construction should be similar in appearance to those commonly found within the district in terms of size, profile, and configuration. While no material is expressly prohibited by the Historic Design Guidelines, a high-quality wood or aluminum-clad wood window product often meets the Guidelines with the stipulations listed below. Whole window systems should match the size of historic windows on property unless otherwise approved.

- **SIZE:** Windows should feature traditional dimensions and proportions as found within the district.
- **SASH:** Meeting rails must be no taller than 1.25". Stiles must be no wider than 2.25". Top and bottom sashes must be equal in size unless otherwise approved.
- **DEPTH:** There should be a minimum of 2" in depth between the front face of the window trim and the front face of the top window sash.
 - This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness.
- **TRIM:** Window trim must feature traditional dimensions and architecturally appropriate casing and sloped sill detail. Window track components such as jamb liners must be painted to match the window trim or concealed by a wood window screen set within the opening.
- **GLAZING:** Windows should feature clear glass. Low-e or reflective coatings are not recommended for replacements. The glazing should not feature faux divided lights with an interior grille. If approved to match a historic window configuration, the window should feature real exterior muntins.
- **COLOR:** Wood windows should feature a painted finish. If a clad product is approved, white or metallic manufacturer's color is not allowed, and color selection must be presented to staff.
- **INSTALLATION:** Wood windows should be supplied in a block frame and exclude nailing fins. Window opening sizes should not be altered to accommodate stock sizes prior to approval.
- **FINAL APPROVAL:** If the proposed window does not meet the aforementioned stipulations, then the applicant must submit updated window specifications to staff for review, prior to purchase and installation. For more assistance, the applicant may request the window supplier to coordinate with staff directly for verification.

FINDINGS:

- a. The primary structure located at 233 Florida is a 2.5-story residential constructed circa 1900 in the Queen Anne style. The home has been modified over the years and features a distinctive 2-story front porch with rounded edges, a primary hip roof form with front and side gables, one over one wood windows, and woodlap siding. The structure is contributing to the Lavaca Historic District.
- b. **CONCEPTUAL APPROVAL** – The applicant received conceptual approval from the Historic and Design Review Commission (HDRC) on August 18, 2021. The approval carried the following stipulations:
 1. That the decorative brackets and gable ends be eliminated in favor of extending eaves as noted in finding f.
 2. That the fenestration pattern be modified to feature one over one windows and more traditional proportions and dimensions as noted in finding e. The proposed long horizontal windows are not appropriate. Paired windows must feature a true ganged condition and traditional sill and trim details.
 3. That the applicant installs a fully wood or aluminum clad wood window that meet staff's standard window stipulations and submits updated specifications to staff for review and approval. The windows should feature an inset of two (2) inches within facades and should feature profiles that are found historically within the immediate vicinity. Meeting rails must be no taller than 1.25" and stiles no wider than 2.25". White manufacturer's color is not allowed, and color selection must be presented to staff. There should be a minimum of two inches in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness. Window trim must feature traditional dimensions and architecturally appropriate sill detail. Window track components must be painted to match the window trim or concealed by a wood window screen set within the opening.
 4. That the applicant install two single bay garage doors in lieu of the proposed double-width overhead garage door as noted in finding e. A final material specification for the garage door is required to be submitted for final approval.
 5. That the applicant installs a standing seam metal roof featuring panels that are 18 to 21 inches wide, seams that are 1 to 2 inches high, a crimped ridge seam, and a standard galvalume finish. Panels should be smooth without striation or corrugation. Ridges are to feature a double-munch or crimped ridge configuration; no vented ridge caps or end caps are allowed. An on-site inspection must be scheduled with OHP staff prior to the start of work to verify that the roofing material matches the approved specifications.

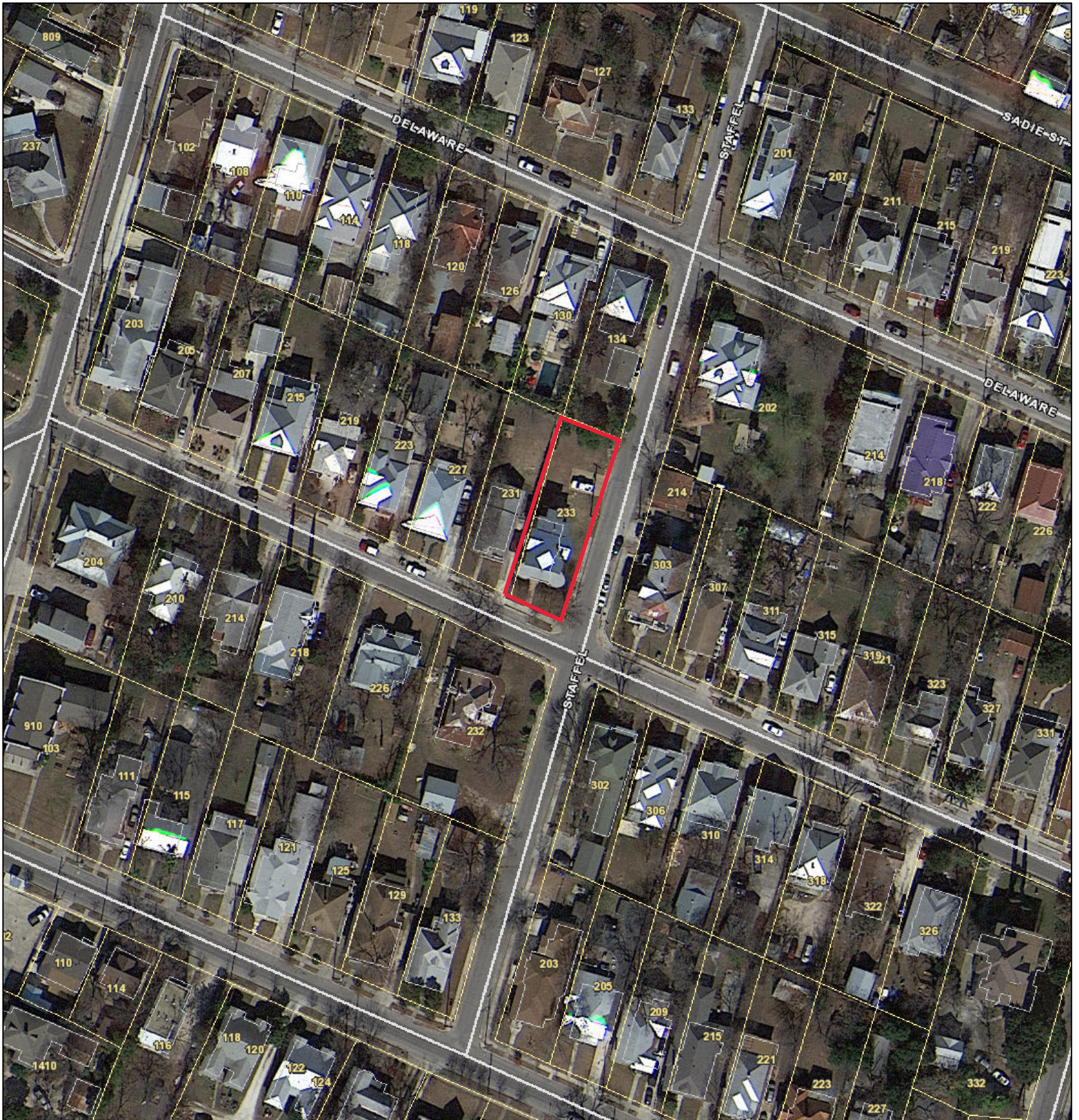
6. That the siding be woodlap or horizontal composite with a maximum reveal of 6 inches. If composite siding is used, a smooth finish must be used. Faux wood grain is not permitted.
 7. That the board and batten siding features boards that are twelve (12) inches wide with battens that are 1 – ½” wide.
 8. That the applicant reduce the proposed concrete located within the 10’ side setback and explore ways to reduce the proposed impervious cover via landscaping, decomposed granite or another pervious ground material, or similar as noted in finding i. An updated final site plan is required to be submitted to staff for review and approval prior to the issuance of a certificate of Appropriateness.
 9. That the applicant comply with zoning setback requirements a obtains a variance from the Board of Adjustment if applicable.
- c. **FOOTPRINT AND LOT COVERAGE** – The applicant has proposed to construct a new 2-story rear accessory structure. The overall footprint measures approximately 924 square feet. The existing primary structure has a footprint of approximately 1,500 square feet. According to the Guidelines, the addition of new structures should follow the historic development pattern in terms of footprint and total lot coverage should not exceed 50%. This lot is deep and narrow, and the structure is located behind the primary structure and follows the development pattern of the district. Staff generally finds the request acceptable due to the site-specific and district-specific characteristics.
 - d. **SETBACKS AND ORIENTATION** – The applicant has proposed to construct a new 2-story accessory structure to the rear of the primary structure. As noted in finding a, the property is a corner lot and the new structure will be fully visible from the public right-of-way. As proposed, the structure will be located along the side property line and will be set back from the street by approximately 10 feet. A cedar privacy fence will partially obscure the structure from both Florida and Staffel streets. According to the Guidelines, setbacks for rear structures should follow the predominant development pattern of the historic district. The new construction generally follows the historic development pattern of the district, which features a mixture of larger primary structures and subordinate rear accessory structures and vice versa. Staff finds the request appropriate. The applicant is responsible for complying with zoning setback requirements a obtaining a variance from the Board of Adjustment if applicable.
 - e. **MASSING AND SCALE** – The proposed rear accessory structure is 2-stories in height. Per the drawings, the overall ridge height is not indicated, but the height appears to be approximately 24’. The existing structure has an overall height of approximately 30’. Per the Guidelines for New Construction, new garages and outbuildings should be designed to be visually subordinate to the principal historic structure in terms of their height, massing, and form. Heights and scale should be consistent with historic development patterns of rear accessory structures and garages in the district. The property immediately to the north of the home features a 2-story rear accessory structure of a similar height as the proposed structure. Staff generally finds the height appropriate with the stipulations listed in the recommendation.
 - f. **FENESTRATION** – According to the Historic Design Guidelines, openings in new construction should use traditional dimensions and profiles found on the primary structure or within the historic district. Based on the submitted elevations, the applicant has proposed one over one windows, door configurations, and two single-bay garage doors that are consistent with historic patterns. The applicant is responsible for complying with the window stipulations in the recommendation pertaining to materials, installation method, product selection, configuration, detailing, inset, and trim.
 - g. **ROOF FORM** – The proposed rear accessory structures will utilize a multi-roof configuration, including a primary hip and several traditional gables. The applicant has also proposed a low-sloping shed awning above a majority of the first floor to minimize the visual mass of the structure. Staff finds the roof forms generally appropriate.
 - h. **MATERIALS** – The applicant has proposed to use composite lap siding and board and batten siding, standing seam metal roofing, and aluminum clad wood windows. Staff finds this generally appropriate with the stipulations listed in the recommendation.
 - i. **ARCHITECTURAL DETAILS** - Generally, new buildings in historic districts should be designed to reflect their time while representing the historic context of the district. Architectural details should also not visually compete with the historic structure. Staff finds the request generally consistent with the Guidelines.
 - j. **SITE MODIFICATIONS** – The site plan includes items that are eligible for administrative approval, including the installation of an inground pool surrounded by concrete and various pervious paving methods.

RECOMMENDATION:

Staff recommends final approval based on findings a through j with the following stipulations:

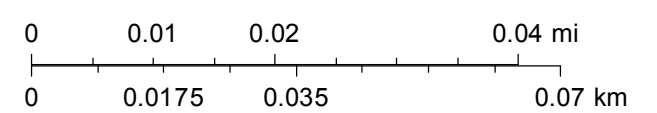
- i. That the applicant installs a fully wood or aluminum clad wood window that meet staff's standard window stipulations and submits updated specifications to staff for review and approval. The windows should feature an inset of two (2) inches within facades and should feature profiles that are found historically within the immediate vicinity. Meeting rails must be no taller than 1.25" and stiles no wider than 2.25". White manufacturer's color is not allowed, and color selection must be presented to staff. There should be a minimum of two inches in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness. Window trim must feature traditional dimensions and architecturally appropriate sill detail. Window track components must be painted to match the window trim or concealed by a wood window screen set within the opening.
- ii. That the applicant submit a final material specification for the garage door prior to the issuance of a Certificate of Appropriateness.
- iii. That the applicant installs a standing seam metal roof featuring panels that are 18 to 21 inches wide, seams that are 1 to 2 inches high, a crimped ridge seam, and a standard galvalume finish. Panels should be smooth without striation or corrugation. Ridges are to feature a double-munch or crimped ridge configuration; no vented ridge caps or end caps are allowed. An on-site inspection must be scheduled with OHP staff prior to the start of work to verify that the roofing material matches the approved specifications.
- iv. That the siding be woodlap or horizontal composite with a maximum reveal of 6 inches. If composite siding is used, a smooth finish must be used. Faux wood grain is not permitted.
- v. That the board and batten siding features boards that are twelve (12) inches wide with battens that are 1 – ½" wide.
- vi. That the applicant comply with zoning setback requirements a obtains a variance from the Board of Adjustment if applicable.

City of San Antonio One Stop



August 11, 2021

1:1,000











GENERAL NOTES:

1. THE SCOPE OF WORK FOR THE PROJECT SHALL INCLUDE ALL LABOR, MATERIALS, DEVICES, SUPPLIES, EQUIPMENT, AND OTHER FACILITIES NECESSARY FOR AND INCIDENTAL TO THE EXECUTION AND COMPLETION OF WORK DESCRIBED IN THESE DOCUMENTS.

2. THE CONTRACTOR SHALL SECURE AND PAY FOR THE BUILDING PERMIT AND OTHER PERMITS AND GOVERNMENT FEES, LICENSES AND INSPECTIONS NECESSARY FOR PROPER EXECUTION AND COMPLETION OF WORK.

3. THE CONTRACTOR SHALL PAY ALL FEDERAL, STATE, LOCAL AND ALL OTHER TAXES THAT ARE APPLICABLE TO THIS CONTRACT.

4. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME GENERALLY FAMILIAR WITH THE JOB SITE AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH WORK. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

5. THESE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. WHERE LACK OF INFORMATION, OR ANY DISCREPANCY SHOULD APPEAR IN THE DRAWINGS OR SPECIFICATIONS, THE G.C. SHALL REQUEST WRITTEN INTERPRETATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.

6. NO CHANGES, MODIFICATIONS OR DEVIATIONS SHALL BE MADE FROM THE DRAWINGS OR SPECIFICATIONS WITHOUT FIRST SECURING WRITTEN PERMISSION FROM THE ARCHITECT.

7. ITEMS LABELED NIC ARE "NOT IN CONTRACT". THE G.C., HOWEVER, IS RESPONSIBLE FOR ALL R.O., NECESSARY BLOCKING AND COORDINATION OF WORK.
8. WHERE A SYSTEM OR ASSEMBLY IS CALLED FOR, ALL NECESSARY PARTS AND MATERIALS REQUIRED FOR A COMPLETE INSTALLATION/SYSTEM SHALL BE PROVIDED AND INSTALLED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS.

9. ALL SYSTEMS & MATERIALS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, INSTRUCTIONS AND SPECIFICATIONS.

10. PROVIDE ADEQUATE CONCEALED BLOCKING AND ANCHORING FOR ALL CEILING AND WALL MOUNTED EQUIPMENT, HARDWARE AND ACCESSORIES. COORDINATE WITH ALL TRADES THE LOCATIONS OF SLEEVES, BLOCKING OR OTHER PRESET ACCESSORIES INVOLVING OTHER TRADES.

11. CONTRACTOR TO COORDINATE AND SCHEDULE WORK OF ALL TRADES SO AS TO NOT DELAY AT ANY PHASE OF COMPLETION, CONSTRUCTION DUE TO INTERCONNECTING WORK OR LATE SCHEDULING. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT ALL SUB-TRADES ARE FAMILIAR WITH THE COMPLETE CONSTRUCTION DOCUMENTS PACKAGE INCLUDING WORK THAT MAY OR MAY NOT BE PART OF THEIR SCOPE.

12. ALL WORK SHALL BE PERFORMED WITH THE BEST ACCEPTED PRACTICES OF THE RESPECTED TRADES.

13. ALL MATERIALS TO BE NEW (UNLESS OTHERWISE NOTED ON DRAWINGS), FIRST CLASS, IN EVERY RESPECT, AND SHALL CONFORM TO CONTRACT DOCUMENTS.

14. CONTRACTOR TO COORDINATE CUTTING & PATCHING OF ALL TRADES. MATCH EXISTING MATERIALS AS REQUIRED.

15. CONTRACTOR TO COORDINATE KEYING SYSTEMS AND ALL HARDWARE FUNCTIONS WITH OWNER.
16. CONTRACTOR TO COORDINATE THE INSTALLATION OF ALL ELECTRICAL, ALARM, SECURITY, DATA AND TELEPHONE LINES. CONCEAL ALL NEW UTILITIES IN FINISHED AREAS AS REQUIRED. TELEPHONES TO BE FURNISHED AND INSTALLED BY OWNER.

17. LIFE SAFETY SYSTEMS SHALL BE INSTALLED AS REQUIRED, PER N.F.P.A., AND LOCAL REGULATIONS.

18. CONTRACTOR TO COORDINATE ALL DELIVERY SCHEDULES AND LOCATIONS FOR ALL OWNER FURNISHED ITEMS WITH EACH SUPPLIER. VERIFY SUCH OWNER FURNISHED ITEMS WITH OWNERS REPRESENTATIVE, G.C. TO PROVIDE SOLID WOOD BLOCKING AS REQUIRED.

19. CONTRACTOR SHALL REMOVE ALL TEMPORARY ITEMS, TRASH, TOOLS, AND EXCESS MATERIALS AT THE COMPLETION OF WORK AND LEAVE THE ENTIRE PROJECT SITE IN A NEAT, CLEAN, ACCEPTABLE CONDITION.

20. PRIOR TO TURNING THE COMPLETED PROJECT OVER TO THE OWNER, THE CONTRACTOR SHALL REMOVE ALL GREASE, DUST, DIRT, STAINS, LABELS, FINGERPRINTS AND OTHER FOREIGN MATERIALS FROM SIGHT, AND SWEEP, WET-MOP AND VACUUM ALL FLOORS.

21. THE CONTRACTOR SHALL PROVIDE TEMPORARY ELECTRICAL POWER AND LIGHTING AS REQUIRED.

22. THE GENERAL CONTRACTOR SHALL MAINTAIN A SAFE AND SECURE SITE DURING ALL PHASES OF CONSTRUCTION.

23. ALL WORK PERFORMED SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL BUILDING CODES AND REQUIREMENTS, AS WELL AS THE MOST RECENT REQUIREMENTS OF THE APPLICABLE ACCESSIBILITY CODES.
24. THE GENERAL CONTRACTOR SHALL SUBMIT A WRITTEN GUARANTEE FOR THEIR MATERIALS AND WORKMANSHIP FOR ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF OWNER.

25. DISRUPTED ELECTRICAL AND WATER LINES RE-ROUTED DURING PROJECT CONSTRUCTION ARE TO REMAIN IN CONTINUOUS SERVICE.

26. ANY EXISTING UTILITIES TO BE ABANDONED SHALL BE PROPERLY DISCONNECTED, PLUGGED OR CAPPED, AS REQUIRED BY CODE AND SOUND CONSTRUCTION PRACTICE.

27. UNLESS OTHERWISE NOTED, ELECTRICAL CONDUITS, PLUMBING LINES, ETC., SHALL BE RUN CONCEALED AND FRAMING SHALL BE ADEQUATE SIZE TO ACCOMPLISH RESULT WITHOUT CAUSING ANY VARIATIONS IN THE WALL PLANE.

GRANNY FLAT

233 FLORIDA STREET
SAN ANTONIO, TX 78210

LEGAL:

LOT: 18
BLK: 4
NCB: 1543

PLAN #: 21-045 SQUARE FOOTAGE CALCULATIONS		
	FRAME	MASONRY
1ST FLR. HEATED AREA	N/A	N/A
2ND FLR. HEATED AREA	617	N/A
TOTAL HEATED AREA	617	N/A
GARAGE	924	N/A
BALCONY	106	N/A
STORAGE	N/A	N/A
TOTAL COVERED AREA	1647	N/A
COURTYARD	N/A	N/A
TOTAL SLAB AREA	1030	N/A

SHEET INDEX

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SITE PLAN
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TRIM/FINISH PLAN
- FRAME PLAN
- A-3

EXTERIOR ELEVATIONS
- A-4

ROOF PLAN
- A-5

INTERIOR ELEVATIONS
- A-6

WALL DETAILS/SECTIONS

DESIGNER:



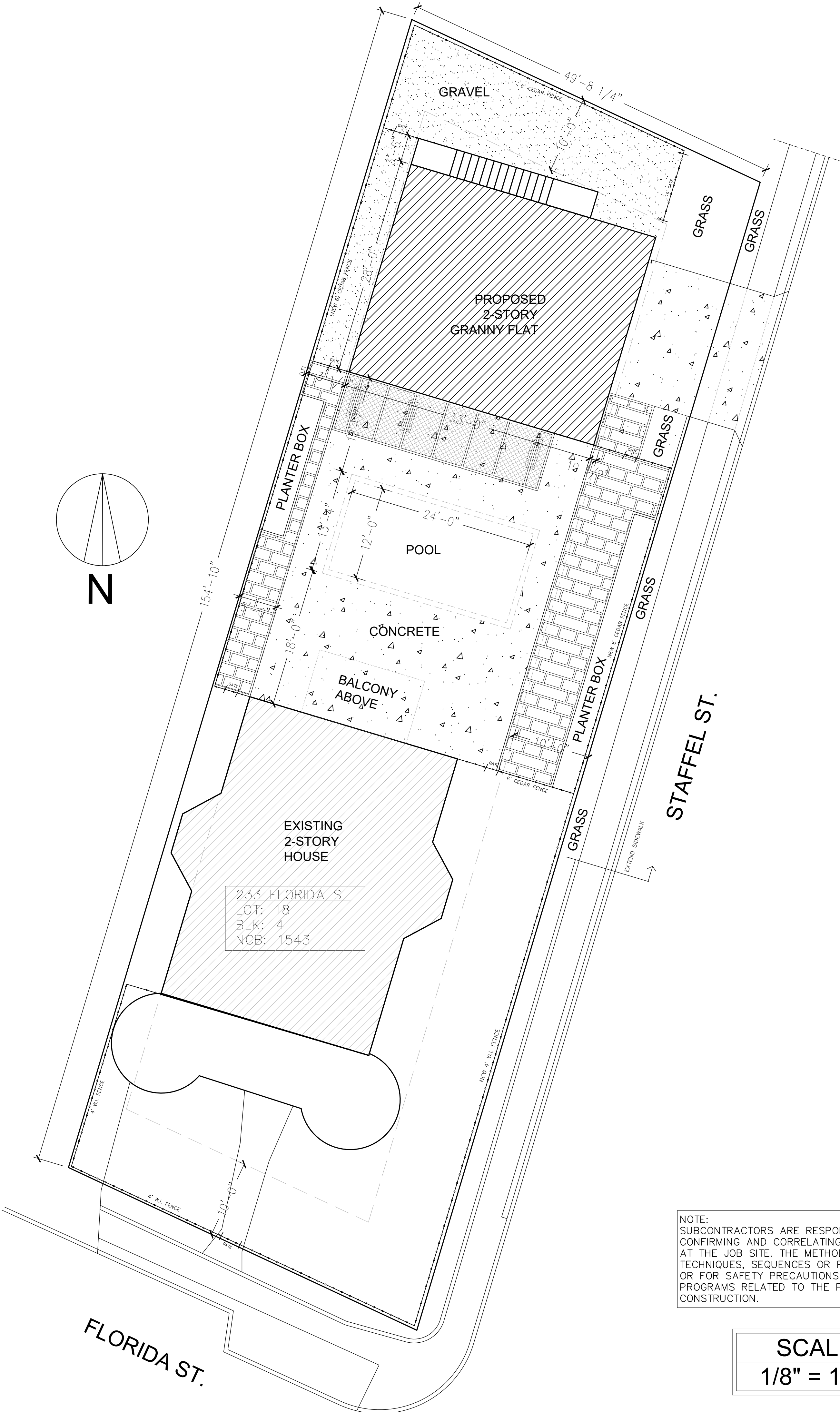
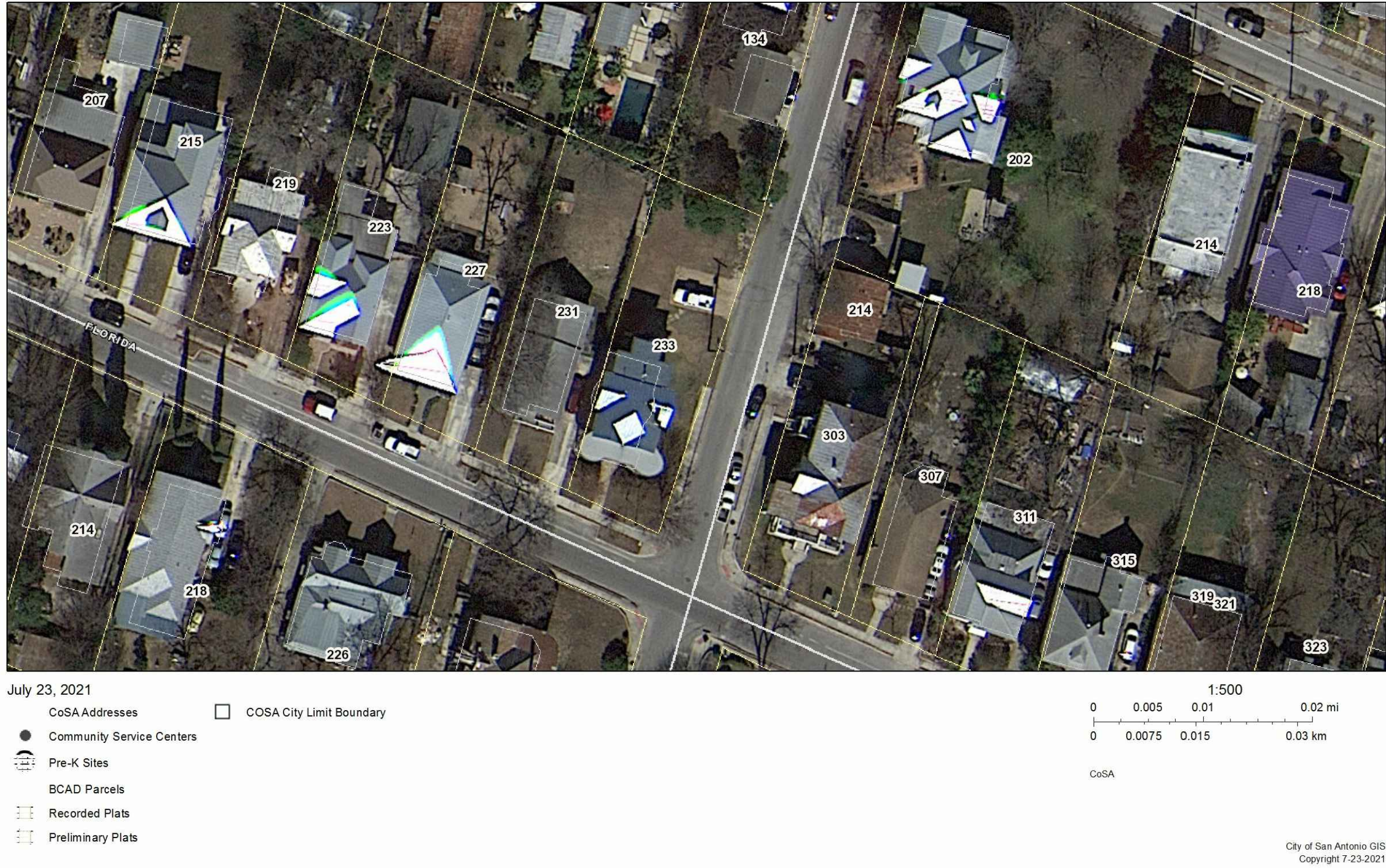
michael@lockwooddesigngroup.llc 210-383-9281

11314 Acuff Station
San Antonio, Texas 78254

City of San Antonio One Stop



City of San Antonio One Stop



LOCKWOOD DESIGN BUILD GROUP

michael@lockwooddesigngroup.llc 210-383-9281

11314 Acuff Station
San Antonio, Texas 78254

GRANNY FLAT

233 FLORIDA ST

SAN ANTONIO, 78210

SITE PLAN

DATE: 07/22/2021

REVSD: 07/27/2021

DESIGNER:

M. LOCKWOOD II

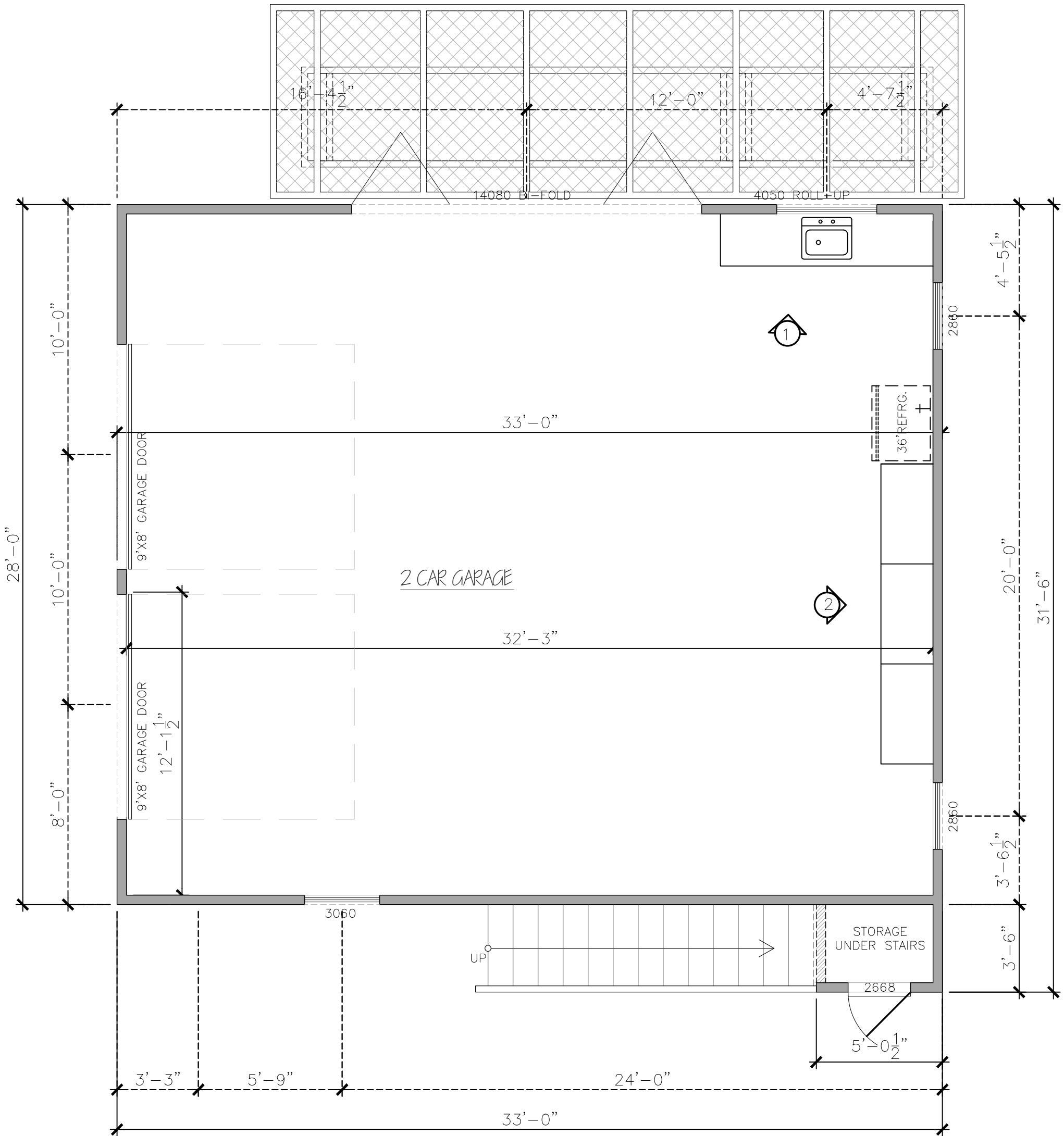
PLAN No.

21-045

SHEET

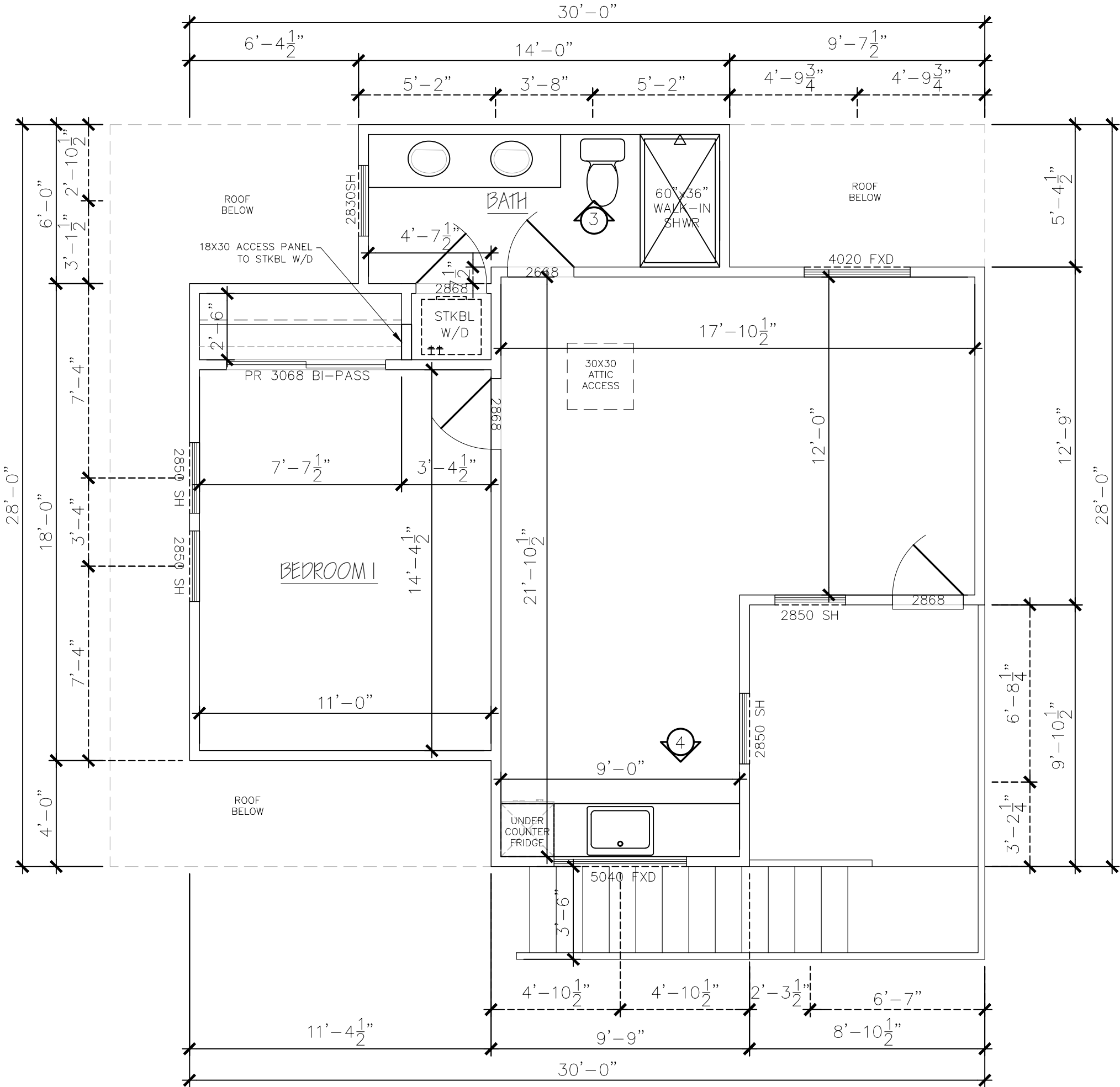
A-1

THESE PLANS ARE DRAWN TO COMPLY WITH OWNERS AND/OR BUILDER'S SPECIFICATIONS AND ANY CHANGES MADE AFTER PRINTING HAS BEEN COMPLETED. WILL BE AT THE OWNER'S AND/OR BUILDER'S EXPENSE AND RESPONSIBILITY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ENCLOSED DRAWINGS PRIOR TO DURING CONSTRUCTION ASSUMES ALL RESPONSIBILITY THEREAFTER. WHILE EFFORTS HAVE BEEN MADE DURING THE PREPARATION OF THESE CONSTRUCTION DOCUMENTS TO AVOID ANY ERRORS/MISTAKES, LOCKWOOD CONSTRUCTION CAN NOT GUARANTEE AGAINST ERROR.



1ST FLOOR PLAN

924 SQFT



2ND FLOOR PLAN

617 SQFT

NOTE:
AIR HANDLER TO BE INSTALLED IN ATTIC.
ELECTRICIAN TO CONFIRM WITH HVAC FOR
EXACT LOCATION OF EQUIPMENT.

NOTE:
SUBCONTRACTORS ARE RESPONSIBLE FOR
CONFIRMING AND CORRELATING
DIMENSIONS AT THE JOB SITE. THE
METHODS, TECHNIQUES, SEQUENCES OR
PROCEDURES, OR FOR SAFETY
PRECAUTIONS AND PROGRAMS RELATED
TO THE PROJECT CONSTRUCTION.

1ST FLOOR CEILING @ 9'-0" HEIGHT
1ST FLR WDW. HDRS @ 8'-0" HGT
UNLESS NOTED OTHERWISE
WHERE APPLICABLE
2ND FLOOR CEILING @ 8'-0" HEIGHT
2ND FLR WDW. HDRS @ 6'-8" HGT
UNLESS NOTED OTHERWISE

220V/GAS PER SPECS @
WH, AC, RANGE & DRYER

CABINET BLOCKING:
VANITY 26"/32"
WALL 54" & 80"
BASE 32"
(MEASUREMENTS ARE FROM
CONC. FLR TO BOTTOM OF
BLOCK)

MAX SILL HGT. @ BEDROOM
WINDOWS TO BE 43" FROM
FINISH FLOOR

PLAN #: 21-045 SQUARE FOOTAGE CALCULATIONS		
	FRAME	MASONRY
1ST FLR. HEATED AREA	N/A	N/A
2ND FLR. HEATED AREA	617	N/A
TOTAL HEATED AREA	617	N/A
GARAGE	924	N/A
BALCONY	106	N/A
STORAGE	N/A	N/A
TOTAL COVERED AREA	1647	N/A
COURTYARD	N/A	N/A
TOTAL SLAB AREA	1030	N/A

FRAMING LUMBER SPECIFICATIONS											
Stress rated framing members shall be used which equal or exceed the following specifications. If lower grade lumber is used, excessive deflection may occur.											
Fiber Stress in Bending (Fb)=875 psi (Base Value)						Modulus of Elasticity (E)=1,400,000 psi					
First Floor Joist 40 lbs. Live Load 10 lbs. Dead Load			Second Floor Joists 30 lbs. Live Load 10 lbs. Dead Load			Ceiling Joist 20 lbs. Live Load 10 lbs. Dead Load			Rafters 30 lbs. Live Load 15 lbs. Dead Load		
SIZE	INCHES O.C.	MAX. SPAN	SIZE	INCHES O.C.	MAX. SPAN	SIZE	INCHES O.C.	MAX. SPAN	SIZE	INCHES O.C.	MAX. SPAN
						2X4	12" 16" 24"	9'-5" 8'-7" 7'-2"			
2X6	12" 16"	10'-3" 9'-4"	2X6	12" 16"	11'-3" 10'-3"	2X6	12" 16" 24"	14'-9" 12'-10" 10'-6"	2X6	12" 16" 24"	12'-11" 11'-3" 9'-2"
2X8	12" 16"	13'-6" 12'-3"	2X8	12" 16"	14'-11" 13'-6"	2X8	12" 16" 24"	18'-9" 16'-3" 13'-3"	2X8	12" 16" 24"	16'-5" 14'-3" 11'-8"
2X10	12" 16" 24"	17'-3" 15'-5" 12'-7"	2X10	12" 16" 24"	19'-0" 17'-2" 14'-1"	2X10	12" 16" 24"	22'-11" 19'-10" 16'-1"	2X10	12" 16" 24"	20'-1" 17'-5" 14'-2"
2X12	12" 16" 24"	20'-7" 17'-10" 14'-7"	2X12	12" 16" 24"	23'-0" 19'-11" 16'-3"	2X12	12" 16" 24"	26'-6" 23'-0" 18'-8"	2X12	12" 16" 24"	23'-3" 20'-2" 16'-6"

TRIM & FINISH NOTES:

INSULATION REQUIREMENTS

- THE RESIDENTIAL ENERGY CODE ALLOWS FOR SELECTION OF ONE OF NINE PRESCRIPTIVE INSULATION PATHS, PROVIDING THE HOMEOWNER OR BUILDER OPS FOR SUN TEMPERED SITUATIONS, LIMITED HOUSE SIZE, LOG HOMES, VARIABLES IN INSULATION IN SPECIFIC LOCATIONS, ETC. PATH #1 WAS BASED ON COST-EFFECTIVENESS, WHILE THE OTHER PATHS ARE BASED ON ENERGY EQUIVALENCE WITH PATH #1. UNLESS SPECIFIC INFORMATION IS RECEIVED OUTLINING THE PATH FOLLOWED AND SPECIFIC INSULATION STANDARDS MET, THE BUILDING DEPARTMENT WILL REVIEW THE BUILDING FOR CONFORMANCE WITH PATH #1. THE FOLLOWING SPECIFIC STANDARDS ARE APPLICABLE FOR PATH #1: APPENDIX C, TAB. C401.1(1).
- Windows, Class 40: Allwindows must be labled showing the class. Site built windows are not permissible with this path.
- DOORS: MAIN ENTRY DOOR (MAXIMUM 24 SF) U=54; OTHER DOORS U=20. DOCUMENTATION MUST BE PROVIDED TO THE INSPECTOR SHOWING THE APPOTRIATE U VALUE.
- WALL INSULATION: R-21 ADVANCED FRAMING R-19 MAY BE SUBSTITUTED.
- UNDERFLOOR INSULATION: R-25. FOUNDATION PERIMETER INSULATION MAY NOT BE SUBSTITUTED FOR THE UNDERFLOOR INSULATION.
- CEILINGS: FLAT CEILINGS R-38; VAULTED CEILINGS (CEILING PITCH 2:12 OR GREATER) R-30 (CEILING INSULATION LESS THAN R-38 MAY NOT BE IN MORE THAN 1/2 OF
- SKYLIGHTS: (CLASS 50) AREA MAY NOT EXCEED 2% OF THE ROOF AREA. SKYLIGHTS (CLASS40) ARE UNLIMITED IN AREA.
- FORCED AIR DUSTS: R-8 IN ALL UNHEATED AREAS.
- BASEMENT WALLS: R-21 EXTENDING FROM THE BOTTOM OF THE ABOVE-GRADE SUBFLOOR TO THE TOP OF THE BELOW-GRADE FINISHED FLOOR.
- SLAB FLOOR EDGE: R-15 INSULATION MUST BE PLACED FROM THE TOP OF THE SLAB DOWN 24" OR FROM THE TOP DOWN OT THE BOTTOM OF THE SLAB AND HORIZONTALLY BACK UNDER THE SLAB FOR A TOTAL OF 4". FOR MONOLITHIC SLABS, INSULATION MUST EXTEND FROM THE TOP OF THE SLAB DOWN TO THE BOTTOM OF THE THICKENED EDGE. ABOVE GRADE PROTECTION MUST BE PROVIDED FOR INSULATION INSTALLED ON THE EXTERIOR SIDE OFTHE SLAB. ALL SLAB EDGES AT JUNCTURES BETWEEN HEATED AND UNHEATED SPACES MUST BE INSULATED.
- INSULATION FACING, SUCH AS VAPOR BARRIERS, SHALL NOT BE EXPOSED IN THE ATTIC, CRAWL SPACE OR ANY OTHER AREA UNLESS THE FLAME-SPREAD OF THE FACING MATERIAL IS 25 OR LESS AND SMOKE DENSITY IS NOT GREATER THAN 450. SEC. 319.1.
- IF PLASTIC FOAM INSULATION IS EXPOSED, IT SHALL BE APPROVED TO BE EXPOSED OR SHALL BE PROTECTED AS REQUIRED IN SEC. 317
- PROVIDE A VAPOR BARRIER WITH 1 PERM DRY CUP RATING OR LESS ON THE WARM SIDE (IN WINTER) OF ALL INSULATION IN EXTERIOR WALLS AND INTERIOR FLOORS (EXCEPT GARAGE CONCRETE SLAB FLOORS) OF HEATED RESIDENTIAL BUILDINGS. IN ALL EXTERIOR CEILINGS WITHOUT AN ATTIC SPACE ABOVE, AN APPROVED VAPOR BARRIER HAVING A 0.5 PERM DRY CUP RATING OR LESS SHALL BE INSTALLED ON THE WARM SIDE OF THE INSULATION, LAP EDGES AT THE FRAMING MEMBERS. SEC. C401.9.1.

PLUMBING NOTES:

- THE DRAIN/WASTE/VENT (DWV) SYSTEM SHALL BE CONSTRUCTED OF MATERIALS LISTED IN, OR ALLOWED BY, THE TEXAS PLUMBING CODE.
- DWV SYSTEMS MAY BE ABS OR PVC PIPING.
- TUB AND / OR SHOWERP-TRAP ACCESS IS PROVIDED UNDER HOME, UNLESS OTHERWISE NOTED ON PLANS (WHEN INSTALLED).
- THE BUILDING DRAINS AND CLEAN-OUTS, WHEN DESIGNED BY OTHERS AND SITE INSTALLED BY OTHERS, ARE SUBJECT TO LOCAL JURISDICTION APPROVAL.
- THE WATER HEATER SHALL HAVE A SAFETY PAN WITH 1 INCH MINIMUM DRAIN TO THE EXTERIOR OF THE BUILDING (ON-SITE, BY OTHERS).
- THE WATER HEATER T&P RELIEF VALVE SHALL DRAIN TO THE EXTERIOR (ON-SITE BY OTHERS).
- THERMAL EXPANSION DEVICE, IF REQUIRED BY WATER HEATER INSTALLATION INSTRUCTIONS, SHALL BE INSTALLED ON-SITE, BY OTHERS AND SHALL BE SUBJECT TO LOCAL APPROVAL.
- ALL PLUMBING FIXTURES SHALL HAVE SEPARATE SHUTOFF VALVES.
- A SHUTOFF VALVE SHALL BE INSTALLED WITHIN THREE FEET OF THE FRESH WATER INLET TO THE BUILDING (THIS SHALL BE INSTALLED ON-SITE, BY OTHERS AND SHALL BE SUBJECT TO LOCAL APPROVAL).
- WATER SUPPLY PIPING INSTALLED IN ANY WALL EXPOSED TO THE EXTERIOR SHALL BE LOCATED ON THE HEATED SIDE OF THE EXTERIOR WALL INSULATION. ALL WATER LINES WATER SUPPLY LINES SHALL BE IN ANY UNCONDITIONED SPACES SHALL BE INSULATED WITH MINIMUM R-6.5 INSULATION (ON-SITE BY OTHERS).
- WATER SUPPLY LINES SHALL BE PEX , CPVC, OR COPPER.
- WATER SUPPLYS TUB UPS TO BE 1/2".
- ALL SUPPLY *CROSSOVER*(MATING LINES) PIPING SHALL BE CONNECTED ON-SITE BY OTHERS, AND SHALL BE SUBJECT TO LOCAL APPROVAL.
- ALL SHOWER STALLS SHALL BE COVERED WITH A NONABSORBENT MATERIAL TO A MINIMUM HEIGHT OF 70 INCHES ABOVE THE FINISHED FLOOR LEVEL. IF THIS IS NOT FACTORY INSTALLED IT SHALL BE COMPLETED ON-SITE BY OTHERS, AND SHALL BE SUBJECT TO LOCAL APPROVAL.
- WHEN PROVIDED, ALL SHOWER FIXTURES SHALL BE CONTROLLED BY AN APPROVED MIXING VALVE WITH A MAXIMUM TEMPERATURE OF 120°(48.8°C)
- ALL LAVS SHALL BE CONTROLLED BY AN APPROVED MIXING VALVE.

BATHROOMS

- The center line of water closet shall be not less than 15" from adjacent walls/partitions or 12" from a tub. A minimum 21" clearance is required in front of water closets. Sec 307.2
- Shower compartments shall have at least 1,024 sq. in. of floor area and be of sufficient size to encompass a circle with a diameter not less than 30". Sec 3209.
- The wall area above built-in tubs having shower heads and in shower compartemnts shall be finished with a smooth, hard and non-absorbent surface to a height of not less than 6' above the floor. If gypsum board is used as a base or backer board for adhesive application of tile or similar material, it shall be a type manufactured for that use. SEC 702.4 & 702.4.2
- Bathrooms and water closets rooms shall be provided with glazing not less than 3 sq. ft., 1/2 of which must be operable, or a mechanical ventilation system. Ventilation shall be either intermittent--50cfm or continuous 20cfm. For rooms larger than 75 sq.ft., the intermittent ventilation shall provide 5 air changes per hour. Ventilation shall be exhausted to outside.

MECHANICAL, PLUMBING, ELECTRICAL

- Smoke detectors shall be installed in each sleeping room, outside each separate sleeping area in the immediately vicinity of the bedrooms and on each additional story of the dwelling, including basements. In dwellings with split levels, a smoke detector need to be installed only on the upper level provided the lower level is less than 1 full story below the upper level,unless there is a doorseparating the levels, in which case s detector is required on both levels. All detectors shall be interconnected such that the actuation of one alarm will actuate all the alarms in the individual unit providing an alarm which will be audible in all sleeping areas. Required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Sec. 316.1.
- Required smoke detectors shall not be located within kitchens or garages. Ionization smoke detectors shall not be located closer than 3' horizontally from the door to a kitchen; the door to a bathroom containing a tub or shower; or the supply register of a force air heating or cooling system. A smoke detector installed within 20' (direct linear path) of a cooking appliance shall be photoelectric or the detector shall have an approved alarm silencing means. Sec. 316.1
- For any additional or alteration requiring a building permit, the entire building shall be provided with smoke detectors located as required for new buildings. Smoke detectors installed under this provision need not be interconnected unless other remodeling considerations require removal of the appropriate wall and ceiling coverings to facilitate concealed interconnected. Sec 316.1
- Heating: Each thermostat shall be capable of being let from 55degrees F--75 degrees F. Cooling equipment: Each thermostat shall be capable of being set for 70 degrees F--85 degrees F only. Sec. C501.3.1

- Free standing or built-in ranges require a vertical clearance above the cooking top not less than 30" to unprotected combustibles or 24" if protected by noncombustible material. Vented ranges hoods shall be vented to the outside by a single-wall pipe constructed of galvanized steel, stainless, copper or other approved material. The duct shall have a smooth interior surface, be substantially airtight and shall be equipped with a back-draft damper. Open top btler units shallbe provided with a hood complying with Sec. 1804, or incorporate an integral exhaust system listed for use without a hood. Self venting ranges or unvented hoods shall be installed in accordance with their listings. Sec. 1802.1, 2201.1, 2202.
- Clothes dryer exhaust vents shall convey products of combustion and moisture to the exterior. They shall not be connected with sheet-metal screws or other fastening means extending into the vent. They shall be equipped with back-draft dampers. Ducts shall be constructed of minimum .016" rigid metal with joints running in the direction of airflow. Transition ducts shall not be concealed within construction. Ducts shall terminate with a full opening exhaust hood. The maximum length of a 4" vent shall not exceed 25' from the dryer location to wall or roof termination. Length reductions of 2.5' for 45 degree bends and 5' for 90 degree bends are required. Installations when this length is exceeded shall be installed in accordance with the MFG's installation instructions. Sec. 1801.
- Wood stoves must be installed as per their installation instructions and must be labled indicating they meet emissions requirements. Wood stoves installed in an alcove must be specifically approved for such installation. Used wood stoves must comply with Sec. 1307.5
- Fireplaces and masonry chimneys shall be installed per Chapter
- Gas water heaters shall not be installed in a bedroom, closet, bathroom or utility room unless is a direct vent appliance or complies with Sec.2307.
- A minimum 2" clearance to combustibile wood framing is required. Sec 1001.

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

LOCKWOOD DESIGN BUILD GROUP
michael@lockwooddesigngroup.llc 210-383-9281
11314 Acuff Station
San Antonio, Texas 78254

GRANNY FLAT
233 FLORIDA ST
SAN ANTONIO, 78210

TRIM/FINISH PLAN
FRAME PLAN

DATE: 07/22/2021

REVSD: 08/20/2021

DESIGNER:
M. LOCKWOOD II

PLAN No.

21-045

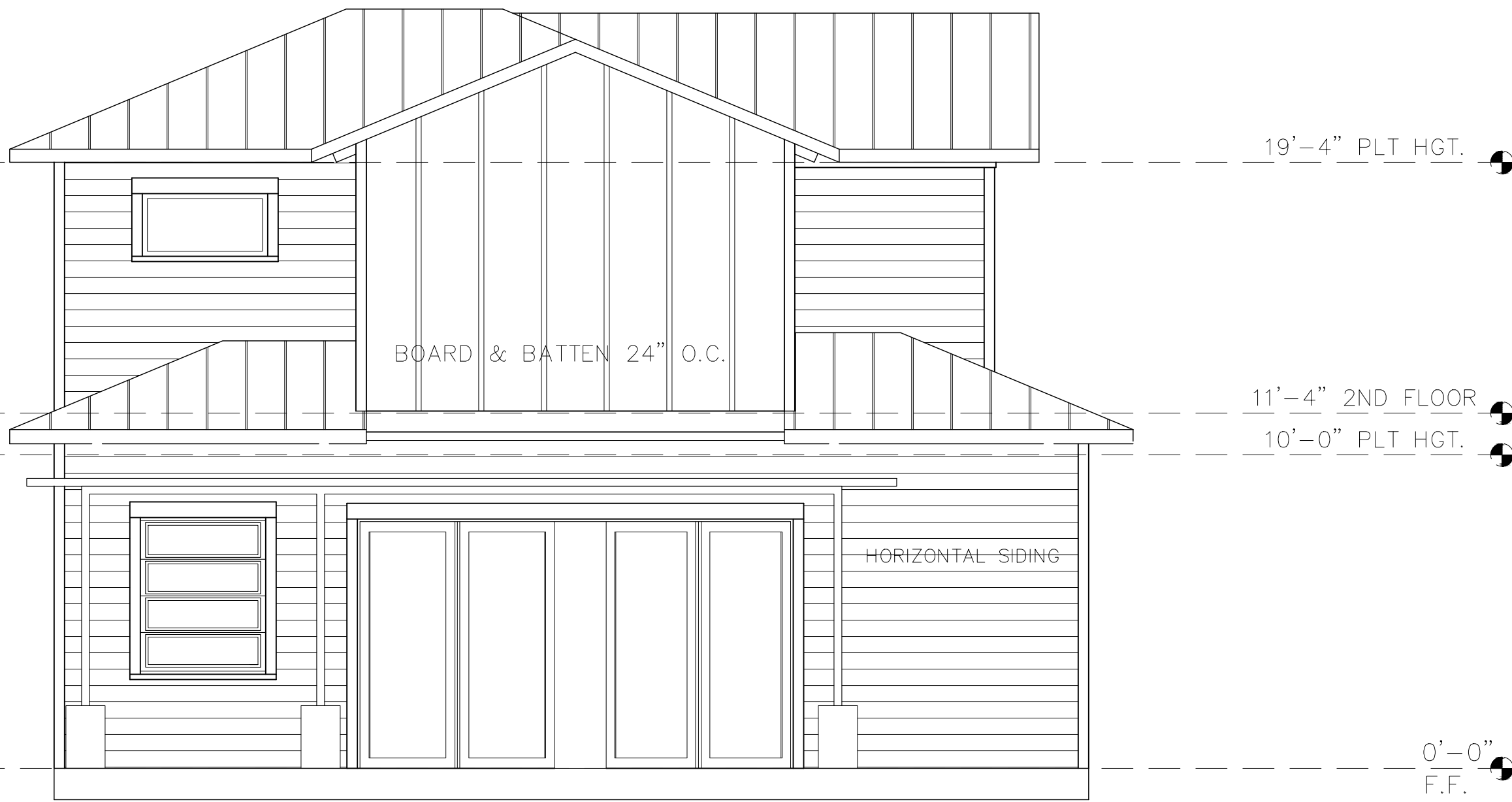
SHEET

A-2

THESE PLANS ARE DRAWN TO COMPLY WITH OWNERS AND/OR BUILDER'S SPECIFICATIONS AND ANY CHANGES MADE AFTER PRINTING HAS BEEN COMPLETED. WILL BE AT THE OWNER'S AND/OR BUILDER'S EXPENSE AND RESPONSIBILITY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ENCLOSED DRAWINGS PRIOR TO/DURING CONSTRUCTION ASSUMES ALL RESPONSIBILITY THEREAFTER. WHILE EFFORTS HAVE BEEN MADE DURING THE PREPARATION OF THESE CONSTRUCTION DOCUMENTS TO AVOID ANY ERRORS/MISTAKES, LOCKWOOD CONSTRUCTION CAN NOT GUARANTEE AGAINST ERROR.



FRONT ELEVATION



LEFT ELEVATION



RIGHT ELEVATION



REAR ELEVATION

1ST FLOOR CEILING @	9'-0" HEIGHT
1ST FLR WDW. HDRS @	8'-0" HGT
UNLESS NOTED OTHERWISE	
WHERE APPLICABLE	
2ND FLOOR CEILING @	8'-0" HEIGHT
2ND FLR WDW. HDRS @	6'-8" HGT
UNLESS NOTED OTHERWISE	

NOTE:
SUBCONTRACTORS ARE RESPONSIBLE FOR
CONFIRMING AND CORRELATING
DIMENSIONS AT THE JOB SITE. THE
METHODS, TECHNIQUES, SEQUENCES OR
PROCEDURES, OR FOR SAFETY
PRECAUTIONS AND PROGRAMS RELATED
TO THE PROJECT CONSTRUCTION.

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

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DESIGN
BUILD
GROUP
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11314 Acuff Station
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GRANNY FLAT
233 FLORIDA ST
SAN ANTONIO, 78210

EXTERIOR ELEVATIONS

DATE: 07/22/2021
REVSD: 08/20/2021

DESIGNER:
M. LOCKWOOD II

PLAN No.
21-045

SHEET

A-3

THESE PLANS ARE DRAWN TO COMPLY WITH OWNERS AND/OR BUILDER'S SPECIFICATIONS AND ANY CHANGES MADE AFTER PRINTING HAS BEEN COMPLETED. WILL BE AT THE OWNER'S AND/OR BUILDER'S EXPENSE AND RESPONSIBILITY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ENCLOSED DRAWINGS PRIOR TO DURING CONSTRUCTION ASSUMES ALL RESPONSIBILITY THEREAFTER. WHILE EFFORTS HAVE BEEN MADE DURING THE PREPARATION OF THESE CONSTRUCTION DOCUMENTS TO AVOID ANY ERRORS/MISTAKES, LOCKWOOD CONSTRUCTION CAN NOT GUARANTEE AGAINST ERROR.

- International Residential Code Structural Engineering Design Provisions, 2018 Edition or the International Building Code Structural Engineering Design Provisions, 2018 Edition.
2. The design gravity loads are as follows:
 - Superimposed Dead Loads (included, but not limited to):
 - Mechanical and Ceiling: 10psf
 - Roof Assemblies: 10psf
 - Wood Floor Assemblies: 10psf
 - Finishes: As required
 - Live Loads minimum (in accordance with 2018 IRC):
 - Roof: 20psf
 - Roof Net Uplift: 10psf
 - Floor: 40psf
 - Uninhabitable Attics:
 - Without Storage: 10psf
3. The structure has been designed to withstand the wind pressures specified in ASCE 7-10, using a 3 second gust basic wind speed of 115 miles per hour at a standard height of 33 feet above the ground in exposure B.
4. The general contractor is responsible for fitting new work with existing construction. Information on existing buildings shown in the drawings was based upon the information supplied to structures. This information is not as-built data and the actual as-built construction may differ from that represented in the drawings. Contractors shall verify all information. Variations from dimensions indicated on the construction documents shall be brought to the attention of the engineer.
5. The Drawings do not, nor are intended to, locate property lines, building setbacks, nor height limitations. It is the contractor's responsibility to locate and verify the building and construct it to, and within, applicable code restrictions. Further, it is the contractor's responsibility to address site drainage appropriate to the site and in consideration to adjoining properties and the new construction.
6. Methods, procedures, and sequences of construction are the responsibility of the contractor and must satisfy the minimum requirements of the 2018 International Residential Building Code or 2018 International Building Code . The contractor shall take all necessary precautions to maintain and ensure the integrity of the structure at all stages of construction.
7. The general contractor and sub-contractors shall determine the scope of the structural work from the construction documents taken as a whole. The structural drawings shall not be considered separately for purposes of bidding the structural work. Due considerations shall be given to other structural work or work related to the structure, including necessary coordination described or implied by the architectural and mechanical drawings. Structural drawings and material and member specifications take precedence over other drawings if modifications are needed they will be brought to the engineers attention.
8. Scales noted on the drawings are for general reference only. No dimensional information shall be obtained by direct scaling of the drawing
9. The general contractor is responsible for coordination of all resulting revisions to the structural system or other trades as a result of acceptance of contractor proposed alternatives or substitutions.
10. Structural members have been located and designed to accommodate the mechanical equipment openings specified by the mechanical consultant if information is given, any submissions resulting in revisions to the structure shall be the responsibility of the contractor to coordinate with the structure and its engineer.
11. Principle openings in the structure are indicated on the contract documents, refer to the architectural, mechanical, electrical, and plumbing drawings for sleeves, curbs, inserts, etc., not herein indicated. Openings in slabs with a maximum width or diameter of 12 inches or less shall not require additional framing or reinforcement, unless noted otherwise. The location of sleeves or openings in structural members shall be submitted to engineer for review.

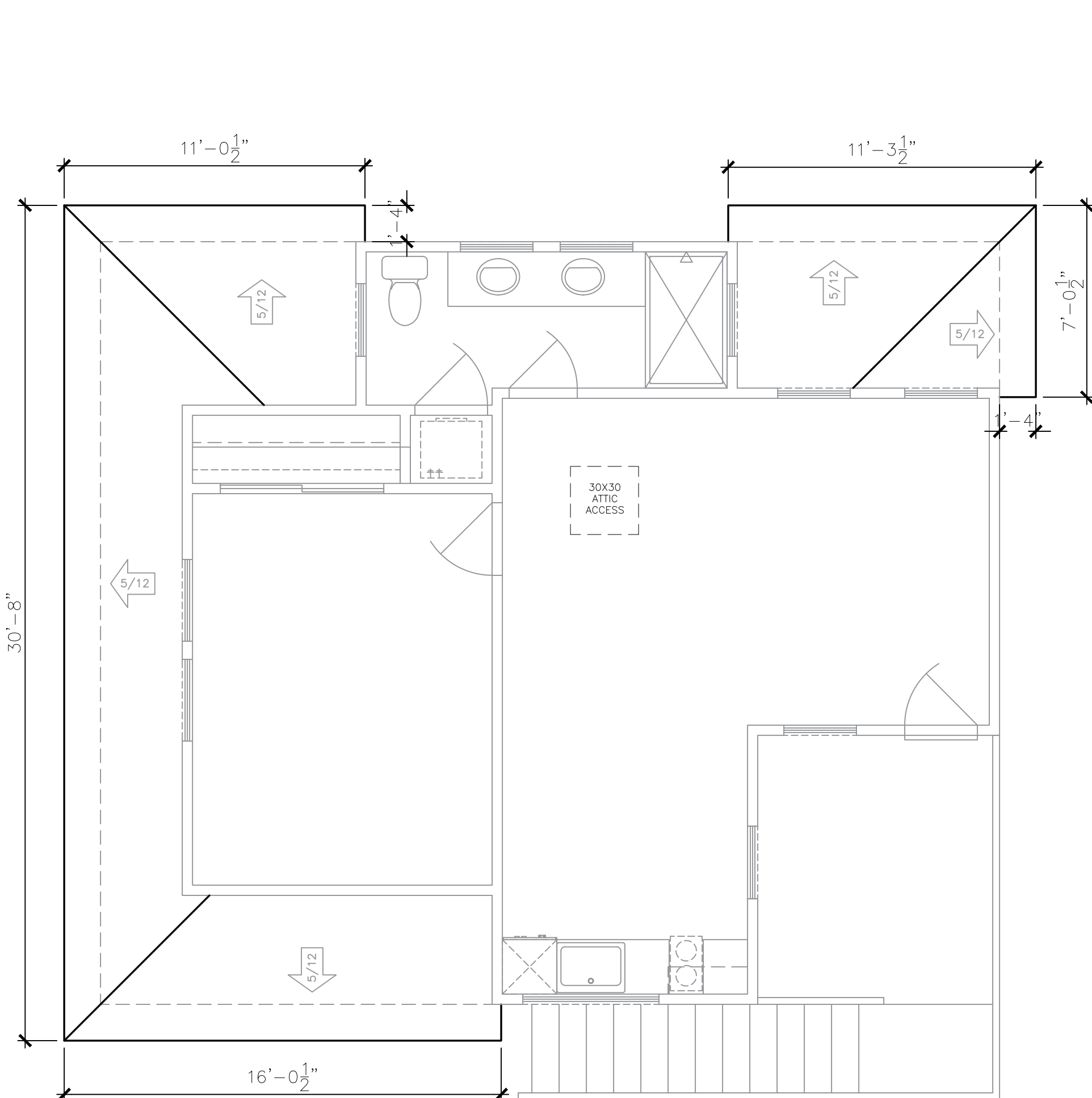
FRAMING LUMBER SPECIFICATIONS											
Stress rated framing members shall be used which equal or exceed the following specifications. If lower grade lumber is used, excessive deflection may occur.											
Fiber Stress in Bending (F_b)=875 psi (Base Value)					Modulus of Elasticity (E)=1,400,000 psi						
First Floor Joist			Second Floor Joists			Ceiling Joist			Rafters		
40 lbs. Live Load 10 lbs. Dead Load			30 lbs. Live Load 10 lbs. Dead Load			20 lbs. Live Load 10 lbs. Dead Load			30 lbs. Live Load 15 lbs. Dead Load		
SIZE	INCHES O.C.	MAX. SPAN	SIZE	INCHES O.C.	MAX. SPAN	SIZE	INCHES O.C.	MAX. SPAN	SIZE	INCHES O.C.	MAX. SPAN
						2X4	12" 16" 24"	9'-5" 8'-7" 7'-2"			
2X6	12" 16"	10'-3" 9'-4"	2X6	12" 16"	11'-3" 10'-3"	2X6	12" 16" 24"	14'-5" 12'-10" 10'-6"	2X6	12" 16" 24"	12'-11" 11'-2" 9'-2"
2X8	12" 16"	13'-6" 12'-3"	2X8	12" 16"	14'-11" 13'-6"	2X8	12" 16" 24"	18'-9" 16'-3" 13'-3"	2X8	12" 16" 24"	16'-5" 14'-3" 11'-8"
2X10	12" 16" 24"	17'-3" 15'-5" 12'-7"	2X10	12" 16" 24"	19'-0" 17'-2" 14'-1"	2X10	12" 16" 24"	22'-11" 20'-10" 16'-1"	2X10	12" 16" 24"	20'-5" 17'-1" 14'-2"
2X12	12" 16" 24"	20'-7" 17'-10" 14'-7"	2X12	12" 16" 24"	23'-0" 19'-11" 16'-3"	2X12	12" 16" 24"	26'-6" 23'-0" 18'-8"	2X12	12" 16" 24"	23'-3" 20'-2" 16'-6"

1. Unless otherwise noted, all structural framing lumber shall be clearly marked No. 2 Southern Pine by the SPIB.
2. All wood studs shall be full height without intermediate plate lines unless specified otherwise.
3. Solid 2x blocking shall be provided at end and point of all wood joists and shall be placed between supports in rows not exceeding 8'-0" apart. All walls shall have 2x solid blocking at 4'-0" o.c. (this is the fire blocking as well) maximum vertically for plate heights exceeding 8'-0". End nail with 2-16d nails or side toe nail with 1-16d nails.
4. Decking: All plywood decking shall be APA Rated Sheathing, Exposure 1, ~~3/4"~~ T&G for floors with 48/24 Span rating, 5/8" with clips for roofs with 40/20 Span Rating, use 10d common nails at 6" o.c. at all supported edges, 10d at 12" o.c. at all intermediate supports (1/5" min. penetration). All joints in plywood decking shall be staggered.
5. All exterior walls shall be solid clad with 15/32" plywood APA Rated Sheathing, Exposure 1, from the top plate to the bottom plate. Attach to frame using 10d nails spaced at 6" o.c. along edges at 12" at intermediate studs (1-5/8" min penetration).
6. All framing members framing into the side of a header shall be attached using metal joist hangers.
7. Place a single treated plate at the bottom and a double plate at the top of all stud walls.

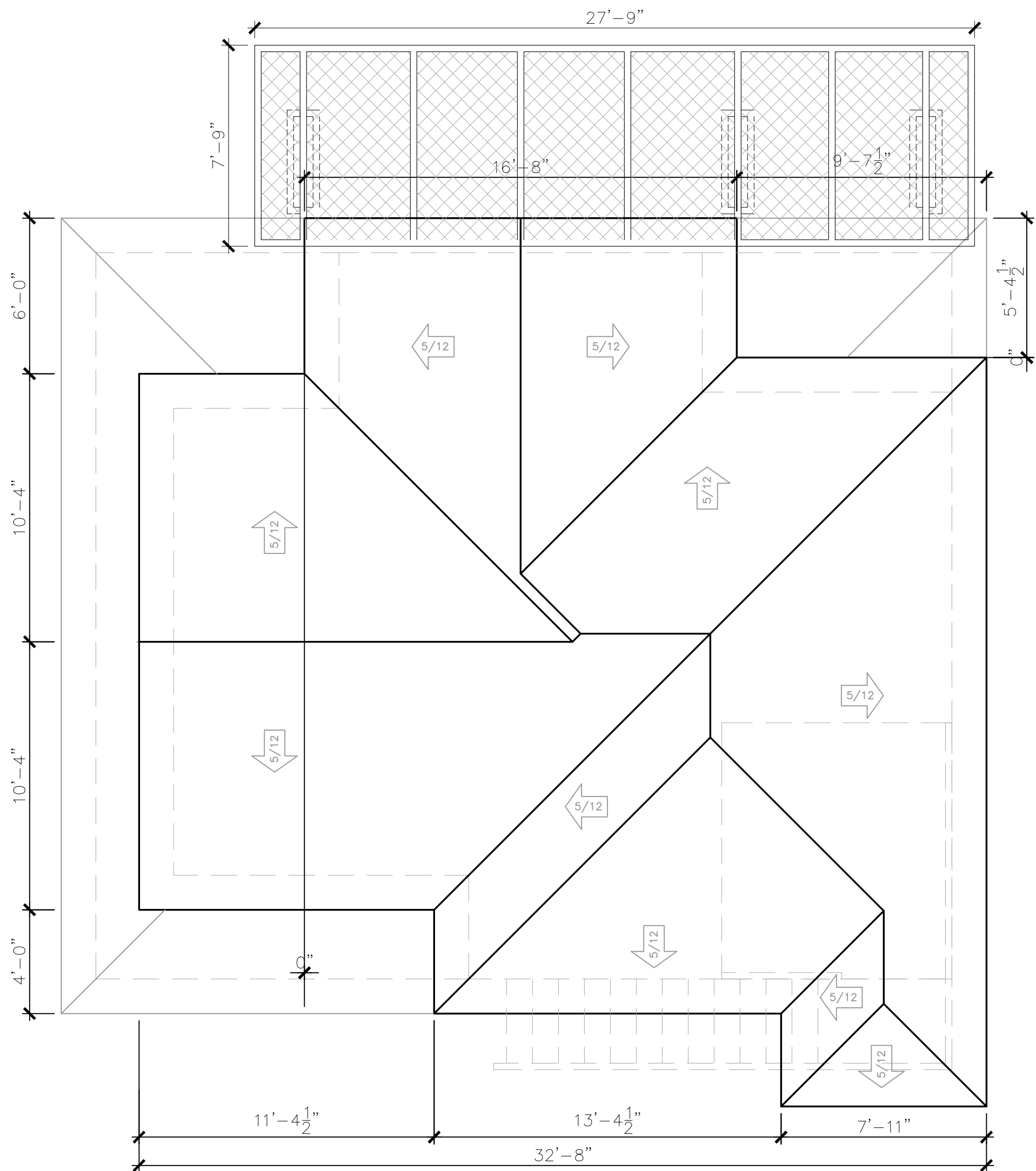
- | | Connection | Nailing |
|-----|---|---|
| 1. | Joist to sill or Girder – toenail | (3) – 8d |
| 2. | Bridging to joist – toenail each end..... | (2) – 8d |
| 3. | Sole plate to joist or blocking – typ. Face nail..... | 16d at 16" o.c.
(3) – 16d |
| 4. | Toe plate to stud – endnail/endnail..... | (2) – 16d |
| 5. | Stud to sole plate – toenail..... | (4) – 8d
Or end nail..... (2) – 16d |
| 6. | Double studs – face nail..... | 16d at 24" o.c. |
| 7. | Double top plates – typical face nail..... | 16d at 16" o.c.
or lap splice... (8) 16d |
| 8. | Blocking between joists – Toenail | (3) – 8d |
| 9. | Rafters to top w/ overhang <2'-0" – toenail..... | (3) – 8d |
| 10. | Rafters to top plate w/ overhang ≥2'-0"..... | Provide Simpson's HJ Hurricane ties |
| 11. | Rim joist to top plate – toenail | 8d at 16" o.c. |
| 12. | Top plates (laps and intersections) – face nail..... | (2) – 16d |
| 13. | Continuous header (two pieces) staggered along each edge..... | 16d at 16" o.c. |
| 14. | Ceiling joists to plate – toenail..... | (3) – 8d |
| 15. | Continuous header to stud – toenail..... | (4) – 8d |
| 16. | Ceiling Joists (laps over partitions) – face nail..... | (3) – 16d |
| 17. | Ceiling Joists to parallel rafters – face nail..... | (3) – 16d |
| 18. | Rafter to plate – toenail..... | (3) – 8d |
| 19. | *diagonal brace to each stud and plate – face nail..... | (2) – 8d |
| 20. | Built-up corner studs..... | 16d at 24" o.c. |

- | | |
|-----|---|
| 21. | Built - up girder and beams - face nail at top and bottom
Staggered on opposite sides...20d at 32"o.c.
Face nail at ends and at each splice.....(2) - 20d |
| 22. | 2"planks - at each bearing16d |
| 23. | Collar tie to rafter - face nail.....(3) - 10d |
| 24. | Collar rafter to hip - toenail.....(3) - 10d
Face nail.....(2) - 16d |
| 25. | Roof rafter to 2x ridge beam - toenail.....(2) - 16d
Face nail.....(2) - 16d |
| 26. | Joist to band joist - face nail.....(3) - 16d |
| 27. | Ledger strip - face nail.....(3) - 16d |
| 28. | Plywood
Floor, wall and roof sheathing (to framing):
3/8" and less.....8d
1/2", 5/8" and 3/4".....10d
1-1/8" and 1-1/4".....10d |
| 29. | Floor Plywood: Nails spaced at 6"o.c. at edges and at 12"o.c.
at intermediate supports |
| 30. | Roof plywood: nails spaced at 6"o.c. at edges and at 12"o.c. at
intermediate supports , 1"diagonal at 24"o.c. |
| 31. | Panel siding (to framing):
1/2" or less.....6d
5/8"8d
*Corrosion - resistant siding or casing nails |
| 32. | Built-up columns (unless detailed otherwise):
COLUMN TYPE FASTENERS
2 - 2x4.....1 row of 10d nails each side @ 8"o.c.
staggered
3 - 2x4.....1 row of 30d nails each side @ 8"o.c.
staggered
4 - 2x4.....1 row of 3/8"dia. Through bolts @ |

- o.c. staggered
- | | |
|--------------|--|
| 2- 2x6 | 2 rows of 10d nails each side @ 8"o.c. |
| 3- 2x6 | 2 rows of 30d nails each side @ 8"o.c. |
| 4- 2x6 | 2 rows of 3/8"dia through bolts @ 8" |
- o.c.
33. Wood nailer attachment to steel members 3/8"thick or less: attach 2x nailer with 0.177" diameter x 1-7/8"long HiLTi X-AL-H powder actuated fasteners spaced at 8"o.c. staggered or with an approved alternative.
34. Exterior sole plates and interior shear wall plates to be attached to concrete foundations with 1/2" anchor bolts spaced at a maximum of 6'-0"o.c. There shall be a minimum of 2 bolts per plate section with one bolt located not more than 12" or less than 7 bolt diameter from each end of the plate section.
35. Common wire nails or spikes, or galvanized box nails shall be used for all framing unless noted otherwise.
36. Fasteners, including bolts, lag screws, and drift pins with diameters 3/8" or greater shall conform to SAE J 429 Grade 1. Bolts shall be installed per AMS/ASME Standard B18.2.1.
37. Include an allowance for 200 board feet of lumber to be used as directed in the field for special conditions not covered by note or drawing (labor for erecting same to be included).
- Upon completion of the project, owner shall be rebated for any unused portion of allowance materials.




1ST LEVEL ROOF PLAN

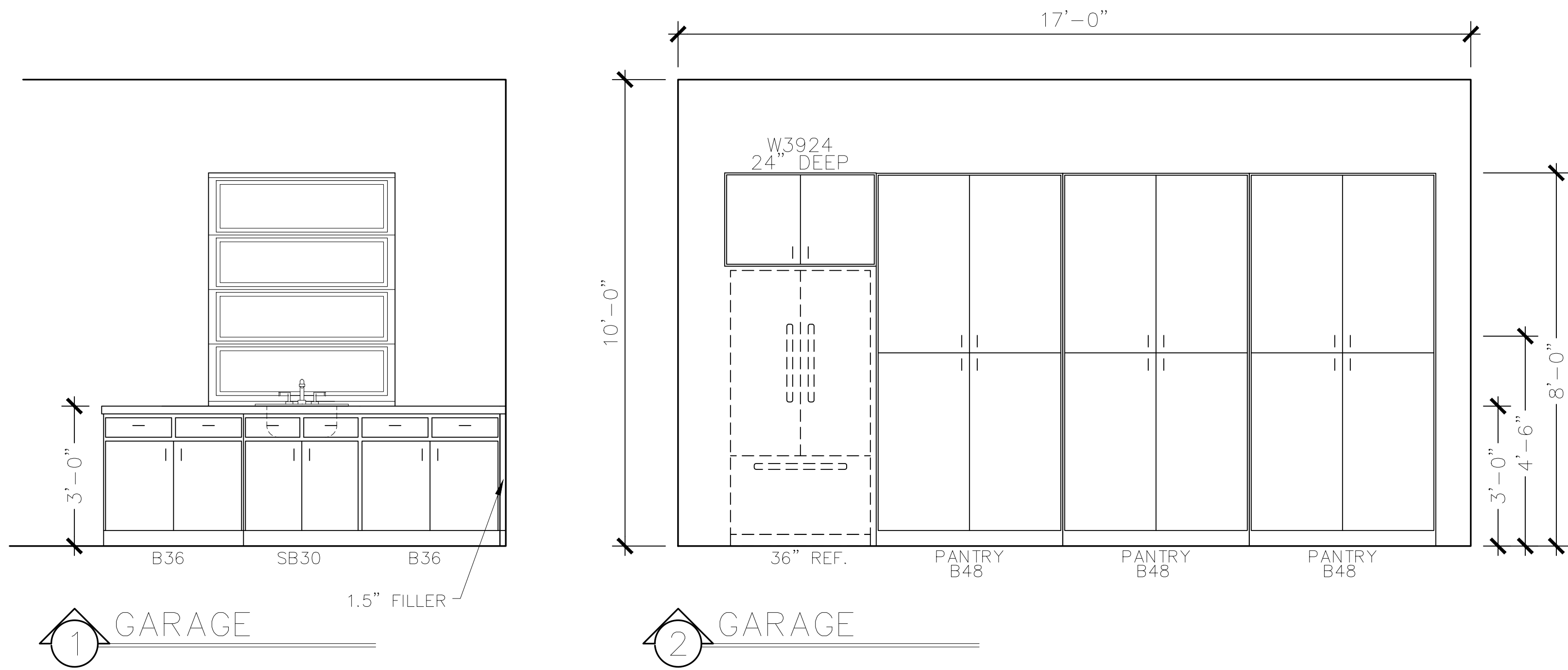


2ND LEVEL ROOF PLAN

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

<p>ROOF PLAN</p> <p>ROOF FRAME PLAN</p> <p>FLOOR & CEILING FRAME</p>	DATE: 07/22/2021	<p>GRANNY FLAT</p> <p>233 FLORIDA ST</p> <p>SAN ANTONIO, 78210</p>	 <p>DESIGN BUILD GROUP</p> <p>LOCKWOOD</p> <p>michael@lockwooddesigngroup.llc 210-383-9281</p> <p>11314 Acuff Station San Antonio, Texas 78254</p>
	REVSD: 08/20/2021		
	DESIGNER: M. LOCKWOOD II		
	PLAN No. 21-045		
SHEET A-4			

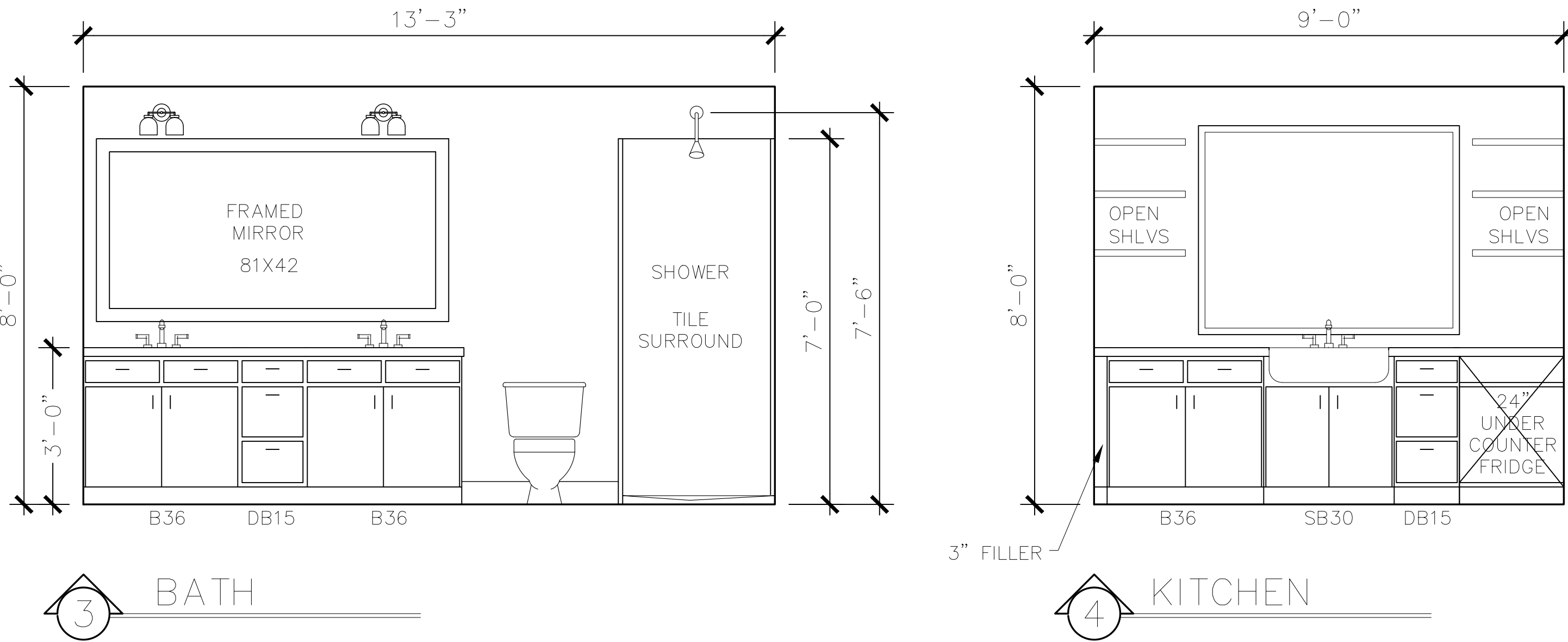
THESE PLANS ARE DRAWN TO COMPLY WITH OWNER'S AND/OR BUILDER'S SPECIFICATIONS AND ANY CHANGES MADE AFTER PRINTING HAS BEEN COMPLETED, WILL BE AT THE OWNER'S AND/OR BUILDER'S EXPENSE AND RESPONSIBILITY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ENCLOSED DRAWINGS PRIOR TO ORDERING CONSTRUCTION ASSUMES ALL RESPONSIBILITY THEREAFTER, WHILE EFFECTS HAVE BEEN MADE DURING THE PREPARATION OF THESE CONSTRUCTION DOCUMENTS TO AVOID ANY ERRORS/MISTAKES. I, LOCKWOOD CONSTRUCTION, CAN NOT GUARANTEE AGAINST ERROR.



CABINET HARDWARE IS AN OPTION. HARDWARE SHOWN FOR PURPOSE OF DRAWER PULL AND DOOR SWING

NOTE:
SUBCONTRACTORS ARE RESPONSIBLE FOR CONFIRMING AND CORRELATING DIMENSIONS AT THE JOB SITE. THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS RELATED TO THE PROJECT CONSTRUCTION.

1ST FLOOR CEILING @	10'-0" HEIGHT
1ST FLR WDW. HDRS @	8'-0" HGT
UNLESS NOTED OTHERWISE	
WHERE APPLICABLE	
2ND FLOOR CEILING @	9'-0" HEIGHT
2ND FLR WDW. HDRS @	7'-8" HGT
UNLESS NOTED OTHERWISE	



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SCALE:
1/2" = 1'-0"

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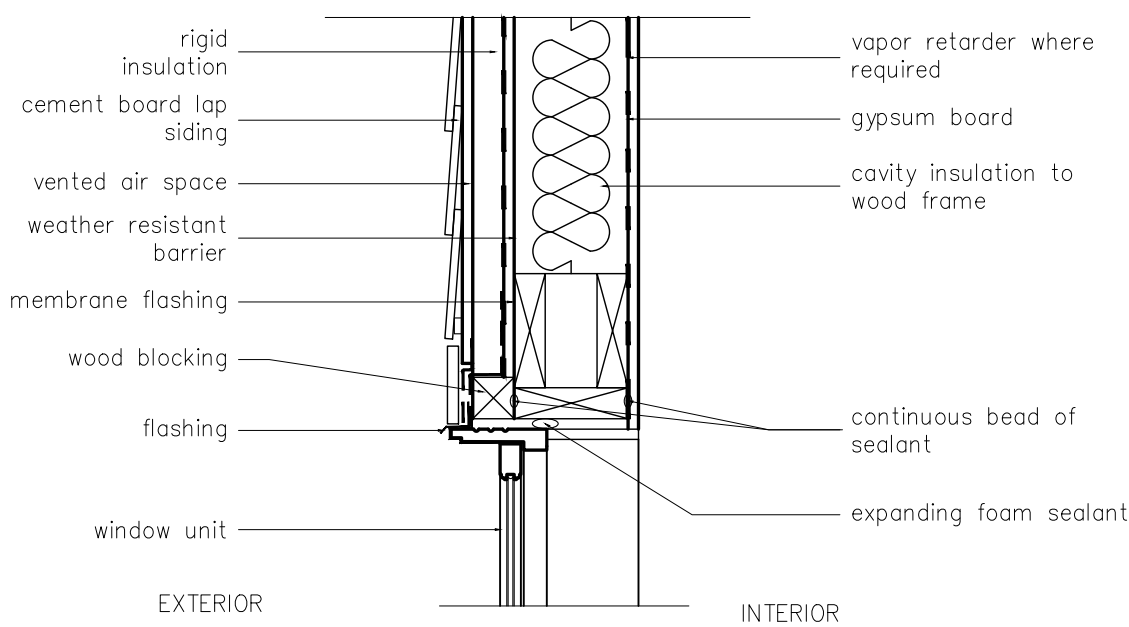
GRANNY FLAT
233 FLORIDA ST
SAN ANTONIO, 78210

INTERIOR ELEVATIONS

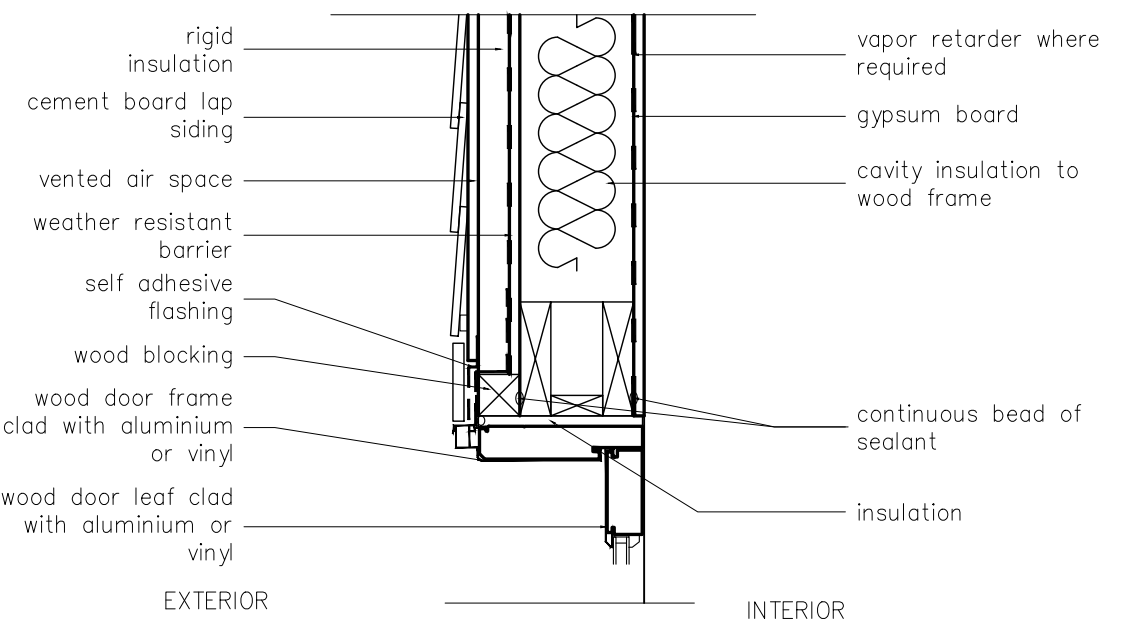
DATE: 07/22/2021
REVSD: 08/20/2021
DESIGNER:
M. LOCKWOOD II
PLAN No.
21-045
SHEET

A-5

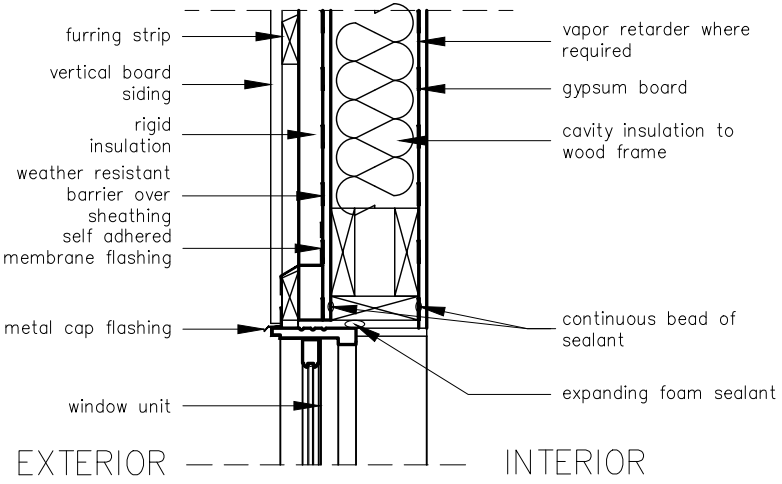
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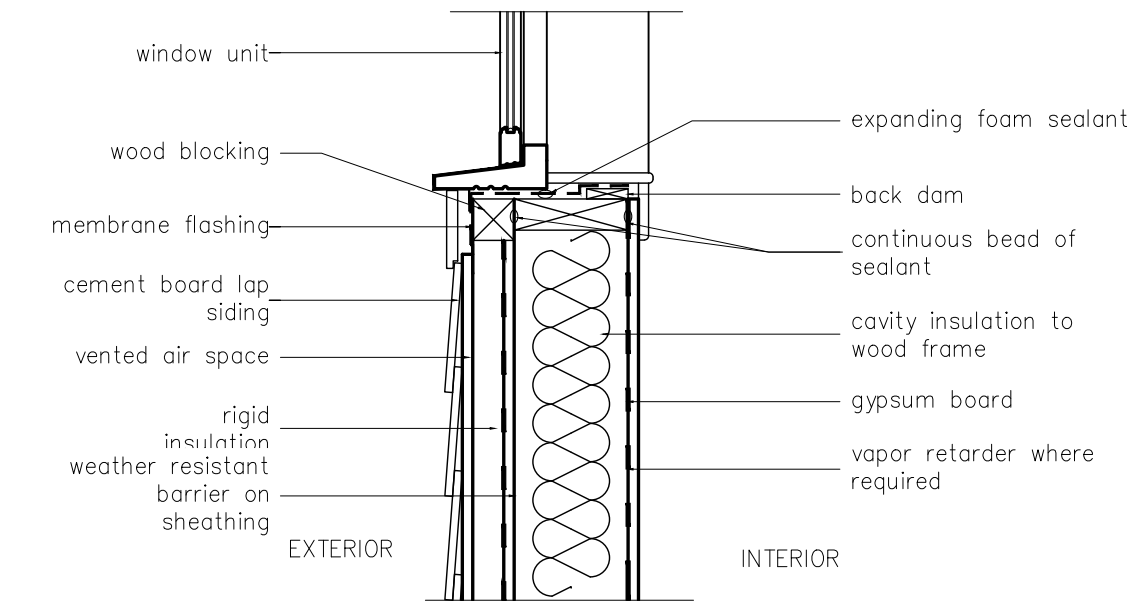
CEMENT BOARD LAP SIDING
window head



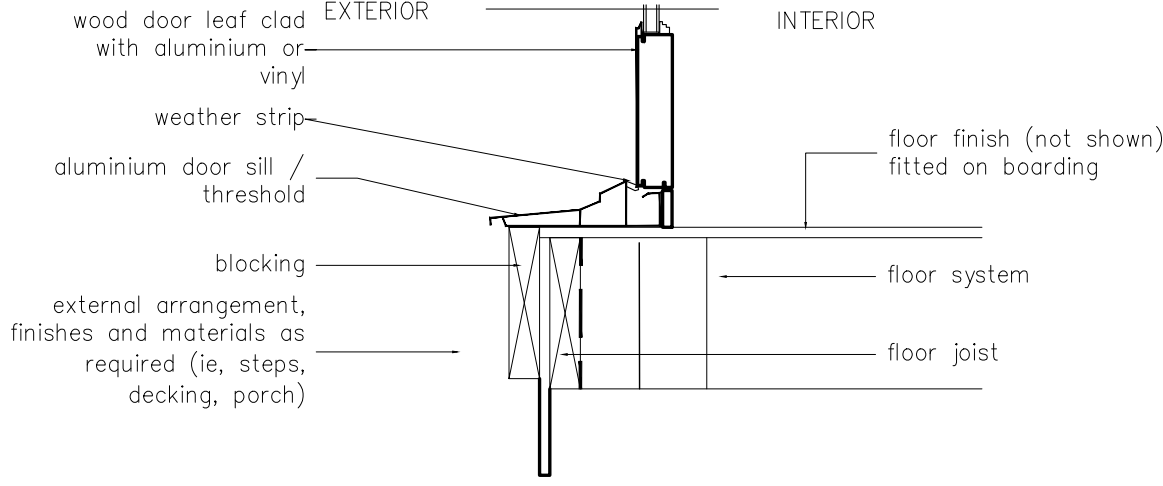
CEMENT BOARD LAP SIDING
door head jamb



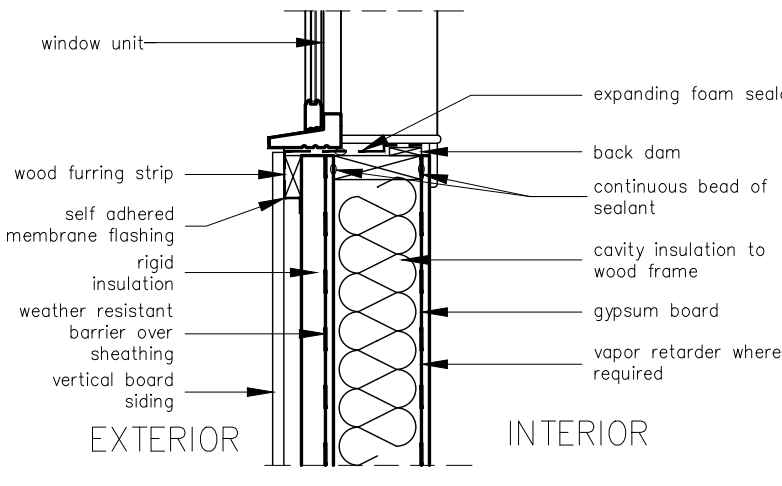
VERTICAL BOARD SIDING
window head



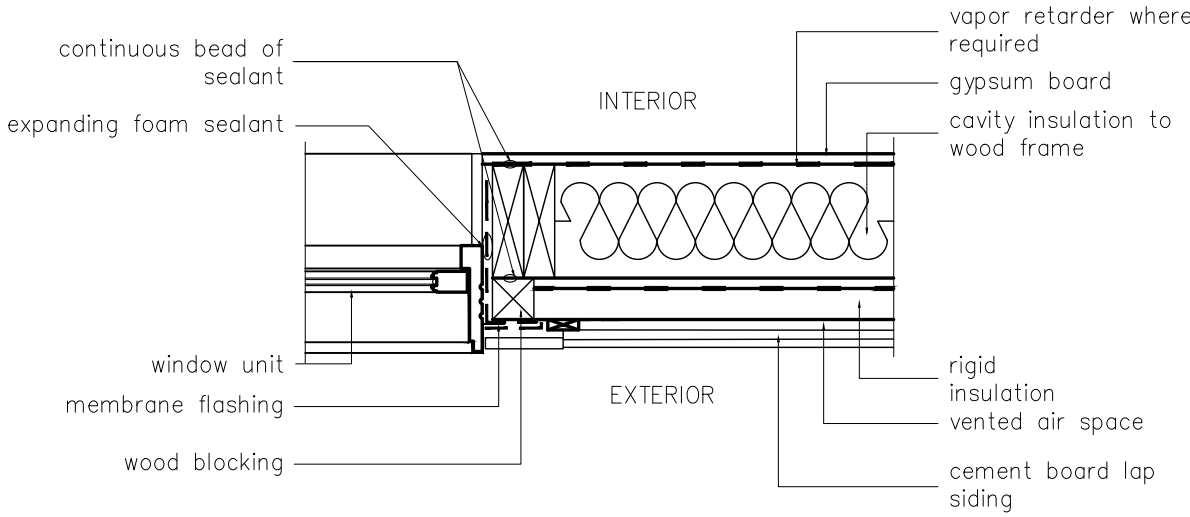
CEMENT BOARD LAP SIDING
window sill



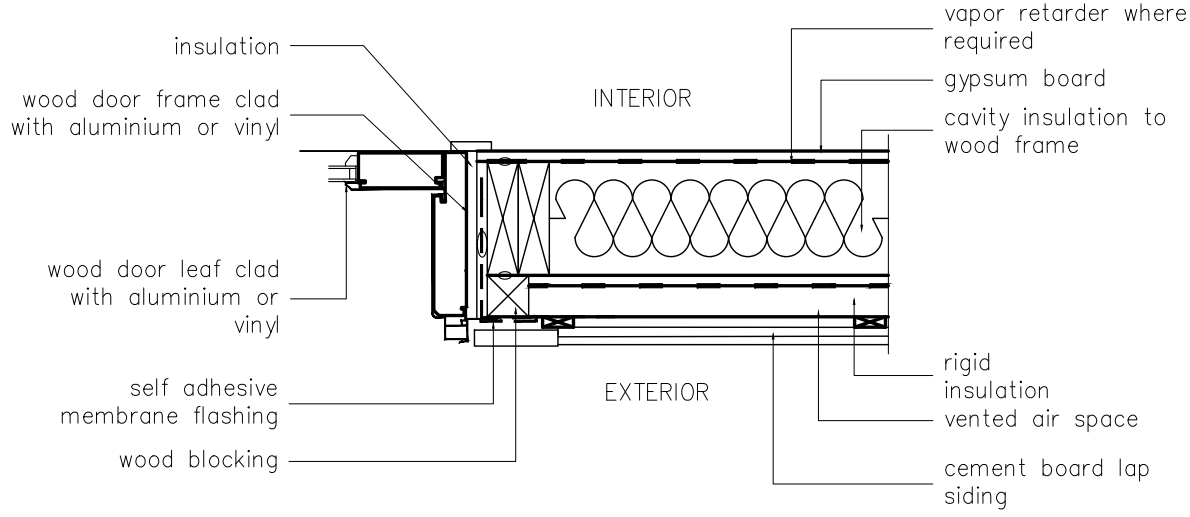
CEMENT BOARD LAP SIDING
door sill



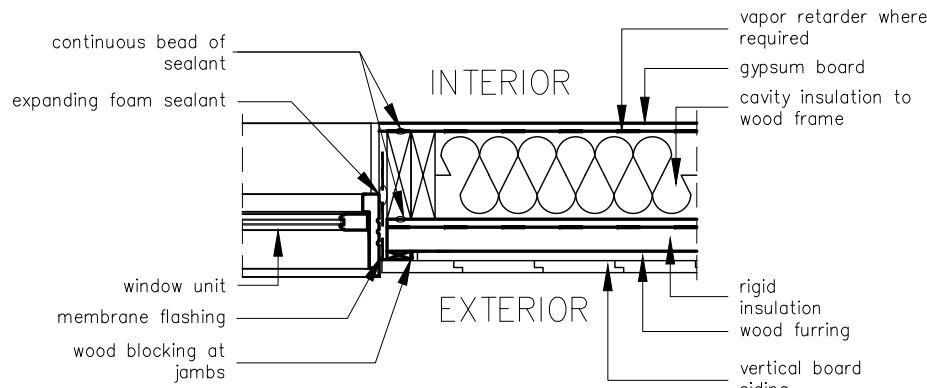
VERTICAL BOARD SIDING
window sill



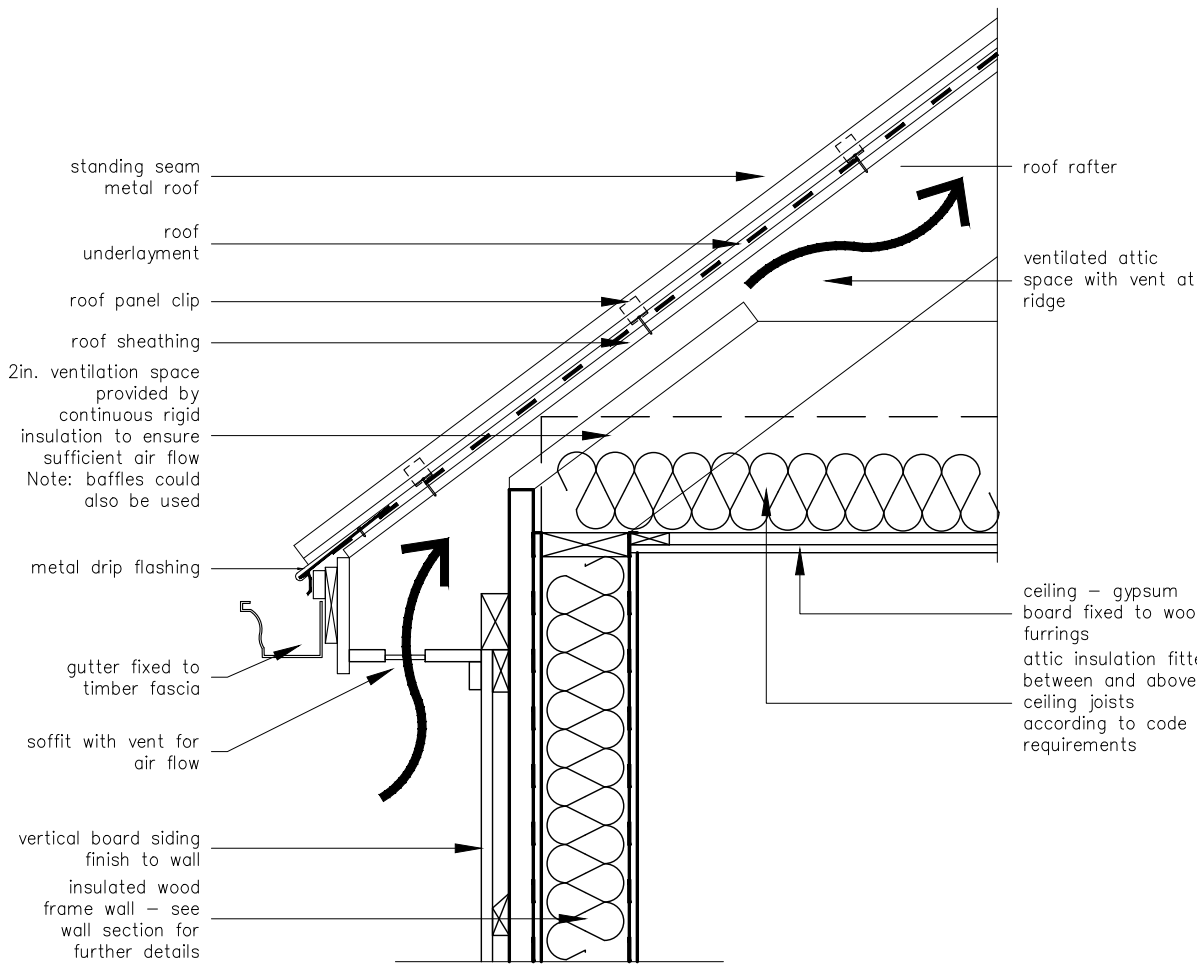
*PLAN*CEMENT BOARD LAP
SIDING
window jamb – plan



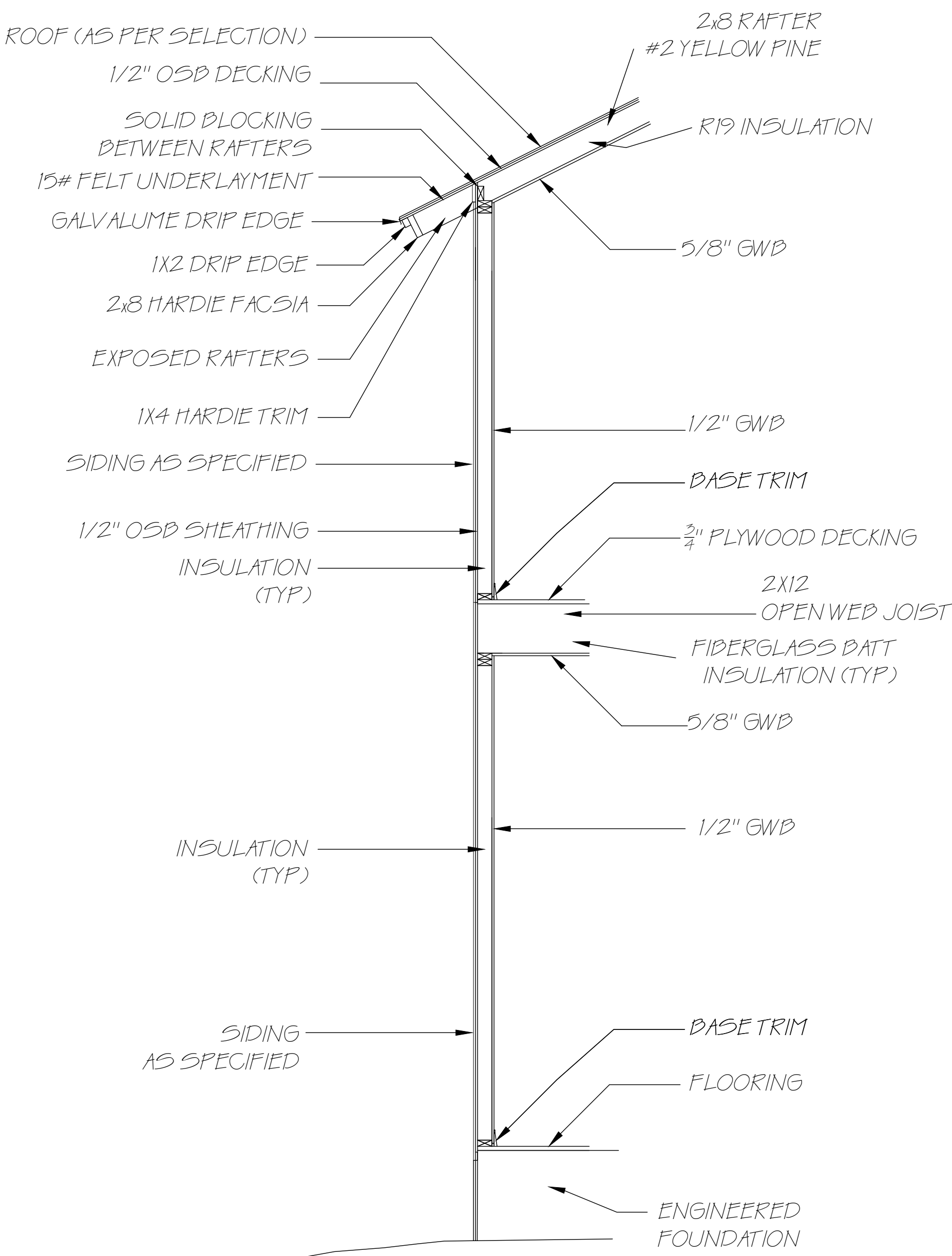
*PLAN*CEMENT BOARD LAP
SIDING
door side jamb – plan



VERTICAL BOARD SIDING
window jamb – plan



METAL ROOF –VENTED ATTIC SPACE
vertical board siding wall



NOTE:
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CONFIRMING AND CORRELATING
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METHODS, TECHNIQUES, SEQUENCES OR
PROCEDURES, OR FOR SAFETY
PRECAUTIONS AND PROGRAMS RELATED
TO THE PROJECT CONSTRUCTION.

SCALE:
N.T.S.

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GRANNY FLAT
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SAN ANTONIO, 78210

WALL SECTION
WINDOW/DOOR DETAILS

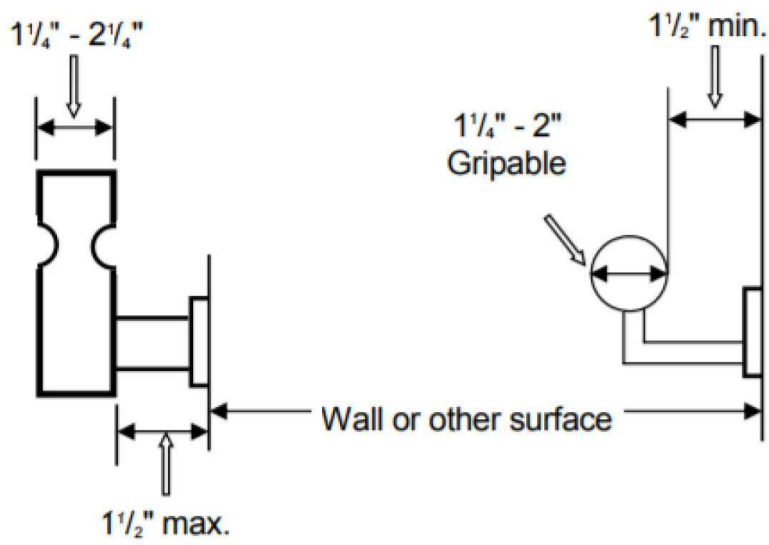
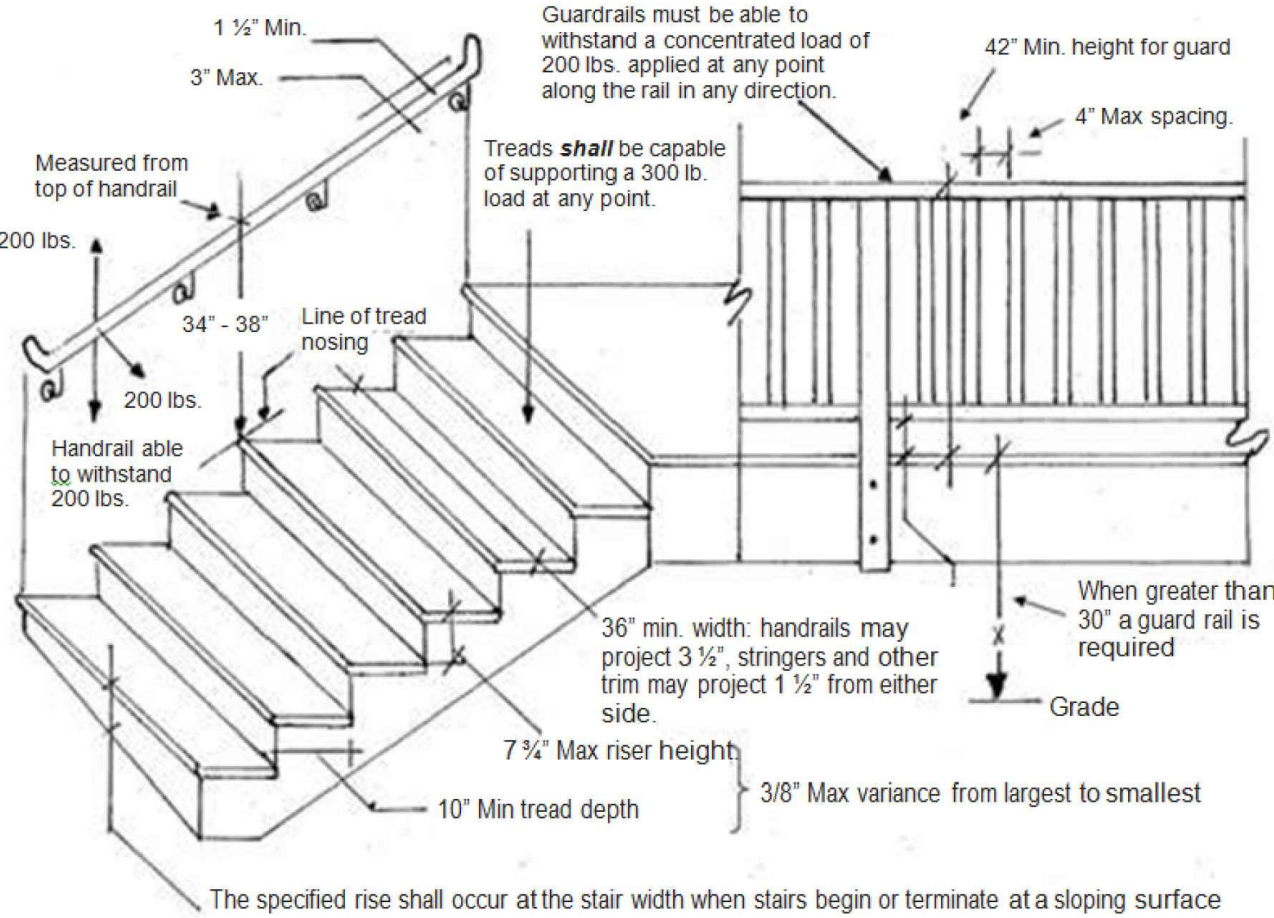
DATE: 07/22/2021
REVSD:
DESIGNER:
M. LOCKWOOD II
PLAN No.
21-045
SHEET

A-6

THESE PLANS ARE DRAWN TO COMPLY WITH OWNERS AND/OR BUILDERS SPECIFICATIONS AND ANY CHANGES MADE AFTER PRINTING HAS BEEN COMPLETED. WILL BE AT THE OWNERS AND/OR BUILDER'S EXPENSE AND RESPONSIBILITY. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ENCLOSED DRAWINGS PRIOR TO DURING CONSTRUCTION ASSUMES ALL RESPONSIBILITY THEREAFTER. WHILE EFFORTS HAVE BEEN MADE DURING THE PREPARATION OF THESE CONSTRUCTION DOCUMENTS TO AVOID ANY ERRORS/MISTAKES, LOCKWOOD CONSTRUCTION CAN NOT GUARANTEE AGAINST ERROR.

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TO THE PROJECT CONSTRUCTION.

SCALE:
N.T.S.



STAIR NOTES:

R311.7 Stairways.

R311.7.1 Width.
Stairways shall be not less than 36 inches (914 mm) in clear width at all points above the permitted handrail height and below the required headroom height. **The clear width of stairways at and below the handrail height, including treads and landings, shall be not less than 31 1/2 inches (787 mm) where a handrail is installed on one side and 27 inches (698 mm) where handrails are installed on both sides.**

Exception: The width of spiral stairways shall be in accordance withSection R311.7.10.1.

R311.7.2 Headroom.
The headroom in stairways shall be not less than 6 feet 8 inches (2032 mm) measured vertically from the sloped line adjoining the tread nosing or from the floor surface of the landing or platform on that portion of the stairway.

Exceptions:

- Where the nosings of treads at the side of a flight extend under the edge of a floor opening through which the stair passes, the floor opening shall not project horizontally into the required headroom more than 4 1/2 inches (121 mm).
- The headroom for spiral stairways shall be in accordance withSection R311.7.10.1.

R311.7.3 Vertical rise.
A flight of stairs shall not have **avertical rise larger than 151 inches (3835 mm) between**floor levels or landings.

R311.7.4 Walkline.
The walkline across winder treads**and landings shall be concentric to the turn and parallel to the direction of travel entering and exiting the turn. The walkline shall be located 12 inches (305 mm) from the inside of the turn. The 12-inch (305 mm) dimension shall be measured from the widest point of the clear stair withat the walking surface. Where winders are adjacent within a flight, the point of the widest clear stair width of the adjacent winders shall be used.**

R311.7.5 Stair treads and risers.
Stair treads and risers shall meet the requirements of this section. For the purposes of this section, dimensions and dimensioned surfaces shall be exclusive of carpets, rugs or runners.

R311.7.5.1 Risers.
The riser height shall be not more than 7 1/2 inches (196 mm). The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Risers shall be vertical or sloped from the underside of the nosing of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. At open risers, openings located more than 30 inches (762 mm), as measured vertically, to the floor or grade below shall not permit the passage of a 4-inch-diameter (102 mm) sphere.

Exceptions:

- The opening between adjacent treads is not limited on spiral stairways.
- The riser height of spiral stairways shall be in accordance withSection R311.7.10.1.

R311.7.5.2 Treads.
The tread depth shall be not less than 10 inches (254 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

R311.7.5.2.1 Winder treads.
Winder treads shall have a tread depth of not less than 10 inches (254 mm) measured between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline. Winder treads shall have a tread depth of not less than 6 inches (152 mm) at any point within the clear width of the stair. Within any flight of stairs, the largest winder tread depth at the walkline shall not exceed the smallest winder tread by more than 3/8 inch (9.5 mm). Consistently shaped winders at the walkline shall be allowed within the same flight of stairs as rectangular treads and shall not be required to be within 3/8 inch (9.5 mm) of the rectangular tread depth.

Exception: The tread depth at spiral stairways shall be in accordance withSection R311.7.10.1.

R311.7.5.3 Nosings.
Nosings at treads, landings and floors of stairways shall have a radius of curvature at the nosing not greater than 9/16 inch (14 mm) or a bevel not greater than 3/8 inch (12.7 mm). A nosing projection not less than 3/8 inch

(19 mm) and not more than 1 1/4 inches (32 mm) shall be provided on stairways. **The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch (9.5 mm) within a stairway.**

Exception: A nosing projection is not required where the tread depth is not less than 11 inches (279 mm).

R311.7.5.4 Exterior plastic composite stair treads.
Plastic composite exterior stair treads shall comply with the provisions of this section andSection R507.2.2.

R311.7.6 Landings for stairways.
There shall be a floor or landing at the top and bottom of each stairway. The width perpendicular to the direction of travel shall be not less than the width of the flight served. For landings of shapes other than square or rectangular, the depth at the walk line and the total area shall be not less than that of a quarter circle with a radius equal to the required landing width. Where the stairway has a straight run, the depth in the direction of travel shall be not less than 36 inches (914 mm).

Exception: A floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided that a door does not swing over the stairs.

R311.7.7 Stairway walking surface.
The walking surface of treads and landings of stairways shall be sloped not steeper than one unit vertical in 48 inches horizontal (2-percent slope).

R311.7.8 Handrails.
Handrails shall be provided on not less than one side of each flight of stairs with four or more risers.

R311.7.8.1 Height.
Handrail height, measured vertically from the sloped plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).

Exceptions:

- The use of a volute, turnout or starting easing shall be allowed over the lowest tread.
- Where handrail fittings or bendings are used to provide continuous transition between flights, transitions at winder treads, the transition from handrail to guard, or used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed 38 inches (965 mm).

R311.7.8.2 Handrail projection.
Handrails shall not project more than 4 1/2 inches (114 mm) on either side of the stairway.

Exception: Where nosings of landings, floors or passing flights project into the stairway reducing the clearance at passing handrails, handrails shall project not more than 6 3/8 inches (165 mm) into the stairway, provided that the stair width and handrail clearance are not reduced to less than that required.

R311.7.8.3 Handrail clearance.
Handrails adjacent to a wall shall have a space of not less than 1 1/2 inches (38 mm) between the wall and the handrails.

R311.7.8.4 Continuity.
Handrails shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight. Handrail ends shall be returned or shall terminate in newel posts or safety terminals.

Exceptions:

- Handrail continuity shall be permitted to be interrupted by a newel post at a turn in a flight with winders, at a landing, or over the lowest tread.
- A volute, turnout or starting easing shall be allowed to terminate over the lowest tread.

R311.7.8.5 Grip size.
Required handrails shall be of one of the following types or provide equivalent graspability.
1. Type I. Handrails with a circular cross section shall have an outside diameter of not less than 1 1/4 inches (32 mm) and not greater than 2 inches (51 mm). If the handrail is not circular, it shall have a perimeter of not less than 4 inches (102 mm) and not greater than 6 1/2 inches (160 mm) and a cross section of not more than 2 1/2 inches (57 mm). Edges shall have a radius of not less than 0.01 inch (0.25 mm).

- Type II. Handrails with a perimeter greater than 6 1/2 inches (160 mm) shall have a graspable finger recess area on both sides of the profile. The finger recess shall begin within 3/8 inch (19 mm) measured vertically from the tallest portion of the profile and have a depth of not less than 5/16 inch (8 mm) within 3/8 inch (22 mm) below the widest portion of the profile. This required depth shall continue for not less than 3/8 inch (10 mm) to a level that is not less than 1 1/4 inches (45 mm) below the tallest portion of the profile. The width of the handrail above the recess shall be not less than 1 1/2 inches (32 mm) and not more than 2 1/2 inches (70 mm). Edges shall have a radius of not less than 0.01 inch (0.25 mm).

R311.7.8.6 Exterior plastic composite handrails.
Plastic composite exterior handrails shall comply with the requirements ofSection R507.2.2.

R311.7.9 Illumination.
Stairways shall be provided with illumination in accordance withSections R303.7 and R303.8.

R311.7.10 Special stairways.
Spiral stairways and bulkhead enclosure stairways shall comply with the requirements ofSection R311.7 except as specified in Sections R311.7.10.1 and R311.7.10.2.

R311.7.10.1 Spiral stairways.
The clear width at and below the handrails at spiral stairways shall be not less than 26 inches (660 mm) and the walkline radius shall be not greater than 24 1/2 inches (622 mm). Each tread shall have a depth of not less than 6 1/2 inches (171 mm) at the walkline. Treads shall be identical, and the rise shall be not more than 9 1/2 inches (241 mm). Headroom shall be not less than 6 feet 6 inches (1982 mm).

R311.7.10.2 Bulkhead enclosure stairways.
Stairways serving bulkhead enclosures, not part of the required building egress, providing access from the outside grade level to the basement shall be exempt from the requirements ofSections R311.3 and R311.7 where the height from the basement finished floor level to grade adjacent to the stairway is not more than 8 feet (2438 mm) and the grade level opening to the stairway is covered by a bulkhead enclosure with hinged doors or other approved means.

R311.7.11 Alternating tread devices.
Alternating tread devices shall not be used as an element of a means of egress. Alternating tread devices shall be permitted provided that a required means of egress stairway or ramp serves the same space at each adjoining level or where a means of egress is not required. The clear width at and below the handrails shall be not less than 20 inches (508 mm).

Exception: Alternating tread devices are allowed to be used as an element of a means of egress for lofts, mezzanines and similar areas of 200 gross square feet (18.6 m²) or less where such devices do not provide exclusive access to a kitchen or bathroom.

R311.7.11.1 Treads of alternating tread devices.
Alternating tread devices shall have a tread depth of not less than 5 inches (127 mm), a projected tread depth of not less than 8 1/2 inches (216 mm), a tread width of not less than 7 inches (178 mm) and a riser height of not more than 9 1/2 inches (241 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projections of adjacent treads. The riser height shall be measured vertically between the leading edges of adjacent treads. The riser height and tread depth provided shall result in an angle of ascent from the horizontal of between 50 and 70 degrees (0.87 and 1.22 rad). The initial tread of the device shall begin at the same elevation as the platform, landing or floor surface.

R311.7.11.2 Handrails of alternating tread devices.
Handrails shall be provided on both sides of alternating tread devices and shall comply withSections R311.7.8.2 to R311.7.8.6. Handrail height shall be uniform, not less than 30 inches (762 mm) and not more than 34 inches (864 mm).

R311.7.12 Ship's ladders.
Ship's ladders shall not be used as an element of a means of egress. Ship's ladders shall be permitted provided that a required means of egress stairway or ramp serves the same space at each adjoining level or where a means of egress is not required. The clear width at and below the handrails shall be not less than 20 inches.

Exception: Ship's ladders are allowed to be used as an element of a means of egress for lofts, mezzanines and similar areas of 200 gross square feet (18.6 m²) or less that do not provide exclusive access to a kitchen or

bathroom.
R311.7.12.1 Treads of ship's ladders.
Treads shall have a depth of not less than 5 inches (127 mm). The tread shall be projected such that the total of the tread depth plus the nosing projection is not less than 8 1/2 inches (216 mm). The riser height shall be not more than 9 1/2 inches (241 mm).
R311.7.12.2 Handrails of ship's ladders.
Handrails shall be provided on both sides of ship's ladders and shall comply withSections R311.7.8.2 to R311.7.8.6. Handrail height shall be uniform, not less than 30 inches (762 mm) and not more than 34 inches (864 mm).

R311.8 Ramps.
R311.8.1 Maximum slope.
Ramps serving the egress door required bySection R311.2 shall have a slope of not more than 1 unit vertical in 12 units horizontal (8.3-percent slope). Other ramps shall have a maximum slope of 1 unit vertical in 8 units horizontal (12.5 percent).
Exception: Where it is technically infeasible to comply because of site constraints, ramps shall have a slope of not more than 1 unit vertical in 8 units horizontal (12.5 percent).

R311.8.2 Landings required.
There shall be a floor or landing at the top and bottom of each ramp, where doors open onto ramps, and where ramps change directions. The width of the landing perpendicular to the ramp slope shall be not less than 36 inches (914 mm).

R311.8.3 Handrails required.
Handrails shall be provided on not less than one side of ramps exceeding a slope of one unit vertical in 12 units horizontal (8.33-percent slope).

R311.8.3.1 Height.
Handrail height, measured above the finished surface of the ramp slope, shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm).

R311.8.3.2 Grip size.
Handrails on ramps shall comply withSection R311.7.8.5.

R311.8.3.3 Continuity.
Handrails where required on ramps shall be continuous for the full length of the ramp. Handrail ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1 1/2 inches (38 mm) between the wall and the handrails.

STAIR DETAILS/NOTES

DATE: 07/22/2021

REVSD:

DESIGNER:
M. LOCKWOOD II

PLAN No.

21-045

SHEET

A-7

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